

Asset Fact Sheet

The Two-Acre Regenerative Agriculture Model, Uganda

Title of the Project: The Dynamic Markets for Farmers project

Implemented by: Swisscontact Uganda

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CONTEXT

Ranked 15th in climate vulnerability, Uganda's smallholders' farmers are poised for more losses of agricultural yields resulting from increasing negative impacts of climate change. Mayuge district (implementation location), one of the districts in Uganda is no exceptions to effects of climate change. The district grapples with food insecurity and it is attributed to the increased allocation of land to cash crop growing leaving little to no land for food crops. This is exacerbated by a low land-size holding of 2.2 acres per household in the district.

Regenerative agriculture is a widely accepted practice in enabling smallholder farmers adapt to and mitigate the impacts of climate change. It is a farming method that focuses on improving soil health, increasing food security, and generating income sustainably. The model was customized and suited for smallholder farmers and involved practices like minimal tilling, mulching, cover cropping, timely planting, using organic manure, ridging, and integrating livestock. This mixed farming approach combines food and cash crops with animal husbandry to ensure year-round income and food self-sufficiency. By growing a variety of crops, farmers can meet their dietary needs while also preventing pests, reducing weeds, and conserving soil. This has helped to improve food security for cocoa-growing households.



Aerial View of the Two-Acre Model

DEVELOPMENT CHALLENGES

This innovation is geared toward addressing food insecurity, climate change, economic and financial volatility, and environmental degradation as key development challenges in Uganda. The 2-acre regenerative agriculture model can be a key contributor to the Sustainable Development Goals (SDG) 1, 2, 8, 10, 12, 13, 15, and 17.



SUMMARY

Uganda ranks 15th on vulnerability to climate change and 147th on readiness to address climate change effects. This means that the country is very vulnerable, sadly, unprepared to respond to climate change impacts despite of the already existing impacts.

Climate risk mitigation and adaptation strategies such as regenerative agriculture are non-existent in the country. The prevailing practices are monocultures with limited diversification of climate resilient crop varieties accompanied with limited crop rotation which has resulted into continual low yields and increasing vulnerability of smallholder farmers to climate change impacts.

Swisscontact, through the Dynamic Market for Farmers facilitated the development of a 2-acre regenerative agriculture model in collaboration with the public sector (lower local government). This model addresses the critical challenges of food insecurity, poor land use, and low incomes through diversification of complementing enterprises that directly improve soil quality that enhances productivity of the enterprises promoted. The model fosters year-round income, household food self-sufficiency, and nutritional security.

POTENTIAL FOR REPLICATION

The model can be scaled to other rural areas with smallholder farmers, as they encounter similar challenges globally. It remains adaptable if the included crops and animals fulfill farmers' food security and income needs, which is its main goal but also complementary while being grown. The asset is further customized depending on the land availability and prerequisite conditions.

Farmer commitment in terms of land allocation, labor, and initial capital investment is crucial for establishing a successful 2-acre regenerative agriculture model.

Farmer's access to extension service knowledge alongside their knowledge and passion for the selected enterprises is vital for effective implementation of the project.



2,566

Beekeeping Farmers
(43% Female)

607

Metric Tonnes of
Honey Production



14,079

Cocoa Farmers (30%
Female)

10,375

Metric Tonnes of Conventional
and Certified Cocoa.

UNIQUENESS OF THE 2-ACRE MODEL

It's a mixed farming approach that combines growing of food and cash crops along with animal husbandry that ensure a year-round food security, income and boost in household self-sufficiency. Additionally, this integrated strategy disrupts insect and disease cycles, reduces weeds and soil erosion, and preserves soil moisture, thus fostering biodiversity and ecosystem health. This creates a robust farming system capable of adapting to changing conditions and sustaining livelihoods over the long term.



TARGET GROUPS

Smallholder farmers majorly women, quality climate resilient input providers, extension service providers, commercial market providers, and public sector.

PARTNERS

Mayuge District Local Government. Swisscontact Uganda has a collaborative partnership with Mayuge district aimed at improving cocoa productivity and food security among cocoa farmers in the district. This district is in Eastern Uganda and has an estimated population of 562,048 people. Public sector (District local governments), and private sector actors engaged in different enterprises promoted in the 2-acre model.

