NEW ALLIANCE ICT EXTENSION CHALLENGE FUND ACTIVITY
NCBA CLUSA

MOZAMBIQUE

★ Maputo

Background

New Alliance ICT Extension Challenge Fund

The New Alliance ICT Extension Challenge Fund (the Fund) was one of the enabling actions of the New Alliance for Food Security and Nutrition which was created at a G8 meeting in 2012 to accelerate agricultural growth and productivity. The New Alliance ICT Extension Challenge Fund is a multi-donor fund managed by USAID, that receives financial support from USAID, DFID (the United Kingdom's Department for International Development), and the Bill & Melinda Gates Foundation — with the International Fund for Agricultural Development (IFAD) separately funding the Tanzania component — totaling to approximately $12M over three years. The goal of this fund was to improve agricultural productivity among targeted food crops by smallholder farmers in six selected countries in Africa, through the use of information and communications technology (ICT) applied to agricultural extension services.

The six New Alliance countries were Ethiopia, Ghana, Malawi, Mozambique and Senegal with IFAD funding a three-year grant for a sixth country, Tanzania. The implementation grantees selected were: Digital Green in Ethiopia (three- year grant); Catholic Relief Services (CRS) in Malawi (three-year grant); the Grameen Foundation in Ghana (two-year grant); Concern Universal in Senegal (three-year grant); NCBA CLUSA in Mozambique (three-year grant); and Farm Radio International (FRI) in Tanzania (three-year grant). The Grameen Foundation in Ghana's two year grant was extended through January 2017. The Senegal Grant was also extended through March 2019 with a no cost extension. All grantees were working in conjunction with the Scaling Seeds and Technologies Partnership (SSTP) in Africa country activities. Established in 2013, the Scaling Seeds and Technologies Partnership in Africa (SSTP), is a $47 million partnership between USAID and the Alliance for a Green Revolution in Africa (AGRA). SSTP partners with governments, local seed companies, farmer and development organizations to overcome the challenges restricting farmer access to improved agricultural technologies.

International Business & Technical Consultants Inc. (IBTCI) served as the monitoring and learning (M&L) contractor for the fund and was responsible for 1) contributing to the increase of the impact and cost effectiveness of the ICT Extension Challenge Fund country grantees by tracking their progress and facilitating learning and adaptation and; 2) enabling other stakeholders to learn from this work.

Mozambique Activity

NCBA CLUSA utilized a variety of ICT-enabled agricultural extension services to ensure that their interventions were reaching smallholder farmers diverse in age, access to technology, and geographic location. The ICT-enabled agricultural extension package comprised of three core products:

- A free cell phone service (3–2–1 Service) providing digitally guided information for SSTP value chain crops, available to all smallholder farmers within Vodacom networks;
- Online products (Audio and Visual Job Aids) including videos, lectures, dramatizations and interviews available through Vodacom and accessible primarily to extension agents that have smart phones and that can use them as downloadable audio/visual aids to enhance their services and;
- Radio programs, in a variety of formats, including Farm Radio International's Participatory Radio Campaigns (PRCs).

Services and interventions responded to the needs of three main smallholder farmer groups:

- Group 1 was the largest target group and includes smallholder farmers that have very limited access to extension services and few linkages to agribusinesses.
- Group 2 was composed of smallholders farmers who had access to traditional, face-to-face extension services through the government, NGOs, informal trainers (such as lead farmers), as well as agro-dealers.
- Group 3 consisted of farmers that participated as out-growers or producers for large agribusinesses, such as the Export Trading Group (ETG), Africa Century, and the Dutch Agriculture Development and Trading Company (DADTCO).

What You Need to Know About ICTs: Coverage and Technological Illiteracy

Implementers and donors should understand the beneficiariy's and partner's familiarity with the technology they plan to use, as well as how accessible it is in the area. The familiarity with the technology among farmers may vary from country to country, and the ability and willingness of farmers to access the ICT services will impact project results. Other issues to consider in Mozambique include: how extensive is the coverage of each community radio, how familiar are smallholders with using radio and engaging with radio programs, what percentage of the rural population has access to a radio, and who in the household makes the decisions regarding which programs are listened to.

The level of literacy can negatively influence the ability to engage with the system in Mozambique, where 45% of the population are illiterate, implementers will need to allocate more time to increasing farmer's technical knowledge on how to engage with ICT services. Regarding the 3–2–1 services, farmers need time to learn how to first use their phones before learning how to effectively engage with the services. This process is time consuming and should be considered during project design and implementation. For instance, in

Namiconha farmer group in Ribaue town.

Mozambique the project considered doing this through instruction cards, community theatres, posters, demonstrations, leveraging existing project's field staff, and using government and other extension staff to train farmers as part of their day-to-day activities.

