



Government of Malawi

Ministry of Health

Household Water Treatment and Safe Storage

National Action Plan

2016 to 2021

Ministry of Health
Box 30377
Lilongwe
Malawi

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Foreword

Household Water Treatment and Safe Storage (HWTS) is a pre-requisite for safe water supply programme in most developing countries. In developing countries including Malawi, most people live in rural and suburban areas where water is collected from communal water points and transported to homes through various means and vessels. Water is not normally used directly upon reaching the households. Water is stored for a period ranging from few hours to several days. Households that do not have access to a regular water supply or do not have in-house connections may have to store water in containers at home. If not handled properly, stored water will get re-contaminated at the household level during collection, transportation and storage. Unhygienic handling of water during transport or within the home can contaminate previously safe water.

Stored water can become unsafe when it is touched by people with dirty hands, when it is poured into a dirty container, when dirt or dust gets in the water, and when dirty cups are put into it. These facts necessitate inclusion of HWTS in safe water supply programmes to holistically deal with water borne diseases.

HWTS is also of paramount importance in communities that completely lack safe sources of water or where safe sources are shunned due to various reasons like offensive odour, poor positioning and water being saline like in some parts of Nsanje and Chikwawa.

Increasing the use of HWTS as one of the key diarrhoea control interventions is therefore one of the Government's top priorities. As a policy document, it is my sincere hope that the plan will become the reference for designing of HWTS promotion activities, guide regulation of technologies, promote coordination among stakeholders, improving knowledge and skills of extensions workers and resource mobilization over the next 5 years.

Hon. Dr. Peter Kumpalume, M.P.
Minister of Health
July, 2016.

Acronyms

AIDS	:	Acquired Immunity Deficiency Syndrome
CBDAs	:	Community Based Distribution Agents
CBOs	:	Community-Based Organizations
CDC	:	Centre for Disease Control
CMS	:	Central Medical Stores
DHO	:	District Health Offices
DoDMA	:	Department of Disaster Management Affairs
GoM	:	Government of Malawi
HIV	:	Human Immune Deficiency Syndrome
HMIS	:	Health Management Information System
HSAs	:	Health Surveillance Assistants
HTH	:	High Test Hypochlorite
HWTS	:	Household Water Treatment and Safe Storage
IMCI	:	Integrated Management of Childhood Illnesses
M&E	:	Monitoring and Evaluation
MBS	:	Malawi Bureau of Standards
MDHS	:	Malawi Demographic and Health Survey
MGDS	:	Malawi Growth and Development Strategy
MoEST	:	Ministry of Education Science and Technology
MoF	:	Ministry of Finance
MoH	:	Ministry of Health
MWD&I	:	Ministry of Water Development and Irrigation
NGO	:	Non Governmental Organisation
NHWC	:	National Hand Washing Campaign
NSO	:	National Statistics Office
NWP	:	National Water Policy
ODF	:	Open Defecation Free
OPC	:	Office of President
PHS	:	Preventive Health Services
PMTCT	:	Prevention of Mother To Child Transmission
PPP	:	Public-Private Partnership
PSI	:	Population Services International
RC	:	Red Cross
RHU	:	Reproductive Health Unit
SDGs	:	Sustainable Development Goals
SPR	:	Sector Performance Report
UNICEF	:	United Nations Children's Fund
WHO	:	World Health Organization

Acknowledgements

This national plan on Household Water Treatment and Safe water storage (HWTS) is as a result of unreserved contributions from various stakeholders in an effort of ensuring that all citizen of Malawi access safe water with an ultimate goal of reducing diarrhoea to a level it can be no longer a public health threat.

The Ministry of Health, therefore, wishes to express its profound gratitude to all those individuals and institutions that contributed and worked towards making this plan a reality. In a special way, the Ministry would like to thank 300in6 and Aqua four ALL for funding the preliminary analysis of household water treatment and safe storage situation in Malawi which was a foundation for the development of this plan and UNICEF for funding the stakeholder's consultative workshop.

Last but not least, heartfelt appreciation should go to Mr. Ryan Rowe for conducting the preliminary analysis and also all the technical input to the development of this plan.

