Improving water supply and sanitation in Chipapa

Water for Kids, along with partners the Zambian Institute of Environmental Health (ZIEH) have been improving water and sanitation in Chipapa since 2008 and are continuing to do so. So far water has been provided to a clinic, school, market and five villages and WfK has assisted 60 families to build sustainable latrines. Work is now starting to build two protected wells in the most remote part of Chipapa and to assist with building 100 more latrines.

This large rural area, 30km south of Lusaka, was identified because the communities were suffering from exceptionally high levels of water-borne disease, including cholera.

The construction work in 2008 involved relining the borehole, installing a pump and mounting two 5,000-litre water tanks on a tower. Pipes were laid and standpipes erected for the use of people in three villages. In addition, taps were installed in the market and at the school, which has 270 pupils. At the clinic sanitary appliances were installed and running water was available for the first time (see below).

All this was provided at a cost of £17,500. Charity supporter Ged Pike raised the money to pay for the water supply in Chipapa on the death of his wife Jan. He had identified WfK as a suitable charity and came on the field trip to Zambia in 2007 to ensure the money would be put to good use.

The water system was handed over to the Chipapa Water Committee in May 2009, during a visit by five WfK supporters and trustees. Among many messages of thanks and appreciation, the Kafue District Director of Health said:

> **“collecting water was time consuming for the staff at the clinic. At times, the pump broke down and health standards were compromised……. Now that is history. I hope that diarrhoeal and water-borne diseases will reduce.’ He asked the WfK representatives to “‘convey our special thanks to the people of the UK for their generosity and for having helped us realise the dream of having safe water.”**

In 2009 further works were carried out in Chipapa: an old borehole was brought back into use to increase the supply, which meant there was enough water for standpipes to be provided in two more villages. Local people dug the trenches for the pipes, as they did for the first phase of the Chipapa project.

The whole installation now provides safe water within 500 metres of most of the homes of the 4,000 villagers. It should make a big difference to their health and well being (see evaluation below).

Although families in Chipapa have latrines, the majority of these structures do not survive the rainy season. This is the time when the spread of waterborne disease is at its height. WfK assists local people to build sustainable latrines by providing them with concrete sanitation platforms (san-plats, pictured). The majority of the first 60 households who received san-plats were using their new latrines when trustees visited in May 2011. Following this success, 100 more families are being provided with san-plats, which they have requested. They will be able to dig the pit and build the super-structure to complete their latrine.

A comprehensive programme of health education was also carried out in 2010 by ZIEH and the local Environmental Health Technician, Matthew Chansa. The focus was on members of the Chipapa Water Committee, who took responsibility to spread the word. In the school the children also learn about hand washing and hygiene.

WfK trustees Natasha Franklin and Sara Emanuel were pleased to see how the water committee, set up by this well organised community, has ensured that the water supply is maintained. In fact the pump has failed on two occasions because of power surges, but repairs were quickly organised. They were paid for by the small monthly fee which families pay for the water, unless they have no income.

The local school now has an attractive new classroom block. It was built using bricks and roof tiles made on site using local materials. This would not have been possible without the water supply installed by Water for Kids in 2009.

Two protected wells are now being built to provide safe water for 155 families with 760 children in Mpande and Kayula Villages, which are in the remotest part of the Chipapa area. Currently, the women and children have to collect water from the local stream or from the nearest borehole with safe water. This is 22km away, and involves travelling on a very poor track. (You may think this is surprising considering they are less than 60km from Lusaka, but it is not so unusual.) The cost of these wells and the 100 san-plats for latrines, which comprise the third phase of work by WfK in Chipapa, is £5,617.

You can find out more about how water and sanitation are provided in Zambia on the WfK website. www.waterforkids.org.uk/

Chipapa clinic

The clinic is always full of people, seeking maternity and under-fives check-ups as well as health care for those who are not well. It also has a maternity room where local women give birth. The most common diseases treated in 2008 included malaria, diarrhoea, eye infections, sexually transmitted diseases and respiratory infections.

In the past, the only water available at the clinic was from a borehole 1km away and staff had to queue at the pump. In 2008 Water for Kids provided hand washing facilities in the two treatment rooms and a flushing toilet, hand basin and shower in the maternity room. Safe, running water was available for the first time.

The clinic reception and maternity room were redecorated during the 2009 WfK fieldtrip by Misha Franklin, Gilbert Ogden and Norman Yates. They worked with the local people added many finishing touches. For example they bought material for a local seamstress to make into curtains. Two years later it was looking as good as new and the use of the maternity room has massively increased from 2-3 births per week to the same number per day.

An evaluation

An evaluation of the measures carried out by Water for Kids in Chipapa was carried out by Edgar Mulwanda in 2011 as his dissertation for his Degree in Environmental Health at the University of Zambia. He compared Shisholeka village, which has standpipes provided by the WfK project with Mulendema village where water is only available from a hand pump. In Shisholeka 93% of households have a standpipe within 500 metres, so the water source is reliable and close at hand. The hand pump in Mulendema frequently breaks down and collecting water usually involves queuing.

Edgar assessed his findings relative to the Millenium Development Goals (MDGs). Firstly he found that the provision of an adequate and convenient water enabled villagers to grow and sell vegetables and to make bricks. This has led to an improvement in housing structures and in the economic and nutritional status of local people. It has contributed to the achievement of MDG 1 which aims to eradicate extreme poverty and hunger.

At the school the reliable water supply from a standpipe has resulted in:

- A reduced the number of injuries and strains among children when using the hand pump.
- Better hygiene among the children, as they wash their hands regularly.
- Improved nutrition with a new garden at the school providing fruit and vegetables.

Attendance of children at the school has improved and this contributes to MDG 2: the universal achievement of primary education.

Edgar discussed how the social wellbeing in Shakatwa area has improved. From the interviews conducted, he wrote “there were occasions when people would go to the well and find that there was no water and this would force them to wait for water to rise which would take a long period. Scarcity of water led to conflicts among women as they always quarreled on who would draw water first.” He also reports that the hand pump at the water point frequently broke down, it rarely kept working for a month and then it was a long time before it was repaired. The only alternative water source was a stream.

A villager who was interviewed said
“Since 2008, water blues have been a thing of the past as we fetch water like people in towns and it is even better than those who live in shanty compounds of the city.”

Stress felt among women had been reduced due to availability of water from standpipes and, as the women spend less time collecting water, they are more likely to have the capacity to be economically active. This contributes to MDG 3 to promote gender equality and empower women

In spite of all the improvements resulting from a reliable and readily available water supply, the incidence of waterborne disease has not reduced as would be expected during the two years since the water supply was improved in Shisholeka village. This was thought to be due to unhygienic practices, such as the use of a communal dish for hand-washing before meals. As a result WfK is ensuring that on-going hygiene education is carried out for the community by the local Environmental Health Technologist following all it projects.

On behalf of WfK, Edgar is now investigating the feasibility of setting up WASHE (Water Sanitation and Health Education) Clubs in some schools in Zambia. If we decide to support a programme, we hope to pilot it in the Chipapa Community School.

Sara Emanuel
Secretary of Water for Kids
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