

This Case Story was submitted to the 2016 CLA Case Competition. The competition was open to individuals and organizations affiliated with USAID and gave participants an opportunity to promote their work and contribute to good practice that advances our understanding of collaborating, learning, and adapting in action.

Is Cloud Computing the Blueprint for CLA Data? The Community Connector Experience

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MODULAR STRUCTURE OF COMMUNITY CONNECTOR

2012		2013		2014		2015		2016	
Jan-June	July-Dec	Jan-June	July-Dec	Jan-June	July-Dec	Jan-June	July-Dec	Jan-June	July-Dec
I - Pilot Phase									
Learning	Implementation								
		II - Scaling Up Phase							
		Learning	Implementation						
						III - Impact Phase			
						Learning	Implementation		

What is the general context in which the story takes place?

The Community Connector (CC) project — a fixed-price contract managed by FHI 360 and implemented by a consortium of seven other partners — is Feed the Future’s flagship project for integrated nutrition and agriculture in Uganda. The project provides innovative, multisectoral solutions to support improved household nutrition, food security, and incomes.

USAID designed the CC project to place collaborating, learning and adapting (CLA) in the foreground and enable the project to establish and maintain innovative, outside-the-box systems, habits, and attitudes that enhance the CLA agenda in all aspects of the project. CC was the first project in Uganda to place the CLA framework front and center. A high degree of emphasis on CLA is explicit in the award mechanism and in the project’s design, implementation, and monitoring and evaluation processes.

Since CLA is a nascent framework, issues on how to best collect data and monitor the project emerged from the start, beginning with the situational analysis. No one had the right answers, so we set off on the CLA data journey.

What was the main challenge or opportunity you were addressing with this CLA approach or activity?

Without CLA experts, there was no one to learn from. The project held a series of roundtable discussions with two technology-savvy firms and introduced the concept of cloud computing, but these firms had no experience managing a monitoring, evaluation, and learning (MEL) system for a CLA project. The team still had to figure out the best option.

How would the project answer the many evolving CLA questions? This was another key challenge that the MEL team needed to address.

An adjustment to implementation was made, but the MEL team needed time to develop and train on the new data collection tools. As soon as this was done, program implementers dropped the idea because something new had been learned. How was the team going to handle this?

In designing the project, the core team carrying out day-to-day implementation and data collection for the CC project are community volunteers with intermediate literacy levels. Information about community technophobia from experiences from Grameen Foundation, one of the CC project partners we had brought on board, led us to another question: If we adopted cloud computing for the MEL system, would this team easily adapt to using smartphone technology?

The CC project's modular approach is embedded in planning, learning, adapting, and implementation through six modules — three for learning and three for implementation/adapting — presenting a tremendous opportunity. This laid the foundation for CLA interactive cycle.

Since CC is a fixed-priced contract, the lead implementing partner, FHI 360, was paid only upon achieving specific milestones and deliverables. This design allowed for flexibility to reallocate resources in line with program learning and adaptation. Moreover, the organizational culture and leadership created room for roundtable discussions and innovation. Use of innovative technology was another avenue for addressing this CLA approach.

Describe the CLA approach or activity, explaining how the activity integrated collaborating, learning, adapting culture, processes, and/or resources as applicable.

The learning questions also helped reveal the underlying issues for some day-to-day operational practices; for example, “How do we carry out data verification/validation with a paperless MEL system?” This pushed the team to come up with effective ways to resolve these kinds of challenges.

The MEL system used technology to collect and make data available for quick operational decision making. Project volunteers used smartphones to collect data at the point of intervention and upload it in real time or near-real time to a cloud server.

The six program modules for learning and adapting/implementation helped us pause, reflect, and ask relevant questions. We were able to address the challenges identified in the first learning module during the second module, implementation, by quickly redesigning tools and retraining staff.



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Roundtable discussions with our field MEL staff, technology partner Grameen Foundation, country office staff, and community staff formed a feedback loop that helped us address glaring MEL challenges to CLA.

For real-time feedback, discussion, and actions on MEL issues that needed immediate resolution, we created an MEL group on WhatsApp, a cross-platform mobile messaging app that allows message exchange without having to pay for SMS.

The CC project conducted collaborative learning by creating time and space for internal and external stakeholders to participate in learning, formulating questions, and solving problems together. A lot of discussions were based on performance data, innovations, and new learning, and many of these discussions happened at the sub-county level, involving CC staff at that level and community volunteers working at parish level.

We conducted periodic assessments and household surveys that helped us track changes. The MEL system's ability to collect and channel data in real time or near-real time helped us address some of the leaks in the system.

The organizational culture — one of the outstanding approaches that have enabled CLA to be implemented — was one of shared commitment among stakeholders, partners, communities, and staff to question and share ideas, take risks and try new approaches.