Dr. McPhail Magwira. PhD
Secretary for Health
July, 2016

1. Introduction

1.1 Global Overview on Diarrhoea

Each year, unsafe drinking water and inadequate sanitation contribute to an estimated 4 billion cases of diarrhoea and 1.9 million deaths in developing countries, mostly among young children¹. More than half of these cases are in Africa and South Asia, where diarrhoea is more likely to result in death or other severe outcomes. Acute and prolonged diarrhoea seriously exacerbates poor health and malnutrition in children through decreased food intake and nutrient absorption, resulting in reduced resistance to infection, impaired physical growth and cognitive development. This creates a deadly cycle².

1.2 Malawi Diarrhoeal Situation

In Malawi, diarrhoea is the third leading cause of death among children under the age of five (MICS, 2014)³. Cholera, a particularly deadly diarrhoeal disease, occurs regularly and is a major concern for health officials.

According to Multiple Cluster Indicator Survey report (MICS, 2014), 24.1 percent of the children under age five had a diarrhoeal episode in the two weeks preceding the survey and 2 percent had blood in the stool⁴. The prevalence of diarrhoea varies by age of children. Diarrhoea is also prevalent among both groups of children whose households have improved (16%) and unimproved (20%) sources of water⁵.

In 2014/2015 fiscal year, a total of 293,607 new cases of diarrhoea without blood reported at all health facilities in the country⁶.

1.3 Factors that Lead to Diarrhoea

Diarrhoea is more prevalent in the developing world largely due to lack of safe drinking water, poor sanitation and hygiene, as well as poorer overall health and nutritional status³. Diarrhoea is also a common condition in people with debilitating diseases like in the case of HIV/AIDS⁷. According to the latest available figures, an estimated 1.1 billion people worldwide do not have access

¹ <http://www.iwawaterwiki.org>, http://www.who.int/household_water

² UNICEF/WHO, 2009: Diarrhoeal: Why children are still dying and what can be done

³ UNICEF. (2012). A Promise Renewed – Under-five mortality dashboard - Malawi

⁴ NSO, (2010) Malawi Demographic and Health Survey

⁵ Malawi Demographic and Health Survey 2010 page 124

⁶ MoH, Central Monitoring and Evaluation Draft Report, 2012

⁷ WHO. (2008). Essential Prevention and Care Interventions for Adults and Adolescents Living with HIV in Resource Limited Settings. Geneva, Switzerland, World Health Organization

to improved water supply, and some 2.6 billion people do not always have safe water from piped systems due to maintenance problems, power cuts etc (Christine L. Moe and Richard D. Rheingans, 2009)⁸. Many more drink unsafe, contaminated water from unprotected sources. This, together with unsanitary environments and poor hygiene allow diarrhoea-causing pathogens to spread easily. It is also evident that some protected shallow wells and boreholes have contaminated water hence need for continued water quality surveillance.

1.4 Prevention, Control and Management of Diarrhoea

World Health Organization (WHO) and United Nations Children's Fund (UNICEF) set up a 7-point plan for comprehensive diarrhoea control. The plan includes a treatment package to reduce child deaths and a prevention package to reduce the number of diarrhoea cases for years to come that includes improving safe water supply and Household Water Treatment and Safe storage (HWTS). The seven elements in the plan are: 1) fluid replacement to prevent dehydration, 2) zinc treatment, 3) rotavirus and measles vaccinations, 4) promotion of early and exclusive breastfeeding and vitamin A supplementation, 5) promotion of hand-washing with soap, 6) improved water supply quantity and quality, including treatment and safe storage of household water, and 7) community-wide sanitation promotion⁹.

1.5 Household Water Treatment options

There are several water treatment options that institutions and households must employ to ensure that the unsafe water supply is safe for consumers. The institutions include among others schools, markets and health facilities; and usage of these treatment options is dependent on resources availability.

The available options for water treatment are:

- Chlorination
- Boiling
- Filtration

⁸Christine L. Moe and Richard D. Rheingans (2009) Global challenges in water, sanitation and health

⁹ World Health Organization (WHO) and United Nations Children's Fund (UNICEF) set up a 7-point strategy for comprehensive diarrhoea control

2. Situation Analysis and Gaps in Scaling up HWTS in Malawi

In 2012, the Ministries of Health and of Agriculture Irrigation and Water Development commissioned a preliminary consultative study to review the status of HWTS in Malawi¹⁰.

