ZAMBIA

Reform of the Water Sector Programme Phase II in Zambia

Baseline Survey Report for Mwansabombwe District

Setting Water Supply, Sanitation and Hygiene Targets in the Preparation of Gender Sensitive District Water, Sanitation and Hygiene Investment Plans (D-WASH IPs)

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ABBREVIATIONS

7NDP	Seventh National Development Plan
CBD	Central Business District
CC	Community Champion
CDF	Constituency Development Fund
CHA	Community Health Assistant
CLTS	Community Led Total Sanitation
ComDev	Community Development
CP	Cooperation Partners
CU	Commercial Utility
D4D	Decentralisation for Development
DDCC	District Development Coordinating Committee
DEBS	District Education Board Secretary
DHO	District Health Office
DPO	District Planning Officer
DWASH IP	District Water, Sanitation and Hygiene - Investment Plan
EHT	Environmental Health Technician
FANSER	Food and Nutrition Security and Enhanced Resilience
FGD	Focus Group Discussion
FSM	Faecal Sludge Management
GIS	Geographical Information System
GIZ	Gesellschaft für Internationale Zusammenarbeit GmbH
GPS	Global Positioning System
GRID3	Geo-Referenced Infrastructure and Demographic Data for Development
GRZ	Government of the Republic of Zambia
HCF	Health Care Facility
KII	Key Informant Interviews
IDP	Integrated Development Plan
IWWS	Industrial Wastewater Survey
JMP	Joint Monitoring Programme
LA	Local Authority
LAP	Local Area Plan
LpWSC	Luapula Water Supply and Sanitation Company
M&E	Monitoring and Evaluation
MoE	Ministry of Education
MoH	Ministry of Health
MHM	Menstrual Hygiene Management
MHM FP	Menstrual Hygiene Management Focal Point
MTC	Mwansabombwe Town Council
MWDS	Ministry of Water Development and Sanitation
NIS	NWASCO Information System
NHC	Neighbourhood health committee
NSDI	National Spatial Data Infrastructure of Zambia
NRWSSP	National Rural Water Supply and Sanitation Programme
NUWSSP	National Urban Water Supply and Sanitation Programme

NWASCO	National Water Supply and Sanitation Council
NWSSP	National Water Supply and Sanitation Programmes
OD	Open Defecation
ODF	Open Defecation Free
OSS	Onsite sanitation
O&M	Operation and Maintenance
PDHID	Provincial Department of Infrastructure and Development
PEO	Provincial Education Office
PHO	Provincial Health Office
PWSO	Provincial Water and Sanitation Officer
PTA	Parent-Teacher Association
RHC	Rural health centres
RHP	Rural health posts
RWS	Reform of the Water Sector
SDG	Sustainable Development Goals
SHN	School, Health and Nutrition
SLTS	School Led Total Sanitation
SUN	Scaling Up Nutrition
UNICEF	United Nations Children's Emergency Fund
VIP	Ventilated improved pit latrine
WASH	Water, Sanitation and Hygiene
WDC	Ward Development Committee
WHO	World Health Organization
WSS	Water Supply and Sanitation
ZAMSTATS	Zambia Statistical Agency
ZMW	Zambian Kwacha

EXECUTIVE SUMMARY

Introduction
The WASH stakeholders in Mwansabombwe District through the Reform of the Water Sector Phase II (RWS II) Programme established a WASH Baseline for the district for households, schools, health care facilities, public places and non-domestic places. The programme aims to support four districts (Mansa, Mwense, Mwansabombwe and Chipili) in Luapula Province in development of the District Water, Sanitation and Hygiene Investment Plans (DWASH IP).

It provides guidance to the sector on how to develop a coordinated, common approach to WASH that facilitates the implementation and sustainability of WASH service provision through the entire district.

The planning process is highly dependent on the availability of data and capacity of partner institutions. A capacity needs and data availability assessment was conducted in all the four districts, and it was revealed that there was a need to bridge the data gap for evidence-based planning.

Main Objective of the Survey
To provide baseline data for setting water supply, sanitation, and hygiene targets in the preparation of gender sensitive DWASH IPs while taking into account Scaling Up Nutrition (SUN) principles.

Approach and Methodology
The baseline survey adopted both qualitative and quantitative research approaches. The qualitative phase entailed Key Informant Interviews (KIIs) with key stakeholders and opinion shapers in the civil society space and government institutions. The quantitative phase involved household and institutional interviews at ward level with representative sample of 382 households, 19 schools, 7 health care facilities, 15 public places (markets, bus stations and traditional arenas) and 10 non-domestic places (offices, lodges, restaurants and industries etc.) distributed at ward level. The household samples were translated into a margin of error of 5% at a 95% confidence level.

Key WASH Findings

1. Households

- ***Water Supply***: The proportion of Mwansabombwe District using safely managed services is 6%.

  In 2022, out of an estimated population of 64,542 in Mwansabombwe District, 60,699 people lacked safely managed services.

- ***Sanitation:*** The proportion of Mwansabombwe District using safely managed services is 1%.

  In 2022, out of an estimated population of 64,542 in Mwansabombwe District, 63,897 people lacked safely managed services.

- ***Hygiene:*** The proportion of Mwansabombwe District using basic services is 19%.

  In 2022, out of an estimated population of 64,542 in Mwansabombwe District, 52,279 people lacked basic services.

2. Schools

- ***Water Supply:*** The proportion of schools in Mwansabombwe District using advanced services is 52.38%.

  In 2022, out of 35 schools in Mwansabombwe District, 15 schools lacked advanced services

- ***Sanitation:*** The proportion of schools in Mwansabombwe District using advanced services is 0.

  In 2022, out of an estimated 35 schools in Mwansabombwe District, 35 schools lacked advanced sanitation services.

- ***Hygiene:*** The proportion of schools in Mwansabombwe District 0% were having advanced hygiene service.

  In 2022, out of 35 schools in Mwansabombwe District, 35 schools lacked advanced services.

3. Health Care Facilities (HCF)

- ***Water Supply:*** The proportion of HCFs in Mwansabombwe District using advanced services is 25%.

  In 2022, out of 12 HCFs in Mwansabombwe District, 9 HCFs lacked advanced services.

- ***Sanitation:*** The proportion of HCFs in Mwansabombwe District using advanced services is 0%.

In 2022, out of an estimated 12 HCFs in Mwansabombwe District, 12 HCFs lacked advanced services.

- ***Hygiene:*** The proportion of HCFs in Mwansabombwe District using advanced service is 25%.

  In 2022, out of 12 HCFs in Mwansabombwe District, 9 HCFs lacked advanced services

- ***Health Care Waste Management:*** The proportion of HCFs in Mwansabombwe District using basic service is 37.5%.

  In 2022, out of 12 HCFs in Mwansabombwe District, 8 HCFs lacked advanced services.

- ***Environmental Cleaning:*** The proportion of HCFs in Mwansabombwe District using advanced service is 12.5%.

  In 2022, out of 12 HCFs in Mwansabombwe District, 11 HCFs lacked advanced services.

4. Public Places

- ***Water Supply:*** The proportion of public places in Mwansabombwe District using basic services is 50%.

  In 2022, out of the 4 public places in Mwansabombwe District, 2 public places lacked basic services.

- ***Sanitation:*** The proportion of public places in Mwansabombwe District using basic services is 75%.

  In 2022, out of the of 4 public places in Mwansabombwe District, 1 public place lacked basic services.

- ***Hygiene:*** The proportion of public places in Mwansabombwe District using basic service is 50%.

  In 2022, out of 4 public places in Mwansabombwe District, 2 public places lacked basic services.

5. Non-Domestic Places

- ***Water Supply:*** The proportion of non-domestic places in Mwansabombwe District using basic services is 36.36%.

  In 2022, out an estimated total of the 40 non-domestic places in Mwansabombwe District, 25 non-domestic places lacked basic services.

- ***Sanitation:*** The proportion of non-domestic places in Mwansabombwe District using basic services is 27.27%.

  In 2022, out of the estimated total of 40 non-domestic places in Mwansabombwe District, 29 non-domestic places lacked basic services.

- ***Hygiene:*** The proportion of non-domestic places in Mwansabombwe District using basic service is 68.18%.

  In 2022, out of estimated total of 40 non-domestic places in Mwansabombwe District, 13 non-domestic places lacked basic services.

Recommendations

Based on the above conclusions from the survey, the following are the recommendations:

1. Establish target improvement of access to WASH services according to Joint Monitoring Programme (JMP) ladders across households, schools, health care facilities, public and non- domestic places.
2. Develop WASH interventions for improving access to WASH based on actual development trends guided by the planning boundary of Mwansabombwe District, the standards in the National Urban Water Supply and Sanitation Programme (NUWSSP) and principles in National Rural Water Supply and Sanitation Programme (NRWSSP).
3. Evidence based planning requires upscaling of survey in other districts through dissemination and orientation of partners on developed questionnaires, tools, and data analysis strategies for meeting the data requirements of WASH indicators.

1 INTRODUCTION

No child should die or get sick as a result of drinking contaminated water, being exposed to other people's excreta, or having no place to wash hands. No child should have to stay away from school for lack of a clean toilet and privacy. No mother or new-born should contract an infection from an unsanitary delivery room when they are most vulnerable. No one should suffer the indignity of having to defecate in the open.

The District WASH Investment Plan (DWASH IP) is a process as well as an output, which draws on technical (i.e. collecting and analysing data on services and costs), strategic (i.e. visioning, milestones and target setting) and collaborative (i.e. seeking consensus on investment packages) capacities and uses various tools to collect and analyse data to support decision-making.

The 2030 Agenda for sustainable development recognizes safe drinking water, effective sanitation, and good hygiene (WASH) as a driver of progress on many of the Sustainable Development Goals (SDGs), including health, nutrition, education, and gender equality. To meet these targets, we need a better understanding of the progress made and a strategic approach to meet the challenges that lie ahead in our shared effort to reach every community.

Zambia is no exception to the need to accelerate the provision of adequate and safe water supply, sanitation, and hygiene. Consequently, the Government of the Republic of Zambia (GRZ) is committed to improving the living conditions of its citizens through continuous improvement of Water Supply and Sanitation (WSS) service delivery as contained in the country's Vision 2030 for universal coverage of water supply and sanitation to be achieved in alignment with the SDG 6 targets.

GRZ has adopted the "District Wide Approach", a systems-based approach which considers the district as the entry point whilst recognizing the broader national enabling environment. At district level, the holistic approach seeks to strengthen the district as a service authority in all its core functions, including planning for universal and sustainable services via the development of a District WASH Investment Plan (DWASH IP).

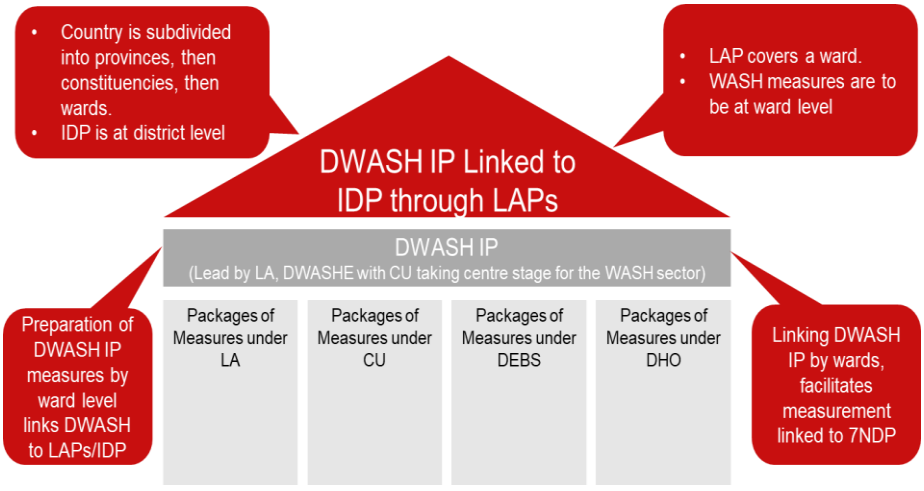


Figure 1: Packages of measures of the DWASH IP

The DWASH IP provides guidance to the sector on how to develop a coordinated, common approach to WASH that facilitates the implementation and sustainability of WASH service provision through the entire district.

Under GIZ support to the Government of Republic of Zambia, through the Ministry of Water Development and Sanitation, the Reform of the Water Sector Phase II (RWS II) aims to support four districts in Luapula Province in development of the aforementioned plans. It is anticipated that with improved planning as a basis, important prerequisites for the implementation of prioritized integrated investment packages to improve drinking water and sanitation in rural areas and growth centres would be established and thus improved access to clean water and sanitation in general. This support builds on the experiences of Reform of the Water Sector I (RWS I).

The planning process is highly dependent on the availability of data and capacity of partner institutions. To assess the situation, a capacity needs, and data availability assessment was conducted in all the four districts, and it was revealed that there was a need to bridge the data gap for evidence-based planning. In most cases, the data from different agencies have varying focuses that suit their interventions which resulted in data that was not entirely comprehensive for the DWASH IP.

To provide baseline data for setting water supply, sanitation, and hygiene targets in the preparation of gender sensitive DWASH IPs while taking into account SUN, surveys need to be conducted in Mansa, Mwense, Mwansabombwe and Chipili districts. Although, a number of surveys have been undertaken in the recent past and these provide WASH data, as well as cover aspects of particular interests (e.g., focus data related to nutrition), they do not cover the entire districts or the key elements of the DWASH IP.

2 OBJECTIVES OF THE SURVEY

The purpose of the baseline survey is to collect and analyse necessary data in order to establish the status of WASH services in the four target districts of Luapula namely, Mansa, Mwense, Mwansabombwe and Chipili. The specific objectives include:

I. To establish the baseline situation with regard to access to WASH services in target districts, covering households, schools, health care facilities and public places.

II. To determine people's behaviours and attitudes towards hygiene practices and menstrual hygiene management, including safe handling, storage and use of water, proper use and maintenance of excreta disposal facilities, handwashing at critical times, and open defecation.

III. To determine people's behaviours and attitudes towards hygiene practices that relate to nutrition such as food handling and storage, as well as and other nutrition-related aspects.

IV. To establish the status of the water supply systems in urban, peri-urban and rural areas, including growth centres. This includes operation and maintenance.

V. To determine the functional status and capacity of the institutional structures at community and ward levels, including management practices and the capacity to coordinate, plan, manage and implement WASH interventions.

VI. To determine the extent of gender mainstreaming in WASH, especially at community and ward level structures including knowledge and possible barriers for gender mainstreaming.

VII. To establish values for the baseline indicators in line with the National Water Supply and Sanitation Programmes (NWSSP), the Seventh National Development Plan (7NDP) and Sustainable Development Goals (SDGs), while taking into consideration the state of affairs of children, women and other vulnerable groups including the disabled and elderly, as well as their specific conditions and needs.

3 WASH INDICATORS / STANDARDS IN THE DWASH IP

The structure of the survey was aligned to the National Water Supply and Sanitation Council (NWASCO) information system (NIS), SDGs, JMP Monitoring Ladder and National Water Supply and Sanitation Programmes. The Ministry of Education (MoE) and the Ministry of Health (MoH) have developed national standards to guide the provision of WASH in schools and health care facilities respectively. In order to establish values for the baseline indicators in line with the aforementioned guides, while taking into consideration the state of affairs of children, women and other vulnerable groups including the disabled and elderly, and their specific conditions and needs, it was intended to collect information according to expected results and indicators:

Table 1: Baseline survey expected results and indicators

Access to drinking water supply service ▪ Safe ▪ Basic ▪ Limited ▪ Unimproved ▪ No service	**Access to sanitation** ▪ Safe ▪ Basic ▪ Limited ▪ Unimproved ▪ No service	**Access to hygiene** ▪ Basic ▪ Limited ▪ No service
Access to Menstrual Hygiene Management services ▪ Schools ▪ Health Care Facilities ▪ Public places such as markets, etc. ▪ Non-domestic places such as industries, institutions etc.	**Gender sensitivity data and information** ▪ Current practices ▪ Gender mainstreaming at community level structures, such as ward development committee (WDC), water committees ▪ Gender in WASH activities	**Data related to scaling up nutrition** ▪ Knowledge on care taker hygiene and infant/ young child feeding practices through improved WASH ▪ Recurrent diarrhoea diseases, diarrhoea cases and deaths under 5 ▪ Wasting and stunted children under 5

3.1 WASH in Households

The following SDG Joint Monitoring Programme (JMP) service ladders for households were adopted:

- **Drinking Water Standards**

Drinking water services refer to the accessibility, availability and quality of the main source used by households for drinking, cooking, personal hygiene and other domestic uses.

Table 2: WASH indicators for household drinking water standards

Service level	Definition	Additional Comment
Safely managed	Drinking water from an improved water source which is located on the premises, available when needed, free from faecal & priority chemical contamination.	All criteria should be met to be safely managed water supply services If not, then the next level is to be considered according on its criteria.
Basic	Drinking water from an improved water source & the collection time for a roundtrip including queuing is not more than 30 minutes.	All criteria should be met to be basic water supply services (including those that didn't satisfy all criteria of safely managed). If not, then the next level is to be considered according on its criteria.
Limited	Drinking water from an improved water source & the collection time for a roundtrip including queuing exceeds 30 minutes.	All criteria should be met to be limited services (including those that didn't satisfy all criteria of basic).
Unimproved	Drinking water from an unprotected dug well or unprotected spring	
Surface water	Drinking water directly from a river, dam, lake, pond, stream, canal or irrigation canal	

Source: https://washdata.org/monitoring/drinking-water

- **Sanitation Standards**

Sanitation services refer to the management of excreta from the facilities used by individuals, through emptying and transport of excreta for treatment and eventual discharge or reuse.

Table 3: WASH indicators for household sanitation standards

Service level	Definition	Additional Comment
Safely managed	Use of improved facilities that are not shared with other households and where excreta are safely disposed of in situ or transported and treated offsite.	All criteria should be met to be safely managed sanitation services. If not, then the next level is to be considered according on its criteria.
Basic	Use of improved facilities that are not shared with other households	All criteria should be met to be basic sanitation services (including those that didn't satisfy all criteria of safely managed). If not, then the next level is to be considered according on its criteria.
Limited	Use of improved facilities that are shared between two or more households.	All criteria should be met to be basic sanitation services (including those that didn't satisfy all criteria of basic).
Unimproved	Use of pit latrines without a slab, hanging latrines or bucket latrines.	
Open defecation	Disposal of human faeces in fields, forests, bushes, open bodies of water and other open spaces.	

Source: https://washdata.org/monitoring/sanitation

- **Hygiene Standards**

Hygiene refers to the conditions and practices that help maintain health and prevent spread of disease including handwashing, food hygiene, and menstrual hygiene management.

Table 4: WASH indicators for household hygiene standards

Service level	Definition	Additional Comment
Basic	Availability of a handwashing facility on premises with soap and water.	All criteria should be met to be basic hygiene services. If not, then the next level is to be considered according on its criteria.
Limited	Availability of a handwashing facility on premises without soap and water.	All criteria should be met to be basic hygiene services (including those that didn't satisfy all criteria of basic).
No facility	No hand washing facility on the premises.	

Source: https://washdata.org/monitoring/hygiene

See **Annex 1** for the definition and clarifications on some of the drinking water, sanitation and hygiene terms.

National Indicators

- % of population (# households) in district # with access to safely managed drinking water supply;
- % of population (# households) in district # with access to basic water supply;
- % of population (# households) in district # using safely managed sanitation facilities, including a handwashing facility with soap and water;
- % of (# households) in district # using improved sanitation facilities, including a handwashing facility with soap and water.

3.2 WASH in Schools

JMP monitoring of WASH in schools includes tracking 'basic' drinking water, sanitation and hygiene services in pre-primary, primary and secondary schools. The following SDG Joint Monitoring Programme (JMP) service ladders for schools were adopted. This coupled with the adapted standards from the MoE were integrated to define the WASH indicators for schools. The criteria for an advanced level is clearly defined in the National Standards as guided by the JMP.

- **Drinking Water Standards**

Table 5: WASH indicators for school drinking water standards

Service level	Definition	Additional Comments
Advanced	Safely managed inclusive drinking water: Improved water facilities are located on premises, available when needed, accessible for children with disabilities and free.	All criteria should be met to be advanced water supply services. If not, then the next level is to be considered according on its criteria.
Basic	Drinking water from an improved source is available at the school.	All criteria should be met to be basic water supply services (including those that didn't satisfy all criteria of advanced). If not, then the next level is to be considered according on its criteria.
Limited	There is an improved source (piped, protected well/spring, rainwater, packaged/delivered water), but water not available at time of survey.	All criteria should be met to be limited services (including those that didn't satisfy all criteria of basic).
No Service	No water source or unimproved source (unprotected well/spring, surface water).	

Source: https://washdata.org/monitoring/schools and Water Sanitation and Hygiene in Schools (WinS) National Standards & Guidelines Mitigation & Localization (Final draft), 2019

- **Sanitation Standards**

Table 6: WASH indicators for school sanitation standards

Service level	Definition	Additional Comments
Advanced	The school has improved sanitation facilities at the school premises, which are sufficient, Menstrual Hygiene Management (MHM) friendly, single-sex, usable and safely managed. Solid waste is frequently collected and/or disposed. Toilet to Pupil Ratio: Boys= 1:25; Girls=1:20	All criteria should be met to be advanced sanitation services. If not, then the next level is to be considered according on its criteria.
Basic	Improved facilities, which are single-sex and usable at the school Toilet to Pupil Ratio= 1:50	All criteria should be met to be basic sanitation services (including those that didn't satisfy all criteria of safely managed). If not, then the next level is to be considered according on its criteria.
Limited	There are improved facilities (flush/pour-flush toilets, pit latrine with slab, composting toilet), but not single-sex or not usable at time of survey Toilet to Pupil Ratio= 1:100	All criteria should be met to be basic sanitation services (including those that didn't satisfy all criteria of basic).
No Service	No toilets or latrines, or unimproved facilities (pit latrines without a slab or platform, hanging latrines, bucket latrines).	

Source: https://washdata.org/monitoring/schools and Water Sanitation and Hygiene in Schools (WinS) National Standards & Guidelines Mitigation & Localization (Final draft), 2019

- **Hygiene Standards**

Table 7: WASH indicators for school hygiene standards

Service level	Definition	Additional Comments
Advanced	The school has handwashing facilities with water and soap continually available at critical times. Group handwashing and hygiene promotion is integral part of curriculum and/or school routine solid waste is frequently collected and/or disposed Handwashing Facility to Pupil Ratio Boys= 1:25 Girls=1:20	All criteria should be met to be advanced hygiene services. If not, then the next level is to be considered according on its criteria.
Basic	Handwashing facilities, which have water and soap available. Handwashing Facility to Pupil Ratio= 1:50	All criteria should be met to be basic hygiene services (including those that didn't satisfy all criteria of advanced). If not, then the next level is to be considered according on its criteria.
Limited	Handwashing facilities with water, but no soap.	All criteria should be met to be limited services (including those that didn't satisfy all criteria of basic).
No Service	No handwashing facilities at the school or handwashing facilities with no water.	

Source: https://washdata.org/monitoring/schools and Water Sanitation and Hygiene in Schools (WinS) National Standards & Guidelines Mitigation & Localization (Final draft), 2019

- **Menstrual Hygiene Management (MHM) Standards**

To manage menstruation hygienically and with dignity, it is essential that girls have access to clean water, decent toilets and good hygiene in schools. Thus, the following criteria shall apply:

- The school is aware of and follows the National MHM Guidelines and MHM Toolkit within its capacity.
- There is a designated MHM Focal Point Person (MHM FP) at the school which that regularly orients male and female pupils in MHM to take a lead role in implementing MHM activities.
- They should stock emergency menstrual hygiene materials such as disposable pads, washable pads, cotton wool etc.
- The school involves health workers to educate and assist the girls on the management of menstrual pain and holds talks with the girls on proper personal hygiene during menses.
- The school supports the communities through the Parent-Teacher Association (PTA) committees and traditional leadership to understand facts on MHM aiming aimed at supporting the girls and boys at home, their families and the community to avail correct information.

See **Annex 1** for the definition and clarifications on some of the drinking water, sanitation and hygiene terms.

3.3 WASH in Health Care Facilities

Achieving and maintaining WASH services in health care facilities is a critical element for a number of health aims including those linked to quality universal health coverage, infection prevention and control, patient safety, and child and maternal health, in particular the time around child delivery. JMP monitoring of WASH in health care facilities (HCF) includes tracking basic water, sanitation, hand hygiene, health care waste management, and environmental cleaning services.

- **Drinking Water Standards**

Table 8: WASH indicators for health care facilities drinking water standards

Service level	Definition	Additional Comments
Advanced	Safely managed inclusive drinking water: Improved water facilities are located on premises, available when needed, accessible to persons with limited mobility and good water quality.	All criteria should be met to be advanced water supply services If not, then the next level is to be considered according on its criteria.
Basic	Water is available from an improved source on the premises.	All criteria should be met to be basic water supply services (including those that didn't satisfy all criteria of advanced). If not, then the next level is to be considered according on its criteria.
Limited	An improved water source is within 500 metres of the premises, but not all requirements for basic service are met.	All criteria should be met to be limited services (including those that didn't satisfy all criteria of basic).
No Service	Water is taken from unprotected dug wells or springs, or surface water sources; or an improved source that is more than 500 metres from the facility; or the facility has no water source.	

Source: https://washdata.org/monitoring/health-care-facilities

- **Sanitation Standards**

Table 9: WASH indicators of health care facilities sanitation standards

Service level	Definition	Additional Comments
Advanced	The HCF has improved sanitation facilities at the facility premises, which are sufficient, MHM friendly, single sex for both staff and patients, usable and safely managed. Accessible to people with limited mobility.	All criteria should be met to be advanced sanitation services If not, then the next level is to be considered according on its criteria.
Basic	Improved sanitation facilities are usable with at least one toilet dedicated for staff, at least one sex-separated toilet with menstrual hygiene facilities, and at least one toilet accessible for people with limited mobility.	All criteria should be met to be basic sanitation services (including those that didn't satisfy all criteria of safely managed). If not, then the next level is to be considered according on its criteria.
Limited	At least one improved sanitation facility, but not all requirements for basic service are met.	All criteria should be met to be basic sanitation services (including those that didn't satisfy all criteria of basic).
No Service	Toilet facilities are unimproved (pit latrines without a slab or platform, hanging latrines and bucket latrines), or there are no toilets or latrines at the facility.	

Source: https://washdata.org/monitoring/health-care-facilities

- **Hygiene Standards**

Table 10: WASH indicators for health care facilities hygiene standards

Service level	Definition	Additional Comments
Advanced	Functional hand hygiene facilities (with water and soap and/or alcohol-based hand rub) are available at points of care, and within 5 metres of toilets. Availability of a shower.	All criteria should be met to be advanced hygiene services. If not, then the next level is to be considered according on its criteria.

Service level	Definition	Additional Comments
Basic	Functional hand hygiene facilities (with water and soap and/or alcohol-based hand rub) are available at points of care, and within 5 metres of toilets.	All criteria should be met to be basic hygiene services (including those that didn't satisfy all criteria of advanced). If not, then the next level is to be considered according on its criteria.
Limited	Functional hand hygiene facilities are available at either points of care or toilets, but not both.	All criteria should be met to be limited services (including those that didn't satisfy all criteria of basic).
No Service	No functional hand hygiene facilities are available at either points of care or toilets.	

Source: https://washdata.org/monitoring/health-care-facilities

- **Health Care Waste Management Standards**

Table 11: WASH indicators for health care facilities health care waste management standards

Service level	Definition	Additional Comments
Advanced	Waste is safely segregated into at least three bins, and sharps and infectious waste are treated and disposed of safely. Organic waste separation.	All criteria should be met to be advanced health care waste management services If not, then the next level is to be considered according on its criteria.
Basic	Waste is safely segregated into at least three bins, and sharps and infectious waste are treated and disposed of safely.	All criteria should be met to be basic health care waste management services (including those that didn't satisfy all criteria of advanced). If not, then the next level is to be considered according on its criteria.
Limited	There is limited separation and/or treatment and disposal of sharps and infectious waste, but not all requirements for basic service are met.	All criteria should be met to be limited services (including those that didn't satisfy all criteria of basic).
No Service	There are no separate bins for sharps or infectious waste, and sharps and/or infectious waste are not treated/disposed of safely.	

Source: https://washdata.org/monitoring/health-care-facilities

- **Environmental Cleaning Standards**

Table 12: WASH indicators for health care facilities environmental cleaning standards

Service level	Definition	Additional Comments
Advanced	Basic protocols for cleaning are available, and staff with cleaning responsibilities have all received training. Availability of cleaning materials.	All criteria should be met to be advanced environmental cleaning services If not, then the next level is to be considered according on its criteria.
Basic	Basic protocols for cleaning are available, and staff with cleaning responsibilities have all received training.	All criteria should be met to be basic environmental cleaning services (including those that didn't satisfy all criteria of advanced). If not, then the next level is to be considered according on its criteria.
Limited	There are cleaning protocols and/or at least some staff have received training on cleaning.	All criteria should be met to be limited services (including those that didn't satisfy all criteria of basic).
No Service	No cleaning protocols are available and no staff have received training on cleaning.	

Source: https://washdata.org/monitoring/health-care-facilities

3.4 WASH in Public Places and Non-Domestic Places

WASH services are fundamental to economic development. The availability of safe WASH can facilitate business development, especially the informal sector, which contributes significantly to economic growth and development in many developing countries including Zambia. Public places include local markets, bus stations/taxi ranks and traditional ceremony arenas while non-domestic places include bars, restaurants, lodges, offices/institutions, factories/warehouses, and car washes. The following WASH indicators for public places were adopted from the World Health Organization (WHO) Guidelines on Sanitation and Hygiene.

- **Drinking Water Standards**

Table 13: WASH indicators for public places and/or non-domestic drinking water standards

Service level	Definition	Additional Comment
Basic	Drinking water from an improved water source, available when needed.	All criteria should be met to be basic drinking water services (including those that didn't satisfy all criteria of advanced). If not, then the next level is to be considered according on its criteria.
Limited	Drinking water from an improved water source, not always available when needed.	All criteria should be met to be limited services (including those that didn't satisfy all criteria of basic).
No service	Drinking water from an unimproved water source or surface water.	

- **Sanitation Standards**

Table 14: WASH indicators for public places and/or non-domestic sanitation standards

Service level	Definition	Additional Comment
Basic	Availability of an improved sanitation facilities dedicated to the public place or non-domestic places, Sex separated and accessible to persons with limited mobility.	All criteria should be met to be basic sanitation services (including those that didn't satisfy all criteria of advanced) If not, then the next level is to be considered according on its criteria.
Limited	Availability of a sanitation facility.	All criteria should be met to be limited services (including those that didn't satisfy all criteria of basic).
No Access	The use of open places for urination or defecation.	

- **Hygiene Standards**

Table 15: WASH indicators for public places and/or non-domestic hygiene standards

Service level	Definition	Additional Comment
Basic	Availability of a handwashing facility on premises with soap and water.	All criteria should be met to be basic sanitation services (including those that didn't satisfy all criteria of advanced). If not, then the next level is to be considered according on its criteria.
Limited	Availability of a handwashing facility on premises without soap and water.	All criteria should be met to be limited services (including those that didn't satisfy all criteria of basic).
No Access	No hand washing facility on the premises.	

3.5 Gender Sensitivity Data

Roles in collecting, using and making decisions on water as well as maintaining water infrastructure change markedly depending on gender and age. Hygiene needs and practices also vary according to gender and time of life; risk of violence is another important factor in determining water access. Analysing and responding to different needs, roles and dynamics improves WASH interventions so that they are more likely to be equally enjoyed by people in need. Some identified indicators of gender sensitivity in WASH are as follows:

Table 16: WASH indicators for gender sensitivity

Indicator	Definition
Roles and responsibilities	Men, women, boys' and girls' roles in WASH management and services
Impact of roles and responsibilities	Roles and responsibilities have an impact on reduced opportunities in school attendance, income generation, rest and child care
Leadership barriers	Men and women community leadership participation barriers

3.6 Menstrual Health

Menstrual health refers to 'a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity, in relation to the menstrual cycle'. A detailed definition of menstrual health, including access to information, facilities, and supportive environments, was agreed upon by the Global Menstrual Collective through a multi-stage process and published in 2021. Until 2021, the JMP did not have indicators to monitor Menstrual Health. These indicators can be grouped into the four areas.

Table 17: WASH indicators for menstrual health

Indicator	Definition
Awareness	Awareness of menstruation before menarche (first menstruation)
Use of menstrual materials	Use of menstrual materials to capture and contain menstrual blood, such as sanitary pads, cloth, tampons, or cups. These can also be grouped into single-use and reusable materials
Privacy	Access to a private place to wash and change while at home
Participation	Participation in activities during menstruation, such as school, work and social activities.

3.7 Scaling-Up Nutrition

WASH play a fundamental role in improving nutritional outcomes. Undernutrition is directly caused by inadequate dietary intake and/or disease and indirectly related to many factors, including contaminated drinking-water and poor sanitation and hygiene. Lack of access to WASH can affect a child's nutritional status in many ways. Existing evidence supports at least three direct pathways: via diarrhoeal diseases, intestinal parasite infections and environmental enteropathy. WASH may also impact nutritional status indirectly by necessitating walking long distances in search of water and sanitation facilities and diverting a mother's time away from child care. Some identified indicators of nutritional related WASH are as follows:

Table 18: WASH indicators for scaling up nutrition

Indicator	Definition
Hand Hygiene	Wash hands with soap before feeding child, after defecation, after cleaning child
Food handling	Keep food safe (e.g., reheating food before serving infants, storing food safely in containers)
Water treatment	Treat and safely store water
Diarrhoeal diseases	Frequency of diarrhoeal diseases in children under 5

4 SURVEY METHODOLOGY

4.1 Survey Preparation and Management

4.1.1 Partner and Stakeholder Engagement

Stakeholder and partner involvement is critical to ensure a common understanding and buy-in of the WASH baseline survey exercise and highlight the use of the results and findings from the survey for WASH investment planning. It was important to engage the stakeholders and partners early in the process because they provided data sources that were required to successfully design and implement the baseline survey, the desirable maps, insights, capacities, and resources to develop the baseline survey implementation plan. Partner and stakeholder engagement was an on-going process throughout baseline survey exercise.

Table 19: WASH baseline survey partner engagement activities

Sn	Partner Engagement Activity	Dates	Objective	Partners	Comment
1	Capacity Needs and Data Availability Assessment		Review the available capacity of implementers and data availability for the development of a DWASH IP	Ministry of Water Development and Sanitation (MWDS)/DWSS Provincial Water and Sanitation Officer (PWSO) LpWSC Provincial Department of Infra-structure and Development (PDHID)/ MTC Provincial Education Office (PEO)/ DEBS District Health Office (DHO) Provincial Planning Provincial Chiefs Office Provincial Community Development (ComDev)	
2	Baseline survey Preparation Consultations		Gather the necessary data instruments required to design Baseline survey exercise	MWDS/DWSS (PWSO) MTC LpWSC DHO DEBS Dept of Chiefs Zamstats	This particular activity was on-going from preparation to implementation stage
3	Stakeholder Baseline Survey Kick Off Meeting	20th July 2022	Present the Baseline Survey Objectives, Survey Tools, Approach and obtain feedback from stakeholders	MTC DHO DEBS	
4	Training of Environmental Health Technicians (Enumerators) and Community Health Assistants (CHAs)	20th July to 22nd July 2022	Train the EHTs on target areas of the survey & interviewees and also the process of surveying & questionnaires/tools to be used	4 EHTs 5 CHAs WASH Coordinator GFA Team	
5	Survey findings and interpretation of results	31st August 2022	Present the findings of the survey, obtain feedback, and validate	MTC LpWSC DHO DEBS	

Table 20: Stakeholder contributions and/ or support to the baseline survey exercise

Sn	Stakeholder	Stakeholder contribution and/ or support to the baseline survey
1	LA	Provided Maps Town Planner and WASH Coordinator heavily involved District and Ward Level Information Registered Businesses Information Facilitated access to the Public Places and Non-Domestic Facilitated the Stakeholder Consultative Meeting with Partners
2	DHO	Health Care Facility Information Facilitated engagement of Environmental Health Technicians (EHT) and Community Health Assistants (CHAs) to be enumerators (quantitative) Catchment/zonal information
3	DEBS	School Information/ Introductory letter Zonal Information
4	ZamStats	Provided Demographic information Facilitated maps and some Coordinates

4.1.2 Organisation and Management of Survey

The design of the survey was meant to be cost-effective considering the limited resources and data availability for validating. The design of the survey took into consideration the view that the most cost-effective approach would be for the Luapula GFA Team to manage the survey with support from partners and the recruited field supervisor and data collectors. This was influenced by the GFA Team having recruited a Geographical Information System (GIS) expert with experience in GIS and data collection as well as design. Additionally, GFA had to recruit on short-term basis a Monitoring and Evaluation (M&E) Expert and Data Analyst to complete the Survey Management Team.

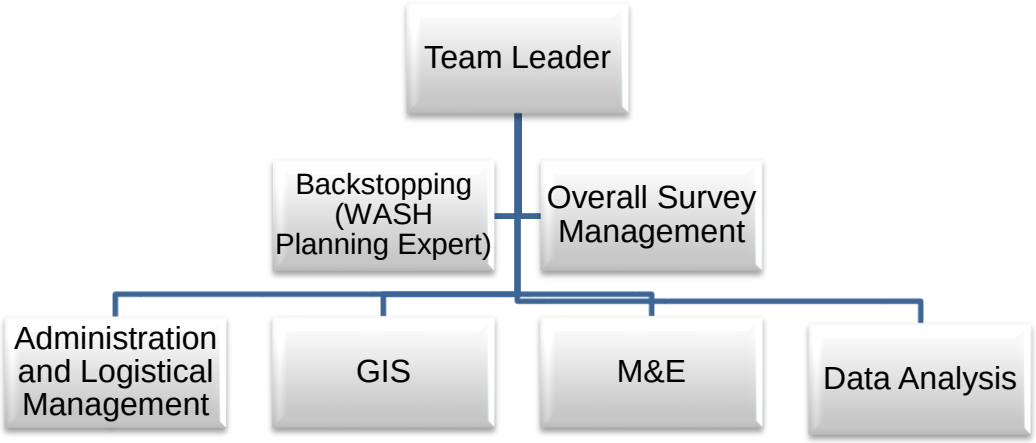


Figure 2: WASH baseline survey core management team

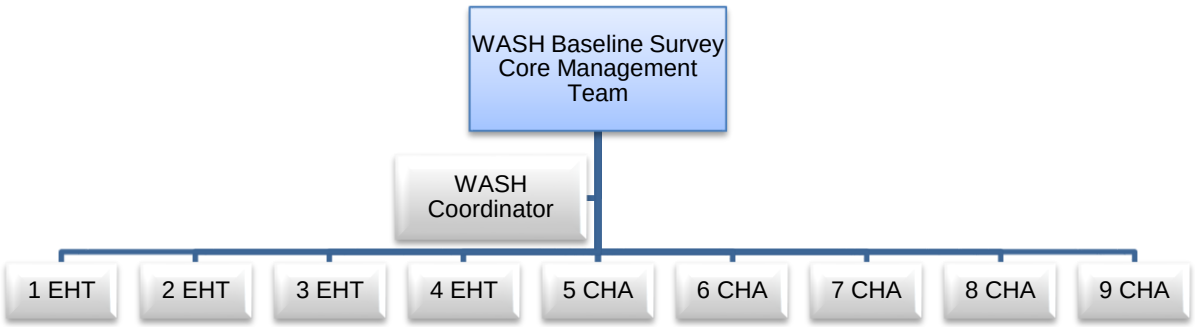


Figure 3: WASH baseline survey data collection team

Roles and responsibilities of baseline survey team

Within the baseline survey exercise the team members had the following roles and responsibilities:

Table 21: Roles and responsibilities of the WASH baseline survey team

Function	Name	Role and Responsibility
Team Leader	Yulia Titova	• Overall responsibility of the project
Backstopping	Ison Simbeye	• Ensure the survey is aligned to the desired indicators of the DWASH IP
Overall Survey Management	Mwaba Kapema	• Overall management and reporting of the survey • Responsible for the partner engagement and management • Responsible for the quality of the of the survey and ensuring the needs of the admin & logistics, GIS, M&E, Data Analysis and partners are met • Review of the Baseline survey questionnaires and tools • Conducting Key Informant Interviews
Partners	MTC, DEBS, DHO, Chiefs and traditional affairs dept.	• Provide all necessary information for planning and implementation of survey • Facilitate access to survey sample points
Administration and logistical management	Lillian Kafunda	• Responsible for enumerator and team logistics services • Responsible for procurement of equipment and services for the survey • Made sure all required gadgets and stationery were purchased and availed to the enumerators • Made sure that payments were made on time
GIS	Gabriel Chibuye	• Proposing the survey tools • Designing the questionnaires in mWater • Data collection and verification prior to the survey • Generating household survey samples and closely working with the EHTs to monitor the progress of the survey each day • Cleaning of the survey data in preparation for data analysis • Production of maps before, during and after the survey
M&E and Data Analyst	Mirja Kattelus	• Helping with the data cleaning prior to data analysis • Ensured quality data before data analysis could be done • Analysing data using the developed data analysis framework and production of supporting visuals for publication of results
WASH Coordinator	Khondwelani Tembo	• Responsible for the organisation of Stakeholder Consultative Meeting • Responsible for the engagement of DHO to have the EHT as Enumerators • Responsible for supervising the EHTs

Function	Name	Role and Responsibility
Enumerators	Sydney Simanga (EHT) Martin Mulenga (EHT) Clara Sililo (EHT) Lillian Mvula (EHT) Cynthia Nachinga (CHA) Dygrace Lukwesa (CHA) Naomi Mungela (CHA) Constance Chibwe (CHA) Jane Chalwe (CHA)	• Survey Interviews • Collection of quality data from respondents/samples • Upload and read the maps given • Upload all data collected from the field • Take photos of water sources and toilets • Field feedback

The GFA survey core team oversaw the supervision of the exercise, conduction of Key Informant Interviews (KIIs), collaboration with counterparts' programmes, as well as development of survey tools, questionnaires, data analysis and reporting.

4.1.3 Enumerators

To carry out the baseline survey, the programme had engaged nine (9) Environmental Health Technicians (EHTs) and/or Community Health Assistants (CHAs) as enumerators to carry out the main data collection exercise in Mwansabombwe District. The EHT's/CHAs were supported by a core survey management team from GFA and the council which ensured that high quality data was obtained during the entire survey process. The WASH Coordinator facilitated the engagement of the DHO to involve the EHTs/CHAs and supervised the data collectors.

4.1.4 Logistics

The logistics in general comprised of the detailed organisation and implementation of the baseline survey, which involved the management of the baseline survey resources, administrative and transportation costs to meet the needs of the survey and that of the enumerators. The major equipment that would ensure the data needed was collected efficiently was already procured during the Mansa and Mwense Data Collection Process inclusive of the data collection tools used in the Lusaka Industrial Wastewater Survey (IWWS) but only required the procurement of the operational equipment. The logistics that were put in place for the survey have been divided into 3 categories as follows:

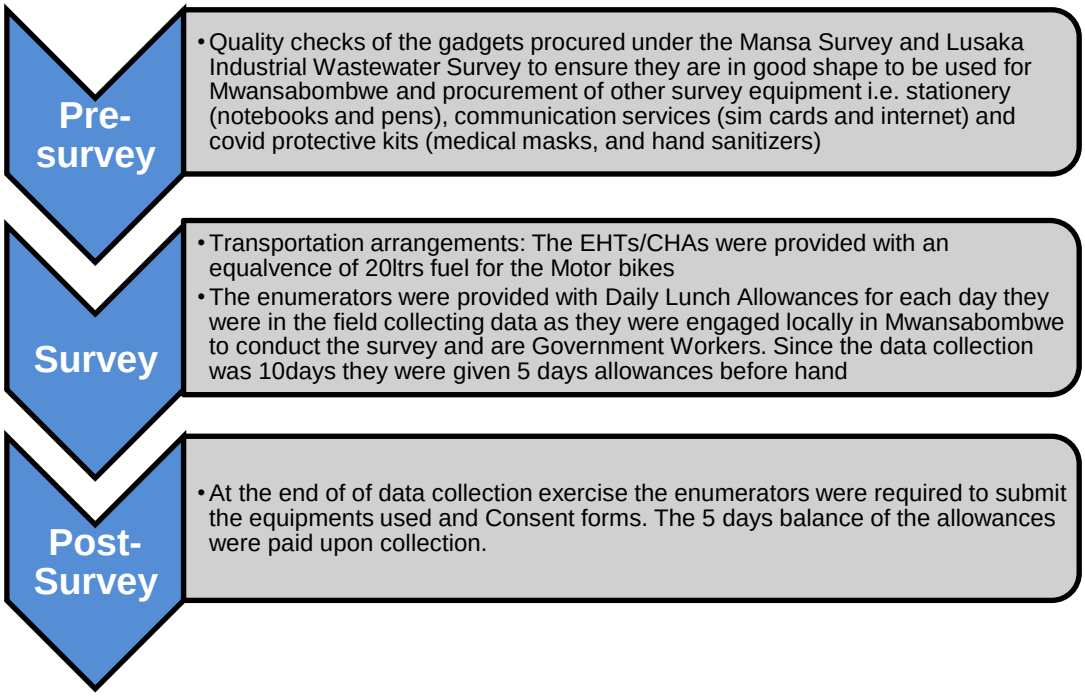


Figure 4: Mwansabombwe baseline survey logistics

4.2 Survey Tools and Questionnaires

4.2.1 Questionnaires

It was essential to make sure that the questionnaires capture the key WASH indicators in line with national standards and address the following key focus areas and main topics under them:

Table 22: Key WASH indicators and their key focus areas and main questionnaire topics

Focus Areas:	Main topics
Access to drinking water services	• Current service level • Operation and maintenance • Willingness and ability to pay • Climate change and mitigation • Desired water supply services
Access to sanitation services	• Current service level • Operation and maintenance • Willingness and ability to pay • Emptying/frequency of emptying, cost implication • Desired sanitation services
Access to hygiene services	• Current service level • Hygiene practices • Health status
Access to MHM services	• Current practices • Culture and religion norms towards infrastructure & products • Design and construction of WASH facilities • Availability of menstrual products • School / work absence as a quantifiable effect of poor menstruation facilities • MHM focal points
Access to solid waste services incl. environmental cleaning	• Status and nature of solid waste management approaches • Desired solid waste management services • Health Care Waste Management
Gender sensitivity data and information	• Gender disaggregated demographic data • Design and construction of WASH facilities • Current practices and roles in managing WASH facilities and services • School and income generation opportunities • Barriers to participating in community leadership
Social inclusion, vulnerable groups, elderly, girl child, disabled	• Design and construction of WASH facilities • Current practices • Social inclusion mainstreaming at community level structures e.g. people with disabilities i.e. increased participation & voice in decision making & management • Difficulties people with disabilities have in accessing the services • Awareness of rights • Schools with children with disabilities
Data related to scaling up nutrition	• Mothers / caretakers in households with knowledge on their hygiene and infant/ young child feeding practices • Recurrent diarrhoea diseases • School absence as a quantifiable effect of water borne diseases • Diarrhoea cases and deaths under 5 • Wasting children under 5 (low weight for height) • Children under 5 who are stunted (low height for age) • Availability and prices of protein rich foods • Food handling practices

There are five main questionnaire categories, which capture the above topics where applicable and with varying question formulation, including:

Table 23: The five main questionnaires categories and their expected respondents

Category	Questionnaire	Respondent
Household	Rural Household	Head of House or Spouse, additionally a girl child
	Urban Household (Landlord)	Head of House or Spouse, additionally a girl child
	Urban Household (Tenant)	Head of House or Spouse, additionally a girl child
School	Government, Community or Private (Primary, Secondary or combined)	Head of School, Deputy Head or Senior Representative
Health Care Facility	Government or Private (Hospitals, Clinics, Rural Health Posts/Clinics)	EHT or HCF Representative
Public Place	Market, Bus station or Traditional Arena	Chairpersons or representative
Non-Domestic	Lodges / Guesthouses, Bars, Restaurants, Offices, Institutions, Factories, Warehouses and Car Washes	Representative

4.2.2 MWater

MWater was selected as the software to host the questionnaires and the collected data. mWater is an operating system as well as a web base platform for digital governance used by governments, civil society organizations, and water and sanitation service providers in over 180 countries. The mWater platform can be used in various data driven workflows by end users. The users typically focus on Surveying, Monitoring, Evaluation, & Learning, and Management.

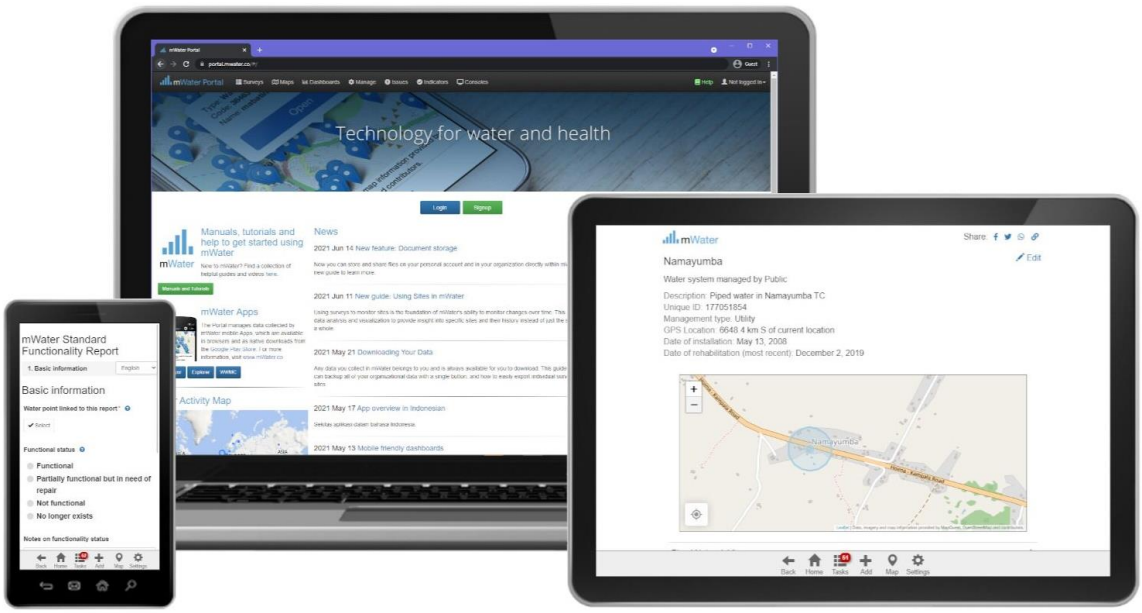


Figure 5: mWater interface on phones, tablets or any browser.

The hardware/ software tools and other materials used during the survey include:

- Samsung Tab A
  - MWater Surveyor App - this is an Android application which was downloaded on each tablet for the actual data collection
  - Questionnaires - these would be loaded onto the Surveyor App tool from the server
  - Google Earth – for navigation and Maps of Wards and locations of selected sample units

Figure 6: Survey equipment procured for the baseline survey exercise

The mWater Surveyor application was customized and installed on the tablets for the purpose of data collection. The enumerators were familiarised on the setup, main structure and use of the Surveyor Application prior to the field data collection:

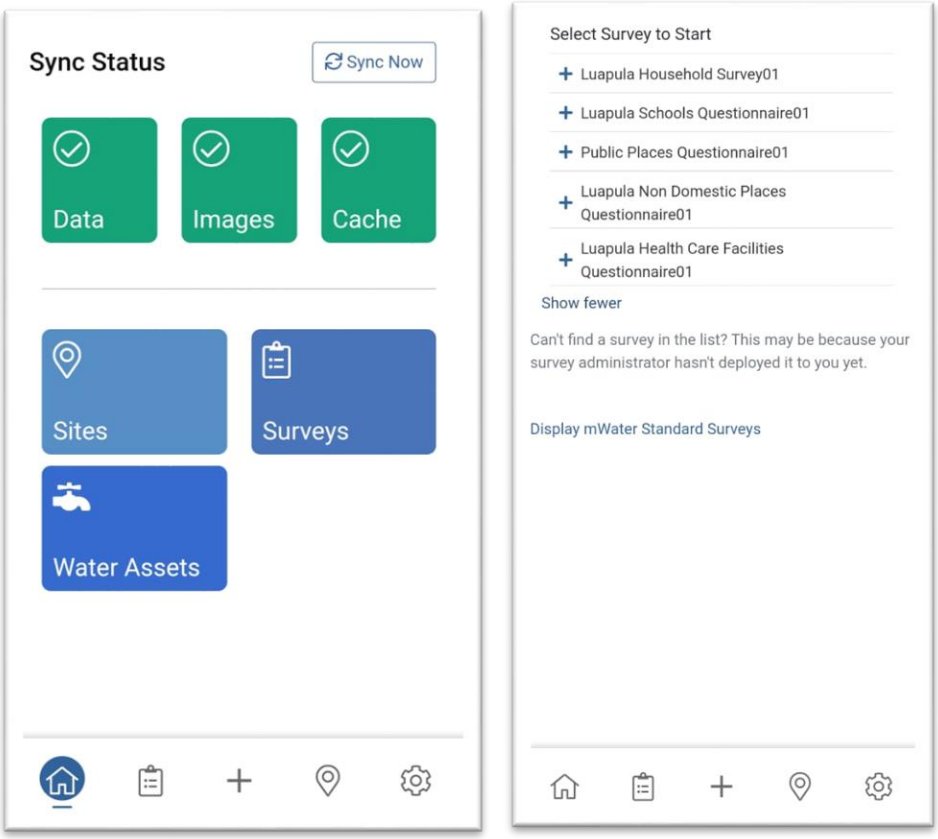


Figure 7: Main interface of the mWater mobile application and list of surveys forms developed

4.2.3 Testing of Tools and Questionnaires

Testing of the tools and questionnaires was extensively done. The enumerators had to go through a one and a half day workshop and one day of field testing of the questionnaires. The essence of the testing Survey was to refine the questionnaire for several aspects, including:

i. The clarification of the questions and thus refine the questionnaires and implement appropriate interventions that would enable interviewees cooperate with the enumerators
ii. Knowing the exact time required to complete one questionnaire
iii. The enumerators gained confidence in their significant interpersonal skills and became familiar with the questions and use of the app
iv. The general reception and perception of the different respondents was established
v. Looking out for potential challenges when carrying out the survey as well as coming up with possible remedies.

The enumerators later gave reviews of their field experience and suggested improvements/ additions to some of the questions to suite the context of Mwansabombwe District.

4.2.4 Key Informant Interviews

Key informant interviews are designed to gather opinions on specific topics related to WASH. The information learned was to supplement the data collection process and guide future WASH interventions and actions.

Key Informant Interviews (KII)

A key informant interview is an in-depth interview that collects information from individual experts. The key informant interviews were designed to target the key players that contribute to WASH service provision in the different categories namely households, schools, HCFs, public places and non-domestic places. The duration for the KII was set for 2 hours and the target individuals for the interviews are shown in Figure 8.

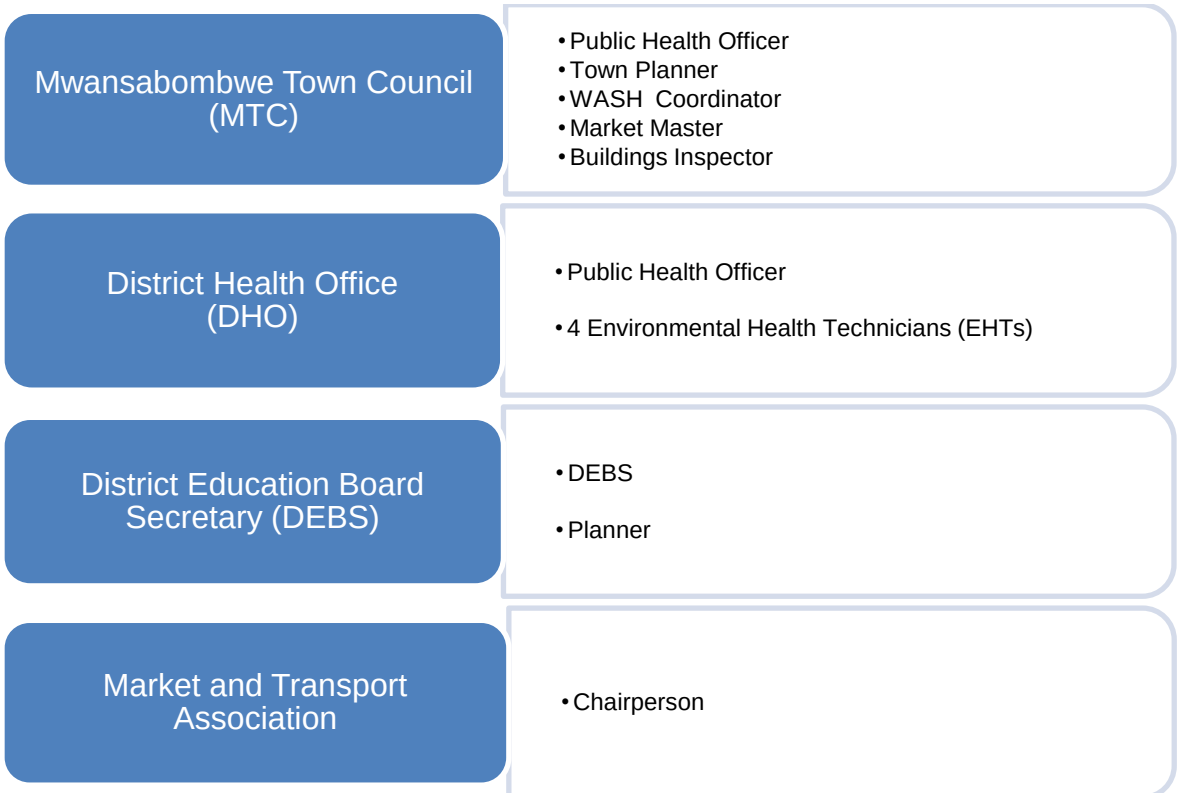


Figure 8: Target persons for Key Informant Interviews

The KIIs were designed to be implemented in 3 days. **Annex 2** provides a detailed plan for the KIIs as well as its objective.

4.3 Data Instruments

4.3.1 Data Sources

There were various sources of data that were identified prior to the sampling and data collection exercise. Some of the sources that data was obtained from are listed below:

Table 24: List of primary data sources

Sn	Institution	Data Source
1	Mwansabombwe Town Council (MTC)	MTC through the Town Planner and WASH Coordinator provided data for the district boundaries as well as some information on the population. The Mwansabombwe planning boundary data and ward maps were provided in shapefile format and the population was provided in excel. Other data that was provided were the list of public places as well as some of the non-domestic places through the business license list.
2	GRID3 Project	Geo-Referenced Infrastructure and Demographic Data for Development (GRID3) works with countries to generate, validate and use geospatial data on population, settlements, infrastructure, and boundaries. GRID3 combines the expertise of partners in government, United Nations, academia, and the private sector to design adaptable and relevant geospatial solutions based on capacity and development needs of each country. The GRID3 Zambian data hub has a collection of spatial information from the various sources: the Ministry of Lands (from the National Spatial Data Infrastructure (NSDI)), Ministry of Health, the Zambia Statistics Agency, the Ministry of Education, and various organizations in different sectors which have contributed their data to the hub. From the GRID3 hub the following information was obtained: • Data on population of Zambia which was further narrowed down to ward population • Data on the location of schools • Data on location of health care facilities • Data on the settlements • Data on the location of built up areas • Data on the location of hamlets • Data on the point of interest names
4	The Zambia Statistics Agency	Zamstats provided demographic information and facilitated maps and some coordinates.
5	Ministry of Health – District Health Office (DHO)	The DHO provided the list of health care facilities, by type i.e. Hospital, Rural Health centre and Rural Health Post and their location.
6	Ministry of Education – District Education Board Secretary (DEBS)	The DEBS provided the list of schools by type; secondary schools, primary schools as well as community schools and their location.
7	Luapula Provincial Planning Authority (Physical planning)	The Authority Provided some more shapefiles on the boundaries of the districts and the province which was used to make comparisons with data from the council as well as the NSDI (GRID3) data.
8	Department of Chiefs and Traditional Affairs	Provided information on the main chiefs in the districts, the traditional ceremonies as well as customs to be followed as the survey team went to visit the Chiefs to pay a status call.

4.3.2 Data Availability

From the different data instruments, we could establish the key statistical data that was required to apply the sampling methodology and / or approach to data collection in the field for representativeness and reduced biasness. The key statistics for Mwansabombwe District were as follows:

Table 25: Key Mwansabombwe statistics for baseline survey sample size calculations

District	Estimated Population (GRID3)	Number of Schools (DEBS)	Number of Health Care Facilities (DHO)	Public Places (LA)	Non Domestic
Mwansabombwe	64,542	35	12	No Data	20

4.4 Survey Population and Sample Size

4.4.1 Household Sample Size

The district wide sample size was determined using the following proportion method for sample size calculation (finite population) and conservative assumptions;

$$n = \frac{N}{1 + \frac{(N-1)\,(\frac{L}{100})^2}{1.96^2\,P(1-P)}}$$

Where:

- **n** Sample population
- **N** The population of a district (64,542)
- **Z** Normal curve Z-score set at 1.96 as at 5% level of significance (95% confidence level)
- **P** population proportion usually assumed to be 0.5 or 50% of the population with access to sanitation to maximize on the sample size required for this baseline survey
- **L** The Margin of Error set between 2% and 5% for districts with high and low populations. A high population is assumed to have a low margin of error and a low population with a high margin of error

  For the baseline, the most recommended Margin of error (L) of between 2% and 5% were assumed. Conservative margin of errors of 3%, 4%, 5.0%, and 5.0% were assumed and used for Mansa, Mwense, Mwansabombwe and Chipili districts respectively.

The results of the Mwansabombwe sample size calculations are presented in Table 26.

Table 26: Mwansabombwe District household sample size

Total Population in Mwansabombwe District	**64,542**	
Population sample size	**Initial sample size** *Calculated Population Sample Size*	**382**
	Revised sample size *Calculated Population Sample Size * 5 factor*	**1,910**
	Actual sample collected	**2316**
Household sample size *(assume 5 people per household according to 2015 LCMS)*	**Initial sample size**	**76**
	Revised sample size	**382**
	Actual Sample Collected	**386**

The sample distribution across wards was weighted as follows;

$$Ward\ sample = District\ sample\ size \times \frac{ward\ population}{district\ population}$$

The results of the Mwansabombwe ward sample size is presented in Table 27:

Table 27: Mwansabombwe household ward level sample size

Name of ward	Projected population	Final sample size (Calculated Population Sample Size * 5 factor)	Actual Samples Collected
Chipita	4,255	25	26
Kabalenge	3,043	18	18
Kakose	1,558	9	9
Kayo	4,967	29	29

Name of ward	Projected population	Final sample size (Calculated Population Sample Size * 5 factor)	Actual Samples Collected
Kazembe	7,018	42	42
Lufubu	5,023	30	30
Mbereshi	5,681	34	35
Mulele	7,266	43	44
Mununshi	6,928	41	41
Mwansabombwe	8,136	48	48
Pembe	4,924	29	29
Salanga	5,743	34	35
	64,542	**382**	**386**

4.4.2 Schools, Health Care Facilities and Non-Domestic Sample Size

The aim was to sample 50% of all schools, HCFs and non-domestic places. Their samples size were determined using the following proportion method for sample size calculation:

$$School\ sample\ size = \frac{Total\ No.of\ schools\ in\ District\ (according\ to\ DEBS\ database)}{2}$$

$$HCF\ Sample\ size = \frac{Total\ No.of\ HCFs\ in\ District\ (according\ to\ DHO\ database)}{2}$$

$$Non\ Domestic\ sample\ size\ = \frac{Total\ No.of\ Non\ Domestic\ (according\ to\ Business\ License\ List)}{2}$$

The results of the schools sample size is presented in Table 28.

Table 28: Mwansabombwe schools, HCF and non-domestic sample size

Mwansabombwe school sample size	Total number of schools	**35**
	Sample size	**19**
	Actual samples collected	**21**
Mwansabombwe HCF sample size	Total number of HCF	**12**
	Sample size	**7**
	Actual samples collected	**8**
Mwansabombwe non-domestic places	Total number of non -domestic places	**40**
	Sample size	**22**
	Actual samples collected	**22**

From the Table 28, it is observed that the schools were oversampled by 2 schools which was a result of Mbereshi College of Nursing which was excluded from the list provided and Koni Primary to represent Kakose Ward. The HCFs were oversampled by 1 which is Kapale Rural Health Post to represent Kakose Ward.

4.4.3 Public Places Sample Size

The aim was to bridge the public places data gap as there was no database that existed on markets, bus stations/taxi ranks and traditional ceremony arenas. Therefore, this was set for 100% samples for all public places.

$$Public\ places\ sample\ size = all\ public\ places\ in\ Mwansabombwe\ District$$

For planning purposes, the sample size was set as shown in the table below:

Table 29: Mwansabombwe public places sample size

Mwansabombwe public places sample size	**Sample size** *(estimated for the sake of planning)*	**10**
	Actual samples collected	**4**

4.5 Sampling Methodology

In general, all sampling techniques at the various data collection points ensured representativeness and strict avoidance of bias. Thus, different but appropriate types of random sampling techniques were applied wherever possible.

4.5.1 Households Sampling Methodology

The GRID3 projected provided data for households that was used for planning and coming up with sample sizes for each district. The raster gridded file used was downloaded from the GRID3 website. This geotiff raster contains estimates of total population size for each approximately 100m grid cell across Zambia. The values are the mean of the posterior probability distribution for the predicted population size in each grid cell. NA values represent areas that were mapped as unsettled according to building footprints data.

The raster file was converted to a feature point file in arcGIS. The point file was clipped to the specific districts and later wards. Each point data had a value that represented the average population per 100m grid. For any ward, the sum of total number of values of points in that ward was equal to the population of the ward. Map 2 shows how the population of Mwansabombwe district was extracted. Map 3 is an example of the ward population for the ward Kabalenge. The population data was overlaid with settlements, built up and hamlets. This gave a picture of the ward's populated areas which was in line with built-up areas, the settlements and the hamlets. This combined polygon dataset was used to generate random points based on the calculated sample size of the ward using the *random tool* in arcGIS. Map 4 shows the generated random samples with the settlement dataset which was a union of the settlements, hamlets and the built-up areas clipped from the GRID3 data.

