

Zimbabwe

Climate Change Effects

Climate change in Zimbabwe is reducing the level of many reservoirs and rivers as temperatures have increased and rainfall has decreased. In sub-Saharan Africa 90% of agriculture depends directly on rainfall, making food security even more vulnerable to changing weather patterns.

Some of the impacts are:

- Higher temperature increases than the global average. Slightly greater maximum temperatures in dry season
- Decreased rainfall in all seasons
- Lake Kariba has lower water levels which affects power generation, agriculture and tourism
- Lower livestock populations
- Increased distribution of tsetse fly, malaria and East coast fever
- Decline in woodlands and grasslands; more scrub savannah
- Increased spread of desert in the south west.



Practical Action Project

Rainwater harvesting is a way of capturing rain as it falls and retaining it in the soil or in tanks below ground so it can be later used as a source of clean water as well as for agriculture. There are two methods developed by Practical Action in Zimbabwe.



Contouring

The first is constructing ridges of soil along the contours of fields so rainfall is held back from running off the hard baked soil. This technique then allows the crops to have enough water to grow.

Even when the rainfall levels are low families are able to harvest enough food.

Water Capture and Storage

The second method is to dig irrigation ditches and construct rainwater harvesting tanks. A hosepipe with holes allows each plant to get the water it needs and none is wasted. When the rains come, irrigation ditches channel water to the tanks to fill them.

During dry periods water slowly seeps out of the holes in the pipe that is just under the surface of the ground, watering the plants.



Personal Stories

Oripu

After the loss of her husband, Oripu Mudimu from the Chivi district of Zimbabwe was left to fend for herself and she was unable to produce enough food to survive. Now with a drip irrigation kit and a rainwater harvesting tank,

Oripu not only grows enough food for herself and her family, but a small surplus to sell as market. She said,

‘Before I had no means to grow food to nourish my body, but with this technology I can’t go wrong.’

Tias

Tias Sibanda is married with three children, and cultivates his land to grow maize and sorghum. He has been taught how to dig contour ridges, and as a result gets a good crop every year. He is also able to save some food for periods of low rainfall. Tias now never has to buy food.

He said

‘Thanks to the water harvesting techniques shown to me by Practical Action, and the contour field structures, we are now more ‘food secure’ and have no worries about soil loss. I am confident of further improvements in the future and, if the drought eases, would soon be able to sell some of my maize crop.’

