



An AMCOW Country Status Overview

Water Supply and Sanitation in Mauritania

Turning Finance into Services for 2015 and Beyond



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Strategic Overview

The situation within the water supply and sanitation (WSS) sector in Mauritania is somewhat contradictory: in spite of the weakness of the institutions in charge of the sector and the lack of financing for sanitation and, more recently, for the rural water supply (RWS) subsector, significant improvements have been made in the access rates since 1990.

The institutional reform of the RWS subsector, notably marked by the implementation of a delegated management system for water supply networks, has led to improvements in both service quality and access—at a pace which remains only slightly below that required to meet the Millennium Development Goal (MDG) targets.

In urban areas (40 percent of the population), access rates have increased more slowly. However, due to its more favorable baseline situation, the target for the urban water supply subsector remains attainable, provided that all the financing required for the project to rehabilitate and extend the network in Nouakchott can be obtained promptly.

Sanitation, which has only recently appeared on Mauritania's institutional landscape, is more problematic, especially in rural areas where the access rate has remained very low over the past 20 years.

According to the calculations presented in this report, US\$48 million per year will be required overall to achieve the MDG targets. There needs to be an equitable allocation of these funds between both the water supply and sanitation subsectors, with rural areas receiving 60 percent of this financing, compared to 40 percent for urban areas.

However, given the current preference for water supply networks and sewer systems in urban areas, it is highly likely that the actual figure required will be higher than this estimate—and extremely difficult to mobilize. Following the suspension of some donor financing as a result of the crisis in 2008, it is expected that development partners will increase their commitments over the next few years.

In rural areas, the institutional framework remains poor and unstable. The management of water supply networks still needs to be improved; the sanitation subsector lacks both a clear intervention strategy and resources. These are the priority areas that need to be worked on to stimulate the capacity to mobilize and absorb financing, both domestic and donor.

This second AMCOW Country Status Overview (CSO2) has been produced in collaboration with the Government of Mauritania and other stakeholders.

Agreed priority actions to tackle these challenges, and ensure finance is effectively turned into services, are:

Sectorwide

- Develop, then implement, a clear strategy and multiyear investment plan for achieving the Millennium Development Goal (MDG) targets in all subsectors.
- Continue to integrate all sector institutions under the overall supervision of the Ministry of Water and Sanitation.
- Allocate those resources vital to the smooth running of their activities to the central and deconcentrated departments and offices, recruit and train staff in planning, monitoring and evaluation, and regulatory tasks.
- Continue to encourage commune involvement in local planning and in undertaking a contracting (or co-contracting) authority role for infrastructure, notably through training, the provision of process tools, and back-up support.
- Establish regular monitoring of financing obtained per subsector.
- Increase financing for the sanitation and rural water supply subsectors.
- Define access to water supply and sanitation standards according to context, establish criteria for identifying facilities as improved, define the urban and rural service areas, and put monitoring indicators in place.
- Conduct a national inventory of existing water supply and sanitation facilities to establish a baseline and populate the database of the Directorate of Planning, Monitoring and Cooperation (DPSC).
- Align the procedures used to monitor facilities built and financing utilized and introduce centralized data collection at the DPSC level.
- Create a platform for institutional dialogue between the government and its development partners and an annual joint sector review.

Rural water supply

- Conduct a national inventory of facilities, carry out a review of delegated management, and improve and expand the use of the standardized system for frequent monitoring of private operators under management contract across the whole country, with the regular transfer and processing of technical and financial data to central level.
- Improve regulation by allocating the financial, material, and human resources required to the Multi-Sector Regulatory Agency for conducting monitoring tasks on water supply networks and to the National Office for Water Services in Rural Areas (ONSER) for controlling design and construction quality and for providing back-up support to operators.
- Improve the clustering of the networks and delegated service areas so as to harmonize the tariff at which water is sold, improve the operators' technical and financial performance, and ensure sustainability of the infrastructure.
- Set up a national training program for delegates on technical and financial management, ensuring that ONSER is particularly involved.

Urban water supply

- Develop an overall strategy for the subsector and a 2015 investment plan to improve both the mobilization of finance and medium-term vision, and prioritize disadvantaged neighborhoods.
- Develop a consultation platform between the Directorate of Water, the national water company, SNDE, and the directorates in charge of urban development, land use planning, sanitation, and so on.
- Develop the use of surface water storage to supplement the groundwater resources which are both nonrenewable and insufficient in secondary centers.

Rural sanitation and hygiene

- Conduct a national review of access to sanitation.
- Put in place a consultation platform for the different stakeholders in order to align approaches, and a project reporting system to monitor progress and draw lessons from implementation.
- Implement the national sanitation policy and strategy through a large-scale proactive sanitation promotion program, with the support of development partners.
- Ensure the human and financial resources needed to implement such a program are made available to the Directorate of Sanitation, the deconcentrated departments, and the communes.

Urban sanitation and hygiene

- Increase state financing and mobilize development partner support.
- Put in place a dedicated and sustainable financing mechanism for sanitation.
- Promote on-site sanitation in those areas where there is no sewer system planned.
- Improve the pit emptying and sludge treatment services.

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Acronyms and Abbreviations

AEPA	Water Supply and Sanitation (<i>Approvisionnement en Eau potable et Assainissement</i>)	ONS	National Office of Statistics (<i>Office National de la Statistique</i>)
AFD	French Development Agency (<i>Agence Française de Développement</i>)	ONSER	National Office for Water Services in Rural Areas (<i>Office National des Services d'Eau en milieu Rural</i>)
AfDB	African Development Bank	OPEX	Operations expenditure
ANEPA	National Agency for Water Supply and Sanitation (<i>Agence Nationale de l'Eau potable et de l'Assainissement</i>)	PAEPA	Water Supply and Sanitation Program (AfDB) (<i>Programme d'alimentation en eau potable et d'assainissement</i>)
AMCOW	African Ministers' Council on Water	PEA	Water and Sanitation Program (<i>Programme Eau et Assainissement</i>) (administered by the World Bank)
APAUS	Agency for the Promotion of Universal Access to Services (<i>Agence de Promotion de l'Accès Universel aux Services</i>)	PEGG	Guidimakha and Gorgol Water Project (<i>Projet Eau dans le Guidimakha et le Gorgol</i>)
ARM	Multi-Sector Regulatory Authority (<i>Autorité de Régulation Multisectorielle</i>)	PNAR	National Rural Sanitation Program (<i>Programme National d'Assainissement Rural</i>)
CLTS	Community-Led Total Sanitation	PRSP	Poverty Reduction Strategy Paper
CNRE	National Center for Water Resources (<i>Centre national de ressources en eau</i>)	RSH	Rural sanitation and hygiene
CSO2	Country Status Overview (second round)	RWS	Rural water supply
DP	Development partner	SYGAEP	Water Supply Network Management System (<i>SYstème de Gestion des Adductions d'Eau Potable</i>)
DPSC	Directorate of Planning, Monitoring and Cooperation (<i>Direction de la Planification, du Suivi et de la Coopération</i>)	SIPPE	Water Points Planning and Inventory System (<i>Système d'Inventaire et de Programmation des Points d'Eau</i>)
EPIC	Public Industrial and Commercial Establishment (<i>Etablissement public à caractère industriel et commercial</i>)	SNDE	National Water Company (<i>Société Nationale De l'Eau</i>)
GDP	Gross domestic product	SNFP	National Company of Boreholes and Wells (<i>Société Nationale de Forages et Puits</i>)
GNI	Gross national income	SONELEC	National Water and Electricity Company (<i>Société Nationale d'Eau et d'Electricité</i>)
JMP	Joint Monitoring Programme (UNICEF/WHO)	SSA	Sub-Saharan Africa
LIC	Low-income country	UNDP	United Nations Development Programme
M&E	Monitoring and evaluation	UNICEF	United Nations Children's Fund
MICS	Multiple Indicator Cluster Survey	USH	Urban sanitation and hygiene
MHA	Ministry of Water and Sanitation (<i>Ministère de l'Hydraulique et de l'Assainissement</i>)	UWS	Urban water supply
MDG	Millennium Development Goal	WHO	World Health Organization
MTEF	Medium-Term Expenditure Framework	WSP	Water and Sanitation Program
NGO	Nongovernmental organization	WSS	Water supply and sanitation
O&M	Operation and maintenance		
ONAS	National Office for Sanitation (<i>Office National de l'Assainissement</i>)		

Exchange rate: US\$1 = 275.9117 Mauritanian Ouguiya.¹

1. Introduction

The African Ministers' Council on Water (AMCOW) commissioned the production of a second round of Country Status Overviews (CSOs) to better understand what underpins progress in water supply and sanitation and what its member governments can do to accelerate that progress across countries in Sub-Saharan Africa (SSA).² AMCOW delegated this task to the World Bank's Water and Sanitation Program and the African Development Bank who are implementing it in close partnership with UNICEF and WHO in over 30 countries across SSA. This CSO2 report has been produced in collaboration with the Government of Mauritania and other stakeholders during 2009/10.

The analysis aims to help countries assess their own service delivery pathways for turning finance into water supply and sanitation services in each of four subsectors: rural and urban water supply, and rural and urban sanitation and hygiene. The CSO2 analysis has three main components: a review of past coverage; a costing model to assess the adequacy of future investments; and a scorecard which allows diagnosis of particular bottlenecks along the service delivery pathway. The CSO2's contribution is to answer not only whether past trends and future finance are sufficient to meet sector targets, but what specific issues need to be addressed to ensure finance is effectively turned into accelerated coverage in water supply and sanitation. In this spirit, specific priority actions have been identified through consultation. A synthesis report, available separately, presents best practice and shared learning to help realize these priority actions.

