

Madagascar

Where local Commune administrations urgently need more staff and resources to deliver increases in sustainable access to water and sanitation



WaterAid – calls to action

- The national sanitation policy must be finalised, financed and implemented
- Government must adopt water and sanitation as key strategies to improve public health, if poverty reduction resources are to be used effectively
- The new National Authority for Water and Sanitation (ANDEA) needs to provide effective coordination of government, donor, civil society and private sector actors

Introduction

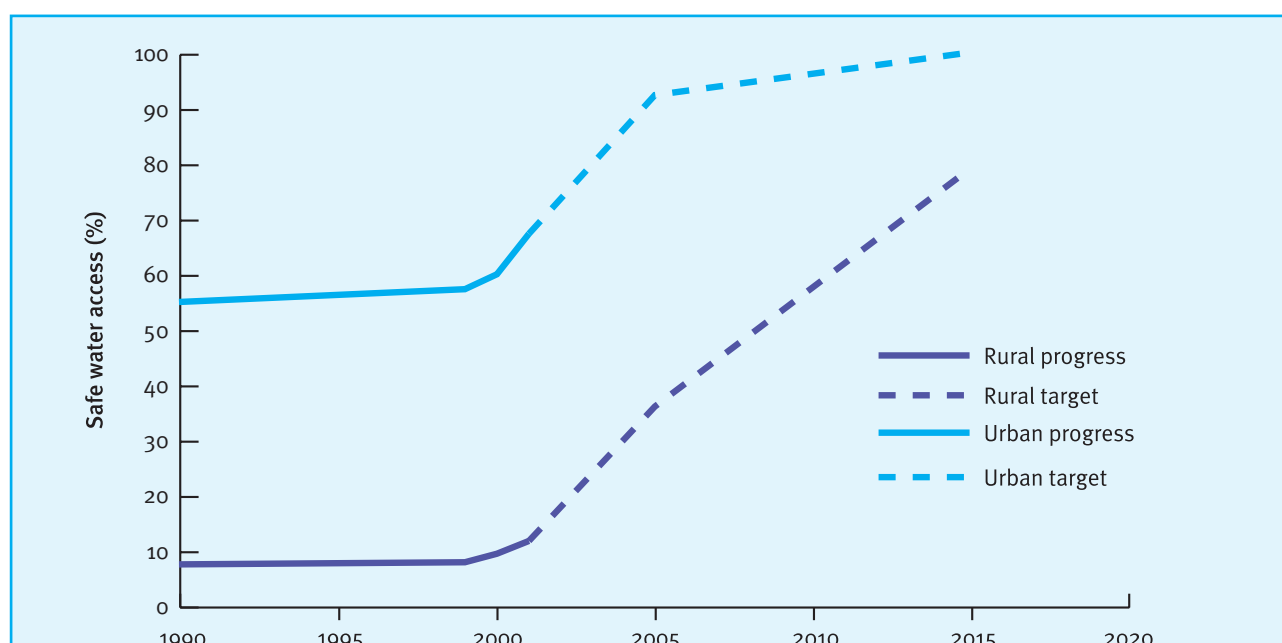
Madagascar is the fourth largest island in the world with a surface area of 587,000km². In 2004, the estimated population was 16 million, 75% of whom live in rural areas. The Malagasy population is composed of 18 ethnic groups who all speak Malagasy albeit with different dialects. Madagascar, which was colonised by France and became independent in 1960, is divided into six provinces composed of 22 regions containing 1500 smaller administrative units called Communes.

Madagascar's GDP per capita in 2001 was \$253. Aid – worth \$22 per capita – formed around 49% of government expenditure in 2000. External debt is some \$4 billion. Madagascar achieved the completion point for the Highly Indebted Poor Countries (HIPC) Initiative in December 2000 enabling it to gain debt reduction of about 50%, worth roughly \$50 million each year.

The UNDP Human Development Report 2002 ranked Madagascar 147 out of 173 in the world. In 2001 some 69.7% of the population were considered to be living in poverty, the vast majority (85%) in rural areas. The average age of the Malagasy population is 21.1. The life expectancy at birth was about 55 years in 2002 and the annual population growth was 2.8 in 2001 against 3.1 in 1998. The infant mortality rate decreased from 130/1000 in 1990 to 84/1000 in 2002.

