The Regional Initiative for Establishing
A Regional Mechanism for Improved Monitoring and
Reporting on Access to

# Water Supply and Sanitation Services

## in the Arab Region
(MDG+ Initiative)

## SECOND REPORT

## 2016

الأمم المتحدة
الاسكوا
ESCWA

المجلس الوزاري العربي للمياه
ARAB MINISTERIAL WATER COUNCIL

ACWUA

# Regional Initiative for Establishing a Regional Mechanism for Improved Monitoring and Reporting on Access to

# Water Supply and Sanitation Services in the Arab Region

# (MDG+ INITIATIVE)

## Second Report

## 2016

Regional Initiative for Establishing a Regional Mechanism for Improved Water Supply and Sanitation Services in the Arab Region (MDG+ Initiative)

**MDG+ Initiative Second Report 2016**

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## Preface

The Regional Initiative for Establishing a Mechanism for Improved Monitoring and Reporting on Access to Water Supply and Sanitation Services in the Arab Region (MDG+ Initiative) was approved through a series of resolutions adopted by the Arab Ministerial Water Council, the latest of which was issued at its third session held on 15 June 2011. This regional initiative is implemented with the support of the following organizations:

- League of the Arab States
- Arab Ministerial Water Council
- United Nations Economic and Social Commission for Western Asia (ESCWA)
- Arab Countries for Water Utilities Association (ACWUA)

The Advisory Committee of the MDG+ Initiative is comprised of the:

- League of Arab States
- United Nations Economic and Social Commission for Western Asia (ESCWA)
- Arab Countries Water Utilities Association (ACWUA)
- Center for Environment and Development of the Arab Region and Europe (CEDARE)
- Arab Network for Environment and Development (RAED)
- Arab Water Council

The project supporting the MDG+ Initiative is funded by the Swedish International Development Cooperation Agency (Sida).

This second report of the MDG+ Initiative comes as a continuation of the first report, which was issued in 2015. It is one of a series of periodic reports that will be produced each year.

## Acknowledgments

The United Nations Economic and Social Commission for Western Asia (ESCWA) and the Arab Countries Water Utilities Association (ACWUA) and the MDG+ Initiative Advisory Board would like to extend its sincere thanks to all the National Focal Points, the National Monitoring Teams, including the members of ACWUA's Board of Directors, the representatives of the National Statistical Offices and other water and sanitation utilities in the participating Arab States, for their cooperation and continuous coordination in collecting the national data needed for the preparation of their national reports based on the additional indicators adopted by the Arab Ministerial Water Council.

We would also like to thank the experts and the administrators at ESCWA and ACWUA, and in particular the two senior water experts Dr. Ali Karnib and Dr. Jarrah AlZubi for their efforts in the preparation of this report.

SWEDEN

Our sincere appreciation is also extended to the Swedish International Development Cooperation Agency (Sida) for their financial support for the implementation of project activities in continued cooperation and coordination with ESCWA.

# Contents

# Introduction

The establishment of the regional mechanism for monitoring and reporting on access to water supply and sanitation services in the Arab Region (MDG+ Initiative) was launched by the Arab Ministerial Water Council in 2010. The initiative provides reliable information on access to water supply services in Arab States based on a set of regionally approved indicators, a harmonized methodology and data collected and vetted by National Monitoring Teams comprised of ministries responsible for water, water and sanitation utilities and national statistical offices. The MDG+ Initiative framework includes indicators that measure water consumption, drinking water quality, accessibility, affordability, and continuity of supply, as well as sanitation-related indicators related to accessibility, affordability, wastewater treatment, wastewater type of treatment and wastewater reuse.

Within the framework of a series of periodic reports that will be produced each year, the first MDG+ report was issued in 2015 which included the water supply and sanitation indicators for 11 Arab countries, and now after a year of the issuance of the first report, this second (2016) report presents the water supply and sanitation indicators for 18 Arab countries which are: Algeria, Bahrain, Egypt, Iraq, Jordan, Kuwait, Lebanon, Libya, Mauritania, Morocco, Oman, Palestine, Qatar, Saudi Arabia, Sudan, Tunis, United Arab Emirates and Yemen. This report also includes the results of the field surveys for water supply and sanitation conducted by RAED in coordination with ESCWA and ACWUA in three countries: Jordan, Lebanon and Syria. Ten different locations in each of these countries were surveyed with a total of 3,000 surveyed households.

This 2016 report includes, in addition to the results of the indicators, information about the national water and sanitation utilities that submitted data as well as the names of the focal points and national teams that have collected the data and submitted to the MDG+ unit at ACWUA.

The issuance of this report comes a year after the adoption at the United Nations Sustainable Development Summit in September 2015 of the 2030 Agenda for Sustainable Development, which includes 17 Sustainable Development Goals (SDGs) that aim to guide global action on the achievement of a common set of development objectives for the coming fifteen years. The regional experience gained through the MDG+ Initiative in data collection and reporting on the water-related indicators can inform Arab preparation and follow-up on the water and sanitation related SDGs. The initiative provides reliable information on access to water supply services in Arab States based on a set of regionally approved indicators, a harmonized methodology and data collected and vetted by National Monitoring Teams comprised of ministries responsible for water, water and sanitation utilities and national statistical offices.

The collaborative implementation of the MDG+ Initiative offers a successful example of regional water cooperation among Arab States. Arab States could thus draw upon the indicator and institutional frameworks set-up under the MDG+ Initiative to inform the development of monitoring and reporting frameworks for regional follow-up on the water-related SDGs.

Photo: Ali Karnib – Lebanon

# 1 Chapter One: Water Supply and Sanitation Indicators by Country

# Introduction

The MDG+ initiative water supply and sanitation indicators are shown in the following table:

| Water Supply | Sanitation Services |
|---|---|
| • Water Consumption | • Treated Water Quantity |
| • Continuity of Supply | • Treatment Type |
| • Water Quality | • Reuse |
| • Distance to Source | • Use after Treatment |
| • Tariff Structure | • Tariff Structure |
| • Cost Affordability | • Cost Affordabilty |

The following is a brief explanation of these indicators:

## Drinking water indicators

### Water Consumption

Water consumption indicator measures total water consumption in litres per person per day (lpd). The indicator reflects the relationship between available freshwater sources and domestic demand, and the need to develop new or reallocate existing water sources for domestic use. Water consumption quantities vary widely between the different Arab countries and between urban and rural regions within the same country.

### Continuity of supply

Continuity of supply indicator classifies the level of service consumers receive, ranging from continuous to intermittent. There are four subcategories of intermittent supply, namely 3-4 days of supply per week, once weekly, biweekly or less than biweekly. This indicator can indirectly map the need for supplemental water supply at the household level, or the need for in-house water storage structures, both of which impose an additional financial burden and can have a detrimental impact on water quality.

### Water quality

Water quality indicator measures the proportion of the population using water from a house connection or standpipe that has been disinfected at the water source. Many Arab countries rely on centralized treatment plants and long distribution networks to serve consumers, although disinfection equipment are often not operated due to financial or technical difficulties. Measuring this indicator is considered a significant improvement over the current common practice where no information on water quality is monitored.

### Distance to Source

Distance to source indicator measures the proportion of the population in rural areas that obtain water from a source located no more than 500 meter from their home, and the proportion of the population in urban areas that can obtain water in 30 minutes or less.

This indicator highlights the need to develop additional water sources in rural areas or invest in additional water distribution networks. The information provided by this indicator is crucial to inform decision makers of the need to prioritize investment in the water and sanitation sectors. It should be noted that this indicator is currently not monitored due to the difficulty in obtaining the required data.

### Tariff structure

Tariff structure distinguishes between flat and volumetric tariff structures. This will clarify affordability and such information could have a profound role in shaping national policies on cost recovery. Depending on the type of tariff used, this indicator can serve as a notice on the financial sustainability of the utilities providing water services.

### Affordability

Affordability measures the cost of water in proportion to income. It is the ratio of the average monthly cost of water supply to the average monthly household income. Affordability for low-income households is particularly relevant in some Arab countries where higher tariffs could be introduced to offset the cost of operating and maintaining water utilities, or to finance the rehabilitation of existing water infrastructure, or the construction of new water infrastructure. It is worth noting that no results were issued for this indicator in this report, as the data related to the household monthly income that is required to calculate this indicator was not collected.

### Data needed to calculate the additional water indicators

- Daily average daily per capita of water consumption (in liters)
- Continuity of water supply (number of subscribers as a proportion of the total connected population)
  - Continuous daily supply
  - Average of 3-4 days per week supply
  - Once per week average supply
  - Once biweekly average supply
  - Less than biweekly average supply
- Water quality (as proportion of water quantity)
  - Supplied water disinfected by one of the main disinfection methods
  - Supplied water not disinfected by any of the main disinfection methods
- Distance of water source from home
  - In urban areas
    - Collecting water takes less than 30 minutes
    - Collecting water takes more than 30 minutes
  - In rural areas
    - Collecting water from source no more than 500 meters away
    - Collecting water from source more than 500 meters away
- Tariff structure
  - Monthly flat tariff
  - Volumetric tariff
- Average tariff for one cubic meter of water (in US $)

## Sanitation Indicators

### Treated quantity

This indicator measures the quantity of treated wastewater and indirectly provides valuable information on the pollution load on the environment from direct disposal of untreated wastewater.

### Treatment type

This indicator complements the information provided by the previous indicator as it distinguishes between various treatment levels, and clarifies the residual environmental risk associated with the reuse or disposal of treated wastewater. To avoid the difficulty of quantifying the level of treatment through the use of discharge and effluent concentration limits, the indicator measures the treatment level in a qualitative manner using the general standard levels of wastewater treatment; namely, primary (physical), secondary (physical and biological), and tertiary (physical, biological and chemical).

### Reuse

The reuse indicator aims to quantify the amount of treated wastewater being used for different purposes. To ensure environmental protection, it is important to clarify the volume of wastewater reuse in relation to the types of reuse. The indicator does not only provide important information on the potential environmental impact of wastewater disposal, but also highlights the possibility of using treated wastewater as a reliable water resource that needs to be incorporated within the overall management of water resources, especially in the water-scarce Arab region.

### Untreated wastewater quantity and types of reuse

This indicator on untreated wastewater quantity and reuse type aims to map the fate of collected domestic wastewater. Clarifying the reuse type and disposal method of collected wastewater helps planners and decision makers to prioritize investment on the basis of environmental policies and strategies.

### Tariff structure

This indicator measures the proportion of the population connected to a sewer network and billed through either a flat or a volumetric rate based on water consumption. The flat tariff structure does not provide adequate incentives for water saving. Besides putting stress on the existing scarce water resources, flat tariff structures also result in increased wastewater and require additional funding for infrastructure, causing additional pollution and adverse environmental impacts.

### Affordability

This indicator clarifies the ability of an average household to obtain wastewater services, which is usually expressed as the incurred cost of the service as a percentage of the monthly income (based on national household budget surveys). When comparing the data on income with those on tariff structure, a clear picture of the financial burden on households emerges. Since household income data were not collected for this report, effort will be made to calculate this indicator in upcoming reports.

### Data required to calculate the additional sanitation indicators

- Quantity of treated wastewater (in cubic meters)
- Treatment type (in cubic meters and percentage of the total volume):
  - Primary treatment
  - Secondary treatment
  - Tertiary treatment
- Types of reuse after treatment (in percentage):
  - Irrigation
  - Underground injection for groundwater recharge
  - Domestic use
  - Direct discharge to water courses or to the sea
  - Other uses
- Quantity of untreated wastewater (in cubic meters and percentage):
  - Types of reuse of untreated wastewater (in percentage)
  - Irrigation
  - Underground injection for groundwater recharge
  - Domestic use
  - Direct discharge to water courses or to the sea
  - Other uses
- Tariff structure
  - Monthly flat tariff
  - Volumetric tariff
- Average tariff for treating one cubic meter of water (in US $)

This chapter includes the calculated MDG+ Initiative indicators based on 2013 data in addition to the indicators values based on 2012 data for countries that were unable to submit their data in the first report (2015). The data presented were collected through national teams based on actual data maintained by the national utilities that operate in the water supply and sanitation sectors. The data were sent to the MDG+ Unit in the Arab Countries Water Utilities Association (ACWUA) through the designated focal points in each country. The data provided were vetted, and the focal points were contacted to clarify or correct the values of some figures caused by errors in data collection or computation. The following tables present the MDG+ Indicators that were calculated based on the 2012 and 2013 datasets of the countries that submitted the required data within the specified time period

# ALGERIA

The national utilities that submitted data on water supply and sanitation services are:

1. The Algerian Water Company
2. Municipalities
3. The National Office for Sanitation
4. The National Office for Statistics
5. Water and Sanitation Company in Algeria and Tibaza
6. Water and Sanitation Company in Oran
7. Water and Sanitation Company in Constantine
8. Water and Sanitation Company in Annaba and El Tarf

The data collection was supervised by the national focal points Ms. Husseina Hammoush and Mr. Abdul Aziz Laroujo from Ministry of Water Resources and Environment. The national monitoring team composed of the following members has participated in collecting data and filling out questionnaire forms:

- Ms. Okali Sua'd – Ministry of Water Resources and Environment (MWRE)
- Mr.Gelwah Kamal – MWRE
- Mr. Si ElHadi Si Ismail – Algerian for Water
- Ms. Mahyoubi Noura – Office of Water and Sanitation
- Mr. Rahal Fateema – National Office of Statitics.

## Notice

The data provided by water and sanitation utilities were not disaggregated by urban and rural population, as the entire served population is considered urban.

## MDG+ Initiative indictors calculated in Number of People

| General Data | | | | | | |
|---|---|---|---|---|---|---|
| Population (x1000) | 2012 Data | | | | 2013 Data | |
| | Urban | Rural | Total | | Urban | Rural | Total |
| | 37900 | 0 | 37900 | | 38700 | 0 | |
| Percentage (%) | 100 | 0 | | | 100 | 0 | 38700 |
| Annual per capita income (USD): | | | | | | | |

| Water Supply | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Population (x1000) | 2012 data | | | | | | | 2013 data | | | | | |
| | Supply network | | | Standpipe | | | | Supply network | | | Standpipe | | |
| | Urban | Rural | Total | Urban | Rural | Total | | Urban | Rural | Total | Urban | Rural | Total |
| | | | | | | | | | | | | | |
| **Connected to piped network** | 31166.5 | 0 | 31166.5 | 0 | 0 | 0 | | 32381.0 | 0 | 32381.0 | 0 | 0 | 0 |
| **Water consumption** | | | | | | | | | | | | | |
| Liter/person/day | 117.4 | 0 | 117.4 | 0 | 0 | 0 | | 125.8 | 0 | 125.8 | 0 | 0 | 0 |
| **Continuity of Supply** | | | | | | | | | | | | | |
| Continuous supply | 18629.8 | 0 | 18629.8 | 0 | 0 | 0 | | 20315.8 | 0 | 20315.8 | 0 | 0 | 0 |
| 3-4 days per week | 12536.6 | 0 | 12536.6 | 0 | 0 | 0 | | 12065.2 | 0 | 12065.2 | 0 | 0 | 0 |
| Once a week | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| Once biweekly | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| Less than biweekly | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| **Water quality** | | | | | | | | | | | | | |
| Disinfected water | 31166.5 | 0 | 31166.5 | 0 | 0 | 0 | | 32381.0 | 0 | 32381.0 | 0 | 0 | 0 |
| Not disinfected water | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| **Distance to source** | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| **Tariff structure** | | | | | | | | | | | | | |
| Flat | 0 | 0 | | | | | | 0 | 0 | 0 | | | |
| Volumetric | 31166.5 | 0 | 31166.5 | | | | | 32381.0 | 0 | 32381.0 | | | |
| **Average Tariff (volumetric)** | | | | | | | | | | | | | |
| (US $/m3) | 0.06 | 0 | 0.06 | 0 | 0 | 0 | | 06.0 | 0 | 06.0 | | | |

(-): Unavailble data

## MDG+ Initiative indicators calculated in Million Cubic Meter per Year

| Water Supply | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MCM per year | 2012 data | | | | | | | 2013 data | | | | | | |
| | Supply network | | | Standpipe | | | | Supply network | | | Standpipe | | | |
| | Urban | Rural | Total | Urban | Rural | Total | | Urban | Rural | Total | Urban | Rural | Total | |
| | | | | | | | | | | | | | | |
| **Produced volume** | 2854.69 | 0 | 2854.69 | | | | | 3094.05 | 0 | 3094.05 | | | | |
| | | | | | | | | | | | | | | |
| Disributed volume | 1335.92 | 0 | 1335.92 | 0 | 0 | 0 | | 1486.65 | 0 | 1486.65 | 0 | 0 | 0 | |
| **Continuity of Supply** | | | | | | | | | | | | | | |
| Continuous supply | 758.85 | 0 | 758.85 | 0 | 0 | 0 | | 916.25 | 0 | 916.25 | 0 | 0 | 0 | |
| 3-4 days per week | 577.08 | 0 | 577.08 | 0 | 0 | 0 | | 570.39 | 0 | 570.39 | 0 | 0 | 0 | |
| Once a week | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | |
| Once biweekly | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | |
| Less than biweekly | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | |
| **Water quality** | | | | | | | | | | | | | | |
| Disinfected water | 2854.69 | 0 | 2854.69 | 0 | 0 | 0 | | 3094.05 | 0 | 3094.05 | 0 | 0 | 0 | |
| Not disinfected water | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | |
| **Distance to source** | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| **Tariff structure** | | | | | | | | | | | | | | |
| Flat | 0 | 0 | 0 | | | | | 0 | 0 | 0 | | | | |
| Volumetric | 1335.92 | 0 | 1335.92 | | | | | 1486.65 | 0 | 1486.65 | | | | |
| Average Tariff (volumetric) | | | | | | | | | | | | | | |
| (US $/m3) | 0.06 | 0 | 0.06 | 0 | 0 | 0 | | 0.06 | 0 | 0.06 | 0 | 0 | 0 | |

(-) Unavailable data

## MDG+ Initiative indictors calculated in Number of People

| Sewerage Network | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Population** | **2012 Data** | | | | **2013 Data** | | |
| | **Urban** | **Rural** | **Total** | | **Urban** | **Rural** | **Total** |
| **Conneted People** | 32754.4 | 0 | 32754.4 | | 32754.4 | 0 | 32754.4 |
| | | | | | | | |
| **Treated Wastewater** | - | 0 | - | | - | 0 | - |
| **Treatment type** | | | | | | | |
| Primary | - | 0 | - | | - | 0 | - |
| Secondary | - | 0 | - | | - | 0 | - |
| Tertiary | - | 0 | - | | - | 0 | - |
| **Types of Reuse after Treatment** | | | | | | | |
| Irrigation | - | 0 | - | | - | 0 | - |
| Groundwater recharge | - | 0 | - | | - | 0 | - |
| Domestic uses | - | 0 | - | | - | 0 | - |
| Direct discharge to watercource or to the sea | - | 0 | - | | - | 0 | - |
| Other uses | - | 0 | - | | - | 0 | - |
| | | | | | | | |
| **Untreated wastewater** | - | 0 | - | | - | 0 | - |
| **Untreated wastewater reuse** | | | | | | | |
| Irrigation | - | 0 | - | | - | 0 | - |
| Groundwater recharge | - | 0 | - | | - | 0 | - |
| Domestic uses | - | 0 | - | | - | 0 | - |
| Direct discharge to watercource or to the sea | - | 0 | - | | - | 0 | - |
| Other uses | - | 0 | - | | - | 0 | - |
| **Tariff** | | | | | | | |
| Flat | 0 | 0 | 0 | | - | 0 | - |
| Volumetric | - | 0 | - | | - | 0 | - |
| **Average tariff for one cubic meter:** | | | | | | | |
| US $ | 0.02 | 0 | 0.02 | | 0.02 | - | 0.02 |

(-): Unavailable data

## MDG+ Initiative indicators calculated in Million Cubic Meter per Year

| Sewerage Network | | | | | | | |
|---|---|---|---|---|---|---|---|
| **MCM per year** | **2012 Data** | | | | **2013 Data** | | |
| | Urban | Rural | Total | | Urban | Rural | Total |
| **Wastewater collected by sewer networks** | 1570.36 | 0 | 1570.36 | | 1570.36 | 0 | 1570.36 |
| | | | | | | | |
| **Treated Wastewater** | 275.24 | 0 | 275.24 | | 275.24 | 0 | 275.24 |
| Treatment type: | | | | | | | |
| Primary | 0 | 0 | 0 | | 0 | 0 | 0 |
| Secondary | 275.24 | 0 | 275.24 | | 275.24 | 0 | 275.24 |
| Tertiary | 0 | 0 | 0 | | 0 | 0 | 0 |
| **Types of Reuse after Treatment** | | | | | | | |
| Irrigation | 19.32 | 0 | 19.32 | | 19.32 | 0 | 19.32 |
| Groundwater recharge | 0 | 0 | 0 | | 0 | 0 | 0 |
| Domestic uses | 0 | 0 | 0 | | 0 | 0 | 0 |
| Direct discharge to watercourse or to the sea | 255.92 | 0 | 255.92 | | 255.92 | 0 | 255.92 |
| Other uses | 0 | 0 | 0 | | 00 | 0 | 0 |
| | | | | | | | |
| **Untreated wastewater** | 1295.12 | 0 | 1295.12 | | 1295.12 | 0 | 1295.12 |
| Untreated wastewater reuse | | | | | | | |
| Irrigation | 0 | 0 | 0 | | 0 | 0 | 0 |
| Groundwater recharge | 0 | 0 | 0 | | 0 | 0 | 0 |
| Domestic uses | 0 | 0 | 0 | | 0 | 0 | 0 |
| Direct discharge to watercourse or to the sea | 1295.12 | 0 | 1295.12 | | 1295.12 | 0 | 1295.12 |
| Other uses | | 0 | 0 | | 0 | 0 | 0 |
| **Tariff** | | | | | | | |
| Flat | 0 | 0 | 0 | | 0 | 0 | 0 |
| Volumetric | 1570.36 | 0 | 1570.36 | | 1570.36 | 0 | 1570.36 |
| **Average tariff for one cubic meter:** | | | | | | | |
| US $ | 0.02 | 0 | 0.02 | | 0.02 | - | 0.02 |

(-): Unavailable data

# BAHRAIN

## BAHRAIN

The national utilities that submitted data on water supply and sanitation services are:

1. Electricity and Water Authority
2. Ministry of Works, Municipalities Affairs and Urban Planning - Sanitation Sector

The data collection was supervised by the national focal point Engineer Ibrahim Abdulla Al Ka'ebi vice chief executive for planning and projects, Electricity and Water Authority. The following members of the national monitoring team have participated in data collection and the completion of questionnaire forms:

- Mr. Abd Arasoul Gholimbaba- Electricity and Water Authority
- Mr. Mohammad Jasim Al Eradi- Ministry of Works, Municipal Affairs and Urban Planning

## Notice

The data provided by water and sanitation utilities were not disaagregated by urban and rural population, as the entire served population is considered urban.

**BAHRAIN**

# MDG+ Initiative indictors calculated in Number of People

| General Data | | | | | | |
|---|---|---|---|---|---|---|
| **Population (x1000)** | **2012 Data** | | | **2013 Data** | | |
| | **Urban** | **Rural** | **Total** | **Urban** | **Rural** | **Total** |
| | **1208.96** | **0** | **1208.96** | **1253.19** | **-** | **1253.19** |
| **Percentage (%)** | **100** | **0** | | **100** | **0** | |
| **Annual per capita income (USD):** | | | | | | |

| Water Supply | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Population (x1000)** | **2012 Data*** | | | | | | | **2013 Data** | | | | | |
| | **Supply network** | | | **Standpipe** | | | | **Supply network** | | | **Standpipe** | | |
| | **Urban** | **Rural** | **Total** | **Urban** | **Rural** | **Total** | | **Urban** | **Rural** | **Total** | **Urban** | **Rural** | **Total** |
| | | | | | | | | | | | | | |
| **Connected to piped network** | 1208.9 | 0 | 1208.9 | 0 | 0 | 0 | | 1253.2 | 0 | 1253.2 | 0 | 0 | 0 |
| **Water consumption** | | | | | | | | | | | | | |
| Liter/person/day | 312.5 | 0 | 312.5 | 0 | 0 | 0 | | 312.5 | 0 | 312.5 | 0 | 0 | 0 |
| **Continuity of Supply** | | | | | | | | | | | | | |
| Continuous supply | 1208.9 | 0 | 1208.9 | 0 | 0 | 0 | | 1253.2 | 0 | 1253.2 | 0 | 0 | 0 |
| 3-4 days per week | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| Once a week | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| Once biweekly | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| Less than biweekly | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| **Water quality** | | | | | | | | | | | | | |
| Disinfected water | 1208.9 | 0 | 1208.9 | 0 | 0 | 0 | | 1253.2 | 0 | 1253.2 | 0 | 0 | 0 |
| Not disinfected water | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| **Distance to source** | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| **Tariff structure** | | | | | | | | | | | | | |
| Flat | 0 | 0 | 0 | | | | | 0 | 0 | 0 | | | |
| Volumetric | 1208.9 | 0 | 1208.9 | | | | | 1253.2 | 0 | 1253.2 | | | |
| **Average Tariff (volumetric)** | | | | | | | | | | | | | |
| (US $/m3) | 0.07 | 0 | 0.07 | 0 | 0 | 0 | | 0.07 | 0 | 0.07 | 0 | 0 | 0 |

(-): Unavailable data
(*): 2012 data published in the first report were amended upon national focal point request

## MDG+ Initiative indicators calculated in Million Cubic Meter per Year

| Water Supply | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MCM/ Annually | 2012 data | | | | | | | 2013 data | | | | | |
| | Supply network | | | Standpipe | | | | Supply network | | | Standpipe | | |
| | Urban | Rural | Total | Urban | Rural | Total | | Urban | Rural | Total | Urban | Rural | Total |
| | | | | | | | | | | | | | |
| **Produced volume** | 240.83 | 0 | 240.83 | | | | | 248.88 | 0 | 248.88 | | | |
| | | | | | | | | | | | | | |
| Disributed volume | 150.08 | 0 | 150.08 | 0 | 0 | 0 | | 154.49 | 0 | 154.49 | 0 | 0 | 0 |
| **Continuity of Supply** | | | | | | | | | | | | | |
| Daily | 150.08 | 0 | 150.08 | 0 | 0 | 0 | | 154.49 | 0 | 154.49 | 0 | 0 | 0 |
| 3-4 days per week | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| Once a week | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| Once biweekly | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| Less than biweekly | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| **Water quality** | | | | | | | | | | | | | |
| Disinfectedwater | 240.83 | 0 | 240.83 | 0 | 0 | 0 | | 248.88 | 0 | 248.88 | 0 | 0 | 0 |
| Not disinfected water | - | 0 | - | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| **Distance to source** | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| **Tariff structure** | | | | | | | | | | | | | |
| Flat | - | 0 | - | | | | | 0 | 0 | 0 | | | |
| Volumetric | 150.08 | 0 | 150.08 | | | | | 154.49 | 0 | 154.49 | | | |
| Average Tariff (volumetric) | | | | | | | | | | | | | |
| (US $/m3) | 0.07 | - | 0.07 | 0 | 0 | 0 | | 0.07 | - | 0.07 | 0 | 0 | 0 |

(-) Unavailable data

## MDG+ Initiative indictors calculated in Number of People

| Sewerage Network | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Population** | **2012 Data*** | | | | **2013 Data** | | |
| | **Urban** | **Rural** | **Total** | | **Urban** | **Rural** | **Total** |
| **Conneted People** | 1054.01 | 0 | 1054.01 | | 1086.33 | 0 | 1086.33 |
| | | | | | | | |
| **Treated Wastewater** | 1054.01 | 0 | 1054.01 | | 1086.33 | 0 | 1086.33 |
| Treatment type: | | | | | | | |
| Primary | 0 | 0 | 0 | | 0 | 0 | 0 |
| Secondary | 0 | 0 | 0 | | 0 | 0 | 0 |
| Tertiary | 1054.01 | 0 | 1054.01 | | 1086.33 | 0 | 1086.33 |
| **Reuse after Treatment** | | | | | | | |
| Irrigation | 366.7 | 0 | 366.7 | | 336.7 | 0 | 336.7 |
| Groundwater recharge | 0 | 0 | 0 | | 0 | 0 | 0 |
| Domestic uses | 0 | 0 | 0 | | 0 | 0 | 0 |
| Direct discharge to watercource or to the sea | 942.9 | 0 | 942.9 | | 749.3 | 0 | 749.3 |
| Other uses | 0 | 0 | 0 | | 0 | 0 | 0 |
| | | | | | | | |
| **Untreated wastewater** | 0 | 0 | 0 | | 0 | 0 | 0 |
| **Untreated wastewater reuse** | | | | | | | |
| Irrigation | 0 | 0 | 0 | | 0 | 0 | 0 |
| Groundwater recharge | 0 | 0 | 0 | | 0 | 0 | 0 |
| Domestic uses | 0 | 0 | 0 | | 0 | 0 | 0 |
| Direct discharge to watercource or to the sea | 0 | 0 | 0 | | 0 | 0 | 0 |
| Other uses | 0 | 0 | 0 | | 0 | 0 | 0 |
| **Tariff** | | | | | | | |
| Flat | 0 | 0 | 0 | | 0 | 0 | 0 |
| Volumetric | 0 | 0 | 0 | | 0 | 0 | 0 |
| **Average tariff for one cubic meter:** | | | | | | | |
| US $ | 0 | 0 | 0 | | 0 | 0 | 0 |

(-): Unavailable data
(*): 2012 data published in the first report were amended upon national focal point request.

## MDG+ Initiative indicators calculated in Million Cubic Meter per Year

| Sewerage Network | | | | | | | |
|---|---|---|---|---|---|---|---|
| MCM per year | 2012 Data | | | | 2013 Data | | |
| | Urban | Rural | Total | | Urban | Rural | Total |
| **Wastewater collected by sewer networks** | 120.98 | 0 | 120.98 | | 122.80 | 0 | 122.80 |
| | | | | | | | |
| **Treated Wastewater** | 120.98 | 0 | 120.98 | | 122.80 | 0 | 122.80 |
| **Treatment type:** | | | | | | | |
| Primary | 0 | 0 | 0 | | 0 | 0 | 0 |
| Secondary | 0 | 0 | 0 | | 0 | 0 | 0 |
| Tertiary | 120.98 | 0 | 120.98 | | 122.80 | 0 | 122.80 |
| **Types of Reuse after Treatment** | | | | | | | |
| Irrigation | 33.87 | 0 | 33.87 | | 38.07 | 0 | 38.07 |
| Groundwater recharge | 0 | 0 | 0 | | 0 | 0 | 0 |
| Domestic uses | 0 | 0 | 0 | | 0 | 0 | 0 |
| Direct discharge to watercourse or to the sea | 87.11 | 0 | 87.11 | | 84.73 | 0 | 84.73 |
| Other uses | 0 | 0 | 0 | | 0 | 0 | 0 |
| | | | | | | | |
| **Untreated wastewater** | 0 | 0 | 0 | | 0 | 0 | 0 |
| **Untreated wastewater reuse** | | | | | | | |
| Irrigation | 0 | 0 | 0 | | 0 | 0 | 0 |
| Groundwater recharge | 0 | 0 | 0 | | 0 | 0 | 0 |
| Domestic uses | 0 | 0 | 0 | | 0 | 0 | 0 |
| Direct discharge to watercourse or to the sea | 0 | 0 | 0 | | 0 | 0 | 0 |
| Other uses | 0 | 0 | 0 | | 0 | 0 | 0 |
| **Tariff** | | | | | | | |
| Flat | 0 | 0 | 0 | | 0 | 0 | 0 |
| Volumetric | 0 | 0 | 0 | | 0 | 0 | 0 |
| **Average tariff for one cubic meter:** | | | | | | | |
| US $ | 0 | 0 | 0 | | 0 | 0 | 0 |

(-): Unavailable data

# COMOROS

## Notice

The required data for calculating the MDG+ indicators were not provided within the period extending up to the end of 2015.

# DJIBOUTI

## Notice

The required data for calculating MDG+ indicators were not provided within the period extending up to the end of 2015.

# EGYPT

The national institution that has provided data on water supply and sanitation services is the Holding Company for Water and Wastewater (HCWW), which manages 24 subsidiaries:

1. Matrouh
2. Alexandria Water
3. Alexandria Sanitation
4. Al Bahaira
5. Kafer A Sheikh
6. Dakahlia
7. Damietta
8. Sharqia
9. Al Gharbia
10. Monoufia
11. Qaliubiya
12. Cairo Water
13. Cairo Wastewater
14. Giza
15. Fayoum
16. Bani Suef
17. Menya
18. Assiut
19. Sohag
20. Quna
21. Luxor
22. Aswan
23. North and South Sinai
24. Red Sea

The data collection was supervised by the national focal point Professor Ahmad Kamal Moawad. The following members of the national monitoring team have participated in data collection and the completion of questionnaire forms:

- Eng. Nahla Abd Al Salam
- Eng. Ahmad AlSayed Mosa Taher
- Eng. Mai Mohammad Mahmoud Feefi
- Ms. Nadia Idrees

## Notice

The data provided were disaggregated by urban and rural population.

