



SENEGAL

Water and Sanitation Profile

POPULATION AND HEALTH STATISTICS	
Population (2006)	12.1 million
Proportion of population living in urban areas	42%
Urban/Rural population growth rates (1980-2000)	3.3 / -1.5%
Diarrheal deaths/year (2004)	6,500
Under age 5 mortality rate	137/1000 live births
Under age 5 mortality rate due to diarrheal disease (2000)	17.1%

SECTOR OVERVIEW

The Government of Senegal began reforming its water supply and sanitation (WSS) sector in 1996 and since then it has made substantial improvements in coverage and sector organization. As such, Senegal is on track to meet its Millennium Development Goals (MDGs) targets by 2015. The key attributes of the reform program included ensuring autonomy of the management and a rational organization of the sector, supporting improvements in commercial management and cost effectiveness, and establishing a new rate policy for improving cost recovery and reaching financial equilibrium of the urban water sub-sector in the medium-term. The urban water sector did in fact reach financial equilibrium at the end of 2003.

In 2005 Senegal developed a programmatic approach to coordinate water supply and sanitation (WSS) stakeholders called Programme d'eau potable et d'assainissement du millénaire (PEPAM) or Millennium Water and Sanitation Program. PEPAM has been instrumental in setting Senegal's progressive WSS sector policy and an investment program that appears sufficient to meet MDG targets in urban and rural water access. The next challenge

for Senegal is to expand PEPAM to the sanitation and rural sub-sectors.

As part of the reform, state asset holding company, Société Nationale des Eaux du Senegal (SONES) was created, and operations were contracted out in 1996 to a private operating company, Sénégalaise des Eaux (SDE), under a 10-year enhanced lease agreement. The institutional reform has improved the overall management of the sector in terms of quality of service delivery, efficiency of operations and cost recovery. The Senegal case is regarded as a model of public-private partnership in sub-Saharan Africa and was replicated in Niger in 2001.

While the urban water outlook is generally positive, further progress is possible in the rural sector and in sanitation. The rural water supply reform effort (REGIFOR) and the Management Reform Projects of Rural Boreholes (ASUFOR-funded by AfDB) have both helped to increase rural access. In contrast, the sanitation sub-sector is behind in urban areas and still inadequate in rural areas.

SECTOR FRAMEWORK

In the urban areas, the institutions involved with water include the Ministry of Agriculture and Water Resources; Ministry of Economy and Finance, that oversees water and sanitation programs and projects financed by the Government and mobilizes finance;

WATER AVAILABILITY IN SENEGAL	
Renewable water resources per capita, m ³ /person/year (1960-2007)	3,225
Water withdrawals, m ³ /person/year (2000)	184
Projected water resources per capita, m ³ /person/year in 2015	2,429
Note: 2015 projected water resources per capita is a straight-line regression calculation based on population growth rates with no adjustment for consumption or technology changes	

KEY AGENCIES

Agency	Description	Contact Information
Société nationale des eaux du Sénégal (Sones)	<ul style="list-style-type: none"> Responsible for all water supply services in Senegal Policy formation, strategies, national administration Holds assets of water systems run by SDE 	Mamadou Dia mdaa@sde.sn Tel: 221-33-839-37-03
Sénégalaise des eaux (SDE) or Senegalese Water	<ul style="list-style-type: none"> Public-private partnership Part of Saur Group Water supply service in urban areas 	Mamadou Dia mdaa@sde.sn Tel: 221-33-839-37-03
Office national de l'assainissement (ONAS) or National Office of Sanitation Agency	<ul style="list-style-type: none"> Responsible for sanitation service in urban and rural areas Beginning to release management contracts to private sector operators 	Amadou Lamine DIENG Amadou.dieng@onas.sn Tel: 221-33-832-39-96

the Higher Water Council (including its Water Technical Committee), which sets policy; SONES, the asset holder which holds the concession for urban water resources; and SDE, a private company that manages the urban water service. The Government also created the National Office of Urban Sanitation (ONAS) as an autonomous public agency in charge of operating and managing sewer networks and drainage.

SONES is responsible for managing sector assets, planning and financing investments, and for economic and quality of service regulation. The lease contract with SDE included time-bound performance targets to ensure that the private operator had an incentive to produce at an optimal capacity while reducing losses and improving collection.

The Government created layers of contracts among the sector institutions, which set out the respective rights and obligations of each.

Specifically:

- A 30 year concession contract was signed between the ministry and asset-holding company that authorized the latter to manage the sector;

- A sector development contract between the ministry and asset-holding company, which outlines the investment obligation of the latter;
- A 10-year affermage contract between all three actors, governed operation of the system; and,
- A 10-year performance contract between the asset-holding company and the private operator outlined specific responsibilities.

The design of the affermage contract recognized the need to allocate sufficient, specific resources to finance increased access to piped water supply for the poor. As a result, a national fund was created to allow the private operator to subsidize "social connections." It aimed at providing improved services to the poor for a lower price. Social connections were free, while a connection fee was charged for ordinary connections aimed at wealthier households. SDE and SONES worked through a large NGO to identify the need for social connections.