The UNDP's 2001 report¹ on Madagascar's progress towards the Millennium Development Goals (MDGs) noted that Madagascar was slipping back on the first target (halving the proportion of people suffering from hunger/under nourished people), and was off track on the target to halve the proportion of people without access to improved water sources. (The report also stated that in urban areas the proportion of the population without access to water had risen from 27% in 1997 to 40.5% in 2000.)

Figure 1: Progress towards urban and rural national water targets



Fact box

Population for 2000 – total (rural/urban)	16 (12/4) million
Population projection for 2015 – total (rural/urban) ²	24 (17/7) million
Present access to safe water (rural/urban)	12%/67%
Present access to basic sanitation (rural/urban)	52%/87%
Annual (2002) deaths of under fives due to diarrhoea	84/1000
Productive days which would be gained with 100% access to water and sanitation	5 million
School days lost to diarrhoea by five to 14 year olds	3.5 million
Monthly number of households requiring access to reach water MDG	13,900
– increase required (on performance since 1990)	300%
Monthly number of households requiring access to reach sanitation MDG	17,800
– increase required (on performance since 1990)	2000%
Current annual water spend	\$20m
Water/sanitation sector annual finance need for MDGs	\$117m
Water sector annual MDG spending gap	\$97m
Annual national debt service payment ³	\$142m

Key events

19th century	First construction of water infrastructure	2001	Joint Water Sector Review
1974	Nationalisation of urban water and electricity supplies	2002	Launch of WASH (water, sanitation and hygiene for all) campaign
1980s	UN Water Decade – Madagascar focuses on rural water supply systems	2002	The 13 water law decrees are proposed to be endorsed by government
1999	Voting of the “Water law” by the National Assembly	2003	Drafting and formulation of the sanitation policy
2000	Medium Term Expenditure Framework introduced	2004	Setting up of ANDEA
		2004	Programme approach introduced for all sectors including water

Water sector characteristics

Administration

Water supply and the management of water resources in Madagascar are primarily the responsibility of the Department of Water Development within the Ministry of Energy and Mines (MEM). It is involved in different projects and programmes including AEPSP (translated to Sanitation, Drinking Water and Environmental Protection), PAEPAR (translated to Pilot Project for the Provision of Rural Water and Sanitation) and the HIPC initiative.

Urban areas

Water supply and distribution in Madagascar has always been monopolised by SEEM, which became JIRAMA (Jiro sy Rano Malagasy – Malagasy Electricity and Water) after nationalisation in 1974. Infrastructure was concentrated in urban areas, especially in the six main towns of the six provinces. That infrastructure still works, but its capacity is weak in relation to the number of users. JIRAMA will soon enter into a management contract with a private company to carry out the water supply activities in urban areas for two years.

Rural areas

In the eighties, during the UN Water Decade, the appearance of NGOs enabled many remote areas to have access to drinking water, via wells and gravity fed systems. NGOs and other stakeholders allowed new demand-led and participative approaches to develop. Users were able to contribute by providing the workforce, local materials and transport. The deep south which is quite arid requires boreholes and even pipeline or provision by tanker lorries. For wells and boreholes three handpumps are mainly used in the six provinces: “Vergnet”, “India II or III” and the rope pump. Other pumps that are not so well known are also used.

While the water supply coverage increased from 27% to 31% between 1999 and 2003 the sustainability of these facilities remains a big issue due to the lack of capacity at community level and the non-availability of spare parts.

The water supply projects or programmes in rural area are mainly financed by World Bank, UNDP, UNICEF, JICA and some International NGOs like WaterAid, CARE or MEDAIR.

Sanitation

The importance of sanitation has only been considered very recently. In the last five years and especially after the launch of WASH in Madagascar, hygiene and sanitation has

been systematically integrated within water supply programmes. The WASH campaign promotes key messages including handwashing with soap, effective use of hygienic latrines and ensuring safe water does not become contaminated from the source to when it is used.

Sanitation is the primary responsibility of the Sanitation and Sanitation Engineering Service (SAGS) within the Ministry of Health, with the Ministry of Town and Country Planning (MINATV) and the Ministry of Industry and Handicrafts also taking some responsibility. The latter deals with industrial pollution, together with the Ministry of the Environment which also deals with the management of natural resources.

MINATV plans infrastructure for urban sanitation, but each town has its own body to run sanitation. On the ground, MEM is leading the national sanitation policy and its department of water and sanitation is notably dynamic and committed. The National Authority for Water and Sanitation (ANDEA—Autorité Nationale de l’Eau et de l’Assainissement) has just been set up and is supposed to deal with water resource management and liquid wastes.