2. Sector Overview: Coverage and Finance Trends

Coverage: Assessing Past Progress

The ministry in charge of water supply and sanitation (WSS) has not produced any recent, reliable figures on access rates to WSS services. The figures used in this report are therefore those of the Joint Monitoring Programme (JMP) that were published in 2010 and pertain to 2008.³ They estimate the proportion of the population claiming to use WSS facilities that are considered 'improved' by the JMP. These estimates are based on a linear regression of the results of household surveys conducted by the National Office of Statistics since 1992.

The JMP figures indicate that the access rate to drinking water increased from 30 percent in 1990 to 49 percent in 2008. If this pace is sustained, Mauritania will miss the Millennium Development Goal (MDG) target by 9 percentage points,⁴ with an access rate of 56 percent against the 65 percent target (MDG target established from JMP data). The target set by the Government of Mauritania in its 2006 Sector Policy Declaration is even higher (68 percent).⁵ However, it should be noted that for water supply, there is little consistency between the household surveys upon which the JMP figures are based: the results often vary by 10 to 20 percentage points from both one survey to the next.

For sanitation, the JMP estimates that 26 percent of the population had access to an improved facility in 2008, compared to 16 percent in 1990. If this rate of progress is maintained, the access rate will reach 30 percent in 2015, significantly below the target set (58 percent for the JMP, 67 percent according to the Sector Policy Declaration⁶).

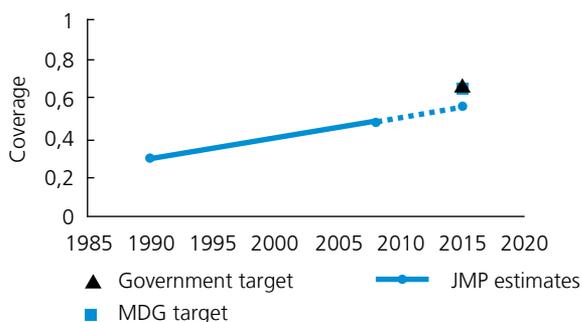
It should be noted that these access rates, shown in Figure 1, are based on combined urban and rural data. They, therefore, conceal large differences with rural subsectors clearly lagging behind the urban subsectors for both water supply and sanitation (see sections 7 to 10). In addition, the weighting of the capital, Nouakchott (which contains 60 percent of the urban population and 25 percent of the total population), where there are a number of major issues, constitutes a drag on the urban sanitation subsector's results.

Investment Requirements: Testing the Sufficiency of Finance

In 2005, the Government of Mauritania, in conjunction with the United Nations Development Programme (UNDP), carried out initial estimates of the cost of achieving MDG targets in the WSS sector; these were updated in 2006 by the World Bank's Water and Sanitation Program (WSP)

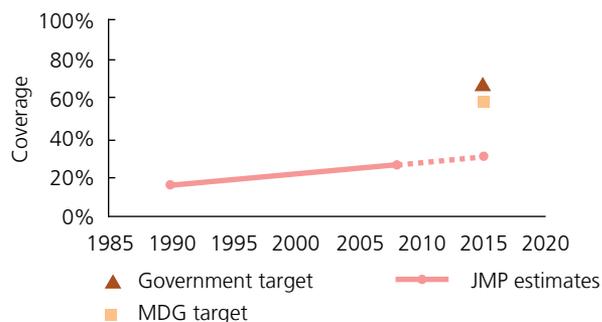
Figure 1
Progress in water supply and sanitation coverage

Water supply



Source: JMP and Sector Policy Declaration.

Sanitation



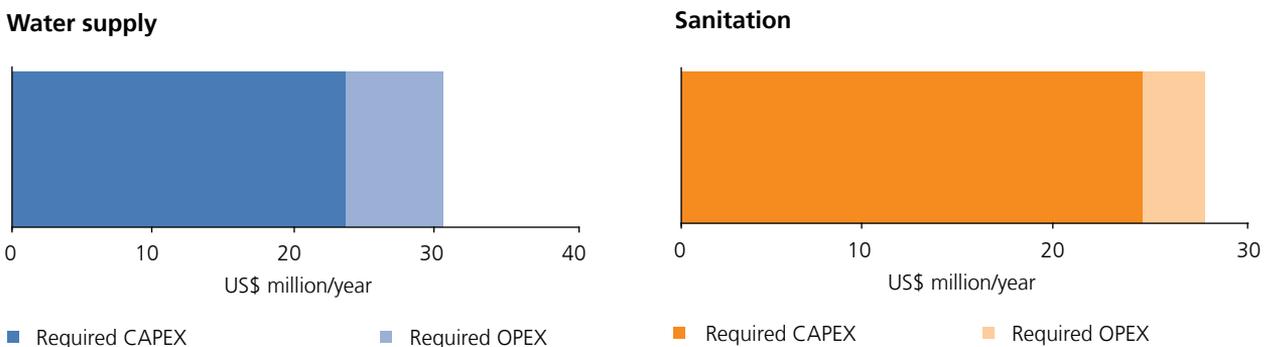
as part of the monitoring framework for the sector MDG target. As a result of the CSO2 initiative, this estimate has now been updated once more for the 2009–15 period and for each of the four subsectors. The calculation methodology uses the following sources: JMP for population data, 2008 access rates and 2015 targets; the latest Ongoing Living Conditions Survey (EPCV: *Enquête Permanente sur les Conditions de Vie des Ménages*, 2004) and the Investment Plans for WSS in rural and semi-urban areas for unit cost data.

According to CSO2 estimates, US\$24 million per year will need to be invested in the water supply sector (half of the US\$47 million estimated by the UNDP in 2005), with the same amount required for sanitation (compared to the 2005 UNDP estimate of US\$34 million) (see Figure 2 and Table 1). Therefore, for the 2009–15 period, total

investment requirements for the WSS sector stand at US\$336 million. Nearly 60 percent of this investment needs to be allocated to rural areas for both water supply and sanitation.

Had the targets set out in the Sector Policy Declaration been used instead of those of the JMP, the investment requirements would have been even higher (17 percent higher for water supply and 21 percent higher for sanitation). It should be noted that the investment requirements included in the calculation only relate to the WSS facilities that need to be constructed and rehabilitated to meet the MDG targets and exclude up-stream investment required for mobilizing water resources (the *Aftout Es-Sahéli project*, for example), awareness-raising and hygiene education activities, and the construction of wastewater treatment plants.

Figure 2
Required vs. anticipated (public) and assumed (household) expenditure for water



Source: CSO2 estimates.

Table 1
Coverage and investment figures

	Coverage		Target	Population requiring access	CAPEX requirements		Assumed HH CAPEX	Total deficit
	1990	2008	2015		Total	Public		
	%	%	%	'000/year	US\$ million/year			
Rural water supply	26%	47%	63%	64	14	12	0	14
Urban water supply	36%	52%	68%	59	10	9	0	10
Water supply total	30%	49%	65%	122	24	22	0	24
Rural sanitation	8%	9%	54%	139	14	8	0	14
Urban sanitation	29%	50%	65%	54	10	8	0	10
Sanitation total	16%	26%	58%	194	24	16	0	24

Source: CSO2 estimates.⁷

There are no recent, comprehensive or reliable figures available on the financing already committed by development partners (DPs), or on any future commitments from the state. It is, therefore, impossible to establish the extent of the deficit ('funding gap') in Mauritania.

In Table 1, which shows the JMP access rates and the results of the CSO2 estimates, rather than being based on the service area of the urban water supply operator, SNDE (*Société Nationale D'Eau*) and the urban sanitation service operator, ONAS (*Office National de l'Assainissement*), the distinction between rural and urban areas is instead made using the administrative breakdown.

In addition to the investment requirements presented above, around US\$11 million per year will be required to finance the operation and maintenance (O&M) of current and future infrastructure, of which US\$7 million is for the water supply subsectors and US\$3 million for sanitation (CSO2 estimates, see Table 2). A large part of these costs is to be borne by households, either out of their own budget for household latrines or through the water tariff for water supply infrastructure.

Table 2
Annual O&M requirements

Subsector	O&M US\$ million/year
Rural water supply	3
Urban water supply	4
Water supply total	7
Rural sanitation	1
Urban sanitation	2
Sanitation total	3

Source: CSO2 estimates.

However, the availability of finance is only part of the picture. Bottlenecks can, in fact, occur throughout the service delivery pathway—all the institutions, processes, and actors that translate sector funding into sustainable services. Where the pathway is well developed, sector funding should turn into services at the estimated unit costs. Where it is not, the above investment requirements may be gross underestimates. The rest of this report evaluates the service delivery pathway in its entirety, locating the bottlenecks and presenting the agreed priority actions to help address them.

3. Reform Context: Introducing the CSO2 Scorecard

In this report, the WSS sector in Mauritania is explored in detail using the CSO2 scorecard, an assessment tool providing a snapshot of reform progress along the service delivery pathway. This scorecard looks at nine building blocks of the service delivery pathway, which correspond to specific functions classified in three categories: three functions that refer to **enabling** conditions for putting services in place (policy development, planning new undertakings, budgeting); three functions that relate to **developing** the service (expenditure of funds, equity in the use of these funds, service output); and three functions that relate to **sustaining** these services (facility maintenance, extension of infrastructure, use of the service). Each building block is assessed against specific indicators and scored from 1 (poor) to 3 (excellent) accordingly.⁸

Figure 3 shows the overall scorecard results for Mauritania for these three criteria (enabling conditions, developing, and sustaining services) and compares these with the results obtained by other low-income SSA countries with a GNI below US\$500 per capita (World Bank Atlas Method). For all three of the categories under consideration, the results for Mauritania are below the average of its peer-group countries.

