

WATER, SANITATION & HYGIENE

*Our hands our Future
washing your hands
with water and soap will
improve your hygiene"*



NO TURNING BACK

Experiences, Successes & Achievements





ABOUT AMREF HEALTH AFRICA IN UGANDA

We are truly African connected in the spirit of Ubuntu and committed to lasting health change since 1987 in Uganda. However, Amref Health Africa has over 60 years' experience in health development and has country programs in Kenya, Ethiopia, Uganda, Tanzania, Senegal, South Sudan and South Africa.

Amref Health Africa in Uganda is deeply rooted in communities and know how Uganda health care works, embracing innovation and traditions that protect health and bring quality health care to Ugandans.

We are part of a Global team joining forces and ideas to make a health Uganda a reality. Every day we partner with communities in Uganda. There health is our happiness. Delivering lasting change in Health in Uganda since 1987

30 years of consistent health interventions in Uganda. Operating in 47 districts in Uganda currently we are Implementing 13 projects to improve community health and health systems

Our Vision

Creating Lasting
Health Change in Africa.

Our Mission

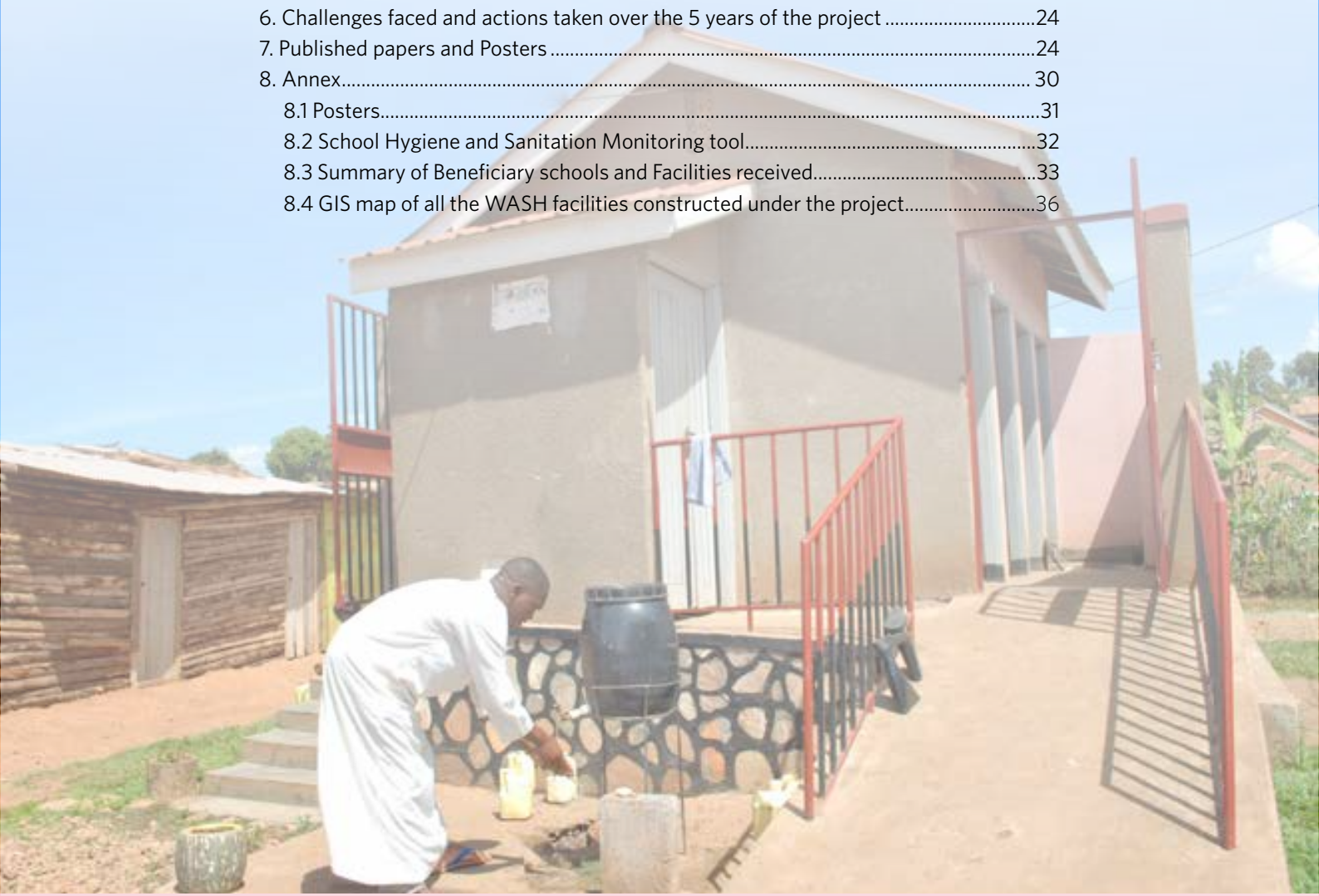
We are committed to improving the health of people in Africa by partnering with and empowering communities and strengthening health systems.

Our location in Uganda

Plot 1, Okurut Road, Kololo
P. O. Box 10663,
Kampala- Uganda.
Tel: +256 312 61418;
Email: Info.uganda@amref.org

TABLE CONTENTS

About Amref Health Africa.....	3
1. Forward	6
1.1 A note from Hajra Mukasa, The Program Manager and co-Author of the newsletter.....	7
1.2 A note from Teo Namata, a Project Manager and co-Author of the newsletter.....	8
2. Project Brief.....	9
3. The Sludge Drying Bed in Kitgum	16
4. Children and care taker Voices on WASH.....	17
4.1 Amref made my stay in school easy.....	17
4.2 Toilet-Good Job.....	17
5. Success Stories/Best Operational Practices.....	18
5.1 School Health Clubs Empowered to Disseminate Participatory Hygiene and Sanitation Education messages.....	18
5.2 Investing in Women's groups leads to improved community-based waste management.....	19
5.3 Pour Flush Toilets a vital tool for good sanitation and hygiene.....	19
5.4 Water and sanitation Competitions: An effective approach for promoting sustainable WASH services in schools and communities.....	20
5.5 School Management Committee members and Local Leaders committed to ensure Sustainable Operation and Maintenance of WASH facilities.....	22
5.6 "Community of Lutyoke Village Rejoicing for Second Chance"	23
5.7 Keep Kitgum Clean Drive-Embraced by stakeholders.....	23
6. Challenges faced and actions taken over the 5 years of the project	24
7. Published papers and Posters	24
8. Annex.....	30
8.1 Posters.....	31
8.2 School Hygiene and Sanitation Monitoring tool.....	32
8.3 Summary of Beneficiary schools and Facilities received.....	33
8.4 GIS map of all the WASH facilities constructed under the project.....	36



The background image shows a group of young children at an outdoor water station. On the left, a child is filling a red plastic cup from a tap. In the center, a boy in a white shirt and green shorts is smiling broadly while holding a yellow cup. To his right, another child is partially visible. The water station has white tiled walls and a blue sign that reads 'SolarWave Uganda Limited' and 'SAFE DRINKING WATER'.

LIST OF ACRONYMS

- DEO:** District Education Officer
- FDG:** Focus Group Discussion
- MDG:** Millennium Development Goals
- MHM:** Menstrual Hygiene Management
- OD:** Open Defecation
- O&M:** Operation and Maintenance
- PTA:** Parents Teachers Association
- RWHT:** Rain Water Harvesting Tanks
- SDG:** Sustainable Development Goals
- SMC:** School Management Committee
- UPE:** Universal Primary Education
- VIP:** Ventilated Improved Pit Latrine
- WASH:** Water, Sanitation and Hygiene



FOREWORD

I welcome you all to the five years Water, Sanitation, and Hygiene (WASH) project closeout which was funded by the European Union (EU). This five year project was implemented with the total cost of Euro 3,333,824 across three districts Gulu, Kitigum and Pader and; the slum of Kawempe division, Kampala district. With this EU funded project, Amref Health Africa directly and indirectly reached 1,600,000 people. The project has benefited 52 schools with the construction of 52 toilets 131 hand washing facilities and 52 rain water harvesting tanks. The project contributed to the four towns by constructing 11 public toilets, 1 fecal sludge management facility, 32 garbage skips, 74 portable waste bins, 5 garbage management demonstrations sites, 10 deep boreholes, 5 springs dry and.

The project helped to use waste as resource by supporting 2 youth and 18 women groups through training and seed grants and construction 5 garbage management demonstration sites. Through the Participatory Hygiene and Sanitation Education (PHASE) approach, the project trained 142 teachers and 52 school health clubs which facilitated the improvement of sanitation and hygiene in school. The EU/WASH project partnered with media to disseminate information and bring about behavioral change and communication. Though our media engagement we reached over 1,600,000 people. This project was implemented with technical guidance of Memorandum of Understanding and close collaboration with Chief Administrative Officers, District Health Offices, District Water Offices and district municipal mayors and Town Clerks. The project was implemented in partnership with the beneficiary communities and local governments.

I am very confident as we hand over this project to the local governments of the four districts of implementation that the established facilities shall be well maintained for continued access to safe WASH services. I want to assure the Government of Uganda through Ministry of Health, Ministry of Water and Environment and Ministry of Education and sports that we are handing over a quality work and products.

This great opportunity given to us by the Government of Uganda, European Union and our co-funders -Amref Flying Doctors in the Netherlands will go down in history of this beloved country and that of Amref Health Africa in Uganda as project that has successfully implemented a European Union grant on time, with results that clearly bring out quality, skills, professionalism and strong partnership ties with all our stakeholders. Together we have achieved what we set out to do.

In our work we have ensured that we avoid, minimize and mitigate any effects both environmental and social impacts associated with this project. We have adopted a gender -sensitive and gender equitable approach and all our selected work/activity sites were subjected to reviews and screening during preparations. We designed, implemented, monitored and evaluated all our works in collaboration with the stakeholders, and in line with the set guidelines provided by the given mandated sectors.

We pride ourselves of a very healthy and good relationship we have enjoyed with all our partners and the communities where we have worked. We know that without such a good work environment and relationship we could not have achieved on the goals and targets we set.

I take this opportunity to thank the European Union through its delegated Mission, the technical lead for this project and our Co-funders Amref Flying Doctors Netherlands for all the technical guidance, support in form of funding and allowing us to be the bearers, implementors and contributors to our nation's hope and plan for clean water for all and improved sanitation and hygiene for a better and healthy nation.

To our dedicated Program team, you have made us proud and your great work has brought life and hope in a hopeless situation keep up the good work. As we continue in our efforts to provide and contribute towards better health for all, as stakeholders, we pledge to continue working to serve all Ugandans through various health initiatives and priority programs that subscribe to Uganda's development agenda to achieve the national development plan, Uganda's vision 2040 and the United Nations sector development goals (SDGs). Amref Health Africa will continue to demonstrate value for money and push towards our mission and vision.

Better health change in Africa

Abenet Lyenkun Berhanu

Country Director

A NOTE FROM THE PROGRAM MANAGER _WATER , SANITATION AND HYIGENE



Access to sanitation facilities is a basic human right that safeguards health and human dignity. Every individual deserves to be protected from disease and other health hazards posed by the poor disposal of excreta and human waste. Lack of safe drinking water and access to sanitation facilities increases water borne diseases.

Children, who are the first and the most vulnerable to fall prey to such hazards, deserve a better environment and the highest standard of living possible, according to the Convention on the Rights of the Child, a treaty which has been ratified by nearly every country in the world, Uganda inclusive. Women and Youth are a back-born of a strong nation if a nation doesn't empower women and youth with knowledge, income generating activities and skills in advocacy for better health we will see more disease and poverty in our country.

It is against this background that Amref Health Africa in Uganda has been implementing a 5 year ACP-EU Water facility grant by the European Union with additional funding from Amref Flying Doctors in the Netherlands.

Looking back at our key achievements we have been able to reach ,touch and change lives of over 1,600,000 people.

The project has been implemented in collaboration with other stakeholders, strong partnerships have been created across the four districts of Kampala, Gulu, Kitgum and Pader. The Water, Sanitation and Hygiene Collaborative networks Amref belongs to led to the successful mobilization of National , Regional and political support through sectors like the WASH parliamentarian forum ,WASH technical working groups, CSOs and CBOs.

Our accomplishments as indicated in the Country Director's message could not have been possible without the strong engagement of the local communities who have embraced our method of work and took ownership of the project. All that we have accomplished was focused towards a global sanitation target, without which health for all cannot be achieved.

