



## EVALUATION SUMMARY

# CLIMATE ADAPTED FARMING ON MT. ELGON (CAFÉ)

Using participatory approaches and multi-media engagement, an external evaluator led the CAFÉ project team through a mid-term and final evaluation. The evaluator facilitated a process with project staff, farmers' cooperative staff and individual farmers to examine the results of the project. She also drew out lessons on LWR's approach to resilience. This evaluation was funded through the "Foundations for Thought Leadership" grant from the Osprey Foundation.

## PROJECT SUMMARY

Lutheran World Relief's CAFÉ project was a bi-national program involving coffee farmer associations in Kenya and Uganda active on the slopes of Mt. Elgon. The project aimed to help the coffee cooperatives better serve their member small holder coffee farmers to improve the quantity and quality of their crop in the context of changing climate conditions as a result of landslides, floods and irregular rainfall.

The main objectives of the project were to ensure that participating cooperatives were providing services in an equitable manner, to optimize farmers' role in the coffee value chain and to protect farmers' crops against changes in the micro-climate. Activities focused on strengthening farmer associations' management structures, supporting farmers with improved extension services through demonstrations and one-on-one engagement and addressing cash-flow issues at specific points within the crop cycle. The project tested a new model for extension service provision by hiring farmers within the communities to provide services and equipping them with smartphones, linked to a digital platform, that both collected data and provided information on a variety of agriculture techniques and issues.

The project developed a theory of change for resilience to climate-related shocks that was integrated into the monitoring, evaluation and learning framework of this project. This included typical mixed methods for project indicator measurement as well as highly qualitative approaches to understanding household and community level changes in resilience.



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## EVALUATION METHODOLOGY

Both the mid-term (conducted in September 2015) and the final (conducted in August 2016) evaluations used participatory methods that combined qualitative and quantitative data collection.

The evaluator and project staff developed a set of guiding questions for the evaluation to assess the extent to which the project was meeting monitoring indicators. Indicators included, for example, farmers' income, farmers' satisfaction with associations and farmers' adoption of conservation practices. Other questions focused on the project's resilience theory of change, which used the Sustainable Livelihoods Framework's capitals (physical capital, natural capital, economic capital, human capital and social capital) to track the project's progress towards reaching increased resilience capacities (absorptive, adaptive, transformative).

The evaluation drew from traditional evaluation methods, such as interviews and focus group discussions, and new methods for refining and sharing the findings via videos, interactive maps, network analysis and data visualization. The evaluation team used these media to share findings and discussions with stakeholders on the ground and also employed real-time platforms such as Twitter, Facebook and a blog (accessible at <https://cafeevaluation.wordpress.com>) that the evaluator updated daily. This allowed the evaluation to provide information to a much larger audience (some days the blog saw up to thirty visitors) comprised of people tangentially related to the project, such as LWR staff based at headquarters, researchers who study resilience and coffee value chains and peer organizations with similar programming. The evaluation team was able to incorporate comments made by these parties on the daily cache of findings into their analysis.

Both evaluations ended with a reflection meeting that included stakeholders from the associations and LWR project staff. These meetings provided an opportunity to explore the evaluation findings and consider ways to address any identified gaps. For example, the mid-term evaluation generated important conversations within the two coffee farmer associations that were still ongoing when the final evaluation was conducted, such as the improved relationship between extension service providers and associations in Uganda.

The complete mid-term and final evaluation reports are available upon request from LWR.



## SUMMARY OF FINDINGS

### RESILIENCE INCREASED, BUT NOT CONSISTENTLY

- Vulnerability varies among households, so approaching all participants as though they face the same hazards or have the same assets is ineffective.

As is common in projects focusing on specific value chains, the project was best able to provide valuable services to wealthier or average-income coffee farming households and less effective at meeting the needs of the most vulnerable coffee farming households. However, some champions within the communities (who tended to be among the less vulnerable individuals) identified the more vulnerable members within their own communities and found opportunities to support them. These participants understood that a community's overall resilience was closely tied to the resilience of its weakest members.

Environmental conditions (elevation, climate, geography), economic and political hazards (market failures, inequitable or opaque policy structures, ineffective regulatory structures) and hazards related to timing (major household expenses coming before revenue from coffee sales) were present to varying degrees in all the communities, but in different combinations and to different degrees. It is therefore important to identify the hazards specific to each community and design relevant programming to address those hazards.





## RESILIENCE CAN BE GAUGED THROUGH THE SUSTAINABLE LIVELIHOODS CAPITALS

- The project focused on building social capital. In places where that was most successful, social capital reinforced other capitals.
- The relationships between all the capitals (not only between social capital and the others) can be assessed. Acknowledging and understanding this can lead to improved project design.

