



FEED THE FUTURE INNOVATION LAB FOR HORTICULTURE PROJECT IN BRIEF

DEVELOPMENT OF INNOVATIVE HORTICULTURE TECHNOLOGIES FOR IMPROVED INCOME AND LIVELIHOODS AMONG SMALL-SCALE WOMEN FARMERS IN UGANDA

Principal Investigator

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Project Partners

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Women's Horticulture Marketing
Group

Development Innovation

Improved livelihoods of small-scale
vegetable farmers

Commodity

Vegetables

Targeted Population

Small-scale vegetable farmers

Country/Location

West Nile region of Uganda

Regions

Adjumani, Yumbe, Terego, Koboko,
Obongi and Madi Okollo Districts

Timeline

2023-2026

Funding

\$388,904

Horticulture plays an important role in food security, employment opportunities and income generation. Uganda has suitable climate to produce a wide variety of horticultural crops. The horticulture industry is dominated by small-scale farmers who produce on small pieces of land. In Uganda, majority of the horticultural produce (90%) is consumed locally while the rest is exported. After harvest, the fruits and vegetables are mostly either transported to rural markets or bought directly at the farms. FAO (2015) estimated yearly global food loss and waste by quantity at roughly, 40–50 % of fruits and vegetables. In West Nile, the figure is higher (70% in some cases). These perishable foods start to deteriorate as soon as they are harvested. Such high losses are as result of poor pre-harvest management, poor harvesting techniques, poor post-harvest handling, surpluses in production and lack of market access for the harvested produce. Uganda is among the 20 countries worldwide with the highest burden of malnutrition with more than one third of all young children stunted. Six in every 10 children in Northern Uganda are anemic. About 25% of women aged 15-49 have some degree of anemia. Undernutrition is responsible for 4 in 10 deaths of children under five. Effective postharvest management needs to start at pre-harvest/production.

The Challenge

Uganda is a youthful country with about 78% of the population below the age of 30 years, and 20.3% live in absolute poverty. Uganda is the largest refugee hosting country in Africa with over 1.5 million refugees, and 60% are youth (UNHCR 2021). West Nile hosts 51% of this refugee population and almost 50% of refugees live in poverty (UNICEF 2018). This is exacerbated by the high unemployment rates (64% among refugees and 29% among host communities), the COVID-19 pandemic, global economic downturns, effects of climate change and gender disparities. Horticulture has the potential to play an important role in addressing these challenges as it is a source of food security, employment creation and income generation. This project will address the problem of limited knowledge of production practices and inputs, due to inadequate research and extension services;

RESEARCH INNOVATION

The research project aims to introduce transformative innovations in horticulture practices to uplift the income and livelihoods of small-scale farmers especially women in Uganda. By addressing the issue of limited knowledge, unorganized marketing systems, and inadequate storage and processing facilities, the project will pioneer a comprehensive approach to empower these farmers. Our innovation lies in the development of cutting-edge horticulture technologies that optimize production practices, enhance marketing efficiency and improve storage and processing methods. This will ultimately create a more resilient and profitable agriculture ecosystem for small-scale women farmers in Uganda.

unorganized marketing system resulting in quality deterioration and huge post-harvest losses; inadequate storage, processing facilities and packing technology, which in turn create surpluses and severe shortages of these items during off season.

Research Design

The Embedded Research Translation (ERT) approach will be used in this study. This is an iterative co-design process among the researchers, farmers, and other stakeholders in which research is intentionally applied to solve a problem. All farmers and other stakeholders will be integrated early and throughout the research collaboration. The research solutions will be tailor generated for the project so that outcomes are more readily taken up and applied. The project will establish a collaborative partnership process so as to ensure a solid foundation to work together effectively on the project. The project will ensure that important translation products are created. Such products will include briefs, training guides and videos, which can facilitate recommendations in policy, feasibility and implementation approaches. The project will include a dissemination plan which will enable wider application and scale-up beyond the initial translation partnership and toward a larger uptake of findings.

Development Impact

The research project aims to foster positive development impact in Uganda by addressing the critical issue of horticultural crop losses in small-scale women vegetable farming. Through the evaluation of various agronomic practices, postharvest techniques,

and marketing strategies, our project aspires to catalyze a multi-faceted transformation, leading to improved livelihoods and financial independence for these women farmers. By reducing losses and improving access to markets, we seek to enhance household nutrition, increase vegetable sales and elevate the income status of small-scale women farmers, thereby contributing to the sustainable development and well-being of their communities.



Developing innovative horticulture technologies for small-scale women farmers in Uganda



Professor Kajobe speaks at the launch of West Nile Horticulture Sector Strategic Plan.
Source - Muni University



Robert Kajobe
Principal Investigator

FEED THE FUTURE INNOVATION LAB FOR HORTICULTURE

This research project is funded by the United States Agency for International Development (USAID) through the Feed the Future Innovation Lab for Horticulture at the University of California, Davis and is being implemented by the International Centre for Evaluation and Development (ICED). Horticulture Innovation Lab global research network works with and promotes local leadership to advance horticulture and social innovations, empowering smallholder farmers to earn more income while better nourishing their communities. Established in 2009, Horticulture Innovation Lab research helps end hunger through inclusive agricultural growth, strengthened resilience and improved nutrition for women and children.

Learn more about the Feed the Future Innovation Lab for Horticulture at horticulture.ucdavis.edu.

INTERNATIONAL CENTRE FOR EVALUATION AND DEVELOPMENT (ICED)

The International Centre for Evaluation and Development (ICED) is an independent, African-owned and African-led think tank that works to use the outputs of evaluation to contribute to and enhance development outcomes and impacts, concentrating on Africa, where the need for its expertise is greatest. ICED has offices in Nairobi, Kenya; Accra, Ghana; and a satellite office in Maputo, Mozambique. The activities carried out by ICED through research, monitoring and evaluation are aimed at ensuring Africa's development. This includes supporting local governments and related entities in developing evidence-based policies and implementing sustainable programs.

Learn more at iced-eval.org

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ABOUT FEED THE FUTURE

As the U.S. Government's global hunger and food security initiative, Feed the Future, gives families and communities in some of the world's poorest countries the freedom and opportunity to lift themselves out of food insecurity and

malnutrition. By equipping people with the knowledge and tools they need to feed themselves, Feed the Future addresses the root causes of poverty and hunger, helping people end their reliance on aid and creating important opportunities for a new generation of young people—all while building a more stable world.