Our strategic approach for sustainable access to and management of water resources did integrate sectoral and cross - cutting issues and encompassed most aspects of sustainability therefore as we close this project we want to emphasize the need to continue with behavioral change with in our communities, maintenance of all the different facilities we have constructed, growth of the youth and women groups who have been trained and provided with seed grants. We want to see the quality of lives of our communities continue to improve and water borne diseases, environmental degradation, and poverty are no longer part of our story.

I join my Country Director to convey my special thanks to the European Union and Amref Netherlands for the funding support; the local authorities in the areas of implementation for the technical support and great partnership. To the beneficiary communities for the great partnership enjoyed over the 5 years.

Enjoy reading this newsletter and learn from it.

Ms. Hajra Mukasa

Children, who are the first and the most vulnerable to fall prey to such hazards, deserve a better environment and the highest standard of living possible, according to the Convention on the Rights of the Child, a treaty which has been ratified by nearly every country in the world, Uganda inclusive. Women and Youth are a back-born of a strong nation if a nation doesn't empower women and youth with knowledge, income generating activities and skills in advocacy for better health we will see more disease and poverty in our country.



A NOTE FROM THE PROJECT MANAGERS

Teo Namata,

a Project Manager – Gulu, Kitgum and Pader

Urban and Peri-urban communities' are faced with unique WASH challenges and these are dealt with using various approaches and innovations different from those employed in rural communities. This newsletter shares practical experiences, approaches, lessons and best practices gained from a 5-year Urban and Peri-Urban WASH project implemented in communities of Gulu, Kitgum and Pader Town Council in Northern Uganda through a series of success stories, documented best practices, and much more. It is an informative magazine, Nice reading! Indeed there is no turning back to our old practices that led to the escalation of water borne diseases.

A NOTE FROM ENGINEER WALUDE MTWALIB - PROJECT MANAGER URBAN – CENTRAL REGION



Following the messages from my Country Director and my colleagues above, I want to add my voice to appreciate our funders and partners who have greatly contributed to improved access to safe water, sanitation and hygiene in Kawempe division. One of the key interventions I wish to point out that has been a huge success in this project is the use of Children as social change makers through the Personal Hygiene and Sanitation (PHASE). We have witnessed improved school attendance. the equation of Access to clean water + adequate sanitation and an empowered community +knowledge and income generation activities =better health and increased school attendance.

To our partners Ministry of Health, Ministry of Education and sports, Ministry of water and environment, Kampala city council Authority and Solar Wave Limited you gave us the opportunity to work together so now we shine

together for better and lasting health change in our urban communities of Kawempe division. Our finger prints do not fade from the lives we touch.

Why the Project was initiated

The project was intended to contribute to the achievement of the sanitation MDG 7 (now SDG 6) but also respond to MDG 4, 5 and 6 [now SDGs 6] by reducing the prevalence of water, sanitation and hygiene related diseases among disadvantaged communities in Kawempe Division of Kampala district between January 2013- December 2017. These locations were chosen due to lack of resources for constructing sanitation infrastructure, densely populated informal urban setting in which flying toilets are common and inadequacy of services for management of existing facilities.

DESCRIPTION OF THE INITIATIVE

Amref acquired funds from EU to implement a five year "Basic sanitation program in urban and peri-urban communities (Kawempe Division in Kampala, Gulu, Kitgum and Pader districts of Northern Uganda to act as a model for replication across the country.

The project was geared at achieving among others,

- (I) Increased access to basic sanitation services through improved sanitation infrastructures and strengthened sanitation chain.
- (II) Improved hygiene practices in the collection, transportation, disposal and re-use of sanitation waste in target areas.

Project Title:	Basic Sanitation for Poor Peri-Urban and Urban Communities of Uganda
Donor:	European Union, co-founded by AMREF Netherlands
Project Budget:	€ 3,333,824
Locations:	Kawempe Division, Gulu Municipality, Kitgum and Pader Town Councils
Project Duration:	5 years

Background

The overarching impact of this proposed intervention is to contribute to the achievement of the sanitation MDG (7) but also responding to MDG 4, 5 and 6 by reducing the prevalence of water, sanitation and hygiene related diseases among disadvantaged communities in urban and peri urban areas in Gulu, Kitgum, Pader and Kampala districts by the end of the proposed activities. These locations were chosen because of various reasons such as: lack of resources like land and budget for constructing sanitation infrastructure, densely populated informal urban setting in which flying toilets are common, services are few and management of existing facilities remains a challenge.

Through research, evidence -based advocacy, engaging private sector and building the capacity of households, schools, and local authorities, Amref Health Africa will connect community systems to a sustainable basic eco-friendly sanitation infrastructure. Hence, after the action, a fully-fledged sanitation chain will be in place based on our proven practices and approaches.

Project Description

Goal: To contribute to the achievement of mainly MDG 7 but also 4,5 and 6 by reducing the prevalence of water, sanitation and hygiene related diseases in urban and peri urban communities in Gulu, Kitgum, Pader and Kawempe Division of Kampala Capital City Authority by the end of the proposed action.

Specific Objectives

1. To Increase access to basic sanitation services through improved sanitation infrastructure and strengthened sanitation chain.
2. To improve hygiene practices in the collection, transportation, disposal and reuse of sanitation waste in target areas.
3. To establish mechanisms for coordination in the sanitation chain (public & private).
4. To improve policy and practice for urban and peri urban environmental sanitation systems.

Project Activities

- Construct appropriate sanitation facilities in schools and public places.
- Provide hand washing facilities in schools. Construct Rain Water Harvesting tanks in schools.
- Construct 891metre storm drainage in Kawempe division.
- Procure and distribute garbage collection containers in schools and public places.
- Provide demonstration sites for garbage management at household level.
- Facilitate extension of water grid to underserved areas in Kawempe division.
- Pilot small-scale motor bike (UGAvacs) for human waste collection and disposal.
- Create awareness and train communities on economic reuse of waste.
- Construct a sludge drying bed in Kitgum town council.
- Procure and provide PHASE kits to School Health Clubs.
- Facilitate training of girl child in appropriate personal hygiene practices
- Train Community Owned resource Persons CORPS /Zonal Health Teams.
- Conduct orientation training for Health Inspectors and health assistants on urban sanitation improvement.
- Conduct training of women groups on Income Generating Activities (IGAs) – reuse of waste.
- Conduct an operation research on urban sanitation
- Promote local groups in demanding their right to sanitation.

Expected Project Outputs

- Increased access to sanitation facilities. In collaboration with Urban Authorities, the project will construct 60 blocks- 5 stance water borne toilets and drainable pit latrines in both public places and primary schools, accompanied by 120 hand washing facilities.
- Improved access to safe water in primary schools through construction of 52 rain water harvesting tanks.
- Improved sanitation chain in Kitgum Town Council through construction of a sludge drying bed as per design in figure 1 below.

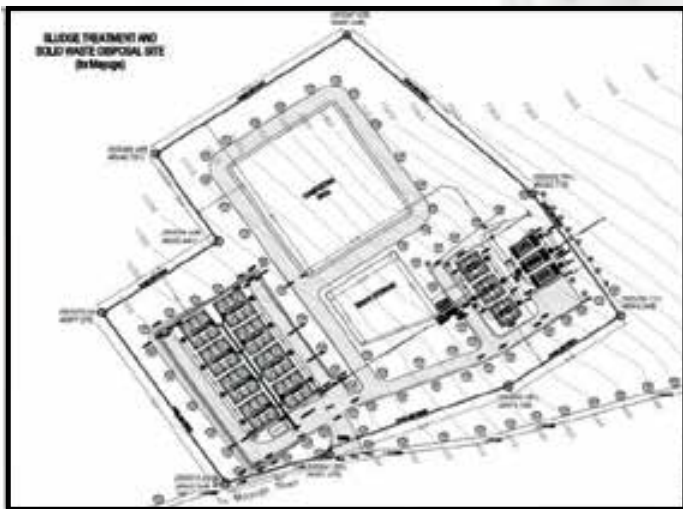


Figure 1

- 66(24 Kawempe,24 Gulu,12 Kitgum and 6 Pader) community groups trained and 9900 people reached with information on the economic reuse of waste and appropriate waste management.
- 52(20 Kawempe,20 Gulu,9 Kitgum and 3 Pader) school health clubs formed and strengthened to promote Personal Hygiene And Sanitation Education (PHASE)
- 52(20 Kawempe,19 Gulu,10 Kitgum and 3 Pader) school health clubs' patron and SMCs trained on PHASE.



Figure 2: This clogged drainage channel in Kawempe Division will be widened and stone pitched by the project for easy flow surface run off water.



Figure 3: UGAVAC under test by NWSC. The project will acquire 5 of this facility to support in human waste collection and disposal.

Intermediate Outcomes



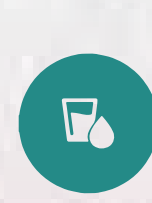
- Increased access to basic sanitation services through improved sanitation infrastructures and strengthened sanitation chain.
- Improved hygiene practices in the collection, transport, disposal and re-use of sanitation waste in target areas.
- Established mechanisms for coordination of relevant stakeholders in sanitation chain (civil society, public sector, private sector).
- Improved policy and practice for urban and peri urban environmental sanitation systems in Gulu, Kitgum, Pader and Kawempe division of Kampala District Authority.

Impact

Reduced morbidity and mortality from water, sanitation and hygiene related diseases (Malaria intestinal worms and Diarrhoea) in urban and peri urban communities in Gulu,Kawempe division of Kampala District Authority.

PROJECT ACHIEVEMENTS

As Amref Health Africa in Uganda prepares to celebrate 30 years of health interventions in Uganda the WASH project celebrates the milestones for the last 5 years where Contribution towards improvement of Water, Sanitation & Hygiene services for peri-urban Communities of Uganda has been a success.

- | | |
|---|---|
|  <p>1) Sanitation Facilities constructed in 52 primary schools and 6 Public places
58 Toilets blocks constructed across the 4 districts translating into 335 stances of water born toilets and 15 stances of ventilated improved pit latrines.</p> |  <p>12) 52 school management committees strengthened in management of WASH services in schools.</p> |
|  <p>2) 131 Hand washing facilities installed and in use in targeted primary schools</p> |  <p>13) 356 selected communities trained in operations and maintenance of established facilities.</p> |
|  <p>3) 56 rain water harvesting tanks (20,000 each) installed in targeted primary schools.</p> |  <p>14) 142 school management and health clubs trained in the management of WASH facilities.</p> |
|  <p>4) 32 garbage skips procured and in use in all the four districts.</p> |  <p>15) 308 health inspectors and health assistants offered refresher training in WASH.</p> |
|  <p>5) 75 portable garbage bins distributed and in use in Pader Town council.</p> |  <p>16) 40 Women and Youth groups supported with seed grants to invest in economic re-use.</p> |
|  <p>6) 5 garbage demonstration and learning centers constructed and in use in Kawempe division.</p> |  <p>17) 520 copies of PHASE kits provided to 52 targeted school health clubs.</p> |
|  <p>7) 15 water points rehabilitated or protected</p> |  <p>18) School girls in 52 schools trained in personal hygiene with a focus on menstrual hygiene management (MHM)</p> |
|  <p>8) 39,500 households reached with hygiene information.</p> |  <p>19) 03 operational research studies focusing on the established WASH interventions were conducted and findings shared at national and international conferences.</p> |
|  <p>9) 7044 people reached through training in economic re-use of waste, sanitation and hygiene promotion sanitation planning and management. 2597 male and 4,447 female benefited from the trainings.</p> |  <p>20) 2050 pupils in kawempe division have access to purified water through the day after installation of two solar wave water purification systems in two primary schools serena and St. Martin Mulago primary school in partnership with Solar Wave Limited.</p> |
|  <p>10) One sludge drying bed system worth 700million was constructed in Kitgum</p> | |
|  <p>11) 52 school health clubs strengthened through training, mentoring and provision of PHASE packs.</p> | |

PROJECT OUTCOMES

A total of 39,000 house holds and 1,600,000 people across the 4 districts have access to ;

- a) Improved basic sanitation services through improved sanitation infrastructures and strengthened sanitation chain.
- b) Improved hygiene practices in the collection , transportation , disposal and re-use of sanitation waste in targeted areas.
- c) They have established mechanisms for coordination of relevant stakeholders in sanitation chain as evidenced by the established quarterly WASH stakeholders review meetings in the project sites that have been institutionalised by the local authorities.
- d) Improved policy and practice for urban and peri urban environmental sanitation systems in Gulu, Kitgum, Pader and Kawempe division in Kampala District. Children from supported schools influenced the policy on Menstrual Hygiene Management (MHM) in 2014 through the parliament of the republic of Uganda.

