

MALAWI POLICY AND RESEARCH LANDSCAPING AND STAKEHOLDER ANALYSIS FOR WASH SECTOR

National/Local commitments

Malawi has an estimated population of about 15 million, 85% of whom reside in rural areas.¹ High population growth rates, coupled with high rates of migration to urban areas, have placed pressure on the demand for safe water and improved sanitation services.

In line with [Millennium Development Goals \(MDGs\)](#), Malawi published specific WASH targets in the [Malawi Growth and Development Strategy \(MGDS\)](#) in 2006. This was reviewed as [MGDS II \(2012-16\)](#) in 2011 and was aligned with the [Istanbul Programme of Action for least Developed Countries \(2011 – 2020\)](#). The Government of Malawi's (GoM) statement of commitment gave specific targets for 2025.⁷ However, the MGDS II targets for 2016 were as follows:

- An increase in safe water from 95% (2011) to 97% of urban and peri-urban inhabitants and from 82% (2011) to 85% of rural inhabitants by 2016; and
- Improved sanitation coverage from 50% (2011) to 76% of the urban inhabitants and from 53% (2011) to 70% of the rural inhabitants by 2016.

MGDS II aims to achieve targets through:

- Enhanced capacity building,
- Adoption and use of innovative approaches and technologies,
- Through policy reforms and enforcing set standards and guidelines,
- Effective integration and strengthening of water, sanitation and hygiene (WASH) services,
- Linkages and structures at all levels.

It is anticipated that these targets will carry over to help Malawi achieve sanitation and hygiene related [Sustainable Development Goals \(SDGs\)](#) such as: no open defecation by 2025; everyone using adequate sanitation when at home; safe management of excreta from at least half of all schools and health centres; and elimination of inequalities in access to sanitation by 2040.⁴ These targets will be achieved under the GoM's vision of "Water and Sanitation for all always"⁷ which supplements the MGDS II.

However, if these targets are to be achieved, key bottlenecks affecting the provision of improved sanitation and hygiene services will need to be addressed. An internal assessment carried out by the Government WASH sector in 2014 identified the following continuing challenges:⁶

- Limited and declining financing for sector programmes - a 40.8% drop in funding (2012/13 National Budget) compared to the previous year.
- High levels of non-functionality of water supply and sanitation facilities – estimated at 30% at any particular point in time.
- Inadequate institutional and human capacity to effectively plan, design, implement and support the delivery of the sector's priority services.
- Limited affordable technologies for enhanced water supply and sanitation uptake.
- Limited capacity to monitor Government budget financing, (i.e. investments by Non-Governmental Organisations (NGOs)).

¹ National Statistical Office, 2008. *2008 Population and Housing Census*. Available from: <http://www.nsomalawi.mw/2008-population-and-housing-census.html> [Accessed August 2015]

The GoM has long recognized these bottlenecks, and has put in place strategies to address the challenges:

- Developing and adopting the [Open Defecation Free Malawi 2011 - 2015 Strategy](#), and the Sanitation Marketing and Hygiene Promotion Strategy adopted in 2007;
- Enhancing capacity, i.e. the recruitment of an additional 3,500 Health Surveillance Assistants in Districts for the effective scale-up of Community Led Total Sanitation (CLTS) and Sanitation Marketing and Hygiene Promotion Strategies seeking to ensure increased access to improved sanitation facilities for inhabitants of urban, peri-urban and rural areas;
- Undertaking of Joint Sector Reviews, leading to the holding of annual Joint Sector Performance Review and Planning workshops;
- In line with the [eThekwini Declaration](#) and the [Sharm-el-Sheikh Commitments](#) allocating at least 1.5% of Malawi's National Budget to the WASH sector annually through to 2015, and at least doubling this percentage by 2016;
- Improving sector coordination and collaboration through the use of the WES Network, Sector Working Group and the National Sanitation and Hygiene Coordination Unit (NSHCU) for better planning, targeting of effort and use of resources; and
- Rolling out the [Integrated Monitoring and Evaluation System](#) countrywide.

