

MAXIMIZING THE BENEFITS FROM WATER AND ENVIRONMENTAL SANITATION

## Working with rural community groups for WASH access in Maseno, Kenya

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*This paper aims to share KWAHO's experience in implementing water and sanitation projects in the rural town of Maseno, Kisumu, Lake region. It highlights the community entry methods used, the implementation strategy and most importantly the factors put into place to ensure sustainability. Other initiatives that have come up will also be shared. Other than the successes of the projects, it also shares the challenges encountered in the project. It emphasizes the need for community participation by looking at them as partners and not merely as helpless beneficiaries.*

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### Introduction

Maseno is a division in Kisumu district, Western Kenya. The area has an approximate population of 200,000 persons. About 60% of the area has a high poverty level and accessibility to clean, safe water and proper sanitation is wanting.

The Kenya Water for Health Organisation (KWAHO) has been implementing water, sanitation and hygiene projects in the region from 1978. It currently has projects across Kenya; Coast, Nairobi, Western and Nyanza provinces. Although not a women's organization, its prime objective is to make safe water readily available so that women can attend properly to the needs of their family and community. Recognizing the direct link between women's access to clean water and the quality of life for all, KWAHO implements community water projects that women plan, execute and maintain. The participatory approach enables women to actively improve their own situation.

### Project location

The project area covers an area of approximately 500sq.km. This is made up of the Maseno and Kombewa divisions. It has an approximate population of 122,000 people. There are two rainy seasons, March to June and October to November. The average rainfall per year is 1400mm.

### Maseno Water and Sanitation Project

The Maseno water and sanitation project has been in existence since 1992 and to date 144 water points have been established in Maseno serving a population of 90,000 persons. This gives coverage of 63% of the estimated total population of 125,000 persons. Other activities which have been undertaken with the community are construction of ferrocement tanks for rain water harvesting, spring protection, construction of VIP and Ecosan latrines.

### Community partnerships

KWAHO mostly works through partnerships with community groups. This is both at the community level and institutions. After conducting a baseline survey to identify the key areas that need intervention in the water and sanitation sector, intensive community mobilization is undertaken. This is through meetings and discussions with key stakeholders in the area. If there are existing groups in the area, KWAHO identifies credible groups to partner with based on a pre-defined criteria. If there are no groups, KWAHO facilitates the formation of these groups from the forums held during community mobilization. In institutions, KWAHO usually works with the Parent-Teacher school committees.

### Implementation

Implementation of activities commences once the groups with which KWAHO will partner with have been identified.

### Site survey

The groups are usually involved together with a technical team from the organization in identifying appropriate sites for installation of the facilities. This includes both the water points and sanitation facilities. The importance of ensuring community participation at this stage has been realized since land ownership and use is a sensitive issue and thus the need to consult before installation of facilities.

### Training

Training is a very crucial part of the implementation as it promotes awareness on the key issues related to the proper and safe use of the water and sanitation facilities that are installed in the community. It is during these trainings that the community is able to share the knowledge they have and if any provide an opportunity to negate negative health behaviour. Some of the key areas covered during the trainings include:

1. Leadership and group organization
2. Financial management
3. Environmental protection
4. Gender mainstreaming
5. Health and Sanitation
6. Operation and Maintenance

Participatory methodologies are used in all of these trainings some of which include PHAST, HUMASA etc

**Physical developments**

During the installation of the water and sanitation facilities, the communities contribute both in kind and in materials required for the construction. The key developments that are usually undertaken in Maseno area are drilling of boreholes, spring protection, rainwater harvesting tanks construction, construction of latrines and recently Ecosan toilets.

**Drilling of boreholes**

The area is mostly covered by weathered and fractured volcanic rocks and thus borehole drilling is undertaken by machine drilling. Drilling is usually done to depths of 30- 80 meters varying slightly across the area. Hydrologeological surveys usually have to be undertaken before siting to ensure that the site is appropriate. The community members share their knowledge of water sources in the area. Once drilling has been completed and the well capped and fitted with a hand pump, the community; usually the group which will take responsibility for the facility is trained on operation and maintenance of the facility. A handing over workshop is usually conducted though KWAHO still undertakes follow up of these facilities and the groups to ensure that they are functioning well. water sampling and testing from the water points is done bi-annually.

KWAHO usually installs Afridev hand pumps at all its boreholes.

Some of the advantages mentioned by the groups with the responsibility over the water points of the Afridev pumps include:

1. They are user friendly and it is relatively easy for the caretaker’s even women to repair the facility once they have been properly trained.
2. The spare parts can be accessed from Kisumu city. This is facilitated by the group members and if need be they can contact KWAHO for assistance.
3. They are long lasting

However the community members also pointed out some concerns over the design of the pump:

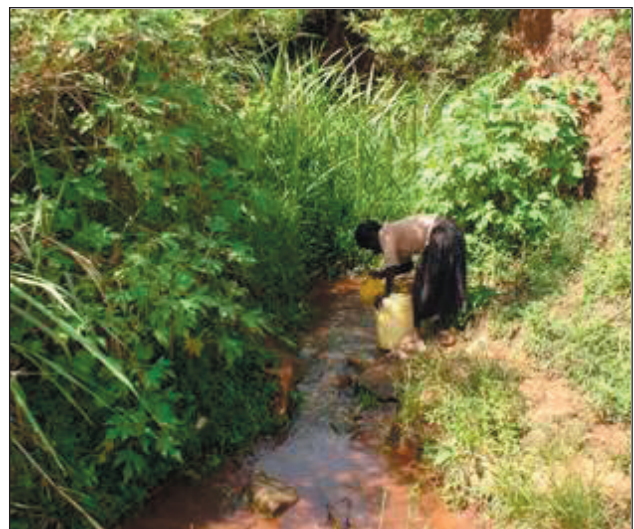
1. The spout is too wide and since most households use jerricans to fetch water, they usually have to use ‘cut plastic bottles to direct the water to the mouth of the jerrican. This poses a health hazard as can be seen from the picture below.
2. The fulcrum pins are not interchangeable.