# EGYPT

## MDG+ Initiative indictors calculated in Number of People

| General Data | | | | | | |
|---|---|---|---|---|---|---|
| MCM per year | 2012 Data | | | | 2013 Data | | |
| | Urban | Rural | Total | | Urban | Rural | Total |
| | 35884 | 45316 | 81200 | | 37372 | 46095 | 83467 |
| Percentage (%) | 44 | 56 | | | 44 | 56 | |
| Annual per capita income (USD)*: | 2926 $/ year | | | | 3100 $/ year | | |

| Water Supply | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Population (x1000) | 2012 data** | | | | | | | 2013 data | | | | | |
| | Supply network | | | Standpipe | | | | Supply network | | | Standpipe | | |
| | Urban | Rural | Total | Urban | Rural | Total | | Urban | Rural | Total | Urban | Rural | Total |
| | | | | | | | | | | | | | |
| **Connected to piped network** | 34584.78 | 43514.4 | 78099.19 | 240 | 825 | 1065 | | 35728.0 | 45830.91 | 81558.91 | 240 | 825 | 1065 |
| **Water consumption** | | | | | | | | | | | | | |
| Liter/person/day | 289 | 127 | 200 | 35 | 32 | 33 | | 283.3 | 122.3 | 194.6 | 35 | 32 | 33 |
| **Continuity of Supply** | | | | | | | | | | | | | |
| Continuous | 34041.41 | 42929.8 | 76971.23 | 218.61 | 780.94 | 999.55 | | 35115.28 | 45103.86 | 80219.14 | 218.61 | 780.94 | 999.55 |
| 3-4 days per week | 395.74 | 542.58 | 938.32 | 15.34 | 29.37 | 44.71 | | 446.66 | 640.80 | 1087.46 | 15.34 | 29.37 | 44.71 |
| Once a week | 123.63 | 31.20 | 154.83 | 4.74 | 8.81 | 13.55 | | 140.07 | 57.75 | 197.82 | 4.74 | 8.81 | 13.55 |
| Once biweekly | 24.00 | 10.80 | 34.80 | 1.31 | 5.87 | 7.18 | | 26.00 | 28.50 | 54.5 | 1.31 | 5.87 | 7.18 |
| Less than biweekly | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| **Water quality** | | | | | | | | | | | | | |
| Disinfected water | 34584.78 | 43514.4 | 78099.19 | 240 | 825 | 1065 | | 35728.0 | 45830.91 | 81558.91 | 240 | 825 | 1065 |
| Not disinfected water | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| **Distance to source** | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| **Tariff structure** | | | | | | | | | | | | | |
| Flat | 0 | 0 | 0 | | | | | 0 | 0 | 0 | | | |
| Volumetric | 34584.78 | 43514.4 | 78099.19 | | | | | 35728.0 | 45830.91 | 81558.91 | | | |
| **Average Tariff (volumetric)** | | | | | | | | | | | | | |
| (US $/m3) | .102 | .08 | .09 | - | - | - | | .102 | .08 | .09 | - | - | - |

(-): Unavailable data

(*): Data of Central Agency for Public Moblisation and Statistics, 2011

(**): 2012 Data published in the first report were amended upon national focal point request

# EGYPT

## MDG+ Indicators in Million Cubic Meter per Year

| Water Supply | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MCM/Annually | 2012 Data* | | | | | | | 2013 data | | | | | |
| | Supply network | | | Standpipe | | | | Supply network | | | Standpipe | | |
| | Urban | Rural | Total | Urban | Rural | Total | | Urban | Rural | Total | Urban | Rural | Total |
| | | | | | | | | | | | | | |
| **Produced volume** | 5489.652 | 2892.02 | 8381.679 | 3.113 | 9.69 | 12.803 | | 5644.60 | 2945.10 | 8589.69 | 3.113 | 9.69 | 12.803 |
| | | | | | | | | | | | | | |
| **Disributed volume** | 3638.31 | 2025.89 | 5664.208 | 3.113 | 9.69 | 12.803 | | 3694.46 | 2045.40 | 5739.86 | 3.113 | 9.69 | 12.803 |
| **Continuity of Supply** | | | | | | | | | | | | | |
| Continuous | 3589.233 | 1976.11 | 5565.345 | 2.8355 | 9.1725 | 12.008 | | 3644.87 | 1994.52 | 5639.39 | 2.8355 | 9.1725 | 12.008 |
| 3-4 days per week | 35.563 | 43.590 | 79.153 | 0.199 | 0.345 | 0.544 | | 35.832 | 44.473 | 80.305 | 0.199 | 0.345 | 0.544 |
| Once a week | 11.048 | 3.962 | 15.010 | 0.0615 | 0.1035 | 0.165 | | 11.128 | 4.088 | 15.216 | 0.0615 | 0.1035 | 0.165 |
| Once biweekly | 2.465 | 2.237 | 4.702 | 0.017 | 0.069 | 0.086 | | 2.631 | 2.321 | 4.953 | 0.017 | 0.069 | 0.086 |
| Less than biweekly | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| **Water quality** | | | | | | | | | | | | | |
| Disinfected water | 5489.65 | 2892.03 | 8381.68 | 3.113 | 9.69 | 12.803 | | 5644.60 | 2945.10 | 8589.69 | 3.113 | 9.69 | 12.803 |
| Not disinfected water | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| **Distance to source** | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| **Tariff structure** | | | | | | | | | | | | | |
| Flat | 0 | 0 | 0 | | | | | 0 | 0 | 0 | | | |
| Volumetric | 3638.31 | 2025.89 | 5664.208 | | | | | 3694.46 | 2045.40 | 5739.86 | | | |
| Average Tariff (volumetric ) | | | | | | | | | | | | | |
| (US $/m3) | 0.102 | .08 | .09 | - | - | - | | .102 | .08 | .09 | - | - | |

(-) Unavailable data

(*) 2012 data published in the first report were amended upon national focal point request

## MDG+ Initiative indictors calculated in Number of People

| Sewerage Network | | | | | | | |
|---|---|---|---|---|---|---|---|
| Population | 2012 Data* | | | | 2013 Data | | |
| | Urban | Rural | Total | | Urban | Rural | Total |
| **Conneted People** | 30665.53 | 9826.697 | 40492.23 | | 32462.99 | 10523.30 | 42986.29 |
| | | | | | | | |
| **Treated Wastewater** | 29008.01 | 8470.878 | 37206.32 | | 31069.24 | 8915.352 | 39984.592 |
| **Treatment type:** | | | | | | | |
| Primary | 6542.327 | 705.048 | 7247.375 | | 7431.469 | 946.856 | 8378.325 |
| Secondary | 21721.199 | 7711.103 | 29432.3 | | 22737.758 | 7895.986 | 30633.74 |
| Tertiary | 744.485 | 54.727 | 799.212 | | 900.011 | 72.510 | 972.521 |
| **Types of Reuse after Treatment** | | | | | | | |
| Irrigation | 719.6 | 247.563 | 967.16 | | 673.53 | 260.255 | 933.78 |
| Groundwater recharge | 0 | 0 | 0 | | 0 | 0 | 0 |
| Domestic uses | 0 | 0 | 0 | | 0 | 0 | 0 |
| Direct discharge to watercourse or to the sea | 28293.495 | 8222.421 | 36515.92 | | 30395.705 | 8652.930 | 39048.64 |
| Other uses | 0 | 0 | 0 | | 0 | 0 | 0 |
| | | | | | | | |
| **Untreated wastewater** | 1652.516 | 1628.39 | 3280.906 | | 1393.754 | 1607.953 | 3001.7 |
| **Untreated wastewater reuse** | | | | | | | |
| Irrigation | 0 | 0 | 0 | | 0 | 0 | 0 |
| Groundwater recharge | 0 | 0 | 0 | | 0 | 0 | 0 |
| Domestic uses | 0 | 0 | 0 | | 0 | 0 | 0 |
| Direct discharge to watercourse or to the sea | 1652.516 | 1628.39 | 3280.906 | | 1393.754 | 1607.953 | 3001.707 |
| Other uses | 0 | 0 | 0 | | 0 | 0 | 0 |
| **Tariff** | | | | | | | |
| Flat | - | - | - | | - | - | - |
| Volumetric | 27799.78 | 6545.57 | 34345.35 | | 28018.15 | 6545.57 | 34563.72 |
| **Average tariff for one cubic meter:** | | | | | | | |
| US $ | 0.04 | 0.03 | - | | 0.04 | 0.03 | - |

(-): Unavailable data
(*) 2012 data published in the first report were amended upon national focal point request

## MDG+ Initiative indicators calculated in Million Cubic Meter per Year

| Sewerage Network | | | | | | | |
|---|---|---|---|---|---|---|---|
| MCM per year | 2012 Data | | | | 2013 Data | | |
| | Urban | Rural | Total | | Urban | Rural | Total |
| **Wastewater collected by sewer networks** | 2547.93 | 428.82 | 2976.75 | | 2590.03 | 440.35 | 3030.38 |
| | | | | | | | |
| **Treated Wastewater** | 2430.62 | 352.31 | 2782.94 | | 2472.71 | 363.51 | 2836.23 |
| **Treatment type:** | | | | | | | |
| Primary | 665.41 | 31.04 | 696.45 | | 682.41 | 41.94 | 724.35 |
| Secondary | 1712.347 | 319.382 | 2031.729 | | 1735.438 | 319.383 | 2054.820 |
| Tertiary | 52.868 | 1.894 | 54.762 | | 54.868 | 2.194 | 57.062 |
| **Types of Reuse after Treatment** | | | | | | | |
| Irrigation | 24.5 | 9.75 | 34.24 | | 40.4 | 9.75 | 50.2 |
| Groundwater recharge | 0.000 | 0.000 | 0.000 | | 0.000 | 0.000 | 0.000 |
| Domestic uses | 0.000 | 0.000 | 0.000 | | 0.000 | 0.000 | 0.000 |
| Direct discharge to watercourse or to the sea | 2388.043 | 352.314 | 2740.357 | | 2432.247 | 353.755 | 2786.002 |
| Other uses | 0 | 0 | 0 | | 0 | 00 | 0 |
| | | | | | | | |
| **Untreated wastewater** | 138.08 | 77.84 | 215.92 | | 101.74 | 76.84 | 178.58 |
| **Untreated wastewater reuse** | | | | | | | |
| Irrigation | 0 | 0 | 0 | | 0 | 0 | 0 |
| Groundwater recharge | 0 | 0 | 0 | | 0 | 0 | 0 |
| Domestic uses | 0 | 0 | 0 | | 0 | 0 | 0 |
| Direct discharge to watercourse or to the sea | 138.08 | 77.84 | 215.92 | | 101.74 | 76.84 | 178.58 |
| Other uses | 0 | 0 | 0 | | 0 | 0 | 0 |
| **Tariff** | | | | | | | |
| Flat | - | - | - | | - | - | - |
| Volumetric | - | - | - | | - | - | - |
| **Average tariff for one cubic meter:** | | | | | | | |
| US $ | 0.04 | 0.03 | - | | 0.04 | 0.03 | - |

(-): Unavailable data

(*) 2012 data published in the first report were amended upon national focal point request

# IRAQ

The national Utilities that have provided data on water supply and sanitation services are:

1. Baghdad Municipality
2. Baghdad Outskirts
3. All Governorates
4. Dohuk
5. Sulaymaniyah
6. Erbil

The data collection was supervised by the national focal point Mr. Murtadha Juma'- Ministry of Water Resources.

The following members of the national monitoring team participated in data collection and the filling out of questionnaire forms:

- Mr. Abdul Hassan Farhood Jabr- Baghdad Municipality
- Mr. Ihab Raouf Abdel Ameer- Ministry of Housing, Construction and Public
- Mr. Laheeb Jaleel Aboud- Ministry of Planning, Central Staistics Bureau

## Notice

The data provided were disaggregated by urban and rural population.

## IRAQ

MDG+ Initiative indictors calculated in Number of People

| General Data | | | | | | |
|---|---|---|---|---|---|---|
| Population (x1000) | 2012 Data | | | | 2013 Data | |
| | Urban | Rural | Total | Urban | Rural | Total |
| | 23679.01 | 10528.23 | 34207.24 | - | - | - |
| Percentage (%) | 69.22 | 30.78 | | - | - | |
| Annual per capita income (USD): | | | | | | |

| Water Supply | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Population (x1000) | 2012 data | | | | | | | 2013 data | | | | | |
| | Supply network | | | Standpipe | | | | Supply network | | | Standpipe | | |
| | Urban | Rural | Total | Urban | Rural | Total | | Urban | Rural | Total | Urban | Rural | Total |
| | | | | | | | | | | | | | |
| Connected to piped network | 21632 | 8829.8 | 30461.8 | - | - | - | | 21418.7 | 10695 | 32113.7 | - | - | - |
| Water consumption | | | | | | | | | | | | | |
| Liter/person/day | 354 | 334 | 348 | - | - | - | | 377.4 | 276 | 343.6 | - | - | - |
| Continuity of Supply | | | | | | | | | | | | | |
| Continuous supply | 21559.1 | 8631.2 | 30190.3 | - | - | - | | 21370.1 | - | - | - | - | - |
| 3-4 days per week | 72.9 | 160.62 | 233.52 | 0 | 0 | 0 | | 48.6 | - | - | 0 | 0 | 0 |
| Once a week | 0 | 37.98 | 37.98 | 0 | 0 | 0 | | 0 | - | - | 0 | 0 | 0 |
| Once biweekly | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| Less than biweekly | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| Water quality | | | | | | | | | | | | | |
| Disinfected water | 21632 | 8829.8 | 30461.8 | - | - | - | | 21418.7 | 10695 | 32113.7 | - | - | - |
| Not disinfected water | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| Distance to source | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| Tariff structure | | | | | | | | | | | | | |
| Flat | 3546 | 1176 | 4722 | | | | | 2364 | - | - | | | |
| Volumetric | 18086 | 7653.8 | 25739.8 | | | | | 19054.7 | - | - | | | |
| Average Tariff (volumetric) | | | | | | | | | | | | | |
| (US $/m3) | 0.006 | 0 | 0.006 | 0.006 | 0 | 0.006 | | 0.006 | - | - | 0.006 | 0 | 0.006 |

(-): Unavailable data

## MDG+ Initiative indicators calculated in Million Cubic Meter per Year

| Water Supply | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MCM/ per year | 2012 data | | | | | | | 2013 data | | | | | |
| | Supply network | | | Standpipe | | | | Supply network | | | Standpipe | | |
| | Urban | Rural | Total | Urban | Rural | Total | | Urban | Rural | Total | Urban | Rural | Total |
| | | | | | | | | | | | | | |
| **Produced volume** | 3999.36 | 1192.8 | 5192.16 | | | | | - | - | - | | | |
| | | | | | | | | | | | | | |
| Disributed volume | 2793.5 | 1077.5 | 3871 | 68.29 | 3.83 | 72.12 | | 2950.7 | 1077.5 | 4028.2 | 68.42 | - | - |
| **Continuity of Supply** | | | | | | | | | | | | | |
| Continuous supply | 2787.65 | 1067.3 | 3854.95 | 68.29 | 3.83 | 72.12 | | 2944.9 | - | - | 68.42 | - | - |
| 3-4 days per week | 5.84 | 8.33 | 14.17 | 0 | 0 | 0 | | 5.8 | - | - | 0 | 0 | 0 |
| Once a week | 0 | 1.87 | 1.87 | 0 | 0 | 0 | | 0 | - | - | 0 | 0 | 0 |
| Once biweekly | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| Less than biweekly | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| **Water quality** | | | | | | | | | | | | | |
| Disinfected water | 3999.36 | 1192.8 | 5192.16 | 68.29 | 3.83 | 72.12 | | - | - | - | 68.42 | - | - |
| Not disinfected water | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| **Distance to source** | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| **Tariff structure** | | | | | | | | | | | | | |
| Flat | 362.24 | 65.37 | 427.61 | | | | | 362.24 | - | - | | | |
| Volumetric | 2431.26 | 1012.2 | 3443.46 | | | | | 2588.5 | - | - | | | |
| Average Tariff (volumetric) | | | | | | | | | | | | | |
| (US $/m3) | 0.006 | 0 | 0.006 | 0.006 | 0 | 0.006 | | 0.006 | - | - | 0.006 | 0 | 0.006 |

(-): Unavailable data

## MDG+ Initiative indictors calculated in Number of People

| Sewerage Network | | | | | | | |
|---|---|---|---|---|---|---|---|
| Population (x1000) | 2012 Data | | | | 2013 Data* | | |
| | Urban | Rural | Total | | Urban | Rural | Total |
| **Conneted People** | 9567 | 0 | 9567 | | 9567 | 0 | 9567 |
| | | | | | | | |
| **Treated Wastewater** | 6429 | 0 | 6429 | | 6429 | 0 | 6429 |
| **Treatment type :** | | | | | | | |
| Primary | 0 | 0 | 0 | | 0 | 0 | 0 |
| Secondary | 6429 | 0 | 6429 | | 6429 | 0 | 6429 |
| Tertiary | 0 | 0 | 0 | | 0 | 0 | 0 |
| **Types of Reuse after Treatment** | | | | | | | |
| Irrigation | 0 | 0 | 0 | | 0 | 0 | 0 |
| Groundwater recharge | 0 | 0 | 0 | | 0 | 0 | 0 |
| Domestic uses | 0 | 0 | 0 | | 0 | 0 | 0 |
| Direct discharge to watercource or to the sea | 3629 | 0 | 3629 | | 3629 | 0 | 3629 |
| Other uses | 0 | 0 | 0 | | 0 | 0 | 0 |
| | | | | | | | |
| **Untreated wastewater** | 3138 | 0 | 3138 | | 3138 | 0 | 3128 |
| **Untreated wastewater reuse** | | | | | | | |
| Irrigation | 0 | 0 | 0 | | 0 | 0 | 0 |
| Groundwater recharge | 0 | 0 | 0 | | 0 | 0 | 0 |
| Domestic uses | 0 | 0 | 0 | | 0 | 0 | 0 |
| Direct discharge to watercource or to the sea | 1177 | 0 | 1177 | | 1177 | 0 | 1177 |
| Other uses | 0 | 0 | 0 | | 0 | 0 | 0 |
| **Tariff** | | | | | | | |
| Flat | 0 | 0 | 0 | | 0 | 0 | 0 |
| Volumetric | 4474 | 0 | 4474 | | 4474 | 0 | 4474 |
| **Average tariff for one cubic meter :** | | | | | | | |
| US $ | 0.006 | 0 | 0.006 | | 0.006 | 0 | 0.006 |

(-): Unavailable data
(*)2012 data published in the first report were amended upon national focal point request

## MDG+ Initiative indicators calculated in Million Cubic Meter per Year

| Sewerage Network | | | | | | | |
|---|---|---|---|---|---|---|---|
| MCM/ per year | 2012 Data | | | | 2013 Data | | |
| | Urban | Rural | Total | | Urban | Rural | Total |
| **Wastewater collected by sewer networks** | 620.4 | 0 | 620.4 | | 620.4 | 0 | 620.4 |
| | | | | | | | |
| **Treated Wastewater** | 415.7 | 0 | 415.7 | | 415.7 | 0 | 415.7 |
| **Treatment type:** | | | | | | | |
| Primary | 0 | 0 | 0 | | 0 | 0 | 0 |
| Secondary | 415.7 | 0 | 415.7 | | 415.7 | 0 | 415.7 |
| Tertiary | 0 | 0 | 0 | | 0 | 0 | 0 |
| **Types of Reuse after Treatment** | | | | | | | |
| Irrigation | 0 | 0 | 0 | | 0 | 0 | 0 |
| Groundwater recharge | 0 | 0 | 0 | | 0 | 0 | 0 |
| Domestic uses | 0 | 0 | 0 | | 0 | 0 | 0 |
| Direct discharge to watercourse or to the sea | 160.2 | 0 | 162.2 | | 160.2 | 0 | 162.2 |
| Other uses | 0 | 0 | 0 | | 0 | 0 | 0 |
| | | | | | | | |
| **Untreated wastewater** | 204.7 | 0 | 204.7 | | 204.7 | 0 | 204.7 |
| **Untreated wastewater reuse** | | | | | | | |
| Irrigation | 0 | 0 | 0 | | 0 | 0 | 0 |
| Groundwater recharge | 0 | 0 | 0 | | 0 | 0 | 0 |
| Domestic uses | 0 | 0 | 0 | | 0 | 0 | 0 |
| Direct discharge to watercourse or to the sea | 51.9 | 0 | 51.9 | | 51.9 | 0 | 51.9 |
| Other uses | 0 | 0 | 0 | | 0 | 0 | 0 |
| **Tariff** | | | | | | | |
| Flat | 0 | 0 | 0 | | 0 | 0 | 0 |
| Volumetric | 255.5 | 0 | 255.5 | | 255.5 | 0 | 255.5 |
| **Average tariff for one cubic meter:** | | | | | | | |
| US $ | 0.006 | 0 | 0.006 | | 0.006 | 0 | 0.006 |

(-): Unavailable data

# JORDAN

The national utilities that have provided data on water supply and sanitation services are:

1. Miyahuna Company – Amman
2. Aqaba Water Company
3. Yarmouk Water Company
4. Zarqa Governorate Water Administration
5. Balqa Governorate Water Administration
6. Madaba Governorate Water Administration
7. Tafeela Governorate Water Administration
8. Karak Governorate Water Administration
9. Ma'an Governorate Water Administration

The data collection was supervised by the national focal point Mr. Mohammad Al Atrash, Assistant Secretary General- Ministry of Water and Irrigation. The following members of the national monitoring team have participated in data collection and the filling out of questionnaire forms:

- Mr. Ayman Jaber- Ministry of Water and Irrigation
- Ms. Kholoud Al Beshtawi- Jordan Valley Authority
- Ms. Haneen Qablan- Water Authority
- Ms. Samah Ersan- General Department of Statistics

## Notice

The data provided by water and sanitation utilities were not disaagregated by urban and rural population, as the entire served population is considered urban.

# MDG+ Initiative indictors calculated in Number of People

| General Data | | | | | | |
|---|---|---|---|---|---|---|
| Population (x1000) | 2012 Data | | | | 2013 Data | | |
| | Urban | Rural | Total | | Urban | Rural | Total |
| | 6388* | 0 | 6388* | | 6530* | 0 | 6530* |
| Percentage (%) | 100 | 0 | | | 100 | - | |
| Annual per capita income (USD): | | | | | | | |

| Water Supply | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Population (x1000) | 2012 data ** | | | | | | | 2013 data | | | | | |
| | Supply network | | | Standpipe | | | | Supply network | | | Standpipe | | |
| | Urban | Rural | Total | Urban | Rural | Total | | Urban | Rural | Total | Urban | Rural | Total |
| | | | | | | | | | | | | | |
| **Connected to piped network** | 5920.9 | 0 | 5920.9 | 0 | 0 | 0 | | 6311.7 | 0 | 6311.7 | 0 | 0 | 0 |
| **Water consumption** | | | | | | | | | | | | | |
| Liter/person/day | 83.36 | 0 | 83.36 | 0 | 0 | 0 | | 85.7 | 0 | 85.7 | 0 | 0 | 0 |
| **Continuity of Supply** | | | | | | | | | | | | | |
| Continuous supply | 143.6 | 0 | 143.6 | 0 | 0 | 0 | | 149.02 | 0 | 149.02 | 0 | 0 | 0 |
| 3-4 days per week | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| One day weekly | 5777.3 | 0 | 5777.3 | 0 | 0 | 0 | | 6016.59 | 0 | 6016.59 | 0 | 0 | 0 |
| Once biweekly | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| Less than biweekly | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| **Water quality** | | | | | | | | | | | | | |
| Disinfected water | 5920.9 | 0 | 5920.9 | 0 | 0 | 0 | | 6165.61 | 0 | 6165.61 | 0 | 0 | 0 |
| Not disinfected water | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| **Distance to source** | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| **Tariff structure** | | | | | | | | | | | | | |
| Flat | 0 | 0 | 0 | | | | | 0 | 0 | 0 | | | |
| Volumetric | 5920.9 | 0 | 5920.9 | | | | | 6165.61 | 0 | 6165.61 | | | |
| **Average Tariff (volumetric)** | | | | | | | | | | | | | |
| (US $/m3) | 0.16 | 0 | 0.16 | 0 | 0 | 0 | | 0.17 | 0 | 0.17 | 0 | 0 | 0 |

(-): Unavailable data
(*) Jordan population excluding refugees
(**) 2012 data published in the first report were amended upon the national focal point request.

# MDG+ Initiative indicators calculated in Million Cubic Meter per Year

| Water Supply | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MCM per year | 2012 data** | | | | | | | 2013 data | | | | | |
| | Supply network | | | Standpipe | | | | Supply network | | | Standpipe | | |
| | Urban | Rural | Total | Urban | Rural | Total | | Urban | Rural | Total | Urban | Rural | Total |
| | | | | | | | | | | | | | |
| **Produced volume** | 373.97 | 0 | 373.97 | | | | | 375.09 | 0 | 375.09 | | | |
| | | | | | | | | | | | | | |
| Disributed volume | 197.02 | 0 | 197.02 | 0 | 0 | 0 | | 197.43 | 0 | 197.43 | 0 | 0 | 0 |
| **Continuity of Supply** | | | | | | | | | | | | | |
| Continuous supply | 17.02 | 0 | 17.02 | 0 | 0 | 0 | | 17.08 | 0 | 17.08 | 0 | 0 | 0 |
| 3-4 days per week | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| Once a week | 180 | 0 | 180 | 0 | 0 | 0 | | 180.35 | 0 | 180.35 | 0 | 0 | 0 |
| Once biweekly | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| Less than biweekly | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| **Water quality** | | | | | | | | | | | | | |
| Disinfected water | 373.97 | 0 | 373.97 | 0 | 0 | 0 | | 375.09 | 0 | 375.09 | 0 | 0 | 0 |
| Not disinfected water | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| **Distance to source** | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| **Tariff structure** | | | | | | | | | | | | | |
| Flat | 0 | 0 | 0 | | | | | 0 | 0 | 0 | | | |
| Volumetric | 197.02 | 0 | 197.02 | | | | | 197.43 | 0 | 197.43 | | | |
| Average Tariff (volumetric) | | | | | | | | | | | | | |
| (US $/m3) | 0.16 | 0 | 0.16 | 0 | 0 | 0 | | 0.17 | 0 | 0.17 | 0 | 0 | 0 |

(-): Unavailable data
(**) 2012 data published in the first report were amended upon the national focal point request.

## MDG+ Initiative indictors calculated in Number of People

| Sewerage Network | | | | | | | |
|---|---|---|---|---|---|---|---|
| Population (x1000) | 2012 Data** | | | | 2013 Data | | |
| | Urban | Rural | Total | | Urban | Rural | Total |
| **Conneted People** | 3714.6 | 0 | 3714.6 | | 3861 | 0 | 3861 |
| | | | | | | | |
| **Treated Wastewater** | 3714.6 | 0 | 3714.6 | | 3861 | 0 | 3861 |
| **Treatment type:** | | | | | | | |
| Primary | 0 | 0 | 0 | | 0 | 0 | 0 |
| Secondary | 3714.6 | 0 | 3714.6 | | 3861 | 0 | 3861 |
| Tertiary | 0 | 0 | 0 | | 0 | 0 | 0 |
| **Types of Reuse after Treatment** | | | | | | | |
| Irrigation | 3144.7 | 0 | 3144.7 | | 3240.84 | 0 | 3240.84 |
| Groundwater recharge | 0 | 0 | 0 | | 0 | 0 | 0 |
| Domestic uses | 0 | 0 | 0 | | 0 | 0 | 0 |
| Direct discharge to watercource or to the sea | 552.8 | 0 | 552.8 | | 602.58 | 0 | 602.58 |
| Other uses | 17.1 | 0 | 17.1 | | 17.48 | 0 | 17.48 |
| | | | | | | | |
| **Untreated wastewater** | 0 | 0 | 0 | | 0 | 0 | 0 |
| **Untreated wastewater reuse** | | | | | | | |
| Irrigation | 0 | 0 | 0 | | 0 | 0 | 0 |
| Groundwater recharge | 0 | 0 | 0 | | 0 | 0 | 0 |
| Domestic uses | 0 | 0 | 0 | | 0 | 0 | 0 |
| Direct discharge to watercource or to the sea | 0 | 0 | 0 | | 0 | 0 | 0 |
| Other uses | 0 | 0 | 0 | | 0 | 0 | 0 |
| **Tariff** | | | | | | | |
| Flat | 0 | 0 | 0 | | 0 | 0 | 0 |
| Volumetric | 3714.6 | 0 | 3714.6 | | 3861 | 0 | 3861 |
| **Average tariff for one cubic meter:** | | | | | | | |
| US $ | 0.02 | 0 | 0.02 | | 0,02 | 0 | 0.02 |

(-): Unavailable data
(**) 2012 data published in the first report were amended upon the national focal point request.

## MDG+ Initiative indicators calculated in Million Cubic Meter per Year

| Sewerage Network | | | | | | | |
|---|---|---|---|---|---|---|---|
| MCM per year | 2012 Data ** | | | | 2013 Data | | |
| | Urban | Rural | Total | | Urban | Rural | Total |
| **Wastewater collected by sewer networks** | 134.46 | 0 | 134.46 | | 130.83 | 0 | 130.83 |
| | | | | | | | |
| **Treated Wastewater** | 134.46 | 0 | 134.46 | | 130.83 | 0 | 130.83 |
| **Treatment type :** | | | | | | | |
| Primary | 0 | 0 | 0 | | 0 | 0 | 0 |
| Secondary | 134.46 | 0 | 134.46 | | 130.83 | 0 | 130.83 |
| Tertiary | 0 | 0 | 0 | | 0 | 0 | 0 |
| **Types of Reuse after Treatment** | | | | | | | |
| Irrigation | 113.83 | 0 | 113.83 | | 112.92 | 0 | 112.92 |
| Groundwater recharge | 0 | 0 | 0 | | 0 | 0 | 0 |
| Domestic uses | 0 | 0 | 0 | | 0 | 0 | 0 |
| Direct discharge to watercource or to the sea | 20.81 | 0 | 20.81 | | 17.53 | 0 | 17.53 |
| Other uses | 0.18.0 | 0 | 0.18 | | 0.369 | 0 | 0.369 |
| | | | | | | | |
| **Untreated wastewater** | 0 | 0 | 0 | | 0 | 0 | 0 |
| **Untreated wastewater reuse** | | | | | | | |
| Irrigation | 0 | 0 | 0 | | 0 | 0 | 0 |
| Groundwater recharge | 0 | 0 | 0 | | 0 | 0 | 0 |
| Domestic uses | 0 | 0 | 0 | | 0 | 0 | 0 |
| Direct discharge to watercource or to the sea | 0 | 0 | 0 | | 0 | 0 | 0 |
| Other uses | 0 | 0 | 0 | | 0 | 0 | 0 |
| **Tariff** | | | | | | | |
| Flat | 0 | 0 | 0 | | 0 | 0 | 0 |
| Volumetric | 134.46 | 0 | 134.46 | | 130.83 | 0 | 130.83 |
| **Average tariff for one cubic meter :** | | | | | | | |
| US $ | 0.02 | 0 | 0.02 | | 0.02 | 0 | 0.02 |

(-): Unavailable data
(**) 2012 data published in the first report were amended upon the national focal point request

# KUWAIT

The national institution that has submitted data on water supply and sanitation services is the Ministry of Electricity and Water.

The data collection was supervised by the national focal point Ms Maha Al Mansour- Ministry of Electricity and Water. The following members of the national monitoring team have participated in data collection and the filling out of questionnaire forms:

- Eng. Adel A Safar – Ministry of Public Works
- Eng. Ala Al Jazzaf – Ministry of Electricity and Water

## Notice

The data provided by water and sanitation utilities were not disaggregated by urban and rural population, as the entire served population is considered urban.

# MDG+ Initiative indictors calculated in Number of People

| General Data | | | | | | |
|---|---|---|---|---|---|---|
| Population (x1000) | 2012 Data | | | | 2013 Data | |
| | Urban | Rural | Total | Urban | Rural | Total |
| | 3823.7 | 0 | 3823.7 | 3844.0 | - | 3844.0 |
| Percentage (%) | 100 | 0 | | 100 | - | |
| Annual per capita income (USD): | | | | | | |

| Water Supply | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Population (x1000) | 2012 data | | | | | | | 2013 data | | | | | |
| | Supply network | | | Standpipe | | | | Supply network | | | Standpipe | | |
| | Urban | Rural | Total | Urban | Rural | Total | | Urban | Rural | Total | Urban | Rural | Total |
| | | | | | | | | | | | | | |
| **Connected to piped network** | 3763.7 | 0 | 3763.7 | - | 0 | - | | 3844.0 | 0 | 3844.0 | - | 0 | - |
| **Water consumption** | | | | | | | | | | | | | |
| Liter/person/day | 401 | 0 | 401 | - | 0 | - | | 391.2 | 0 | 391.2 | - | 0 | - |
| **Continuity of Supply** | | | | | | | | | | | | | |
| Continuous supply | 3763.7 | 0 | 3763.7 | - | 0 | - | | 3844.0 | 0 | 3844.0 | - | 0 | - |
| 3-4 days per week | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | - | 0 | 0 |
| Once a week | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | - | 0 | 0 |
| Once biweekly | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| Less than biweekly | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| **Water quality** | | | | | | | | | | | | | |
| Disinfected water | 3763.7 | 0 | 3763.7 | - | 0 | - | | 3844.0 | 0 | 3844.0 | - | 0 | - |
| Not disinfected water | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| **Distance to source** | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| **Tariff structure** | | | | | | | | | | | | | |
| Flat | 0 | 0 | 0 | | | | | 0 | 0 | - | | | |
| Volumetric | 3763.7 | 0 | 3763.7 | | | | | 3844.0 | 0 | 3844.0 | | | |
| **Average Tariff (volumetric)** | | | | | | | | | | | | | |
| (US $/m3) | 0.63 | 0 | 0.63 | 0.24 | 0 | 0.24 | | 0.63 | 0 | 0.63 | 0.24 | 0 | 0.24 |

(-): Unavailable data

## MDG+ Initiative indicators calculated in Million Cubic Meter per Year

| Water Supply | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MCM per year | 2012 data | | | | | | | 2013 data | | | | | |
| | Supply network | | | Standpipe | | | | Supply network | | | Standpipe | | |
| | Urban | Rural | Total | Urban | Rural | Total | | Urban | Rural | Total | Urban | Rural | Total |
| | | | | | | | | | | | | | |
| **Produced volume** | 635.85 | 0 | 635.85 | | | | | 643.34 | 0 | 643.34 | | | |
| | | | | | | | | | | | | | |
| Disributed volume | 551.11 | 0 | 551.11 | 49.8 | 0 | 49.8 | | 548.85 | 0 | 548.85 | 49.46 | 0 | 49.46 |
| **Continuity of Supply** | | | | | | | | | | | | | |
| Continuous supply | 551.11 | 0 | 551.11 | 49.8 | 0 | 49.8 | | 548.85 | 0 | 548.85 | 49.46 | 0 | 49.46 |
| 3-4 days per week | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| Once a week | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| Once biweekly | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| Less than biweekly | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| **Water quality** | | | | | | | | | | | | | |
| Disinfected water | 635.85 | 0 | 635.85 | 49.8 | 0 | 49.8 | | 643.34 | 0 | 643.34 | 49.46 | 0 | 49.46 |
| Not disinfected water | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| **Distance to source** | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| **Tariff structure** | | | | | | | | | | | | | |
| Flat | 0 | 0 | 0 | | | | | 0 | 0 | 0 | | | |
| Volumetric | 551.11 | 0 | 551.11 | | | | | 548.85 | 0 | 548.85 | | | |
| Average Tariff (volumetric) | | | | | | | | | | | | | |
| (US $/m3) | 0.63 | 0 | 0.63 | 0.24 | 0 | 0.24 | | 0.63 | 0 | 0.63 | 0.24 | 0 | 0.24 |

(-): Unavailable data

## MDG+ Initiative indictors calculated in Number of People

| Sewerage Network | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Population (x1000)** | **2012 Data** | | | | **2013 Data** | | |
| | **Urban** | **Rural** | **Total** | | **Urban** | **Rural** | **Total** |
| **Conneted People** | 3763.7 | 0 | 3763.7 | | 3844.0 | 0 | 3844.0 |
| | | | | | | | |
| **Treated Wastewater** | 2747 | 0 | 2747 | | - | 0 | - |
| **Treatment type:** | | | | | | | |
| Primary | 0 | 0 | 0 | | 0 | 0 | 0 |
| Secondary | 466.3 | 0 | 466.3 | | - | 0 | - |
| Tertiary | 2280.5 | 0 | 2280.5 | | - | 0 | - |
| **Types of Reuse after Treatment** | | | | | | | |
| Irrigation | 2087.5 | 0 | 2087.5 | | 3844.0 | 0 | 3844.0 |
| Groundwater recharge | 0 | 0 | 0 | | 0 | 0 | 0 |
| Domestic uses | 659.22 | 0 | 659.22 | | 0 | 0 | 0 |
| Direct discharge to watercource or to the sea | 0 | 0 | 0 | | 0 | 0 | 0 |
| Other uses | 0 | 0 | 0 | | 0 | 0 | 0 |
| | | | | | | | |
| **Untreated wastewater** | - | - | - | | - | 0 | - |
| **Untreated wastewater reuse** | | | | | | | |
| Irrigation | - | 0 | - | | - | 0 | - |
| Groundwater recharge | - | 0 | - | | - | 0 | - |
| Domestic uses | - | 0 | - | | - | 0 | - |
| Direct discharge to watercource or to the sea | - | 0 | - | | - | 0 | - |
| Other uses | - | 0 | - | | - | 0 | - |
| **Tariff** | | | | | | | |
| Flat | 0 | 0 | 0 | | 0 | 0 | 0 |
| Volumetric | 3763.7 | 0 | 3763.7 | | 3844.0 | 0 | 3844.0 |
| **Average tariff for one cubic meter:** | | | | | | | |
| US $ | 0.7 | 0 | 0.7 | | 0.7 | 0 | 0.7 |

(-): Unavailable data

## MDG+ Initiative indicators calculated in Million Cubic Meter per Year

| Sewerage Network | | | | | | | |
|---|---|---|---|---|---|---|---|
| MCM per year | 2012 Data | | | | 2013 Data | | |
| | Urban | Rural | Total | | Urban | Rural | Total |
| **Wastewater collected by sewer networks** | - | 0 | - | | - | 0 | - |
| | | | | | | | |
| **Treated Wastewater** | 261.43 | 0 | 261.43 | | 308.28 | 0 | 308.28 |
| **Treatment type:** | | | | | | | |
| Primary | 0 | 0 | 0 | | 0 | 0 | 0 |
| Secondary | 44.38 | 0 | 44.38 | | 57.97 | 0 | 57.97 |
| Tertiary | 217.05 | 0 | 217.05 | | 250.31 | 0 | 250.31 |
| **Types of Reuse after Treatment** | | | | | | | |
| Irrigation | 198.7 | 0 | 198.7 | | 308.28 | 0 | 308.28 |
| Groundwater recharge | 0 | 0 | 0 | | 0 | 0 | 0 |
| Domestic uses | 62.73 | 0 | 62.73 | | 0 | 0 | 0 |
| Direct discharge to watercourse or to the sea | 0 | 0 | 0 | | 0 | 0 | 0 |
| Other uses | 0 | 0 | 0 | | 0 | 0 | 0 |
| | | | | | | | |
| **Untreated wastewater** | - | 0 | - | | - | 0 | - |
| **Untreated wastewater reuse** | | | | | | | |
| Irrigation | - | 0 | - | | - | 0 | - |
| Groundwater recharge | - | 0 | - | | - | 0 | - |
| Domestic uses | - | 0 | - | | - | 0 | - |
| Direct discharge to watercourse or to the sea | - | 0 | - | | - | 0 | - |
| Other uses | - | 0 | - | | - | 0 | - |
| **Tariff** | | | | | | | |
| Flat | 0 | 0 | 0 | | 0 | 0 | 0 |
| Volumetric | - | 0 | - | | - | 0 | - |
| **Average tariff for one cubic meter:** | | | | | | | |
| US $ | 0.7 | 0 | 0.7 | | 0.7 | 0 | 0.7 |

(-): Unavailable data

# LEBANON

The national utilities that have provided data on water supply and sanitation services are:

1. Beirut & Mount Lebanon Water Establishment
2. North Lebanon Water Establishment
3. South Lebanon Water Establishment
4. Bekaa Water Establishment

The data collection was supervised by the national focal point Mr. Yaser Sulaiman. The national monitoring team composed of the following members has participated in collecting data and filling out questionnaire forms:

- Ms. Mervat Kraidya- Ministry of Energy and Water
- Mr. Wassim Omar- South Lebanon Water Establishment
- Ms. Nesreen Abdulla- North Lebanon Water Establishment
- Mr. Elias Al Haj- Beirut and Mount Lebanon Water Establishment
- Ms. Zainab Shahada- Bekaa Water Establishment
- Ms. Paula Al Hawi- Bekaa Water Establishment

## Notice

The data provided by water and sanitation utilities were not disaggregated by urban and rural population, as the entire served population is considered urban.