National/local access and health outcome figures

At community level, safe hygiene practices remain insufficient and lead to a high prevalence of water and sanitation-related diseases in Malawi. In 2011, 11% of the rural population suffered from diarrhoea associated with poor WASH, and diarrhoeal diseases are the second highest cause of mortality (18%) of children under five.² This in turn contributes to poor health, a loss of productivity and deepening poverty.⁶ Compared with other Southern African Development Community countries, Malawi ranks 6th worst for infant mortality and total number of WASH deaths per year, and 5th worst for WASH related disability adjusted life years (DALYs)

Infant mortality rate (deaths per 1000 births) ³	53 per 1000
Child mortality rate (deaths per 1000 births) ³	33 per 1000
WASH related DALYs (% of all DALYs) ³	16%
Total WASH related DALYs (years) ⁴	1,228,723
Total WASH related deaths per year ⁴	32,946
WASH related proportion of deaths (%) ⁴	15%

(see Table 1). **Table 1: Summary of health statistics**

In Malawi, access to improved water in 2015 was recorded at 90% (disaggregated as 96% for urban and 89% rural)⁴ compared with 83% access (95% urban and 80% rural) in 2010⁵. This

² African Development Bank Group, 2014. *Sustainable Rural Water and Sanitation Infrastructure Project for Improved Health and Livelihoods – Appraisal Report*. Available from:

http://www.afdb.org/fileadmin/uploads/afdb/Documents/Project-and-Operations/Malawi_-_Sustainable_Rural_Water_and_Sanitation_Infrastructure_for_Improved_Health_and_Livelihoods.pdf [Accessed August 2015].

³ ISF-UTS, 2011. *Malawi Water, Sanitation and Hygiene Sector Brief*. Available from:

http://www.uts.edu.au/sites/default/files/ISF_MalawiWASH.pdf [Accessed August 2015].

⁴ WASH Watch, 2015. *Malawi Country Summary*. Available from:

<http://www.washwatch.org/en/countries/malawi/summary/> [Accessed September 2015].

⁵ WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation, 2013.

is a significant increase from 33% in 1990. Despite this reported increase, 30% of rural boreholes have been reported as being non-functional, which in practice, results in reduced water availability.⁶ In addition, the water coverage only addresses access and does not consider the safety of water at source and household.

Overall, sanitation coverage is estimated at 72%, with access to improved sanitation reported at 41% (47% urban and 40% rural) in 2015⁴, compared with 51% (urban 49% and rural 51%) in 2010⁶. This may reflect a more accurate estimation rather than a reduction in the standard of sanitation. The estimated proportion of Malawians practising open defecation was reported as 4% in 2015⁷, and approximately 88% of households reportedly dispose of children faeces safely.⁸ As such, Malawi is on track to meet the MDG target for water (halve, by 2015, the proportion of people without sustainable access to safe drinking water), but is significantly off track to meet the sanitation target (halve, by 2015, the proportion of people without sustainable access to basic sanitation).⁴

The GoM primarily supports improved sanitation and hygiene interventions to reduce the incidence of diarrhoeal disease (currently at 18%) and malaria (currently at 14%) since they are two of the leading causes of under-five mortality.³ Lack of access to water also adversely affects women and girls; GoM statistics show that it is women who are largely responsible for collecting water. About 82% of females assume responsibility for domestic activities which include fetching and handling water compared to only 18% of males; women spend over eight times more time than men fetching water and wood, and girls spend over three times more time than boys on the same activities.³ In terms of hygiene practices, statistics indicate that in Malawi only 56% of people reportedly wash hands with soap or other cleansing agents.⁸

Diarrhoea among children is largely caused by a lack of WASH.⁹ This is compounded by poor nutrition, and parasitic infections that lead to more chronic issues such as anaemia, and reduced physical and cognitive development among children. This perpetuates the cycle of immunosuppression, malnutrition and communicable disease transmission, which are inextricably linked to WASH practices at the household level. UNICEF's causal framework of undernutrition highlights that a multi-sectoral approach is required to sustainably reduce morbidity and mortality in children.¹⁰ This includes addressing food security, child caring and feeding practices, health and water & sanitation services as well as economic aspects of the household and equality. Breaking up the silos of the various sectors and incorporating aspects of each sector into a comprehensive project is essential.¹⁰

⁶ Malawi Government WASH commitment statement (2014).

