



# WES INFO BULLETIN

## NATIONAL ACTIVITY IN MOROCCO

### “SUPPORT OF WATER DEMAND MANAGEMENT RELATED TO WATER SCARCITY, INCLUDING THE DEVELOPMENT OF A REFERENCE FRAMEWORK TO REDUCE DOMESTIC, TOURIST AND INDUSTRIAL USES AND NON-REVENUE WATER”

February 2024

## Overview

From July 2020 to October 2023, the "Water and Environment Support (WES) in the ENI Southern Neighbourhood region" project, at the request of the Moroccan government, implemented a national activity in Morocco, entitled "Supporting water demand management related to water scarcity, including the development of policy instruments to reduce domestic, tourism and industrial use and non-revenue water" (N-W-MO-1). The study focused on the domestic, public and tourist use of water.

Economic and social development in Morocco is generating a high demand for water, whether for supplying drinking water to urban and rural populations, to industries and tourist establishments, or for irrigating large-scale and small- and medium-scale hydropower schemes, private irrigation of agricultural land (which has seen uncontrolled development in recent decades) and improving water-related environmental parameters, particularly water quality.

**The general objective of the activity is to provide support to the Ministry of Equipment and Water to advance/improve Water Demand Management (WDM) in Morocco for specific uses, in particular domestic, public and tourist use.**

**The specific objectives of this activity were as follows:**

- Promote WDM in Morocco (in domestic, public and tourist use) by strengthening technical, legal, institutional, regulatory and financial aspects, as well as incentives and coercive measures and raising awareness, depending on the progress made, of existing opportunities, constraints, challenges and gaps.
- Identification of technical opportunities to increase efficiency in the uses concerned, taking into account the costs/benefits of adopting water-saving techniques.
- Draw up guidelines to improve knowledge of water use efficiency levels for the purposes concerned and the quantification of water consumption in order to help the country define its water saving objectives and design WDM programmes.
- Establish a dialogue between stakeholders to highlight the need for integration of sectoral policies with WDM, and to agree on the multi-sectoral action plan and proposed recommendations for improving WDM in Morocco, including the roles of key actors in implementing WDM for the relevant uses and in collecting data and monitoring WDM indicators.

## Methodology and Implementation

### **Task 1: To assess the current status of water demand management in Morocco**

**The launch meeting took place on 23 July 2020.** At this meeting, the project was described, and the various stakeholders were invited to work towards coordinating and planning the recovery. This involved identifying the various stakeholders and the data required to complete the project tasks. A list of data requirements has been prepared and submitted to the various stakeholders. As a result of COVID-19, an updated project programme has been prepared, including the relevant milestones to achieve Task 2. The results of Task 1 included an assessment of the current status of demand management in Morocco, and an analysis of national sectoral plans, programmes, and policies, as well as local-level initiatives aimed at conserving and reducing water losses, including the degree of alignment of sectoral policies with WDM, and the level of political commitment in support of WDM. The results were taken into account in the combined report for tasks 1 and 2, which served as the initial report and diagnosis. It should be noted that the subsequent analysis was limited to the use of water for domestic and tourist purposes.

### □ **Task 2: Carry out the diagnosis**

An analytical assessment documenting the technical, regulatory, institutional, and financial aspects related to the application of water demand management in Morocco was carried out on the basis of available data and information. These included relevant legislation, various norms, and standards in support of WDM, previous investments across the water sector and significant details of water pricing. The study was carried out mainly for the domestic sector. The analysis was limited by a lack of data and the difficulty of obtaining relevant data on current water demand control activities in Morocco.

Task 2 involved data collection, analysis of the sector and its governance, and the level of intervention by public and private service providers in demand management. Opportunities and constraints in the sector were identified, enabling a strategy to be drawn up encompassing keys such as institutional reform, financial and behavioural incentives, and physical changes such as the provision of water-saving equipment.

This was a combined report on tasks 1 and 2, highlighting the current situation and proposing the next steps for identifying the recommendations in task 3.

### □ **Task 3: Propose recommendations**

Task 3 built on the findings of Tasks 1 and 2 to provide:

1. technical, regulatory, institutional and financial measures and mechanisms to improve the level of WDM;
2. an organisational and institutional framework for data collection and monitoring of WDM indicators and the roles of the key players;
3. measures and strategies for communicating with and raising user awareness.

A workshop was held in June 2022 to discuss the recommendations, where stakeholders had the opportunity to discuss the findings from Tasks 1 and 2 and the way forward. An example of demand analysis in Marrakech was presented to highlight the need for baseline data to support further work. The feedback from the workshop was used to finalise the recommendations, which were finally integrated into a single report combining tasks 1 to 3.

