



User-driven approaches for productive smallholder irrigation in Mozambique

The Mozambique Government, with development partners, have invested significantly in revitalizing and expanding smallholder irrigation schemes in the country to improve agricultural productivity, food security and climate resilience, and reduce poverty. This is in addition to farmer-led irrigation schemes, which have been estimated to cover at least twice the area of government-funded smallholder irrigation yet, inefficiencies remain and constrain the performance of both schemes.

This project will identify the challenges, and design and test innovative user-driven approaches that enhance the economic gains of 10 government-funded and farmer-led irrigation schemes in Gaza and Manica provinces for the improvement of economic efficiency and sustainability of irrigation schemes in Mozambique.

The challenge

Agriculture is the main livelihood strategy in Mozambique. The National Agriculture Survey of 2014 showed that 84% of individuals aged 15 years and older considered agriculture as their dominant livelihood. However, agricultural productivity remains very low. Whilst the government has recognised the importance of smallholder irrigation, schemes implemented in the country have been small-scale (20-200 ha). Farmers lack the resources and skills to sustain such schemes, while government rehabilitation and expansion programs lack appropriate strategies to safeguard them. Therefore, there is great potential for research to introduce innovative ideas that can increase productivity, profitability and institutional sustainability of these small-scale schemes.

The research

Researchers will test user-driven business-oriented models to increase the productivity, profitability, equity and sustainability of irrigation schemes in Mozambique. The project will combine technical (soil and water management practices), social (business plans and market linkages) and institutional (innovation platforms and water-user associations) innovations in the ongoing schemes to compare changes in their management, productivity and profitability for farmers.

A gender analysis will also be conducted to reveal underlying power dynamics, roles, preferences, and decision-making processes in water access, use and management. Scenario planning will be developed with men, women and youth to generate perceptions on irrigation arrangements for the varying interest groups. This will inform the design of more equitable and gender-responsive user-driven approaches for managing schemes that are inclusive of all users.



©ACIAR

Expected outcomes

- Increased use of soil and water management technologies;
- Yields doubled for selected crops, expanded production, increased crop prices through better market linkages and increased incomes for over 1,000 men, women and young farmers;
- Reduced conflict for shared resources at community and household levels, increased farmer willingness to participate in community institutions, and stronger and more inclusive farmer and water user organizations;
- Enhanced skills of extension staff in water management, business planning, microfinance and youth business incubation;
- Three Masters and one PhD students supported by the project, and enhanced field experience for 12 students involved in data collection and training of farmers.

Implementing partners:

- The Eduardo Mondlane University: Mario Chilundo (mchilundo@gmail.com)
- The National Irrigation Institute: André Machava (andre_machava@yahoo.com.br)

Countries: Mozambique

Funding: CA\$ 1,797,800 (AU\$ 1,905,890)

Duration: April 2019 to September 2022

Learn more at www.idrc.ca/cultiaf

Cultivate Africa's Future (CultiAf) is jointly funded by IDRC, the Australian Centre for International Agricultural Research, and the Australian International Food Security Research Centre. The program supports research to achieve long-term food security in Eastern and Southern Africa.



Australian Government

Australian Centre for
International Agricultural Research



International Development Research Centre
Centre de recherches pour le développement international

Canada