

NEW ALLIANCE ICT EXTENSION
CHALLENGE FUND ACTIVITY

Digital Green



ETHIOPIA



Addis Ababa

ICT SERVICES IMPLEMENTED



The New Alliance ICT Extension Challenge Fund M&L Services Task Order is managed by International Business & Technical Consultants, Inc. (IBTCI) for the United States Agency for International Development (USAID). The views expressed in this case study do not necessarily reflect the views of USAID, other donors or their respective governments.

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.

Ethiopia Activity

Digital Green and its consortium partners, Awaaz.De, Dimagi, and Farm Radio International (FRI), were increasing the Ethiopian public extension system's reach and effectiveness by institutionalizing its use of ICT-enabled approaches at national, regional, zonal, district and local levels. The consortium combined locally-produced video, radio, interactive voice response (IVR) and human-mediated facilitation to disseminate information about good agricultural practices and tools and technologies to improve production to smallholder farmers.

ICTs were selected based on appropriateness for the context, capacity to provide greater depth of information than traditional extension methods and proven success. They bypassed literacy barriers which were: cost-effective; interactive; usable in areas with low internet or power connectivity; adaptable for local languages; and able to reach a broad audience. The consortium worked in partnership with the recently re-organized Ministry of Agriculture and Livestock Resources, MoALR, and regional bureaus of agriculture in Tigray, Southern Nations Nationalities and Peoples Region (SNNPR), Oromia, and Amhara regions.

In Ethiopia the implementer's goal was twofold: 1) to increase the use of quality seeds and improved technologies by smallholder farmers; and 2) to increase financially sustainable ICT-enabled services to complement other extension services.

Partners: Farm Radio International, Awaaz.de, DiMagi

Country of Operation: Ethiopia



Jorge Nanesso sifting teff from her field.

“My land is now transformed because I drained the excess water using Aybar BBM and applied the recommended practices, step-by-step, which I saw in the videos. The little changes introduced and the discussions made me fruitful. I hope these videos and radio programs will continue to guide us in using better technologies and practices.”

— Jorge Nanesso, a widowed mother of four, Soyema village in the Becho district of Ethiopia

What You Need to Know About ICTs: Project Design and Sustainability

When piloting ICTs for agriculture, it is best to start with a small-scale pilot to ensure that human-centered design is at the root of the approach. Success does not depend on the technology (or various technology channels) itself, but on how it is used and how farmers leverage it. The project’s human-mediated model combines technology and social organizations with facilitators working directly with groups of farmers to broaden community participation in the existing agricultural extension system. Farmers’ feedback helps us to progressively better address community needs and interests.

Both public and private stakeholders and implementers should work together at the proposal development stage to create a strategy and roadmap for sustainability and project close-out. While adjustments and revisions will naturally take place, the preliminary road map will ensure that all partners agree on milestones, phases, and responsibilities, throughout project implementation. Plans for assuming financial costs related to equipment or service use and maintenance, and continued employee training, should be included in the sustainability plan.

The Land is Giving

Jorge Nanesso, a widowed mother of four, lives in Soyema village in the Becho district of Ethiopia. Like many of her neighbors, her livelihood is based on farming teff and wheat on her three hectares of land.

Digital Green engaged with over 250 farmers in 10 farmer development groups in Becho district. Using the video-enabled approach coupled with Farm Radio International Participatory Radio Campaigns (PRCs), Digital Green worked closely with Ethiopia’s public agricultural extension system to expand its agent’s reach and effectiveness.

Ms. Nanesso participated in her village’s farmer development group, viewing and discussing localized videos. She engaged with her community group, listened to PRCs, and discussed challenges and techniques, such as improved teff and wheat production.

Aybar Engineering PLC is an SSTP grantee that manufactures the BBM tool to create furrows in vertisol to drain excess water. The tool is specifically designed for the clay-like composition of farms in the Becho area. Although extension agents introduced the tool is not specifically made to Becho. It works in other areas too.

Extension staff trained in Digital Green’s approach created these videos and facilitated local screenings on the tool’s assembly and use on farms with topography and composition matching those in Soyema village. After viewing, Ms. Nanesso tried it on one hectare and planted an improved variety of wheat using recommended management practices and more than doubled her production, harvesting 32 quintals (3,200kgs) where she had previously harvested only 14 quintals (1,400kgs).