**Photograph 2. Spout fitted with plastic bottle**



**Photograph 1. Prayers before drilling commences**



**Photograph 3. Spring before protection**





**Photograph 4. Spring after protection**

**Spring protection**

This serves to supplement the groundwater sources. To date, KWAHO has facilitated the development of 14 springs.

**Rain water harvesting**

Maseno has two rainfall seasons, March to June (long rains) and October to November (short rains). The average rainfall per year is 1400mm. Thus another source of water that is promoted is rain water harvesting using galvanized iron sheet roofs connected to ferrocement tanks. This is mostly undertaken in institutions such as schools and hospitals since many of the households have grass thatched roofs.

Some of the other NGOs working in the area have been promoting the use of plastic tanks for storage but KWAHO has maintained the use of ferrocement tanks due to advantages pointed out by the community members such as:

1. The ferrocement tanks keep the water cool as compared to plastic tanks
2. They are easy to clean as one can enter the tank when it is empty and clean it as compared to plastic tanks which can be unbearably hot.
3. The ferrocement tanks can make use of locally available material such as sand, hardcore.
4. The ferrocement tanks do not need to be transported from the point of purchase thus reducing the costs of installation.
5. It is easy to construct variable sizes ferrocement tanks.

**Excreta disposal systems**

On-site disposal systems are promoted in the area due to lack of infrastructure to facilitate for off site disposal. The Ventilated Improve Pit (VIP) Latrine has been the most promoted in the region. Recently though, the concept of the Ecosan toilet was introduced and is receiving good response from the community. Ever since its introduction in 2003, there have been 43 units of Ecosan toilets which have been constructed in homesteads. The Ecosan toilet uses the concept that faeces and urine are not mixed and human waste matter



**Photograph 5. Ecosan toilet**

can be used as manure for agriculture. Other than the known benefits of recovering plant nutrients, reduced water use and disease reduction, another advantage which was mentioned by the community members is the ease of installation. Some of the areas in the region have collapsible soil formations and thus digging pit latrines has had extra cost implications as they have to be lined. With the ECOSAN toilet, they do not have to worry about this element.

**Tippy taps**

This is a concept which was introduced to the region when two of the project staff came to Uganda to attend a WaterCan workshop and were able to see it being implemented. The initiative has gained popularity in the region with people putting it up in their homesteads and in institutions. The



**Photograph 6. Taking turns to use the tippy tap at school**

simple technology used to promote hand washing involves tying a small plastic jerrican to a tree and its lower end to a rope so that when one needs to wash their hands after using the toilet or before eating, they simply 'tip' the jerrican by stepping on the rope so that water can pour out. Ever since its introduction in 2004, a total of 85 tippy taps have been put up by the community members.

### Project impact

Some of the benefits mentioned by the community members from the project include:

1. *Improved access to water* – the women mentioned that they have improved access to safe water and thus spend less time looking for water. Before some had to walk more than 4 kilometers to the river and the water was highly contaminated. The water points also serve as a source of pride for the community members who feel proud to share their clean water with communities from other areas even during sad occasions such as funerals.
2. *Girl child empowerment*- girls from homes who already have water from the programme are now able to concentrate on their studies after school because the water is now close to them.
3. *Technologies*- new concepts such as the ECOSAN toilet are very much appreciated.
4. *Gender appreciation*- gender sensitization and the community management training have enabled the male folk to appreciate that women can also lead. The female folk too are getting challenged and accepting leadership positions they have been elected to hold.
5. *Wastewater recycling*- The overflow from the water points is usually used to water fruits and vegetables grown near the water points. Almost all the water points have small gardens growing bananas and other vegetables. The product is used to supplement the food basket for the households of the women groups.
6. *Cost-sharing*- communities have appreciated more the concept of cost sharing and it has enhanced their sense of ownership for the facilities and is contributing to the sustainability of the project.
7. *Income generation activities*- More women groups are involved in income generating activities to support themselves as they have a lot of time saved from the search for water.

8. *Disease incidence*- Incidences of waterborne diseases have been greatly reduced especially where the boreholes are, this has gone down by as much as 50%.
9. *Latrine coverage*-In 1992, latrine coverage was very low, less than 50%. Due to project intervention, the latrine coverage has gone above 80%. This has also resulted in the reduction of contamination of open water sources.

### Challenges

**Cultural Issues** - Some issues such as gender and cultural barriers were given emphasis during this period. This is because they in one way or another continue to affect the project implementation.

*Sharing of latrines*-The Luo who make up about 80% of the tribes living in the project area, have very strong cultural beliefs especially the ones related to sanitation. For example the issue of the whole homestead using one latrine is not very acceptable in most Luo homesteads. To solve this, two door latrines have to be constructed and be erected somewhere mid way between the parents' house and the children's houses.

*Property ownership*- Traditionally women do not own property. The entry point for the project is usually women groups. Whilst these women groups are interested in setting up water points, they do not own the land where the water points are to be sited. The men usually have to be requested to assist the women groups at this point.

### Conclusion

Over the years that KWAHO has worked with this rural community, its main success story has been linked to the importance of ensuring that the community is involved as partners and not merely as helpless people who have little to contribute to improving their own livelihoods.

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