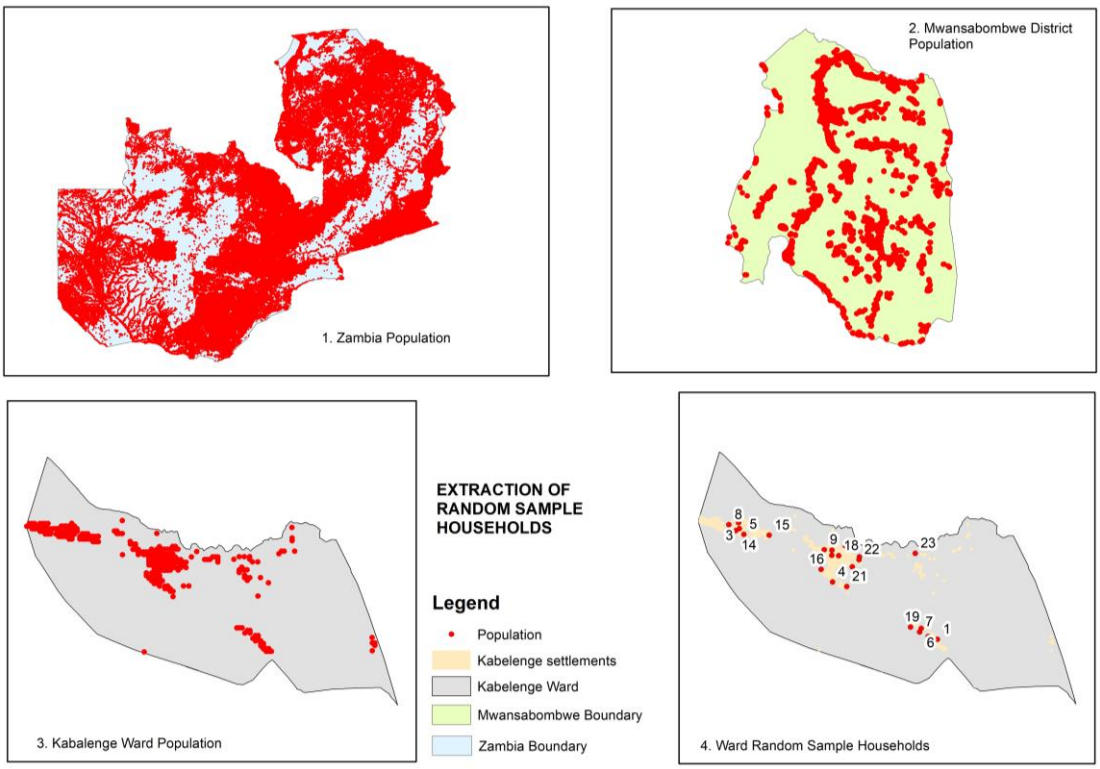


Figure 9: Mwansabombwe household sampling methodology

The random points were numbered from number 1 to the last number. The feature random point file and the ward boundary were converted to Keyhole Markup Language (kml/ kmz) files. These files were uploaded onto the mobile Google Earth application on each enumerator's tablet. This helped the enumerators with navigating to their specific samples/ respondents.

4.5.2 Other Premises

Schools

Excel was used to create random samples from the school database, in order to come up with 50% of schools to be surveyed. The schools were clustered by type i.e., basic, primary, combined and secondary schools. After the clustering of the schools was complete, they were put in different sheets of excel to have a 50% representation for each cluster. Generally, the RAND function in excel was used to assign a random number between 0 and 1 to each cell.

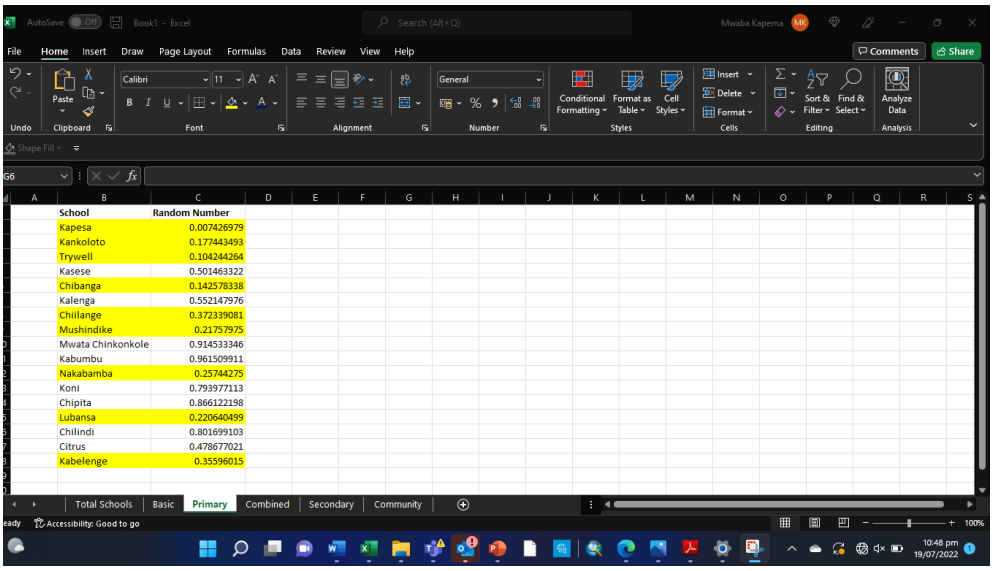


Figure 10: Mwansabombwe schools sampling methodology

Health Care Facilities

Excel was used to create random samples from the HCF database, in order come up with 50% of HCFs to be surveyed. The HCFs like the schools were clustered by type i.e. rural health post, rural health centre and hospital.

After the clustering of the HCF was complete, they were put in different sheets of excel to have a 50% representation for each cluster. Generally, the RAND function in excel was used to assign a random number between 0 and 1 to each cell.

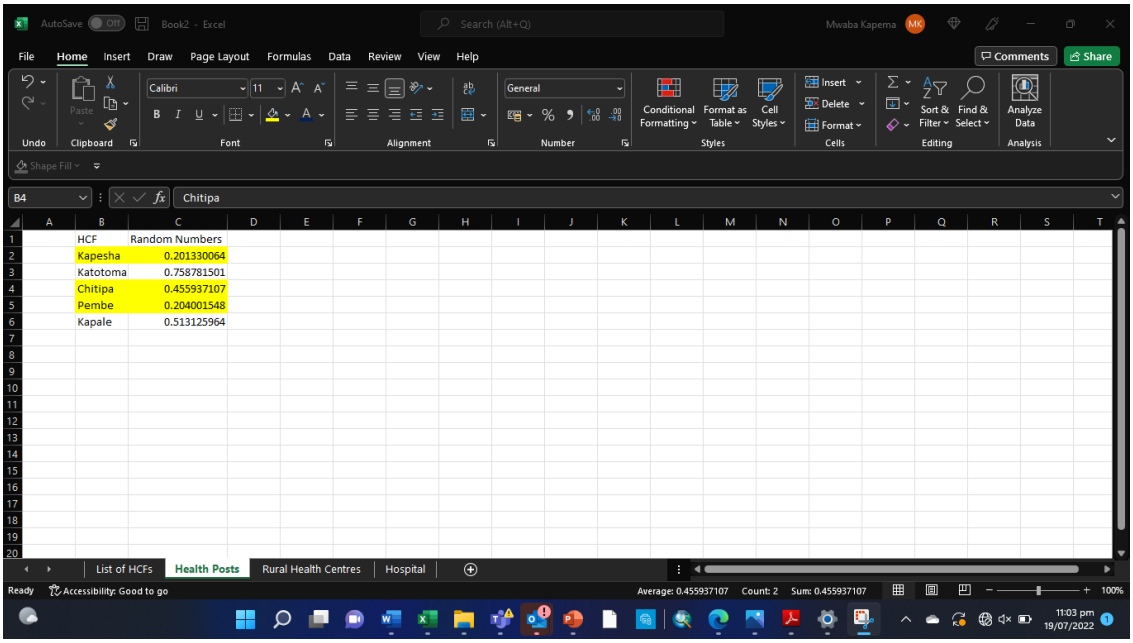


Figure 11: Mwansabombwe health care facilities sampling methodology

Non-Domestic Premises

Excel was used to create random samples from the business license list, in order come up with 50% of non-domestic places to be surveyed. The non-domestic premises were clustered into bars / restaurants, lodges and office buildings by the stakeholders.

After the clustering of the non-domestic premises was complete, they were put in different sheets of excel to have a 50% representation for each cluster. Generally, the RAND function in excel was used to assign a random number between 0 and 1 to each cell.

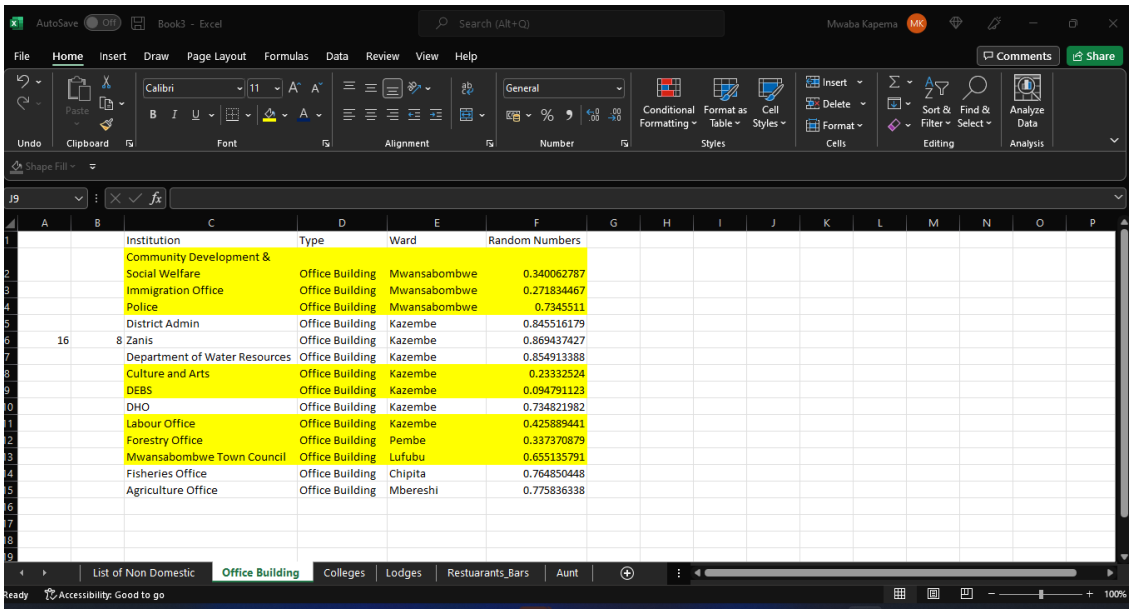


Figure 12:Mwansabombwe non-domestic sampling methodology

Public Places

There was no sampling methodology that was used to sample public places as all properties were to be visited. The enumerators were instructed to visit all public places, i.e., markets, bus stations/taxi ranks and traditional ceremony arenas in the District. In order for this to happen the enumerators were to pick every public place they came across.

4.6 Implementation of Data Collection

4.6.1 Quantitative Data

Quantitative research is a structured way of collecting and analysing data obtained from different sources. This is the methodology which researchers use to test theories about people's attitudes and behaviours based on numerical and statistical evidence.

Planning for data collection

The data collection was planned according to a deployment plan prepared jointly by the core management team and the enumerators. This plan gave a timetable of the fieldwork indicating the distribution of enumerators, samples assigned to each enumerator and expected dates of work to collect the samples. This helped to know the expected duration in the field, to avoid omissions/duplications of work in a ward, identify the samples assigned to the enumerators, in which ward each enumerator works every day and to define an efficient route to move from sample to sample. The planning was a prerequisite for a good data collection which required adequate resource allocation.

Assigning of data collection samples

The randomly sampled data collection points were distributed to the enumerators by the GIS Person according to the proximity of the wards they belong to.

Equipment preparations

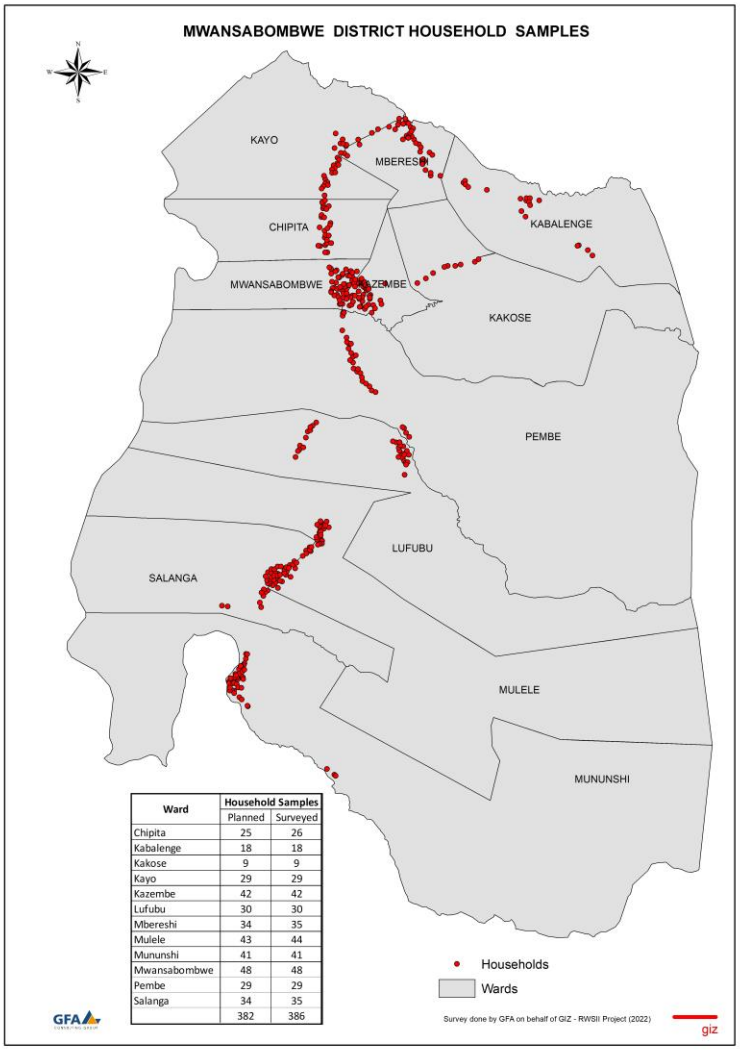
Prior to going to the field, the supervisor and enumerators ensured they had all functioning equipment and sufficient supplies to perform their work. The equipment (Tablets & Power banks) was given to the enumerators, and they were expected to have them charged prior to the field day.

Transportation arrangements

The enumerators were provided with fuel cash voucher for their motor bikes equivalent to 20ltrs each.

Selected samples contact

The enumerators used Google earth loaded with the random samples to locate the selected samples. After location of samples, the enumerator was to make all efforts to meet the selected respondent, introduce themselves, explain the purpose of the study and obtain their informed consent. In the incident where no respondent was found at the sampled household, the enumerators were asked to visit the closest household in the vicinity of the sampled random point. Failure to which an alternative random point us given to the enumerator.



Ward	Household Samples	
	Planned	Surveyed
Chipita	25	26
Kabalenge	18	18
Kakose	9	9
Kayo	29	29
Kazembe	42	42
Lufubu	30	30
Mbereshi	34	35
Mulele	43	44
Mununshi	41	41
Mwansabombwe	48	48
Pembe	29	29
Salanga	34	35
	382	386

Figure 13: Map of Mwansabombwe District household samples

Ethical considerations

Ethical considerations and practices were carefully explained and discussed with the data collection team during the pre-data collection training. It involved a clear introduction of the enumerator, explanation of the purpose of the baseline survey, how the information would be used, and the respondent's voluntary participation in the survey as well as their freedom to exit/refuse participation at any stage without consequences. All this was done with the aim of obtaining an informed consent from each participant before proceeding with data collection. As the survey collected data from households, schools, health care facilities, non-domestic and public places, the survey team ensured that each participant interviewed selected a place where they felt comfortable and safe. Finally, at the end of the interview, the data collectors thanked the respondents for their time, willingness, and effort to provide data for the baseline survey.

In-field data collection implementation roadmap

Table 30: Mwansabombwe District survey data collection roadmap

Date	Survey Activity
20th to 22nd July 2022	Pre-Data Collection Training of EHTs/CHAs
25th July 2022	Commencement of Data collection in Mwansabombwe
14th August 2022	Data Collection Officially Ends

4.6.2 Qualitative Data

Qualitative data was obtained from observations, and semi structured interviews, through focus group discussions (for households) and Key Informant Interviews (for schools, health facilities and other important service providers). Qualitative data is generally non-numerical and further provides information to triangulate quantitative data obtained from questionnaires.

A descriptive qualitative study was conducted with five key informant interviews. All interviews were audio taped and transcribed verbatim.

4.6.2.1 Key Informant Interviews

In-depth interviews were conducted with purposively selected people (key informants) for their first-hand knowledge about WASH in Mwansabombwe District with representatives from MTC, DHO, DEBS, and market & transport.

The interviews were loosely structured, relying on a list of issues to be discussed. The facilitator had a guide and 7 main topics which were used to probe information. The core team made appointments with key informants to avoid scheduling conflicts. Consent to conduct these interviews had to be obtained as the interviews had to be recorded for accuracy apart from the note taking.

Initial contact is a critical part of the interview during which interviewers must establish rapport with key informants and create an atmosphere in which key informants are able to willingly communicate their views and opinions. The facilitator briefly explained the background, the objective of the interview, and the possible uses of the information and ideas provided by the key informant. The key informant was also assured of the confidentiality of information.

4.7 Adherence to COVID-19 Regulations

The commencement of the survey was at a time when COVID was already a reality and because of this, it was prudent to take precaution right at the beginning of the survey. Each enumerator was provided with medical masks which they were expected to wear as they conducted the interviews. Since the enumerators used are officially officers under the Ministry of Health, COVID measures were adhered to according to the Ministry. This was in accordance with the GIZ COVID regulation protocol.

4.8 Data Analysis Framework

The data analysis framework in this report summarises the process of data collection and analysis used to arrive at descriptive statistics used to define and understand WASH outcome variables in Mansa in 2021. It allows us to navigate through data analysis process in an organized way and helps to describe the steps that were followed to examine the data to arrive to usable information for recommendations and decision making. In other words, the framework allows us to focus on the core objectives of the survey (baseline WASH outcomes) and possibly the actions and decisions that need to be taken to improve these outcomes.

Given the huge amount of data collected through the survey, the framework helps us to focus attention on the WASH outcomes that generate value or deal with critical WASH related outcomes first before examining all the other data that are available but of secondary importance.

The main analytical approach was descriptive analytics which helps us to understand the current situation in Mwansabombwe regarding WASH outcomes at the various units of analysis (households, schools, etc) described in the sampling section above. Information has been summarized using techniques such as modes, means, medians and proportions or percentages. The data has also been presented in frequencies, cross-tabulations, bar charts (including stacked charts for sanitation ladders) for ease of understanding.

The data analysis conceptual framework is visually summarized Figure 14.

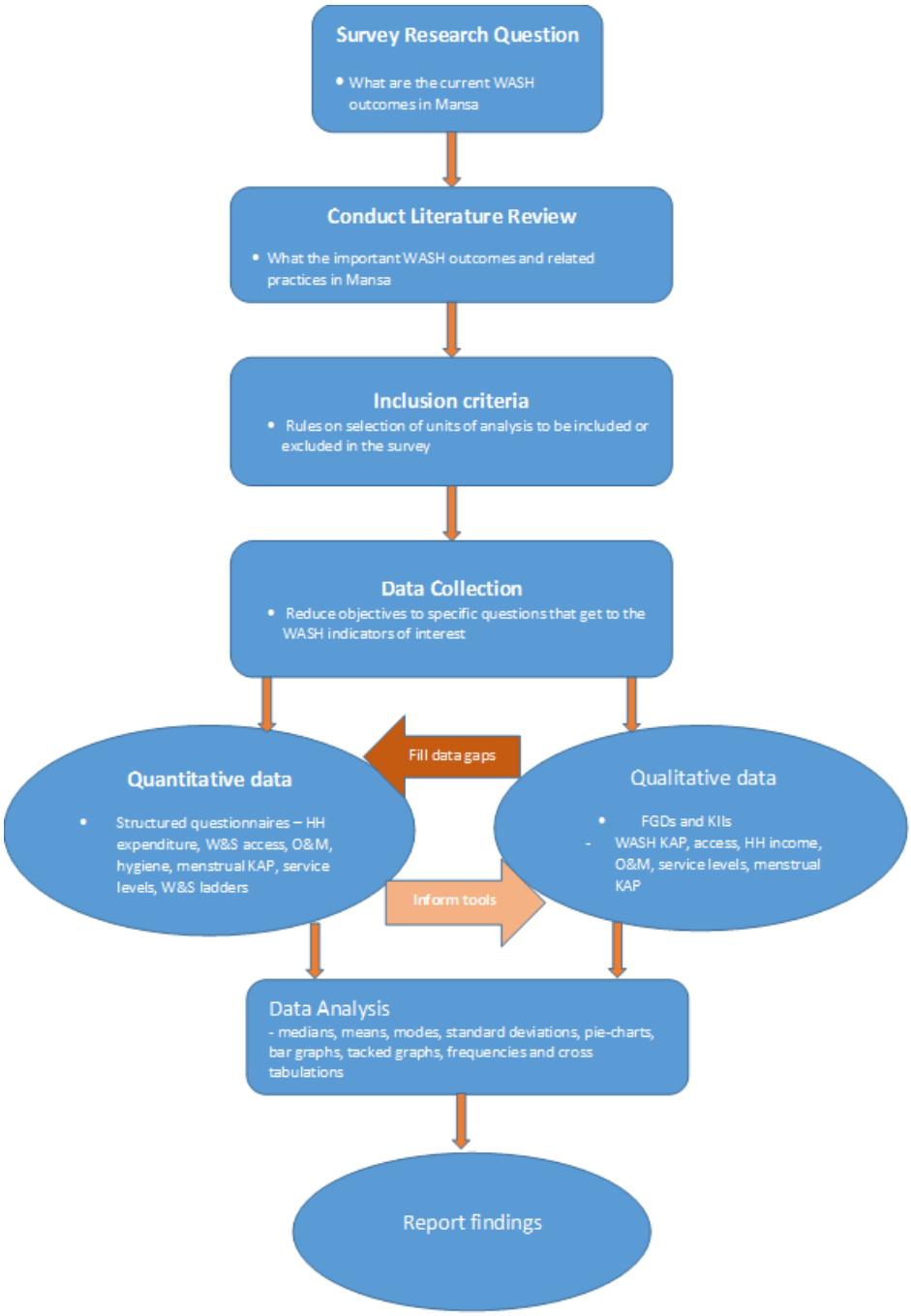


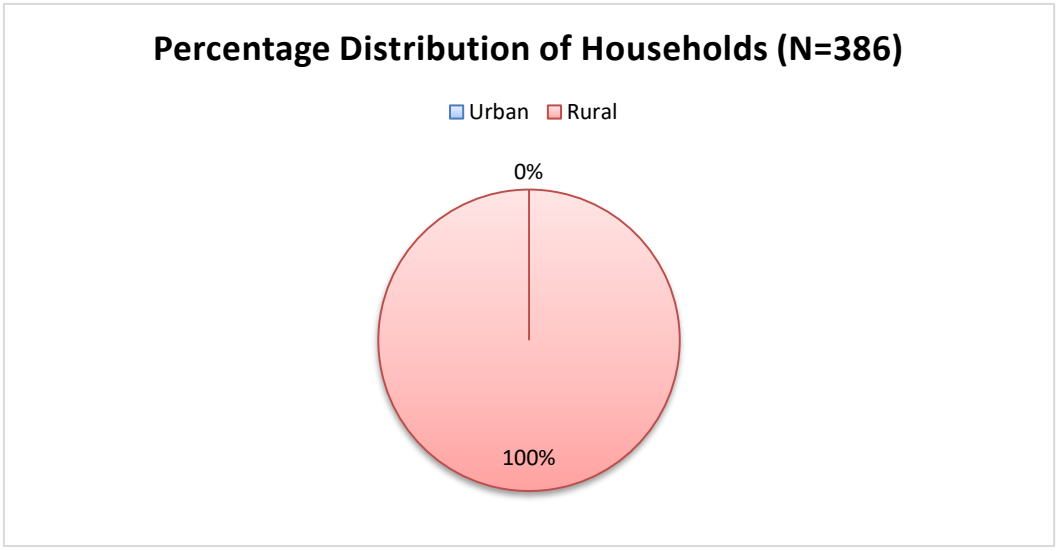
Figure 14: Data analysis conceptual framework

5 FINDINGS

5.1 Households

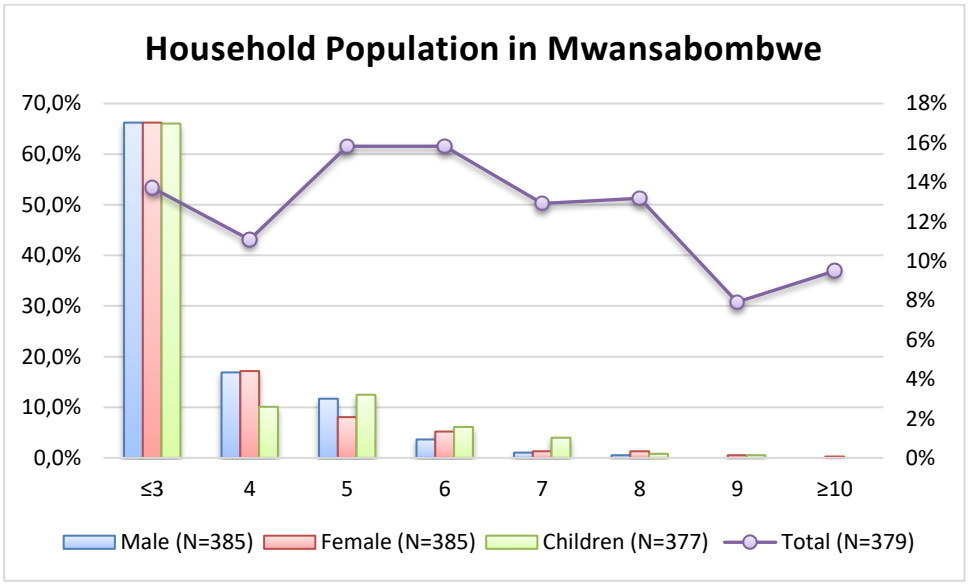
5.1.1 Socio-Economic Status & Electricity Connectivity

Average household size for urban and rural areas in Mwansabombwe



Findings 1: Mwansabombwe District distribution of households (N = 386)

All of households interviewed were from rural areas. This generally represents the spread of population in Mwansabombwe which is primarily rural. There is a township which was recently opened up and yet to accommodate the population.

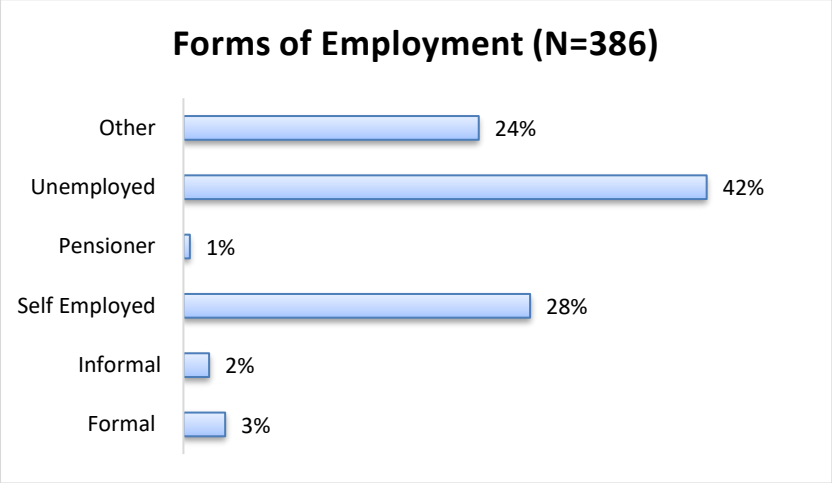


Findings 2: Mwansabombwe District Household Population

The average household size in Mwansabombwe was 6 inhabitants and it was equally split between males and females (3 males and 3 females per household).

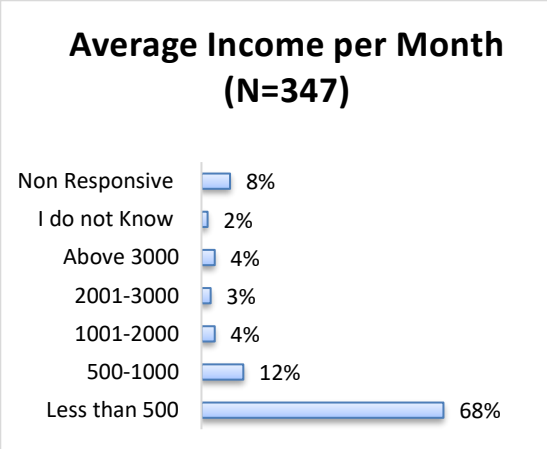
Employment

Very few people (3%) were in formal employment while 44% were in either unemployed or informally employed. 52% had some other form of employment. These jobs included farming, gardening, and businesses such as charcoal selling as well as minor jobs, amongst others.



Findings 3: Mwansabombwe District - types of employment (N = 386)

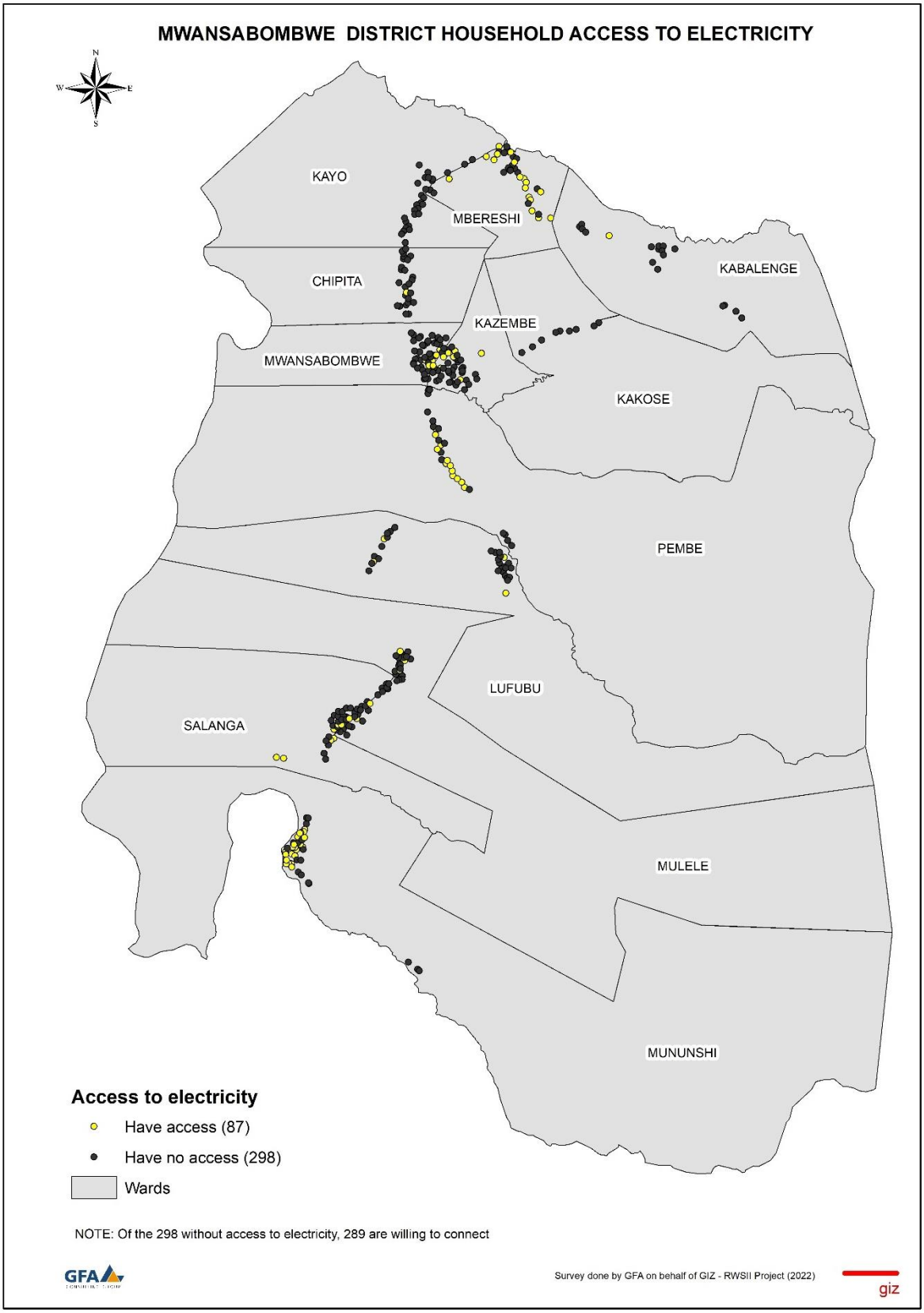
Average household income



Findings 4: Mwansabombwe District average household income (N=347)

Majority of the households have at least an income bracket of less than K500 (68% of 347 households).

Access to electricity

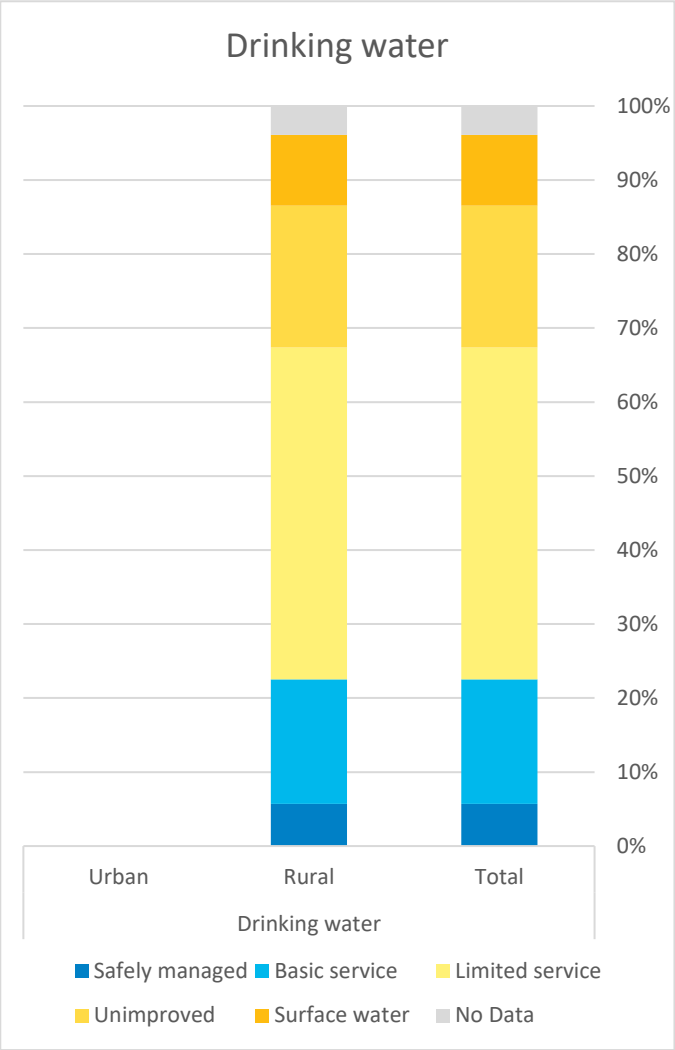


Findings 5: Mwansabombwe District household source of electricity (N=385)

It is observed that most of Mwansabombwe District does not have access to electricity (77% of 385 households) and for those that have access to electricity, their source of electricity is through ZESCO (hydroelectricity) 80% and solar 19%. Willingness to connect to electricity out of those that had no access stood at 97%.

5.1.2 Water Supply Services

Mwansabombwe JMP ladder for drinking water services



Mwansabombwe	Drinking water		
	Total	Rural	Urban
Safely managed	6%	6%	
Basic service	17%	17%	
Limited service	45%	45%	
Unimproved	19%	19%	
Surface water	10%	10%	
No Data	4%	4%	
Total	**100%**	**100%**	

The proportion of Mwansabombwe District using safely managed services is 6%.

In 2022, out of an estimated population of 64,542 in Mwansabombwe District, 60,699 people lacked safely managed services including 10,972 people with basic services, 29,044 people with limited services, 12,262 people using unimproved sources and 6,454 drinking surfaces water.

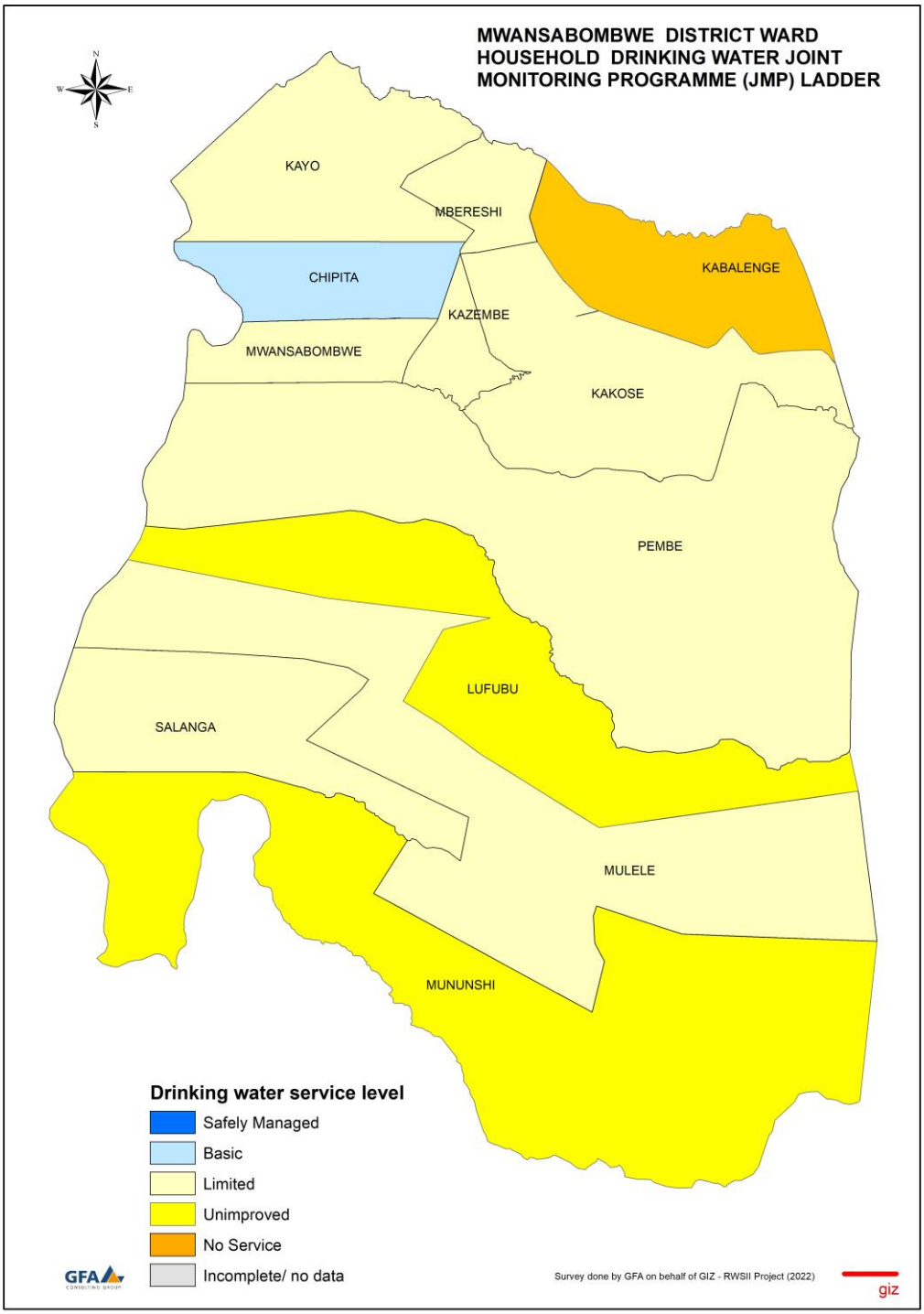
Majority of the district's population is having access to limited water services.

Please refer to Table 2 for the definition and clarifications on the service level indicators for drinking water.

Findings 6: Mwansabombwe District JMP ladder for drinking water

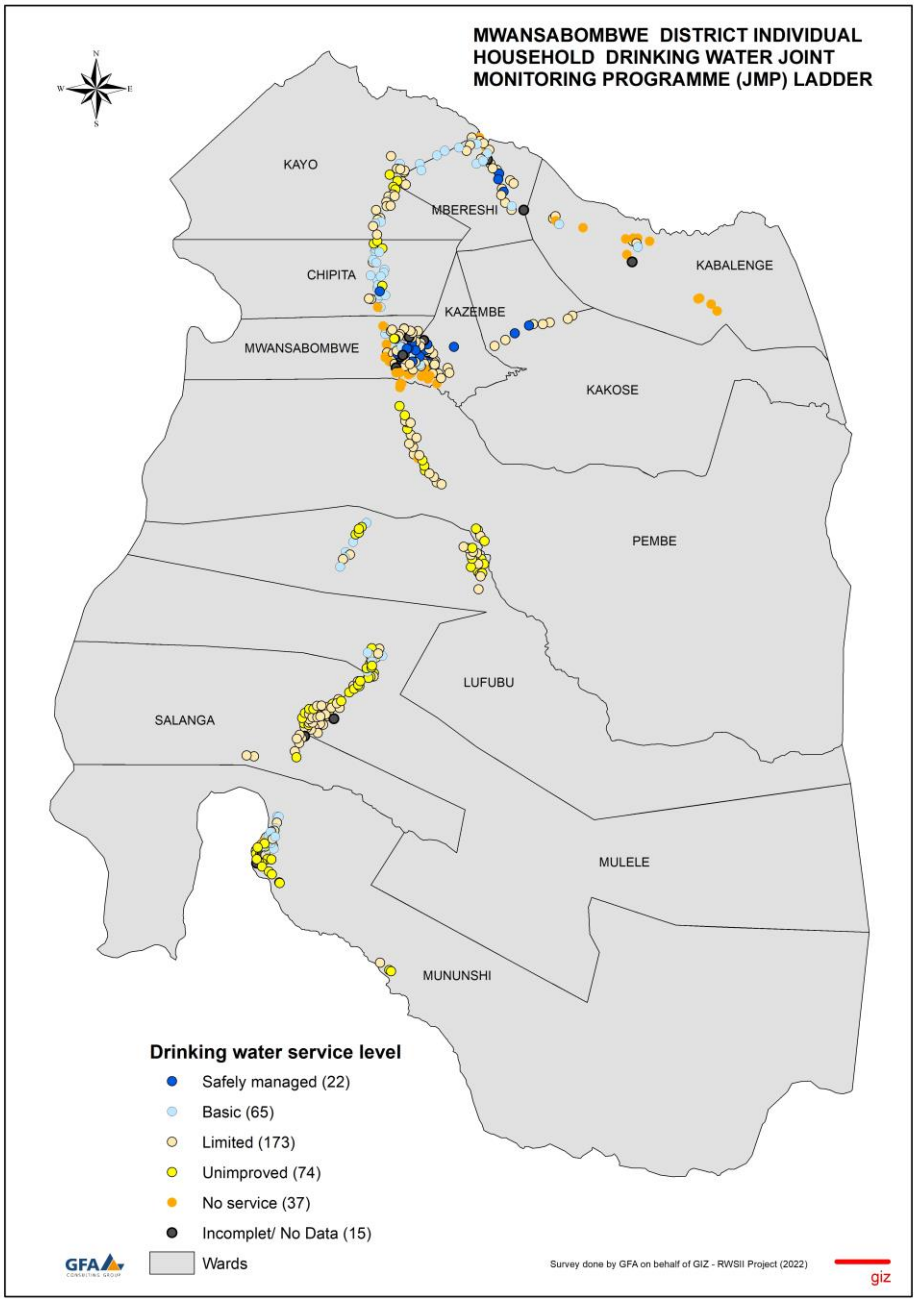
Note

One of the four criteria for safely managed drinking water is that it needs to be free from contamination. In this JMP ladder calculation this was estimated by the respondent's perception of the quality of the drinking water, i.e. the drinking water was considered to be free from contamination if it was perceived to be either 'Very good (does not require any further treatment)' or 'Good/fair (may require treatment by user)'



Findings 7: Mwansabombwe District ward level JMP for household drinking water services

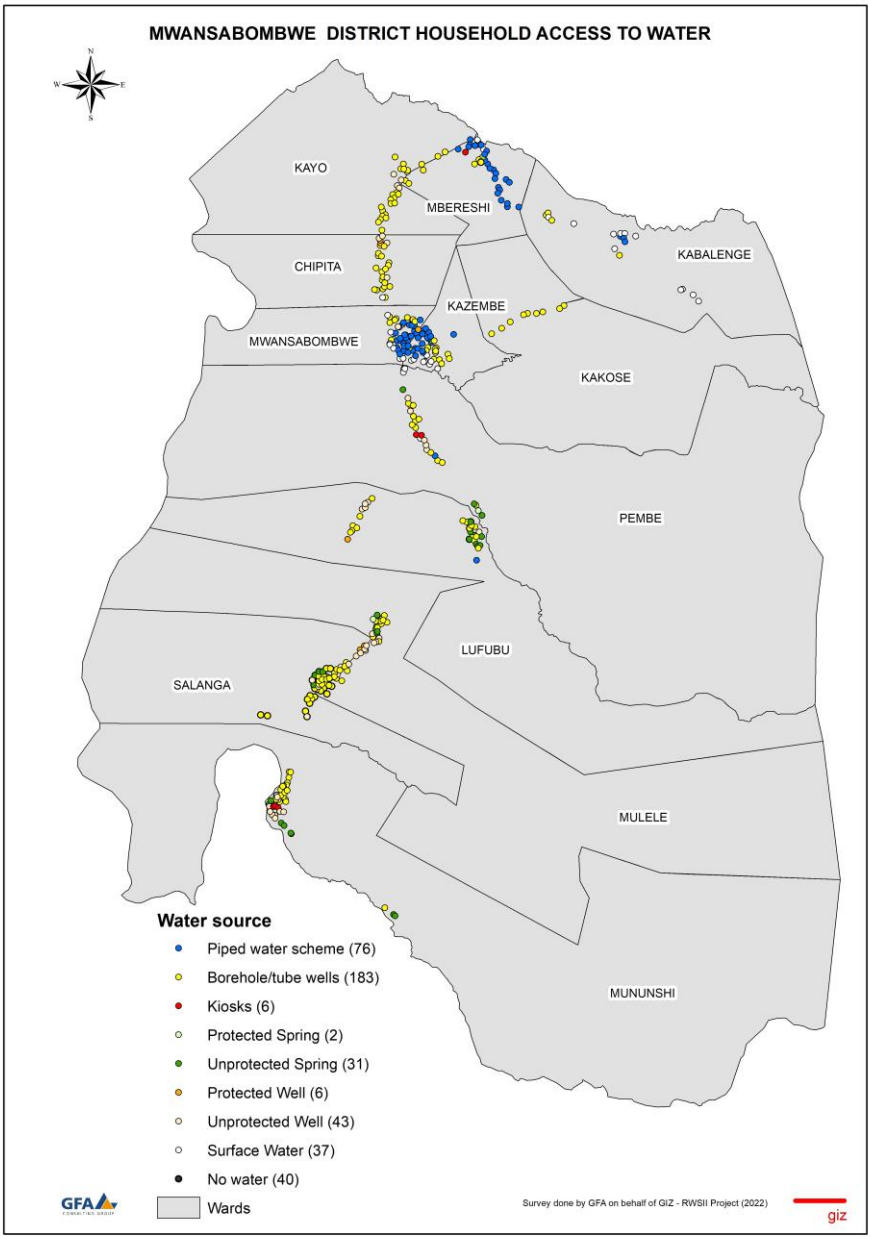
Findings 7 shows JMP indicators at ward level. Out of the 12 wards in Mwansabombwe District, only one ward, namely Chipita has majority of its households having access to basic drinking water. Majority of the wards in Mwansabombwe District have majority of the households accessing limited drinking water services which relates to what is being reported in Findings 7. And Kabalenge ward having majority of its households having access to surface water. To see how this distribution is at individual household level refer to Findings 8.



Findings 8: Map of Mwansabombwe District showing the JMP ladder for drinking water at individual level

Luapula Water Supply and Sanitation Company (LpWSC) is currently not operating in Mwansabombwe District and therefore this means that they do not have infrastructure in the District to outline on the map.Findings 8 simply illustrates the service level on an individual level from Findings 7.

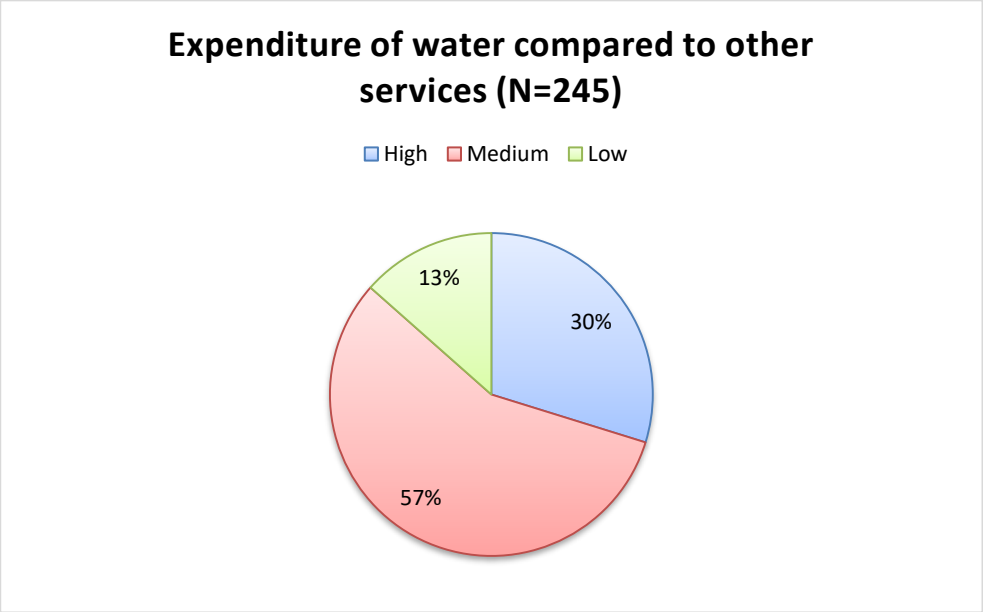
Type of water source



Findings 9: Mwansabombwe District households-type of water sources / access

From Findings 9, majority of household access water from boreholes/tube wells seconded by piped water schemes.

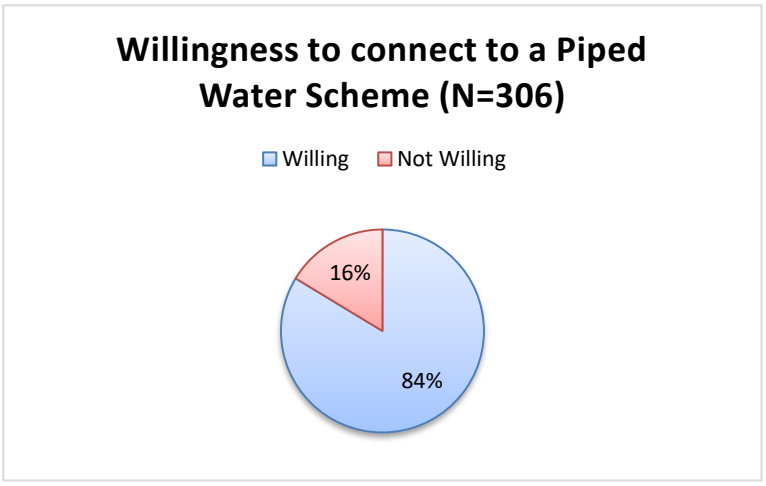
Affordability of the water service



Findings 10: Mwansabombwe District expenditure of water compared to other services (N=245)

For the households connected to piped water schemes, majority (56%) of the households thought the water services were moderately affordable and about 37% categorise water as an expensive service. While for the households using other sources, 57% thought the water service was moderately expensive and 28% categorise it as expensive.

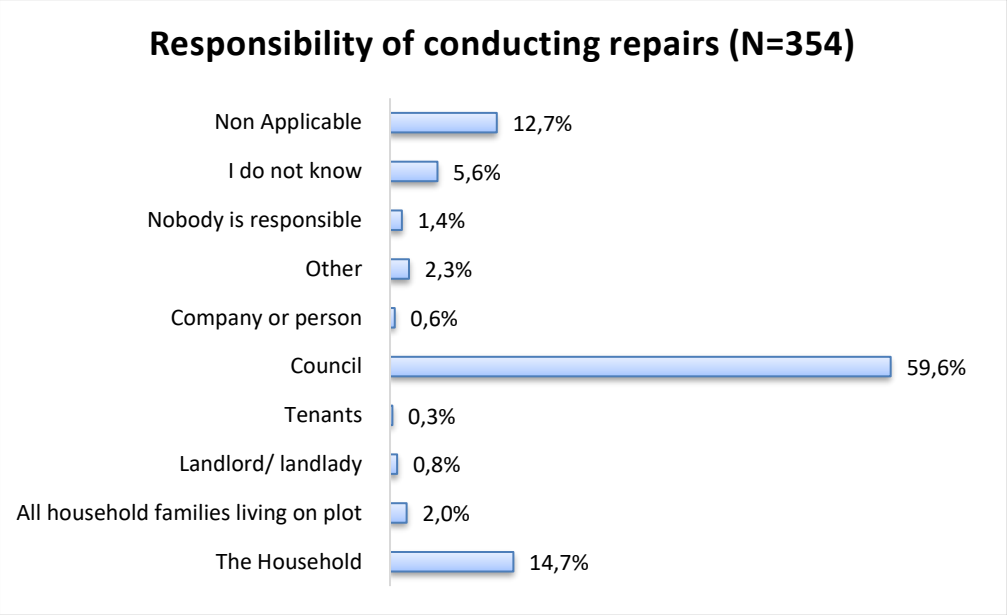
Willingness to connect to Piped Water Schemes



Findings 11: Mwansabombwe District willingness to connect to Piped water Schemes (N = 306)

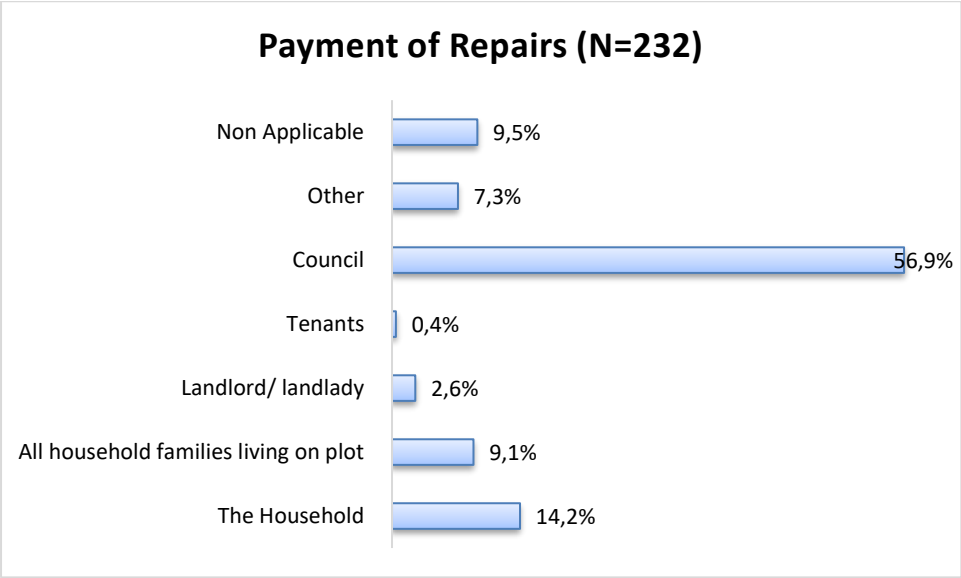
Findings 11 shows that Majority of the households (84%) were willing to connect to a piped water scheme. An appreciable proportion of 16% were unwilling to connect.

Maintenance of water services



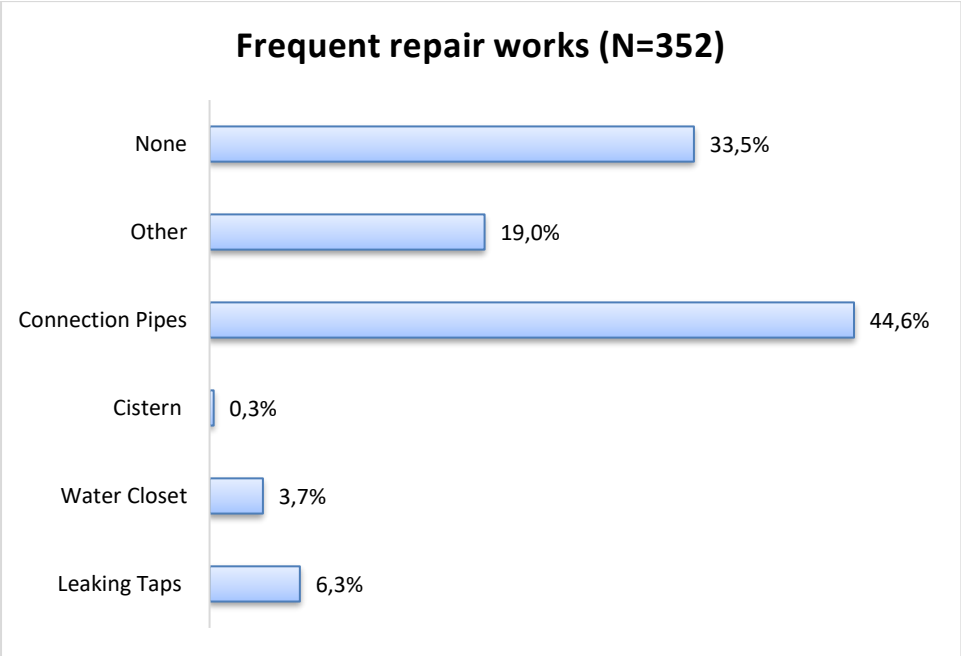
Findings 12: Mwansabombwe District responsibility to conduct repairs (N=354)

The responsibility of conducting these repairs is mainly with the council while there is still some households that have the responsibility of conducting the repairs.



Findings 13: Mwansabombwe District responsibility for payment of maintenance repair works of the water source

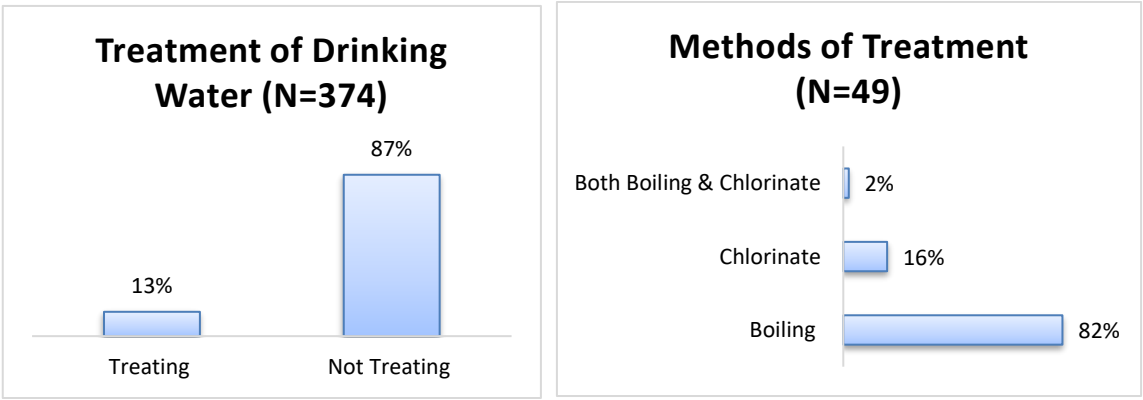
When asked who is pays for the repair works conduct, majority of the households indicated that the council was responsible for paying for the repairs conducted on the water facilities.



Findings 14: Mwansabombwe District water service frequent repairs (N=352)

Majority of the repairs done were connection pipes (44.6%) meanwhile 33.5% reported that no repair works had occurred and 19% were others which were mostly replacement of rubbers and hand pumps.

Treatment of drinking water

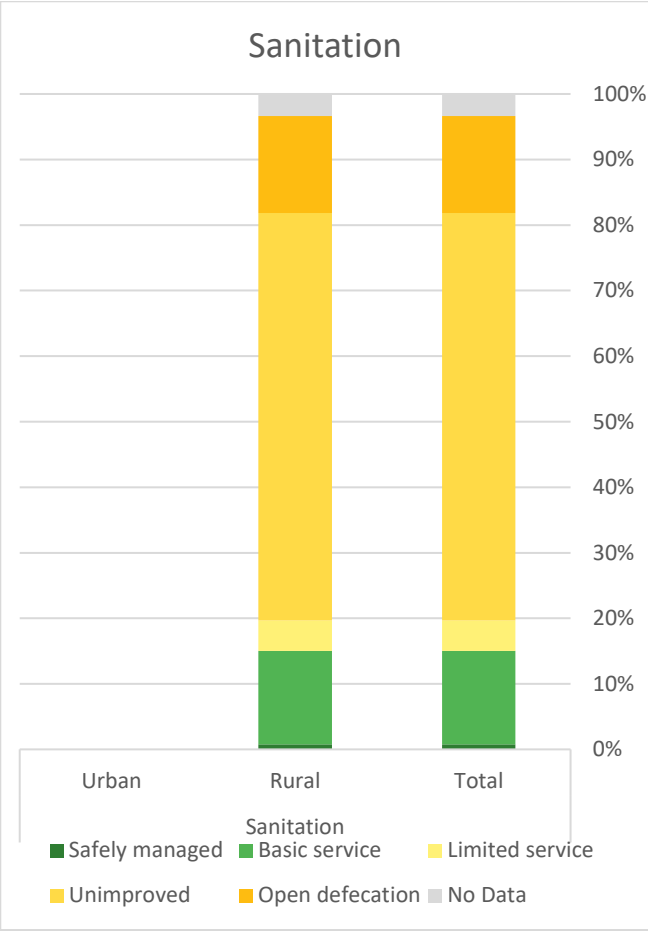


Findings 15: Mwansabombwe District treatment of drinking water

There was a higher number of households who do not treat drinking water (87%) than those who do treat (13%). On the other hand of those who treat water majority of them boil (82%) and those that chlorinate (16%) while there were those that do both (2%).

5.1.3 Sanitation Services

Mwansabombwe JMP ladder for sanitation services



Findings 16: Mwansabombwe District JMP ladder for sanitation services

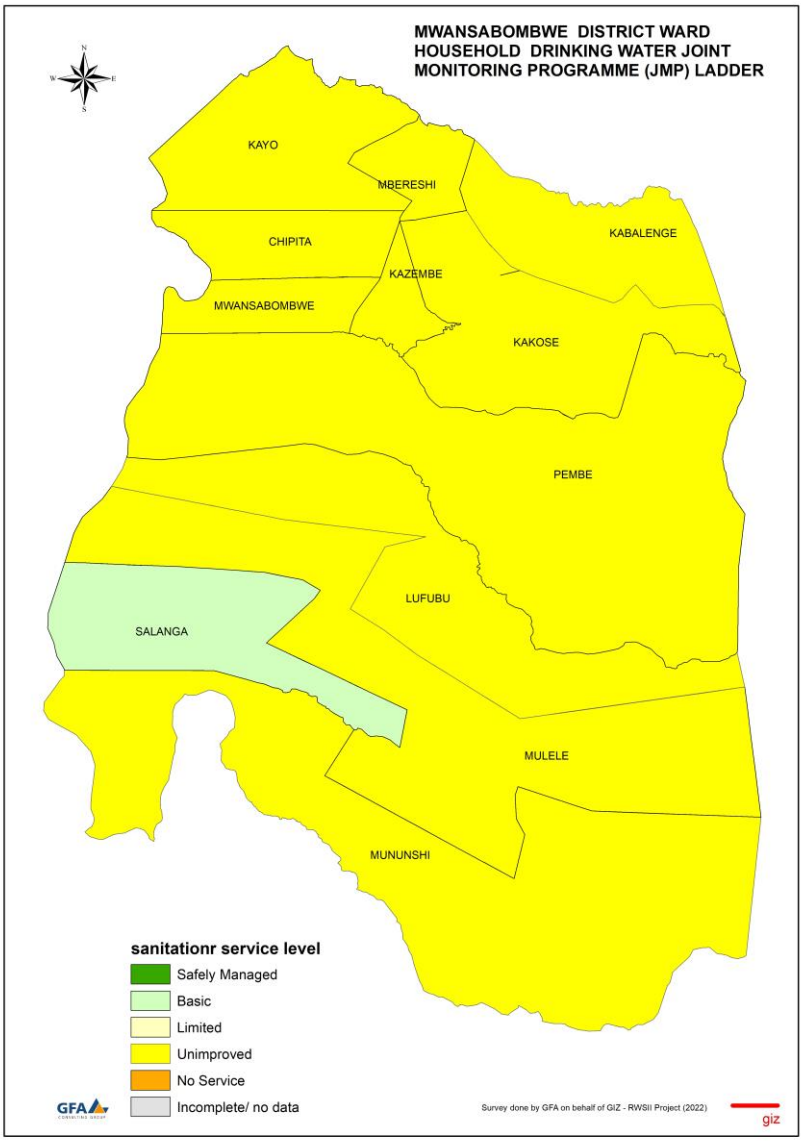
Mwansabombwe	Sanitation		
	Total	Rural	Urban
Safely managed	1%	1%	
Basic service	14%	14%	
Limited service	5%	5%	
Unimproved	62%	62%	
Open defecation	15%	15%	
No Data	3%	3%	
Total	**100%**	**100%**	

The proportion of Mwansabombwe District using safely managed services is 1%.

In 2022, out of an estimated population of 64,542 in Mwansabombwe District, 63,897 people lacked safely managed services including 9,036 people with basic services, 3,227 people with limited services, 40,016 people using unimproved facilities and 9,681 practicing open defecation.

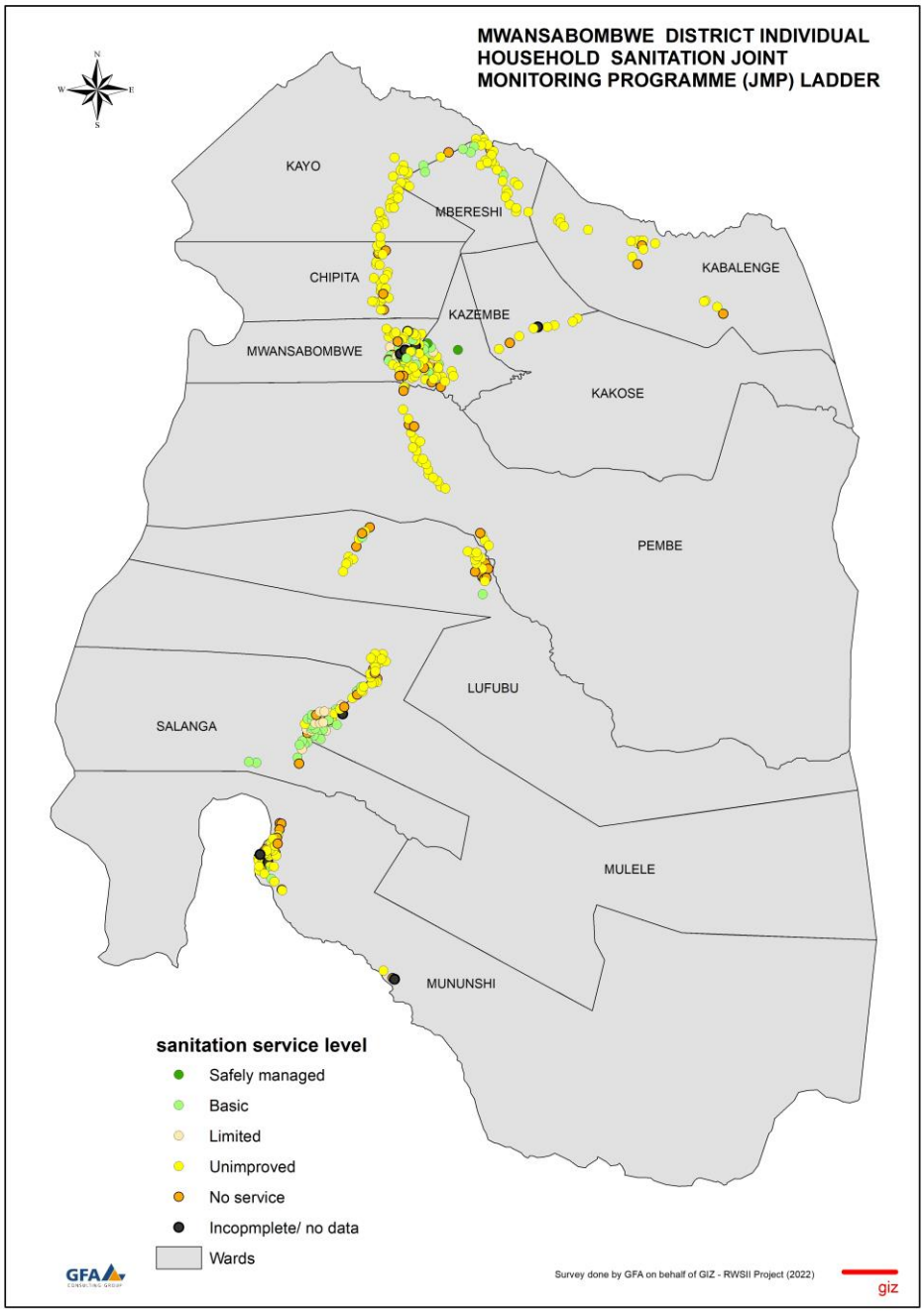
Majority of the district's population is having access to unimproved sanitation services.

