



MALAWI GOVERNMENT

THYOLO DISTRICT COUNCIL

**DISTRICT STRATEGIC INVESTMENT PLAN FOR WATER
SANITATION AND HYGIENE
2023-2027**



JUNE 2023

FOREWORD

The Thyolo District Council has developed this Water Sanitation and Hygiene (WASH) Strategic and Investment Plan (DSIP 2023-2027) to guide the planning, implementation and monitoring processes in the WASH sector. Prior to the development of the DSIP, the Council undertook a range of district-wide surveys on Water, Sanitation and Hygiene in order to understand the WASH situation in the district while identifying gaps that exist which may necessitate planned interventions to address such gaps. Having a strong evidence-base for the plan, has allowed us to understand the WASH situation across the district, and therefore where, and what, we need to prioritise in our investments, to help those most in need.

The DSIP contains an overview of the current status of WASH in the district. It further sets forth what the district wants to achieve in the future, and the strategies and resources required to achieve the intended objectives. The DSIP also includes a resource mobilisation and marketing plan to help raise funding to operationalise it.

With the development of the DSIP, there is a potential to ensure further coordination and harmonisation of WASH sector investments in the district, through a unified overarching plan to which sector actors can work towards.

In view of a number of existing gaps in the provision of WASH services, the Council has developed this WASH District Strategic Investment Plan (DSIP) as a step towards the realisation of Sustainable Development Goal (SDG 6) that promotes provision of sustainable and universal water supply sanitation and hygiene services and also contributes towards the national development agenda as outlined in the Malawi 2063 (MW2063) under Enabler 5 on human capital development. The huge investment in WASH will require collaboration of both governmental and non-governmental actors.

Lastly, I would like to extend my sincere thanks to the District Coordination Team for their hard work in the development of this plan. I would also wish to acknowledge the financial and technical support provided by The One Foundation through United Purpose/Self Help Africa in the surveys, workshops and collaborative work over the last year and a half when working on this plan.

George Matiya

Thyolo District Council Chair

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Special mention should go to DSIP Development Taskforce team that included Morson Magombo (DPD), James Mselera (DWDO), George Chitimbe (CPHO), Gregory Mtemanyama (DLO), Humphrey Savieri (M&EO), Macford Nzengo (Water Officer), Judgement Kumwenda (WASH Coordinator), Francis Yohane (DFO) and Francis Kunje (DSHN) for their professionalism and dedication during the development process.

The valuable inputs from the district partners, local community, DEC, Service Committees and Full Council require special mention. Additionally, the technical backstopping from Lottie Makina, PNHAO from Dedza District Council and Kondwani Andream, SWDO from Mangochi District Council greatly helped the development of the plan and, they require utmost recognition.

The District Council wishes to convey sincere thanks and appreciation to The One Foundation through United Purpose/Self Help Africa for providing financial and technical support.

Ernest Kaphuka

DIRECTOR OF PLANNING & DEVELOPMENT

TABLE OF CONTENTS

FOREWORD.....	II
ACKNOWLEDGEMENTS	III
LIST OF TABLES	VIII
LIST OF FIGURES.....	VIII
LIST OF ACRONYMS AND ABBREVIATION.....	IX
EXECUTIVE SUMMARY.....	XI
CHAPTER 1: BACKGROUND AND CONTEXT.....	1
1.1. Geography of the District	1
1.1.1 Location and size	1
1.1.2. Population	1
1.1.3. Topography.....	1
1.1.4. Climate.....	1
1.1.5. Hydrogeology.....	2
1.2 Social Infrastructure.....	4
1.3 Economic Activities.....	6
1.4. Administrative Structure.....	7
1.4.1. District Coordinating Committee and Community Structures	7
1.4.2. District Executive Committee	8
1.4.3. Works Service Committee.....	8
1.4.4. Full Council	9
1.5 Local Planning.....	9
1.6 Vision	10
1.7 Mission Statement	10
1.8 Strategic objectives for WASH	10
CHAPTER 2: WATER, SANITATION AND HYGIENE [WASH] SITUATION.....	11

2.1	Current Water Situation in the district.....	11
2.1.1	Water Facilities and Technologies Inventory	11
2.1.2	Challenges	14
2.2	Water Demand in the District.....	15
2.3	Stakeholder Analysis.....	15
2.4	Water Supply Situation at Community Level	17
2.4.1	Community Access to Safe Water.....	17
2.4.2	Gravity Fed Schemes.....	17
2.4.3	Water Pollution.....	18
2.4.4	Water Quality Testing	18
2.4.5	Technical Support.....	19
2.4.6	Water Point Committee	19
2.4.7	Area Mechanics	19
2.4.8	Follow up and support visits to Water Point Committees	19
2.5	Water Supply Situation in Schools	21
2.5.1	Current Situation.....	21
2.6	Water Supply in Market Places	22
2.6.1	Existing Situation	22
2.7	Water Supply in Health Centers.....	22
2.7.1	Current Status	22
2.8	Water Supply in CBCCs.....	23
2.9	Sanitation Status in the District.....	25
2.9.1	Sanitation at Community Level.....	25
2.9.2	Status of Sanitation in Market Centers	28
2.9.3	Sanitation in Health Centers	28
2.9.4	Sanitation in Schools	29
2.9.5	Sanitation in CBCCs.....	30
2.10	Hygiene Status in the District.....	31
2.10.1	Hygiene at Community Level.....	31

2.10.2	Hygiene in Market Centers	34
2.10.3	Hygiene in Health Centers	35
2.10.4	Hygiene in Schools	35
2.10.5	Hygiene in CBCCs.....	35
CHAPTER 3: WATER RESOURCES MANAGEMENT		36
3.1 STATUS OF WATER RESOURCES		36
3.1.1	Hydrogeology	36
3.1.2	Salinity	36
3.1.3	Planned interventions on hydrogeology issues.....	36
3.2 Hydrology.....		37
3.3 CATCHMENT STATUS.....		38
3.3.1	Catchment and land degradation	38
3.4 Status of Thyolo catchments		38
3.4.1	Thyolo Mountain Forest Reserve	39
3.4.2	Status of Kalulu Forest Reserve catchment status	40
3.4.3	Cholomwani Forest Reserve catchment area status	40
3.4.4	Masambanjati catchment area	40
3.4.5	Chimbamera catchment area	40
3.5 Catchment protection intervention.....		41
CHAPTER 4: WASTE MANAGEMENT		42
CHAPTER 5: DISASTER RISK MANAGEMENT		43
5.1 Disaster History in District.....		43
5.2 District Disaster Preparedness.....		44
5.3 District Disaster Response		44
5.4 Water and Sanitation in Emergencies.....		45
5.4.1.	WASH Emergency Preparedness and Capacity Building Activities.....	45
5.4.2.	WASH Response Activities.....	45
5.4.3.	WASH Recovery Activities.....	45

5.4.4. Operational Challenges that Affect WASH in Emergencies.....	46
CHAPTER 6: PLANNED INTERVENTIONS, TARGETS, AND EXPECTED RESULTS	46
6.1 PLANNED INTERVENTIONS FOR WASH IN COMMUNITIES.....	46
6.2 PLANNED INTERVENTIONS FOR WASH IN SCHOOLS AND CBCCs.....	47
6.3 PLANNED INTERVENTIONS FOR WASH IN HEALTH FACILITIES AND MARKETS.....	48
CHAPTER 7: IMPLEMENTATION, MONITORING, AND EVALUATION	49
7.1 Progress against Results	50
7.2 Sustainability of Results	51
7.3 Data Management	52
CHAPTER 8: RISK MANAGEMENT	50
CHAPTER 9: DISTRICT WASH SYSTEM STRENGTHENING PLANS	54
CHAPTER 10: RESOURCE MOBILIZATION AND MARKETING PLAN	59
ANNEX 1: FINANCIAL PLAN	62
ANNEX 2: MONITORING AND EVALUATION PLAN	81

LIST OF TABLES

Table 2.1:	Number of water points and functionality status by TA.....	21
Table 2.2	Gravity Fed System and functionality status.....	22
Table 2.3	Partners working in the district on WASH.....	24
Table 2.4	Category and number of schools in Thyolo district.....	27
Table 2.5	Sanitation at district level.....	31
Table 2.6	Sanitation at community level by TA.....	31
Table 2.7	Minimum sanitation requirements in HFs at different levels.....	33
Table 2.8	Status of latrines in primary schools.....	33
Table 2.9	Distribution of pit latrines and shortfalls by zone.....	36
Table 2.10	Status of Hand washing facilities in schools.....	37
Table 3.1	Major rivers in Thyolo.....	40
Table 8.1	Risk Assessment Matrix.....	58
Table 9.1	Building Blocks for Strengthening WASH systems.....	61
Table 9.2	WASH system strengthening plans.....	63
Table 10.1	Resource Mobilization and Marketing Plan.....	66

LIST OF FIGURES

Figure 1:	Map of Thyolo District showing Traditional Authorities.....	12
Figure 2:	Percentage of water points per category.....	13
Figure 3:	Water points functionality.....	14
Figure 4:	A borehole fitted with an Afridev handpump.....	19
Figure 5:	A water tank and stand pipe on Sankhulani GFS in TA Nsabwe.....	20
Figure 6:	Gravity Fed system and functionality status.....	25
Figure 7:	Functionality of water points in CBCCs.....	30

LIST OF ACRONYMS AND ABBREVIATION

ACPC:	Area Civil Protection Committee
ADC:	Area Development Committee
BASEDA:	Basic Services Development Agency
CBCCs:	Community Based Child Care Centres
CHAM:	Christian Health Association of Malawi
CLTS:	Community Led Total Sanitation
DCPC:	District Civil Protection Committee
DCT:	District Coordinating Committee
DDP:	District Development Plan
DEC:	District Executive Committee
DHC:	Drop Hole Cover
DRM:	Disaster Risk Management
DRMC:	Disaster Risk Management Committee
DSIP:	District Strategic Investment Plan
DWDO:	District Water Development Office
Ecoli:	Escherichia Coli
GFS:	Gravity Fed Scheme
GI:	Galvanized Iron
GoM:	Government of Malawi
HC:	Health Centre
HWF:	Hand Washing Facility
IEC:	Information Education and Communication
IHP:	Improved Health Post
JICA:	Japanese International Cooperation Agency
LDP:	Local Development Plan
MASAF:	Malawi Social Action Fund
MHM:	Mistral Hygiene Management
mWater:	Malawi Water Survey
NDP&RF:	National Disaster Preparedness and Relief Fund
ODF:	Open Defecation Free

PTA:	Parent teachers Association
SC:	Senior Chief
SDG:	Sustainable Development Goal
SEP:	Socio-economic Profile
SLTS:	School Led Total Sanitation
SMC:	School Management Committee
SSHP:	School sanitation and Hygiene programme
STA	Sub-Traditional Authority
SWOT:	Strength, Weakness, Opportunity and Threat.
TA	Traditional Authority
UN	United Nations
UNICEF:	United Nations International Children's Emergency Fund
VAP:	Village Action Plans
VCPC:	Village Civil Protection Committee
WASH:	Water Sanitation and Hygiene
WHO:	World Health Organisation
WP:	Water Point
WPC:	Water Point Committee
WUA:	Water User's Association

EXECUTIVE SUMMARY

This District Strategic Investment Plan (DSIP) employs sector-wide approach towards implementation of WASH in Thyolo in order to achieve its vision. This will be done in line with Malawi Government policies and guidelines on WASH such as the National Water and Sanitation Policy (2005) of the Ministry of Water and Sanitation, Sanitation in Schools Hand Book (2013) and Sanitation and Hygiene Strategy as well as global agreement such as Sustainable Development Goals (SDGs) to which Malawi is a signatory. The current District Development Plan (DDP) (2017-2022), intends to increase access to improved water source, sanitation and hygiene coverage from 66% to 80% and, the DSIP will build on the core objectives as espoused in the DDP. As the DDP expires this year (2023), it is expected that the future DDP will incorporate issues identified in the DSIP so that the developmental issues identified in the communities must include WASH issues.

At present, water and sanitation access in Thyolo district is very low. According to WASH Survey 2021, 79% of the population has access to protected water sources, while the remaining 21% of the population has no access to protected water sources, getting water from sources such as unprotected shallow wells. The sanitation situation in the district is not satisfactory as well. Currently, the latrine coverage in the district is at 75%. 56% of these latrines are basic with no drop hole covers and washing facilities while only 13% of the latrines are improved. In this DSIP, the district puts its target on latrine coverage to 100%. The district is not doing well as far as open defecation free (ODF) status, both at traditional authority and village levels, as only 2 out of 26 TAs in the district have attained ODF status representing 15%. At the village level, cumulatively, 122 villages from the two TAs have attained ODF, representing 16% of all communities across the district.

The main implementing entity for this DSIP is the District Council with technical support from line sectors such as Water, Education, Forestry and Health. External factors such as NGOs, donors, private sector with Corporate Social Responsibility may also help mobilise finance and implement activities linked with the realisation of this plan. In order for the district to address low water access and sanitation coverage, the District Council has planned to implement an integrated approach in water, sanitation and hygiene for the next five years (2023 to 2027). This integrated approach will

focus on three components which are; Rural Community Water Supply, Sanitation and Hygiene and Capacity Building. The total budget for five years of this DSIP in Thyolo is estimated at approximately **MWK7,425,795,000.00**.

It is to be overseen by the DEC that includes sector heads and NGO representatives.

There will be direct and indirect economic benefits and significant gains in people's health, dignity and quality of life. It will contribute both directly and indirectly to the district's efforts to achieve most of the SDGs.

CHAPTER 1: BACKGROUND AND CONTEXT

1.1. Geography of the District

1.1.1 Location and size

Thyolo is the district in the Southern Region and it is located on latitude 16° 04' south and longitude 35° 07' east within the Shire Highlands. The total land area for Thyolo is 1,715 square kilometres which is 2% and 19% of total land area for Malawi and Southern Region, respectively. Thyolo shares both local administrative boundaries with five other districts and an international boundary with Mozambique to the south and south east separated by Ruo River. The districts which share boundaries with Thyolo are Mulanje to the east, Chiradzulu to the north east, Nsanje to the south west, Chikwawa to the west and Blantyre to the north west. The district is accessible by the Limbe- Thyolo-Muloza Boarder Road, 47 kilometres from Blantyre, Malawi's main commercial and industrial city. The eastern part of the district is serviced by the Nsanje-Blantyre Railway through Luchenza Municipality. Refer to Figure 1 showing Map for Thyolo district showing Traditional Authorities and also boundaries with other districts.

1.1.2. Population

The population of Thyolo is currently at 751,456 (NSO- 2018). In 2021, the population of Thyolo is projected at 797,451. The annual growth rate for the district is 2%. with a projected population density of 343 per square kilometre.

1.1.3. Topography

Over half of the land area in Thyolo is hilly, especially the west, south west and south parts of the district. The north, east and central parts of the district are fairly flat. Thyolo mountain alongside Cholomwani, Kalulu and Masambanjati hills are some of the major catchments where some rivers originate.

1.1.4. Climate

Thyolo has a tropical Savanna Climate. The hilly zone receives rainfall of between 1200mm-1600mm per annum while the plains receive 800-1200mm annually. In Thyolo, the wet season is characterized by hot, humid and steamy weather, the dry season is mostly clear, and it is warm year-round. Over the course of the year, the temperature typically varies from 14°C to 30°C and the district registers highest mean maximum temperatures of 27.5 degrees Celsius along the valley in October (*Source: Thyolo Met. Station-2018*).

1.1.5. Hydrogeology

The hydrogeology of Thyolo District is described in two aspects namely areas with high risk of drilling dry holes and areas with high salinity. The areas where dry holes have been experienced include: Traditional Authorities Mphuka, Thomasi, Changata, Khwethemule Mbawera and Nsabwe. In terms of salinity, most parts of the district have aquifers which produce fresh water except Traditional Authority Thukuta where some few areas have boreholes which produce salty water. According to water quality history for the district, it has never experienced presence of heavy metals which are harmful to human consumption such as Arsenic, Fluoride, Iron, Manganese and low PH.

