The Luo translations: farmer learning videos in northern Uganda

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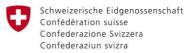


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Swiss Agency for Development and Cooperation SDC

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Cover: Robert Ogwang begins a video screening in Tumbafu, northern Uganda

1. Summary and introduction

Summary

To support one of its market-oriented development projects in northern Uganda, Mercy Corps approached Access Agriculture to translate some 34 videos hosted on the Access Agriculture website (www.accessagriculture.org) into Luo. Most of the people I met on this study were able to use the videos, compiled onto five DVDs and provided by Mercy Corps.

A private agricultural commodity company, GADC, has made the videos a key part of its efforts to promote small-scale, commercial chilli growing. GADC (especially one enthusiastic member of staff, Robert Ogwang) takes projector equipment to communities, in the evenings and shows about four chilli videos and all three sesame videos, and gives informed answers to farmers' questions. GADC feels that the videos convey information to farmers while giving them the confidence to try growing chilli, which is a new crop in the area. Some of the local GADC agents, such as Omara Waliki, also use the videos to cultivate their social networks, e.g. showing the videos to train farmers who will later have produce to sell to the company. The extension agents also improve their own agricultural knowledge, by watching the videos.

With a few notable exceptions, most of the NGOs and government agencies that got the DVDs did show the videos, and appreciate them as useful teaching tools. Of the organizations we were able to visit on this study, most showed the videos; all in all they reached at least 10,000 farmers, even though Mercy Corps gave no financial support for screening videos.

One creative government, district agricultural officer found a new way to show the videos: playing them on his desktop computer to the many farmers who visit him in his office. One NGO, AVSI, gave DVDs to other NGOs, many of whom also showed the videos to farmers, sometimes in novel ways. For example, Blessed Organic Released showed the sesame videos to a group of farmers, and then immediately reinforced the message by helping the farmers to plant a demonstration field of sesame.

Agricultural input dealers made creative, proactive use of the videos. One dealer, Grace Auma, used the videos to tap into her social network, by gathering friends and neighbors after church to watch the videos at a friend's house. Agricultural input dealers quickly realized the value of the high-quality videos. The dealers used their own resources to show the videos to farmers (sometimes even renting video halls). The dealers then used the occasion to promote the inputs they sell, especially sesame and maize seed.

The farmer groups that received DVDs were able to watch the videos, sometimes quite frequently, to study the information. For example, the ASHICO irrigation cooperative is systematically showing the videos to small groups of farmers in the coop office, during daylight hours, on a computer, in order to show the videos to all of their member farmers. The Agoro Vegetable Producers Association screens the videos repeatedly, to watch the videos several times, in order to learn more from them.

Many northern Ugandan farmers have cell phones, and use them not just for communicating but to watch Hollywood and Nigerian movies, including some dubbed into Luo. Even cheap,

ordinary handsets can be used to watch videos. Even off the electrical grid, inexpensive solar panels are common and people are able to keep their phones charged. Videos in cell phone format may be a way of getting agricultural learning videos to farmers.

Volunteer facilitators are more likely to show someone else's video when the quality is top notch, especially since the audience is now used to watching commercial films, even in remote villages in northern Uganda. Development agents of all walks of life (government, NGOs, agroinput dealers) find their own ways of showing videos, because the videos are attractive, are in the local language and are on topics of broad interest to people in the area.

Introduction

Based on demand, and as a paid-for-service, Access Agriculture tries to translate the videos that its hosts on its website into as many languages as possible. This effort is unique in agricultural development, where many videos are made in one language only, and are unscripted, making it difficult to translate them into other languages (Bentley et al. 2015). Access Agriculture translates videos because much agricultural information is cross-cultural, and can be shared between people on different sides of the globe, or different regions of a continent, as long as the narration is translated into a language that the audience understands (Van Mele 2006, Bentley and Van Mele 2011).

This study tells what happened in Access Agriculture's largest translation effort so far. In 2015, 34 videos were translated (from English) into Luo, a language of the Nilotic family, with about seven million speakers in East Africa. The videos had been made previously in Malawi, Benin, Mali, Kenya, Bangladesh and other places. The translation was funded by Mercy Corps, an international NGO.

We had great expectations for these translations, compiled onto five DVDs (see Table 1). Thirty four videos is more than Access Agriculture has translated into Spanish, Portuguese or Arabic, for example. Access Agriculture expected to see an international NGO, Mercy Corps, systematically integrating the videos into their work in a fresh, interesting way.

What we did find was perhaps more intriguing. Among other things, we found an agricultural processing business using the videos to motivate and train farmers to adopt a completely new crop (chilli). Other people, especially farmers and input dealers, also found the videos useful, and made every effort to use them (Table 2).

Magic dust

On my way out of Uganda, I stopped in Kampala to meet Sean Granville-Ross, the country director for Mercy Corps. With Miji Park (chargé for Kitgum) and some other staff we listened to a presentation by three young Ugandans from AirSave, a startup company that encourages ordinary folks to save money using a combination of a cell phone platform and a bank account. The novelty is that AirSave makes it hard to withdraw the money until the account matures. This enforced willpower didn't appeal much to me, but I kept an open mind.

After a while Sean decided that the idea was worth trying, and he offered to give AirSave a bit of funding to pay their transaction costs. "Let's sprinkle some magic dust on this and see what happens."

In other words: let's give it a try and see what happens. That is also the creative attitude that Mercy Corps took with these videos. Translating and distributing the videos was an experiment, to give away some videos in the local language in northern Uganda, and see what happens.

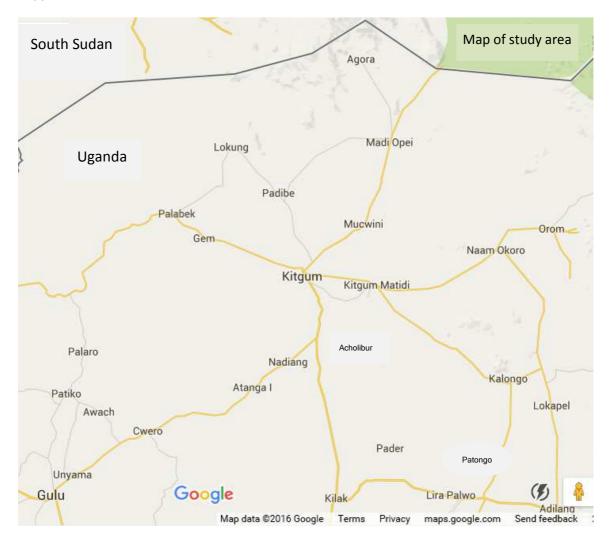


Table 1: The Luo videos compiled for Mercy Corps

DVD: Fighting striga						
Video title	Sponsor(s)	Short description				
1. Striga biology	ICRISAT	Striga is a parasitic weed on cereal crops. Knowing its life cycle is the start for proper control				
2. Integrated approach against striga	ICRISAT	Striga causes more damage to cereal crops in poor soils, so both problems have to be tackled together				
3. Succeed with seeds	ICRISAT	Growing resistant varieties is one of the strategies of integrated striga and soil fertility management				
4. Composting to beat striga	ICRISAT	Compost helps to fight the parasitic weed striga that attacks maize, millet, sorghum and rice in Africa and Asia				
5. Micro-dosing	ICRISAT	Micro-dosing consists of applying small quantities of nutrients that the plants need to each planting hole				
6. Animals & trees for a better crop	ICRISAT	Trees and livestock play a crucial role in obtaining a productive soil and crop				
7. Storing cowpea seed	ICRISAT	Intercropping a cereal crop with legumes is part of integrated striga and soil fertility management				
8. Grow row by row	ICRISAT	Legumes have many virtues, but it is often hard for farmers to get quality seed.				
9. Joining hands against striga	ICRISAT	Pull striga weeds with your hands before the time it produces seeds and spreads and destroys the crop in the coming season				
10. Let's talk money	ICRISAT	A participatory tool to measure cost-benefits of agricultural technologies helps farmers to make decisions.				
DVD: Rice Advice						
Video title	Sponsor(s)	Short description				
1. Spotted seed means diseased seed	IRRI	A step by step guide to producing good quality rice seed by removing the poor quality seeds and impurities				
2. Seed sorting by flotation	IRRI	Demonstration of how to select good quality rice seed using flotation techniques				
3. Well dried seed is good seed	IRRI	How to dry rice seed to give good results even in the rainy season				
4. Rice seed preservation	IRRI	How to care for valuable rice seed to avoid damage in storage				
5. Land preparation	AfricaRice	Measures that can be taken to prepare land for rice growing with advice from experienced rice farmers				
6. The rice seedbed	AfricaRice	How to make sure the seedbed will give your rice crop the best start				
7. Rice transplanting	AfricaRice	The best way to transplant rice to boost yields, when to transplant, how to space plants and get the best results				
8. Effective weed management	AfricaRice	How to control weeds to allow rice crops to thrive, effective weed management can increase yields by 50%				
9. Managing soil fertility for healthy rice	AfricaRice	Measures that farmers can take to increase soil fertility and increase rice yields				
10. Improving rice quality	AfricaRice	Advice to farmers about increasing the quality of their rice so that it is demanded by consumers				
		,				

Table 1 (continued): The Luo videos compiled for Mercy Corps

DVD: Cassava and maize						
Video title	Sponsor(s)	Short description				
1. Soil fertility in Africa	Africa Soil Health Consortium	A pan-African voyage for students and development workers showing the principles of Integrated Soil Fertility Management				
2. SLM12 Conservation agriculture	IFAD / IIED / WBI / VU	A technique which has minimum mechanical soil disturbance, permanent organic soil cover and diversification of crops				
3. Growing cassava on poor soils	Ghent University	Improve cassava production and grow a protein-rich legume crop on the same field				
4. Managing mealybugs in cassava	CIAT	Learn how to recognize mealybugs, how they spread, and how to stop them from destroying your cassava crop				
5. Reviving soils with mucuna	IFDC	Mucuna is a creeping legume that produces abundant vines and leaves that fix nitrogen from the air				
DVD: Sesame						
Video title	Sponsor(s)	Short description				
1. Maintaining varietal purity of sesame	Access Agriculture	Organic farmers in Mali show us how to maintain the varietal purity of sesame				
2. Row planting of sesame	Access Agriculture	By sowing sesame in rows, the branches will multiply and give more pods than with broadcast sowing				
3. Harvesting and storing sesame	Access Agriculture	How to harvest, thresh, and store sesame to ensure good quality				
DVD: Chili						
Video title	Sponsor(s)	Short description				
1. Making a chili seedbed	IFDC	Farmers in Benin learn us how to make a chili seedbed to get strong, healthy seedlings				
2. Insect nets in seedbeds	IFDC	Insect nets help to protect vegetable seedlings in seedbeds from goats, chickens, snails and insect pests				
3. Managing nematodes in vegetables	IFDC	The diagnosis, life cycle and control methods of root knot nematodes in vegetables				
4. Transplanting chilies	IFDC	Give your seedlings a smooth transition from the seedbed to the field to increase your chances of getting a good crop				
5. Harvesting, drying and storing chilies	Access Agriculture	Practical ideas about proper harvesting, drying, grading and storage of chilies				
6. Chili solar drying	IFDC	Dry your food faster and more hygienically by using a solar dryer that uses the heat of the sun				
7. Making chili powder	IFDC	Making chili powder is a good way to make money that does not require very much time				

Table 2: Stakeholders who showed the videos

Organization	Videos screened	How many times	Viewers (total)	Notes			
GADC	Mainly chilli & sesame	Over 70	At least 7000	Some field agents also showed the videos on their own, possibly reaching another 2000 viewers			
DAO Kitgum (government)	All videos	Many	Many				
NGOs							
Blessed Organic	Sesame	Once	About 25				
GOAL	Chilli, cassava, striga	Several times	Not sure				
IRC	Rice	At least 5	200				
CESVI		Twice	Not sure				
P4C	Striga, cassava, chilli	5	400				
Agricultural input dealers							
Charles Obwana	Sesame, maize	3	500				
Grace Auma	Sesame, maize	several	556				
Michael Kilama	Chilli, sesame, striga	9	About 450				
Farmer groups							
Kalongo Investment Ltd.	Rice, maize-&- cassava	Once	130	Private company, works with FFS groups			
Mewa Igwok ma Inongo	Striga, sesame, rice	Twice	85				
ASHICO (irrigation cooperative)	Rice, striga, chilli	Several times	530	Groups of 10-30 farmers watch at the coop offices			
Agoro Vegetable Producers	All	Many times	28				
Warib Cing	Mainly striga, sesame, rice	More than twice	About 150				

Source: the present fieldwork. Includes only the cases documented in this study.