The impact of the lack of sanitation on the country as a whole was documented in a joint publication from Government, NGOs and UN agencies entitled *Sanitation – the challenge*⁴. The document noted that five million working days and 3.5 million school days were being lost due to ill-health caused by bad sanitation. The value of these losses was estimated to be 300 times greater than the amount of public money actually being spent on sanitation.

As a result sanitation has moved up the political agenda and a draft sanitation policy is now available. However it still needs to be reworked before its validation by the government. **The national sanitation policy must be finalised, financed and implemented.**

Finance

Needs

WaterAid’s own calculations are that the water and sanitation MDG targets require spending of \$117m each year – \$1 is equivalent to approximately 2000 Ariary⁵ or 10,000 local Malagasy francs (FMg). The current budget is \$32m but actual annual spending is only \$20m and this therefore needs to increase by \$97m per year.

Massive increases in output are also required from the water sector if the MDG targets are to be met (Table 1). The monthly numbers of households which must get access to water and sanitation for the first time are between two and 24 times greater than what has been achieved before.

Table 1: Implications of water and sanitation MDGs

Sector	Location	Performance (Households per month)		Increases required for MDGs (Additional performance required)
		1990-2000	2001-2015	
Water	Rural	1092	9277	740%
	Urban	2452	4693	91%
Sanitation	Rural	485	12,065	2390%
	Urban	377	5728	1420%

Government finances and water

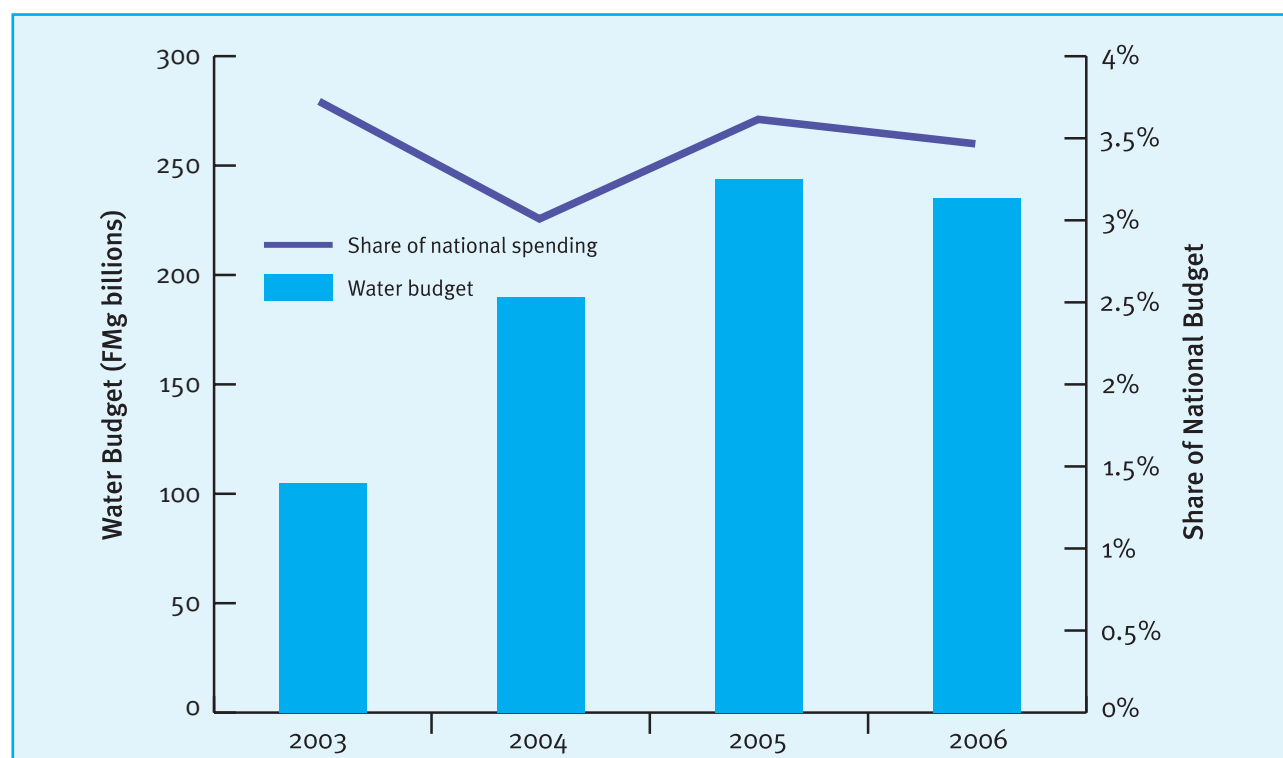
Government spending is done within the context of a Medium-Term Expenditure Framework (MTEF) which is greatly increasing public spending. While the cash allocation is increasing for water and sanitation the importance of the sector is arguably being down-graded as in future it will attract a smaller share of public spending (Figure 2). **Government must adopt water and sanitation as key strategies to improve public health, if poverty reduction resources are to be used effectively.**