LWR’s resilience approach incorporates the Sustainable Livelihoods Framework. LWR’s experience in East Africa has focused on strengthening social capital as a means to building the other four capitals as well as working towards contributions to the three resilience capacities.

Both evaluations found that where social capital had been successfully built, such as in strengthening cooperative leadership or extension services, the other capitals also improved. However, the interrelation of all the capitals was important. See the Heat Map created during the mid-term evaluation that shows where correlations are relatively weaker or stronger in the project.

The evaluation explored the role of the capitals in building resilience more thoroughly, and more detailed information about those findings is available at <https://lwr.org/impact/evaluations>.

From \ To	Social	Human	Physical	Natural	Economic
Social		VERY STRONG	STRONG	WEAK	VERY STRONG
Human	STRONG		N/A	STRONG	VERY STRONG
Physical	STRONG	STRONG		N/A	STRONG
Natural	NO ANALYSIS	NO ANALYSIS	NO ANALYSIS		STRONG
Economic	STRONG	WEAK	STRONG	WEAK	

Capital Correlation Heat Map



## IT CAN SUPPORT COMMUNITY-BASED EXTENSION SERVICES WHEN USED EFFECTIVELY

- The Community Knowledge Worker (CKW) model was designed to equip certain farmers in the communities to provide extension services that would increase coffee quality, leading to higher incomes. LWR was already seeing results from this model in other projects and infused an IT platform into the model to further enhance it. Some aspects of coffee quality increased as a result of this approach, even though the effective use of the IT component was challenging.
- For the IT platform to be effective, its functions must serve several levels of project needs, including: aggregated indicator data for project monitoring, community-level quantity and quality indicators for association forecasting and record-keeping, and farmer-level histories (or farmer profiles) that track individual farmers' practices, coffee output and coffee quality. In the CAFÉ project, the IT platform prioritized project monitoring data, therefore the other levels of information were not easily available.

The CKWs worked for the coffee farmer associations. They led Farmer Field Schools in addition to providing individual support to farmers. In Uganda, the CKWs' work of quality promotion built upon some existing work within the association; the CKWs focused their support on individual farmers and were successful at increasing adoption of certain growing practices that led to improved quality coffee. On the Kenyan side of the project, no

such foundation for quality promotion existed in the association, and so the innovation of CKWs' support was very welcomed by the farmers and contributed to limited improvements in coffee quality.

Unrealized expectations about the IT platform limited the effect that CKWs could have had. The IT platform was meant to provide them with up-to-date information on best practices, pest control, weather forecasts, market information, etc. Additionally, the platform served as the repository for data collected from individual farmers. The platform was not functional in Uganda for a large portion of the project because of connectivity and design challenges. The platform was more functional in Kenya, which made the data collected more useful to project staff and, to a limited extent, also to CKWs, but because the data was aggregated on the platform at the project level, the CKWs could not track individual farmers or groups of farmers to pinpoint interventions and tailor their support appropriately.

The introduction of CKWs into the existing management structures of the coffee farmer associations was also more challenging than anticipated and had an effect on the CKWs' ability to successfully perform their tasks. Farmers consistently stated that the CKW model was one of the most valuable aspects of the project for them.

Both evaluations described the successes and challenges of this model. LWR continues to refine its IT and CKW approach based on these evaluations, and more detailed information about the model's evolution are available at <https://lwr.org/impact/evaluations>.





## **COFFEE QUALITY IMPROVED SLIGHTLY, BUT QUANTITIES WERE LOWER AT THE END OF THE PROJECT**

- Timing of payments and market structure had a strong effect on incentives for farmers to take extra measures to improve coffee quality.
- Unexpected market and weather changes affected the amount of coffee sold to cooperatives.

The coffee farmer association in Uganda was certified to sell fair trade and organic coffee. It also already had onsite processing facilities, allowing farmers to know how much of their coffee was of good enough quality to sell. In Kenya, the national structures for selling coffee are quite different, and farmers do not know how much of their coffee is of sufficient quality to sell and often believe they are being cheated because the system is quite opaque.

Therefore, Uganda had both the 'how' and the 'why' incentives to increase coffee quality: CKWs showed farmers how to improve quality, which often also improved natural capital, and the coffee farmer association's transparent processing and payment systems gave them a clear reason why quality mattered. They knew they would receive higher prices if more of their coffee was of good quality. Kenya only had the 'how' incentives, such as introducing drought-resistant crop varieties. These types of incentives were attractive to some farmers but not to all.