2. Mercy Corps

Mercy Corps/Kitgum

It has been almost a year since the first 1000 DVDs arrived in Kitgum. This was 200 sets of five DVDs each. Mercy Corps met with their partners to distribute the DVDs and realized that most of the disks had been badly printed and wouldn't run. Mercy Corps sent the whole lot back to Kampala, where they were done over again. Printing DVDs is fairly routine in Africa, so it was a rude surprise that these disks were no good.

The DVDs were used in two linked projects, RAIN (Revitalizing Agriculture and Incomes with New Markets), funded by USAID and BUILD (Building Women's Incomes through Agricultural Training), funded by the Walmart Foundation. RAIN and BUILD are sister programs. RAIN is five years old and will close in September. BUILD is two and a half years old, and covers the training needs for RAIN.

Most of the DVDs went to one private company, GADC (Gulu Agricultural Development Company). A few went to other organizations. Some people came in and asked for copies. GADC buys commodities from farmers and is interested in training, but couldn't pay for extension itself, so Mercy Corps funded extension through GADC, but did not pay them explicitly to show videos.

Mercy Corps is interested in working with GADC because Mercy Corps sees commercial agriculture as the best way to increase household incomes. Mercy Corps also works with local VSLAs (Village Savings and Loan Associations) and SACCOs (Savings and Credit Cooperatives). Agriculture and local financial institutions may not seem like a tight fit, but agriculture is by far the best source of financing in the area.

David Otutu, in charge of M&E for Mercy Corps/Uganda, explained the evolution of the Mercy Corps training materials. Mercy Corps used to support extension agents who gave talks with flip charts, speaking in Luo and writing in English on the flip chart, but few people in the audience could even read it. That was ineffective. Then Mercy Corps went to simple drawings printed on a sack cloth, which worked a lot better, and led Mercy Corps to the idea that video would work even better. Northern Ugandans were already buying DVDs with foreign movies dubbed into Luo. David suggested that videos are a farmer-to-farmer method, because after the farmers watched the videos, they can tell them to each other, the way someone tells their friends the story of a favorite movie.



David shows the drawings that helped Mercy Corps develop a keener interest in audio-visual aids

David said that Access Agriculture did the translation, then Mercy Corps invited people from local government and international organizations to check the translations. The panel watched the English version of the video and the Luo version. They liked the videos, but wanted some words changed, to Acholi Luo. The content of the videos was OK.

Molly Ajok, agro business specialist from Mercy Corps said that the translation and voice over was done by a broadcaster known to Mercy Corps, who is from the area, but who lives in Kampala. She did stress the choice of words in the video, that some words were from the Langi dialect (spoken around Lira) and not from the Acholi dialect, spoken around here. For example, here people call striga *loduwa*, but in the video they were calling it *alera*, which is an obscene word around Kitgum.

Most languages have more than one dialect, but the differences between some dialects are deeper, and attitudes also vary; some speakers are more accepting of dialect differences than others. Actually, for languages that have many different dialects, like Luo, these videos are best done by a team, to make sure that the script uses words that are understood by everyone who speaks that language (Maiga 2015).

Where there are no words that all speakers of that language know, sometimes it is possible to use synonyms, as long as they fit into the allotted time for that shot of the video. We were able to do this in some of the Spanish videos, for example, where northern Latin America and southern Latin America often have different words for agricultural products (e.g. a fresh ear of corn is *elote* in the north and *choclo* in the south). At first mention you can say *elote* and *choclo*.

The Mercy Corps staff told me, my first few days in Kitgum, that the farmers were impressed with the light soil shown in the video. No two soils are alike, but in truth, some of the videos were made in very sandy soils. In one video made in coastal Côte d'Ivoire, the soil is so soft that farmers seem to uproot a cassava plant simply by pulling on the stem. In the videos filmed in Grand Popo, Benin, farmers are growing chilli in what looks like beach sand: a testament to farmer ingenuity, which impresses the other farmers who watch these films.

Twenty five new extension agents

Jamesson Dennish Onekelit is the agriculture extension team leader for Mercy Corps in Kitgum. My first few days in Kitgum, Jamesson was busy leading a training workshop for 25 new extension officers, who had been hired to train 20,000 farmers. Jamesson asked me to show the new extensionists how to use the Access Agriculture and Agtube websites and I played them the Mucuna video (http://www.accessagriculture.org/node/513/en/) in Luo. They seemed to like it and many of them wanted to ask questions, but we only had time for a few. (What are the advantages of growing mucuna? How does it compare to growing other legumes? Can you eat it? Why plant it when the maize is nearly ripe?).

Jamesson then gave them a rousing introduction to Access Agriculture, and encouraged them to use the videos and to upload videos onto Agtube. It was the first of three times that Jamesson would ask me to go with him to promote Access Agriculture. Later I realized that there were enough DVDs to give a set to each of those trainers. That would also have been a good idea (especially since internet is patchy in the area), but they are coming in for another training at the end of February, when Jamesson can give them a set.

Radio Tembo

Jamesson took advantage of my visit to go see the staff of Radio Tembo, with an interesting idea about sharing the videos over the radio. Please see our blog story, <u>The Power of Radio</u>.

The bicycle drop

On 12 February 2016, Jamesson took me with him to deliver some bicycles to the new extension agents, and to interview people on the way.

We dropped two bicycles off with the extension agents in the town of Acholibur. The extentionists were in the office of WORUDNET (Women and Rural Development Network). The Mercy Corps project, BUILD, sponsored by the Wallmart Foundation, has a goal of



reaching 60,000 farmers (50% women). And the project is 20,000 people short of reaching its goal, which is why they have hired so many young extensionists, including a lot of women.

The other 40,000 extensionists were reached through GADC. Some other companies (Jola Company, Uganda Breweries Ltd., Agrinet and Tru Trade) were involved in BUILD, but never received the videos.

As we look for people to interview, it becomes clear that my visit is also an opportunity for Mercy Corps to do follow up work with the people who received the videos.

In Pajule we dropped off two more bikes, to two young extensionists, both women. They were also at their local Worudet office. The walls of the small room were covered in posters and charts about violence against women. The problem seems to be out of hand. The office may be a good place to find women, which may be why the extensionists are placed there.

I asked the two extensionists about the DVDs. They replied in mono-syllables, that no, they did not have the videos and had not watched them. (After all, they had just started with Mercy Corps).

Then I asked if they watched movies on their cell phones. That caught them as a non-sequitur, and they both burst into laughter. Of course they did! (Doesn't everyone?)

I decided to do a bit of action research, and not merely an evaluation. I suggested to Jamesson that we could get the video files converted so that people could watch them on their cell phones. I asked him when he would see all of the extensionists again and he said at the end of the month.

Jamesson didn't say much, but he was thinking about the idea. When we stopped in Puranga to leave the fifth bike, the extension agent, Sophia, was sitting in her small office. All the extensionists have cell phones, enhancing the efficiency of bicycle delivery.

While Jamesson and Sophia filled out the bicycle paperwork, I chatted with the young man who ran the agroinput shop next door. He was selling a bit of fungicide, but most of his stock was seed, especially for vegetables. There is little demand for agrochemicals in the area; there must be little inoculum for the disease—so far. The dealer really wanted the videos. Jamesson looked up from filling in his form, and told the dealer that Sophia would be coming out at the end of the month with the videos on her cell phone.

Home village

On the evening of 17 February, we dropped Jamesson off in his home village, Madi Opei, north of Kitgum town, so that he could vote. It had been an isolated village in the bush, but the Chinese have just built a wide highway platform through the village, and will soon make a modern highway. This means that traffic will be able to drive on a paved road from Kampala all the way to the border with South Sudan.

We passed the elementary school where Jamesson had walked, as a little boy, to attend school. Jamesson had had a traditional rural upbringing. And now he was a university graduate with a leadership position in an international NGO. It's a lot of change in one generation.

We left Jamesson at the little bar and hotel that he owns. He modestly said that it didn't cost much to stay there, just 10,000 shillings (about \$3), but he hoped that one day it would be a good business. Like many other people we will meet in this report, Jamesson is investing in his home village. This is a clear sign of optimism that things are improving, in a part of the world that has really suffered.

3. GADC

GADC structure

GADC has a network of seven area coordinators in the 4 districts around Kitgum. (There are eight more out of the Gulu office, but we did not work with them on this study. The area coordinators and their 15 assistants (two per area) live in the communities and supervise the 141 field agents, each of whom works with 10 lead farmers. Each lead farmer has about 30 farmers, i.e. 300 farmers per field officer (about 42,000 farmers, in total). There are 30,000 farmers under the TRAIL project.

A field officer comes from the communities and there is one field officer per community. The lead farmer is the focal person who can interact with farmers and answer their questions. Most of the field officers (and five of the lead farmers) are also buying agents, who buy sesame and other commodities from farmers, for GADC.

GADC also works with several thousand more people on a GiZ project. GADC has a well-worn, 4-wheel drive car which they take around to the villages in the evening to show videos to the whole village. GADC thinks that as many as 200 adults and 100 children may attend each of these videos, although of course the numbers vary. GADC tries taking attendance at some of the screenings, but it is really too much to do, and some people don't like to give their names. It also disturbs the audience, to have someone going through the crowd asking people's names, during the showing.

GADC's agronomist, Wilfred Kamulegeya, and the extension supervisor for chilli, Robert Ogwang, explained that they have started with the chilli and sesame videos, and have not been showing the other three DVDs. Robert answers questions when he shows the videos, and the GADC field agents can also answer questions the next day, if Robert is not there.

In the USA we say that imitation is the sincerest form of flattery. Robert likes the videos so much that he has made two videos himself.

One is of a local lady, who has grown chilli (http://www.agtube.org/en/content/post-harvest-handling-chilli). It is mainly to motivate farmers, many of whom have never seen chilli growing in their village. Robert of GADC feels that the farmers will be more likely to plant chill if they see it being done in a video staring a local, Acholi person, than if the video features people from other African countries.

The lady in the video on chilli saw the video on solar drying, and so she came to GADC to get a dryer from the company. But GADC only had seven, and by then they had given all of the dryers away, so she went home, hired a carpenter, got wood and asked him to make her a dryer. Then she went back to GADC, and they gave her screen that she could use to finish making her dryer.

All of the area coordinators and the top staff have the Luo videos on their laptops, so they can show the videos in smaller groups. Chilli is a new crop here, but many of the area coordinators and the field agents grow their own plots of chilli. Showing the videos has become an important part of GADC's strategy to promote chilli farming in the area. GADC never uses the videos alone, but combines them with lots of personal contact.

GADC likes the videos so much that they are watching other Access Agriculture videos. Wilfred told me that he had seen the videos on local chickens, drip irrigation and beekeeping, none of which were on the DVDs of the translated videos, so he took effort to watch more videos of interest to him.

Buying chilli

On 6 February 2016, Robert Ogwang of GADC took me in the battered 4-wheel drive to buy chilli, an hour's drive away in Lokung, along the border with South Sudan.