Donors

At present the Ministry of Energy and Mines has to manage nearly all of the resources provided by different donors such as the World Bank, UNICEF, JICA and ADB as separate funds. The intention however is to move to a programme approach where most donors will put their funding through the Ministry of Finance. Tracking expenditure will also be made easier with implementation of the MTEF due to start in 2005. Nevertheless, pro-poor expenditure funds are not well defined for Madagascar. Table 2 shows the range of donors estimated to be providing financing in just one year, 2004/5. It is hard to make such comparisons of donors however as they do not all operate to the same time

Share of total public spending

Figure 2: Water budgets and share of public spending: 2003-2006



periods or calendars. They also target their funds to different administrative levels.

Sector coordination

The multiplicity of administrative bodies – which affect the effectiveness of both funding and reporting systems – is illustrated in Figure 3.

The new agency, ANDEA, has a key role in coordinating water. However its role in sanitation is yet to be clearly defined. The Ministry of Decentralisation will have a role to play in strengthening capacity at decentralised levels and the Ministry of Town and Country Planning (MINATV) will logically also be required to participate. Developing accurate data systems will further involve the Ministry of Finance and the National Institute of Statistics (INSTAT) as well as the Ministry of Energy and Mines itself.

Therefore to ensure maximum effectiveness of the inputs from all these players as well as the funders identified in Table 3, **the new National Authority for Water and Sanitation (ANDEA) needs to provide effective coordination of government, donor, civil society and private sector actors.** This should encompass compilation of accurate data, local capacity building and financial monitoring.

Table 2: Estimates of range of different donor funds in 2004/5

Donors	Project	Actors	Budget
UNICEF	Programme 2005 – 2009	Ministry of Health SAGS	800,000 US\$ per year
European Union	Agreement 2005 – 2008 Provinces of Fianarantsoa and Toliary)		100 000 € /commune
Japanese Government	Pipeline installation in the south	AES	108 billion FMg from 2005 to 2009
	Water supply and two borehole programmes	JICA	27.4 billion FMg in 2004
WaterAid	Project and partnership agreement with local NGOs	Taratra, Caritas, Fikrifama, Frère de St Gabriel, Saf FJKM	£288,000 in 2005/2006
AFD	Support to Jirama	Jirama	7,700,000 € with half for water
BADEA	Water supply		4.4 billion FMg in 2004
World Bank	Gravity flow water supply	PAEPAR	14.3 billion FMg in 2004
	Boreholes	PAEPAR	4.9 billion FMg in 2004
	Reorganisation of the sector and legal framework		11.9 billion FMg in 2004
FAD	Sanitation and other		2.8 billion FMg in 2005
	Institutional support		1.2 billion FMg in 2005
	Community mobilisation/training		1.9 billion FMg in 2005
FONDEM	Setting up solar panels: water supply and electrification of rural area	AES	850 million FMg per year from 2004 to 2007
Government	Six separate water supply schemes		Total value of all schemes: 24.2 billion FMg for 2004
World Bank / UNICEF	Sanitation		400 million FMg in 2004 and 2005
World Bank / UNICEF	Hygiene education programme		345 million FMg in 2004
	Initiative WASH campaign		800 million FMg in 2004