The findings of the study were as follows:

- I. HWTS contributes to high-level policy goals set out in the Malawi Growth & Development Strategy and could therefore be positioned as a national priority.
- II. National policy is broadly supportive of integrated service delivery and contains references to HWTS. Still, some government documents are contradictory and several gaps remain in implementation.
- III. Decentralizing service delivery may encourage customization of HWTS strategies in ways that take account of key cultural factors. However in practice, this may be challenged by weak capacity at the district level.
- IV. The Government of Malawi's programme to distribute chlorine stock solution is a successful example of HWTS at the national scale. However, no policy document exists to guide implementation nor has research been conducted to ascertain the efficiency or effectiveness of the programme.
- V. The absence of product standards and regulations on water treatment products has led to confusion among private sector manufacturers and distributors and the emergence of products which may be misleading to some consumers.
- VI. Chlorine-based HWTS products are the dominant form of HWTS available in Malawi with very few, if any, alternative filter options available to consumers.

¹⁰ Ministry of Health. (2012). A Preliminary Consultative Study: Household Water Treatment and Safe Storage in Malawi

- VII. Access to water is relatively high in Malawi in comparison with many other African countries. Unfortunately, water quality monitoring is poor, making it difficult to ascertain the areas at highest risk for water-related diseases.
- VIII. There are a number of key stakeholders from the private sector, NGOs and international agencies that could contribute in scaling up HWTS through improved mobilization and coordination by the government.
- IX. Seed money is available to support initial efforts to move forward on HWTS but large-scale funding remains a challenge.
- X. Early efforts to integrate HWTS into maternal and child health programmes are returning positive short-term results and suggesting that the model has the potential to impact a variety of health outcomes.

3. Rationale, Process of Plan Development, Aims and Guiding Principles

3.1 Rationale

The HWTS strategic plan has been developed to address the gap that exists in dealing with diarrheal diseases in Malawi. Currently, most of the interventions recommended by the WHO/UNICEF 7-point plan are being implemented in Malawi. All the treatment interventions are being promoted i.e. through Integrated Management of Childhood Illnesses (IMCI) programme policy and guidelines; rotavirus and measles vaccinations are already part of the routine immunization programme in Malawi; exclusive breast feeding and vitamin A supplementation are part of the nutrition policy and programmes; a National Hand Washing Campaign (NHWC) is in progress; and an Open Defecation Free (ODF) Strategy has been already developed and is being promoted together with the NHWC. However, household water treatment and safe storage remains a deficiency and requires attention.

The National Action Plan on HWTS aims to contribute to the reduction of diarrhoeal diseases in Malawi by addressing the findings set out in section 2.

3.2 Process of Plan Development

The development of the plan has been through a consultative process. All key stakeholders participated during the desk review on HWTS in Malawi and the plan development itself. The consultation was with government organizations, non-governmental organizations, private sector, parastatal organizations, development partners, donors and community members. Please refer to **Annex 2** for the full list of participants and their organizations.

3.3 Aims

3.3.1 Vision of the Government for Scaling up HWTS

The vision of the government is to ensure universal access to safe drinking water at the household level by 2030 in line with the Sustainable Development Goals (SDGs).

3.3.2 Mission of the Government for HWTS Plan

The mission of the government is to provide direction, technical guidance and oversight of stakeholder efforts relating to HWTS.

3.3.3 Goal of the Government on HWTS Plan

The overall goal is to contribute to the reduction of diarrhoeal diseases especially in populations which lack access to safe drinking water sources.

3.3.4 Broad objective of HWTS Plan

The overall objective is to accelerate the adoption of HWTS practices especially among vulnerable groups and other at-risk populations.

3.3.5 Specific Objectives of HWTS Plan

- Increase the proportion of the population in need practicing HWTS from 32% to 70% by 2019.
- Increase the proportion of the lowest income quintile of the population adopting HWTS by 40% by 2019.
- Increase the proportion of mothers and caregivers adopting HWTS by 40% by 2019.
- Increase the proportion of school-going children adopting HWTS by 40% by 2019.
- Increase the proportion of people living with HIV adopting HWTS by 40% by 2019.
- Increase the proportion of the population living in cholera-prone adopting HWTS by 40% by 2019.