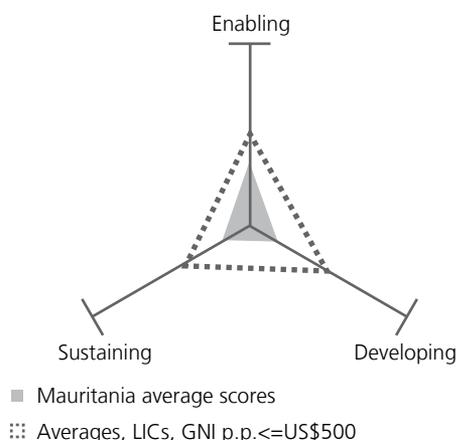
As far as enabling conditions are concerned, **major organizational reforms were initiated in 2001** aimed at relieving the state of its operational responsibilities in the rural water supply (RWS) subsector and at the institutional separation of water and energy. Successive reforms have since focused on according greater priority to the sanitation sector, which had been without an institutional lead and completely overlooked until the second half of the 2000s. As a result, new institutions have now been created. These changes, although necessary, have led to an increase in the number of actors involved in the sector and so to its fragmentation. Lastly, the human and financial resources allocated to these new institutions have not materialized, thus preventing them from taking on their respective responsibilities.

These reforms have been supported by the development of strategy and planning documents for rural areas and the

sector has been established as one of the strategic priorities within the Poverty Reduction Strategy Paper (PRSP). These main strategic directions have not, however, been followed up and the urban subsector is still lacking a medium to long-term vision (strategy and planning). These shortcomings can be partly explained by the **continuing political unrest in Mauritania since 2005**. Some international donors either reduced or suspended their funding during the periods of greatest uncertainty (especially in 2008) and few new external support agencies have become involved in the sector. Furthermore, there have been frequent management changes within the central departments and a lack of continuity has been observed in the development and implementation of public policies. The process of reforming the sector is slower than in other countries of North and West Africa, which have developed proactive national policies and strategies that include sanitation, as well as committed to undertake ambitious reforms aimed at implementing a sectorwide approach.

With regard to service expansion, the implementation of an effective management model has led to **significant progress in the rural and semi-urban water supply subsector. In the urban water supply (UWS) subsector,**

Figure 3
Average scorecard results for enabling, developing, and sustaining service delivery, and peer-group comparison



Source: CSO2 scorecard.

the major Aftout Es-Sahéli project has already had a positive impact on the resources available to supply the capital and its surrounding areas. Services are due to be expanded and improved in those areas that currently have poor coverage or are not located near the capital's water supply network. Given the poor institutional framework and low levels of financial resources allocated to network maintenance, however, the **sustainability of investment cannot be guaranteed**. As far as sanitation is concerned, the access rates are not increasing and there are some serious issues, particularly in the rural subsector.

Table 3 provides a summary of the main steps taken as part of the WSS sector reform process in Mauritania. Sections 4 to 6 then highlight progress and challenges across three thematic areas—the institutional framework, finance, and monitoring and evaluation (M&E)—benchmarking Mauritania against its peer countries based on a grouping by gross national income. The related indicators are extracted from the scorecard and presented in charts at the beginning of each section. The scorecards for each subsector are presented in their entirety in Sections 7 to 10.

Table 3
Key dates in the reform of the sector in Mauritania

Year	Event
1975	Following the drought in 1973, the Directorate of Water undertakes a proactive policy to set up water points in rural and semi-rural areas.
1991	The Water Supply Master Plan and the 1991–2000 Investment Plan prioritizes the construction of small piped water supply systems in rural and semi-rural areas, in line with the rural and semi-urban water supply policy adopted the previous year.
1993–1994	Establishment of a delegated management system for small piped water supply systems in rural and semi-urban areas.
2001	The adopted Poverty Reduction Strategy Paper (PRSP) establishes water supply as a priority sector. The state withdraws from operational functions in the water supply sector and creates a number of specialized institutions (CNRE, ANEPA, APAUS). The incumbent water supply and electricity operator in urban areas (SONELEC) is divided up into two companies and the national water company, <i>Société Nationale d'Eau</i> (SNDE), is created with a view to privatization. The mandate of the Multi-Sector Regulatory Authority is extended to include water supply.
2005	Establishment of a Sector Technical Committee and review of the Water Law (dating from 1987).
2006	Review of the PRSP: adoption of a sectorwide approach aimed at achieving the MDG targets. Review and adoption of the Sector Policy Declaration for the Water Supply Sector (that includes sanitation). Creation of a Directorate of Sanitation within the ministry in charge of water.
2007	Creation of a central Directorate responsible for planning, coordination, monitoring, and cooperation within the ministry in charge of water and sanitation. Implementation of regulations for the water supply sector with the adoption of several implementing provisions, the signature of specifications for the National Agency for Water Supply and Sanitation (ANEPA: <i>Agence Nationale de l'Eau potable et de l'Assainissement</i>) and the delegation to private operators of management of the new water supply networks constructed in rural and semi-urban areas.
2008	The technical ministry is separated from energy for the first time and is solely dedicated to water supply and sanitation. Review of the Local Authorities' Law is not able to be completed due to political unrest.
2009	Creation of the National Office for Sanitation (ONAS: <i>Office National de l'Assainissement</i>).
2010	ANEPA becomes the National Office for Water Services in Rural Areas (ONSER: <i>Office National des Services d'Eau en milieu Rural</i>) with Public Industrial and Commercial Establishment (EPIC) status.

4. Institutional Framework

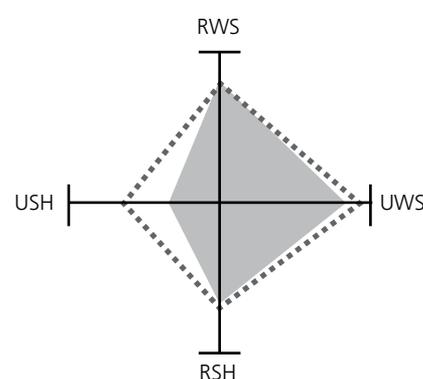
Priority actions for institutional framework

- Develop, then implement, a clear strategy and multiyear plan for achieving the MDG targets in all subsectors.
- Continue to integrate all sector institutions under the overall supervision of the Ministry of Water and Sanitation.
- Allocate those resources vital to the smooth running of their activities to the central and deconcentrated departments and offices, recruit and/or train staff in planning, monitoring and evaluation, and regulatory tasks.
- Continue to encourage commune involvement in local planning and in undertaking a contracting (or co-contracting) authority role for infrastructure, notably through training, the provision of process tools, and back-up support.

Improvements were made to the strategic framework of the rural and semi-urban water supply subsector during the 1990s and again in 2001 through a series of strategy and planning documents. Priority was accorded to the construction of small piped systems and to involving the private sector in their operation. These strategic directions were confirmed in 2005–06 when the Water Law, the Sector Policy Declaration, and the PRSP were updated. Through these documents, the state has committed to implementing a sectorwide approach and to directing its activities towards achieving the MDG targets, as illustrated by the fact that the 10-year investment plans have been updated up to 2015. However, these investment plans are neither monitored nor reviewed on a regular basis.

On an institutional level, the state's withdrawal from operational activities within the water supply sector (technical studies, works, supervision, facilities maintenance) in 2001 led to the creation of a certain number of specialized institutions. The monitoring and maintenance of water supply networks, as well as the contract agreements for operators in rural and semi-urban areas, were entrusted to the National Agency for Water Supply (ANÉPA: *Agence Nationale de l'Eau potable et de l'Assainissement*), that, in June 2010, became the National Office for Water Services in Rural Areas (ONSER: *Office National des Services d'Eau en milieu Rural*), a public

Figure 4
Scorecard indicator scores relating to institutional framework compared to peer group⁹



■ Mauritania average scores
 :::: Averages, LICs, GNI p.p. <= US\$500

Source: CSO2 scorecard.

asset-holding company that enables it to directly manage finance on behalf of the Directorate of Water. In 2001, the mandate of the Multi-Sector Regulatory Authority (ARM: *Autorité de Régulation Multisectorielle*) was extended to cover the RWS subsector. The National Center for Water Resources (CNRE: *Centre National des Ressources en Eau*) is responsible for the development and monitoring

of water resources. The incumbent urban water and electricity operator (SONELEC) was divided up into two companies, one of which is the National Water Company (SNDE: *Société Nationale d'Eau*) now in charge of water production and distribution in 22 urban centers. Also in 2001, the Agency for the Promotion of Universal Access to Services (APAUS: *Agence pour la Promotion de l'Accès Universel aux Services*) was made responsible for promoting universal access to commercial public services (water, electricity, telephone) for low-income population groups, establishing programs and mobilizing private investors; APAUS comes under the supervision of the Ministry of Economic Affairs. In 2004, the National Company of Boreholes and Wells (SNFP: *Société Nationale des Forages et Puits*) was established—a public company that took over borehole and well construction responsibilities, staff, and equipment from the Directorate of Water.

The development of a National Rural Sanitation Program (PNAR: *Programme National d'Assainissement Rural*) in 2005, followed by the creation in 2006 of the Directorate of Sanitation within the ministry in charge of water, have led to the **emergence of sanitation** in Mauritania's institutional landscape.¹⁰ In 2008, the ministry in charge of water and energy was divided up and a ministry dedicated solely to water supply and sanitation (MHA) was created for the first time, increasing the visibility of the sector as a whole and sanitation in particular. Its activities are centered around the formulation of sector strategies and planning. In 2009, a National Office for Sanitation (ONAS: *Office National de l'Assainissement, with public company status*) was set up to manage stormwater and domestic and industrial wastewater in urban areas. The ONAS has taken on this responsibility from the Directorate of Sanitation which, in turn, had taken over from the SNDE in 2006. The ONAS does not yet have a contract with the state so it has no targets or medium- and long-term performance indicators. Overall, neither the Directorate of Sanitation nor ONAS are particularly active as there are so few projects in progress.