Decentralisation

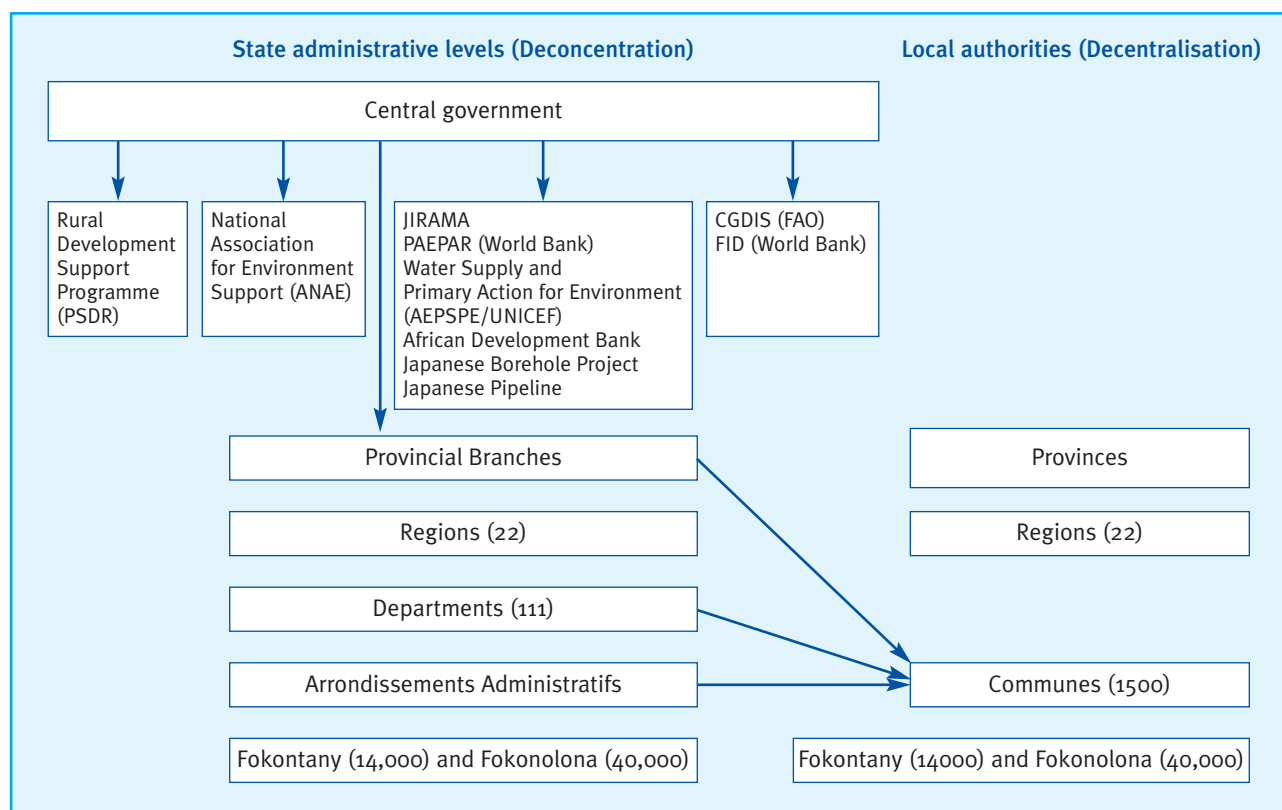
As a former French colony, Madagascar operates a francophone type of decentralisation. Since its independence in 1960 Madagascar has applied several models of decentralisation which were more politically-inspired than aimed at sustainable service delivery. From 1960 to 1972, Madagascar had three levels of decentralisation: the central government, the six provinces, two dozen prefectures and approximately 100 sub-prefectures.

In the subsequent second republic one more level was introduced to bridge the gap between the prefectures and the citizens, the “Fokontany” which could be one village or urban quarter or a group of villages. The third republic in 1992 kept a similar model while introducing the notion of Commune to replace the sub-prefecture. But then, in 1998 the six provinces were named as autonomous after the amendment of the constitution through a referendum. More recently, 22 new regions were set up which according to the planners were to reflect on economic realities not ethnic groups. These regions fill the gap between the six autonomous provinces and the 1500 rural and urban Communes.

Each Commune is supposed to have its own Development Action Plan but most of them lack both the funding and the staff to produce such plans. The 1500 Communes in Madagascar received just €3300⁶ per year from central government up until 2004 which was not enough even for their basic running costs. The Communes therefore have few staff and those they do have possess very limited skills and so are unable to deliver development targets. Since the government strategy is for Communes to be the focus for development decisions, the Government is now proposing to increase Communes’ budgets. But since allocations will be made according to performance and dynamism, the need for prior capacity-building by the Ministry of Decentralisation is acute.