1.2 Household Income and Wealth Quantile

Thyolo is an agro-based economy with the main cash crop being tea grown in commercial farms. Main food crops grown in Thyolo are maize, groundnuts, beans, soya beans, pigeon peas and other pulses. The main source of income for the majority (70%) of the population in Thyolo is farming, although 30% of the population works in tea estate companies and earn their income through jobs. The average earning for the average population in Thyolo district per month per household is MWK64,000. According to Socio Economic Profile (SEP) for Thyolo district, the majority breadwinner for most households in the district are women.

On average, the district has an average household size of **5.30%** of which are female headed, and low earning community in which **97%** of the district **751,456** are low earning and depend of firewood for fuel. Only **18%** have a bank accounts and only **8%** have access to electricity.

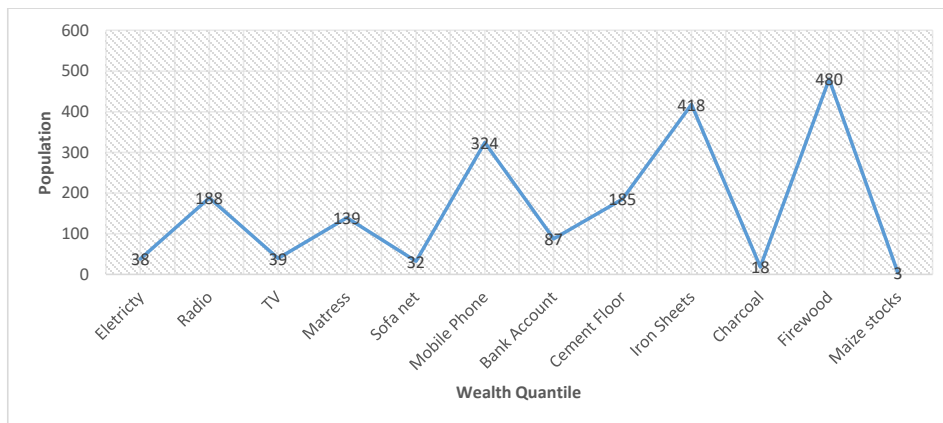
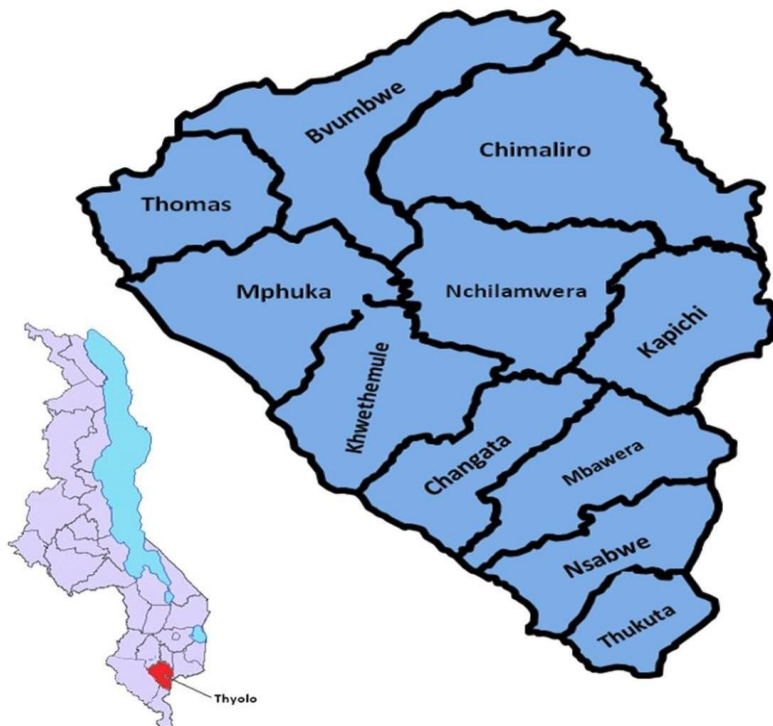


Figure 1.1: Population vs Wealth Quantile in Thyolo

Table 1.1: Household Assets vs Access Rate

No	Service/HH Assets	Access Rate
1	Electricity	8%
2	Radio	38%
3	TV	8%
4	Mattress	28%
5	Sofa set	6%
6	Mobile Phone	67%
7	Bank Account	18%
8	Floor Material (Cement)	31%
9	Roofing Material (Iron Sheet)	84%
10	Fuel (Charcoal)	3%
11	Maize Stocks	1%

Figure 2: MAP OF THYOLO DISTRICT SHOWING TRADITIONAL AUTHORITIES (TAs)



1.2 Social Infrastructure

Community access to WASH services

- According to Thyolo District WASH Survey conducted in 2021, Thyolo has **3,632 water points** of which 393 are taps from four GFS and 3,239 are boreholes and shallow wells fitted with Afridev hand pumps. Figure 2 below shows percentage of water points per category. Out of the total number of water points, only 1,991 water points are fully functional and 753 are partially functional and in need of repair/rehabilitation. 600 water points are completely not functional while 288 water points were abandoned because they cannot be repaired. Refer to Figure 3 below on functionality of water points.

- 47% of water points are non-functional due to lack of technical capacity of WPCs to maintain their water points.
- 53% of water points are non-functional due to poor management of O&M funds.

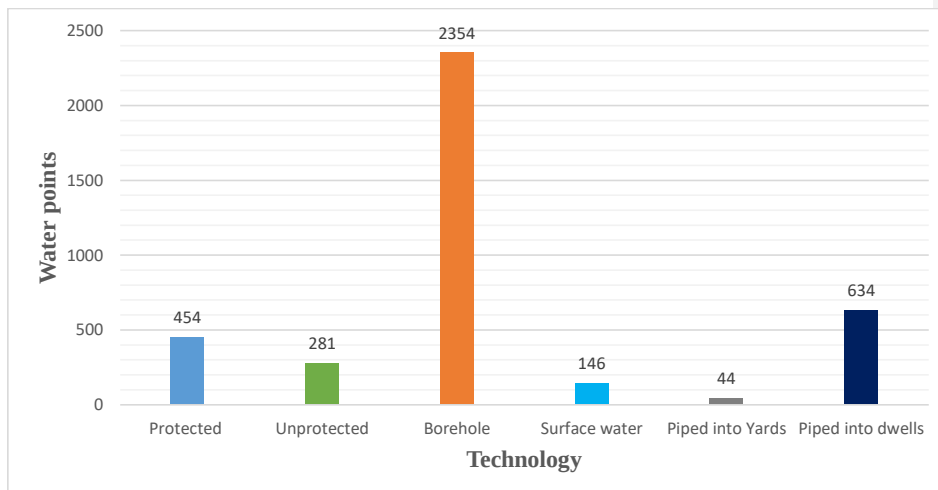


Figure 3: Water Points by Technology

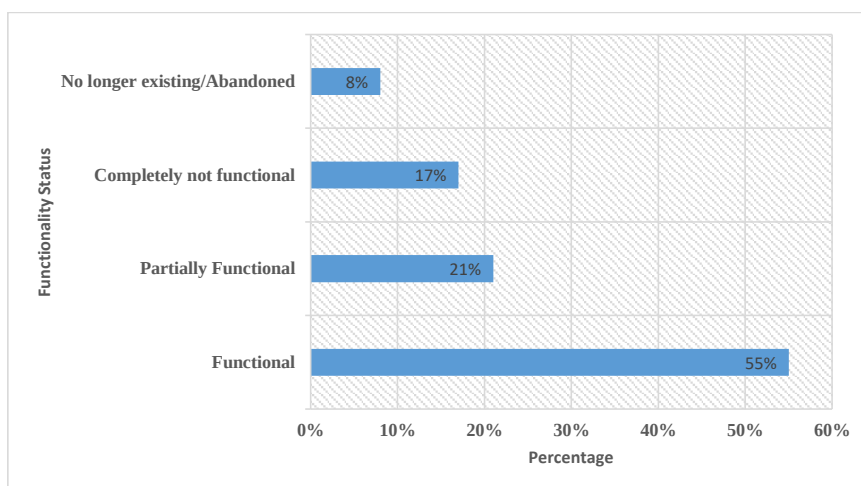


Figure 4: Water points functionality status (Source: mWater water point survey, 2020)

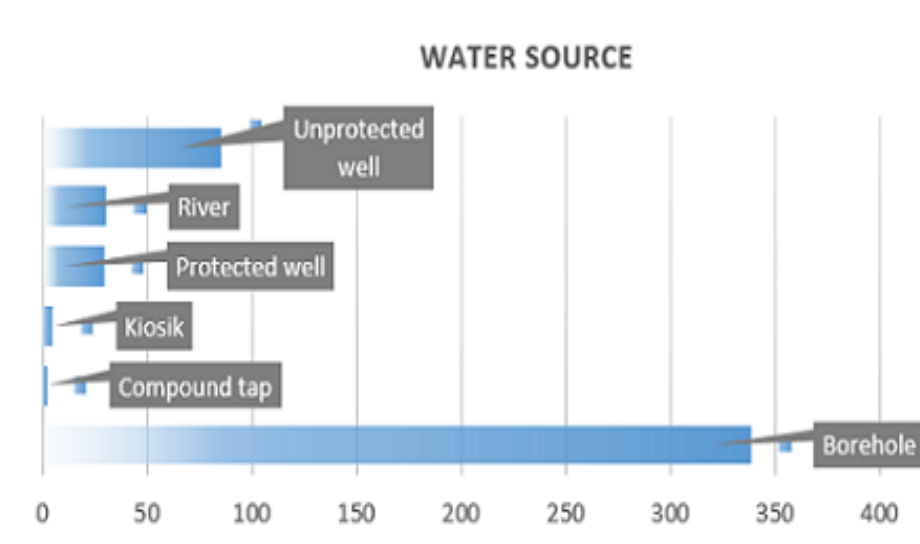


Figure 5: Type of Water Sources in Thyolo (Source: mWater water point survey, 2020)

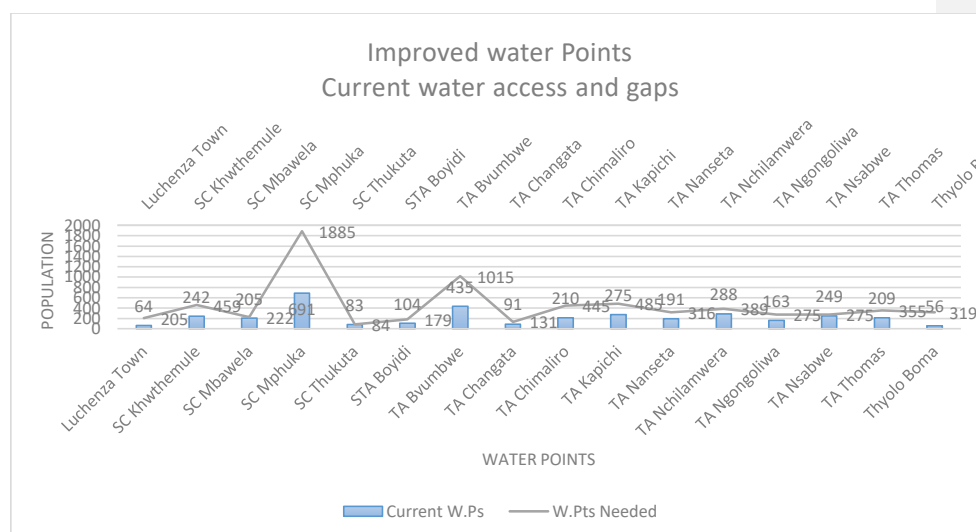


Figure 6: Water points vs Population in Thyolo District

- In areas where there are improved water points, there is need for an average of **59% increase** of water point to meet the requirement of 250 users per water point.
- According to the spatial analysis, out of 3,662, there is need for additional of 7,039 water points to serve the entire population with the radius of 500m.

1.3 Economic Activities

There are three main areas in Thyolo district which provide opportunities to the population in terms of economic empowerment.

The areas being:

a. Agriculture

Most of the population in Thyolo depends on agriculture. They cultivate crops e.g., maize, cassava, peas and vegetables such as tomatoes, cabbage and onion on subsistence farming across the district. The surplus farm produce is sold, thereby empowering themselves economically.

The community members from Traditional Authorities Bvumbwe and Chimaliro practice dairy farming and the market for the produced milk is readily available in their vicinity.

b. Small Scale Businesses

Some people engage themselves in small scale businesses such as groceries and selling second hand clothes at market centres and in Tea Estates during pay days.

c. Employed in Tea Estates

Some people are employed in Tea Estates as labourers where they get money for helping their families and paying for other important activities.

All the above three activities help the people of Thyolo district in taking part in contributing water Tariffs for the sustainability of WASH facilities as well as archiving SDG6. If all these economic opportunities are well utilized and the community members as consumer groups change their minds on dependence syndrome, Thyolo can easily achieve 100% access to clean water, sanitation and hygiene facilities by 2025.

1.4. Administrative Structure

As the ultimate coordinator of all sectors and departments at the Local Authority level, the District Council (DC) through the Directors is responsible for smooth operations of the WASH sector. An institutional framework for sanitation and water management for Thyolo consists of a range of different structures and organisations that are in place to develop and manage water resources and the delivery of water and sanitation services at different levels of society.

1.4.1. District Coordinating Committee and Community Structures

District Water Development Office (DWDO) is the service delivery authority responsible for the provision and maintenance of water supply and sanitation, the Ministry of Water and Sanitation provides policy guidance and the Ministry of Health promotes sanitation and

hygiene. DWDO serves as the secretariat for District Coordinating Teams (DCTs) that includes representation from other sectors involved in WASH such as District Health Office through Environmental Health Department and Education.

The governance structure for the WASH sector has shifted towards a Community-Based Management (CBM) model that puts the responsibility for operation and maintenance of WASH infrastructure on elected village level committees such as Area Coordinating Team comprising representation from sectors involved in WASH. At village level there are Water Point Committees (WPCs) these are the volunteer committees responsible for managing the finances, basic repair, and sanitation of one water point, regardless of type. Collect and save money for spare parts and hand pump mechanic service fee for water. They work hand in hand with Area Mechanics.

1.4.2. District Executive Committee

The DEC is a technical and advisory committee to the council and to all of the above-mentioned committees. The committee has the overall responsibility of the day- to- day implementation of the Local Development Plans including plans relating to WASH. DEC consists of government and NGO officials. With respect to WASH, the functions of DEC include:

- Approving projects related WASH
- Assisting in setting priorities, identifying community needs and assessing project proposals relating to water, sanitation and hygiene
- Giving advice on implementation of WASH services
- Coordinating district WASH policies and activities with national policies
- Advising District Councils on sectoral WASH policies and programmes.
- Planning and budgeting interventions related to WASH
- Monitoring WASH services in the district

1.4.3. Works Service Committee

The Works Service Committee is the Committee under the Full Council responsible for the review of the interventions related to the provision and maintenance of water supplies including: boreholes, gravity fed piped water projects/schemes, protected wells and the distribution of water. The Committee is also responsible for the review of interventions on

sanitation before recommending to Full Council for approval of proposed projects and interventions.

1.4.4. Full Council

The Full Council consists of Councillors, Members of Parliament, Traditional leaders and representatives of the interest groups. The Full Council has the mandate to approve council budgets and the investment plans for the Council. They also approve reports from the Service Committees. The Works Service Committee presents reports and proposed projects and interventions on WASH to the Full Council for approval.

1.5 Local Planning

Section 6 (1) (c) of the Local Government Act empowers local authorities in Malawi “to promote infrastructural and economic development by formulating, approving and implementing Local Development Plans (LDPs)”. Due to the fact that local authorities have numerous needs and inadequate resources, they need to plan and prioritise the needs to be included in the LDPs. The LDPs that are developed are called District Development Plans (DDP). It is expected that only those projects that are in the respective LDPs should be funded in a council. The production of a development plan is guided by the District Development Planning System (DDPS). The first step of the system is to examine and document what the council has and lacks. The second step is for the council, through the District Executive Committee (DEC), to produce a document known as a Socio-Economic Profile (SEP) of the Local Government Area. The profile provides information on the population in a Local Government area, what they do for their living, what food they depend on, where the most urgent development needs are.

