

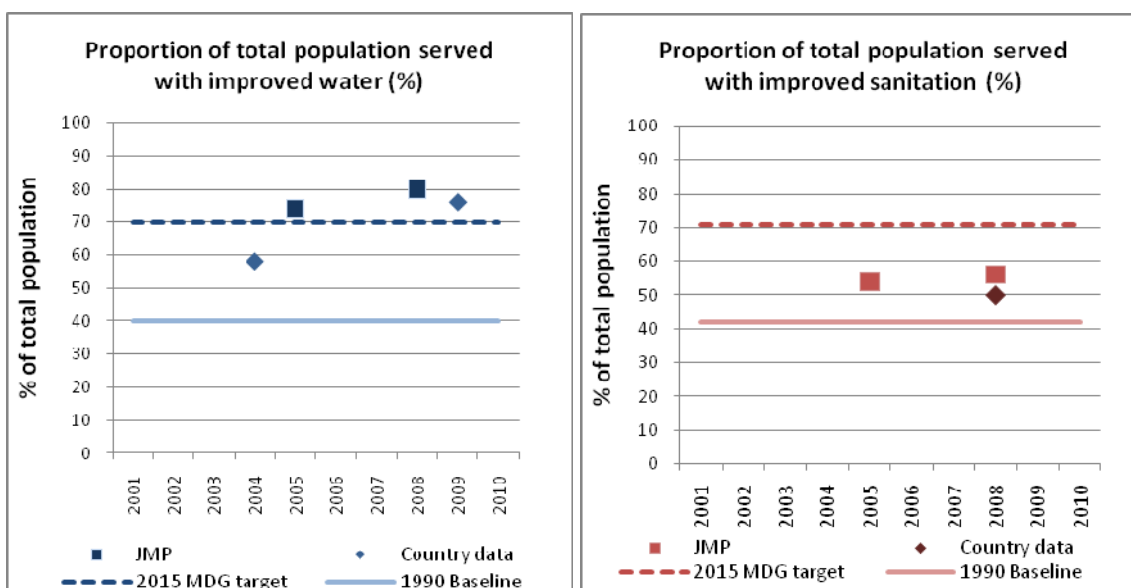
## Headline issues

- Malawi is highly under-developed with a large proportion of the population living in poverty. Despite this, strong progress has been made across the WASH sector in Malawi, establishing the required policies, strategies and plans to move forward.
- Malawi is undergoing rapid urbanisation, with growing informal settlements (comprising 60% of the urban population) unaccounted for in terms of water and sanitation services as the government is reluctant to encourage growth in such areas.
- Prioritisation of water over sanitation has led to the sanitation subsector being neglected and lagging behind MDG targets. Strategic sanitation planning is still needed.
- Barriers to progress in the WASH sector include financial, managerial and technical capacity limitations at all levels.

## Coverage and WASH related health statistics

Reports on coverage from different sources provide divergent views. WHO/UNICEF Joint Monitoring Program (JMP) data from 2010 estimates access to improved water as 80% (Figure 1).<sup>1</sup> Despite some disparity between districts, access in rural areas is stated to be 77%, a significant increase from 33% in 1990.<sup>1</sup> However, in 2008 there were reports that 79% of rural boreholes and 49% of gravity-fed schemes were non-functioning, which would reduce the availability in practice to 55%.<sup>2</sup> For urban areas, improved water coverage was 95% in 2008, with figures showing that Malawi has already met its MDG target, however the Government of Malawi reports recent downward trends in urban piped water supplies and suggests water boards are unable to keep pace with the rapid urbanisation in Malawi's growing cities.<sup>3</sup> The picture for sanitation is not as positive, with significant progress needed to meet the MDG target.