Theoretically, each Commune is in charge of water supply and sanitation management within its boundary. However this is far from the reality on the ground. Moreover the recent establishment of the 22 regions will further change this vision because they are supposed to draw up Regional Development Master Plans. A focus group of 1392 Communes carried out by the National Statistics Bureau in 2002 revealed that water is not a high priority at this level. Water is the sixth priority (6%) after agriculture (27%), transport (26%), security (15%), health (14%) and education (10%).

Figure 3: Administrative bodies in Madagascar



In Madagascar, decentralisation and deconcentration (relocating staff from the centre to the regions) are mainly limited to administrative aspects. Financial decentralisation has only been for local government running costs. Capital investment budgets have never been decentralised. The Public Investment Programme is decided at central level. All the invitations for tender are issued at central level and the funds are managed directly by the central government. There is therefore no standardised formula for allocating the bulk of water financing between local administrative bodies.

As with water supply, official national statistics on latrines show a big difference between rural and urban areas with respective coverage rates of 52% and 87%. There are also big contrasts between provinces. While the coverage rates are 87% and 82% respectively for Antananarivo and Toamasina, in Toliary and Mahajanga the rates are 21% and 36%. As these two last provinces are more affected by cultural barriers, the risk is that latrine promotion will not get a high priority at either the community or the government level.

Equity

Although there is a lack of reliable data, there is a clear basic inequity in water supply between rural and urban areas – respective coverage rates are 12% and 67%. This position is broadly the same across all provinces. The province of Antananarivo has the highest coverage rate (94% in 2001) which is more than double those of Fianarantsoa and Toamasina. This reflects the fact that the two biggest towns of Madagascar are located in this province.

However, 80% of Malagasy people live in rural areas where there are big differences in coverage rates. Neither Mahajanga, Fianarantsoa, Antsiranana nor Toamasina has a rural coverage rate of more than 9% compared with 30% for the province of Toliary.

All of the provinces – and the country as a whole – however do show the same pattern of increasing access to safe water (Figure 4).

This trend should be strengthened by the planned rebalancing of the water budget between urban and rural areas under which funding for the latter will steadily increase.

Sustainability

There is no up to date information at national level for the sustainability of water points in Madagascar. The present inventory of water points dates from 1991 and is held only in paper format in a large ring binder⁷. There are plans for a digital database. Research commissioned by the UNDP in the South of Madagascar in 2003 revealed that almost two thirds of the water points in this region were not working. However it is probably not justifiable to extrapolate this data to the national level since the major problem in this area is its extreme isolation. When water points break down, the spare parts and technical skills required are often not available at the village level. Since the mid-1980s, water points in rural areas in Madagascar are supposed to have a water committee, which is trained to manage the water point and to ensure its maintenance. Some of these water committees work very well because they have set up a water fund and got in touch with the water service provider (mostly NGOs). However this dependency on NGOs is itself a big threat to the long term sustainability. The Government has contemplated setting up VLOM (Village Level Operation and Management) of all the water points in Madagascar but this will require organisation and resources.

The spare parts issue persuaded the Government of the need to standardise the hand pumps used in Madagascar which would constitute a viable market for a potential retailers based in the region. But this standardisation has not yet been achieved because of differing viewpoints among actors about the kind of pumps which should be used. Spare parts will be imported into the foreseeable future since the numbers of deep well pumps are relatively small and insufficient to justify local manufacture.

The work of local technicians should be based upon preventive maintenance rather than making breakdown repairs which are costly and often very difficult to achieve at community level.

Gender

In WaterAid's experience the gender make-up of sector institutions is a good indicator of sustainability. This is because water is usually a female responsibility so women and girls have clearer vested interests in the continued functioning of water supply systems. In Madagascar however there is a heavy bias against women at the most influential levels (Table 3).

Table 3: Gender make-up of various water sector institutions

Organisation	Number of staff	Men	Women
Ministry of Energy and Mines (Senior staff)	15	80%	20%
MEM (Regional office)	60	80%	20%
Village management committee of Taratra NGO project	4	50%	50%

Growth of private sector

Since the mid-1980s, NGOs have implemented most of the water supply projects in rural areas of Madagascar. Local businesses can get involved by responding to invitations to tender issued by the central government. Five enterprises and one NGO were involved in a HIPC water supply project in 2004 following the tendering process conducted by the Government. More generally the Government works with some 15 enterprises and six NGOs.