3.4 Guiding Principles

Integrated Approach: HWTS shall be implemented as part of an integrated approach to primary health care.

Unity: All stakeholders shall work as a team in a coordinated manner.

Gender Sensitivity: Gender issues shall be mainstreamed in the planning and implementation of all activities.

Integrity: All stakeholders shall discharge their respective mandates in a transparent manner and declare their interests while avoiding the promotion of a single technology or method.

Community Participation: Community participation shall be encouraged in the planning, management and delivery of health services.

Sharing: Best practices and recent research shall be shared to enable evidence-based decision making.

Sustainability and resources: HWTS will be institutionalized in government and stakeholders structures so that it can be taken on board in funding allocations.

Appropriate Technology and Environmental Sustainability: All products and technologies available in Malawi shall be appropriate, relevant, cost effective and environmentally friendly. Products shall be labeled appropriately with instructions on use and effectiveness in improving water quality. Claims made by HWTS products shall be verified by an independent and qualified Laboratory to ensure that only efficient products are on the market (testing for specific parameters like coliforms and turbidity). National Public Health Laboratory (PHL) that serves as a National Reference Laboratory (NRL) or any accredited laboratory by Malawi Government shall be executing this function. It shall be a must to have qualified people with right grades in these laboratories capable of carrying the tests to ascertain the water quality. The national reference laboratory shall ensure that it conforms to the WHO laboratory schemes to ensure that standards are not compromised.

Appropriate and relevant laws shall be used for non-compliance to these set standards by any partners

Partnership: Partnerships between the public and private sector shall be encouraged and strengthened.

Fairness: Vulnerable groups shall always be given preference to ensure everyone has equal access (as one way of addressing the current inconsistencies).

4. Strategic areas of focus and actions

4.1 Create an Enabling Environment for Scaling up HWTS

- Review of policies, strategies, guidelines and legislation (National and Global)
- Incorporate HWTS into relevant policies
- Develop and issue guidelines on HWTS options, advantages and disadvantages and how each option operates.
- Examine and lobby for removal of potential barriers of importing and local production/assembling of HWTS products such as import taxes, tariffs, approvals, for public good products. (Duty free case needs to be made by relevant government ministries).
- Develop HWTS product registration and certification guidelines.
- Monitor HWTS registration/certification guidelines compliance.
- Ensure that subsidies do not undermine the integrity of the supply chain through unfair competition (e.g. direct importation of filters or chemicals by NGO for distribution).

4.2 Strengthen Inter-sectoral Coordination and Collaboration

- Ministry of Health to lead HWTS implementation supported by MoAIWD, MoEST, MGCD and MoLG&RD.
- Other stakeholders that include Development Partners, Donors, NGOs, Civil Society, Training Institutions, Private Sector, etc should be mobilized for supporting HWTS.
- Establish a national coordinating body thus the National Sanitation and Hygiene Technical Committee (NSTC) to implement HWTS plan

4.3 Build Implementation Capacity of Stakeholders for HWTS

- Define roles and responsibility of stakeholders.
- Conduct stakeholder assessment to identify capacity gaps.
- Build capacity of stakeholders (training, supportive supervision)
- Enhance the capacity of individuals and organizations working with vulnerable groups to promote and increase access to effective HWTS methods.

- Develop stand alone training modules for induction training on HWTS (adopt the WHO as template) for environmental health programmes, counselors/health promotion officers and nurses programmes as well as religious leaders, teachers, community development officers.

4.4 Advocate and Lobby with International Donors and Local Stakeholders' to Support HWTS

- Share HWTS plan with all stakeholders.
- Promote HWTS programmes among national stakeholders namely Government Sectors, NGOs, Development partners, Civil Society groups etc.
- Explore options to subsidize purchase of HWTS e.g. conditional cash transfer system in place.