The rapid population growth within Kawempe Division has put a significant stress on access to basic services in the Division. Uganda's water and sanitation interventions have largely remained 'infrastructural based' with less attention paid to issues of quality, utilization, appropriateness, environmental impact and safe hygiene practices .

Favorable WASH policy framework and well established coordination structures exist at national level, however capacities to implement policies and enforce regulations at lower local government levels are low. Sanitation receives low priority, with only 3% of WASH national budgets allocated. Environmental challenges are increasingly recognized but there is a lack of knowledge, experience, policies and tools to adequately address these. The private sector, with some exceptions, is hardly involved in WASH service delivery.

Increasing access to safe water and sanitation will not only reduce the burden of water-related diseases on the community, but will also enable women to devote more time and energy to gainful productive activities, to the health and education of their children and to their own health.

The project therefore aimed at achieving the following **specific objectives**:

1. Increased access to basic sanitation services through improved sanitation infrastructures and strengthened sanitation chain
2. Improved hygiene practices in the collection,

transport, disposal and re-use of sanitation waste in target areas

3. Established mechanisms for coordination of relevant stakeholders in sanitation chain (civil society, public sector, private sector)
4. Improved policy and practice for urban and peri urban environmental sanitation systems in Gulu, Kitgum, Pader districts and Kawempe Division (Kampala District).

Approaches (How did we do it?)

The main entry point of the proposed action was children and women, which have the highest potential to promote improved hygiene practices in order to reduce incidences of maternal and child health related illnesses. The project targeted children of school going age as main beneficiaries, particularly women of reproductive age (15-45), with specific attention given to the needs of young girls. The project adopted a Technology, Service Delivery and Social Accountability model (see figure below) in which;



a) Improvement of Sanitation Infrastructure - The infrastructure provided included drainable VIP Latrines, Waterborne/pour flush toilets, ferro-cement rainwater harvesting tanks, hand washing facilities, waste storage skips and establishment of waste management sites.

b) PHASE Promotion This is done through procurement and distribution of PHASE kits to schools, training teachers and SMC members in PHASE promotion, menstrual hygiene management, empowerment of school health clubs to disseminate PHASE through extra-curricular activities. In addition, community health workers were supported to sensitize parents and caretakers of children at household level. Both children and community health workers were supported to advocate for issues during international and national days through drama shows in the community, radio talk shows and participation in national events

c) Establishing a Community Health Investment Club: The Health Investment Club is an association of community based organizations that were supported by Amref to integrate waste management IGAs into their VSLA initiatives. The aim is for them to collectively improve practices in the collection, transportation,

disposal and reuse of domestic waste in target communities. Each group was oriented on the concept of economic reuse of waste, provided with basic equipment to help them carry out community clean-up campaigns and given a seed fund to enable them start a waste based IGA.

The above project interventions were implemented by Amref that provided overall leadership of the project including coordination of the different activities, engagement of authorities through advocacy, improving service delivery, monitoring and evaluation, as well as reporting on the project to the donor. Other interventions included training and tooling of village health teams and supporting them to conduct community mobilization, case identification and referral to care and social accountability and advocacy at district and national level.

Results (What change did we achieve? Describe the key outcomes and impacts achieved during the lifespan of the program/project. Where program/project evaluations were conducted, summarize the key findings)

Improved study environment for primary school children

The clinical environment improved in 3 areas;

- 80 % of the sanitation facilities are child friendly, easy to use and hygienic
- 70 % of the sanitation facilities have a functional handwashing place with water and soap
- 90 % of the schools provide treated drinking water for children while at school
- 80 % of girls reported accessing safe menstrual hygiene management services while at school

1) Improved access to safe sanitation and hygiene practices for children in schools

A total of 20 sanitation facilities (12 VIP latrines and 08 water-borne toilets) were built in schools, markets and other public places.

In schools, each facility had six stances (03 for boys and 03 for girls) with a provision for use by disabled persons and a place for menstrual hygiene management. A total of 20 rainwater harvesting tanks were also constructed to provide water for hand-washing, cleaning and drinking.

In each school, a school health club was established, teachers were trained in PHASE promotion and menstrual hygiene management and given IEC materials to aide effective teaching. The clubs were empowered to disseminate messages in drama, poems, songs and creative dance to fellow children and the community

2) Improved waste management practices at community level

In order to improve waste management practices, a total of 13 skips were procured and distributed to communities. In addition, a total of 12 women's groups were empowered with skills to integrate waste-based IGAs into VSLA. Each group was provided with a seed fund of Ug.Shs. 900,000 to enable them test the feasibility of their IGA.

The group leaders received training in business development, marketing and book keeping. The groups were also provided with an assortment of equipment (spades, hand forks, plastic aprons, gum boots and gloves) to help them carry out regular clean-up exercises and sensitize communities on improved waste management practices. Two (02) waste management sites were constructed (01 for charcoal briquette making and the other for collection of plastic bottles and production of compost manure).



The groups were also supported to establish Kawempe Health Investment Club. The club has developed a constitution, registered with the office of the Administrator General and opened an account with Centenary bank that will continue education services in entrepreneurship management, networking and booster loans to member groups with viable enterprises.

As a result there are improved waste management practices at community level (especially sorting of waste to recover useful waste before transportation), improved entrepreneurship management skills among groups, and increased number of groups implementing waste based IGAs. Examples of the IGAs include:

- Charcoal briquette making (01 group)
- Art and Crafts making (06 groups)
- Compost Manure (01 group)
- Mushroom growing (01 group)
- Bathing sponges (01 group)
- Liquid soap production (02 groups)

trained in management of their facilities and hygiene promotion. They were also supported to prepare their own operation and maintenance plans that specify roles, duration in office, operating byelaws, maintenance costs and sources of funds. As a result, most sanitation facilities (e.g. Shanita Market Namuyimba) are now well managed and communities have access to improved sanitation.

Influence on policy and practice

School children advocated for improved menstrual hygiene and sanitation practices during national/international days including the Menstrual Hygiene Day, National Sanitation Week celebration and Global Handwashing Day

- Local communities were reached through radio talk shows that involved children, teachers, community health workers and Division technical staff. Key messages focused on the importance of handwashing with soap, proper latrine use and



Members of Kazo Angola

3) **Sustainable management of public sanitation facilities**

A total of 8 public sanitation facilities have been constructed in the Division in Markets (02), police stations (02), mosques (01) and other places (03). Each facility has six stances (3 for males and 03 for females) two bath shelters, a provision for disabled persons and store. In all facilities hand-washing facilities were provided.

At each facility, a sanitation user committees (comprising of chairperson, secretary, treasurer, landlord, VHT and LC I chairperson) was appointed by the users to look after the toilet. The committees were

maintenance, enforcement of local sanitation byelaws and menstrual hygiene management. The talk shows targeted parents of children, school leaders, politicians and the local population.

- The Division's WASH coordination committee that convenes quarterly was established by the project and has been used as a platform for experiential learning, identification of project best practices for scale-up and key lessons learnt

Lessons Learnt

- Investing in school health clubs leads to sustainable promotion of sanitation and hygiene among children and the community in urban areas.

- Community based organizations can play a major role in promoting primary waste management practices at community level especially since they can also use this as an opportunity to turn waste into wealth. Women's groups are more likely to engage in art and crafts making.
- Public sanitation facilities can be sustainably managed if they trained sanitation user committees that are appointed with users with well-defined operation and maintenance plans.

Success story :- Innovation & Technology:. 2000 school children in Kawempe division have access to purified drinking water

Amref Health Africa in Uganda in Partnership with Solar Wave technologies signed a Memorandum of Understanding to pilot the Solar Wave water purification system in Primary schools where we have implemented a water and sanitation project.

During the project implementation Amref Health Africa provided sanitation facilities and ferro water tanks to 53 primary schools of Kawempe division in Kampala. However due to the fact that the schools are located in a low laying areas that are prone to floods and direct contamination of their water at the sources, there was an urgent need to find a sustainable solution to the effects caused by drinking unsafe water.

Serena Primary School and St. Martin Mulago Primary schools, were the selected model hygiene promotion schools located in Kyabando and Mulago were using water purification tablets and boiling water for drinking for its pupils. However both methods are not sustainable due to the large volumes of water that need to be boiled and purified to ensure there is constant access to clean and safe drinking water for pupils through their stay at school.

Following the above finding, Amref Health Africa partnered with Solar Wave technologies, which set up a new water purifying system known as the Solar Wave WP360 specifically designed for schools in rural areas and slum areas where no electrical power is available.

Solar Wave technologies installed the purification system at Serena Primary School in October 2016 and on February 4th, 2018 they installed the second unit at St. Martin Mulago Primary school. The technology is designed with a filtration system to remove any natural or unnatural constituent in water. The technology also removed bacteria, cysts, viruses and fluoride from water.

Both schools will contribute to the operation and maintenance of the water purification system. Each pupil will contribute UGX1, 800 per term towards operation and maintenance of the technology.

Amref started monitoring the prevalence of water borne diseases among pupils in the Serena Primary school. The results were very encouraging as less children were reporting ill due to water borne diseases like diarrhoea.

Following the above feed back the same system was recommended to St. Martin Primary school and even as the project phases out we hope that our partners will continue rolling it out in all other schools where we have implemented the WASH project and inform us whether this technology is worth investing in.

Evidence Based Results

Since the installment of the Solar Wave technology in the school, there has been no reports of stomach pain and typhoid amongst the pupils and teachers due to access to clean and safe drinking water through out the day.

Intake of drinking water at the school has greatly increased during the months of October to November 2016 when we visited the school. The water reading meter was at 3000liters compared to the previous quarter before the system was installed which was at 1200 liters

According to the School Director more children have been enrolled in his school after the parents got an opportunity to visit the drinking area, saw and appreciated the system. "This system has marketed my school" those were the words the Director of the school used.

Challenges

- Lack Funding to enable rolling out the same technology to all the WASH implementing schools
- Space in the current school is limited therefore this will be impossible to take on more children if the element of space is not handled. Most of these schools are in very small area.

Lessons learnt or recommendations

- Accessible clean drinking water in a school is very important it improves the health of children and protects them from suffering from and if we use the same technology in all our schools we will cut down on the cost of use of electricity, fire wood or charcoal to boil huge volumes of drinking water to cater for school children.



INTERVENTIONS OF THE WASH PROJECT IN NORTHERN UGANDA

A celebration of our unique successes through the community and partners voices



The Sludge drying Bed – constructed in Kitgum Municipality

A sludge drying bed (SDB) is the most widely used method for Sludge dewatering. Sludge drying involves natural ways of drying to mechanical ways of removing water content. SDB is generally used for small and medium sized communities.

Alfred Alexis Abonga Municipal Engineer Kitgum has this to share about this simple but very expensive and worth having technology.

I am grateful to be part of the technical team who contributed to the successful implementation of the Faecal Sludge Treatment plant project in Lamit , Kitgum Municipal Council. The project came at a time when faecal sludge management, from onsite sanitation facilities, was a big challenge to local Authorities in the Municipality.

The Municipal Council, and other private entities involved in Faecal sludge emptying and disposal, had nowhere to dispose off the faecal sludge. As a result disposal was in locally dug temporary ponds, anthills and natural depressions, far away from settlement areas.

This was not a safe way of treating the sludge as the ponds became breeding places for mosquitoes and

physical traps for grazing animals and human beings, especially children. There was a risk of contamination of water sources when the sludge got washed downstream by rain. The proposal to construct the plant in Kitgum Municipal Council was therefore a timely and welcomed idea because it addresses the many problems related to poor faecal sludge disposal. This plant, is the first of its kind constructed within the region, it will serve the people of Kitgum Municipal Council, the neighboring sub counties of Akwang, Layamo and Amida and the neighboring districts of Agago, Pader and Lamwo. Most primary schools and other institutions within the region, with lined pit latrines, are expected to use the facility.

The plant has an overall design life of 20 years, receiving 98.8m³ of sludge per day, which is an equivalent of about 25 trips of medium sized cesspool emptier per day. However, due to budget constraints, only a part of the design is yet implemented. The sludge drying beds constructed, at the moment, may be able to receive about 27m³ of faecal sludge per day, which is about 7 trips of cesspool emptier per day for the coming 8-10 years before upgrading. The plant shall dewater the sludge from the drying beds and the leachate treated in subsequent ponds and a constructed wetland before disposal into the nearby stream whereas the dewatered sludge shall be treated and used as soil enhancers.

The project team voice – Ms. Teo Namata

The successful implementation of this project involved active stakeholders consultations during its designing and implementation, this was done through learning visits and community dialogues. Creating a strong foundation of project acceptability and holding each other accountable for the success of this construction. Further more this collaboration with stakeholders will go a long way in supporting operation and maintenance of the Sludge drying Bed.