Sanitation falls under the jurisdiction of the Ministry of Prevention, Public Hygiene and Sanitation and its Sanitation Department (DAS), in charge of defining sectoral and rate strategies and policies, and identifying and implementing sanitation programs. The National Sanitation Agency of Senegal (ONAS), a public commercial entity is in charge of collecting, treating, recycling and evacuating both wastewater and storm water in urban and peri-urban areas.

In the rural areas, the water is under the Water Directorate (DHY), the Operation and Maintenance Directorate (DEM), and the Water Resources Management and Planning Directorate (DGPRE) of the Ministry of Agriculture and Water Resources. DHY handles programming and implementation of new works, while DEM guarantees the proper operation and maintenance of motorized rural boreholes. The mission of the DGPRE is to plan the use of water resources and monitor the quality of water.

In the rural areas, the sanitation sub-sector is organized around the Ministry of Prevention, Public Hygiene and Sanitation (MPHPA). The MPHPA set up regional sanitation divisions. Rural Communities and local authorities also play a role in the sanitation sector, in the form of decentralized cooperation and in

collaboration with the NGOs or government services. Government and donor funding is required for rural water supply and sanitation to scale-up the ASUFOR model. As for sanitation financing, ONAS plans to institute a new sanitation pricing system in order to improve sub-sector cost recovery, but continued government subsidies and donor support of sanitation access projects are necessary to meet the MDGs.

THE URBAN SUB-SECTOR

The urban water sector covers 56 urban centers. Almost all are served through private connections and standpipes. In rural areas, 64 percent of the population has reasonable access to clean water through 2,500 boreholes and 4,600 modern wells. The city of Dakar which represents 75 percent of the urban water activity is mostly supplied with water drawn from aquifers that run the risk of being over-exploited and contaminated by salt-water intrusion.

Senegal's urban sub-sector has benefited the greatest from sector reforms since 1996. As the private operator of urban water systems, SDE has successfully recovered the cost of operation and maintenance (O&M) since 2003, expanded coverage to the point of meeting the MDG goal for urban water access, and has had its initial ten-year lease contract extended to 2011. Going forward, the challenge for Senegal is to continue to strengthen its public-private partnerships (PPPs), like with SDE, while making water safer and balancing pro-poor access policies with expansion into peri-urban areas. Additionally, improving services by increasing the number of household connections and eliminating standpipes in urban and peri-urban areas will further help the poor since water by volume can be as much as four times more expensive than through an individual house connection.

Conventional sewerage is neither technically nor economically feasible in most parts of urban cities. In Senegal, on-site sanitation has traditionally not been considered as an acceptable alternative to sewerage. Yet, expansion of sanitation coverage needs to be better incorporated with poverty reduction strategies and demand-based sanitation services, including on-site sanitation, must be expanded, together with hygiene education, participation of small-scale

contractors, and development of management capacity at the community level.

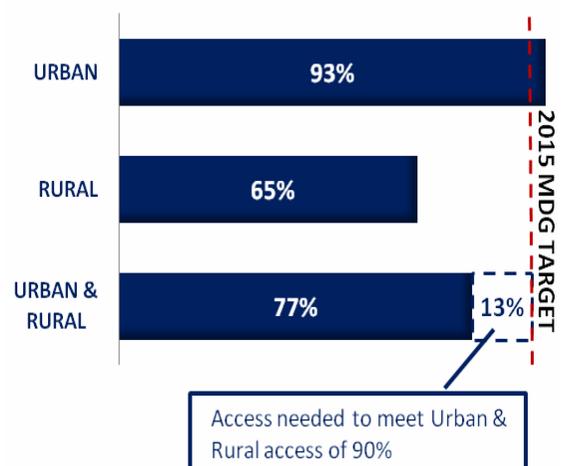
A sanitation surcharge of US\$0.10/m³ is levied for the National Office of Urban Sanitation (ONAS, the sanitation utility) on water customers. However, revenues generated by this surcharge are insufficient to finance ONAS operations. Currently, water rates and fees devoted to financing ONAS only cover 65 percent of its revenue requirement. Expanding sanitation in urban areas will require significant mobilization of government and donor funding. Achieving financial sustainability of ONAS and finding means to devote resources for on-site sanitation remains a major challenge for the sub-sector.