4.5 Foster Public-Private Partnerships

- Increase affordable HWTS options available on market in Malawi.
- Strengthen positive environment for public private partnerships to foster entrepreneurship in HWTS market.
- Develop a supply chain for a range of HWTS products.
- Ensure protection of the market from cheap, ineffective products through promotion of products that pass quality certification.
- Ensure that WHO schemes are abided by National Reference Laboratory or any accredited laboratories

4.6 Utilize Multiple Strategies for Promotion of Use of HWTS

- Inform and engage populations in rural and peri-urban areas on the need and benefits of use of HWTS to their drinking water.
- Encourage adoption/purchase and consistent use of HWTS products (Social Marketing).
- Utilize existing and develop new communication channels to promote and encourage HWTS:
 - within health care systems
 - messages to religious groups, churches, bars/cafes
 - radio and TV drama
 - targeted printed materials
 - cell phone text messages

4.7 Promote Integration of HWTS Into Existing Programs

- Scale up HWTS and hygiene education with hygiene kits incentive across Malawi.

- Make HWTS as part of other programmes like school Water, Sanitation and Hygiene (WASH), nutrition and early childhood care.
- Empower HSAs to carry Integrate HWTS in an integrated fashion to.
- providing necessary support including supervision training and transport.

4.8 Strengthen Monitoring & Evaluation System of HWTS

- Develop Monitoring & Evaluation system
- Explore existing potential data sources like HMIS, community data collection by HSAs, and Integrated Disease Surveillance and Response (IDSR).
- Conduct Baseline Survey to establish current situation in line with the objectives

4.9 Promote Research on HWTS to Ensure Evidence Based Decision Making

- Conduct research to identify barriers to purchase and how to expand products on market.
- Explore local production (including assembling) of HWTS products: bio-sand filter, ceramic filters (pot, candle, combo), and assembly of imported and locally produced parts.
- Conduct market assessment (supply chain, products available/mix, prices)
- Assessment of HWTS activities, delivery models, lessons learnt, and awareness.

5. Interventions and Expected Results

5.1 Create an Enabling Environment for Scaling up HWTS

	Intervention/ action	Expected outcome	Activities	Indicator	Baseline	Target	Time	Means of Verifica tion	Resp. officer or partner	Estimate d Budget (USD)
1	Review of policies, strategies, guidelines and legislation (National and Global)	HWTS strengths, weaknesses, opportunities and threats established	Conduct HWTS desk review	Number of reports	0	1	Done	Review report	MoH, MoAIWD UNC	8,000
			Develop a list of key policy documents related to HWTS	List of key policy documents for HWTS	0	1	Done	Key policy documents list	MoH, MoAIWD UNC	0
2	Incorporate HWTS into relevant policies	HWTS mainstreamed in key	Lobby for mainstreaming of HWTS in key policy documents	Number of key policy documents mainstreaming HWTS	2	6		Key policy documents	MoH, MoAIWD MoES&T	0

3	Develop and issue guidelines on HWTS options, advantages and disadvantages and standard operating procedures	Guidelines in HWTS options developed	<ul style="list-style-type: none"> • Develop Draft guidelines • Conduct consultative workshops • Disseminate guidelines • Private sector submit gadgets and additives for review 	Number of guidelines developed	0	As they come	On going	HWTS options Guideline handbook	MoH, MoAIWD Private Sector Laboratories	50,000
4	Examine potential barriers on importing and local manufacturing of HWTS products.	Importation and local manufacturing barriers established and removed	<ul style="list-style-type: none"> • Examine importation process to identify barriers • MoH lobby with MRA and other relevant authorities for removal of barriers 	Assessment report	0	1	By Sept, 2016	Assessment report Meeting minutes Agreements Gazette	MRA, Private Sector, MoH MoF MoTI DFID	2,000

5	Develop HWTS products registration and certification guidelines	HWTS products registration and certification guidelines developed	<ul style="list-style-type: none"> • Develop HWTS registration guidelines • Develop HWTS standards for quality monitoring • Disseminate guidelines 	Number of guideline developed and disseminated	0	1	By December 2016 and on going	Registration and certification guideline handbook, HWTS standard guidelines	MoH, MoAIWD Private Sector MRA, MBS	50,000
6	Monitor HWTS registration/certification guidelines compliance	All HWTS technologies coming in Malawi to comply	<ul style="list-style-type: none"> • Conduction inspections and spot on HWTS products • Conduct testing of products performance • Private sector presents HWTS products to MoH for 	Proportion of technologies complying	Not determined	100%	Ongoing	Registration and certification reports	MoH, MoAIWD MBS	40,000