As a project team and the stakeholders task force we acknowledge and appreciate the technical cooperation of the Project Consultant, Contractor and Clerk of Works during the project implementation. We applaud all stakeholders who closely participated in the project monitoring and site meetings. Your keen involvement kept us on track, as you take on the same spirit in ensuring its operation and maintenance we know this project is good hands

Voices from beneficiary schools in Northern Uganda

Ivan Opepruot- pleasant surprise that made him stay in school

At the time Amref Health Africa constructed a toilet facility at Pece P7 P/S in Gulu. Ivan Opepruot was 17 years old and in Primary six. Ivan is a child with special needs.

This is his story: - I walk with support of clutches and I used to find it impossible to use the normal toilet facility in the school because I cannot squat due to my disability. I used to share a latrine with other school boys. You can imagine the state of those Latrines. Most times they were overflowing with urine and feces on the floor.

There was no way I could sit on the dirty latrine. I used to miss school often because I feared using the dirty latrines. However I loved school and going to study was what I wanted to do. I decided not to eat at school to avoid using the latrine. I felt hungry and was not performing well in class.

Amref saved me from the risk of getting infections, hunger and missing school. They constructed smart water borne toilets at Pece P/S with a stance for children with disabilities which I can now use. The toilet is properly cleaned, with a comfortable sit for me. I no longer miss school and I do not miss eating at school because I do not have any more fear. It is my prayer that when I join secondary school, facilities for children with disability will be available.

Thank You so much Amref Health Africa and European Union for funding this project.



Ivan Opepruot- Pece Primary School in Gulu



Stance for pupils with physical disability

Toilet and Jobs :- Voice from a care taker of the sanitation facilities in Pece primary school

I am called Auma Rose, 60 years old., I am the care taker of the toilets in Pece Primary school. The school has about 1000 children. My job is to ensure the toilets are clean and properly used. This job has supported me, my family and my dependants. As a caretaker, I clean the toilets and latrines, manage the use of toilet papers to avoid misuse, and I am responsible for ensuring that all water and sanitation facilities are in good working condition in liaison with the school management, teachers on duty and members of school health club.

Amref health Africa continues to align with government themes and messages in 2017 the message Government put out was "Toilets and Jobs" Important to note is that ensuring we have sanitation facilities in our country, we also contract different people to build, maintain and supply goods and services as part of the sanitation chain. For example, construction of the actual latrines/toilets, Cesspool attendants, selling of sanitary products, water to mention but a few.



Auma at work

1. SUCCESS STORIES/BEST OPERATIONAL PRACTICES

5.1 School Health Clubs Empowered to Disseminate Participatory Hygiene and Sanitation Education messages

Over the years, the project established hand washing facilities, latrine facilities, rain water harvesting systems and menstrual hygiene management facilities in the beneficiary schools. However, a rapid assessment conducted in selected schools in 2014 in Northern Uganda indicated that thirty-two percent (32%) of the visited schools had hand washing facilities close to the toilet facilities but only 9% of these had water for hand washing and only 4% had soap. Shortage of water, absence of hand washing facilities and low awareness on the importance of hand washing was cited as major factors hindering majority of schools from practicing hand washing.

This was the basis for putting more emphasis on hand washing promotion through school health clubs and dissemination of PHASE messages. The project established and trained 52 school health clubs in WASH services promotion through PHASE. These clubs promote WASH best practices in schools and in surrounding communities through dissemination of PHASE messages with the help of the PHASE kits, through health parades, music, dance and drama and radio talk shows.

To ensure the proper implementation of PHASE in each school, each school was given guidelines to establish a school health club. In order to establish promotion capacity in the schools, school health club patrons were trained in PHASE promotion, senior women teachers were trained in improved menstrual hygiene management while head-teachers were trained in proper operation and maintenance of improved sanitation facilities. Each school was provided with PHASE Information Education and Communication materials to aide effective teaching.

This has led to 85% of the targeted schools fixing their hand washing facilities, filling them with water and soap and reminding students to wash their hands especially after toilet and before eating to improvement in personal hygiene of pupils. This resulted into over 89% of the total (enrolment) pupils washing hands with water and soap especially after toilet use. Improvement in terms of hand washing was measured by the presence of hand washing facilities, availability of water and soap and through progress reports from targeted school.



Children in front of a clean latrine



Children holding PHASE kits

Conclusion

Owing to the tremendous sustainable results registered under the use of PHASE through school health clubs in the short period of time, PHASE is an approach worthy trying out in all schools in Uganda

5.2 Investing in Women's groups leads to improved community-based waste management

In Kawempe Division, a total of 12 women's groups were empowered with skills to integrate waste-based Income Generating Activities (IGA) into their Village Savings and Loans Association (VSLA) initiatives. Traditionally, each group would save for a period of one year and then share their savings at the end of each year. The groups used not invest in joint IGAs. Instead loans were given to individuals who repay the loan on agreed group terms with a small interest.



Women display art work made out of waste

This project saw the opportunity for joint IGA within the groups and selected 12 active groups to be trained. Before the training, a rapid assessment with all the group members was done. During this assessment, it was established that there were unexplored opportunities in economic reuse of waste as reported by the members.

The project decided to focus the planned IGA training on economic reuse of waste. Two representatives from each group received training in business development, marketing and book keeping supported by the project. After the training, each group was provided with a seed fund of Ug.Shs. 900,000 to enable them invest in their waste based IGA.

The groups were also provided with an assortment of equipment (spades, hand forks, plastic aprons, gum boots and gloves) to help them carry out regular clean-up exercises and sensitize communities on improved waste management practices.

To enhance joint learning, garbage management demonstration sites were constructed by the project to act as learning centers for economic reuse of waste. Groups visited these sites and made decisions on which specific economic reuse of waste activities to venture into.

This resulted into multiple benefits including improved waste management practices at community level (especially sorting of waste to recover useful waste before transportation), improved entrepreneurship management skills among groups, and increased number of groups implementing waste based IGAs. The IGAs supported by Amref include:

- Charcoal briquette making (01 group)
- Art and Crafts making (06 groups)
- Compost Manure (01 group)
- Mushroom growing (01 group)
- Bathing sponges (01 group)
- Liquid soap production (02 groups)

The groups were also supported to establish Kawempe Health Investment Club. The club has developed a constitution, registered with the office of the Administrator General and opened an account with Centenary bank that will continue education services in entrepreneurship management, networking and booster loans to member groups with viable enterprises.

Conclusion:

It is not uncommon to find solid waste lying in drainage channels causing blockage and on roads all over Uganda. This is mainly because it is not common knowledge that waste is wealth. This project provided Amref Health in Uganda the opportunity to explore this venture and have lasting results on ground from which all Ugandans can learn!

5.3 Pour Flush Toilets a vital tool for good sanitation and hygiene

Safe water supplies, sanitation and hygiene promotion remains vital for good health, environmental protection and poverty alleviation. Although there has been great improvement in achieving the national targets with sanitation coverage standing at 80% in Uganda (Uganda Water and Sanitation Sector Performance Report 2017), the quality of the sanitation facilities has always been compromised.

Pit latrines are commonly used both in rural and peri urban communities. However, these get filled up and abandoned which calls for digging more latrines. With the challenge of limited land in the urban and peri urban communities, effects from floods and poor drainage and associated pollution, smart technologies like the waterborne/pour flush toilets remains the best option.

Why Amref Health Africa promoted the use of Waterborne / Pour flush toilets in Urban and peri-Urban communities

Northern Uganda where Gulu and Kitgum are located is rebounding after 20 years of insurgency and civil war. With the return of peace, communities are rebuilding and embracing opportunities for growth and development. In regard to sanitation the rebuilding commenced with basic sanitation facilities including pit latrines which were observed not to be sustainable. In addition, an influx of refugees from neighboring countries, particularly Southern Sudan and the region has put a strain on water & sanitation facilities. Faecal sludge (FS) management remains a challenging problem. Majority of the households in Gulu and in Kitgum Municipalities largely depend on on-site sanitation with 80% and 85% respectively using pit latrines, 7% are using septic tanks, 5% are connected to sewerage system and 3% having no toilets. A small proportion of the households and institutions in Kitgum (9%) are using lined Ventilated Improved Pit Latrines and 2% are using septic tanks while some practice open defecation.

Background (What problem (s) was the program/project intended to solve? Outline the situation analysis of the country and project area; history and objectives of the program/project).

Water Borne/Pour Flush toilet is one of the technologies Amref Health Africa adopted to achieve the above two.

How Pour Flush toilet work

Use of the pour flush toilet is very simple. One needs a container of water placed around/in the toilet. Scoop water from the container using a small bucket and pour in the toilet every after use. 01 litre of water is enough on every visit. Once water is poured, the fecal matter will be pushed to the septic tank. The septic tank takes long to fill and once filled up; it can be emptied by the cesspool emptier and re-used again.

Achievements to-date

A total of 275 stances of water borne/pour flush toilets have been constructed and are in use. These have been constructed in public places such as public institutions like schools in Gulu and Kitgum Municipalities and Boma play ground in Kitgum.

This has greatly contributed to increased sanitation coverage in respective targeted municipalities. For instance, Gulu sanitation coverage has increased from 62% in the past two years from 2011 to 71% to date the Principal Health Inspector mentioned Amref's contribution being key towards this increment.

A total of 52 rain water harvesting systems of 20,000 litres ferro cement tank each have been installed in

schools as back up water storage facilities. This is aimed at ensuring that targeted schools have enough water for ensuring good Operation & Maintenance of the pour flush toilets provided.

Installation and use of hand washing facilities

A total of 120 hand washing facilities have been installed with 01 hand washing facilities (HWF) installed close to the toilet block and within school compound. This is aimed at promoting hand washing with soap especially after toilet use and before eating. A total of 30,657 (14286 males and 16371 females) are benefiting from this.

Drivers to Success of the Pour Flush toilet

Water Availability

Availability of water is a very important factor towards proper use and maintenance of water borne/pour flush toilets. This is very key for proper O&M of water borne toilets.

Conclusion

Pit latrines are used by majority of the people not withstanding that their disadvantages far outweigh the advantages in a long run. The adoption of the pour flush toilet that uses less water and can be emptied for reused without the construction of another facility is the best option.

5.4 Water and sanitation Competitions: An effective approach for promoting sustainable WASH services in schools and communities

Whilst "a number of appropriate approaches" have been implemented to improve water, sanitation and hygiene (WASH) services in institutions, very many institutions especially schools are still grappling with operation and maintenance of these facilities and services.

The use of WASH competitions, an innovative approach from Amref Health Africa in Uganda has proved to be one of the effective and low cost approaches to improving sustainable WASH services both in schools and surrounding communities.

Amref Health Africa uses school WASH competitions to ensure maintenance of WASH facilities

Following implementation of different WASH activities in the designated project sites for example construction of pour flush toilets, drainable Ventilated Improved Pit Latrines (VIP), ferro cement tanks in the targeted schools and communities, WASH competitions are organized, these a planned and implemented after a number of WASH activities.

The core content of the WASH competitions focuses on Sustainability and maintenance of WASH facilities and promotion of hyi are designed are done with the hope that pupils and communities understand how this can contribute to a better and healthier lifestyle at schools, community and homes.

The competitions can take on activities like poem writing, poster creation, essay writing, Folk song/ Original composition and drama. The messages for better health change.

Preparatory stage

Targeted schools and communities are involved from the planning stages, this creates ownership and consensus building on the theme and criterion to guide the competition.

A panel of judges from the Ministry of Education and Health and experts with experience in Music, Dance and Drama (MDD) are identified to judge the competition.

Selection of the best performance is based the functionality and proper maintain of its WASH facilities. Rewarding of marks on is based on day to day operation & maintenance of WASH facilities. A trophy for the best performing community or school is given in addition to other gifts in kind for example , cows, goats, hand washing facilities, stainless tanks for storage of drinking water, jerry cans, basins, T-shirts with WASH promotional messages etc.

Criteria of selection of Winners of the WASH competitions

Onsite WASH assessment through direct observation on the status WASH facilities and general cleanliness of the surrounding environment has to be carried out on a monthly basis for a period of 6 months

General performance in terms of weekly community WASH outreaches done to pass on information can be used to award marks.

Implementation stage

Management committees participate by mobilizing resources from parents and community to fix non-functional facilities. School health club members, their patrons, MDD teachers, parents from the host communities are instrumental in composing poems and folk songs full of WASH promotional messages.