### □ **Task 4: Benchmark techniques used in WDM and prepare guidelines**

Benchmarking in the water sector tends to focus on the performance of a utility rather than on demand management measures or methods to reduce consumption. A methodology for formulating a baseline has been proposed, along with strategies for measuring the performance of demand management against this baseline. The techniques (social, behavioural, financial and institutional) used in other countries were examined and compared with those available worldwide and which could be implemented in the future.

The guide was presented, providing key steps in establishing reference points and values for water use, as well as methods for measuring against these reference values. The main existing standards and standards relating to demand management were highlighted. An audit system has been proposed for longer-term monitoring of water demand to establish the impact of management techniques.

### □ **Task 5: Draw up an action plan and organise a one-day national consultation workshop**

Based on the results of the diagnosis and the recommendations, an action plan was drawn up. The actions have been classified into:

#### ▪ **Legal and institutional**

The main actions proposed are based on the need for a harmonised national approach to improving water demand management across the water sector. Current resource management approaches are effective insofar as they are successful, but customer behaviour (domestic, tourist, commercial) is absent from current strategies.

### ■ Technical

Technical interventions can be divided into two parts: water demand reduction strategies such as equipment and processes; and sector-wide data collection, monitoring and reporting systems.

In the short term, it is recommended that water audits be carried out and that a system for collecting, analysing and communicating data be implemented. In the medium term, strategies such as incorporating the reuse of grey water in new buildings should be considered.

### ■ Economic and financial

Sufficient analysis of the real value of water in a water-poor environment must be carried out. Any tariff changes must be carefully assessed to ensure that they do not adversely affect particular sectors of the society.

Financial incentives to encourage the installation or change of water-saving devices will take time to implement and are considered a long-term action.

The action plan was presented at a consultation workshop in July 2023 and the comments received were incorporated into the final deliverable of Task 5. This summary report concluded task 5.

## Results

### Current situation

- Identification of the main players in the various sectors who have a role to play in water demand management;
- A better understanding of current activities related to demand management downstream of the water meter rather than upstream (network) interventions;
- A summary of the important and relevant standards in place;
- Availability of water-saving products and their use in the home;
- Green tourism programme in use.

Rather than the initially planned deliverables, the results are presented in a total of 3 reports. Report 1 provides the background and diagnostic results, as well as recommendations (tasks 1 to 3). The second report provides guidelines and information on the comparative analysis of water demand, and the third document is the action plan, which sets out the next steps.

### Recommendations:

- ❖ Technical, regulatory, institutional and financial measures and mechanisms to improve the level of WDM in Morocco;
- ❖ Communication and awareness-raising measures and strategies for users;
- ❖ Recommendations for the designation of an organisation responsible for coordinating all WDM efforts; which should be responsible for developing an overall strategy, defining the roles of other stakeholders
- ❖ Measures to improve understanding of current water demand - use of techniques to establish national reference values for households;
- ❖ Recommendations for close coordination with key players to ensure the flow of information;
- ❖ Reference and application of relevant standards, often based on EU standards;
- ❖ Financial, behavioural, institutional and physical adaptations to promote more efficient water use.

## Main Outcomes

- ✓ The guide for establishing benchmark indicators was provided, as well as a link to existing local standards and future use audits.

An action plan that provides the next steps in terms of legal and institutional reforms, technical adaptations to be adopted (water saving devices for example), and financial analysis to determine the real cost (financial and economic, including the environmental impacts of providing water services and possible demand management approaches). The action plan provides clear actions, objectives, responsibilities and indicators for the short, medium and long term.



### Useful Link

[https://www.wes-med.eu/activities\\_type/n-w-mo-1-support-water-demand-management-in-relation-to-water-scarcity/](https://www.wes-med.eu/activities_type/n-w-mo-1-support-water-demand-management-in-relation-to-water-scarcity/)

## WES Project

The EU funded Water and Environment Support (WES) is a regional project designed to contribute to the implementation of an integrated approach to pollution reduction and prevention, in line with the Union for the Mediterranean agendas and the Barcelona Convention. WES is also meant to contribute to a more efficient management of scarce water resources in the ENI Southern Neighbourhood region.

The project aims to do so by increasing the capacity of stakeholders that are involved in pollution reduction and water management and support them in formulating and implementing the environmental and water policies. WES supports the shift to a more sustainable consumption and production model, promotes an integrated and efficient management of water, combats plastic pollution and marine litter and fosters dialogue on key environmental and sustainable development issues. In this way, WES also supports mutual understanding, cooperation, and peace in the region.

For any further information on WES project, please visit:

[www.wes-med.eu](http://www.wes-med.eu)

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