GADC showed the chilli videos here, and then Alfred (a buying agent) started registering the farmers who wanted chilli seed. 60 people signed up. More would have, but the form only had space for 60 names.

They each get enough seed for an acre. That seems like a lot of seed, but some people grow the seedbeds and give some of the seedlings to other farmers. They grow the chilli in the first, short rainy season, so there is no irrigation work, which makes it easier.

Robert drove us to meet Nancy, in Lamodo East Village, also in Lokung sub-county. Nancy has had secondary school and speaks some English.

GADC gave out 7 chilli driers, and Nancy got one of them. Last year she grew a little bit of chilli and this year she grew more.

These videos are motivating people to grow chilli from scratch. When farmers in Uganda watch farmers in Benin and Malawi grow chilli, the Ugandans realize that they can also grow chilli.

GADC buys some of the seed locally, and buys some of it from Kampala, and gives it away to farmers.

I asked Nancy what changes she had made in her work. She was one of the first farmers to grow chilli. GADC had introduced the crop to her before showing the videos. Nancy said that at first they were drying their chilli on the ground, and then GADC brought out the dyer.



Last year the rains were erratic. There was a drought, and then in January there were two weeks of rain, when it was supposed to be dry. This little burst of rain helped Nancy and some

of the other farmers, by allowing their chilli to bear more fruit. Robert says that chilli is a nice crop, because it demands little moisture.

Robert paid Nancy 180,000 shillings for her chilli, which is \$55. That is a lot for people who previously had almost no cash income. Nancy had neatly separated here chilli into Classes A, B and C. A small boy sold 6000 shillings worth of chilli, three kilos of Grade B and C fruits that his mother let him glean from her garden. Nancy and the little boy both seemed happy and slightly shocked when Robert put the money in their hands.

In Kwonodong Village, also in Lokung, we talked to Francis Nyakazi, who was there with both his wives. I thought the women were just two good friends. Robert says he wants to find out how Francis manages to keep the two of them so happy.

Francis is the local buying agent. This was the third place that saw the videos. They watched chilli and sesame on 19 June. During the screening, GADC wrote down the names of about 169 people, a large gathering. Two weeks later, on 30 June, Francis planted chilli, during the second rainy season. He said he got a good price for it and he uses the money for school fees, medicine and food. Later we dropped the trio off at their home, where they were building a brick home, next to their round huts; they are investing their money in something durable: a house.

Gilbert Otim, another farmer, tells me that people like chilli because it is a crop that gives them lots of money.

I asked Gilbert if the farmers understand the videos, and he says yes, they do. He seems emphatic about it.

Gilbert Otim learned how to grow chilli, in part from the videos. "We only grew food crops, which didn't make us much money. We are making money on chilli. I have sold it twice before, besides today. From the video I made the decision to plant chilli and I had a good outcome." Gilbert wants to grow more chilli next year.

Robert bought chilli from Jimmy (who appears in Robert's video on making a sesame dryer), from Gilbert, and from a lady whose name I didn't get. Robert was surprised how much chilli was on sale. He spent all the money he brought with him, and Francis and his two wives had to sell to Robert on credit. He said he would be back next week to pay them. We had a small crowd around us as Robert bought the chilli. It was an object lesson to them: chilli is worth money.

One man show

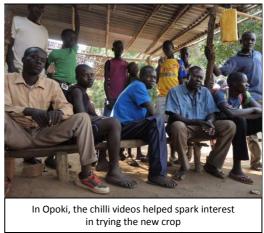
On Monday 8 Feb I went to the field with Robert. We were joined by an assistant area coordinator, Obalim Morris Cankura, who had come to the plant in Kitgum with a truck of sesame. Morris had been paid, had picked up his weekly ration of 11 liters of fuel, and now he was hitching a ride home with Robert.

Morris was pleased with his motorcycle, which he had bought on credit. GADC makes the 15% down payment and then the buyer takes over the payments. As Robert explained it, if you

make three deliveries of sesame in a week you can make 1.8 million shillings (\$545) in a week. Morris did that and paid for his motorbike in three weeks. It must be a great incentive for buying commodities.

The bike was being repaired by a local mechanic. As more cheap motorcycles flood into the area, pushing the bike to the repair shop is going to become a familiar motif, and mechanics are going to be a growing occupation.

At the first village, Opoki, in Padibe West subcounty we sat on benches at a small shop, where villagers come to get soap and soda pop. A little group of people soon gathered to talk to us. They had seen the videos too late in the season to do much with the information. But they had signed up for chilli seed. The GADC field agents have a form with thirty spaces for names. They fill out the forms, with the names of farmers who want a bag of free chilli seed from GADC.



Chilli prices are high, some 6000 shillings for a kilo of Grade A, while sesame prices have plummeted from 4000 shillings a kilo in 2015 to about

2200 now. That is also encouraging farmers' interest in chilli.

Robert explained that two years ago, some outsiders came into the area promoting shea seeds, which the farmers planted, and then nobody came to buy the shea. At first, the swindlers gave the seeds away, and then started selling them. Because of that experience, when GADC came with chilli program, some people doubted it, so GADC gave the seeds away for free. I also suspect that the free seed is an investment, to help farmers get over one of the hurdles in starting up a crop that (hopefully) will be profitable for everyone concerned.

The villagers of Opoki said that in the video, the sesame grains were the size of pumpkin seeds (http://www.accessagriculture.org/node/1706/en/). With Robert translating, I said no, the sesame in the video was of normal size, and I showed them pictures of sesame from Mali. I thought it was a little odd that some of the viewers thought that the sesame grains were so large. Robert insists that this is a common perception, because of how the grains look in one of the close ups.

These folks do go to the computer center in town to get movies to watch on their cell phones. Opoki is off the grid, but the villagers charge their phones with solar panels.

I ask them if they would like to watch our videos on cell phones.

"That would be the best way to watch them," they say.

Morris doesn't have his own copy of the DVDs and has not shown the videos on his own. But when Robert came to show the video, Morris did invite the people to come watch it (he "mobilized them", as they say in Uganda). But the evening GADC played the videos in Opoki, people from two neighboring villagers were on their way home, and stopped to watch. The

visitors told their neighbors about the videos and so the people in those other villages also asked to see the videos. Robert scheduled screenings for both villages. This suggests that farmers value the information in the videos. The farmers not only got home late that night, but (like David said) they told the story to their friends, the way you retell a charming movie, and then they went to the added trouble of looking up Morris to request a screening for their own villages.

Robert is not quite the only one showing videos at GADC, but he is by far the main one. While we were driving down one of the long stretches of dirt road, I told Robert about Ronald Udedi in Malawi, who had converted the Chichewa videos to formats that could be read on cell phones. Robert thought about it, and decided that he wanted to also figure out how to put the videos on memory cards. On Sunday Morris would be in the office again, and Robert wanted to have the videos ready then, to upload onto Morris's phone.

When Robert screens the videos, he also answers the villagers' questions, and even discusses topics that are not on the videos at all, like planting sunflowers in line. So sometimes people mention some of those topics when I ask what they have learned. If people watch a video at an event where other information is shared, later people may conflate the facilitator's words with the video.

In Opoki, I saw that the videos help convince people to try planting chilli. The videos are a tool, and in the hands of a person who wants to excite people about chilli growing, the videos help motivate, not just carry information.

Robert tells the people in Opoki that the most important thing is to plant (sesame) in lines. The farmers were impressed when they saw oxen in the videos being used to plant sesame. The farmers want to try it. Although they have oxen, they have only used them for plowing, not for planting or weeding.

Benson

After meeting the farmers in Opoki, we dropped Morris off at the motorcycle mechanic's, where we met Rom Benson, a field officer from Padibe, who confirmed that the chilli videos were motivating people to grow chilli. Some of the farmers tried to grow sesame in rows, but the prices were not as they were. Benson has not shown the videos. He only mobilized the people when Robert showed the videos.

Benson said that most people understood the videos, because they are systematic and visual, and because they reinforce the messages taught by GADC. They did have some questions. Some did not understand when to plant chillies. They asked if the prices would fluctuate. And third, they wondered about harvesting it and drying chilli, and they wanted it explained again.

Pauline

Pauline Akwero also buys from farmers for GADC. Pauline owns a little shop, with a name that means "Better than Laughter". I gather that the name is to suggest that farmers should buy seed, because succeeding in agriculture is more fun than laughing.

Pauline is selling foundation soya bean seed and the farmers in her area are producing certified seed from it.



Pauline is certain that the farmers want to plant chili because of the videos

They are tired of sesame because of the low prices.

When Pauline got her forms to sign people up for free chilli seed, none of the farmers signed up, because they didn't know the crop. And then Robert showed his videos and 25 farmers registered for chilli seed. So Pauline is convinced that the videos are inducing people to plant chilli.

Of course it's not just the video. The video comes in a package that includes Robert, an important member of the company, who drives out to the village to show the videos at night. That suggests to the farmers that the company is serious about buying chilli. (The farmers don't want to run the risk of growing a product and then to be stuck with it. Bird's eye chilli is used for making tabasco sauce. The household can't eat the chilli, and if they can't sell it they will lose their investment. So the villagers need a bit of coaxing, and it helps that GADC has bought produce from them for five years, building up trust, which is important in an area brutalized by war, plagued by buyers who cheat farmers and by others who whip up interest in shea nuts, only to vanish.

Just the act of showing the video is a small demonstration of the company's commitment to the new chilli crop, and to buying the future harvest. Farmers crave the reassurance of knowing that there is a guaranteed market for the crop. In the future, GADC will buy chili systematically, via its buying agents, but for now the priority is to get a critical mass of farmers growing the crop

While may people in northern Uganda like these videos, and are involved in them, no one champions the videos the way Robert does. Much of the success of these videos is due to this one man.

Input dealers like Pauline might be highly motivated to also sell agricultural DVDs, or to screen the videos. In Section 6 we will see examples of input dealers who did receive DVDs and were able to use them to support their own businesses.

A busy man

We include below an excerpt from the blog story from our visit with Omara Waliki.

Winning the peace, with chilli and videos

In recent blogs we talked about how the people of northern Uganda are rebuilding their lives, eight years after the end of a bloody civil war. A lot of the effort is provided by enterprising local people, like Omara Waliki a GADC Waliki extensionist and a farmer himself. He also buys chilli and sesame for the company, and runs a small shop and a one-room agency for Post Bank, where villagers can deposit and withdraw money. Waliki is fortunate to live in Palabek Gem, a town just large enough to have a transformer. So Waliki has electricity (most of the time). He also has a TV set, a DVD player and five DVDs with training videos relevant to agriculture in northern Uganda.

Even though Waliki is busy, it is his own self-interest that the farmers he works with perform well. The more they produce, the more they can sell to him, and the more commission he earns. Earning money is a powerful incentive that can be channeled into doing things better.

Successful buying is about successful networking, explains Robert Ogwang of GADC, much of it done on cell phones. Even in war-ravaged, northern Uganda, cell phones are farmer-friendly. Several companies compete to offer coverage; reception is good, widespread and people can buy airtime in increments as small as 15 cents US. Now every village has solar panels to charge up people's handsets. When a farmer phones Waliki and asks how to make a seedbed for chilli, a new crop in this part of the country, Waliki asks the farmer to turn the soil and break it up. Waliki goes over and helps the farmer finish the task. Waliki also suggests that the farmer invites a few friends over, so they can learn how to make a seedbed, too. Thus helping a neighbor becomes a demonstration, which also strengthens Waliki's relationships with the local farmers.

If the demonstration goes well, the farmers may plant chilli and have a harvest. If they developed some rapport with Waliki at the demo, they may later sell their chilli to him, or their sesame.