The DDPS ensures that planning is done in a participatory process and follows the bottom-up approach (from community level going upwards to the ADC, DEC and council). At the village level, residents carry out village action planning whereby Village Action Plans (VAPs) are produced. Through VAPs, community members define their most urgent development needs, prioritise them and suggest solutions. These are then submitted to the council for inclusion in the LDP.

With respect to WASH, Village Health Committees and Health Advisory Committees promote hygiene and sanitation in the communities. Water Point Committees and, Area Mechanics and Shop Owners promote water supply and functionality of water points respectively. Village Natural Resources Management Committees promote natural resources management while Village Civil Protection Committees and Area Civil Protection Committees promote Disaster Risk Management at local level. These structures are supposed to be involved in the local planning process at various levels.

1.6 Vision

Providing potable water and sanitation services to all always.

1.7 Mission Statement

Having communities which have convenient access to adequate potable water of acceptable quality and quantities and improved sanitary facilities which can facilitate hygiene practices to both rural and urban communities in order to reduce frequent prevalence of water related diseases in Thyolo while ensuring gender equality and affordability.

1.8 Strategic objectives for WASH

By 2027, the district intends to achieve the following key strategic objectives;

- Achieve universal and equitable access to safe water for all.
- Achieve access to equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and Girls and those in vulnerable situations.
- Improve water quality by reducing pollutions, eliminating dumping and minimize release of hazardous chemicals and materials having the proportion of untreated waste water and substantially increasing recycling and safe reuse globally.
- Substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of fresh water to address water scarcity and substantially reduce the number of people suffering from water scarcity.
- Implement integrated water resources management at all levels, including through transboundary cooperation as appropriate.
- Protect and restore water- related ecosystems, including mountains, forests, wetland, rivers, aquifers and lakes.

- Support and strengthen the participation of local communities in improving water and sanitation management.

CHAPTER 2: WATER, SANITATION AND HYGIENE [WASH] SITUATION

2.1 Current Water Situation in the District

2.1.1 Water Facilities and Technologies Inventory

Thyolo District has three main types of water technologies that are commonly used, namely boreholes, taps and shallow wells. At some health centres and Thyolo boma market they use reticulated boreholes. Some communities have no access to potable water and they opt to drink from other unsafe water sources like unprotected shallow wells, rivers/streams, unprotected springs, dams and ponds.

Photo 1 below is showing part of Sankhulani GFS which is serving water to Traditional Authorities Nsabwe and Thukuta. This type of technology is very useful in these Traditional Authorities in the sense that some areas are hard to reach for the drilling rigs and TA Thukuta has cases of salty water in some existing boreholes. So, this technology is solving the above captioned problems in the area though it is expensive to implement.



Photo 1: A Borehole fitted with an Afridev hand pump (a community-based management technology)



Photo 2: A water tank and stand pipe on Sankhulani GFS in TA Nsabwe (Useful technology in hilly and dry areas)

Table 2: Number of water points and functionality status by TA

TA/Town	Number of water Points	Functional	Partially Functional	Completely Not Functional	No longer Existing/ abandoned
Luchenza Town	60	33	15	10	2
SC Khwethemule	229	175	18	15	21
SC Mbawera	198	94	47	46	11
SC Mphuka	729	390	72	215	52
STA Thukuta	166	83	35	22	26
STA Boyidi	105	75	18	3	9
TA Bvumbwe	444	371	21	29	23
TA Changata	83	47	13	16	7
TA Chimaliro	219	106	77	19	17

TA Kapichi	244	145	50	32	17
TA Nanseta	187	78	60	36	13
TA Nchilamwera	275	114	107	29	25
TA Ngolongoliwa	166	66	73	14	13
TA Nsabwe	253	131	71	48	3
TA Thomas	225	55	64	59	47
Thyolo Boma	49	28	12	7	2
Total	3632	1991	753	600	288

(Source: Thyolo District WASH Survey)

Table 2.1: Gravity Fed System and functionality status

NO	NAME OF GFS	NAME OF TA	NUMBER OF TAPS	NUMBER OF FUNCTIONAL TAPS	TAPS NOT FUNCTIONAL
1	Mvumoni	SC Thomas	88	39	49
2	Didi	Mphuka	107	24	83
3	Limphangwi	Mphuka	85	51	34
4	Sankhulani	Nsabwe	96	81	15
	Totals		393	195	191

(Source: DWDO, Thyolo – Nov, 2021)

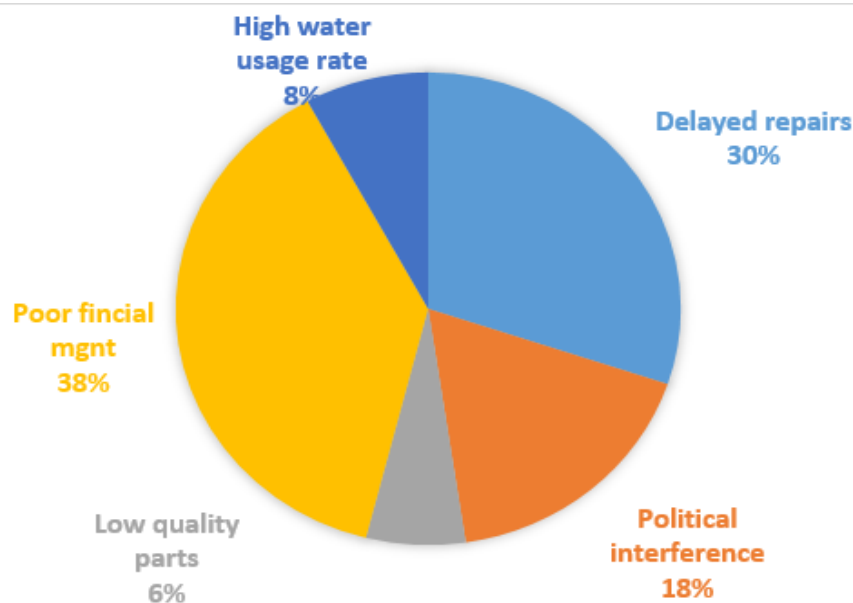


Figure 7: Community Water Supply Satisfaction

38% of the daily water users are dissatisfied with the water supply services as a result of poor financial management by the Water Point Committee while 62% are satisfied.

- **61,086** people have no access to potable water due to break down of water points, long distances to access safe water, poor topography, and unavailability of safe water supply systems.
- **244** new boreholes and where possible other water supply systems estimated to meet the demand (mWater Survey, 2020).

2.1.2 Challenges

Common reasons for non-functionality of Water Points in most TAs include;

- Lack of capacity by the WPCs to operate and maintain their boreholes
- Poor funds management mechanisms by WPCs
- Low number of Area Mechanics to support WPCs in undertaking major maintenance of water facilities

- d. Unavailability of Grocery Owners to strengthen supply chain of borehole spare parts
- e. Poor leadership in WP management.
- f. Lack of By-laws to reinforce tariff collection in water points
- g. 44% of households in rural areas cannot afford to pay water tariffs due to low-income levels.
- h. Most of the taps in GFSs are running dry due to vandalism. This is as a result of lack of ownership by beneficiary communities.
- i. Shortage of staff at in water sector
- j. Low funding by treasury to water sector
- k. Low number of partners to support water sector
- l. Lack of political will

2.2 Water Demand in the District

The district **population currently is estimated at 747,086** (NSO 2020) and total number of **water points is at 3,632** and out of this number, **only 2,744 water points are functional**. In view of this situation, **61,086 people have no access to potable water** due to break down of water points, long distances to access safe water, poor topography, and unavailability of safe water supply systems. And more than 250 people are using a single water point which is contrary to the national water guide lines. The ministry responsible for water stipulates that 250 people from 50 households are enough to use one borehole and for a tap, the recommended standard is 120 people. It further recommends that the walking distance to access potable water should be within a radius of 500 metres. But this is not the case with Thyolo. Women walk long distances to access safe water source. There are some Traditional Authorities namely, Bvumbwe, Chimaliro, Nchilamwera, Nanseta and Kapichi who have high population, as a result, over 170 households are using one borehole (mWater survey). Additional new water points are required to serve people who currently don't have access to safe water. The district at least estimates 244 new boreholes and where possible other water supply systems can be provided to serve 61,086 people.

2.3 Stakeholder Analysis

The district has a number of partners who are collaborating in WASH activities implementation. These Stakeholders are doing an important role to make Thyolo free from

water borne diseases. This is being undertaken in line with SDG number six (6) so that Thyolo achieves access to safe and affordable water for all by 2030. The following is the list of them:

WASH policy makers:

- District council
- Regional Water Development Officer
- Ministry of finance

Consumers of water and sanitation services:

- Rural and Urban Communities

Implementers of Sanitation facilities/Services:

- NGOs such as United Purpose
- Community Development Sector
- Education Sector
- Water Development Sector
- Forestry Sector
- BASEDA
- District Environmental Section
- Department of Environmental Health

Developers of Water and Sanitation Technologies

These are consulted at times on technical issues:

- Mzuzu University
- University of Malawi
- BASEFlow

Advisors to the Sector

They provide technical advice on technical matters in line with stipulated policies:

- Consultants
- National Economic Council
- Policy makers and Planners in the Ministry of Water Development

Financiers of WASH Projects

They are engaged in when advocating for funds:

- Government of Malawi
- United Purpose/Self Help Africa
- WHO

- Plan International.
- JICA

Table 2.2: Partners working in the district on WASH (as at 2021)

Name of Partner	Impact Area	Activities being undertaken (as at 2021)
United Purpose/Self Help Africa	TA Changata TA Khwethemule TA Kapichi	- Rehabilitation of water points. - Drilling of boreholes - CLTS/SLTS - COVID-19 response interventions in Health Centres.
BASEDA	All TAs	- Identify and train Area Mechanics. - Identify and train borehole spare parts retailers.
Sankhulani WUA	- SC Nsabwe - TA Thukuta	- Water Supply and Sanitation

2.4 Water Supply Situation at Community Level

2.4.1 Community Access to Safe Water

As indicated in Table 2.1 above, the district has a total of 3,632 water points. Out of this, 1,991 are functional, 753 are partially functional, 600 are non-functional and 288 are abandoned. In addition, the district has 4 gravity fed systems where a number of 393 taps were placed. Out of this, 195 taps are functional while 191 taps are non-functional.

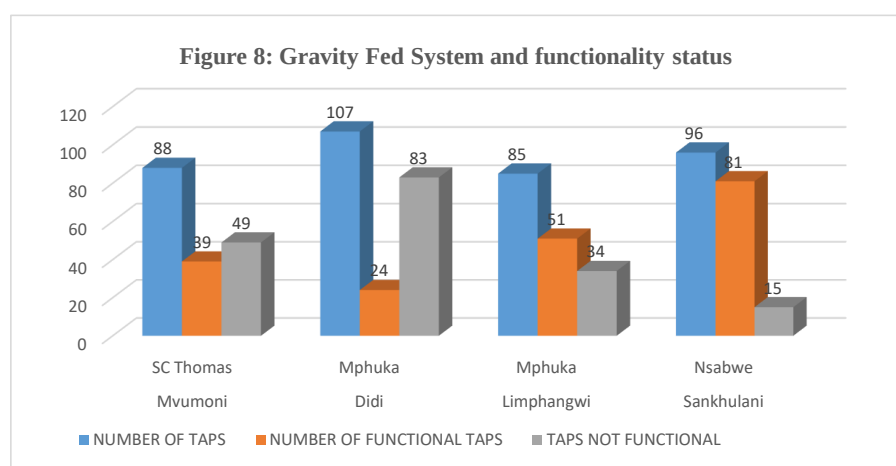
Commented [H1]: Introduction section claims 2744 are function while here we say 1,991; which one is correct?

2.4.2 Gravity Fed Schemes

Gravity Fed Scheme is one of the water technologies Thyolo district is using to supply clean water to rural masses. The district has four major gravity fed schemes. All of them are found in areas which are very challenging when it comes to drilling of boreholes because they are not accessible by drilling machinery.

Figure 8 below shows the existing gravity fed systems in the district, their location, and status. Intakes of the four schemes are frequently silted up during rainy season due to catchment degradation at the source. As the silt entered the intake pipe it gets into transmission and distribution pipes blocking them in process. This affects the supply of water at water points. In

some instances, Galvanized Iron (GI) pipes across rivers are vandalized rendering the system functional for a certain period of time.



2.4.3 Water Pollution

Water pollution in Thyolo is a problem in the sense that every year the Tea Estates apply fertilizer and pesticides in Tea fields and it is applied through broadcasting method. When the rain comes, the fertilizer is washed away by run off and it is deposited in rivers. The same happens with the chemicals (pesticides) that are applied to macadamia nut trees. This also pollutes the rivers. Sewerage system is another way that contributes to water pollution in the district. This is happening at Thyolo District hospital where sewerage waste is spilling over into Msikizi stream which some people of Magombo village are accessing for different purposes. Underground water is also at risk of pollution in the sense that it was observed during mWater survey, that people are constructing pit latrines without observing recommended distance (50 metres) to water points such as boreholes.

2.4.4 Water Quality Testing

According to Thyolo District WASH Survey conducted in 2021, Water quality testing was conducted only in institutions like Schools, Healthy Centre Facilities, CBCCs, churches and Prisons. The results showed that 11% of the water points for the institutions where this test was done, were contaminated. Normally, water points are tested immediately after construction. As a council we intend to have all water points tested twice every year for quality assurance.

2.4.5 Technical Support

Thyolo district Council ensures that all stakeholders in WASH in the district adhere to the National Water policy, which stipulates that when planning to provide water to the community, should install technologies which have the following factors;

- Simplicity of maintenance so that community members can easily participate in taking care of the water facilities. e.g., Afridev handpump for both deep wells and Shallow wells, Malda pump and Taps
- Locally availability of spare parts so that community members should not travel long distances to access spare parts
- Locally manufactured water facilities
- Affordability of spare parts prices

2.4.6 Water Point Committee

A water point committee is instituted at every water point which is responsible for operation and maintenance of the water facility. It undertakes minor maintenance which involves in replacing worn out spare parts. It also establishes a tariff to complement management of the water facility. Most of them, they collect MWK200 per household every month on average.

2.4.7 Area Mechanics

To enhance functionality and sustainability of water points, the Council in conjunction with BASEDA, 40 Area Mechanics have been established across the district to support water point committees in major maintenance repairs. Each of them is assigned to all the water points located in a catchment covering 2 GVHs. They work as entrepreneurs where they get paid after rendering service to the Water Point Committee through a service or repair contract.

2.4.8 Follow up and support visits to Water Point Committees

The Council conducts this activity every month through WMAs, Community Development Assistant (CDA) and HSAs. The DCT also organizes this activity on quarterly basis to strengthen the O&M system. The only challenge is shortage of staff on water sector which is causing a problem of failing to support WPCs in time.

2.5 Household Drinking Water Levels of Service

The tracking of population accessing and using drinking water sources has been cascaded into the following service levels for improved water facilities: safely managed, basic and limited levels of service. Unimproved sources are categorized as either unimproved or surface water levels of services.

The table below gives a detailed description of the drinking water levels of services and their coded colours as per World Health Organization/UNICEF Joint Monitoring Programme ladder.

Table 2.3: SDG Levels of service definitions for drinking water

SERVICE LEVEL	DEFINITION
SAFELY MANAGED	Drinking water from an improved water source that is located on premises, available when needed and free from faecal and priority chemical contamination
BASIC	Drinking water from an improved source, provided collection time is not more than 30-minutes for a round trip, including queuing
LIMITED	Drinking water from an improved source for which collection time exceeds 30minutes for a round trip, including queuing
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

The WHO/UNICEF JMP ladder for drinking water services. Adapted from the WHO/UNICEF JMP; Progress on drinking water, sanitation and hygiene: 2017 update and SDG baselines Report.