The District Educational Officers, Inspectors of schools and District Health Officers need to be brought on board as they will actively participate in the assessment and monitoring of school WASH activities.

Results

The competition leads to improvement in personal hygiene of pupils and communities.

Community leaders encourage parents to contribute to an operation and maintenance fund for WASH facilities created at the school or within the community as a result schools and communities are able to harvest and store enough water for domestic use.

A number the schools that received gifts in kind like domestic animals, they are breeding them to produce more. The milk from the cows and goats is sold and the money is used to buy detergent and or pay for the operation and maintenance of the established WASH facilities thus enhancing sustainability.

In addition, 49/52 schools have recruited caretakers to ensure good operation and maintenance of WASH facilities. A total of 22 out of 28 (79%) boreholes within/ surrounding the targeted schools have been fenced off.



Photograph 1. Members of Paipir SHC demonstrating proper maintenance of a BH during the WASH competition



Photograph 2. Pupils making tippy taps during the WASH competition held in Gulu 2016

Most of the schools have turned into exchange learning centers. For example Vanguard Primary School and St. Kizito Aywee in Gulu and Kitgum Prison School hosted ministers from Southern Sudan, SMCs/PTAs from other schools and Local leaders for learning purposes. Pece Primary School and Vanguard P/S have hosted Kawempe Division local leaders and technical staff for a learning visit on the good O&M of their WASH facilities.

There is reported increase in the school enrollment across all the targeted schools. This is partly due to improved sanitation facilities in the school that has encouraged children especially the girls stay in school during their menstrual periods. This innovative approach has been tested and found to be effective by Amref Health Africa in Uganda. The WASH competition was organized involving the 52 AMREF supported schools in Gulu, Kitgum, Lamwo and Pader districts.

5.5 School Management Committee members and Local Leaders committed to ensure Sustainable Operation and Maintenance of WASH facilities

The ultimate goal of providing water and sanitation facilities is to improve access and promote sustainable operation and maintenance of the facilities for good health and for development". Amref Health Africa has for long recognized this important aspect to achieve a lasting health change in Ugandan communities, especially those who are poor and marginalized.

Amref Health Africa employed a number of approaches aimed at promoting sustainable O&M of the WASH facilities. Amref re-activated and strengthened the school health clubs, school management committees, school WASH work plans developed and implemented. The handover and commissioning of these facilities came at the right time when the School Management Committee (SMC) members and local leaders had expressed need for these facilities. The project sieved this opportunity and compelled the SMC and local leaders to state their commitment to the operation and maintenance of these facilities.



Mr. Awany commissioning a hand washing facility by practicing hand washing at Vanguard Primary School



School Management Committee members, Local Leaders signed for a commitment to promote sustainable Operation and Maintenance of all water and sanitation facilities in their schools and surrounding communities

The project has always made reference to the written commitment during supportive supervision to the school to ensure that the agreed upon commitments were being complied with all concerned parties. This commitment was made in the presence of the local authority of the respective municipalities/town councils and is therefore not a property of the project. The Municipal/town council health inspectors and schools inspectors have always made reference to the same commitments during their respective support supervision.

Joint support supervision has ensured the sustained access to improved WASH services in schools and has impacted positively on the schools. This effort had far reaching impact beyond the project WASH facilities. A total of 28 schools have been able to fix up to 28 tanks with gutters and taps that had been previously non-function for the past 10 years before the inception of this project which further enhances access to safe water.

Mr. Mr Lamek Walter Gunya Chairperson Parents Teachers Association (PTA) Pece Primary testified that there a number of noted changes and improvements as a result of this project among which is Reduced pupil stance ratio from 100:1 to 1:50 in Pece P/S, Behaviour change especially hand washing with soap at critical times in all targeted schools and reduced incidences of diarrhea.

"COMMUNITY OF LUTYEKE VILLAGE REJOICING FOR SECOND CHANCE"

Lutyke Village is found in Northern Part of Pader District, it has a population of 467 people. The village has experienced a problem of accessibility to safe and clean. The only borehole in the community had broken down and required major rehabilitation which the community could not afford. The community resorted to collect water from open spring that was shared by households and animals after. Women and children were the most affected since they walked for over 2 km to access safe water for domestic use. This prompted the community to seek support from Amref Health Africa through the district and their local leaders. Amref Health Africa in conjunction with the District Water Officer assessed the defects on the borehole and consequently supported the village to have this borehole repaired. The village collected a capital cost contribution of 500,000 Uganda shillings which was way higher than the government stipulated 200,000 Uganda shillings.

To ensure a sustainable supply of water, a water user committee comprising of 9 members (4 females and 5 males) was established (selected by the community) and trained in operation and maintenance. During a community meeting to passing of the trained committee, several byelaws meant to facilitate the continued operation and maintenance of the borehole were established amongst which was paying of a monthly user fees of Uganda shillings 1000 per family per month.

To ensure a sense of belonging and to create motivation for continued payment of the user fees, this borehole was connected to the VSLA. One critical criterion to qualify to belong to the VSLA is having an improved latrine in a home. Since the establishment of the VSLA, the number of latrines in the community increased from 7 to 34.

This village is true case of community willingness to contribute their own health and create lasting health change.

ENVIRONMENTAL CLEAN UP DRIVE- EMBRACED BY STAKEHOLDERS

All urban and Peri Urban settlements are faced with challenges of indiscriminate solid waste management. The project procured skips to support the management of solid waste in the Kitgum and Kawempe division. In addition, the project proposed a drive to ensure routine joint

cleaning of Kitgum town and Kawempe division referred to as, "Keep Kitgum and Kawempe clean".

Keep Kitgum and Kawempe Clean Drive were jointly organized by Amref Health Africa, Kitgum Municipal Council, and Kawempe division.

Other development partners like Caritas, market vendors, women and youth groups and schools supported this Drive. Media as our critical partners covered the activities.

A number of stakeholder's men and women of different caliber (ranging from leaders specifically LCIII, Town clerks from the Divisions, councilors, VHTs, technical staff from Municipal and division levels, individual household members and children actively participated in the clean-up drives.



Opening duping near market place



Opening duping near market place

Urgent Action

The Municipal council and Kawempe Division leadership were argued to fence off sites that are used to dispose off garbage and recruit caretakers to oversee the waste management in order to control on the reckless dumping of waste.



Members of the community engaged in active cleaning



The garbage hip cleared after concerted efforts.

The exercise was a joint effort from all stakeholders both in the provision of supplies and the actual cleaning exercise. Amref Health Africa supported the entire exercise by mobilization and sensitization done with the use of Village health teams. Other stakeholders and partners also supported the clean-up drive with items in kind..

The clean up drive was a great success and it was incorporated in now the Kitgum district and Kawempe division plans to ensure continues clean ups.

Lessons Learnt over the 5 years of the project

Consultation and Planning with key stakeholders is very key as it enables members to participate in what they have planned, own the project and builds sustainability of the project (we need to avoid thinking for beneficiaries but involving them, make consultations and planning with them).

Stakeholder coordination/review meetings are vital for tracking progress, follow up on recommended actions, sharing and avoiding duplication of resources. Working with existing structures such as VHTs, Local Council I, Division and Municipal Stakeholders is vital for ensuring sustainability of the investments made.

Following recommended stands such as construction of drainable toilets in urban setting and promotion of simple smart technology that the community can operate and maintain is key to sustainability of the facilities.

When the community perceives and own the project, they can be able to replicate and sustain it. A case in point is Kitgum Prison Primary school that innovatively upgraded the pour flush toilets constructed into water borne toilet by installing cisterns systems and shower in the girls wash rooms. Most of the targeted schools have replicated the construction of permanent hand washing systems in their schools.

2. Challenges faced and actions taken over the 5 years of the project

Garbage management remains a challenge. Amref mobilized and trained women groups in economic re-use of wastes for income generation, procured and distributed garbage skips to targeted municipalities and portable garbage bins.

Management of used pads has remained a challenge. The project promoted pour flush toilets where girls are totally declined from disposing used pads in the toilet as they can block the system. However, the project never planned for options of disposing used pads. In a bid to address this challenge, the project team creatively trained girl child in selected schools to make re-usable pads.

3. Published papers and Posters

ACHIEVING SUSTAINABLE OPERATION AND MAINTENANCE OF WATER AND SANITATION FACILITIES; FINDINGS FROM SELECTED PRIMARY SCHOOLS IN NORTHERN UGANDA

By: **T. Namata & F. Mujuni (Uganda)**

A number of stakeholders including the local government,

Non-Governmental Organizations and Donors have invested large sums of money towards improving access to safe water, sanitation and hygiene practices in Uganda. However, communities still encounter water related challenges because the facilities are poorly maintained. This paper specifically discusses findings of the O&M of rainwater harvesting tanks in selected primary schools in Northern Uganda districts including Gulu, Kitgum, Lamwo, Pader and Agago. Roles of key stakeholder towards good O&M of Water, –Sanitation and Hygiene facilities in schools are suggested as means to ensure sustainability of the facilities.

Introduction

This paper draws on primary data collected during a larger study that focused on Operation & Maintenance of Rain Water Harvesting Tanks (RWHTs) from 50 primary schools from Gulu, Kitgum, Lamwo, Pader and Agago districts of Northern Uganda. Assessments have been conducted on operation and maintenance of water and sanitation facilities in communities and data is also available on WASH status in schools. However, limited attention has been accorded towards assessment of the O&M of RWHTs especially in schools which this paper finds crucial. In addition, this paper identifies a gap for undocumented roles for School Management Committees (SMCs) and other stakeholders which affect their active involvement in ensuring good O&M of school facilities. The paper concludes with recommendations drawn from best practices with the aim of promoting sustainable O&M of RWHTs and eventually attain the intended safety water goals.

Objective

The purpose of this paper is to document the current O&M of rain water harvesting tanks in selected primary schools in Gulu, Kitgum, Lamwo, Pader and Agago districts of Northern Uganda. The authors also seek to document key roles of stakeholder towards good O&M of WASH facilities in schools something crucial for attaining their sustainability.

Methodology

The paper draws on both primary (field work) and secondary data sources (literature review)

The authors reviewed available literature (including reports and available publications) on status of WASH in schools and on general O&M of WASH facilities in communities. However, much of the literature reviewed focus on access to water (boreholes, RWHTS), and sanitation (toilets, bathing shelters, and hand washing facilities) by schools and status of the same facilities. The limited data on O&M of the RWHTs was therefore the motivation factor for this assessment.

Focus Group Discussion

The authors also conducted interactive focus group discussion with School Management Committee members (SMCs), teachers and members of school health clubs, district and Municipal/Town council authorities specifically the education officers. Focus group discussions composed of 5-10 members and a total of 350 members participated. These were purposively selected because of their engagement in management of school facilities.

The authors applied a purposive sampling methodology for selection of targeted schools. Forty (40) Universal Primary Education (UPE) government owned schools and ten (10) private owned schools were selected. This was aimed at comparing management of WASH facilities in both UPE government owned and private owned schools.

Observation

Field visits were done in selected schools to observe and assess the existing water and sanitation facilities with a focus on use and maintenance of RWHTs.

Findings

For easy comprehension and flow, the findings have been categorized into sub sections indicative of overarching themes.

Water facilities

Three types of water facilities; bore holes, RWHTs and spring wells were found common in targeted schools. Ninety percent (90%) of the schools visited have in the past received 2- 4 Rain Water Harvesting Tanks (RWHT) ranging from 5000 to 20,000 liters each. 30% of these schools have access to a bore hole within their school compound, 43% schools access a borehole within 200 meters from the school and 27% walk up to 2km to access water from the nearby borehole. Other sources of water though not common, are protected springs and water collected from dams and rivers. A school with three tanks two of 10,000litres each and one of 20,000litres would be in position to store 40,000litres of water during dry season. Assuming each pupil uses 2 litres of water per day, 500 pupils would need 1000 litres per day, so 40,000litres will last for 40 days plus. Forty days are almost equivalent to two months of a school term, considering 21-22 days when you subtract the weekend days. This would be good enough to take the school through a term during dry season. However, the intended purpose of collecting rain water is not met. The RWHTs are like “white elephants on the school compounds that no longer serve the purpose. Only 20% of the RWHTs visited were operational. Majority are not operational due to a number of reasons. The water collected during the rainy season is neither regulated nor taken care of;

Thirty five percent (35%) of the visited tanks are missing gutters, 8% missing taps and 37% are missing both gutters and taps. Schools tend to take good care of these facilities in the 1-3 years and thereafter loose interest. Vandalism by surrounding community and children was one of the key factors mentioned during FGDs for the non-functionality of the RWHTs followed by strong winds that tend to blow off the gutters and iron sheets. This is in addition to the poor workmanship and misconception that partners will continuously support these schools by repairing the non-functioning facilities and or give new ones. As a result, thousands of liters of water are lost on ground during rainy season. Such school tanks would be in position to collect enough water that the school would use through the entire term during rainy or dry season if they were well managed. In that case, there will/would be enough water for hand washing and cleaning as well as other domestic uses.



