

Water

1.1 billion people worldwide do not have access to safe water. In Kenya, half of the population lack access to safe drinking water – that's 16 million people and 13 million of those live in rural areas. In semi-arid Kenya, although total rainfall is pretty high at 700 to 1,000 mm a year, the two concentrated rainy seasons a year means that most of the water is lost to the ocean.

Women and children take prime responsibility for collecting water and that burden is high. They walk between 2 and 10 km a day carrying up to 20 litres on their heads or backs. During a bad drought, they have to walk up to 20km often queuing at water holes in the early hours of the morning, and when they get there the water they find is often unclean and a threat to health.

The supply of clean water is therefore the main focus of farmers in semi-arid Africa. If rainwater could be stored, it could be used during the dry season allowing less time spent collecting water and more time on increasing food production and income generating activities. 80% of the work Excellent Development does with water supplies involves helping farmers to build sand dams – which provide a year round clean water supply for up to 1,200 people and their animals. You can find out more about sand dams, how they're constructed and what they do, in the feature documentary and the short film.

But sand dams are not Excellent Development's only water solution in Kenya. Some communities live nearby to a spring created by water from Mount Kilimanjaro. Excellent helped the Meka community in Makueni district to dig a 14km pipeline from the spring and build a water tank, which now supplies low-cost clean water in the area. When funds are available, they plan to extend this pipeline to four nearby communities.

The benefits are astonishing; the Meka self-help group lost 15 people to typhoid in one month alone, caused by collecting water from a permanent river 10km away. Now they have sand dams, a community pipeline and water tank, deaths from typhoid have been eliminated.

Another community near Mtito Andei lives nearby the water pipeline running along the Nairobi-Mombasa railway line. Excellent have also helped them to get a pipeline and a water tank, which provide water for the community and has enabled them to start a tree nursery.

A child dies every 15 seconds from diseases associated with a lack of safe drinking water, inadequate sanitation and poor hygiene. Excellent Development's response is to provide water tanks in school compounds – this time collecting rainwater from the roof. Children no longer need to collect water on the way to school – keeping them healthy enough to enjoy a better education.

Another great idea is this rock water catchment in Miamba-Mitamboni. The concept is simple but effective. When it rains, the water runs down the rock face, is captured by the concrete wall which wraps around the base of the rock. It is then channelled into outlets on either side and then, through pipes, is carried to a water tank.

All these solutions do one thing – address the main priority of farmers in semi-arid Africa – water. In short, the provision of clean water saves time and improves health – the recipe for truly sustainable development.