Figure 1: Access to improved water and sanitation



Source: WHO/UNICEF Joint Monitoring Program (JMP) (2010) data for 2008.<sup>1</sup> Country data from Demographic and Health Survey (2004) and Ministry of Irrigation and Water Development (2008). Source: AMCOW 2010.<sup>5</sup>

Coverage figures should be considered in the context of Malawi's development status: Malawi ranks 160<sup>th</sup> out of 182 countries in the Human Development Index and in 2009, almost half the population lived in poverty.<sup>4</sup> With regard to urban areas, Malawi is making excellent progress in access to *basic* sanitation (compared to other Sub-Saharan countries)<sup>5</sup> which is reported to meet the needs of 98% of the urban population.<sup>6</sup> In practice, Malawi's urban areas suffer a chronic lack of proper disposal of sanitary waste, with only 10% of Blantyre's population and 8% of Lilongwe's population connected to sewers, while as of 2009, Mzuzu (another large town) had no sewers at all.<sup>7</sup> Assessment of the treatment of urban wastewater is flagged as a possible area of focus for future performance reports.<sup>3</sup> Pit latrines are the most common form of urban sanitation, with many households sharing these facilities.<sup>7</sup> As a result, little progress is visible in terms of 'improved' urban sanitation coverage since JMP's 1990 baseline (around 51%) as sharing latrines is still common practice and JMP excludes shared latrines from their definition of improved sanitation.<sup>3</sup> Confounding issues such as lack of space for one toilet per household also continue to hinder progress in urban sanitation.<sup>3</sup>

Malawi is one of the world's least urbanised countries, with 80% living rural, subsistence lifestyles.<sup>2</sup> The Government of Malawi (GoM) report a high coverage of rural sanitation, with high numbers of traditional latrines (57% coverage in 2008).<sup>3</sup> AMCOW's 2010 Country Status Overview supports this statement, classifying Malawi's rural sanitation sector as 'established/transitioned' which is the most progressed level in its classification.<sup>8</sup> A decline in open defecation, from 35% in 1990 to 11% in 2008 was also reported.<sup>5</sup> However despite these levels of progress, meeting MDG target for sanitation is unlikely to be met due to the high proportion of shared latrines<sup>9</sup> and the lack of strategic planning across the sanitation subsector.<sup>5</sup>

Despite receiving significant infrastructure investments, urban water supply has only increased from 90% to 95% since 1990.<sup>1</sup> This is primarily due to service providers' inability to keep up with the rapid urbanisation, together with inadequate maintenance.<sup>6</sup> Of the 2% of the total population with access to piped water inside their dwelling, most (70%) live in urban areas.<sup>10</sup> Rural access to water supply has increased considerably from 33% in 1990 to 77% in 2008.<sup>1</sup>

Inequities in service provision of both water and sanitation are openly acknowledged by GoM,<sup>5</sup> and particularly relate to improved sanitation, with coverage ranging between 12% and 90% in different districts.<sup>1,9</sup> Other inequities relate to gender and education levels. Female headed households, of which there are many due to the prevalence of HIV/AIDS, report a lower level of access, as do households where the household head has a low level of education.<sup>9</sup>

WASH related health statistics for Malawi confirm a significant need for progress, with WASH related diseases prevalent throughout the population, causing poor health, school absenteeism, loss of productivity and chronic poverty.<sup>5</sup> Compared with other Southern African Development Community (SADC) countries, Malawi ranks 6<sup>th</sup> worst for infant mortality and total number of WASH deaths per year and 5<sup>th</sup> worst for WASH related DALYs. See Table 1 for details.

**Table 1: Summary health statistics**

Infant mortality (deaths per 1000 births) <sup>11</sup>	110
WASH-related DALYs (% of all DALYs) <sup>12</sup>	16%
Total WASH related DALYs (Years) <sup>13</sup>	1,228,723
Total WASH related deaths per year <sup>13</sup>	32,946
WASH related proportion of deaths (%) <sup>13</sup>	15%

Sources: World Bank and WHO as shown in endnotes

## Finance trends

The Malawi Growth and Development Strategy (MGDS) estimates a financing gap of \$US78M for the WASH sector.<sup>5</sup> Recent years have seen an increase in funding to WASH initiatives and according to Malawi's Ministry of Finance (MoF), the Ministry of Irrigation and Water Development (MoIWD) has increased funding from \$US2.97M in 2004/5 to \$US9.34M in 2009/10.<sup>9</sup> In addition, an increase in funding was received by city and regional Water Boards,<sup>9</sup> however as noted above, this is insufficient to keep pace with rapid urbanisation. Over the same period, the MoF report that donor budgets increased from \$US5.4M to \$US31.7M, with future commitments rising further still.<sup>9</sup>