Community Knowledge Worker (CKW) Search is a database that allowed community volunteers to use their smartphones to submit questions from farmers about crop diseases, harvest preparation, and other farming activities. CKW Search is a menu-driven system that displays different options onscreen, allowing the user to choose the desired option and navigate using keywords. The system can store information from previous searches on the mobile device or obtain it remotely from the CKW server.

The CKW Pulse application allows CKWs to view statistics on their performance. It also includes an SMS feature to post support requests.

The CC project did a lot to build the MEL team's capacity to design new tools, conduct spatial data analysis, and create data visualization. This paid off in the MEL CLA process.

Were there any special considerations during implementation (e.g., necessary resources, implementation challenges or obstacles, and enabling factors)?

The support provided by USAID raised the bar on innovation and progress, fostering open dialogues and willingness to make major changes in project design. Commitment from project staff and flexibility from project leadership enabled resources to be reallocated to build capacity of the MEL team, develop tools, and train community volunteers each time a change was made in the implementation mechanism.

From the initial implementation stage, we used a blended paper/electronic system, but that approach came with data quality issues. We learned that eliminating paper would help isolate some of these



issues, so we adopted a paperless system. After adopting the new system, we realized that we had a challenge with verification of the data that were being submitted to the system. Given the issues with data quality, the CC project recruited a data quality assurance officer to help with day-to-day issues of data quality.

One challenge was identifying the learning opportunities that could be translated into action and adaptation; this was not done for all the learning that on the CC project.

During the first implementation module, one of the key challenges was that the smartphone batteries would run low quickly. We resolved this by ensuring that the teams had spare batteries and had fully charged all of the batteries before going to the field.

With your initial challenge/opportunity in mind, what have been the most significant outcomes, results, or impacts of the activity or approach to date?

One of the most significant outcomes relates to the verification of activities reported on the monitoring tool. With a paperless data collection system, verification of data posed an additional challenge because, unlike the paper/electronic systems, physical source documents could not be reviewed. We posed this questions at the beginning. Using the CLA approach, the team came up with these solutions:

- On a weekly basis, using a random sample of 5 percent of records submitted that week, MEL team members called the community volunteers to verify whether reported activities took place.
- Global positioning system (GPS) points were collected for all of the data we collected. Another way we ensured verification of data collected was by plotting some activities on maps and triangulating with data collected where the activity had been done.
- An electronic extension tool was designed and used to register pregnant mothers and follow up with them until they gave birth. The tool enabled the provision of information to caregivers/families about antenatal care, child nutrition, and breastfeeding and was also used as a data collection tool (for example, to collect information on attendance at antenatal visits or whether a mother was exclusively breastfeeding for babies 0–6 months).
- The ME&L system used cloud computing to collect data and conduct preliminary analysis (dashboards) for decision making. The data collection tools had embedded quality control checks/controls to ensure that good quality data were collected at the intervention point.
- For some of our data collection tools, pictorial/photo evidence was used as a verification/validation mechanism. These photos would always be one of the data collection points on the data collection tool.

What were the most important lessons learned?

Our initial paper-based system to capture monitoring data had multiple challenges, so we moved to a paper/electronic system. However, this system also could not give us timely reports.

Managing adaptation is essential, including managing people's expectations and emotions.

In carrying out CLA, the organizational culture is important. It requires flexibility in operations, budgets, and policy.

The learning and adapting cycle cannot be maintained throughout the life of the project. Rather, the first years should focus on large- and small-scale learning, and later years should be spent on improving/scaling up successful adaptations.

CLA has a cost. Each time you learn and adapt, it involves costs, such as for developing new manuals, retraining (and sometimes hiring) staff.

Adapting is necessary whenever you learn and answer a new question or uncover a development assumption, but teams are often uncomfortable and resistant to major shifts in programming.

Any other critical information you'd like to share?

There is need for projects to invest in an electronic data collection system that is more robust than the Open Data Kit. When we started implementation of the CC project, there were few such systems on the market; most had limitations.

A key component of CLA is to integrate monitoring and evaluation data. This is the only way CLA will be proven to work.

Data use and visualization should be etched into the project's MEL CLA framework, data use can help to niche out issues with quality of data.

A backup data collection system was set up for the CC project, and we ensured that regions had a small pool of extra smartphones in case phones malfunctioned and could not be fixed quickly. The team also provided a paper data collection tool in case phones were not readily available.

A key challenge was gaining consensus among diverse stakeholders. This took a lot of time and delayed programming during the different implementation phases.

The CLA Case Competition is managed by USAID LEARN, a Bureau for Policy, Planning and Learning (PPL) mechanism implemented by Dexis Consulting Group and its partner, Engility Corporation.