## MDG+ Initiative indictors calculated in Number of People

| General Data | | | | | | |
|---|---|---|---|---|---|---|
| **Population (x1000)** | **2012 Data** | | | **2013 Data** | | |
| | Urban | Rural | **Total** | **Urban** | **Rural** | **Total** |
| | 4647.1* | 0 | 4647.1* | 4822.0* | 0 | 4822.0* |
| **Percentage (%)** | 100 | 0 | | 100 | 0 | |
| **Annual per capita income (USD):** | | | | | | |

| Water Supply | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Population (x1000)** | **2012 data** | | | | | | | **2013 data** | | | | | |
| | **Supply network** | | | **Standpipe** | | | | **Supply network** | | | **Standpipe** | | |
| | **Urban** | **Rural** | **Total** | **Urban** | **Rural** | **Total** | | **Urban** | **Rural** | **Total** | **Urban** | **Rural** | **Total** |
| | | | | | | | | | | | | | |
| **Connected to piped network** | 3713.9 | 0 | 3713.9 | 0 | 0 | 0 | | 3700.9 | 0 | 3700.9 | 0 | 0 | 0 |
| **Water consumption** | | | | | | | | | | | | | |
| Liter/person/day | 180.5 | 0 | 180.5 | 0 | 0 | 0 | | 187.0 | 0 | 187.0 | 0 | 0 | 0 |
| **Continuity of Supply** | | | | | | | | | | | | | |
| Continuous supply | 1228.1 | 0 | 1228.1 | 0 | 0 | 0 | | 1240.72 | 0 | 1240.72 | 0 | 0 | 0 |
| 3-4 days per week | 2376.1 | 0 | 2376.1 | 0 | 0 | 0 | | 2352.6 | 0 | 2352.6 | 0 | 0 | 0 |
| Once a week | 109.7 | 0 | 109.7 | 0 | 0 | 0 | | 107.6 | 0 | 107.6 | 0 | 0 | 0 |
| Once biweekly | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| Less than biweekly | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| **Water quality** | | | | | | | | | | | | | |
| Disinfected water | 3356.4 | 0 | 3356.4 | 0 | 0 | 0 | | 3361.0 | 0 | 3361.0 | 0 | 0 | 0 |
| Not disinfected water | 357.5 | 0 | 357.5 | 0 | 0 | 0 | | 339.9 | 0 | 339.9 | 0 | 0 | 0 |
| **Distance to source** | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| **Tariff structure** | | | | | | | | | | | | | |
| Flat | 3713.9 | 0 | 3713.9 | | | | | 3700.9 | 0 | 3700.9 | | | |
| Volumetric | 0 | 0 | 0 | | | | | 0 | 0 | 0 | | | |
| **Average Tariff (volumetric)** | | | | | | | | | | | | | |
| (US $/m3) | 11.26 | 0 | 11.26 | 0 | 0 | 0 | | 11.26 | 0 | 11.26 | 0 | 0 | 0 |

(-): Unavailable data

(*): Number of population was based on data of JMP as no census data were available in lebanon. All population were considered urban because the water authorities could not provide segregated data by urban and rural areas.

## MDG+ Initiative indicators calculated in Million Cubic Meter per Year

| Water Supply | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MCM per year | 2012 data | | | | | | | 2013 data | | | | | |
| | Supply network | | | Standpipe | | | | Supply network | | | Standpipe | | |
| | Urban | Rural | Total | Urban | Rural | Total | | Urban | Rural | Total | Urban | Rural | Total |
| | | | | | | | | | | | | | |
| **Produced volume** | 420.00 | 0 | 420.00 | | | | | 427.39 | 0 | 427.39 | | | |
| | | | | | | | | | | | | | |
| Disributed volume | 244.70 | 0 | 244.70 | 0 | 0 | 0 | | 252.59 | 0 | 252.59 | 0 | 0 | 0 |
| **Continuity of Supply** | | | | | | | | | | | | | |
| Continuous supply | 91.59 | 0 | 91.59 | 0 | 0 | 0 | | 94.06 | 0 | 94.06 | 0 | 0 | 0 |
| 3-4 days per week | 147.02 | 0 | 147.02 | 0 | 0 | 0 | | 152.14 | 0 | 152.14 | 0 | 0 | 0 |
| Once a week | 6.10 | 0 | 6.10 | 0 | 0 | 0 | | 6.39 | 0 | 6.39 | 0 | 0 | 0 |
| Once biweekly | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| Less than biweekly | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| **Water quality** | | | | | | | | | | | | | |
| Disinfected water | 366.11 | 0 | 366.11 | 0 | 0 | 0 | | 374.86 | 0 | 374.86 | 0 | 0 | 0 |
| Not disinfected water | 53.89 | 0 | 53.89 | 0 | 0 | 0 | | 52.53 | 0 | 52.53 | 0 | 0 | 0 |
| **Distance to source** | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| **Tariff structure** | | | | | | | | | | | | | |
| Flat | 244.70 | 0 | 244.70 | | | | | 252.59 | 0 | 252.59 | | | |
| Volumetric | 0 | 0 | 0 | | | | | 0 | 0 | 0 | | | |
| Average Tariff (volumetric) | | | | | | | | | | | | | |
| (US $/m3) | 11.26 | 0 | 11.26 | 0 | 0 | 0 | | 11.26 | 0 | 11.26 | 0 | 0 | 0 |

(-): Unavailable data

(*): Number of population was based on data of JMP as no census data were available in lebanon. All population were considered urban because the water authorities could not provide segregated data by urban and rural areas.

## MDG+ Initiative indictors calculated in Number of People

| Sewerage Network | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Population (x1000)** | **2012 Data** | | | | **2013 Data** | | |
| | **Urban** | **Rural** | **Total** | | **Urban** | **Rural** | **Total** |
| **Conneted People** | - | - | - | | - | - | - |
| | | | | | | | |
| **Treated Wastewater** | - | - | - | | - | - | - |
| **Treatment type:** | | | | | | | |
| Primary | - | - | - | | - | - | - |
| Secondary | - | - | - | | - | - | - |
| Tertiary | - | - | - | | - | - | - |
| **Types of Reuse after Treatment** | | | | | | | |
| Irrigation | - | - | - | | - | - | - |
| Groundwater recharge | - | - | - | | - | - | - |
| Domestic uses | - | - | - | | - | - | - |
| Direct discharge to watercource or to the sea | - | - | - | | - | - | - |
| Other uses | - | - | - | | - | - | - |
| | | | | | | | |
| **Untreated wastewater** | - | - | - | | - | - | - |
| **Untreated wastewater reuse** | | | | | | | |
| Irrigation | - | - | - | | - | - | - |
| Groundwater recharge | - | - | - | | - | - | - |
| Domestic uses | - | - | - | | - | - | - |
| Direct discharge to watercource or to the sea | - | - | - | | - | - | - |
| Other uses | - | - | - | | - | - | - |
| **Tariff** | | | | | | | |
| Flat | - | - | - | | - | - | - |
| Volumetric | - | - | - | | - | - | - |
| **Average tariff for one cubic meter:** | | | | | | | |
| US $ | - | - | - | | - | - | - |

(-): Unavailable data

## MDG+ Initiative indicators calculated in Million Cubic Meter per Year

| Sewerage Network | | | | | | | |
|---|---|---|---|---|---|---|---|
| **MCM per year** | **2012 Data** | | | | **2013 Data** | | |
| | **Urban** | **Rural** | **Total** | | **Urban** | **Rural** | **Total** |
| **Wastewater collected by sewer networks** | - | - | - | | - | - | - |
| | | | | | | | |
| **Treated Wastewater** | - | - | - | | - | - | - |
| **Treatment type:** | | | | | | | |
| Primary | - | - | - | | - | - | - |
| Secondary | - | - | - | | - | - | - |
| Tertiary | - | - | - | | - | - | - |
| **Types of Reuse after Treatment** | | | | | | | |
| Irrigation | - | - | - | | - | - | - |
| Groundwater recharge | - | - | - | | - | - | - |
| Domestic uses | - | - | - | | - | - | - |
| Direct discharge to watercource or to the sea | - | - | - | | - | - | - |
| Other uses | - | - | - | | - | - | - |
| | | | | | | | |
| **Untreated wastewater** | - | - | - | | - | - | - |
| **Untreated wastewater reuse** | | | | | | | |
| Irrigation | - | - | - | | - | - | - |
| Groundwater recharge | - | - | - | | - | - | - |
| Domestic uses | - | - | - | | - | - | - |
| Direct discharge to watercource or to the sea | - | - | - | | - | - | - |
| Other uses | - | - | - | | - | - | - |
| **Tariff** | | | | | | | |
| Flat | - | - | - | | - | - | - |
| Volumetric | - | - | - | | - | - | - |
| **Average tariff for one cubic meter:** | | | | | | | |
| US $ | - | - | - | | - | - | - |

(-): Unavailable data

# LIBYA

## LIBYA

The national institution that has provided data on water supply and sanitation services is the General Company for Water and Wastewater.

The data collection was supervised by the national focal point Mr. Abdel Qader A Suis- Ministry of Water Resources, General Commission for Water. The following members of the national monitoring team have participated in data collection and the filling out of questionnaire forms:

- Mr. Ezz Adeen Abu Sreweel- Ministry of Water Resources
- Mr. Ramadan Al Kaloush- General Company for Water and Wastewater
- Mr. Kamal Sulaiman- Statistics and Census Authority Notice

### Notice

The available data on water supply and sanitation services are disaggregated by urban and rural area.

# MDG+ Initiative indictors calculated in Number of People

| General Data | | | | | | |
|---|---|---|---|---|---|---|
| Population (x1000) | 2012 Data | | | | 2013 Data | |
| | Urban | Rural | Total | | Urban | Rural | Total |
| | 5243.5 | 648 | 5891.5 | | | | |
| Percentage (%) | 89 | 11 | | | | | |
| Annual per capita income (USD): | | | | | | | |

| Water Supply | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Population (x1000) | 2012 data | | | | | | | 2013 data | | | | | |
| | Supply network | | | Standpipe | | | | Supply network | | | Standpipe | | |
| | Urban | Rural | Total | Urban | Rural | Total | | Urban | Rural | Total | Urban | Rural | Total |
| | | | | | | | | | | | | | |
| **Connected to piped network** | 3383.1 | 418.1 | 3801.2 | 0 | 0 | 0 | | - | - | - | - | - | - |
| **Water consumption** | | | | | | | | | | | | | |
| Liter/person/day | 292.1 | 250 | 287.5 | 0 | 0 | 0 | | - | - | - | - | - | - |
| **Continuity of Supply** | | | | | | | | | | | | | |
| Continuous supply | 3383.1 | 418.1 | 3801.2 | 0 | 0 | 0 | | - | - | - | - | - | - |
| 3-4 days per week | 0 | 0 | 0 | 0 | 0 | 0 | | - | - | - | - | - | - |
| Once a week | 0 | 0 | 0 | 0 | 0 | 0 | | - | - | - | - | - | - |
| Once biweekly | 0 | 0 | 0 | 0 | 0 | 0 | | - | - | - | - | - | - |
| Less than biweekly | 0 | 0 | 0 | 0 | 0 | 0 | | - | - | - | - | - | - |
| **Water quality** | | | | | | | | | | | | | |
| Disinfected water | 3383.1 | 418.1 | 3801.2 | 0 | 0 | 0 | | - | - | - | - | - | - |
| Not disinfected water | 0 | 0 | 0 | 0 | 0 | 0 | | - | - | - | - | - | - |
| **Distance to source** | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| **Tariff structure** | | | | | | | | | | | | | |
| Flat | 0 | 0 | 0 | | | | | - | - | - | | | |
| Volumetric | 3383.1 | 418.1 | 3801.2 | | | | | - | - | - | | | |
| **Average Tariff (volumetric)** | | | | | | | | | | | | | |
| (US $/m3) | 0.15 | 0.15 | 0.15 | 0 | 0 | 0 | | - | - | - | - | - | - |

(-): Unavailable data

## MDG+ Initiative indicators calculated in Million Cubic Meter per Year

| Water Supply | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MCM per year | 2012 data | | | | | | | 2013 data | | | | | |
| | Supply network | | | Standpipe | | | | Supply network | | | Standpipe | | |
| | Urban | Rural | Total | Urban | Rural | Total | | Urban | Rural | Total | Urban | Rural | Total |
| | | | | | | | | | | | | | |
| **Produced volume** | 554.98 | 58.7 | 613.68 | | | | | - | - | - | | | |
| | | | | | | | | | | | | | |
| Disributed volume | 360.74 | 38.15 | 398.89 | 0 | 0 | 0 | | - | - | - | - | - | - |
| **Continuity of Supply** | | | | | | | | | | | | | |
| Continuous supply | 360.74 | 38.15 | 398.89 | 0 | 0 | 0 | | - | - | - | - | - | - |
| 3-4 days per week | 0 | 0 | 0 | 0 | 0 | 0 | | - | - | - | - | - | - |
| Once a week | 0 | 0 | 0 | 0 | 0 | 0 | | - | - | - | - | - | - |
| Once biweekly | 0 | 0 | 0 | 0 | 0 | 0 | | - | - | - | - | - | - |
| Less than biweekly | 0 | 0 | 0 | 0 | 0 | 0 | | - | - | - | - | - | - |
| **Water quality** | | | | | | | | | | | | | |
| Disinfected water | 554.98 | 58.7 | 613.68 | 0 | 0 | 0 | | - | - | - | - | - | - |
| Not disinfected water | 0 | 0 | 0 | 0 | 0 | 0 | | - | - | - | - | - | - |
| **Distance to source** | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| **Tariff structure** | | | | | | | | | | | | | |
| Flat | 0 | 0 | 0 | | | | | - | - | - | | | |
| Volumetric | 360.74 | 38.15 | 613.68 | | | | | - | - | - | | | |
| Average Tariff (volumetric) | | | | | | | | | | | | | |
| (US $/m3) | 0.15 | 0.15 | 0.15 | 0 | 0 | 0 | | - | - | - | - | - | - |

(-) Unavailable data

## MDG+ Initiative indictors calculated in Number of People

| Sewerage Network | | | | | | | |
|---|---|---|---|---|---|---|---|
| Population | 2012 Data | | | | 2013 Data | | |
| | Urban | Rural | Total | | Urban | Rural | Total |
| **Conneted People** | 2952.6 | 302.9 | 3255.5 | | - | - | - |
| | | | | | | | |
| **Treated Wastewater** | 505.8 | 0 | 505.8 | | - | - | - |
| **Treatment type:** | | | | | | | |
| Primary | 0 | 0 | 0 | | - | - | - |
| Secondary | 505.8 | 0 | 505.8 | | - | - | - |
| Tertiary | 0 | 0 | 0 | | - | - | - |
| **Types of Reuse after Treatment** | | | | | | | |
| Irrigation | 160.8 | 0 | 160.8 | | - | - | - |
| Groundwater recharge | 0 | 0 | 0 | | - | - | - |
| Domestic uses | 0 | 0 | 0 | | - | - | - |
| Direct discharge to watercource or to the sea | 343.9 | 0 | 343.9 | | - | - | - |
| Other uses | 0 | 0 | 0 | | - | - | - |
| | | | | | | | |
| **Untreated wastewater** | 2446.8 | 302.9 | 2749.7 | | - | - | - |
| **Untreated wastewater reuse** | | | | | | | |
| Irrigation | 0 | 0 | 0 | | - | - | - |
| Groundwater recharge | 0 | 0 | 0 | | - | - | - |
| Domestic uses | 0 | 0 | 0 | | - | - | - |
| Direct discharge to watercource or to the sea | 2446.8 | 302.9 | 2749.7 | | - | - | - |
| Other uses | 0 | 0 | 0 | | - | - | - |
| **Tariff** | | | | | | | |
| Flat | 0 | 0 | 0 | | - | - | - |
| Volumetric | 0 | 0 | 0 | | - | - | - |
| **Average tariff for one cubic meter:** | | | | | | | |
| US $ | 0 | 0 | 0 | | - | - | - |

(-): Unavailable data

## MDG+ Initiative indicators calculated in Million Cubic Meter per Year

| Sewerage Network | | | | | | | |
|---|---|---|---|---|---|---|---|
| MCM per year | 2012 Data | | | | 2013 Data | | |
| | Urban | Rural | Total | | Urban | Rural | Total |
| **Wastewater collected by sewer networks** | 267.61 | 23.49 | 291.1 | | - | - | - |
| | | | | | | | |
| **Treated Wastewater** | 45.84 | 0 | 45.84 | | - | - | - |
| **Treatment type:** | | | | | | | |
| Primary | 0 | 0 | 0 | | - | - | - |
| Secondary | 45.84 | 0 | 45.84 | | - | - | - |
| Tertiary | 0 | 0 | 0 | | - | - | - |
| **Types of Reuse after Treatment** | | | | | | | |
| Irrigation | 14.67 | 0 | 14.67 | | - | - | - |
| Groundwater recharge | 0 | 0 | 0 | | - | - | - |
| Domestic uses | 0 | 0 | 0 | | - | - | - |
| Direct discharge to watercourse or to the sea | 31.17 | 0 | 31.17 | | - | - | - |
| Other uses | 0 | 0 | 0 | | - | - | - |
| | | | | | | | |
| **Untreated wastewater** | 221.77 | 23.49 | 245.26 | | - | - | - |
| **Untreated wastewater reuse** | | | | | | | |
| Irrigation | 0 | 0 | 0 | | - | - | - |
| Groundwater recharge | 0 | 0 | 0 | | - | - | - |
| Domestic uses | 0 | 0 | 0 | | - | - | - |
| Direct discharge to watercourse or to the sea | 221.77 | 23.49 | 245.26 | | - | - | - |
| Other uses | 0 | 0 | 0 | | - | - | - |
| | | | | | | | |
| Flat | 0 | 0 | 0 | | - | - | - |
| Volumetric | 0 | 0 | 0 | | - | - | - |
| **Average tariff for one cubic meter:** | | | | | | | |
| US $ | 0 | 0 | 0 | | - | - | - |

(-): Unavailable data

# MAURITANIA

## MAURITANIA

The national institution that has provided data on water supply and sanitation services is the Ministry of Water and Sanitation with its various branches:
1. The National Water Company
2. The National Office for Water Services in Rural Areas (ONSER)
3. The National Office for Sanitation

The data collection was supervised by the national focal point Mr. Mohammad Abdullah Al Talib. The following members of the national monitoring team have participated in data collection and the filling out of questionnaire forms:
- Mr. Mohammad Ould Soueidat
- Mr. Mohammad Yahya Ould Mohammad Abdulla
- Mr. Mohammad Fadhel Al N'emah
- Mr. Ali Mohammad Abdullah - Al Megdad Ould Hahel
- Mr. Mohammad Rabab
- Ms. Um Al Khair Bent Ahmad Al Hasan

### Notice

The data provided by water supply and sanitation authorities were dissaggregated by urban and rural population.

## MAURITANIA

# MDG+ Initiative indictors calculated in Number of People

| General Data | | | | | | |
|---|---|---|---|---|---|---|
| Population (x1000) | 2012 Data | | | | 2013 Data | |
| | Urban | Rural | Total | Urban | Rural | Total |
| | 1,198 | 2,180 | 3,378 | 1,710 | 1,761 | 3,471 |
| Percentage (%) | 35.46% | 64.53% | | 48.3% | 49.8% | |
| Annual per capita income (USD): | | | | | | |

| Water Supply | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Population (x1000) | 2012 Data | | | | | | | 2013 Data | | | | | |
| | Supply network | | | Standpipe | | | | Supply network | | | Standpipe | | |
| | Urban | Rural | Total | Rural | Urban | Total | | Urban | Rural | Total | Urban | Rural | Total |
| | | | | | | | | | | | | | |
| **Connected to piped network** | 599.8 | 313.6 | 913.4 | - | - | - | | 693.7 | - | - | - | - | - |
| **Water consumption** | | | | | | | | | | | | | |
| Liter/person/day | 99.2 | 38.4 | 78.3 | - | - | - | | 94.7 | - | - | - | - | - |
| **Continuity of Supply** | | | | | | | | | | | | | |
| Continuous supply | 599.8 | 313.6 | 913.4 | - | - | - | | 693.7 | - | - | - | - | - |
| 3-4 days per week | - | - | - | - | - | - | | - | - | - | - | - | - |
| Once a week | - | - | - | - | - | - | | - | - | - | - | - | - |
| Once biweekly | - | - | - | - | - | - | | - | - | - | - | - | - |
| Less than biweekly | - | - | - | - | - | - | | - | - | - | - | - | - |
| **Water quality** | | | | | | | | | | | | | |
| Disinfected water | 599.8 | 0 | 599.8 | - | - | - | | 693.7 | - | - | - | - | - |
| Not disinfected water | 0 | 313.6 | 313.6 | - | - | - | | 0 | - | - | - | - | - |
| **Distance to source** | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| **Tariff structure** | | | | | | | | | | | | | |
| Flat | 0 | 0 | 0 | | | | | 0 | - | - | | | |
| Volumetric | 599.8 | 313.6 | 913.4 | | | | | 693.7 | - | - | | | |
| **Average Tariff (volumetric)** | | | | | | | | | | | | | |
| (US $/m3) | 0.3 | - | - | 0.5 | - | - | | 0.3 | - | - | 0.5 | - | - |

(-): Unavailable data

## MDG+ Initiative indicators calculated in Million Cubic Meter per Year

| Water Supply | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MCM per year | 2012 data | | | | | | | 2013 data | | | | | |
| | Supply network | | | Standpipe | | | | Supply network | | | Standpipe | | |
| | Urban | Rural | Total | Rural | Urban | Total | | Urban | Rural | Total | Urban | Rural | Total |
| | | | | | | | | | | | | | |
| **Produced volume** | 45.12 | 5.26 | 50.38 | | | | | 46.57 | - | - | | | |
| | | | | | | | | | | | | | |
| Disributed volume | 35.54 | 4.42 | 39.96 | 2.81 | 0.05 | 2.86 | | 36.55 | - | - | 3.04 | - | - |
| **Continuity of Supply** | | | | | | | | | | | | | |
| Continuous supply | 35.54 | 4.42 | 39.96 | 2.81 | 0.05 | 2.86 | | 36.55 | - | - | 3.04 | - | - |
| 3-4 days per week | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | - | - | 0 | - | - |
| Once a week | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | - | - | 0 | - | - |
| Once biweekly | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | - | - | 0 | - | - |
| Less than biweekly | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | - | - | 0 | - | - |
| **Water quality** | | | | | | | | | | | | | |
| Disinfected water | 45.12 | 0 | 45.12 | 0 | - | - | | 46.57 | - | - | 0 | - | - |
| Not disinfected water | 0 | 5.26 | 5.26 | - | - | - | | 0 | - | - | 0 | - | - |
| **Distance to source** | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| **Tariff structure** | | | | | | | | | | | | | |
| Flat | 0 | 0 | - | | | | | 0 | - | - | | | |
| Volumetric | 21.72 | 4.40 | 26.12 | | | | | 23.98 | - | - | | | |
| Average Tariff (volumetric) | | | | | | | | | | | | | |
| (US $/m3) | 0.3 | - | - | 0.5 | - | - | | 0.3 | - | - | 0.5 | - | - |

(-) Unavailable data

## MDG+ Initiative indictors calculated in Number of People

| Sewerage Network | | | | | | | |
|---|---|---|---|---|---|---|---|
| Population (x 1000) | 2012 Data | | | | 2013 Data | | |
| | Urban | Rural | Total | | Urban | Rural | Total |
| **Conneted People** | 11.5 | - | - | | 11.5 | - | - |
| | | | | | | | |
| **Treated Wastewater** | 11.5 | - | - | | 11.5 | - | - |
| **Treatment type:** | | | | | | | |
| Primary | 0 | - | - | | 0 | - | - |
| Secondary | 11.5 | - | - | | 11.5 | - | - |
| Tertiary | 0 | - | - | | 0 | - | - |
| **Types of Reuse after Treatment** | | | | | | | |
| Irrigation | 1.2 | - | - | | 1.2 | - | - |
| Groundwater recharge | 0 | - | - | | 0 | - | - |
| Domestic uses | 0 | - | - | | 0 | - | - |
| Direct discharge to watercourse or to the sea | 9.2 | - | - | | 9.2 | - | - |
| Other uses | 1.2 | - | - | | 1.2 | - | - |
| | | | | | | | |
| **Untreated wastewater** | 0 | - | - | | 0 | - | - |
| | | | | | | | |
| Irrigation | 0 | - | - | | 0 | - | - |
| Groundwater recharge | 0 | - | - | | 0 | - | - |
| Domestic uses | 0 | - | - | | 0 | - | - |
| Direct discharge to watercourse or to the sea | 0 | - | - | | 0 | - | - |
| Other uses | 0 | - | - | | 0 | - | - |
| **Tariff** | | | | | | | |
| Flat | 0 | - | - | | 0 | - | - |
| Volumetric | 11.5 | - | - | | 11.5 | - | - |
| **Average tariff for one cubic meter:** | | | | | | | |
| US $ | 0.05 | - | 0.05 | | 0.05 | - | 0.05 |

(-): Unavailable data

## MDG+ Initiative indicators calculated in Million Cubic Meter per Year

| Sewerage Network | | | | | | | |
|---|---|---|---|---|---|---|---|
| MCM per year | 2012 Data | | | | 2013 Data | | |
| | Urban | Rural | Total | | Urban | Rural | Total |
| **Wastewater collected by sewer networks** | 0.65 | - | - | | 0.65 | - | - |
| | | | | | | | |
| **Treated Wastewater** | 0.65 | - | - | | 0.65 | - | - |
| **Treatment type:** | | | | | | | |
| Primary | 0 | - | - | | 0 | - | - |
| Secondary | 0.65 | - | - | | 0.65 | - | - |
| Tertiary | 0 | - | - | | 0 | - | - |
| **Types of Reuse after Treatment** | | | | | | | |
| Irrigation | 0.06 | - | - | | 0.06 | - | - |
| Groundwater recharge | 0 | - | - | | 0 | - | - |
| Domestic uses | 0 | - | - | | 0 | - | - |
| Direct discharge to watercourse or to the sea | 0.52 | - | - | | 0.52 | - | - |
| Other uses | 0.06 | - | - | | 0.62 | - | - |
| | | | | | | | |
| **Untreated wastewater** | 0 | 0 | 0 | | 0 | 0 | 0 |
| **Untreated wastewater reuse** | | | | | | | |
| Irrigation | 0 | - | - | | 0 | - | - |
| Groundwater recharge | 0 | - | - | | 0 | - | - |
| Domestic uses | 0 | - | - | | 0 | - | - |
| Direct discharge to watercourse or to the sea | 0 | - | - | | 0 | - | - |
| Other uses | 0 | - | - | | 0 | - | - |
| **Tariff** | | | | | | | |
| Flat | 0 | - | - | | 0 | - | - |
| Volumetric | 0.65 | - | - | | 0.65 | - | - |
| **Average tariff for one cubic meter:** | | | | | | | |
| US $ | 0.05 | - | 0.05 | | 0.05 | - | 0.05 |

(-): Unavailable data

# MOROCCO

The national utilities that have provided data on water supply and sanitation services are:

1. Omandes (Tangier)
2. Omandes (Tetouan)
3. Independent agency for the distribution of water and electricity in Fez
4. Independent agency for the distribution of water and electricity in Fez (Sefrou)
5. Independent agency for the distribution of water and electricity, Fez (Bhalal)
6. Independent agency for the distribution of water and electricity, Marrakech
7. Independent agency for the distribution of water and electricity, Meknes
8. Independent agency for the distribution of water and electricity Quneitra
9. Independent agency for the distribution of water and electricity, Queitra (Moulay Bousselham)
10. Independent agency for the distribution of water and electricity, Asfi
11. Independent agency for the distribution of water and electricity, Asafi (Sebtjazola)
12. Independent agency for the distribution of water and electricity. Jadeeda and Seedibanour
13. Independent agency for the distribution of water and electricity, Jadeeda and Seedibanour (Azmour)
14. Independent agency for the distribution of water and electricity, Jadeeda and Seedibanour (Al Beir Al Jadeed)
15. Independent agency for the distribution of water and electricity, Jadeeda and Seedibanour (Welad Faraj)
16. Independent agency for the distribution of water and electricity, Jadeeda and Seedibanour (Ethnein Shtouka)
17. Independent agency for the distribution of water and electricity, Jadeeda and Seedibanour (Welad Ghanim)
18. Independent agency for the distribution of water and electricity, Jadeeda and Seedibanour (Seedi Ismail)
19. Independent agency for the distribution of water and electricity, Jadeeda and Seedibanour (Al Waldiya)
20. Independent agency for the distribution of water and electricity, Jadeeda and Seedibanour (Ethnein Gharbiya)
21. Independent agency for the distribution of water and electricity, Al Araesh and Qaser Al Kabeer (Al Awamreh and Sahel)
22. Independent agency for the distribution of water and electricity, Tadleh (Awlad Yaeesh)
23. Independent agency for the distribution of water and electricity, Tadleh (Awlad Mubarak and Famawdi)
24. Independent agency for the distribution of water and electricity, Shawiya (Al Doura)

25. Independent agency for the distribution of water and electricity, Shawiya (Had A Sawalim)
26. Independent agency for the distribution of water and electricity, Shawiya, Awalad Saeed)
27. Independent agency for the distribution of water and electricity, Shawiya (Awlad marah)
28. Independent agency for the distribution of water and electricity, Shawiya (Thulatha Al Awlad)
29. Independent agency for the distribution of water and electricity, Shawiya (Ras Al Ein)
30. Independent agency for the distribution of water and electricity, Shawiya (Seedi Rahal)
31. Independent agency for the distribution of water and electricity, Shawiya (Seedi Al Eidi)
32. Independent agency for the distribution of water and electricity, Shawiya (Al Keeser)
33. Leedeek – Casablanca
34. Reedhal - Rabat
35. Independent agency for the distribution of water and electricity in Meknes (Aatolal, Adekhaseh, Haj Kaddour, Sidi Sulaiman, Mulal Keifan, Majjat, Umm al-Sultan Al Khalit, Tamesna and Warzagha)
36. All centers affiliated to the National Office of Drinking Water and Electricity.

The data collection was supervised by the national focal point Mr. Rasheed Madah, Senior engineer, Head of drinking water supply and sanitation at the delegated and mandated ministry for water. The following members of the national monitoring team have participated in data collection and the filling out of questionnaire forms:

- Mr.Ibrahim Mazeeh – National Office for Electricity and Drinking Water
- Mr. Ezz Deen Al Dawadi – Directorate of Agencies and Concessionaries at the Ministry of Interior
- Mr. Mustafa Abdali – High Commission of Planning Notice

## Notice

The available data on water supply and sanitation are dissagregated by urban and rural areas.