Photograph 1. RWHT with missing tap and gutters

Source: Amref/Teo /Northern Uganda

Sanitation facilities

Another important finding relates to the relationship between the availability of water and promotion of sanitation and hygiene in the targeted schools. Ninety five percent (95%) of the visited schools had access to a toilet facility and 5% were using old and full latrines that needed to be demolished. However, the pupil stance ratio remains high with 102:1 in some schools. Gender concerns were also obvious as 70% of the schools had separate toilets for girls and boys, 21% shared toilets among girls and boys and 9% shared the same toilet with their teachers. Adolescent girls expressed discomfort in sharing toilets with boys and their teachers.

“Schools with limited access to water (i.e. those where water is at 2km from the school) were reported to have dirty latrines for most of the time. This prompted the pupils to defecate and urinate in the open than in the dirty and smelly latrines”.

Hand washing facilities

Due to limited availability of water, hand washing is generally low in the 50 visited schools. Thirty two percent (32%) of the visited schools had hand washing facilities close to the toilet facilities but only 9% of these had water for hand washing and only 4% had soap. Shortage of water, absence of hand washing facilities and low awareness on the importance of hand washing was cited as major factors hindering majority of schools from practicing hand washing. This leaves a clear mark that hand washing with soap at critical times is seldom practiced despite its potential to save lives and reduce the occurrence of diarrhea diseases.

Private vs UPE schools towards management of WASH facilities in schools

While both private and UPE schools WASH facilities serve similar purpose, there is a difference towards maintenance of WASH facilities in these schools. Private schools care much about sustaining their facilities. This is partly because they make a financial or in-kind contribution towards the facilities and as such attach more value to the facilities (i.e. ownership). Such schools had budgets for O&M funds and parents contributed a bar

of soap and 2 toilet papers per child. This is not the case with UPE schools where they are restricted by the government from charging any money from pupils/ parents. Through the FGDs, it was noted that UPE schools of more than 500 enrollments qualifies for UGX 1000,000 equivalent to (\$ 363.6) support from local government per term. Out of that, 35% goes for scholastic materials, 20% for co curriculum, 10% for Administration, 15% for Management and 20% for contingency. Water, sanitation and hygiene promotion is categorized under management among other things. This money is too little compared to the needs of the schools and sometimes not received on time. One of the teachers noted that she had apportioned UGX 50,000 (\$18.1) for hygiene promotion through the term.

It is also important to note that these communities

lived in internally displaced people's camp for a long time and so they were accustomed to free service and are reluctant to take full responsibility of good O&M of the installed facilities. This affects the intended goal of ensuring sustainability and the realization of 100% WASH services may not be possible if the targeted poor and disadvantaged are not encouraged to making a contribution towards the facilities. The contribution can be in form of locally available materials and labour".

In addition, some partners tend to speed up construction/installation of hard ware (Tanks, toilets, boreholes and hand washing facilities) by not giving ample time for the targeted community to actively participate in software activities to gain a sense of ownership to be able to contribute to sustainable O&M of the hard ware facilities. In this case, installed facilities only last for 1-3 years and break.

Moving forward

There is need to advocate for increased budget for WASH in both private and government aided schools including their O&M. There is also need for implementing organizations and local government to spend more time (6-8 month) and through the project period on implementing software activities like mobilizing targeted communities to actively participate in project implementation, training communities on WASH issues including O&M, involving them in technological options and site identification as well as encouraging them to contribute towards the project before rushing for construction of facilities. This will improve on their involvement, contribution and ownership and once they value the work done, the more the chances for ensuring good O&M.

There is need for school and other targeted communities to make a contribution to the facilities. This will enable them take full responsibility for O&M and have more ownership over the facilities and as such maintain the facilities better than if no contribution was made. There is also need to encouraging the UPE schools to ask the parents to contribute to the maintenance of the facilities through the PTA funds.

There is also need to document key roles of stakeholders in promotion of institutional WASH. These should be shared and inspectors of schools and District Education Officers should be responsible for ensuring that different stakeholders play their roles. This paper suggests the following key roles for the different stakeholders in school;

Roles of School Management Committees

(SMCs), Parents Teachers Associations (PTAs)

Spearhead planning and implementation of developmental activities in schools
Oversee good O&M of all school facilities (including WASH facilities)

Mobilize for O&M funds from parents and other well wishers

Encouraging the schools to make a contribution towards the facilities in order to attain their ownership and sustainability purposes.

Roles of Head teachers and staff

Educate pupils about hygiene (personal hygiene, hand washing and general cleanliness of the surrounding environment

Ensure that there is someone overseeing the general cleanliness and maintenance of the school WASH facilities.

Act as role models in promotion of good sanitation and hygiene best practice

Roles of School Health Clubs (SHCs)

Spearhead WASH activities in schools, developing and implementing WASH work plans with support and guidance from SHC patrons and science teachers.

Act as role models in promotion of good sanitation and hygiene best practices Spearhead community mobilization and sensitization through music, dance and drama.

Roles of Pupils

Proper use of WASH facilities

Participate in cleaning of WASH facilities

Act as watchdogs to fellow pupils while using WASH facilities

Roles of Parents

Contribute funds towards maintenance of school WASH facilities

Educate their children about hygiene and proper use of WASH facilities

Be exemplary to their children by practicing good sanitation and hygiene best practices such as constructing a latrine and hand washing facility in their homes, practicing hand washing with soap at critical times

Roles of District Education Officer (DEO)/Urban Education Officer and Inspectors of Schools

Advocate for increasing schools WASH budgets to cater for O&M of the WASH facilities in schools. Monitor school WASH facilities and provide technical guidance towards good O&M of the facilities. Enact byelaws and follow up their implementation for effective O&M of WASH facilities in schools and health facilities

Conclusion

Rain water harvesting systems in schools could be a very important source of water for the well-being of children and their teachers. However, they have fallen into disuse of bad attitude and poor O&M practices by school administrators' pupils and parents. As expected, poor access to water leads to dirty toilets and as such poor maintenance of the toilet facilities (=dirty and smelly) compromises the campaign to end Open Defecation (OD).

If schools do not make a contribution to the facilities, they are less likely to maintain the facilities well. Therefore, asking the parents to contribute to maintenance costs for the facilities is a good way to ensure sustainability of the facilities

If rainwater harvesting facilities are too small in terms of capacity, there will not be sufficient water stored which de-incentives the schools from continuing the maintenance of such facilities.

By analyzing data collected from pupils, teachers and Urban Education Officers, it emerged that there is need to upgrade sanitation situation in schools. School toilets are often dirty and unfriendly, RWHTs not operational

ACKNOWLEDGMENTS

The author/s would like to extend thanks to all members who have been part of this work. Views and recommendations contained in this paper are those of the authors.



EUROPEAN UNION



THE REPUBLIC OF UGANDA



REFERENCES

Examples: [Style WEDC ñ References]

Carter, R C, Mpalanyi, J M, & Ssebalu, J (2005). Self-help initiatives to improve water supplies in eastern and central Uganda, with an emphasis on shallow groundwater: RWSN Self-Supply Flagship Case Study.

Carter, R.C. (2006) Investigating options for self-help water supply: from field research to pilot interventions in Uganda. RWSN Field Note.

Carter, R.C, Mpalanyi. JM. and Kiwanuka, J (2008). The Uganda Self -Supply Pilot Project 2006-2008

MWE (2003). Rain Water Harvesting Strategy. Ministry of Water, Lands and Environment, Kampala Uganda

MWE (2008) Uganda Water and Sanitation Works Sector Performance Report. Ministry of Water and Environment, Kampala Uganda

MWE (2009) Uganda Water and Sanitation Works Sector Performance Report . **Ministry of Water and Environmental, Kampala Uganda**

MWE (2010) Uganda Water and Sanitation Works Sector Performance Report . **Ministry of Water and Environmental, Kampala Uganda**

MWE (2011) Uganda Water and Sanitation Works Sector Performance Report . **Ministry of Water and Environmental, Kampala Uganda**

Contact details

Namata Teo

Amref Health Africa-Uganda

Tel: +256 782 120 420

Fax: +256 41-4344565

Email: teo.environmentalist@gmail.com

www.amref.org <http://wedc.lboro.ac.uk/resources/conference/38/Namata-2232.pdf>

4. Annex



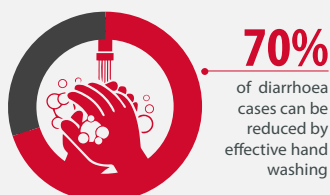
"HAND WASHING"

A POWERFUL WEAPON TO REDUCTION OF DIARRHOEA AMONGST SCHOOL GOING CHILDREN IN GULU KITGUM AND PADER-NORTHERN UGANDA

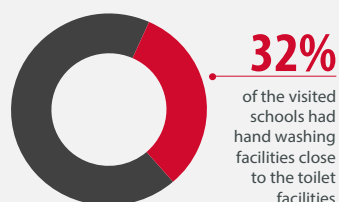
Authors: Teo Namata¹; Hajra Mukasa

INTRODUCTION

FACTS ABOUT HAND WASHING IN UGANDA



HAND WASHING PRACTICE IN TARGETED SCHOOLS BEFORE INTERVENTION



Of the 32% only **9%** had water for hand washing **4%** had soap.

SHORTAGE OF WATER AND LOW AWARENESS were cited as major factors hindering majority of schools from practicing hand washing.

INTERVENTIONS

Through an integrated approach, the project targeted children as change agents by:

- Ensuring that teachers spend one minute each lesson delivering hand washing messages to children.
- Establishing Child to child reminders on hand washing



- Conducting daily health Parades
- Use demonstrations during promotional campaigns
- Use of Music and Drama to promote hand washing
- Conducting Community dialogues on hand washing promotion



CRITICAL TIMES FOR HAND WASHING IN SCHOOLS

AFTER DEFECACTION/
USING A LATRINE



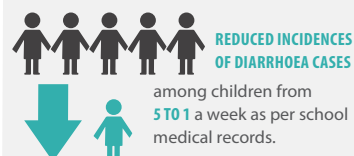
BEFORE EATING

AFTER CLEANING



ACHIEVEMENTS

93% of the targeted schools have functional hand washing facilities installed and in use.



INCREASED SCHOOL DAILY ATTENDANCE by pupils (from 2018 to 2048 daily at Vanguard P/S) (attendance records) due to reduced diarrhoea occurrence

LESSONS LEARNT

1. Presence of hand washing facilities with water encourages children to wash their hands
2. Effective hand washing practice combined with other strategies can reduce diarrhoea among children in schools
3. Children learn better by practice

ACKNOWLEDGEMENT



Special thanks to targeted schools for spearheading promotion and practice of hand washing in targeted communities

Thanks to European Union for financial support that has enabled Amref Health Africa in Uganda to integrate hand washing practice in operational districts



AFRICA HEALTH AGENDA INTERNATIONAL CONFERENCE

"SMART TECHNOLOGIES FOR URBAN AND PERI URBAN COMMUNITIES" AMREF HEALTH AFRICA'S EXPERIENCE IN PROMOTING WATERBORNE TOILETS IN GULU AND KITGUM OF NORTHERN UGANDA

Authors: Teo Namata¹; Hajra Mukasa; Walude Mutwalib

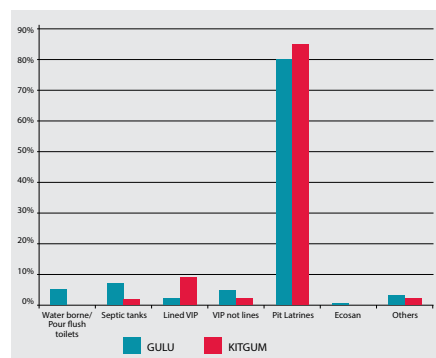
INTRODUCTION

SMART Technologies: Sustainable Market-based Appropriate and Reliable Technologies

Examples: Water borne and ecosan toilets

SITUATION BEFORE

- Majority of the households in Gulu and Kitgum Municipalities were using pit latrines. However, these could get filled up & abandoned calling for digging more latrines.
- There was overflowing latrines resulting into periodic diarrhea outbreaks
- With limited land in the urban & peri urban communities, smart technologies like the waterborne/pour flush toilets remains the best option



INTERVENTION

Amref acquired funds from EU to implement a five year Basic sanitation program in urban and peri-urban communities & Water Borne toilet is one of the best technology Amref Health Africa adopted.