Despite this progress, the institutional framework of the WSS sector still needs to be improved. Besides the MHA, there are several other institutions financing and implementing water supply projects outside its sphere of supervision: APAUS, the Directorate of Rural Development, the Urban Development Agency or, up until 2006, the Commission on Human Rights, Poverty Reduction and Social Inclusion. The fact that the sector is so institutionally fragmented at the central level hinders both proper communication and the harmonization of interventions. The lack of leadership and overall medium- and long-term vision lead to activities being disjointed. The low levels of resources and competencies significantly reduce the capacity to absorb and implement public financing: for instance, only seven senior officials were recruited between 2006 and 2010, whereas the minimum requirement was estimated to stand at 60 senior officials and 20 technicians.¹¹ Lastly, the numerous reforms and successive reorganizations of the ministries have impacted the continuity of public policies. As a result, certain projects have remained stalled. For example, the standards pertaining to access to water are outdated and there are no standards in place at all for sanitation. The state has not assigned the ONAS any targets or any specific program (there are particular issues with the institutional framework for the urban sanitation subsector: see Figure 4). The ANEPA specifications and the implementing provisions enabling regulation of the RWS subsector were only adopted in 2007, two years later than planned. As for the PNAR, this has been virtually ignored. The deconcentration process is only taking place very slowly or not at all: for example, the ONSER only has three deconcentrated teams available for carrying out water supply facilities maintenance across the whole of Mauritania. Similarly, decentralization of water services has not been completed: the review of the Local Authorities' Law, begun in 2008, was never finished due mainly to a lack of political will, which explains the low involvement of communes. The latter only carry out the role of contracting authority (with difficulty) when they have obtained the necessary funds directly.

5. Financing and its Implementation

Priority actions for financing and its implementation

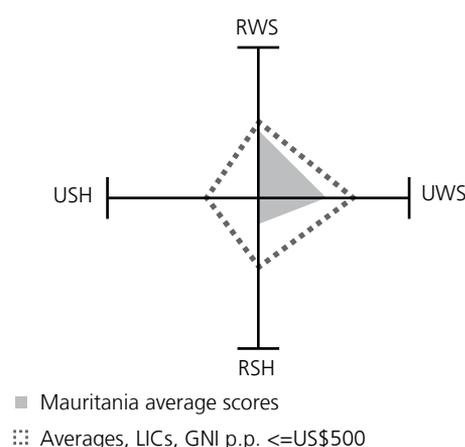
- Put in place transparent and collaborative multiyear investment plans for each subsector.
- Establish regular monitoring of financing obtained per subsector.
- Increase financing for the sanitation and rural water supply subsectors.

Over **80 percent of the total investment in the WSS sector is financed by DPs**, with less than 20 percent being financed by the state (2006–10 average). There are a number of small projects financed by nongovernmental organizations (NGOs), private donors or, occasionally, by communes (local authorities); however, there is no comprehensive inventory of these in place. The SNDE self-finances a small part of the investment required (between 1 and 5 percent) for the UWS subsector.

As far as the domestic budget is concerned, investment expenditure is mainly made up of state contributions (matching funds) to the various international cooperation projects.¹² Following the updates made to the sector strategic direction in 2005–06, state commitments increased considerably up until 2009, rising from US\$9.7 million in 2006 to US\$29.5 million across all subsectors. Over the 2006–08 period, 96 percent of commitments made from domestic funds went to the urban subsector and to UWS in particular. The majority of this financing took the form of state contributions to the Aftout Es-Sahéli project. However, it should be noted that this project was only aimed at increasing the water resources available from the Senegal River to supply the capital. Work on rehabilitating and extending the Nouakchott network only commenced in 2010. The focus placed on UWS over the last few years represents a change of direction from that of the 1990s, when the majority of funding was channeled to the RWS subsector. Up until 2008, the state did not finance sanitation; it did, however, contribute US\$2.6 million in both 2009 and 2010 to financing the Nouakchott sewer system (12 percent of its total commitments over the period). The rural sanitation subsector, however, is still being neglected.

With regard to DPs, the available data—although not comprehensive—indicate that commitments increased from US\$44 million in 2006 to US\$173 million in 2008, before falling as a result of the events that shook Mauritania's political landscape and which led to some DPs withholding part of the financing already committed or under discussion. The average for the 2006–08 period stood at US\$90 million per year. The peak in 2008 was mainly due to the launch of the major project, mentioned above, aimed at developing the water resources of the Senegal River to supply the capital, Nouakchott (Aftout Es-Sahéli project, with a total cost of US\$451 million). It is estimated that, up until 2010, this project absorbed 90 percent of donor financing, leaving 9 percent for other urban water supply projects (in Nouakchott and

Figure 5
Scorecard indicator scores relating to financing and its implementation, compared to peer group¹³



Source: CSO2 scorecard.

Nouadhibou) and 1 percent for RWS. There is no sector budget support in place in the WSS sector in Mauritania.

There appears, therefore, to be a **lack of equity in the regional and subsector allocation of financing**: sanitation is clearly overlooked by both the state and DPs; in the water supply sector, priority is accorded to the urban subsector, hindering the development of RWS; and even within the UWS subsector, nearly all financial resources are allocated to the country's two largest towns, particularly Nouakchott, rather than to the secondary centers.

This situation highlights the lack of financial planning within the sector. There is no mechanism in place linking the 2015 targets set by the state to its financial commitments: there is neither an objective-based program budget in place for the whole sector, nor an up-to-date Medium-Term Expenditure Framework (MTEF). An MTEF was developed in 2004, followed by another for the 2008–10 period; however, these were never implemented due to the lack of sufficiently strong leadership within the sector. In addition, the existing multiyear investment programs were either not properly monitored or updated (2005–15 10-year rural and semi-urban water supply plan, SNDE business plan) or went unheeded (National Rural Sanitation Program, Nouakchott's 2008 Sanitation Master Plan). Lastly, the Ministry of Water and Sanitation's

Directorate of Planning, Monitoring and Cooperation does not have either the resources or leadership required to assume its financial planning and monitoring responsibilities. It is, therefore, impossible to measure either financial performance or the extent to which this financing impacts the achievement of MDG targets.¹⁴

Comparison of **state and DP commitments against disbursements** is not carried out at sector level. Instead, it is conducted in part within the Treasury's database and partly by a Directorate of Planning and Economic Studies, which has been placed under the supervision of various ministries as a result of ministerial reorganization. According to the available data, the percentage of state funds utilized for investment is estimated to be around 80 percent on average, with a higher percentage of financing utilized within the UWS subsector than within RWS. Monitoring on the implementation of donor financing is conducted retrospectively; however, the available data indicate that the percentage utilized varies enormously: from 7 percent in 2006 to over 100 percent in 2008. This can be explained both by the complexity and cumbersome nature of the public procurement procedures and by political instability. Overall, the scorecard results relating to the financing of the WSS sector are below the average of Mauritania's peer group countries, with results for sanitation being virtually zero (see Figure 5).

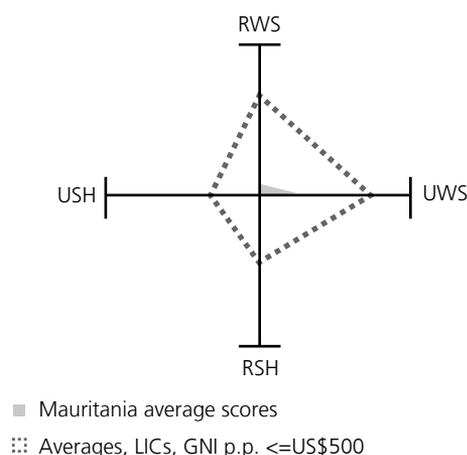
6. Sector Monitoring and Evaluation

Priority actions for sector monitoring and evaluation

- Define access to water supply and sanitation standards according to context, establish criteria for identifying facilities as improved, define the urban and rural service areas, and put monitoring indicators in place.
- Conduct a national inventory of existing water supply and sanitation facilities to establish a baseline and populate the database of the Directorate of Planning, Monitoring and Cooperation.
- Align the procedures used to monitor facilities built and financing utilized, and introduce centralized data collection at the DPSC level.
- Create a platform for institutional dialogue between the government and its development partners and an annual joint sector review.

M&E is one of the major weaknesses of the WSS sector in Mauritania (see Figure 6). The rise in the number of actors intervening in the water supply sector has led to data being scattered among several different institutions (Directorate of Water, SNDE, ANEPA, CNRE, and so on). In 2008, a project was launched to create a central database to collate all this data within the Directorate of Planning, Monitoring and Cooperation (DPSC: *Direction de la Planification, du Suivi et de la Coopération*). The aim was to enable monitoring of the progress made in all projects, to calculate the access rate in real time, and to identify less-developed regions. However, this aim was not achieved for several reasons. First, the **databases**—the water point planning and inventory system, SIPPE (*Système d'Inventaire et de Programmation des Points d'Eau*), managed by CNRE, and the water supply network management system, SYGAEP (*SYstème de Gestion des Adductions d'Eau Potable*), managed by ANEPA—are **not updated on a regular basis, which means it is impossible to establish a baseline**. Data collection and processing are major undertakings for institutions with few resources and for whom deconcentration remains limited. Consultancy firms have often been tasked with undertaking partial water point inventories in specific regions (or wilayas¹⁶) since 2004; although competent, these firms have bypassed both the decentralized and deconcentrated levels. At the central level, the **DPSC**, created in 2007 to manage the previously overlooked planning, M&E, and vision of the entire WSS sector, **does not have the resources available to centralize, process, and publish all information**.