According to table above, a household population met the safely managed drinking water level of service, the highest level of service, if their drinking water was accessible on their premises, the water was available all the time and free from contamination.

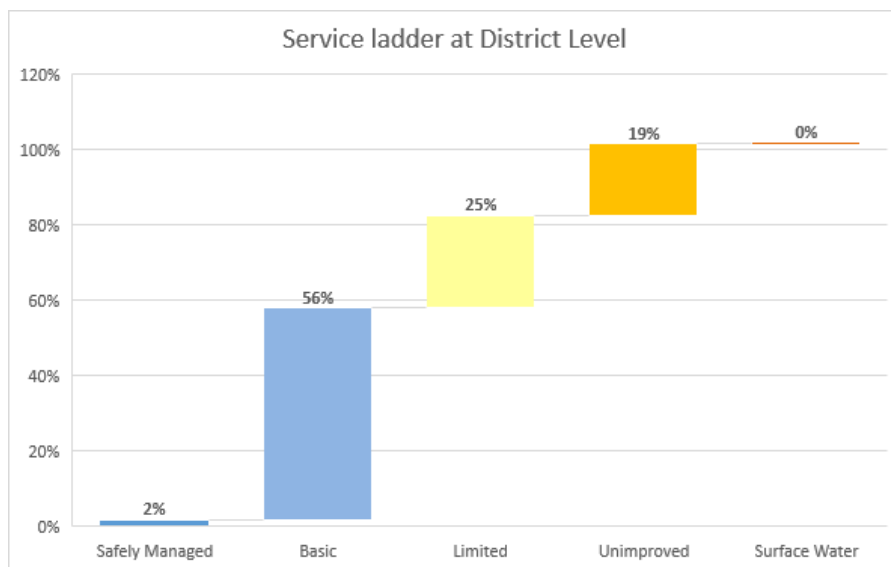


Figure 9: Drinking Water Levels of Service in Thyolo district

Interpretation of the graph:

- Only 2% of households in Thyolo are at safely managed level
- 56% of households in Thyolo is at Basic service level
- 25% of households in Thyolo is at Limited service level
- 19% of households in Thyolo is at Unimproved service level
- 0% accounts for surface water

2.6 Water Supply in Schools

2.6.1 Current Situation

The district has 188 Primary Schools with 197,660 learners. The total number of classrooms is 1909 in 188 public primary schools which accommodate 104 learners per class on average in public primary schools. There are 3,155 teachers of which 1,819 males and 1,306 are female. The teacher learner ratio is 1:63 on average.

151 primary schools (80%) have protected water sources (boreholes) while 37 schools (20%) have unprotected water sources. Out of 151 water sources in schools 115 were tested for water quality. There are 2341 toilets in 188 public primary schools representing ratio of 1: 84 learners but the recommended ratio is 1:60. The district have 3056 hand washing facilities (taped

buckets at different places at school) and 96 improved change rooms (MHM) in 96 schools which represents 51% that means 49% are gaps.

Table 2.4: Category and number of Schools in Thyolo district

School Category	No. of schools	Learners	Boys	Girls	Teachers		TOTAL
					Male	Female	
Primary schools	188	197,660	96,547	101,113	1,819	1,336	3,155

(Source: Thyolo Education Data, 2022)

2.7 Water Supply in Market Places

WASHpackage in markets includes; provision of water supply, at least two latrines and one refuse pit among other water and sanitation facilities.

2.7.1 Existing Situation

Of the 30 markets in the district, 21 of them have water supply, and nine do not have water within the market premises. The main source of water in almost all markets, 19, is borehole, one market served by water from the water board, one with articulated system. 14 of the water supply systems are functional, representing a functionality rate of 67 percent. Of the seven non-functional water points in markets, the major reasons include but not limited to; vandalism, lack of system management plans in place and lack of funds for water point maintenance and operation.

On generation of funds for water point maintenance and operation, 20 markets reported to collect water user fees and only five market committees provided evidence that they collect and keep funds for maintenance and operation.

2.8 Water Supply in Health Centers

2.8.1 Current Status

There are 41 registered health facilities in Thyolo. These are owned by Government of Malawi (GoM), Christian Association of Malawi (CHAM) and the private sector especially the estates. The Government of Malawi (GoM) has 23 health facilities by this type; one District Hospital, one Rural Hospital, 12 health centres, five dispensaries and four improved health posts.

(CHAM) has nine health facilities as follows; one hospital, seven health centres and one improved health post and nine clinics belonging to the estates.

The minimum requirement package for water supply in hospitals is at least running water from a tap. This is the same requirement in health centres while in dispensaries and improved health posts, the requirement is at least water supply, preferably running water from a tap.

The current situation of water supply in health facilities run by government of Malawi in Thyolo is varied. The district hospital meets the minimum requirements for water supply while situation in GoM health centres varies as seven health centres (HCs) have reticulated solar powered system, representing 58%, three HCs (25%) source water from boreholes and two have non-functional boreholes.

There are different reasons for non-functionality of water systems in health facilities (HFs) which include but not limited to: vandalism of solar pumps, and poor management system of water supply in health facilities.

Water supply situation in dispensaries is varied as from the five dispensaries in the district, four dispensaries, representing 80% have boreholes which means they meet minimum requirements, while one dispensary operates without a borehole. In the three-government improved health posts, two of them have boreholes while one has no borehole.

Of the nine health facilities run by CHAM, the situation of water supply is different from health facilities run by the government of Malawi. The water supply at the hospital run by CHAM meets minimum requirements, this is the same in CHAM health centres and at the only improved health post belonging to CHAM. For the health facilities with water supply, water sources from five health facilities representing seven percent are contaminated with faecal E. coli.

2.9 Water Supply in CBCCs

The district has 410 CBCCs. Of the 410 CBCCs, 353 of them have water supply, which means the remaining 57 CBCCs do not have water supply within the premises and they draw water from other alternatives. Figure 10 below gives details on the functionality of water points in CBCCs.

For the CBCCs with water supply, 240 of their water points are functional while 39 are in non-functional state and 74 are partially functional. There are various reasons for non-functionality of water points in CBCCs and these include but not limited to; vandalism and poor management systems for water supply.

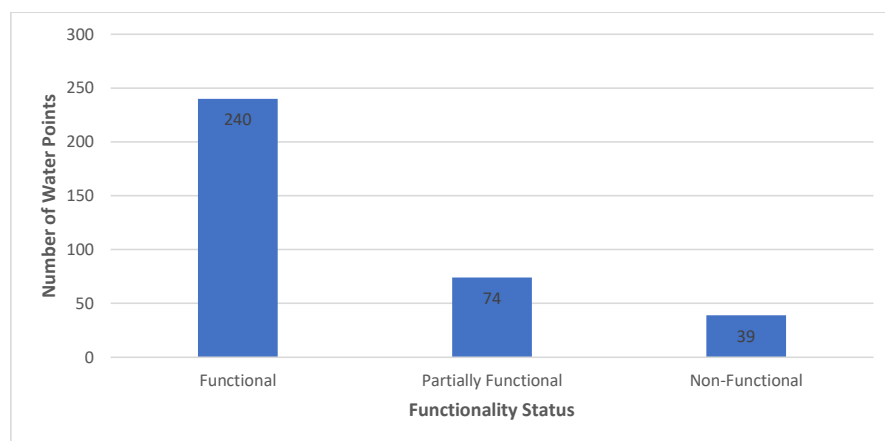


Figure 10: Functionality of Water Points in CBCCs

It is a requirement that a minimum distance of a water supplying a CBCC is within the premises. Seven CBCCs in the district have water supply within their premises while 403 have water supply within 400 metres.

In the CBCCs with water supply, 35 of the water points in CBCCs are contaminated with faecal E. coli. The sources of contamination possibly be attributed to; water points being closer to latrines, graveyards and animal kraals.

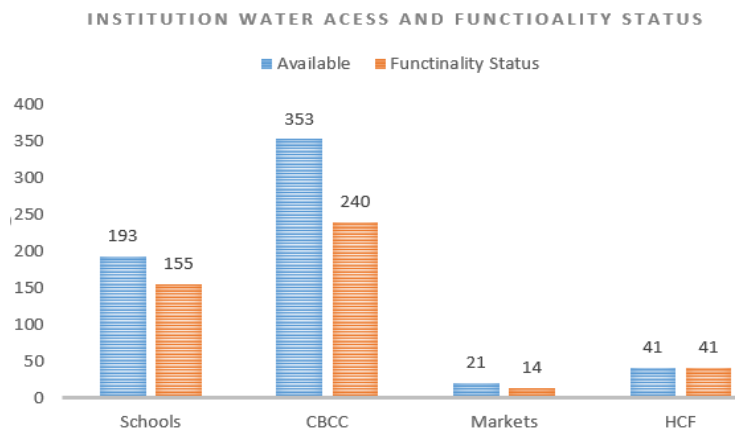


Figure 11: Institution water access vs functionality status

Overall, the district institutions have **74%** of functional water access where schools alone stand at 80% functional water points

- Out of 353 water points in CBCCs, only 240 are functional, representing 68%
- Markets have at least 21 water points but on 14 are functional representing 67%

2.9 Sanitation and Hygiene

2.9.1 Sanitation at Community Level

Thyolo district with a population of 747,086 NSO 2020 has 26 Traditional Authorities (TAs). These include both TAs and sub traditional authorities (STAs), 751 registered villages and 182,957 households. The minimum sanitation package in the community requires each household to have; a latrine and a refuse pit. The current sanitation situation in the community in the district is far from being satisfactory.

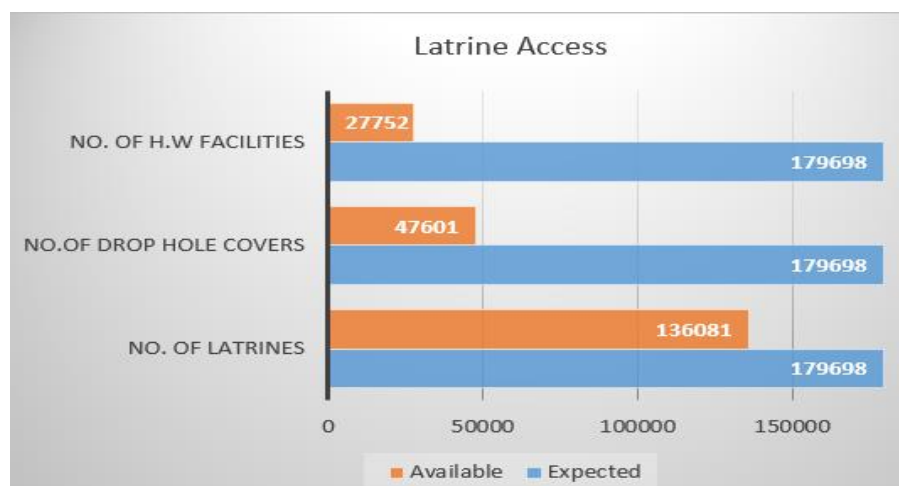


Figure 11: Analysis of community latrine coverage vs population in Thyolo

On average, latrine access for the district is at **76%** where only 136,081 of the expected 179,698 latrines are available per household.

- **27%** of the latrines have no drop hole covers while only **16%** have hand washing facilities.
- Even though **99%** of the population claim to practice hand washing, **38%** among them are familiar with critical handwashing times.

Overall, the district has 136,081 latrines of all types against 179,698 households. This represents an overall coverage of 75.7%. Out of the 136,081, a total of 47,601 latrines had drop hole covers, representing 27% which were inserted on the hole. 27,752 latrines have hand washing facilities with soap, representing 16% of the latrines. In order to achieve ODF at a household level, it is expected that at every latrine, there should be; a drop hole cover (DHC), a functional hand washing facility (HWF) with soap for hand washing.

However, sanitation coverage by TA is varied with TA Kapichi having the highest sanitation coverage as table 2 indicates. Table 2.5 shows the general sanitation situation for the district.

Table 2.5: Sanitation at district level:

PARAMETER	NUMBER	%
TA	26	
HHs	179,698	
Latrines	136,081	75.7%
DHCs	47,601	27%
WFs with soap	27,752	16%

Table 2.6: Sanitation at community level by TA:

N o	TA	No of HH	No of toilets	Percenta ge (%)	No of HWF with soap	Percenta ge (%)	No of Drop Hole Cove r	Percenta ge (%)
1	Kapichi	14,509	14,509	100	14,509	100	14,509	100
2	Bvumbwe	29,557	22,213	75	2,506	9	7,254	25
3	Mbawera	16,054	12,203	76	385	3	1,420	9
4	Thomas	7,018	5,703	81	775	11	2,360	34
5	Nanseta	8,016	5,799	72	355	4	1,789	22
6	Mphuka	18,802	13,939	74	1,863	10	3,102	17
7	Changata	10,050	7,742	77	728	7	1,776	18
8	Chimaliro	27,298	20,737	76	3,862	14	8,226	38
9	Nsabwe	12,617	9,493	75	769	6	2,639	21
10	Khwethemu le	14,355	14,355	100	763	5	1,455	10
11	Nchiramwer a	21,422	13,505	63	1,237	6	3,071	14
	Totals	179,698	136,081	76	27,752	16	47,601	27

2.9.2 Status of Sanitation in Market Centers

The minimum requirement package for sanitation in markets is availability of at least two latrines, one for each sex and a functional waste disposal pit. In addition to this requirement, there should be receptacles of different kinds for managing wastes.

The current sanitation situation in markets in the district is heavily compromised. Of the thirty markets in the district, 9 (30%) meet minimum latrine requirement while twenty-one markets (70%) do not meet the latrine requirement because they have inadequate number of latrines. Five (17%) of the latrines in markets do not meet the needs of physically challenged people. Therefore, for this situation of latrine in markets, access to latrines may be limited. Waste management is a challenge in markets in the district, as only three markets have proper waste disposal sites for solid wastes.

2.9.3 Sanitation in Health Centers

The minimum requirement package for sanitation in hospitals depends on its size, however, on average the number is at least ten-flushing toilets with running water, a functional incinerator, a functional placenta pit and a functional pit latrine. While the requirement package in health centres is at least six functional latrines, a functional incinerator, a functional placenta pit and in dispensaries four latrines, a functional incinerator and a functional pit latrine, the same requirements for improved health posts.

In addition to the requirements stipulated in the afore gone paragraph, each health facility is required to have bins of different types for solid waste collection/storage and sanitation facilities for human and waste water management.

The current sanitation situation in health facilities run by government of Malawi in Thyolo is varied. The district hospital meets the minimum requirements for sanitation, although solid wastes are not collected and stored in standard receptacles while situation in GoM health centres varies as nine health centres (HCs) meet the minimum requirements for latrines and three of HCs do not meet minimum latrine requirements because the latrines are either in bad state of repair or do not function properly. Latrine situation in dispensaries meets minimum requirements and this is the same situation in improved health posts. However, there should be always water supply to complement sanitation at health facilities and enhance cleanliness.

Table 2.7: Minimum sanitation requirement in HFs at different levels:

HEALTH FACILITY	MINIMUM REQUIREMENT		
		Sanitation	Water Supply

	Latrines	Refuse Pits	Placenta Pit	Incinerators	Bins	Running Water
Hospital	10	3	1	2	30	✓
Health Centre	6	1	1	1	6	✓
Dispensary	6	1	NA	1	2	✓
Improved Health Post	6	1	NA	1	2	✓

Overall, waste management in the health facilities do not meet minimum requirements.

2.9.4 Sanitation in Schools

There are 2066 toilets in 188 public primary schools representing ratio of 1: 96 learners but the recommended ratio is 1:60. The current total enrolment in public primary schools is 198589 against 2066 toilets which means the district is having shortfalls of 1784 improved latrines in reference to the recommended ratio.