ADVANTAGES OF WATERBORNE TOILETS

- No odours
- Can be re-used over and over
- Low capital costs;
- Suitable for all types of users

HOWEVER

- Requires a constant source of water (can be recycled water)
- Coarse dry cleansing materials may clog the water seal



**AMREF MADE MY
STAY IN SCHOOL EASY**
Ivan Opepruot, 17 years



ACHIEVEMENTS

- Increased access to sanitation facilities due to the **300 stance water borne toilets constructed** and in use thus increased sanitation coverage in Gulu from **62% in 2011 to 71% to-date**
- 52 RWHTs of 20,000 litres** (ferro cement tank) each have been installed in schools as back up water storage facilities
- 120 hand washing facilities** have been installed & in use leading to reduced occurrence of diarrhea from 5 to 1 as per medical records in Gulu Municipality
- 20% of the targeted community** increasingly adopting the technology
- Communities are **connected to low cost emptiers**

CONCLUSION

The adoption of water borne toilets that uses less water and can be emptied for reused without the construction of another facility is the best option.

ACKNOWLEDGEMENT



Special thanks to European Union for financial support towards implementation of this project 2013-2017
Thanks to Amref Netherlands for co-financing & technical support rendered
Thanks to local leaders & beneficiary communities for active participation & practicing sustainable O&M of the facilities.

TEO NAMATA, AMREF HEALTH AFRICA-UGANDA
EMAIL: TEO.NAMATA@AMREF.ORG • PHONE: +256 782 120420 • WEBSITE: WWW.AMREF.ORG

8.2 School Hygiene and Sanitation Monitoring tool

Purpose of Form: 1) To help with follow up planning through visiting all of our supported schools regularly and focusing on those schools not doing so well. **2)** To implement actions if school has challenges

Who uses: Wash Field Staff, Inspectors of schools and Health Inspectors. **Frequency:** Every month at least **20 Schools** should be monitored using this form per month **per** WASH field staff.

How to use: This is filled out through observation and discussions. Insert **actions** if applicable.

Where does it go: The field staff should give this to the officer or project manager to **review and sign off** if the information is satisfactory. This data is then entered into the **School Hygiene Database** by WASH Staff and then sent to M&E, PM and DCD. Following this, the form should be **filed in a folder** that contains all **School hygiene forms**. This **folder should be disaggregated by 1) month, 2) Sub - county, 3) District**

Data Collectors Name: _____ **Data collection date:** _____ **School Name:** _____
District: _____ **Sub Country:** _____ **Village:** _____

School Information

1. Current school enrollment: Boys: [____] Girls: [____] Total: [____]

2. Current School Teachers: Male: [____] Female: [____] Total: [____]

School Health Clubs

1. Are school health clubs still operational (meeting regularly and discussing hygiene topics)? Yes ☐ No ☐

2. If yes, how many members: Boys: [____] Girls: [____] Total: [____]

3. Are there rosters available, visible and being implemented for the cleaning of facilities? Yes ☐ No ☐

Describe any actions required:

Facilities

4. Total No. of latrine stances: Boys: [____] Girls: [____] Total: [____]

5. Total No. of FUNCTIONAL latrine stances: Boys: [____] Girls: [____] Total: [____]

6. Overall condition of latrines: Poor ☐ Fair ☐ Good ☐

7. Total No. of latrine stances that require repair: Boys: [____] Girls: [____] Total: [____]

8. Total No. of latrine stances kept clean (no visible dirt or excreta on floors)? Boys: [____] Girls: [____] Total: [____]

9. Are Latrines being used (observation& discussion with pupils): Yes all the time ☐ Some of the time ☐ Not being used ☐

Describe any actions required:

10. Total No. of latrine stances with hand washing stations within 5 meter) Boys: [____] Girls: [____] Total: [____]

11. Total No. of Hand washing facilities with water and soap/ash: Total: [____]

12. Are hand washing facilities being used (observation& discussion with pupils): Yes all the time ☐ Some of the time ☐ Not being used ☐

Describe any actions required:

13. Total No. of Rain water harvesting tanks: Total: [____]

14. Total No. of FUNCTIONAL Rain water harvesting tanks: Total: [____]

15. Total No. of Rain water harvesting tanks that require repair: Total: [____]

Describe any actions required:

PM or Officer Attended ☐ Yes ☐ No

PM or Officer Reviewed form? ☐ Yes ☐ No

PM/

Officer sign & date: _____

Any general comment _____

8.3 Summary of Beneficiary schools and Facilities received

Toilet facilities in Gulu

Gulu

NAME OF SCHOOL	No of toilet blocks
Christ Church Primary	2
Christ The King Demon	2
Layibi P/S	2
Gulu Public Primary School	1
Kirombe Primary	1
Gulu Prison Primary	2
Highland	1
St Peter's Primary	2
Holy Rosary Primary	1
Obiya	1
Labourline	1
Cubu	1
St Kizito Aywee	2
Pece	2
Vanguard	1
Total	22

Hand Washing facilities in Northern Gulu

Gulu

NAME OF SCHOOL	No of HWFs
Christ Church Primary	2
Christ The King Demon	3
Layibi P/S	3
Gulu Public Primary School	2
Kirombe Primary	2
Gulu Prison Primary	1
Highland	1
St Peter's Primary	2
Holy Rosary Primary	2
Obiya	2
Labourline	2
Cubu	2
St Kizito Aywee	1
Pece P7 P/S	2
Vanguard	2
St Joseph P/S	3
Kasubi P/S	3
Laliya P/S	3
Layibi Techo P/S	3
Gulu Town P/S	3
Laroo Division Ppublic toilet	1
Total	45

Rain Water Harvesting systems in Gulu

Gulu

NAME OF SCHOOL	No of RWHTs
Christ Church Primary	1
Christ The King Demon	1
Layibi P/S	1
Gulu Public Primary School	1
Kirombe Primary	1
Gulu Prison Primary	1
Highland	1
St Peter's Primary	1
Holy Rosary Primary	1
Obiya	1
Labourline	1
Cubu	1
St Kizito Aywee	1
Pece P7 P/S	1
Vanguard	1
St Joseph P/S	1
Kasubi P/S	1
Laliya P/S	1
Layibi Techo P/S	1
Gulu Town P/S	1
Total	20

Garbage Management facilities in Gulu

Gulu	Type of facility	Number
Pece	Garbage skip	6
Layibi/Bargege division	Garbage skip	7
Total		13

Toilet facilities in Kitgum

Kitgum

Pandwong Muslim P/S	2
Kitgum Boys	2
Kitgum Demonstration	2
Kitgum P/S	2
Kitgum Prison P/S	2
Ojuma P/S	1
Centenary P/S	1
Boma ground public Place	2
Total	14

Hand Washing facilities in Kitgum**Kitgum**

Pandwong Muslim P/S	4
Kitgum Boys	4
Kitgum Demonstration	4
Kitgum P/S	4
Kitgum Prison P/S	4
Ojuma P/S	3
Centenary P/S	3
Kitgum Public P/S	2
Kitgum Girls	2
Boma ground Public Toilet	2
Total	32

Rain Water Harvesting systems in Kitgum

Kitgum	
Pandwong Muslim P/S	1
Kitgum Boys	1
Kitgum Demonstration	1
Kitgum P/S	1
Kitgum Prison P/S	1
Ojuma P/S	1
Centenary P/S	1
Kitgum Public P/S	1
Kitgum Girls	1
Total	9

Garbage Management facilities in Kitgum

Kitgum		
Municipal	Garbage skip	6
Total		6
	Garbage management demonstration	1

Rehabilitated boreholes and Springs in Kitgum

Kitgum	Total number
Olowor Central	1
Pader Kilak	1
Kiteny	1
Lutyek	1
Opongbene	1
Total	5

Hand Washing facilities in Northern Ugnada

(Gulu, Kitgum/Pader)	
Pader Town council	
Paipir P/S	3
Pader Kilaka P/S	3
Lupwa P/S	3

Rain Water Harvesting systems in Northern**Uganda**

Pader	
Paipir P/S	1
Pader Kilaka P/S	1
Lupwa P/S	1
Total	3

Garbage Management facilities in Northern Uganda

Pader		
	Portable Refuse bins	75
Pagwari Village	Garbage management demonstration	1

Rehabilitated boreholes and Springs in Northern**Uganda**

Pader	
Alango east	1
Ayul	1
Ginery	1
East ward A	1
Auch	1
Total	5

Latrine Facilities in Kawempe Division

Name of location	Number of toilet blocks
Jovial Primary School	1
African Child primary School	1
Serina Primary School	1
Urban education Center	1
Blessed Primary School	1
Emiti Emito P/S	1
Starlight Primary School	1
Makerere University Primary School	1
New Top Hill Primary School	1
Buraaq Primary School	1
JACE Primary School	1
Community Primary School	1
UEB Container Zone Mulago	1
Wandegeya Police Station	1
Kawempe Police Station	1
Mulago Washing Bay- Kimwany	1
St. Kizito Market- Kalerwe	1
Masjid Noor	1
Mayombwe Bakery	1
Shanita Market, Mpererwe	1
Total	20

Hand Washing facilities in Northern Ugnada (Gulu, Kitgum/Pader)

Gulu

NAME OF SCHOOL	No of HWFs
Christ Church Primary	2
Christ The King Demon	3
Layibi P/S	3
Gulu Public Primary School	2
Kirombe Primary	2
Gulu Prison Primary	1
Highland	1
St Peter's Primary	2
Holy Rosary Primary	2
Obiya	2
Labourline	2
Cubu	2
St Kizito Aywee	1
Pece P7 P/S	2
Vanguard	2
St Joseph P/S	3
Kasubi P/S	3
Laliya P/S	3
Layibi Techo P/S	3
Gulu Town P/S	3
Laroo Division Ppublic toilet	1
Total	45
Kitgum	
Pandwong Muslim P/S	4
Kitgum Boys	4
Kitgum Demonstration	4
Kitgum P/S	4
Kitgum Prison P/S	4
Ojuma P/S	3
Centenary P/S	3
Kitgum Public P/S	2
Kitgum Girls	2
Boma ground Public Toilet	2
Total	32
Pader Town council	
Paipir P/S	3
Pader Kilaka P/S	3
Lupwa P/S	3
Total	9

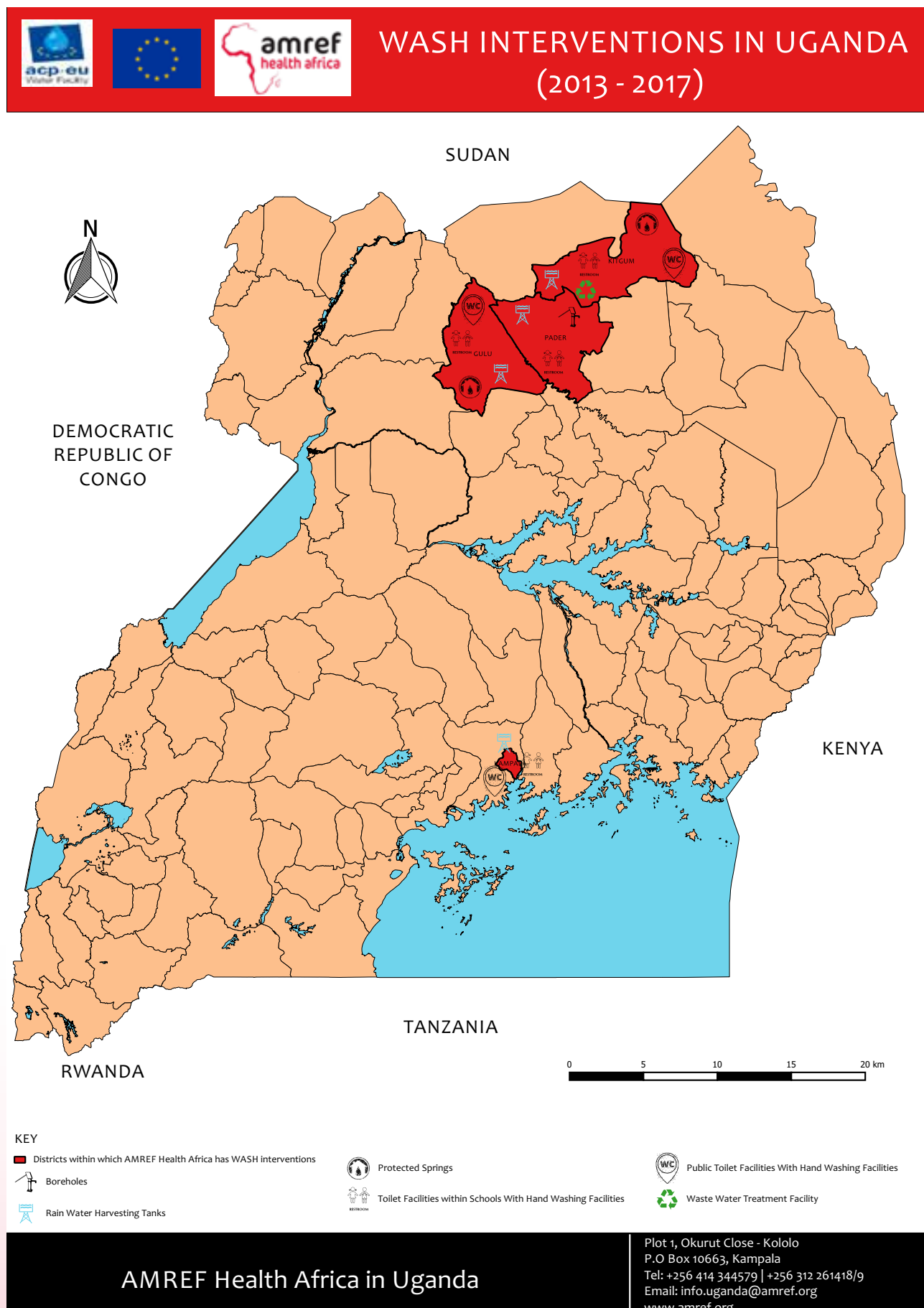
Rain water Harvesting systems in Kawempe Division