⁷ WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation, 2015. *Malawi: Estimates on the Use of Water Sources and Sanitation Facilities (1980 – 2015)*. Available from: [http://www.wssinfo.org/documents/?tx_displaycontroller\[type\]=country_files](http://www.wssinfo.org/documents/?tx_displaycontroller[type]=country_files) [Accessed September 2015].

⁸ National Statistical Office, 2014. *Malawi MDG Endline Survey (MES) 2014 Report*. Available from: <http://www.nsomalawi.mw/latest-publications/mdg-endline-survey-2014.html> [Accessed August 2015].

⁹ WaterAid et al, 2013. *Undernutrition and Water, Sanitation and Hygiene*. Available from: <http://www.wateraid.org/~media/Publications/Undernutrition-and-WASH.pdf> [Accessed August 2015].

¹⁰ Concern Worldwide, 2014. *How to Better Link WASH and Nutrition Programmes*. Available from: https://www.concern.net/sites/default/files/media/resource/how_to_better_link_wash_and_nutrition_programmes.pdf [August 2015].

Enabling Environment

In Malawi, both urban and rural populations continue to suffer from poor water access, a lack of effective sanitation coverage and associated poor hygiene practices.¹¹ In MGDS II, the GoM pledges to ‘continue reducing poverty through sustainable economic growth and infrastructure development’ and identifies nine priority areas, including water development and sanitation that will help to ensure that it meets its goals. Rehabilitating water facilities, promoting user- and gender-friendly technologies, efficient water resource utilization and campaigns to address sanitation and hygiene are the GoM’s priorities under the MGDS II.

The need for a more multidisciplinary and integrated approach to sanitation and hygiene issues has been outlined in PATH’s 2011 report, [Towards an Integrated Approach to Diarrhoeal Disease Control in Malawi](#). This report also emphasized the importance of preventive health and health promotion in the reduction of diarrhoeal diseases, a target which is ingrained in the GoM’s [Health Sector Strategic Plan: 2011 to 2016](#). Key to improved hygiene, is the integration of food hygiene practices in partnership with WASH improvements if a reduction in diarrhoeal disease is to be achieved.

To improve coordination among all WASH players, the GoM has established a Sector Working Group, [WESNET](#), an Open Defecation Free status task force, and the NSHCU for enhanced sector collaboration, effective and efficient planning, targeting of effort and resource allocation/utilization. These organisations also aim to support the proper use of WASH research findings and promote the key research areas identified in the [National Health Research Agenda \(NHRA\)](#). WESNET, the Knowledge Translation Platform and the Directorate of Research in the Ministry of Health (MoH) also support the dissemination of research findings. The GoM, through the [National Sanitation Policy](#) also supports and promotes interventions aiming at improving sanitation and hygiene issues at the household level and public places, although appropriate research is needed to support these interventions and measure their efficacy.