Table 2.8: Status of Latrines in primary schools:

Latrine Category	Number of Latrines	Girls		Boys	
		Number	Percentage	Number	Percentage
Improved Latrine	2066	1111	53.8%	955	46.2%

Table 2.9: Distribution of Pit latrines and shortfalls by Zone

			Available Toilets			SHORTFALL		
ZONE	Enrolment	Staffing	Boys	Girls	Total	Boys	Girls	Total
Chisawani	15720	311	75	88	163	38	48	86
Goliati	21297	338	82	90	172	92	106	198

Folopensi	11267	139	60	81	141	25	24	49
Nansato	11460	209	59	65	124	38	39	77
Mpinji	18780	287	70	95	165	79	81	160
Ntambanyama	13099	193	66	66	132	47	54	101
Molere	8927	129	62	66	128	12	15	27
Masambanjati	14034	189	67	73	140	44	54	98
Consoled	13304	154	66	95	161	150	287	437
Thekerani	7001	105	41	42	83	16	20	36
Gombe	4952	76	25	27	52	16	21	37
Mulenga	7627	105	41	50	91	25	26	51
Khonjeni	13800	210	53	58	111	58	68	136
MT View	10394	198	50	54	104	43	49	92
Luchenza	12909	271	75	84	159	48	52	100
Thunga	14018	241	63	77	140	47	52	99
Total	198589	3155	955	1111	2066	778	996	1784

2.9.5 Sanitation in CBCCs

The minimum sanitation requirement package for sanitation in CBCCs is; at least two latrines and a waste disposal pit. Additionally, there is requirement for receptacles for waste management.

The current sanitation situation in most CBCCs in the district is compromised, 208 of them have latrines in the usable state while 201 of them have latrines in either bad state of repair.

Of the 410 CBCCs in the district, 385 CBCCs have waste disposal pits, although there are no waste receptacles for collection of solid wastes. 25 of the CBCCs have no waste disposal pits as well as receptacles such as waste bins for solid waste management. This means waste collection as part of waste management is not practised and therefore there is indiscriminate

waste management in these CBCCs. On meeting the needs of physically challenged children, only 7% of usable latrines in CBCCs meets the needs of physically challenged children.

2.10 Sanitation and Hygiene and Status in the District

2.10.1 Sanitation and Hygiene at Community Level

As provided above, the district has 137,082 latrines. Out of this, 45,193 latrines have hand washing facilities. This represents 33% of the total pit latrines. 38,221 latrines (28%) have functional hand washing facilities and 25,340 latrines (18%) have soap available. On hand washing with soap after using the toilet, 84% of people in communities from the HHs do not wash hands with soap after toilet. Overall, 66% of people in communities wash hands with soap at the critical times and 51% of people in communities have knowledge about hygiene messages. The community gets these hygiene messages through radios and health talks. 85% buy hygiene products from shops, 10% get through donations and 5% beg from relatives. On water treatment, 80% of HHs chlorination as the water treatment method at HH level and 43.3% of HHs treat their water 'always', 32.5% treats 'most of times' while 24.1% treats water at 'sometimes'.

2.10.1.1 Household Sanitation Levels of Service

The measuring of household population accessing and using sanitation facilities is divided into the following service levels for improved sanitation: safely managed, basic and limited sanitation levels of service. Unimproved facilities are categorized as either unimproved level of service or open defecation.

Table 2.5 SDG Levels of service definitions for sanitation

SERVICE LEVEL	DEFINITION
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
BASIC	Use of improved facilities that are not shared with other households
LIMITED	Use of improved facilities shared between two or more households

UNIMPROVED	Use of pit latrines without a slab or platform, hanging latrines or bucket latrines
OPEN DEFECATION	Disposal of human faeces in fields, forests, bushes, open bodies of water, beaches or other open spaces, or with solid waste

The WHO/UNICEF JMP ladder for sanitation services. Adapted from the WHO/UNICEF JMP; Progress on drinking water, sanitation and hygiene: 2017 update and SDG baselines Report.

Through inference from table 2.5, if a household population satisfied the safely managed sanitation level of service, then it meant they had an improved sanitation facility that was not shared with other households and the management of excreta constituted either of the following: treated and disposed in situ or on site; stored temporarily and then emptied, transported and treated off-site; or through sewer transportation to an offsite wastewater treatment plant. If excreta management from an improved sanitation is not safely managed, then it is categorized as basic sanitation level of service. If an improved sanitation facility is shared with other households, then the level of service is limited.

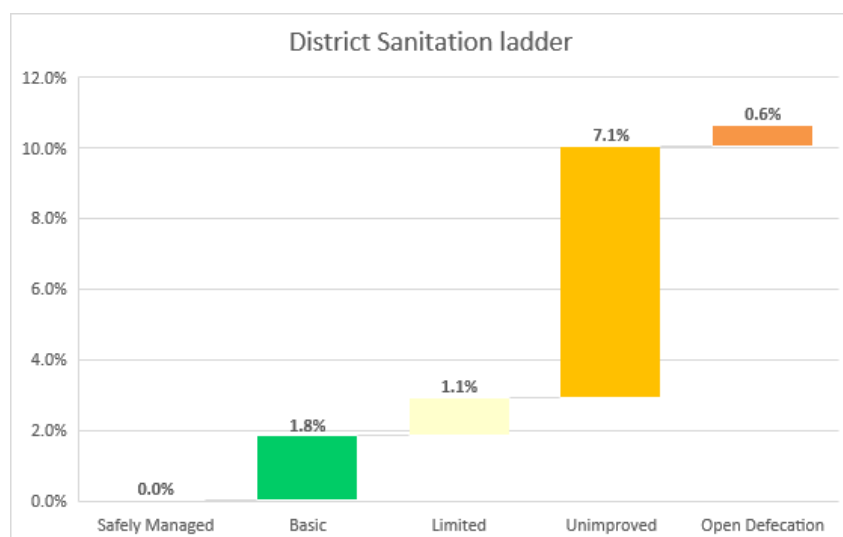


Figure 12: Household Sanitation Levels of Service in Thyolo district

Interpretation of the graph:

- Only 0% of households in Thyolo is at safely managed level of service
- 1.8% of households in Thyolo is at Basic level of service
- 1.1 % of households in Thyolo have Limited services
- The majority, 7.1% of households have unimproved services
- 6% still practicing OD

2.10.1.2 Household Hygiene Levels of Service

Handwashing practice is categorized into two: Basic and limited levels of service; with the lowest level of service being categorized as no facility. The table below gives a detailed description of the handwashing practice levels of services and their coded colours.

Table 2.6: SDG Levels of service definitions for hygiene practice

SERVICE LEVEL	DEFINITION
BASIC	Availability of a handwashing facility on premises with soap and water
LIMITED	Availability of a handwashing facility on premises without soap and water
NO FACILITY	No handwashing facility on premises

The WHO/UNICEF JMP ladder for hygienic services. Adapted from the WHO/UNICEF JMP; Progress on drinking water, sanitation and hygiene: 2017 update and SDG baselines Report.

According to description from table 2.6, a household met the criteria for basic hygienic level of service if the hand washing facility was on the premises with soap and water. Households that had the hand washing facility, but with no soap and water then they were categorized as

limited hygienic level of service. In other places, people culturally use cleansing materials such as ash, soil and sand which are less effective in hand cleansing compared to soap, such users are considered at limited handwashing level of service.

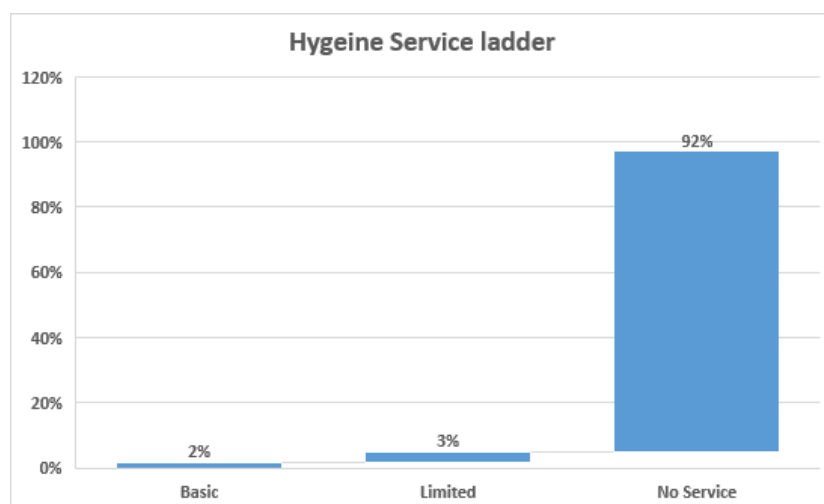


Figure 13: Household Hygiene Levels of Service in Thyolo

Interpretation of the graph:

- 92% of households have no handwashing facility on premises
- 2% of households have handwashing facility with soap and water
- 3% of households have handwashing facility without soap and water

2.10.2 Sanitation and Hygiene in Market Centers

Of the 30 markets in the district, 24 markets have latrines which are visibly not clean and produced foul smell which is evidence of either not being cleaned regularly or not being used properly. For markets with usable latrines, 81% of latrines had no hand washing facilities (HWFs) to facilitate hand washing. 87% of people in markets do not wash hands with soap and only one market had chlorine in stock for disinfection. Expectedly, none of the markets had soap in stock for hand washing.

2.10.3 Sanitation and Hygiene in Health Centers

Hygiene in all health facilities run by both GoM and CHAM is a challenge which will take concerted efforts to address it as 61% of people within the health facility (patients and guardians) do not wash hands with soap due to lack of hand washing facilities and soap. thirty-five health facilities (HFs) had chlorine in place for disinfection of water for hand washing. Although 94% of Health Facilities (HFs) staff have knowledge on hand washing hygiene practices on critical times, only 43% of them demonstrated the application of the hygiene practices. Similarly, 88% of community at the HFs have knowledge on hygiene practices on critical times but do not practice because of various reasons among them; lack of hand washing facilities.

On hand washing facilities, all (100%) hospitals have hand washing facilities, however, all of them do not have soap, while 21 health centres (95%) out of 22 have hand washing facilities and all (100%) of them do not have hand washing with soap. In dispensaries, all five dispensaries do not have hand washing facilities, this is the same status in health posts.

2.10.4 Sanitation and Hygiene in Schools

The recommended ratio for hand washing facilities is 1:60 as indicated on table 2.10 below but the current situations in our schools is 1:64. As of now there is a need of additional 299 hand washing facilities in schools and 376 permanent hand washing facilities in all schools, there is a need for having school health clubs to promote Hygiene practices as well as using posters and leaflets that promote hygiene practice in all schools.

Table 2.10: Status of Hand Washing Facilities in Schools

Category	Percentage (%)	Number of Schools	Remarks
HWF with soap	50	86	Proper hygiene
HWF without soap	30	51	To improve with soap
NO HWF	20	26	To intervene

(Source: Thyolo Education Data, 2022)

2.10.5 Sanitation and Hygiene in CBCCs

Of the 410 CBCCs, 70 of them had latrines with hand washing facilities (HWFs) which facilitate hygiene practices, 159 of the latrines in CBCCs were visibly not clean, this is the result of not being cleaned regularly due to unavailability of cleaning materials.

CHAPTER 3: WATER RESOURCES MANAGEMENT

The district is rich with natural resources. This section looks at the available water resources and catchments status

3.1 STATUS OF WATER RESOURCES

This section described the status of water resources in Thyolo, looking at both ground and water resources in relation to WASH services.

3.1.1 Hydrogeology

Hydrogeology deals with the movement and distribution of groundwater in the rocks and soils of the earth's surface. This mostly accessed for consumption and domestic use through drilling of boreholes, shallow well and natural springs. The hydrogeology of the district can be described in level five aquifer (the smallest level in the rank), in terms of groundwater. An aquifer is a body of porous rock or sediment saturated with ground water. Aquifers can either be confined, unconfined or perched.

Thyolo has two zones in terms of aquifers, dry and wet zones based on borehole drilling records for the district.

Dry zones: are areas where there is high risk of drilling dry holes such as areas in Traditional Authorities Changata, Mphuka, Thomas, Khwethemule, Mbawera and Nsabwe.

Wet zones: are areas where drilling of boreholes is successful, most of the time. These are areas around Traditional Authorities Bvumbwe, Chimaliro, Nchilamwera, Kapichi and Nanseta.

3.1.2 Salinity

In terms of salinity, most parts of the district have aquifers which produce fresh water except Traditional Authority Thukuta where some few areas have boreholes which produce salty water. According to water quality history for the district, it has never experienced presence of heavy metals which are harmful to human consumption such as Arsenic, Fluoride, Iron, Manganese and low PH.

3.1.3 Planned interventions on hydrogeology issues

- a) Construction of protected shallow wells in potential dry areas where boreholes cannot be drilled. Planned to construct 200 PSW.
- b) Traditional Authority Thukuta is the only area with the problem of salinity. Fortunately, the TA is falling under the catchment area of Sankhulani Gravity Fed Scheme. We plan to construct

50 feeder lines to extended rural piped water to various villages in order to supply the community with fresh water.

3.2 Hydrology

Hydrology is the scientific study of the movement, distribution and management of water on earth's surface and other planets. This study includes water cycle, environmental watershed sustainability. There are several rivers in Thyolo most of them flow from Thyolo Mountain which used to be a forest reserve. The main rivers in the district are shown in table 3.0 (a) below:

Table 3.1: Major rivers in Thyolo

NO	NAME OF RIVER	TYPE	SOURCE	DIRECTION OF FLOW FROM THE MOUNTAIN	IMPORTANCE
1	Msuwazi	Perennial	Thyolo Mountain	Eastwards	Water supply and irrigation**
2	Thuchila	Perennial	Mulanje Mountain	Westwards	Small scale irrigation
3	Ruo	Perennial	Mulanje Mountain	Westwards	Small scale irrigation
4	Kwankwazi	Perennial	Mindale Estate	Eastwards	Small scale irrigation
5	Namadzi	Perennial	Mindale Estate	Eastwards	Small scale irrigation
6	Limpagwi	Perennial	Thyolo Mountain	Westwards	Small scale irrigation
7	Nkhate	Perennial	Thyolo Mountain	Westwards	Small scale irrigation
8	Mapelera	Perennial	Thyolo Mountain	Westwards	Small scale irrigation
9	Chizimbi	Perennial	Thyolo Mountain	Westwards	Small scale irrigation

Note: The Southern Region Water Board (Thyolo scheme) supplies water to Thyolo Boma, through its treatment infrastructures, from this river.

2. Local farmers use water from this river for small scale irrigation. Mchima Estate also use this river for irrigation

Msuwazi River is of an economic importance in Thyolo as it supplies water to the boma. Its levels at present have gone down drastically due to environmental degradation at the mountain where the river comes from. Three decades ago, the flows of the river used to be in the range of 1.8 cumecs (low flows) to 14.3 cumecs (high flows). With environmental degradation at the source, the flows of the river now range from 0.4 cumecs (low flows) to 2.9 cumecs (high flows). This affects the service delivery for the Southern Region Water Board. There is always intermittent water supply at Thyolo boma caused by this problem.

