



Video as a tool to enhance farmers' skills and knowledge

The business case for agribusinesses working with smallholder farmers

December 2019



Key points

- 1 Video can be highly effective as a tool for enhancing skills and knowledge of farmers at scale.
- 2 Videos can be shared with farmers in various ways, but initially group screenings attended by experts to answer technical and business questions is probably the best approach.
- 3 Studies have demonstrated that using video can be cost effective as a complement to traditional extension approaches.
- 4 The costs associated with using video are not excessive.
- 5 Agribusinesses can explore the use of video using existing, high-quality videos which are available free of charge for a wide range of agricultural topics.
- 6 Videos are not a substitute for face-to-face extension but they can augment extension and can make it more effective and efficient.

“The AgDevCo Smallholder Development Unit (SDU) is working with a number of agribusinesses in Africa to explore the potential of using video as a tool to enhance farmers’ skills and knowledge. This has led us to some valuable lessons that we want to share to support the private sector. We have witnessed at first hand how powerful video can be. We have also looked further afield so we can benefit from emerging practice in Africa and beyond. The literature that exists is largely focused on public sector extension, but we think that business needs are different. Here, we summarise the business case for using video as a tool to help strengthen the supply chain of quality produce to meet the demands of your business.”

Sandi Roberts, SDU Program Manager, AgDevCo

“SFA is using video because we think it is one of the most effective ways for us to help smallholder farmers understand what is required to transform their practice to introduce a second cropping season for rice each year. If we can do this, we can transform farmers’ incomes and create a better flow of rice to keep our production facility running year-round.”

Kevin Torck, Managing Director, Société Sénégalaise des Filières Alimentaires, Senegal

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VIDEO CAN BE HIGHLY EFFECTIVE AS A TOOL FOR ENHANCING SKILLS AND KNOWLEDGE OF FARMERS AT SCALE

Videos used to enhance farmers’ skills and knowledge are usually 5–15 minutes long. Good videos usually combine footage of farmers demonstrating the relevant technologies and approaches, simple explanations of why and how they work, and the testimony of farmers describing how they have benefitted from adopting them. Videos made by agribusinesses can also promote the business. It is also helpful to include ‘farmer-friendly’ economic evidence. Effective videos avoid the use of technical terms, are filmed using the most appropriate local language and ideally feature farmers similar to the audience.

The benefits of video include:

- > Sound and moving images in a well-produced video reinforce each other in a compelling way that attracts and maintains the viewers’ attention and interest. The focused learning that video facilitates means that the quality of adoption is likely to be higher than alternative extension approaches.
- > Featuring farmers in a video can reinforce the technical messaging and convinces the viewer that the message is real and achievable by people like them.
- > Videos can show complicated processes across cropping seasons or beyond without requiring farmers to travel to other locations at critical times in the farming calendar.
- > The content of the video is consistent and unchanging. With in-person training or demonstrations it is much harder to maintain consistent messaging.
- > Videos do not require the viewer to be able to read.
- > Use of video can facilitate extension at scale. An extension officer can visit only six households a day, whereas a video screening can reach many times this number.

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VIDEOS CAN BE SHARED WITH FARMERS IN VARIOUS WAYS BUT INITIALLY GROUP SCREENINGS ATTENDED BY EXPERTS TO ANSWER TECHNICAL AND BUSINESS QUESTIONS IS PROBABLY THE BEST APPROACH

There are five main approaches to sharing videos with farmers. These are:

- > Projected screenings to groups of up to 200 using large screens, at night or in a dark room
- > Screenings to groups of up to 25 using flat-screen televisions or laptops
- > Shared between farmers’ mobile phones using Bluetooth or SD cards
- > Shared over social media with farmers who have smartphones
- > Using a smartphone or tablet to show videos to individual farmers.

Initially, group screenings are likely to be the most effective and practical way of sharing videos with farmers. After the screening, farmers will want to ask questions about what they have seen, so it is important to have staff members present who are good communicators to answer technical and business-related questions.

Screening videos to groups in this way is a popular, inclusive and effective approach. Video is appealing to and applicable to women, men, younger and older people, children, educated and less-educated people. People especially like to see people they know or people like them featured in videos.

Video screenings can be held at places and times that are most convenient for smallholder farmers and their families, such as in the nearest village and in the evening when farming, household, school, religious and community obligations have been completed.

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STUDIES HAVE DEMONSTRATED THAT USING VIDEO CAN BE COST EFFECTIVE AS A COMPLEMENT TO TRADITIONAL EXTENSION APPROACHES

Bihar, India

Crop: Rice



Implemented by: Digital Green

Setup: Videos shown to women farmers, supplementing agricultural training from public extension system.