Waliki does extension out of enlightened self-interest. When anyone in the community asks to see the videos, Waliki invites them to his home, where he plays them the videos they want to see. About twenty or thirty people end up watching the videos each time Waliki shows them. At one time or another, Waliki has shown all five DVDs.

The videos are so good that people still keep asking to see them. The information helps them to improve their farming.

"How many farmers have you shown them to?" I ask.

Waliki says he can't remember. Neither can he remember how many times he has shown them, "but it is many."

Only three people are growing chilli now in the area, but Waliki has given seed to 24 others. The farmers are just waiting for the rains to plant their chilli, which they will dry and then sell for export, to be made into hot sauce (the fiery kind that comes in tall, thin bottles).

Electricity, cell phones, chilli and learning videos are being combined creatively to help Waliki and his neighbors recover from the losses caused by the war. Winning a war is more than defeating the enemy or even about laying down arms. It's also about building a viable life again. When the fighting stopped in Uganda around 2008, and people gradually left the refugee camps, they found that their homes and livelihoods had been destroyed. Since then they have built small, thatched houses and have planted subsistence crops. Now people are also growing cash crops, to earn the money that helps families build a more prosperous future.

Pioneers

In Mudu East village, Palabek Ogili sub country, we visit half a dozen women, who bring out a tarp and mats, so they can sit together in the shade of a tree, while three or four men sit on a log, a little further away.

One of the men is a pioneer chilli-grower, now in his fourth year with the crop, long enough to realize that chilli grows and yields well for three years, and then the yields start to decline.

He started growing the chilli because a company from Lira distributed seed. But they never bought the chilli. That may also add to the local people's hesitation to simply jump into a new commercial crop, one which may not have a buyer.

The other people in Mudu East are interested in growing chilli, and several of them have signed up for chilli seed from GADC.

The villagers quickly understand that we want to talk about the videos. One lady wants to answer all the questions. The others chide her to stay quiet "how do you know what was on the videos, if you have not watched them?"

One man in a wheel chair said that he has already made his chilli bed. Physical challenges can be overcome. He was obviously a busy man. Half way through the interview he rolled away, one of the few people who abandoned any of our interviews.

They used to have a bore hole, a deep well, but the hand pump has stopped working. Now the village is dry, and a long ways from water. They wonder where to plant their seedbeds. They wonder if Robert can bring them watering cans.

Robert may give away chilli seeds, and buy commodities at a good price, but he is not about to lead people into a dependence trap. He tells them that if they sell a kilo of chilli, they can buy their own watering cans.

The people have no doubt seen the watering cans in the videos. These people are growing commercial crops, like sesame, and they have to walk four kilometers to the river, to get water to carry back to the villages. Yet they are asking visitors to buy them cans to carry water. So I ask them what to spend their money on. The women answer: school fees, hospital bills, cattle, goats, food, houses and clothing. Others kept it for funerals and transport. "If you want to get a wife you can pay dowry," the ladies say. They hesitated and then added "it also helps to buy some booze to get drunk. When you work hard you need to enjoy your sweat."

During the whole meeting, the lady who wanted a drink sat



Madeleine Atoo (left) holds her cash and her empty gourd bowl, after selling a bit of chilli

there holding an open gourd, full of dried, yellowish, grade-B chilli. Before we left, Robert weighed her chilli on his portable scale, and put 4000 shillings in cash in the farmer's hand. Sale by sale, he is convincing the local people that if they grow chilli, he will buy it.

Investing wisely

Luke Okot is the area coordinator in Pabalek Kal, and GADC's top buyer. Some days he sends three truckloads (36 tons) of sesame to the plant in Kitgum.

This is how it works. When the buying agents have a load of sesame they phone Juliette, the transport coordinator at GADC, who sends a truck. Such efficient buying and transport would have been impossible just a few years ago, without cell phones, and now this whole commercial system is



Luke (left) buys a truckload of sesame. Luke and Robert (right) would both like to see local people spend their money on useful thing

tightly adapted to a working phone system. The buying agent victoriously rides the truck into Kitgum, unloads the sesame, and gets paid in cash. It's a moment of glory for someone who knows how to manage money.

Luke has made 35 million shillings (over \$10,000) just from sesame commissions last year. That's a lot for someone who was just a village farmer a few years earlier. Luke is loading a truck full of the oversized sesame bags when we pull up to his store house.

Luke is really busy, maybe too busy to do much extension work. He has a laptop with the videos on them, but he has only shown them to about 100 farmers, spread out over several occasions, although he works with 7800 farmers.

But like Waliki, Luke is a keen entrepreneur and is investing his sesame money in various rural businesses. Luke is building a guest house (a small hotel), near his sesame store. But Luke says that for most of the other farmers, their biggest problem is managing money. The farmers need training in "financial literacy", Luke says, because when they get money, they just waste it, and have no money to invest in agriculture.

Big time spender

Later I ask Robert about what Luke said. Robert explains that Luke is right; it is hard for people to manage money. They spend most of the year with no money at all. Then they get a lot of money at once, the equivalent of several hundred dollars. They don't know how to spend it.

GADC has recognized the problem, and is now trying to teach their farmers how to spend their money. For example, they should plan for it. "You know the price of sesame. You know how much sesame you have to sell. You should be able to know how much money you will get when you sell it. Then you can talk (to your spouse) about how to spend it."

Robert says that people just "go crazy" when they get the money. He tells a story which he says is an example of what he means.

A man sold his sesame and got 1.8 million shillings (\$545). He disappeared for five days, spending the whole wad of cash on drinking and on other women. When the money ran out, he came home. His wife asked him where he had been. The errant husband said that he had dropped the money by the wayside, and had spent all of five days looking for it.

It must have been an unconvincing tale, coming from a man with stale booze on his breath and an aching hangover.

When the wife scolded the husband for losing the money, he ran out of witless lies, and simply beat her.

When Robert finishes his parable, I wonder how common it is to blow a windfall in cash all at once. After all, improving income does nothing to enhance livelihoods if people waste it on a week of living dangerously. "How many people go crazy like that?" I ask.

Robert demurs.

"More than half?" I suggest.

"Oh yes, more than half. Some wash their hands in beer, just to show how much money they have."

But with chilli, money is a little easier to manage. The cash comes in more often, but in smaller amounts, because they can pick the chilli fruits every two weeks or so. Sometimes the men become ashamed of drinking all the money, and agree that one time the man will get the money from chilli, and the next time the woman will get it. Or they find some other way of sharing the money. Earning money (and spending it) is also something that can be learned with experience and good examples.

Jamesson had also been telling me similar stories, that people fill a basin with beer, and wash their hoes in it, just showing off with money.

Even if people didn't have enough money to invest in storehouses and hotels, the farmers could invest their harvest earnings in solar dryers, in drip irrigation or in farm tools.

Clearly these stories are to be treated a bit hypothetically, because there are a lot of successful family businesses in the villages and small towns; some people in northern Uganda clearly know how to make the most of their money. On the other hand, even the less successful households can learn to handle money, just like one learns to manage any other unfamiliar tool.

Showing videos

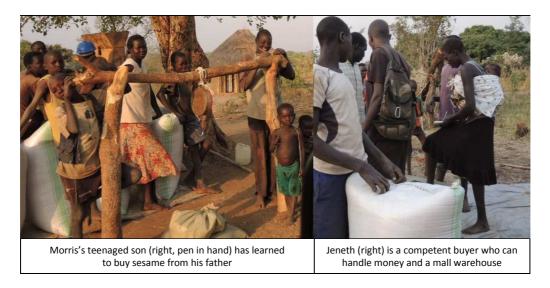
On Tuesday, 9 Feb, Robert and I picked up Morris, who was at his home in Opoki, buying sesame. He had a good crowd, cleaning the tiny sesame grains in a mini cleaner, bagging it and weighing it, writing down numbers and handing out cash.

Morris got in the car with us to go to the video screening in the neighboring village of Tumbafu (one of the two villages that had requested a screening after some of the folks saw the videos

in Opoki). As we drove off, leaving the sesame buying in full swing, I asked Morris who would buy the sesame, with him gone.

Morris's teenaged sons have been trained to buy sesame. One looks up from his notebook and gives me a proud grin as we drive off.

For a few kilometers we drive down a rough foot path, not quite wide enough for a car. Part way to Tumbafu the bush is on fire. Much of the country is covered in trees and rough grass and it burns in the dry season, darkening the sky. People fire the grass so they can hunt wild rats with home-made bows and arrows.



In Tumbafu we meet Jeneth, who is Morris's best buyer. She has a tiny baby strapped to her back. She is tall and thin and she avoids dragging the heavy sesame bags, but she is clearly in charge, buying the sesame and, writing down the sales in her notebook, and seeing that the young men stock the bags into her little brick warehouse.

The sesame money has attracted vendors to the village. Entrepreneurs of the smallest scale know how to seize an opportunity. In one small shop, four or five men have squeezed in to drink bottled beer. Near the football pitch some women have set up a makeshift market, selling fried snacks, candy, soda, and home brew. They were also offering that pernicious innovation from the booze industry, the plastic sachets of gin and vodka, so that anyone with a few coins can spend it on alcohol. A few people are pleasantly high, but no one is staggering drunk.

Robert and Morris quickly unload the sound console, a wooden folding table, laptop, big box speakers and a heavy steel frame that holds the screen (a bedsheet). Robert plays some West African, French pop music and attracts a crowd, including some toddlers who start to dance. Then Robert plays three Acholi music videos. Robert believes in local content. The videos are contemporary song and dance, complete with playful costumes, but the messages are serious. The first one is about taking your time when you decide who you want to marry; chose the right



Morris (left) helps Robert set up the speakers and screen

person to spend the rest of your life with. The second one is on the importance of staying in school to get a good education and the third one is a traditional Acholi dance, performed in modern dress, in what looks like a large, new hotel. The moral is: be Acholi, keep your identity, and adapt gracefully to the opportunities that this changing world offers.

Then several people speak: first Morris, then a local leader, then me (as briefly as possible) and Robert. The people of Tumbafu have never grown chilli, and Robert knows that. So he starts by telling them that GADC will give them seed, and buy the crop from them. He explains how chilli is graded A, B and C, with different prices. Then he shows them videos on chilli:



Warming up the audience. Silly video with a serious message: stay in school

Making a chilli seedbed

http://www.accessagriculture.org/node/1264/en/,

Managing nematodes http://www.accessagriculture.org/node/1297/en/, Chilli solar drying http://www.accessagriculture.org/node/1248/en/, and Drying and storing chillies http://www.accessagriculture.org/node/1248/en/.

Then Robert shows his own video, featuring Rachel, the local farmer who has a solar dryer.

After showing the videos, Robert takes questions. People come up to the microphone and ask their questions one at a time. As they speak, in Luo, Robert types the questions in English on the screen:

- 1. If I grow chilli will I buy the solar dryer or get it for free?
- 2. Shall we grow the chilli as a group or individual farmers?
- 3. Who will provide the market?
- 4. When the prices fall what will the company do for the farmers?
- 5. If I fail in doing the work because of money, will the company give loans?
- 6. Shall the company help us with implements such as watering cans, rakes?
- 7. I have seen nets, won't the authority disturb us? Which type of nets are they?

- 8. I see the chilli is grown near a water source, should we also do the same because we saw a lot of irrigation especially during the dry season?
- 9. Will you bring extension service to come and train us?
- 10. Will you also bring the market close to us or we shall have to bring it to your company?
- 11. Which variety of chilli are you going to distribute to the farmers?
- 12. Which is the best season to prepare the chilli nursery bed?

Robert then answers all of the questions at once, in some detail, and then takes no further questions. He says that this keeps them from asking too many questions about one point, which can often be tangential. In 20 minutes Robert answers 14 questions. It is an admirably efficient system, and one that leaves a permanent record. The farmers are not just motivated; they also learn from the videos and from Roberts replies to their questions. The local field agents, who live in the villages, also attend the viewings and can answer farmers' questions over the next few days.

