

PROJECT INFORMATION DOCUMENT (PID) CONCEPT STAGE

Report No.: PIDC19953

Project Name	Morocco Integrated Urban Water Management (P151128)
Region	MIDDLE EAST AND NORTH AFRICA
Country	Morocco
Sector(s)	Water supply (100%)
Theme(s)	Water resource management (50%), City-wide Infrastructure and Service Delivery (50%)
Lending Instrument	Investment Project Financing
Project ID	P151128
Borrower(s)	Office National de l'Electricité et de l'Eau Potable (ONEE)
Implementing Agency	Office National de l'Electricité et de l'Eau Potable (ONEE)
Environmental Category	A-Full Assessment
Date PID Prepared/ Updated	04-Feb-2015
Date PID Approved/ Disclosed	10-Feb-2015
Estimated Date of Appraisal Completion	18-Sep-2015
Estimated Date of Board Approval	17-Dec-2015
Concept Review Decision	Track II - The review did authorize the preparation to continue

I. Introduction and Context Country Context

Against the backdrop of the historic events that swept through the Middle East and North Africa region in early 2011, Morocco initiated important political and social changes of its own, with King Mohammed VI spearheading the drafting of a new constitution and a broad range of reforms to respond to popular demands for more democratic governance and better opportunities. The new constitution presented a revised governance framework, strengthened the separation of powers and granted greater human and social rights to the people of Morocco. The current government has a busy agenda ahead and is expected to deliver on key economic reforms to cut down on subsidies, reform the pensions system, spur competitiveness, create jobs and improve quality of services in key sectors. Overall, despite regional political unrest, Morocco has done remarkably well in keeping a fine political balance and smoothly addressing the population's need for broader reforms and better governance. While reforms are being implemented gradually, the performance of key public sectors, namely education and health, and the bridging of social and human development gaps are

perceived as a priority.

Morocco's economy has been performing relatively well with an average growth rate of non-agricultural sector of 4% since 2007, despite successive external shocks due notably to the Eurozone crisis and a highly volatile global market. GDP per capita doubled from 2003 to reach US\$3,300 in 2014. This economic growth has greatly contributed to reducing poverty and boosting shared prosperity. However, inequality, poverty and vulnerability remain important challenges. Morocco's Gini coefficient of 0.41 reflects stubbornly high level of inequality in incomes and access to services. With 17.5% of the population still living just above the poverty line (vulnerable), it also means that more than a fifth of Morocco's population (6.3 million people) still lives either in poverty or just above the poverty line. In addition, overall unemployment remains stubbornly high at around 9%, with urban youth unemployment reaching 35.4%. In the long term, Morocco needs to achieve higher growth rates that will lead to sustainable job creation and generate wealth, while prove to be more inclusive. In particular, the quality and governance of public services, including for youth and women, must be strengthened and the development model needs to be environmentally sustainable.

Sectoral and Institutional Context

Morocco has 22 billion cubic meters (BCM) of renewable, natural water resources, equivalent to 700 cubic meters per capita per year (CM/cap/yr), which is under the 1000 CM/cap/yr scarcity threshold. Moreover, water resources in Morocco are variable in space (more than half of all resources are concentrated in the North and the Sebou basin, covering just 7% of the national territory), and time (precipitation can vary tenfold from 5 to 50 BCM over the years).

In order to manage this temporal and geographic variability, Morocco has traditionally focused on storage of surface water. Morocco's available surface water resources have largely been mobilized since the 1960s, through large water mobilization dams, conveyance systems and water supply or irrigation infrastructure. 17.5 BCM of surface water are captured in reservoirs, representing 90% of potential storage capacity. Of this total, an average of 10% is lost annually to siltation, and 20% to evaporation, leaving approximately 11.5 BCM available for use each year.

However, water demand is growing, leading to exploitation beyond the threshold of available, renewable water resources. Recent population growth of 1.5% per year, and economic growth of 4% on average per year are increasing the pressure on water resources. Urban population is expected to carry the brunt of the population increase by 2030 (8 million additional inhabitants, a 50% increase), and the expansion of individual household connections is significantly increasing water consumption by poor, peri-urban and rural households. Water demand is expected to reach 13.5 BCM in 2015, and 16.5 BCM by 2030, representing water deficits of 2 BCM and 5 BCM based on current supply conditions. As additional storage capacity has been assessed as uneconomical, temporal deficits have been largely bridged by exploiting groundwater resources, though aquifers are considered overexploited (beyond their recharge rate) in all parts of Morocco, and groundwater quality has deteriorated due to pollution and, in coastal areas, saltwater intrusion. The imbalance between demand and supply will be further accentuated by climate change, which is expected to result in a 10% to 35% decline in average, annual precipitation by 2030, according to a recent World Bank study.