Figure 6
Scorecard indicator scores relating to sector M&E, compared to peer group¹⁵



Source: CSO2 scorecard.

Second, **there is no official, up-to-date standard or definition in place** defining either 'access to drinking water' or 'rural' and 'urban' areas. This means that, in spite of the 2005 efforts of the Sector Technical Committee, it is not possible to set precise indicators. As a result, there is a poor understanding of the needs of the population and of priority areas, which hinders equitable investment planning. For sanitation, the absence of systematic data collection, indicators, statistics, and reporting procedures is due to the lack of interventions.

As there is no system in place within the sector to monitor facilities built, **progress made on access to drinking water and sanitation is measured through the various household surveys** conducted by the National Office of Statistics based on nationally representative samples of the population. The results of these surveys vary widely, both in terms of the access rates and in the overall trend observed since 1990. This can be explained by the different definitions used to describe the concepts of 'access to drinking water' and 'access to sanitation'. Nevertheless, these household surveys are used by the government and the UNDP in the MDG monitoring reports published in 2003, 2005, 2008, and 2010 (which include a chapter on access to water and sanitation). Once again, it should be noted that there are no clear targets set for 2015 as all documents approved since the beginning of the decade of 2000 contain different indicators, target values, and deadlines.

Both the lack of regular planning and progress monitoring and the absence of strong MHA leadership explain why there is no annual joint sector review in place. Since 2005, several initiatives have been launched by the state or its

DPs to increase the visibility of the sector and improve stakeholder coordination. Ad hoc consultation meetings were organized to prepare the 2005–06 reforms. Dialogue between external support agencies was also initiated by the AFD (*Agence Française de Développement*), but this was not pursued. Since 2008–09, UNICEF and the NGO GRET have been facilitating the 'Mauritania WSS network', an informal forum in which NGOs, and occasionally government stakeholders, meet once every two months. The DPSC has so far not undertaken to either drive or formalize this initiative. The external support agencies and the urban subsectors are not part of these discussions.

Due to the lack of institutionalized and continuous consultation within the WSS sector, communication remains extremely poor. Very little information passes between the various state institutions involved, between the different DPs, or between the state and its partners. As a result, the effectiveness and coherence of interventions are poorly evaluated and unquestionably limited; there is no overall medium- to long-term strategy; and the sectorwide approach advocated in the PRSP remains a pipe dream.

7. Subsector: Rural Water Supply

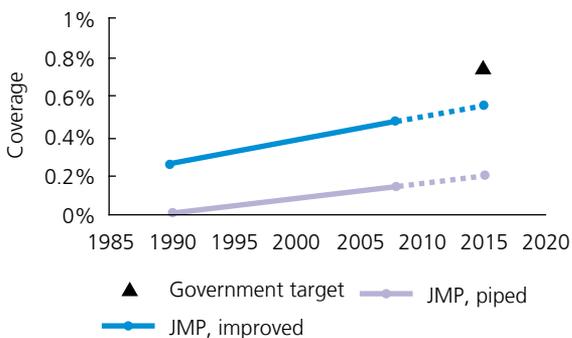
Priority actions for rural water supply

- Conduct a national inventory of facilities, carry out a review of delegated management, and improve and expand the use of the standardized system for frequent monitoring of private operators under management contract across the whole country, with the regular transfer and processing of technical and financial data to the central level.
- Improve regulation by allocating the financial, material, and human resources required to the ARM for conducting monitoring tasks on the networks and to the ONSER for controlling design and construction quality and for providing back-up support to private operators under management contracts.
- Improve the clustering of the networks and delegated service areas so as to harmonize the tariff at which water is sold, improve the operators' technical and financial performance, and ensure sustainability of the infrastructure.
- Set up a national initial and ongoing training program for delegates on technical and financial management, ensuring the ONSER is particularly involved.

According to the JMP, the access rate to drinking water in rural areas has increased considerably, rising from 26 percent in 1990 to 47 percent at the end of 2008. **Real progress has therefore been made**, with a particular upsurge in the number of household connections (14 percent of the rural population had a household connection in 2008 compared to zero percent in 1990). **Nevertheless, this rate of development is not high enough to meet the 2015 targets** set out in the Sector Policy Declaration (74 percent) or to contribute to the achievement of the MDG targets (see Figure 7).

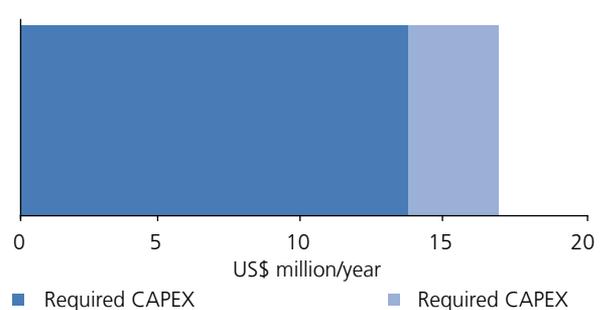
To make up for this shortfall, the public authorities need to mobilize far greater financial resources. According to the CSO2 calculations, US\$14 million per year needs to be invested in the RWS subsector to ensure achievement of the corresponding MDG targets, with a further US\$3 million required to finance the infrastructure's O&M costs (see Figure 8). Although high levels of financing were invested in the 1990s and up to the early 2000s, **the limited data available suggests that, over the last few years, the subsector has suffered as a result of priority being accorded to the urban water supply subsector.**

Figure 7
Rural water supply coverage



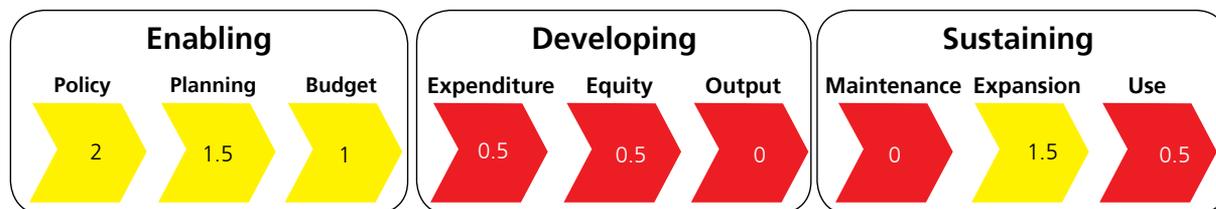
Source: JJMP and Sector Policy Declaration.

Figure 8
Rural water investment requirements



Source: CSO2 estimates.

Figure 9
Rural water supply scorecard¹⁷

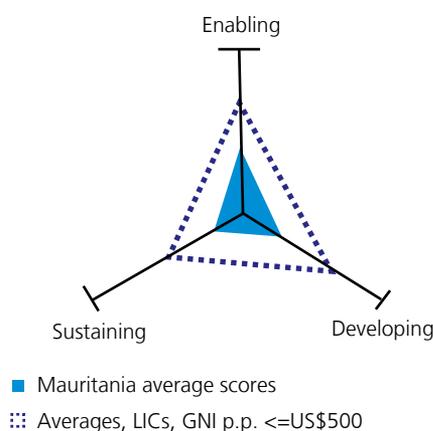


Source: CSO2 scorecard.

Overall, the CSO2 scorecard results for the RWS subsector are mixed, although on average they are below those of Mauritania’s peer-group countries (see Figures 9 and 6).

After having encouraged the use of wells and boreholes equipped with handpumps from 1975 onwards, in the 1990s and 2000s, the Directorate of Water began to **promote small piped systems** using thermal, solar or wind powered pumps, with standpipes and household connections. These small piped systems have become the standard for use in towns and villages of over 500 inhabitants. **Delegated management to private operators** was initially introduced in 1993–94 as part of the regional solar program (PRS: *Programme Régional Solaire*), prior to becoming standard at the beginning of the decade of the 2000s when the ANEPA was created, replacing community-based management. From the end of 2008, ARM also began to recruit operators based on the terms set out in the Water Law pertaining to delegation that stipulate the use of an ‘Invitation to Tender’ process and precise specifications with performance indicators. As a result, there are now several delegated systems in place that operate under different terms and conditions and which have not yet been grouped together. **The monitoring and control of operators has always been an issue** as this task has been entrusted to different entities: at the end of 2010, the ONSER (which succeeded the ANEPA) supervised the management of the 430 networks under its responsibility and the ARM supervised the management of 70 networks with, in certain areas, the assistance of NGO or donor projects. The procedures and resources in place for monitoring and control are unsatisfactory; there is no reliable technical and financial data collected from managers on a regular basis. Consequently, there is no overall vision of the situation within the RWS subsector.

Figure 10
Average RWS scorecard scores for enabling, developing, and sustaining service delivery, and peer group comparison



Source: CSO2 scorecard.

Nevertheless, the ad hoc studies conducted reveal **highly positive overall results as regards improvements in service quality**: although only 20 percent of networks were functional at the end of the 1990s, 10 years later this rate had increased to 90 percent. According to the ONSER, the average breakdown rate per network is two to three days per year, and breakdowns are repaired within 72 hours. The volume of water sold has significantly increased.