In one rural Commune, Sabotsy Namehana, water services have been provided since 1998 under a concession contract

signed by the Commune with the Sandandrano Company. Sabotsy Namehana has 25,000 inhabitants on the outskirts of Antananarivo, both wealthy and poor. The utility JIRAMA produces and treats drinking water which is piped directly to tapstands where the water is sold by Sandandrano staff. The concession contract is for seven years and is renewable subject to a performance review.

Sandandrano manages 25 tapstands and sells from 90 to 100m³ of water per day at a price of 5 FMg per litre, an amount fixed jointly with the Mayor of the Commune. The company employs 30 people of whom 25 are tapstand attendants. Plans are to extend the tapstand network to an additional 5000 people. Sandandrano itself has invested 150 million FMg in such improvements to water services. After four years of operation, maintenance costs decreased from 5% to 1.5%.

Figure 4: Change in access to safe water in Madagascar and by province 1999-2001

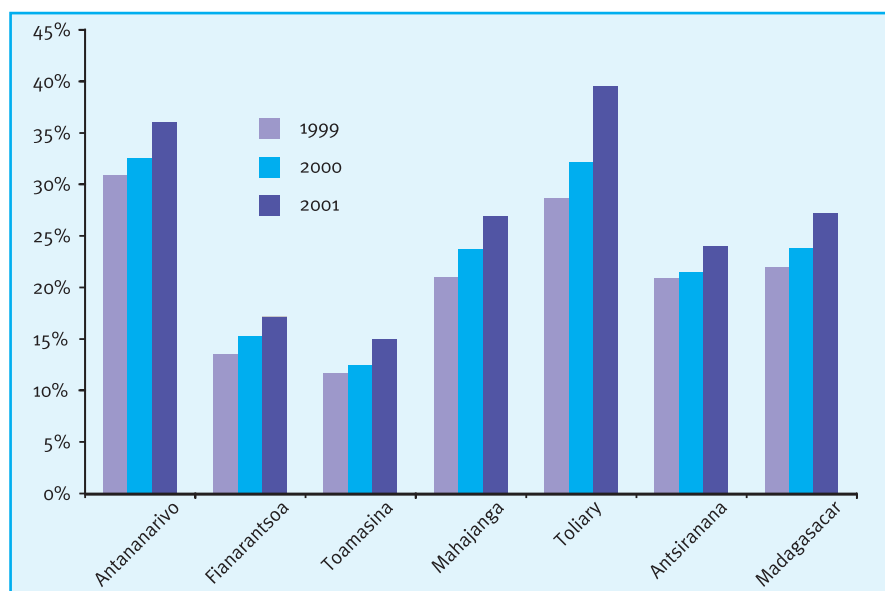
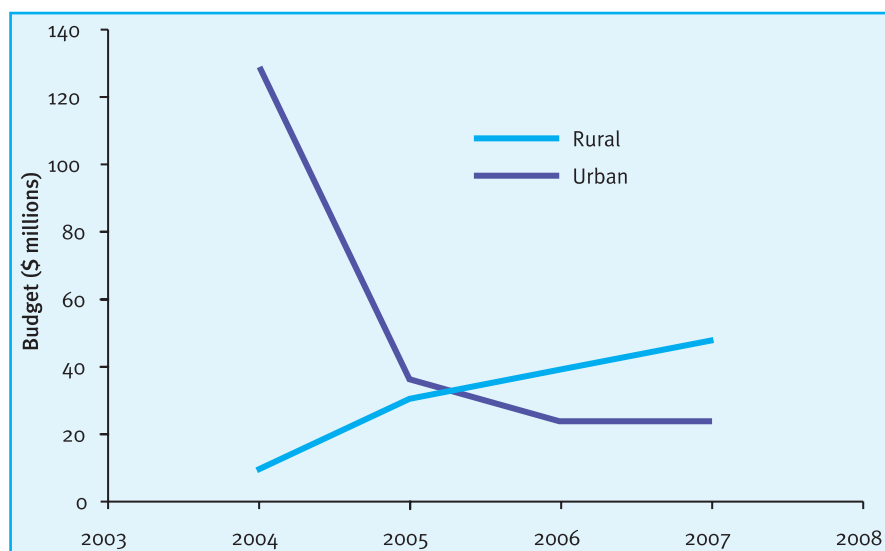


Figure 5: Water budget: urban-rural split



Transparency and civil society

Data

The most recent national general census in Madagascar was conducted in 1993 and so all current population data is projected from this. The next census will be carried out in 2006. For the water and sanitation sector, data are available from 1999 to 2001 although sanitation data are not reliable. For finance, it is very difficult to get a complete picture of the sector.