Please refer to Table 3 for the definition and clarifications on service level indicators on Sanitation.



Findings 17: Mwansabombwe District ward level JMP for household sanitation services

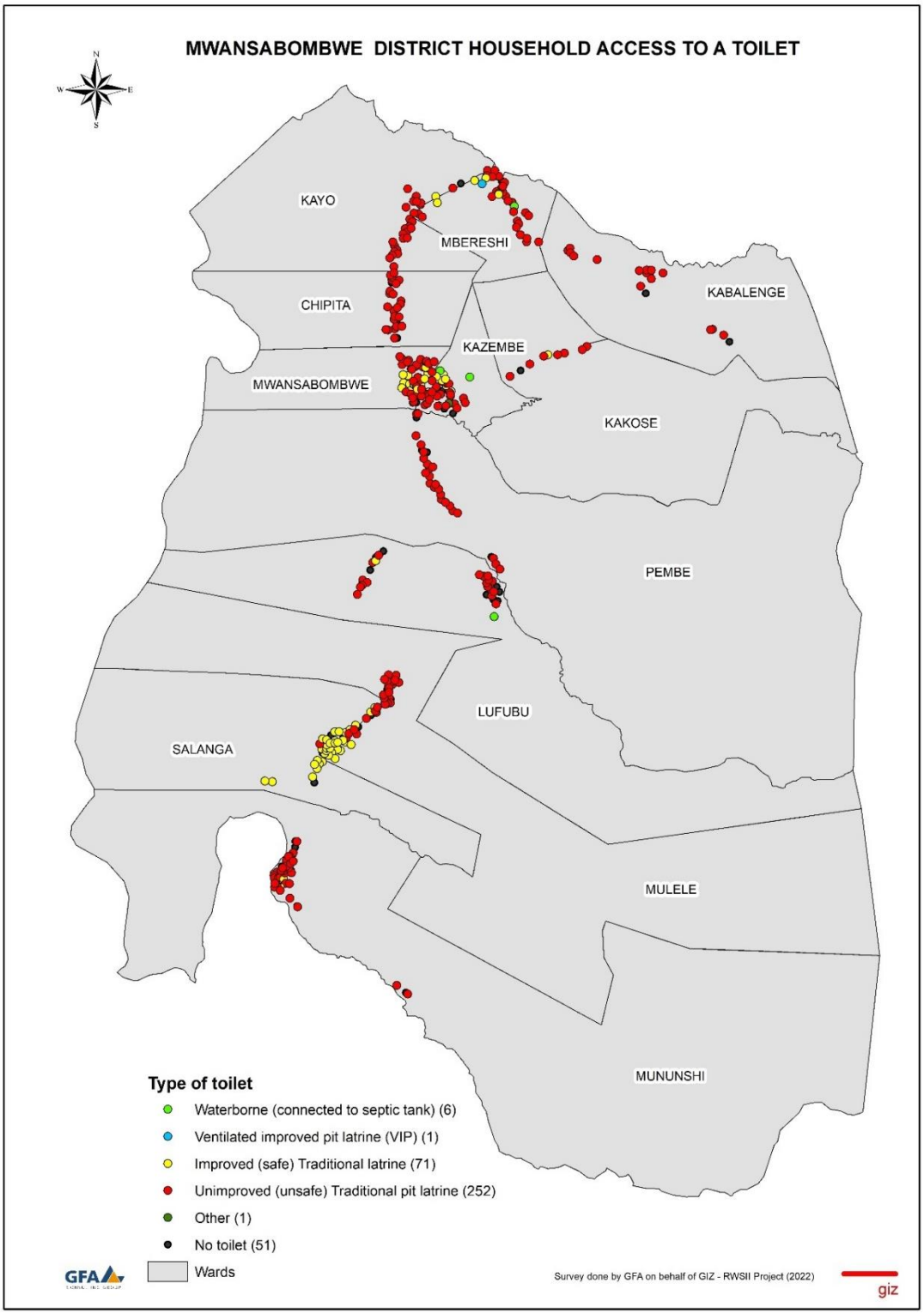
Findings 17 shows JMP indicators at ward level, 1 out of the 12 wards in Mwansabombwe District, have majority of its households having access to basic sanitation services which relates to what is being reported in Findings 16. The rest of the wards have majority of the households having access to unimproved service. To see how this distribution is at individual household level refer to Findings 18.



Findings 18: Map of Mwansabombwe District showing the JMP ladder for sanitation at individual level

There is currently no offsite sanitation in Mwansabombwe District and therefore this means that all the households in are primarily on onsite sanitation services.Findings 18 simply illustrates the service level on an individual level from Findings 17.

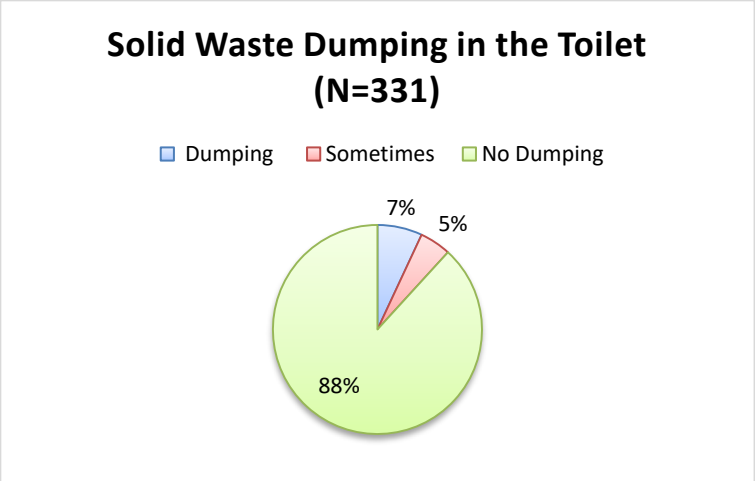
Access to sanitation facilities



Findings 19: Mwansabombwe District households – type of sanitation facilities

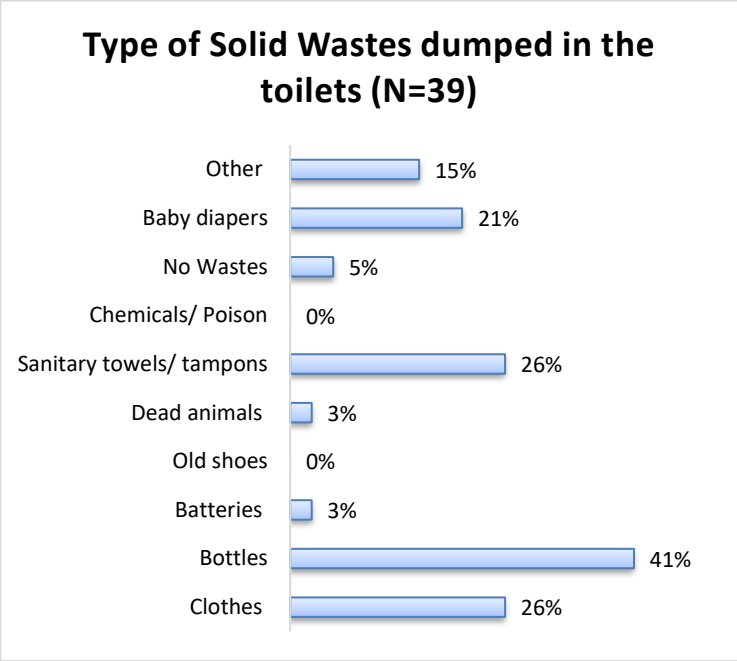
From Findings 19, Majority of households that have access to toilets in Mwansabombwe District use unimproved (unsafe) traditional latrines (76%). Out of the 86% that have access to sanitation facilities, only 14% share their sanitation facilities with other households.

Solid waste dumping in toilets



Findings 20: Mwansabombwe District solid waste dumping practices in the toilets (N =331)

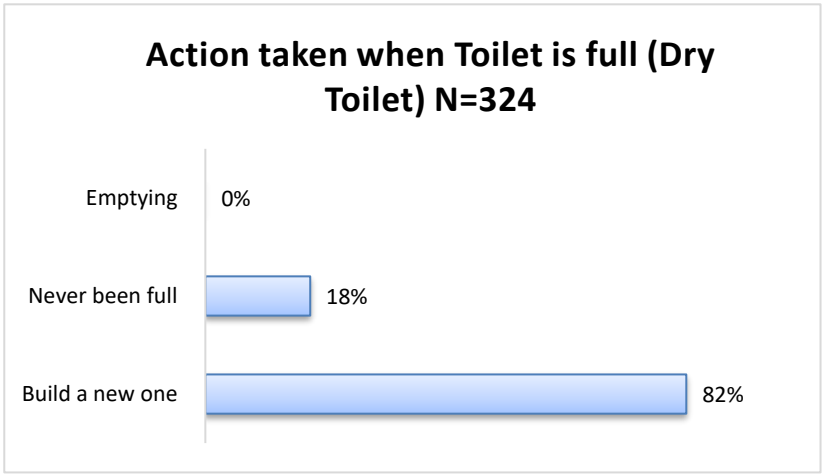
Majority (88%) of the households do report not dumping solid waste in the dry toilets. 7% do report dumping solid waste in dry toilets while 5% sometimes do it.



Findings 21: Mwansabombwe District types of wastes dumped in the dry toilet (N = 39)

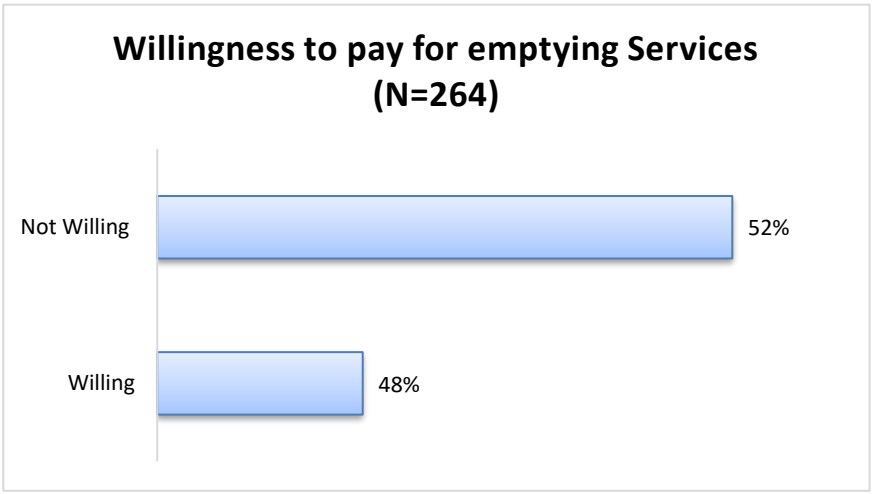
Majority (41%) of the waste dumped in the dry toilets are bottles, then followed by clothes (26%), sanitary towels/tampons (26%) and baby diapers (21%). This could have an impact on the empty technologies to be used when providing onsite sanitation services. This is an important factor to note when planning for FSM.

Emptying practices



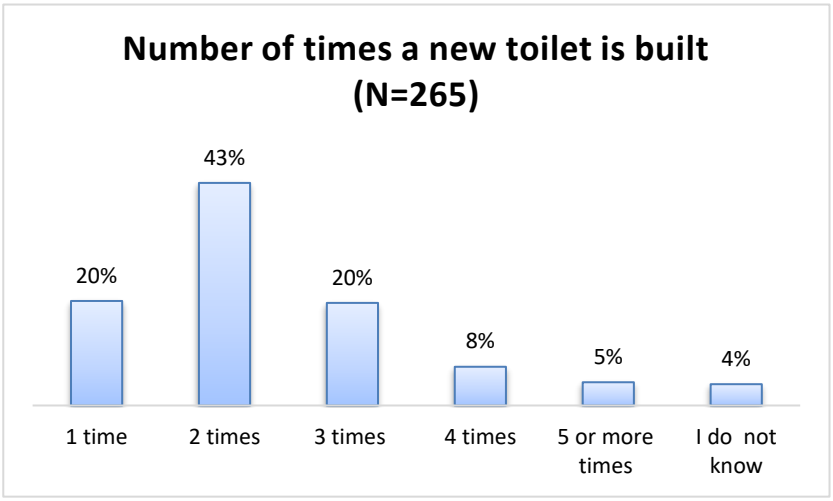
Findings 22: Mwansabombwe District action taken when toilet is full (N = 324)

Of those with dry toilets, 82% build a new toilet when the one gets full, while 18% have never had full toilets. There are no emptying activities taking place in Mwansabombwe District.



Findings 23: Mwansabombwe District-Willingness to pay for emptying services (N=264)

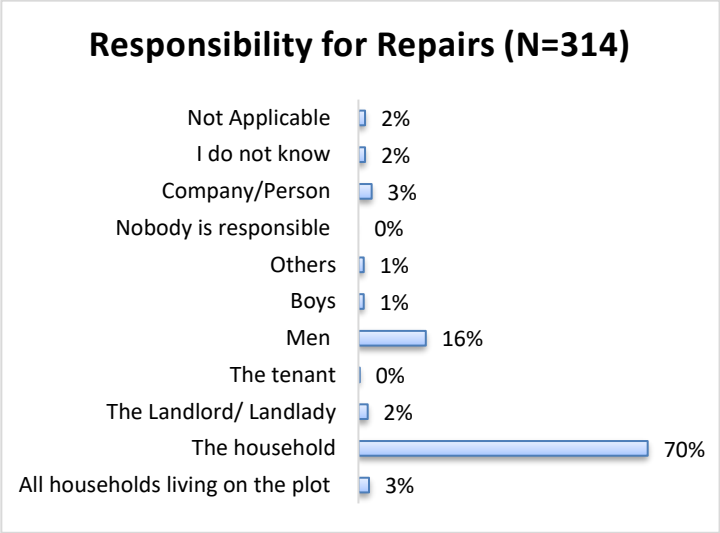
When asked if the households were willing to pay for emptying services, majority were not willing to pay (52%) while a reputable proportion was willing (48%)



Findings 24: Mwansabombwe District number of times a new toilet is built (N = 265)

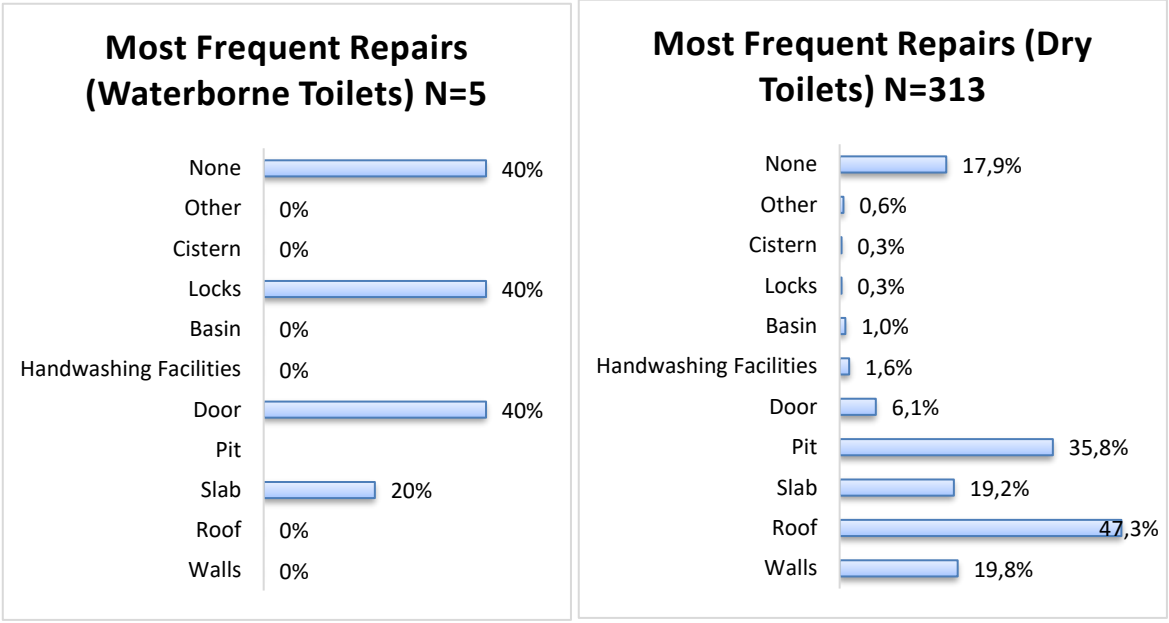
Although this question was not applicable to 18% of respondents, whose toilets have never been full. Majority 43% have built a new toilet twice and 20% One-time or three times.

Maintenance of sanitation facilities



In general, the household mostly takes responsibility of repairing the toilets (70%) and 16% it's the available men.

Findings 25: Mwansabombwe District responsibility for repair of toilet (N = 314)

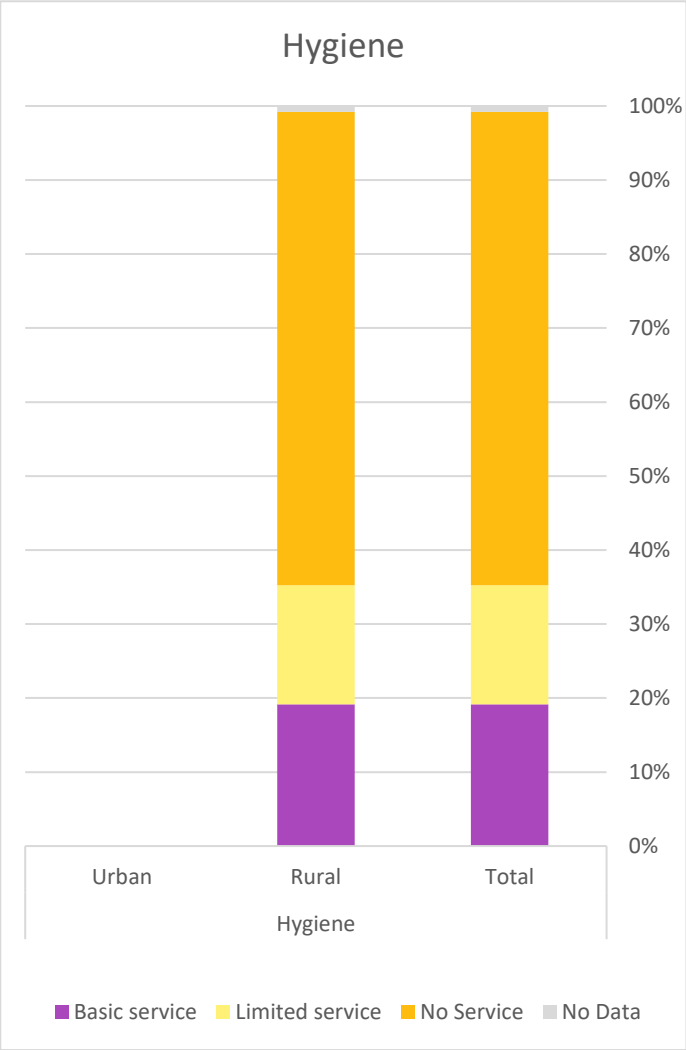


Findings 26: Mwansabombwe District most frequent toilet repairs

According to Findings 26, for the Waterborne toilets, majority of the households responded that doors (40%) and locks (40%) have been the most frequent repairs while a reputable proportion haven't had any repairs one (40%). For the Dry toilets, majority of the households responded that roofs (47.3%) and pits (35.8%).

5.1.4 Hygiene Services

Mwansabombwe JMP ladder for hygiene services



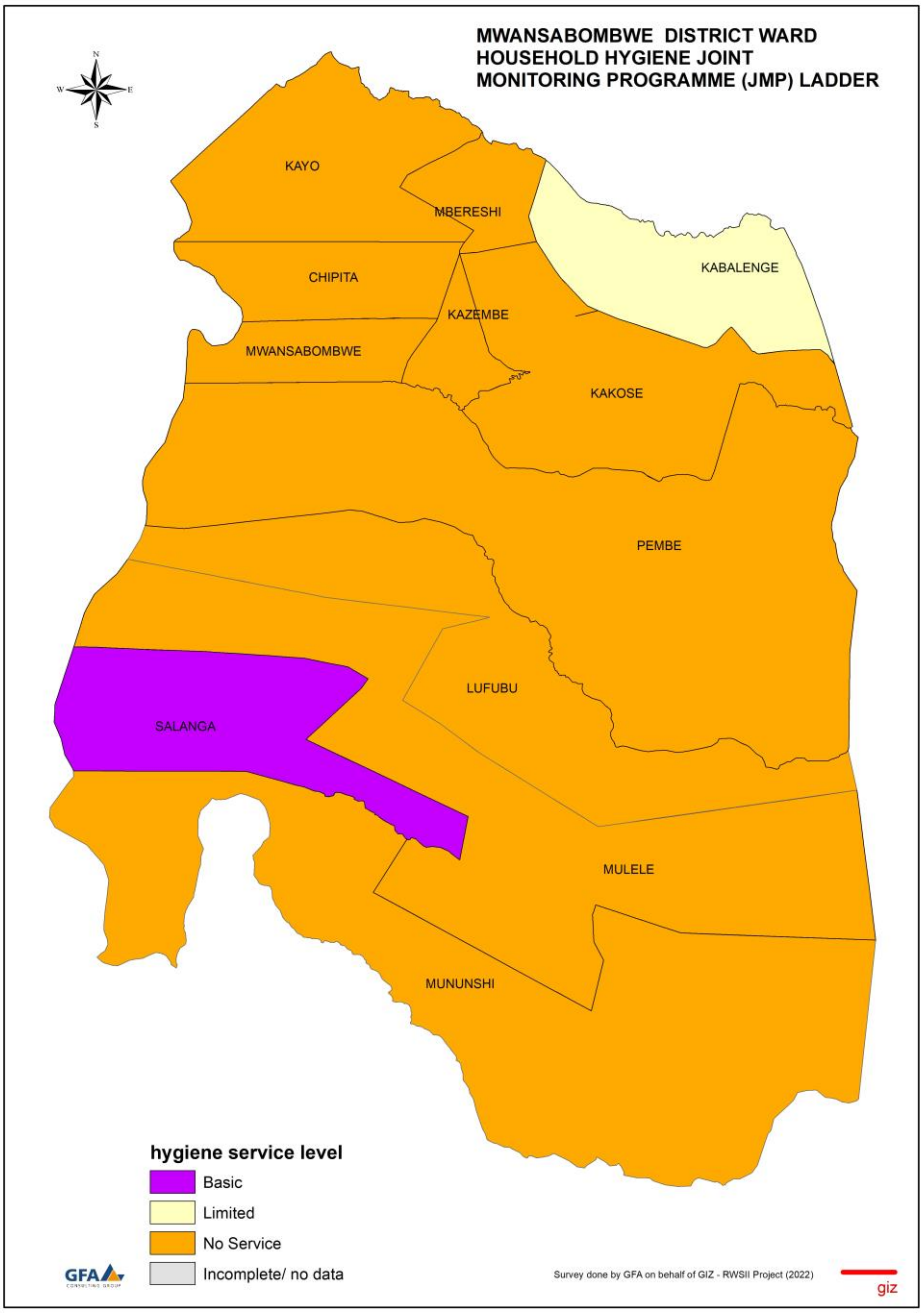
Findings 27: Mwansabombwe District JMP ladder for hygiene services

Mwansabombwe	Hygiene		
	Total	Rural	Urban
Safely managed	-	-	-
Basic service	19%	19%	
Limited service	16%	16%	
Unimproved	-	-	
No Service	64%	64%	
No Data	1%	1%	
Total	**100%**	**100%**	

The proportion of Mwansabombwe District using basic services is 19%.

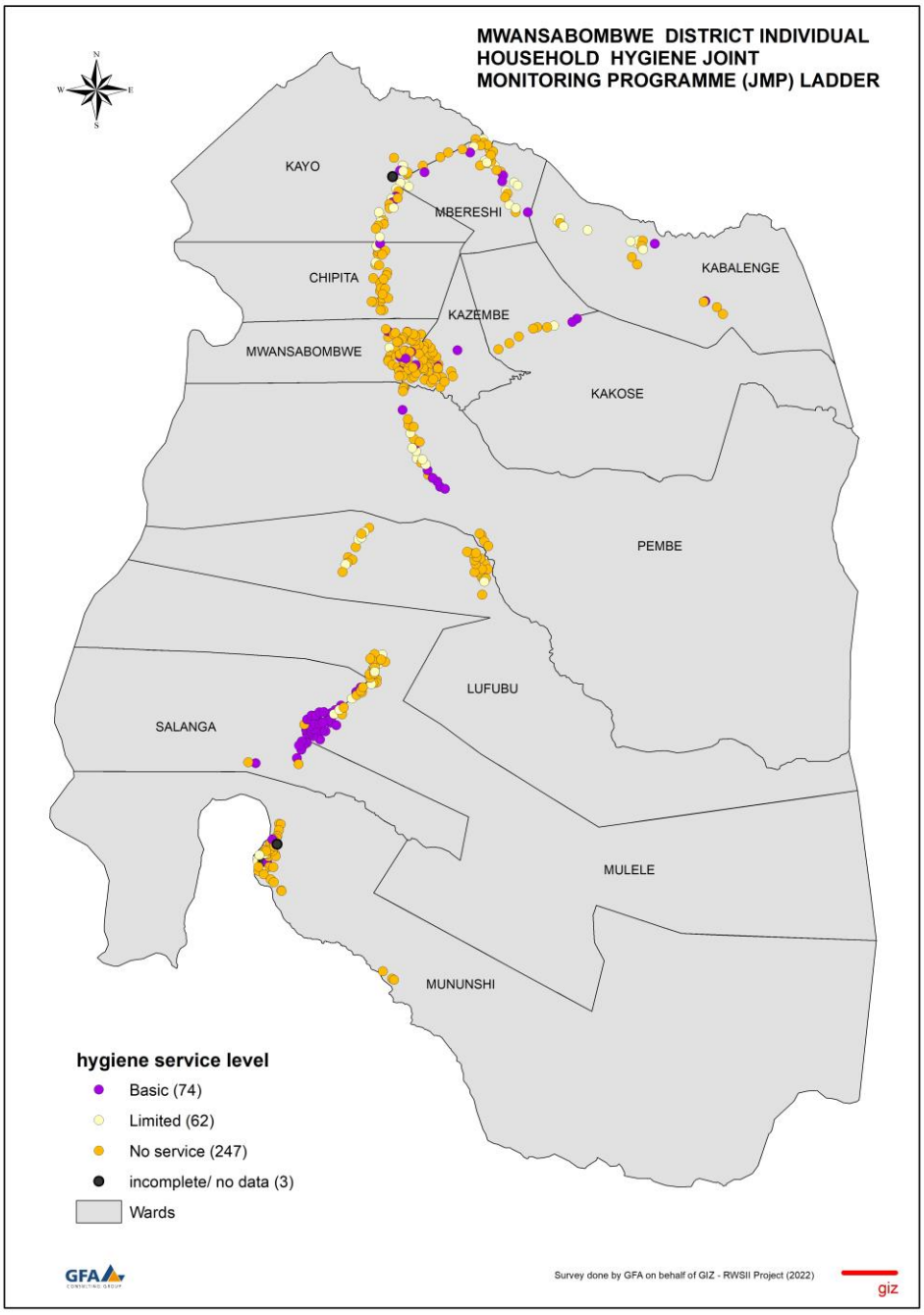
In 2022, out of an estimated population of 64,542 in Mwansabombwe District, 52,279 people lacked basic services including 10,431 having limited service and 41,307 with no handwashing facilities at all.

Please refer to Table 4 for the definition and clarifications on some of the hygiene terms.



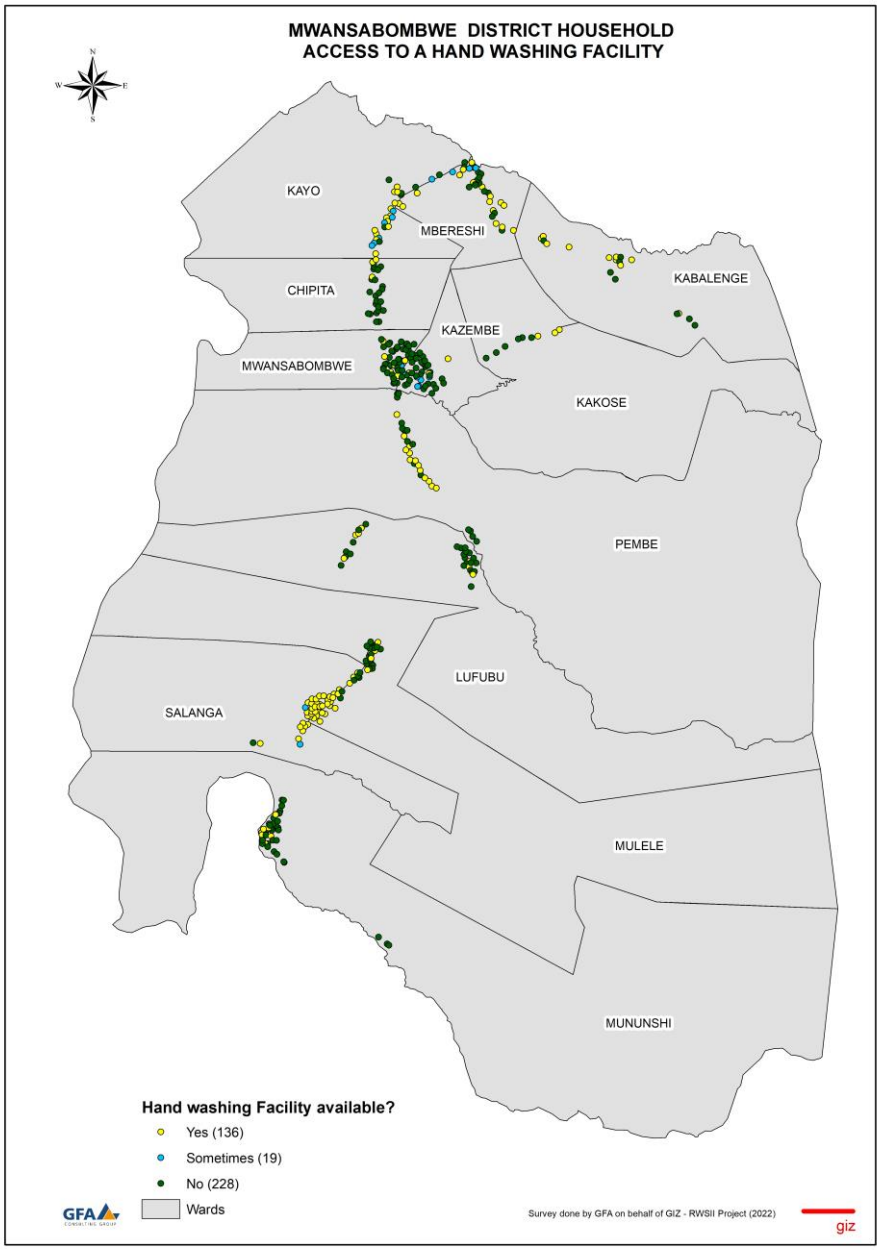
Findings 28: Mwansabombwe District ward level JMP for household hygiene services

Findings 28 shows JMP indicators at ward level. Out of the 12 wards in Mwansabombwe District, only one ward has majority of its households having access to basic hygiene services. There is also one ward in Mwansabombwe District that has majority of the households with limited access to hygiene services while the rest have no access. To see how this distribution is at individual household level refer to Findings 29.



Findings 29: Mwansabombwe District map showing JMP ladder for hygiene services

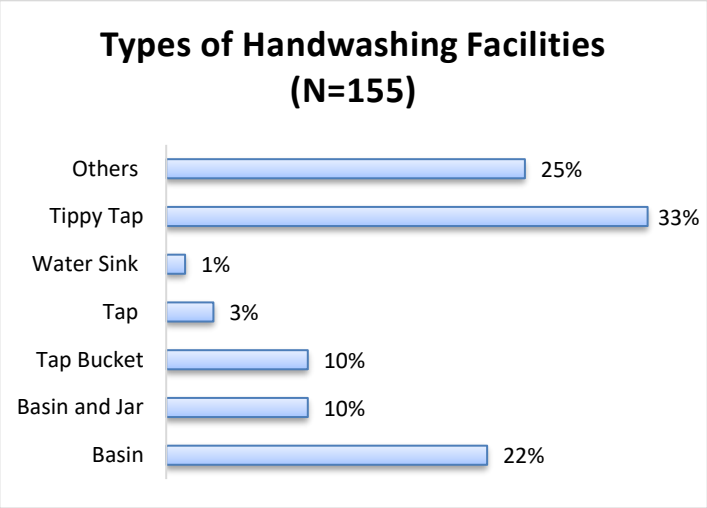
Access to hygiene facilities



Findings 30: Mwansabombwe District households- access to hygiene facilities

From Findings 30, overall, out of the visited households, 36% (136 in total) had access to handwashing facilities, while 64% had no access or had sometimes access to handwashing facilities.

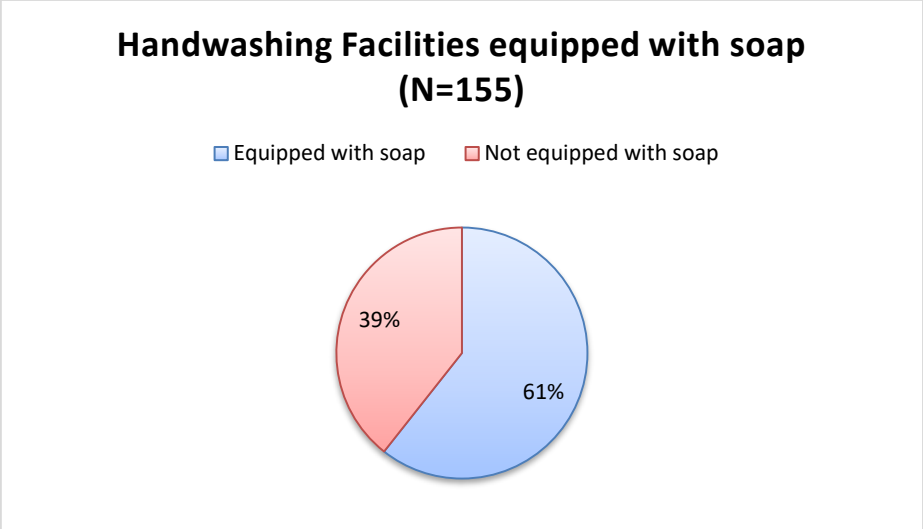
Type of handwashing facilities



Findings 31: Mwansabombwe District types of handwashing facilities (N = 155)

Majority (33%) of the households that had handwashing facilities use a tippy tap and a reputable proportion use other alternatives (25%) which mainly included a bottle or container and basin (22%).

Handwashing with soap

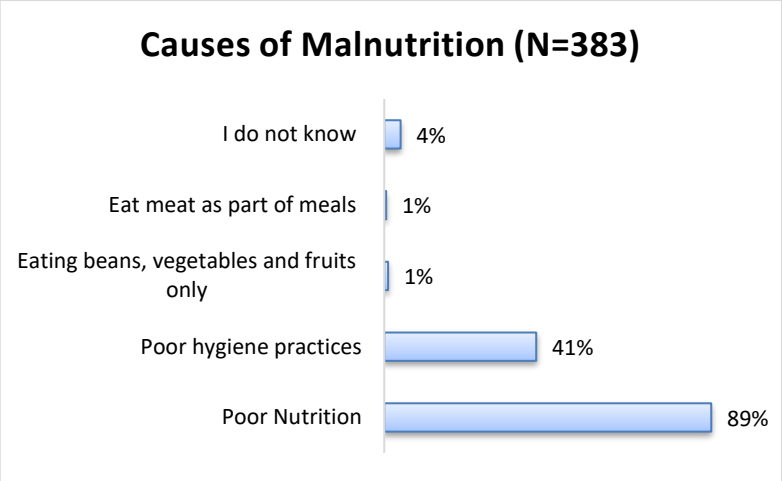


Findings 32: Mwansabombwe District handwashing with soap practices

From households that had handwashing facilities, 61% of them were equipped with Soap while 39% do not have handwashing facilities equipped with soap.

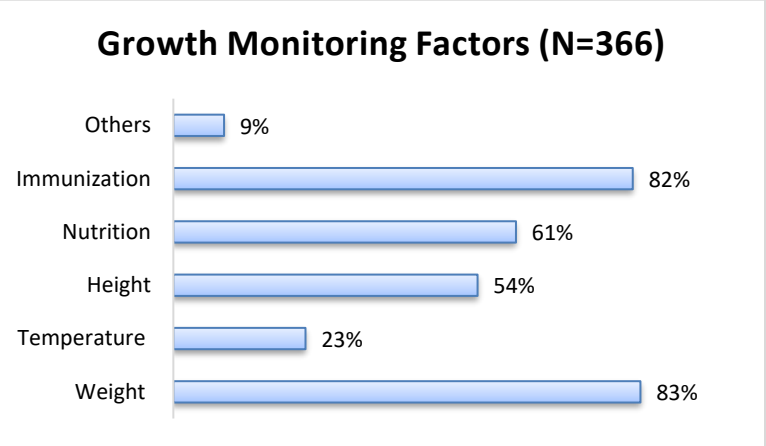
5.1.5 Scaling Up Nutrition

Child nutrition



Findings 33: Mwansabombwe District causes of malnutrition (N = 383)

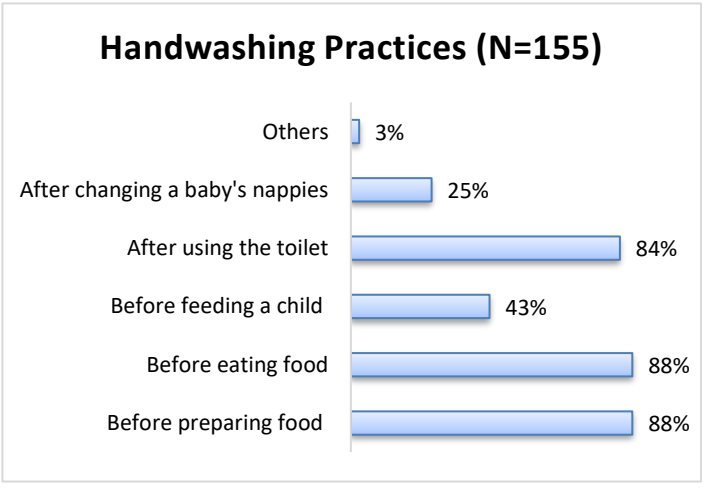
In general, majority of Mwansabombwe District relate malnutrition more to poor nutrition (89%) than poor hygiene (41%).



Findings 34: Mwansabombwe District growth monitoring factors for children (N = 366)

Weight (83%) and immunisation (82%) were the most common growth factors that were monitored while only 54% monitored height as well. But to determine stunted or wasted growth, the weight and height of the child needs to be compared with age.

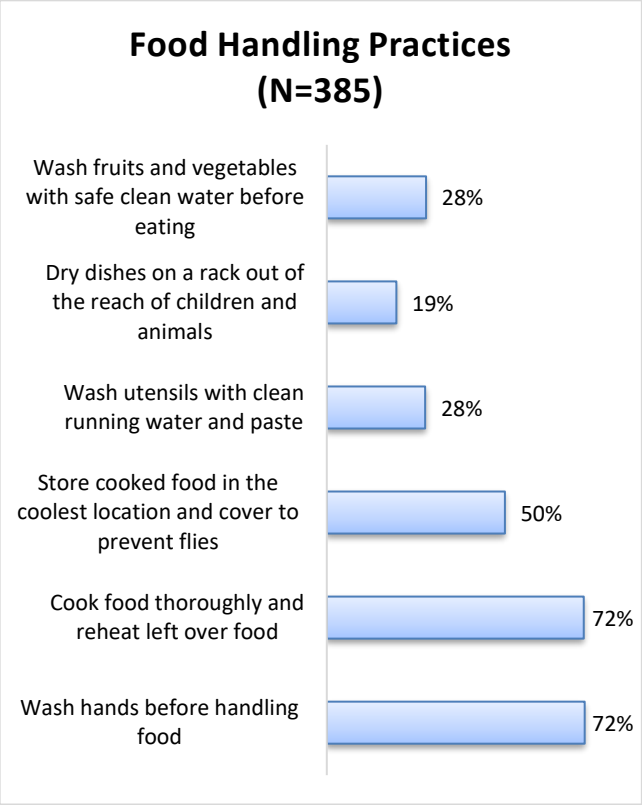
Hand hygiene practices



Findings 35: Mwansabombwe District handwashing practices (N = 155)

Majority of Mwansabombwe District wash their hands either before preparing food (88%), before eating (88%) or after using a toilet (84%). It is observed that only 25% from the visited households practice handwashing after changing the baby's nappies and 43% before feeding a child. This may be due to a baby's faeces are not considered to be as contagious as an adult's. If the minority wash their hands after changing baby and before feeding the baby, chances of infecting the child are quite high.

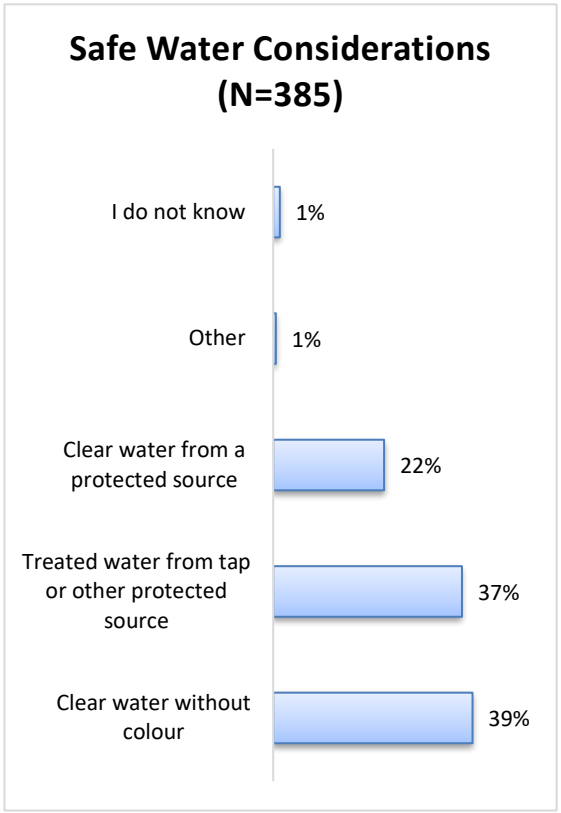
Food handling practices



Findings 36: Mwansabombwe District food handling practices (N = 385)

Majority of Mwansabombwe District (72%) wash their hands before handling food and cook food thoroughly and reheat left over food.

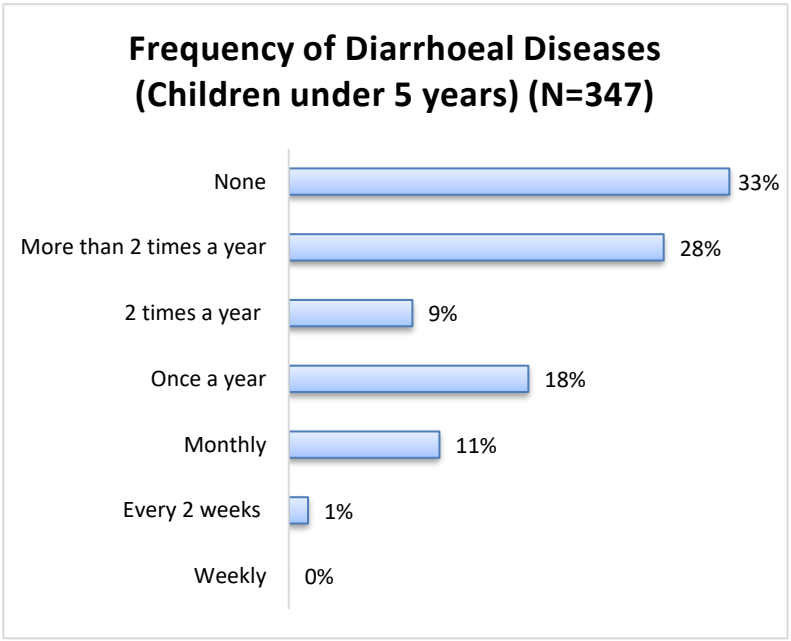
Safe water



Findings 37: Mwansabombwe District considerations for safe water (N = 385)

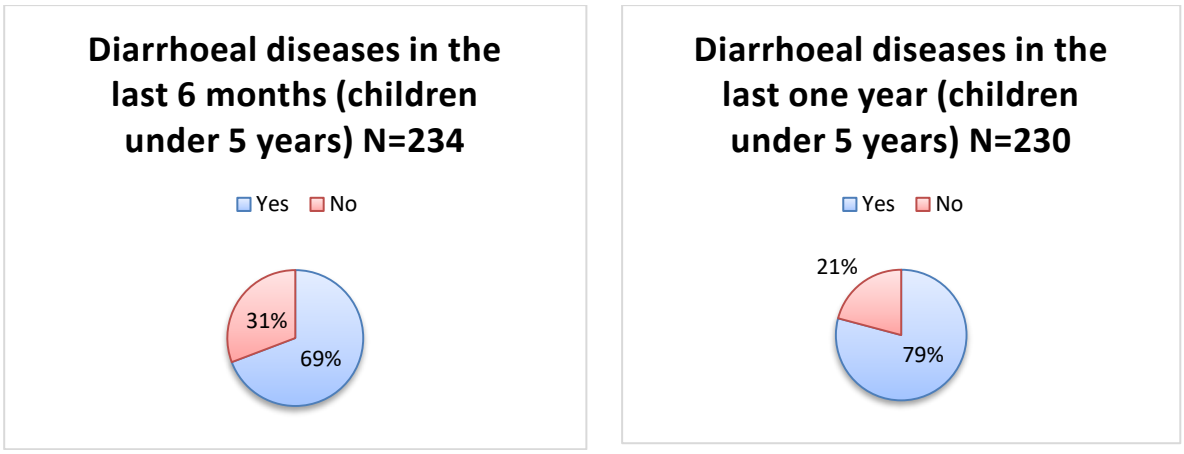
Majority (39%) categorise safe water as clear water without colour and 37% as treated water coming from tap or other protected source.

Diarrhoeal diseases



Findings 38: Mwansabombwe District frequency of diarrhoeal diseases (N = 382)

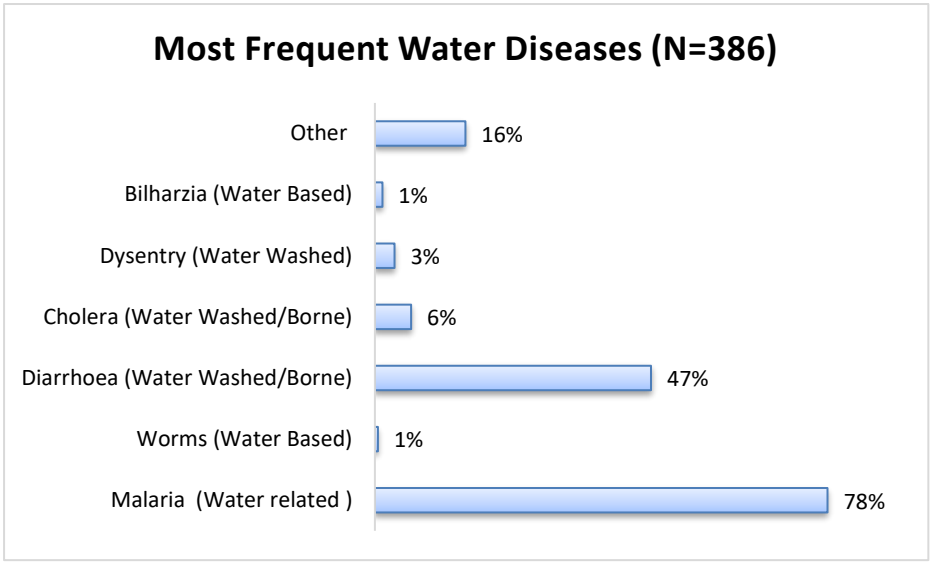
The highest frequency for diarrhoeal diseases for children below the age of five years in Mwansabombwe is more than twice a year (28%) and once a year (18%). In addition, 33% of households do not have a frequent occurrence of diarrhoeal diseases for their children under five.



Findings 39: Mwansabombwe District diarrhoeal diseases in the last 6 months and 1 year

The proportion of children under the age of 5 that had diarrhoeal diseases in the last 6 months and 1 year were 69% and 79% respectively.

5.1.6 Water Borne Diseases

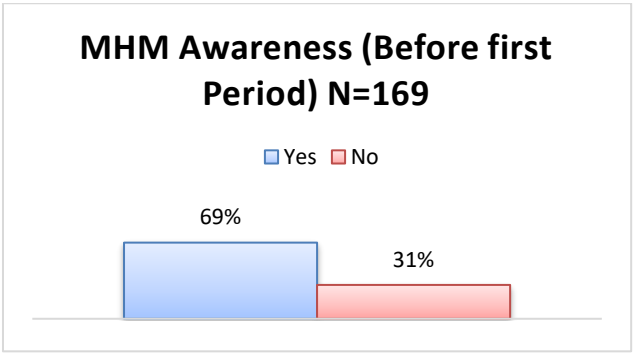


Findings 40: Mwansabombwe District waterborne diseases (N=386)

The most frequent disease in Mwansabombwe District is malaria (78%) and diarrhoea (47%).

5.1.7 Menstrual Health Management

Awareness of menstruation before menarche

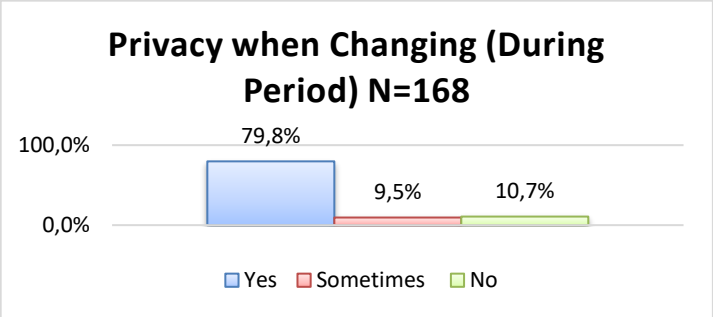


Findings 41: Mwansabombwe District MHM - Awareness before first menstruation (N = 169)

Majority (69%) of the females in Mwansabombwe were aware of MHM before their first period.

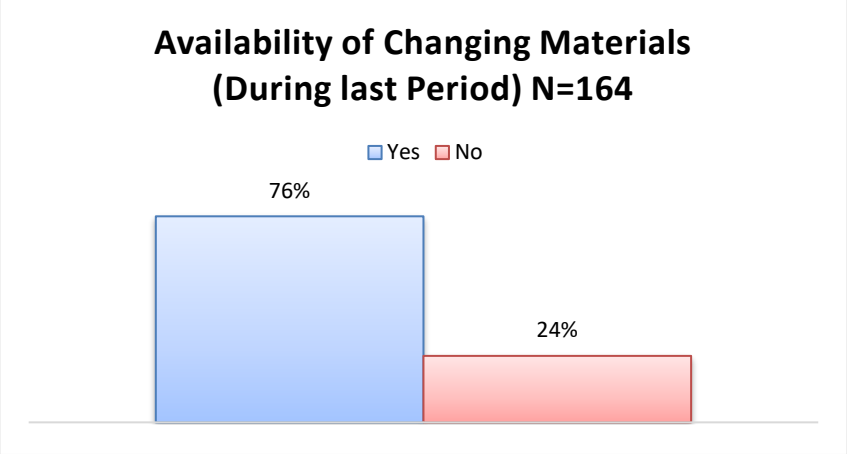
Privacy when changing

Majority had access to a private place to wash and change their sanitary towels at home.



Findings 42: Mwansabombwe District MHM - Privacy when changing (N=168)

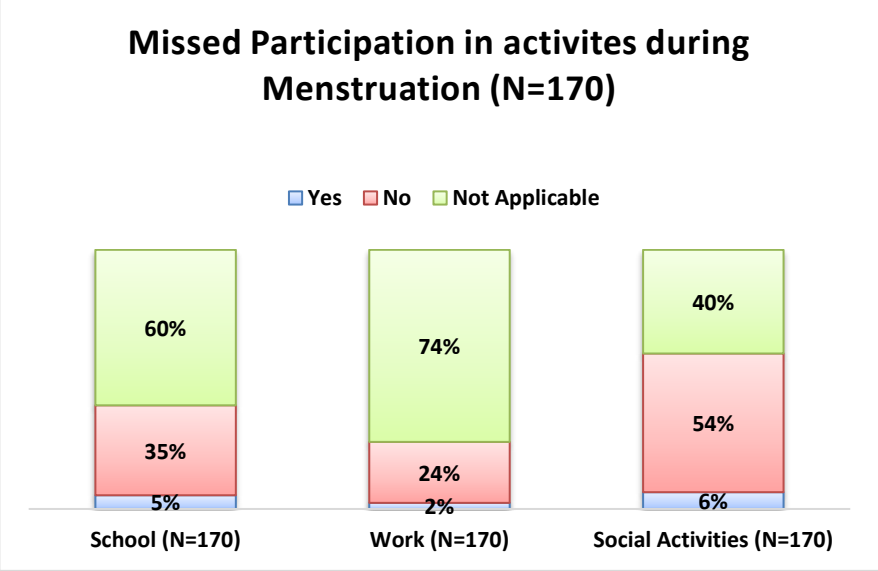
Use of menstrual materials



Majority had access to menstrual materials to capture and contain menstrual blood during their last period.

Findings 43: Mwansabombwe District MHM - Use of menstrual materials (N = 164)

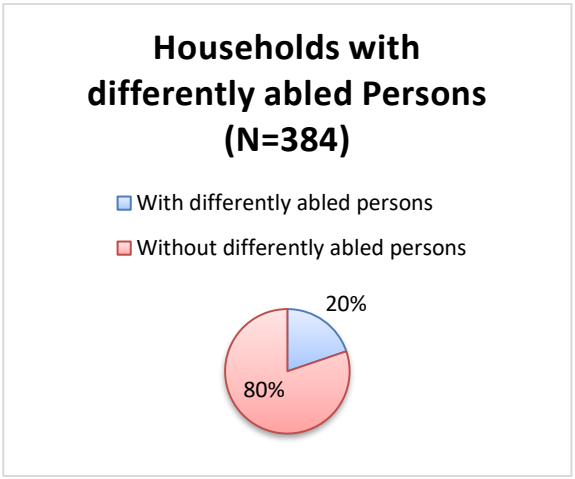
Participation in activities during menstruation



Participation in various activities during menstruation was observed to not be a challenge for majority of the females.

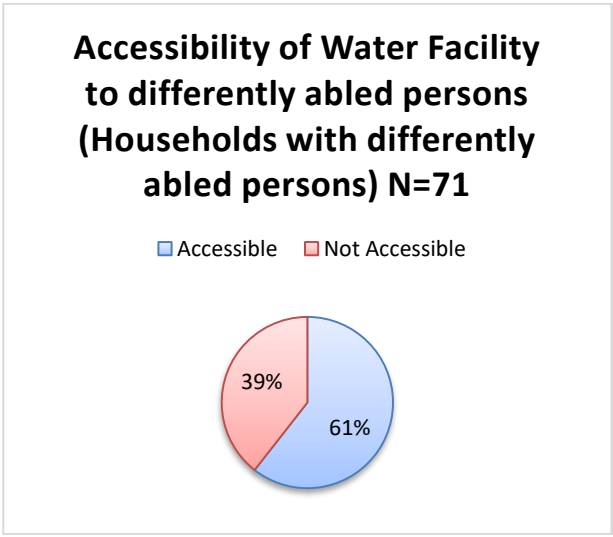
Findings 44: Mwansabombwe District MHM - Participation in activities during menstruation

5.1.8 Social Inclusion

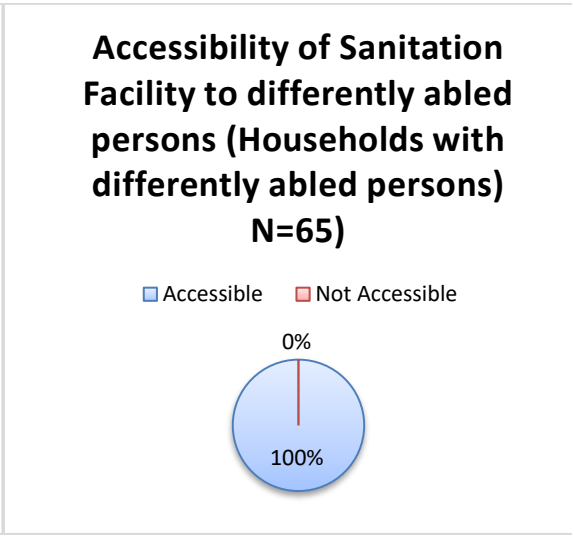


20% of households in Mwansabombwe District have persons with limited mobility living with them.

Findings 45: Mwansabombwe District Households living with differently abled persons (N = 384)



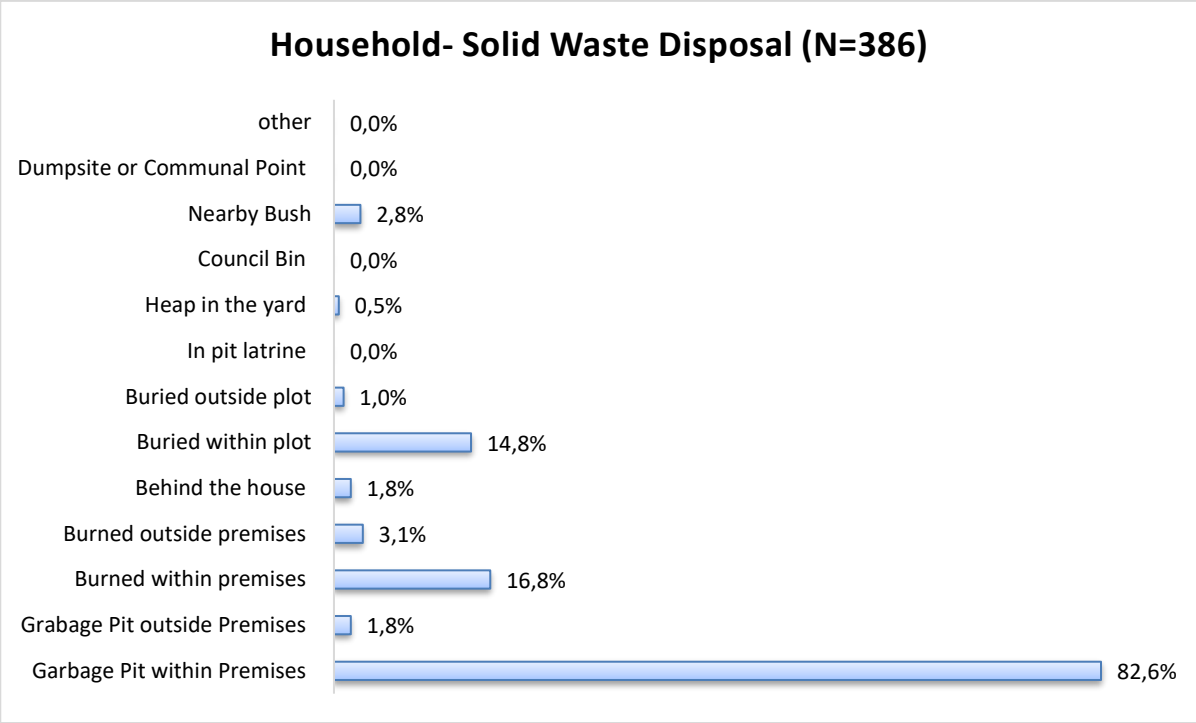
Findings 46: Mwansabombwe District households with water facilities accessible to differently abled persons (N = 71)



Findings 47: Mwansabombwe District households with sanitation facilities accessible to differently abled persons (N = 65)

Majority of the households with differently abled persons have water and sanitation facilities which are accessible to these persons. The main form of accessibility for the water facility and sanitation facility is a clear path without stairs/steps and free from obstruction

5.1.9 Solid Waste Management

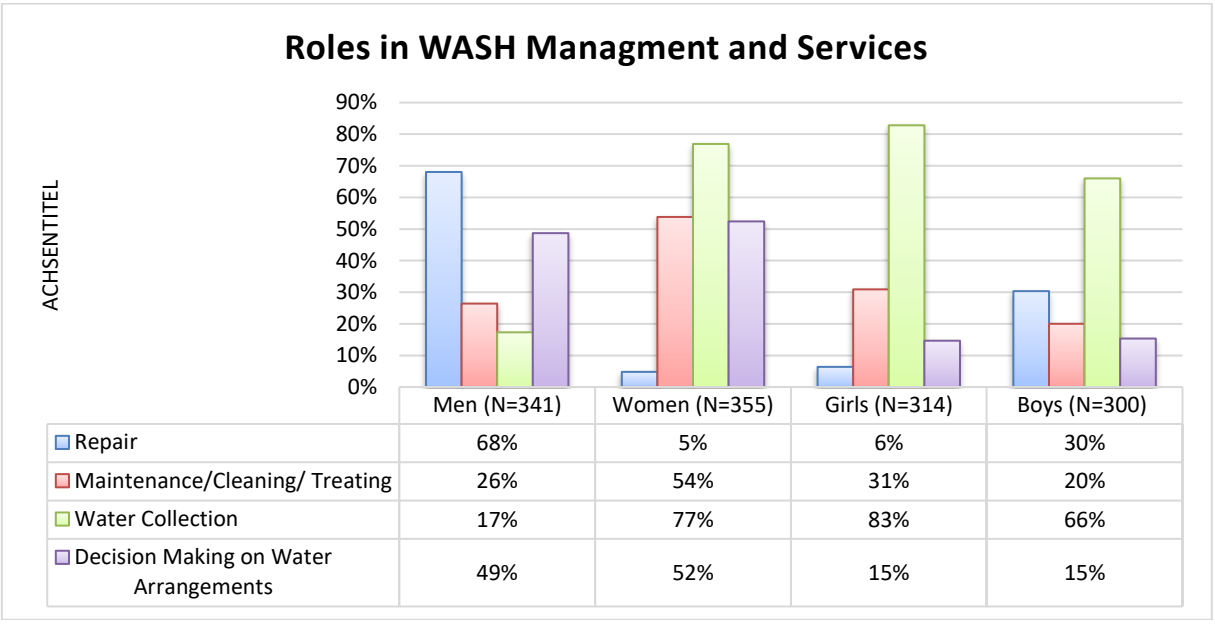


Findings 48: Mwansabombwe District solid waste disposal practices in households (N = 386)

Majority (82.6%) of households in Mwansabombwe District use garbage pits within their premises to dispose solid waste.

5.1.10 Gender Sensitivity Data and Information

Gender roles in WASH management and services

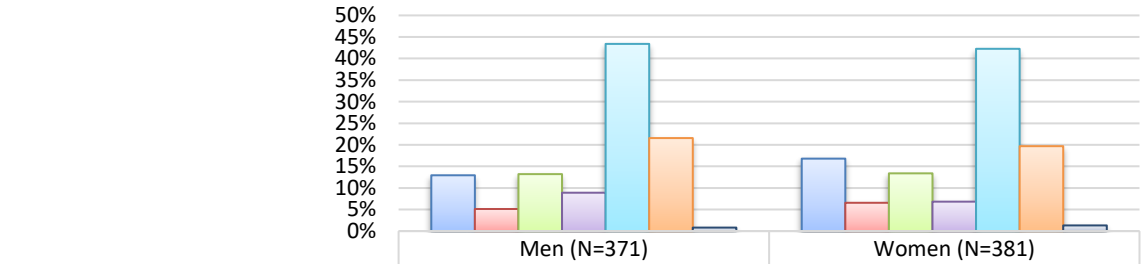


	Men (N=341)	Women (N=355)	Girls (N=314)	Boys (N=300)
Repair	68%	5%	6%	30%
Maintenance/Cleaning/ Treating	26%	54%	31%	20%
Water Collection	17%	77%	83%	66%
Decision Making on Water Arrangements	49%	52%	15%	15%

Findings 49: Mwansabombwe District Gender Roles in WASH Management and Services

The men's main role in WASH was observed as to make repairs and decision-making while for the women it was mainly water collection, maintenance and decision making. While as for boys and girls, their main role in WASH was water collection.

Barriers in community leadership participation



	Men (N=371)	Women (N=381)
Structural Barriers (lack access to networks or structures)	13%	17%
Institutional Mindset (type of gender bias and stereotyping)	5%	7%
Individual Mindset (thoughts and behaviours)	13%	13%
Lifestyle Choices (work-life balance, family choices)	9%	7%
No Barriers	43%	42%
I don't Know	22%	20%
Other	1%	1%

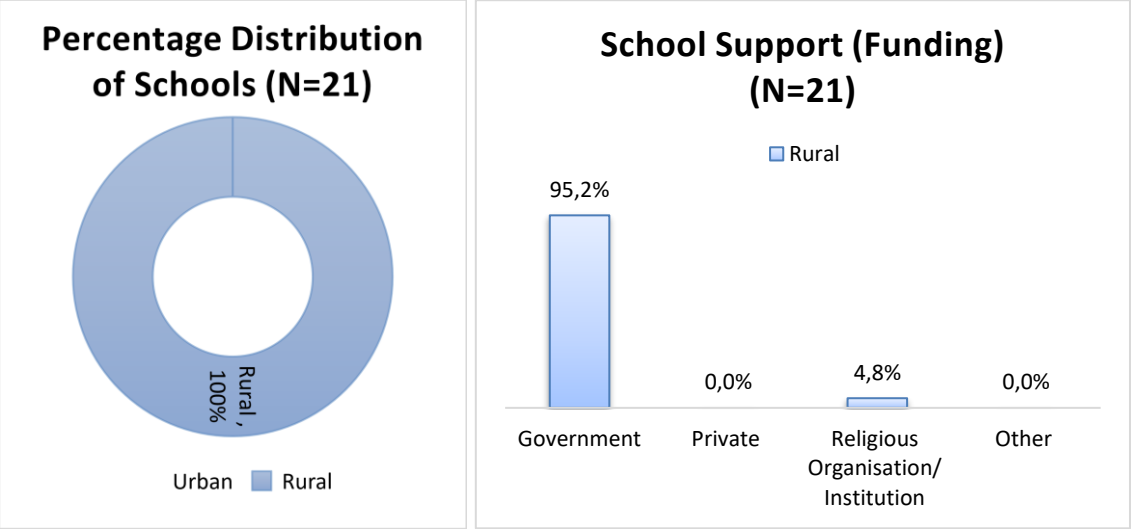
Findings 50: Mwansabombwe District Barriers in Community Leadership Participation

Men are most likely to not experience any barriers to community leadership participation in Mwansabombwe District which appears to be the same case for women. Out of the proportion that experienced barriers to community leadership participation, majority of the men and women indicated to have experienced barriers regarding either structural barriers (13%) or institutional mindset (13%).