3.3 CATCHMENT STATUS

3.3.1 Catchment and land degradation

The district has a total area of 171, 500ha of which area under forest cover is at 15463ha representing 9.1%. The annual change in forest cover is at 1.1%. This is for the reason that all the forest reserve in the district is encroached and are degraded. The main issue leading to deforestation and land degradation in Thyolo is population growth. This is leading to low land holding size which is currently at 0.4ha per farming household. The major drivers of deforestation and land degradation in the district include;

- Encroaching into Forest Reserves and Estate plantations for cultivation
- Demand for biomass energy for commercial and domestic use.
- Timber production
- Bush fires which wipe out regenerants and shrubs

All these contribute to severe soil erosion there by degrading the catchment. The following is the status of Thyolo catchments;

3.4 Status of Thyolo catchments

3.4.1 Thyolo Mountain Forest Reserve

Thyolo mountain is located in Sub Traditional Authority *Mpenda*, Sub Traditional Authority *Mlenga* and *Inkosi Bvumbwe*. It was gazetted as protected Forest reserve in 1924. The main aim was catchment protection besides biodiversity conservation. It is a source of many important rivers namely; *Limphangwi*, *Minong'ono*, *Mkhathe*, *Maperera*, *Mvumoni* and *Nsuwazi*. These rivers provide water for irrigation and domestic use. The then status of the mountain attracted the Southern Region Water Board to institute its water intake along *Msuwazi* river at *Mpeni* in order to supply potable water to people living at Thyolo BOMA and surrounding locations. Not only that but also the establishment of various community water gravity fed schemes such as *Mvumoni*, *Minong'ono* and *Limphangwi* which benefit both people from Thyolo and Chikwawa. However, the status of the catchment started to degrade since 2000 as a result of community encroachment into the catchment for cultivation. To date the catchment is completely degraded negatively affecting water levels of the rivers. Some rivers get dry earlier in dry season thereby making supply of water a challenge. The current status necessitates the need for interventions that can restore its glory if water supply and soil conservation is to be sustained. The picture below shows degraded Thyolo catchment.



Photo 3: Degraded Thyolo Catchment (taken in November, 2021)

3.4.2 Status of Kalulu Forest Reserve catchment status

Kalulu Forest reserve is also one of the catchments gazetted as protected area in 1958 with an area of 28236 hectares. The objective was also to conserve the catchment and its endowments. It has also a number of rivers whose water have been tapped for gravity fed schemes for TA Nsabwe and Thukuta. Management of this catchment also faced a challenge since 2009. People mobilized themselves and encroached the area for cultivation. Currently, only scattered trees can be seen in the reserve. Sediments from the opened fields also compromise water quantity and quality in the rivers of the area. Therefore, this DSIP calls for interventions that can help in reversing the trend.

3.4.3 Cholomwani Forest Reserve catchment area status

This catchment was gazetted as a protected area in 1957 with a total area of 1700 hectares. This was also established with the aim of protecting the biodiversity and the catchment. Chinyenyede and other rivers starts from this hill. Due to shortage of land communities have allocated themselves plots of land for cultivation. Currently, the entire area is under cultivation. This has led to massive soil erosion and fertility loss. The crops being illegally cultivated on this land are not doing better due to fertility loss. Deep gullies have also formed posing threat to nearby infrastructure such as roads, houses and churches.

3.4.4 Masambanjati catchment area

This was also declared a protected area as it is also a source of various rivers such as Dimandimanja. These rivers also provide water for domestic use at Masambanjati and for irrigation at Dimandimanja irrigation scheme.

This catchment area is currently degraded because surrounding communities encroached the area for cultivation in 2019. The encroachers cleared all regenerants and the planted trees. Hence, a need for community involvement in rehabilitating the area.

3.4.5 Chimbamera catchment area

This catchment area is located in Traditional Authority Kapichi and Sub Traditional Authority Maganiza. It is one of the unique customary land catchments. It is where *Khonjeni*, *Chimbamera*, *Sukambale* and other rivers originates. These provides perennial water supply for both domestic and irrigation farming. The catchment received support for rehabilitation in 2015 to 2018 through MASAF 3 and 4 but still more it needs continued support.

The position of Government is that the areas remain Forest reserves. Therefore, having analysed the condition of these catchment areas there is need for multi-sectoral approach to rehabilitate the areas for better Thyolo. The following are the proposed interventions.

3.5 Catchment protection intervention

In order to protect these degraded catchments, the following are the proposed measures

- Support the development of catchment area management plan
- Enhance tree planting and management initiatives in these protected areas, communal woodlots, on farm and homestead planting
- Promote forestry co-management initiative that incorporate income generating activities to catchment communities
- Support capacity building to catchment management committees in such areas as tree nursery establishment, tree planting and management
- Develop catchment management by-laws. For example, those that seek to protect Village Forest Areas and all resources on customary land
- Enforce forestry, Environmental and water resources policy and laws
- Support sustainable land management practices such as conservation agriculture
- Promoting natural tree regeneration management in both forest reserves and customary land
- Advocating for water user's rights
- Promote good waste management practices

CHAPTER 4: WASTE MANAGEMENT

Waste management involves all activities that are required to manage wastes from the point of generation, collection, transportation up to disposal. This waste can be either solid, liquid and gaseous. Solid waste management at the point of generation involves identification of usable or unusable wastes, in terms of liquid, it involves putting/inserting or designing appropriate receptacles. The management of solid and liquid wastes at the point of generation facilitates easier collection of wastes.

In Thyolo, the community refuse pits are used for waste management in most households while few and receptacles are not used at the site of generation while in institutions there is use of receptacles at the point of generation though varied.

At the point of collection/storage, the management involves the placement of waste collection receptacles such as bins and any receptacles. In the community at the household level, any receptacle is used for waste collection/storage, particularly solid wastes. In some institutions, receptacles of different kinds are used for waste collection/storage.

Photo 4: A sample of waste receptacle in institutions



Transportation involves movement of wastes from point of collection/storage to the final disposal site. In most cases for solid wastes, wheel burrows, mobile bins or vehicles etc are used for transportation of wastes. For liquid wastes, sewers are used as vehicles for transportation of the liquid wastes. In Thyolo, in the community, at household level, solid wastes are transported in a rudimentary manner (use of available means) and sewers are used

for liquid wastes while in institutions, transportation is done by use of mobile bins, wheel burrows and human power for solid wastes and sewers for liquid wastes.

Waste disposal is the final step in waste management. Some of the common and affordable methods of solid waste disposal methods include the following, dumping, land fill, incineration, pit latrines and for liquid wastes include; sock pits, septic tanks and sewerage treatment ponds.

In the community, at household level, dumping and use of pit latrine are used for disposal of solid wastes while one of these methods; sock pits, septic tanks and sewerage treatment ponds is used for liquid waste disposal.

CHAPTER 5: DISASTER RISK MANAGEMENT

5.1 Disaster History in District

Thyolo District experiences various episodes of disasters, which include flooding, drought, strong winds and disease outbreak. Climate change is further aggravating the situation by increasing the frequency, intensity and magnitude of known disasters such as droughts and floods thereby unleashing potential 'hidden' risks affecting more people even in some areas which are currently deemed safer. Floodwater and standing waters can be dangerous to humans and cause disease outbreaks such as cholera. Areas that surround rivers are at the high risk of water borne diseases mainly during the rainy season. Rivers like Limphangwe, Ruo, Msuwazi, Mkhate, Limbe and Livunzu, Lomola are prone to flooding during the rainy season.

Traditional Authority Thukuta in particular is more prone to perennial flooding of Ruo River. During emergencies basic sanitation and hygiene services lack in the affected areas. Severe drought can affect availability of groundwater thereby affecting the yield of the aquifers.

The district has some areas where the council has experienced drilling of dry holes. The places include Traditional Authorities Mphuka, Thomasi, Changata, Khwethemule, Mbawera and Nsabwe. Droughts may exacerbate the situation in these areas. Planning and implementing effective DRM strategies may only be possible, if necessary, data on vulnerabilities factors is collected and properly analysed. To this effect, the Council undertook a number of surveys that help to understand WASH status in the district while exposing system and service gaps that must be addressed in the WASH District Strategic Implementation Plan.

5.2 District Disaster Preparedness

Preparedness is defined as the knowledge and capacities developed by government, response and recovery organizations, communities and individuals to effectively anticipate, respond to and recover from the impacts of likely, imminent or current disasters. In a district that is prone to both fast-onset natural and man-made disasters, preparedness is particularly important as its measures seek to help the community to be alert and able to respond to disaster occurrences.

The recent cyclones Ana and Gombe exposed the District Council's capacity gaps to respond to emergencies. Lack of contingency plans and readily available data compromise the readiness and preparedness of the stakeholders to respond to disasters.

As a step towards a proactive approach to DRM, the District Council through the District Civil Protection Committee shall undertake the activities to ensure that disaster preparedness becomes an integral part of projects and activities being implemented in the district by all stakeholders.

5.3 District Disaster Response

The Disaster Preparedness and Relief Act of 1991 make provision for the coordination and implementation of measures to mitigate effects of disasters. It included the establishment of a National Disaster Preparedness and Relief Fund (NDPRF), but resources are only made available after a disaster has occurred, thereby delaying relief efforts considerably.

Furthermore, the resources are insufficient to respond beyond scenario 1 emergency. Institutions at district level (DCPC, ACPCs and VCPCs) under the authority of the District Commissioner's Office face a number of challenges. Some of the challenges that Thyolo District Council faces are as follows:

- Scarce financial resources for maintenance of existing disaster response structures
- Inadequate leadership and motivation in some Traditional Authorities to ensure effective emergency response and updating of district contingency plans
- Inadequate Early Warning and Surveillance Systems for a number of disasters including strong winds, floods and drought
- Inadequate transport and communication facilities impeding dissemination of early warning messages, rapid assessments and disaster response
- Inadequate capacity (human, technical, material and financial) for coordination at the district levels which negatively impact timely and effective assessment, response and

information management during disasters

5.4 Water and Sanitation in Emergencies

DWDO as the secretariat for WASH activities related experiences limited capacity both financial and human. Provision of emergency relief assistance is mostly undertaken by non-Governmental actors and, the council rarely allocates budgets to respond to disasters when need arises.

Overall Objective of WASH in Emergencies

To prevent the outbreak of water-borne and water related diseases associated with some hazards and, develop strategies that respond to such disaster related diseases in the affected areas.

5.4.1. WASH Emergency Preparedness and Capacity Building Activities

WASH emergencies preparedness and capacity building activities that can be implemented in emergencies include the following:

- Procure chlorine that may be distributed to the affected areas
- Conduct sensitization campaigns on sanitation and hygiene
- Conduct trainings to extension workers on provision of emergency WASH services

5.4.2. WASH Response Activities

When disasters affect the area, DCT and other stakeholders shall respond by conducting the following:

- Assess impact of disasters on WASH
- Conduct water quality testing
- Promote hygiene and sanitation messages in affected areas
- Provide emergency water supply to the affected communities
- Provide chlorine to the communities for water treatment
- Maintain non-functional water facilities
- Provide materials for temporary maintenance of damaged latrines

5.4.3. WASH Recovery Activities

- Rehabilitate and maintain water points affected by disaster
- Drill new boreholes

- Conduct post CBM trainings for Water Point Committees
- Monitoring of recovery activities by DCT

5.4.4. Operational Challenges that Affect WASH in Emergencies

In Thyolo, implementation of WASH activities is affected by the following challenges

- Limited funding for WASH activities
- Damage to road infrastructure can hamper access to affected areas and thus jeopardize proper and timely interventions
- Ineffective operational funding and logistical challenges to implement disaster within 48 hours
- Poor coordination and communication systems

CHAPTER 6: PLANNED INTERVENTIONS, TARGETS, AND EXPECTED RESULTS

6.1 PLANNED INTERVENTIONS FOR WASH IN COMMUNITIES

As it has been highlighted in this chapter, there are significant number of WASH gaps that require particular attention to be addressed. The following are the intended and budgeted interventions for WASH in communities;

Community Water Supply

Achieving:

- Rehabilitate 600 boreholes and handpumps.
- Rehabilitate 3 GFS targeting 400 taps.
- Construction of 15 borehole mechanized solar powered systems targeting a school and surrounding communities
- Drilling of 250 new boreholes and fitting with Afridev hand pumps

Sustaining:

- Conduct water quality test once a year, targeting 1,816 water points
- Organise 5 study and workshops on issues and opportunities to strengthen effective area-wide maintenance and sustainability arrangements
- Conduct refresher trainings and registration for the WPCs, targeting 1000 rehabilitated water points
- Conduct training for 15 Water System Management committees for solar powered water supply systems

- Strengthening 45 Area Mechanics and promote service contracts
 - Intensify monitoring on performance of water point committees- targeting 3,632 WPC.
- Community Sanitation and Hygiene

Achieving:

- Training in CLTS
- Follow ups for CLTS
- Review meetings for CLTS
- ODF verification
- ODF celebrations

Sustaining:

- ODF sustainability

6.2 PLANNED INTERVENTIONS FOR WASH IN SCHOOLS AND CBCCs

The district has planned for the implementation of the following activities in order to address the existing gaps in primary schools and CBCCs;

WASH interventions in Primary Schools

Achieving:

- Construction of 37 boreholes in primary schools
- Rehabilitation of 26 boreholes in primary schools
- Construction of 937 toilets
- Construction of 92 MHM change rooms
- Construction of 152 urinal blocks in primary schools
- Construction of 376 permanent hand washing facilities in primary schools
- Procurement of 299 tapped 50 litres buckets
- Conducting bidding process to tender for the construction of water points
- Procurement of 880 leaflets to be distributed in schools

Sustaining:

- Orientation of 63 SMCs regarding school water supply
- Training of 564 teachers on school healthy clubs in all schools

WASH interventions in CBCCs

Achieving:

- Drilling of 57 boreholes in CBCCs
- Construction of 113 pit latrines in CBCCs
- Provision of 820 water buckets in CBCCs annually, two for each CBCC
- Provision of 410 wheel barrows in CBCCs, one for each CBCC

Sustaining:

- Conduct WASH monitoring visits in CBCCs
- Conduct review meetings with Care Takers and chiefs on the sustainability of WASH infrastructures at the CBCC

6.3 PLANNED INTERVENTIONS FOR WASH IN HEALTH FACILITIES AND MARKETS

There is need to improve water supply, sanitation and hygiene practices in institutions and public places in the district. Based on the gaps highlighted in the previous chapters and sections, the district has planned to implement the following interventions to improve water supply, sanitation and hygiene in Health facilities and markets.

WASH interventions in Health Facilities

Achieving:

- Drilling of 2 boreholes in two health facilities respectively
- Reticulation of 9 boreholes in 9 health facilities
- Provision of 115 suitable waste collection/storage receptacles in health facilities, five at each health facility
- Construction of 10 incinerators in 10 health facilities (one at each facility)
- Provision of 115 water buckets with taps annually (five at each health facility)
- Construction of 6 pit latrines in three health facilities (two for each health facility)
- Maintenance of 6 latrines in health facilities.
- Empty 14 latrines
- Provision of 23-wheel barrows (one for each health facility)
- Provision of 23 rakes (one in each health facility)
- Provision of 27 pairs of heavy-duty gloves (one pair in each health centre, dispensary and improved health post and 5 pairs at the district hospital)

- Provision of 27 pairs of industrial gumboots (one pair in each health centre, dispensary and improved health post and five at the district hospital)
- Provision of 150 water buckets with taps in health facilities (three at each health facility)
- Provision of 27 gowns or overalls.

Sustaining:

- Conduct WASH monitoring visits in HCFs
- Conduct review meetings with HAC on the sustainability of WASH infrastructures at the HCF

WASH interventions in Markets

- Drill of 10 boreholes in ten markets (one each for the market)
- Provision of 30-wheel barrows in markets (one in each market annually)
- Construction/casting of 40 waste banks in markets
- Provision of 150 waste collection/storage receptacles in markets (three at each market)
- Empty 10 latrines in five markets
- Provision of 30-wheel barrows (one for each market)
- Provision of 30 rakes (one in each market)
- Provision of 30 pairs of heavy-duty gloves (one pair in market)
- Provision of 30 pairs of industrial gumboots (one pair in each market)

Sustaining:

- Conduct WASH monitoring visits in markets
- Conduct review meetings with HAC on the sustainability of WASH infrastructures at the markets

CHAPTER 7: IMPLEMENTATION, MONITORING, AND EVALUATION

Success of WASH interventions in Thyolo district will be measured by looking at access to water and sanitation services by every household and public institution and/or premises (especially schools, Health Centres and markets). Monitoring and Evaluation is important in ensuring that the targets are measured on a continuous basis and results are sustainable in the long term. Refer to Annex 1 for details on the Monitoring and Evaluation Plan.

7.1 Progress against Results

The focus will be on monitoring the following key indicators at community, household, institution and other public premises.