In contrast, a **number of issues remain both in the design and construction of infrastructure and in its management**. The facilities available in livestock breeding areas are often undersized as neither the high population growth rate nor the needs of livestock are properly taken into account. Accessing water then soon becomes an issue and network extensions are not carried out to address this

due to lack of investment finance. Some operators have, however, succeeded in extending their network using their own funds to offset the low levels of public financing. The involvement of the banking sector remains very limited, despite attempts at collaboration, as the banks are wary of making major investment if there is no guaranteed short-term profitability. The quality of equipment is poor, with faulty and even counterfeit equipment causing major water losses that erode the operator's profits. The lack of reliability of the meters installed by companies on those networks delegated by the ANEPA is such that it is impossible to monitor the quantities of water distributed, consumed, and charged for. Until the mid-2000s, the water tariff was frozen which made it increasingly difficult to meet the rising costs of O&M and renewal. The water tariff is now established upfront through consultation between the operator (who provides an operating plan forecast) and the government to cover part of the renewal costs. However, in practice, the operators rarely contribute to the renewal funds, which impacts on the sustainability of investment. Furthermore, the system of setting the sale tariff on a case-by-case basis means that there can be up to a five-fold difference in the tariff from one town or village to another.¹⁸ This leads to a lack of understanding among the population and to numerous complaints from those communities required to pay the higher tariff. One of the reasons operators are induced to increase the water tariff is that the sections of the network allocated to them often cover centers that are too small or include sites too remote from one another to enable them to reduce their operating costs and realize economies of scale. This threatens the profitability of the operation and, thus, the sustainability of the infrastructure. It is, therefore, vital that the clustering of the delegated networks is improved: constructing water supply networks that reach critical

mass, covering several thousand users, and creating fairer delegated packages to enable operators to offset the losses made in certain towns or villages against the gains made on other, more profitable networks. Finally, there are a large number of private operators who lack the required technical and managerial skills.

In contrast to that for small piped networks, the demand for new handpumps is very low in Mauritania.

This type of water point has never met with great success due to the high breakdown rate (around 50 percent in 2010). The low demand from users, in itself, hinders the operation of the maintenance supply chain: users resent having to pay for repairs to facilities they don't value and the few artisans who have remained active in this field find it difficult to make a living. The state only encourages the construction of new handpumps in those towns and villages where there are already a large number of functional handpumps in place, despite the fact that there is no real supply chain distributing spare parts. Conversely, **the construction of wells continues at a fast pace in villages of fewer than 500 inhabitants**, sustained by high demand as they very rarely break down.

A 2007 report monitoring the health of women and children (MICS 2007) showed that the average time spent on fetching water in rural areas was 71 minutes, compared to 47 minutes in urban areas. This highlights the fact that **major investment is still required in certain regions**. Within the country as a whole, two *wilayas* are severely lacking services and so an increase in the mobilization of public funds is required (Gorgol and Guidimakha in the east of the country). Further progress also needs to be made in the *wilayas* of Assaba, Hodh Charghi, and Dakhlet Nouadhibou.

8. Subsector: Urban Water Supply

Priority actions for urban water supply

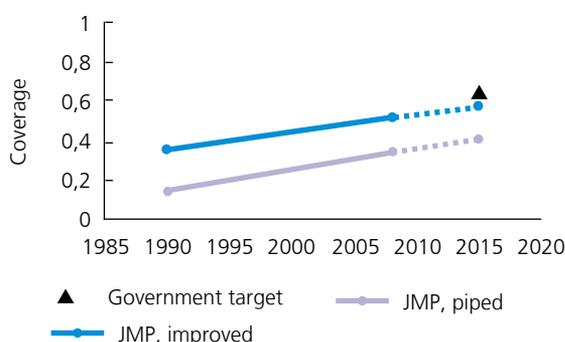
- Develop an overall strategy for the subsector and a 2015 investment plan to improve both the mobilization of finance and medium-term visibility, and prioritize disadvantaged neighborhoods.
- Develop a consultation platform between the Directorate of Water, the national water company, SNDE, and the directorates in charge of urban development, land use planning, sanitation, and so on.
- Develop the use of surface water storage to supplement the groundwater resources which are both nonrenewable and insufficient in secondary centers.

The statistics published by the JMP indicate that 52 percent of the urban population had access to drinking water at the end of 2008, compared to 36 percent in 1990. **Although progress has been slower here than in the RWS subsector, a moderate increase in access over the next few years would enable Mauritania to achieve the target** it has set for 2015 (65 percent). It should be noted that the service level has also improved as 34 percent of the urban population had a household connection at the end of 2008, compared to 15 percent in 1990 (see Figure 11).

The required acceleration in the rate of access could be realized as a result of the financing obtained since 2007. The Aftout Es-Sahéli project has secured

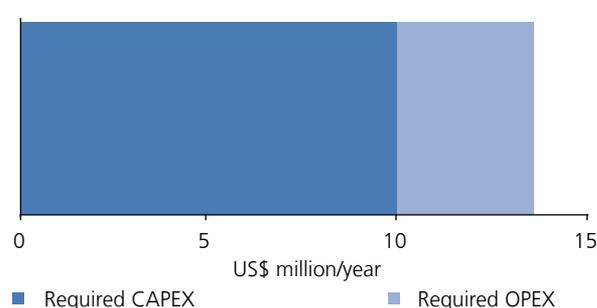
Nouakchott’s water supply up to 2030. As a result, the project to rehabilitate and extend the capital’s network has now been launched; however US\$75 million of the US\$135 million cost of the project still needs to be mobilized from DPs (this figure is fairly consistent with the CSO2 estimate, which calculates the investment required between 2009 and 2015 at US\$10 million per year, with a further US\$4 million for O&M—see Figure 12). The stakes are high for a town with such high population growth (5 to 6 percent per year) and where the majority of the poor outlying settlements have insufficient coverage. Ultimately, the project should provide access to water to 80 percent of the town’s inhabitants. Provided that the financing is mobilized and the project completed quickly, Mauritania should be able to achieve its MDG targets for the UWS subsector.

Figure 11
Urban water supply coverage



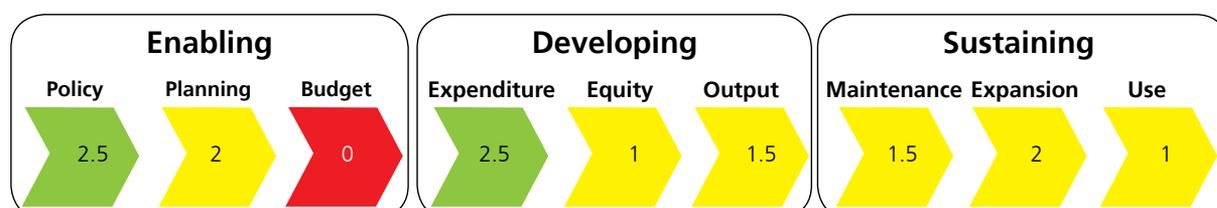
Source: JMP and Sector Policy Declaration.

Figure 12
Urban water investment requirements



Source: CSO2 estimates.

Figure 13
Urban water supply scorecard



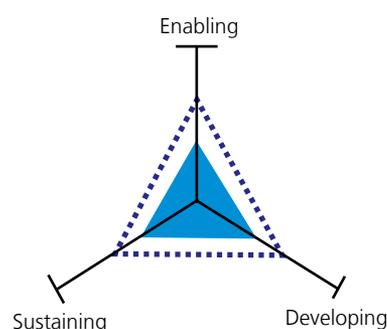
Source: CSO2 scorecard.

Overall, the performance of the urban water supply subsector falls slightly below that of Mauritania’s economic peer group (see Figures 13 and 14).

The SNDE, which operates the public water service (production, transport, distribution, sales, maintenance, and renewal) is a public company created when SONELEC was split in two. Its service area includes Nouakchott and 21 centers of between 4,000 and 100,000 inhabitants. Prior to the split, SONELEC sold water at a single tariff, set lower than the cost of production, and maintained its financial stability through an operating subsidy granted by the state. Today, a new tariff structure is in place that covers the majority of the production and operating costs. However, the low level of management autonomy reduces the leeway afforded to the SNDE. In addition, the company **lacks an overall strategy and 2015 investment plan** to supplement the triennial 2008–10 development plan and the water distribution master plans. Work on the specifications, initiated by the ARM with a view to implementing the Water Law, has not been completed.

In Nouakchott, one-third of households are connected to the SNDE network; this corresponds to the inhabitants of the town center and to the main paths of the secondary network. The remaining two-thirds obtain their water either from standpipes—which were installed at the end of the 1970s to contend with the rapid population growth of the town and the increase in the number of low-income households ‘off-network’. There are **a multitude of alternative sources and water vendors that compensate for the inadequate network.** Over half of the standpipes are installed and managed by private operators, rather than by the SNDE. Over 250 water tankers and a large number of tank-carts obtain water from ‘potences’¹⁹ and travel round the town supplying water to

Figure 14
Average UWS scorecard scores for enabling, sustaining, and developing service delivery, and peer-group comparison



■ Mauritania average scores
⋯ Averages, LICs, GNI p.p. <=US\$500

Source: CSO2 scorecard.

those neighborhoods furthest away from the network and to certain administrations. The tankers belong to private entrepreneurs and to neighborhood communes; around 40 are also owned by the SNDE. There are also several wells and boreholes that are not connected to the network and which are used either by individuals or by companies. To withstand periods of drought or water shortages, such as during the summer of 2007, storage basins have been constructed in outlying areas by NGO projects or through bilateral funding. Overall, the issues encountered in the capital constitute a drag on the performance of the UWS subsector. The project to rehabilitate and extend the network, however, should help remedy this situation.

In the secondary centers managed by SNDE, use of household connections is more widespread (around

50 percent of households). Between 2005 and 2008, water tankers were used to overcome periods of water shortages. Wells and water carriers also operate in these secondary towns. Since 2007, ad hoc actions have been taking place in several of these secondary centers to improve water production and distribution (Nouadhibou, Rosso, Néma, Atar, Tichitt, Rachid, Bir Moghreïn, Oualata, and Tamchekett); however, they remain underfinanced compared to the capital.

