



MADAGASCAR

Water and Sanitation Profile

POPULATION AND HEALTH STATISTICS	
Population (2006)	19.2 million
Proportion of population living in urban areas	27%
Urban/Rural population growth rates (1980-2000)	5.3 / 2.2%
Diarrheal deaths/year (2004)	16,900
Under age 5 mortality rate	123/1000 live births
Under age 5 mortality rate due to diarrheal disease (2000)	16.9%

SECTOR OVERVIEW

Both water supply and electricity services in Madagascar are provided mainly through the combined utility, JIRAMA. Problems with JIRAMA's ability to provide both services led to a program of utility and sector reform in the late 1990s through to the present. The reforms included a restructuring of JIRAMA to conform to commercial principles, promulgation of a new Water Law (1999), and all related by-laws (by 2005). A rate have gradually increased, although not to cost recovery levels, and in 2005 a Service Contract was put in place to address some of JIRAMA's institutional weaknesses including financial management, investment planning, and operational strategies. Legislation passed to allow for a distinct regulatory agency, but regulatory functions are still practiced by the Ministry of Energy and Mining.

In 2005, the National Program for Safe Water Supply and Sanitation (PNAEPA) was adopted with the objective of meeting the Millennium Development Goal (MDGs) targets by 2015. The challenge for Madagascar now, is the synchronization of the national budget with medium-term WSS improvement

program planning and significantly increasing sector capacity.

A Sanitation Policy was developed in 2006 and a WASH program was put in place in 2002. It is estimated that only about 20 percent of the population has access to piped sewerage or septic tanks – the remainder rely on on-site sanitation.

Despite the reform program underway, only 50 percent of the population has access to safe water in the JIRAMA-served areas and only 20 percent of the population has access nationwide.

SECTOR FRAMEWORK

The Ministry of Energy and Mining's (MEM) Directorate of Water and Sanitation (DEA) is responsible for developing and promulgating water and sanitation policy, assessing water resources, and providing oversight to JIRAMA and other water supply undertakings. Water service in urban areas is primarily provided by JIRAMA, a commercialized water and electric utility, while local commune-based service providers (Collectivites Decentralisees or CDs) and user associations provide water services in rural areas. Sanitation is a municipal/local responsibility in both urban and rural areas. Government contributions to the PNAEPA have been promising with approximately 40 percent of the .

WATER AVAILABILITY IN MADAGASCAR	
Renewable water resources per capita, m ³ /person/year (1960-2007)	17,186
Water withdrawals, m ³ /person/year (2000)	924
Projected water resources per capita, m ³ /person/year in 2015	12,916
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
The Ministry of Energy and Mines (MEM)	<ul style="list-style-type: none"> National water policy Six regional offices 	
Directorate for Drinking Water and Sanitation (DEPA)	<ul style="list-style-type: none"> Implements national WSS policies Equipment & sanitation service Water use service Programming service 	
National Water and Sanitation Board (ANDEA)	<ul style="list-style-type: none"> Integrated water resources management policy Master basin planning 	
Water and Sanitation Regulatory Agency (ORSEA)	<ul style="list-style-type: none"> Compliance with service quality standards Determining and applying water and sanitation rates WSS system standards 	
JIRAMA (Jiro Sy Rano Malagasy)	<ul style="list-style-type: none"> WSS service provider to 59 urban centers and eight rural centers 	Jules Razafimandi Dir. Planning, Tariffs, Management Control dq@jirama.mg 261-20-22-301-68
National Water and Sanitation Fund (FNEA)	<ul style="list-style-type: none"> WSS financing for conservation, mobilization, and protection of water quality 	
Commune Service Providers	<ul style="list-style-type: none"> WSS service provider in population centers that are not served by JIRAMA 	

programs funding coming from the government of Madagascar. Still, the funding gap and the ability of the government to adequately absorb and effectively manage outside donor contributions is cause for concern. To increase the WSS sector's ability to mobilize additional funding, capacity building for financial management must be increased. Finally, Madagascar uses a computerized M&E system to more efficiently track WSS sector improvements, but defining rates of access has not been uniform. The confusion of terms, concepts, and survey methodology to track WSS improvements has

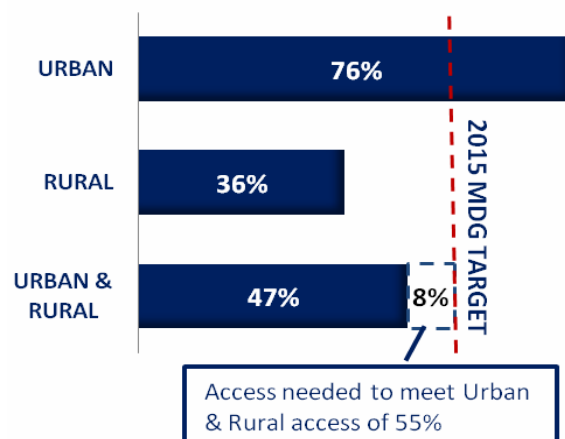
contributed to a limited understanding of the impact of WSS sector investments.

Multiple new institutions were created under the 2002 Water Act. To fully implement the reforms, additional human resources, management training, and financial resources are required to effectively scale-up WSS service. Key to success is the adoption of the draft Sector Investment Plan and the following: rationalization of local water rate structures that ensure better cost-recovery, greater water conservation, and an increase of pro-poor access policies. These actions must be coupled with robust performance tracking to ensure cost-effectiveness and measurable outcomes.