Empowering Development Agents

Ethiopia’s public agricultural extension agents — called Development Agents (DAs) — are responsible for delivering extension services through trainings, demonstrations, and events at district-level centers. The system’s effectiveness is

hampered by DAs’ limited communication, group facilitation and training skills; technical knowledge gaps for accurate demand-driven advice; and the distance farmers need to travel to meet DAs.

ICT INTERVENTION ➤ Integrating ICT services into DAs' work has delivered timely and contextualized information directly to farmers. Digital Green trains extension staff to produce, disseminate, and monitor the impact of short, locally-relevant, evidence-based videos that convey improved agricultural tools or techniques. They trained DAs to screen the videos among small farmer groups, facilitate discussions, capture feedback and motivate farmers to adopt the featured practice. Verification visits measure effects in terms of technology adoption. Radio and IVR reinforced and complemented the video's messages. Multi-week radio programs designed for participation from community groups were informed by feedback on videos of the same topic, messages were integrated into the national IVR hotline, and a new Q&A forum allowed farmers to ask questions.

Data collection and monitoring improved DAs' service delivery and informed subsequent video.

THE IMPACT ➤ With integrated use of ICTs, DAs are reaching more farmers with accurate, effective and localized messages. ICTs bring information directly to farmers rather than requiring farmers to travel. Since 2015, they have reached 952,907 farmers. Nearly 20% have adopted featured practices. Tracking farmers' questions and feedback on IVR lines has identified demand for input markets as well as presence of pests or diseases to which DAs should be trained to respond. The government is increasing investment in digital services and is incorporating the video-and IVR-enabled approaches into DA's workflows.

Lessons Learned on ICT Bundles

- Adding more channels/ICTs do not always add up to more impact. Some ICTs are better at communicating certain ideas. For example, mobile is useful for exchanging small bits of information that fluctuate often, such as market prices or weather. Whereas video provides richer information that can motivate viewers. ICT is not a substitute for face-to-face communication — the two need to be paired together and work in complementary ways.
- Introducing various ICTs create added responsibility through the need to track and monitor various channels/ICTs.
- Agriculture-driven ICT-based solutions across public and private development stakeholders are often left out of

sustainability plans. Integrating ICTs into the broader strategies of the Ministry of Agriculture or private-sector seed suppliers for example, requires generating an awareness of the value of each technology channel and the impact it derives for farmers, as well as charting out clear operational pathways for each channel.

- Finally, having farmers receive varied content from multiple digital channels can lead to a fragmented approaches. Implementers need a way to build multiple dissemination channels and align content across each stream. Sharing data and databases amongst implementing partners is key to effective coordination in efforts

Addressing Gender

- Women represent 38% of farmers reached through technology-enabled extension approaches and 36% of farmers who have adopted promoted practices. Digital Green increased women's participation and addressed women's concerns in the following ways:
- **Working with women farmers groups, as well as with farmer development groups comprised of both men and women.** In some areas, participants favored viewing videos in women-only groups where they have more opportunities to discuss the content and identify gender dimensions to adopting the technology. In other areas, women preferred viewing videos in mixed male/female audiences; illiterate women expressed they understood the video content better during the discussion. Many women reported that obtaining information together with their husbands created opportunities to make mutually-agreed decisions.
- **Featuring women farmers on videos and PRCs helped motivate women to adopt technologies.** This is especially true for videos and PRCs that showcase practices normally

carried out by women, such as gardening, livestock management and nutrition related practices.

- **Developed messages that address women's concerns by framing promoted practices and technologies in terms of how they can reduce women's work burden, and being sensitive to how a practice might increase women's work burden.** Digital Green also leveraged content derived from the district level self-help/women & youth affairs experts responsible for promoting traditional women-centric activities (e.g. dairy management, sheep/goat fattening and nutrition).
- **Gender-aware group facilitation.** Illiteracy and cultural norms frame women as listeners rather than speakers, hindering women's group participation and affecting confidence in understanding practices. Group facilitation training included strategies and techniques to ensure women are heard in mixed groups. Scheduling video dissemination and PRC listening groups at locations and hours convenient for women, and where they are more likely to have access to child care, is also vital to gender inclusion.