Implementers should also consider issues regarding service accessibility. In Mozambique, the 3–2–1 service is exclusively provided by Vodacom cellphone service provider. Formative research carried out by the project indicates that the Vodacom network is accessed by the minority of rural communities. Having a service that can only be accessed through one cell phone service provider limits the ability of ICT services to be accessed by most smallholder farmers, which may prevent the project from achieving the expected results. Should it be possible, donors and implementers should consider lobbying with other cell phone service providers in the country so that ICT services can benefit more farmers.

Diversifying Content for a Growing Audience

A survey was carried out to target two groups of 3–2–1 service users:
1. Subscribers who engage with the system once and never returned and,
2. Subscribers who engage with the system more than once.

The results indicated that some subscribers accessed the service only once after receiving the promotional SMS from Vodacom, whereas others continued accessing the service because they were interested in dynamic information, such as weather forecast. This was an indication that the dissemination of additional dynamic information can serve to attract further 3–2–1 service usage.

In order to increase demand of the services, the project opened the platform to other information from the private sector and

other partners. Due to positive response from some local organizations, such as IKURU, Orwuera, Gapi and Agrifocus, the project facilitated the preparation of the first contents to be uploaded onto the platform. The agricultural content is expected to be updated every two weeks, whenever applicable. The name of the organizations and the information regarding their products and services are listed in Table 1 on the next page.

The dynamic information both stimulates demand for the 3–2–1 services among smallholder farmers and represents a business opportunity for the named organizations. Collaboration in future HNI information uploading deals means that local organizations can contribute to the sustainability of ICT extension service in Mozambique.

Lessons Learned on ICT Bundles

- Radio programs have been negatively affected by the unreliability of the local electric power supply. The project worked with two community radio stations (Ribaué and Alto Molocue district) which suffer from power cuts several times per day, affecting all radio programming and functioning. As a result, radio station tends to shift the agricultural program to unexpected times in the day, resulting in only a small number of farmers listening to the platforms.
- A similar situation occurs with the system connectivity for the ULIZA platform, where smallholder farmers participate in surveys by dialing 86–211–1003 and engaging with the radio. Mobile phone services and internet connectivity is often very weak in rural areas, meaning that farmers cannot engage with the radio ULIZA platform to leave concerns/comments and share experiences. A lack of reliable connectivity and electrical power prevents communication in rural areas and the broadcasting of radio agriculture content.
- Internal and external issues meant that the ICT services were delivered late. For instance, the 3–2–1 service experienced system launch delays due to challenges with service

TABLE 1: Local organizations and the type of information uploaded onto the platform.

ID	Organization	Type of information
1	Orwuera and IKURU	Agricultural seed
2	IKURU	Agricultural mechanical services
3	GAP	Finance services
4	Agrifocus	Agricultural inputs

broadcaster, where technical issues were encountered with Vodacom for the subscriber billing on the 3–2–1 service. As such, the 3–2–1 platform was only launched in November 2016, with the agriculture content made available only after that. There were also delays with airing agricultural programs due to difficulties in hiring a radio program technician within the first year of implementation of activities. It was only in October 2016 that it was possible to hire the technician and the radio program began broadcasting in March 2017. As a result of delays on delivering the ICT service, the results for year one of project implementation were below the expectation and the project reached only 6% of results estimated.

One Challenge, One Solution

There are many challenges with ICT and agricultural extension. Below is an example of one challenge and the solution for that challenge which the team implemented in the field.

The use of ICT extension services in Mozambique is a relatively new approach, therefore the demand for the services are still low and many potential users are not aware of the existence of 3–2–1 services. In order to stimulate demand, massive marketing awareness campaigns were carried out. The project promoted ICT services using local radio shows in some districts such as Ribaue, Malema and Alto Molocue in northern Mozambique — the radio shows were aired more than four times per day in national and local languages, namely Portuguese and Macua/Lomue. In addition, the project

invested heavily in marketing materials such as posters, pamphlets, and instruction cards.

The project also leveraged support from existing projects and their extension staff by marketing the ICT services during field days promoted by other related CLUSA projects. Smallholder farmers learned not only how to apply specific agricultural technologies, but they also had the opportunity to learn about the ICT services and how these can be used as reference for further consultation and technical assistance. By investing in ICT promotion, the project managed to increase the number of users from 2,752 in December 2016 when the 3–2–1 service was launched, to almost 12,000 users in March 2017.

PAGE 1 (LARGE): A farmer now understands the importance of planting in rows, using high-quality seed, and other crucial growing techniques. © Bita Rodriguez; **(INSET):** Waydraogo Aissata displays a melon from her home garden — the source of a wide variety of healthy, nutrient-dense meals for her family. The Resilience and Economic Growth in the Sahel – Enhanced Resilience (REGIS-ER) project, funded by USAID and implemented by NCBA CLUSA, provided the initial seeds and in-field training. © John Torres