

Water in Sekamuli

Supporting the core objective, of malaria reduction in children under 5 and expectant mothers, The Healthy Vine's I-AMP+ programme includes health and sanitation. Water is essential for life but also a significant factor in the spread of diseases.

For an African country Uganda is blessed with an abundance of water and even in these days of climate change usually (but not every year) it receives a good rainfall. Sekamuli a parish of 10 villages, is an area of about 50 kms² however, it has no rivers nor springs with a high yield.



Typical Sekamuli natural water source

The few natural available sources of water are waterholes or pools used both by animals and community for bathing, washing clothes, cooking and drinking water. In the dry seasons most of these sources dry up completely and this has serious consequences for the community and livestock. Prior to 2006 various organizations had sunk boreholes but with the exception of 3, all failed sooner or later. The most economic and practical solutions available are boreholes and rainwater catchment. Both of these will give clean water but not

necessarily safe water so all water for drinking must be boiled before use and kept in clean containers. It is sometimes difficult to understand that given the importance of water one would expect that once a clean source is located, the community would ensure that it continues to operate by giving it care and maintenance. Regrettably this is not so. Unless the community has been fully involved in the decision making process and makes a commitment to the borehole and its long term care, the chances of its sustainability are very small.

Since the Healthy Vine commenced its programme in 2006 it has been able to progressively place boreholes where necessary. In fact until the end of 2010 the programme included 7 villages and for the first time in memory the 7 villages were able to exist through the dry season without the sharp increase in disease, especially in children and general hardship of having to travel extended distances to collect water which was in chemical terms little more than sewage.

In much of Uganda water is available from aquifers and in many parts accessible a little as 10 meters below the surface. These wells are normally hand dug and brick lined.



Drilling at Wabyenja

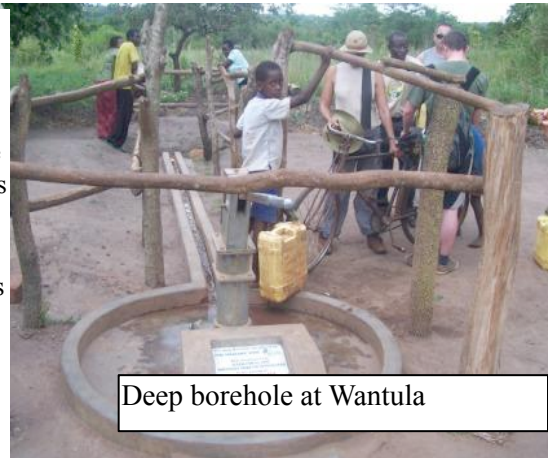
In Sekamuli however, although water is present in many areas between 3 to 4 meters, experience has shown that these wells fail shortly into the dry season. Therefore the last 6 wells have been drilled to depths of between 36 and 47 meters. This has usually involved drilling through soft rock. The costs of these deep wells are currently between € 5,800 and € 7,200 depending on the depth.

Sometimes water from these deeper aquifers has an iron content which discolors clothes and gives some vegetables an unpleasant taste. Fortunately iron can be removed by aerating the water if necessary. The cost of building a simple spray or splash tray aerator is +/-€1500. The other source option for relatively clean water is rainwater catchment and with between 800mm and 1300mm of rainwater per year this is a good way of relieving the level of usage or

stress on the local boreholes. This is not an option for the many traditional houses but for a brick built family house with an average horizontal roof area of 50 m² more than enough water can be collected for family consumption. However in these times of climate change the period between rain seasons can be between 3 to 5 months which means a 10m³ storage tank is necessary. The cost per family for guttering, down pipe, tank and tank fittings is approximately € 3,200.

The borehole will be serving at least 80 families so is the more economic option in a village where there is no clean water.

From the start of this year the programme expanded into the last 3 villages and now covers the whole parish. The villages are Sekamuli, Kasiribiti and Kakoola all of these villages have an acute shortage of water. We have so far received proposals for 3 wells and expect shortly to receive proposals for 2 more. From the hydro geological surveys the Healthy Vine undertook in the adjacent villages of Kito



Deep borehole at Wantula

and Wabyenija we expect these will also be in the region of 40 m deep.

Before we accept any proposal from a village we require a commitment from the village. This commitment includes the following:

- The beneficiaries will elect a Village Water Committee who will act on behalf of the village and be responsible for the upkeep of the village borehole.
- The Village Water Committee appoints a chairman, treasurer and caretaker and opens a bank account.

The Healthy Vine Trust is registered as an NGO in The Netherlands and Uganda. It operates only in Sekamuli Parish but has been requested to duplicate the programme in other parishes and sub counties in Uganda. For more information please visit www.healthy-vine.org

- The beneficiaries agree to contribute a monthly amount (between Ugx 300,000 and Ugx 500,000) per year depending on the size of the village. This is sufficient to buy spares and keep the pump well maintained.
- They build a substantial fence around the pump and a run off and undertake to keep that well maintained and clean.
- Users of the borehole have to use clean jerry cans.



The Healthy Vine has easy access to everyday spares and has set up a repair crew (one community member and one field worker) who can undertake most mechanical maintenance requirements. Using this crew we have also rehabilitated two disused wells. These wells are about 15 meters deep and reduce capacity in the dry season. The Healthy Vine Trust (Uganda) aims, if the funding can be raised, to place 3 deep boreholes this year at an approximate

total cost of € 18,000. The total foreseeable future requirement in water totals €48,000 this budget at today's cost will cover:

6 Deep boreholes.	Total cost € 36,000
2 rain water catchment for schools	Total cost € 9,000
2 iron removal projects	Total cost € 3,000.

When the forgoing is completed the whole parish will have a reasonable coverage of clean water supply although some larger villages will require further wells.