Outcome Indicators

Outcome Indicators	Baseline (basic)	Annual targets + 2030 target (basic services)					
	2023	2024	2025	2026	2027	2029	2030
Percentage of the population using safe and sustainable water supply in communities and institutions <i>SDG 6.1.1 Proportion of population using safely managed drinking water services</i> <i>MW2063: National indicator (Malawi): proportion of population with improved access to safe and sustainable drinking water supply in rural areas</i>	56%	60%	70%	80%	90%	100%	100%
Percentage of the population using improved sanitation and hygiene at household level and in institutions <i>SDG 6.1.2 Proportion of population using safely managed sanitation services, including a handwashing facility with soap and water</i> <i>National indicator (Malawi): Expanded access to improved sanitation and hygiene at household level and in public places</i>	18% (Sanitation) 2% (Hygiene)	30% 5%	35% 10%	45% 15%	50% 20%	60% 25%	65% 30%
Number of TAs attaining ODF status. <i>SDG 6.1.2 Proportion of population using safely managed sanitation services, including a handwashing facility with soap and water</i> <i>National indicator (Malawi): percentage of population reporting practicing open defecation</i>	3	4	8	12	15	18	20

Output Indicators

- Total number of water points by type
- Number and percentage of functional water points by type
- Number of water points constructed
- Number of water points rehabilitated
- Number of schools with improved water facilities
- Number of health centres with improved water facilities
- Number of WPCs with improved capacity on maintenance of water points and management of operational funds
- Number of improved latrines constructed
- Number of schools with improved latrines, urinal blocks, and hand washing facilities;
- Number of markets with clean water supply
- Number of improved toilets per market
- Number of capacity building initiatives conducted

These key indicators will be monitored on a continuous basis in order to check progress on the attainment of the overall objective of the DSIP. The District Coordination Team (DCT) has an overall responsibility of monitoring WASH activities being implemented by all sectors and partners and also provide guidance on data collection and analysis. After data collection and analysis, reports will be compiled and shared with the DCT. The district monitoring and evaluation officer will be responsible for data collection, analysis and compilation of Performance Based Report for WASH. The district level information and reports can be used to feed into Local Authority Management Information System (LAMIS) to contribute to national progress outlook and comparison with other districts.

7.2 Sustainability of Results

The district will use the updated data for WASH (gathered in the assessments that fed into this DSIP) as a baseline to provide a basis for planning or initiating other interventions in the district. Through its community-based extension workers, the district will record new users and new facilities constructed and rehabilitated using new and existing monitoring tools such as the village register. The district will use a standard checklist, based on national standards and specifications for that particular technology, to certify all new constructions and rehabilitations before payments are made to contractors. The district, together with its implementing partners,

will undertake surveys and routine monitoring activities to obtain data that will inform the district on general progress and challenges being faced in the implementation of WASH activities.

Sustainability monitoring will also help the district to: ensure that all facilities and systems put into place through DSIP resources continue to be used by target populations; improve project sustainability measures (including community-based management of systems with service providers and supply chains at local levels); and determine the necessity of revisiting systems for repair or replacement in the event of permanent breakdowns.

7.3 Data Management

Thyolo District through the Planning Department (specifically Monitoring and Evaluation section) will establish a database for WASH which will be updated regularly. This data will be fed into the Local Authority Management Information System (LAMIS). The data will be collected through reports and updates from sectors or partners implementing or supporting WASH interventions in the district. The data will be used for planning, decision-making, and resource mobilization. Community extension workers, Health Surveillance Assistants and Water Monitoring Assistants will play a crucial role in data collection.

CHAPTER 8: RISK MANAGEMENT

Analysis of the potential risks that may exist in the implementation of the proposed interventions in the District Strategic Implementation will help to measure the degree of risk and proposed mitigation measures.

Table 8.1: Risk Assessment Matrix

#	Risk	Severity			Mitigation Measure
		Low	Medium	High	
1	Multiple institutions with overlapping mandates for service delivery coupled with poor coordination practices				Enhance collaboration, complementarity and synergy building
2	Low budget allocations from government sources				Lobby MPs and Councillors to use DDF and CDF to support WASH

	and a reliance on donor funds				services, and encourage other donors and partners to invest
3	Low household incomes may affect the sustainability of Operation and Maintenance Fund of the Water Point Committees				Behaviour change campaigns to increase demand and willingness to pay for safe water services (and their sustainability). Promote Village Savings and Loans initiatives at community level
3	Limited capacity to develop solutions to disaster related challenges that are both effective and scalable				Develop both human and financial capacity at all levels to strengthen disaster preparedness and response
4	Political interests overriding equitable distribution of WASH services				Enhance constant engagement with political leaders when planning WASH activities
5	Failure to implement development and strategic plans				Lobbying the Full Council to make resolutions that bind elected officials and other development actors to follow Council plans
6	Mismatch between District Development Plan and other strategic documents such as the DSIP				Ensure that Village Level Action Planning and the District Development planning process incorporate issues contained in the DSIP
7	Extreme climatic condition may affect sustainability of water points				Promote Integrated Water Resources Management (IWRM)

CHAPTER 9: DISTRICT WASH SYSTEM STRENGTHENING PLANS

During a diagnostic and visioning workshop which was conducted in April 2021 in Thyolo, WASH system for Thyolo district was assessed based on 9 building blocks, namely;

1. Institutional Arrangements and Coordination,
2. Service Delivery Infrastructure
3. Regulation & Accountability
4. Inclusive Planning
5. Finance
6. Monitoring
7. Water Resources and Environment
8. Learning & Adaptation
9. Demand, Behaviour & Political Will.

The process of scoring the building blocks helped to identify the status of Thyolo District in terms of WASH and relative strength of the various building blocks within a particular District. The scoring was scaled from 0 – 2, as follows: Zero (0) (basically not in place, or highly limited); (1) (in place to an extent, but only partially effective; and (2) (in place and broadly effective - albeit not perfect).

The scoring helped to set a ‘baseline’ on which progress can be periodically measured to track the outputs/outcomes of systems strengthening work. Also, the process of using the checklist helped the users become more familiar with things that need to be in place, and it helped them to better understand the building blocks concept.

Overall, the total score was 60 out of 144 and this represented 42%. Below is the summary of scores and comments for each building block:

Table 9.1: Building Blocks for strengthening WASH systems, findings from the systems diagnostics

Institutional Arrangements & Coordination (19/26 = 73%) Institutional capacity (at all levels) has at least improved (in terms of resources, skills, equipment & personnel) through capacity building trainings conducted between April and November this year and there is progress of ongoing technical support and incentives for motivation such as to local committees (DCT, ADC, VDC, Area Mechanics, Shop Owners, WPCs, VHCs).	2. Service Delivery Infrastructure (11/26 = 59%) Technical guidance and quality control and standards for WASH infrastructure in place in the district. But the problem is enforcement for implementation.	3. Regulation & Accountability (8/12 = 75%) Service provider registration and regulatory framework / service standards and mutual accountability between service authority and WASH organizations in the district are in place and enforced to total accountability and compliance.
4. Inclusive Planning (9/12 = 64%) Being enforced by the district to NGOs in WASH to include in the issue of inclusion in their planning	5. Finance (5/18 = 28%) Revenue collection mechanisms are in place in the district but not efficiency. There is lack of enough financial allocation for direct support costs and capital maintenance by responsible authority to WASH services and access to financing mechanisms (where appropriate) is a problem.	6. Monitoring (11/14 = 79%) The district has improved in WASH monitoring processes relating to functionality, service levels, spare parts and maintenance quality, ODF and hygiene practices. For instance, the district has given gadgets (smartphones) for monitoring of WASH services and provided capacity to manage WASH data.

	access to financing mechanisms (where appropriate) is a problem.	
7. Water Resources & Environment (8/14 = 57%) The district has Protection / preservation measures in place and platforms for dialogue, and legal framework, and now aligned in WASH plan for practice.	8. Learning & Adaptation (6/8 = 75%) The district has now a platform (i.e., routine DCT meetings) for stakeholder meetings and coordination on WASH for learning, experience sharing and adaptation.	9. Demand, Behaviour & Political Will (6/16 = 63%) The district has WASH behavior change approaches and activities but not fully implemented based on a clear understanding and assessment of the practices, behaviors, taboos, and cultural characteristics of the people in communities and institutions. At least, political leaders (MPs, Councilors) are now involved in decision making for WASH services in the district in order to ensure universal access to WASH services for everyone in the district

Summary of overall scores (90/144 = 63%)

Overall, all these 9 Building Blocks (BBs) exist in the district or applied in one way or the other and the scores are true assumption of the situation from the practical point of view. In summary, few of these BBs are highly limited in the district and most of these are in place but partially effective, while very few are in place and broadly effective. Table below summarises action plans to address the system strengthening gaps identified during the visioning workshop.

Figure 12: Comparison of Building Block scores for the 1st workshop and the 2nd workshop:

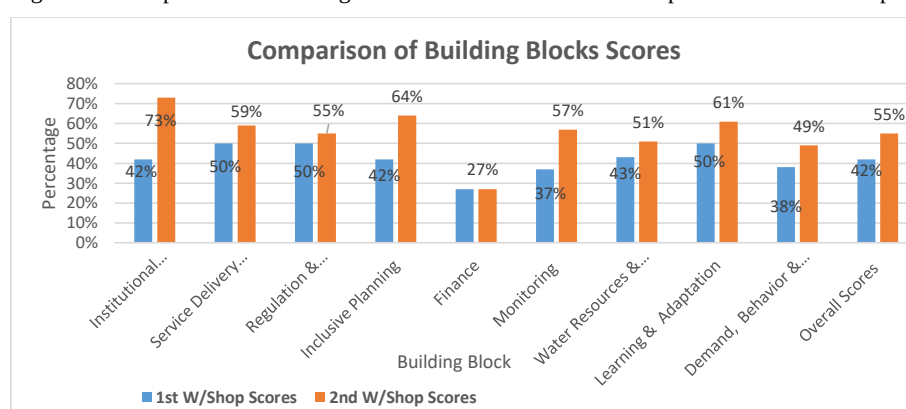


Table 9.2: WASH system strengthening plans

No	Activity	Unit cost (MWK)	Frequency	Total Budget (MWK)
1	Conduct a min-workshop to develop WASH database	800,000	1	1,500,000.00
2	Conduct joint monitoring visits to monitor functionality of water points and WASH services	300,000	20	6,000,000.00
3	Conduct dialogue meetings at National, Regional and District level to link finance, planning with monitoring	1,800,000	1	1,800,000.00
4	Conduct capacity building training for politicians towards WASH services	4,500,000	1	4,500,000.00

5	Conduct stakeholder review meetings on WASH, at district level	1,800,000	5	36,000,000.00
6	Conduct a workshop to develop MEAL framework for the district (linking to the DSIP)	1,650,000	1	1,650,000.00
7	Conduct a meeting to review existing monitoring tools/processes/gaps (monitoring strengthening plans)	1,350,000	1	1,350,000.00
8	Conduct capacity development training for focal persons for data collection, analysis and management through involvement meetings and refresher trainings	3,700,000	1	3,700,000.00
9	Conduct WASH survey to update water points functionality and sanitation inventory in the district (using mWater)	4,500,000	5	22,500,000.00
10	Conduct learning visits (intra and inter)	950,000	5	4,750,000.00
Total				83,750,000.00

CHAPTER 10: RESOURCE MOBILIZATION AND MARKETING PLAN

The DSIP will be implemented under the district council's mandate to ensure that key WASH investments and interventions are made to achieve universal and equitable access to safe water, sanitation and hygiene services. To accomplish this, the council need to mobilize resources to finance the planned interventions. Hence the need to have a resource mobilization plan to organise the processes of prioritising, planning and development of activities to assist in resource mobilization. In addition, potential partners have been identified to assist in the implementation of DISP. The district will take advantage of the activities highlighted in the resource mobilization plan to market the DSIP; hence it is called the Resource Mobilization and Marketing Plan. Table 10.1 provides details of the Resource Mobilization and Marketing Plan.

Potential Sources of Finance for the DSIP (non-exhaustive, and not listed in any order of priority or magnitude)

1. Government (through DDF, CDF funds)
2. United Purpose/Self Help Africa
3. World Vision International
4. NASCENT Solution
5. Malawi Red Cross
6. Tea Estates
7. Habitat for Humanity
8. BASEDA/INTERAIDE
9. Water for People
10. Shire Valley Transformation
11. ORT
12. Community contributions
13. SOTTOSPPRA
14. AFDB
15. Friends from Diaspora
16. School Improvement Grant (SIG)
17. World Bank
18. UNICEF
19. KHALSAID (UK)
20. Water Wells for Africa

Table 10.1: Resource Mobilization and Marketing Plan for the DSIP

No	Activity	Indicator	Target	Time frame	Responsibility	Cost (MK)
1	Conduct stakeholder meetings	Number of stakeholder meetings	1	Quarterly	Director of Planning and Development (DPD)	Supports from various stakeholders
1.1	DCT meeting	Number of DEC meetings conducted	1	Quarterly	Director of Planning and Development (DPD)	500,000.00
1.2	DEC meeting	Number of DCT meetings conducted	1	Quarterly	Director of Planning and Development (DPD)	500,000.00
1.3	Full council	Number of Full Council meetings conducted	1	Quarterly	Director of Planning and Development (DPD)	1,500,000.00
2	Advocacy meetings with NGO partners and other private institutions and Tea Estates	Number of Advocacy meetings conducted	5	Annually	Director of Planning and Development (DPD)	7,500,000.00
3	Presentation of annual investment plan for WASH prior to the work planning and budgeting process for the Council	Number of planning meetings conducted	5	Annually	Director of Planning and Development (DPD)	10,000,000.00
4	Integration of DSIP into DDP	Number of DDPs produced	1	December, 2023	Director of Planning and Development (DPD)	2,500,000.00
5	Development of concept notes and proposals for funding	Number of concept notes developed	5	Annually	Director of Planning and Development (DPD)	0.00

		Number of proposals developed	5	Annually	Director of Planning and Development (DPD)	0.00
	Total					22,500,000.00

ANNEX 1: FINANCIAL PLAN

Interventions	Cost per unit (MK)	Target					Estimated cost (MK)	Annual Investments				
		Yr1	Yr2	Yr3	Yr4	Yr5		Yr1	Yr2	Yr3	Yr4	Yr5
WASH INTERVENTIONS IN COMMUNITIES												
Water Supply												
Conduct technical assessment in 400 communities	8,000	100	100	80	60	60	3,200,000	800,000	800,000	640,000	480,000	480,000
Demand building for safe water in 400 communities. (mobilization)	20,000	100	100	80	60	60	8,800,000	2,000,000	2,000,000	1,600,000	1,600,000	1,600,000
Drilling of 250 New boreholes	4,500,000	70	60	50	40	30	1,260,000,000	315,000,000	270,000,000	225,000,000	225,000,000	225,000,000
Rehabilitation of 600 boreholes	2,080,000	150	150	150	75	75	1,248,000,000	312,000,000	312,000,000	312,000,000	156,000,000	156,000,000

Rehabilitation of 3 GFS	25,600,000	1	1	1	0	0	76,800,000	25,600,000	25,600,000	25,600,000	-	-
Training of 250 new water point committees	250,000	70	60	50	40	30	60,000,000	17,500,000	15,000,000	12,500,000	7,500,000	7,500,000
Refresher training of 45 Area Mechanics	3,720,000	1	1	1	1	1	18,600,000	3,720,000	3,720,000	3,720,000	3,720,000	3,720,000
Conduct performance ranking and monitoring of 3,632 water point committees	7,200,000	1	1	1	1	1	36,000,000	7,200,000	7,200,000	7,200,000	7,200,000	7,200,000
Conduct 5 study tours	1,090,000	1	1	1	1	1	5,450,000	1,090,000	1,090,000	1,090,000	1,090,000	1,090,000
Sub total							2,716,850,000	684,910,000	637,410,000	589,350,000	402,590,000	402,590,000
Sanitation												
Training of 200 HSAs in CLTS	5,500,000	1	1	1	1	1	27,500,000	5,500,000	5,500,000	5,500,000	5,500,000	5,500,000