Given the country's water challenges, Government has placed a priority on managing water demand to address Morocco's water gap. Government has launched comprehensive national programs for

water savings, one focusing on water supply and the other on irrigation water. The National Irrigation Water Savings Program (supported by the Bank) incentivizes farmers to switch from traditional irrigation by submersion to modernized drip irrigation and increase the added value of the irrigation water used. The National Water Savings Program funds awareness-raising campaigns to reduce water consumption by end-users, whether households, government offices, industry or commercial, with a significant focus on hotels and the tourism sector. More specifically, the national water supply utility (ONEE), in its 2014 to 2017 framework contract with Government, has committed to specific performance standards at the national and local levels to improve the efficiency of water operations.

The World Bank's 2011 MENA Water Outlook, and the more recent Government assessment of the water sector by the Economic, Social and Environmental Council (CESE) both noted that demand management alone would not be sufficient and that supply augmentation through non-conventional sources such as desalination will in some cases be the most reasonable short term option to bridge the water gap. Both of these reports highlighted the need for integrated approaches which combine "soft measures" such as demand management and improved efficiency of conveyance and distribution systems, with "hard measures" such as investments in desalination and wastewater reuse.

Government is seeking to gain experience and capacity with integrated urban water management (IUWM) as a means to manage its urban water challenges sustainably and economically. With water demand growth being most acute in cities and towns, Morocco is recognizing the need for innovative approaches which can ensure secure access to water services. Global experience, in the US, Europe, Australia, and extensively in some emerging economies such as Brazil and South Africa, has highlighted that IUWM, which brings together demand management and infrastructure investments in the context of local, water cycle management - with a key role for local aquifer rehabilitation - is the most viable and economical means to manage water security risks. While Morocco has experience with each of the components of IUWM, and has good institutions working on water resources management (Ministry of Water and river basin agencies), water supply (ONEE) and local service delivery (municipalities), it has not yet implemented a fully integrated management approach with associated metrics. Consistent with global experience, Government is proposing to develop its capacity through implementation of IUWM schemes in manageable, medium sized localities where the critical water supply situation serves as an effective incentive for taking an integrated approach combining infrastructure investment with utility and overall resource management innovations.

Relationship to CAS

The Project is fully consistent with the Bank's twin goals of eliminating extreme poverty and boosting shared prosperity for the bottom 40 percent, with Bank-wide sector strategy to extend access and improve service delivery and with continuous Bank support to Morocco to further exceed the MDG objectives for access to an improved, safe and reliable water source. The Bank and GOM elected water as an important focus of the 2010-2013 Country Partnership Strategy (CPS), and a key strategic focus of the 2014-2017 Country Partnership Strategy, with renewed commitments to develop equitable, sustainable and affordable water supply and sanitation service.

The three areas targeted by the project (Al Hoceima, Sidi Ifni and Tarfaya) are amongst the poorest in Morocco. Based on 2004 census data (to be updated in 2015 following the 2014 census) and poverty data from 2007, 26 percent of the population of the communes targeted by the Project

(equivalent to 190,000 potential beneficiaries) are below the vulnerability line, which is defined in Morocco as people who make less than US\$1.80 a day. Amongst them, it is estimated that 10 percent are extremely poor, which is equivalent to 74,000 potential beneficiaries who make less than US\$1.20 a day. These figures are significantly higher than the national urban poverty (5.4 percent) and vulnerability (19.2 percent) rates. The project is therefore expected to benefit disproportionately poor or vulnerable populations in urban areas, thereby contributing to the World Bank's twin goals of eliminating extreme poverty and boosting shared prosperity for the bottom 40 percent.

Bank support to the water sector has been underpinned by substantial analytical work and policy dialog. It builds on a solid experience of investment and development policy lending in support of urban water supply and sanitation, rural water supply, and efficient irrigation programs, as well as of reforms in sector governance, water resources management, irrigation, water supply and sanitation. In particular, at the regulatory level, the government is carrying out a comprehensive revision of its Water Law, is establishing regulatory framework for industrial wastewater treatment, and is developing a new generation of aquifer management contracts, through a participatory and inclusive approach. These activities are supported by the Bank through the Inclusive Green Growth Development Policy Lending (IGG DPL) series and related Bank-implemented technical assistance assignments, with grant funding from the Middle East and North Africa (MENA) Multi-Donor Trust Fund (MDTF) and the Water Partnership Program (WPP).

II. Proposed Development Objective(s)

Proposed Development Objective(s) (From PCN)

The Project Development Objective (PDO) is to ensure water security for urban communities in targeted, water-scarce areas in the Project provinces and to introduce an integrated management approach based on an economic optimum.

Key Results (From PCN)

"Water Security" means that the water supply and demand balance is maintained in a sustainable manner despite increasing scarcity.

The project will pilot the introduction of an integrated urban water management approach, tailored to the specific water situation and key stakeholders in each Project area. This approach will build on an economically optimal investment mix and will seek to establish consensus among key stakeholders on strategic water management plans in each Project area.