A key challenge is rural versus urban per capita spending on WASH activities, which reflects a less than equitable share being spent in rural areas<sup>7</sup> where more than 80% of the population live. This is particularly the case for sanitation,<sup>7</sup> which has been neglected in terms of political leadership and in financing.<sup>14</sup> A 2005 WaterAid report notes that only 3% of the 2005/06 budget was spent on water and sanitation, and of this only 2.5% was spent on sanitation, with the remaining 97.5% spent on water.<sup>15</sup> Even with this focus on water, the GoM has not dedicated funds for operations and maintenance of the many village based water facilities.<sup>2</sup> The rural subsector also suffers lack of coordination of investment funds.<sup>5</sup> In 2008, a National Sanitation Policy was approved, however it is unclear whether this will attract much needed funding, since limited funds and lack of political interest are the likely causes for neglecting sanitation.

A key recent achievement is that donor funding is aligned to the MGDs, highlighting the beginnings of a coordinated and harmonised approach to WASH funding.<sup>5</sup> Donor spending dominates overall WASH financing in Malawi, contributing almost 80% in the 2008/09 financial year.<sup>5</sup> The second National Water Development Programme (NWDP) acts as the umbrella for WASH activities,<sup>16</sup> and provides a focal point for donor activity, with contributing funds from the World Bank, AusAID, the AfDB and the African Catalytic Growth Fund among others.<sup>10</sup>

## Sector governance

Within the Ministry of Irrigation and Water Development (MoIWD), the Water Department is the leading WASH focal point and has developed a second National Water Development Program (NWDP II) covering the WASH sector moving forward.<sup>7</sup> The MoIWD also has a Strategic Plan covering 2006-2011, acting as a medium term expenditure framework.<sup>5</sup> Within the MoIWD there are five parastatal Water Boards – two of which are in the large cities of Blantyre and Lilongwe with the remainder in Malawi's northern, southern and central regions.<sup>10</sup> Water Boards are responsible for supplying water in cities and towns, however are capacity poor and reported to be in dire need of restructuring, investment planning and improvements to efficiency.<sup>10</sup> Local governments also hold some responsibility for water planning and coordination and some confusion exists regarding conflicting roles of Water Boards and local governments.<sup>7</sup> District Strategy and Investment Plans highlight the decentralised nature of Malawi's WASH sector and ideally reflect input from village development committees, area Development committees and the district council.<sup>5</sup>

Despite efforts of the 2005 Water Policy, the MoIWD is reported to be weak and understaffed<sup>10</sup> - in 2008 the MoIWD had a core staff vacancy rate of 66%, while for support staff it was 22%.<sup>2</sup> Decentralisation is underway, with Ministry of Local Government (MoLG) tasked with following through changes at the District Assembly level.<sup>10,17</sup> District Assemblies (DAs) are responsible for water and sanitation services. Relatively soon after the National Sanitation Policy was developed, some DAs developed District Strategy and Implementation Plans (DSIPs),<sup>2</sup> indicating some preliminary progress in the sector. However, District Water Offices (which are a component of DAs) are also severely lacking capacity.<sup>2</sup> At the village level, Village Water

Committees (VWCs) are expected to manage the operation and maintenance of a village's pumps, with minor repairs the financial responsibility of the local community.<sup>2</sup>

Another key WASH agency is the Privatisation Commission, which assumes responsibility for public-private partnerships in the infrastructure sector.<sup>10</sup> The private sector is active in project implementation, service provision and investment, however the regulatory mechanisms under which it operates are said to be poor.<sup>2</sup>