You have to be well-educated to translate and type the questions as fast as people say them. Robert graduated from university in economics and has a graduate degree in agricultural economics. Then he went to work for a bank in Kampala. Robert had spent the war years in Kampala, and when he got tired of the bank he came home, to Acholi country.

After showing the four chilli videos and answering questions, it was well after 9 PM. I was falling asleep, and it was way past the villagers' bedtime, but they were excited by the videos, and wide awake. When Robert asked them if they wanted to watch more videos, they roared in appreciation and we watched all three of the sesame videos, plus Robert's own video on how to make a sesame dryer.

No one left. After the sesame videos, Robert took a few questions and we got back to town at midnight. The villagers had stayed up very late to watch the videos. They would have watched all 34 of them, but we were too tired.

Crashing trucks

The more time I spent with Robert, the more I realized that Ugandan sesame is big business, with cash flow, and lots of commodity to move—from an area beyond the paved roads, in a landlocked country in Africa.

GADC exported 1000 tons of sesame in 2015. The company is one of five exporters in Uganda. At the warehouse in Kitgum, they unload the little 12-ton trucks coming in from "the bush" and load the sacks onto a truck that holds 28 tons and pulls a 28-ton trailer. From Kitgum, the truck heads south to Kampala, crosses the headwaters of the Nile at Jinja, stops for paperwork at the Kenyan border and goes to the port at Mombasa, about a three day trip if the driver doesn't sleep. The drivers work alone, without relief drivers. One of them made it to Mombasa and back to Kitgum in five days. That means driving too fast, and not sleeping. The drivers work for the truck rental company, not for GADC. They get into lots of wrecks.

Last year Robert had to take a lot of time to go sort out the crashes. Bizarrely, the truck owners don't seem to care much about keeping their own trucks in one piece. Once, Robert went to two wrecks in three days. Sometimes the onlookers loot the trucks before anyone from the company can get there. Passersby once took 15 tons of sesame off of one crashed truck.

Now Robert has met all of the police along the routes and has their numbers so he can phone them. When he hears of a wreck he rings the police and asks them to go stop the looting.

"Why not get the drivers to slow down and carry a relief driver so they can rest?" I ask.

"The truck drivers do not want to incur the added expense," Robert explains.

"But they do want to incur the added expense of having their trucks crash?"

"An interesting question," Robert muses, as if considering it for the first time.

From farm to fork there are many technical inefficiencies that could be addressed with common sense and training. These kinks in the system include not just pest and water management, but drunken spending sprees and reckless driving.

Five field officers

On Wednesday, 10 Feb, Robert took me to meet five of their field staff, in different villages between Acholibur and Pader. All of the field officers liked the videos, but they didn't have copies of the DVDs, and were not showing the videos on their own. They are all growing chilli themselves, setting the example for others. They mentioned growing sesame in lines, which seems to impress them (although later Sean and Miji at Mercy Corps said that planting in lines has been a theme of extension for twenty years). Some of the field staff said that they had planted sunflower in lines, after watching the video, so that is an innovation (one that GADC also encourages).

Rubanga Kene (Only God) had a small bicycle repair shop in Ocuta village, Pader District. He is also a field officer and a commodity buyer for GADC. Rubanga Kene watched the videos in September. He does not have a copy of the DVDs, but he was interested in getting the disks. He has a laptop and a desktop computer. We offered to load the videos onto his computer. He went into the bicycle shop and came out to say that someone has borrowed his laptop and his PC is down, so we couldn't copy the videos for him. Robert has spare copies, and he offered to give a set later to Rubanga Kene.



explained that after Robert showed

The third field officer, Jokere Christopher, in Gojani Parish explained that after Robert showed the chilli videos, 15 farmers signed up for seed. They are also interested in planting chilli in lines. GADC is organizing VSLAs in the villages and talking to people about saving their money. With a little training and being organized into a group, people are handling their money better.

After the sesame harvest, some of them deposit their earnings in an account in their local SACCO, instead of splashing it all out at once.

I think it didn't help that the farmers were traumatized by the war, forced to leave the area for 20 years. They couldn't work, couldn't make money, and had to live in camps. The day that someone puts 100 dollars into their hands it can be an unsettling experience, but the training and the VSLAs may help.

Showing videos again

At the village of Amilobo, Laguti Sub County the field agent, Odong Dicken said that he watched the videos in August, but he does not have a copy of the DVD and so could not show the videos to others. He was busy buying sesame from the farmers when we pulled up. Several men were visibly drunk. After we showed the videos, they would ask questions over the loudspeaker, and Robert would patiently write down their queries. Some of the men were bold with drink when they asked their questions, and the audience laughed at them, but they asked better questions than the previous evening. In Tumbafu, some people had asked about getting stuff for free; here in Amilobo, the questions were more technical.

- 1. Which is the best variety to sell?
- 2. Which variety has the best market?
- 3. When is the best season to prepare the chilli nursery bed and transplanting?
- 4. Chilli is very hot, won't it affect us?
- 5. What is the use of the chilli you want us to grow?
- 6. What is the price?
- 7. We don't have the solar dryers; will you give them to us?
- 8. I saw many crops that were dried in the solar dryer but only chilli was sold, where were the others put?
- 9. With the good price of chilli, shall we grow the other crops?
- 10. There were only few chilli farmers, why don't you also show about sesame
- 11. When are we to plant?
- 12. Can't we grow without putting in the nursery bed?
- 13. Some of us are not sure how to grow chilli, are there some farmers that have grown chilli in our communities?
- 14. If we are many people that grow chilli, won't the prices go down?
- 15. We saw in the video when they told us to first dry it in the shade for about two hours before we put it under direct sun light, will the chilli be affected if we directly put it?
- 16. What motivation is there for the best chilli farmers, solar dryer, watering cans, etc.?
- 17. Shall we only grow chilli for our cash crop?

 Questions after the sesame show
- 18. Where is your sesame buying center in this area?
- 19. We haven't seen how they thresh the sesame, how is it done?

Women did not ask questions, on either evening.

After the video screening, Robert bought half a sack of chilli from Dicken for 180,000 shillings (\$55), while friends and neighbors crowded around, watching the sale. "That's good cash for him," Robert added, just to make sure that I get the point. Buying Dicken's chilli in public would have impressed the other villagers, locking in the lessons they had just learned from the video.

On the way back I asked about the buying agents. Last year GADC had 100, but this year they reduced it to 76, because some of the buyers did not buy enough. So the poor performers are no longer buyers, but they are still extensionists (field agents).

They would like cell phone versions

On 15 February we went with Jamesson, to visit one of Robert's GADC groups in Alel East Village, Lagoro Sub County, Kitgum District. They had learned a lot from the videos, but they had seen them after they planted their sesame. They had learned:

- How to make a nursery bed, when to plant, how to transplant.
- Sesame planting in lines: it is easy to weed and the seed rate is low.
- How to harvest chilli and build and use a solar dryer.
- How to water chilli. Once you plant you have to water.
- Grading the chilli A, B, and C (from the video made in Malawi http://www.accessagriculture.org/node/1248/en/)
- Drying sesame: the poles have to be stronger so the rack doesn't break. (That's from Robert's video).
- The time for picking chilli, early in the morning, from 6 to 10 and in the evening around 5, when it is cooler.
- You don't have to plant chilli every year. It stays for 3 years (that may have been from Robert's talk).
- Threshing sesame on a tarp so it stays free of sand.

They had not been able to practice many of the ideas, but one farmer bought a tarp to keep her sesame clean when she processed it.

They said that some people in the community missed the showing and that they would like Robert to come back and show it again. That indicates that they valued the information. They didn't ask us for material things, just for information for their neighbors.

We said that we could give them the sesame videos on their phone memory cards. Charles, the local GADC field officer (who is a farmer living in the village) got out his laptop and I loaded the sesame videos onto it. Then a young farmer got out the memory chip from his phone. I gave him the videos, using a little converter that I bought in a shop in Kitgum (for \$6); the converter has a USB on one end and a slot for the memory chip on the other end. The youth started to watch them immediately, on his phone, an ordinary, inexpensive phone (not a smart phone). The audio was a little low, but he could hear it and he seemed pleased as he watched the video while some others craned their necks to watch. Youth, like this man, may have an advantage over older people when it comes to using electronic gadgets.

Learning about chilli

We met a second group of farmers, five men sitting on benches behind the SACCO in Namokora. They had also learned a lot, but had not had much time to experiment with the ideas. One of the farmers is Charles Momakech, who is also a field officer for GADC. They saw the videos in November, 2015. Charles recalls the whole story of chilli, from seedbed to planting in lines to harvesting and drying.

They also remember sorting the chilli into categories (A, B and C), and keeping it on a tarp. They remember how to prepare the sesame garden, and how to plant it in lines.

They said that most of the translations were in Langi, a Luo dialect spoken around Lira, south of Kitgum, so some of them were not very clear. For example, the video calls sesame "neno" and it calls chilli "alyera". While here sesame is "nyim" and chilli is "kalara". On the other hand, as this example shows, the men had learned the Langi words for these crops. Whether they learned this vocabulary from the video, or already knew it, they clearly understood the narration.

The group was interested in growing chilli, and was looking forward to getting the seed from GADC.

A better extension agent

Irene Ayoo is a field officer for GADC in Orom. She lives in a compound of one-room, circular houses with her daughter and sisters and nieces and nephews. Irene has seen the chilli and sesame videos three times (once at the office and once with the farmers and also at a training).

Irene can describe the contents of the videos well. She says that watching the videos has made her a better extensionist. She is responsible for 300



farmers, and when she meets some of them who have not seen the videos, she can easily explain the contents to them. She says that the videos are easy to understand.

Josephine the area coordinator

Josephine Kilama is a buying agent for GADC. Josephine has had some university training and speaks excellent English. It is nice to meet an articulate young woman in a position of responsibility.

Josephine has the videos on her laptop, and has shown the sesame and chili videos three times, to a total of 105 farmers. She also grows chili and encourages neighbors to take seed from her garden.

Josephine complained that of the 80 farmers who planted chilli, only 12 managed to produce a crop. Some didn't plant the seed, and some couldn't manage the seed bed, etc.



shares seed with neighboring farmers

When I asked if Acholis bought commercial movies dubbed into the Langi dialect of Luo, Jamesson couldn't contain himself. Until now he had said nothing. "They prefer movies in Langi!" he exclaimed, adding that a Langi narration had "more swagger."

The three-wheeled motorcycle

On my first Saturday in northern Uganda I had gone with Robert to visit Charles Olanya, and to drop off the sesame cleaner at his house. Please see blog story, The Sesame Cleaner. After we left Charles that day, Robert had told me that Charles had a threewheeled motorcycle, which he uses to show videos. Ever since then I had wanted to visit Charles Olanya again.

Then today I suddenly realized that we were near where Charles lived. Jamesson found his village with no trouble, and we visited Charles again, and got the three-wheeled motorcycle story.



to show videos

Charles has had the motorcycle for a couple of years. (GADC helps their field agents to buy motorcycles). When Charles got the motorcycle in 2014 it could carry 12 sacks of sesame (about 1.5 tons), but as the engine wore out, by 2016 the motorcycle could only carry 4 sacks, and then it died.

Although the area was devastated by war, agriculture is reviving the economy, and enterprising young people like Charles can get into various businesses. Besides buying sesame, Charles also has a grain mill, a village shop, and an outdoor dance hall, where he plays music and sells drinks.

Charles showed the chilli videos 12 times, around Lukong and in nearby villages. Charles borrowed the projector and other gadgets from the GADC office in Kitgum. All of the audiovisual equipment fit into the cargo bed of his own motorcycle. Each time he showed the

videos, at least 100 people saw them (80 or 90 signed the register each time. So Charles showed the videos to 1000 or 1200 people).