By the end of the project, the quantity of coffee sold to the cooperatives actually decreased. To some extent this was due to poor weather, especially hail storms and flooding. However, some of it was due to the fact that farmers sold some of their crop on the side to get immediate cash, even though prices obtained through the associations were higher. In both countries, the associations lacked upfront cash to pay for coffee when it was brought by a farmer. They could only pay once their aggregated coffee harvest was sold, meaning that farmers had to wait weeks or months before receiving their payment. The waiting period coincides with the payment due dates of school fees, so many farmers needed access to cash before the associations were able to pay out.

The project used Villages Savings and Loan Associations (VSLAs) to help reduce some of the financial stress on households at the most vulnerable times of the year. This strategy was intended to reduce side-selling in order to allow farmers to get the highest possible price, which comes from the farmer associations. VSLAs were successful but the better-off farmers were generally able to make best use of these associations.



## STRATEGIES TO MEET SUBSISTENCE NEEDS SHOULD BE COMPLEMENTARY TO, NOT IN COMPETITION WITH, GROWING COFFEE

- Growing complementary or alternative crops helps diversify risk for coffee growers and can help them better meet their subsistence needs, but it cannot compete with growing coffee.

The project introduced other crops to farmers as a way to help them diversify their risk. The hunger season (which generally lasts through April and May) is the period between when food stocks begin to run out and when payment for coffee sales comes from the coffee farmer associations. Households can grow food to eat or grow other crops for sale, but only if those crops do not compete for time or land with coffee plants. One of the complementary approaches introduced by the project was agroforestry, which helps protect the soil around coffee plants from landslides and droughts and can also be a source of fruit. This was found to be quite successful.

Supporting farmers by helping them select which complementary or alternative crops to plant and then supporting them to access markets requires more information and technical expertise than the CKWs were able to provide. Projects looking to promote such practices should keep in mind that simply introducing the concept is not sufficient for crops that farmers have never grown before. Resources must also be available to support the farmers as they select the alternative crops, and support must be provided to help farmers address challenges related to growing and marketing them.

## CONCLUSION

This was an ambitious project that sought to improve resilience through both a coffee value chain and the food security approach. It piloted a new model for agricultural extension services that supported improved quality in coffee crops and climate-smart practices to protect crops against shocks and stressors. CAFÉ also improved the households' resilience directly by improving and protecting coffee crops and developing savings groups that empowered communities and helped diversify income streams. It indirectly supported household resilience by supporting the structures that incentivized good practices. It fed into positive social feedback loops, where farmers' improved quality crops led to increased income which, in turn, led to increased economic resources for the cooperatives, allowing them to provide better services to farmers.

Where the project built on existing LWR knowledge, such as agroforestry and capacity building for cooperatives, it achieved success. Where it piloted new techniques, such as the IT component of the CKW structure, it improved over time as the project team reflected on better ways to move forward.

The project did not engage in either political or social issues (whether internal to the cooperatives or external in the market structures) related to the overall ability to incentivize increased quality. Because quality is so closely linked to farmers' incomes, future projects aiming to increase incomes should find a way to manage the political and social aspects.





## CONSIDERATIONS FOR IMPLEMENTATION

### LWR MANAGEMENT RESPONSE

The IT platform of the CAFÉ project did not realize its full potential, and LWR Management has taken the findings from this experience into consideration as it develops future similar platforms with farmers' data needs at the center.

### EVALUATION ACTION ITEMS

One of the recommendations from these evaluations was to find a way to engage and incentivize youth farmers who are often more willing to try new things and are more aware of mobile information access, but also often lack access to land and financial means to cover up-front costs. LWR has financed new programming for the strawberry value chain because strawberries are a high-value product, are sold frequently, have a ready market and require relatively less land and labor than coffee. This new programming will also target women farmers who also tend to lack access to land.

### ORGANIZATIONAL LEARNING

This project witnessed a major change in the status of one of the implementing partners in Uganda. The partner implemented the project well but its business activities (which were not the target of the project) resulted in poor decisions that eventually led to bankruptcy. This experience alerted LWR to the need to approach coffee farmer associations as enterprises, and LWR is working with the partner to test an enterprise-based approach funded through an impact investing model instead of the traditional cooperative-based approach exemplified in this project. This project did, however, strengthen the accountability mechanism within the association, which led to its members calling out the leadership for poor decision-making.

LWR sees resilience as an important aspect of its programming, and the findings of this project help refine LWR's understanding of resilience as well as inform future resilience programming to protect value chains from the variety of hazards introduced or intensified by climate change. The novel approach this evaluation took in its multimedia methodology and focus on learning also provided valuable insight into project findings and buy-in from more stakeholders than previous evaluations, hence it will be encouraged by LWR's internal program quality team.



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*Photos by Jake Lyell for LWR.*