

Integrated Finance and Agricultural Production Initiative- UCA, Uganda

Project Overview and Connection to the Partnership Program:

The Integrated Finance and Agricultural Production Initiative (IFAPI III) piloted an environmental sustainability project funded for a period of two years (2013-2015) by CCA's Environmental Innovation Fund, and managed in collaboration with CCA's partner the Ugandan Co-operative Alliance (UCA), which focused on three main activities: The scaling up of training in conservation farming, weather monitoring, the promotion of fuel-efficient cook stoves and the establishment of tree nurseries. The intent of this pilot project is to enhance local producers' adaptability to changing climate conditions, as well as mitigate further negative impacts on the environment within beneficiary communities of Northern Uganda as part of the broader IFAPI initiative.

Measures to engender environmental stewardship within the beneficiary communities, such as the promotion of conservation farming techniques, have already been undertaken through IFAPI III. However, an increased environmental programming push for a focused period of time will help to bolster the efforts that have already been made, and will more thoroughly expose the participants to the concepts related to environmental sustainability.

Adherence to CCA's Environment Strategy:

Uganda is largely dependent on rain-fed agriculture, but annual rainfall is becoming more unpredictable due to climactic change that has resulted in severe weather events such as flooding and droughts, which have greatly impacted rural farmers. These issues are amplified in lower-income areas of Northern

Uganda where many households are depend on biomass fuel for cooking and heating (i.e. charcoal and firewood). This dependence on nonrenewable resources has contributed to widespread deforestation as tree stands are consumed faster than they are being replenished, which has led to soil degradation.

CCA's Sustainability Policy Statement³⁹ demonstrates the complex issues that must be addressed by communities facing ecological destruction that is exacerbated by the impacts of climate change. As such, the integration of "ecological, social and economic concerns into decision-making and action at all levels in society is imperative" (p. 1). Consequently, the IFAPI pilot project takes a multi-pronged approach that incorporates economic, social and ecological factors in order to meet these environmental challenges.

Additionally, CCA recognizes the importance of involving the beneficiary groups that are more vulnerable to climate change such as women and youth. Women are particularly burdened by having to walk long distances to collect firewood for household use. The pilot project emphasizes women's participation in the training and procurement of improved cook stoves, and also targets youth through their participation in the sale and management of seedlings from the tree nurseries.

³⁹ Canadian Co-operative Association. (2009). *Sustainability Policy Statement*. Ottawa, ON: Author.



Nursery bed construction

Project Development and Activities:

From October 2012 until February 2013 CCA tasked a climate change research officer with conducting an assessment of UCA's climate change programming within the IFAPI project that resulted in the following recommendations:

"[T]here should be an increased effort to raise awareness of conservation farming techniques that help mitigate the effects of climate change...Bamboo should be studied as a potential new crop that may help reduce deforestation and provide farmers with another fuel source and income stream. Finally Clean Cook stoves should be explored as a way to both improve health of members, and reduce their environmental impacts".⁴⁰

These recommendations formed the basis for the IFAPI pilot project activities:

Conservation farming

Conservation farming techniques allow producers to react faster to weather events, reduce their need to irrigate and help to maintain root structures, ground cover and soil

⁴⁰ Booren, J. (2013). *Ugandan Climate Change Research: Adaptation, Mitigation & Opposition- IFAPI Climate Change Programming*. Ottawa, ON: Canadian Co-operative Association.

quality through flood and drought. Extension workers from the Area Co-operative Enterprises (ACEs) in the IFAPI project were trained to be able to train producers from the Rural Producer Organizations (RPOs) targeted by the project.

Weather monitoring

A sub-activity of conservation farming training was the installation of rain gauges and the training of members to read and collect the data, which will enable producers to respond appropriately to weather events.

Fuel-efficient cook stoves

Fuel-efficient cook stoves require less time to gather fuel and generate less pollution, which leads to increased indoor air quality and better health for users. Cook stove design, training and building was conducted by UCA in partnership with the International Lifeline Fund (ILF).⁴¹

Tree nurseries

Tree nurseries were developed to provide beneficiaries with an accessible and sustainable source of fuel and income. Extension service workers were trained in nursery management, agroforestry, and seedling propagation and marketing. Nursery sites were selected based on certain criteria, and Youth Savings Clubs were provided with nursery materials to develop the sites into income generating



Seedling establishment and care workshop

promoting fuel-efficient cook stoves in Uganda.

projects. While bamboo was originally recommended as a perennial source of fuel for the nurseries there was not a sufficient amount of time to introduce it to local producers.

Project Outcomes and Results:

At the member level many of the beneficiaries reported that the trainings were beneficial, as they enhanced their business skills and increased their awareness of social and environmental issues.