			Certification							
	Sub total									150,000

5.2 Strengthen Inter-Sectoral Coordination and Collaboration

	Intervention/ action	Expected outcome	Activities	Indicator	Baseline	Target	Time	MoV	Resp. officer or partner	Estimate d Budget (USD)
1	Ministry of Health to lead HWTS supported by MWD&I, MoEST, MGCD, MoLG&RD,	Coordination structure established	<ul style="list-style-type: none"> Appoint Desk Officer for HWTS Establish a coordination body for overseeing promotion of HWTS 	Number of desk officers	0	1	By December 2016	Reports, Task force minutes	MoH	10,000
2	Mobilize Other stakeholders to be supporting HWTS	Stakeholders mobilized in form of : <ul style="list-style-type: none"> Donors Implementers Monitors Training Institutions 	<ul style="list-style-type: none"> Identify stakeholders Categorize stakeholders 	List of stakeholders	0	1	Done	Key stakeholders list	MoH, MoAIWD MoEST	0
			Mobilize stakeholders to support HWTS	Number of stakeholders supporting HWTS	0	1	By Sep, 2016 and ongoing	Stakeholders' HWTS related activities reports	MoH, MoAIWD MoEST	0

3	Strengthen national coordination bodies for water and sanitation to include HWTS in their roles e.g. National Steering Committees, Technical Working Groups	Inclusion of HWTS in water and sanitation national coordination bodies coordination responsibilities	Lobby with Coordination committee to include HWTS in their responsibilities	Number of relevant coordinating bodies supporting HWTS	0	All relevant	Ongoing	Coordinating bodies activity reports/minutes	MoH, MoAIWD MoEST	10,000
Sub total										20,000

5.3 Build Implementation Capacity of Stakeholders for HWTS

	Intervention/ action	Expected outcome	Activities	Indicator	Baseline	Target	Time	MoV	Resp. officer or partner	Estimate d Budget (USD)
1	Define roles and responsibility of stakeholders	Roles and responsibilities outlined	Spell out roles and responsibilities of stakeholders	Number of stakeholders with clear roles and responsibilities	0	All	By Dec, 2016	Roles and responsibilities' matrix	MoH, MoAIWD	10,000
2	Conduct stakeholder assessment to Identify capacity gaps	Stakeholder profile established	Conduct assessment exercise	Number of stakeholders assessed	0	All	By Dec, 2016	Stakeholders assessment report	MoH, MoAIWD	0
3	Build capacity of stakeholders of relevant organizations	Stakeholders undertaking their responsibilities	Develop stand alone training modules for induction training on HWTS in training institutions*	Number of modules developed	0	3 (for EHOs, Nurses , HSAs & council and Local and religio	By Jun, 2016	Module documents	MoH, MoAIWD Private sector NGOs, Training Institutions	40,000

					us leader s)				
		Train/orient stakeholders	Number of stakeholders trained/oriente d	0	5000	By Dec, 2016	Training reports	MoH, MoAIWD Private sector NGOs, Training Institutions	20,000
		Supervise stakeholders	Number of stakeholders supervised	0	All	Ong oing	Supervisi on reports	MoH, MoAIWD	40,000
Sub total									110,000

* The training module should be adopted from the WHO template and will be used for training of EHO, counselors/health promotion officers, nurses as well as religious leaders, teachers, development officers

5.4 Advocate and Lobby with International Donors and Local Stakeholders' to Support HWTS

	Intervention/ action	Expected outcome	Activities	Indicator	Baseline	Target	Time	MoV	Resp. officer or partner	Estimate d Budget (USD)
1	Share HWTS plan with all stakeholders	Donors and stakeholders provide financial and technical support to HWTS programme	Circulate the plan to all donors and stakeholders	<ul style="list-style-type: none"> Number of stakeholders aware of the HWTS Plan 	Not determined	All key stakeholders as indicated in the list	By Dec, 2016	Support to various HWTS related activities	Donors and other Stakeholders	5,000
				<ul style="list-style-type: none"> Number of copies distributed 	0	500	By Dec, 2016	Distribution lists	MoH Donors and other Stakeholders	5,000
2	Promote among national stakeholders (Government Sectors, NGO, Development partners, and Civil Society etc)		Conduct dissemination meetings with stakeholders	Number of dissemination meetings conducted	0	3	By Dec, 2016	Dissemination meetings reports	MoH, Donors and NGOs	10,000
			Conduct awareness campaign	Number of awareness of campaigns	0	50	Ongoing	Campaign	MoH, NGOs,	10,000

