

# Identifying Appropriate Irrigation Technologies for Horticulture for Women and Smallholder Farmers in Eastern Uganda

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## Goal

This project supports small holder farmers to identify appropriate irrigation approaches in Uganda & East Africa.

Emphasis is on identifying and testing farmer-identified potential solutions to address the challenges, especially those faced by women participants.

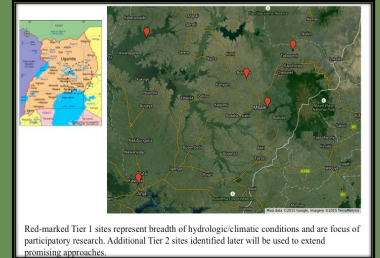
A key objective is to identify technological and social solutions that best fit farmers' needs and resources.



## Approach

- Develop innovations in collaboration with irrigation committees selected by farmers at 5 sites in Eastern Uganda with diverse agro-ecological and social systems.
- With a women empowerment NGO, engage women members to identify needs and work in a team to overcome challenges.
- Collect in-depth data on labor, cost, income, nutrition, physical pain, time use, empowerment, and other criteria identified by irrigators.

## Research Sites



## User-Identified Irrigation Solutions

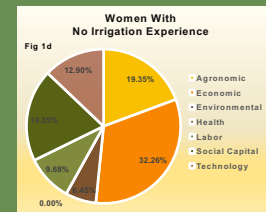
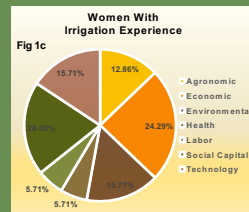
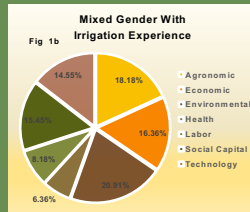
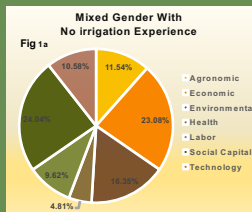


Fig 1a, b, c, d. There were similar concerns expressed by all groups, dominated by (in this order) economics, labor, agronomic and environment challenges. The one exception which was the group of women with no irrigation experience; they were most concerned about economics, and only moderately about environmental challenges.

## Outputs

- Develop farmer-driven problem-solution trees to identify possible solutions to help farmers overcome irrigation challenges.
- Establish women and men farmer mentor groups to improve irrigation productivity and sustainability.
- Create user-guides with farmers' input on improving technology access and governance for agricultural extension and services providers.

## User-Identified Irrigation Solutions

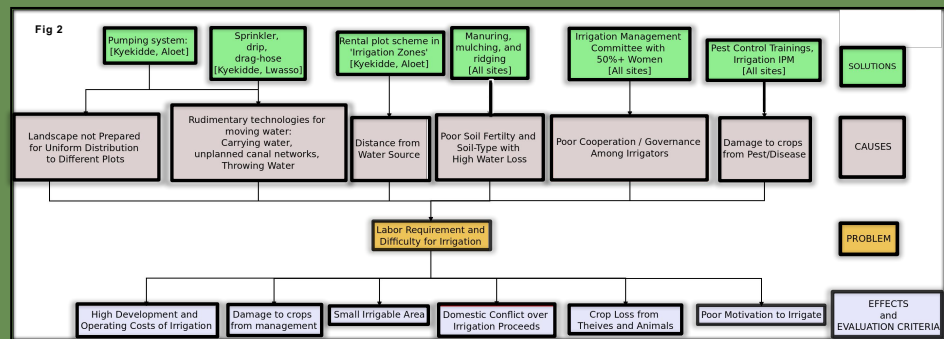


Fig 2. This graph displays solutions, problems, causes, and ways to evaluate the outcomes of the actions. Through focus groups, women-farmers identify key challenges and possible solutions, aided by the research team. This table is compiled from the 4 focus group types (women, mixed gender, non irrigators and irrigators).

## Traditional Irrigation



"Our group has grown irrigated vegetables on a small scale, but we have benefited, I was able to buy a few things for my household. Our group now wants to scale up." Betty Adogolo Aloi Bukedca, Innovation.

## New Innovations

"I grew onions and when we sold them I bought a bull. We are planning to buy more animals. These will help us with tilling our land." F Adhiambo, Kabos innovation Site, Bugondo.