Overall, the project intended to target 12 ACEs, 46 RPOs, 22 Savings and Credit Co-operative Organizations (SACCOs) for a total of 37,218 direct beneficiaries and 148,872 indirect beneficiaries with particular attention to women and youth to ensure 30% participation. However, the actual numbers greatly exceeded the projections.

Project Reach	Projected	Actual
a) # of households directly participating/benefiting from the project	37,218	69,330 Members
b) # of households indirectly participating/benefiting from the project	148,872	277,320 Members
c) Multiplier of # of people/household	5	5
d) Total reach of project [(a + b) c]	930,450	1,733,25 Members

Moreover, the focus on the environment has had a positive impact on the beneficiary communities through reforestation in the tree nurseries, a reduction in tree cutting for firewood due to the popularity of the fuel-efficient cook stoves, and increased soil and water conservation as a result of the conservation farming trainings. More specifically, the planned activities produced the following results:

Conservation farming

- Extension workers were recruited and producers were trained.
- Participation in training was low for both men and women, but adoption by those trained was high (**85%** for women and **100%** for men respectively).
- Demonstration gardens were established, exchange visits were organized and study circles were expanded.
- Participants reported increased crop yields and income, and reduced water stress, labour costs and soil erosion.
- Conservation farming techniques generated interest among participating co-operatives and there is now a demand to extend the training to other regions.

Weather monitoring

- Six rain gauges were distributed and installed in the Dei ACE.
- Six members (three women and three men) were trained in reading and collecting the data.
- Data is being collected and sent to the meteorological department on a monthly basis for analysis.

Fuel-efficient cook stoves

- Three communities (Akoloda, Erussi, and Panyimur) received training on how to design, build and maintain fuel-efficient cook stoves covering 90 households. Each household received two stoves.
- **100%** of participants adopted the fuel-efficient cook stoves for use in their home.
- There has been an average reduction of **26%** in cooking time, freeing up time for other activities.
- Household air quality and health has improved, and there has been a **58%** reduction in the number of respiratory illnesses.

- There has also been a **57%** reduction in firewood consumption on an individual level.



Fuel efficient cook stoves built during a

Tree nurseries

- **100%** of participants (i.e. youth) involved were applying the training they received in various ways.
- Participants noted that the tree nurseries have the potential to solve youth unemployment and delinquency: *“We are now busy instead of playing cards and drinking alcohol the whole day”* (Chegere Youth Leader).⁴²
- All participants earned an income that they later reinvested.

Challenges and Recommendations:

The planned activities from the pilot project garnered positive results and feedback from the beneficiaries. Nevertheless, there were a number of challenges that arose that became significant learning opportunities for both CCA and UCA:

⁴² Kapampara, E. (2015). *Final Evaluation Report: Integrated Finance and Agricultural Production Initiative (IFAPI III)*. Kampala, Uganda: Canadian Co-operative Association.

- Producers had misconceptions about the need for chemical fertilizers and herbicides in conservation farming, which was complicated by a poor history of use in Uganda. This led to a lack of application of conservation farming techniques in some cases. In the future, extension workers should explain that conservation farming does not require more chemicals than conventional farming, which will also help to waylay the fears of landlords.
- Collection of data from the weather gauges has been intermittent and there has been no follow up from the meteorological department. Going forward, UCA should seek feedback from the meteorological department and ensure that the gauges are monitored more closely so that producers are not caught unaware by unexpected weather events.
- Recipients of the fuel-efficient cook stoves had concerns regarding the size of the stove and their inability to repair or make other stoves to suit their cooking needs. These challenges are being met by increased sensitization through visits to learn different methods of use and maintenance (e.g. one recipient had interconnected two stoves for a larger cooking area). UCA is also formalizing a Memorandum of Understanding to provide building supplies to the ACEs to scale up the project locally.
- Commitment to maintenance, record keeping and management is an ongoing challenge. Recommendations include planning networking initiatives to promote linkages among members, and increasing the training offered to ensure that participating youth remain engaged over time.

In sum, the IFAPI III pilot project has effectively expanded current environmental programming and has laid the groundwork for future programming endeavors. As noted in the final evaluation of the IFAPI III initiative, it is still early to properly gauge the lasting effects and implications of the activities regarding long-term environmental sustainability in beneficiary

communities. Nevertheless, the results have shown thus far that the ecological and social impacts of the pilot project have been positive. Furthermore, the majority of the project activities such as the tree nurseries, fuel-efficient cook stoves and conservation farming training have had a measurable effect on the employment of youth and women, and have also generated increased income sources for members overall.



A husband and wife using conservation farming techniques on their farm