The achievement of the PDO would be monitored through the following indicators :

- Number of strategic water management plans adopted by key stakeholders (river basin agencies, local authorities, utilities, water users) in each Project area ;
- Percentage of Project area population that benefit from a safe and reliable water supply service. A "safe water supply" is defined as a water supply service which meets the appropriate quality standards, as required by the applicable Moroccan regulation. A "reliable water supply" service is a continuous water service, provided twenty-four hours a day seven days a week;
- Direct project beneficiaries (number), percentage of which female and percentage of which extremely poor;
- Additional volume of water made available for distribution by ONEE under the Project;
- Volume of water saved through service delivery performance improvements, and reduction of

water loss index in the Project area;

- Volume of water saved through conservation measures supported by the Project.

III. Preliminary Description

Concept Description

Currently, the three urban areas under the Project, Al Hoceima in the North, and Sidi Ifni and Tarfaya in the more arid South, face an increasing water supply and demand gap. Over time, as existing resources are over-exploited and conventional water resources alternatives are limited, increasingly expensive and unsustainable, these areas will fail to meet increasing domestic, touristic and industrial demand. Demand management and service delivery performance improvements are necessary, but not sufficient. Consequently, desalination appears to be a necessary alternative to meet the additional water supply demand, and ensure security as well as quality of supply.

In these areas, the Project aims at taking a holistic view of the overall water situation in the project areas, with the objective to serve as an entry point to the development of an integrated urban water management (IUWM) approach consisting of conjunctively exploring supply and demand side solutions. This would be the first attempt to introduce an integrated urban water management approach in Morocco and in the MENA region. The ambition is therefore to demonstrate the interest in such IUWM approaches through the project, by linking the necessary introduction of desalinated water, which is more expensive, with network performance improvement and demand management. This ambition also implies establishing close coordination mechanisms within the National Electricity and Potable Water Utility (“Office National de l’Electricité et de l’Eau potable” or ONEE) and between ONEE, river basin agencies and municipalities, which the project will support. A modest, phased and bottom-up approach was preferred to ensure concrete and demonstrative results, which could pave the way to potential scale up and mainstreaming in a later phase.

As such, the Project would include three components, as follows.

Component 1 – Securing sustainable water supply.

As indicated above, the limited availability of alternative water resources makes desalination the most economically reasonable option to secure a sustainable water supply in the short run. This Project will introduce an innovative performance-based PPP for the construction and operation of the three medium size desalination plants envisaged under the Project:

- A Reverse Osmosis desalination plant in Al Hoceima, with a production capacity of 200l/s (17,280 CM/day, i.e 6.3 BCM annually);
- A Reverse Osmosis desalination plant in Sidi-Ifni, with a production capacity of 100l/s (8,640 CM/day, i.e 3 BCM annually);
- A Reverse Osmosis desalination plant in Tarfaya, with a production capacity of 15l/s (1,296 CM/day, i.e 0.5 BCM annually).

Component 2 – Service delivery performance improvements.

The Project would complement the implementation of ONEE’s national performance improvement program in the Project area to (i) conduct leak investigations and repairs, (ii) perform targeted maintenance and rehabilitation works, (iii) upgrading metering equipment, including remote equipment, especially for conveyance networks, and (iv) improving network monitoring tools and billing practices. From a technical standpoint, the underlying idea is that while the utility will inject into the networks water which is more expensive to produce, it ought to ensure that it delivers and

bills the greatest possible share of this water to the end-users. The proposed IUWM approach will however aim at introducing a whole new way to consider performance improvement, adding a management and economic dimensions to it. The project will also seek to support the development of management tools for better service delivery performance monitoring and management, possibly through the development of GIS systems combining technical and commercial information, or comprehensive maintenance management systems. The activities to be supported in this respect may not all be site specific.

Component 3 – Demand optimization and institutional capacity-building.

Combining supply augmentation, performance improvements, and conservation into one single operation, while assessing interrelated externalities such as water quality (e.g. reduction in sulfate rates in Al Hoceima), wastewater impacts and potential for reuse, energy use and potential for renewable energy coupling, and solid waste management, pioneers an IUWM approach in Morocco. This component would therefore include mostly consulting services such as technical assistance for the design and implementation of water conservation campaigns, institutional assessments to identify the optimal set-up for an integrated approach, support to the establishment of associated coordination and governance, water demand analysis, support to the introduction of citizen engagement activities (stakeholders assessment, customer satisfaction survey, report cards), feasibility studies to analyze possible alternative water resources and inform planning documents.

IV. Safeguard Policies that might apply

Safeguard Policies Triggered by the Project	Yes	No	TBD
Environmental Assessment OP/BP 4.01	x		
Natural Habitats OP/BP 4.04			x
Forests OP/BP 4.36		x	
Pest Management OP 4.09		x	
Physical Cultural Resources OP/BP 4.11			x
Indigenous Peoples OP/BP 4.10		x	
Involuntary Resettlement OP/BP 4.12	x		
Safety of Dams OP/BP 4.37		x	
Projects on International Waterways OP/BP 7.50		x	
Projects in Disputed Areas OP/BP 7.60		x	

V. Financing (in USD Million)

Total Project Cost:	120.00	Total Bank Financing:	100.00
Financing Gap:	0.00		
Financing Source			Amount
Borrower			20.00
International Bank for Reconstruction and Development			100.00
Total			120.00

VI. Contact point

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