Charles has a loudspeaker as part of his dance hall equipment. As he drove into the village where he planned to show the videos, Charles would use his loudspeaker to announce that he would be showing the videos, at such a place and at such a time. Charles would play two to four songs while the people gathered. He would start showing the videos about 7 PM, and end about 11 or 12 at midnight.

Charles held the screenings at the suggestion of the GADC head office, but he seems to regard the shows as a mix of community service and enlightened self-interest. The more the local farmers prosper, the better it will be for Charles, with his suite of small, rural enterprises. Still, he probably won't show the videos again, unless GADC suggests that he does so.

The cell phone videos

Kitgum has at least a dozen small shops that pirate movies. In the mid-morning on Saturday, 13 February I took the Luo DVDs to one of the bigger, better equipped shops, a one room outfit called X-pert Entertainment Studioz. I showed the videos and the menu to the owner, Patrick, and that the videos came in two languages. Patrick confidently said to come back at 4 PM and he would have all of the videos ready to install on my phone memory card.

I picked up the videos later and played one of them on my laptop. There was no sound. I assumed that it was a software problem, so I took the files to Robert at GADC, and he tried playing the chip on his cell phone. That

Inselberg ("island mountain") of Kalongo,

Inselberg ("island mountain") of Kalongo, now complete with phone towers. Ideal topography for tele-communications

didn't work either. We went through all of the videos systematically and about half of them had no sound.

Robert drove me back to X-pert Entertainment Studioz, and Patrick looked at the files he had made. Patrick became confused, and at first he said that his recording was fine. "These files must not have had a Luo version." He said.

It took me a while to explain the problem. After all, this is a bit of a stretch from Patrick's normal job, pirating movies. But Patrick eventually understood the problem and went back to work on them.

These DVDs are cleverly made to have just one file for the picture, but a different audio file for each language. This allows several different language versions to fit onto one DVD. But it is kind of tricky for an outsider to figure out which audio file to use, and to blend it with the video, to make just one video file to use on a cell phone.

But Patrick patiently converted all of the faulty videos over again, while I waited, and to our mutual frustration, the videos still didn't have sound.

I tried to encourage him, saying that if he could convert half of the videos properly (and he had) he could get them all right.

The problem with these little computer centers is that they have a steady stream of customers. Few customers buy videos off the shelf, which is why there were cobwebs covering some of the videos in one corner. The customers want some of the songs erased from their memory card, and others added. And while Patrick is doing that, the customer may want him to play "Jesus is coming, round the corner" on the loudspeakers so that the whole neighborhood can hear it. Then before Patrick can copy those files, someone else comes in with a Nigerian movie on a DVD, and she wants a copy, or someone else wants to rent the shop's speakers for an event. So the computer technician is constantly being interrupted. It's amazing that they can get any work done at all.

In between interruptions, Patrick mentally retraced his steps. He has three computers, and he had burned the good videos, the ones with sound, on another computer. That was it! So he went back to that good computer inside a little alcove and did half of the files over again.

I waited until it got totally dark and the streets emptied of people. I really wanted to finish this piece of work, because Robert had promised Morris that if he came on Sunday (the following day), Robert would give Morris the movies on his cell phone.

Patrick proudly emerged from the alcove saying that he had finished the DVDs. We put them into his other computer and these files were also mute. Patrick was visibly flustered, but not beaten. There is a lot of ingenuity and determination in African entrepreneurs. Patrick said to come back the next morning at 10.

Patrick stayed up till 6 in the morning working on those videos and never could get the sound into them. Robert also tried to convert the files, but was unable to. Marcella Vrolijks (Agro-Insight) eventually converted the remaining files in Belgium and emailed them to me. Oddly enough, the files that Patrick made were about 5 MB, quite small, while Marcella's files were about 35 MB. The bigger files were louder and had a better picture. You only noticed the nicer image if you watched the videos on a laptop. It will be interesting to see if people like the larger and louder files, or the smaller ones that don't take up as much space. The phone memory chip is like people's hard disks, with all of their music, movies and photos. Space is a scarce resource on a Ugandan memory card. In the coming months, Access Agriculture will make all videos downloadable in mobile phone formats, and will aim for lower resolution files that take up less memory.

My last evening in Kitgum, Jamesson and I went to see Robert, once last time, at GADC. I gave him all of the videos for cell phones, including the ones that Marcella had sent me. Robert was especially pleased, because he had not been able to convert them himself.

Although it did not occur to me at the time, if Robert takes the files from Marcella to the shop, the computer guy will be able to convert the videos into smaller format. Marcella provided a basic file format that would work on all sorts of mobile devices, so now the local computer people can make them into the format that is used locally on cell phones. And as video and sound are now as one file, it should easy to do.

4. Government

A resourceful public servant

On 15 February we visited Peter Abal, the district agricultural officer (DAO) in Kitgum. To my astonishment, he described the videos in great detail. Mr. Abal said something we would hear several times during this study: that cassava in northern Uganda is different from the cassava in the videos. Here, they plant the stakes by burying them, flat, not by sticking them into the soil at a slant, with one end protruding. But it was not a complaint. The idea intrigued Mr. Abal, who wanted to try planting cassava at a slant. He thinks that farmers might try it too. It shows that agronomists as well as farmers are reading the images in the videos, not just listening to the words. (Actually, it would be useful to have a more complete video series on cassava, as planting affects how the roots grow. If soils are heavy it is better to bury the stakes flat so roots will grow closer to surface and they can be more easily uprooted at harvest time).

Mr. Abal also noticed that in the video, farmers just uprooted the cassava by hand; they pulled it out of the ground as though they didn't even have to dig the plant up. That has impressed several other people, that the soil in the videos was sandy.

Mr. Abal had a great innovation. He keeps the videos running on his desktop computer in the office and when farmers come in he turns up the sound so they can watch the video, in case he has other business to attend to. The video holds their attention so the visitors wait patiently, and don't leave. As this case shows, there are plenty of new ways to show videos, waiting to be discovered.

The videos are useful for teaching, says Mr. Abal. "The beauty of it is that the videos are in Luo." He told us that he wanted DVDs for all 10 sub-counties in the Kitgum District, because all of the agricultural officers have desktops. He didn't complain about the vocabulary in the videos. Peter Abal is a proactive government official who is not making excuses. He uses the videos for the public good, with the equipment and in the time that he has available.

Making excuses

In Kitgum we had had such a positive interview with Peter Abal that I was looking forward to meeting Joe Okot, Peter's counterpart in Lamwo district. Joe is the DPO (district production officer). We caught up with Joe in the small town of Palabek Ogil, where he was attending the dedication of the new maternity ward of the clinic.

Joe had a string of excuses for not using the videos. Some of the DVDs didn't work, he said (in fact I think most of them do, but sometimes they are a little slow booting up). He said that he didn't have a laptop, and there was no power. But he did say that the videos were quick and helpful, and allowed the facilitator to summarize the information.

When I gave him enabling ideas, he only made more excuses. I said that we were working on getting versions of the videos that people could play on their cell phones. Joe said that that would only benefit the male youths.

"The youth are an entrée," I said. "They will show their sisters and mothers."

I told him about Peter who played videos on his desktop in the office, and Joe was not interested. It was as if Joe was not listening. He was simply a bureaucrat looking for excuses not to work.

And just then, the drums started to beat an intense rhythm.

"What's that?" I asked.

Joe explained that a local youth group had come to dance for the opening of the maternity ward, and he asked if I wanted to see the dance.

I said that I wouldn't mind seeing a bit of authentic dancing, but I have a problem as a foreigner. In the past I have tried to peek in on a show, but have often been acknowledged from the stage by the MC (master of ceremonies), and then I felt obliged to stay for the whole event.

And that almost happened this time. We sat down, and watched two dances. A small boy was fantastic on the cowhide drum. The young ladies were in fine step and the man with a lion hide strapped to his back was having a great time pretending to frighten the dancers.

Jamesson and I were served a bottle of water and a soda. An old lady suddenly knelt before me, grabbed both of my hands, and trilled out the loud, high-pitched victory cry. The crowd roared with laughter as she belted out a few choice words.



Celebrating the new maternity ward, and soon to learn about farmer learning videos in Luo

"What was that about?" I asked Jamesson.

"She's thanking you for giving them the new maternity ward."

I had to clear that up, so when they asked me to speak, I stood up, and with Jamesson translating, I showed them the covers of the DVDs and explained that we made agricultural videos, not hospitals, and that they could watch these videos in Luo by visiting Joe Okot, the DPO.

Jamesson also added that we were going to get all the videos in a format that people could watch on their cell phones. I liked that. Jamesson is convinced of the value of the videos. He also said that he was glad that I had mentioned Joe in public, at this large gathering. Joe was sitting there, with the other honored authorities, and my words might encourage him to show the videos, if other people ask him to. "Probably none of these people even know that Joes has the DVDs," Jamesson said.

5. NGOs

AVSI

The previous week, Jamesson and I had gone to AVSI (Associazione Volontari Servizio Internazionale) who gave us a list of 10 organizations who received the videos from AVSI. We were able to see four of these groups. Their stories are included below (Blessed Organic Released, Kalongo Investment Limited, the Agoro Irrigation Scheme, and the Agoro Vegetable Producers' Association).

Father Joseph

Father Joseph is the resident Catholic priest. We called in on him at his home in Wipolo. He proudly tells us that he is also a northern Ugandan. Father Joseph hasn't seen the Luo videos, and Jamesson leaves him a complete set. The parish has a theater where they can watch the videos. Father Joseph also has a group called BOSCO (Battery Operated Systems for Community Outreach), which has internet cafés in several villages, mainly for rural youth. Father Joseph is excited about BOSCO, and when I say that I thought it was named after Don Bosco (who founded the Salesians in the 1800s), Father Joseph's eyes twinkle, and he says that by coincidence, the equipment arrived in Uganda on the feast of Don Bosco.

We encourage Father Joseph to make copies of the DVDs and to share them with his BOSCO network and to show the videos in the parish theater. He can show learning videos when the first people gather, while he waits to show the videos he has programmed. Father Joseph seems interested.

Blessed Organic Released

In Pader we found an NGO that had received the videos from AVSI. Atoo Pamela Oruni met us in the shop of the Blessed Organic Released Ltd. They had an office, almost empty, just outside of the small town, and a store in town.

Pamela was selling retail products made from sesame: little jars of toasted sesame seed, and sesame oil, and snacks of toasted soy beans. Pamela said that Blessed Organic worked with 6000 farmers and exported sesame. It didn't seem possible. Here we were in the middle of sesamebuying season, and she had time to stretch out on a mat on the floor of a small shop.

Pamela did say that they showed the sesame videos last year to a group of farmers, just before they planted a



Pamela (right) shows Jamesson some of the sesame products in the Blessed Organic shop

demonstration plot of sesame. So Blessed Organic Released uses the videos to give

instructions, followed up by a practical activity, which reinforces what people have learned. It's a functional way to use the videos.

The sesame produced well when planted in lines, and it was easier to weed, but Pamela said that planting in lines was too much work.

GOAL

In a phone interview, Moses of GOAL in Agago said that they have used the videos, but not often. Some groups saw them last year, and 24 people watched them just last Friday, but he cannot say how many people have seen the videos. They screen the chilli, striga and cassava videos.

He says that farmers saw the striga videos and "they want to apply the ideas they see in their garden." They liked seeing how the striga germinates and how legumes kill it, so the farmers see that crop rotation is the way to control striga, and they want to try it on their own http://www.accessagriculture.org/node/241/en/). They liked the illustration of the striga attaching to the legume and dying.

"I like the videos because you interact with the farmers, talking to them and answering their questions after the video show," Moses added.