THE RURAL SUB-SECTOR

In the rural areas, the implementation of the PEPAM is based on a unified framework for action, institutional reforms, and sustainable financing systems. Drinking water is supplied to rural communities mainly through village or multi-village water supply systems, a pipeline for the supply of water to the Dakar region but which supplies rural localities located along the line; modern wells, equipped or otherwise; and boreholes with hand pumps,

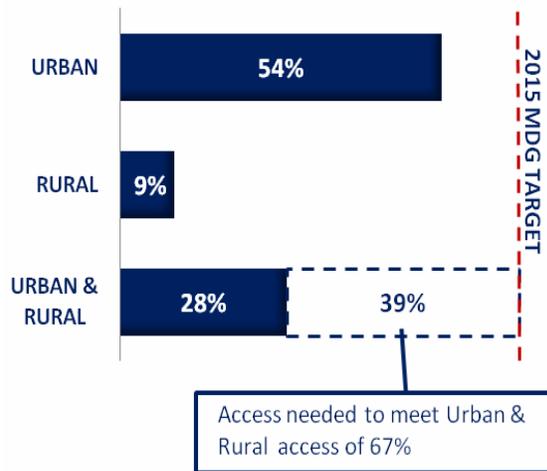
Senegal's rural sub-sector provides the most opportunities for the government to implement a second round of WSS service expansion based on the PEPAM. In fact, WSS service expansion and

Meeting MDG 7: Access to Water in 2006



Data Source: UN MDG Indicator Database

Meeting MDG 7: Access to Sanitation in 2006



Data Source: UN MDG Indicator Database

improvement in management capacity has already begun. Under reforms instituted by REGIFOR and using the ASUFOR model, communities are pricing water by volume and contracting out maintenance of boreholes to the private sector. To ensure progress is maintained, borehole committee management requires training. More capable committees will work with government to implement system improvements more as government distributions and donor funding become available.

Finally, sanitation functions will not improve in time to meet MDG targets if the implementation of sanitation policies and considerable coordination between ONAS and local service providers is not acted on quickly. Reforms should include decentralization of planning, resource allocation, and supporting the newly created Ministry of Sanitation as its leadership role develops. Addressing the financing gap for rural sanitation is needed as well as further opening up sanitation operating functions to the private sector.

DONOR INVOLVEMENT

Senegal has had significant involvement in the WSS sector under two notable multi-donor projects led by The World Bank's Water Sector Project (1996-2004) and the Long-Term Water Project (2002-2007). The World Bank has also developed an output-based aid scheme for the rural areas. These projects and the programs they created have been instrumental in reforming Senegal's water sector. Senegal's M&E

framework could use improvement since it does not capture progress sector-wide.

Although the base of donors is quite broad in Senegal's WSS sector, the key donors include the World Bank, the Water and Sanitation Program, the African Development Bank, Belgium, France, and Germany's KfW.

DONOR	ACTIVITIES	CONTACT INFORMATION
The World Bank	<ul style="list-style-type: none"> ▪ Integrated water resources management ▪ Transboundary water resources management ▪ Hydro-electricity ▪ Urban water infrastructure improvements ▪ Peri-urban sanitation infrastructure improvements ▪ Rural water supply improvements through greater electrification of rural areas 	Pierre Boulenger pboulenger@worldbank.org Matar Fall mfall@worldbank.org Tel: 221-849-50-00
Water and Sanitation Program	<ul style="list-style-type: none"> ▪ WSS policy and strategy development and enhancement ▪ Support of greater private sector participation ▪ Developing M&E tools and processes ▪ Sanitation action plan development and joint coordination of WSS initiatives 	Madio Fall Mfall2@worldbank.org Tel: 221-842-65-84
The African Development Bank (AfDB)	<ul style="list-style-type: none"> ▪ Rural WSS development ▪ Water resources 	Mohamed H'MIDOUCHE SNFO@afdb.org Tel: 221-82-00-888
Belgium	<ul style="list-style-type: none"> ▪ Urban and rural WSS infrastructure development – expanding access 	Marc DE FEYTER coopbel@sentoo.sn 221-822.38.74
AFR	<ul style="list-style-type: none"> ▪ Financial planning and other management capacity building in urban WSS service areas, in particular with SONES, SDE, and ONAS 	Mathieu VASSUR vasseur@afd.fr Tel: 221-33-832-29-97
KfW	<ul style="list-style-type: none"> ▪ Integrated water resources management ▪ Urban water supply – private sector participation and reducing non-revenue water ▪ Semi-urban water supply development through increasing water points 	Marième KANE Tel: 22 13 38 89 96 -17

Additional information and sources: Statistics were compiled from the WHOSIS database, WRI-Earthtrends Water Resources and Freshwater Ecosystems database, and the UN MDG Indicators database. Other sources include the 2006 African Development Bank's "Getting Africa on Track to Meet the MDGs in Water Supply and Sanitation," 2007 OECD-Senegal Annual Economic Outlook Report, Water and Sanitation Program FY 09-11 Business Plan, African Development Bank – Senegal Sub –Program for the Launching of the Rural Water Supply and Sanitation Initiative Appraisal Report (2005).

This Water and Sanitation Profile was prepared under the **Advancing the Blue Revolution Initiative (ABRI)**. ABRI is funded by the U.S. Agency for International Development and addresses some of the most challenging water issues in the Middle East and Africa including the lack of access by the poor to improved water and sanitation services, inefficient and nonproductive water use, and transboundary river basin management. ABRI works closely with host country governments, actively pursues co-investments from the private sector, reaches out to like-minded foundations, and partners with regional institutions.