Local governments are responsible for sanitation and solid waste collection,<sup>7</sup> while the Department of Sanitation and Hygiene (within MoIWD) coordinates appropriate stakeholders from on-site sanitation to sewage.<sup>6</sup> The roles of MoIWD and local government are defined in the Water Policy (2005) and the National Sanitation Policy (2008). A National Sanitation and Coordination Hygiene Unit has been established to begin addressing capacity issues and to assist with operationalising the National Sanitation Policy.<sup>5</sup>

The 2010 Annual Sector Performance Report notes a move to a sector wide approach (SWAp) for WASH in Malawi<sup>9</sup> which looks to enable greater coordination in terms of strategy and spending between subsectors. A Sanitation Thematic Working Group has been established to push through the aims of the SWAp with UNICEF as lead donor.<sup>6</sup>

Several bills which are currently in the drafting stage reflect efforts to develop an effective regulatory framework for water resources management and water supply.<sup>5</sup>

## Subsector governance

### Urban sanitation

According to Malawi's Water Policy, Lilongwe and Blantyre's (Malawi's two biggest cities) Water Boards are responsible for promoting sanitation as well as ensuring water supply.<sup>7</sup> This is proving a challenge given the rates of urbanisation, and thus the rapidly growing number of people requiring access to sanitation. City Councils are also responsible for solid waste management and disposal, sewage treatment and disposal and enforcement of regulations.<sup>5</sup>

Lack of capacity to collect revenue has led to inadequate repairs and maintenance, with the resulting gap being filled by grants or loans.<sup>5</sup> More recently, new partnerships between public utilities, non-governmental organisations (NGOs), the private sector, home-owner associations and micro-finance institutions are being established to devise new ways of waste management and disposal.<sup>5</sup> Involving communities in the planning process is proving positive as it allows for specific cultural beliefs and practices to be taken into account.<sup>5</sup>

### Urban water

While policies and legislation surrounding urban water exist, a lack of enforcement has led to critical gaps for urban populations.<sup>5</sup> The cities of Lilongwe and Blantyre each have their own Water Boards responsible for water supply<sup>6</sup> however the Water Boards in these cities are unable to recover operating costs from user fees.<sup>10</sup> Efforts to enhance revenue collection are being made, for example through extensive metering<sup>5</sup> and Water Boards have received increased capacity strengthening over recent years, in part to boost cost recovery.<sup>6</sup> A new model tested by Lilongwe's Water Board for water kiosks is proving promising and may be tested in other urban areas.<sup>10</sup> The Water Users Association (WUA) ensures water availability in urban areas and has been successful in revenue collection, in addition to engaging service contractors for Water Boards in the bigger cities.<sup>6</sup> WUAs have also resulted in improved maintenance of community water infrastructure.<sup>5</sup>

Management of raw water supply is a key challenge in Malawi's biggest cities (Blantyre and Lilongwe) where demand exceeds supply,<sup>5</sup> an issue set to worsen as rapid urbanisation continues. Degraded infrastructure contributes to the problem, with a program of action in place to repair systems to reduce losses.<sup>5</sup>

### Rural sanitation

Equitable distribution of resources for sanitation is the responsibility of the National Local Government Finance Committee within the Ministry of Local Government and Rural Development, in collaboration with appropriate line ministries.<sup>5</sup> District Strategy and Investment Plans form the basis of resource allocations; however equitable distribution of funds is complicated by the complex rural settlement patterns.<sup>5</sup>

While the government offers some households a subsidy for sanitation hardware, the majority of the costs of constructing sanitation facilities are borne by householders themselves.<sup>5</sup> The GoM encourage the involvement of micro-financing institutions for household assistance.<sup>5</sup> District Councils are then responsible for accountability and proper utilisation of the resources, however have typically found accessing funding from the national level difficult, with negative consequences flowing on to planned capital works.<sup>5</sup> Scaling up sanitation may be possible with a better developed private sector, which at present is ill-equipped and under resourced.<sup>5</sup>