IRC

In a phone interview, Julius, formerly of IRC, said that he liked the videos and that the translations were OK. He said that the rice videos were really good, because the practices were farmer friendly.

About 200 farmers saw the rice videos, and IRC left the DVD with a farmer group. At the end of their project, IRC gave away the other copies to different farmer groups, one copy to each group of 25 to 30 members, and has not asked for feedback from the farmers.

CESVI

CESVI (an Italian NGO) showed the videos twice in the field and people watched the videos in their office. They have 21 members of staff and 5000 beneficiaries in Agogo and Pader districts. Some of the staff watched the Luo videos during their free time. CESVI has projectors for showing the videos. They showed the sesame videos to farmers twice, once on the computer and once on a projector, but they are not sure how many farmers watched the videos.

However, CESVI is starting a new project on storage with the World Food Program (WFP). They specifically want to teach people how to use metal grain bins to store maize and beans. I told Martina Starace (the project manager) that Access Agriculture had videos on those topics (made with a Guatemalan WFP project). Martina had a very slow internet connection, but I showed her the Access Agriculture website and where she could see the video on maize storage (http://www.accessagriculture.org/node/2607/en/). I also mentioned that she could

find the other video on bean storage (http://www.accessagriculture.org/node/2396/en/). Martina said she would show the videos to her staff.

CHAPS

On 17 February 2016, the day before national elections, I met with Patrick Otampican, the acting program manager for CHAPS (Christian HIV and AIDs Prevention and Support), an NGO. He is also an agronomist and a farmer. Like many NGOs, CHAPS had closed for election week, but Patrick was nice enough to come meet me early one morning at my hotel.

When the former program manager left CHAPS, Patrick took over, and had no idea that the Luo videos existed. The program manager had kept the ten sets of DVDs in a drawer, assuming that one day Mercy Corps would give them equipment to show the videos.

When Jamesson phoned, early in February, Patrick was taken by surprise. He had never heard of the videos, so he called the former project manager and asked about the videos. The former project manager gave Patrick directions to the drawer.

Patrick has since watched the videos with his staff. They like the videos and want to show them. Each of the seven field staff has a laptop and can show the videos one at a time after their weekly meetings with the farmers, who are organized into VSLAs.

Not all of the CHAPS staff are agronomists, so they can learn a lot from the videos, Patrick explains. Patrick said that the only problem with the videos was that they did not show how to space the chilli in the field or prepare the definitive garden. I said that they did show spacing. (When people have only seen the videos once, they may misremember some details, or they may have unknowingly skipped the video on chilli transplanting).

Patrick was interested in getting videos on onions. I suggested that he check out the Access Agriculture website, which will soon have some videos on onions.

Patrick observed that there has been no follow up from Mercy Corps. Even a follow up phone call might have reminded CHAPS to use the videos.

Later, Jamesson told me that he had been getting reports from the former program manager of CHAPS, indicating the numbers of farmers trained. But now we realize that the numbers were imaginary.

Passion for Community (P4C)

Passion for Community is an NGO based in Patongo, and we asked to visit them, but like other NGOs, they had closed for election week. So I had a phone interview with George, the director. P4C has shown the videos several times, to several hundred people.

George said that the visual aids help the farmers to learn fast. They showed four of the DVDs, including striga, cassava and chilli, but one would not play. P4P showed the videos five times in their main center, and at an outreach center in Lamwo, to a total of 400 people, about half women. They watched the videos at about 11 AM, on a big indoor screen.

They did have some problem understanding the Langi vocabulary. The farmers had already planted when they saw the videos, so it is too soon to tell what practices they will adopt. George plans to show the videos again.

Video distribution needs both international and local NGOs. The international NGOs can include video translation, multiplication, distribution and monitoring into their project proposals. Then their projects can distribute and raise awareness with local NGOs and others, who can use videos flexibly, to meet their own legitimate goals. The videos should help nurture partnerships between local and international NGOs.

6. Input dealers

"Being short is not a disease"

So reads the campaign slogan of Charles Obwana, input dealer in the small town of Orom. Charles is running for a local office and his slogan suggests that he is already so well known in the community that he can use self-mockery in his campaign. (Either that, or the candidates are not getting much advice on how to coin their slogans). By the way, he is not actually that short (see photo, where he stands with the author, who is of average height).

Charles had accepted the maize-and-cassava DVD and the sesame one, because these are the important crops in his area. Charles thought that the videos were so



Jeff Bentley (left) and Charles Obwana, in his shop. He used the videos to promote seed

useful that he rented a video hall three times to show the videos to over 500 people. Business oriented actors like Charles are often motivated and pro-active.

Charles sees the videos as a way to get customers to buy his sesame seed. Farmers in northern Uganda save about 98% of their sesame seed, and really only buy seed to get a new variety. After showing the videos, Charles talks to his audience, reminding them of the nice sesame they saw in the video, and explaining that it is because of the variety. He also has a variety for sale, called Sesame II, which he encourages them to buy. Charles also uses the videos to promote his maize seed.

This may also explain why people sometimes remember ideas that are not on the videos. Viewers may be remembering something that the facilitator said. Facilitation is a double edged sword. No one will show and facilitate farmer learning videos unless the video can be made to serve the facilitator's agenda, whatever that is. Volunteer facilitators are also unlikely to use someone else's video, unless the quality is top notch.

Videos after church

Charles was not the only one using videos to boost sales. We also met Grace Auma, another owner of a small agroinput shop in Orom. Grace has shown the videos after Sunday prayers, at the home of a neighbor, and she has written down the names of the people who attended, all 556 of them. Like Charles Obwong, Grace also sees the videos as a way of promoting seed sales. Grace is also a buyer for GADC, and like Charles, she only asked for two of the DVDs, but she liked them so much that now she wants all five DVDs.

While men are not the only ones moved by the motive of profit, Grace was able to tap into her social network, including neighbors and fellow churchgoers, to screen the videos and get an audience. Grace is also a field officer for GADC, so she will probably also benefit if the videos somehow encourage farmers to sell her more product.

Kilama Michael, input dealer

On 16 February 2016 we dropped in on Kilama Michael, who has an input store.

The first question I asked him was what he thought about the videos. He answered firmly that he wanted to see the videos "in Acholi, with Acholi people doing those things." I wondered if he was repeating something that he had heard at the video launch, but he did not attend the launch. (He got the DVDs later, from Mercy Corps, at a meeting of input agents).



A potential customer strolls past Michael's input shop. Input dealers are finding ways of using the videos to sell seed and other supplies

What Michael probably meant, when he said that he wanted to see "Acholi people doing those things" is that he would (also) like to see videos made here. It's not an uncommon response. On my last visit to Uganda, several farmers asked if they could appear in a video (Bentley et al. 2013). People who have never made a video often fail to appreciate how much work is entailed, as we wrote in an earlier story, "Salt and beans," on the Agro-Insight blog.

Michael also noticed that the soil in northern Uganda is not the same in the videos.

Michael has a DVD player and TV set (the "gadgets" as Jamesson says), so Michael can play the videos, and whether they are in Acholi Luo or the Langi dialect, Michael says that his neighbors do understand the videos. He showed them several times. He gathered people and showed the video to them, but the maize and cassava video didn't work well.

Michael took his gadgets and the DVDs to other, nearby communities like Pachudu and Lalano and Lakwor. If the village is off the grid, Michael borrows power from local people who have solar panels. He showed the chilli, sesame and striga videos. "They are so much interested in fighting striga, because it is very common here."

Michael does not know how many people watched the videos, but he says that about 50 people came each time. He showed the videos five times in his home village and four times elsewhere, so allowing that some people probably came on different occasions, that is probably somewhere between 250 and 450 people.

Michael shows the videos to advertise. He tells people that he has seed for chilli, tomato and onions, as well as spare parts for ox plows. (Onion videos would find an audience in northern Uganda). Michael is also a field officer for GADC, but not a buying agent. Michael is proactive. When people requested chilli seeds, he stocked them, but then no one has come to buy the chilli seeds yet. (He may face some fierce competition from GADC, which is giving the seeds away for free, but the request for chilli seed does suggest that people in the area are getting interested in the crop).

Like the input dealers we met earlier, Michael is using the videos to sell seed. After the screening, he talks to the audience, explaining the videos to them (which is an opportunity to mention the virtues of formal seed). But Michael also goes around to visit people the day after the screening, to talk to them about what they have seen in the video, and there in the privacy of their own homes he can spark their interest in buying seed.

A touch of irony

Across the street from where we saw the lion dance in Palabek Ogil, we went to the store of Isaac Otii. Jamesson knows Isaac and thought that he might have the videos, but Isaac didn't have them. He had attended a review meeting of the Mercy Corps RAIN project, and saw a portion of the videos there. Isaac wanted the videos and didn't have them. He thought that Mercy Corps would bring him the copies, but to his disappointment, they never had.

That was a shame, I thought, since other input dealers had been able to show these videos, if they



just had the disks. Isaac probably would have shown them as well. He took us to his small office, behind the shop, and showed us his laptop. Isaac was a little embarrassed, because the screen hinge was broken on the computer, and so he had to hold up the screen with his hand.

We assured him that the computer was OK. He could still use it to show the videos to people, as long as he propped up the screen on a support. Jamesson asked Isaac when he was coming to town next.

"On Monday," Isaac said. So Jamesson told him to come to the Mercy Corps office and they would give him a set of DVDs.

It was ironic. In the same morning we had met Joe Okot (the DPO in Section 4) a man who had the DVDs and didn't want them, and another who wanted them and didn't have them. Distributing videos is a bit like broadcasting seeds. Some fall on fertile ground and some land on stones. That's part of the process. Given enough time and interest, the distributors will also find people like Isaac, who want the videos, and be able to get the DVDs to him.

7. Farmer groups

FFS groups

On 11 February, Jamesson took me to Kalongo, between the inselbergs, and from there to Wipolo, which means "heaven" in Luo.

At Wipolo Primary School the children were gone, but we met Francis Abollomoobene, from a private company (Kalongo Investment Limited). Francis was working with several different FFSs. He was expecting 130 FFS students, and was talking to the first few who had just arrived. When they all gathered, he was going to talk to them about quality maize seed.

Francis showed the Luo videos on rice, and on maize and cassava to the 130 farmers last 28 December.

Jamesson and I talked to a few farmers who had seen the videos. They remembered a lot, but they also recalled other videos they had seen, and



The FFS farmers were impressed with the mucuna video and are now curious about getting the seed to try this cover crop

other training, so it is hard to tell what exactly they remember from the videos.

Mucuna definitely impressed them, and they could only have heard of it from the video. They wanted to know where to get the seed. Jamesson did not know where to get it, and I was not sure who in Uganda would have it. It is a good idea to get the seed figured out before getting people excited about the crop, as Paul Van Mele wrote in a recent blog about crotolaria, another green manure crop promoted in cassava systems (see: Nurturing ideas, and seed).

Some of the farmers said that after watching the videos, they had threshed their rice on tarps, to keep out the stones. So some farmers are starting to innovate, after watching the rice videos.

Farmer group and computer center

Robert Othieno is a member of a local farmers' group (Mewa Igwok ma Inongo) that manages a small warehouse, and he also has an input shop. Robert received the DVD for the warehouse group, but we caught up with him in his shop. It was better stocked than most, with rubber boots and small, plastic sprayers, and a range of seed.

Robert managed to show the videos twice. Some of the local youth have run one of Father Joseph's internet cafés, BOSCO. The youth loaned Robert the gadgets to show the videos, but he complained about it several times, insinuating that we should buy him new computer equipment. He was completely distracted by the notion of the equipment, and insisted on taking us to see the internet center. Once you start giving gadgets to people you start a patron-client relationship, based on dependency.