# MDG+ Initiative indictors calculated in Number of People

| General Data | | | | | | |
|---|---|---|---|---|---|---|
| Population (x1000) | 2012 Data | | | | 2013 Data | |
| | Urban | Rural | Total | Urban | Rural | Total |
| | - | - | - | 19513 | 13437 | 32950 |
| Percentage (%) | - | - | | 59.22 | 40.78 | |
| Annual per capita income (USD): | | | | | | |

| Water Supply | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Population (x1000) | 2012 data | | | | | | | 2013 data | | | | | | |
| | Supply network | | | Standpipe | | | | Supply network | | | Standpipe | | | |
| | Urban | Rural | Total | Urban | Rural | Total | | Urban | Rural | Total | Urban | Rural | Total | |
| | | | | | | | | | | | | | | |
| Connected to piped network | - | - | - | - | - | - | | 20660.8 | 1553.3 | 22214.1 | - | - | - | |
| Water consumption | | | | | | | | | | | | | | |
| Liter/person/day | - | - | - | - | - | - | | 105.5 | 68.2 | 90.28 | - | - | - | |
| Continuity of Supply | | | | | | | | | | | | | | |
| - | - | - | - | - | - | - | | 20660.8 | 1553.3 | 22214.1 | - | - | - | |
| - | - | - | - | - | - | - | | 0 | 0 | 0 | 0 | 0 | 0 | |
| - | - | - | - | - | - | - | | 0 | 0 | 0 | 0 | 0 | 0 | |
| - | - | - | - | - | - | - | | 0 | 0 | 0 | 0 | 0 | 0 | |
| - | - | - | - | - | - | - | | 0 | 0 | 0 | 0 | 0 | 0 | |
| Water quality | | | | | | | | | | | | | | |
| Disinfected water | - | - | - | - | - | - | | 20660.8 | 1553.3 | 22214.1 | - | - | - | |
| Not disinfected water | - | - | - | - | - | - | | 0 | 0 | 0 | 0 | 0 | 0 | |
| Distance to source | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| Tariff structure | | | | | | | | | | | | | | |
| Flat | - | - | - | | | | | 0 | 0 | 0 | | | | |
| Volumetric | - | - | - | | | | | 20660.8 | 1553.3 | 22214.1 | | | | |
| Average Tariff (volumetric) | | | | | | | | | | | | | | |
| (US $/m3) | - | - | - | - | - | - | | 0.77 | 0.86 | 0.81 | 1.00 | .049 | .079 | |

(-): Unavailable data

## MDG+ Initiative indicators calculated in Million Cubic Meter per Year

| Water Supply | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MCM per year | 2012 data | | | | | | | 2013 data | | | | | |
| | Supply network | | | Standpipe | | | | Supply network | | | Standpipe | | |
| | Urban | Rural | Total | Rural | Urban | Total | | Urban | Rural | Total | Urban | Rural | Total |
| | | | | | | | | | | | | | |
| **Produced volume** | - | - | - | | | | | 1039.52 | 90.16 | 1129.68 | | | |
| | | | | | | | | | | | | | |
| Disributed volume | - | - | - | - | - | - | | 795.95 | 38.69 | 834.64 | 22.80 | 7.58 | 30.38 |
| **Continuity of Supply** | | | | | | | | | | | | | |
| Continuous supply | - | - | - | - | - | - | | 795.95 | 38.69 | 834.64 | 22.80 | 7.58 | 30.38 |
| 3-4 days per week | - | - | - | - | - | - | | 0 | 0 | 0 | 0 | 0 | 0 |
| Once a week | - | - | - | - | - | - | | 0 | 0 | 0 | 0 | 0 | 0 |
| Once biweekly | - | - | - | - | - | - | | 0 | 0 | 0 | 0 | 0 | 0 |
| Less than biweekly | - | - | - | - | - | - | | 0 | 0 | 0 | 0 | 0 | 0 |
| **Water quality** | | | | | | | | | | | | | |
| Disinfected water | - | - | - | - | - | - | | 1039.52 | 90.16 | 1129.68 | 22.80 | 7.58 | 30.38 |
| Not disinfected water | - | - | - | - | - | - | | 0 | 0 | 0 | 0 | 0 | 0 |
| **Distance to source** | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| **Tariff structure** | | | | | | | | | | | | | |
| Flat | - | - | - | | | | | 0 | 0 | 0 | | | |
| Volumetric | - | - | - | | | | | 197.43 | 38.69 | 197.43 | | | |
| Average Tariff (volumetric) | | | | | | | | | | | | | |
| (US $/m3) | - | - | - | - | - | - | | 0.77 | 0.86 | 0.81 | 1.00 | 0.49 | 0.79 |

(-) Unavailable data

## MDG+ Initiative indictors calculated in Number of People

| Sewerage Network | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Population** | **2012 Data** | | | | **2013 Data** | | |
| | **Urban** | **Rural** | **Total** | | **Urban** | **Rural** | **Total** |
| **Conneted People** | - | - | - | | 17200.6 | 173.3 | 17373.9 |
| | | | | | | | |
| **Treated Wastewater** | **-** | **-** | **-** | | 16109.0 | 30.4 | 16139.4 |
| **Treatment type:** | | | | | | | |
| Primary | - | - | - | | 8783.9 | 27.5 | 8811.4 |
| Secondary | - | - | - | | 4218.0 | 0 | 4218.0 |
| Tertiary | - | - | - | | 3107.1 | 2.9 | 3110 |
| **Types of Reuse after Treatment** | | | | | | | |
| Irrigation | - | - | - | | 55.1 | 27.5 | 82.6 |
| Groundwater recharge | - | - | - | | - | 0 | 19.8 |
| Domestic uses | - | - | - | | 0 | 0 | 0 |
| Direct discharge to watercource or to the sea | - | - | - | | 14518.9 | 2.9 | 14521.8 |
| Other uses | - | - | - | | 850.7 | 0 | 850.7 |
| | | | | | | | |
| **Untreated wastewater** | - | - | - | | - | - | - |
| **Untreated wastewater reuse** | | | | | | | |
| Irrigation | - | - | - | | - | - | - |
| Groundwater recharge | - | - | - | | - | - | - |
| Domestic uses | - | - | - | | - | - | - |
| Direct discharge to watercource or to the sea | - | - | - | | - | - | - |
| Other uses | - | - | - | | - | - | - |
| **Tariff** | | | | | | | |
| Flat | - | - | - | | - | - | - |
| Volumetric | - | - | - | | - | - | - |
| **Average tariff for one cubic meter:** | | | | | | | |
| US $ | - | - | - | | 0.26 | 0.2 | 0.23 |

(-): Unavailable data

## MDG+ Initiative indicators calculated in Million Cubic Meter per Year

| Sewerage Network | | | | | | | |
|---|---|---|---|---|---|---|---|
| MCM per year | 2012 Data | | | | 2013 Data | | |
| | Urban | Rural | Total | | Urban | Rural | Total |
| **Wastewater collected by sewer networks** | - | - | - | | 143.57 | 0.61 | 144.18 |
| | | | | | | | |
| **Treated Wastewater** | - | - | - | | 44.36 | 0.06 | 44.42 |
| **Treatment type:** | | | | | | | |
| Primary | - | - | - | | 38.18 | - | 38.18 |
| Secondary | - | - | - | | 0.14 | 0 | 0.14 |
| Tertiary | - | - | - | | 6.04 | 0.06 | 6.1 |
| **Types of Reuse after Treatment** | | | | | | | |
| Irrigation | - | - | - | | - | - | - |
| Groundwater recharge | | | | | - | - | - |
| Domestic uses | - | - | - | | - | - | - |
| Direct discharge to watercource or to the sea | - | - | - | | - | - | - |
| Other uses | - | - | - | | - | - | - |
| | | | | | | | |
| **Untreated wastewater** | - | - | - | | 99.22 | 0.55 | 99.77 |
| **Untreated wastewater reuse** | | | | | | | |
| Irrigation | - | - | - | | - | - | - |
| Groundwater recharge | - | - | - | | - | - | - |
| Domestic uses | - | - | - | | - | - | - |
| Direct discharge to watercource or to the sea | - | - | - | | - | - | - |
| Other uses | - | - | - | | - | - | - |
| **Tariff** | | | | | | | |
| Flat | - | - | - | | 0 | 0 | 0 |
| Volumetric | - | - | - | | 143.57 | 0.61 | 144.18 |
| **Average tariff for one cubic meter:** | | | | | | | |
| US $ | - | - | - | | 0.26 | 0.2 | 2.30 |

(-): Unavailable data

# OMAN

## OMAN

The national utilities that have provided data on water supply and sanitation services are:

1. Ministry of Regional Municipalities and Water Resources
2. Minister of State Office and Dhafar Governor
3. Public Authority of Water and Electricity- Al Bateneh
4. Public Authority of Water and Electricity- Muskat
5. Sahar Municipality
6. Public Authority of Water and Electricity- Al Dhahera
7. Public Authority of Water and Electricity- Al Braimi
8. Public Authority of Water and Electricity- Al Sharqiya (East)
9. Public Authority of Water and Electricity- Al Wosta (Center)
10. Public Authority of Water and Electricity- Al Dakhila (Interior)
11. Public Authority of Water and Electricity- Masandum
12. Dhafar Municipality
13. Haya Company for Water
14. Salala Company for Sanitation Services

The data collection was supervised by the national focal point Dr. Abdul Azeez Bin Ali Al Masheekhi. The following members of the national monitoring team have participated in data collection and the filling out of questionnaire forms

- Dr. Eng. Kassim Al Jabri
- Eng. Yakoob Bin Sanad Al Hatmi

### Notice

The data provided by water and sanitation utilities were not disaggregated by urban and rural population, as the entire served population is considered urban.

## OMAN

### MDG+ Initiative indictors calculated in Number of People

| General Data | | | | | | |
|---|---|---|---|---|---|---|
| Population (x1000) | 2012 Data | | | | 2013 Data | |
| | Urban | Rural | Total | Urban | Rural | Total |
| | 3623 | 0 | 3623 | 3870 | 0 | 3870 |
| Percentage (%) | 100 | 0 | | 100 | 0 | |
| Annual per capita income (USD): | | | | | | |

| Water Supply | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Population (x1000) | 2012 Data | | | | | | | 2013 Data | | | | | |
| | Supply network | | | Standpipe | | | | Supply network | | | Standpipe | | |
| | Urban | Rural | Total | Urban | Rural | Total | | Urban | Rural | Total | Urban | Rural | Total |
| | | | | | | | | | | | | | |
| **Connected to piped network** | 2599.9 | 0 | 2599.9 | 386.7(*) | 0 | 386.7(*) | | 3120.1 | 0 | 3120.1 | 386.7(*) | 0 | 386.7(*) |
| **Water consumption** | | | | | | | | | | | | | |
| Liter/person/day | 169 | 0 | 169 | 198.8 (*) | 0 | 198.8 (*) | | 152 | 0 | 152 | 198.8 | 0 | 198.8(*) |
| **Continuity of Supply** | | | | | | | | | | | | | |
| Continuous supply | 2599.9 | 0 | 2599.9 | 386.7(*) | 0 | 386.7(*) | | 3120.1 | 0 | 3120.1 | 386.7(*) | 0 | 386.7(*) |
| 3-4 days per week | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| Once a week | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| Once biweekly | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| Less than biweekly | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| **Water quality** | | | | | | | | | | | | | |
| Disinfected water | 2599.9 | 0 | 2599.9 | 386.7(*) | 0 | 386.7(*) | | 3120.1 | 0 | 3120.1 | 386.7(*) | 0 | 386.7(*) |
| Not disinfected water | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| **Distance to source** | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| **Tariff structure** | | | | | | | | | | | | | |
| Flat | 0 | 0 | 0 | | | | | 0 | 0 | 0 | | | |
| 2599.9 | 2599.9 | 0 | 2599.9 | | | | | 3120.1 | 0 | 3120.1 | | | |
| **Average Tariff (volumetric)** | | | | | | | | | | | | | |
| (US $/m3) | 1.9 | 0 | 1.9 | 0.65 | 0 | 0.65 | | 1.9 | 0 | 1.9 | 0.65 | 0 | 0.65 |

(*) Calculation of standpipe figures were based on data available with JMP, these are not provided by the national water authorities.

## MDG+ Initiative indicators calculated in Million Cubic Meter per Year

| Water Supply | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MCM per year | 2012 Data | | | | | | | 2013 Data | | | | | |
| | Supply network | | | Standpipe | | | | Supply network | | | Standpipe | | |
| | Urban | Rural | Total | Urban | Rural | Total | | Urban | Rural | Total | Urban | Rural | Total |
| | | | | | | | | | | | | | |
| **Produced volume** | 283.85 | 0 | 283.85 | | | | | 308.9 | 0 | 308.9 | | | |
| | | | | | | | | | | | | | |
| Disributed volume | 160.45 | 0 | 160.45 | 28.1 | 0 | 28.1 | | 173.2 | 0 | 173.2 | 31.3 | 0 | 31.3 |
| **Continuity of Supply** | | | | | | | | | | | | | |
| Continuous supply | 160.45 | 0 | 160.45 | 28.1 | 0 | 28.1 | | 173.2 | 0 | 173.2 | 31.3 | 0 | 31.3 |
| 3-4 days per week | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| Once a week | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| Once biweekly | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| Less than biweekly | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| **Water quality** | | | | | | | | | | | | | |
| Disinfected water | 283.85 | 0 | 283.85 | 28.1 | 0 | 28.1 | | 308.9 | 0 | 308.9 | 31.3 | 0 | 31.3 |
| Not disinfected water | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| **Distance to source** | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| **Tariff structure** | | | | | | | | | | | | | |
| Flat | 0 | 0 | 0 | | | | | 0 | 0 | 0 | | | |
| Volumetric | 160.45 | 0 | 160.45 | | | | | 173.2 | 0 | 173.2 | | | |
| Average Tariff (volumetric) | | | | | | | | | | | | | |
| (US $/m3) | 1.9 | 0 | 1.9 | 0.65 | 0 | 0.65 | | 1.9 | 0 | 1.9 | 0.65 | 0 | 0.65 |

(-) Unavailable data

## MDG+ Initiative indictors calculated in Number of People

| Sewerage Network | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Population (x1000)** | **2012 Data** | | | | **2013 Data** | | |
| | **Urban** | **Rural** | **Total** | | **Urban** | **Rural** | **Total** |
| **Conneted People** | 554.7 | 0 | 554.7 | | 772.25 | 0 | 772.25 |
| | | | | | | | |
| **Treated Wastewater** | 554.7 | 0 | 554.7 | | 772.25 | 0 | 772.25 |
| **Treatment type:** | | | | | | | |
| Primary | 0 | 0 | 0 | | 0 | 0 | 0 |
| Secondary | 0 | 0 | 0 | | 0 | 0 | 0 |
| Tertiary | 554.7 | 0 | 554.7 | | 772.25 | 0 | 772.25 |
| **Types of Reuse after Treatment** | | | | | | | |
| Irrigation | 481.3 | 0 | 481.3 | | 481.86 | 0 | 481.86 |
| Groundwater recharge | 53.6 | 0 | 53.6 | | 89.26 | 0 | 89.26 |
| Domestic uses | 0 | 0 | 0 | | 0 | 0 | 0 |
| Direct discharge to watercourse or to the sea | 0 | 0 | 0 | | 179.42 | 0 | 179.42 |
| Other uses | 19.8 | 0 | 19.8 | | 21.71 | 0 | 21.71 |
| | | | | | | | |
| **Untreated wastewater** | 0 | 0 | 0 | | 0 | 0 | 0 |
| **Untreated wastewater reuse** | | | | | | | |
| Irrigation | 0 | 0 | 0 | | 0 | 0 | 0 |
| Groundwater recharge | 0 | 0 | 0 | | 0 | 0 | 0 |
| Domestic uses | 0 | 0 | 0 | | 0 | 0 | 0 |
| Direct discharge to watercourse or to the sea | 0 | 0 | 0 | | 0 | 0 | 0 |
| Other uses | 0 | 0 | 0 | | 0 | 0 | 0 |
| **Tariff** | | | | | | | |
| Flat | 0 | 0 | 0 | | 0 | 0 | 0 |
| Volumetric | 554.7 | 0 | 554.7 | | 772.25 | 0 | 772.25 |
| **Average tariff for one cubic meter:** | | | | | | | |
| US $ | 0.64 | 0 | 0.64 | | 0.64 | 0 | 0.64 |

**(-): Unavailable data**

## MDG+ Initiative indicators calculated in Million Cubic Meter per Year

| Sewerage Network | | | | | | | |
|---|---|---|---|---|---|---|---|
| MCM per year | 2012 Data | | | | 2013 Data | | |
| | Urban | Rural | Total | | Urban | Rural | Total |
| **Wastewater collected by sewer networks** | 23.22 | 0 | 23.22 | | 26.2 | 0 | 26.2 |
| | | | | | | | |
| **Treated Wastewater** | 23.22 | 0 | 23.22 | | 26.2 | 0 | 26.2 |
| **Treatment type:** | | | | | | | |
| Primary | 0 | 0 | 0 | | 0 | 0 | 0 |
| Secondary | 0 | 0 | 0 | | 0 | 0 | 0 |
| Tertiary | 23.22 | 0 | 23.22 | | 26.2 | 0 | 26.2 |
| **Types of Reuse after Treatment** | | | | | | | |
| Irrigation | 20 | 0 | 20 | | 18.5 | 0 | 18.5 |
| Groundwater recharge | 2.35 | 0 | 2.35 | | 1.5 | 0 | 1.5 |
| Domestic uses | 0 | 0 | 0 | | 0 | 0 | 0 |
| Direct discharge to watercource or to the sea | 0 | 0 | 0 | | 5.8 | 0 | 5.8 |
| Other uses | 0.87 | 0 | 0.87 | | 0.4 | 0 | 0.4 |
| | | | | | | | |
| **Untreated wastewater** | 0 | 0 | 0 | | 0 | 0 | 0 |
| **Untreated wastewater reuse** | | | | | | | |
| Irrigation | 0 | 0 | 0 | | 0 | 0 | 0 |
| Groundwater recharge | 0 | 0 | 0 | | 0 | 0 | 0 |
| Domestic uses | 0 | 0 | 0 | | 0 | 0 | 0 |
| Direct discharge to watercource or to the sea | 0 | 0 | 0 | | 0 | 0 | 0 |
| Other uses | 0 | 0 | 0 | | 0 | 0 | 0 |
| **Tariff** | | | | | | | |
| Flat | 0 | 0 | 0 | | 0 | 0 | 0 |
| Volumetric | 23.22 | 0 | 23.22 | | 26.2 | 0 | 26.2 |
| **Average tariff for one cubic meter:** | | | | | | | |
| US $ | 0.64 | 0 | 0.64 | | 0.64 | 0 | 0.64 |

(-): Unavailable data

# PALESTINE

## PALESTINE

The national authorities that have provided data on water supply and sanitation are 82 water utilities , municipalities and village councils:

1. Qabatiya
2. Kafr Ra'ee municipality
3. Ya'bad
4. Zababda
5. Jenin
6. Selat Daher Municipality
7. Berkin
8. Arraba
9. Leqia Municipality
10. Betsira village Council
11. Kafr Dan, Yamoun, Silat Harithiya, Tadak, Zububa, Taiba, Romana, Aneen, Arqa, Al Hashemiya
12. Tubas
13. Zita
14. Ramin Village Council
15. Beit Leed Municipality
16. Pharao
17. Bala'a
18. Kafriyat (Kafersour, Kafergammal, Kore, Kafer Zibad, Kafer Abbosh)
19. Ektaba Village Council
20. Kaferallibad Municipality (Kaferallibad, Alhvasi, Ezbet Abokhmaish, Ezbet Al Khallal)
21. Anabta Municipality (Anabta, Ramin, Kafer Rumman)
22. Deir Ghosoun
23. Ateel
24. Qafeen
25. Tulkarem
26. Howara Municipality
27. Nablus municipality (city of Nablus, Balata and Askar old and new camps and Ein Beit Ilma, Zawata, Aljunied, Deir Sharaf, Kafer Qaleel, Al Bathan, Tallouza, North Asira, Bor)
28. Beita Municipality
29. Burqa
30. Sabestia Municipality
31. Qabalan
32. Nablus
33. Beit Furik
34. Jammai'n
35. Habla Municipality
36. Kafer Thulth Municipality
37. Azzun Municipality (Jaiyous, Seer, Azzun)
38. Jaiyous
39. Qalqilya
40. Ne'leen
41. Kifl Haris
42. Qarawat Bani Hassan Municipality
43. A Zawiya Municipality
44. Bedia
45. Deir Istia Municipality
46. Salfit
47. Municipality of Deir Ballut
48. Al Auja
49. A Sawahara
50. Jericho
51. Abu Dis
52. Al Eizariya
53. Ramallah
54. Beitunia
55. Beit Anan
56. Village Council West Jerusalem (Beit Duqqu, Beit Ijza, Beit Exa, Khirbet Umm el-Fahm, Alaqbebh, Beit Surik)
57. Bido Municipality
58. Qanata
59. Anata
60. Birzeit
61. West Bani Zaid Municipality (Beit Rima, Dirgasanh, Kefer Aein, Qarawat Bani Zeid, Nabi Saleh)
62. Beit Fajar
63. Bethlehem
64. Obaiydia
65. Samu
66. Yatta
67. Zaheria
68. Hebron
69. Halhul
70. Sier Municipality (Kowaziba, Arkantra, Dwara Adasia, Ras Taweel, Beit Ainun)
71. Sheyoukh
72. Bani Na'eim
73. Tafouh
74. Sourif
75. Khhara
76. Doura
77. Beit Oula
78. Tarqumyian
79. Ethna
80. Coastal Municipalities Water Authority

## PALESTINE

The data collection was supervised by the national focal point Mr. Adel Yaseen- Palestinian Water Authority. The following members of the national monitoring team have participated in data collection and the filling out of questionnaire forms:

- Mr. Zahran Khlaif- Palestinian Central Statics Office
- Mr. Ashraf Dweikat- Palestinian Water Authority

### Notice

The available data are disaggregated by urban and rural areas.

## PALESTINE

### MDG+ Initiative indictors calculated in Number of People

| General Data | | | | | | |
|---|---|---|---|---|---|---|
| Population (x1000) | 2012 Data | | | 2013 Data | | |
| | Urban | Rural | Total | Urban | Rural | Total |
| | 3577 | 722 | 4299 | 3682.3 | 738.2 | 4420.5 |
| Percentage (%) | 83.2 | 16.8 | | 83.3 | 16.7 | |
| Annual per capita income (US $/m3): | | | | | | |

| Water Supply | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Population (x1000) | 2012 data | | | | | | | 2013 data | | | | | |
| | Supply network | | | Standpipe | | | | Supply network | | | Standpipe | | |
| | Urbar | Rural | Total | Urban | Rural | Total | | Urban | Rural | Total | Urban | Rural | Total |
| | | | | | | | | | | | | | |
| **Connected to piped network** | 3210 | 320 | 3530 | 37.7 | 7.51 | 45.21 | | 3719.9 | 320 | 4039.9 | 37.7 | 7.51 | 45.21 |
| **Water consumption** | | | | | | | | | | | | | |
| Liter/person/day | 82 | 52 | 79 | 119 | 187 | 130 | | 48.2 | 111.3 | 58.7 | 115.7 | 187.5 | 127.7 |
| **Continuity of Supply** | | | | | | | | | | | | | |
| Continuous supply | 501.7 | 118.6 | 620.35 | 15.34 | 5.83 | 21.17 | | 691.6 | 239.5 | 931.1 | 19.47 | 6.43 | 25.9 |
| 3-4 days per week | 2326.2 | 201.4 | 2527.6 | 13.74 | 1.68 | 15.42 | | 2573.1 | 37.7 | 2610.8 | 8.06 | 0.4 | 8.46 |
| Once a week | 233 | 0 | 233 | 4.71 | 0 | 4.71 | | 128.5 | 21.4 | 149.9 | 3.74 | 0.35 | 4.09 |
| Once biweekly | 10 | 0 | 10 | 0.69 | 0 | 0.69 | | 212.2 | 21.4 | 233.6 | 4.09 | 0.34 | 4.43 |
| Less than biweekly | 0 | 0 | 0 | 0 | 0 | 0 | | 114.5 | 0.0 | 114.5 | 2.34 | 0 | 2.34 |
| **Water quality** | | | | | | | | | | | | | |
| Disinfected water | 2897.2 | 320 | 3217.2 | 27.53 | 7.31 | 34.84 | | 1985.7 | 317.3 | 2303 | 27.27 | 7.31 | 34.58 |
| Not disinfected water | 312.79 | 0 | 312.79 | 10.17 | 0.2 | 10.37 | | 1734.2 | 2.7 | 1736.9 | 10.43 | 0.2 | 10.63 |
| **Distance to source** | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| **Tariff structure** | | | | | | | | | | | | | |
| Flat | 142 | 36 | 178 | | | | | 1581.5 | 36 | 1617.5 | | | |
| Volumetric | 3068 | 284 | 3352 | | | | | 2138.4 | 284 | 2422.4 | | | |
| **Average Tariff (volumetric)** | | | | | | | | | | | | | |
| (US $/m3) | 0.63 | 1.18 | 0.68 | 1.7 | 1.3 | 1.6 | | 0.8 | 1.18 | 0.86 | 1.7 | 1.13 | 1.6 |

(-): Unavailable data

## MDG+ Initiative indicators calculated in Million Cubic Meter per Year

| Water Supply | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MCM per year | 2012 data | | | | | | | 2013 data | | | | | |
| | Supply network | | | Standpipe | | | | Supply Network | | | Standpipe | | |
| | Urban | Rural | Total | Urban | Rural | Total | | Urban | Rural | Total | Urban | Rural | Total |
| **Produced volume** | 172 | 11.53 | 183.53 | | | | | 104.22 | 20.89 | 125.11 | | | |
| **Disributed volume** | 93.77 | 3.86 | 97.63 | 1.63 | 0.514 | 2.14 | | 65.42 | 13.00 | 78.42 | 1.59 | 0.51 | 2.1 |
| **Continuity of Supply** | | | | | | | | | | | | | |
| Continuous supply | 16.75 | 1.96 | 18.71 | 0.66 | 0.399 | 1.06 | | 20.88 | 4.22 | 25.1 | 0.51 | 0.44 | 0.95 |
| 3-4 days per week | 70.17 | 1.9 | 72.07 | 0.6 | 0.115 | 0.71 | | 32.75 | 6.45 | 39.2 | 0.79 | 0.03 | 0.82 |
| Once a week | 4.84 | 0 | 4.84 | 0.2 | 0 | 0.2 | | 3.08 | 0.62 | 3.7 | 0.075 | 0.02 | 0.095 |
| Once biweekly | 0.15 | 0 | 0.15 | 0.03 | 0 | 0.03 | | 5.77 | 1.11 | 6.88 | 0.14 | 0.02 | 0.16 |
| Less than biweekly | 1.18 | 0 | 1.18 | 0.11 | 0 | 0.11 | | 2.94 | 0.59 | 3.53 | 0.075 | 0 | 0.075 |
| **Water quality** | | | | | | | | | | | | | |
| Disinfected water | 162.58 | 11.52 | 174.1 | 1.63 | 0.514 | 2.14 | | 93.52 | 18.75 | 112.27 | 1.59 | 0.51 | 2.1 |
| Not disinfected water | 9.43 | 0.01 | 9.44 | 0 | 0 | 0 | | 10.70 | 2.14 | 12.84 | 0 | 0 | 0 |
| **Distance to source** | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| **Tariff structure** | | | | | | | | | | | | | |
| Flat | 5.29 | 0.927 | 6.22 | | | | | 27.81 | 1.46 | 29.27 | | | |
| Volumetric | 88.48 | 2.099 | 90.58 | | | | | 37.61 | 11.53 | 49.14 | | | |
| Average Tariff (volumetric) (US $/m3) | 0.63 | 1.18 | 0.68 | 1.7 | 1.3 | 1.6 | | 0.8 | 1.18 | 0.86 | 1.7 | 1.13 | 1.6 |

(-): Unavailable data

## MDG+ Initiative indictors calculated in Number of People

| Sewerage Network | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Population (x1000)** | **2012 Data** | | | | **2013 Data** | | |
| | **Urban** | **Rural** | **Total** | | **Urban** | **Rural** | **Total** |
| **Conneted People** | 2253 | 15.41 | 2268.41 | | 869.2 | - | - |
| | | | | | | | |
| **Treated Wastewater** | 1711 | 12.44 | 1723.73 | | - | - | - |
| **Treatment type:** | | | | | | | |
| Primary | 6.77 | 0.12 | 6.9 | | - | - | - |
| Secondary | 1704.5 | 12.26 | 1716.7 | | - | - | - |
| Tertiary | 0.041 | 0.06 | 0.1 | | - | - | - |
| **Types of Reuse after Treatment** | | | | | | | |
| Irrigation | 0.041 | 0 | 0.041 | | - | - | - |
| Groundwater recharge | 0 | 0 | 0 | | - | - | - |
| Domestic uses | 0 | 0 | 0 | | - | - | - |
| Direct discharge to watercource or to the sea | 1336.2 | 0 | 1336.2 | | - | - | - |
| Other uses | 0 | 0 | 0 | | - | - | - |
| | | | | | | | |
| **Untreated wastewater** | 542 | 3 | 545 | | - | - | - |
| **Untreated wastewater reuse** | | | | | | | |
| Irrigation | 0 | 0 | 0 | | - | - | - |
| Groundwater recharge | 0 | 0 | 0 | | - | - | - |
| Domestic uses | 0 | 0 | 0 | | - | - | - |
| Direct discharge to watercource or to the sea | - | - | - | | - | - | - |
| Other uses | 0 | 0.17 | 0.17 | | - | - | - |
| **Tariff** | | | | | | | |
| Flat | 149.11 | - | 149.11 | | - | - | - |
| Volumetric | 1299.8 | 13 | 1312.8 | | - | - | - |
| **Average tariff for one cubic meter:** | | | | | | | |
| US $ | 0.27 | 0.25 | 0.27 | | 0.27 | 0.25 | 0.27 |

(-): Unavailable data

## MDG+ Initiative indicators calculated in Million Cubic Meter per Year

| Sewerage Network | | | | | | | |
|---|---|---|---|---|---|---|---|
| **MCM per year** | **2012 Data** | | | | **2013 Data** | | |
| | **Urban** | **Rural** | **Total** | | **Urban** | **Rural** | **Total** |
| **Wastewater collected by sewer networks** | 60.1 | 0.87 | 60.97 | | 29.96 | 0.87 | 30.83 |
| | | | | | | | |
| **Treated Wastewater** | 44.05 | 0.46 | 44.51 | | 20.65 | 0.46 | 21.11 |
| **Treatment type:** | | | | | | | |
| Primary | 0.24 | 0.06 | 0.3 | | 20.65 | 0.01 | 20.66 |
| Secondary | 44.81 | 0.452 | 45.26 | | 0 | 0.45 | 0.45 |
| Tertiary | 0.001 | 0 | 0.001 | | 0 | 0.003 | 0.003 |
| **Types of Reuse after Treatment** | | | | | | | |
| Irrigation | 0.001 | 0 | 0.001 | | 0.10 | 0 | 0.1 |
| Groundwater recharge | 0 | 0 | 0 | | 8.78 | 0 | 8.78 |
| Domestic uses | 0 | 0 | 0 | | 0 | 0 | 0 |
| Direct discharge to watercource or to the sea | 35.19 | 0.36 | 35.55 | | 11.77 | 0.36 | 12.13 |
| Other uses | 0 | 0 | 0 | | 0 | 0 | 0 |
| | | | | | | | |
| **Untreated wastewater** | 15.05 | 0.409 | 15.46 | | 9.31 | 0.41 | 9.72 |
| **Untreated wastewater reuse** | | | | | | | |
| Irrigation | 0 | 0 | 0 | | 0 | 0 | 0 |
| Groundwater recharge | 0 | 0 | 0 | | 0 | 0 | 0 |
| Domestic uses | 0 | 0 | 0 | | 0 | 0 | 0 |
| Direct discharge to watercource or to the sea | 4.29 | 0.32 | 4.61 | | 9.31 | 0.32 | 9.63 |
| Other uses | 0 | 0 | 0 | | 0 | 0 | 0 |
| **Tariff** | | | | | | | |
| Flat | 4.45 | 0.3 | 4.75 | | 4.45 | 0.3 | 4.75 |
| Volumetric | 55.65 | 0.57 | 56.21 | | 25.51 | 0.57 | 26.08 |
| **Average tariff for one cubic meter:** | | | | | | | |
| US $ | 0.27 | 0.25 | 0.27 | | 0.27 | 0.25 | 0.27 |

(-): Unavailable data

# QATAR

## QATAR

The national authorities that have provided data on water supply and sanitation services are:

1. Qatar General Electricity & water Corporation (KAHRAMAA)
2. Public Works Authority (Ashghal)

The data collection was supervised by the national focal point engineer/ Abdulaziz Mohammad Al Qatabri (KAHRAMAA). The following members of the national monitoring team have participated in data collection and the filling out of questionnaire forms:

- Eng. Hassan Al Emadi- Ashghal
- Ms. Sheikha Hamad Al Hajeri- Ministry of Development Planning and Statistics
- Dr. Mohammad Shamroukh Mahmoud- Ministry of Municipalities and Environment

## Notice

The data provided by water and sanitation utilities were not disaggregated by urban and rural population, as the entire served population is considered urban.

It should be noted that the data of 2012 published in the first report were amended upon the request of the national focal point and are reflected herein.

## MDG+ Initiative indictors calculated in Number of People

| General Data | | | | | | |
|---|---|---|---|---|---|---|
| **Population (x1000)** | **2012 Data** | | | | **2013 Data** | |
| | **Urban** | **Rural** | **Total** | | **Urban** | **Rural** | **Total** |
| | **1833** | **0** | **1833** | | **2003.7** | **-** | **2003.7** |
| **Percentage (%)** | **100** | **0** | | | **100** | **-** | |
| **Annual per capita income (USD):** | **103.500** | | | | **100.500** | | |

| Water Supply | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Population (x1000)*** | **2012 data**** | | | | | | | **2013 data** | | | | | |
| | **Supply network** | | | **Standpipe** | | | | **Supply network** | | | **Standpipe** | | |
| | **Urban** | **Rural** | **Total** | **Urban** | **Rural** | **Total** | | **Urban** | **Rural** | **Total** | **Urban** | **Rural** | **Total** |
| | | | | | | | | | | | | | |
| **Connected to piped network** | 1833 | 0 | 1833 | 0 | 0 | 0 | | 2003.7 | 0 | 2003.7 | 0 | 0 | 0 |
| **Water consumption** | | | | | | | | | | | | | |
| Liter/person/day | 473.5 | 0 | 473.5 | 0 | 0 | 0 | | 461.7 | 0 | 461.7 | 0 | 0 | 0 |
| **Continuity of Supply** | | | | | | | | | | | | | |
| Continuous supply | 1833 | 0 | 1833 | 0 | 0 | 0 | | 2003.7 | 0 | 2003.7 | 0 | 0 | 0 |
| 3-4 days per week | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| Once a week | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| Once biweekly | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| Less than biweekly | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| **Water quality** | | | | | | | | | | | | | |
| Disinfected water | 1833 | 0 | 1833 | 0 | 0 | 0 | | 2003.7 | 0 | 2003.7 | 0 | 0 | 0 |
| Not disinfected water | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| **Distance to source** | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| **Tariff structure** | | | | | | | | | | | | | |
| Flat | 0 | 0 | 0 | | | | | 0 | 0 | 0 | | | |
| Volumetric | 1833 | 0 | 1833 | | | | | 2003.7 | 0 | 2003.7 | | | |
| **Average Tariff (volumetric)** | | | | | | | | | | | | | |
| (US $/m3) | 1.2 | 0 | 1.2 | 0 | 0 | 0 | | 1.2 | 0 | 1.2 | 0 | 0 | 0 |

(-): Unavailable data
(*) Number of population as it is at the mid of the year
(**) 2012 data published in the first report were amended upon the national focal point request.