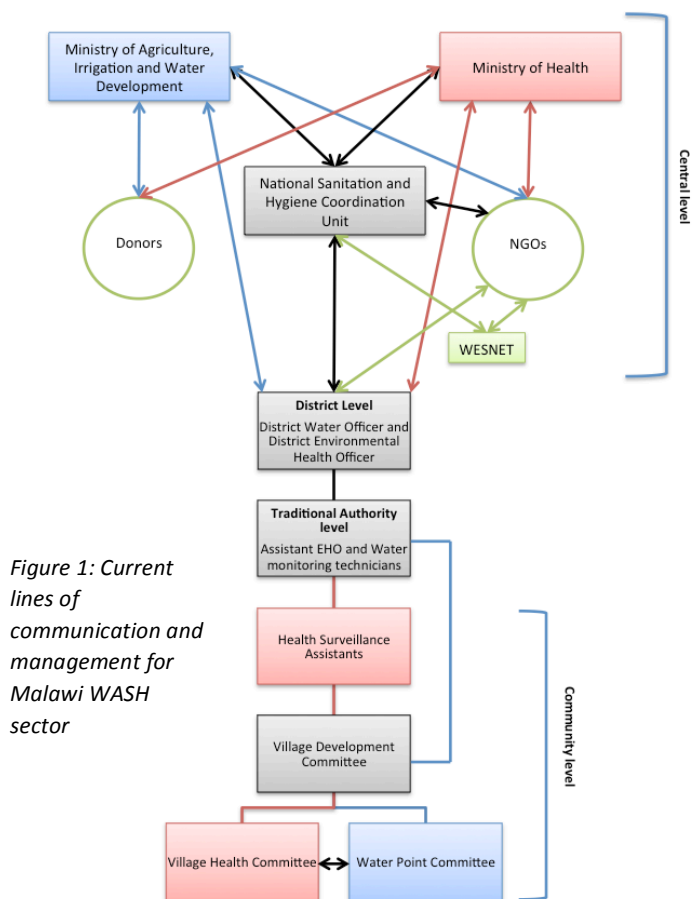


Figure 1: Current lines of communication and management for Malawi WASH sector

¹¹ Kusiluka, L.J.M., et al, 2005. Prevalence and Impact of Water-Borne Zoonotic Pathogens in Water, Cattle and Humans in Selected Villages in Dodoma Rural and Bagamoyo Districts, Tanzania. *Physics and Chemistry of the Earth, Parts A/B/C*. 30 (11-16). Available from: <http://www.sciencedirect.com/science/article/pii/S1474706505000963> [Accessed August 2015].

The GoM, through the [National Nutrition Policy and Strategic Plan](#) promotes the importance of complementary feeding with an emphasis on quantity, quality, diversity and feeding frequency. The need to integrate these programmes with WASH has been recognized at central level.

Despite the supporting environment present, there are still currently issues as to how sanitation and hygiene should be managed between the Ministry of Agriculture Irrigation and Water Development and the MoH. This is partly due to the continuing complexity of communication channels between key stakeholders (Figure 1), which is compounded by the lack of an official Director of Sanitation following Mr McLawrence Mpsa’s passing. At present this is negatively affecting the efficiency of the NSHCU and may impact the attainment of the SDGs and national sanitation and hygiene targets.

Research

The GoM is working with academic and research institutions/organisations to address existing gaps in sanitation and hygiene in Malawi. Table 2 summarises the current players in WASH research in Malawi.

Table 2: Institutions with Relevant Sanitation and Hygiene Research in Malawi

Institution	Purpose	Current Research
University of Malawi (Polytechnic and WASHTED)	Academic	<i>Pathogen survival in ecosan latrines and the associated health risks in Malawi</i> ; conducted by Mr. Save Kumwenda (from University of Malawi) in collaboration with the Consortium for Advanced Research Training in Africa (CARTA). <i>Pit Sludge Management, Sludge Biochemical Degradation, & Impacts on Public Health in Unplanned Settlements of Malawi</i> ; conducted by Dr. Benard Thole (from University of Malawi) with support from the Water Research Commission (RSA).
Mzuzu University	Academic	<i>Integrated WASH Intervention in Low Income Areas in Mzuzu and Karonga</i> ; <i>Peri-Urban Sanitation Project MIS</i> : Design an information system to capture and process information related to management of sanitation and solid waste <i>WASH and Disability</i> : The project will develop tools for assessing WASH access for people with disabilities <i>Sanitation Marketing</i> : Support sanitation marketing using low-cost technologies initiatives that will improve access to sanitation with a focus on rural areas. <i>Research on Solutions for Pit Desludging and Subsequent Sludge Management in low income urban in Malawi</i>
SHARE Research Consortium	Academic	<i>Factors affecting the adoption of urine diverting toilets in peri-urban areas in Malawi</i> ; conducted by Mr. Richard Chunga with funding from the SHARE Research Consortium.
Lilongwe University of Agriculture and Natural Resources	Academic	Actively involved in research but currently no active research in WASH and food hygiene
NCST	Coordinating Body	Actively involved in Research but currently no active research in WASH and food hygiene
CCODE	NGO	Building a city wide sanitation strategy from the bottom up in Blantyre with funding from SHARE Research Consortium
The Research Institute	Research	Actively involved in research but currently no active research in WASH and food hygiene

This is not an exhaustive list. Please refer to [WESNET](#) as coordinating body.