Follow ups for CLTS	240,000	6	6	6	6	6	7,200,000	1,440,000	1,440,000	1,440,000	1,440,000	1,440,000
Review meetings for CLTS	200,000	3	3	3	3	3	3,000,000	600,000	600,000	600,000	600,000	600,000
Sub total							37,700,000	7,540,000	7,540,000	7,540,000	7,540,000	7,540,000
Hygiene												
ODF verification	600,000	1	1	1	1	1	3,000,000	600,000	600,000	600,000	600,000	600,000
ODF celebrations	2,800,000	1	1	1	1	1	14,000,000	2,800,000	2,800,000	2,800,000	2,800,000	2,800,000
ODF sustainability visits	500,000	4	4	4	4	4	10,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000
Sub total							27,000,000	5,400,000	5,400,000	5,400,000	5,400,000	5,400,000
Total for WASH interventions in Communities							2,781,550,000	697,850,000	650,350,000	602,290,000	415,530,000	415,530,000
WASH INTERVENTIONS IN SCHOOLS												
Water Supply												

Conduct bidding process to tender for construction of 37 water points	40,000	10	8	7	7	5	1,480,000	400,000	320,000	280,000	280,000	200,000	
Construction of 37 new boreholes	6,300,000	10	8	7	7	5	233,100,000	63,000,000	50,400,000	44,100,000	44,100,000	31,500,000	
Conduct rehabilitation of 30 boreholes	2,000,000	6	8	8	8	0	60,000,000	12,000,000	16,000,000	16,000,000	16,000,000	-	
Orient SMCs regarding school water supply and train WPCs 37	250,000	10	8	7	7	5	9,250,000	2,500,000	2,000,000	1,750,000	1,750,000	1,250,000	
Orientation of 60 SMCs on management of sanitary facilities	40,000	12	12	12	12	12	2,400,000	480,000	480,000	480,000	480,000	480,000	
Sub total							306,230,000	78,380,000	69,200,000	62,610,000	62,610,000	33,430,000	

Sanitation												
Rehabilitate 50 toilets in primary school	1,000,000	10	10	10	10	10	50,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000
Construction of 937 appropriate child friendly toilets in primary schools	2,500,000	189	187	187	187	187	2,342,500,000	472,500,000	467,500,000	467,500,000	467,500,000	467,500,000
Construction of 92 MHM change rooms in primary schools	2,000,000	20	18	18	18	18	184,000,000	40,000,000	36,000,000	36,000,000	36,000,000	36,000,000
Construction of 152 urinals in primary schools	300,000	32	30	30	30	30	45,600,000	9,600,000	9,000,000	9,000,000	9,000,000	9,000,000
Sub total							2,622,100,000	522,100,000	512,500,000	512,500,000	512,500,000	512,500,000
Hygiene												
Procurement of 299(50 litres) buckets to be used as	15,000	60	60	60	60	59	4,485,000	900,000	900,000	900,000	900,000	885,000

hand washing facilities													
Sub total							4,485,000	900,000	900,000	900,000	900,000	885,000	
Total for WASH interventions in Schools							2,882,815,000	601,380,000	582,600,000	576,010,000	576,010,000	546,815,000	
WASH INTERVENTIONS IN CBCCs													
Water Supply													
Rehabilitate 25 boreholes in CBCCs	2,000,000	5	5	5	5	5	50,000,000	10,000,000.00	10,000,000.00	10,000,000.00	10,000,000.00	10,000,000.00	
Drilling of 57 boreholes in CBCCs	4,000,000	12	12	12	11	10	228,000,000	48,000,000.00	48,000,000.00	48,000,000.00	44,000,000.00	40,000,000.00	
Sub total							278,000,000	58,000,000	58,000,000	58,000,000	54,000,000	50,000,000	
Sanitation													

Construction of 113 pit latrines in CBCCs	4,500,000	23	23	23	22	22	508,500,000	103,500,000	103,500,000	103,500,000	99,000,000	99,000,000
Sub total							508,500,000	103,500,000	103,500,000	103,500,000	99,000,000	99,000,000
Hygiene												
Provision of 820 water buckets in CBCCs annually, two for each CBCC	4,500	820	820	820	820	820	18,450,000	3,690,000	3,690,000	3,690,000	3,690,000	3,690,000
Provision of 400 wheel barrows in CBCCs, one for each CBCC	150,000	1000	100	100	100	100	75,000,000	15,000,000	15,000,000	15,000,000	15,000,000	15,000,000
Sub total							93,450,000	18,690,000	18,690,000	18,690,000	18,690,000	18,690,000
Total for WASH interventions in CBCCs							879,950,000	180,190,000	180,190,000	180,190,000	171,690,000	167,690,000

WASH INTERVENTIONS IN HEALTH FACILITIES													
Water Supply													
Drilling of 2 boreholes in two health facilities, one in each health facility.	1,150,000	2	0	0	0	0	2,300,000	2,300,000	-	-	-		-
Reticulation of 9 boreholes in nine health facilities	7,000,000	2	2	2	2	1	63,000,000	14,000,000	14,000,000	14,000,000	14,000,000	7,000,000	
Sub total							65,300,000	16,300,000	14,000,000	14,000,000	14,000,000	7,000,000	
Sanitation													
Construction of 6 pit latrines in three health facilities, two for each health facility	4,500,000	2	2	2	0	0	27,000,000	9,000,000	9,000,000	9,000,000	-		-

Maintenance of 6 latrines in health facilities.	1,500,000	2	2	2	0	0	9,000,000	3,000,000	3,000,000	3,000,000	-	-
Emptying of latrines-14	600,000	3	3	3	3	2	8,400,000	1,800,000	1,800,000	1,800,000	1,800,000	1,200,000
Sub total							44,400,000	13,800,000	13,800,000	13,800,000	1,800,000	1,200,000
Hygiene												
Provision of 115 suitable waste collection/storage receptacles in health facilities, five at each health facility	3,000	115	115	115	115	115	1,725,000	345,000	345,000	345,000	345,000	345,000
Construction of 10 incinerators in ten health facilities, one at each health facility	5,000,000	2	2	2	2	2	50,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000
Provision of 150 water buckets with	4,500	150	150	150	150	150	3,375,000	675,000	675,000	675,000	675,000	675,000

taps in health facilities, three at each health facility													
Provision of 23-wheel barrows, one for each health facility	150,000	23	23	23	23	23	17,250,000	3,450,000	3,450,000	3,450,000	3,450,000	3,450,000	
Provision of 23 rakes, one in each health facility	179,000	23	23	23	23	23	20,585,000	4,117,000	4,117,000	4,117,000	4,117,000	4,117,000	
Provision of 27 pairs of heavy-duty gloves, one pair in each health centre, dispensary and improved health post and five at the district hospital	7,500	27	27	27	27	27	1,012,500	202,500	202,500	202,500	202,500	202,500	
Provision of 27 pairs of industrial gumboots one pair in	35,000	27	27	27	27	27	4,725,000	945,000	945,000	945,000	945,000	945,000	

each health centre, dispensary and improved health post and five at the district hospital													
Provision of 27 gowns or overalls annually	104,500	27	27	27	27	27	14,107,500	2,821,500	2,821,500	2,821,500	2,821,500	2,821,500	
Sub total							112,780,000	22,556,000	22,556,000	22,556,000	22,556,000	22,556,000	
Total for WASH Interventions in Health Facilities							222,480,000	52,656,000	50,356,000	50,356,000	38,356,000	30,756,000	
WASH INTERVENTIONS IN MARKETS													
Water Supply													
Rehabilitate 10 boreholes in markets	2,000,000	2	2	2	2	2	20,000,000	4,000,000	4,000,000	4,000,000	4,000,000	4,000,000	

Drilling of 10 boreholes in ten markets, one each for the market.	4,500,000	2	2	2	2	2	45,000,000	9,000,000	9,000,000	9,000,000	9,000,000	9,000,000
Sub total							65,000,000	13,000,000	13,000,000	13,000,000	13,000,000	13,000,000
Sanitation												
Emptying of latrines- 10 in five markets	600,000	2	2	2	2	2	6,000,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000
Sub total							6,000,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000
Hygiene												
Provision of 30-wheel barrows in markets	150,000	30	30	30	30	30	22,500,000	4,500,000	4,500,000	4,500,000	4,500,000	4,500,000
Construction/casting of 40 waste banks in markets	5,000,000	8	8	8	8	8	200,000,000	40,000,000	40,000,000	40,000,000	40,000,000	40,000,000
Provision of 150 waste	4,500	150	150	150	150	150	3,375,000	675,000	675,000	675,000	675,000	675,000

collection/storage receptacles in markets, three at each market													
Provision of 30 rakes, one in each market	25,000	30	30	30	30	30	3,750,000	750,000	750,000	750,000	750,000	750,000	
Provision of 30 pairs of heavy-duty gloves, one pair in market.	7,500	30	30	30	30	30	1,125,000	225,000	225,000	225,000	225,000	225,000	
Sub total							230,750,000	46,150,000	46,150,000	46,150,000	46,150,000	46,150,000	
Total for WASH interventions in Markets							281,750,000	56,350,000	56,350,000	56,350,000	56,350,000	56,350,000	
Monitoring and Evaluation Plan													

Conduct functionality survey	3,500,000	1	1	1	1	1	17,500,000	3,500,000	3,500,000	3,500,000	3,500,000	3,500,000
Conduct WASH Survey	5,000,000	0	0	0	0	1	5,000,000	-	-	-	-	5,000,000
Conduct post ODF monitoring	500,000	4	4	4	4	4	10,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000
Conduct water quality monitoring and testing	10,000,000	1	1	1	1	1	50,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000
Conduct Review meetings	2,500,000	2	2	2	2	2	25,000,000	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000
Conduct joint WASH supervision and monitoring	2,000,000	4	4	4	4	4	40,000,000	8,000,000	8,000,000	8,000,000	8,000,000	8,000,000
Conduct community-based monitoring	1,800,000	4	4	4	4	4	36,000,000	7,200,000	7,200,000	7,200,000	7,200,000	7,200,000
Total for Monitoring and Evaluation							183,500,000	35,700,000	35,700,000	35,700,000	35,700,000	40,700,000

WASH System Strengthening Plans													
Conduct a min-workshop to develop WASH database	1,500,000.00	1	0	0	0	0	1,500,000	1,500,000	-	-	-		-
Conduct joint monitoring visits to monitor functionality of water points and WASH services	300,000.00	4	4	4	4	4	6,000,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	
Conduct dialogue meetings at National, Regional and District level to link finance, planning with monitoring	1,800,000.00	1	0	0	0	0	1,800,000	1,800,000	-	-	-		-
Conduct capacity building training for politicians towards WASH services	4,500,000.00	1	0	0	0	0	4,500,000	4,500,000	-	-	-		-

Conduct stakeholder review meetings on WASH, at district level	1,800,000.00	4	4	4	4	4	36,000,000	7,200,000	7,200,000	7,200,000	7,200,000	7,200,000	
Conduct a workshop to develop MEAL framework for the district (linking to the DSIP)	1,650,000.00	1	0	0	0	0	1,650,000	1,650,000	-	-	-		-
Conduct a meeting to review existing monitoring tools/processes/gaps (monitoring strengthening plans)	1,350,000.00	1	0	0	0	0	1,350,000	1,350,000	-	-	-		-
Conduct capacity development training for focal persons for data collection, analysis and management through	3,700,000.00	1	0	0	0	0	3,700,000	3,700,000	-	-	-		-

involvement meetings and refresher trainings													
Conduct WASH survey to update water points functionality and sanitation inventory in the district (using mWater)	4,500,000.00	1	1	1	1	1	22,500,000	4,500,000	4,500,000	4,500,000	4,500,000	4,500,000	
Conduct learning visits (intra and inter)	950,000.00	1	1	1	1	1	4,750,000	950,000	950,000	950,000	950,000	950,000	
Total for System Strengthening							83,750,000	28,350,000	13,850,000	13,850,000	13,850,000	13,850,000	
Resource Mobilization and Marketing Plan													
Conduct stakeholder meetings	500,000.00	1	0	0	0	0	500,000	500,000	-	-	-		-

DCT meeting	500,000.00	1	0	0	0	0	500,000	500,000	-	-	-	-	-
DEC meeting	1,500,000.00	1	0	0	0	0	1,500,000	1,500,000	-	-	-	-	-
Full council	2,500,000.00	1	1	1	1	1	12,500,000	2,500,000	2,500,000	2,500,000	2,500,000	2,500,000	2,500,000
Advocacy meetings with NGO partners and other private institutions and Tea Estates	2,000,000.00	1	1	1	1	1	10,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000
Presentation of annual investment plan for WASH prior to the work planning and budgeting process for the Council	2,500,000.00	1	1	1	1	1	12,500,000	2,500,000	2,500,000	2,500,000	2,500,000	2,500,000	2,500,000
Integration of DSIP into DDP	2,500,000.00	1	0	0	0	0	2,500,000	2,500,000	-	-	-	-	-

Development of concept notes and proposals for funding	-	0	0	0	0	0	-	-	-	-	-	-
Total for Resource Mobilization							40,000,000	12,000,000	7,000,000	7,000,000	7,000,000	7,000,000
Grand Total							7,425,795,000	1,664,476,000	1,576,396,000	1,521,746,000	1,314,486,000	1,278,691,000

SUMMARY OF LIFE CYCLE COST CATEGORIES

COST CATEGORY	AMOUNT (MK)	PERCENTAGE
Capital Expenditure (CapEX)	5,189,000,000.00	70%
Capital Maintenance Expenditure (CapManEx)	1,513,800,000.00	20%
Operation Expenditure (OpEx)	566,295,000	8%
Indirect Support	156,700,000.00	2%
TOTAL	7,425,795,000.00	100%

ANNEX 2: MONITORING AND EVALUATION PLAN

No	Activity	Indicator	Target	Time frame	Responsibility	Cost (MK)	Indicators/issues to be tracked
1	Conduct functionality survey	No. of surveys conducted	5	Annually	DWDO	17,500,000.00	- Percentage of the population accessing safe and portable water - Total number of water points by type - Number and percentage of functional water points by type

2	Conduct WASH Survey	No. of surveys conducted	1	September, 2027	DPD	5,000,000.00	• Percentage of the population accessing equitable sanitation and hygiene • Number of water points constructed • Number of water points rehabilitated • Number of schools with improved water facilities • Number of health centers with improved water facilities • Number of WPCs with improved capacity on maintenance of water points and management of operational funds • Number of improved latrines constructed • Number of schools with improved latrines urinal blocks and hand washing facilities • Number of markets with clean water supply • Number of improved toilets per market • Number of capacity building initiatives conducted
3	Conduct post ODF monitoring	No. of verification exercises conducted	3 TAs	Quarterly	DEHO	10,000,000.00	Number of TAs attaining ODF status
4	Conduct water quality	No. of water points tested	30%	Annually	DWDO	50,000,000.00	Percentage of the population accessing safe and portable water

	monitoring and testing						
		No. of households tested	30%	Annually	DWDO		
5	Conduct Review meetings	No. of Review meetings conducted	All WASH Partners	Bi-Annually	DPD	25,000,000.00	Progress on WASH interventions
6	Conduct joint WASH supervision and monitoring	No. of joint supervision and monitoring visits conducted	All TAs	Quarterly	M & EO	40,000,000.00	• Quality delivery of WASH services • Progress of WASH interventions

7	Conduct community-based monitoring	No. of monitoring visits conducted	All TAs	Quarterly	HSAs, AEHO	36,000,000.00	• Number of water points constructed • Number of water points rehabilitated • Number of schools with improved water facilities • Number of health centers with improved water facilities • Number of WPCs with improved capacity on maintenance of water points and management of operational funds • Number of improved latrines constructed • Number of schools with improved latrines, urinal blocks, and hand washing facilities • Number of markets with clean water supply • Number of improved toilets per market • Number of capacity building initiatives conducted
	Total					183,500,000.00	