5.2 Schools

5.2.1 School Demographics & Electricity Connectivity

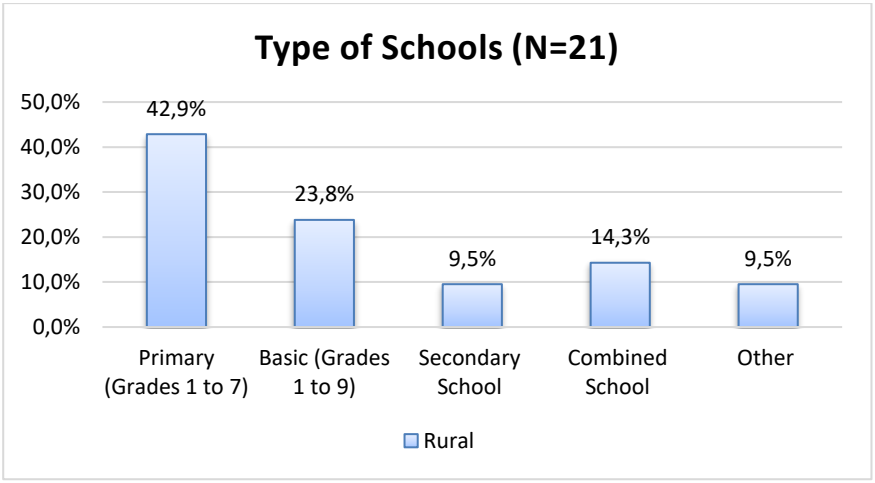
Average distribution of schools in Mwansabombwe



Findings 51: Mwansabombwe District distribution of schools (N=21)

Like the households, all the schools interviewed were rural schools, This generally represents the distribution of schools in Mwansabombwe District as it is still primarily rural. From the interviewed schools, majority were Government (95%).

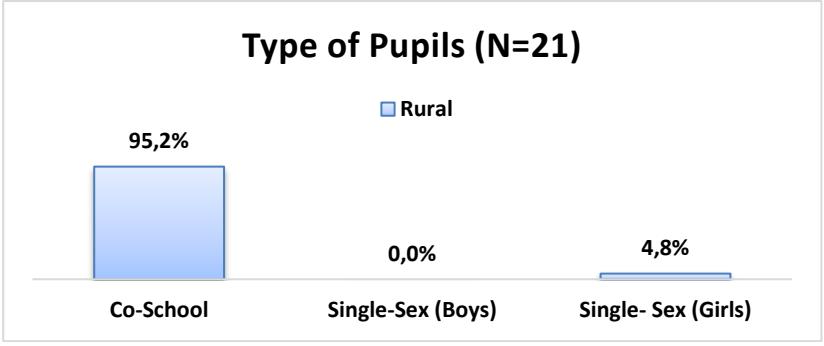
Types of schools



From the interviewed schools, majority were primary (42.9%) followed by basic (23.8%). Those that fall in the other category included baby class and college

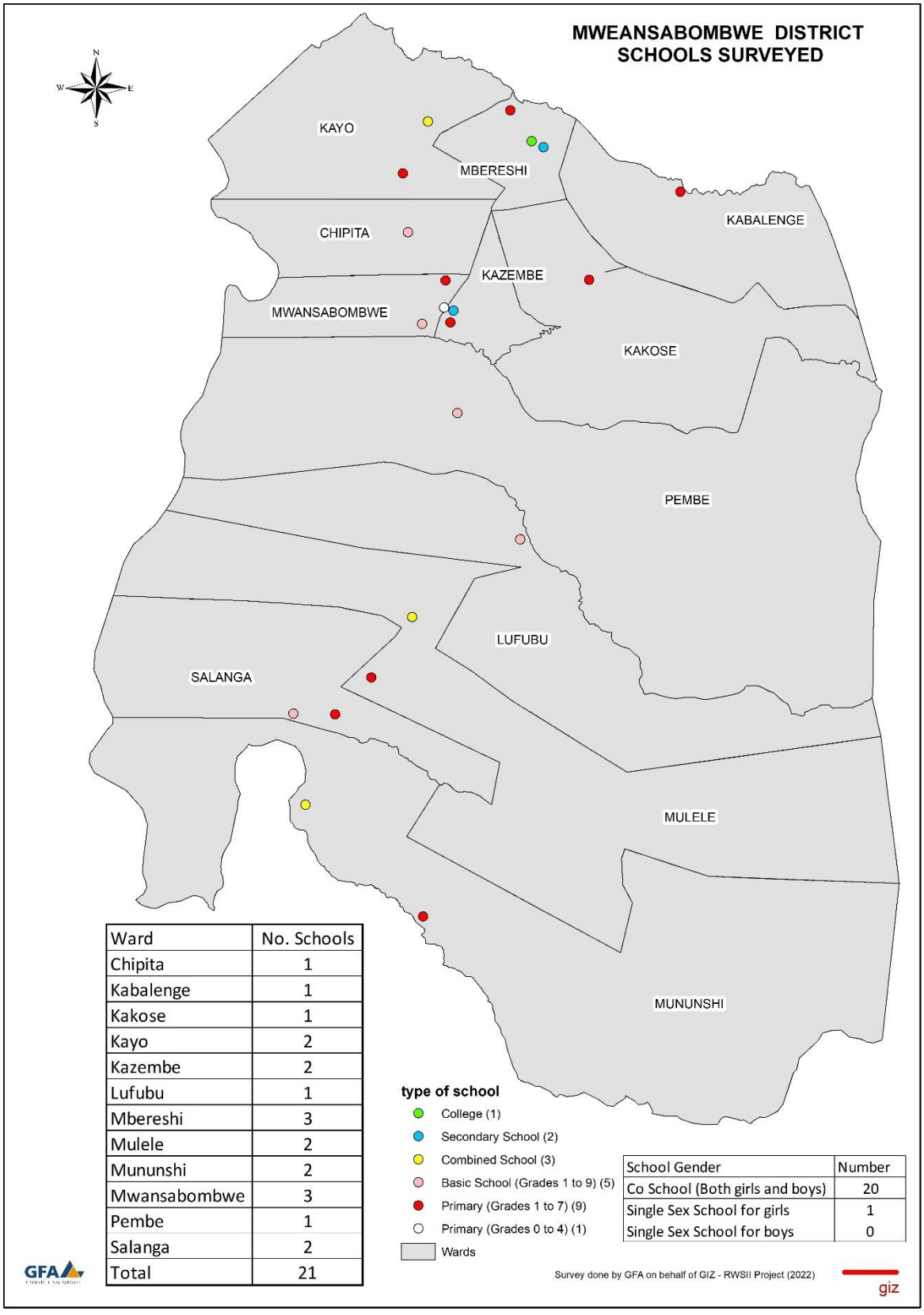
Findings 52: Mwansabombwe District type of schools (N=21)

Type of pupils



From the interviewed schools, majority were co-school (95.2%) while the rest single sexed girls school (4.8%).

Findings 53: Mwansabombwe District schools' type of pupils (N=21)



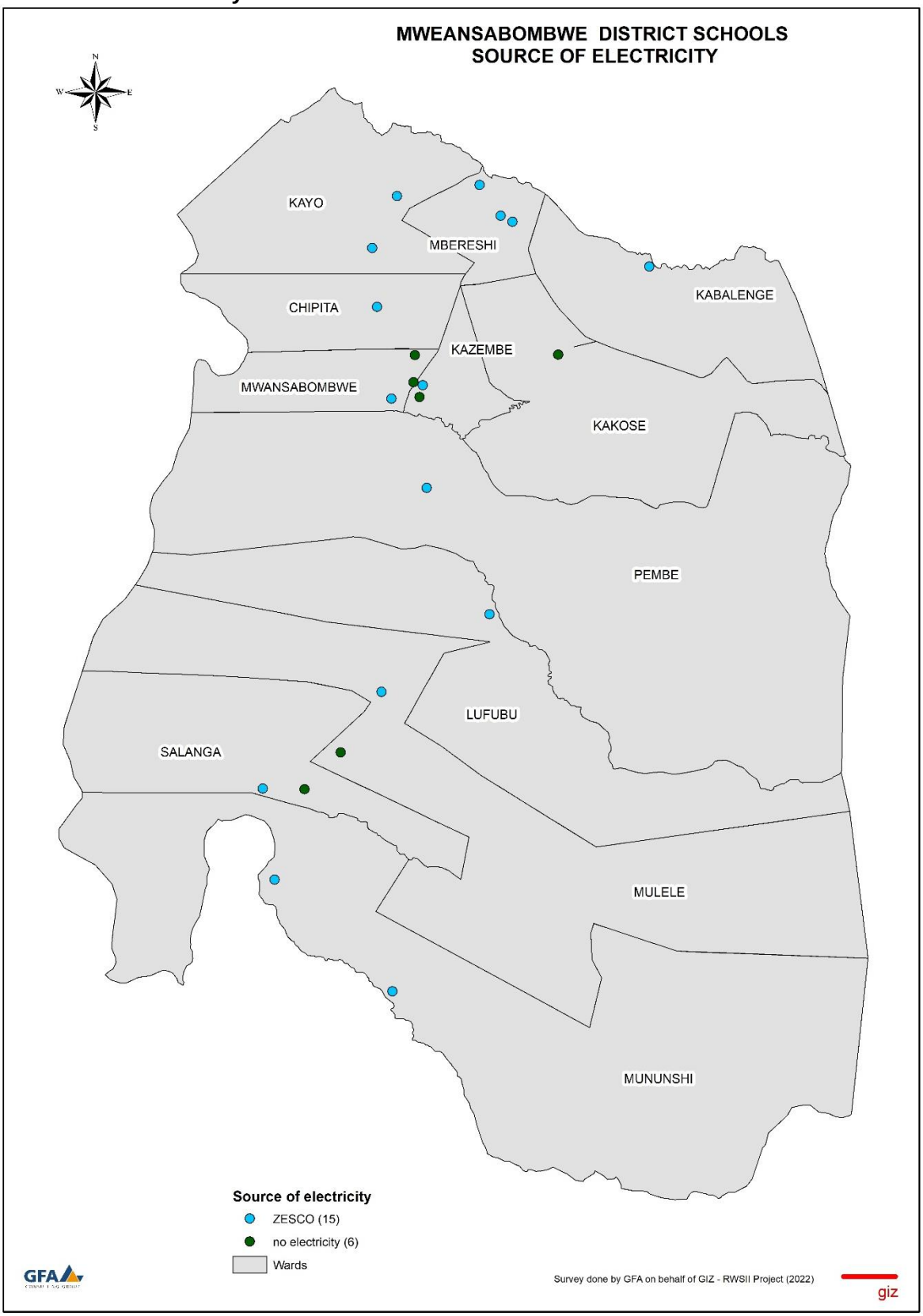
Ward	No. Schools
Chipita	1
Kabalenge	1
Kakose	1
Kayo	2
Kazembe	2
Lufubu	1
Mbereshi	3
Mulele	2
Mununshi	2
Mwansabombwe	3
Pembe	1
Salanga	2
Total	21

School Gender	Number
Co School (Both girls and boys)	20
Single Sex School for girls	1
Single Sex School for boys	0

Findings 54: Mwansabombwe District – Distribution of schools

The majority of the schools in Mwansabombwe are primary and basic schools. A total of 21 schools were surveyed in the district

Connection to electricity

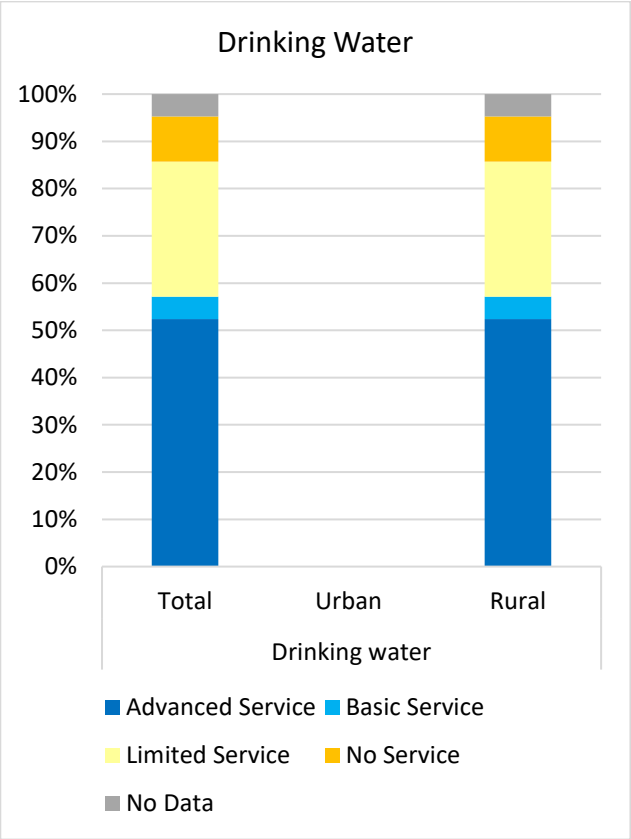


Findings 55: Mwansabombwe District - connection to electricity in schools

Majority of the schools (71%) are connected to electricity which is primarily hydropower under ZESCO. When asked if the schools without electricity were willing to connect, all schools indicated that they were willing to connect to electricity.

5.2.2 Water Supply Services

Mwansabombwe JMP ladder for drinking water services



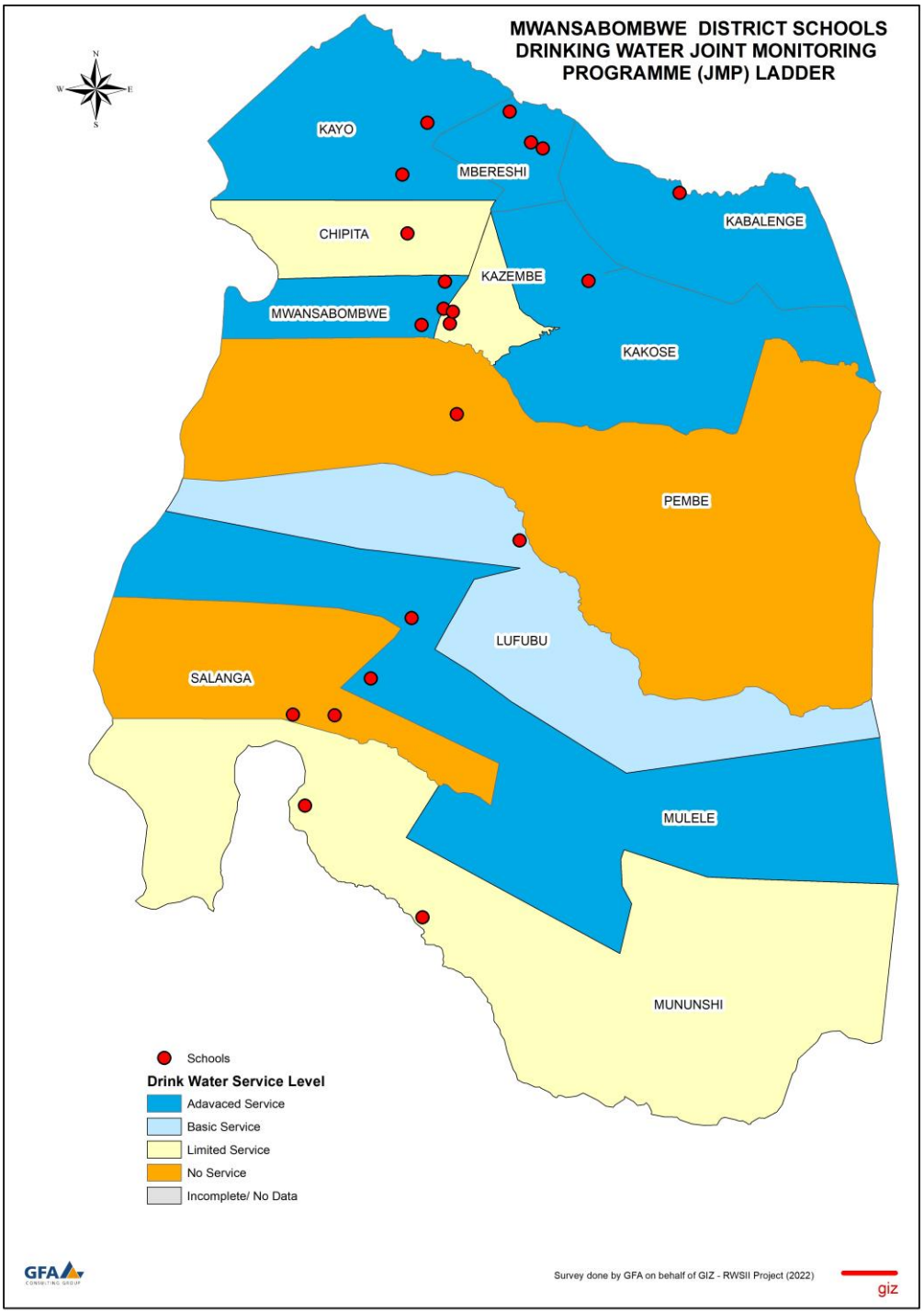
Findings 56: Mwansabombwe District schools JMP for drinking water services

Mwansabombwe	Drinking water		
	Total	Urban	Rural
Advanced Service	52.38%	-	52.38%
Basic Service	4.76%	-	4.76%
Limited Service	28.57%	-	28.57%
No Service	9.52%	-	9.52%
No Data	4.76%	-	4.76%
Total	**100.00%**	**0.00%**	**100.00%**

The proportion of schools in Mwansabombwe District using advanced services is 52.38%.

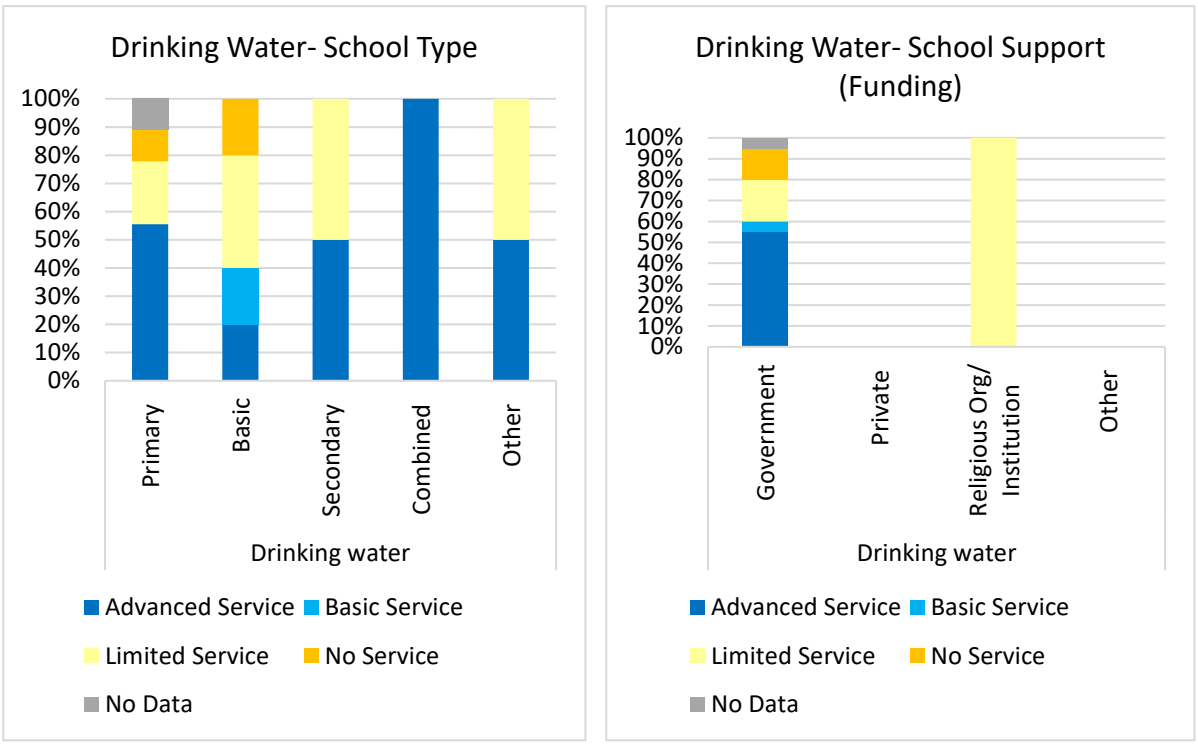
In 2022, out of 35 schools in Mwansabombwe District, 15 schools lacked advanced services, including 2 schools with basic services, 10 schools with limited services, 3 schools having no water source or having access to an unimproved water source.

Please refer to Table 5 for the definition and clarifications on some of the drinking water terms.



Findings 57: Mwansabombwe District ward level JMP for drinking water services in schools

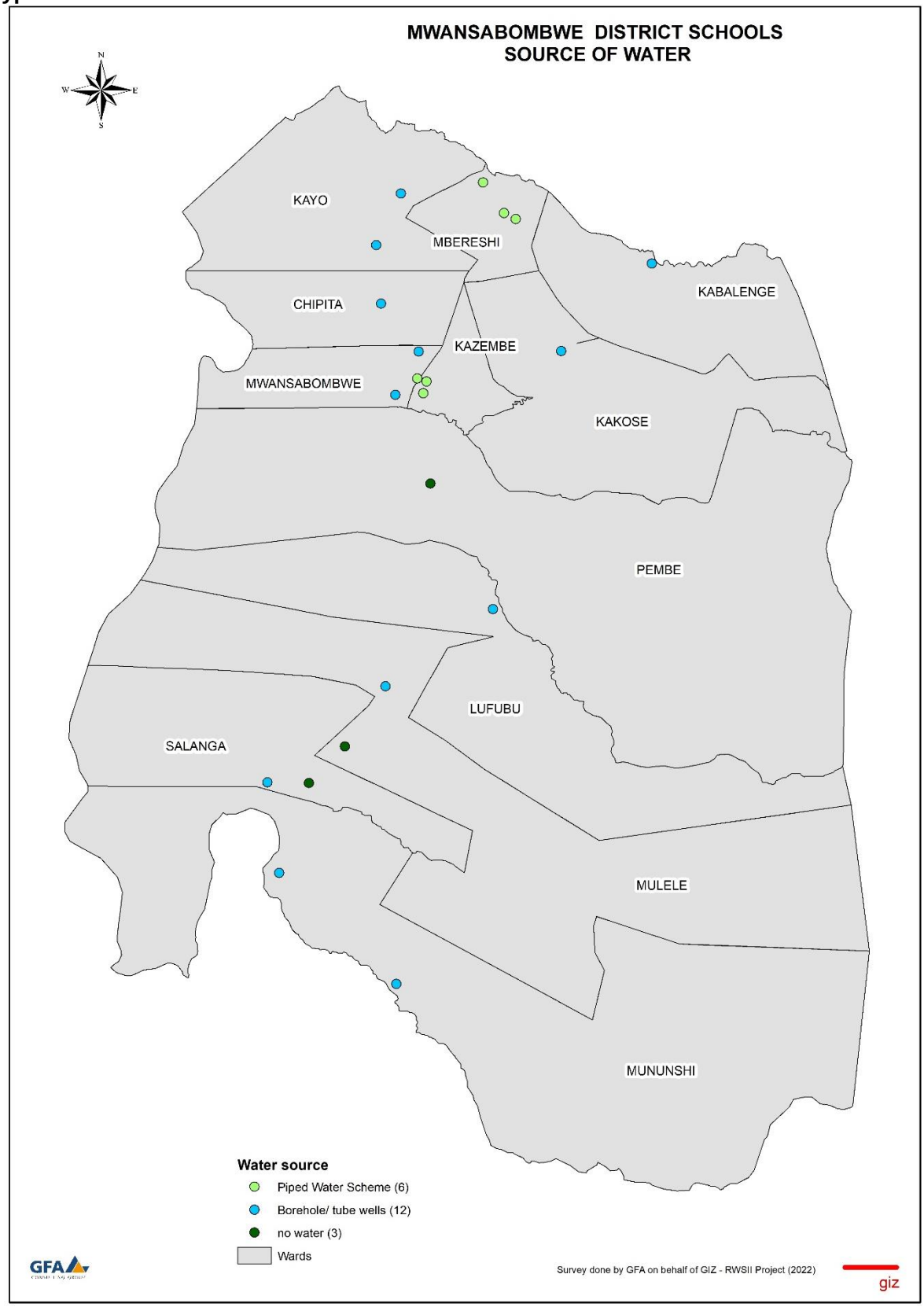
Findings 57 shows JMP indicators at the ward level, out of the 12 wards in Mwansabombwe District, 6 wards, namely Kayo, Mbereshi, Kakose, Kabalenge, Mwansabombwe and Mulele have majority of its schools having access to advanced service. With one ward (Lufubu) having majority with basic, three wards (Chipita, Kazembe and Mununshi) having majority with limited service and two wards (Pembe and Salanga) having majority with no service which relates what is being reported in Findings 56.



Findings 58: Mwansabombwe District JMP for school - drinking water services by school type and funder

All types of school have access some to advanced service except combined school which have all having advanced while some primary and basic schools have no service. All schools funded by the government have advanced service in drinking water unlike those funded by religious organisations or institutions which all have limited service.

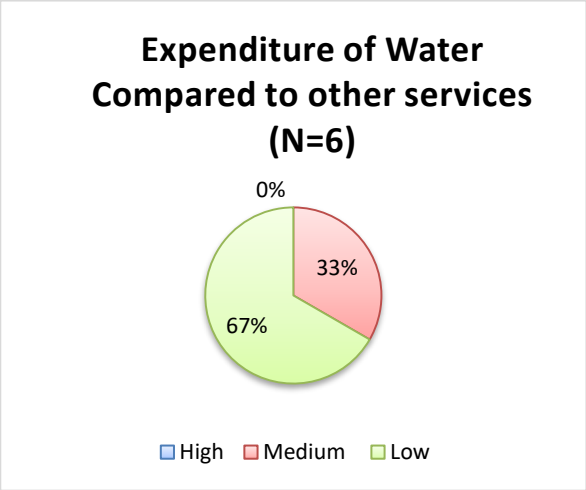
Type of water source



Findings 59: Mwansabombwe District Schools -Type of Water Sources/ Access

From Findings 59, in general, out of the 86% of schools with access to water the main source of water for schools was Boreholes (67%) and the rest had piped water schemes.

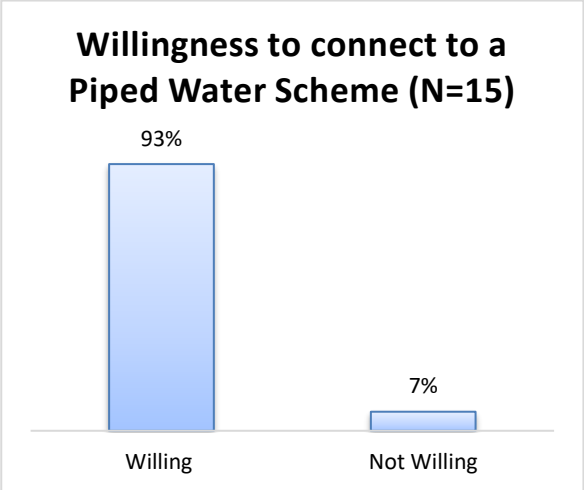
Affordability of the water service



Findings 60: Mwansabombwe District schools - expenditure of water compared to other services (N=6)

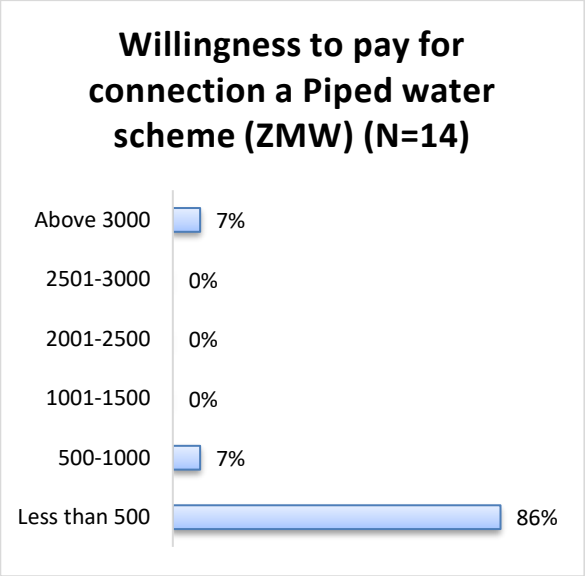
Majority of the schools thought water services were cheap (67) while 33% perceived it to be expensive.

Willingness to connect to a piped water scheme



Findings 61: Mwansabombwe District schools - willingness to connect to a piped water scheme (N=15)

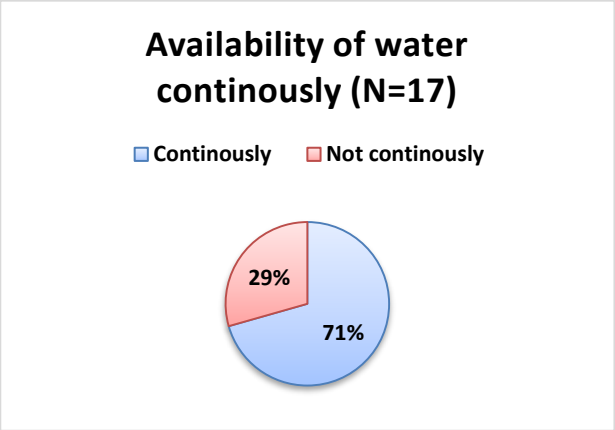
93% of the schools not connected to a piped water scheme were willing to connect to a piped water scheme.



Findings 62: Mwansabombwe District schools - willingness to pay for connection to LpWSC and piped water scheme (N=14)

However, most of the schools are willing to pay less than 500 ZMW or less in connection fees for a piped water scheme.

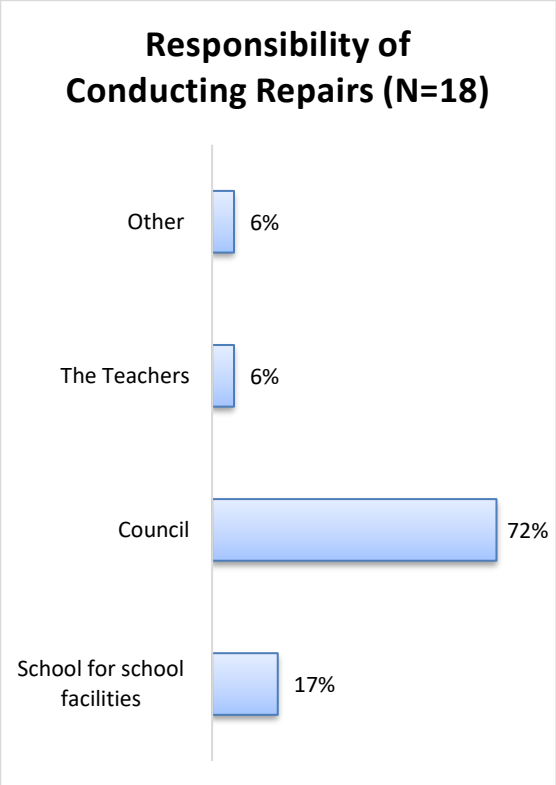
Water availability



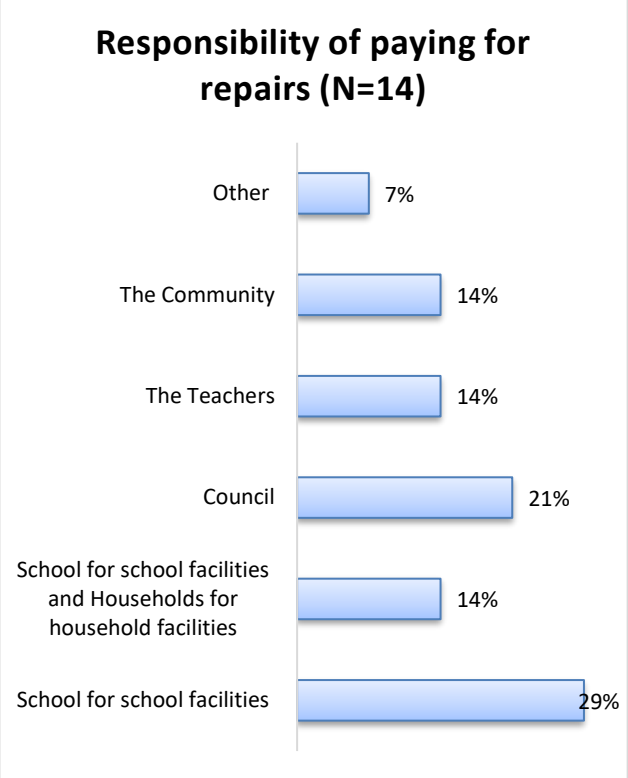
Majority of the schools (71%) indicated water to be continuously available.

Findings 63: Mwansabombwe District schools availability of water (N=17)

Maintenance of water services

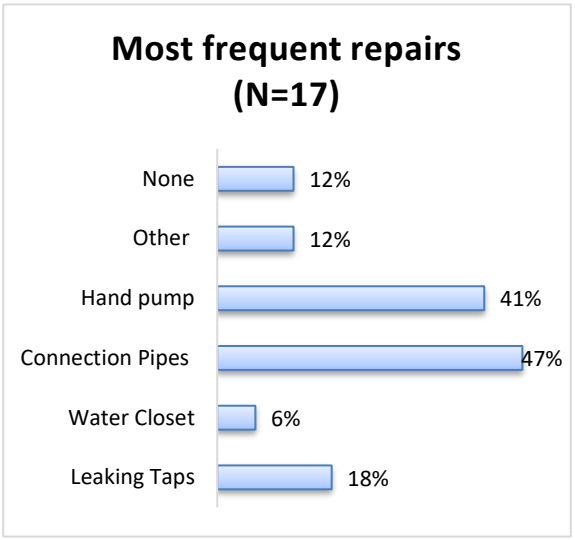


Findings 64: Mwansabombwe District responsibility for maintenance/ repair works on the water source for schools (N=18)

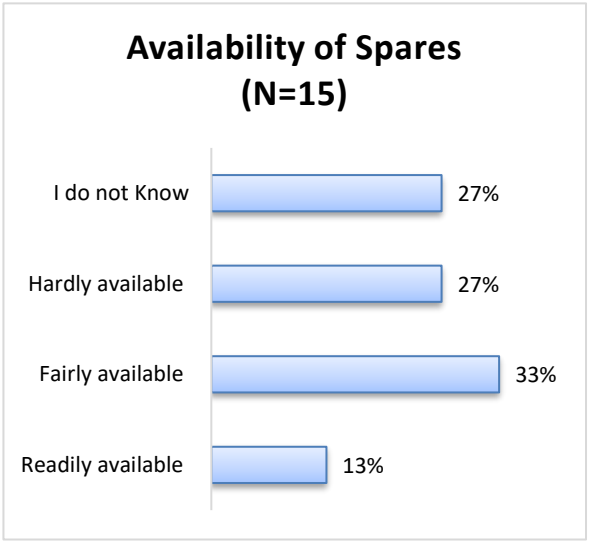


Findings 65: Mwansabombwe District responsibility of paying for repair works on the water source (N=14)

The responsibility to conduct maintenance / repair works lies with the council (72%) as for paying for these works it is the school (29%) that is having access to the water source.



Findings 66: Mwansabombwe District school water service frequent repairs (N=17)



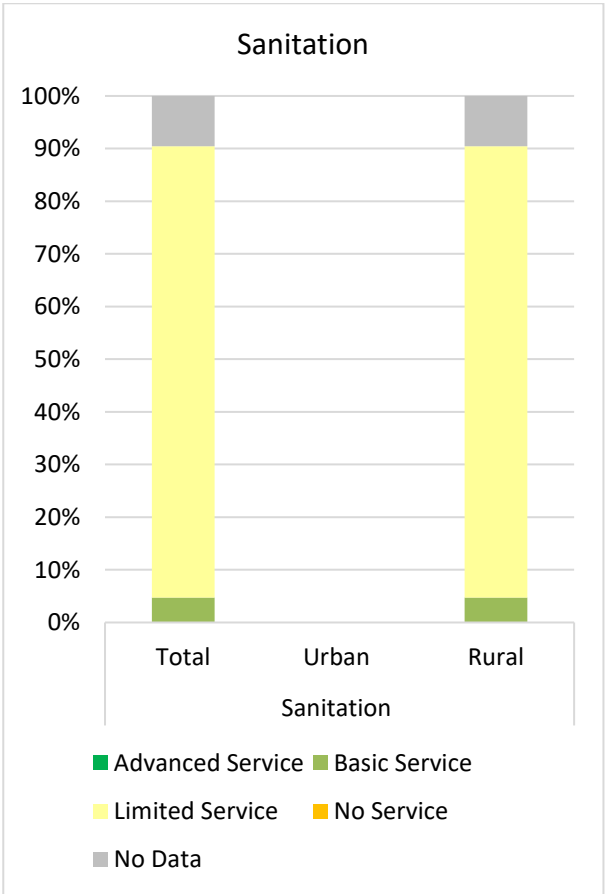
Findings 67: Mwansabombwe District school availability of spares (N=15)

The most frequent repairs done are connection pipes (47%) and hand pumps (41%).

33% of the schools noted that spares were fairly available, 27%, hardly available and 13% indicated that spares were readily available.

5.2.3 Sanitation Services

Mwansabombwe JMP ladder for sanitation services



Mwansabombwe	Sanitation		
	Total	Urban	Rural
Advanced Service	0.00%	-	0.00%
Basic Service	4.76%	-	4.76%
Limited Service	85.71%	-	85.71%
No Service	0.00%	-	0.00%
No Data	9.52%	-	9.52%
Total	**100.00%**	**0.00%**	**100.00%**

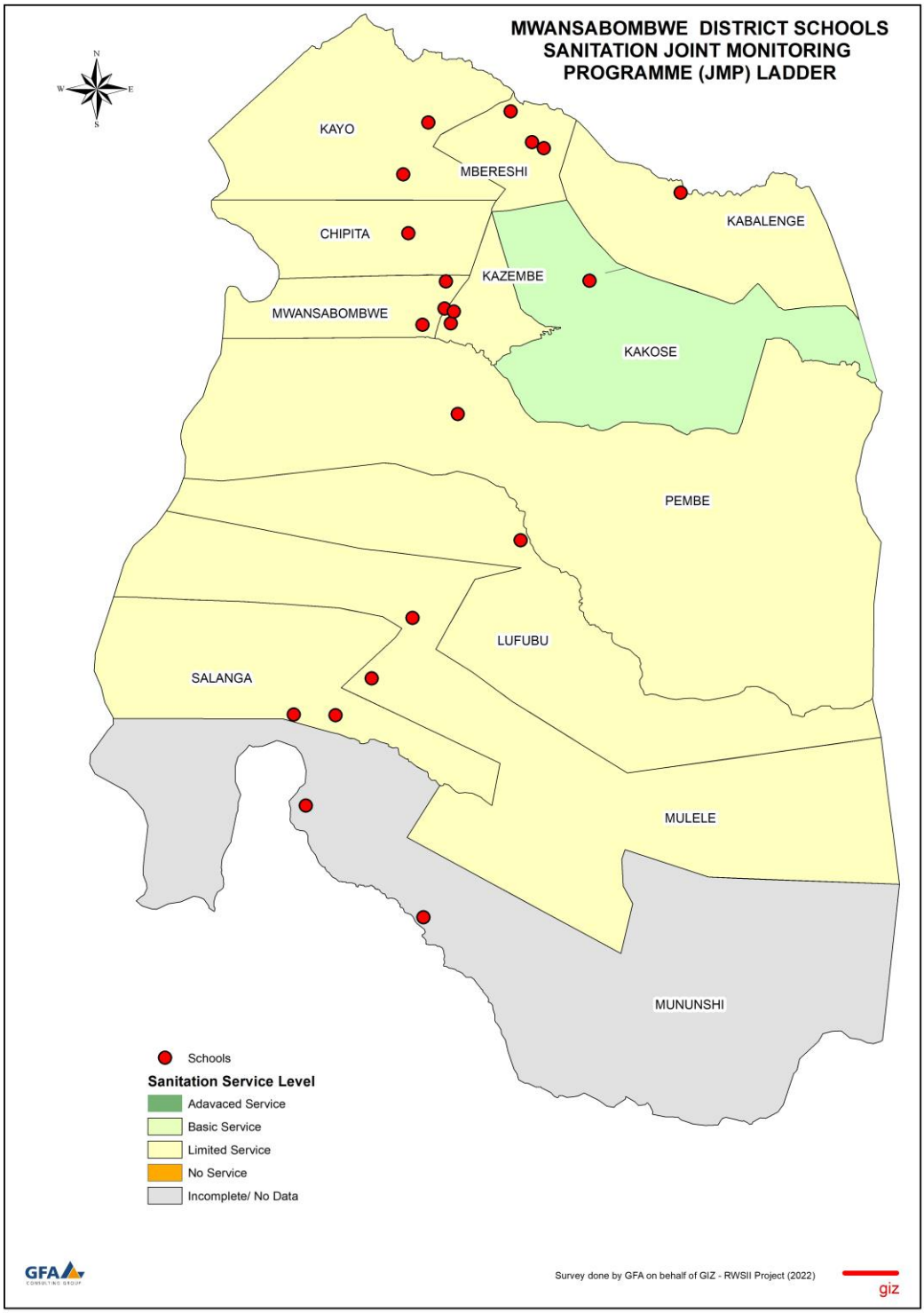
The proportion of schools in Mwansabombwe District using advanced services is 0.

In 2022, out of an estimated 35 schools in Mwansabombwe District, 35 schools lacked advanced sanitation services including 2 schools with basic services, 33 schools with limited services.

Most schools Mwansabombwe District fall in the category of limited service because of the toilet to pupil ratio which was averaging at 103 for boys and 118 for girls.

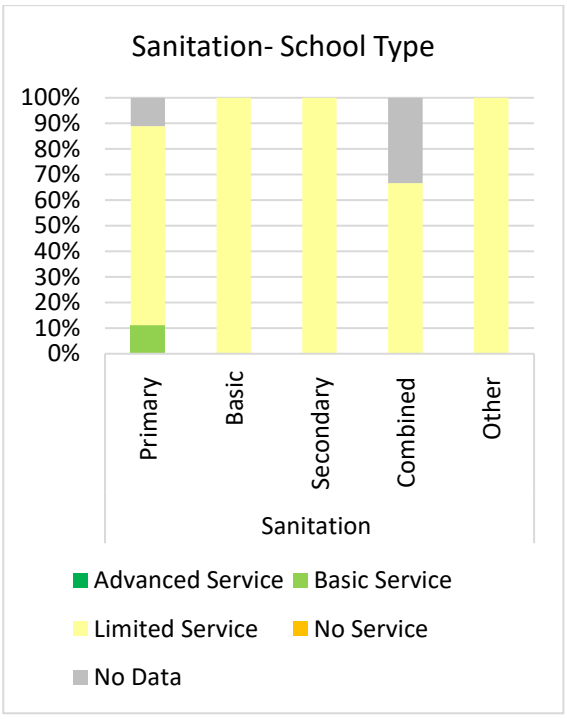
Please refer to Table 6 for the definition and clarifications on some of the sanitation terms.

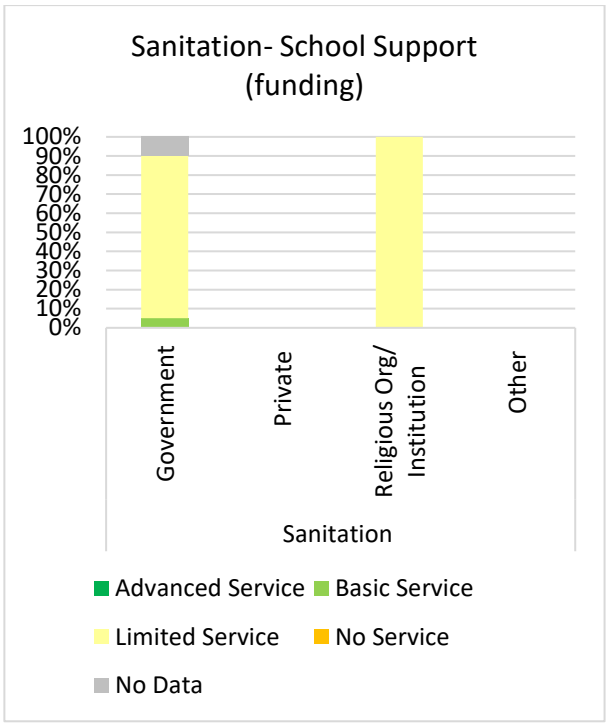
Findings 68: Mwansabombwe schools JMP ladder for sanitation



Findings 69: Mwansabombwe District Ward level JMP for School Sanitation Services

Findings 69 shows JMP indicators at the ward level, out of the 12 wards in Mwansabombwe District that were represented, none have majority of its schools having access to advanced service. About 10 wards have majority having limited service and 1 with basic service. The data from schools in Mununshi Ward was incomplete to analyse according to the combination of indicators for the service level.

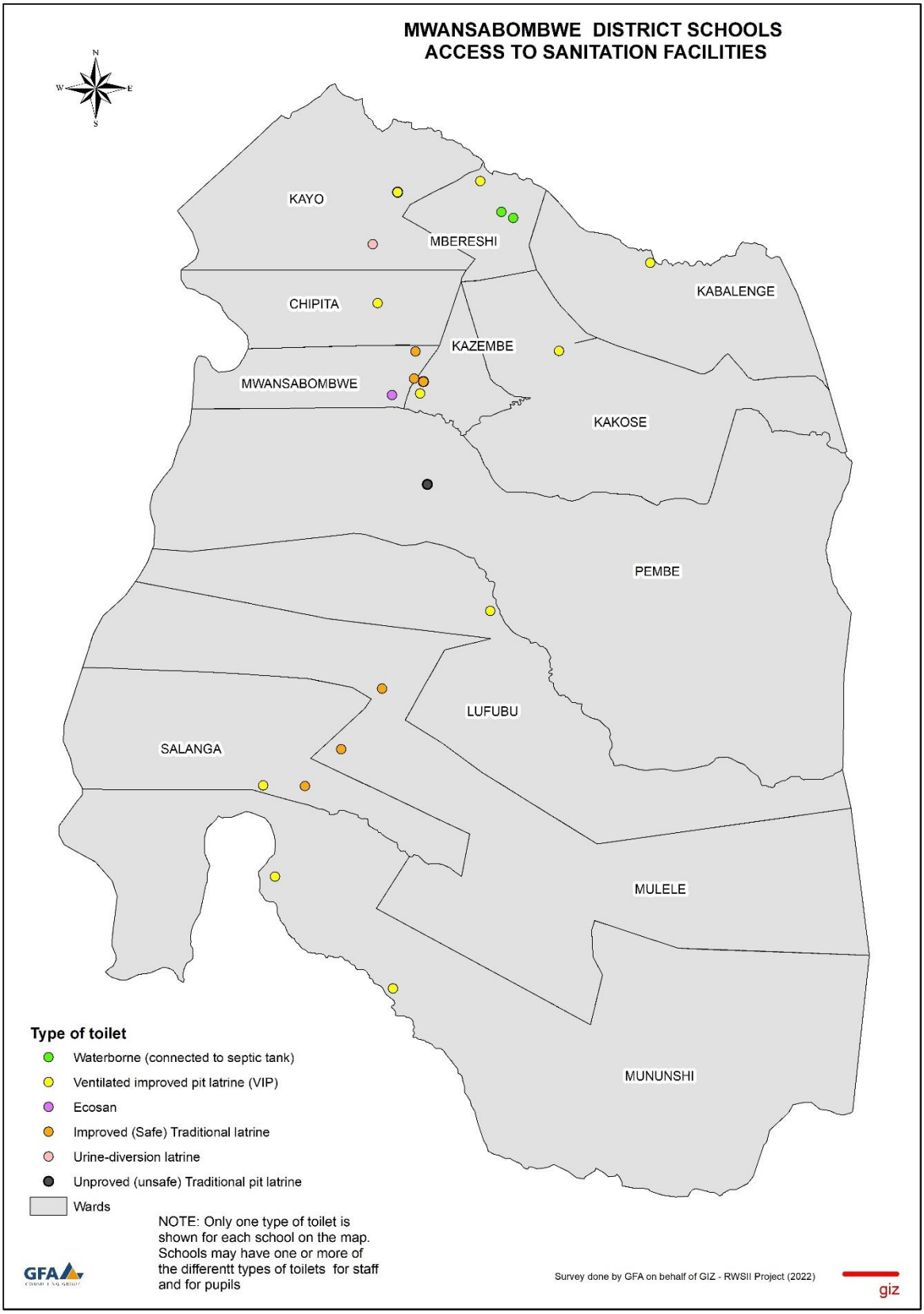




Findings 70: Mwansabombwe District JMP for school sanitation services by school type and funder

The primary schools are the only type that have representation of access to basic sanitation while the rest have limited sanitation services. When it comes to school support, basic service is only in the government funded schools.

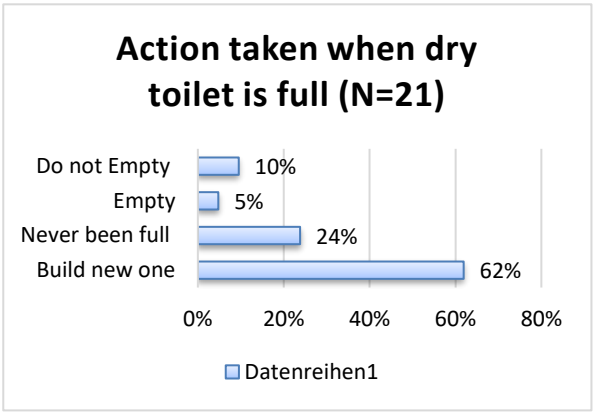
Access to sanitation facilities



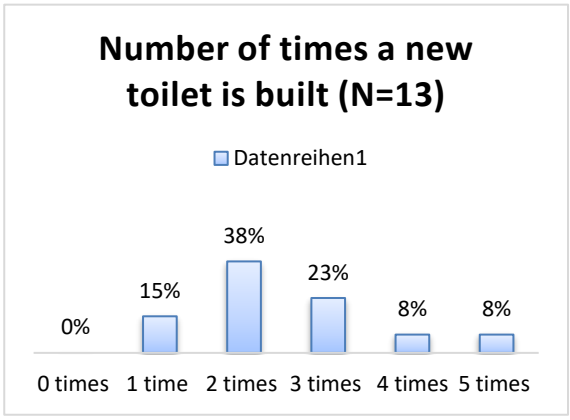
Findings 71: Map of Mwansabombwe District schools - access to sanitation facilities

From Findings 71, in general, the main type of sanitation for schools was ventilated improved pit latrine (VIP), seconded by improved safe traditional.

Emptying practices



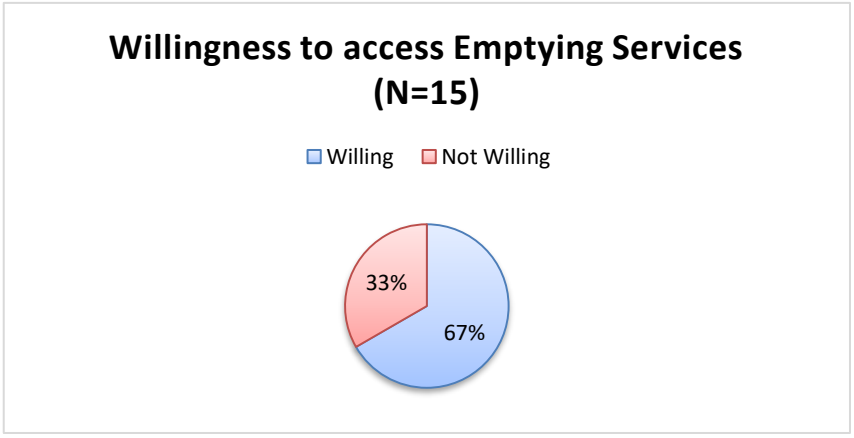
Findings 72: Mwansabombwe District school toilet emptying practices (N =21)



Findings 73: Mwansabombwe District school - number of times a new toilet is built (N=13)

Like the households, school toilet emptying practices are mainly building a new one once it is full (62%) while for the other schools their toilets haven't been full (24%). 5% recorded emptying which is manual Emptying using a bucket (often emptied within a year and was last emptied 1-2 years ago). It's a VIP toilet. This information is cardinal in FSM planning.

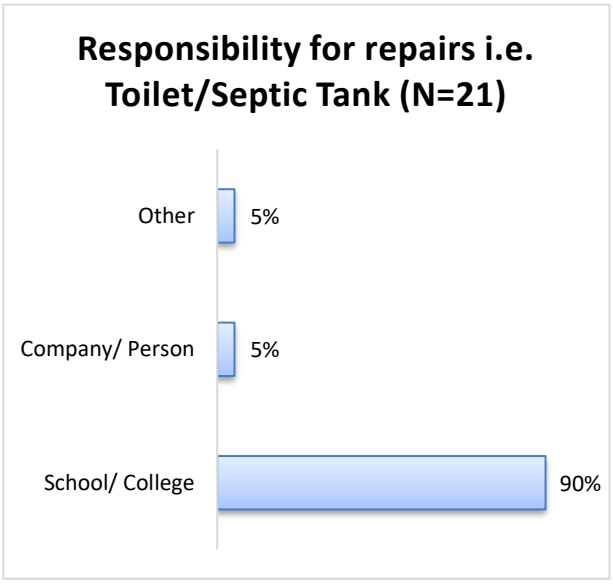
Most of the schools which had built a new toilet before, did this two times (38%) and three times (23%).



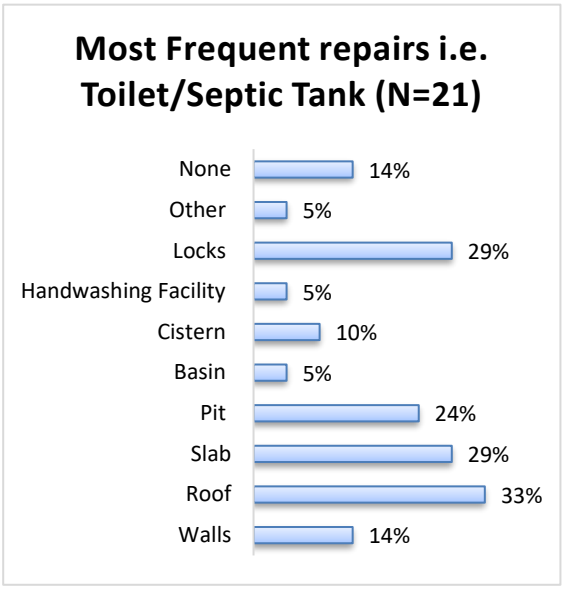
Findings 74: Mwansabombwe District School willingness to access emptying services (N=15)

Majority of the schools are willing to access emptying services (67%) while there is still a reputable proportion of schools not willing to access this service.

Maintenance of sanitation facilities



Findings 75: Mwansabombwe District schools – responsibility for repair of toilet (N=21)

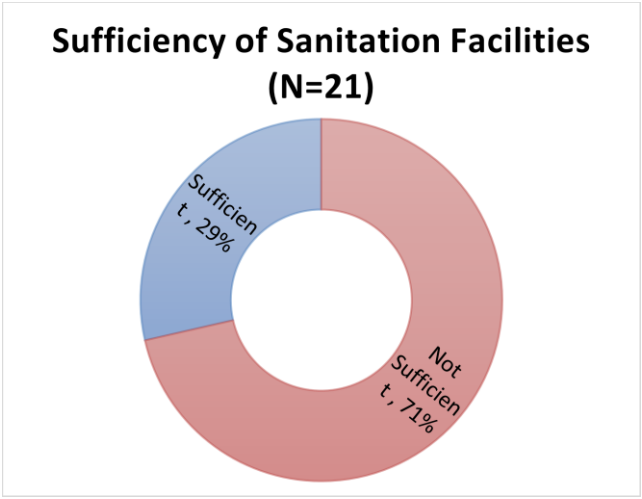


Findings 76: Mwansabombwe District schools - most frequent toilet repairs (N=21)

In general, the school mostly takes responsibility of repairing the toilets (90%).

The most frequent repairs on the toilets are the roof (33%), slab and locks (29%).

Sufficiency of toilets

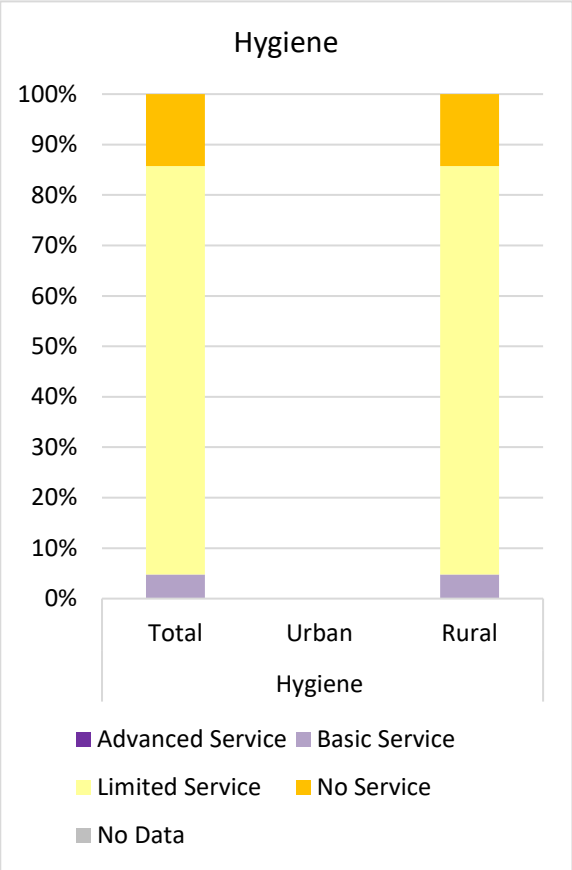


Findings 77: Mwansabombwe District schools - sufficiency of sanitation facilities (N=21)

71% of the schools in Mwansabombwe have insufficient and the main reason was the toilets are not enough to cater the number of pupils or staff at the schools hence resulting to a huger toilet to pupil ratio.

5.2.4 Hygiene Services

Mwansabombwe JMP ladder for hygiene services



Findings 78: Mwansabombwe District schools JMP ladder for hygiene services

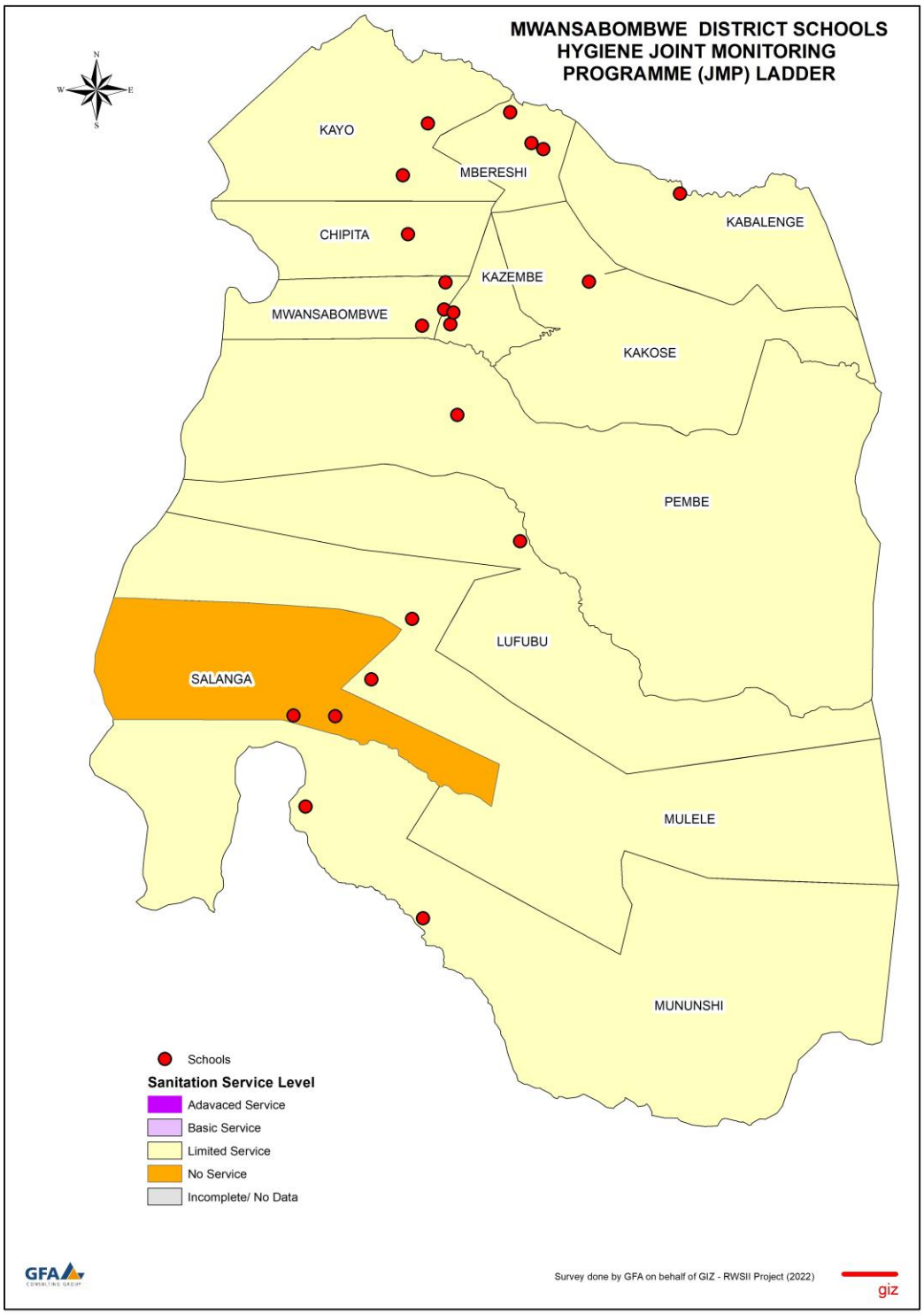
Mwansabombwe	Hygiene		
	Total	Urban	Rural
Advanced Service	0.00%	-	0.00%
Basic Service	4.76%	-	4.76%
Limited Service	80.95%	-	80.95%
No Service	14.29%	-	14.29%
No Data	0.00%	-	0.00%
Total	**100.00%**	**0.00%**	**100.00%**

The proportion of schools in Mwansabombwe District 0% were having advanced hygiene service.

In 2022, out of 35 schools in Mwansabombwe District, 35 schools lacked advanced services including 2 with basic service, 28 with limited service and 5 with no handwashing facilities at all.

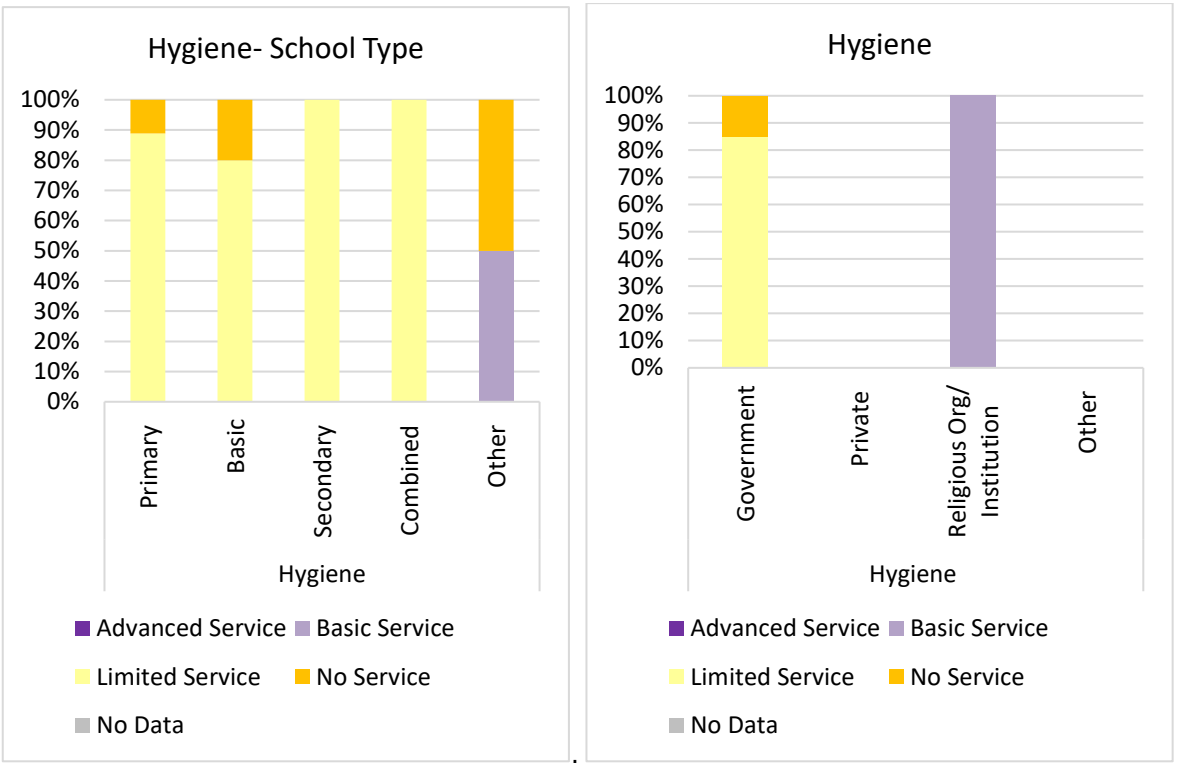
Most schools Mwansabombwe District failed to qualify for advanced service mainly due to the handwashing facility to pupil which was averaging at 189

Please refer to Table 7 for the definition and clarifications on some of the hygiene terms.



Findings 79: Mwansabombwe District ward level JMP for school hygiene services

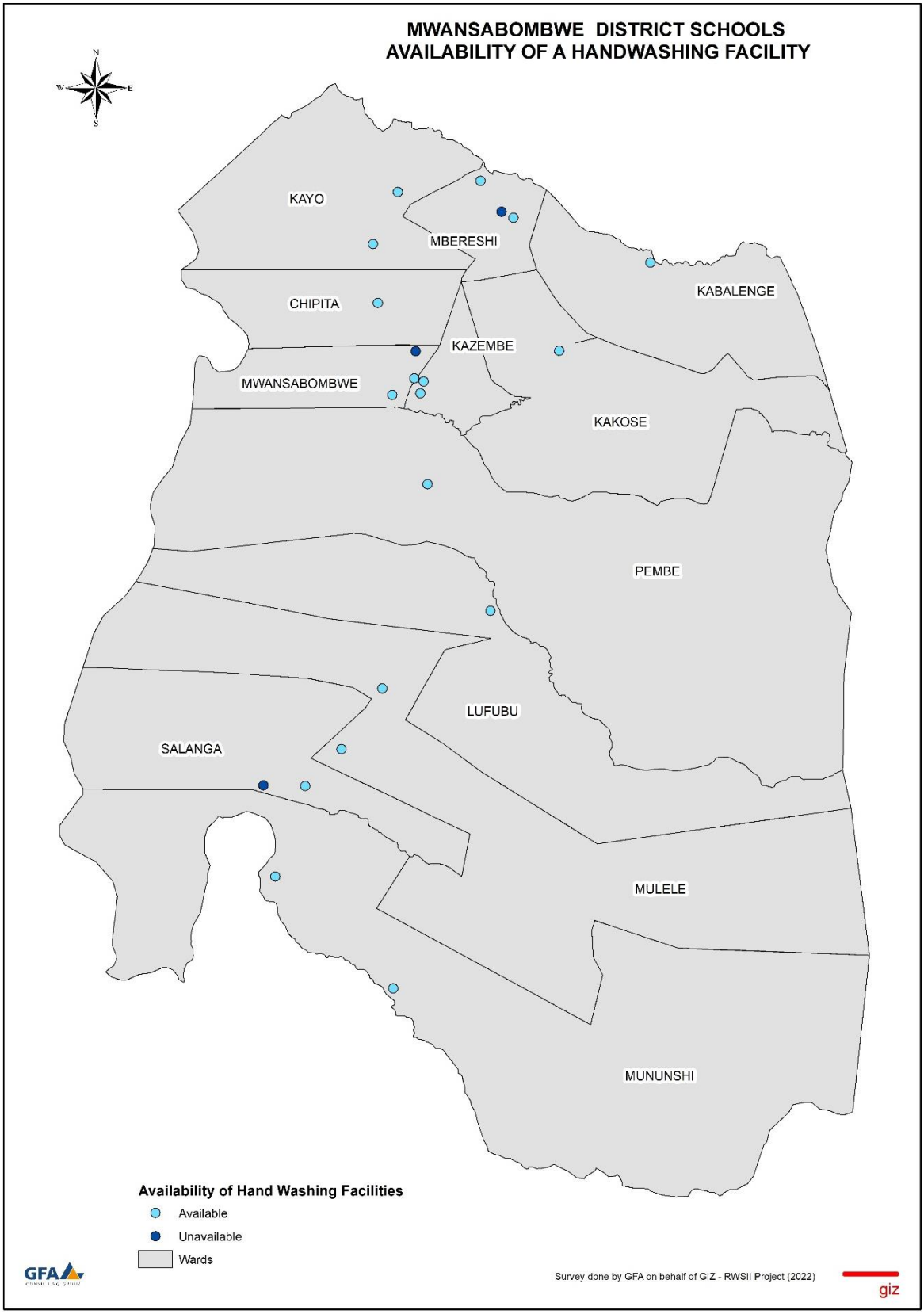
Findings 79 shows JMP indicators at the ward level. Out of the 12 wards, there is no ward with majority of its schools having basic service. only 1ward, namely salanga has majority of its schools that did not have access to hygiene services. The rest of the 11 wards in Mwansabombwe District have school with access to limited hygiene services.