## MDG+ Initiative indicators calculated in Million Cubic Meter per Year

| Water Supply | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MCM per year | 2012 data | | | | | | | 2013 data | | | | | |
| | Supply network | | | Standpipe | | | | Supply network | | | Standpipe | | |
| | Urban | Rural | Total | Urban | Rural | Total | | Urban | Rural | Total | Urban | Rural | Total |
| | | | | | | | | | | | | | |
| **Produced volume** | 398.50 | 0 | 398.50 | | | | | 424.70 | 0 | 424.70 | | | |
| | | | | | | | | | | | | | |
| Disributed volume | 316.80 | 0 | 316.80 | 0 | 0 | 0 | | 337.64 | 0 | 337.64 | 0 | 0 | 0 |
| **Continuity of Supply** | | | | | | | | | | | | | |
| Continuous supply | 316.80 | 0 | 316.80 | 0 | 0 | 0 | | 337.64 | 0 | 337.64 | 0 | 0 | 0 |
| 3-4 days per week | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| Once a week | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| Once biweekly | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| Less than biweekly | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| **Water quality** | | | | | | | | | | | | | |
| Disinfected water | 398.50 | 0 | 398.50 | 0 | 0 | 0 | | 424.70 | 0 | 424.70 | 0 | 0 | 0 |
| Not disinfected water | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| **Distance to source** | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| **Tariff structure** | | | | | | | | | | | | | |
| Flat | 0 | 0 | 0 | | | | | 0 | 0 | 0 | | | |
| Volumetric | 316.80 | 0 | 316.80 | | | | | 337.64 | 0 | 337.64 | | | |
| Average Tariff (volumetric) | | | | | | | | | | | | | |
| (US $/m3) | 1.2 | 0 | 1.2 | 0 | 0 | 0 | | 1.2 | 0 | 1.2 | 0 | 0 | 0 |

(-): Unavailable data
(**) 2012 data published in the first report were amended upon the national focal point request.

## MDG+ Initiative indictors calculated in Number of People

| Sewerage Network | | | | | | | |
|---|---|---|---|---|---|---|---|
| Population (x1000) | 2012 Data | | | | 2013 Data | | |
| | Urban | Rural | Total | | Urban | Rural | Total |
| **Conneted People** | - | 0 | - | | - | 0 | - |
| | | | | | | | |
| **Treated Wastewater** | - | 0 | - | | - | 0 | - |
| **Treatment type:** | | | | | | | |
| Primary | 0 | 0 | 0 | | 0 | 0 | 0 |
| Secondary | 0 | 0 | 0 | | 0 | 0 | 0 |
| Tertiary | - | 0 | - | | - | 0 | - |
| **Types of Reuse after Treatment** | | | | | | | |
| Irrigation | - | 0 | - | | - | 0 | - |
| Groundwater recharge | 0 | 0 | 0 | | 0 | 0 | 0 |
| Domestic uses | 0 | 0 | 0 | | 0 | 0 | 0 |
| Direct discharge to watercource or to the sea | - | 0 | - | | - | 0 | - |
| Other uses | - | 0 | - | | - | 0 | - |
| | | | | | | | |
| **Untreated wastewater** | - | 0 | - | | - | 0 | - |
| **Untreated wastewater reuse** | | | | | | | |
| Irrigation | 0 | 0 | 0 | | 0 | 0 | 0 |
| Groundwater recharge | 0 | 0 | 0 | | 0 | 0 | 0 |
| Domestic uses | 0 | 0 | 0 | | 0 | 0 | 0 |
| Direct discharge to watercource or to the sea | - | 0 | - | | - | 0 | - |
| Other uses | 0 | 0 | 0 | | 0 | 0 | 0 |
| **Tariff** | | | | | | | |
| Flat | 0 | 0 | 0 | | 0 | 0 | 0 |
| Volumetric | 0 | 0 | 0 | | 0 | 0 | 0 |
| **Average tariff for one cubic meter:** | | | | | | | |
| US $ | 0 | 0 | 0 | | 0 | 0 | 0 |

(-): Unavailable data
(**) 2012 data published in the first report were amended upon the national focal point request

## MDG+ Initiative indicators calculated in Million Cubic Meter per Year

| Sewerage Network | | | | | | | |
|---|---|---|---|---|---|---|---|
| MCM per year | 2012 Data* | | | | 2013 Data | | |
| | Urban | Rural | Total | | Urban | Rural | Total |
| **Wastewater collected by sewer networks** | 151.76 | 0 | 151.76 | | 176.83 | 0 | 176.83 |
| | | | | | | | |
| **Treated Wastewater** | 129.86 | 0 | 129.86 | | 158.79 | 0 | 158.79 |
| **Treatment type:** | | | | | | | |
| Primary | 0 | 0 | 0 | | 0 | 0 | 0 |
| Secondary | 0.366 | 0 | 0.366 | | 0 | 0 | 0 |
| Tertiary | 129.5 | 0 | 129.5 | | 158.79 | 0 | 158.79 |
| **Types of Reuse after Treatment** | | | | | | | |
| Irrigation | 64.93 | 0 | 64.93 | | 55.58 | 0 | 55.58 |
| Groundwater recharge | 0 | 0 | 0 | | 0 | 0 | 0 |
| Domestic uses | 0 | 0 | 0 | | 0 | 0 | 0 |
| Direct discharge to watercourse or to the sea | 15.58 | 0 | 15.58 | | 35.27 | 0 | 35.27 |
| Other uses | 49.35 | 0 | 49.35 | | 60.34 | 0 | 60.34 |
| | | | | | | | |
| **Untreated wastewater** | 21.9 | 0 | 21.9 | | 18.04 | 0 | 18.04 |
| **Untreated wastewater reuse** | | | | | | | |
| Irrigation | 0 | 0 | 0 | | 0 | 0 | 0 |
| Groundwater recharge | 0 | 0 | 0 | | 0 | 0 | 0 |
| Domestic uses | 0 | 0 | 0 | | 0 | 0 | 0 |
| Direct discharge to watercourse or to the sea | 21.9 | 0 | 21.9 | | 18.04 | 0 | 18.04 |
| Other uses | 0 | 0 | 0 | | 0 | 0 | 0 |
| **Tariff** | | | | | | | |
| Flat | 0 | 0 | 0 | | 0 | 0 | 0 |
| Volumetric | 0 | 0 | 0 | | 0 | 0 | 0 |
| **Average tariff for one cubic meter:** | | | | | | | |
| US $ | 0 | 0 | 0 | | 0 | 0 | 0 |

(-): Unavailable data
(*) 2012 data published in the first report were amended upon the national focal point request
(**): Deep injection, construction sector, cooling stations, and landscape irrigation.

# SAUDI ARABIA

## SAUDI ARABIA

The national institution that has provided data on water supply and sanitation is the Ministry of Water and Electricity.

The data collection was supervised by the national focal point Mr. Ibrahim Al Shebebi. The following members of the national monitoring team have participated in data collection and the filling out of questionnaire forms:

- Mr. Anwar Al-Shreimi
- Mr. Eng. Mohsen Hasan Al-Qahtani
- Mr. Mamdouh Al-Radadi
- Ms. Eng. Bara'a Aba Al-Khalil
- Mr. Kamel Al-Khamis
- Mr. Mohammad Al-Shamrani
- Mr. Fares Mohammad Dakheel
- Mr. Shafi Al-Asmar Al-Shamrari
- Mr. Abbas Alqam

## Notice

The data provided by water and sanitation utilities were not disaggregated by urban and rural population, as the entire served population is considered urban.

## SAUDI ARABIA

# MDG+ Initiative indictors calculated in Number of People

| General Data | | | | | | |
|---|---|---|---|---|---|---|
| Population (x1000) | 2012 Data | | | 2013 Data | | |
| | Urban | Rural | Total | Urban | Rural | Total |
| | 29380 | 0 | 29380 | 30135 | 0 | 30135 |
| Percentage (%) | 100 | 0 | | 100 | 0 | |
| Annual per capita income (USD): | | | | | | |

| Water Supply | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Population (x1000) | 2012 data | | | | | | | 2013 data | | | | | |
| | Supply network | | | Standpipe | | | | Supply network | | | Standpipe | | |
| | Urban | Rural | Total | Urban | Rural | Total | | Urban | Rural | Total | Urban | Rural | Total |
| | | | | | | | | | | | | | |
| **Connected to piped network** | 27615.0 | 0 | 27615.0 | 0 | 0 | 0 | | 30135.0 | 0 | 30135.0 | 0 | 0 | 0 |
| **Water consumption** | | | | | | | | | | | | | |
| Liter/person/day | 200 | 0 | 200 | 0 | 0 | 0 | | 200 | 0 | 200 | 0 | 0 | 0 |
| **Continuity of Supply** | | | | | | | | | | | | | |
| Continuous supply | 27615.0 | 0 | 27615.0 | 0 | 0 | 0 | | 30135.0 | 0 | 30135.0 | 0 | 0 | 0 |
| 3-4 days per week | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| Once a week | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| Once biweekly | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| Less than biweekly | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| **Water quality** | | | | | | | | | | | | | |
| Disinfected water | 27615.0 | 0 | 27615.0 | 0 | 0 | 0 | | 30135.0 | 0 | 30135.0 | 0 | 0 | 0 |
| Not disinfected water | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| **Distance to source** | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| **Tariff structure** | | | | | | | | | | | | | |
| Flat | 0 | 0 | 0 | | | | | 0 | 0 | 0 | | | |
| Volumetric | 27615.0 | 0 | 27615.0 | | | | | 30135.0 | 0 | 30135.0 | | | |
| **Average Tariff (volumetric)** | | | | | | | | | | | | | |
| (US $/m3) | 0.03 | 0 | 0,03 | 0 | 0 | 0 | | 0.03 | 0 | 0.03 | 0 | 0 | 0 |

(-): Unavailable data

## MDG+ Initiative indicators calculated in Million Cubic Meter per Year

| Water Supply | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MCM per year | 2012 data | | | | | | | 2013 data | | | | | |
| | Supply network | | | Standpipe | | | | Supply network | | | Standpipe | | |
| | Urban | Rural | Total | Urban | Rural | Total | | Urban | Rural | Total | Urban | Rural | Total |
| | | | | | | | | | | | | | |
| **Produced volume** | 2527.14 | 0 | 2527.14 | | | | | 2731.05 | 0 | 2731.05 | | | |
| | | | | | | | | | | | | | |
| Disributed volume | 2021.71 | 0 | 2021.71 | 0 | 0 | 0 | | 2184.84 | 0 | 2184.84 | 0 | 0 | 0 |
| **Continuity of Supply** | | | | | | | | | | | | | |
| Continuous supply | 2021.71 | 0 | 2021.71 | 0 | 0 | 0 | | 2184.84 | 0 | 2184.84 | 0 | 0 | 0 |
| 3-4 days per week | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| Once a week | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| Once biweekly | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| Less than biweekly | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| **Water quality** | | | | | | | | | | | | | |
| Disinfected water | 2527.14 | 0 | 2527.14 | 0 | 0 | 0 | | 2731.05 | 0 | 2731.05 | 0 | 0 | 0 |
| Not disinfected water | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| **Distance to source** | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| **Tariff structure** | | | | | | | | | | | | | |
| Flat | 0 | 0 | 0 | | | | | 0 | 0 | 0 | | | |
| Volumetric | 2021.71 | 0 | 2021.71 | | | | | 2184.84 | 0 | 2184.84 | | | |
| Average Tariff (volumetric) | | | | | | | | | | | | | |
| (US $/m3) | 0.03 | 0 | 0.03 | 0 | 0 | 0 | | 0.03 | 0 | 0.03 | 0 | 0 | 0 |

## MDG+ Initiative indictors calculated in Number of People

| Sewerage Network | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Population (x1000)** | **2012 Data** | | | | **2013 Data** | | |
| | **Urban** | **Rural** | **Total** | | **Urban** | **Rural** | **Total** |
| **Conneted People** | 15285.0 | 0 | 15285.0 | | 16198.3 | - | 16198.3 |
| | | | | | | | |
| **Treated Wastewater** | 15285.0 | 0 | 15285.0 | | 16198.3 | - | 16198.3 |
| **Treatment type:** | | | | | | | |
| Primary | 0 | 0 | 0 | | 0 | 0 | 0 |
| Secondary | 7022.2 | 0 | 7022.2 | | 7135.4 | 0 | 7135.4 |
| Tertiary | 8262.8 | 0 | 8262.8 | | 9062.9 | 0 | 9062.9 |
| **Types of Reuse after Treatment** | | | | | | | |
| Irrigation | 2445.6 | 0 | 2445.6 | | 2591.7 | 0 | 2591.7 |
| Groundwater recharge | 0 | 0 | 0 | | 0 | 0 | 0 |
| Domestic uses | 0 | 0 | 0 | | 0 | 0 | 0 |
| Direct discharge to watercourse or to the sea | 12533.7 | 0 | 12533.7 | | 13282.6 | 0 | 13282.6 |
| Other uses | 305.7 | 0 | 305.7 | | 324.0 | 0 | 324.0 |
| | | | | | | | |
| **Untreated wastewater** | 0 | 0 | 0 | | 0 | 0 | 0 |
| **Untreated wastewater reuse** | | | | | | | |
| Irrigation | 0 | 0 | 0 | | 0 | 0 | 0 |
| Groundwater recharge | 0 | 0 | 0 | | 0 | 0 | 0 |
| Domestic uses | 0 | 0 | 0 | | 0 | 0 | 0 |
| Direct discharge to watercourse or to the sea | 0 | 0 | 0 | | 0 | 0 | 0 |
| Other uses | 0 | 0 | 0 | | 0 | 0 | 0 |
| **Tariff** | | | | | | | |
| Flat | 0 | 0 | 0 | | 0 | 0 | 0 |
| Volumetric | 0 | 0 | 0 | | 0 | 0 | 0 |
| **Average tariff for one cubic meter:** | | | | | | | |
| US $ | 0 | 0 | 0 | | 0 | 0 | 0 |

(-): Unavailable data

## MDG+ Initiative indicators calculated in Million Cubic Meter per Year

| Sewerage Network | | | | | | | |
|---|---|---|---|---|---|---|---|
| MCM per year | 2012 Data | | | | 2013 Data | | |
| | Urban | Rural | Total | | Urban | Rural | Total |
| **Wastewater collected by sewer networks** | 1284.36 | 0 | 1284.36 | | 1317.17 | 0 | 1317.17 |
| | | | | | | | |
| **Treated Wastewater** | 1284.36 | 0 | 1284.36 | | 1317.17 | 0 | 1317.17 |
| **Treatment type:** | | | | | | | |
| Primary | 0 | 0 | 0 | | 0 | 0 | 0 |
| Secondary | 590.06 | 0 | 590.06 | | 580.22 | 0 | 580.22 |
| Tertiary | 694.30 | 0 | 694.30 | | 736.95 | 0 | 736.95 |
| **Types of Reuse after Treatment** | | | | | | | |
| Irrigation | 205.50 | 0 | 205.50 | | 210.75 | 0 | 210.75 |
| Groundwater recharge | 0 | 0 | 0 | | 0 | 0 | 0 |
| Domestic uses | 0 | 0 | 0 | | 0 | 0 | 0 |
| Direct discharge to watercource or to the sea | 1053.17 | 0 | 1053.17 | | 1080.80 | 0 | 1080.80 |
| Other uses | 25.69 | 0 | 25.69 | | 26.34 | 0 | 26.34 |
| | | | | | | | |
| **Untreated wastewater** | 0 | 0 | 0 | | 0 | 0 | 0 |
| **Untreated wastewater reuse** | | | | | | | |
| Irrigation | 0 | 0 | 0 | | 0 | 0 | 0 |
| Groundwater recharge | 0 | 0 | 0 | | 0 | 0 | 0 |
| Domestic uses | 0 | 0 | 0 | | 0 | 0 | 0 |
| Direct discharge to watercource or to the sea | 0 | 0 | 0 | | 0 | 0 | 0 |
| Other uses | 0 | 0 | 0 | | 0 | 0 | 0 |
| **Tariff** | | | | | | | |
| Flat | 0 | 0 | 0 | | 0 | 0 | 0 |
| Volumetric | 0 | 0 | 0 | | 0 | 0 | 0 |
| **Average tariff for one cubic meter:** | | | | | | | |
| US $ | 0 | 0 | 0 | | 0 | 0 | 0 |

(-): Unavailable data

# SOMALIA

## SOMALIA

### Notice

The required data for calculating MDG+ indicators were not provided within the period extending up to the end of 2015.

# SUDAN

## SUDAN

The national authorities that have provided data on water supply and sanitation services are:

1. Hawata Wed Oqaili Water Commission
2. Khartoum State Water Commission
3. Gadarif State Water Commission
4. Red Sea State Water Commission
5. Blue Nile State Water Commission
6. West Kordufan State Water Commission
7. Sanar State Water Commission
8. Central Darfour State Water Commission
9. East Darfour State Water Commission
10. Northern State Water Commission
11. Kassla State Water Commission
12. Nile River State Water Commission

Data collection was supervised by the national focal point Mr. Hisham Al Ameer Yousif. The following members of the national monitoring team have participated in data collection and the filling out of questionnaire forms:

- Mr. Ammar Abdallah
- Mr. Mohammad Abdelqader Mahdi
- Ms. Nada Khader

### Notice

The available data on water supply and sanitation services are disaggregated by urban and rural areas.

## SUDAN

### MDG+ Initiative indictors calculated in Number of People

| General Data | | | | | | |
|---|---|---|---|---|---|---|
| **Population (x1000)** | **2012 Data** | | | | **2013 Data** | |
| | **Urban** | **Rural** | **Total** | | **Urban** | **Rural** | **Total** |
| | - | - | - | | - | - | - |
| **Percentage (%)** | - | - | | | - | - | |
| **Annual per capita income (USD):** | | | | | | | |

| Water Supply | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Population (x1000)** | **2012 data** | | | | | | | **2013 data** | | | | | |
| | **Supply network** | | | **Standpipe** | | | | **Supply network** | | | **Standpipe** | | |
| | **Urban** | **Rural** | **Total** | **Urban** | **Rural** | **Total** | | **Urban** | **Rural** | **Total** | **Urban** | **Rural** | **Total** |
| | | | | | | | | | | | | | |
| **Connected to piped network** | 7480.3 | 1861.9 | 9342.2 | - | - | - | | 7480.3 | 2237.2 | 9721.3 | - | - | - |
| **Water consumption** | | | | | | | | | | | | | |
| Liter/person/day | 148.1 | 107.6 | 140.0 | - | - | - | | 173.6 | 110.5 | 159.1 | - | - | - |
| **Continuity of Supply** | | | | | | | | | | | | | |
| Continuous supply | 6640.3 | 1442.0 | 8082.3 | - | - | - | | 6623.8 | 1335.3 | 7959.1 | - | - | - |
| 3-4 days per week | 99.0 | 419.9 | 518.9 | - | - | - | | 110.3 | 902.0 | 1012.3 | - | - | - |
| Once a week | 741.0 | 0 | 741.0 | - | - | - | | 750.0 | 0 | 750.0 | - | - | - |
| Once biweekly | 0 | 0 | 0 | - | - | - | | 0 | 0 | 0 | - | - | - |
| Less than biweekly | 0 | 0 | 0 | - | - | - | | 0 | 0 | 0 | - | - | - |
| **Water quality** | | | | | | | | | | | | | |
| Disinfected water | 3606.8 | 224.9 | 3831.7 | - | - | - | | 3686.4 | 262.9 | 3949.3 | - | - | - |
| Not disinfected water | 3873.5 | 1637.0 | 5510.5 | - | - | - | | 3797.7 | 1974.3 | 5772 | - | - | - |
| **Distance to source** | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| **Tariff structure** | | | | | | | | | | | | | |
| Flat | 7391.8 | 1861.9 | 9253.7 | | | | | 7388.1 | 1957.2 | 9345.3 | | | |
| Volumetric | 88.5 | 0 | 88.5 | | | | | 96.0 | 280.0 | 376.0 | | | |
| **Average Tariff (volumetric)** | | | | | | | | | | | | | |
| (US $/m3) | | | - | - | - | - | | - | - | - | - | - | - |

(-): Unavailable data

## MDG+ Initiative indicators calculated in Million Cubic Meter per Year

| Water Supply | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MCM per year | 2012 data | | | | | | | 2013 data | | | | | |
| | Supply network | | | Standpipe | | | | Supply network | | | Standpipe | | |
| | Urban | Rural | Total | Urban | Rural | Total | | Urban | Rural | Total | Urban | Rural | Total |
| | | | | | | | | | | | | | |
| **Produced volume** | 566.79 | 445.09 | 1011.88 | | | | | 639.81 | 473.23 | 1113.04 | | | |
| | | | | | | | | | | | | | |
| **Disributed volume** | 404.31 | 73.10 | 477.41 | 18.39 | 241.29 | 223.3 | | 474.35 | 90.21 | 564.56 | 3.65 | 245.21 | 211.91 |
| **Continuity of Supply** | | | | | | | | | | | | | |
| Continuous supply | 389.09 | 23.87 | 412.96 | 16.93 | 206.34 | 223.3 | | 458.48 | 20.34 | 478.82 | 2.76 | 209.15 | 211.91 |
| 3-4 days per week | 5.16 | 49.23 | 54.4 | 0 | 0 | 0 | | 5.26 | 69.87 | 75.13 | 0 | 0 | 0 |
| Once a week | 10.06 | 0 | 10.06 | 0 | 0 | 0 | | 10.59 | 0 | 10.59 | 0 | 0 | 0 |
| Once biweekly | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| Less than biweekly | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| **Water quality** | | | | | | | | | | | | | |
| Disinfected water | 300.01 | 16.63 | 316.64 | - | - | - | | 348.52 | 17.71 | 366.23 | - | - | - |
| Not disinfected water | 266.78 | 428.46 | 695.24 | - | - | - | | 291.29 | 455.51 | 746.80 | - | - | - |
| **Distance to source** | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| **Tariff structure** | | | | | | | | | | | | | |
| Flat | 399.99 | 73.10 | 473.09 | | | | | 469.90 | 90.21 | 560.11 | | | |
| Volumetric | 4.31 | - | 4.31 | | | | | 4.42 | 0.002 | 4.422 | | | |
| Average Tariff (volumetric) | | | | | | | | | | | | | |
| (US $/m3) | - | - | - | - | - | - | | - | - | - | - | - | - |

(-): Unavailable data

## MDG+ Initiative indictors calculated in Number of People

| Sewerage Network | | | | | | | |
|---|---|---|---|---|---|---|---|
| Population (x1000) | 2012 Data | | | | 2013 Data | | |
| | Urban | Rural | Total | | Urban | Rural | Total |
| **Conneted People** | 44.4 | 0 | 44.4 | | 44.6 | 0 | 44.6 |
| | | | | | | | |
| **Treated Wastewater** | 44.4 | 0 | 44.4 | | 44.6 | 0 | 44.6 |
| **Treatment type:** | | | | | | | |
| Primary | 44.4 | 0 | 44.4 | | 44.6 | 0 | 44.6 |
| Secondary | 0 | 0 | 0 | | 0 | 0 | 0 |
| Tertiary | 0 | 0 | 0 | | 0 | 0 | 0 |
| **Types of Reuse after Treatment** | | | | | | | |
| Irrigation | 0 | 0 | 0 | | 0 | 0 | 0 |
| Groundwater recharge | 0 | 0 | 0 | | 0 | 0 | 0 |
| Domestic uses | 0 | 0 | 0 | | 0 | 0 | 0 |
| Direct discharge to watercource or to the sea | 44.4 | 0 | 44.4 | | 44.6 | 0 | 44.6 |
| Other uses | 0 | 0 | 0 | | 0 | 0 | 0 |
| | | | | | | | |
| **Untreated wastewater** | 0 | 0 | 0 | | 0 | 0 | 0 |
| **Untreated wastewater reuse** | | | | | | | |
| Irrigation | 0 | 0 | 0 | | 0 | 0 | 0 |
| Groundwater recharge | 0 | 0 | 0 | | 0 | 0 | 0 |
| Domestic uses | 0 | 0 | 0 | | 0 | 0 | 0 |
| Direct discharge to watercource or to the sea | 0 | 0 | 0 | | 0 | 0 | 0 |
| Other uses | 0 | 0 | 0 | | 0 | 0 | 0 |
| **Tariff** | | | | | | | |
| Flat | 44.4 | 0 | 44.4 | | 44.6 | 0 | 44.6 |
| Volumetric | 0 | 0 | 0 | | 0 | 0 | 0 |
| **Average tariff for one cubic meter:** | | | | | | | |
| US $ | - | - | - | | - | - | - |

(-): Unavailable data

## MDG+ Initiative indicators calculated in Million Cubic Meter per Year

| Sewerage Network | | | | | | | |
|---|---|---|---|---|---|---|---|
| MCM per year | 2012 Data | | | | 2013 Data | | |
| | Urban | Rural | Total | | Urban | Rural | Total |
| **Wastewater collected by sewer networks** | 17.89 | 0 | 17.89 | | 18.04 | 0 | 18.04 |
| | | | | | | | |
| **Treated Wastewater** | 17.89 | 0 | 17.89 | | 18.04 | 0 | 18.04 |
| **Treatment type:** | | | | | | | |
| Primary | 17.89 | 0 | 17.89 | | 18.04 | 0 | 18.04 |
| Secondary | 0 | 0 | 0 | | 0 | 0 | 0 |
| Tertiary | 0 | 0 | 0 | | 0 | 0 | 0 |
| **Types of Reuse after Treatment** | | | | | | | |
| Irrigation | 0 | 0 | 0 | | 0 | 0 | 0 |
| Groundwater recharge | 0 | 0 | 0 | | 0 | 0 | 0 |
| Domestic uses | 0 | 0 | 0 | | 0 | 0 | 0 |
| Direct discharge to watercource or to the sea | 17.89 | 0 | 17.89 | | 18.04 | 0 | 18.04 |
| Other uses | 0 | 0 | 0 | | 0 | 0 | 0 |
| | | | | | | | |
| **Untreated wastewater** | 0 | 0 | 0 | | 0 | 0 | 0 |
| **Untreated wastewater reuse** | | | | | | | |
| Irrigation | 0 | 0 | 0 | | 0 | 0 | 0 |
| Groundwater recharge | 0 | 0 | 0 | | 0 | 0 | 0 |
| Domestic uses | 0 | 0 | 0 | | 0 | 0 | 0 |
| Direct discharge to watercource or to the sea | 0 | 0 | 0 | | 0 | 0 | 0 |
| Other uses | 0 | 0 | 0 | | 0 | 0 | 0 |
| **Tariff** | | | | | | | |
| Flat | 17.89 | 0 | 17.89 | | 18.04 | 0 | 18.04 |
| Volumetric | 0 | 0 | 0 | | 0 | 0 | 0 |
| **Average tariff for one cubic meter:** | | | | | | | |
| US $ | - | - | - | | - | - | - |

(-): Unavailable data

# SYRIA

## Notice

The data required for calculating MDG+ indicators were not provided within the period extending up to the end of 2015.

# TUNISIA

## TUNISIA

The national institution that has provided data on water supply is the National Company for Water Exploitation and Distribution (SONEDE), and the national institution that has provided data on sanitation services is the National Office for Sanitation (ONE). The data collection was supervised by the national focal point Mr. Mohammad Al Ayadi, director of artificial recharge and non-conventional water- Ministry of Agriculture, Water Resources and Fisheries. The following members of the national monitoring team have participated in data collection and the filling out of questionnaire forms:

- Ms. Hadia Al-Sha'abouni- the National Company for Water Exploitation and Distribution
- Mr. Mohammad Al-Fakhfakh- General Department of Rural Engineering and Water Exploitation.
- Mr. Khalid Mehriz- National Bureau for Sanitation. Notice

## Notice

The available data on water supply and sanitation services are dissagregated by urban and rural areas.

## MDG+ Initiative indictors calculated in Number of People

| General Data | | | | | | |
|---|---|---|---|---|---|---|
| Population (x1000) | 2012 Data | | | 2013 Data | | |
| | Urban | Rural | Total | Urban | Rural | Total |
| | 7281 | 3477 | 10758 | 7293 | 3659 | 10951 |
| Percentage (%) | 67.7 | 32.3 | | 66.7 | 33.3 | |
| Annual per capita income (USD): | | | | | | |

| Water Supply | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Population (x1000) | 2012 data* | | | | | | 2013 data | | | | | | |
| | Supply network | | | Standpipe | | | Supply network | | | Standpipe | | | |
| | Urban | Rural | Total | Urban | Rural | Total | Urban | Rural | Total | Urban | Rural | Total | |
| | | | | | | | | | | | | | |
| **Connected to piped network** | 7108.0 | 3372.0 | 10480.0 | 0 | 1.0 | 1.0 | 7293 | 2377 | 9670 | 0 | 982.72 | 982.72 | |
| **Water consumption** | | | | | | | | | | | | | |
| Liter/person/day | 137.1 | 42.35 | 106.6 | 0 | 43.9 | 43.9 | 128 | 83 | 117 | 0 | 44 | 44 | |
| **Continuity of Supply** | | | | | | | | | | | | | |
| Continuous supply | 7108.0 | 3372.0 | 10480.0 | 0 | 1.0 | 1.0 | 7293 | 2377 | 9670 | 0 | 982.72 | 982.72 | |
| 3-4 days per week | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Once a week | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Once biweekly | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Less than biweekly | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| **Water quality** | | | | | | | | | | | | | |
| Disinfected water | 6528.7 | 3372.0 | 9900.7 | 0 | 1.0 | 1.0 | 7293 | 2197 | 9490 | 0 | 982.72 | 982.72 | |
| Not disinfected water | 579.3 | 0 | 579.3 | 0 | 0 | 0 | 0 | 180 | 180 | 0 | 0 | 0 | |
| **Distance to source** | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| **Tariff structure** | | | | | | | | | | | | | |
| Flat | 0 | 0 | 0 | | | | 0 | 0 | 0 | | | | |
| Volumetric | 7108.0 | 3372.0 | 10480.0 | | | | 7293 | 2377 | 9670 | | | | |
| **Average Tariff (volumetric)** | | | | | | | | | | | | | |
| (US $/m3) | 0.20 | 0.09 | - | 0 | 0.09 | 0.09 | 22.0 | 0.17 | - | 0 | 0.56 | 0.56 | |

(-): Unavailable data
(*) 2012 data published in the first report were amended upon the national focal point request

## MDG+ Initiative indicators calculated in Million Cubic Meter per Year

| Water Supply | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MCM per year | 2012 data* | | | | | | | 2013 data | | | | | |
| | Supply network | | | Standpipe | | | | Supply network | | | Standpipe | | |
| | Urban | Rural | Total | Urban | Rural | Total | | Urban | Rural | Total | Urban | Rural | Total |
| | | | | | | | | | | | | | |
| **Produced volume** | 493.46 | 92.23 | 585.69 | | | | | 469.52 | 125.69 | 595.21 | | | |
| | | | | | | | | | | | | | |
| Disributed volume | 355.71 | 52.14 | 407.85 | 0 | 0.016 | 0.016 | | 340.73 | 72.01 | 412.74 | 0 | 15.8 | 15.8 |
| **Continuity of Supply** | | | | | | | | | | | | | |
| Continuous supply | 355.71 | 52.14 | 407.85 | 0 | 0.016 | 0.016 | | 340.73 | 72.01 | 412.74 | 0 | 15.8 | 15.8 |
| 3-4 days per week | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| Once a week | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| Once biweekly | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| Less than biweekly | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| **Water quality** | | | | | | | | | | | | | |
| Disinfected water | 453.24 | 92.23 | 545.47 | 0 | 0.016 | 0.016 | | 469.52 | 112.58 | 582.10 | 0 | 15.8 | 15.8 |
| Not disinfected water | 40.22 | 0 | 40.22 | 0 | 0 | 0 | | 0 | 13.11 | 13.11 | 0 | 0 | 0 |
| **Distance to source** | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| **Tariff structure** | | | | | | | | | | | | | |
| Flat | 0 | 0 | 0 | | | | | 0 | 0 | 0 | | | |
| Volumetric | 355.71 | 52.14 | 407.85 | | | | | 340.73 | 62.40 | 403.13 | | | |
| Average Tariff (volumetric) | | | | | | | | | | | | | |
| (US $/m3) | 0.20 | 0.09 | - | 0 | 0.09 | 0.09 | | 0.22 | 0.17 | - | 0 | 0.56 | 0.56 |

(-): Unavailable data
(*) 2012 data published in the first report were amended upon the national focal point request

## MDG+ Initiative indictors calculated in Number of People

| Sewerage Network | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Population (x1000)** | **2012 Data**** | | | | **2013 Data** | | |
| | **Urban** | **Rural** | **Total** | | **Urban** | **Rural** | **Total** |
| **Conneted People** | 6306.0 | 340.0 | 6646.0 | | 6470.0 | 362.0 | 6832.0 |
| | | | | | | | |
| **Treated Wastewater** | 5728.0 | 0 | 5728.0 | | 5758.0 | 0 | 5758.0 |
| **Treatment type:** | | | | | | | |
| Primary | 0 | 0 | 0 | | 0 | 0 | 0 |
| Secondary | 5523.0 | 0 | 5523.0 | | 5551.0 | 0 | 5551.0 |
| Tertiary | 205.0 | 0 | 205.0 | | 206.0 | 0 | 206.0 |
| **Types of Reuse after Treatment** | | | | | | | |
| Irrigation | 478.0 | 0 | 478.0 | | 478.0 | 0 | 478.0 |
| Groundwater recharge | 426.0 | 0 | 426.0 | | 426.0 | 0 | 426.0 |
| Domestic uses | 0 | 0 | 0 | | 0 | 0 | 0 |
| Direct discharge to watercource or to the sea | 4204.0 | 0 | 4204.0 | | 4249.0 | 0 | 4249.0 |
| Other uses | 620.0 | 0 | 620.0 | | 605.0 | 0 | 605.0 |
| | | | | | | | |
| **Untreated wastewater** | 0 | 0 | 0 | | 0 | 0 | 0 |
| **Untreated wastewater reuse** | | | | | | | |
| Irrigation | 0 | 0 | 0 | | 0 | 0 | 0 |
| Groundwater recharge | 0 | 0 | 0 | | 0 | 0 | 0 |
| Domestic uses | 0 | 0 | 0 | | 0 | 0 | 0 |
| Direct discharge to watercource or to the sea | 0 | 0 | 0 | | 0 | 0 | 0 |
| Other uses | 0 | 0 | 0 | | 0 | 0 | 0 |
| **Tariff** | | | | | | | |
| Flat | 0 | 0 | 0 | | 0 | 0 | 0 |
| Volumetric | * | * | * | | * | * | * |
| **Average tariff for one cubic meter:** | | | | | | | |
| US $ | 0.31 | 0 | 0.31 | | 0.30 | 0 | 0.30 |

