



Ruti Irrigation Project: Zimbabwe 2011/12

The Ruti Irrigation Project aims to contribute to sustainable livelihoods and resilience to climatic change among poor and vulnerable households in Gutu district, Zimbabwe. The project seeks to do this through the establishment of a 60 hectare surface irrigation scheme in which 240 farmers are directly supported to cultivate individual plots of land. The farmers are provided with start-up seeds, tools, fertilisers and pesticides, and are also supported with complementary training on improved farming methods, agri-business and marketing skills, and soil conservation techniques. The year-round output of crops from this project is further intended to indirectly benefit up to 50,000 people in the surrounding wards by enabling a more diverse and secure source of food.

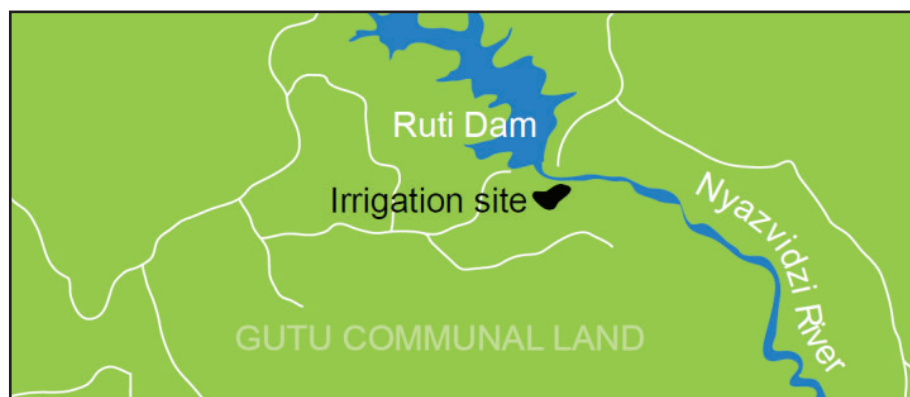
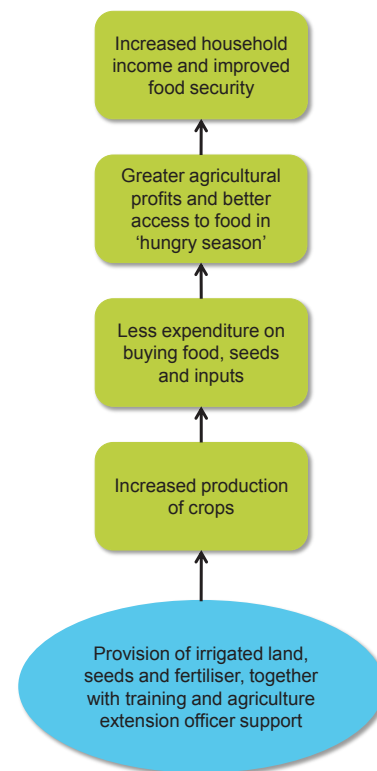


Figure 2: Location of the Ruti Dam and irrigation site in Gutu District. Changing weather patterns in the Gutu area, including erratic rainfall and timing of seasons in recent years, are believed to have contributed to a 56 per cent reduction of crop yield per hectare between 2007 and 2009. Source: Zimbabwe Vulnerability Assessment Committee

Figure 1: Theory of change for the agricultural support element of the project



Evaluation Method

In October 2011, with the support of Oxfam's Zimbabwe team, a household survey was administered to 232 beneficiary farmers from the three phases of the project. Phase 1 beneficiaries were defined as the intervention group, as they had already harvested crops through the project. Phase 2 and 3 beneficiaries, on the other hand, were defined as the comparison group as they were yet to harvest or begin planting. The survey comprised questions related to the project's intended outcomes, including agricultural production, asset ownership, household consumption and water/sanitation behaviour. In order to control for observable differences between the intervention and comparison households, statistical analysis of the resulting data was undertaken using propensity score matching and multivariable regression.

Rating key: ● - Evidence supporting large impact; ● - Evidence supporting more modest impact; ● - Evidence of large impact, but only for specific sub-groups/measures; ● - Evidence of modest impact, but only for specific sub-groups/measures; ● - No evidence of impact

Results

The results of the review found that between eight and 10 per cent more of the intervention households are living above £1 per day per capita compared to the comparison households. In addition, the former exhibit a greater increase in asset ownership and report being in a better position to meet household needs. The intervention households were also found to be more food secure than those in the comparison group. These findings are likely to be driven by the average increase in maize production of 240% for the intervention households between 2009 and 2011.

A complementary objective was to influence change in water and sanitation behaviour. A number of health and hygiene training sessions were carried out, together with measures to improve water sources and latrines on the project site. The results showed no significant behavioural differences between the intervention and comparison households in relation to the type of toilet facility used. A similar picture emerges for household water use, with very small differences between the intervention and comparison households.

Outcome	Rating	Commentary
Outcome 1 – Greater household income (global outcome indicator)		Some evidence of modest increases in household expenditure.
Outcome 2 – Increased household asset ownership		Strong evidence of impact in household asset change since the start of the project.
Outcome 3 – Improved food security		Some evidence to suggest that the intervention households are more food secure than the comparison households.
Outcome 4 – Increased agricultural production		Strong evidence of significant increases in maize production among the intervention households.
Outcome 5 – Improved water and sanitation behaviour		Evidence of very small impact in relation to changing the type of water source used by the household.

Going forward

Oxfam's support to the irrigation scheme is ongoing, with market linkage support being strengthened to enable the farmers to market and sell their produce in a manner that attracts the best prices and contributes to the sustainability of the scheme, as well as improving the food security of the wider community. The health and hygiene component of the project was stepped up in the months after the effectiveness review. This included trainings and awareness sessions for village health workers, peer educators and drama groups carried out in conjunction with The Ministry of Health and Child Welfare. Refresher training was also held with those who had been previously trained. One additional borehole and six latrines have also since been constructed at the scheme.

Photo credit: David White