Findings 80: Mwansabombwe District JMP for school hygiene services by school type and funder

Majority of the schools have access to limited hygiene, while basic hygiene is only in the other category which contains baby class and college. By funding type, all under religious organisation/institution have basic hygiene while there are still some government schools without hygiene services.

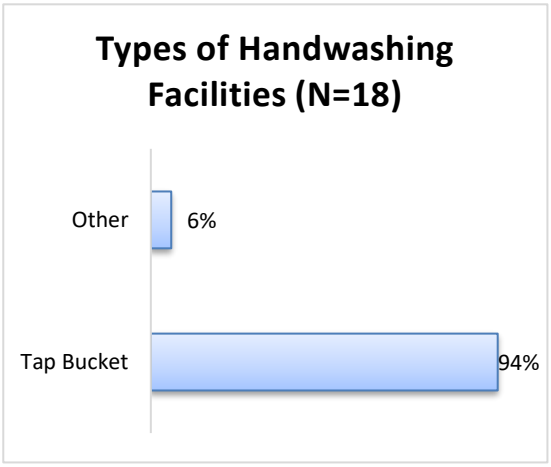
Access to hygiene facilities



Findings 81: Map of Mwansabombwe district schools - access to hygiene facilities

From Findings 81**,** it is observed that majority have access to handwashing facilities and only 14% do not.

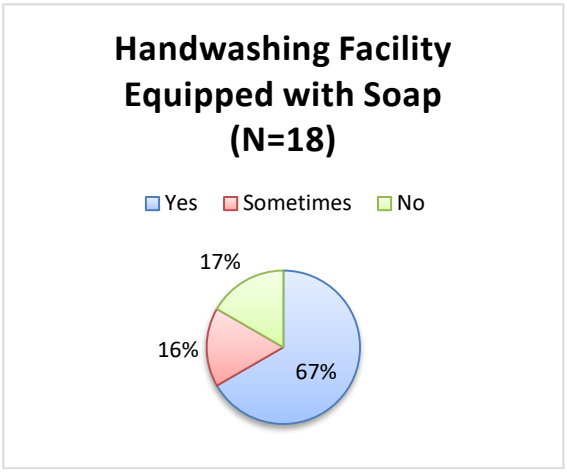
Type of handwashing facilities



Findings 82: Mwansabombwe District schools - types of handwashing facilities (N=18)

Majority (94%) of the schools that had handwashing facilities use tap bucket.

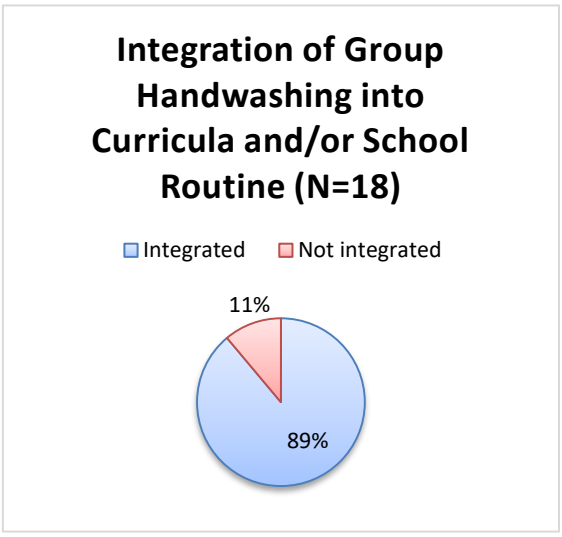
Handwashing with soap

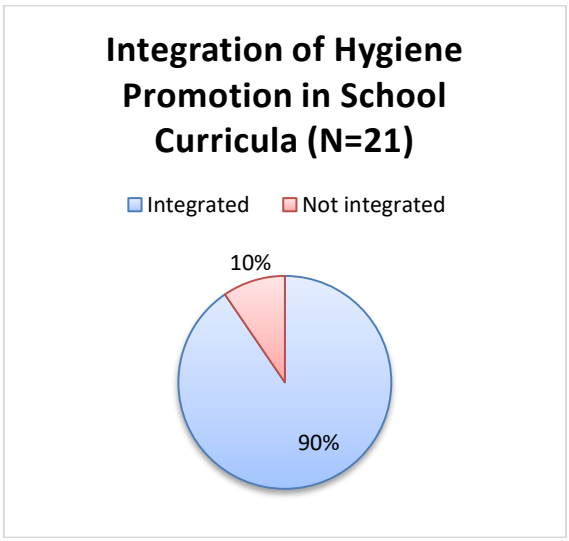


Findings 83: Mwansabombwe District - handwashing with soap practices (N=18)

67% of the handwashing facilities were equipped with soap,

Hygiene promotion



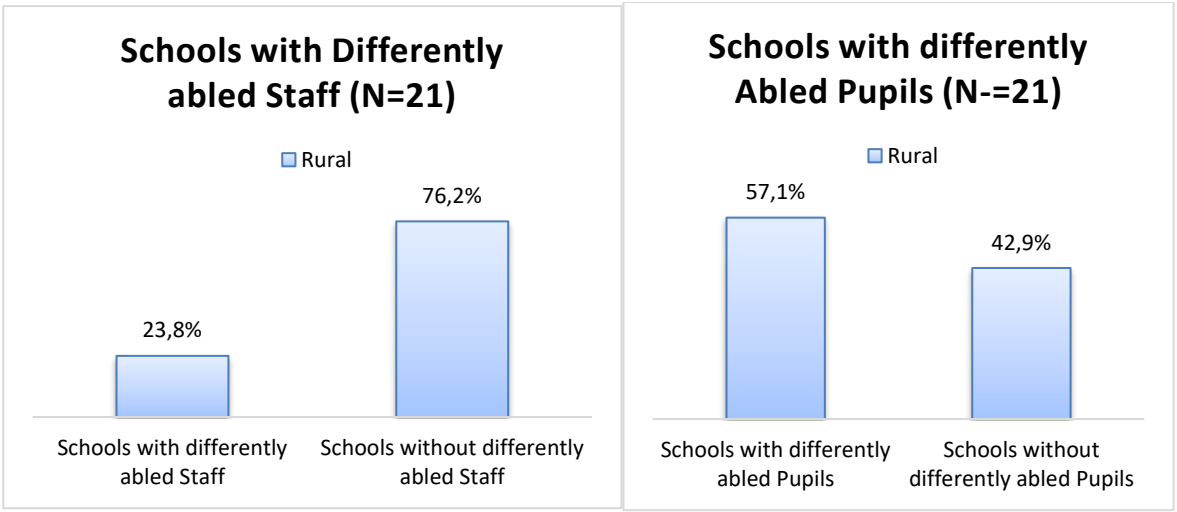


Findings 84: Mwansabombwe District schools handwashing and hygiene promotion curricula integration

Majority of the schools in Mwansabombwe District have integrated hygiene promotion measures into the school curricula.

5.2.5 Social Inclusion

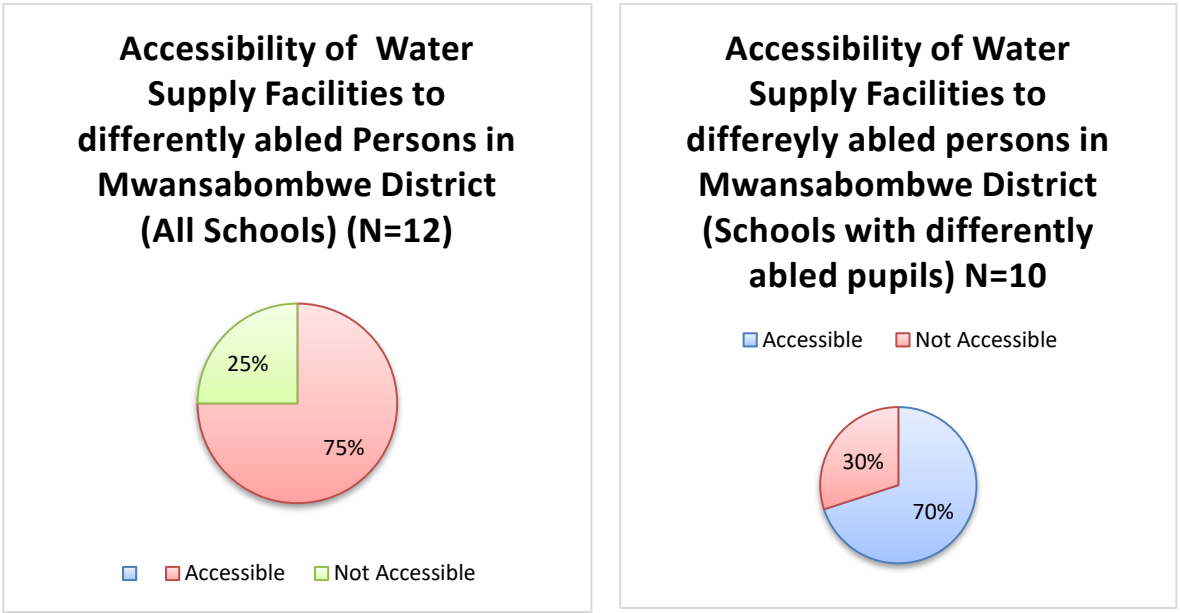
Differently abled staff and pupils



Findings 85: Mwansabombwe District schools with differently abled pupils (N=21)

23.8% of the schools in Mwansabombwe have differently abled staff while 57.1% of the schools have pupils who are differently abled.

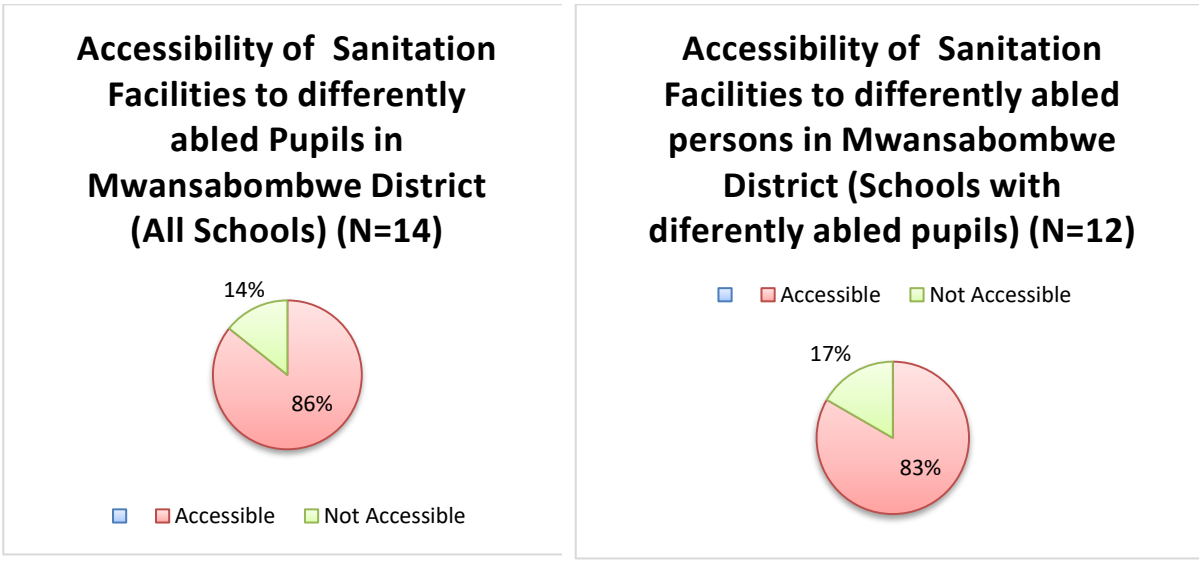
Accessibility to water supply facilities



Findings 86: Mwansabombwe District schools - water facility accessibility to differently abled persons: all schools (N=12) and schools with differently abled pupils (N=10)

75% of the schools in Mwansabombwe District have water facilities which are accessible to differently abled persons. From the schools that had pupils that were differently abled, 70% of them have water facilities that are accessible.

Accessibility to sanitation facilities

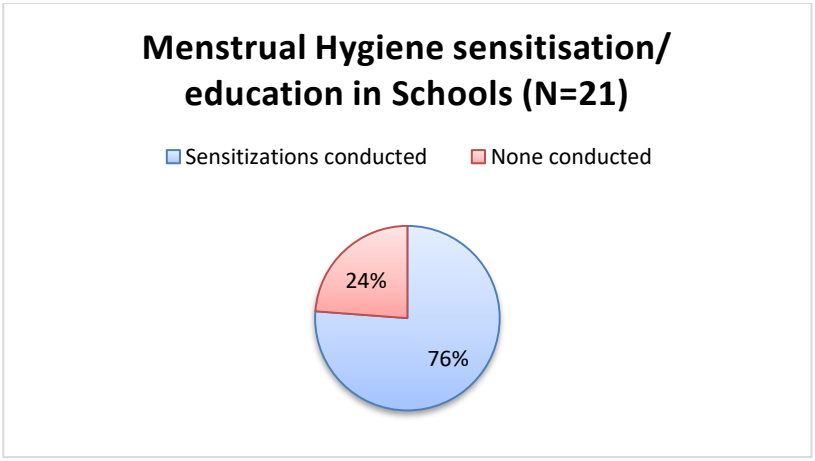


Findings 87: Mwansabombwe District schools sanitation facility accessibility to differently abled persons, all schools (N=14) and schools with differently abled pupils (N=12)

86% of the schools in Mwansabombwe District have sanitation facilities which are accessible to differently abled persons. From the schools that had pupils that were differently abled, 83% of them have sanitation facilities that are accessible.

5.2.6 Menstrual Health Management

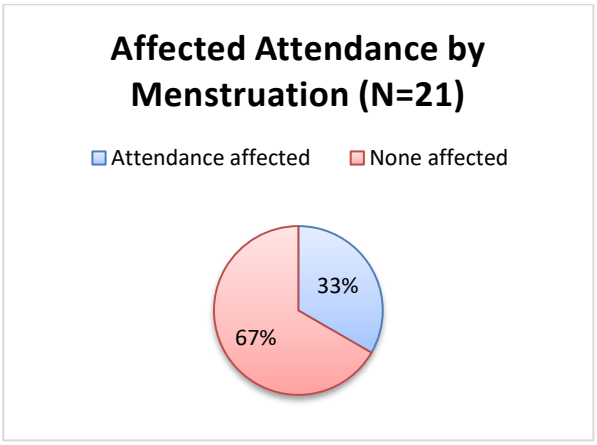
Menstrual hygiene sensitisation and education

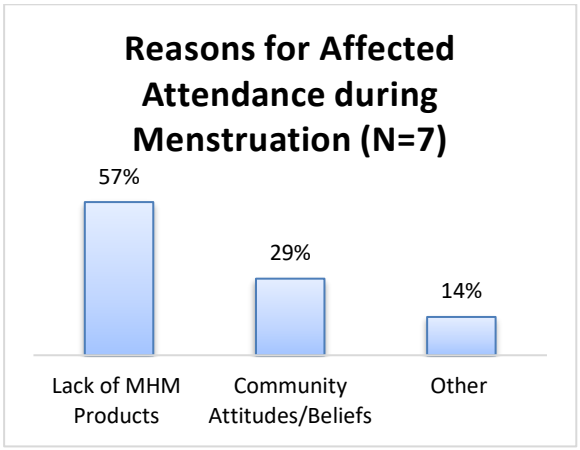


76% of the schools in Mwansabombwe District conduct menstrual hygiene sensitisation.

Findings 88: Mwansabombwe District schools menstrual hygiene sensitisation (N=21)

Participation in school during menstruation

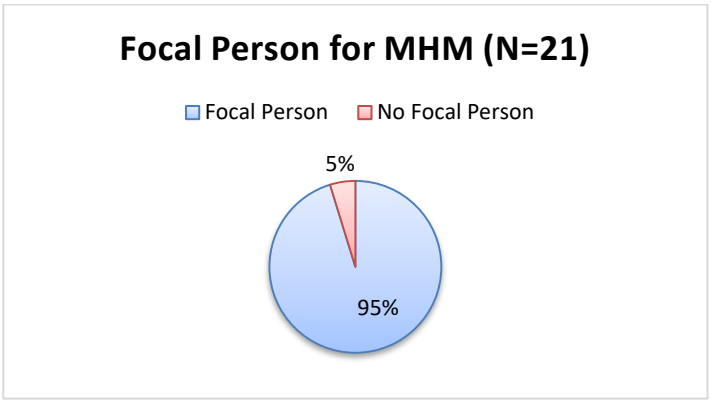




Findings 89: Mwansabombwe District schools - participation during menstruation (N=21) and reasons (N=7)

67% of the schools in Mwansabombwe have the girl child's school attendance not being affected by menstruation and for the 33% whose school attendance is affected, the reason that stands out the most is due to lack to MHM products (57%) and community attitudes or beliefs (29%).

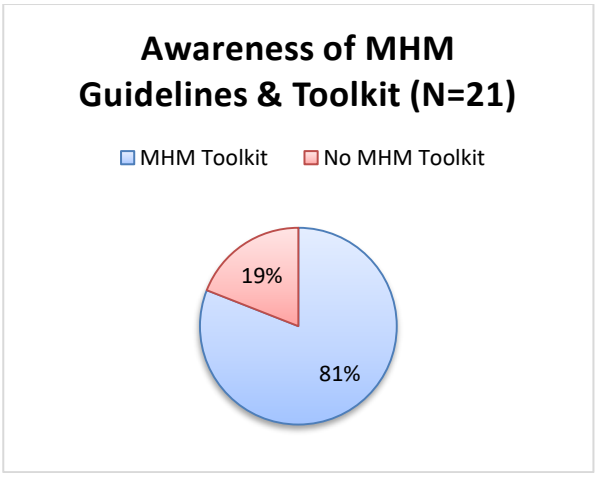
MHM focal point

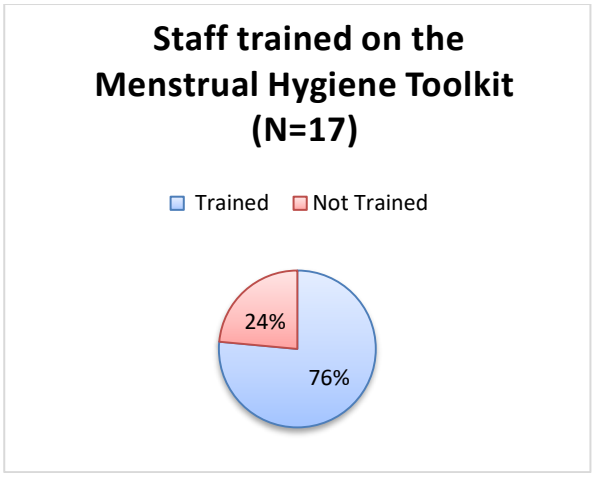


95% of the schools in Mwansabombwe District have a MHM focal point person

Findings 90: Mwansabombwe District schools - MHM focal points (N=21)

MHM toolkit

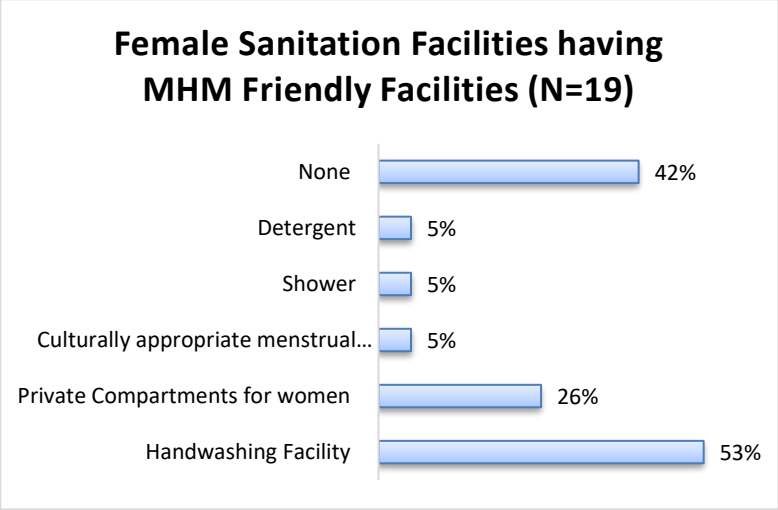




Findings 91: Mwansabombwe District schools MHM toolkit (N=21) and training (N=17)

81% of the schools in Mwansabombwe are aware of the MHM Guidelines and Toolkit, from these 76% have staff that have been trained on the MHM toolkit

MHM friendly facilities

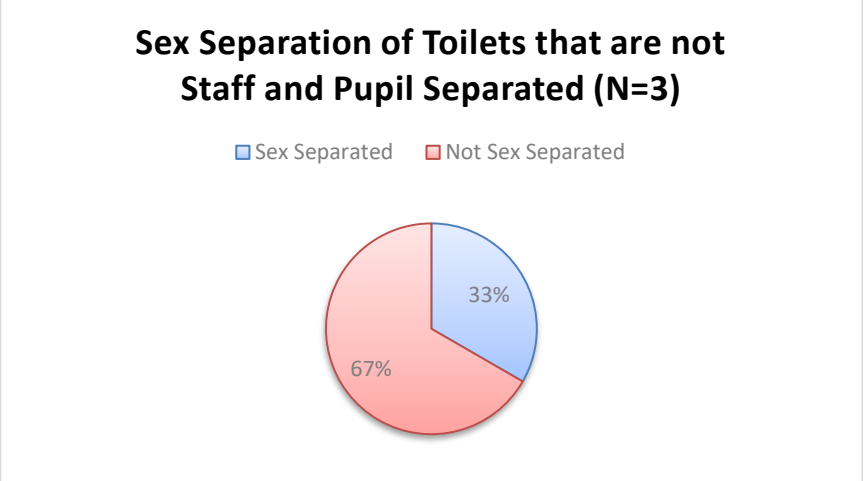


Majority of the schools fulfil the handwashing indicator (53%) for MHM friendly sanitation services and there is a reputable proportion (42%) that do not fulfil any of the indicators for MHM friendly sanitation facilities.

Findings 92: Mwansabombwe District schools - MHM friendly services in female sanitation facilities (N=19)

5.2.7 Gender Sensitivity Data and Information

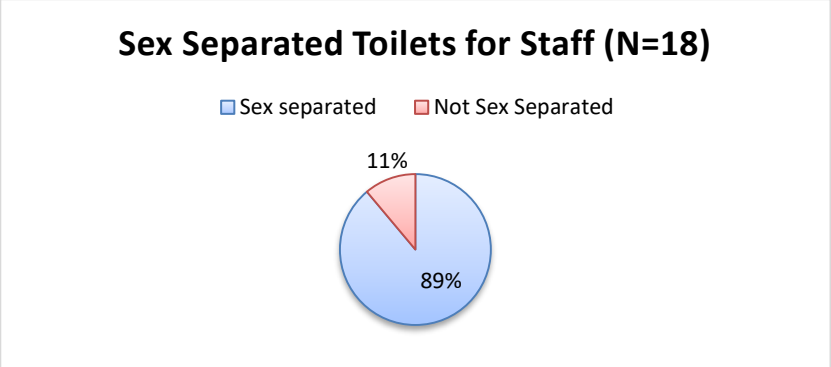
Sanitation facilities for combined staff and pupil



Out of all the schools in Mwansabombwe District, 14% do not separate the staff and pupil toilets of which only 33% of these are sex separated.

Findings 93: Mwansabombwe District schools sex separated toilets for schools with combined staff and pupil toilets (N=3)

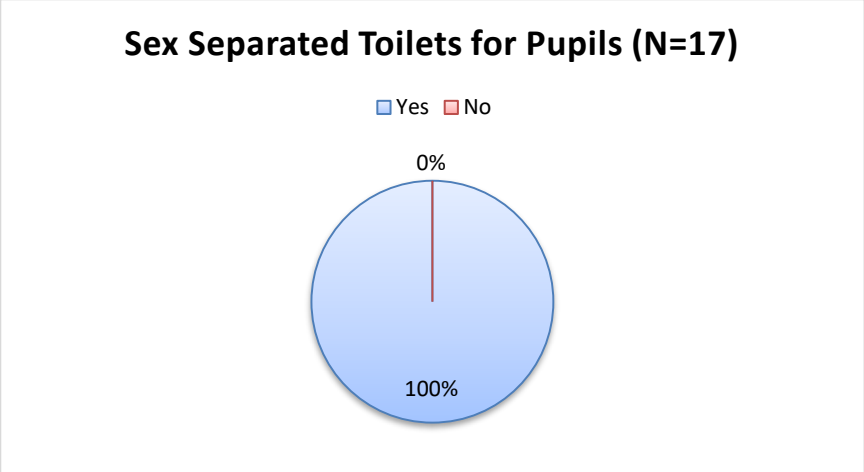
Sanitation facilities for staff only



Out of all the schools in Mwansabombwe that have toilets dedicated to staff, 89% are sex separated.

Findings 94: Mwansabombwe District schools sex separated toilets for schools with dedicated staff toilets (N=18)

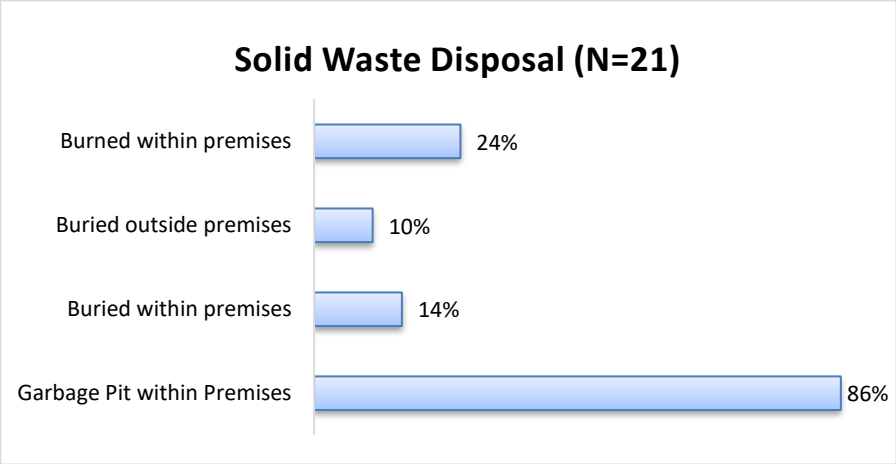
Sanitation facilities for pupils



All the schools in Mwansabombwe that have toilets dedicated to pupils are sex separated.

Findings 95: Mwansabombwe District schools sex separated toilets for schools with dedicated pupil toilets (N=17)

5.2.8 Solid Waste Management



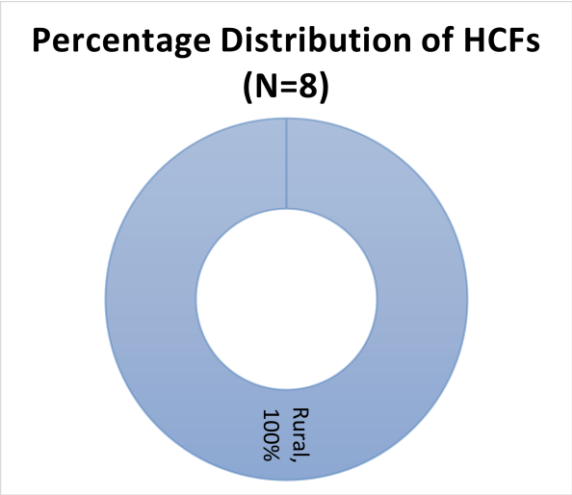
Majority (86%) of the schools use garbage pits within the premises to dispose of Solid waste

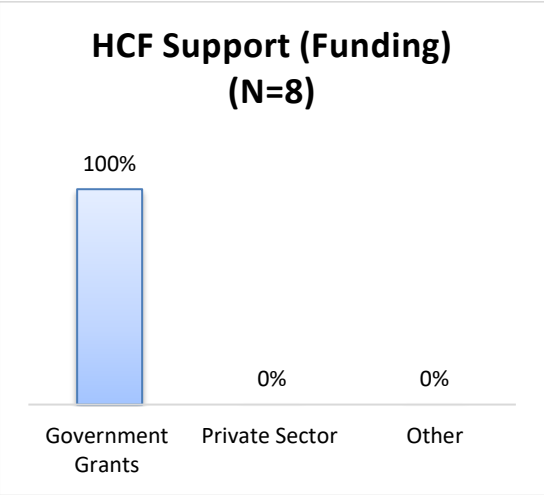
Findings 96: Mwansabombwe District schools solid waste disposal (N=21)

5.3 Healthcare Facilities

5.3.1 Health Care Facility Information & Electricity Connectivity

Average Distribution of Health Care Facilities in Mwansabombwe

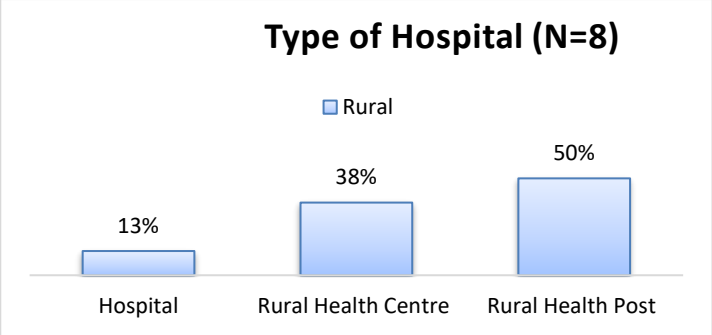




Findings 97: Mwansabombwe District distribution of health care facilities and sources of funding (N = 8)

Like the Households and Schools, all the HCFs interviewed were in the rural areas. This generally represents the distribution of HCFs in Mwansabombwe. From the interviewed HCFs, They were all supported by Government Grants.

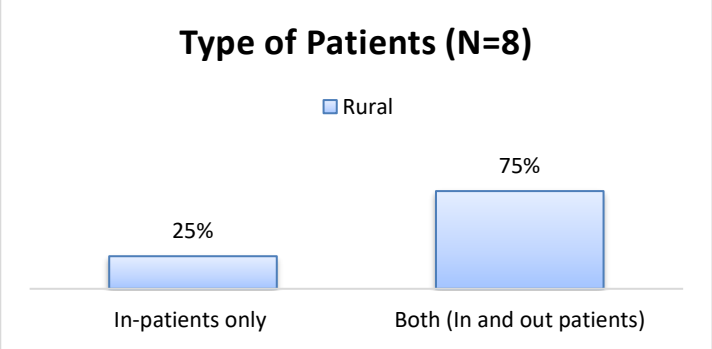
Types of HCFs



Majority of HCF interviewed in Mwansabombwe District were 50% rural health posts (RHPs) and 38% rural health centres (RHCs)..

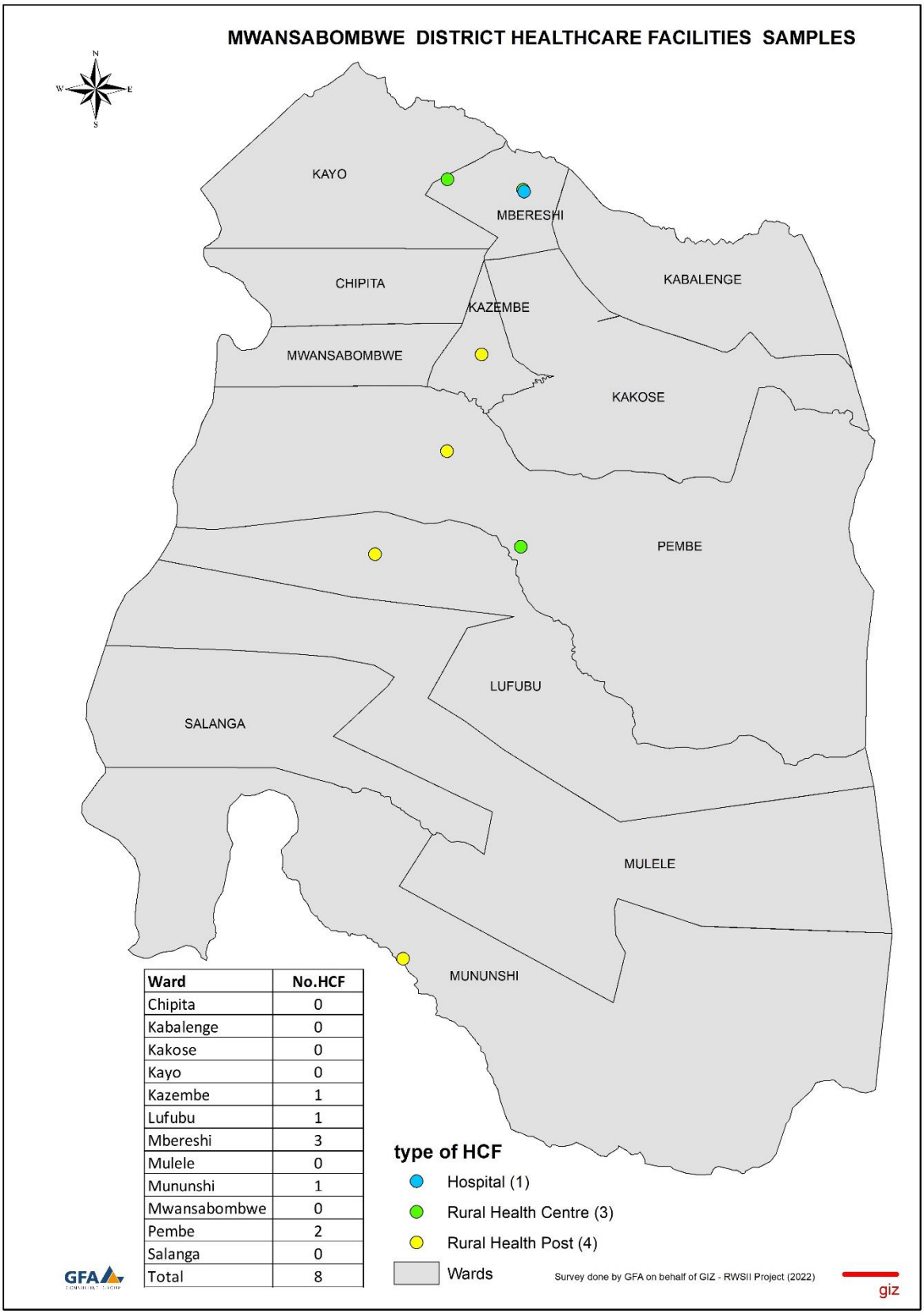
Findings 98: Mwansabombwe District type of health care facility (N = 8)

Type of patients



75% of the HCFs in Mwansabombwe cater for both in and out patients and 25% in patient only.

Findings 99: Mwansabombwe District health care facility catering for in- and out-patients (N = 8)

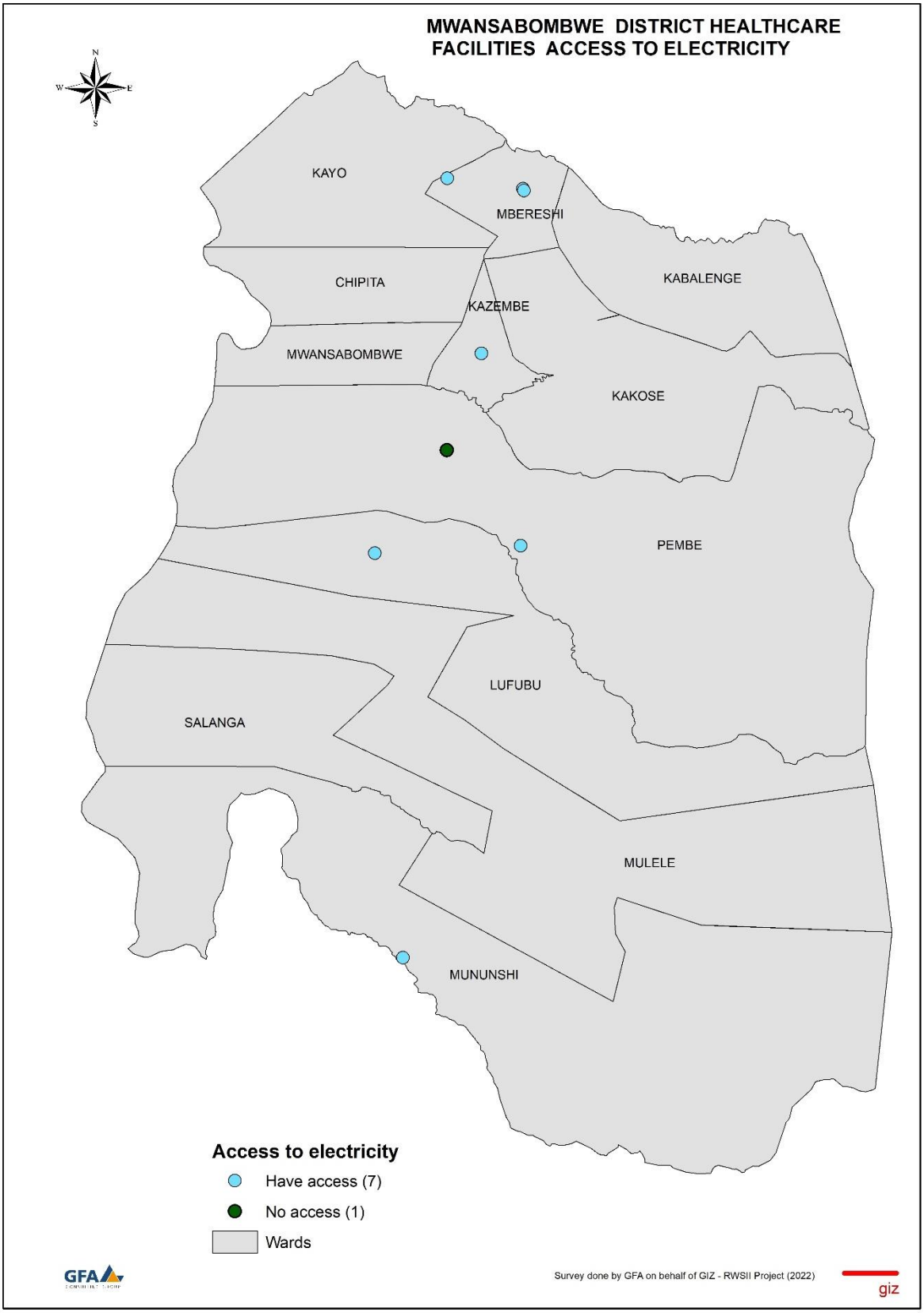


Ward	No.HCF
Chipita	0
Kabalenge	0
Kakose	0
Kayo	0
Kazembe	1
Lufubu	1
Mbereshi	3
Mulele	0
Mununshi	1
Mwansabombwe	0
Pembe	2
Salanga	0
Total	8

Findings 100: Mwansabombwe District Distribution of health care facilities

There were a total of 8 Health Care Facilities surveyed. Most of the Health Care Facilities surveyed were Rural Health Posts and Rural Health Centres.

Connection to Electricity

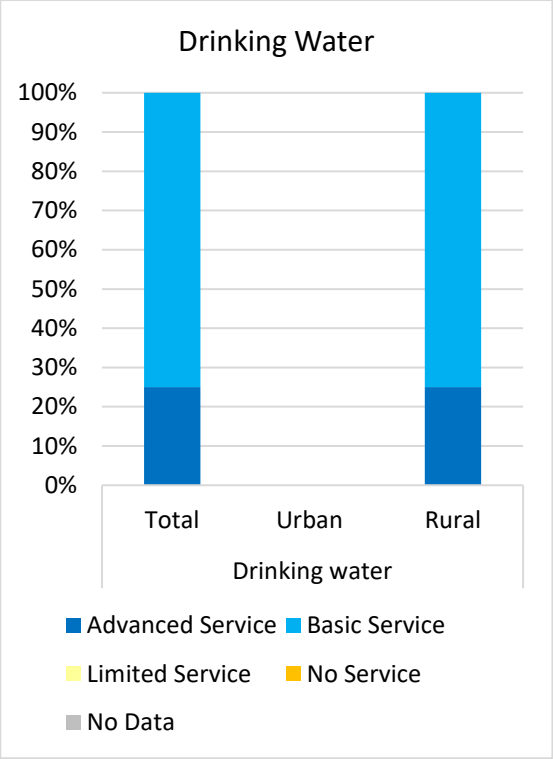


Findings 101: Mwansabombwe District health care facilities - connection to electricity

88% of the health care facilities have access to electricity i.e. ZESCO and solar. For the HCFs that are not connected to electricity, they are all willing to connect given the opportunity.

5.3.2 Water Supply Services

Mwansabombwe JMP ladder for drinking water services



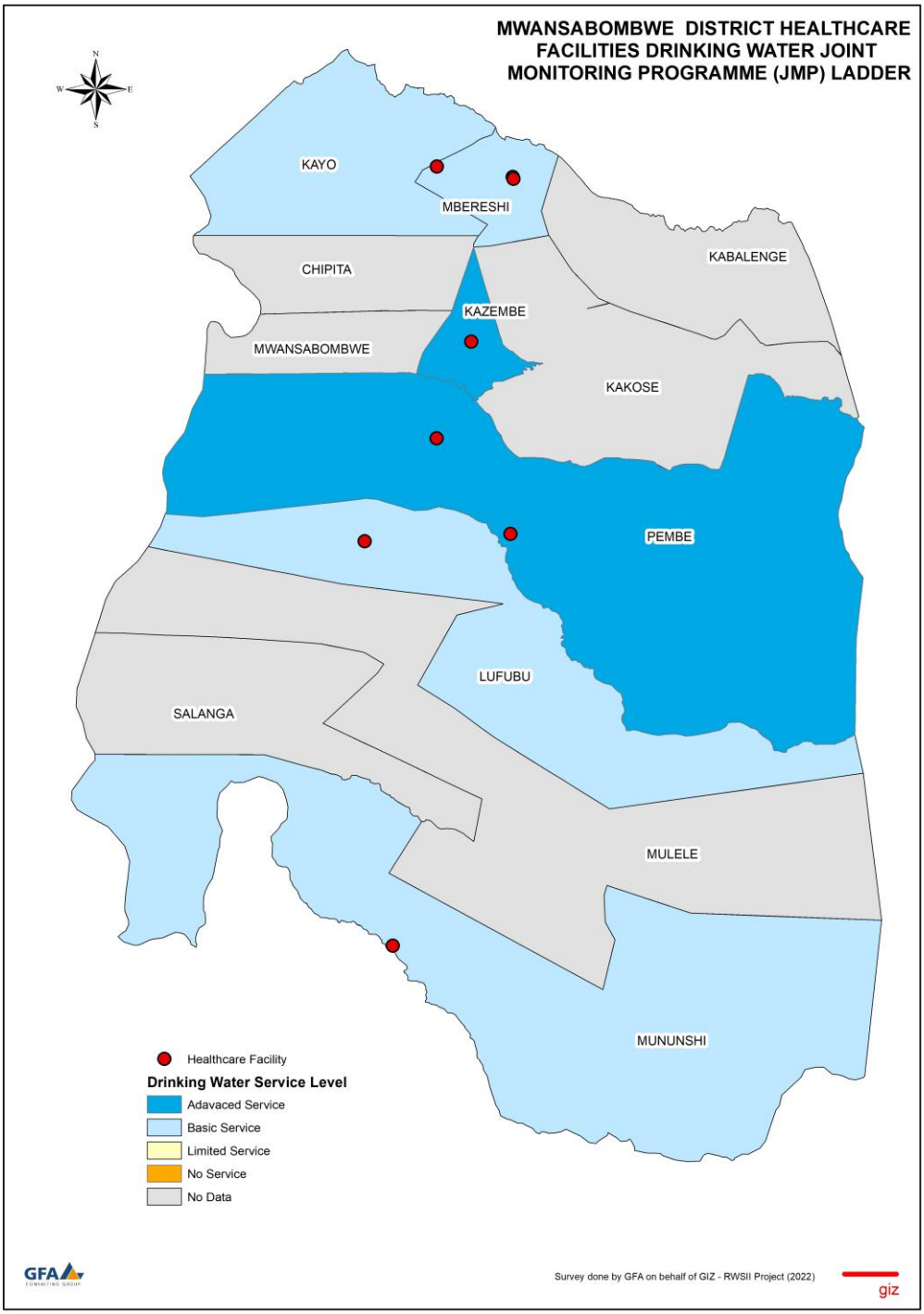
Findings 102: Mwansabombwe district health care facilities - JMP for drinking water services

Mwansabombwe	Drinking water		
	Total	Urban	Rural
Advanced Service	25.00%	-	25.00%
Basic Service	75.00%	-	75.00%
Limited Service	0.00%	-	0.00%
No Service	0.00%	-	0.00%
No Data	0.00%	-	0.00%
Total	**100.00%**	**0.00%**	**100.00%**

The proportion of HCFs in Mwansabombwe District using advanced services is 25%.

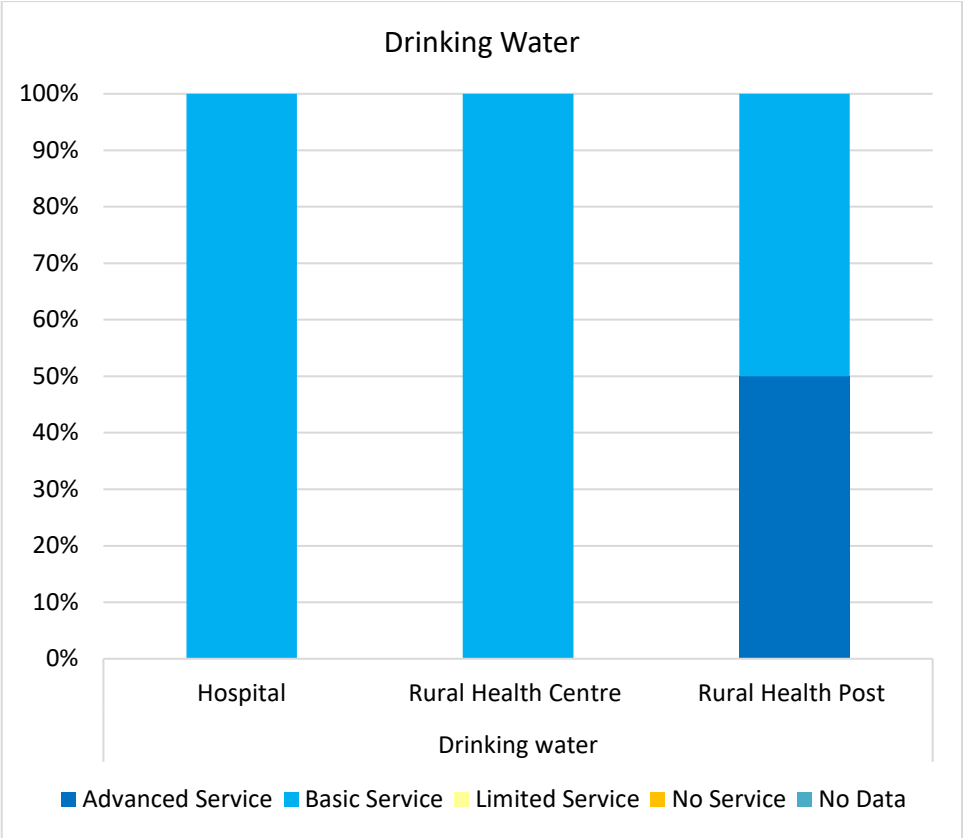
In 2022, out of 12 HCFs in Mwansabombwe District, 9 HCFs lacked advanced services including 8 HCFs with basic services, 0 HCFs with limited services, 0 HCFs having no water source or having access to an unimproved water source.

Please refer to Table 8 for the definition and clarifications on some of the drinking water terms.



Findings 103: Mwansabombwe District ward level - JMP for HCF drinking water services

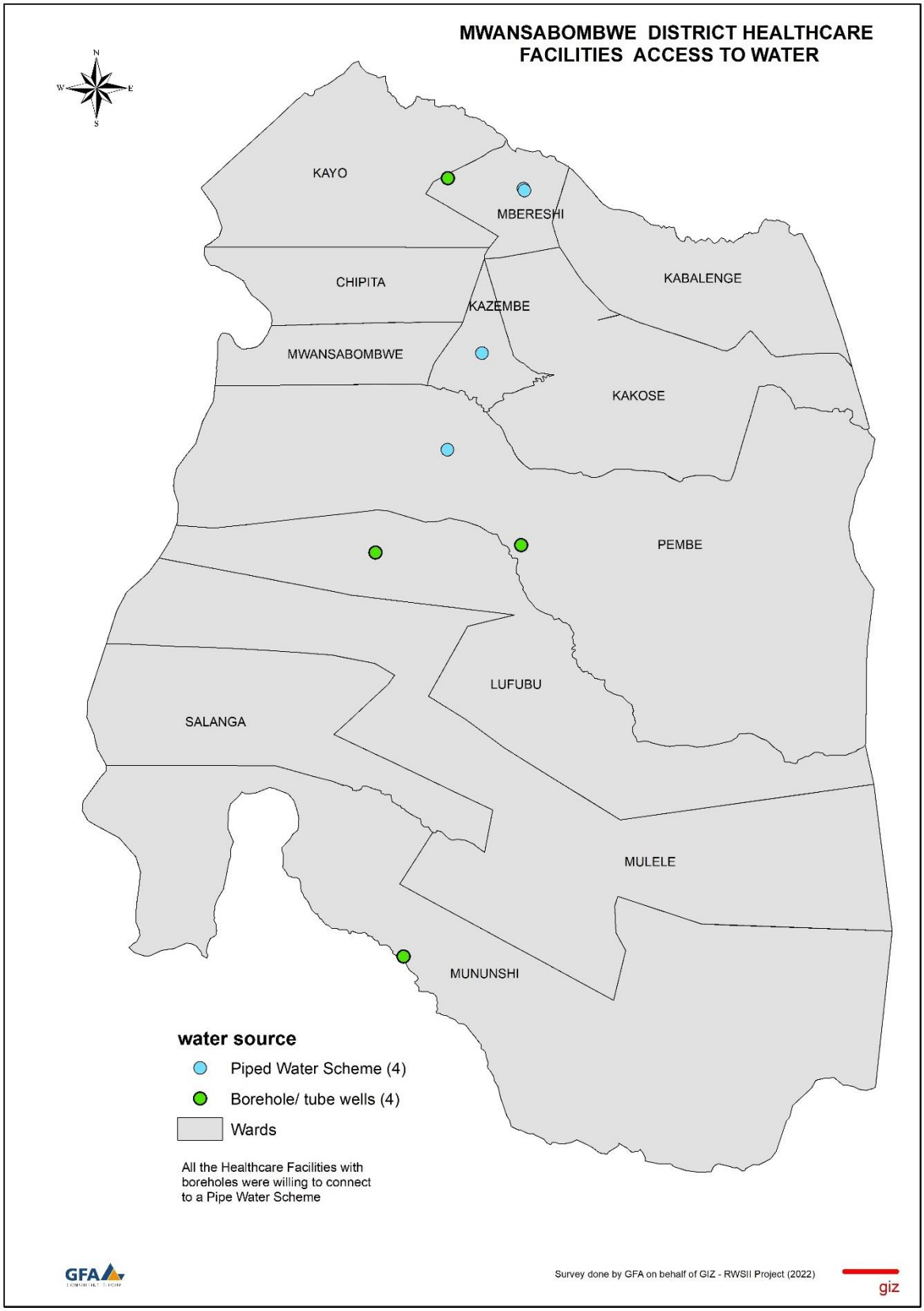
Findings 103 shows JMP indicators at the ward level. Out of the 6 wards that were represented in Mwansabombwe District, 2 wards, namely Kazembe and Pembe have majority of their HCFs having access to advanced service. And the other 4 wards namely, Kayo, Mbereshi, Lufubu and Mununshi have majority of their HCFs with basic service and there is no ward that has no service.



Findings 104: Mwansabombwe District - JMP for HCF drinking water services by HCF type

100% hospitals and rural health centres have access to basic services. Rural health posts are the only ones with an advanced service representation but others still have basic service.

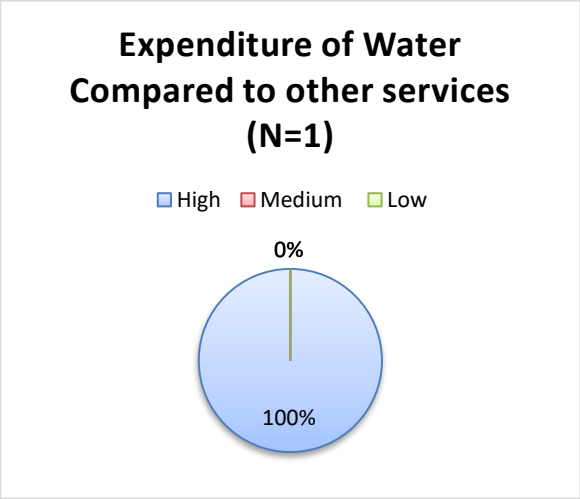
Type of water source



Findings 105: Mwansabombwe District HCFs - type of water sources / access

From Findings 105, it can be observed, that in general the main source of water for HCFs was boreholes (50%) and Piped Water Schemes (50%).

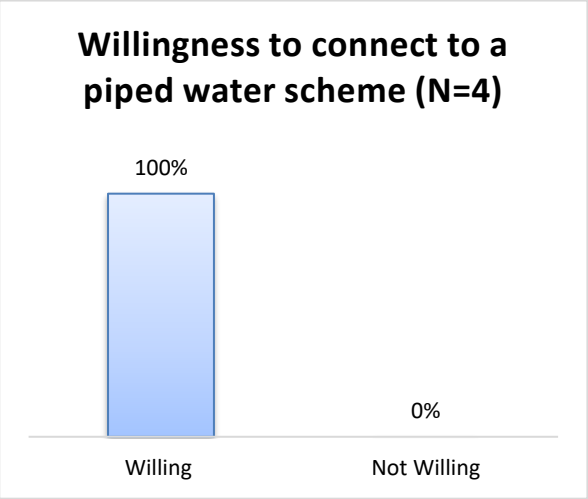
Affordability of the water service



Findings 106: Mwansabombwe District HCFs - expenditure of water compared to other services (N=1)

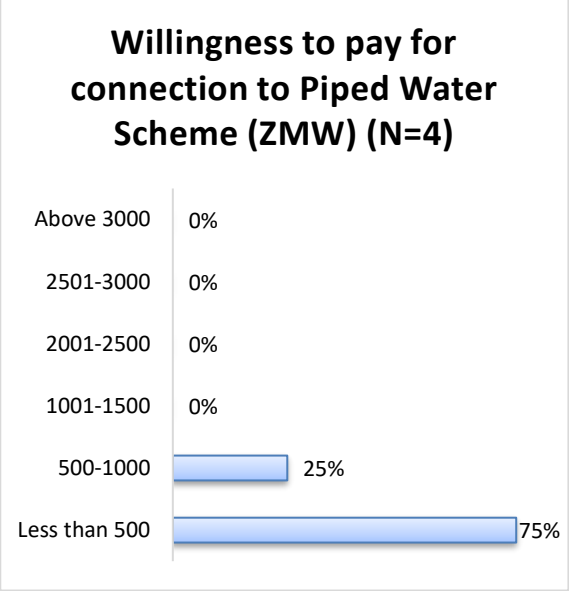
The water services were perceived to be expensive .

Willingness to connect to a piped water scheme



Findings 107: Mwansabombwe District HCFs - willingness to connect to a piped water scheme (N=4)

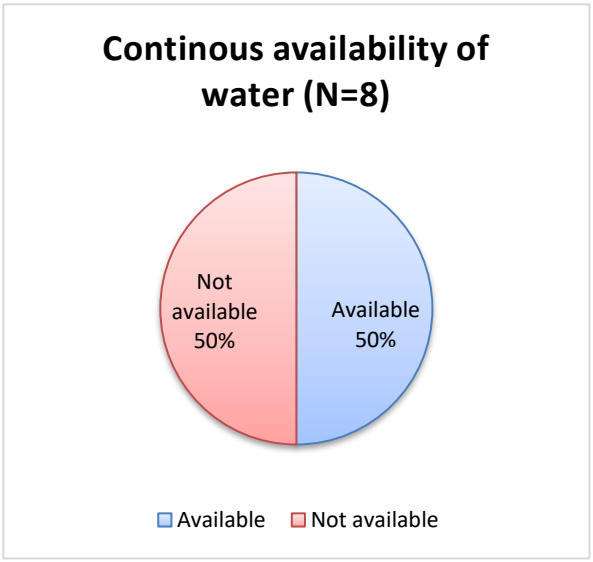
All of the HCFs not connected to a piped water scheme were willing to connect to a piped water scheme.

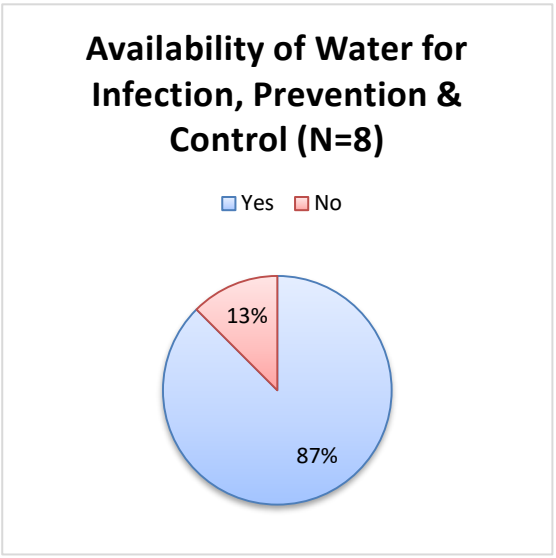


Findings 108: Mwansabombwe District HCFs - willingness to pay for connection to a piped water scheme (N=4)

However, most (75%) of the HCFs are willing to pay less than 500 ZMW or less in connection fees for a piped water scheme.

Water availability

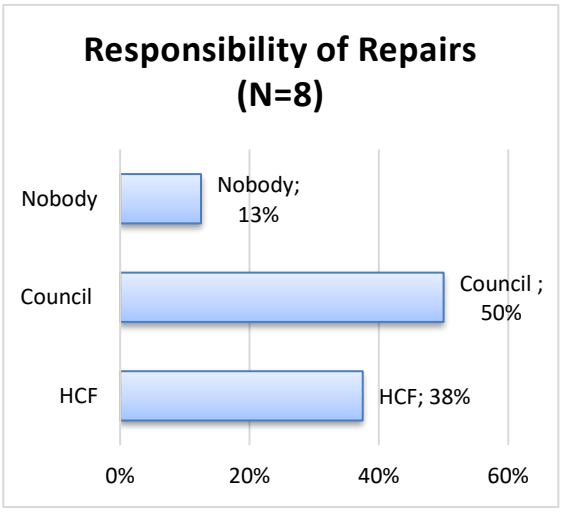




Findings 109: Mwansabombwe District - availability of water for HCFs (N = 8)

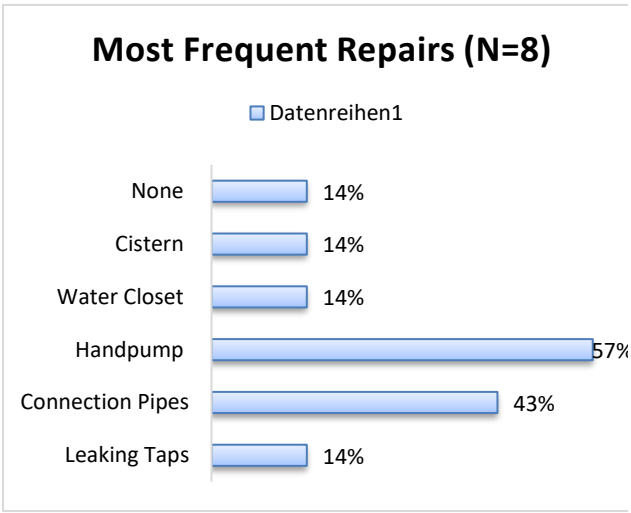
50% of the HCFs had water continuously available while 87% had water available for Infection, Prevention & Control.

Maintenance of water services



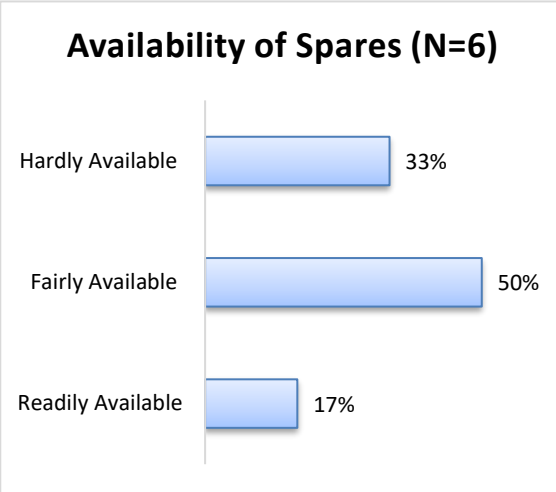
Findings 110: Mwansabombwe District - responsibility for maintenance / repair works of the water source for HCFs (N = 8)

The responsibility for conducting maintenance/ repair works is council (50%) and the HCF (38%) that is having access to the water source.



Findings 111: Mwansabombwe District HCF water service frequent repairs (N = 8)

The most frequent repairs are the handpump (57%), seconded by connection pipes (43%).

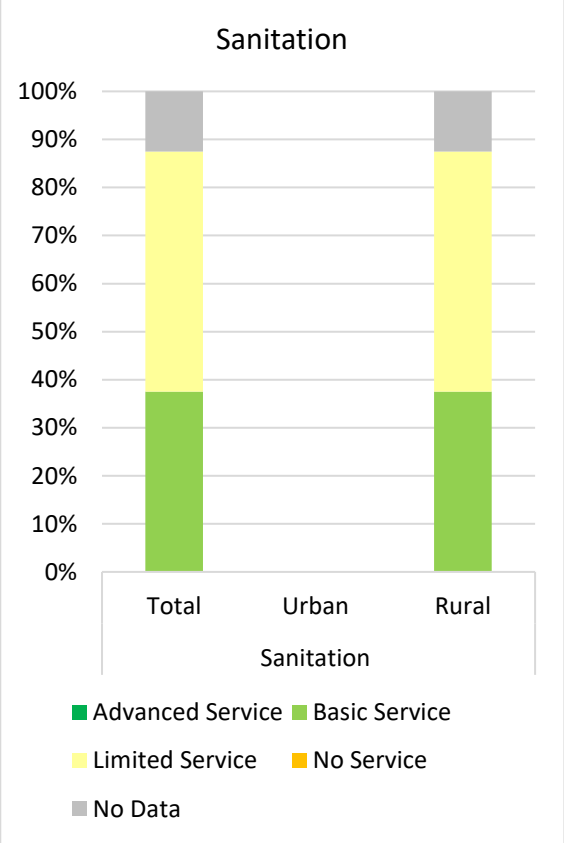


Findings 112: Mwansabombwe District HCF availability of spare parts (N = 6)

50% of the HCFs noted that spare parts were fairly available, 33% indicated that they were hardly available and 17% also indicated that they were readily available.

5.3.3 Sanitation Services

Mwansabombwe JMP ladder for sanitation services



Findings 113: Mwansabombwe HCF JMP ladder for sanitation

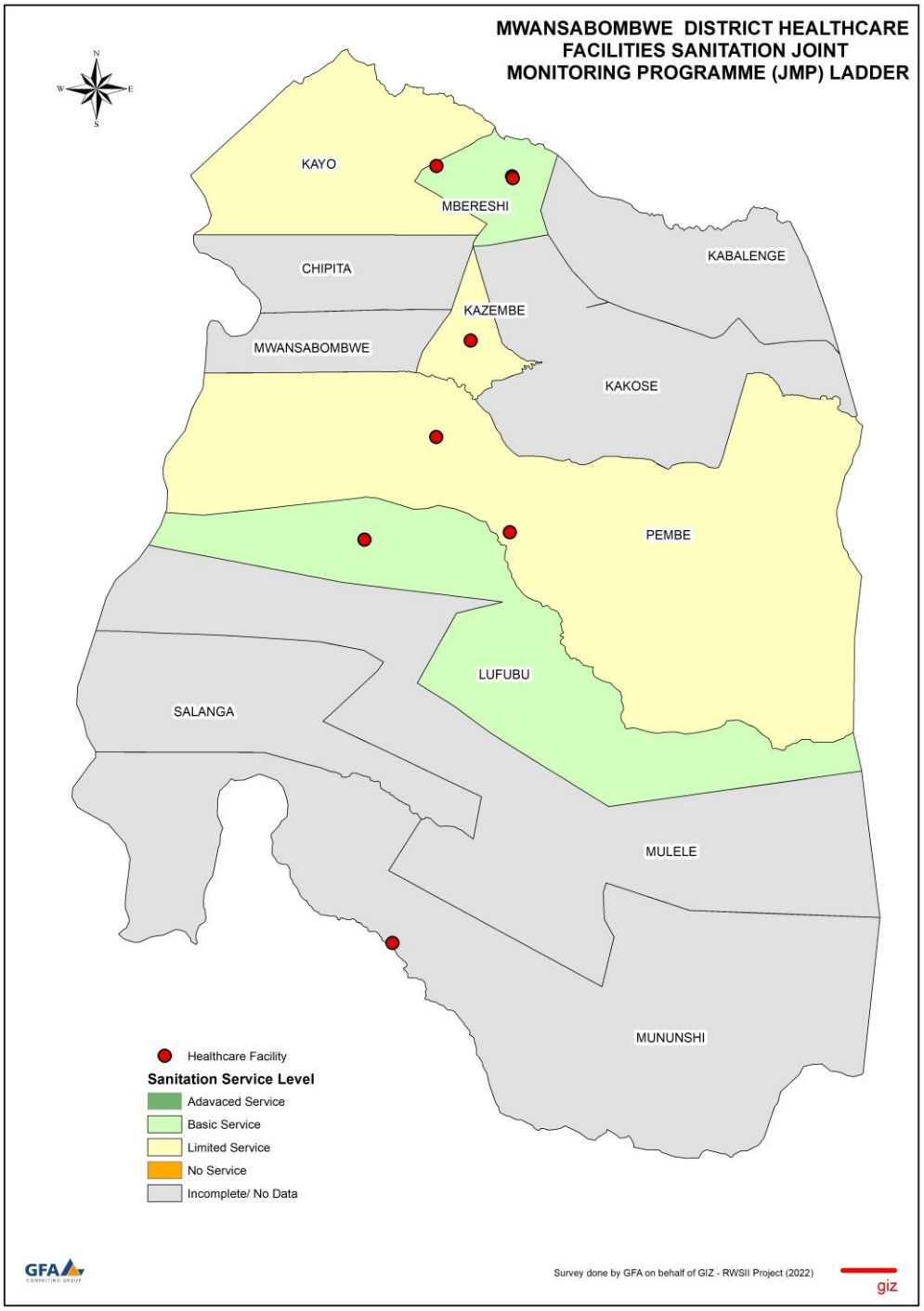
Mwansabombwe	Sanitation		
	Total	Urban	Rural
Advanced Service	0.00%	-	0.00%
Basic Service	37.50%	-	37.50%
Limited Service	50.00%	-	50.00%
No Service	0.00%	-	0.00%
No Data	12.50%	-	12.50%
Total	**100.00%**	**0.00%**	**100.00%**

The proportion of HCFs in Mwansabombwe District using advanced services is 0%.