Generally, **the technical and commercial performance of the SNDE is limited, which results in access of average quality for the urban population.** First, the percentage of nonrevenue water is estimated to stand at 40 percent over the whole SNDE service area and at 70 percent in Nouakchott; this is due to lack of facilities' maintenance and renewal and to the failure of government institutions to pay their bills on time. Some neighborhoods do not have continuous supply from the networks, in others the pressure and flow rate are too low. Furthermore, the secondary networks are unsatisfactory, with water points that are poorly distributed; this primarily impacts the disadvantaged outlying neighborhoods, particularly in Nouakchott where the average price of a cubic meter of water is one of the highest in the world. This

price is between five and 10 times higher than the price paid by those inhabitants of neighborhoods connected to the water supply network and who, in addition, benefit from a progressive volumetric tariff structure that includes a 'social' tariff (last reviewed: 2007). In the hot season and when there are water shortages, the price in certain neighborhoods rises to even higher levels. As a result, there is a need to regulate small operators and private resellers. An indicator pertaining to the price of vended water in informal settlements (notably in Nouakchott) has been included in the PRSP.²⁰ Lastly, although the World Health Organization standards are in force, there are still issues with the water quality in certain neighborhoods. These are caused by pollutants infiltrating the network and by the fact that quality controls along the distribution chain are insufficient.

The projects to rehabilitate and extend the networks of Nouakchott and other secondary centers should help mitigate the majority of these issues. In the capital, the project currently in progress should ultimately improve access, reduce malfunctions on the network, and lower the cost of vended water in the disadvantaged outlying neighborhoods. It is imperative that all the financing required for this project is obtained.

9. Subsector: Rural Sanitation and Hygiene

Priority actions for rural sanitation and hygiene

- Conduct a national review of access to sanitation.
- Put in place a consultation platform for the different stakeholders to align approaches, and a project monitoring system to follow progress and draw lessons from problems or setbacks.
- Implement the future national sanitation policy and strategy through a large-scale proactive sanitation promotion program, with the support of development partners.
- Ensure the human and financial resources needed to implement such a program are made available to the Directorate of Sanitation, the deconcentrated departments, and the communes.

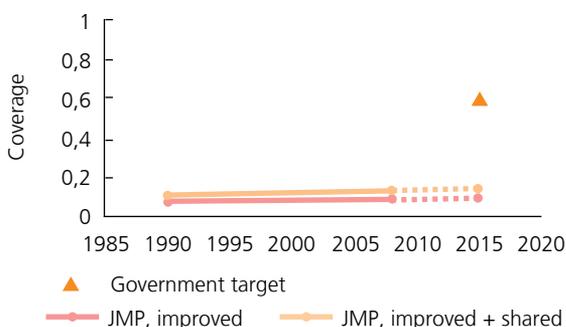
According to the JMP, there has been virtually no progress in the access rate to improved sanitation for nearly 20 years (8 percent in 1990, 9 percent in 2008). It is evident that the target of 60 percent set by the state for 2015 will not be attained (see Figure 8).

This stagnation is not unexpected given the lack of public financing allocated to the subsector, coupled with the very low ability and willingness of the rural population to pay for sanitation facilities. According to the CSO2 estimates, investment of US\$14 million per year is required to meet the rural sanitation MDG target, to which a further US\$1 million needs to be added for facilities maintenance (see Figure 9). Almost all this amount still needs to be mobilized.

The rural sanitation subsector has not been a priority for the authorities, which explains the poor performance of the subsector (see Figures 10 and 11). Nevertheless, the PNAR has been developed for the 2006–15 period. It serves both as a strategy and an investment plan. It promotes a demand-based approach (awareness-raising of households, training of masons) and proposes co-financing on-site sanitation facilities for families and public institutions (schools, healthcare centers, and so on.). Within this Program, around 130,000 household sanitation facilities are to be built and some 2,300 toilet blocks constructed in schools and healthcare centers up to 2015.

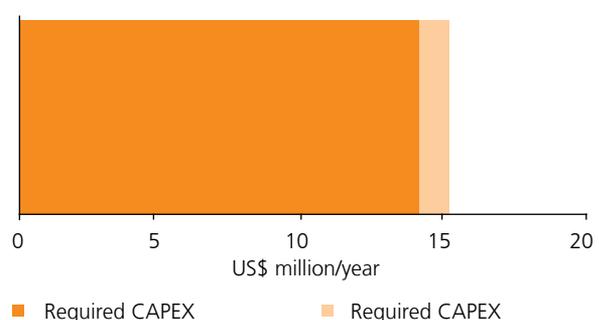
Until now, application of the PNAR has been very limited, due to lack of will from the public authorities

Figure 15
Rural sanitation coverage



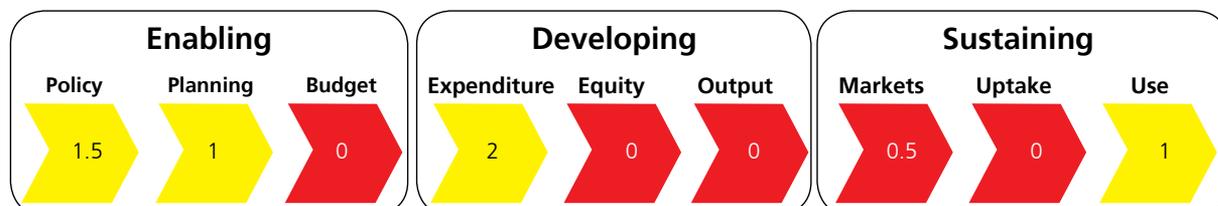
Source: JMP and Sector Policy Declaration.

Figure 16
Rural sanitation investment requirements



Source: CSO2 estimates.

Figure 17
Rural sanitation and hygiene scorecard

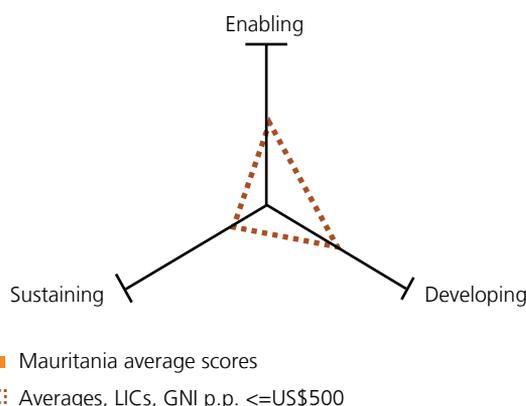


Source: CSO2 scorecard.

and lack of interest from external support agencies. Only two recent rural water supply projects have included a sanitation component: the Water Supply and Sanitation Program, PAEPA (*Programme d’Alimentation en Eau Potable et d’Assainissement*, in three southern *wilayas*, funded by the AfDB) and the Guidimakha and Gorgol Water Project, PEGG (in two southern *wilayas*, funded by the AFD), in which the sanitation components are very small compared to those for water supply. For their part, UNICEF and the NGOs—few and far between in the subsector—each adopt their own approach. UNICEF has recently begun promoting Community-Led Total Sanitation (CLTS), which is based on raising awareness and on collective action. Households are encouraged to construct their own latrines without relying on external subsidies. Initial results indicate that CLTS leads to greater awareness within communities, at least in the short-term, but the facilities constructed rarely conform to the JMP definition of ‘improved’ and so are not necessarily sustainable.

A national sanitation policy document and an implementation strategy were developed at the end of 2010 and these are due to be adopted in 2011. This policy document establishes a list of appropriate technologies, provides recommendations on methods and

Figure 18
Average RSH scorecard scores for enabling, developing and sustaining service delivery, and peer-group comparison



Source: CSO2 scorecard.

tools to be used for hygiene education (this is currently often conducted over too short a time period), and sets out an action plan that includes a capacity-building program. To ensure that these documents do not go unheeded, the Directorate of Sanitation needs to communicate them to all the relevant stakeholders concerned. In addition, the Directorate’s human and financial resources also need to be reinforced.

10. Subsector: Urban Sanitation and Hygiene

Priority actions for urban sanitation and hygiene

- Increase state financing and mobilize development partner support.
- Put in place a dedicated and sustainable financing mechanism for sanitation.
- Promote on-site sanitation in those areas where there is no sewer system planned.
- Improve the pit emptying and sludge treatment services.

In contrast to rural areas, access to improved sanitation in urban areas increased significantly between 1990 and 2008, rising from 29 percent to 50 percent according to the JMP. This increase is still not rapid enough for there to be any hope of achieving the target set for the subsector in the Sector Policy Declaration (77 percent), unless improved shared latrines are included in the calculation (see Figure 19).

The improvement in the access rate is surprising given the **low levels of public financing** allocated to the urban sanitation subsector: only since 2009 has the state budgeted around US\$2.6 million per year to the subsector, thus enabling work to be started on rehabilitating Nouakchott's existing networks.

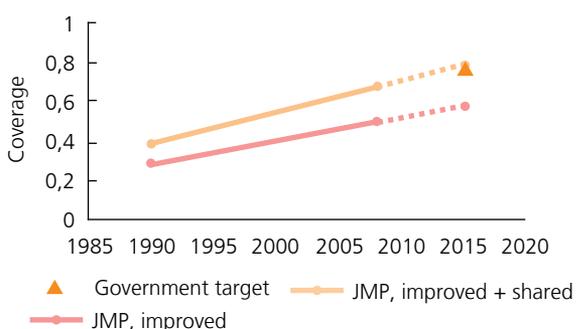
It can, therefore, be assumed that **households have invested their own funds in improving their facilities, against a background of population growth and**

rural exodus that has seen sanitation become an ever increasing requirement for the urban population.