### Rural water

Served by three regional Water Boards, rural populations are also assisted by civil society, faith based organisations and NGOs to improve water access.<sup>3</sup> With a relatively sound institutional environment, the rural water subsector is benefitting from the move towards a SWAp, and subsequent development of a sector investment plan, overseen by the Ministry of Finance.<sup>5</sup> In addition, levels of expenditure are increasing overall, however as for rural sanitation, equity in distribution is a challenge with the complex settlement patterns in Malawi.<sup>5</sup> Coordination of rural water supply is undertaken by the Area Development Committee, who work in partnership with local stakeholders and take concerns and their needs to the DA level.<sup>2</sup> At present, the procedures for local participation are sometimes ignored and monitoring of the impact of public participation is not undertaken.<sup>5</sup> Capacity at the District level is also limited, and the toll of HIV/AIDS on District staff has clear implications on existing capacity.<sup>5</sup> Issues of gender discrimination in rural areas also pose a problem as it restricts the opportunities for women.<sup>5</sup>

Local capacity building is sometimes provided by NGOs and DAs undertake a rehabilitation program when funding is available.<sup>2</sup> Improved access in rural areas generally refers to boreholes with hand pumps, shallow wells with hand pumps and piped gravity-fed schemes.<sup>2</sup> Rural communities are encouraged to take care of these water facilities via 'Community based maintenance', however VWCs do not receive substantial funding or government support to do so, with NGOs sometimes offering technical assistance to fill this gap in expertise.<sup>2</sup> There is also limited community ownership of water facilities, which has resulted in theft, vandalism and a lack of operational maintenance.<sup>5</sup>

### Health and hygiene

As part of its responsibility to reduce the spread of water borne diseases, the Ministry of Health (MoH) undertakes hygiene promotion campaigns and preventative health services.<sup>5</sup> City Assemblies and Water Boards also provide hygiene promotion.<sup>5</sup>

More than one third of Malawians are of school age, thus considerable efforts are needed for good school education on health and hygiene practices.<sup>18</sup> While some efforts have been made particularly on hand

washing, sustaining these initiatives is a challenge.<sup>9</sup> The government reports that 4% of schools have hand washing facilities with soap and 18% with water only.<sup>18</sup> A 2008 study found only 24% of primary schools had improved sanitary facilities despite a reported 82% having improved access to sanitation.<sup>9</sup> No national figures on hand washing practices are available, although via a survey in Mzuzu city, it was acknowledged that most endemic diarrhoea is transmitted as a result of poor hygiene.<sup>9</sup> The Global Sanitation Fund (GSF) is aiming to address this gap in awareness by promoting safe hygiene via the development of a national Hygiene and Sanitation Information, Education and Communication Strategy.<sup>19</sup>

## Climate change and water resources

A combination of population growth and potential climate change impacts is likely to result in water scarcity within coming years.<sup>10,17</sup> Table 2 shows available climate vulnerability and freshwater availability data. Malawi's overall climate vulnerability rating is fourth compared to other Southern African Development Community (SADC) countries, and has an "acute" level of climate vulnerability for 2030. The country also has a very low quantity of renewable freshwater with only 1ML/person/year. As a consequence of Malawi's high vulnerability to climate change, it is listed as one of the country's nine priorities and efforts are being made to mainstream climate change issues into all development policies.<sup>20</sup>

**Table 2: Summary status of water resources and vulnerability**

Renewable water (ML/population) <sup>21</sup>	1
Overall Climate Vulnerability factor 2010 (on scale of <i>Acute, Severe, High, Moderate, Low</i> ) <sup>22</sup>	Severe
Overall Climate Vulnerability Factor 2030 (on scale of <i>Acute, Severe, High, Moderate, Low</i> ) <sup>22</sup>	Acute
Environmental Vulnerability Status <sup>23</sup> (on scale of <i>Extremely vulnerable, Highly vulnerable, Vulnerable, At risk, Resilient</i> )	At risk

## Donor environment

At the time of writing, donors currently active in Malawi's WASH sector are the AfDB, the World Bank, EU, Global Sanitation Fund and UNICEF, with other bilateral donors including AusAID, Japan, Canada and the Netherlands.<sup>7</sup> Malawi's second National Water Development Plan (NWDP) proposes a platform for donor coordination, also addressing issues of accountability and transparency.<sup>10</sup> In addition, the Water and Environmental Sanitation (WES) Donor Aid Coordination Group meet monthly in an attempt to harmonise and coordinate WASH funding and implementation and support the SWAp development.<sup>2,5</sup>