In 2022, out of an estimated 12 HCFs in Mwansabombwe District, 12 HCFs lacked advanced services including 5 HCFs with basic services, 7 HCFs with limited services and there were no HCFs that lacked sanitation services.

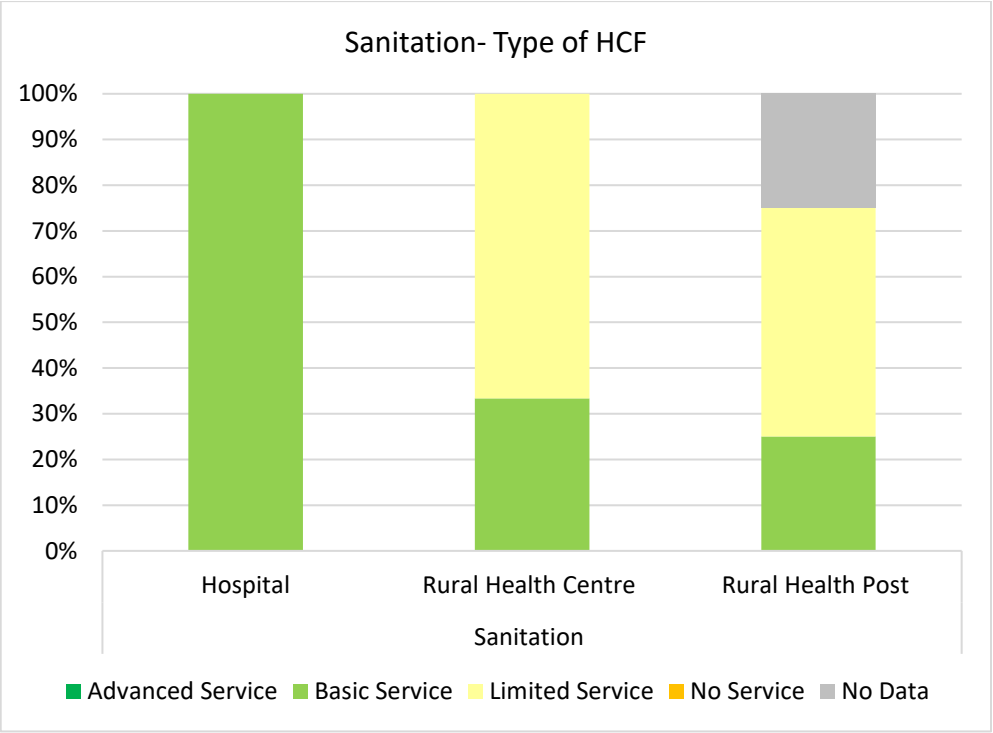
There was no HCF having access to advanced service or no service. Majority of the HCFs in Mwansabombwe District have access to limited service because they did not have at least one facility dedicated to staff and did not qualitfy for advanced due to MHM friendly sanitation facilities.

Please refer to Table 9 for the definition and clarifications on some of the sanitation terms.



Findings 114: Mwansabombwe District ward level JMP for HCF sanitation services

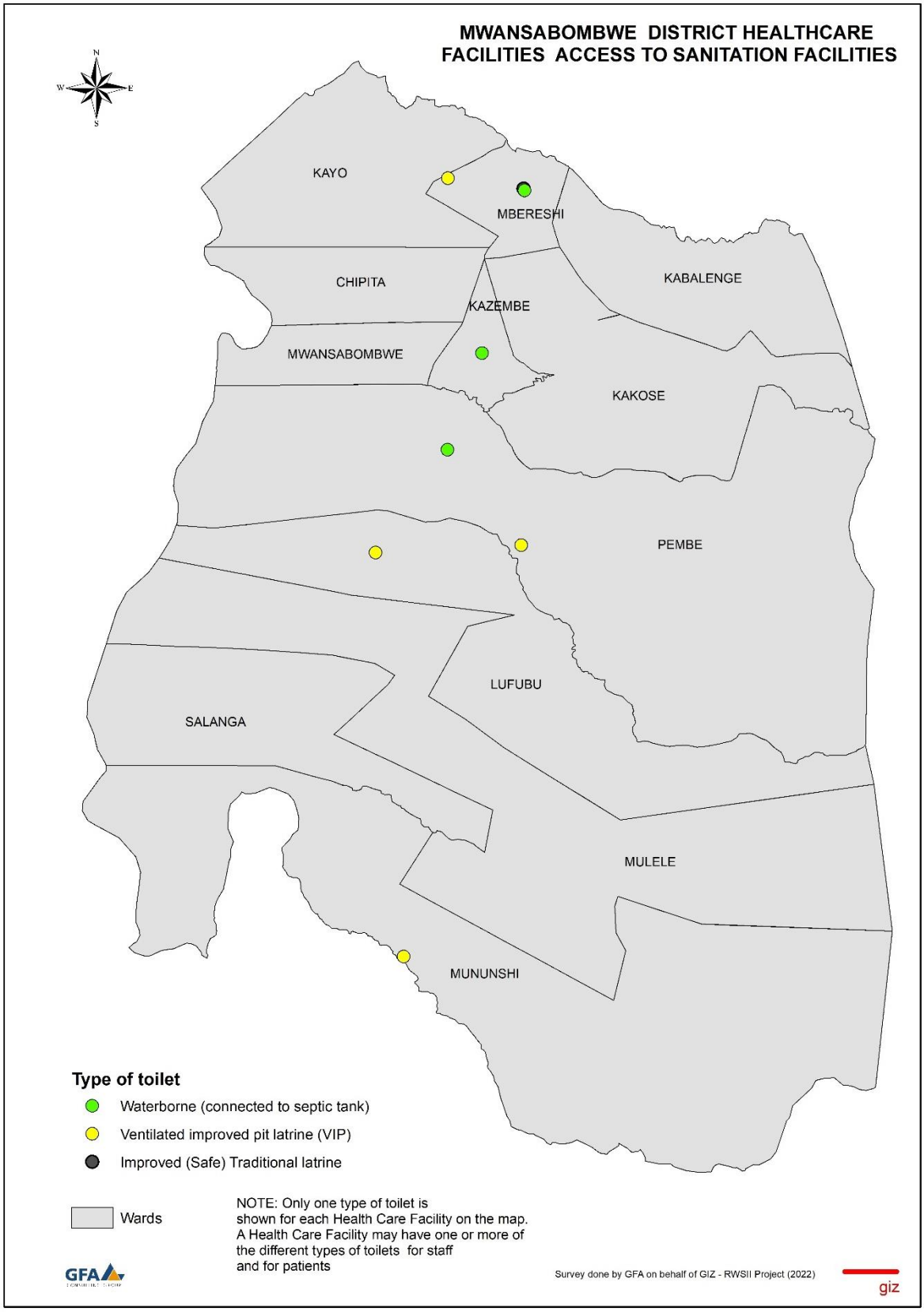
Findings 114 shows JMP indicators at ward level. Out of the 16 wards that were represented in Mwansabombwe District, only 2 wards, Lufubu and Mbereshi, have majority of HCFs with access to basic service. Most of the wards (3) have majority of HCFs with access to limited sanitation services while there was an incomplete data set in Mununshi to analyse to combination of indicators for the service level.



Findings 115: Mwansabombwe District JMP for HCF sanitation services by HCF type

100% of the hospitals have access to basic sanitation while the rural health centres and rural health posts also limited service.

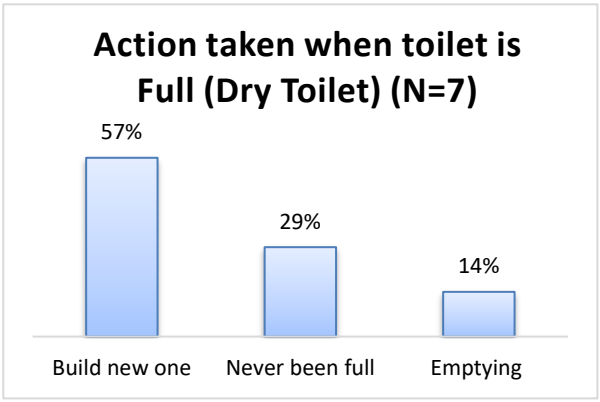
Access to sanitation facilities



Findings 116: Map of Mwansabombwe District HCFs - access to sanitation facilities

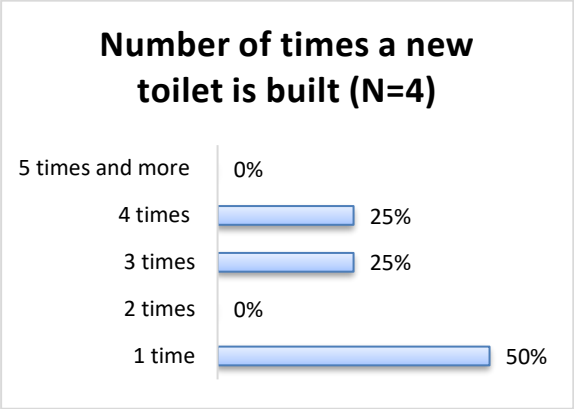
From Findings 116 in general, the main type of sanitation for HCFs were waterborne to septic tank, seconded by improved safe traditional latrines.

Emptying practices



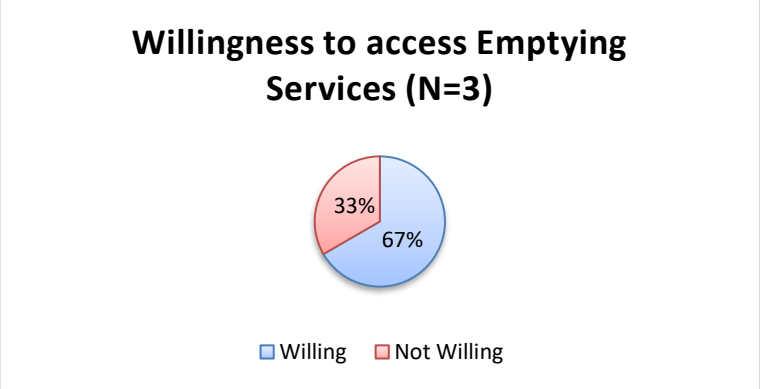
Findings 117: Mwansabombwe District HCFs toilet emptying practices (N =7)

Like the households and schools, HCF toilet emptying practices are mainly building a new one once it is full (57%) while for the other HCFs their toilets haven't been full (29%). 14% recorded emptying which is manual Emptying using a bucket. This information is cardinal in FSM planning.



Findings 118: Mwansabombwe District HCF - number of times a new toilet is built (N=4)

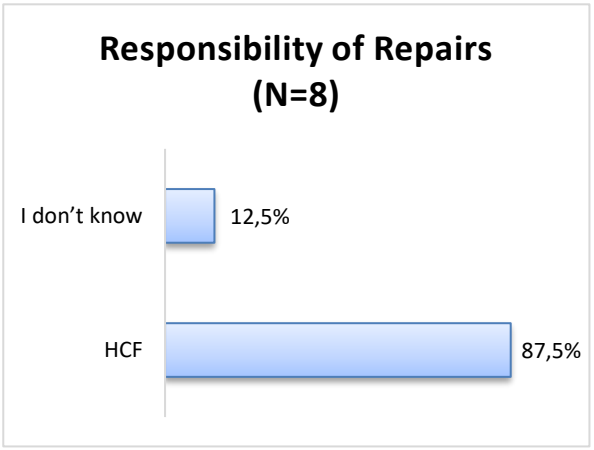
Most of the HCFs which had built a new toilet before, did this one times (50%).



Findings 119: Mwansabombwe District HCFs willingness to access emptying services (N=3)

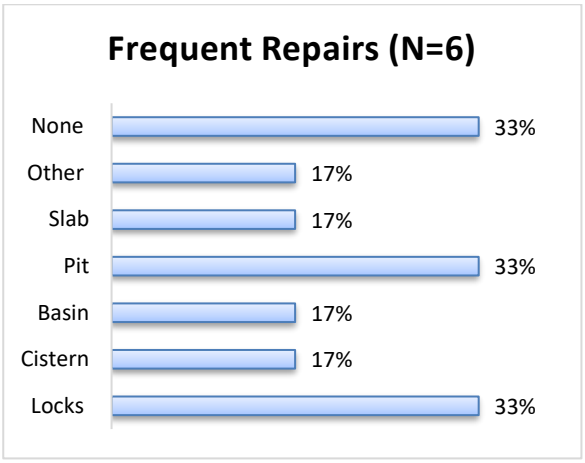
Majority of the HCFs are willing to access emptying services (67%) while there is still a reputable proportion of HCFs not willing to access this service.

Maintenance of sanitation facilities



Findings 120: Mwansabombwe District HCFs - responsibility for repair of toilet (N = 8)

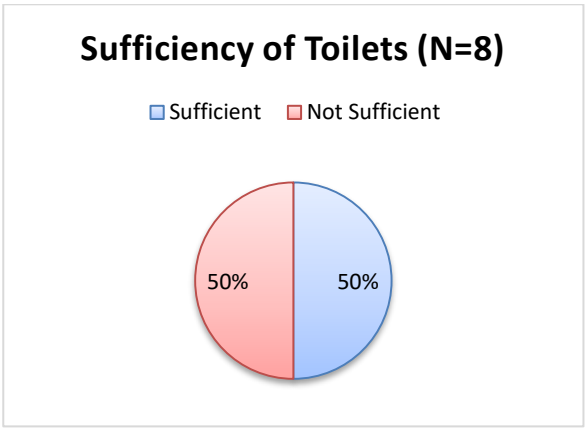
In general, the HCF take responsibility of repairing the toilets (88%).



Findings 121: Mwansabombwe District HCFs - frequent repairs on the toilets (N = 6)

The most frequent repairs done are on the pit and the locks (33%) while 33% had not done any frequent repairs

Sufficiency of toilets

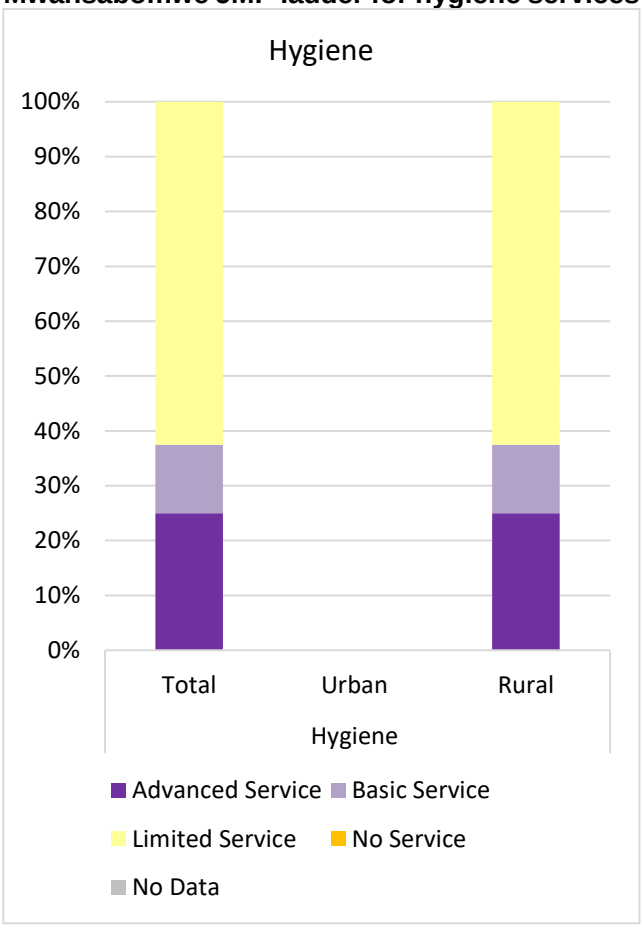


Findings 122: Mwansabombwe District HCFs- sufficiency and usability of sanitation facilities (N = 8)

50% of the HCFs in Mwansabomwe have insufficient toilets this is because the number of toilets does not match the population and no toilets dedicated for staff.

5.3.4 Hygiene Services

Mwansabomwe JMP ladder for hygiene services



Findings 123: Mwansabombwe District health care facilities JMP ladder for hygiene services

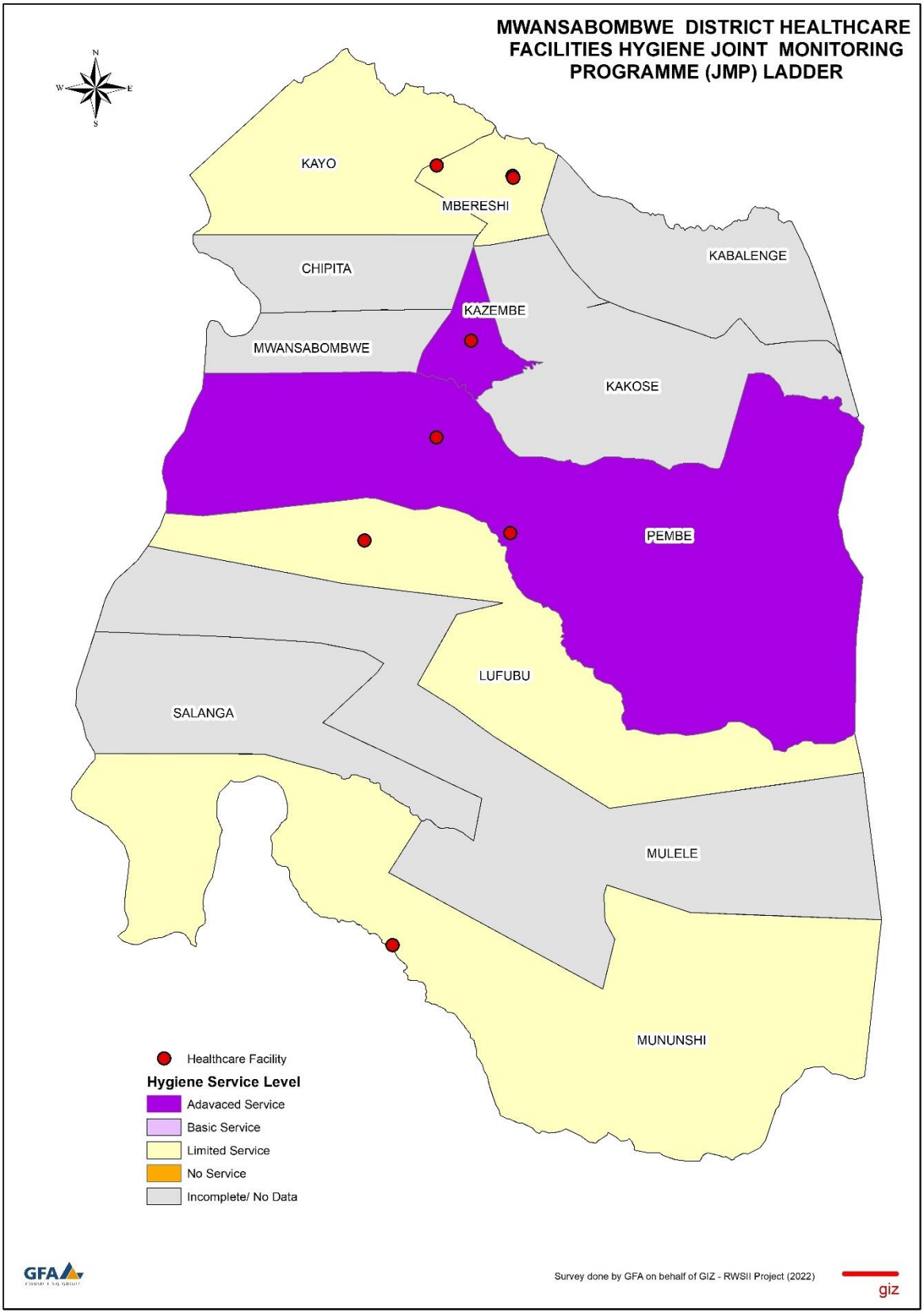
Mwansabombwe	Hygiene		
	Total	Urban	Rural
Advanced Service	25.00%	-	25.00%
Basic Service	12.50%	-	12.50%
Limited Service	62.50%	-	62.50%
No Service	0.00%	-	0.00%
No Data	0.00%	-	0.00%
Total	**100.00%**	**0.00%**	**100.00%**

The proportion of HCFs in Mwansabombwe District using advanced service is 25%.

In 2022, out of 12 HCFs in Mwansabombwe District, 9 HCFs lacked advanced services including 2 with basic services and 7 with limited service. There were no HCFs with no service.

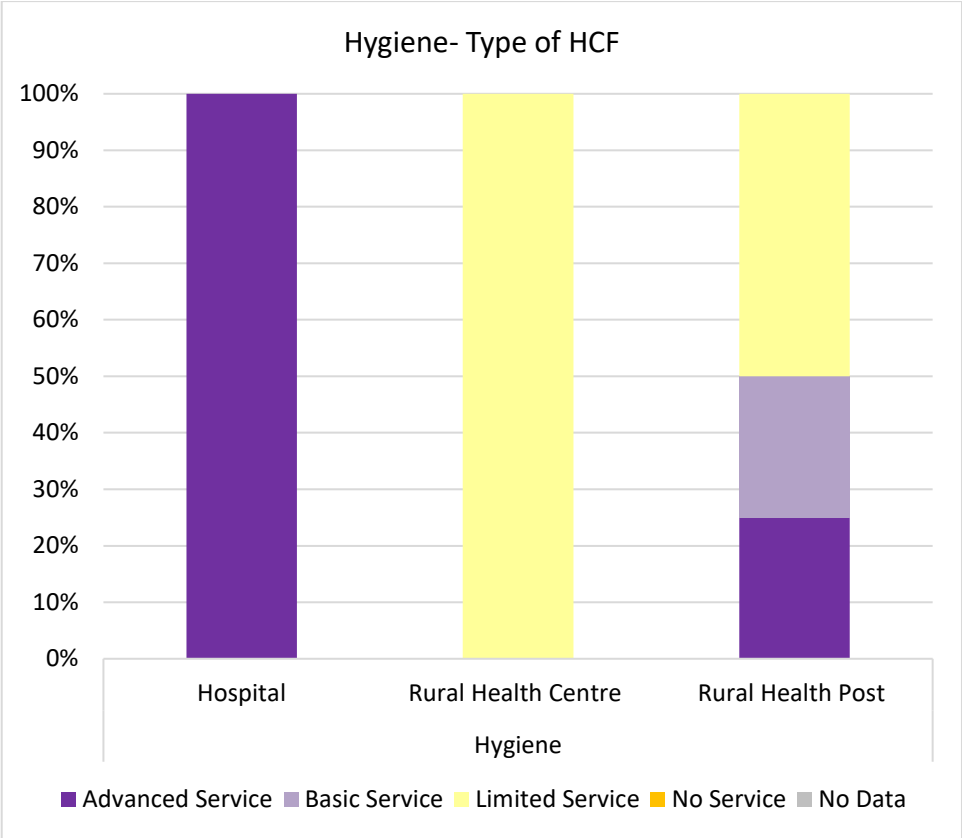
Most of the HCFs had limited service as a result of the handwashing facility being located either at points of care or toilet but not both.

Please refer to Table 9 for the definition and clarifications on some of the hygiene terms.



Findings 124: Mwansabombwe District ward level JMP for HCFs hygiene services

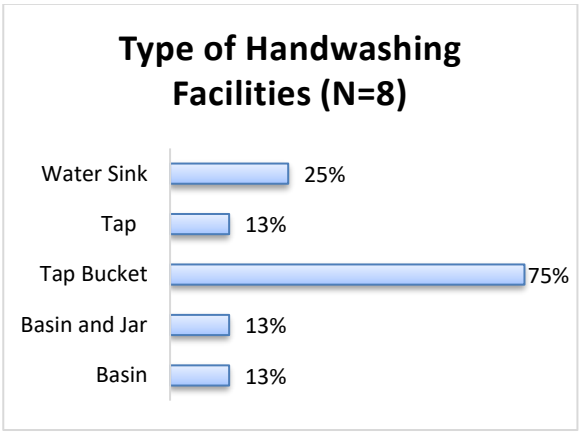
Findings 124 shows JMP indicators at the ward level. Out of the 6 wards that were represented in Mwansabombwe District, only 2 wards, Kazembe and Pembe have majority of HCFs with access to advanced hygiene services. Majority of the wards (4) in Mwansabombwe District have majority of HCFs with access to limited hygiene services.



Findings 125 Mwansabombwe District JMP for HCF hygiene services by HCF type

100% of the hospitals have access to advanced service. While the RHP has a mixture of service levels that include advanced, basic and limited service and the RHC has limited service.

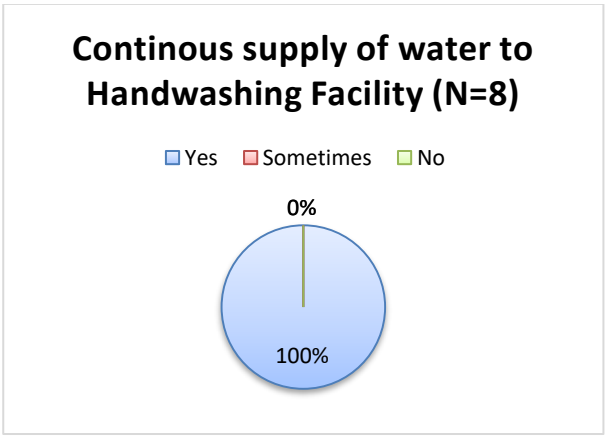
Type of handwashing facilities



Findings 126: Mwansabombwe District HCFs- types of handwashing facilities (N = 8)

Majority (75%) of the HCFs use tap bucket.

Continuous availability of water

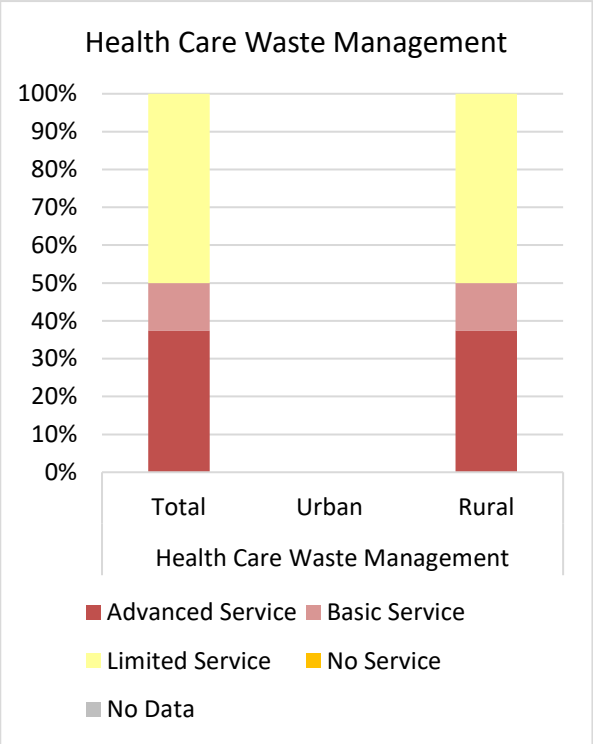


Findings 127: Mwansabombwe District HCF handwashing facility supplied with water continually (N = 8)

All the HCFs have continuous supply of water to their handwashing facilities.

5.3.5 Health Care Waste Management

Mwansabombwe JMP ladder for health care waste management services



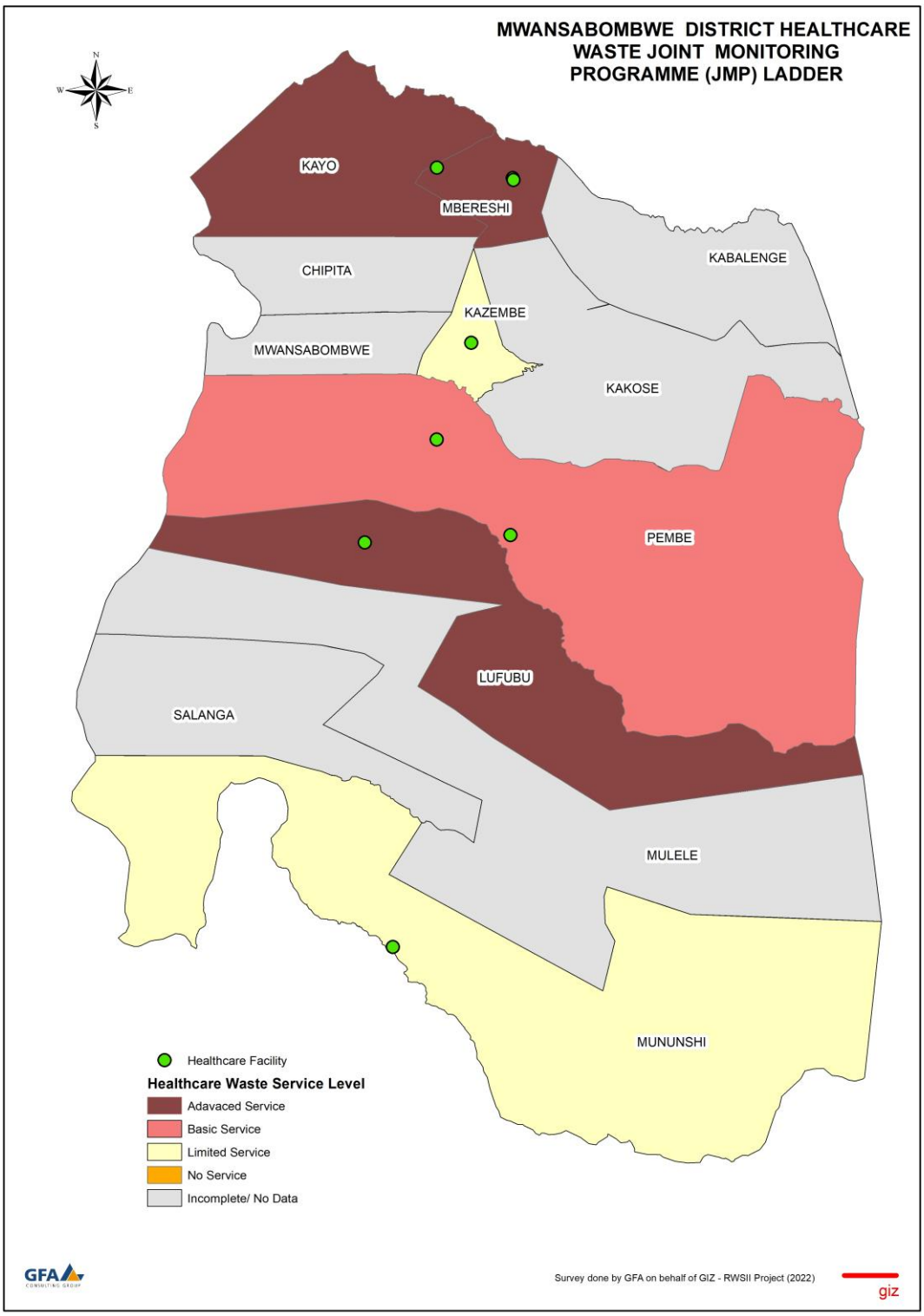
Findings 128: Mwansabombwe District JMP ladder for health care waste management services

Mwansabombwe	Health Care Waste Management		
	Total	Urban	Rural
Advanced Service	37.50%	-	37.50%
Basic Service	12.50%	-	12.50%
Limited Service	50.00%	-	50.00%
No Service	0.00%	-	0.00%
No Data	0.00%	-	0.00%
Total	**100.00%**	**0.00%**	**100.00%**

The proportion of HCFs in Mwansabombwe District using basic service is 37.5%. This is because there was need for the separation of organic waste.

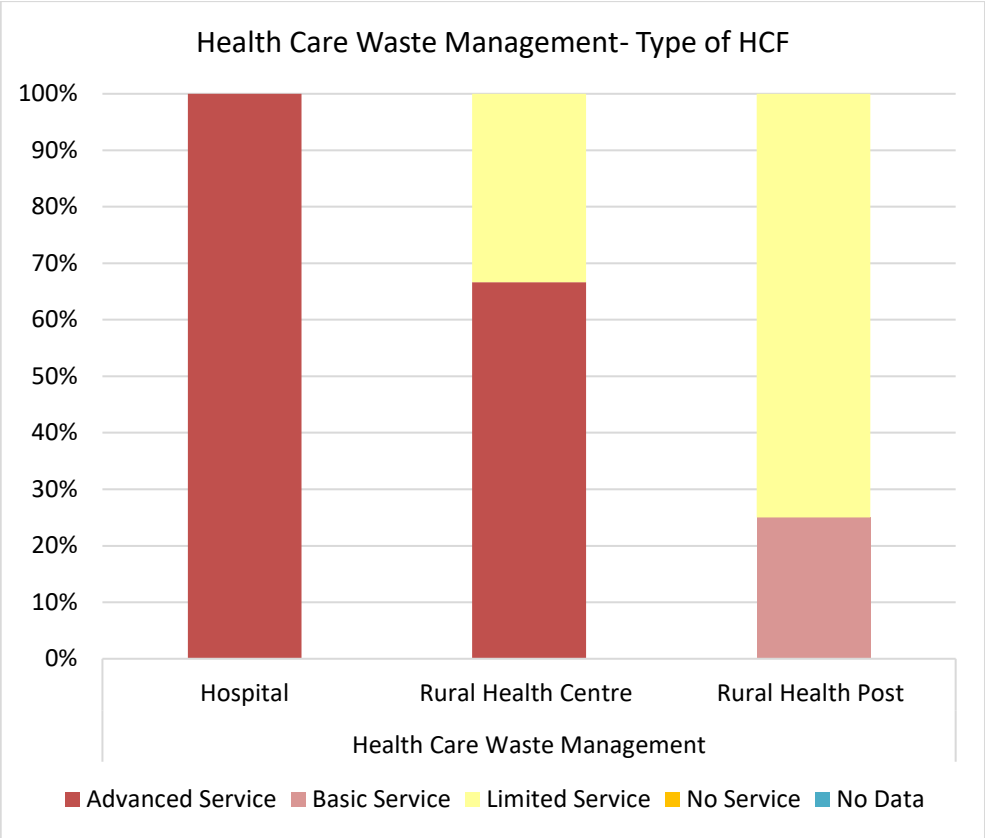
In 2022, out of 12 HCFs in Mwansabombwe District, 8 HCFs lacked advanced services including 2 with basic services, 6 with limited service and there are no HCFs without separation bins for sharps or infectious waste and/or the sharp and infectious waste is not treated.

Please refer to Table 11 for the definition and clarifications on some of the health care waste management terms.



Findings 129: Mwansabombwe District ward level JMP for HCFs waste management services

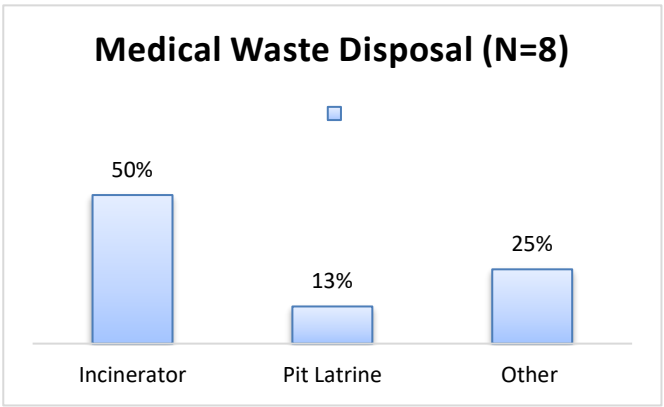
Findings 129 shows JMP indicators at the ward level. Out of the 6 wards that were represented in Mwansabombwe District, Majority of the wards (Kayo, Mbereshi and Lufubu) that have majority HCFs with waste management at advanced level. 1 ward (Pembe) has basic service and the rest of the 2 wards (Kazembe and Mununshi) have limited service.



Findings 130: Mwansabombwe District JMP for HCF health care waste management services by HCF type

100% of the hospitals have access to advanced service while RHC has a mixture of service levels (Advanced and Limited) and RHP also has a mixture of service levels (basic and limited).

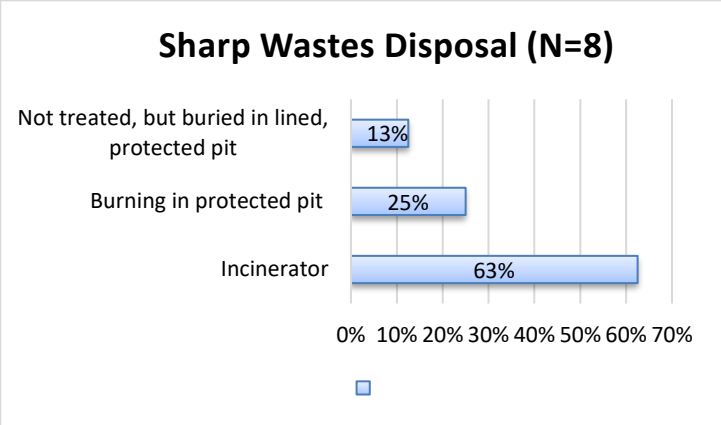
Medical waste disposal



Findings 131: Mwansabombwe District HCFs-medical wastes disposal (N = 8)

Majority of the HCFs (50%) in Mwansabombwe District use the incinerator to dispose of medical waste. While other forms of disposal are also used i.e. pit latrine and other means (transporting to nearest incinerator and burning).

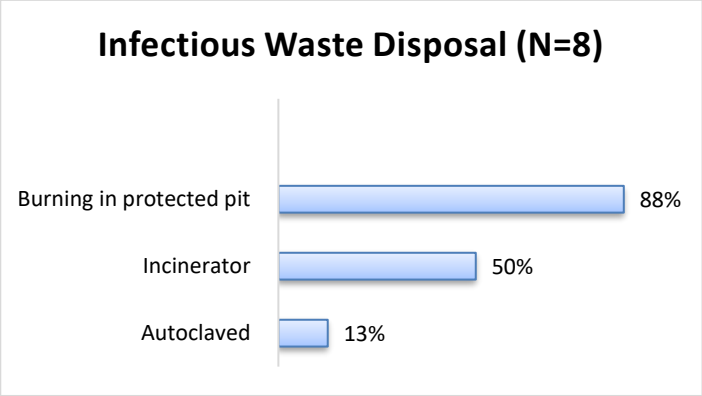
Sharp wastes disposal



Majority of the HCFs (63%) in Mwansabombwe District use the incinerator to dispose of sharp waste. While other forms of disposal are also used which are burning in protected pit or not treated but buried in lined protected pit.

Findings 132: Mwansabombwe District HCFs-sharp wastes disposal (N = 8)

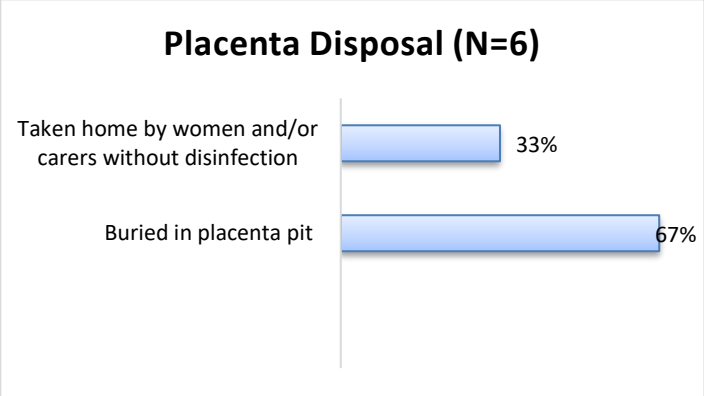
Infectious Waste Disposal



Majority of the HCFs (88%) in Mwansabombwe District dispose of infectious waste by burning in protected pit. While other forms of disposal are also used like the incinerator and autoclave.

Findings 133: Mwansabombwe District HCFs-infectious wastes disposal (N = 8)

Placenta Disposal

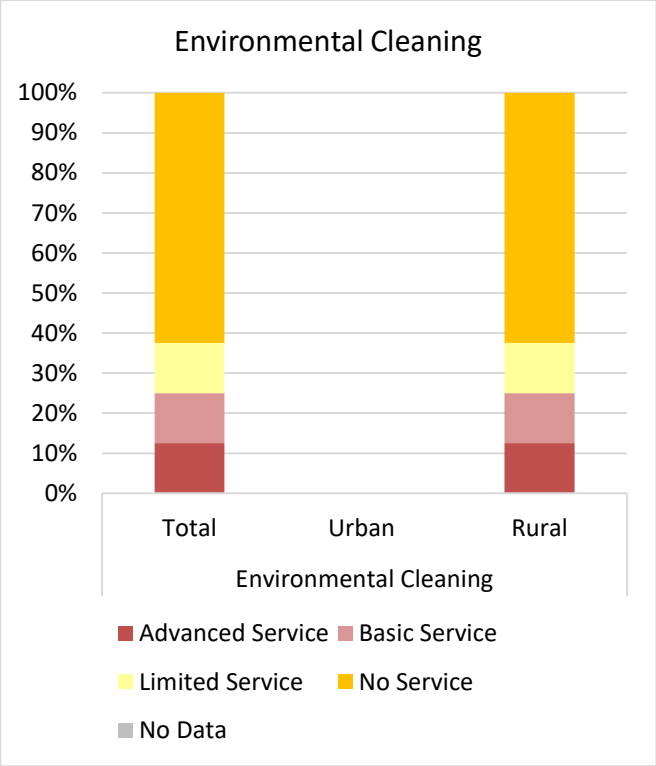


Majority of the HCFs (67%) in Mwansabombwe District bury in placenta pit as a disposal method for placentas. While there is a reputable proportion that have women/cares take home the placentas without disinfection.

Findings 134: Mwansabombwe District HCFs- placenta disposal (N = 6)

5.3.6 Environmental Cleaning

Mwansabombwe JMP ladder for environmental cleaning services



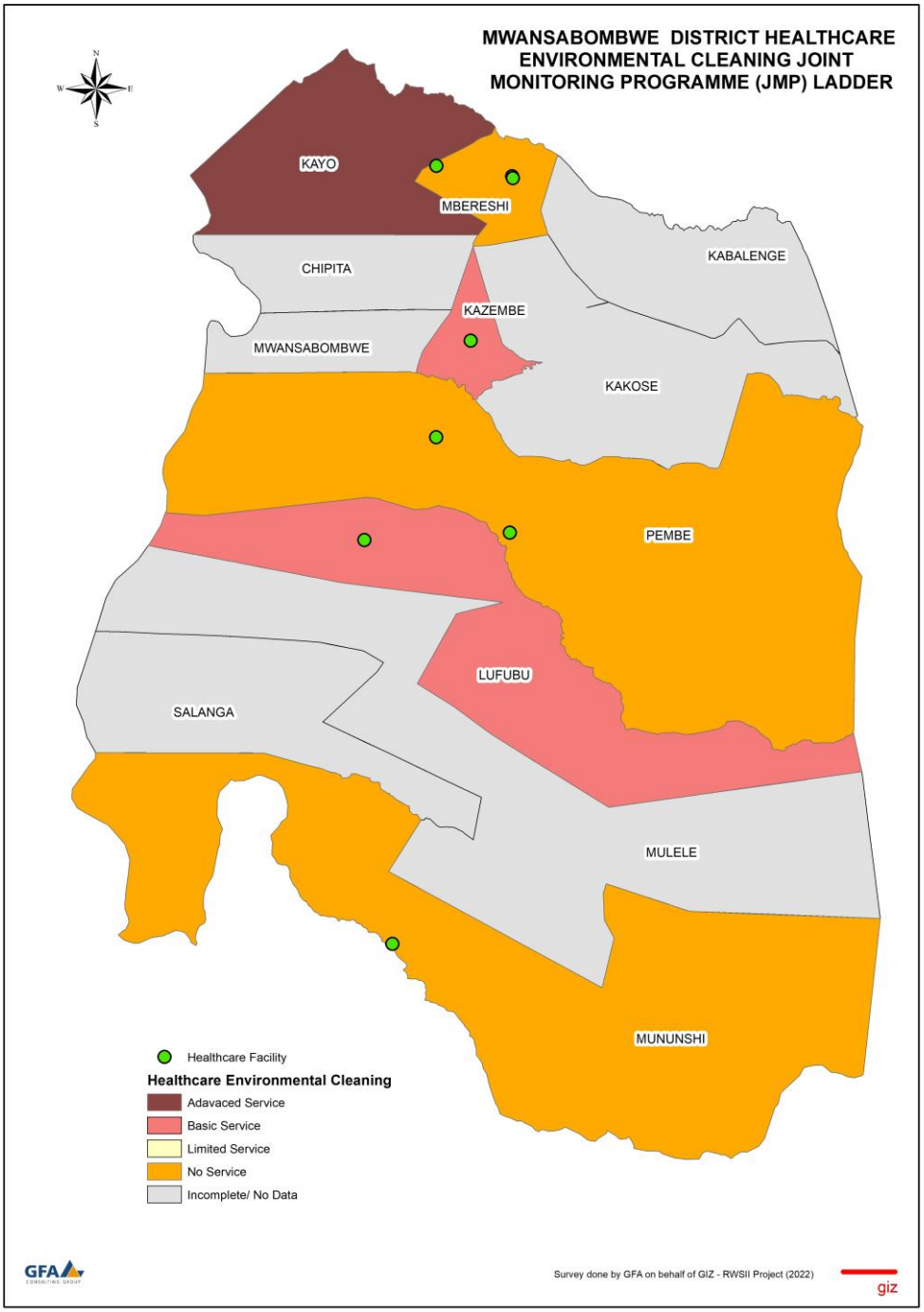
Findings 135: Mwansabombwe District JMP ladder for environmental cleaning services

Mwansabombwe	Environmental Cleaning		
	Total	Urban	Rural
Advanced Service	12.50%	-	12.50%
Basic Service	12.50%	-	12.50%
Limited Service	12.50%	-	12.50%
No Service	62.50%	-	62.50%
No Data	0.00%	-	0.00%
Total	**100.00%**	**0.00%**	**100.00%**

The proportion of HCFs in Mwansabombwe District using advanced service is 12.5%.

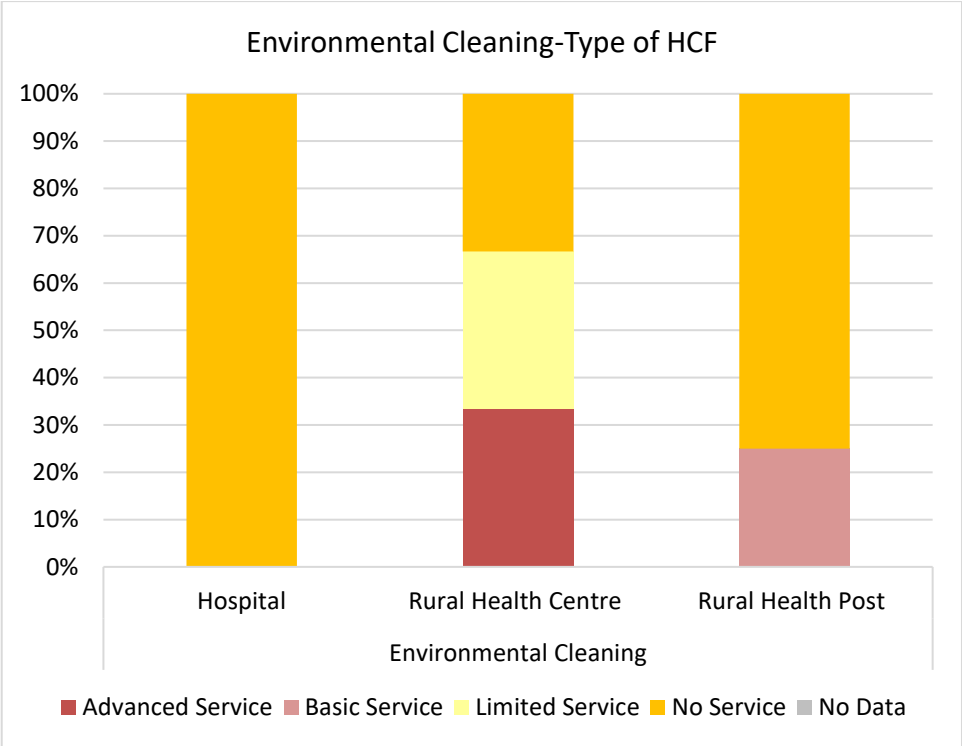
In 2022, out of 12 HCFs in Mwansabombwe District, 11 HCFs lacked advanced services including 1 with basic service, 1 with limited service and 9 with no cleaning protocols available and no staff having received training on cleaning.

Please refer to Table 12 for the definition and clarifications on some of the environmental cleaning terms.



Findings 136: Mwansabombwe District ward level JMP for HCFs environmental cleaning services

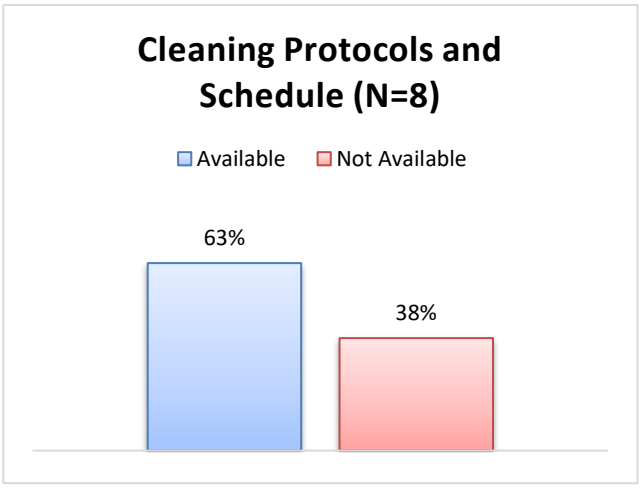
Findings 136 shows JMP indicators at the ward level. Out of the 6 wards that were represented in Mwansabombwe District, there is only 1 ward (Kayo) that has majority of its HCFs with waste management at advanced level. 2 wards (Kazembe and Lufubu) have majority of its HCFs having basic service. Most of the wards (3) have HCF that lack access environmental cleaning.



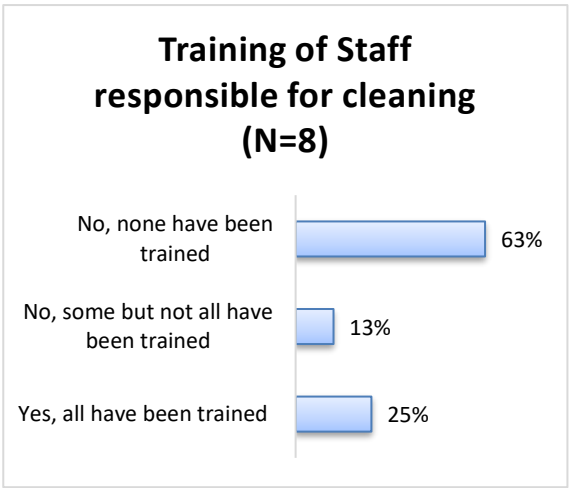
Findings 137: Mwansabombwe District JMP for HCF environmental cleaning services by HCF type

100% of hospitals do not have access to environmental cleaning while for RHCs there are mixtures of services levels (advanced, limited and no service) and RHPs also have a mixture of service levels (basic and no service).

Cleaning Protocol



Findings 138: Mwansabombwe District HCFs-cleaning protocols (N = 8)



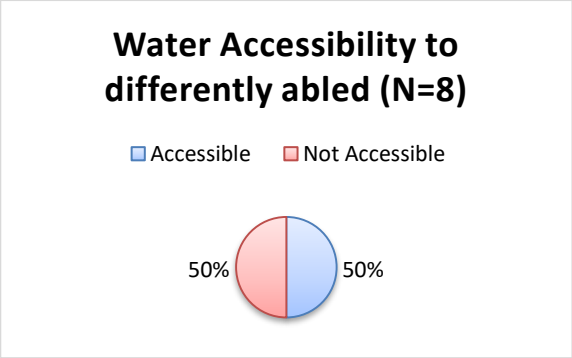
Findings 139: Mwansabombwe District HCFs-Training of Staff responsible for cleaning (N=8)

63% of the HCFs have cleaning protocols and schedules available while 38% do not.

Only 25% of the HCFs have all staff responsible for cleaning trained while majority (63%) of the HCFs have not trained any of their staff

5.3.7 Social Inclusion

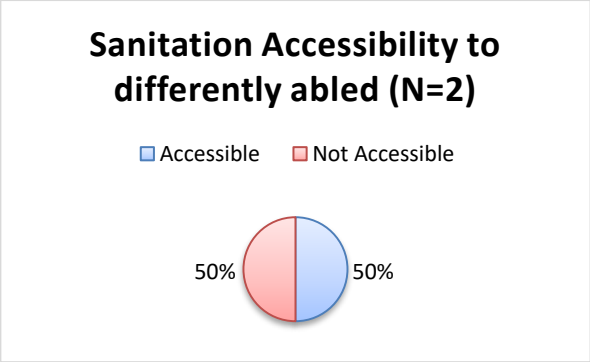
Accessibility of Water Facilities



Findings 140: Mwansabombwe District HCFs - water accessible for people with disabilities (N = 8)

73% of the water supply facilities are accessible to differently abled persons.

Accessibility of Sanitation Facilities

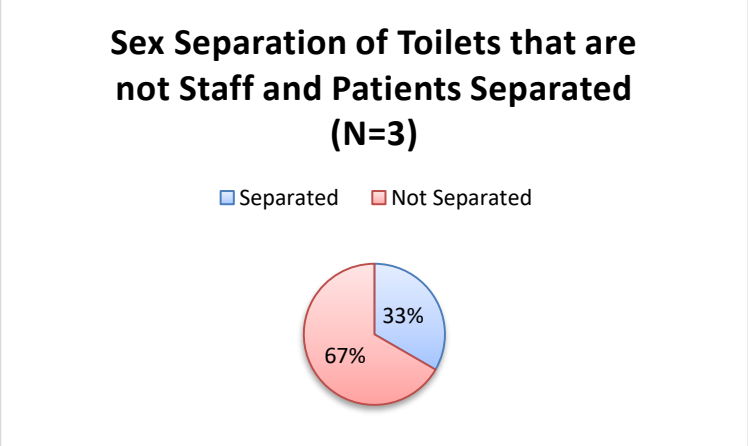


Findings 141: Mwansabombwe District HCFs – sanitation facilities accessible for people with disabilities (N = 8)

50% of the sanitation facilities are accessible to differently abled persons.

5.3.8 Gender Sensitivity Data and Information

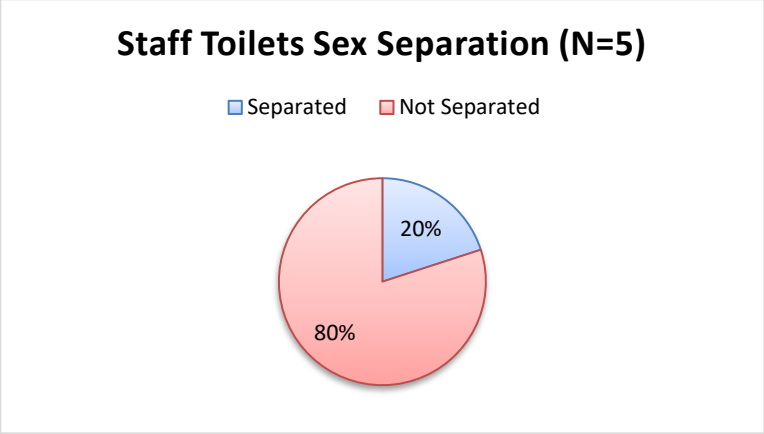
Sanitation facilities for combined staff and patients



Findings 142: Mwansabombwe District HCFs- sex separated toilets for HCFs with combined staff and patients' toilets (N=3)

Out of all the HCFs in Mwansabombwe District, 38% do not separate the staff and pupil toilets of which only 33% of these are sex separated.

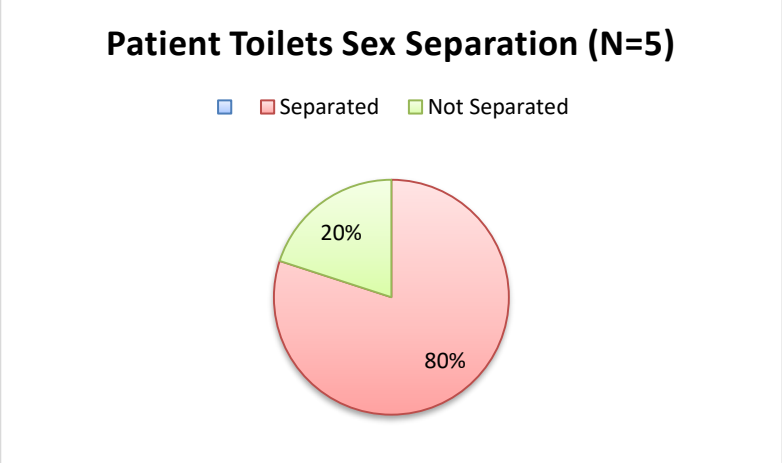
Sanitation facilities for staff only



Out of all the HCFs in Mwansabombwe that have toilets dedicated to staff, 20% are sex separated.

Findings 143: Mwansabombwe District HCFs sex separated toilets for HCFs with dedicated staff toilets (N=5)

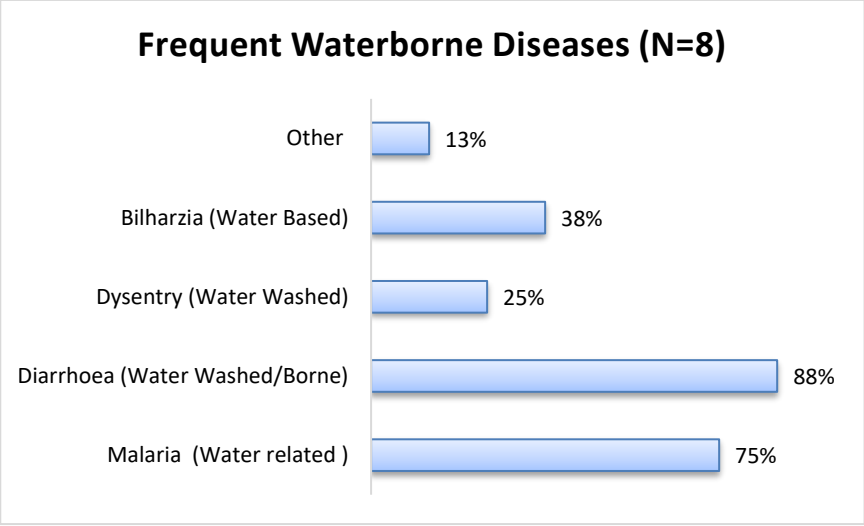
Sanitation facilities for patients



Out of all the HCFs in Mwansabombwe that have toilets dedicated to patients, 80% are sex separated.

Findings 144: Mwansabombwe District HCFs sex separated toilets for HCFs with dedicated patient toilets (N=5)

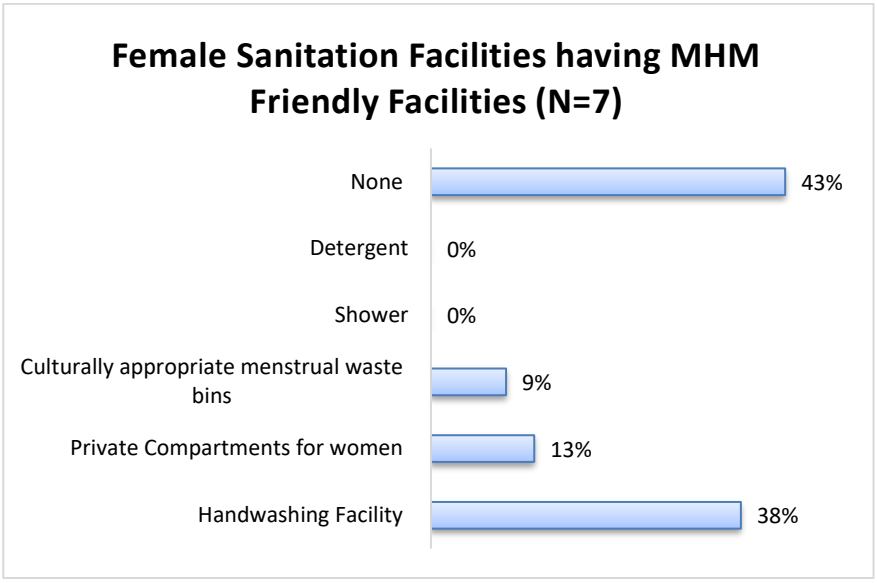
5.3.9 Waterborne Diseases



The most frequent cases attended to at the HCFs are diarrhoea (88%) and malaria (75%).

Findings 145: Mwansabombwe District HCF - most frequent water borne disease in the health care facility (N = 8)

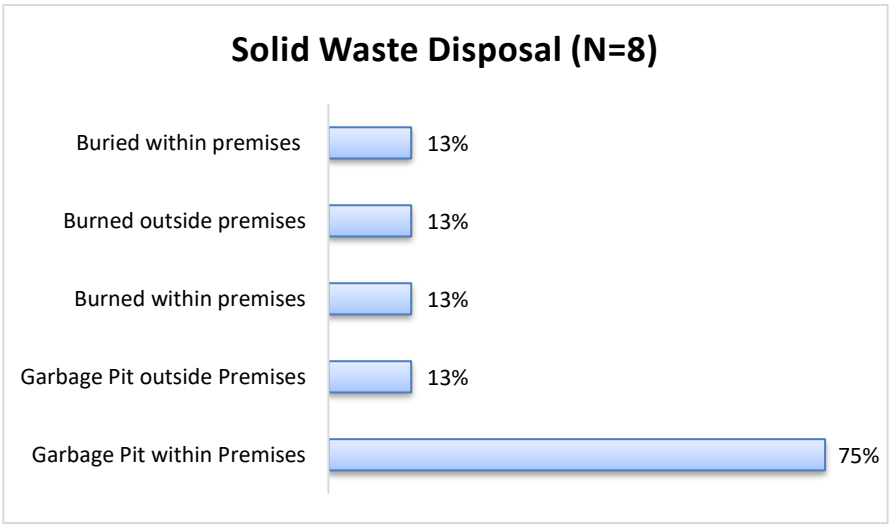
5.3.10 Menstrual Hygiene Management



Majority of the HCFs with sanitation facilities lack the MHM friendly sanitation indicators 43% while those have, majority have handwashing facilities (38%).

Findings 146: Mwansabombwe District HCF - Female sanitation facilities MHM friendly (N = 7)

5.3.11 Solid Waste Management



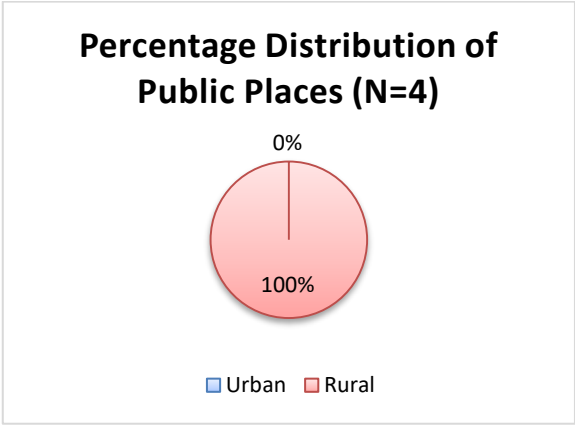
Majority of the HCFs use garbage pits within the premises to dispose of Solid waste.

Findings 147: Mwansabombwe District HCFs Solid Waste Disposal (N = 8)

5.4 Public Places

5.4.1 Overview of Public Places & Electricity Connectivity

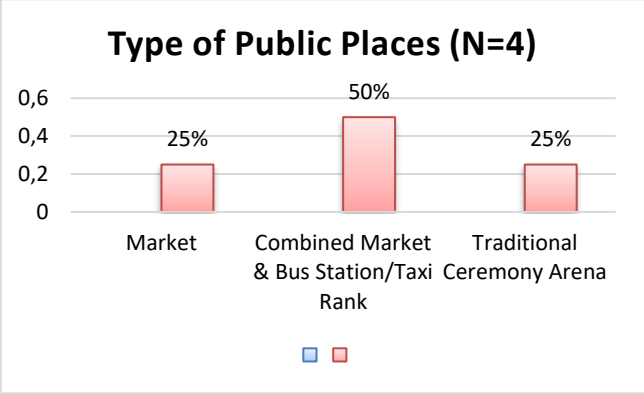
Average distribution of public places in Mwansabombwe



Findings 148: Mwansabombwe District distribution of public places (N = 4)

All public places interviewed were in the rural areas. This represents the distribution of public places in Mwansabombwe.

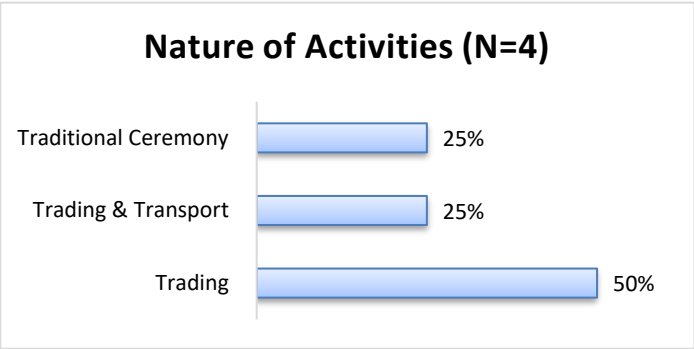
Types of public places



Findings 149: Mwansabombwe District - types of public places (N = 4)

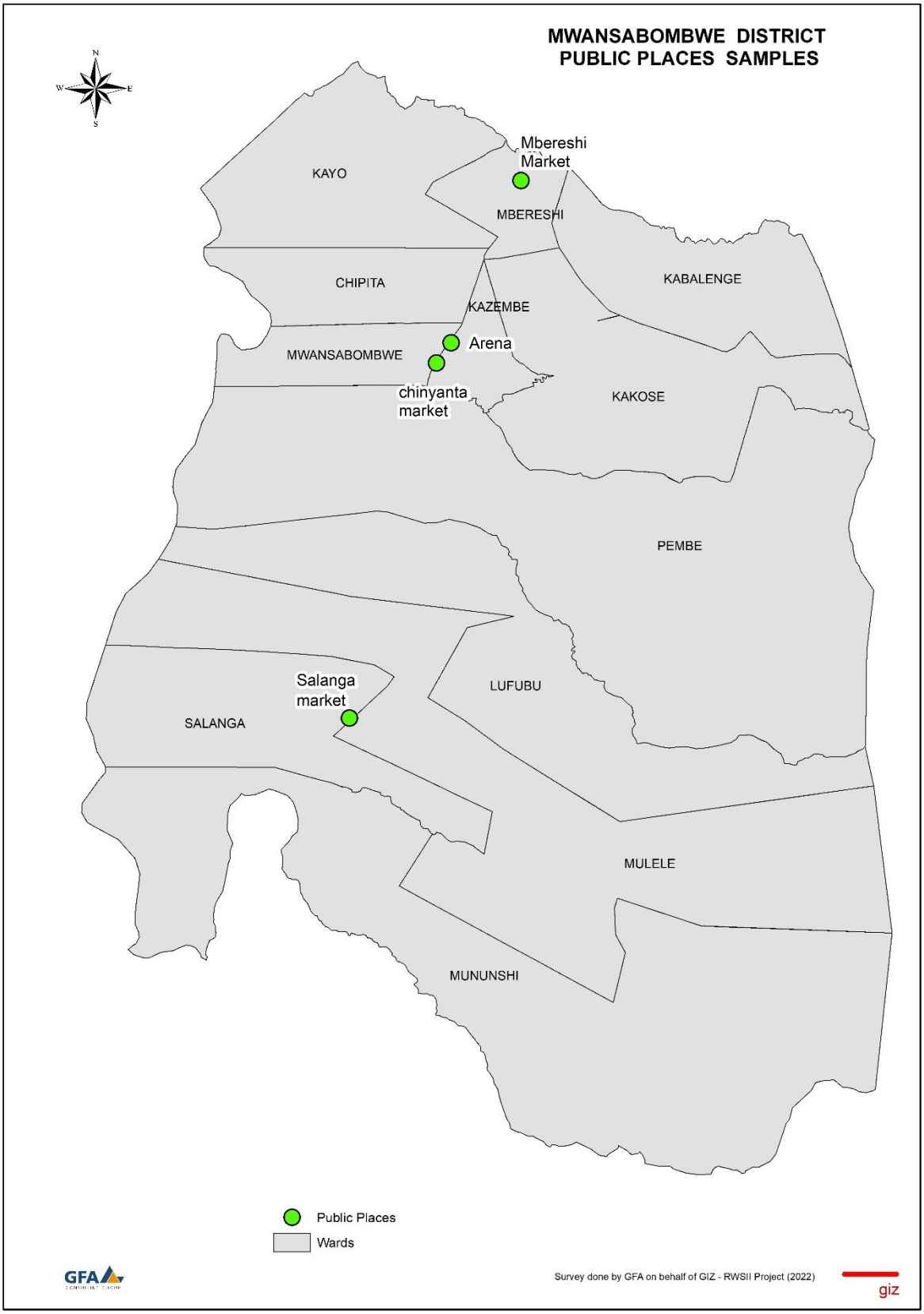
Majority of the public places in Mwansabombwe District are combined markets & bus station/ taxi rank (50%).