(-): Unavailable data
(**) 2012 data published in the first report were amended upon the national focal point request
(*): combined with water supply tariff
- Exchange rate of Tunisian dinar on 31/12/2012= 1.5533
- Exchange rate of Tunisian dinar on 31/12/2013= 1.6448

## MDG+ Initiative indicators calculated in Million Cubic Meter per Year

| Sewerage Network | | | | | | | |
|---|---|---|---|---|---|---|---|
| MCM per year | 2012 Data** | | | | 2013 Data | | |
| | Urban | Rural | Total | | Urban | Rural | Total |
| **Wastewater collected by sewer networks** | 238.720 | 0 | 238.720 | | 235.00 | - | 235.00 |
| | | | | | | | |
| **Treated Wastewater** | 232.438 | 0 | 232.438 | | 228.649 | 0 | 228.649 |
| **Treatment type:** | | | | | | | |
| Primary | 0 | 0 | 0 | | 0 | 0 | 0 |
| Secondary | 225.62 | 0 | 225.62 | | 222.03 | 0 | 222.03 |
| Tertiary | 6.755 | 0 | 6.755 | | 6.616 | 0 | 6.616 |
| **Types of Reuse after Treatment** | | | | | | | |
| Irrigation | 24.00 | 0 | 24.00 | | 24.00 | 0 | 24.00 |
| Groundwater recharge | 1.28 | 0 | 1.28 | | 1.11 | 0 | 1.11 |
| Domestic uses | 0 | 0 | 0 | | 0 | 0 | 0 |
| Direct discharge to watercourse or to the sea | 171.94 | 0 | 171.94 | | 168.65 | 0 | 168.65 |
| Other uses | 35.22 | 0 | 35.22 | | 34.89 | 0 | 34.89 |
| | | | | | | | |
| **Untreated wastewater** | 0 | 0 | 0 | | 0 | 0 | 0 |
| **Untreated wastewater reuse** | | | | | | | |
| Irrigation | 0 | 0 | 0 | | 0 | 0 | 0 |
| Groundwater recharge | 0 | 0 | 0 | | 0 | 0 | 0 |
| Domestic uses | 0 | 0 | 0 | | 0 | 0 | 0 |
| Direct discharge to watercourse or to the sea | 6.28 | 0 | 6.28 | | 6.35 | 0 | 6.35 |
| Other uses | 0 | 0 | 0 | | 0 | 0 | 0 |
| **Tariff** | | | | | | | |
| Flat | 0 | 0 | 0 | | 0 | 0 | 0 |
| Volumetric | * | * | * | | * | * | * |
| **Average tariff for one cubic meter:** | | | | | | | |
| US $ | 0.31 | 0 | 0.31 | | 0.30 | 0 | 0.30 |

(-): Unavailable data
(**) 2012 data published in the first report were amended upon the national focal point request
(*): combined with water supply tariff
- Exchange rate of Tunisian dinar on 31/12/2012= 1.5533
- Exchange rate of Tunisian dinar on 31/12/2013= 1.6448

# UNITED ARAB EMIRATES

The national utilities that provided data on water supply are the following:

1. Abu Dhabi Electricity and Water Authority
2. Dubai Electricity and Water Authority
3. Sharija Electricity and Water Authority
4. The Federal Electricity and Water Authority

The national utilities that provided data on sanitation services are the following:

1. Abu Dhabi Sanitation Services Company
2. Dubai Municipality
3. Sharjah Municipality
4. Ajman Sanitation Services Company
5. Department of Public Works in Rass Al Khaima
6. Taqnia Company for Sanitation Services in Fujairah

The data collection was supervised by the national focal point Ms. Amal Al Ghafri. The following members of the national monitoring team have participated in data collection and the filling out of questionnaire forms:

- Mr. Khamis Raddad - Federal Authority for Competitiveness and Statistics
- Ms. Abeer Al-Issa - Federal Authority for Competitiveness and Statistics
- Ms. Raba'a Hammadi - Federal Authority for Competitiveness and Statistics
- Ms. Hessa Al Ali - Federal Authority for Competitiveness and Statistics
- Ms. Asma Al Ali - Federal Authority for Competitiveness and Statistics
- Ms. Hind Al Ali – Ministry of Energy
- Mr. Abdullah Isa'ee - Abu Dhabi Statistics Centre
- Mr. Sayed Fuad Sayed - Dubai Statistics Center
- Ms. Aisha Al-Hasani - Fujairah Statistics Center
- Ms. Fatima Abdullah - Sharjah Municipality
- Mr. Mohammad Shareef - Sharjah Municipality
- Ms. Wafaa Ahmed - Public Works Department in Ras Al Khaimah
- Mr. Adham - Ajman Sanitation Services
- Ms. Sharifa Ali Saeed - Fujairah Municipality
- Mr. Ihab Fayyad – Tanqiya Company for Sanitation Services in Fujairah

## Notice

The data provided by water and sanitation utilities were not disaggregated by urban and rural population, as the entire served population is considered urban.

## MDG+ Initiative indictors calculated in Number of People

| General Data | | | | | | | |
|---|---|---|---|---|---|---|---|
| Population (x1000) | 2012 Data | | | | 2013 Data | | |
| | Urban | Rural | Total | | Urban | Rural | Total |
| | - | - | - | | - | - | - |
| Percentage (%) | - | - | | | - | - | |
| Annual per capita income (USD): | | | | | | | |

| Water Supply | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Population (x1000) | 2012 data* | | | | | | | 2013 data | | | | | | |
| | Supply network | | | Standpipe | | | | Supply network | | | Standpipe | | | |
| | Urban | Rural | Total | Urban | Rural | Total | | Urban | Rural | Total | Urban | Rural | Total | |
| **Connected to piped network** | - | - | - | - | - | - | | - | - | - | - | - | - | |
| **Water consumption** | | | | | | | | | | | | | | |
| Liter/person/day | - | - | - | - | - | - | | - | - | - | - | - | - | |
| **Continuity of Supply** | | | | | | | | | | | | | | |
| Continuous supply | - | - | - | - | - | - | | - | - | - | - | - | - | |
| 3-4 days per week | - | - | - | - | - | - | | - | - | - | - | - | - | |
| Once a week | - | - | - | - | - | - | | - | - | - | - | - | - | |
| Once biweekly | - | - | - | - | - | - | | - | - | - | - | - | - | |
| Less than biweekly | - | - | - | - | - | - | | - | - | - | - | - | - | |
| **Water quality** | | | | | | | | | | | | | | |
| Disinfected water | - | - | - | - | - | - | | - | - | - | - | - | - | |
| Not disinfected water | - | - | - | - | - | - | | - | - | - | - | - | - | |
| **Distance to source** | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| **Tariff structure** | | | | | | | | | | | | | | |
| Flat | - | - | - | | | | | - | - | - | | | | |
| Volumetric | - | - | - | | | | | - | - | - | | | | |
| **Average Tariff (volumetric)** | | | | | | | | | | | | | | |
| (US $/m3) | - | - | - | - | - | - | | - | | | - | - | - | |

(-): Unavailable data

(*) 2012 data published in the first report were amended upon the national focal point request

## MDG+ Initiative indicators calculated in Million Cubic Meter per Year

| Water Supply | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MCM per year | 2012 data* | | | | | | | 2013 data | | | | | |
| | Supply network | | | Standpipe | | | | Supply network | | | Standpipe | | |
| | Urban | Rural | Total | Urban | Rural | Total | | Urban | Rural | Total | Urban | Rural | Total |
| | | | | | | | | | | | | | |
| **Produced volume** | - | - | 1818.6 | | | | | - | - | 1874.6 | | | |
| | | | | | | | | | | | | | |
| Disributed volume | - | - | - | - | - | 0 | | - | - | 945.1 | - | - | 0 |
| **Continuity of Supply** | | | | | | | | | | | | | |
| Continuous supply ** | - | - | 912.02 | - | - | 0 | | - | - | 920.05 | - | - | 0 |
| 3-4 days per week | - | - | - | - | - | 0 | | - | - | - | - | - | 0 |
| Once a week | - | - | - | - | - | 0 | | - | - | - | - | - | 0 |
| Once biweekly | - | - | - | - | - | 0 | | - | - | - | - | - | 0 |
| Less than biweekly | - | - | - | - | - | 0 | | - | - | - | - | - | 0 |
| **Water quality** | | | | | | | | | | | | | |
| Disinfected water | - | - | 100% | - | - | 0 | | - | - | 100% | - | - | 0 |
| Not disinfected water | - | - | - | - | - | 0 | | - | - | - | - | - | 0 |
| **Distance to source** | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| **Tariff structure** | | | | | | | | | | | | | |
| Flat | - | - | - | | | | | - | - | - | | | |
| Volumetric | - | - | - | | | | | - | - | - | | | |
| Average Tariff (volumetric) | | | | | | | | | | | | | |
| (US $/m3) | - | - | - | - | - | - | | | - | | - | - | - |

(-): Unavailable data
(*) 2012 data published in the first report were amended upon the national focal point request
(**) The quantity was calculated at the Federal Authority for Competitiveness and Statistics using percentage of supply and subscribers of the housing sector from the data source

## MDG+ Initiative indictors calculated in Number of People

| Sewerage Network | | | | | | | |
|---|---|---|---|---|---|---|---|
| Population (x1000) | 2012 Data* | | | | 2013 Data | | |
| | Urban | Rural | Total | | Urban | Rural | Total |
| **Conneted People** | - | - | - | | - | - | - |
| | | | | | | | |
| **Treated Wastewater** | - | - | - | | - | - | - |
| **Treatment type:** | | | | | | | |
| Primary | - | - | - | | - | - | - |
| Secondary | - | - | - | | - | - | - |
| Tertiary | - | - | - | | - | - | - |
| **Types of Reuse after Treatment** | | | | | | | |
| Irrigation | - | - | - | | - | - | - |
| Groundwater recharge | - | - | - | | - | - | - |
| Domestic uses | - | - | - | | - | - | - |
| Direct discharge to watercource or to the sea | - | - | - | | - | - | - |
| Other uses | - | - | - | | - | - | - |
| | | | | | | | |
| **Untreated wastewater** | - | - | - | | - | - | - |
| **Untreated wastewater reuse** | | | | | | | |
| Irrigation | - | - | - | | - | - | - |
| Groundwater recharge | - | - | - | | - | - | - |
| Domestic uses | - | - | - | | - | - | - |
| Direct discharge to watercource or to the sea | - | - | - | | - | - | - |
| Other uses | - | - | - | | - | - | - |
| **Tariff** | | | | | | | |
| Flat | - | - | - | | - | - | - |
| Volumetric | - | - | - | | - | - | - |
| **Average tariff for one cubic meter:** | | | | | | | |
| US $ | - | - | - | | - | - | - |

(-): Unavailable data
(*) 2012 data published in the first report were amended upon the national focal point request

## MDG+ Initiative indicators calculated in Million Cubic Meter per Year

| Sewerage Network | | | | | | | |
|---|---|---|---|---|---|---|---|
| MCM per year | 2012 Data* | | | | 2013 Data | | |
| | Urban | Rural | Total | | Urban | Rural | Total |
| **Wastewater collected by sewer networks** | - | - | 576.1 | | - | - | **615.7** |
| | | | | | | | |
| **Treated Wastewater** | - | - | 556.2 | | - | - | 605.5 |
| **Treatment type:** | | | | | | | |
| Primary | - | - | 0 | | - | - | 0.274 |
| Secondary | - | - | 60.5 | | - | - | 11.7 |
| Tertiary | - | - | 495.7 | | - | - | 593.6 |
| **Types of Reuse after Treatment** | | | | | | | |
| Irrigation | - | - | 308.7 | | - | - | 376.8 |
| Groundwater recharge | - | - | 0 | | - | - | - |
| Domestic uses | - | - | 0 | | - | - | - |
| Direct discharge to watercource or to the sea | - | - | 197.8 | | - | - | 208.3 |
| Other uses | - | - | 49.7 | | - | - | 20.4 |
| | | | | | | | |
| **Untreated wastewater** | - | - | - | | - | - | - |
| **Untreated wastewater reuse** | | | | | | | |
| Irrigation | - | - | - | | - | - | - |
| Groundwater recharge | - | - | - | | - | - | - |
| Domestic uses | - | - | - | | - | - | - |
| Direct discharge to watercource or to the sea | - | - | - | | - | - | - |
| Other uses | - | - | - | | - | - | - |
| **Tariff** | | | | | | | |
| Flat | - | - | - | | - | - | - |
| Volumetric | - | - | - | | - | - | - |
| **Average tariff for one cubic meter:** | | | | | | | |
| US $ | - | - | - | | - | - | - |

(-): Unavailable data
(*) 2012 data published in the first report were amended upon the national focal point request

# YEMEN

The national utilities that provided data on water supply and sanitation services in the urban areas are the following:

1. Sana'a Municipality
2. Aden
3. Taiz
4. Hodeidah
5. Seoun- Trim
6. Ebb
7. Dhamar
8. Mukalla- Shahar- Ghail-East Dees- Ridah and Gosaiar
9. Hajja
10. Shibam
11. Mahaweet
12. Munakha
13. Al Qaeda
14. Rada'a
15. Zabid
16. Al Mokha
17. Beit Al-Faqih
18. Mansuriyah
19. Bajil
20. Al Baitha
21. Khamer
22. Sa'ada
23. Ghaida
24. Eteq
25. Hreib
26. Dali
27. Hota
28. Abyan
29. Radfan
30.Tor Al-Baha
31. Emran
32. Ma'bar
33. Yarim
34. Jablah
35. Hbeish
36. Almeshar
37. Benisev
38. Demt
39. Sayhut
40. Al-Jawf
41. Socotra
42. Laba'os
43. Marib

The national utilities that provided data on water supply and sanitation services in the rural areas are the following:

1. Ebb
2. Abyan
3. Al Baitha
4. Al Jouf
5. Al Hodeida
6. Al Dhale'
7. Al Mahawit
8. Al Mehra
9. Ta'iz
10. Haja
11. Hazramout
12. Dhamar
13. Reemah
14. Shabwa
15. Sa'ada
16. Sana'a
17. Emran
18. Lahaj
19. Ma'reb

The data collection was supervised by the national focal point Mr. Abdu Allah A Zubairi. The following members of the national monitoring team have participated in data collection and the filling out of questionnaire forms:

- Mr. Abdulkhaleq Alwan
- Mr. Ali Mohammad Nashwan
- Mr. Thaki Al Ma'amari
- Mr. Abdelmalik Al Ghazali
- Mr. Issa Al Talibi
- Ms. Rania Al Soufi

## Notice

The available data on water supply and sanitation services are disaggregated by urban and rural areas.

## YEMEN

### MDG+ Initiative indictors calculated in Number of People

| General Data | | | | | | |
|---|---|---|---|---|---|---|
| Population (x1000) | 2012 Data | | | | 2013 Data | |
| | Urban | Rural | Total | Urban | Rural | Total |
| | 7076 | 17451 | 2452 7 | 7280 | 17955 | 25533 |
| Percentage (%) | 28.8 | 71.3 | | 28.51 | 71.49 | |
| Annual per capita income (USD): | | | | | | |

| Water Supply | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Population (x1000) | 2012 data | | | | | | | 2013 data* | | | | | |
| | Supply network | | | Standpipe | | | | Supply network | | | Standpipe | | |
| | Urban | Rural | Total | Urban | Rural | Total | | Urban | Rural | Total | Urban | Rural | Total |
| | | | | | | | | | | | | | |
| **Connected to piped network** | 4463.40 | 5850.06 | 10313.46 | 0 | - | - | | 4463.40 | 5850.06 | 10313.46 | 0 | - | - |
| **Water consumption** | | | | | | | | | | | | | |
| Liter/person/day | 59 | 38 | 47 | 0 | - | - | | 59 | 38 | 47 | 0 | - | - |
| **Continuity of Supply** | | | | | | | | | | | | | |
| Continuous supply | 2060.43 | 4407.97 | 6468.4 | 0 | - | - | | 2060.43 | 4407.97 | 6468.4 | 0 | - | - |
| 3-4 days per week | 612.87 | 904.48 | 1517.35 | 0 | - | - | | 612.87 | 904.48 | 1517.35 | 0 | - | - |
| Once a week | 939.81 | 531.74 | 1471.55 | 0 | - | - | | 939.81 | 531.74 | 1471.55 | 0 | - | - |
| Once biweekly | 319.06 | 0 | 319.06 | 0 | - | - | | 319.06 | 0 | 319.06 | 0 | - | - |
| Less than biweekly | 531.55 | 5.88 | 537.43 | 0 | - | - | | 531.55 | 5.88 | 537.43 | 0 | - | - |
| **Water quality** | | | | | | | | | | | | | |
| Disinfectedwater | 3123.66 | - | - | 0 | - | - | | 3123.66 | - | - | 0 | - | - |
| Not disinfected water | 1339.74 | - | - | 0 | - | - | | 1339.74 | - | - | 0 | - | - |
| **Distance to source** | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| **Tariff structure** | | | | | | | | | | | | | |
| Flat | 0 | 0 | 0 | | | | | 0 | 0 | 0 | | | |
| Volumetric | 4463.40 | 5850.06 | 10313.46 | | | | | 4463.40 | 5850.06 | 10313.46 | | | |
| **Average Tariff (volumetric)** | | | | | | | | | | | | | |
| (US $/m3) | 1.17 | 29.0 | - | 0 | - | - | | 1.17 | 0.29 | - | 0 | - | - |

(-): Unavailable data
(*) 2012 data were adopted upon the national focal point request

## YEMEN

# MDG+ Initiative indicators calculated in Million Cubic Meter per Year

| Water Supply | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MCM per year | 2012 data | | | | | | | 2013 data* | | | | | |
| | Supply network | | | Standpipe | | | | Supply network | | | Standpipe | | |
| | Urban | Rural | Total | Urban | Rural | Total | | Urban | Rural | Total | Urban | Rural | Total |
| | | | | | | | | | | | | | |
| **Produced volume** | 146.75 | 85.83 | 232.58 | | | | | 146.75 | 85.83 | 232.58 | | | |
| | | | | | | | | | | | | | |
| Disributed volume | 95.98 | 81.14 | 177.13 | 0 | 2.376 | 2.376 | | 95.98 | 81.14 | 177.13 | 0 | 2.376 | 2.376 |
| **Continuity of Supply** | | | | | | | | | | | | | |
| Continuous supply | 57.64 | 63.07 | 120.71 | 0 | - | - | | 57.64 | 63.07 | 120.71 | 0 | - | - |
| 3-4 days per week | 15.25 | 11.51 | 26.76 | 0 | - | - | | 15.25 | 11.51 | 26.76 | 0 | - | - |
| Once a week | 14.69 | 6.47 | 21.16 | 0 | - | - | | 14.69 | 6.47 | 21.16 | 0 | - | - |
| Once biweekly | 3.46 | 0 | 3.46 | 0 | - | - | | 3.46 | 0 | 3.46 | 0 | - | - |
| Less than biweekly | 4.95 | 0.08 | 5.03 | 0 | - | - | | 4.95 | 0.08 | 5.03 | 0 | - | - |
| **Water quality** | | | | | | | | | | | | | |
| Disinfected water | 110.69 | - | - | 0 | - | - | | 110.69 | - | - | 0 | - | - |
| Not disinfected water | 36.06 | - | - | 0 | - | - | | 36.06 | - | - | 0 | - | - |
| **Distance to source** | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| **Tariff structure** | | | | | | | | | | | | | |
| Flat | 0 | 0 | - | | | | | 0 | 0 | - | | | |
| Volumetric | 95.98 | 81.14 | 177.13 | | | | | 95.98 | 81.14 | 177.13 | | | |
| Average Tariff (volumetric) | | | | | | | | | | | | | |
| (US $/m3) | 1.17 | 0.29 | | - | - | - | | 1.17 | 0.29 | | - | - | - |

(-): Unavailable data

(*) 2012 data were adopted upon the national focal point request

## MDG+ Initiative indictors calculated in Number of People

| Sewerage Network | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Population (x1000)** | **2012 Data** | | | | **2013 Data*** | | |
| | **Urban** | **Rural** | **Total** | | **Urban** | **Rural** | **Total** |
| **Conneted People** | 2585.17 | 5246.17 | 7831.34 | | 2585.17 | 5246.17 | 7831.34 |
| | | | | | | | |
| **Treated Wastewater** | 2552.41 | 5246.17 | 7798.58 | | 2552.41 | 5246.17 | 7798.58 |
| **Treatment type:** | | | | | | | |
| Primary | 395.22 | 4911.06 | 5306.28 | | 395.22 | 4911.06 | 5306.28 |
| Secondary | 1295.01 | 335.11 | 1630.12 | | 1295.01 | 335.11 | 1630.12 |
| Tertiary | 862.18 | 0 | 862.18 | | 862.18 | 0 | 862.18 |
| **Types of Reuse after Treatment** | | | | | | | |
| Irrigation | 1320.19 | - | - | | 1320.19 | - | - |
| Groundwater recharge | 0 | - | - | | 0 | - | - |
| Domestic uses | 0 | - | - | | 0 | - | - |
| Direct discharge to watercource or to the sea | 1214.00 | - | - | | 1214.00 | - | - |
| Other uses | 0 | - | - | | 0 | - | - |
| | | | | | | | |
| **Untreated wastewater** | - | - | - | | - | - | - |
| **Untreated wastewater reuse** | | | | | | | |
| Irrigation | - | - | - | | - | - | - |
| Groundwater recharge | - | - | - | | - | - | - |
| Domestic uses | - | - | - | | - | - | - |
| Direct discharge to watercource or to the sea | - | - | - | | - | - | - |
| Other uses | - | - | - | | - | - | - |
| **Tariff** | | | | | | | |
| Flat | 0 | 0 | 0 | | - | - | - |
| Volumetric | - | - | - | | - | - | - |
| **Average tariff for one cubic meter:** | | | | | | | |
| US $ | - | - | - | | - | - | - |

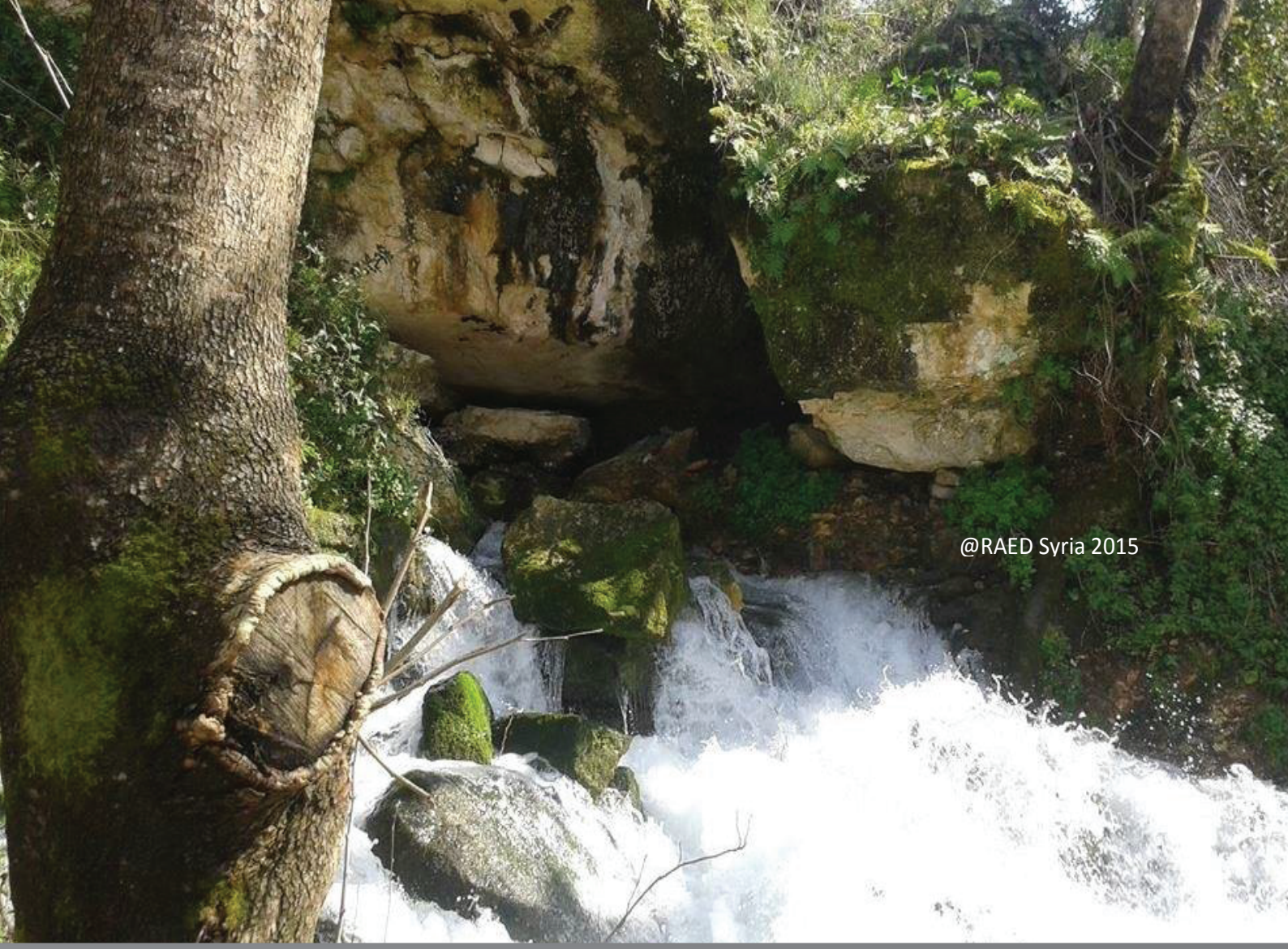
(-): Unavailable data
(*) 2012 data were adopted upon the national focal point request

## YEMEN

### MDG+ Initiative indicators calculated in Million Cubic Meter per Year

| Sewerage Network | | | | | | | |
|---|---|---|---|---|---|---|---|
| MCM/Annually | 2012 Data | | | | 2013 Data* | | |
| | Urban | Rural | Total | | Urban | Rural | Total |
| **Wastewater collected by sewer networks** | 65.75 | 93.62 | 159.37 | | 65.75 | 93.62 | 159.37 |
| | | | | | | | |
| **Treated Wastewater** | 65.75 | 56.64 | 122.39 | | 65.75 | 56.64 | 122.39 |
| **Treatment type:** | | | | | | | |
| Primary | 4.95 | 53.18 | 58.13 | | 4.95 | 53.18 | 58.13 |
| Secondary | 38.78 | 3.46 | 42.24 | | 38.78 | 3.46 | 42.24 |
| Tertiary | 22.02 | 0 | 22.02 | | 22.02 | 0 | 22.02 |
| **Types of Reuse after Treatment** | | | | | | | |
| Irrigation | 35.96 | - | 35.96 | | 35.96 | - | 35.96 |
| Groundwater recharge | 0 | - | 0 | | 0 | - | 0 |
| Domestic uses | 0 | - | 0 | | 0 | - | 0 |
| Direct discharge to watercource or to the sea | 29.57 | - | 29.57 | | 29.57 | - | 29.57 |
| Other uses | 0 | - | 0 | | 0 | - | 0 |
| | | | | | | | |
| **Untreated wastewater** | - | 36.98 | - | | - | 36.98 | - |
| Untreated wastewater reuse | | | | | | | |
| Irrigation | - | 0 | - | | - | 0 | - |
| Groundwater recharge | - | 0 | - | | - | 0 | - |
| Domestic uses | - | 0 | - | | - | 0 | - |
| Direct discharge to watercource or to the sea | - | 36.98 | - | | - | 36.98 | - |
| Other uses | - | 0 | - | | - | 0 | - |
| **Tariff** | | | | | | | |
| Flat | 0 | 0 | 0 | | 0 | 0 | 0 |
| Volumetric | - | - | - | | - | - | - |
| **Average tariff for one cubic meter:** | | | | | | | |
| US $ | - | - | - | | - | - | - |

(-): Unavailable data
(*) 2012 data were adopted doe 2013 upon the national focal point request




# 2 Chapter Two: Water Supply and Sanitation Services Indicators: Summary Tables

# Part 1
# Water Supply Indicators: Summary Tables

| MDG+ Initiative Indicators – Water Supply Based on 2012 Data<br>Number of People Served with House Connection – Urban Areas | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Country | | Population (Million) | Average Water consumption | people served by house connection (Million) | Continuity of Supply (million people) | | | | | Water Quality (million people) | | Tariff Structure (million people) | | |
| | | | | | Continuous supply | 3-4 days per week | Once a week | Once Biweekly | Less than biweekly | Disinfected water | Not disinfected water | Flat | Volumetric | (US $/m$^3$) |
| Algeria | No. | 37.90 | 117.40 | 31.12 | 18.63 | 12.54 | 0.00 | 0.00 | 0.00 | 31.12 | 0.00 | 0.00 | 31.12 | 0.06 |
| Bahrain | No. | 1.21 | 312.50 | 1.21 | 1.21 | 0.00 | 0.00 | 0.00 | 0.00 | 1.21 | 0.00 | 0.00 | 1.21 | 0.07 |
| Egypt | No. | 35.88 | 289.00 | 35.58 | 34.04 | 0.40 | 0.12 | 0.02 | 0.00 | 34.58 | 0.00 | 0.00 | 34.58 | 0.102 |
| Iraq | No. | 23.68 | 354.00 | 21.63 | 21.56 | 0.07 | 0.00 | 0.00 | 0.00 | 21.63 | 0.00 | 3.55 | 18.09 | 0.01 |
| Jordan | No. | 6.39 | 83.36 | 5.92 | 0.14 | 0.00 | 5.78 | 0.00 | 0.00 | 5.92 | 0.00 | 0.00 | 5.92 | 0.16 |
| Kuwait | No. | 3.82 | 401.00 | 3.76 | 3.76 | 0.00 | 0.00 | 0.00 | 0.00 | 3.76 | 0.00 | 0.00 | 3.76 | 0.63 |
| Lebanon | No. | 4.65 | 180.50 | 3.71 | 1.23 | 2.38 | 0.11 | 0.00 | 0.00 | 3.36 | 0.36 | 3.71 | 0.00 | - |
| Libya | No. | 5.24 | 292.00 | 3.38 | 3.38 | 0.00 | 0.00 | 0.00 | 0.00 | 3.38 | 0.00 | 0.00 | 3.38 | 0.15 |
| Mauritania | No. | 1.20 | 99.20 | 0.60 | 0.60 | 0.00 | 0.00 | 0.00 | 0.00 | 0.60 | 0.00 | 0.00 | 0.60 | 0.30 |
| Morocco | No. | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Oman | No. | 3.62 | 169.00 | 2.60 | 2.60 | 0.00 | 0.00 | 0.00 | 0.00 | 2.60 | 0.00 | 0.00 | 2.60 | 1.90 |
| Palestine | No. | 3.58 | 82.00 | 3.21 | 0.50 | 2.33 | 0.23 | 0.01 | 0.00 | 2.90 | 0.31 | 0.14 | 3.07 | 0.63 |
| Qatar | No. | 1.83 | 473.50 | 1.83 | 1.83 | 0.00 | 0.00 | 0.00 | 0.00 | 1.83 | 0.00 | 0.00 | 1.83 | 1.21 |
| KSA | No. | 29.38 | 200.00 | 27.62 | 27.62 | 0.00 | 0.00 | 0.00 | 0.00 | 27.62 | 0.00 | 0.00 | 27.62 | 0.03 |
| Sudan | No. | - | 148.10 | 7.48 | 6.64 | 0.10 | 0.74 | 0.00 | 0.00 | 3.61 | 3.87 | 7.39 | 0.09 | - |
| Tunisia | No. | 7.28 | 137.00 | 7.11 | 7.11 | 0.00 | 0.00 | 0.00 | 0.00 | 6.53 | 0.58 | 0.00 | 7.11 | 0.20 |
| UAE | No. | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Yemen | No. | 7.08 | 59.00 | 4.46 | 2.06 | 0.61 | 0.94 | 0.32 | 0.53 | 3.12 | 1.34 | 0.00 | 4.46 | 1.17 |

- Unavailable data

- The above results are for the total population

| MDG+ Initiative Indicators – Water Supply Based on 2012 Data<br>Number of People Served with House Connection – Rural Areas | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Country | | Population (Million) | Average Water consumption | people served by house connection (Million) | Continuity of Supply (million people) | | | | | Water Quality (million people) | | Tariff Structure (million people) | | |
| | | | | | Continuous supply | 3-4 days per week | Once a week | Once Biweekly | Less than biweekly | Disinfectedwater | Not disinfected water | Flat | Volumetric | (US $/m³) |
| Algeria | No. | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Bahrain | No. | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Egypt | No. | 45.32 | 127.00 | 43.51 | 42.93 | 0.54 | 0.03 | 0.01 | 0.00 | 43.51 | 0.00 | 0.00 | 43.51 | 0.08 |
| Iraq | No. | 23.68 | 354.00 | 8.83 | 8.63 | 0.16 | 0.04 | 0.00 | 0.00 | 8.83 | 0.00 | 1.18 | 7.65 | 0.00 |
| Jordan | No. | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Kuwait | No. | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Lebanon | No. | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Libya | No. | 5.24 | 292.00 | 0.42 | 0.42 | 0.00 | 0.00 | 0.00 | 0.00 | 0.42 | 0.00 | 0.00 | 0.42 | 0.15 |
| Mauritania | No. | 2.18 | 38.40 | 0.31 | 0.31 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.31 | 0.00 | 0.31 | - |
| Morocco | No. | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Oman | No. | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Palestine | No. | 3.58 | 82.00 | 0.32 | 0.12 | 0.20 | 0.00 | 0.00 | 0.00 | 0.32 | 0.00 | 0.04 | 0.28 | 1.18 |
| Qatar | No. | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| KSA | No. | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Sudan | No. | - | 107.60 | 1.86 | 1.44 | 0.42 | 0.00 | 0.00 | 0.00 | 0.23 | 1.64 | 1.86 | 0.00 | - |
| Tunisia | No. | 3.48 | 42.35 | 3.37 | 3.37 | 0.00 | 0.00 | 0.00 | 0.00 | 3.37 | 0.00 | 0.00 | 3.37 | 0.09 |
| UAE | No. | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Yemen | No. | 17.45 | 38.00 | 5.85 | 4.41 | 0.90 | 0.53 | 0.00 | 0.01 | - | - | 0.00 | 5.85 | 0.29 |