			s	conducted				reports	Private sector	
			Conduct consultative workshop with donors and local stakeholders	Number of Donors supporting HWTS	0	All key stakeholders	By Dec, 2016	Budget line for HWTS among donors and other stakeholders	Donors and other stakeholders	
				Number districts being supported on HWTS	0	29	By Dec, 2016	District HWTS reports	Donors and other stakeholders	0
Sub total										30,000

5.5 Foster Public-Private Partnerships

Intervention/ action	Expected outcome	Activities	Indicator	Baseline	Target	Time	MoV	Resp. officer or partner	Estimated Budget (USD)
Increase affordable HWTS options available on market in Malawi	More products/technologies found in the communities at lower costs	Conduct IEC on cost and benefits of using HWTS among community members and private sector	Number of HWTS options on the market	4	As they come	Ongoing	Certification reports	MoH	Budget in 5.6
Strengthen positive environment for public private partnerships	Increased numbers of qualified and registered companies importing and producing certified products	Review and removal of barriers	Number of companies operating	4	As they come	Ongoing	Satisfactory survey reports	MoH, MRA, Private Sectors , NGOs	10,000
Develop supply chains for range of HWTS products	<ul style="list-style-type: none"> • Outlets of HWTS products into the communities established • Back up HWTS products available at short notice 	Develop various HWTS supply chain models	Number of supply chains established	4	8	By Dec 2016	Private Sector reports	MoH	10,000

	Sub total		20,000
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5.6 Government and Stakeholders Shall Utilize Multiple Strategies for Promotion of Use of HWTS

	Intervention/ action	Expected outcome	Activities	Indicator	Baselin e	Target	Time	MoV	Resp. officer or partner	Estimated Budget (USD)
1	Engage populations in rural and peri-urban areas on need to use available technologies to treat their drinking water.	Community members become aware of HWTS and its importance	<ul style="list-style-type: none"> • Conduct meetings with community members on HWTS • Promote HWTS through: radios, films, television, text messaging, leaflets, fliers 	% /Number of people/households practicing HWTS	32%	70%	By 2018	Survey reports, District WASH reports, Programme reports	Governmental Organizations, private sector, nongovernmental organizations, religious leaders ,	100,000
2	Encourage adoption/purchase and consistent use of HWTS products									
3	Utilize existing and develop new communication channels to promote HWTS									
4	Scale up HWTS hygiene education with incentives	Increased adoption and sustained use of HWTS products	Explore services that can be incentivized with HWTS products	% of households consistently and correctly using HWTS products	32%	70%	Survey reports	NSO, training institutions, MoH, MoAIWD MoEST	10,000	

Sub total	110,000
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5.7 Promote Integration of HWTS Into Existing Programs

Intervention / action	Expected outcome	Activities	Indicator	Baseline	Target	Time	MoV	Resp. officer or partner	Estimated Budget (USD)
Scale up HWTS and hygiene education with hygiene kit incentive across Malawi.	<ul style="list-style-type: none"> Increased adoption and sustained use of HWTS, safe storage, and appropriate hand-washing behaviors. Increased funding/budgeting from donors 	<ul style="list-style-type: none"> Training of health workers on HWTS Distribute HWTS products together with other health services Develop integrate training curriculum Integrate HWTS in school health & WASH programmes Integrate HWTS in HIV/AIDS programmes Integrate HWTS in emergency programmes Integrate HWTS 	<ul style="list-style-type: none"> % of households practicing correct use of recommended household water treatment technologies Number of Households supplied with HWTS products Number of health workers trained 	32%	70%	By Dec, 2016	HMIS systems and CDC evaluation of results.	MoH, MoWDI, Donors, NGOs	500,000
			% of households storing treated water in safe storage containers	40%	70%	By Dec 2016	NSO survey reports	MoH, MoAIWD MoEST	-
			% of households with soap and water at a hand washing station commonly used by	55%	70%	By Dec, 2016	NSO survey reports	MoH, MoAIWD	-

			maternal health programmes	family members						MoAIWD MoEST	
Sub total											500,000