Solar-powered computers, now loaded with the Luo videos

The center did have several small computers and the lads were able to operate them. We gave them some videos which they could show on cell phones, and they agreed to share them with the other youth.

Self Help Irrigation in Agoro

On 19 February 2016 we saw two examples in Agoro that people who are deeply involved in agriculture can really use the videos.

Here below the hills on the border with South Sudan, the Agoro Self Help Irrigation Scheme Cooperative Society Ltd. (ASHISCO) started with one hectare in 1966, expanded to 100 during the tenure of Idi Amin in 1972. In 2011 the government closed the scheme and rebuilt it with 760 hectares, for 430 farmers.

The source of the water is the Okoro River, which flows out of the Tegot Kwera Hills. The land is fairly flat, but not perfectly level, still, in the rainy season they can get water onto 440 hectares, to grow rice, which has a ready market, even though the farmers have to take it all the way to Lira, 220 km away, according to Charles Erinyo, the extension specialist. In the dry season, some farmers are starting to grow cabbage, tomatoes and local vegetables, although on much less land.

In December, the scheme got the Luo video DVDs from Mercy Corps. The scheme has a large office and a laptop and a desktop computer. Farmers live in nearby villages, a short walking distance from the office. So Charles often meets with organized groups of about thirty farmers at a time.

During short sessions in the daytime, Charles pushes his desk against the wall and shows the group about three videos at a time. Then the farmers take turns sharing an idea they have learned from the videos. This is an intriguing alternative to asking questions. Charles says that this sharing reinforces the learning; if someone missed an idea while watching the video, they get it during the group discussion.

They have watched the rice videos, but also chilli, observing that most of the lessons from chilli also apply to other vegetables. They have also watched the striga videos, because the member

farmers have striga problems in the sorghum they grow outside of the irrigated lands. It is too soon for the farmers to have made many changes, but Charles wants to organize them to uproot striga, in groups. By having shown farmers the striga videos, Charles believes that he can successfully initiate this social organization of farmers working together to fight a weed (something which would have been unimaginable without having seen the videos).

Charles also shows us a small dike in one of the irrigated fields. They have made such berms before watching the videos, but now the extensionists and the farmers see how important the dikes are for managing irrigation water, as well as the importance of getting the land flat.

We see a small patch of irrigated rice that they planted in the dry, off season. It is a good example that farmers (and extensionists) need some of the basic information presented on the videos. Before watching the videos, the scheme members made a large rice seedbed of several varieties they wanted to test. Then they transplanted some of the seedlings to a nearby field.

The seedbed was far too big for the area they wanted to plant, and the seeds were sown much too densely. The rice video clearly states that 2 kg of



Too much rice seed. They took the seedlings from the small bare patches. People can learn from experience, and from videos

seed can plant 10 square meters of seedbed, for 500 square meters of field. Charles understands that, now that he has seen the rice videos, and is frank about admitting his mistake. He is not embarrassed to show us his big seedbed. He is just happy that next time he and the farmers will know how to make a proper rice seedbed.

Charles and the coop manager, Alan Jackson, continue to organize the farmers into groups, to teach them new ideas, and the videos are an important part of that. So in this case, one set of DVDs is being used to carefully train over 400 farmers, who are able to watch the videos over and over.

The Agoro Vegetable Producers' Association

This group of 25 smallholder farmers has a prominent member who owns a small input shop, the Loyola Mixed Farm Input Supply.
The group has a local farmer-trainer, Charles Acellam, who has received training from AVSI, which also gave him one set of the DVDs.

AVSI did not give the groups any special training or tips on how to use the videos, but



the vegetable association figured out the videos on their own. They meet twice a week and

follow a format of talk and practical activities, a bit like an FFS.

When they got their DVDs last December, they realized that the videos were important, so they began holding extra meetings occasionally, from 7 to 9 PM, at the home of a helpful neighbor, Oleng Welbong, who has a DVD deck and a 19 inch TV. The association members have watched the rice and chilli videos about three times each. Like farmers we have visited elsewhere, when these vegetable growers have their own supply of videos, they will use their ingenuity to find a way to play the videos, and watch them several times, actively studying the contents.

The association members told me some of what they had learned. They have obviously been paying attention. They had not had time to apply much of the new information, but two people had disinfected seedbeds by burning them, as they had seen in the video (http://www.accessagriculture.org/node/1297/en/). One man, Oyi Koben, had planted his tomatoes in lines, adapting an idea he learned from the chilli videos.

When the rains come, soon, the group wants to practice leveling the land, which they learned in the rice videos (http://www.accessagriculture.org/node/418/en/) and growing their rice in lines, which they also learned on the videos (http://www.accessagriculture.org/node/447/en/).

The mute computer

Warib Cing (Let's Join Hands) is a farmer's cooperative in Patongo. They got the DVDs late in 2015. And have watched them two or three times. The only problem is, they have watched the videos with no sound, because the cooperative's desktop computer has no sound equipment.

Once, they borrowed a player and watched some of the videos with sound, and some of the members have watched the video with Francis Abollomoobene, of Kalongo Investment Limited. It is hard to tell what this group has learned from the videos, because they have received post harvest training from CLUSA, and they have contact with CESVI and other organizations. But 600 people belong to this cooperative, which is organized into 20 groups of 30 farmers each. About 100 of the 600 have seen the videos, plus another 50 community members who are not members of the coop.

People can be quite able to tell you what they think you want to hear. In the video, Charles (of Warib Cing) saw how the farmers uprooted and burned the striga. That is all well and good, and then Charles went on to say what he had done after watching the video. Charles said that they had a garden that had so much striga, that they had abandoned the land. After he saw the videos he planted beans in that garden and the beans did so well that people came and asked "what have you done?" and Charles said "I saw it on the video."

It was a nice story, but it was fiction. He had not had time to plant and harvest a bean crop after getting the videos.

"When did you watch the videos?" I asked, because I knew that they had received the DVDs well after the crops had been planted. Suddenly, Charles realized that I knew more about agriculture than he had assumed I knew.

Charles quickly back pedaled, explaining that he took a training on striga before he planted the beans, but that the video "reconfirmed" what he had learned.

It is good to go into interviews with a bit of skepticism.

Donors had given this cooperative some valuable gifts, including a nice office building, chairs, a desk to hold up the mute computer, and two three-wheeled motorcycles. The coop members knew how to ask for things. Camilo turned to me and said that they wanted to plant sesame in lines, like they had seen on the video, but that to do so they would need an ox team and an oxdrawn planter.

I said that there were many ways to plant in a straight line, and I showed them a little video clip I made in Guatemala of a farmer planting a straight line of sesame with a worn-down machete and a soda pop bottle. Camilo just looked away in disappointment. He didn't want an empty pop bottle; he wanted an ox team.

Farmers who have had a lot of contact with donor projects become used to receiving material goods. But there was still something to like about this cooperative. They said that they wanted to show the videos to all 600 members of the cooperative at their annual general assembly. Achen Aida, a member of the cooperative management committee, said that she wanted to try planting sesame in lines, using the small cups that she had seen on the sesame video (http://www.accessagriculture.org/node/1165/en/). As we have seen before, the farmers read the images in the videos and notice interesting tools, even ones that are not mentioned in the script.

We asked the group if they would be interested in videos they could watch on their cell phones. They said that's what they wanted most of all. As we were leaving we loaded all of the Luo videos onto the cell phone of a group member, Geoffrey Okun's, so they could share them with other people.

8. Discussion, and recommendations

Discussion

Although the author expected to find a project built around the videos that was not the case. Mercy Corps operates more as a second floor organization, funding, facilitating and "providing an enabling environment" for others at the grassroots level. This is how video distribution should work, as paying for video shows would not be a sustainable way of supporting extension.

GADC is doing an excellent job, using the videos to reach thousands of appreciative farmers, largely through the efforts of just one person.

Smaller organizations with lots of farmer contact (including organized farmer groups and input dealers) are able to make good use of the DVDs, often reaching several hundreds of people.

The farmers have not had enough time, since seeing the videos, to experiment much with the new ideas.

The impact of the chilli videos cannot be isolated from other actions. The chilli videos are being used in an organic, integrated way. GADC combines videos with other actions, like buying chilli in public from early adopters, so the onlookers see the money going bill by bill into their neighbor's hand. A local farmer acts as field officer for the company, keeping communication open. The company also offers an attractive price for the chilli, which is keenly appreciated because the sesame price has plummeted. An engaging company representative, Robert, also gives the chilli seed away, encouraging farmer to grow it. He also answers farmers' questions that emerge from the video screenings. The little motivational video he shows (featuring Rachel, the local chilli grower) also helps encourage people to grow chilli. These farmers have sold sesame to GADC for five years. They trust the company to pay in cash, on the spot, and not to cheat farmers or toss them from a moving truck.

Robert certainly attributes the videos with much of the new interest in chilli. The other actions may encourage people to grow chilli, but the videos contain the most information about how to actually do it, under smallholder conditions. Robert is so convinced of the value of the videos that he gives up many of his evenings to show the videos in communities.

Robert is motivated by enlightened self-interest. As the head of chilli extension, the more farmers plant chilli, the more chilli he can buy, earning a commission on each kilo. So Robert tries the tactics that he honestly thinks will work to motivate farmers to grow chilli. Two years from now we will be able to measure the increase in chilli produced in the area. It will not be possible to attribute all of that increase to the videos, but the videos will have been a part of the equation. It may be more accurate to use a model of "necessary and sufficient conditions". For example, to make a fire you need fuel, oxygen and heat. If any one of those conditions is lacking, there will be no fire.

In this area, chilli is largely a whole new system, at least for most farmers. The chilli is trucked to Mombasa and shipped to Europe, where it is made into hot sauce. To grow commercial, high quality chilli in northern Uganda, one must have:

- 1) chilli seed
- 2) knowledge of chilli growing
- 3) the motivation to grow it (this includes a guaranteed, trustworthy buyer).

Without the seed, no one can adopt the crop (which is one reason no one is adopting mucuna in northern Uganda; they can't get the seed). The videos provide some motivation but a lot of the knowledge. Robert provides additional motivation and know-how. With his encouraging answers to their questions and his home-made video, and not least buying chilli from anyone who wants to sell it, whether a 50 kg bag or a kilo of grade B fruits. The knowledge provided by the videos is not sufficient, but it is a necessary condition.

Recommendations

Mercy Corps could do a bit more monitoring with the videos. Sometimes a friendly phone call during a spare moment might remind a partner organization that they have videos which could be used.

Some follow up would be interesting to help us know who is using the videos (on the DVDs, and the cell phone versions). Keep a list of the people who receive the cell phone versions.

It will be especially interesting to follow up the 25 new extension agents, and see how they use the videos.

Continue distributing the videos, but more strategically, to the kinds of groups that use them wisely. E.g. make sure that the 25 new extension agents have the videos. Also provide small stocks of DVDs to each agrodealer.

Some of the videos are not reading. When choosing companies to duplicate videos it is important to select the ones who can do an excellent job, and monitor the quality of the DVDs.

GADC should keep up the good work. It is also important to involve more members of staff in using the videos. GADC is making good use of the videos for awareness raising.

Engage with Radio Tembo and other stations about playing the videos. Make sure they know that they can make copies of the DVDs and sell them or use the videos in other ways that enhance their business.

Distribute DVDs through umbrella organizations (that bring together many farmer groups), even to the <u>Uganda National Farmers Federation</u> (UNFFE).

Distribute DVDs to schools (e.g. to the agricultural teacher at the secondary school). Schools often have equipment to show the videos, and the students know how to find websites, such as http://www.accessagriculture.org.

Mercy Corps could distribute DVDs through Post Bank. This might be allow capitalizing on the experience of people like Omara Waliki, who runs a rural Post Bank agency, and could distribute DVDs there.

Find ways to encourage women to speak up during video screenings.

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