

By John Magrath

Water is life for all, and access to water is fundamental to the fertility of farmlands and the prosperity of farmers across the nation. But how to get water from A to B can be a backbreaking task.

At the market garden at Mazuru rows and rows of vegetables stretch for hundreds of yards, forming a lush green carpet. The women working there proudly gather and show off the fruits of their labours for the visitor to see – spinach, cabbages, beans, tomatoes and other crops that will be sold via the Collection and Information Centre at Gomba Agro-Business Centre. But it is indeed hard labour that has produced this harvest, and one of the hardest and most time-consuming labours of all is fetching water.

Each gardener has an allocated 11 rows and in the dry season it is essential to water each row every day. Each woman has a walk of some 400 metres to the dam site and then back, carrying a bucket of water on her head. It takes two to three trips to properly water one row, so it may be necessary to make 20 to 30 journeys to the lake each day. A woman may walk 4 kilometres or more with a heavy bucket of water on her head.

Watering can take a gruelling six hours; women will start at 7 a.m. and not finish until 1 p.m. That leaves little time for all the other essential work such as hoeing, weeding and tending to the plants – and of course the women are also responsible for the household cooking and cleaning. A diesel pump used to provide water to the garden but the women couldn't afford the rising cost of diesel, and eventually the pump broke down.

Now the market garden members have decided that they have enough money in their Community Energy Fund to buy a solar water pump which Oxfam is going to support. Jonathan



Njerere, Oxfam Programme Manager, explains that with a solar pump women will be able to come to the site at mid-day when the tank has filled up and be able to water their gardens within an hour or two. And of course they will not have to pay for diesel.

At the Ruti dam the potential of irrigation is being realised on an even bigger scale. There, 60 hectares are being watered and cultivated and the results have been remarkable. They demonstrate the way 270 smallholder farmers who were previously growing little more than subsistence crops of maize can feed themselves, earn incomes and benefit their neighbours.

Two thirds of the Ruti scheme uses gravity-fed irrigation and now a third phase of production is well under way using two solar booster pumps that pump water to a night storage reservoir.

The Ruti scheme also hosts an Energy Kiosk powered by rooftop solar panels which is providing cold storage and solar charging. Irrigation enables farmers to obtain three harvests a year, and rotate to

grow a diversity of food crops and cash crops like potatoes and sugar beans on the same land. Jeffrey Chara, Treasurer for the irrigation scheme, says: "This year we have harvested four to five tons of maize per hectare here, but we have harvested nothing on our dry land plots because of the drought due to climate change – and that is on top of the other bad drought recently [2013]". One of the biggest benefits of the irrigation scheme has been employment creation. Farmer Ipaishie Masvingise says: "Long ago we used to have to go 93 kilometres searching for food on large scale farms. As you worked you were given food but to transport it back you had to sell some to pay for the bus fare.

Now we don't need to go anywhere, we are empowered and what is more, we are giving other people jobs so job creation has been achieved". Mr Chara explains that workers receive maize for work and the irrigation farmers also have surplus maize to sell. He says: "Our lives have changed significantly in all aspects.