5.8 Strengthen Monitoring & Evaluation System of HWTS

	Intervention/ action	Expected outcome	Activities	Indicator	Baseline	Target	Time	Means of verification	Resp. officer or partner	Estimated Budget (USD)
1	Develop M&E system	HWTS utilization and impact monitored and reviewed	<ul style="list-style-type: none"> Design and Implement M&E system for HWTS programme 	Number of M&E Systems established	0	1	By Dec 2016 and ongoing	Report	MoH, Other Government sectors, NGOs,	10,000
2	Explore existing potential data sources		<ul style="list-style-type: none"> Review and strengthen existing diarrhoea monitoring systems 	Number of Systems reviewed and strengthened	Not determined		By Dec 2016	Report		8,000
3	Conduct a baseline survey to establish current situation in line with the		<ul style="list-style-type: none"> Conduct a baseline survey to establish current 	Number of baseline surveys conducted	0	1	By Dec 2016	Report	MoH	20,000

	objectives		situation in line with the objectives	d							
	Sub total										38,000

5.9 Promote Research on HWTS to Ensure Evidence Based Decision Making

	Intervention/ action	Expected outcome	Activities	Indicator	Baseline	Target	Time	MoV	Resp. officer or partner	Budget
1	Conduct research to identify barriers to purchase of HWTS products	Decisions made based on evidence	<ul style="list-style-type: none"> Conduct research studies Conduct dissemination workshops of the research findings. Disseminate findings through various means like publications, websites, newsletters 	Number of research studies conducted	Not determined		On going	Research reports	Academia, Centre of Excellence, WASHTED, NGOs	40,000
2	Explore local production of HWTS products			Number of dissemination workshops conducted						
3	Assessment of HWTS activities, estimate use, practices			Number of publications made						
4	Assessment of HWTS activities, delivery models, lessons learnt and awareness									
Sub total										40,000

Grand Total

USD 1,010,000.00

Annex 1: References

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Ministry of Health

Annex 2: List of Stakeholders

Name	Designation	Organization
Jim McGill	Coordinator, Water & Sanitation	CCAP: Livingstonia Synod
Geoff Chipungu	Laboratory Adviser	CDC Malawi
Dr. Golden Msilimba	Director	Centre of Excellence, Mzuzu University
Gunda Andrews	Programme Manager	Clinton Health Access Initiative
Sam Madongo Chirwa	Environmental Health Officer	Lilongwe DHO
Alfred Mologo	Quality Monitoring Services officer	Malawi Bureau of Standards
Charles M. Nyirenda	District Project Officer (Dowa)	Malawi Red Cross Society
Hendrick Sauzande	Administrative Manager	Malawi Revenue Authority
Virginia Kachigunda	Principal Nutrition and HIV & AIDS Officer	Ministry of Education, Science & Technology
George Mkamanga	Director of Community Development	Ministry of Gender
Maurice M'bang'ombe	Epidemiologist	Ministry of Health – Epidemiology
Young Samanyika	Principal Environmental Health Officer	Ministry of Health - Preventive Health Services
Noah H. Silungwe	Principal Environmental Health Officer	Ministry of Health - Preventive Health Services
Synoden Kautsi	Civil Engineer	Ministry of Water Development & Irrigation
Lucy Mwase	Programme Development Officer	Pump Aid
Joseph DeGabriele	Director	SAFI
Lydia Jolofani Tembenu	Programme Assistant	SAFI
Timothy Kachule	Chief of Party	SHOPS
Innocent Mofolo	Executive Director	UNC Project
Tabitha Mkandawire	WASH Officer	UNICEF
Dr. E.P. Dzanjalimodzi	Country Representative	Vestergaard-Fransen
Ryan Rowe	Household Water Specialist	Water Institute at UNC
Harold M. Chirwa	Technical Service Director	WES Management
Hudson Kubwalo	Health Information Officer	World Health Organization
P.A. Matipwiri	Country Manager WASH	World Vision