Nature of activities



Findings 150: Mwansabombwe District - public places nature of activities (N = 4)

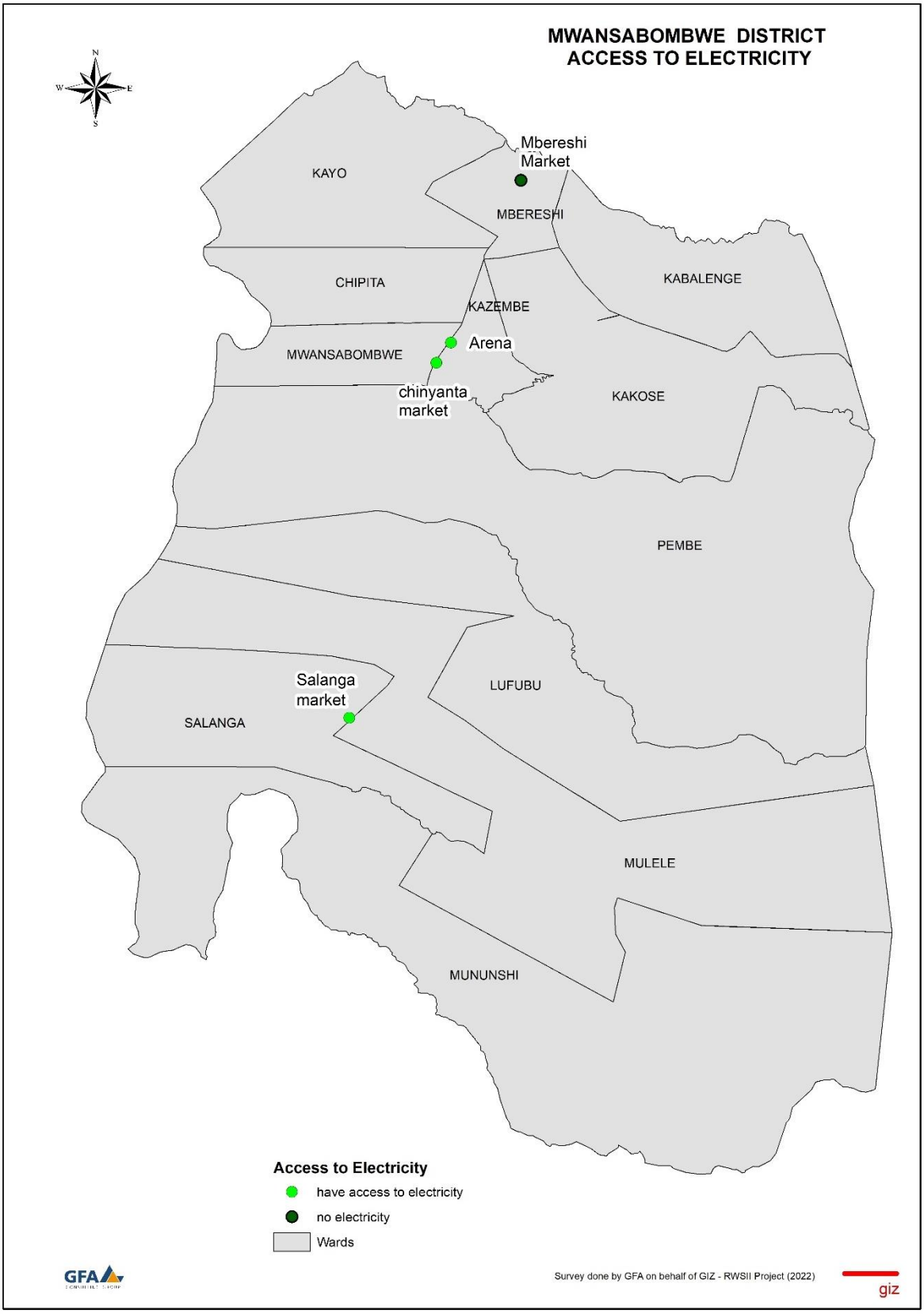
The nature of activities of majority of the public places in Mwansabombwe is trading.



Findings 151: Mwansabombwe District public places

The public places that were covered in the survey included 3 markets and one traditional arena. The markets were in Mbereshi, Salanga and Mwansabombwe/ Kazembe wards. The traditional arena was in Kazembe ward.

Connection to electricity

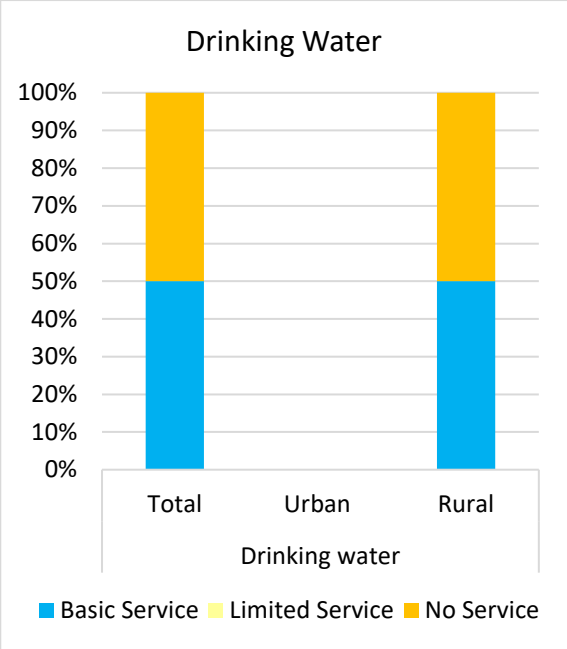


Findings 152: Mwansabombwe District - electricity connection of public places (N = 4)

Majority (75%) of the public places have access to electricity. All of those that are not connected are willing to connect to electricity.

5.4.2 Water Supply Services

Mwansabombwe JMP ladder for drinking water services



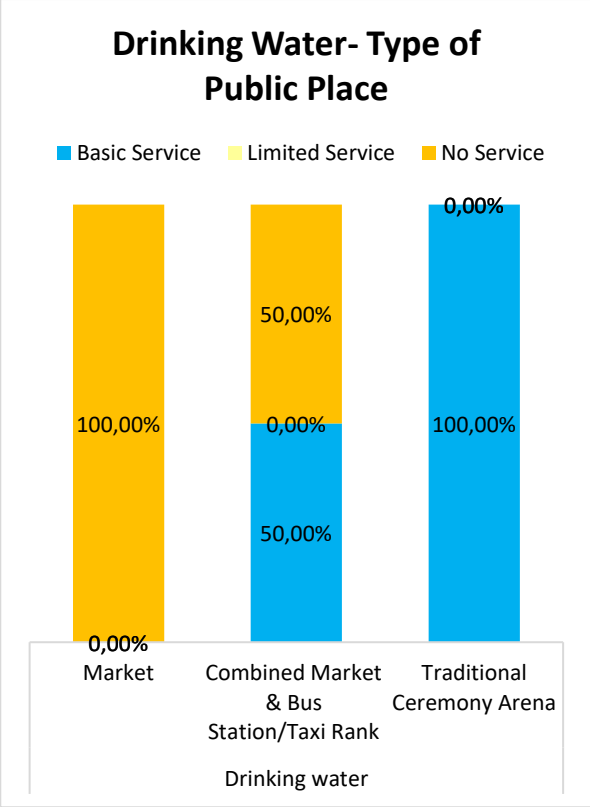
Findings 153: Mwansabombwe District ward level JMP for public places drinking water services

Mwansabombwe	Drinking water		
	Total	Urban	Rural
Basic Service	50.00%	-	50.00%
Limited Service	0.00%	-	0.00%
No Service	50.00%	-	50.00%
Total	**100.00%**	**0.00%**	**100.00%**

The proportion of public places in Mwansabombwe District using basic services is 50%

In 2022, out of the 4 public places in Mwansabombwe District, 2 public places lacked basic services including 2 public places having no water source or having access to an unimproved water source.

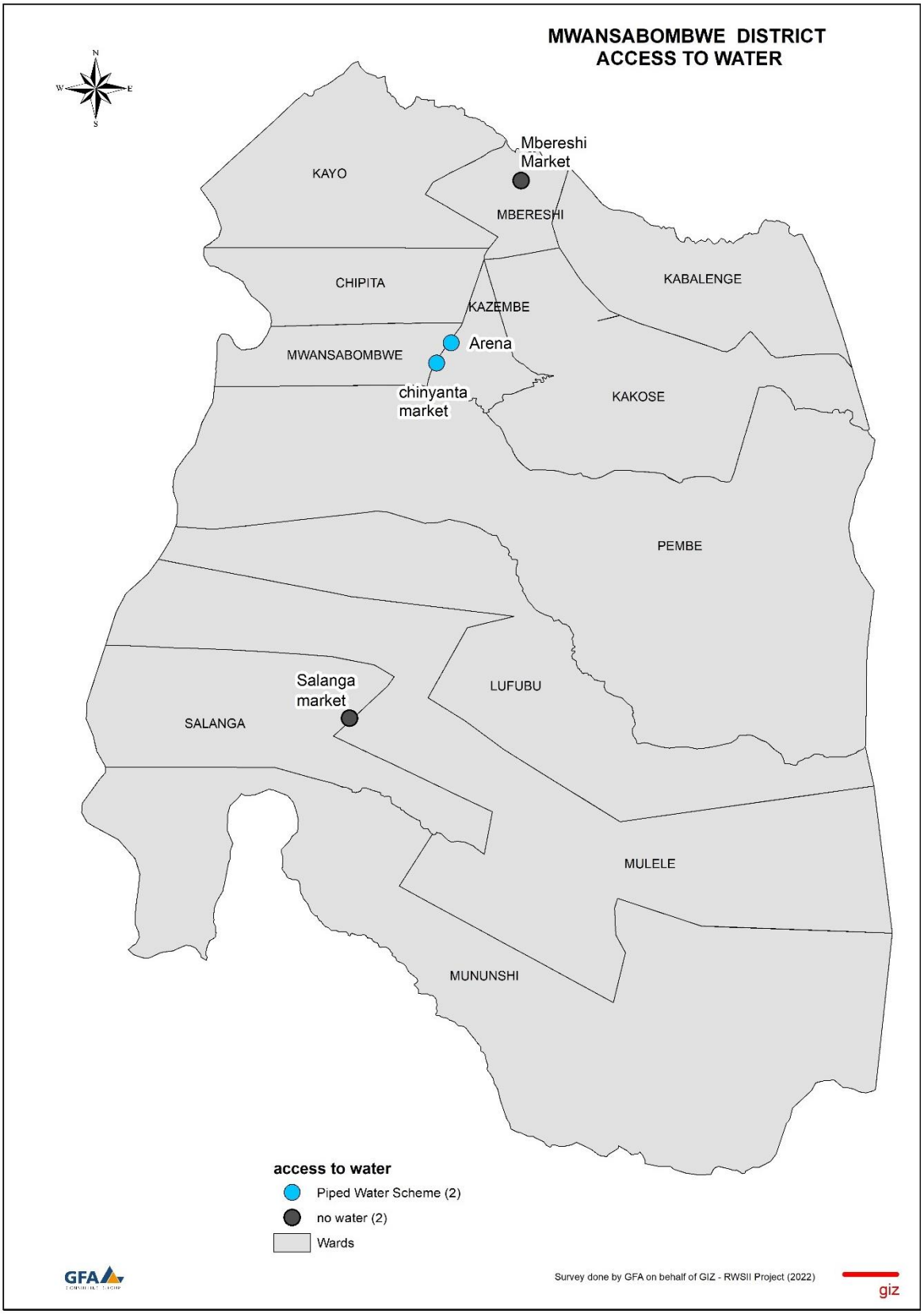
Please refer to Table 13 for the definition and clarifications on some of the drinking water terms.



Findings 154: Mwansabombwe District JMP for public places drinking water services by public places type

100% markets only had no service. For combined markets & bus stations/taxi rank, 50% had basic service and 50% had no service. While 100% of the traditional ceremony arena have access to basic service.

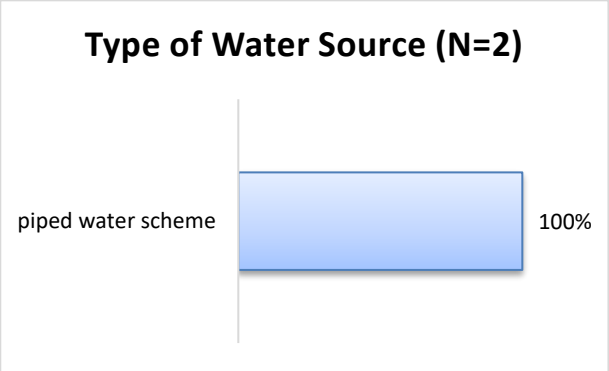
Access to water



Findings 155: Mwansabombwe District - type of water access for public places (N = 4)

From the Findings 155, 50% of the public places don't have access to water and 50% have access to piped water scheme

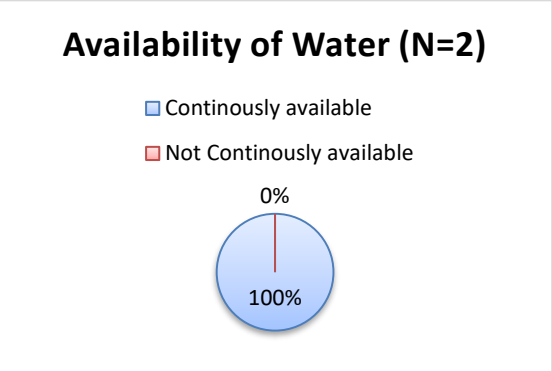
Type of water source



Findings 156: Mwansabombwe District type of water source for public places (N = 2)

All the public places with water sources are using piped water schemes.

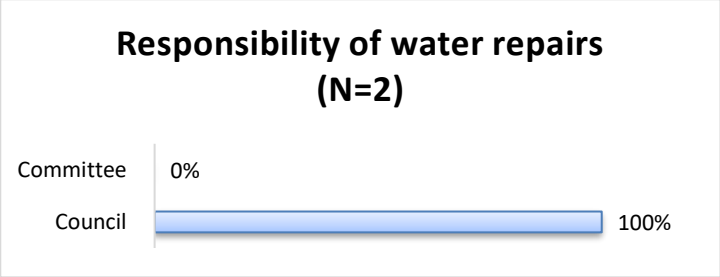
Availability of water



Findings 157: Mwansabombwe District Water availability for public places (N = 2)

All the public places with water sources have water which is continuously available. Water was always available when needed for drinking, cleaning and operations.

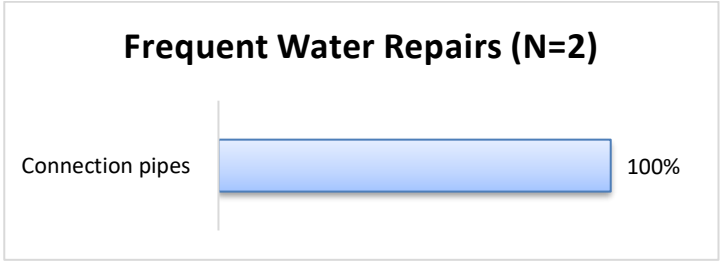
Maintenance



Findings 158: Mwansabombwe District water facility - responsibility of repairs for public places (N = 2)

The responsibility of conducting repairs is the sole responsibility of the council.

Most frequent repairs



Findings 159: Mwansabombwe District water facility - frequent repairs for public places (N = 2)

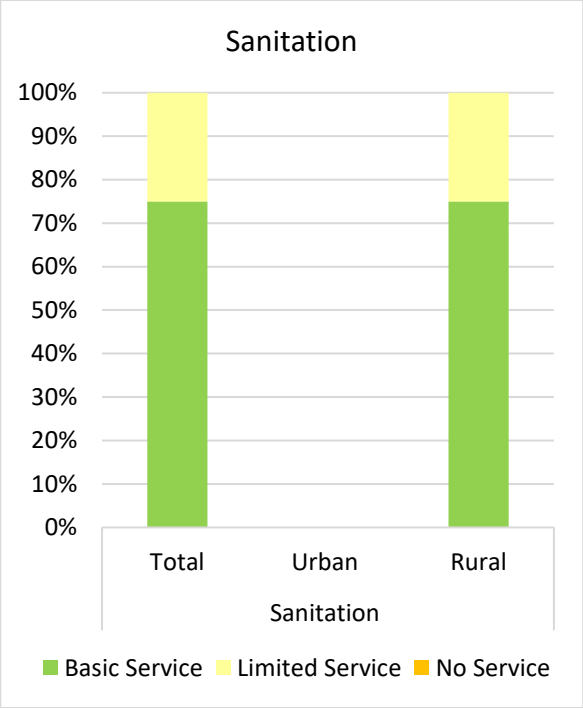
All the repairs conducted on the water sources are done on the connection pipes.

Findings 160: Mwansabombwe District - availability of spare parts for public places (N = 1)

Spare parts for the water sources are hardly available for the public places in Mwansabombwe District.

5.4.3 Sanitation Services

Mwansabombwe JMP ladder for sanitation services



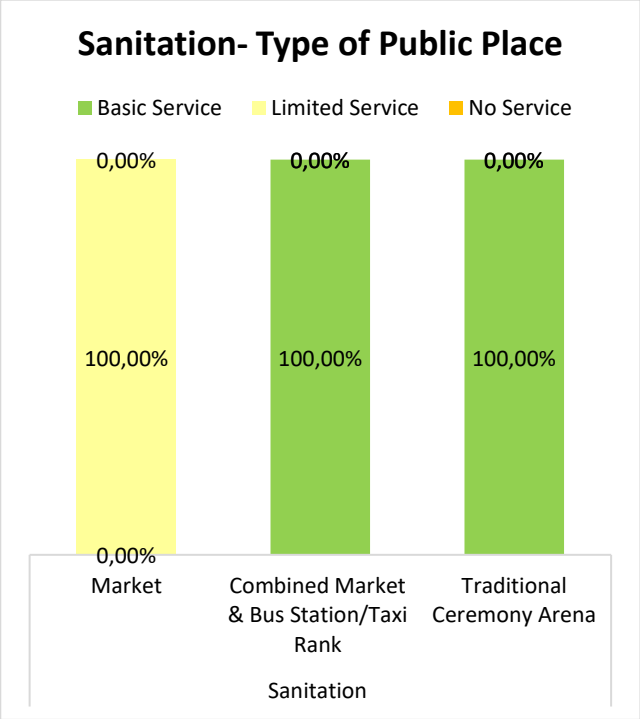
Findings 161: Mwansabombwe public places JMP ladder for sanitation

Mwansabombwe	Sanitation		
	Total	Urban	Rural
Basic Service	75.00%	-	75.00%
Limited Service	25.00%	-	25.00%
No Service	0.00%	-	0.00%
Total	**100.00%**	**0.00%**	**100.00%**

The proportion of public places in Mwansabombwe District using basic services is 75%

In 2022, out of the of 4 public places in Mwansabombwe District, 1 public place lacked basic services including 1 public place with limited services.

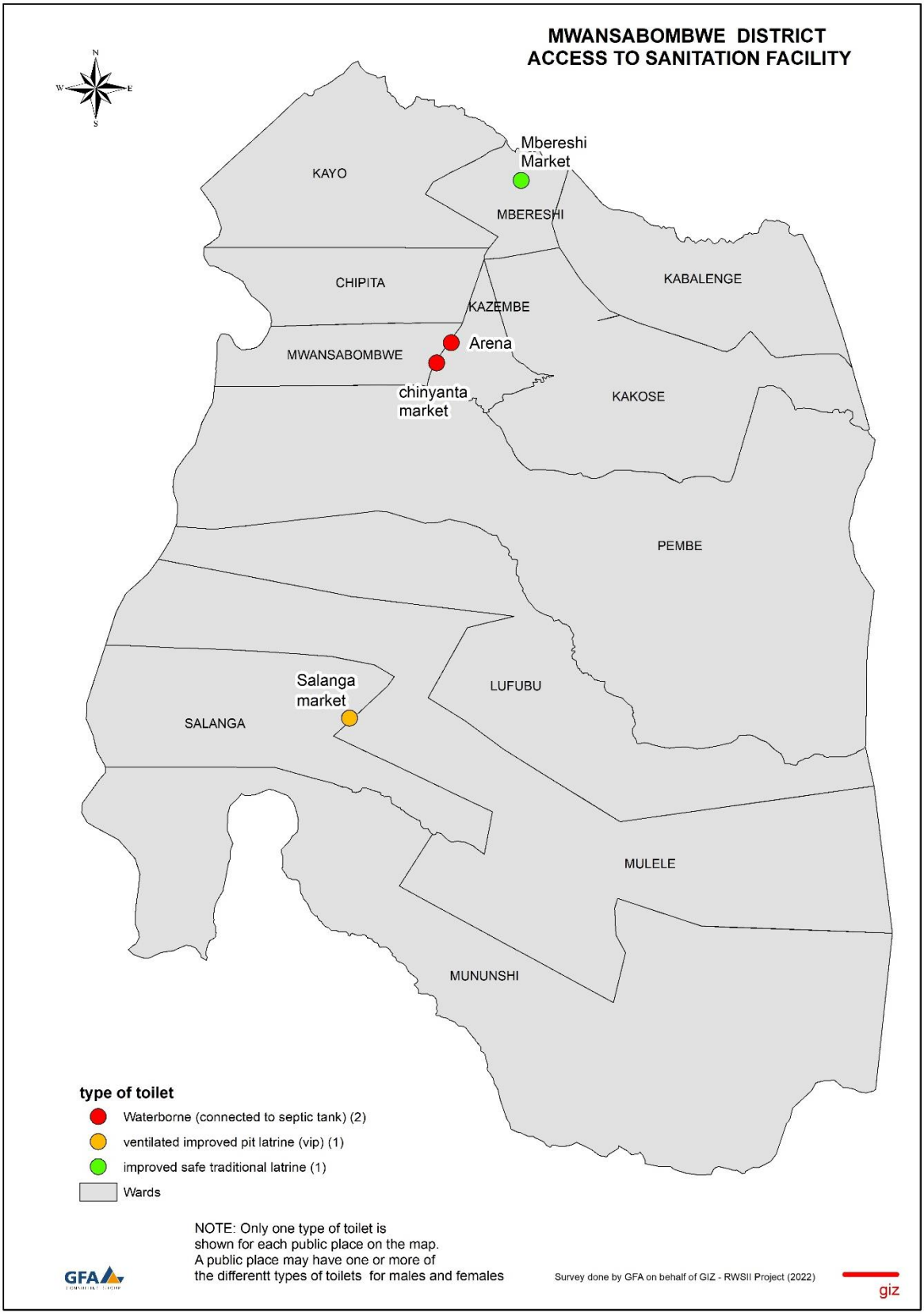
Please refer to Table 14 for the definition and clarifications on some of the sanitation terms.



Findings 162: Mwansabombwe District JMP for public places sanitation services by public place type

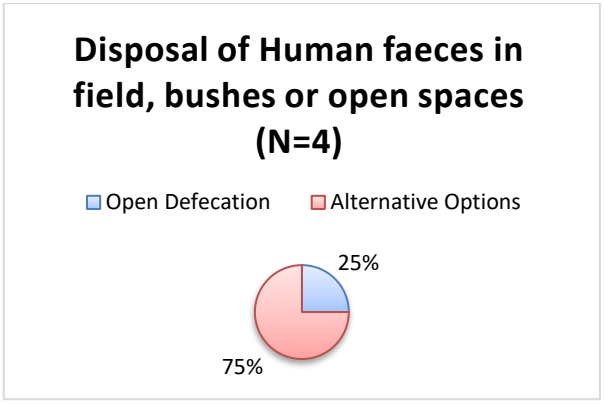
100% of the markets only had access to limited sanitation services.100 of the combined markets and bus stations/ taxi rank had basic. While 100% of traditional ceremony arena had access to basic sanitation services.

Access to sanitation facilities



Findings 163: Map of Mwansabombwe District Public Places - Access to Sanitation facilities

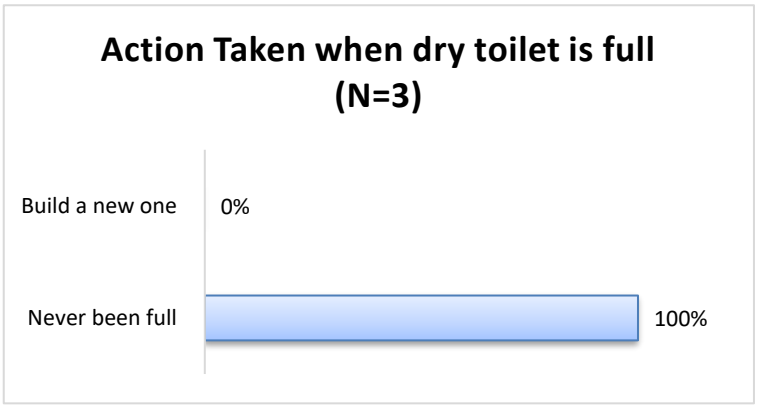
From Findings 163, in general, the main type of sanitation for public places in is the Waterborne connected to septic tank. The other types of toilets were Ventilated Improved Pit Latrines (VIP) and the Improved Safe Traditional Latrines.



Findings 164: Mwansabombwe District open defecation in public places (N = 4)

25% of the public places still practice open defecation.

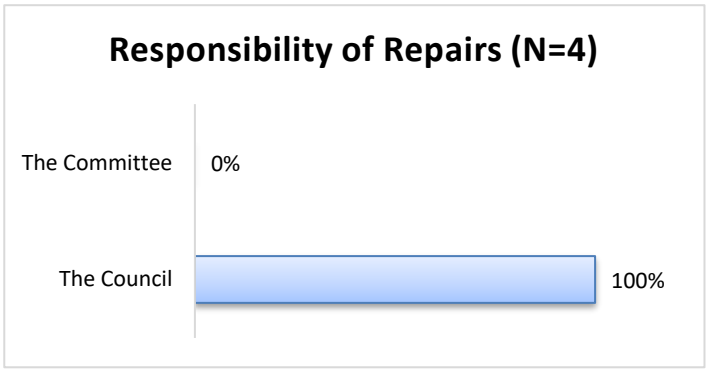
Emptying practices



Findings 165: Mwansabombwe District Public Places toilet emptying practices (N =3)

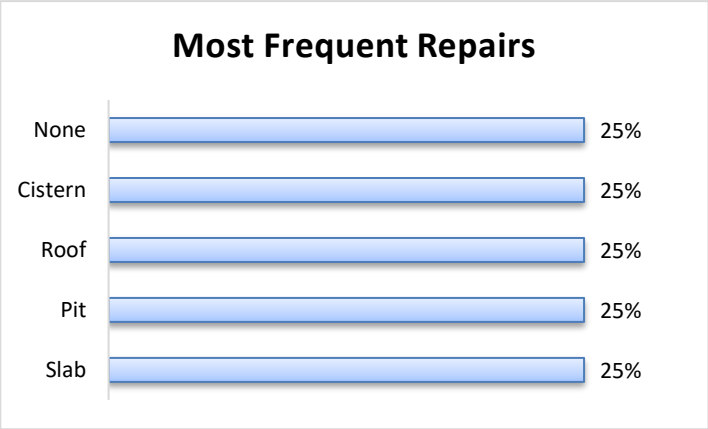
Like the other categories, Public Places toilet emptying practices is unknown yet as they have never been full yet.

Maintenance of sanitation facilities



Findings 166: Mwansabombwe District public places- responsibility for repair of toilet (N = 4)

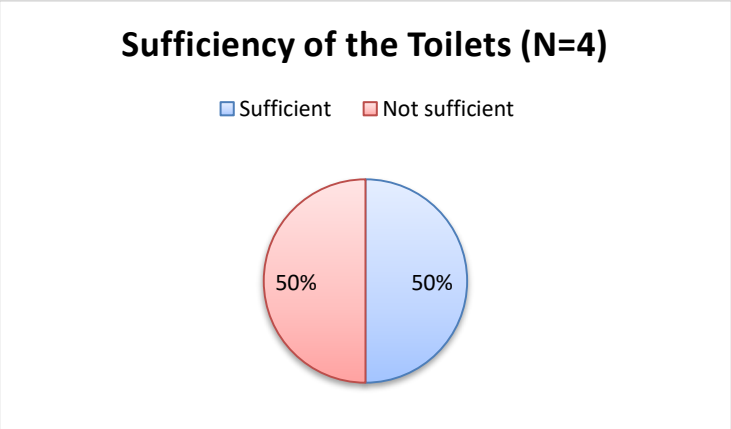
In general, the council takes responsibility of repairing the toilets.



Findings 167: Mwansabombwe District public places -most frequent repairs for toilets (N=4)

Of all repairs, it was found that there were none, cistern, roof, pit and slab.

Sufficiency of toilets

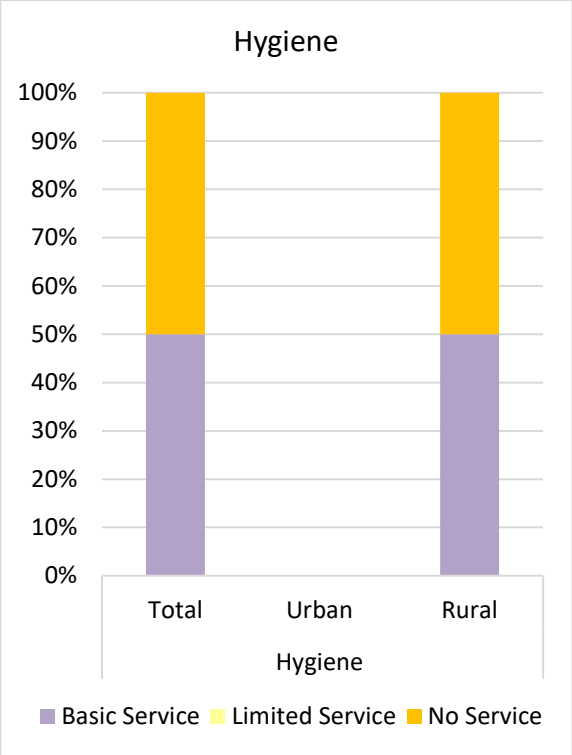


Findings 168: Sufficiency of sanitation facilities (N=4)

50% of the public places in Mwansabombwe have insufficient toilets this is because the number of toilets does not match the population.

5.4.4 Hygiene Services

Mwansabombwe JMP ladder for hygiene services



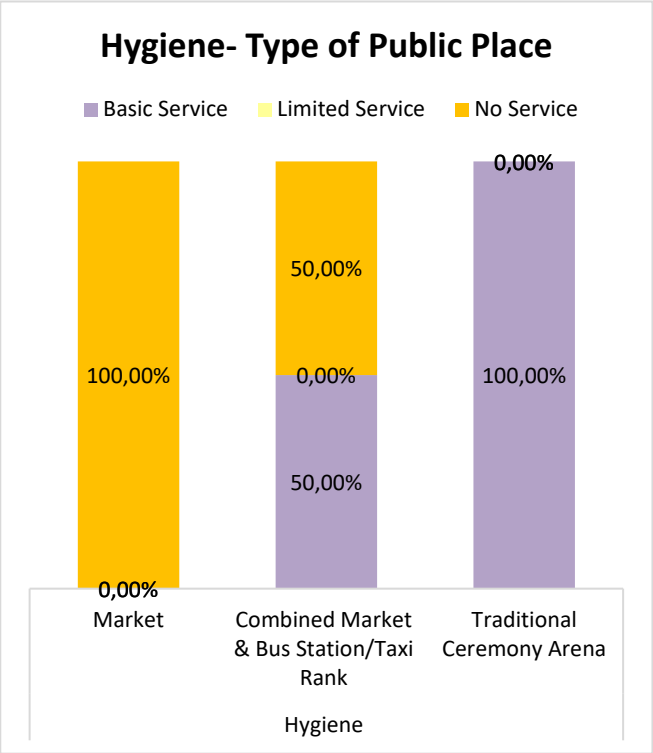
Findings 169: Mwansabombwe District JMP ladder for hygiene services

Mwansabombwe	Hygiene		
	Total	Urban	Rural
Basic Service	50.00%	-	50.00%
Limited Service	0.00%	-	0.00%
No Service	50.00%	-	50.00%
Total	**100.00 %**	**0.00%**	**100.00%**

The proportion of public places in Mwansabombwe District using basic service is 50%.

In 2022, out of 4 public places in Mwansabombwe District, 2 public places lacked basic services i.e., 2 public places with no service.

Please refer to Table 15 for the definition and clarifications on some of the hygiene terms.



Findings 170: Mwansabombwe District JMP for public places hygiene services by public place type

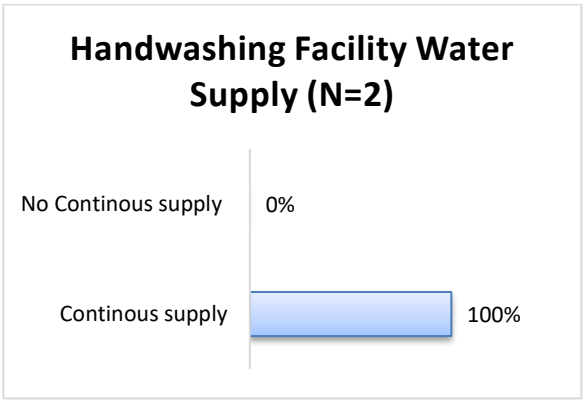
100% of the market only do not have access to hygiene services. As for the Combined markets and bus station / taxi rank 50% basic service and 50% no service while for the traditional ceremony arena there is 100% basic service.

Type of handwashing facilities

Findings 171: Mwansabombwe District public places- types of handwashing facilities (N=2)

50% of the public places use the water sink and 50% use the tap.

Continuous availability of water supply

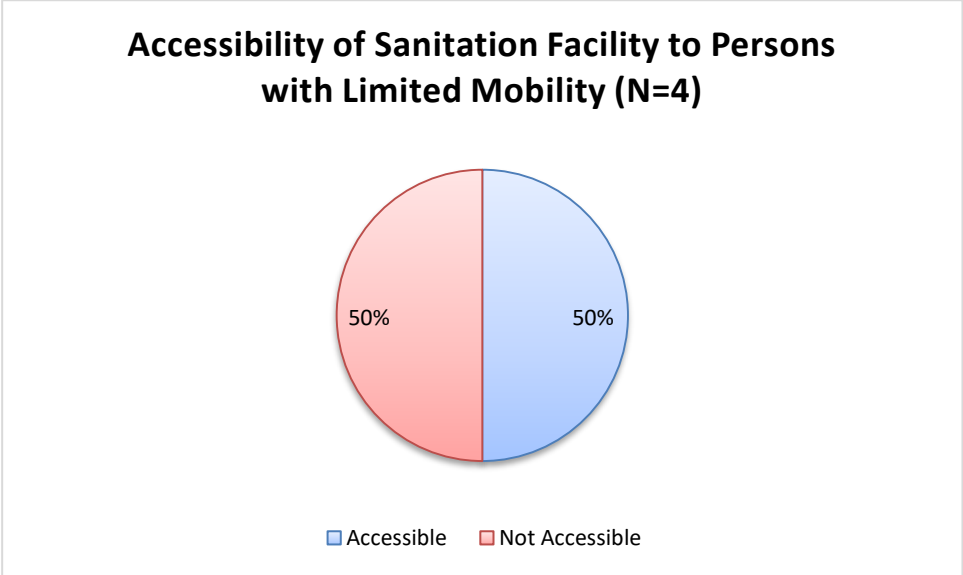


Findings 172: Mwansabombwe District Public Places- Water Supply to Handwashing Facility (N=2)

All the public places with handwashing facilities have continuous supply of water to them.

5.4.5 Social Inclusion

Accessibility of Sanitation Facilities

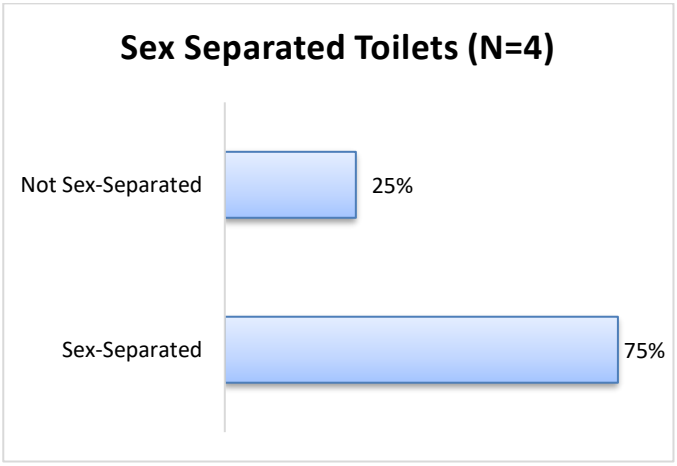


Findings 173: Mwansabombwe District public places- Sanitation facility accessibility to persons with limited mobility (N =4)

50% of the public places have sanitation facilities that are accessible to differently abled persons.

5.4.6 Gender sensitivity data and information

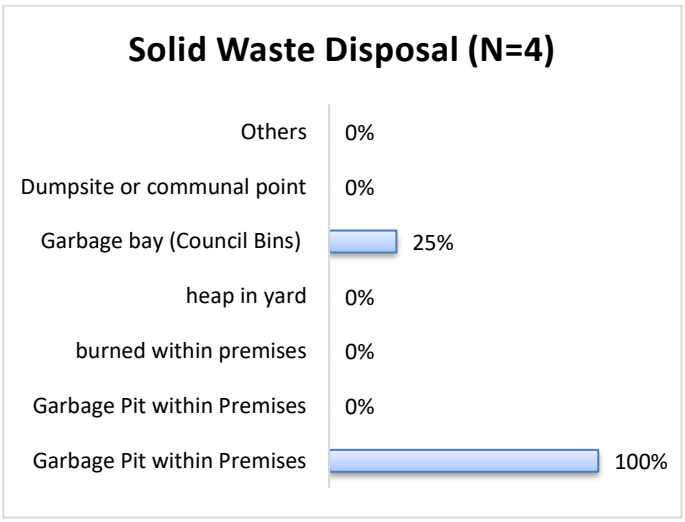
Public places toilets



73% of the public places with toilets have sex separated toilets

Findings 174: Mwansabombwe District - sex-separated toilets for public places (N =4)

5.4.7 Solid Waste Management



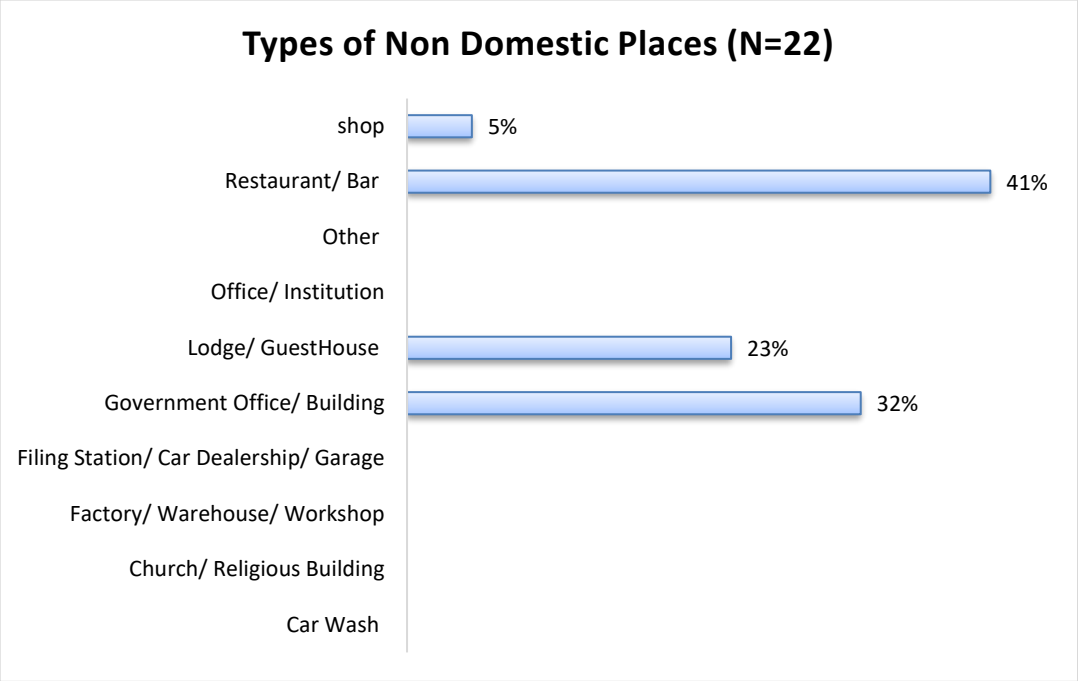
Majority of the public places use the garbage pit within premises to dispose of Solid waste

Findings 175: Mwansabombwe District Solid Waste Disposal in Public Places (N =4)

5.5 Non-Domestic Premises

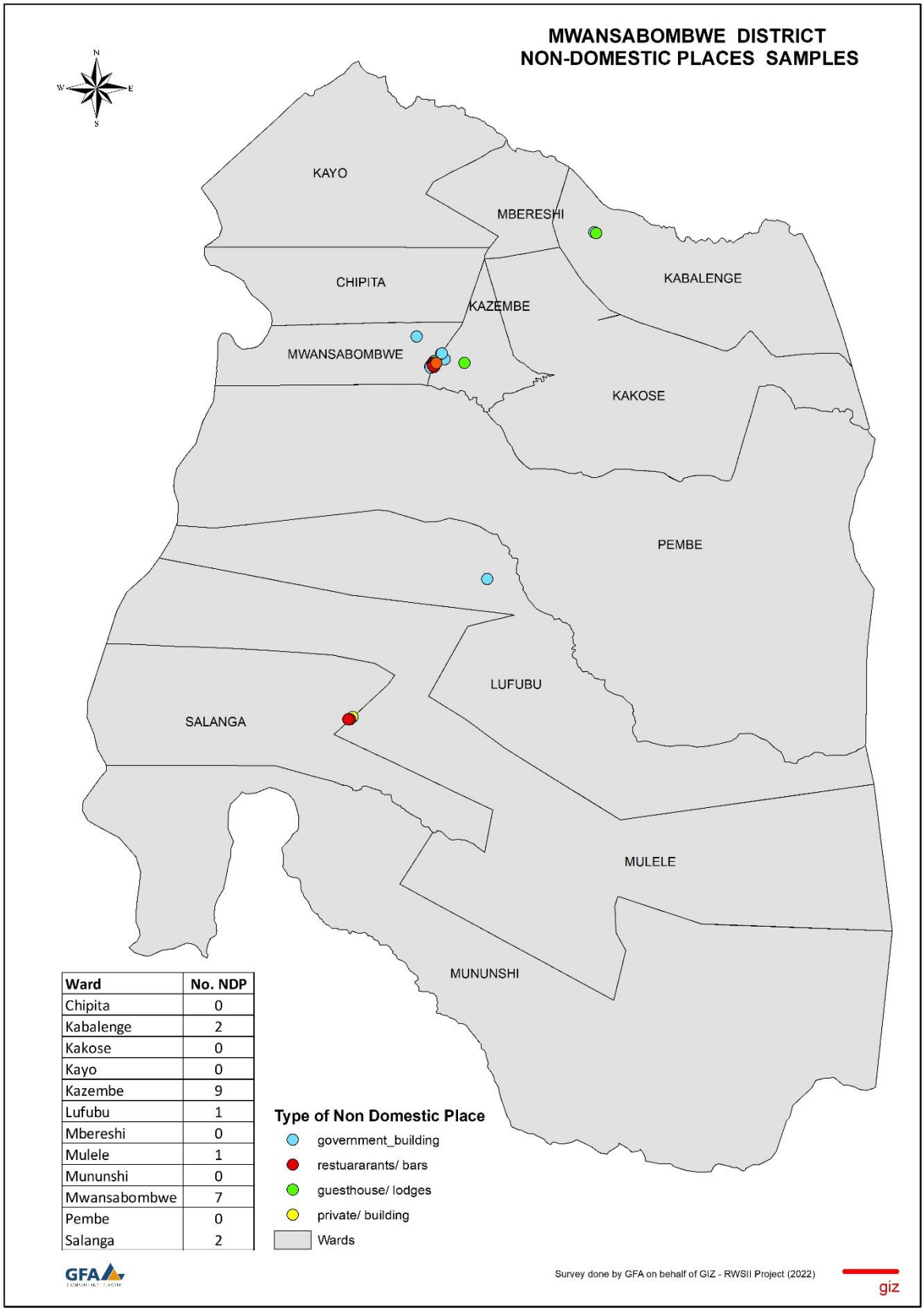
5.5.1 Overview of Non-Domestic Premises & Electricity Connectivity

Types of non-domestic places in Mwansabombwe



Findings 176: Mwansabombwe District types of non-domestic places (N=22)

Majority of the non-domestic places in Mwansabombwe District are restaurants & bars (41%) and Government office/building (32%). There was sample to represent the churches or religious buildings.

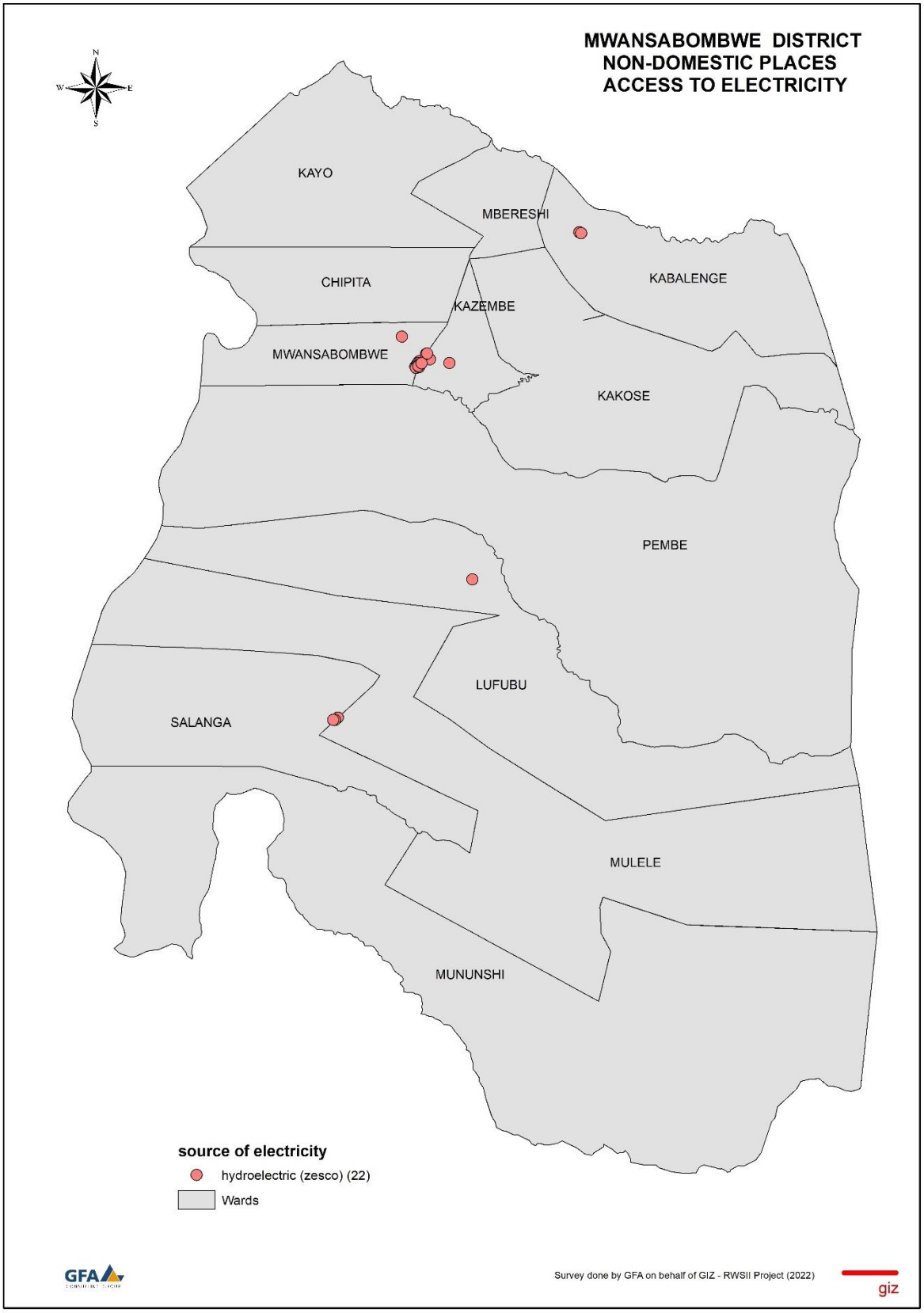


Ward	No. NDP
Chipita	0
Kabalenge	2
Kakose	0
Kayo	0
Kazembe	9
Lufubu	1
Mbereshi	0
Mulele	1
Mununshi	0
Mwansabombwe	7
Pembe	0
Salanga	2

Findings 177: Mwansabombwe District Non-domestic Places

From the Findings 177, a total of 22 non domestic places were surveyed. Most of the non domestic places were government offices or buildings. Other non domestic places surveyed included bars/ restaurants, guest houses/ lodges and private buildings.

Connection to electricity

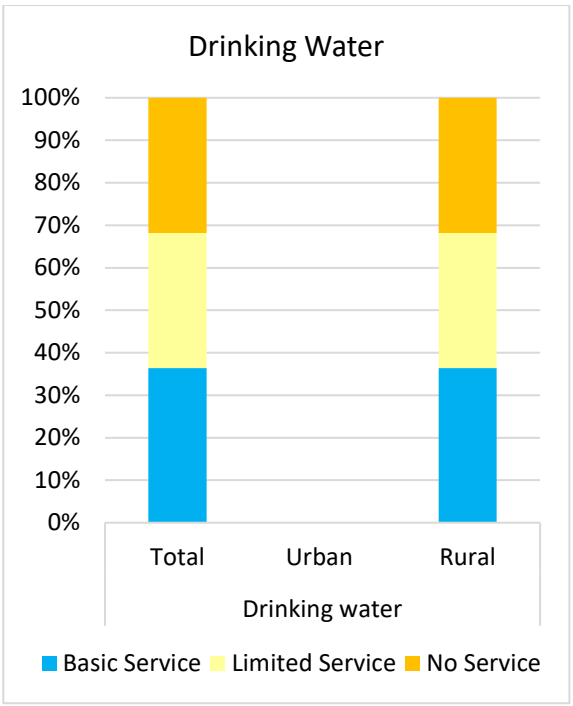


Findings 178: Mwansabombwe District non-domestic - connection to electricity

All the Non-Domestic Places surveyed in Mwansabombwe District have access to electricity and are connected to ZESCO.

5.5.2 Water Supply Services

Mwansabombwe JMP ladder for drinking water services



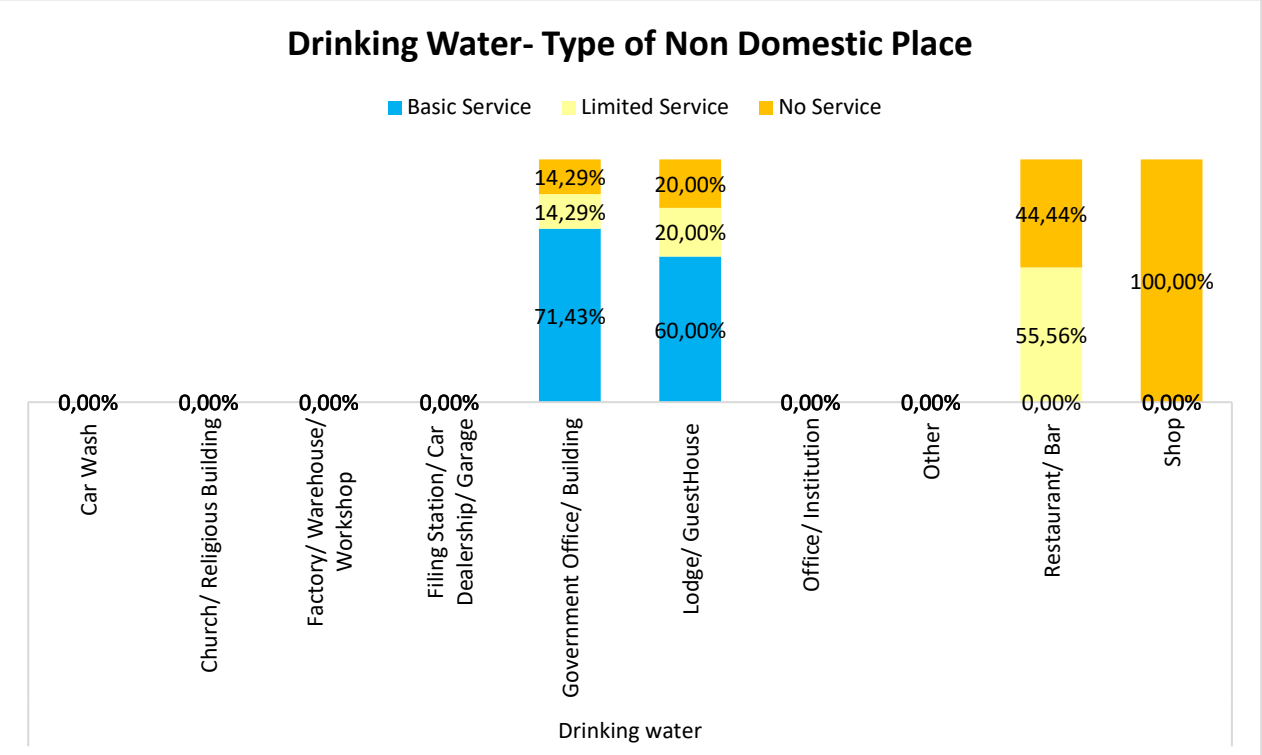
Findings 179: Mwansabombwe non-domestic JMP ladder for drinking water

Mwansabombwe	Drinking water		
	Total	Urban	Rural
Basic Service	36.36%	-	36.36%
Limited Service	31.82%	-	31.82%
No Service	31.82%	-	31.82%
Total	**100.00%**	**0.00%**	**100.00%**

The proportion of non-domestic places in Mwansabombwe District using basic services is 36.36%.

In 2022, out an estimated total of the 40 non-domestic places in Mwansabombwe District, 25 non-domestic places lacked basic services including 13 non-domestic places with limited services, and 12 non-domestic places having no water source or having access to an unimproved water source.

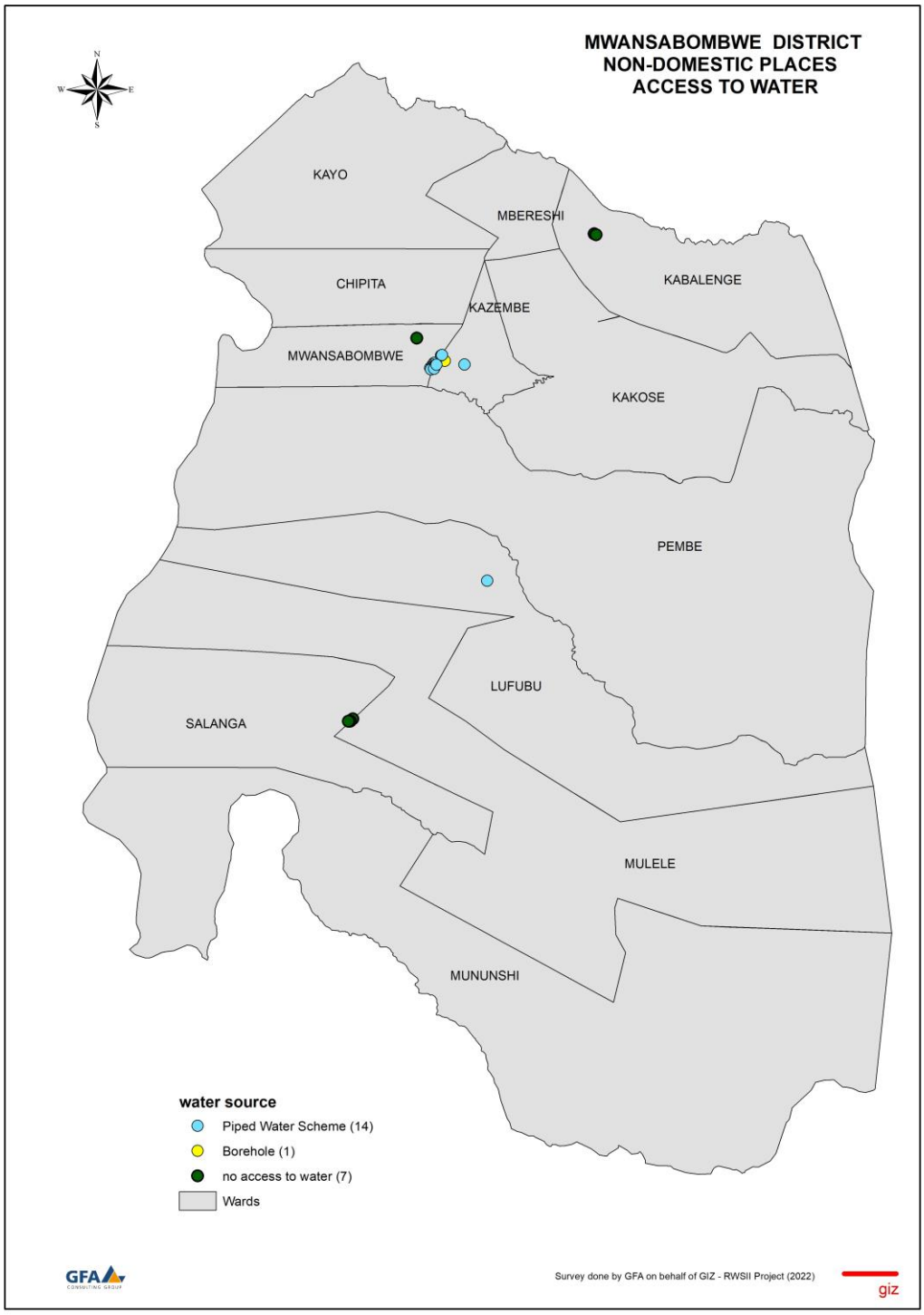
Please refer to Table 13 for the definition and clarifications on some of the drinking water terms



Findings 180: Mwansabombwe District JMP for non-domestic places - drinking water services by type

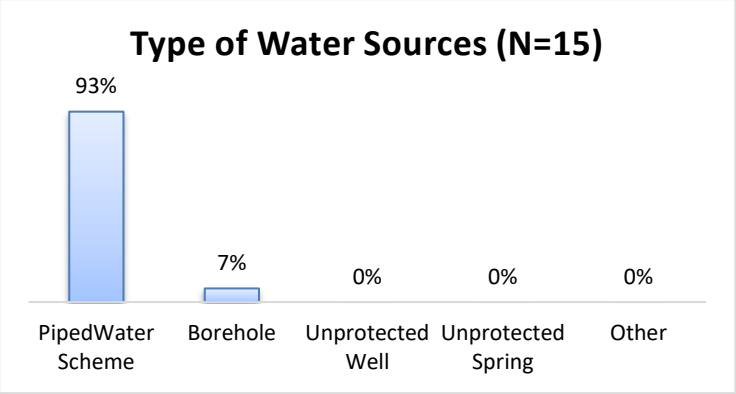
The government offices/buildings and Lodges/guesthouse have a mixture of all the service levels with the majority being basic service. Restaurant/ bars have majority being limited service with others having no service. While all shops have no service.

Access to water and type of water source



Findings 181: Mwansabombwe District non-domestic water access (N=22)

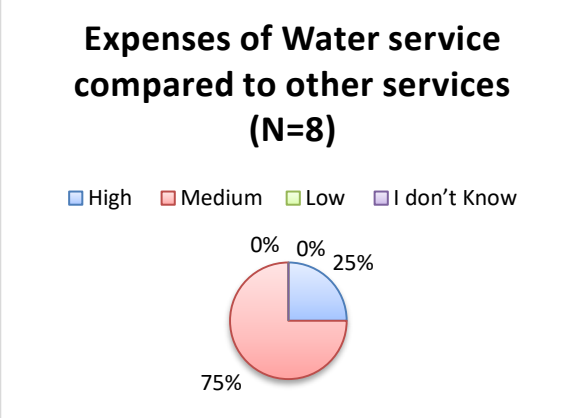
63% of the non-domestic places in Mwansabombwe are connected to piped water scheme.



Majority of the non-domestic places in Mwansabombwe District have access to piped water schemes.

Findings 182: Mwansabombwe District non-domestic places - type of water source (N =15)

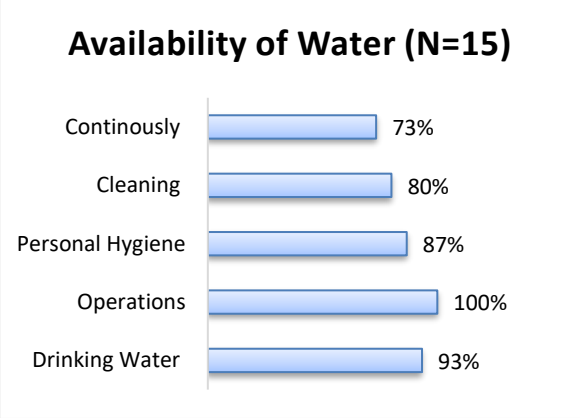
Affordability of Water Service



Findings 183: Mwansabombwe District non-domestic water expenses compared to other services (N=8)

75% of non-domestic places categorise water expenses to be fairly expensive while 25% categorise it to be an expensive service.

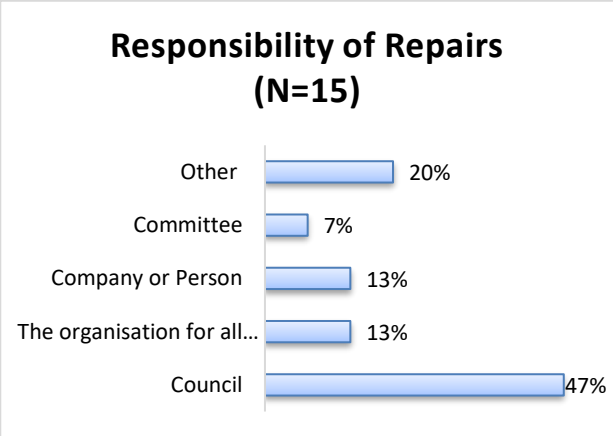
Availability of Water



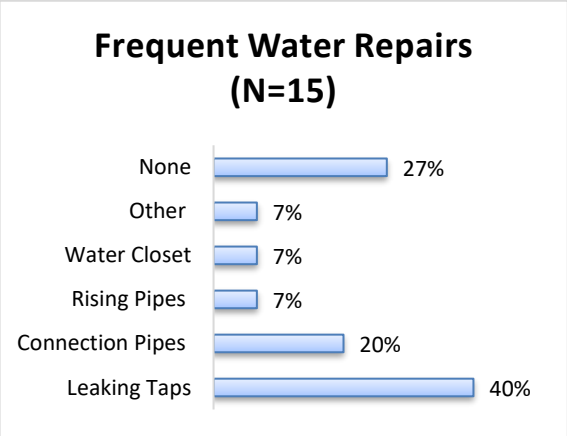
Findings 184: Mwansabombwe District non-domestic availability of water (n=15)

73% of the non-domestic places have water which is continuously available. Water was mostly available for cleaning (80%).

Maintenance

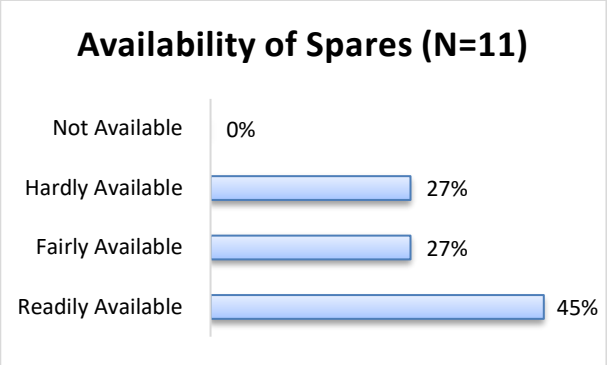


Findings 185: Mwansabombwe District non-domestic places - responsibility of repairs (N=15)



Findings 186: Mwansabombwe District non-domestic most frequent repairs (N=15)

The responsibility of conducting repairs is mainly the council (47%) while 20% is other which is mainly the property owner.



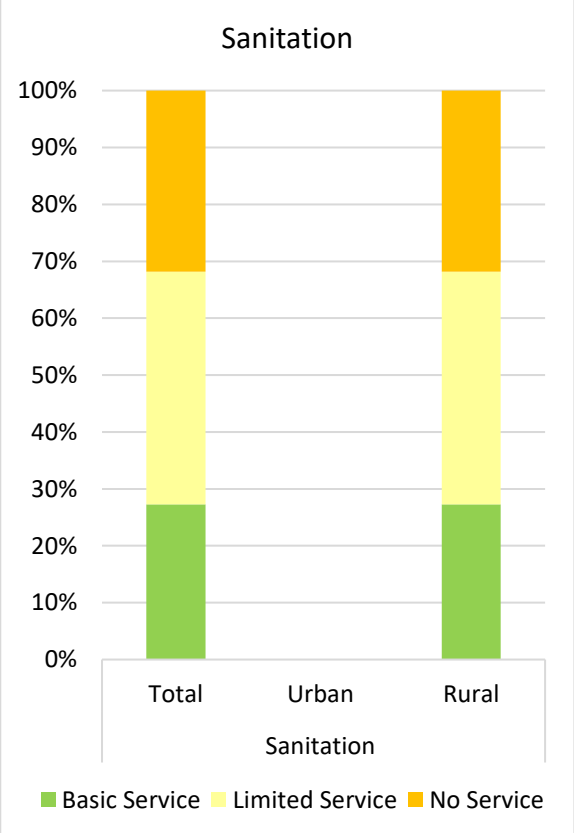
Findings 187: Mwansabombwe District non-domestic- availability of spares (N=11)

Most of the repairs conducted on the water source are on leaking taps (40%) while there is a reputable proportion that doesn't conduct frequent repairs.

Majority (45%) of the non-domestic places indicated that spare parts were readily available.