According to CSO2 estimates, US\$10 million per year will be required between 2009 and 2015 to finance subsector investment, with a further US\$2 million required for O&M (see Figure 20).

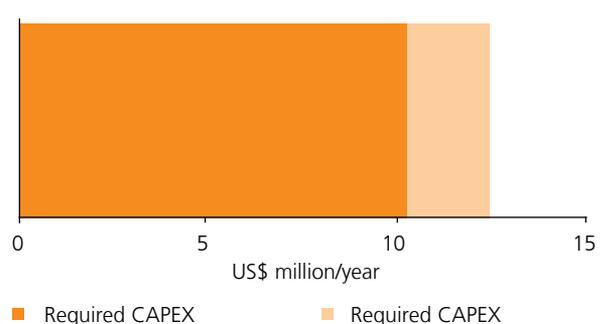
The Water Law requires sewer systems to be put in place in those towns with a master plan (Nouakchott, Rosso, and, shortly, four other towns, one of which is Nouadhibou). On-site sanitation is planned for the other centers and in those areas of large towns with low population density, where water consumption and/or the characteristics of urban development and housing make constructing a sewer system unfeasible. At the moment, there are no technical standards, no list of recommended technologies and no strategy for promoting sanitation and providing hygiene education to the population. These shortcomings should be overcome in 2011 with

Figure 19
Urban sanitation coverage



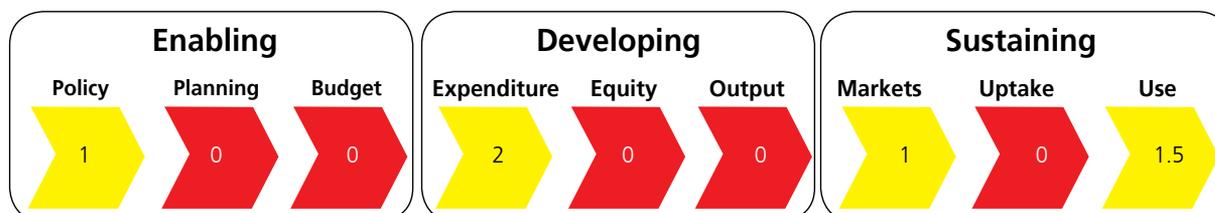
Source: JMP and Sector Policy Declaration.

Figure 20
Urban sanitation investment requirements



Source: CSO2 estimates.

Figure 21
Urban sanitation and hygiene scorecard



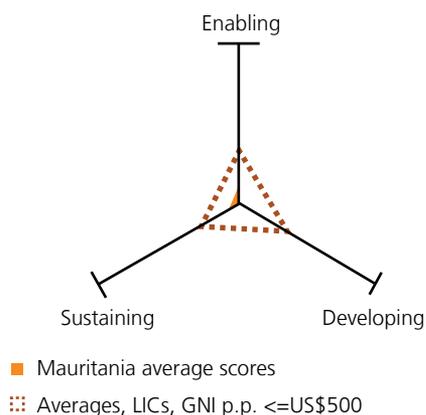
Source: CSO2 scorecard.

the introduction of the sanitation policy and strategy document that is currently being developed.

The sewer system option for large towns is not realistic given both the technical complexity and high cost, whether for the external support agencies expected to finance the initial major investment, for the households expected to pay for the connection, or for the National Office for Sanitation which would have to cover the cost of O&M. The example of Nouakchott is instructive: there is an old, small sewer system in the center of the capital which has 1,200 connections (mainly administrations, hotels, and residential buildings accounting for less than 1 percent of inhabitants). In spite of the rehabilitation work carried out in the 1990s, the network does not function properly. The sewerage surcharge paid by those users connected to the system (US\$0.052 per m³) covers only a quarter of the operating costs. The remainder is met, in part, by the state. **Nevertheless, the ONAS has made expansion of the sewer system in Nouakchott a priority** to contend with the additional volumes of wastewater that will be generated by the planned extension to the water supply network. The small existing sewer system is currently being rehabilitated and a new system is planned to cover four of the capital's nine communes. The exceedingly high cost of such a project (US\$200 million) has made it difficult to mobilize financing. In addition, it will be necessary to considerably increase the resources allocated to sanitation (increase the amount and/or basis of the surcharge, put in place a 'polluter pays' principle, public subsidy) to be able to meet the operating costs and, perhaps, subsidize connections.

There are around five private pit emptying companies in Nouakchott that own several dozen vacuum trucks.

Figure 22
Average USH scorecard scores for enabling, sustaining, and developing service delivery, and peer-group comparison



Source: CSO2 scorecard.

Frequent pit emptying is required due to the high groundwater table and to the infiltration of (undrained) stormwater into the pits. As there is no disposal site or treatment plant, the pit sludge is discharged directly into the surrounding environment. There are virtually no vacuum truck pit emptying services in the other urban centers; there are also no disposal sites.

All segments of the sanitation chain, therefore, need to be improved across all urban centers: wastewater collection facilities in housing plots, emptying, and treatment. According to the CSO2 assessment, the scores for the urban sanitation subsector are close to zero (see Figure 21), and are significantly below the average of Mauritania's peer-group countries (see Figure 22).

Notes and References

- ¹ Source: Global Economic Monitor, the World Bank, 2010 average.
- ² The first round of CSOs was carried out in 2006 covering 16 countries and is summarized in the report, *Getting Africa On-Track to Meet the MDGs on Water and Sanitation*.
- ³ See UNICEF/WHO Joint Monitoring Programme (2010), *Progress on Sanitation and Drinking Water: 2010 Update*.
- ⁴ Throughout this report, 'point' refers to a percentage point, unless otherwise indicated.
- ⁵ The Government of Mauritania has established sector targets in various documents: 2001–15 Poverty Reduction Strategy Paper (PRSP), (2005) Report on PRSP indicators and monitoring, (2005 and 2008) MDG monitoring reports, (2006) Sector Policy Declaration and (2007) Sector performance indicators. However, each document contains different targets (pertaining to connection uptake, the water price, poor neighborhoods, and so on) and different deadlines (2004, 2007, 2010, 2015). Only the Sector Policy Document includes targets that conform to those defined by the JMP, that is, concerning the proportion of the population with access to an improved water source and improved sanitation facilities in 2015.
- ⁶ The Sector Policy Declaration does not give an overall target for the sanitation sector, but sets a rate target of 60 percent for the rural sanitation subsector and 77 percent for the urban subsector. This corresponds to an overall target of nearly 67 percent given that it is estimated that 40 percent of the population will live in urban areas and 60 percent in rural areas in 2015 (source: World Population Prospects (2008), UN Population Division).
- ⁷ Due to rounding, subsector figures may not sum to totals.
- ⁸ The CSO2 scorecard methodology and its structure are detailed in the regional synthesis report.
- ⁹ The relevant indicators are: All subsectors: targets in the national development plan or the PRSP; subsector policies agreed and approved. RWS/UWS: institutional roles defined. RSH/USH: institutional lead appointed.
- ¹⁰ It is to be noted, however, that the Directorate of Sanitation was only allocated staff, premises, and resources two years after it was created. As a result, it has only been operational since 2008.
- ¹¹ See: Ministry of Water and Sanitation. 2010. *Contribution du CTS hydraulique et assainissement à la révision du CSLP et à l'élaboration de son plan d'action 2011-2015*.
- ¹² The state rarely commits its own funds. Exceptions to this are where external support agencies require a financial contribution from the state to support their projects.
- ¹³ The relevant indicators are: All subsectors: programmatic Sector-Wide Approach; investment program based on MDG needs assessment; sufficient finance to meet the MDG; percent of official donor commitments utilized; percent of domestic commitments utilized.
- ¹⁴ The figures presented above are essentially those collected and analyzed by the CSO2 consultant team.
- ¹⁵ The relevant indicators are: All subsectors: annual review setting new undertakings; subsector spend identifiable in budget (UWS: including recurrent subsidies); budget comprehensively covers domestic/donor finance; standards and definitions used for household surveys consistent with JMP. RWS/RSH: domestic/donor expenditure reported. UWS: audited accounts and balance sheets from utilities. RWS/RSH: periodic analysis of equity criteria by CSOs and government. UWS: pro-poor plans developed and implemented by utilities. RWS/UWS: nationally consolidated reporting of output. RSH/USH: monitoring of quantity and quality of uptake relative to promotion and subsidy efforts.
- ¹⁶ Administrative region (there are 12 *wilayas* in Mauritania, plus the district of Nouakchott).
- ¹⁷ The scorecard uses a simple color code to indicate: building blocks that are largely in place, acting as a driver on service delivery (score >2, green); building blocks that are a drag on service delivery and require attention (score 1–2, yellow); and building blocks that are inadequate, constituting a barrier to service delivery and a priority for reform (score <1, red).
- ¹⁸ See *Ministère de l'Hydraulique et de l'Assainissement (2010), Contribution du CTS hydraulique et assainissement à la révision du CSLP et à l'élaboration de son plan d'action 2011-2015*. This can partially be explained by the fact that the ANEPA/ONSER tariffs are subsidized, whereas the private delegate tariffs are not.
- ¹⁹ 'Potence' is the common name used in Nouakchott to describe an infrastructure that supplies water to water tankers. It is a simple structure that consists of a pipe connected to a water supply network at a point where its diameter is large enough (315 to 400 mm) to fill up a tanker using natural water pressure (no booster pump).
- ²⁰ The indicator defined in the PRSP for the water price is as follows: 'price (in US\$) per m³ of water in poor neighborhoods compared to other neighborhoods'. There is, however, no target value and the indicator has not been followed up.

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