- Unavailable data

| MDG+ Initiative Indicators – Water Supply Based on 2013 Data<br>Number of People Served with House Connection – Urban Areas | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Country | | Population (Million) | Average Water consumption | people served by house connection (Million) | Continuity of Supply (million people) | | | | | Water Quality (million people) | | Tariff Structure (million people) | | (US $/m$^3$) |
| | | | | | Continuous supply | 3-4 days per week | Once a week | Once Biweekly | Less than biweekly | Disinfected water | Not disinfected water | Flat | Volumetric | |
| Algeria | No. | 38.70 | 125.80 | 32.38 | 20.32 | 12.07 | 0.00 | 0.00 | 0.00 | 32.38 | 0.00 | 0.00 | 32.38 | 0.06 |
| Bahrain | No. | 1.25 | 312.50 | 1.25 | 1.25 | 0.00 | 0.00 | 0.00 | 0.00 | 1.25 | 0.00 | 0.00 | 1.25 | 0.07 |
| Egypt | No. | 37.37 | 283.30 | 35.73 | 35.12 | 0.45 | 0.14 | 0.03 | 0.00 | 35.73 | 0.00 | 0.00 | 35.73 | 0.10 |
| Iraq | No. | - | 377.00 | 21.42 | 21.37 | 0.05 | 0.00 | 0.00 | 0.00 | 21.42 | 0.00 | 2.36 | 19.05 | 0.01 |
| Jordan | No. | 6.53 | 87.73 | 6.165 | 0.15 | 0.00 | 6.02 | 0.00 | 0.00 | 6.165 | 0.00 | 0.00 | 6.165 | 0.17 |
| Kuwait | No. | - | 391.20 | 3.84 | 3.84 | 0.00 | 0.00 | 0.00 | 0.00 | 3.84 | 0.00 | 0.00 | 3.84 | 0.63 |
| Lebanon | No. | 4.82 | 187.00 | 3.70 | 1.24 | 2.35 | 0.11 | 0.00 | 0.00 | 3.36 | 0.34 | 3.70 | 0.00 | - |
| Libya | No. | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Mauritania | No. | 1.71 | 94.70 | 0.69 | 0.69 | 0.00 | 0.00 | 0.00 | 0.00 | 0.69 | 0.00 | 0.00 | 0.69 | 0.30 |
| Morocco | No. | 19.51 | 105.50 | 20.66 | 20.66 | 0.00 | 0.00 | 0.00 | 0.00 | 20.66 | 0.00 | 0.00 | 20.66 | 0.77 |
| Oman | No. | 3.87 | 152.00 | 3.12 | 3.12 | 0.00 | 0.00 | 0.00 | 0.00 | 3.12 | 0.00 | 0.00 | 3.12 | 1.90 |
| Palestine | No. | 3.68 | 48.20 | 3.72 | 0.69 | 2.57 | 0.13 | 0.21 | 0.11 | 1.99 | 1.73 | 1.58 | 2.14 | 0.80 |
| Qatar | No. | 2.00 | 461.70 | 2.00 | 2.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.00 | 0.00 | 0.00 | 2.00 | 1.20 |
| KSA | No. | 30.14 | 200.00 | 30.14 | 30.14 | 0.00 | 0.00 | 0.00 | 0.00 | 30.14 | 0.00 | 0.00 | 30.14 | 0.03 |
| Sudan | No. | - | 173.60 | 7.48 | 6.62 | 0.11 | 0.75 | 0.00 | 0.00 | 3.69 | 3.80 | 7.39 | 0.10 | - |
| Tunisia | No. | 7.29 | 128.00 | 7.29 | 7.29 | 0.00 | 0.00 | 0.00 | 0.00 | 7.29 | 0.00 | 0.00 | 7.29 | 0.22 |
| UAE | No. | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Yemen | No. | 7.08 | 59.00 | 4.46 | 2.06 | 0.61 | 0.94 | 0.32 | 0.53 | 3.12 | 1.34 | 0.00 | 4.46 | 1.17 |

- Unavailable data

- The above results are for the total population

| MDG+ Initiative Indicators – Water Supply Based on 2013 Data<br>Number of People Served with House Connection- Rural Areas | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Country | | Population (Million) | Average Water consumption | people served by house connection (Million) | Continuity of Supply (million people) | | | | | Water Quality (million people) | | Tariff Structure (million people) | | (US $/m$^3$) |
| | | | | | Continuous supply | 3-4 days per week | Once a week | Once Biweekly | Less than biweekly | Disinfected water | Not disinfected water | Flat | Volumetric | |
| Algeria | No. | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Bahrain | No. | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Egypt | No. | 46.10 | 122.30 | 45.83 | 45.10 | 0.64 | 0.06 | 0.03 | 0.00 | 45.83 | 0.00 | 0.00 | 45.83 | 0.08 |
| Iraq | No. | - | 276.00 | 10.70 | - | - | - | 0.00 | 0.00 | 10.70 | 0.00 | - | - | - |
| Jordan | No. | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Kuwait | No. | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Lebanon | No. | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Libya | No. | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Mauritania | No. | 1.76 | - | - | - | - | - | - | - | - | - | - | - | - |
| Morocco | No. | 13.44 | 68.20 | 1.55 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.55 | 0.00 | 0.00 | 1.55 | 0.86 |
| Oman | No. | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Palestine | No. | 0.74 | 111.30 | 0.32 | 0.24 | 0.04 | 0.02 | 0.02 | 0.00 | 0.32 | 0.00 | 0.04 | 0.28 | 0.18 |
| Qatar | No. | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| KSA | No. | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Sudan | No. | - | 110.50 | 2.24 | 1.34 | 0.90 | 0.00 | 0.00 | 0.00 | 0.26 | 1.97 | 1.96 | 0.28 | - |
| Tunisia | No. | 3.66 | 83.00 | 2.38 | 2.38 | 0.00 | 0.00 | 0.00 | 0.00 | 2.20 | 0.18 | 0.00 | 2.38 | 0.17 |
| UAE | No. | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Yemen | No. | 17.45 | 38.00 | 5.85 | 4.41 | 0.90 | 0.53 | 0.00 | 0.01 | - | - | 0.00 | 5.85 | 0.29 |

- Unavailable data

# Part 2
# Sanitation Indicators: Summary Tables

| MDG+ Initiave Indicators – Sanitation (by Population) Based on 2012 Data<br>Number of People Served with House Connection to Sewerage Network – Urban Areas | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Country | | No of Population (Million People) | people served by house connection (Million) | Treated Wastewater (million people) | Treatment type | | | Reuse after treatment(million people) | | | | | Untreated Wastewater (million people) | Reuse without treatment(million people) | | | | | Tariff | | Average Tariff Value (US $/m3) |
| | | | | | Primary | Secondary | Tertiary | Irrigation | Ground water recharge | Domestic use | Discharge to water course or to the sea | Other uses | | Irrigation | Ground water recharge | Domestic use | Discharge to water course or to the sea | Other uses | Flat | Volumetric | |
| **Algeria** | No. | 37.90 | 32.75 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.00 | - | 0.02 |
| **Bahrain** | No. | 1.21 | 1.05 | 1.05 | 0.00 | 0.00 | 1.05 | 0.37 | 0.00 | 0.00 | 0.94 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| **Egypt** | No. | 35.88 | 30.67 | 29.01 | 6.54 | 21.72 | 0.74 | 0.72 | 0.00 | 0.00 | 28.29 | 0.00 | 1.65 | 0.00 | 0.00 | 0.00 | 1.65 | 0.00 | - | 27.80 | 0.04 |
| **Iraq** | No. | 23.68 | 9.57 | 6.43 | 0.00 | 6.43 | 0.00 | 0.00 | 0.00 | 0.00 | 3.63 | 0.00 | 3.14 | 0.00 | 0.00 | 0.00 | 1.18 | 0.00 | 0.00 | 4.47 | 0.01 |
| **Jordan** | No. | 6.39 | 3.71 | 3.71 | 0.00 | 3.71 | 0.00 | 3.14 | 0.00 | 0.00 | 0.55 | 0.02 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 3.71 | 0.02 |
| **Kuwait** | No. | 3.82 | 3.76 | 2.75 | 0.00 | 0.47 | 2.28 | 2.09 | 0.00 | 0.66 | 0.00 | 0.00 | - | - | - | - | - | - | 0.00 | 3.76 | 0.70 |
| **Lebanon** | No. | 4.65 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| **Libya** | No. | 5.24 | 2.95 | 0.51 | 0.00 | 0.51 | 0.00 | 0.16 | 0.00 | 0.00 | 0.34 | 0.00 | 2.45 | 0.00 | 0.00 | 0.00 | 2.45 | 0.00 | 0.00 | 0.00 | 0.00 |
| **Mauritania** | No. | 1.20 | 0.01 | 0.01 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.05 |
| **Morocco** | No. | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| **Oman** | No. | 3.62 | 0.55 | 0.55 | 0.00 | 0.00 | 0.55 | 0.48 | 0.05 | 0.00 | 0.00 | 0.02 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.55 | 0.64 |
| **Palestine** | No. | 3.58 | 2.25 | 1.71 | 0.01 | 1.71 | 0.00 | 0.00 | 0.00 | 0.00 | 1.34 | 0.00 | 0.54 | 0.00 | 0.00 | 0.00 | - | 0.00 | 0.15 | 1.30 | 0.27 |
| **Qatar** | No. | 1.83 | - | - | 0.00 | - | - | - | - | 0.00 | - | - | - | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| **KSA** | No. | 29.38 | 15.29 | 15.29 | 0.00 | 7.02 | 8.26 | 2.45 | 0.00 | 0.00 | 12.53 | 0.31 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| **Sudan** | No. | - | 0.04 | 0.04 | 0.04 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.04 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.04 | 0.00 | - |
| **Tunisia** | No. | 7.28 | 6.31 | 5.73 | 0.00 | 5.52 | 0.21 | 0.48 | 0.43 | 0.00 | 4.20 | 0.62 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 6.31 | 0.31 |
| **UAE** | No. | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| **Yemen** | No. | 7.08 | 2.59 | 2.55 | 0.40 | 1.30 | 0.86 | 1.32 | 0.00 | 0.00 | 1.21 | 0.00 | - | - | - | - | - | - | 0.00 | - | - |

- Unavailable data

* The results are for all population

| MDG+ Initiave Indicators – Sanitation (by Water Volume) Based on 2012 Data<br>Population Served with House Connection to Sewerage Network – Urban Areas | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Country | | Collected Wastewater MCM/year | Treated Wastewater MCM/year | Treatment type CMC/year | | | Reuse after treatment MCM/year | | | | | Untreated Wastewater MCM/year | Reuse without treatment MCM/year | | | | | Tariff MCM/y | | Average Tariff Value (US $/m$^3$) |
| | | | | Primary | Secondary | Tertiery | Irrigation | Ground water recharge | Domestic use | Discharge to watercourse or to sea | Other uses | | Irrigation | Ground water recharge | Domestic use | Discharge to watercourse or to sea | Other uses | Flat | Volumetric | |
| Algeria | Vol. | 1570.36 | 275.24 | 0.00 | 275.24 | 0.00 | 19.32 | 0.00 | 0.00 | 255.92 | 0.00 | 1295.12 | 0.00 | 0.00 | 0.00 | 1295.12 | 0.00 | 0.00 | 1570.36 | 0.02 |
| Bahrain | Vol. | 120.98 | 120.98 | 0.00 | 0.00 | 120.98 | 33.87 | 0.00 | 0.00 | 87.11 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Egypt | Vol. | 2547.93 | 2430.62 | 665.41 | 1712.35 | 52.87 | 24.50 | 0.00 | 0.00 | 2388.04 | 0.00 | 138.08 | 0.00 | 0.00 | 0.00 | 138.08 | 0.00 | - | - | 0.4 |
| Iraq | Vol. | 620.40 | 415.70 | 0.00 | 415.70 | 0.00 | 0.00 | 0.00 | 0.00 | 160.20 | 0.00 | 204.70 | 0.00 | 0.00 | 0.00 | 51.90 | 0.00 | 0.00 | 255.50 | 0.01 |
| Jordan | Vol. | 134.46 | 134.46 | 0.00 | 134.46 | 0.00 | 113.83 | 0.00 | 0.00 | 20.81 | 0.18 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 134.46 | 0.02 |
| Kuwait | Vol. | - | 261.43 | 0.00 | 44.38 | 217.05 | 198.70 | 0.00 | 62.73 | 0.00 | 0.00 | - | - | - | - | - | - | 0.00 | - | 0.70 |
| Lebanon | Vol. | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Libya | Vol. | 267.61 | 45.84 | 0.00 | 45.84 | 0.00 | 14.67 | 0.00 | 0.00 | 31.17 | 0.00 | 221.77 | 0.00 | 0.00 | 0.00 | 221.77 | 0.00 | 0.00 | 0.00 | 0.00 |
| Mauritania | Vol. | 0.65 | 0.65 | 0.00 | 0.65 | 0.00 | 0.06 | 0.00 | 0.00 | 0.52 | 0.06 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.65 | 0.05 |
| Morocco | Vol. | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Oman | Vol. | 23.22 | 23.22 | 0.00 | 0.00 | 23.22 | 20.00 | 2.35 | 0.00 | 0.00 | 0.87 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 23.22 | 0.64 |
| Palestine | Vol. | 60.10 | 44.05 | 0.24 | 44.81 | 0.00 | 0.00 | 0.00 | 0.00 | 35.19 | 0.00 | 15.05 | 0.00 | 0.00 | 0.00 | 4.29 | 0.00 | 4.45 | 55.65 | 0.27 |
| Qatar | Vol. | 151.76 | 129.86 | 0.00 | 0.37 | 129.50 | 64.93 | 0.00 | 0.00 | 15.58 | 49.35 | 21.90 | 0.00 | 0.00 | 0.00 | 21.90 | 0.00 | 0.00 | 0.00 | 0.00 |
| KSA | Vol. | 1284.36 | 1284.36 | 0.00 | 590.06 | 694.30 | 205.50 | 0.00 | 0.00 | 1053.17 | 25.69 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Sudan | Vol. | 17.89 | 17.89 | 17.89 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 17.89 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 17.89 | 0.00 | - |
| Tunisia | Vol. | 238.72 | 232.44 | 0.00 | 225.62 | 6.75 | 24.00 | 1.28 | 0.00 | 171.94 | 35.22 | 0.00 | 0.00 | 0.00 | 0.00 | 6.28 | 0.00 | 0.00 | 238.72 | 0.31 |
| UAE | Vol. | 576.1 | 556.2 | 0.00 | 60.50 | 495.70 | 308.7 | 0.00 | 0.00 | 197.8 | 49.7 | - | - | - | - | - | - | - | - | - |
| Yemen | Vol. | 65.75 | 65.75 | 4.95 | 38.78 | 22.02 | 35.96 | 0.00 | 0.00 | 29.57 | - | - | - | - | - | - | - | 0.00 | - | - |

- Unavailable data
* The results are for all population

| MDG+ Initiave Indicators – Sanitation (by Population) Based on 2012 Data<br>Number of People Served with House Connection to Sewerage Network – Rural Areas | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Country** | | No of Population (Million People) | people served by house connection (Million People) | **Treated Waste water (million people)** | **Treatment type** | | | **Reuse after treatment(million people)** | | | | | **Untreated Wastewater (million people)** | **Reuse without treatment(million people)** | | | | | **Tariff** | | Average Tariff Value (US $/m³) |
| | | | | | Primary | Secondary | Tertiery | Irrigation | Ground water recharge | Domestic use | Discharge to water course or to the sea | Other uses | | Irrigation | Ground water recharge | Domestic use | Discharge to water course or to the sea | Other uses | Flat | Volumetric | |
| **Algeria** | No. | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| **Bahrain** | No. | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| **Egypt** | No. | 45.32 | 9.83 | 8.47 | 0.71 | 7.71 | 0.05 | 0.25 | 0.00 | 0.00 | 8.22 | 0.00 | 1.63 | 0.00 | 0.00 | 0.00 | 1.63 | 0.00 | - | 6.55 | 0.03 |
| **Iraq** | No. | 23.68 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| **Jordan** | No. | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| **Kuwait** | No. | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| **Lebanon** | No. | 0.00 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| **Lybia** | No. | 5.24 | 0.30 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.30 | 0.00 | 0.00 | 0.00 | 0.30 | 0.00 | 0.00 | 0.00 | 0.00 |
| **Mauritania** | No. | 2.18 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| **Morocco** | No. | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| **Oman** | No. | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| **Palestine** | No. | 3.58 | 0.02 | 0.01 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | - | 0.00 | - | 0.01 | 0.25 |
| **Qatar** | No. | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| **KSA** | No. | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| **Sudan** | No. | - | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| **Tunisia** | No. | 3.48 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| **UAE** | No. | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| **Yemen** | No. | 17.45 | 5.25 | 5.25 | 4.91 | 0.34 | 0.00 | - | - | - | - | - | - | - | - | - | - | - | 0.00 | - | - |

- Unavailable data
* The results are for all population

| MDG+ Initiave Indicators – Sanitation (by Water Volume) Based on 2012 Data<br>Population Served with House Connection to Sewerage Network – Rural areas | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Country | | Collected Waste water MCM/year | Treated Waste water MCM/year | Treatment type CMC/year | | | Reuse after treatment MCM/year | | | | | Untreated Wastewater MCM/year | Reuse without treatment MCM/year | | | | | Tariff MCM/y | | Average Tariff Value (US $/m$^3$) |
| | | | | Primary | Secondary | Tertiery | Irrigation | Ground water rechargе | Domestic use | Discharge to water course or to sea | Other uses | | Irrigation | Ground water rechargе | Domestic use | Discharge to water course or to sea | Other uses | Flat | Volumetric | |
| Algeria | Vol. | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Bahrain | Vol. | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Egypt | Vol. | 428.82 | 352.31 | 31.04 | 319.38 | 1.89 | 9.75 | 0.00 | 0.00 | 352.31 | 0.00 | 77.84 | 0.00 | 0.00 | 0.00 | 77.84 | 0.00 | - | - | 0.03 |
| Iraq | Vol. | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Jordan | Vol. | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Kuwait | Vol. | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Lebanon | Vol. | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Libya | Vol. | 23.49 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 23.49 | 0.00 | 0.00 | 0.00 | 23.49 | 0.00 | 0.00 | 0.00 | 0.00 |
| Mauritania | Vol. | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Morocco | Vol. | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Oman | Vol. | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Palestine | Vol. | 0.87 | 0.46 | 0.06 | 0.45 | 0.00 | 0.00 | 0.00 | 0.00 | 0.36 | 0.00 | 0.41 | 0.00 | 0.00 | 0.00 | 0.33 | 0.00 | 0.30 | 0.56 | 0.25 |
| Qatar | Vol. | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| KSA | Vol. | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Sudan | Vol. | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Tunisia | Vol. | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| UAE | Vol. | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Yemen | Vol. | 93.62 | 56.64 | 53.18 | 3.46 | 0.00 | - | - | - | - | - | 36.98 | 0.00 | 0.00 | 0.00 | 36.98 | 0.00 | 0.00 | - | - |

* The results are for all population

| MDG+ Initiave Indicators – Sanitation (by Population) Based on 2013 Data<br>Number of People Served with House Connection to Sewerage Network – Urban Areas | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Country | | No of Population (Million people) | people served by house connection (Million people) | Treated Wastewater (million people) | Treatment type | | | Reuse after treatment(million people) | | | | | Untreated Wastewater (million people) | Reuse without treatment(million people) | | | | | Tariff | | Average Tariff Value (US $/m$^3$) |
| | | | | | Primary | Secondary | Tertiary | Irrigation | Ground water recharge | Domestic use | Discharge to water course or to sea | Other uses | | Irrigation | Ground water recharge | Domestic use | Discharge to water course or to sea | Other uses | Flat | Volumetric | |
| Algeria | No. | 38.70 | 32.75 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.00 | - | 0.02 |
| Bahrain | No. | 1.25 | 1.09 | 1.09 | 0.00 | 0.00 | 1.09 | 0.34 | 0.00 | 0.00 | 0.75 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Egypt | No. | 37.37 | 32.46 | 31.07 | 7.43 | 22.74 | 0.90 | 0.67 | 0.00 | 0.00 | 30.40 | 0.00 | 1.39 | 0.00 | 0.00 | 0.00 | 1.39 | 0.00 | 0.00 | 2.80 | 0.04 |
| Iraq | No. | 23.68 | 9.57 | 6.43 | 0.00 | 6.43 | 0.00 | 0.00 | 0.00 | 0.00 | 3.63 | 0.00 | 3.14 | 0.00 | 0.00 | 0.00 | 1.18 | 0.00 | 0.00 | 4.47 | 0.01 |
| Jordan | No. | 6.53 | 3.86 | 3.86 | 0.00 | 3.86 | 0.00 | 3.24 | 0.00 | 0.00 | 0.60 | 0.02 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 3.86 | 0.02 |
| Kuwait | No. | - | 3.88 | - | 0.00 | - | - | 3.84 | 0.00 | 0.00 | 0.00 | 0.00 | - | - | - | - | - | - | 0.00 | 3.84 | 0.70 |
| Lebanon | No. | 4.82 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Libya | No. | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Mauritania | No. | 1.71 | 0.01 | 0.01 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.05 |
| Morocco | No. | 19.51 | 17.20 | 16.11 | 8.78 | 4.22 | 3.11 | 0.06 | - | 0.00 | 14.52 | 0.85 | - | - | - | - | - | - | - | - | 0.26 |
| Oman | No. | 3.87 | 0.77 | 0.77 | 0.00 | 0.00 | 0.77 | 0.48 | 0.09 | 0.00 | 0.18 | 0.02 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.77 | 0.64 |
| Palestine | No. | 3.68 | 0.87 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.27 |
| Qatar | No. | 2.00 | - | - | 0.00 | - | - | - | - | 0.00 | - | - | - | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| KSA | No. | 30.14 | 16.20 | 16.20 | 0.00 | 7.14 | 9.06 | 2.59 | 0.00 | 0.00 | 13.28 | 0.32 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Sudan | No. | - | 0.04 | 0.04 | 0.04 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.04 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.04 | 0.00 | - |
| Tunisia | No. | 7.29 | 6.47 | 5.76 | 0.00 | 5.55 | 0.21 | 0.48 | 0.43 | 0.00 | 4.25 | 0.61 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 6.47 | 0.30 |
| UAE | No. | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Yemen | No. | 7.08 | 2.59 | 2.55 | 0.40 | 1.30 | 0.86 | 1.32 | 0.00 | 0.00 | 1.21 | 0.00 | - | - | - | - | - | - | 0.00 | - | - |

- Unavailable data
* The results are for all population

| MDG+ Initiave Indicators – Sanitation (by Water Volume) Based on 2013 Data<br>Population Served with House Connection to Sewerage Network – Urban Areas | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Country | | Collected Wastewater MCM/year | Treated Wastewater MCM/year | Treatment type CMC/year | | | Reuse after treatment MCM/year | | | | | Untreated Wastewater (M. people | Reuse without treatment MCM/year | | | | | Tariff MCM/y | | Average Tariff Value (US $/m$^3$) |
| | | | | Primary | Secondary | Tertiary | Irrigation | Ground water recharge | Domestic use | Discharge to water course or to sea | Other uses | | Irrigation | Ground water recharge | Domestic use | Discharge to water course or to sea | Other uses | Flat | Volumetric | |
| Algeria | Vol. | 1570.36 | 275.24 | 0.00 | 275.24 | 0.00 | 19.32 | 0.00 | 0.00 | 255.92 | 0.00 | 1295.12 | 0.00 | 0.00 | 0.00 | 1295.12 | 0.00 | 0.00 | 1570.36 | 0.02 |
| Bahrain | Vol. | 122.80 | 122.80 | 0.00 | 0.00 | 122.80 | 38.07 | 0.00 | 0.00 | 84.73 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Egypt | Vol. | 2590.03 | 2472.71 | 682.41 | 1735.44 | 54.87 | 40.40 | 0.00 | 0.00 | 2432.25 | 0.00 | 101.74 | 0.00 | 0.00 | 0.00 | 101.74 | 0.00 | - | - | 0.0.04 |
| Iraq | Vol. | 620.40 | 415.70 | 0.00 | 415.70 | 0.00 | 0.00 | 0.00 | 0.00 | 160.20 | 0.00 | 204.70 | 0.00 | 0.00 | 0.00 | 51.90 | 0.00 | 0.00 | 255.50 | 0.01 |
| Jordan | Vol. | 130.83 | 130.83 | 0.00 | 130.83 | 0.00 | 112.92 | 0.00 | 0.00 | 17.53 | 0.37 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 130.83 | 0.02 |
| Kuwait | Vol. | - | 308.28 | 0.00 | 57.97 | 250.31 | 308.28 | 0.00 | 0.00 | 0.00 | 0.00 | - | - | - | - | - | - | 0.00 | - | 0.70 |
| Lebanon | Vol. | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Libya | Vol. | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Mauritania | Vol. | 0.65 | 0.65 | 0.00 | 0.65 | 0.00 | 0.06 | 0.00 | 0.00 | 0.52 | 0.06 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.65 | 0.05 |
| Morocco | Vol. | 143.57 | 44.36 | 38.18 | 0.14 | 6.04 | - | - | - | - | - | 99.22 | - | - | - | - | - | 0.00 | 143.57 | 0.26 |
| Oman | Vol. | 26.20 | 26.20 | 0.00 | 0.00 | 26.20 | 18.50 | 1.50 | 0.00 | 5.80 | 0.40 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 26.20 | 0.64 |
| Palestine | Vol. | 29.96 | 20.65 | 20.65 | 0.00 | 0.00 | 0.10 | 8.78 | 0.00 | 11.77 | 0.00 | 9.31 | 0.00 | 0.00 | 0.00 | 9.31 | 0.00 | 4.45 | 25.51 | 0.27 |
| Qatar | Vol. | 176.83 | 158.79 | 0.00 | 0.00 | 158.79 | 55.58 | 0.00 | 0.00 | 35.27 | 60.34 | 18.04 | 0.00 | 0.00 | 0.00 | 18.04 | 0.00 | 0.00 | 0.00 | 0.00 |
| KSA | Vol. | 1317.17 | 1317.17 | 0.00 | 580.22 | 736.95 | 210.75 | 0.00 | 0.00 | 1080.08 | 26.34 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Sudan | Vol. | 18.04 | 18.04 | 18.04 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 18.04 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 18.04 | 0.00 | - |
| Tunisia | Vol. | 235.00 | 228.65 | 0.00 | 222.03 | 6.62 | 24.00 | 1.11 | 0.00 | 168.65 | 34.89 | 0.00 | 0.00 | 0.00 | 0.00 | 6.35 | 0.00 | 0.00 | 235.00 | 0.30 |
| UAE | Vol. | 615.70 | 605.50 | 0.27 | 11.70 | 593.60 | 376.8 | - | - | 208.3 | 20.4 | - | - | - | - | - | - | - | - | - |
| Yemen | Vol. | 65.75 | 65.75 | 4.95 | 38.78 | 22.02 | 35.96 | 0.00 | 0.00 | 29.57 | - | - | - | - | - | - | - | 0.00 | - | - |

* The results are for all population

| MDG+ Initiave Indicators – Sanitation (by Population) Based on 2013 Data<br>Number of People Served with House Connection to Sewerage Network – Rural areas | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Country | | No of Population (Million people) | people served by house connection (Million people) | Treated Wastewater (million people) | Treatment type | | | Reuse after treatment(million people) | | | | | Untreated Wastewater (million people) | Reuse without treatment(million people) | | | | | Tariff | | Average Tariff Value (US $/m$^3$) |
| | | | | | Primary | Secondary | Tertiery | Irrigation | Ground water rechargе | Domestic use | Discharge to water course or to sea | Other uses | | Irrigation | Ground water rechargе | Domestic use | Discharge to water course or to sea | Other uses | Flat | Volumetric | |
| Algeria | No. | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Bahrain | No. | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Egypt | No. | 45.83 | 10.52 | 8.92 | 0.95 | 7.90 | 0.07 | 0.26 | 0.00 | 0.00 | 8.65 | 0.00 | 1.607.953 | 0.00 | 0.00 | 0.00 | 1.61 | 0.00 | - | 6.55 | 0.03 |
| Iraq | No. | 23.68 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Jordan | No. | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Kuwait | No. | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Lebanon | No. | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Libya | No. | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Mauritania | No. | 1.76 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Morocco | No. | 13.44 | 0.17 | 0.03 | 0.03 | 0.00 | 0.00 | 0.03 | 0.00 | 0.00 | 0.00 | 0.00 | - | - | - | - | - | - | - | - | 0.20 |
| Oman | No. | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Palestine | No. | 0.74 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.25 |
| Qatar | No. | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| KSA | No. | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Sudan | No. | - | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Tunisia | No. | 3.66 | 0.36 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| UAE | No. | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Yemen | No. | 17.45 | 5.25 | 5.25 | 4.91 | 0.34 | 0.00 | - | - | - | - | - | - | - | - | - | - | - | 0.00 | - | - |

- Unavailable data
* The results are for all population

| MDG+ Initiave Indicators – Sanitation (by Water Volume) Based on 2013 Data<br>Population Served with House Connection to Sewerage Network – Rural areas | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Country | | Collected Wastewater MCM/year | Treated Wastewater MCM/year | Treatment type CMC/year | | | Reuse after treatment MCM/year | | | | | Untreated Wastewater MCM/year | Reuse without treatment MCM/year | | | | | Tariff MCM/y | | Average Tariff Value (US $/m$^3$) |
| | | | | Primary | Secondary | Tertiary | Irrigation | Ground water recharge | Domestic use | Discharge to water course or to sea | Other uses | | Irrigation | Ground water recharge | Domestic use | Discharge to watercourse or to sea | Other uses | Flat | Volumetric | |
| Algeria | Vol. | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Bahrain | Vol. | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Egypt | Vol. | 440.35 | 363.51 | 41.94 | 319.38 | 2.19 | 9.75 | 0.00 | 0.00 | 353.76 | 0.00 | 76.84 | 0.00 | 0.00 | 0.00 | 76.84 | 0.00 | - | - | 0.03 |
| Iraq | Vol. | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Jordan | Vol. | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Kuwait | Vol. | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Lebanon | Vol. | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Libya | Vol. | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Mauritania | Vol. | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Morocco | Vol. | 0.61 | 0.06 | - | 0.00 | 0.06 | - | - | - | - | - | 0.55 | - | - | - | - | - | 0.00 | 0.61 | 0.20 |
| Oman | Vol. | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Palestine | Vol. | 0.87 | 0.46 | 0.01 | 0.45 | 0.00 | 0.00 | 0.00 | 0.00 | 0.36 | 0.00 | 0.41 | 0.00 | 0.00 | 0.00 | 0.32 | 0.00 | 0.30 | 0.57 | 0.25 |
| Qatar | Vol. | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| KSA | Vol. | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Sudan | Vol. | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Tunisia | Vol. | - | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| UAE | Vol. | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Yemen | Vol. | 93.62 | 56.64 | 53.18 | 3.46 | 0.00 | - | - | - | - | - | 36.98 | 0.00 | 0.00 | 0.00 | 36.98 | 0.00 | 0.00 | - | - |

* The results are for all population


# 3 Chapter Three: Field Surveys

# Introduction

The implementation of the MDG+ Initiative includes the conduct of field surveys in vulnerable areas to obtain direct consumer (household) data. These surveys enhanced capacity to conduct such activities at the regional level.

The field surveys were conducted in two phases; the first phase covered Sudan, Palestine, Mauritania and Yemen. The findings were presented in the first regional report.

Based on the request of the Arab Ministerial Water Council, the partners agreed at the second MDG+ Initiative regional workshop held in Jordan from 13 to 14 January 2015 to conduct field surveys in the countries affected by the influxes of refugees from the conflict areas in the region. Thus, Jordan, Lebanon, and Syria were covered in the second phase.

ESCWA and RAED organized a workshop in Cairo from 14 to 15 June 2015 to launch the second stage of the field surveys in collaboration with ACWUA and the accredited NGO survey team leaders. The participants agreed on the final version of the Arabic questionnaire. ESCWA and RAED provided training and guidance to the survey team leaders on how to complete the field surveys and shared lessons learnt from conducting the phase I surveys.