Research on WASH issues within the country has been limited to date, but these have now been prioritized in the current [NHRA \(2011 - 2016\)](#), which emphasizes the need for further evidence-based research that requires a multidisciplinary approach.

In line with the NHRA, the following WASH research gaps remain in Malawi:

- Assess the effectiveness of food hygiene programs (models) for reducing childhood malnutrition and diarrhoeal disease
- Assess access to sustainable safe water and improved sanitation facilities in Malawi
- Determine the impact of climate change on water resources
- Evaluate the impact of CLTS on latrine coverage
- Determine the sustainability of operation and maintenance of water sources
- Assess the effectiveness of water treatment options at household level
- Assess the safety of Ecosan products (compost) from eco-toilets for agricultural re-use
- Assess appropriate sanitation technologies for congested and informal settlements in urban areas
- Determine the impact of food hygiene on the levels of malnutrition
- Review the impact of national policies in responding to existing and emerging food hygiene risks
- Explore income priorities for households in relation to sanitation and hygiene
- Assess the safety of food in terms of microbiological and chemical contamination

In terms of public health, it is clear that an evidence base is needed to determine if an integrated WASH and food hygiene intervention can be effectively implemented and can have an impact on the health of under-five children. This would inform policy and the post 2016 NHRA.

Proposed Research

Title: Impact of community-based WASH and food-hygiene interventions on diarrhoeal disease incidence in children under five in Malawi.

Aim: Measure the impact of WASH and food hygiene interventions on the prevalence of diarrhoeal disease in under-fives in Malawi.

Research Relevance and Intended Use of Results: The research project will develop, implement and evaluate a multidisciplinary intervention that addresses the opportunities and barriers to effective food, water and sanitation-related hygiene practices using tested community models. Through formative research and a research advisory group, the proposed research will identify the key cultural, socio-economic and environmental factors, which will then be used to inform the community-based interventions. Outcomes of the intervention will be shared with key stakeholders to advise local and national strategies and policy development. Future work will build on the results of this study in several ways: the production of a toolkit and modules and short courses for community volunteers and allied health workers. The ultimate goal of the proposed work is to provide an evidence base to determine whether integrating food hygiene into WASH interventions can have an improved impact on diarrhoeal disease incidence in under-fives. The research will also provide a platform from which food hygiene can be integrated into health training at all levels and to facilitate capacity building to support national scale up.

STAKEHOLDER ANALYSIS

A stakeholder analysis for the WASH sector in Malawi outlined four key groups: Government, Donors, NGOs, private research organizations and academic institutions (Table 3). It is imperative that WASH research and interventions are cognisant of the key role that all of these stakeholders play, and ensure wide engagement with these players to maximize the impact of the research undertaken. It should also be borne in mind that outcomes of research should be shared widely with relevant Private Sector partners where appropriate.

Table 3: List of Stakeholders

Government Departments	Bilateral and Multilateral Agencies'	NGOs & Research Institutions	Academic Institutions
<ul style="list-style-type: none"> •Ministry of Agriculture, Irrigation and Water Development •Ministry of Finance •Ministry of Health •National Sanitation & Hygiene Coordination Unit •National Commission for Science and Technology •Office of President and Cabinet 	<ul style="list-style-type: none"> •African Development Bank (WASH) •World Bank (WASH) •UNICEF (WES and Child health) •European Union (WASH) •Dfid (WASH) •USAID (WASH and Child Health) •WHO •GSF 	<ul style="list-style-type: none"> •WaterAid Malawi •Water for People •Concern Universal •Engineers Without Borders •Catholic Relief Services •World Vision Malawi •CCODE •Water and Environmental Sanitation Network •Plan Malawi •The Research Institute 	<ul style="list-style-type: none"> •Lilongwe University of Agriculture and Natural Resources (LUANAR) •Mzuzu University – WASH Centre •University of Malawi - Polytechnic/WASHTED, College of Medicine and Chancellor College