THE URBAN SUB-SECTOR

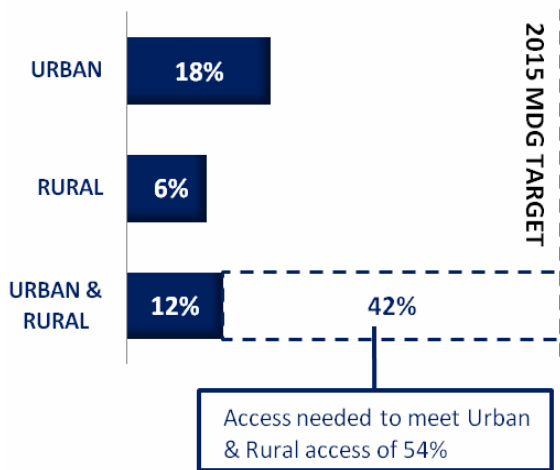
In 2005, JIRAMA, an unincorporated state-owned enterprise, was the water service provider to 67 population centers in Madagascar (59 urban and 8 rural). JIRAMA has been poorly managed in the past, which resulted in the entrusting of the company's operations to an international consultant so that financial, managerial, and technical improvements could be made. Blame for JIRAMA's poor performance can be partly attributed to water rates too low to recover costs. The rates necessary to cover costs are unaffordable to most ratepayers; therefore, better management and expenditure streamlining were needed to off-set JIRAMA's revenue requirement.

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

In urban areas, the management of sanitation systems is much less defined. For instance, in Antananarivo, the Antananarivo Autonomous Municipal Maintenance Service (SAMVA) was created to operate and maintain sanitation and sewerage facilities, however SAMVA does not exist outside of the city's boundaries. SAMVA recovers its costs by charging a sewage treatment tax which JIRAMA adds to customer water bills, but this is unique compared with the rest of the country. Sanitation is typically entrusted to private entities and individuals since the government has divided up the responsibility of sanitation among no less than four ministries. Sanitation facilities vary in number and capacity in each commune. It is the responsibility of the commune to operate and maintain their facilities, which rarely collect sufficient revenues to pay even O&M costs.

THE RURAL SUB-SECTOR

In large part, Madagascar's rural sub-sector is constrained by low funding, lack of private sector participation, limited capacity to manage, and too few strategies to recover the cost of service. However, the PNAEPA focused attention on the rural needs and the Government's commitment to rural water supply and sanitation (RWSS) increased from about \$10 million in 2004 to almost \$15million in 2005 (nearly half through internal resources). In rural areas, community management of water points is the preferred method. These community management associations are

called Water Point Committees (WPCs). The revenue to operate and maintain the system is derived from flat-rate volume charges. WPCs are made up of volunteers from the community; whereas repairs are made by repairmen, who may either reside in the community or who are circuit-riders that travel from community to community.

Sanitation in rural areas is noticeably lacking. Past donor supported projects have provided systematic inventories of sanitation facilities, but financing for sanitation lack both a mechanism to recover O&M costs or enough investment to reach the rural sanitation MDG target of 54 percent. In response, the government will need to choose a lead ministry and develop a strategy for rural sanitation. A more explicit financing program and mechanisms for cost-recovery need to be developed as well.

WASH Committees also have a significant role to play in rural sanitation and hygiene behavior. In this respect, Madagascar has a good record of creating a multi-stakeholder initiative to promote better hygiene at the community level (Stakeholders include: administration, donors, national and international non-governmental organizations, and the private sector).

DONOR INVOLVEMENT

Both the AfDB and the World Bank have funded RWSS projects, under the umbrella of PNAEPA. The French Government (AFD) and the World Bank financed JIRAMA's recovery program with EIB providing investment financing. The IFC has been involved in analysis of the opportunity for private sector participation in JIRAMA and has worked to with the government to consider what contract, if any, is appropriate at the conclusion of the service contract. MEM is currently the counterpart for nearly all donor financing in the sector, but it's government's intention is to move to a program approach where most donors will pass their funding through the Ministry of Finance. Tracking expenditures will also be made easier with implementation of the Medium-term Expenditure Framework, which was scheduled for implementation in seven of the country's 22 regions. Nevertheless, pro-poor expenditure of funds is not well-defined and needs to better alignment with the county's poverty reduction strategy.

DONOR	ACTIVITIES	CONTACT INFORMATION
The World Bank	<ul style="list-style-type: none"> ▪ Supporting efforts in urban areas to rehabilitate WSS infrastructure ▪ Institutional capacity building through management restructuring and increasing financial and technical capacity at JIRAMA although much of the focus of these efforts is on JIRAMA's energy portfolio ▪ Rural water supply and sanitation reform in partnership with UNICEF 	Christophe Prevost (Washington DC) cprevost@worldbank.org Tel: 202-458-0881
The African Development Bank (AfDB)	<ul style="list-style-type: none"> ▪ Institutional capacity building and management reforms in urban and rural WSS sub-sectors' ▪ Rural WSS infrastructure rehabilitation and expansion 	Mme Sylvie Anne CONDE MGFO@afdb.org Tel: 261) 2022 643 61
France/AFD	<ul style="list-style-type: none"> ▪ Supporting urban WSS service provider capacity building (JIRAMA) ▪ Integrated water resources management and water source protection 	RICHARD Dominique
UNICEF	<ul style="list-style-type: none"> ▪ Rural water supply and sanitation 	261-20-23-300-92

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-Madagascar Annual Economic Outlook Report, African Development Fund – Madagascar Rural Drinking Water and Sanitation Program 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.