IMPACT

1. Empowering Cocoa Farmers

Swisscontact Uganda established a four-year collaborative partnership with Mayuge District Local Government to implement food security component of the Dynamic Markets for Farmers Project. This triggered the systemic thinking of the underlying causes of food insecurity among cocoa farmers female cocoa farmers despite of the increasing incomes from cocoa sales. The overall assessment of the target project participants was conducted to establish actual systemic problems resulting in developing food security diversification options. Over 5,000 cocoa farmers participated in this intervention and realized a food access improvement.

2. Capacity Building in Good Agronomic Practices

With support from the project, the district trained cocoa farmers on better agronomic practices that enabled smallholder farmers to effectively practice the model but also improve cocoa production. This was achieved by establishing community-based cocoa facilitators that were critical in delivering extension services to cocoa farmers on diversified food security options. This knowledge transfer from the knowledgeable extension providers to the community-based extension providers bridged the gap in extension provision in the district. This resulted in a 94 kg increase in productivity and a CHF 163 income increase in 2023 from cocoa production and CHF 116 as diversified incomes in the same year.

3. Public Sector Collaboration

Lastly, the public sector through the collaboration with the project organized field days to popularize the 2-acre regenerative agriculture model in the district and the sub region. Furthermore, the district has cascaded the model to the lower local government through demonstrations.

4. Collaborative Human-Centered Approach

During the second year of the project implementation, the Dynamic Markets for Farmers project used a collaborative human-centered approach to successfully develop the 2-acre regenerative agricultural model. The project supported the public sector (District local government) to design and establish a 2-acre learning center which later transformed into the 2-acre regenerative agriculture model after several reviews of the implication of the learning center to enable smallholders adapt to and mitigate effects of climate change. This has resulted to 90% of the 5,000 cocoa farmers adopted practices from the model with the most adopted aspect being the banana-cocoa intercrop. As such, they have experienced an income increase of CHF 279 in 2023 alone, an improvement in food and nutritional security, and diversified income streams. Furthermore, over 7 district local governments and developments organizations are benchmarking from the model to improve their own programming towards climate change.

5. Linkages with Quality Inputs

The district through the collaboration identified private sector actors promoting quality inputs most especially seeds and organic fertilizers that were later linked to the smallholder farmers. This was done without any project investment but through realizing the value of the 2-acre generative agriculture model to the smallholder farmers.



5,000 Farmers Benefited

The two-acre model has turned out to be a learning center for Good Agronomic Practices (GAP), sustainable land use planning and management, and enterprise selection with over **5,000 farmers** having visited the demonstration garden. This has the potential of scaling up to **30,000 farmers** since it is at the center of the district where the population frequents to access key services. Notably, farmer field days in the district are always held at the demonstration garden.



CHF 279 Income Increase

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Center of Excellence

Students from agricultural colleges have completed their internship as part of the requirements for the award of certificates, diplomas, and degrees from different institutions of higher learning at the model farm.



Replicable

Kalangala, Kagadi, Kibaale, Namutumba, and Bugiri district local governments in Uganda have made benchmarking visits to learn and consequently replicate the model.

CHALLENGES

1. There was an inadequate selection of pineapple varieties resulting in lower-than-expected yields.
2. There were an underestimation of the model set-up costs with the district having to source more funds to complete the model.

LESSONS LEARNT

1. The district local government and particularly the production department buy-in was critical for the successful establishment and implementation of the 2-acre model farm.
2. Collaboration between the local government and input providers such as the National Agricultural Research Organization (NARO) was critical in the selection and supply of appropriate inputs.
3. Sensitization and popularization of the 2-acre model through farmer field days and hosting benchmarking visits increased the adoption rate among farmers and districts, respectively.

POSITIVE OUTCOMES

1. The increased awareness about the model through radio talk shows and community-based facilitators increased its popularization and acceptance among farmers in the district.
2. Selection of the partner was good as the public sector or government-provided land on which the innovation was to be piloted.
3. The value chains selected such as cocoa, coffee, and bananas were relevant to the community and thus increased adoption.



Bananas and Pineapple Intercrop



Trenches Dug in the Garden to Promote Water Conservation



The Bracharia Mulato II Pastures Sub-section



An Intercrop of Bananas and Cocoa