NGOs involved in Malawi's WASH sector include WaterAid, Plan International, Water for People and the Centre for Community Organization and Development (CCODE). Plan International is acting as the executing agency for the Malawi GSF program which aims to reduce open defecation, increase improved access to sanitation (including Community-Led Total Sanitation) and promote safe hygiene practices.<sup>19</sup>

## Sector monitoring

The first annual Joint Sector Review was undertaken in December 2008, with another following in 2009.<sup>2,5</sup> Since then, the move to a SWAp has progressed monitoring of the WASH sector to some degree. Departments within MoIWD are responsible for data collection and analysis and it is recognised internally that capacity is lacking to undertake such work. It is hoped that measuring performance against key indicators will occur with a move towards a SWAp.<sup>9</sup> The AfDB is funding Sector Management Information Systems, while the National Monitoring and Evaluation Master Plan provides Malawi's framework for economic and social monitoring, also noting a need for better baseline data.<sup>5</sup> The NWDP includes a Result Framework and Monitoring System to assess project outcomes for each WASH subsector.<sup>5</sup>

The 2011 WASH Sector Performance Report recognised that better performance data assists in evidence based decisions in policy making, resource allocation and identifying best practice.<sup>9</sup> The Report notes that indicators are required, against which annual targets would be measured and linked to the sector monitoring and evaluation framework.<sup>9</sup> The 2011 Joint Sector Review highlighted rural water, sanitation generally and health and hygiene as key gap areas.<sup>6</sup>

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<sup>9</sup> Malawi Government (2011) Malawi Irrigation, Water and Sanitation: Draft Sector Performance Framework 2010. Malawi Government, Ministry of Irrigation and Water Development

<sup>10</sup> USAID (2009) Malawi Water and Sanitation Profile

<sup>11</sup> The probability per 1,000 that a newborn baby will die before reaching age five (2009). Source: World Bank Open Data from the Inter-agency Group for Child Mortality Estimation.

<sup>12</sup> Disability-adjusted life year (DALY) measures the years of life lost to premature mortality and the years lost to disability. Source: 2004 update of the Table 1 and Annex of the publication 'Safer water, better health', by Prüss-Ustün et al, WHO, Geneva, 2008. Accessed 28 June 2011. Available at [http://www.who.int/quantifying\\_ehimpacts/publications/saferwater/en/index.html](http://www.who.int/quantifying_ehimpacts/publications/saferwater/en/index.html).

<sup>13</sup> Source: 2004 update of the Table 1 and Annex of the publication 'Safer water, better health', by Prüss-Ustün et al., WHO, Geneva, 2008 as above.

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- <sup>21</sup> Renewable Freshwater Supply estimates (km<sup>3</sup>/yr) (2006) from Pacific Institute ([www.worldwater.org](http://www.worldwater.org)), converted to ML per head of population using JMP population estimates. Data should be used with caution and treated as 'order of magnitude'. Freshwater estimates (2006 updates) were made at different periods from different sources. 2008 JMP population data used for consistency with other calculations.
- <sup>22</sup> Source: Climate Vulnerability Monitor 2010 <http://daraint.org/climate-vulnerability-monitor/climate-vulnerability-monitor-2010>. Countries are classified according to: ACUTE+, ACUTE, ACUTE-, SEVERE+, SEVERE, SEVERE-, HIGH+, HIGH, HIGH-, MODERATE, LOW. For information on included datasets and methodology for aggregation and categorising, see [http://daraint.org/wp-content/uploads/2010/12/CVM\\_Methodology.pdf](http://daraint.org/wp-content/uploads/2010/12/CVM_Methodology.pdf).
- <sup>23</sup> Source: Environmental Vulnerability Index 2004 developed by SOPAC, UNEP and partners <http://www.vulnerabilityindex.net/>. Countries are classified according to: Extremely vulnerable, Highly vulnerable, Vulnerable, At risk, Resilient.