The standard questions on which the field surveys were conducted are reviewed below.:

## First: Water Supply

| # | Questions |
|---|---|
| 1 | How many household members live in the housing unit? |
| 2 | Is the house equipped with a ground water tank? |
| 3 | What is the approximate size of the ground tank? |
| 4 | Assuming that this tank is completely filled with water, how much time the family can rely on it before the water completely runs out of it? |
| 5 | Is the house equipped with a rooftop water tank? |
| 6 | What is the approximate size of the rooftop water tank? |
| 7 | What is the household main source for drinking water? |
| 8 | How do you evaluate the water quality from this source? |
| 9 | Is there water treatment by any means to make it safer to drink? |
| 10 | What do you usually do to make the water safer to drink? |
| 11 | Do you use this water source for other purposes such as washing clothes and bathing? |
| 12 | What water sources are used by the household for other purposes such as washing clothes and bathing throughout the year? |
| 13 | How do you evaluate water quality of this source? |
| 13b | In case there is more than one water source, how do you evaluate them? |

The following set of questions were asked to the households that depend on tanker trucks

| # | Question |
|---|---|
| 14 | What water source does the tanker truck fill from? |
| 15 | Is the water tanker truck subject to control? |
| 16 | How much water does the family purchase from the tanker trucks weekly? |
| 17 | How much money does the family pay to purchase water from the tanker trucks? |

The following set of questions were asked to the households that depend on a piped water connection to their house or yard

| # | Question |
|---|---|
| 18 | Specify the continuity of water supply obtained by pipes? |
| 19 | How many hours the supply continues each time? |
| 20 | Is the water used outside the house (watering plants, washing cars, animals drinking, etc.) |
| 21 | Is the water tariff flat or volumetric? |
| 22 | Are the water charges/ service cost paid by bills (according to watermeters)? |
| 23 | What is the volume of household water consumption per month? |
| 24 | What is the average monthly amount paid by the household for water bills? |
| 25 | (For unbilled service/flat tariff) What is the average monthly amount the household pays for the cost of water supplied to the house by pipes? |

The following set of questions are asked to the households that depend on outside water sources other than pipes and tanker trucks

| # | Question |
|---|---|
| 26 | How much time does it take to fetch water (going, waiting and coming back)? |
| 27 | How many times water is brought to the house? |
| 28 | What is the size of the container used for bringing water? |
| 29 | How much water does the household consume weekly from these sources? |
| 30 | Is their direct financial cost paid by the household to obtain water from this source? |
| 31 | How much does it cost the household to obtain water from this source weekly? |
| 32 | Who usually goes to fetch water from the source? |
| 33 | What risks/ problems / harassment faced by the one who fetches water? |

## Second: Sanitation Services

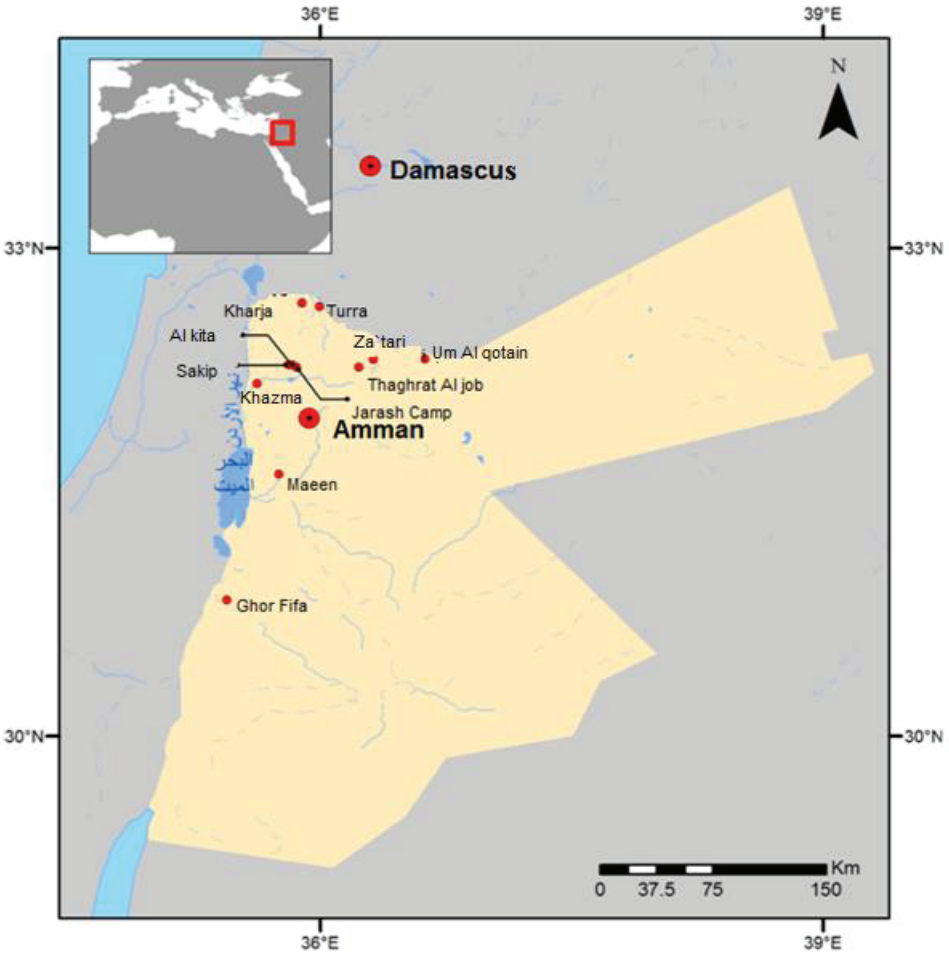
| # | Question |
|---|---|
| 34 | What type of Latrine used by the household? |
| 35 | Is the latrine for the household or shared with other households? |
| 36 | How many households share the latrine? |
| 37 | Does the family reuse the sanitation water? |
| 38 | For what purposes the wastewater is reused for? |
| 39 | Is there a direct financial cost for disposing the wastewater? |
| 40 | How much does it cost the family monthly to dispose the wastewater? |

The results of the surveys in Jordan, Lebanon and Syria are presented in this chapter.

# Part 1
# Field Surveys in Jordan

The surveys were conducted during August and September 2015 in ten villages in six governorates: Kharja and Tura (Irbid governorate) Za'tari, Thaghrat Al Job and Um Al Qotain (Mafraq governorate); Ma'een (Madaba governorate); Jarash (Ghaza) refugee camp, Sakip and Al Kita (Jarash governorate) Khazma (Balqa governorate); Ghor Fifa (Karak governorate). The population in these villages ranges from 3-51 thousand people.

The locations of these villages are shown in the following map:




The following table shows the target areas and number of surveyed households:

## Um Al qotain

| Village | Governorate | Village nature | Estimated Population | Surveyed Households |
|---|---|---|---|---|
| Kharja | Irbid | Rural agricultural | 7000 | 100 |
| Turra | Irbid | Rural agricultural | 15000 | 100 |
| Za'tari | Mafraq | Rural agricultural | 12000 | 100 |
| Thaghrat Al Job | Mafraq | Rural agricultural | 3500 | 100 |
| Um Al Qotain | Mafraq | Rural agricultural | 5000 | 100 |
| Maeen | Madaba | Rural agricultural | 7000 | 100 |
| Ghaz Camp | Jarash | Palestinian Refugee Camp | 51000 | 50 |
| Sakip | Jarash | Rural agricultural and industrial | 17000 | 100 |
| Al Kita | Jarash | Rural agricultural | 12000 | 50 |
| Khazma | Balqa | Rural agricultural | 8000 | 100 |
| Ghor Fifa | Karak | Rural agricultural | 3000 | 100 |

The number of surveyed households is 1000. Surveys showed that the members in each household who live in the housing unit ranges between 2-25 people, with an average of 6 people in Kharja, Um Al Qutain and Al Kita; 6.5 people in Thaghrat Al Job, Khazma; 7 people in Turra, Za'tari, Maeen and Ghaza camp; 8 people in Sakip and Ghor Fifa.

Rooftop water tank in Za'tari village

Tank distributing water in Kharja

## First: Drinking Water

### Kharja

Drinking water sources in Kharja village vary between bottled water from private treatment plants, water supply networks, dig wells, tanker trucks and rainwater collection. People reported that water is appropriate for drinking, however some households use filters to make it safer. The average consumption of the household dependant on bottled water is 175 liters weekly with an average cost of 7 USD. Most of the surveyed households depend on water supply network and dig wells as the main source for household uses. The continuity of supply from the network is once a week with an average of 4 hours daily. People rely on ground and rooftop tanks (at the top of the house) to store water. The average size of the ground tank is 24$m^3$ and the rooftop tank is 3.5 $m^3$. Water tariff is volumetric with average monthly value of 31 USD.

### Turra

Drinking water sources in Turra village vary between bottled water from private treatment plants, water supply networks, dig wells, tanker trucks and rainwater collection. People reported that water is appropriate for drinking, however some households use filters to make it safer. The average consumption of the household dependant on bottled water is 54 liters weekly with an average cost of 6 USD. Most of the surveyed households depend on water supply network; tanker trucks and dig wells as the main source for household uses. The continuity of supply from the network is once biweekly with an average of 6 hours daily. People rely on ground and rooftop tanks to store water. The average size of the ground tank is 22$m^3$ and the rooftop tank is 4 $m^3$. Water tariff is volumetric with average monthly value of 15 USD.

### Za'tari

Drinking water sources in Za'tari village vary between bottled water from private treatment plants, water supply networks, and tanker trucks. People reported that water is appropriate for drinking, however some households use filters to make it safer. The average consumption of the household dependant on bottled water is 140 liters weekly with an average cost of 10 USD. Most of the surveyed households depend on water supply network and tanker trucks as the main source for household uses. The continuity of supply from the network is once a week with an average of 14 hours daily. People rely on ground and rooftop tanks to store water. The average size of the ground tank is 7 $m^3$ and the rooftop tank is 3 $m^3$. Water tariff is volumetric with average monthly value of 18 USD.

### Thaghrat Al Job

Most of the surveyed households in Thaghrat Al Job village depend on bottled water from private treatment plants as the main source for drinking. The average consumption of the household is 150 liters weekly with an average cost of 8 USD. People reported that the water is appropriate for drinking. Most of the surveyed households depend on water supply network and tanks mounted on carts as the main source for household uses. The continuity of supply from the network is once a week with an average of 18 hours daily. People rely on ground and rooftop tanks to store water. The average size of the ground tank is 11 $m^3$ and the rooftop tank is 4 $m^3$. Water tariff is volumetric with average monthly value of 14 USD.

## Um Al qotain

Drinking water sources in Um Al qotain village vary between bottled water from private treatment plants, water supply networks and tanker trucks. People reported that water is appropriate for drinking, however some households use filters to make it safer. The average consumption of the household dependant on bottled water is 100 liters weekly with an average cost of 5 USD. Most of the surveyed households depend on water supply network; tanker trucks and dig wells as the main source for household uses. The continuity of supply from the network is once a week with an average of 12 hours daily. People rely on ground and rooftop tanks to store water. The average size of the ground tank is 14 $m^3$ and the rooftop tank is 3 $m^3$. Water tariff is volumetric with average monthly value of 21 USD.

## Maeen

Drinking water sources in Maeen village vary between bottled water from private treatment plants, water supply networks, and dig wells, tanker trucks and rainwater collection. People reported that water is appropriate for drinking, however some households use filters to make it safer. The average consumption of the household dependant on bottled water is 235 liters weekly with an average cost of 7 USD. Most of the surveyed households depend on water supply network and tanker trucks as the main source for household uses. The continuity of supply from the network is once a week with an average of 5 hours daily. People rely on ground and rooftop tanks to store water. The average size of the ground tank is 19 $m^3$ and the rooftop tank is 4 $m^3$. Water tariff is volumetric with average monthly value of 13 USD.

## Jarash (Ghaza) Camp

Drinking water sources in Jarash Camp vary between bottled water from private treatment plants, water supply networks and tanker trucks. People reported that water is appropriate for drinking. The average consumption of the household dependant on bottled water is 44 liters weekly with an average cost of 2 USD. Most of the surveyed households depend on water supply network and tanker trucks as the main source for household uses. The continuity of supply from the network is once a week with an average of 10 hours daily. People rely on ground and rooftop tanks to store water. The average size of the ground tank is 2 $m^3$ and the rooftop tank is 3 $m^3$. Water tariff is volumetric with average monthly value of 5 USD.

## Sakip

Most of the surveyed households in Sakip village depend on water supply network and tanker trucks as the main source for drinking and household uses. People reported that water is appropriate for drinking, however some households use filters to make it safer. The continuity of supply from the network is once biweekly with an average of 8 hours daily. People rely on ground and rooftop tanks to store water. The average size of the ground tank is 15 $m^3$ and the rooftop tank is 5 $m^3$. Water tariff is volumetric with average monthly value of 12 USD. Some of the surveyed households rely on bottled water from private treatment plants as a source for drinking water with an average consumption of 20 liters weekly and average cost of 1.4 USD.

## Al Kita

Most of the surveyed households in Al Kita village depend on water supply network as the main source for drinking and household uses. People reported that water is appropriate for drinking, however some households use filters to make it safer. The continuity of supply from the network is once biweekly with an average of 8 hours daily. People rely on ground and rooftop tanks to store water. The average size of the ground tank is 7 $m^3$ and the rooftop tank is 4 $m^3$. Water tariff is volumetric with average monthly value of 11 USD.

## Khazma

Most of the surveyed households in Khazma village depend on water supply network and tanker trucks as the main source for drinking and household uses. People reported that water is appropriate for drinking, however some households use filters to make it safer. The continuity of supply from the network is once weekly with an average of 8 hours daily. People rely on ground and rooftop tanks to store water. The average size of the ground tank is 2 $m^3$ and the rooftop tank is 4 $m^3$. Water tariff is volumetric with average monthly value of 16 USD. Some of the surveyed households rely on bottled water from private treatment plants as a source for drinking water with an average consumption of 80 liters weekly and average cost of 7 USD.

## Ghor Fifa

Most of the surveyed households in Ghor Fifa village depend on water supply network as the main source for drinking and household uses. People reported that water is appropriate for drinking, however some households use filters, add chlorine or boil water to make it safer. The continuity of supply from the network is twice biweekly with an average of 16 hours daily. People rely on ground and rooftop tanks to store water. The average size of the ground and the rooftop tank is 2 $m^3$ each. Water tariff is volumetric with average monthly value of 11 USD. Some of the surveyed households rely on bottled water from private treatment plants as a source for drinking water with an average consumption of 180 liters weekly and average cost of 5 USD.

Ground water tank in Jarash camp

Ground water tank in Kharja

## Second: Sanitation

### Kharja, Turra, Zatari, Thaghrat Al Job, Um Al qotain, Maeen, Khazma and Ghor Fifa

The surveyed households in these areas use latrines connected to septic tanks and others connected to covered pits. There were some shared latrines by several households. The average monthly financial cost of the disposal of household wastewater is 34 USD.

The majority of the surveyed households do not reuse wastewater. Some households reuse wastewater to irrigate the crops or the garden.

Some of the surveyed households in Maeen village reported that they don't use latrines and defecate in the open.

### Jarash Camp, Sakip and Al Kita

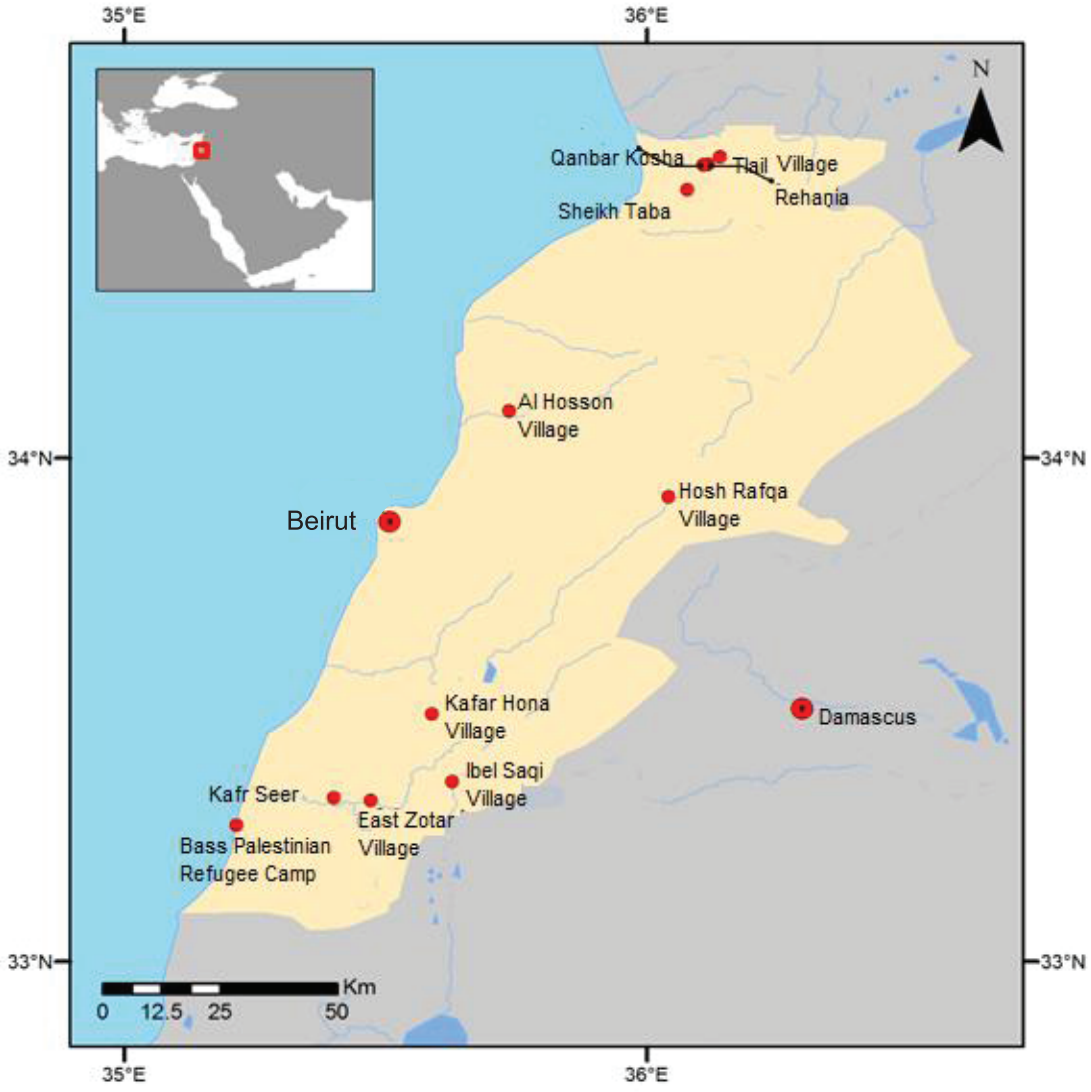
People in these areas use latrines connected to the sewage network and others connected to covered pits. The average monthly financial cost of disposing household wastewater to a covered pit is 35 USD.

The majority of the surveyed households do not reuse wastewater.

# Part 2
# Field Surveys in Lebanon

The surveys were conducted during August/September 2015 in ten villages in 5 governorates: Kafer Houna (South governorate) villages of Ibel Saqi, East Zotar and Kafer Seer (Nabatiye Governorate); Al Hosoon village (Mount Lebanon Governorate); villages of Tlail, Rihania and Qanbar Kosha (Akkar Governorate); Hosh Rafqa village (Balbak Governorate); Hermel, incluing Syrian refugee camp) in addition to Bass camp of Palestinian refugees (South Governorate). The estimated population is varied between 800- 12000 people.

The locations of these areas are shown in the following map:



## LEBANON

The following table shows the nature of the target areas and the number of surveyed households:

| Village | Governorate | Village nature | Estimated Population | No of households |
|---|---|---|---|---|
| Kafer Houna | South | Touristic mountainous | 12000 | 101 |
| Bass camp of Palestinian refugees- Sour | South | Coastal area | 11000 | 61 |
| Ibel Saqi, | Nabatiya | Agricultural Mountainous | 3500 | 101 |
| East Zotar | Nabatiya | Agricultural Mountainous | 4000 | 51 |
| Kafer Seer | Natiyabn | Rural, agricultural, commercial, near the coast | 12000 | 101 |
| Al Hosoon | Jabal Lebanon | Agricultural, industrial Mountainous | 1000 | 105 |
| Tlail | Akar | Rural, agricultural, near the coast | 1700 | 52 |
| Rehania | Akar | Rural, agricultural, near the coast | 1600 | 76 |
| Qanba Kosha | Akar | Rural, agricultural, near the coast | 800 | 25 |
| Sheikh Taba | Akar | Rural, agricultural, near the coast | 5000 | 50 |
| Hosh Rafqa | Balbak Hermel | Agricultural Mountainous | 4500 | 101 |
| Syrian Refugee Camp at Hosh Rafqa | Balabak Hermel | - | 2000 | 100 |

Thu number of the surveyed households is 924. The survey showed that the household members who live in one housing unit ranges between one and 15 persons, with an average of 4 in Rihania, Sheikh Taba, and Ibel Saqi; 5 in Kafer Hona, Bass camp, Kafer Seer and Hosson; 5.5 in East Zootar; and six persons in Qanbar Kosha, Sheikh Taba and Hosh Rafqa.

Network pipe laying in Al Hosson village

Water distribution tank in East Zotar

## First: Drinking Water

### Kafer Hona Village

Most of the surveyed households in Kafer Hona village depend on the supply from the network as the major source for drinking water and household uses. The continuity of supply from this source is twice a week with an average of 9 hours daily. People rely on the ground and rooftop tanks to store water. The average size of the ground tank is 5 $m^3$ and the rooftop tank is 3 $m^3$. The water tariff is flat with a value of 17 USD. Some households depend on bottled water from private treatment plant for drinking water with an average consumption of 70 liters weekly and average cost of 6 USD.

### Bass Palestinian Refugee Camp

Most of the surveyed households in Bass Palestinian Refugee Camp depend on the supply from the network as the major source for drinking water. The average consumption is 108 littesr weekly with a cost of 9 USD. As for household uses some people rely on supply from the network and others depend on private artesian wells. The continuity of supply from the network is twice a week with an average of 6 hours daily. People rely on the ground and rooftop tanks to store water. The average size of the ground tank is 3.5 $m^3$ and the rooftop tank is 2 $m^3$. The water tariff is flat with a value of 17 USD.

### Ibel Saqi Village

Most of the surveyed households in Ibel Saqi village depend on the supply from the network as the major source for drinking water and household uses. The continuity of supply from the network is twice a week with an average of 16 hours daily. People rely on the ground and rooftop tanks to store water. The average size of the ground and the rooftop tank is 2 $m^3$ each. The water tariff is flat with a value of 16 USD.

### East Zotar Village

Most of the surveyed households in East Zotar village depend on bottled water from the private treatment plants as the major source for drinking water. The average consumption is 214 liters weekly with a cost of 15 USD. As for household uses some people rely on supply from the network. The continuity of supply from the network is twice a week with an average of 8 hours daily. People rely on the ground and rooftop tanks to store water. The average size of the ground tank is 24 $m^3$ and the rooftop tank is 2 $m^3$.

### Kafer Seer Village

Most of the surveyed households in Kafer Seer village depend on the supply from the network as the major source for drinking water and household uses. The continuity of supply from the network is 11 hours daily in average. People rely on the ground and rooftop tanks to store water. The average size of the ground and rooftop tanks is 4 $m^3$. The water tariff is flat with a value of 16.5 USD. Some of the surveyed households depend on bottled water

from private treatment plants with an average consumption of 90 liters weekly and a cost of 8 USD.

## Al Hosson Village

Most of the surveyed households in Al Hosoon village depend on the supply from the network as the major source for drinking water and household uses. The continuity of supply from the network is twice a week with an average of 8 hours daily. People rely on the rooftop tanks to store water. The average size of the ground tank is 5 $m^3$ and the rooftop tank is 3 $m^3$. The water tariff is flat with a monthly value of 17 USD. Some households rely on the bottled water from private treatment plants for drinking with an average consumption of 80 liters weekly with a cost of 7 USD.

## Tlail Village

The sources of water for drinking and household uses in Tlail village vary between supply from the network, artesian wells and tanker trucks. The continuity of supply from the network is two hours daily. People rely on rooftop tanks to store water. The average size of the rooftop tank is 2$m^3$. People who rely on tanker trucks buy 2 $m^3$ weekly with a cost of 19 USD. Some of the surveyed households rely on bottled drinking water from private treatment plants with an average consumption of 66 liters weekly and an average cost of 5.5 USD.

## Rehania and Qanbar Kosha Villages

Most of the surveyed households in Rehania and Qanbar Kosha villages depend on artesian wells as the main source for drinking and household uses. People rely on rooftop tanks to store water. The average size of the rooftop tank is 2$m^3$. People reported that water is appropriate for drinking, however some households use filers to make it safer.

## Sheikh Taba Village

Most of the surveyed households in Sheikh Taba village depend on water supply network as the main source for drinking and household uses. The continuity of supply from the network is 22 hours daily. People rely on ground and rooftop tanks to store water. The average size of the ground tank is 5 $m^3$ and the rooftop tank is 3$m^3$. The water tariff is flat with a value of 14 USD monthly. Some of the surveyed households rely on bottled water from private treatment plants for drinking with an average consumption of 90 liters and a cost of 10 USD weekly.

## Hosh Rafqa Village

The sources of water for drinking and household uses in Hosh Rafqa village vary between supply from the network, artesian wells and tanker trucks. The continuity of supply from the network is twice weekly with an average of two hours daily. People rely on ground and rooftop tanks to store water. The average size of the ground tank is 20 m3 and the rooftop tank is 2$m^3$. The water tariff is flat with a monthly value of 10 USD. People who rely on tanker trucks buy 4 $m^3$ weekly with a cost of 20 USD. Some of the surveyed households rely on bottled drinking water from private treatment plants with an average consumption of 68 liters weekly and an average cost of 8.7 USD.

## Atta Syrian Refugee Camp at Hosh Rafqa Village

The sources of water for drinking and household uses in Atta Syrian Refugee Camp at Hosh Qafqa village vary between artesian wells, protected rainwater collection and tanker trucks. People rely on ground and rooftop tanks to store water. The average size of the ground tank is one cubic meter and the rooftop tank is 2$m^3$. People who rely on tanker trucks buy 4 $m^3$ weekly with a cost of 14 USD. Some of the surveyed households rely on other water sources outside the house with an average consumption of 300 liters and an average cost of 11 USD weekly.

Artesian well pumping water to Hosh Rafqa peoples' house tanks

Syrian refugee camps in Hosh Rafqa village

## Second: Sanitation

### Kafer Hona, Ibel Saqi, East Zotar, Kafer Seer and Al Hosoon

All surveyed households use private household latrines connected to septic tanks. There is no direct financial cost for disposal of wastewater. All surveyed households do not reuse wastewater.

### Villages of Tlail, Rehaniya, Qanbar Kosha, Sheikh Taba and Hosh Rafqa, and Bass Camp

All surveyed households use private household latrines connected to sewer networks. There is no direct financial cost for disposal of wastewater. All surveyed households do not reuse wastewater.

### Hosh Rafqa Camp

None of the surveyed households use latrines connected to the sewerage network. Most of the surveyed households use latrines connected to a pit with concrete ground and shared with other households. There is no direct cost for disposal of wastewater. All surveyed households don't reuse wastewater.

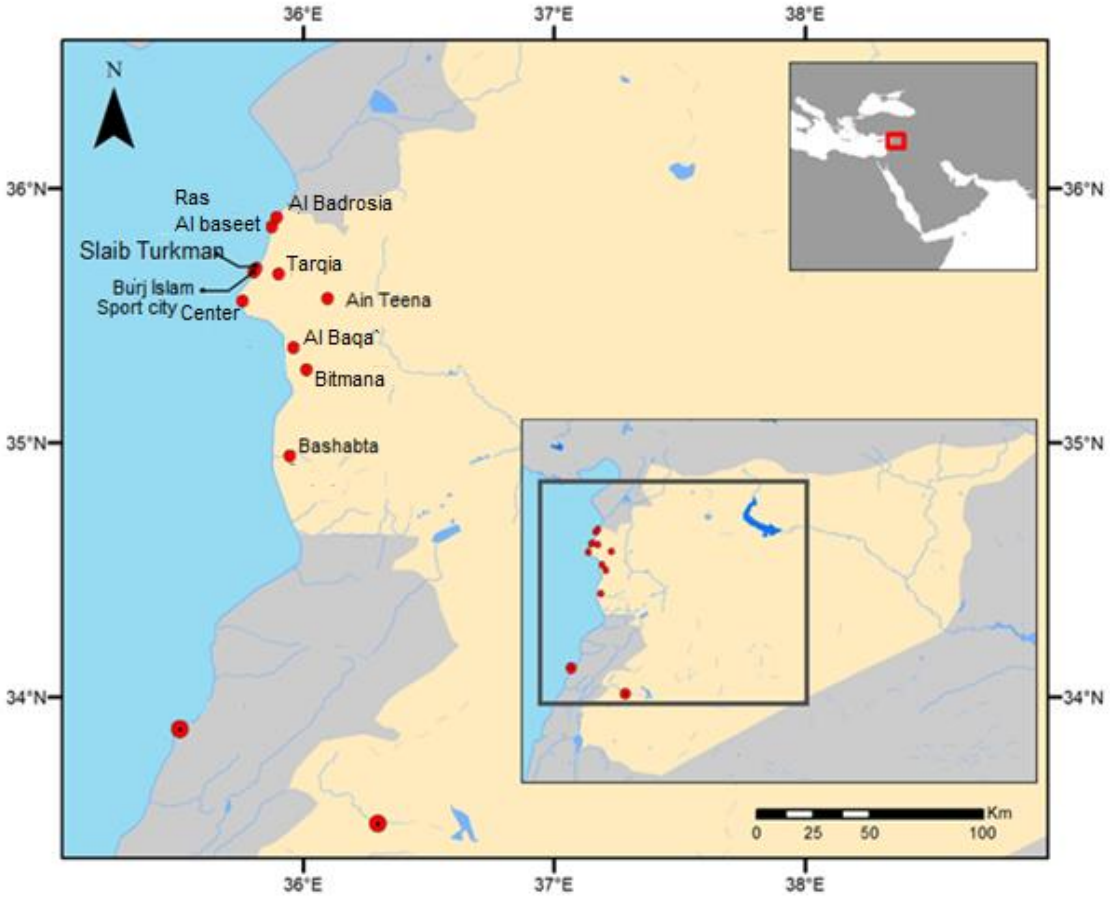
Latrine pail in Hosh Rafqa camp

Dry latrines at Hosh Rafqa camp

# Part 3
# Field Surveys in Syria

The surveys were conducted during August/September 2015 in ten villages as follows: Ein teena, Betmana, Burj Islam, Sport city center for refugees, Slaib Turkman, Ras Al Baseet, Al Tarqia, Al Baqa' and Badrosia (all located in Lathqia governorate) Bashbata village (located in Tartous governorate). The population of these villages is between 1500 and 15000 people.

Locations of these areas are shown on the following map:




The following table shows the nature of the target areas and number of surveyed households

| Village | Governorate | Population | Nature | No of households |
|---|---|---|---|---|
| Ein Teena | Latheqia | 7500 | Rural Agricultural | 100 |
| Btmana | Latheqia | 5000 | Rural Agricultural | 100 |
| Burj Islam | Latheqia | 15000 | Rural Agricultural | 100 |
| Sport City | Latheqia | 2000 | Refugee shelter | 100 |
| Slaib Turkman | Latheqia | 10000 | Rural Agricultural | 125 |
| Ras Al Baseet | Latheqia | 5000 | Rural Touristic | 99 |
| Tariqia | Latheqia | 5000 | Rural Agricultural | 100 |
| Baqa' | Latheqia | 5000 | Rural Agricultural | 100 |
| Badrosia | Latheqia | 1500 | Rural Agricultural and Touristic | 100 |
| Bashbata | Tartous | 2000 | Rural Agricultural | 100 |

The number of the surveyed households is 1024. The survey showed that the number of household members living in each housing unit is ranging between 2 to 13 persons, with an average of 4 persons in Baqa' and Badrosiya; 5 in Ein Teena, Sport city that shelters the refugees, Slaib Turkman, Ras Al Baseet, Tarqia and Bashbta; and 6 in Betmana and Burj Islam.

Source of fetching water in Sport city sheltering refugees

Water well in Burj Islam Village

## First: Drinking Water

### Ein Teena

Most of the surveyed households in Ein Teena village depend on the supply from the network as the major source for drinking water. The quality of water is appropriate for drinking. The sources of the household use water vary between water supply from the network, protected spring, and tanker trucks. The continuity of the supply from the network is once biweekly with an average of one hour daily. People rely on the ground and rooftop tanks to store water. The average size of the ground tank is 8 $m^3$ and rooftop tank is 1.5 $m^3$. The water tariff is flat with a monthly value of one USD.

### Bitmana

Most of the surveyed households in Bitmana village depend on the supply from the network as the major source for drinking water. They reported that quality of water from this source is appropriate for drinking. The sources of water for household uses vary between supply network, dig wells and tanker trucks. The continuity of supply from the network is twice biweekly with an average of one hour daily. People rely on the ground and rooftop tanks to store water. The average size of the ground tank is 8 $m^3$ and rooftop tank is 8 $m^3$. The water tariff is volumetric with a monthly value of one USD.

### Burj Islam

Sources of drinking water in Burj Islam village vary between supply network and artesian wells. The quality of water as reported by the households is appropriate for drinking, however some households use filters and add chlorine to make it safer. Most of the surveyed households depend on the supply from the network as the major source for household uses. The continuity of supply from the network is daily for 3 hours in average. People rely on the ground and rooftop tanks to store water. The average size of the ground tank is 7.5 $m^3$ and rooftop tank is 2 $m^3$. The water tariff is volumetric with a value of 2 USD monthly.

### Sport City Center that Shelters Refugees

Most of the surveyed households in Sport City Center that shelters refugees depend on the supply from the network connected to Standpipe as the major source of drinking water and household use. The majority of the households reported that water is appropriate for drinking. The continuity of supply from the network is 14 hours daily in average. Women and children usually go to fetch water from the source more than once daily. The average time it takes to go to the source is 20 minutes.

### Slaib Turkman

Most of the surveyed households in Slaib Turkman village depend on the supply from the network and artesian wells as the major source for drinking water and household uses. People reported that the quality of this source is appropriate for drinking. The continuity of supply from the network is once every two days for 3 hours daily in average. People rely on the rooftop tanks to store water. The average size of the rooftop tank is 1.5 $m^3$. The water tariff is volumetric with an average monthly value of 2.3 USD.

## Ras Al Baseet

Most of the surveyed households in Ras Al Baseet depend on the supply from the network as the major source for drinking water and household uses. The Households reported that the quality of water is appropriate for drinking. The continuity of supply from the network is once every two days with an average of 2 hours daily. People rely on the rooftop tanks to store water. The average size of the rooftop tank is 1 $m^3$. The water tariff is volumetric with an average monthly value of 1 USD.

## Tarqia

There is no water supply network in Tarqia. Water sources for drinking and household uses vary from bottled water from private treatment plants, protected spring, artesian wells, tanker trucks and rain water. The households reported that water quality is fit for household uses; however some households use boiling, filtering and adding chlorine. Households depending on tanker trucks consume an average of 2 $m^3$ with a cost of 9 USD weekly. People rely on ground and rooftop tanks to store water. The average size of the ground tank and rooftop tank is 1 $m^3$ each.

## Al Baqa'

Most of the surveyed households in Al Baqa' depend on the supply from the network and artesian wells as the major source for drinking water and household uses. The Households reported that the quality of water is appropriate for drinking, however some household use filters and chlorine to make it safer. The continuity of supply from the network is twice a week with an average of 13 hours daily. People rely on the ground and rooftop tanks to store water. The average size of the ground tank and rooftop tank is 1 $m^3$ each. The water tariff is volumetric with an average monthly value of 1 USD.

## Al Badrosia

Most of the surveyed households in Al Badrosia depend on the supply from the network as the major source for drinking water and household uses. The Households reported that the quality of water is appropriate for drinking. The continuity of supply from the network is once every two days with an average of 2 hours daily. People rely on the rooftop tanks to store water. The average size of the rooftop tank is 1.5 $m^3$. The water tariff is volumetric with an average monthly value of 1.3 USD.

## Bashabta

Most of the surveyed households in Bashabta village depend on the supply from the network as the major source for drinking water. The Households reported that the quality of water is appropriate for drinking, however some households add chlorine to make it safer. The water source for household uses vary from supply network, dig wells, tanker trucks and rain water collection. The continuity of supply from the network is once every two days with an average of 2.5 hours daily. People rely on the ground and rooftop tanks to store water. The average size of the ground tank is 8$m^3$ and rooftop tank is 2$m^3$. The water tariff is volumetric with an average monthly value of 2.4 USD.

## Second: Sanitation

### Ras Al Baseet, Al Badrosia and Bashabta

Most of the surveyed households use private household latrines connected to pits with no concrete floor. Some households in Bashabta village reported that there is financial cost paid for disposing wastewater and it amounts to 5 USD monthly. All surveyed households do not reuse wastewater.

### Tarqia

The surveyed households use private household latrines connected to open trench or covered pit. All surveyed households do not reuse wastewater.

### Al Baqa'

Most of the surveyed households use private household latrines connected to covered pits. Some households reported that there is financial cost paid for disposing wastewater and it amounts to 6 USD monthly. All surveyed households do not reuse wastewater.

### Ein A Teena, Bitmana, Burj Islam and Slaib Turkman

Most of the surveyed households use private household latrines connected to sewerage network. There is no financial cost paid for disposing wastewater. Some of the surveyed households use latrines on pits without concrete floor.

### Sport City Center for Housing Refugees

All the surveyed households use shared latrines connected to sewerage network.

Shared latrines at the Sport City center that shelters refugees

Sewage pipe in the Sport City Center that shelters refugees

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