Audit

The internal audit for the national budget is called “Controle budgétaire”. It is very difficult for Non-State Stakeholders to give an adequate assessment of the internal audit process in Madagascar because of the difficulty of accessing this kind of highly political information. Getting these audit results published is itself an advocacy objective for civil society. After a study of budgetary control in 2001, several measures were proposed in the PRSP to strengthen these controls.

Theoretically, the parliament plays a key role in the budget discussions but in fact, this situation changes according to the composition of the National Assembly and the Senate. As all the Presidential regimes since 1960 have had a relative or absolute majority within parliaments, the discussion of the national budget has tended to simply be a formality characterised by respect for “(presidential) political party discipline”. Therefore the presidential party votes for what their technicians prepared at the Government level.

Civil society

Different organisations have come together to share information and pool their efforts in Madagascar over the years, most often in the shape of NGO platforms. Some of these have quickly fizzled out for various reasons whereas others have been more successful, particularly where common goals are clear from the outset. A successful example of a long-standing platform from the water and sanitation sector is a network of four like-minded NGOs similar in nature, vision, and function (Caritas, SAF/FJKM, Fikrifama and Taratra) called the ‘Réseau Eau’, existing largely for information exchange and advocacy.

An informal platform of diverse actors also exists in the water and sanitation sector working together around specific sectoral issues particularly in policy and advocacy. It includes representatives from Government, United Nations Organisations, World Bank, USAID, local and international NGOs and the private sector. Examples of issues addressed in the committee are the formulation of the national sanitation policy, national indicators for sanitation and advocating for a higher profile of water and sanitation in the Madagascar PRSP.

Since 2002, the WASH National Committee has been the most important platform dealing with water and sanitation because it involves different ministries (Ministry of Energy and Mines, Ministry of Education and Ministry of Health), United Nations organisations such as UNICEF, multi-lateral and bilateral development aid agencies such as the World Bank and USAID, national and international NGOs such as WaterAid, CARE International, Voary Salama, and Mirintsoa, and private sector companies such as soap manufacturers.

The WASH National Committee is decentralised at five regions and the next step will be to set up branches at Commune level. It intends to mobilise political will and donor interest so that the water and sanitation sector is considered as a priority in the national poverty reduction strategy.

Conclusion

Madagascar needs major increases in the performance of its water sector if the Millennium Development Goals are to be met, especially in sanitation. The decentralisation policy has provided the prospect of decisions being made where they are needed, at ground level in the Communes. But that policy needs to be supported with provision of the necessary financial resources, first to build staff numbers and skills and then to implement appropriate participatory and sustainable projects. Increased donor coordination would not only reduce transaction cost burdens on hard-pressed administrative structures but would also improve the targeting of resources to priority needs.

Further information

This document is one in a series from WaterAid Country Programmes assessing national water sector issues in support of both national and international advocacy work in 2005. This document was written by Lovy Rasolofomanana, Research Officer, WaterAid Madagascar, who conducted interviews with the Ministry of Energy and Mines, the National Statistics Bureau, the Ministry of Economy, Finance and Budget, the Ministry of Decentralisation, the World Bank and the civil society network Réseau Eau. The full set of documents is available at www.wateraid.org/boilingpoint. Further information on this document can be obtained from Jean-Eugene Injerona at wajei@wanadoo.mg and on the international advocacy work from Belinda Calaguas at belindacalaguas@wateraid.org

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- ² From UN Population Division, 2004 Revision Population Database at esa.un.org/unpp accessed in May 2005
- ³ Figure for 2003 from World Bank “Country at a Glance” table at www.worldbank.org/cgi-bin
- ⁴ Assainissement – Le Defi: L'Impact du Manque D'Assainissement et D'Hygiene A Madagascar, UNICEF, WaterAid et al 2003
- ⁵ The *Ariary* is Madagascar's new currency. One ariary is worth five of the old Malagasy francs (FMg)
- ⁶ The exchange rate has greatly fluctuated in recent years, but at present rates €3300 is 8.1 million Ariary
- ⁷ Private communication, Ministry of Energy and Mines, June 2004



WaterAid – water for life

The international NGO dedicated exclusively to the provision of safe domestic water, sanitation and hygiene education to the world's poorest people