5.5.3 Sanitation Services

Mwansabombwe JMP ladder for sanitation services



Findings 188: Mwansabombwe non-domestic places JMP ladder for sanitation

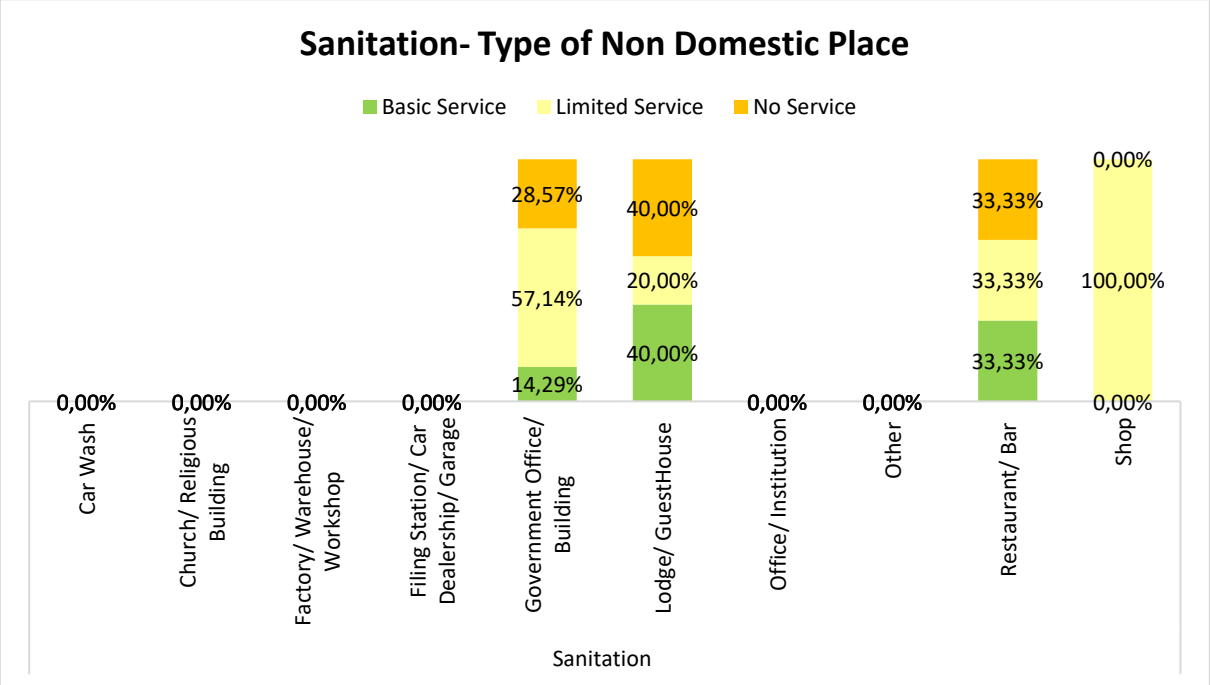
Mwansabombwe	Sanitation		
	Total	Urban	Rural
Basic Service	27.27%	-	27.27%
Limited Service	40.91%	-	40.91%
No Service	31.82%	-	31.82%
Total	**100.00%**	**0.00%**	**100.00%**

The proportion of non-domestic places in Mwansabombwe District using basic services is 27.27%.

In 2022, out of the estimated total of 40 non-domestic places in Mwansabombwe District, 29 non-domestic places lacked basic services including 16 non-domestic places with limited services and 13 non-domestic places having no toilet or having access to unimproved facilities.

Please refer to Table 14 for the definition and clarifications on some of the sanitation terms.

Access to sanitation facilities



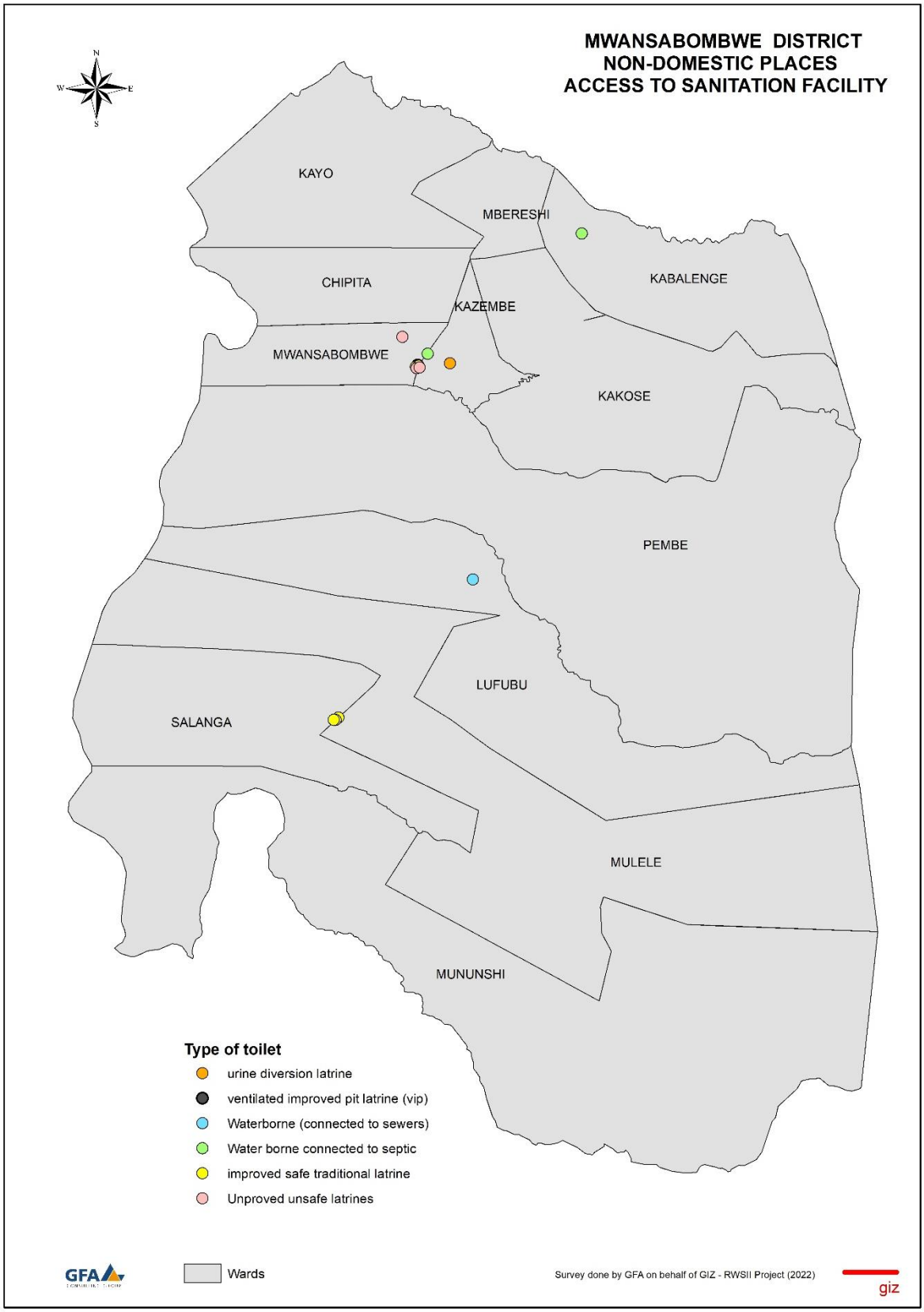
Findings 189: Mwansabombwe District JMP for non-domestic places - sanitation services by type

The government offices/buildings and Lodges/guesthouse have a mixture of all the service levels with the majority being limited service and basic or no service respectively. Restaurant/ bars have an equal mixture of all the 3 service levels. While all shops have limited service.

Access to sanitation facilities

All the non-domestic places have access to sanitation facilities.

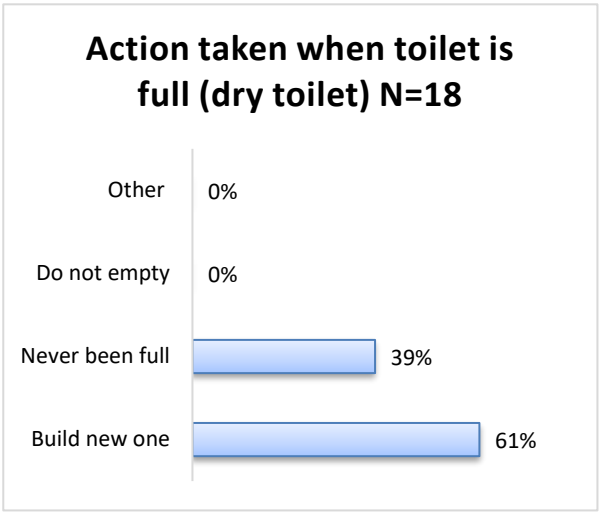
Findings 190: Mwansabombwe District non-domestic places - access to sanitation facilities (N =22)



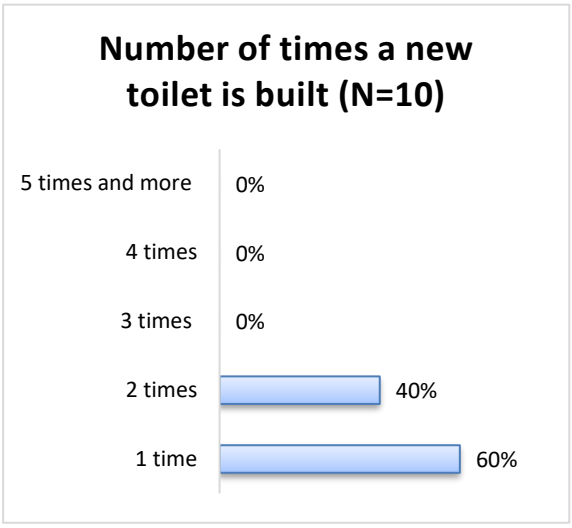
Findings 191: Map of Mwansabombwe District non-domestic access to sanitation facilities

From Findings 191, in general, the main type of sanitation for non-domestic places is the improved safe traditional latrine seconded by unimproved (unsafe)latrine.

Emptying practices



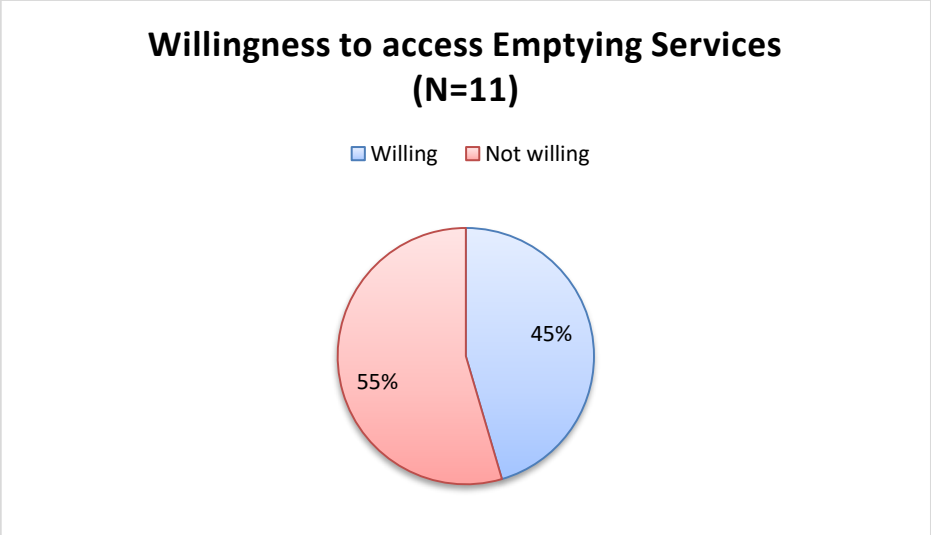
Findings 192: Mwansabombwe District non-domestic places toilet emptying practices (N =18)



Findings 193: Mwansabombwe District Non-Domestic Places - number of times a new toilet is built (N=10)

Like the other categories, non-domestic place toilet emptying practices are mainly building a new one once it is full (61%) while for the other non-domestic places their toilets haven't been full (39%).

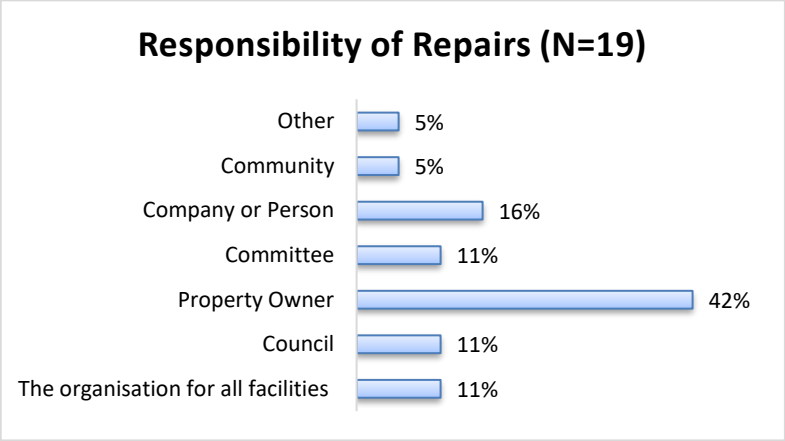
Most of the non-domestic places which had built a new toilet before, did this one time (60%).



Findings 194: Mwansabombwe District Non -Domestic Places- willingness to access emptying services (N=11)

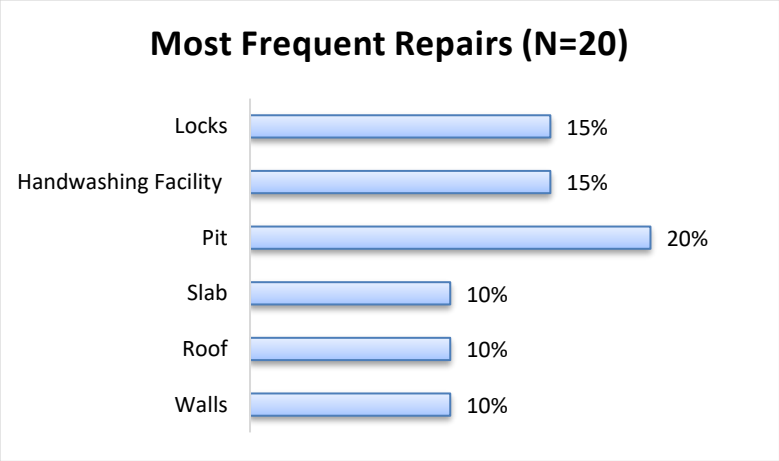
Majority of the non-domestic places are not willing to access emptying services (55%) while there is still a reputable proportion of non-domestic places willing to access this service.

Maintenance of sanitation facilities



In general, the property owner takes responsibility of repairing the toilets.

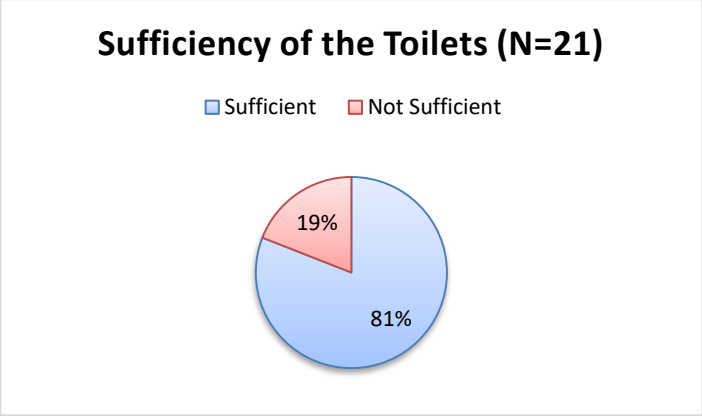
Findings 195: Mwansabombwe District – non domestic places- responsibility for repair of toilet (N = 19)



Of all repairs, it was found that majority done were on the pits.

Findings 196: Mwansabombwe District non-domestic places -most frequent repairs for toilets (N=20)

Sufficiency of toilets

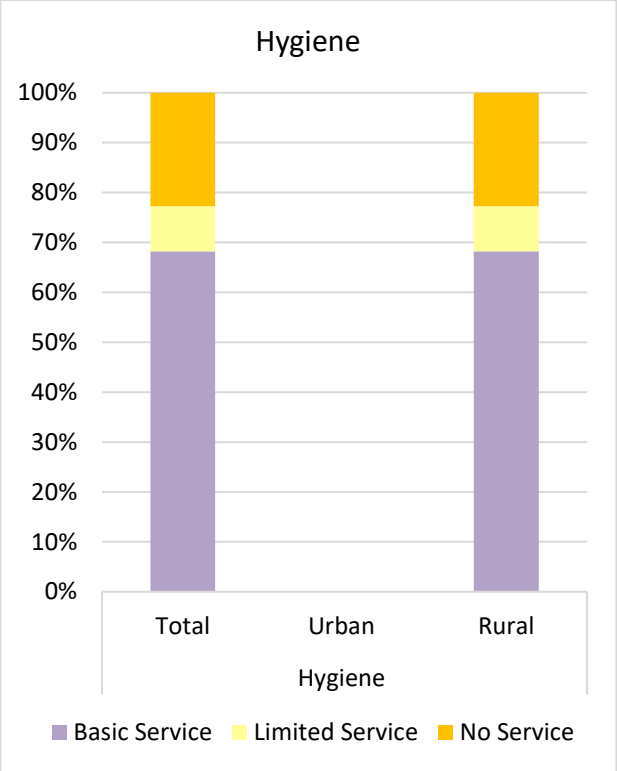


81% of the non-domestic places in Mwansabombwe have sufficient toilets.

Findings 197: Mwansabombwe District non-domestic places - sufficiency of sanitation facilities (N=21)

5.5.4 Hygiene Services

Mwansabombwe JMP ladder for hygiene services



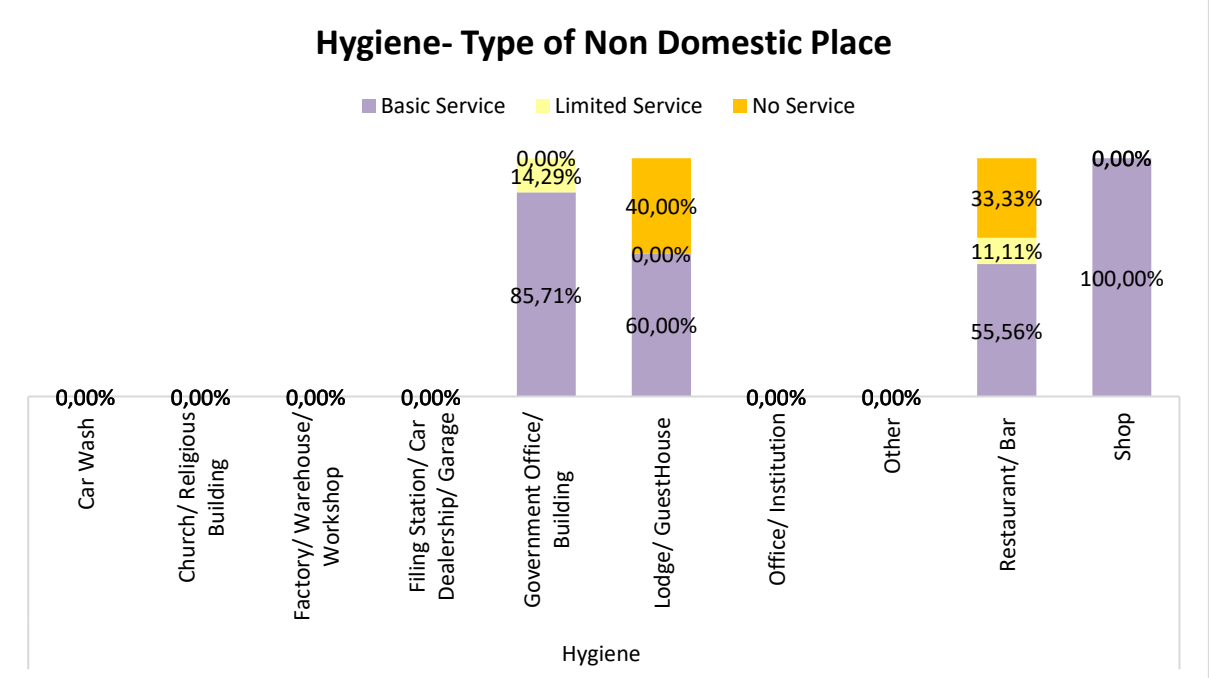
Findings 198: Mwansabombwe District non-domestic places JMP ladder for hygiene services

Mwansabombwe	Hygiene		
	Total	Urban	Rural
Basic Service	68.18%	-	68.18%
Limited Service	9.09%	-	9.09%
No Service	22.73%	-	22.73%
Total	**100.00%**	**0.00%**	**100.00%**

The proportion of non-domestic places in Mwansabombwe District using basic service is 68.18%.

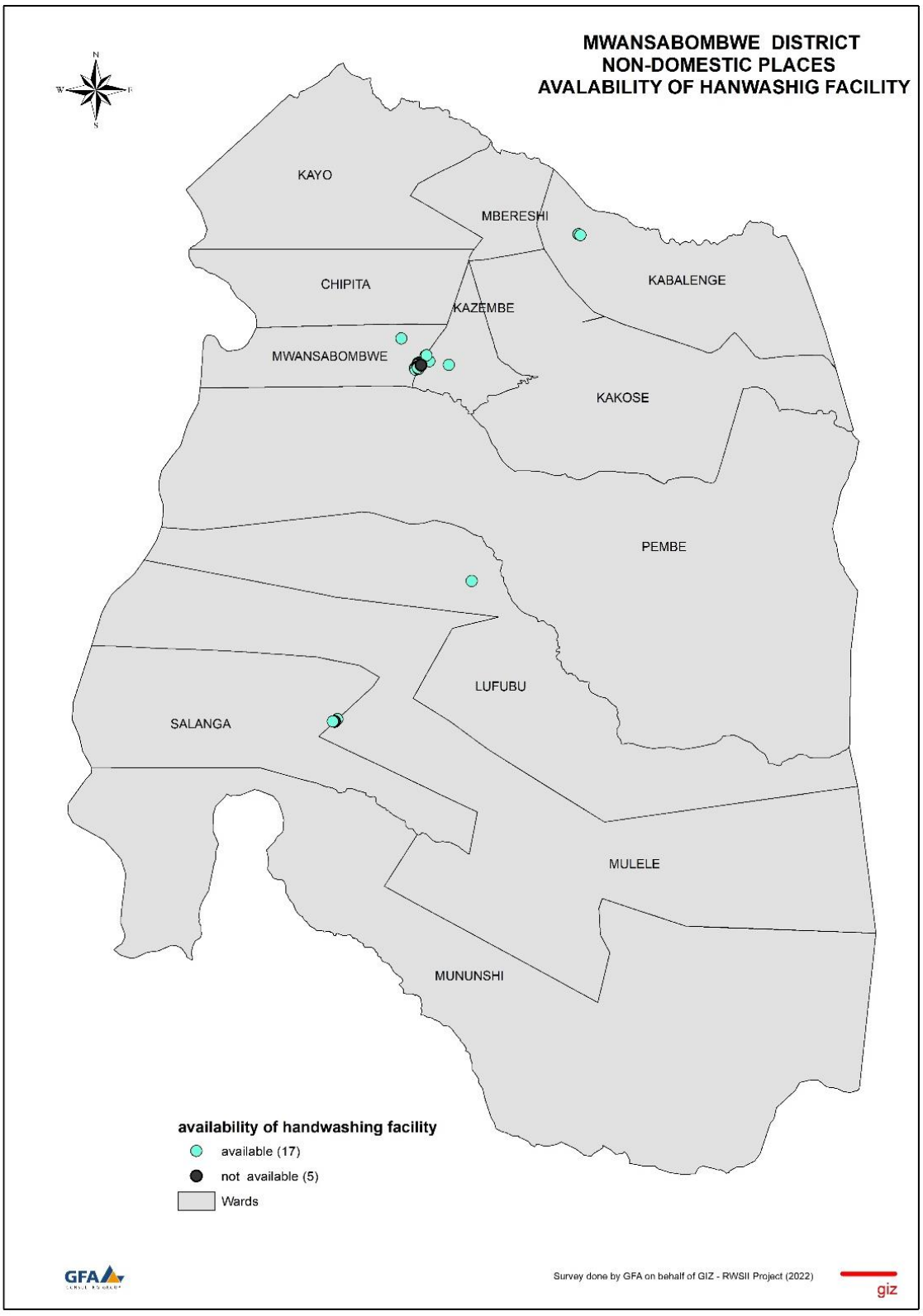
In 2022, out of estimated total of 40 non-domestic places in Mwansabombwe District, 13 non-domestic places lacked basic services 4 with limited service and 9 with no service.

Please refer to Table 15 for the definition and clarifications on some of the hygiene terms.



Findings 199: Mwansabombwe District JMP for non-domestic places - hygiene services by type

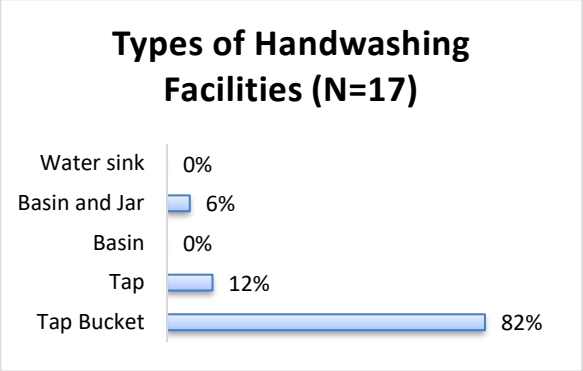
The government offices/buildings have a mixture of basic and limited service with majority being basic. Lodges/guesthouse have a mixture of basic and no service with the majority being basic service. Restaurant/ bars have a mixture of all the 3 service levels. With majority being basic service While all shops have basic service.



Findings 200: Mwansabombwe District non-domestic places access to handwashing facilities

77% of the non-domestic places in Mwansabombwe District have access to handwashing facilities.

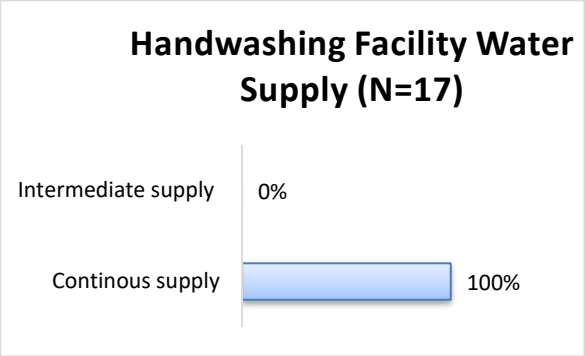
Type of handwashing facilities



Findings 201: Mwansabombwe District non-domestic places - types of handwashing Facilities (N =17)

Majority (82%) of the non-domestic places use the tap bucket.

Continuous availability of water

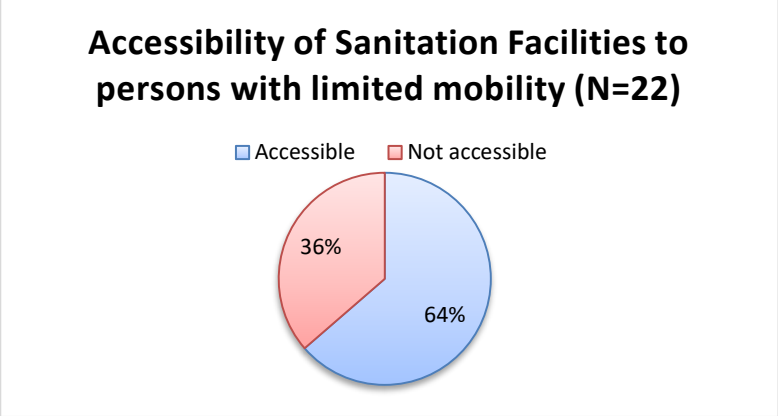


Findings 202: Mwansabombwe District non-domestic places-water supply to handwashing facility (N=17)

All the non-domestic places have hand washing facilities with continuous supply of water to them.

5.5.5 Social Inclusion

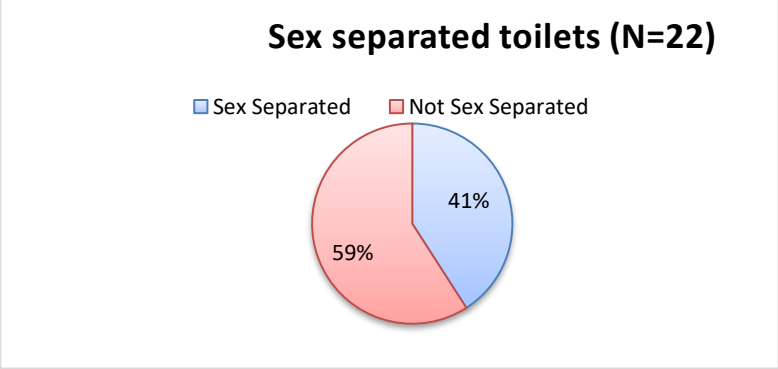
Accessibility of sanitation facilities



64% of the sanitation facilities are accessible to differently abled persons

Findings 203: Mwansabombwe District non-domestic places - sanitation facility accessibility to persons with limited mobility (N=22)

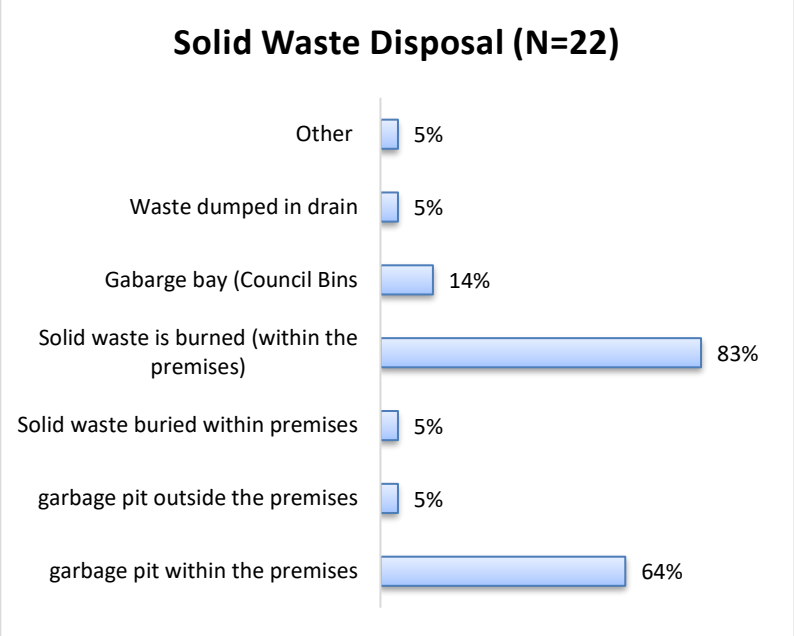
5.5.6 Gender Sensitivity Data and Information



Majority (59%) of the non-domestic places do not have sex separated toilets while 41% of the non-domestic places with toilets have sex separated toilets.

Findings 204: Mwansabombwe District non-domestic places sex separated toilets (N=22)

5.5.7 Solid Waste Management



Findings 205: Mwansabombwe District non-domestic places solid waste disposal (N-=22)

Majority (83%) of the non-domestic places burn their solid waste within the premises. While 64% use the garbage pit within the premises.

5.6 Key Informant Interviews

5.6.1 Luapula Water Supply and Sanitation

Luapula Water Supply and Sanitation has no physical presence in Mwansabombwe District.

5.6.2 Mwansabombwe Town Council

The planning department is responsible for development planning, forward planning, and socio-economic planning. Under the WASH section which falls under the department of works, there is a WASH coordinator who works hand in hand with the District Planning Officer (DPO), and they report to the Director of Works, a Senior Officer in the council who in the end reports to the Council Secretary.

Water Supply and Sanitation service provision

The role of the WASH Coordinator is to investigate the needs of water, provide solutions that meet the need and ensure the sustainability of the solutions for future development. The coordinator also manages the finances of the existing water facilities in the district, under sanitation, implementation of CLTS and ensuring the sanitation facilities are meeting the conditions under CLTs. The community is solely responsible for sanitation infrastructure development.

Generally, the physical quality of water supplied is good. There is consistent supply of water to the community, the schemes provide 5hours of supply per day i.e., morning from 7hrs to 10hrs and afternoon from 15hrs to 17hrs. During the dry season, there are a few cases of water shortages resulting from boreholes drying up. The communal taps managed by the council are mainly within reach of the communities that they are expected to service. On an average for the communities that are supplied with water, they are satisfied with their supplied water in terms of quality and quantity. There is no proper system put in place to monitor user satisfaction.

The community participates in decision making on the technologies, management of the system and payment schemes. The payment varies for the boreholes depending on the socio-economic status of the catchment area while the payment for the community that is accessing the service through the piped water schemes is the same. Community ownership of the infrastructure is expressed through voluntarily becoming care takers of the infrastructure and reporting the breakdowns.

The responsibility of operation and maintenance of the infrastructure is conducted by the council working hand in hand with the community. All the funds collected from the schemes and boreholes rests with the council and is tracked using reports and issued receipts. The money is deposited into the rural water supply and sanitation account and the committee representatives sign forms when the money. This has proved to be a better system to manage the funds as it is more effective, and mismanagement of funds is reduced.

Solid waste is disposed of in the pit latrines. Currently there is no technology in the district to manage On-site Sanitation services.

The council has a senior building inspector who undertakes stage inspections, checks, and approves plans that have been proposed to ensure building are constructed to quality. If found wanting, warning letters are issues twice. The challenge in Mwansabombwe district is the enforcement of standards as majority of the land is still customary land and out of the jurisdiction of the council.

Water Quality

The council does not conduct water quality monitoring but the WASH Coordinator on cases of suspicion initiates a water quality testing exercises through the EHTs and this is dependent on the availability of testing tools.

Planning and Coordination

The Planning department in the council provides planning services i.e. effective and efficient planning. They also develop Local Area Plans (LAPs) and also direct resources in terms of investments. It is also responsible for coordination the planning of programmes and projects under WASH for Constituency Development Fund (CDF). Some of these include allocation of resources

to resources to water services, upgrade activities that range from handpumps to small-piped water schemes. They also encourage the WDCs to apply for water projects and prioritise these projects. Another initiative put in place is ensuring all proposed projects under CDF like the development of infrastructure like HCFs,schools, markets etc. includes components of WASH service provision for the proposed infrastructure to ensure it is a comprehensive package. For example, when an infrastructure project is proposed like a new classroom block or a new clinic, a component of water is included and provides an extension to the nearby community. The WDCs have positively responded to WASH projects and has made a lot of applications for upgrades, kiosks but due to money constraints not all projects can be implemented. This is mainly arising from witnessing the benefits of other wards that are accessing such services.

The gaps and challenges that exist include knowledge and information gap at all levels i.e., the community that are required to propose the projects as they are community driven projects and at the leaders of the WDCs, Councillors and the Council who are supposed to prioritise the proposed projects. The other challenge is competing needs i.e., a lot of applications with scarce resources. Going forward the selection or prioritisation of projects will be based on the Integrated Development Plan (IDP) which will assist in the prioritising investments, but the current practice of prioritisation is done through the WDCs who are requested to develop priority lists for the wards. The WDCs have representatives from the zones and each zone identifies its priorities and they are presented to the respective WDCs. This helps with the mitigation of biasness of the projects that are proposed.

The local community are more involved in decision making now as compared to the past. They also express a sense of ownership of infrastructure through the willingness to pay for the services and low cases of vandalism.

Mwansabombwe had a strategic plan which came to end in December 2021 and is to be replaced by the IDP. There was a council resolution for the IDP in March 2021 and in July 2021 the planning programme commenced. The planning survey and issues report development commenced in August 2021 and expected to be ready by end of September 2022. The expected date of completion of the IDP is March 2023 and GIZ D4D is offering technical assistance to the development of the IDP in collaboration with the provincial planning unit.

Mwansabombwe has opened a township which has an approved plan with 1016 properties numbered, surveyed and 45km roads opened. This was funded by the Ministry of Lands under the Land development Fund. Out of the 1016 plots 180 have been sold of which only 12 have cleared and made some foundations. The only thing remaining to service the township i.e., provision of electricity and water. The existing water service are 2 boreholes (handpumps) drilled by the council under CDF against 1016 plots. The current infrastructure at the township are 55 Government properties which include houses and Government buildings (90% completed) due to some contractual issues. The development of the allocated plots is directly related to the challenge of service provision i.e. electricity and water. The current strategy that is being put in place is lobbying from the Ministry of Lands, the last funding received through this Ministry was dated 2015 and the district hasn't received anything till date. In the next 10years, the council would like to ensure that the township is fully service which is highly dependent on availability of funds.

Data Management

There is no data base to store any data because most of it is paper based and this has been a challenge.

Gender

The men rarely have a specific role in terms of WASH at household level or community level and the conducting of repairs is done by both men and women. There is a 50% gender representation in the established VWASHE committees. Leadership, it is observed that 70% of the VWASHEs have men as chairpersons which leaves only 30% representing women is those positions. As for the other structures like the community champions (CCs), out of a total of 32, 12 are female CCs, for Area pump minders (APMs), out of a total of 25, only 2 are female APMs and this is due to the perception of women having less capacity to do manual labour and lastly for the Masons, out of a total of 25, only 4 are female masons.

Recommendations

1. Sensitization all levels to nurture the aspect of generating ideas
2. Capacity building activities on implementers to gain skill

5.6.3 District Health Office

The District Health Office is responsible for WASH service provision in the health care facilities and also conduct WASH preventive and promotive activities as well as curative as a result of poor WASH service provision. There is no specific department that looks at WASH because this falls under public health. The institutional arrangement is such the Director is the overall controller and the Senior Environmental Health Officer or Public Health Officer ensures the implementation of activities related to disease prevention, food safety and water safety i.e. reduced water contamination, malaria prevention & elimination, Infection Prevention & control in HCF and ensuring HCFs have access to WASH Services. The DHO works hand in hand with the EHTs which are directly supervised by the SEHO. Currently there are 8 EHTs i.e.6EHTs in the HCFs and 2 at the DHO but an additional 4 EHTs were recruited which will bring the total to 12 EHTs in the district. Sometimes the SEHO works as an EHT if need arises. The DHO also has CHAs who work hand in hand with the EHTs as junior officers to conduct water sampling, IPC activities in facilities & Community diagnosis. The difference between the EHTs and CHAs are outlined as follows;

- CHAs work full time in the communities
- CHAs have the duty to alert the facilities on an outbreak in the community
- CHAs provide a linkage between the community and the facility
- While the EHTs are technologist tasked to come with solutions to curb the happenings reported

Currently there is a total of 25 CHAs in the District i.e. 2 under the global funding sponsorship and 23 volunteers but an additional 5 have been recruited and this includes 1 of the CHAs under global funding and 4 of the volunteers. This translates to 1 CHA under global funding, 5 under Government system and 19 volunteers.

There is a total of 12 HCFs in the District i.e. 1 hospital, 6 RHCs and 5 RHPs. The RHPs are HCFs that look at screening and primary health services. They are only allowed to hold patients under a day (24hrs) and make referrals to the RHCs. The RHCs are HCFs that provide outpatient services, HIV testing, screening, maternity (antenatal) and child immunisation. They are only allowed to hold patients under 72 hours and make referrals to the Hospital. The Hospital has better lab services, physiotherapy, and HIV services. The concentration of the facilities are widely spread across the district but still there is need of more the services.

Water Supply and Sanitation

The DHO ensures all HCFs have water, ensures villages that do not have water sources are advocated for and ensures boreholes that are down are reported to the council through the EHTs/CHAs. They work hand in hand with the CCs to ensure the toilets in the villages are of standard and meet the desirable requirements. They also advise on the siting of boreholes and wells to ensure they are away from sanitation facilities. The DHO ensures monthly water sampling and testing is conducted to ensure quality drinking water in communities. They also work hand in hand in hand with other stakeholders to ensure that there are adequate facilities in Schools and the EHTs conduct inspections in the school. The schools that do not fulfil the requirements are noted down, liaised with the council DEBS on the best way to help the school, alternatives are provided and if the worst comes to the worst the school is closed.

The HCFs are running under difficult conditions especially when it comes to water supply and sanitation. Very few HCFs have showers which affects maternal health. HCFs should be able to have proper bins to throw health care waste. The HCFs are being disinfected and ensuring they are properly cleaned. Infection Prevention Control can not be maintained without proper running water. Bins and bin liners are a challenge, the Ministry used to supply but now the DHO has to procure for the facilities.

Planning, Implementation and Coordination

The DHO is a member of the DWASHE Committee which is tasked to plan for WASH and it implements the bulk of the activities planned for by the DWASHE through the EHTs who are the only substructures in the district.

The challenges faced is the availability of water sampling bottles, the logistics needed to implement most of the activities (which require fuel to reach the communities) and maintenance if the motorbikes (which is the sole responsibility of the DHO). The plan development is successfully executed but its implementation is the challenge which heavily is dependent on logistics, and this also affects the activeness of the DWASHE Committees. The sustainability of revamped structures is mainly a challenge. The collaboration of partners to ensure the DWASHE comes together and support the implementation and monitoring of activities has worked well in the district despite its challenges. The staffing levels are sufficient and adequate. All the EHTs and CHAs are active.

The planned activities for the year are water sampling exercises (bacteriological & chemical analysis) which involves the procurement of sampling bottles and chlorine and inspection of water sources as well as community profiling (per village, identify how many WASH facilities and the total population). So far the water sampling has been done periodically, inspections of water sources and sanitation facilities being done and community profiling is also currently being done. The challenge that is being faced is with taking of water samples for chemical analysis. The District depends on Nchelenge, Mwense and Mansa for chemical tests depending on the functionality of their machines. For future investments, Mwansabombwe district would like to procure a porta lab and also develop strategies on how to motivate the CCs and SAGs. All sub-structures are functional but some Neighbourhood Health Committees (NHCs) are not yet trained.

COVID 19 has affected the focus of activities planned, for example, the inspection of water points focus was shifted to focus on reducing cases & prevention of COVID cases. All the resources were channelled to the COVID fight.

Nutrition and Health

During the rainy season, the District records the most waterborne diseases. Diarrhoeal cases have reduced to the new water sources being provided and sensitisation of hygiene and food/water handling.

GIZ FANSER programme deliberately hygiene programmes targeting the community. The programme has a hygiene promotion component teaching the community on yard cleanliness, food handling and safe water handling. The messages are proving to be effective and proof of this is under Kayo ward there is Senkwe village which had major diarrhoea cases which have drastically reduced. Under Lufubu ward, villages access surface water and which resulted into a lot of cases but there has been a reduction in cases recorded.

Most of affected population by waterborne diseases are the children under 5 and this is mainly as a result of poor hygiene of care givers i.e. Washing hands after changing the baby or before feeding the child. As for the parts of Mwansabombwe that are mostly affected by waterborne diseases are namely; Kabalenge, senkwe, Lufubu, kumbakumba and Salanga-farming blocks which mainly access water through unprotected wells and surface water.

Mothers are mostly nurse the children and this is because people still believe mothers are the primary child caregivers. There are severe malaria cases in children which is due to the delay in the child receiving care. If a child falls sick when the mother goes to work in the field, the father wait on the return of the mother to take the child to the facility.

Recommendations

1. Procurement of a porta lab, water sampling bottles and chlorine
2. Standardisation of WASH facilities in the HCFs

5.6.4 District Education Board Secretary

District Education Board Secretary (DEBS) is the chief administrator for the district and is responsible for schools in Mwansabombwe District. Under the planning section, the Planning Officer is responsible for planning programs under the district in terms of monitoring and evaluation. There is a School Health Nutrition (SHN) Component with the planning officer as the coordinator of the programme.

Water Supply and Sanitation

The role of DEBS is to ensure that schools have access to good SHN. Apart from advocacy & Education, they partners with other stakeholders to provide minimum requirements for a good learning environment.

Water quality monitoring in schools is dependent on the Ministry of Health (MoH) through the EHTs as they have the technical know how of how to conduct the tests. Options on how to maintain the quality of the water is proposed and in a case where there is no alternative solution, recommendations are made to close the school until the issue is dealt with.

Planning and Coordination

There is a committee that involves planning standards which is an inspectorate in education. The standards section has inspectors who visit the schools to verify if they conform to the act that ensures a good learning environment and provision of all the learning aspects. The inspectors go to the schools to verify the WASH standards.

There is a District Development Coordinating Committee which oversees all developmental projects and plans in the District. This becomes the basis for different stakeholders to interact and work on the various developmental topics which also include WASH (which falls under a sub committee). The committee meets once every quarter to submit reports.

The schools generate annual work plans and budgets which over all aspects including WASH. These plans and budgets are consolidated by the district planner into a District Annual Work Plans and Budgets. There is a management committee which scrutinizes, approves, and prioritises depending on which school is affected the most and what the problem is. The planning and budgets is done in every 3rd quarter for the following year

Operations and Maintenance

The schools conduct the maintenance on the WASH facilities that primarily service the school. For the WASH facilities that service both the school and community is the common case, the schools supply the requirements, and the community contributes monthly fees (which is deposited into the account at the council) used for maintenance of WASH facilities.

Nutrition and Health

Good water is good health. In order to attain good hygiene or health the prerequisite is availability of good quality of water.

In the past, cholera, dysentery and diarrhoea were a challenge due to contamination of water which might be done unconsciously. In the recent years, there have not been reports of cholera but diarrhoea which could be well be as a result of an increase in good water points in Mwansabombwe. Hygiene campaigns inside and outside classes has also contributed to mindset change in hygiene practices.

COVID 19

With the onset of COVID 19, came overwhelming challenges. Some schools do not have adequate water and therefore there was a need to ensure these schools had adequate water which challenged by the availability of resources to procure handwashing facilities. The National level, Ministry of Education supported the schools with providing funding which facilitated the procurement of the handwashing facilities and thus providing the minimum requirements. These funds were directed to the district office who procured the supplies on behalf of the schools. There were also some donations that were received from the area members of parliament (MPs).

Mainstreaming Menstrual Health Management (MHM) in Schools and Focal Point Persons

The schools use garbage pits for solid waste management. For the girls, they have challenges in disposing of waste especially sanitary toilets in schools that have limited toilets.

The responsibility of MHM in schools is under the department of Guidance and Counselling. A female teacher is selected as a focal point person for MHM. In the case of no female teacher, a male teacher is selected who is supported by a female parent. Toilet separation by gender is a priority for both the staff and pupils. Missing of school by girls in relation is menstrual health no longer an issue and if it is an issue, it is related to the complication of menstruation i.e. extreme pain.

Cross Cutting Issues

Gender: There is no segregation of duties for the pupils related to gender. All pupils are treated equally.

Differently abled people: Modern schools have facilities (classrooms and WASH facilities) that are accessible to differently abled persons. There is still a lot that needs to be done, right now the only accessibility provided are ramps but there are no special tables, chairs, or toilets convenient for the differently abled persons.

WASH Clubs: The wash clubs spearhead cleanliness in schools and disseminate WASH information in schools. Not all schools have WASH clubs and this is mainly die to limited resources that could cover the orientation of these clubs.

Recommendations

1. Ensure that all schools have water as there are some without water and sanitation facilities especially those built under CDF.
2. There is need to provide more access to the differently abled pupils or staff other than ramps
3. Expand more WASH clubs in schools that aid with Hygiene promotion and WASH information dissemination
4. Fuel costs to aid in the transportation of officers to visit the schools.

6 LESSONS LEARNED

6.1 Field Data Collection

6.1.1 Logistics

The enumerators who participated in the survey are local health care workers coming from their respective wards. They had prior knowledge of how the households, schools, Health care facilities, public places and non-domestic places are distributed in the wards. The enumerators were given money equivalent to the fuel expected to be spent while using a motor bike. They were also given their lunch allowances, all consent forms, note books and pens in advance before commencement of the survey. This proved handy as it reduced on the follow-ups by the management team on accounting relating to transport, food, and other logistics which each enumerator was able to deal with on their own.

The GFA management team was supervising the team remotely but the presence of the WASH coordinator in the district eased off some logistical complications. The involvement of the District WASH coordinator in the survey greatly helped in the supervision of the team whenever there was an issue that needed onsite solutions.

6.1.2 Covid-19 Restrictions

In relation to COVID 19, the survey took place at time when the cases had died down and no new cases recorded in the district. Masks however were procured for the enumerators and social distance was encouraged. With regards to transportation, none of the EHT's/CHAs shared a motor bike and so each one had their own mode of transport.

6.1.3 Data Sources and Data Verification

There is always need to verify and check data and verify data by comparing with other sources because not all data is of sufficient quality. This helps in better planning and ensuring better accuracy of the desk study the field work commences.

6.1.4 Combination of Different Tools and Techniques

The process involved using of different set of tools and techniques, which included desk study, field survey, data processing and presentation as well data storage and sharing for future use. The use of mWater in combination with google Earth Application proved very useful in guiding enumerators as well helped in clarifying location-based errors.

GRID3 datasets in combination with Google Earth was used to compare other data sources in validating population data, settlements built up and hamlets. Mobile android Google Earth was largely used for navigation once boundaries and sample points were uploaded from ArcGIS. SPSS and other statistical packages were used for data processing and analysis.

The mWater platform was used for designing the survey questionnaire, data collection, data analysis, presentation as well as storage. The platform allowed for data storage, sharing, and various presentations in terms of maps, tables, charts, etc. This ensures for scalability of the approach for all districts in the province.

6.1.5 Up-scaling Comprehensive WASH Baseline Survey Objective

The objective of up-scaling comprehensive WASH baseline survey is to enable evidence-based planning for investment that will identify areas of priority during the implementation of WASH. No wards should be left behind when it comes to interventions, resources and development and the marginalised areas would be identified and strategic approaches developed on how the gap will be bridged.

6.1.6 Components for up-scaling

Developing a suitable scaling up approach means having to manage and overcome many of the challenges and risks outlined below. Figure 15 outlines the different steps and interlinking components that must be addressed. These include laying the foundations for scaling up (WASH indicators, and key implementing actors / partners) as much as setting up key institutional mechanisms for implementation (information systems and financing mechanism). It will be critical to ensure that partners are not only made aware of but also oriented in developed questionnaires, tools, and data analysis strategies for meeting the data requirements of WASH indicators presented in Chapter 3[1].

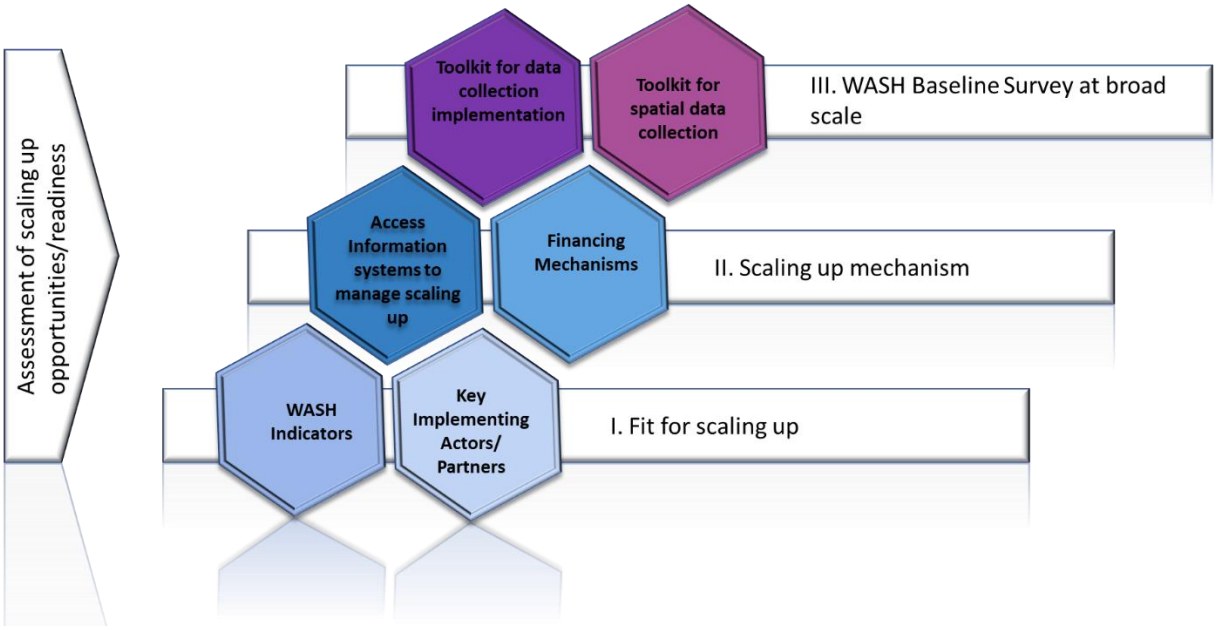


Figure 15: Components for up-scaling WASH baseline survey approach

The components are:

1. **WASH Indicators**: The water sector indicators are framed to categorise according to service levels which are clearly defined and outlined in Chapter 3. These indicators are defined according to households, schools, health care facilities, public places and non-domestic places. The type of data to be collected can be seen from the definitions of the service levels.

2. **Key Implementing Actors/Partners**: It is the overall responsibility of the LAs to ensure all the people have access to adequate WASH services in the district. The LA is further specifically responsible for rural households, public places and non-domestic places as well as provide official ward and township/planning boundaries of the district. The CU is responsible for service provision for urban, peri-urban and growth centres i.e. they are given a license to cover the entire district. The DEBS and DHO are responsible for WASH service provision in the schools and health care facilities. The department of chiefs under the LA is responsible for all chiefs and traditional affairs. The CU, LA, DEBS and DHO should work together in order to elaborate data collection at district level. In terms of official statistics, ZamStats as well as the GRID3 need to be involved to ensure the data being used is official statistics.

[1] GIZ, 2015. Closing the Last Mile for Millions

3. **Information Systems**: The GIZ WASH Baseline Survey Concept Note with as well as the Joint Monitoring Programme reports, Sustainable Development Goals, Ministerial Guidelines and Standards (MWDS, MoH and MoE) serve as information systems for planning for a comprehensive WASH baseline survey. A key element in a baseline survey is the availability of planning data at ward level i.e. population per ward, number of schools, HCFs and non- domestic places per ward. Public places data is usually never readily available. There is need for spatial information available like district and ward maps, CU service area maps and settlement patterns in the districts which can be accessed through GRID3 platform. There is also need for modes of collected data storage to ensure usability by other stakeholders in the years to come.
4. **Mode of Financing:** Financing in Zambia for WASH projects is normally by GRZ, the Cooperating Partners, individual CUs, NGOs, private sector, etc. The Equalisation Fund by GRZ is provided to districts as part of the decentralisation strategy. This is one possible mode of financing the implementation of district WASH baseline survey in Luapula Province. A financing mechanism needs to be developed for the survey that takes care of integrated and inter-sectoral coordination.

6.1.7 Up-scaling Resources

The preliminary estimated resources required for the up-scaling process for WASH baseline survey are presented in the following Annex 3. This initial concept table will eventually need to be further detailed.

However, an estimated budget of over **200,000 ZMW** will be needed just for logistics for training, stakeholder engagements, transportation and allowances.

There may be a need to involve external experts (if they are not present) for a period to be determined, in order to support the WASH baseline survey exercise. A preliminary list of experts may be:

- Monitoring and Evaluation/WASH Expert
- Data Analysis Expert
- GIS Expert.

7 RECOMMENDATIONS FOR DWASH IPS

1. The baseline situation in WASH for Mwansabombwe established in terms of numbers, covering **households, schools, HCFs, public places and markets, non-domestic**. This shall be used to:
   - ✓ Set WASH district targets linked to National Urban and Rural WSS programmes, the National Development Plans, Regulatory Framework of provision of WASH services (NWASCO), ODF Zambia Strategy, WASH targets according MoE and MoH, aligned to Vision 2030 and SDG.
   - ✓ **Establish target improvement of access to drinking water, sanitation and hygiene services according to JMP ladders for households, schools, HCFs, public places and markets, non-domestic, etc.** Note JMP ladders for school WASH have localised.
   - ✓ Set these above targets by ward, using access to WASH services from the baseline survey and wards population available from Zambia Statistical Agency.
   - ✓ Develop water supply interventions for improving access to drinking water services based on actual development trends guided by the planning boundary of Mwansabombwe District, the standards in the NUWSSP and principles in NRWSSP. (Current coverage of CU is based on area serviced by CU and not necessarily the urban area as per LA planning boundary).
   - ✓ Develop Infrastructure Investment Needs based on above and actual situation on the ground, covering WASH in **households, schools, HCF, public places and markets, non-domestic**, in **district wide and inclusive manner.**
   - ✓ Link these infrastructure investment plans to national investment plans, efforts by the MWDS, MoE, MoH in improving WASH services for all: households, schools, HCFs, public places and market places, non-domestic, etc.
2. The baseline for the social economic situation of Mwansabombwe established. This includes the average household size, employment status, household income, sources of water, treatment of water, average cost of construction of various types of toilets, willingness to connect, pit latrine emptying practices, etc., covering households, schools, HCF, public places and markets, non-domestic properties. This shall be used to:
   - ✓ All interventions and design of WASH facilities shall use this data.
3. The behaviours and attitudes towards hygiene practices and menstrual hygiene management established. This shall be used to:
   - ✓ Develop key strategies, sensitisation and awareness plans (budgeted) and action plans shall be developed working with our partners such as MTC, LpWSC, DEBS, DHO at district level and sub-district levels. Measures shall be costed.
4. The behaviours and attitudes towards nutrition related hygiene practices established. The role that WASH plays in cutting transmission barriers such as food handling, washing of hands, etc. This shall be used to:
   - ✓ Develop key strategies, sensitisation and awareness plans (budgeted) and action plans shall be developed working with our partners such as MTC, LpWSC, DEBS, DHO at district level and sub-district levels. Measures shall be costed.
5. Operation and maintenance status of WSS in urban, peri-urban and rural areas including growth centres established. This shall be used to:
   - ✓ Develop key strategies and improvement measures for O&M to cover WASH services in urban, peri-urban and rural areas, including growth centres for households, schools, HCFs, public places and markets, non-domestics places.
   - ✓ Equipment, tools and spare needs shall be recommended.
   - ✓ Estimate budget requirements.

6. Institutional Structure Capacities at community and ward levels, including management practices established. This shall be used to:
   - ✓ Develop key strategies and improvement measures for strengthening these institutional structures in terms of building capacity.
   - ✓ Estimate budget requirements.
7. Extent of gender mainstreaming in WASH especially at community and ward levels, including knowledge and barriers of gender mainstreaming established. This shall be used to:
   - ✓ Develop key strategies and improvement measures for improving participation and involvement of women in WASH. Agree with district WASH partners on targets for involving women.
   - ✓ Estimate budget requirements.
8. Baseline indicators for women, children and vulnerable groups established. This shall be used to:
   - ✓ Ensure DWASH IP is inclusive, in terms of taking care of interests of women, children and vulnerable groups.
   - ✓ Estimate budget requirements.
   - ✓ All measures in the above component to be consolidated into the DWASH IP, covering short, medium and long interventions linked to national programmes, frameworks, strategies and guidelines.
   - ✓ All these measures developed in a consultative manner working with our partners, partners taking lead as per mandates.

8 WAY FORWARD

8.1 Data Access, Privacy and Documentation Plan

One of the key features in any survey is the availability of data for reuse and reference in other future WASH related surveys for either households, schools, health care facilities, non-domestic places or public places. Thus, in this survey potential tools were reviewed to help come up with options for data access, privacy and documentation. The main tool that has been proposed is **mWater platform** for storage, sharing and management of the collected data. A description of the platform is included in the next section. All data is yet to be uploaded into the platform.

The final cleaned Excel/ csv files and shape files for each of the questionnaires will be shared with the key partners for their own use in GIS platforms or any systems that they may want to work with. It will be ensured that no household can be identified from the data, and therefore the names and contact details will be removed from the data prior to sharing.

8.2 mWater Platform

mWater is a free, open-source operating system and a web-based platform for digital governance used by governments, civil society organizations, and water and sanitation service providers in over 180 countries. The mWater platform can be used in various data-driven workflows by end-users. mWater users typically focus on using the platform to access data for surveying, monitoring, evaluation, and learning, and management.

1. **Surveying** - Data collection using surveys on a one-off basis. Users can record data for any surveys, track infrastructure data with sites, use the online or offline functionality, and use phones, tablets, browser to input this data. The advantage is that this data is available in real-time and can be imported in a Microsoft Excel spreadsheet format.
2. **Design and manage** – is used to design surveys easily and quickly, localize surveys to any language, manage deployments for any number of users and responses, validate and clean incoming data and send feedback to enumerators.
3. **Monitoring, Evaluation, and Learning** - Data collection using sites and surveys repeatedly informs programming and adapts the monitoring process. Users can analyse and visualize data, create comprehensive reports, perform calculations on their data, visualize collected data on a map, track results over time, share visualizations with stakeholders, and export their data at any point.
4. **Management** - Assignment of in-field actions and reporting to identify, update, resolve, and approve issues in the field. Users can collaborate by managing data collection at any scale, up to national data monitoring. They can also share data with others, set up organizations to keep track of large-scale data collection efforts, harmonize data collection with standard forms and indicators, and connect with other platforms using mWater API.

All features on mWater are free for unlimited use, and anyone can sign up and start collecting data in minutes. Moreover, the users own their data and decide what to share and keep private. mWater is also secure and reliable; that is, all data is stored in secure cloud-based servers, and users can download any or all of their data at any time. More information on mWater, including training materials, can be obtained on the mWater website https://www.mwater.co/platform.

8.3 Data Management and User Access

The mWater platform will used for storing, updating, and sharing data with stakeholders interested in any of the datasets. Those with administrative access can change or modify responses and questions, delete entries, and add entries. In addition, they can create new maps, reports, data grids, charts, dashboards, and consoles. They can share with any user from various organisations. Ordinary users can be given specific access rights to view and download this data, while general users can be given quick access to only visualize the data by giving them a sharable link that can be opened in any browser. The link to the site with the user access information will be shared with each partner responsible for that dataset as the key custodian of the data. It is proposed that the datasets and organisations will be organized in mWater as follows:

Table 31: Data management and user access

Dataset (Questionnaire)	Administrators	Specific access rights	Restricted access rights
Households	Mwansabombwe Council, LpWSC	Zambia Statistical Agency (ZAMSTATS)	Any organization interested in the data
Schools	DEBs, LpWSC	Mwansabombwe Council	Any organization interested in the data
Health Care Facilities	DHO, LpWSC	Mwansabombwe Council and other planning authorities	Any organization interested in the data
Non-Domestic Places	Mwansabombwe Council, LpWSC		Any organization interested in the data
Public Places	Mwansabombwe Council, LpWSC		Any organization interested in the data

Please note: This is a tentative proposal to have key organisations responsible for data management. Changes can be made at the time of implementation.

8.4 mWater Training

Training of mWater users is going to be done for all the partners who will be involved in the data management or any kind of usage. The training will cover all users at administrative level as well as those who may only view specific data. It will also allow users to be able to design their own questionnaires, train their enumerators and be able to analyse and present their data. A training manual will also be provided for any users interested in using the data.

ANNEXES

Annex 1: Definition and Clarifications on Drinking Water, Sanitation and Hygiene Terms

Definition on some Drinking Water Terms	Notes on classification
Protected well: is a dug well that is protected from runoff water by a well lining or casing that is raised above ground level to form a headwall and an apron that diverts spilled water away from the well. A protected well is also covered so that contaminated materials (including bird droppings and small animals) cannot enter the well. Water is delivered through a pump or manual lifting device **Protected spring**: is a natural spring protected by a "spring box", made of brick, masonry, or concrete, that is built around the spring so that water flows directly out of the box into a pipe or cistern, without being exposed to runoff or other sources of contamination **Unprotected well**: is a dug well that lacks any of the following: a lining or casing that is raised above ground level to form a headwall; an apron that diverts spilled water away from the well; a cover which prevents contaminated materials (including bird droppings and small animals) from entering the well; or a pump or manual lifting device. **Unprotected spring**: is a natural spring that lacks a "spring box" to protect against run off and other sources of contamination (including bird droppings and animals).	1. The term **drinking water source** refers to the point from which water is collected (for example the tap or borehole/well/spring) and not the origin of the water supplied (for example surface water or groundwater). 2. **Improved drinking water sources** are those which by nature of their design and construction have the potential to deliver safe water. Improved sources include: piped water, boreholes or tube wells, protected dug wells, protected springs, rainwater and packaged or delivered water. 3. **Protected wells** may be fitted with a range of lifting devices (for example motorized pumps, hand pumps, ropes and windlasses with buckets) but if the well lacks a cover then it should be classified as 'unprotected well'. 4. **Unimproved drinking water sources** are those which by nature of their design and construction are unlikely to deliver safe water. Unimproved sources include: unprotected dug wells, unprotected springs, and surface water 5. The term **drinking water source** refers to the point from which water is collected and not the origin of the water supplied. For example, piped water originating from a surface water reservoir would be classified as piped water, while water collected directly from a lake or river would be classified as surface water.
Definition on some Sanitation Terms	**Notes on classification**
No facility/bush/field: includes defecation in the bush or field or ditch; excreta deposited on the ground and covered with a layer of earth (cat method); excreta wrapped and thrown into garbage; and defecation into surface water (drainage channel, beach, river, stream or sea).	1. **Improved sanitation facilities** are those designed to hygienically separate human excreta from human contact. These include wet sanitation technologies such as flush and pour flush toilets connected to sewers, septic tanks or pit latrines, and dry sanitation technologies such as dry pit latrines with slabs and composting toilets.
Definition on some Hygiene Terms	**Notes on classification**
Handwashing facility: refers to a fixed or mobile device designed to contain, transport or regulate the flow of water to facilitate handwashing. **Soap**: includes bar soap, liquid soap, powder detergent and soapy water.	1. **Handwashing facilities** include sinks with tap water, buckets with taps, tippy-taps, and jugs or basins designated for handwashing. 2. Ash, soil, sand or other traditional handwashing agents are less effective and do not count as '**soap**'.

Source: JMP-2018-core-questions-for-household-surveys.pdf (washdata.org)

Annex 2: KIIs Work Programme Planned for Period 05th May to 09th May, 2022

Date	Time of Day	Activity Session	Purpose	Tools
Day 1 (Wed. 17.08.22)	Morning	Key Informant Interview with Mwansabombwe Town Council	Interview with Rural Water Sanitation Coordinator at MTC Planning Department to discuss water quality monitoring systems, sanitation, O&M, planning and coordination (leadership in WASH), solid waste, cross-cutting issues.	
Day 2 (Wed. 17.08.22)	Afternoon	Key Informant Interview with District Health Office Team	Interview with District Health Officer/Public or Environmental Health Officer in order to get more in-depth understanding of WASH related health outcomes, nutrition and health, WASHE service provision, plans and programmes and projects, cross-cutting issues.	
Day 3 (Thu. 17.08.22)	Morning	Key Informant Interview with DEBS	Interview with District Education Board Secretary (DEBS)/ DEBS Representative/DEBS representative for a zone of Schools to establish WASH Knowledge Attitudes and Practices, Plans and Programmes, O&M, planning and coordination (leadership in WASH), solid waste, cross-cutting issues.	

Annex 3: Preliminary Estimated Resources required for the Up-Scaling Process for WASH Baseline Survey

Activity	Output	Resources	Budget [2](ZMW)
Enumerator Allowances	• Out of station modalities • Communication Modalities	• Lunch allowances • Communication allowances	13,000
Workshops	• Stakeholder consultation meetings • Results interpretation Validation meeting Enumerator trained • Enumerator Transport refund	• Meeting rooms • Lunches • Transportation	20,000
Equipment and Stationery	• Implementation modalities	• 9 Tablets • 9 GPS Gadgets • Voice recorders • Stationary (books, pens, ink pads etc)	150,000
Transportation Costs	• Transportation Modalities available	• Fuel Costs for 9 Motorbikes	7,000
Focus Group Discussions and Key Informant Interviews	• FGDs and KII conducted	• Transportation • Refreshments	13,000
TOTAL			203,000

[2] The budgets do not include external consultancy expert fee or field allowances for the survey management fees rates. The budgets reflect logistic costs.