

Water for Kids: Investing in the future of developing countries

By Krista Vandermeer

Take a minute to imagine your life without a constant supply of clean water.

Imagine spending six hours of your already busy day fetching the water you need for drinking, cooking and washing. Now take a moment to honour the four children whose lives were cut short as this minute passed due to preventable water-related diseases.

The statistics are grim, incomprehensible even, but the reality is that safe and readily available water, a right we so often take for granted, is merely a dream for over 13 per cent of the world's population.

Madimba is a semi-urban community on the edge of Lusaka, the capital of Zambia, and is all too familiar with the hardships resulting from unsafe water and inadequate sanitation. A dense population and very high water table means that pit latrines in Madimba often overflow and contaminate the shallow wells with infectious pathogens. These conditions contribute to very high levels of diarrhoeal disease in the community, especially among children, and cholera outbreaks occur during most rainy seasons.

Although efforts are underway to improve the sanitary conditions in the area, many people still have to walk over a kilometre to access safe water. Much more needs to be done and Water for Kids, a UK-based charity, has stepped up to the challenge.

Water for Kids was established in 1996 after two Environmental Health Officers visited Peru as part of a cholera eradication programme and witnessed the urgent need for environmental health services in small and less formal settlements. Still run by a small group of Environmental Health Officers today, Water for Kids aims to preserve and protect the good health of children and communities in the developing world by assisting in the provision of safe drinking water, good sanitation and other related public health measures. Water for Kids differs from large water charities in that it looks at providing water and sanitation systems that best suit the local community and only a small proportion of the charity's income is spent on overheads.

Having successfully protected, rehabilitated and installed water sources around the globe including projects in Peru, India, Tanzania, and Uganda, Water for Kids now takes a more holistic environmental health approach whereby water, sanitation and hygiene education are addressed simultaneously, where possible, to minimise the spread of disease. Madimba is the latest community to benefit from this approach Water for Kids calls the "three legged stool".

In partnership with Madimba's community group, the Network for Environmental Concerns and Solutions (NECOS), Water for Kids is set to build a water kiosk supplied from a new borehole and water tower. Staying true to its name, the new kiosk and sanitation facilities have been sited next to a school based on the philosophy that if kids have water, so do all the members of the community.

In addition to the water kiosk, two public composting toilets will be built to meet the sanitation needs in Madimba. Sealed composting toilets are a new technology adopted by Water for Kids where the human waste is treated by composting and dehydration to produce a useable end-product that is a valuable soil additive. The composting process is

completed in a sealed container which has the additional benefit of preventing flooding and subsequent contamination of groundwater in the Madimba area.

The small charity remains modest in its approach, committed to completing each and every project it starts. Across the developing world one does not have to look far to find broken, abandoned or unfinished water supply schemes, evidence that good intentions do not always reflect the needs and wants of the communities being served.

‘Water for Kids considers sustainability to be the essence of its projects, there is no point in bothering unless it’s going to last,’ says Sara Emanuel, Secretary of Water for Kids.

The Zambian Institute of Environmental Health (ZIEH), the professional body for Environmental Health Officers in Zambia, manages all the Water for Kids projects in the area. They have worked closely with NECOS in Madimba from the start and have carefully planned the water system to meet the needs of the community.

NECOS has established sub-committees for sanitation and water with more than 50 per cent of its members being women, as women and children are primarily responsible for water collection in the community. The water committee will train individuals from the Madimba community to carry out regular maintenance and the manager of the water kiosk, which doubles as a shop, will charge a small fee for each container of water.

‘Charging for water helps to generate funds to maintain the supply scheme in good working order and ultimately improves long-term sustainability,’ says Emanuel.

‘To ensure that the project does not exclude the communities poorest, NECOS will also make sure that households on low income are able to get water free of charge.’ NECOS has developed a “community contribution strategy” to help vulnerable households have composting toilets built. This will be extended to waive the fee for water for these households.

Hygiene promotion will be carried out as the final stage of the project. NECOS will offer health education training to representatives of the community who will cascade the information to every household in Madimba. Based on environmental health principles, the training will include the importance of hand washing to reduce the spread of disease and the need for hygienic refuse disposal and dish washing and drying.

‘Water for Kid’s first project in Zambia was completed in 2005. School attendance levels in the community have since improved and the children, who often have to fetch water before school, now turn up on time. The market has also doubled in size and many of the stalls sell locally grown produce, thanks to the improved water supply,’ says Emanuel.

‘Most importantly there are fewer trips to the health clinic because the local people say diarrhoeal diseases occur much less often. Similar benefits are expected in Madimba once the water kiosk and new public toilets are ready for use in mid 2010.’

Water for Kids coordinates annual field trips to Uganda and Zambia, providing individuals with an opportunity to see and actively participate in the ongoing projects in these areas.

Ged Pike MICE/Chartered Civil Engineer, who was part of the 2007 field trip to Zambia said: “When a scheme has been agreed WfK funds the whole of the construction and ensures that

the funds are used to the maximum of their capacity. The recent scheme in Chipapa, Zambia not only provided water on tap to the health and maternity clinic but also to five adjacent villages, a school and a market. The system is very simple; low maintenance being important. A bore hole is sunk into the water bearing strata and the water is pumped into storage tanks mounted on a steel frame eight metres above the ground. Having sufficient head it is then gravity fed to the clinic and to 20 stand pipes positioned up to 600 metres away."

To broaden its skill set and reach out to a new professional community, Water for Kids is looking to include engineers in their projects. Water and environmental engineers are welcome to join the WfK field trips, which are open to all. Others who can provide support in the UK could help as volunteers or make donations. For more information see www.waterforkids.org.uk or email administrator@waterforkids.org.uk for occasional email updates on the charity's work.

'The technical skills of engineers will complement the public health skills of Environmental Health Officers working both in the UK and in countries like Zambia. This will open up a broader range of technical solutions that Water for Kids can use to achieve its mission to provide those in need with safe drinking water and good sanitation around the globe,' says Emanuel.