Name of location	Number of Rain water Harvesting Tanks
Jovial Primary School	1
African Child primary School	1
Serina Primary School	1
Urban education Center	1
Blessed Primary School	1
Starlight Primary School	1
The Child Care Primary School	1
Niyyat Primary School	1
Bright Children Primary School	1
Winterland	1
St. Martin Mulago Primary School	1
Habanomu Primary School	1
New Top Hill Primary School	1
His Grace Primary School	1
Buraaq Primary School	1
JACE Primary School	1
Lower Nsooba Primary School	1
St. Luke Nursery and Primary School	1
School of the Deaf	1
Community Primary School	1
Total	20

Garbage amanamnet facilities in Kawempe Division

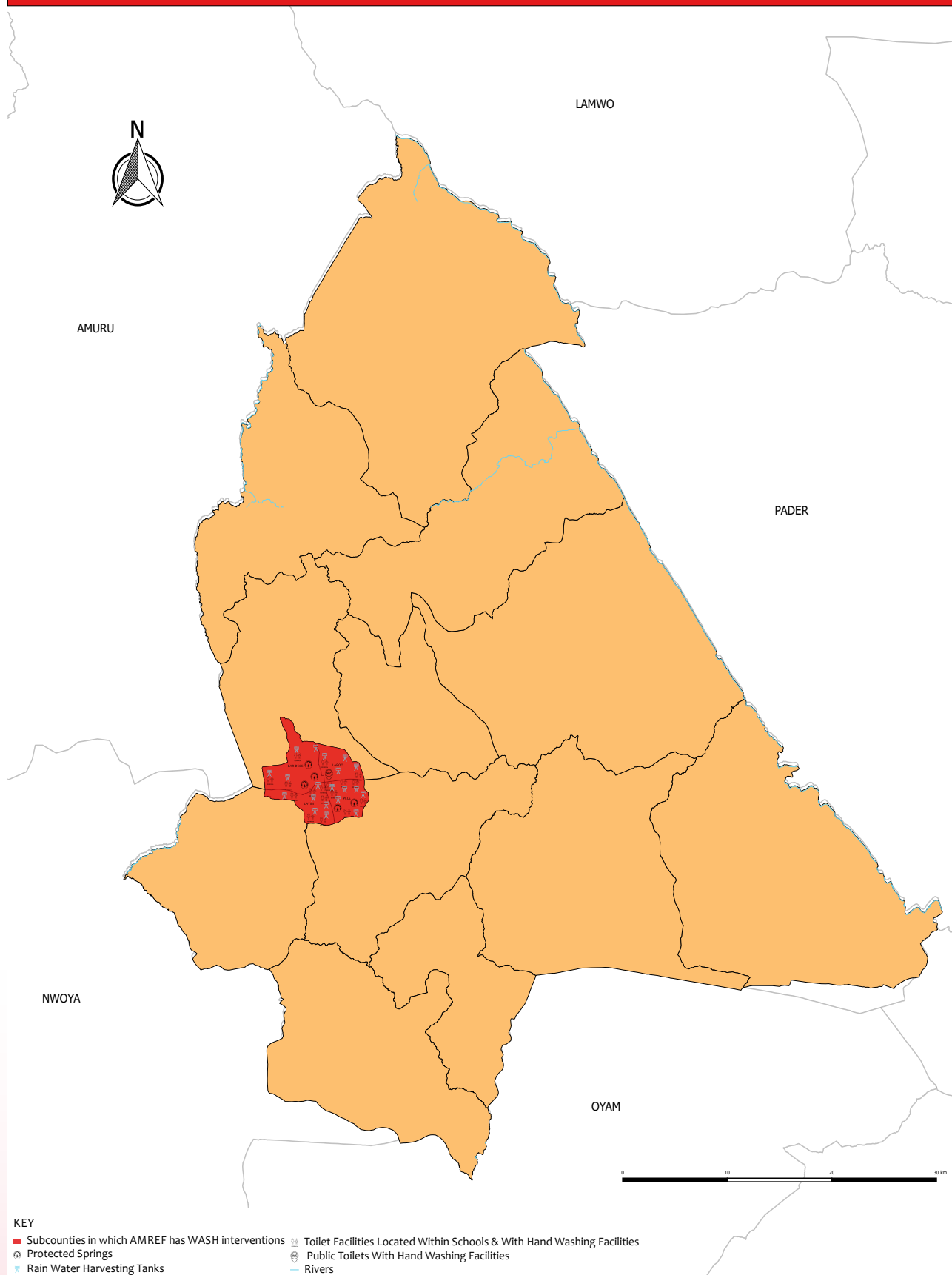
Name of location	Facility Type	Number present
Nsambas' Place at Erisa Zone	Garbage managemnt demonstration site	1
Nababi's Place at Ttula Zone	Garbage managemnt demonstration site	1
Lutunda Zone- Kanyanya	Garbage collection Skip	1
Kiswera Zone Kawempe II	Garbage collection Skip	2
Ttula Zone-Kawempe I	Garbage collection Skip	1
Doctors- Village- Mulago I	Garbage collection Skip	1
Kisalosal Zone-Kyebando	Garbage collection Skip	1
Kapapali Zone- Mulago I	Garbage collection Skip	1
Ttula Zone-Kawempe II	Garbage collection Skip	1
Erisa Zone-Kyebando	Garbage collection Skip	1
Kimwany Zone-Wandegeya	Garbage collection Skip	2
Kilokole Zone- Kawempe I	Garbage collection Skip	1
Fly Over- Kyebando	Garbage collection Skip	1
Total		15

8.4 GIS map of all the WASH facilities constructed under the project





WASH INTERVENTIONS IN GULU (2013-2017)

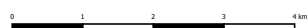


AMREF Health Africa in Uganda

Plot 1, Okurut Close - Kololo
P.O. Box 10663, Kampala
Tel: +256 414 344579 | +256 312 261418/9
Email: info.uganda@amref.org
www.amref.org

WAKISO

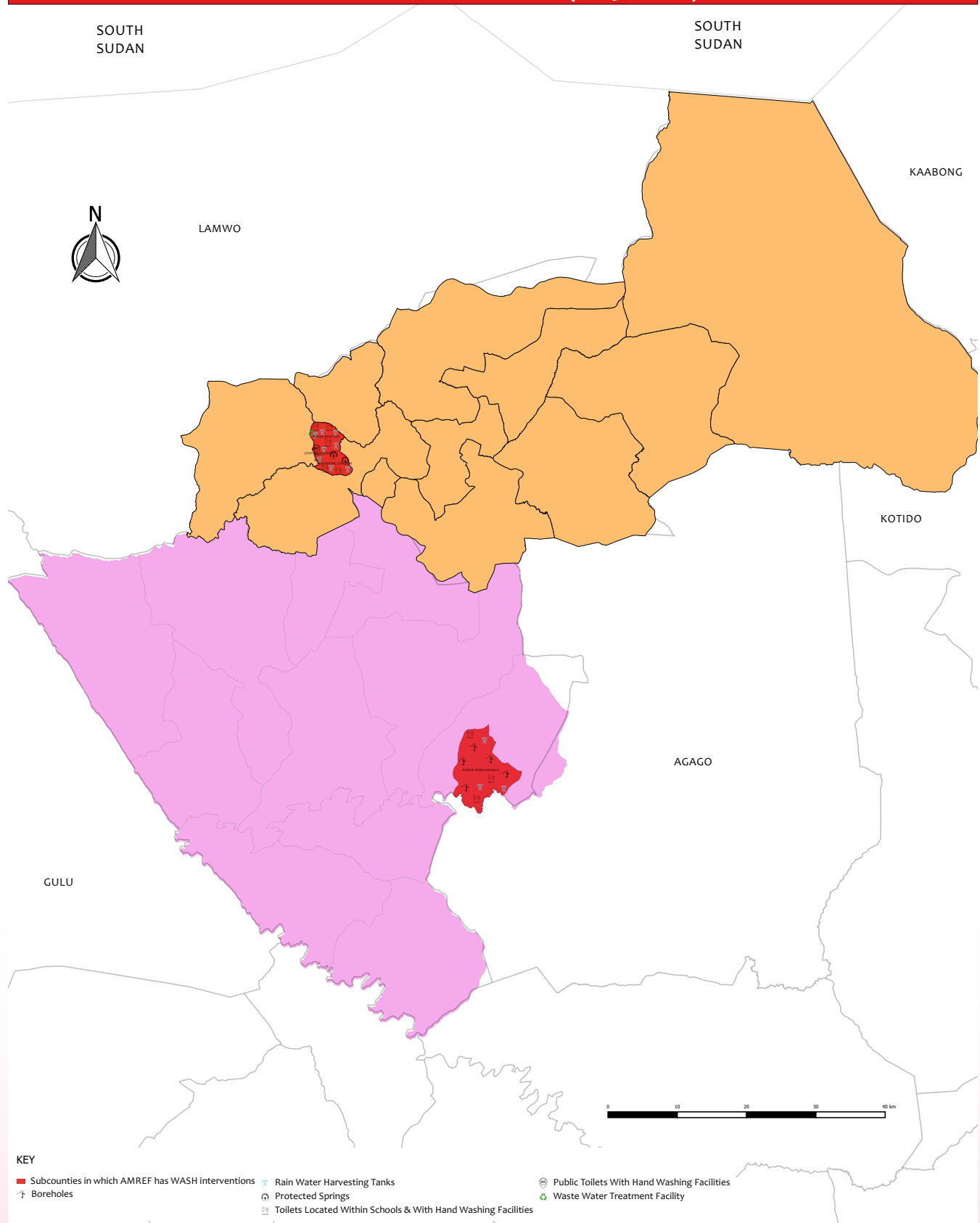
WAKISO



-  Subcounties in which AMREF has WASH interventions
-  Rain Water Harvesting Tanks
-  Public Toilets With Hand Washing Facilities
-  Toilets Located Within Schools & With Hand Washing Facilities
-  Lakes



WASH INTERVENTIONS IN KITGUM & PADER DISTRICTS (2013 - 2017)



AMREF Health Africa in Uganda

Plot 1, Okurut Close - Kololo
P.O Box 10663, Kampala
Tel: +256 414 344579 | +256 312 261418/9
Email: info.uganda@amref.org
www.amref.org

Special Thanks to; (include logos of each stakeholder)

- European Union
 - Amref Health Africa in Netherlands
 - Kawempe Division, Kampala
 - Gulu Municipality & Gulu District Local Government
 - Kitgum Municipality and Kitgum District Local Government
 - Pader Town Council and Pader District Local Government
 - Beneficiary schools and communities
 - Kampala City Council Authority
 - Solar Wave Limited
-



Amref Health Africa

P.O. Box 10663 Kampala – Uganda.

Tel: +256312 261 419, +256 414 250 319/344 579

Email: info.uganda@amref.org

Website: www.amref.org

Facebook:

www.facebook.com/amrefhealthAfricainUganda

Twitter:

[@amref_Uganda](https://twitter.com/amref_Uganda)