Results: Increased adoption of the System of Rice Intensification from 10% of farmers to 16%.

Further information:

Vasilaky, K., Toyama, K., Baul, T., Mangal, M., & Bhattacharya, U. (2015). Learning digitally: evaluating the impact of farmer training via mediated videos. North East Universities Development Consortium (NEUDC) Conference, Providence, RI. <https://www.digitalgreen.org/wp-content/uploads/2017/06/NEUDC2015-519.pdf>

Ethiopia

Crop: Teff, wheat, maize



Implemented by: Digital Green

Setup: Use of videos by public extension officers.

Results: Increased adoption of key agricultural practices by 3 to 10 percentage points. Cost per household adopting one of these practices was US\$16–30 (but would decrease with economies of scale).

Further information:

Abate, G. T., Bernard, T., Makhija, S., & Spielman, D. J. (2019). Accelerating technical change through video-mediated agricultural extension: evidence from Ethiopia. <https://doi.org/10.2499/p15738coll2.133323>

Benin

Crop: Rice



Implemented by: Access Agriculture

Setup: Evening video screenings in communities.

Results: Farmers remembered the videos five years later. In most villages, people began growing rice and/or experimented with practices featured in the videos.

Further information:

Bentley, J., Van Mele, P., Okry, F., & Zossou, E. (2014). Videos that speak for themselves: when non-extensionists show agricultural videos to large audiences. *Development in Practice*. <https://doi.org/10.1080/09614524.2014.942216>

Burkina Faso

Crop: Cowpea



Implemented by: Scientific Animations Without Borders (SAWBO)

Setup: Animated videos shown on extension officer's mobile phone.

Results: Videos were just as effective as a live demonstration in promoting adoption of most post-harvest handling processes and use of hermetic storage bags.

Further information:

Maredia, M. K., Reyes, B., Ba, M. N., Dabire, C. L., Pittendrigh, B., & Bello-Bravo, J. (2018). Can mobile phone-based animated videos induce learning and technology adoption among low-literate farmers? A field experiment in Burkina Faso. *Information Technology for Development*, 24(3), 429–460. <https://doi.org/10.1080/02681102.2017.1312245>

Ethiopia

Crop: All cereals



Implemented by: GIZ (German Agency for International Cooperation)

Setup: Facilitated video screenings in community centres

Results: Significantly increased knowledge, understanding and adoption of soil fertility management practices among farmers who were not reached directly by the extension service.

Further information: Hörner, D., Bouguen, A., Frölich, M., & Wollni, M. (2019). The effects of decentralized and video-based extension on the adoption of integrated soil fertility management – experimental evidence from Ethiopia. <https://doi.org/10.3386/w26052>



For more detailed information and references see "Video as a tool to enhance farmers' skills and knowledge: a review of the literature" by Keith Sones, available at <https://drive.google.com/file/d/14IMD-ajYNDYYrWxXJ0RISam8ZDO2pGx7/view?usp=sharing> [Here](#)

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INDICATIVE COSTS

Costs estimates are accurate as of December 2019.

For producing videos

> **Translation of Access Agriculture video:**

- US\$750 per language.

> **Commissioned videos**

(of 5-15 minutes' duration each):

- US\$5,000 for a single video
- US\$15–25,000 for a series of films covering the whole cropping season

> **Animation:**

- US\$1,000–6,000 per minute

For sharing videos with smallholder farmers

Kibanda boda (Uganda) – motorbike with a customised carrier housing a flatscreen television and speakers powered by portable solar-panel and battery.

> Audience size: up to 30

> Cost (including low-cost motorcycle): US\$2,300

Flatscreen television and rechargeable batteries

housed in locally, custom-made backpack that can be carried on a bicycle or motorcycle (as developed by GADC in Uganda).

> Audience size: up to 30

> Cost: US\$450

Motorised tricycle with an integral customised trailer

to carry a screen, generator, projector, speaker, amplifier, microphone and also space for bedding/ clothing for screening officer, designed by Countrywise Communication in Ghana.

> Audience size: up to 300

> Cost: US\$5,000

Running cost for outsourced screening:

US\$75–150 per day irrespective of option, to cover the extension officer's salary and subsistence, fuel, and wear and tear.

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HELP IS AVAILABLE TO GUIDE YOUR FIRST STEPS IN USING VIDEOS

High-quality videos on a wide range of agricultural practices are available free to download from **Access Agriculture**. These can provide a low-cost option for an agribusiness to experiment with the use of video and to find the best approaches for dissemination to farmers.



See: Access Agriculture (<https://accessagriculture.org/>) [Here>](#) and Scientific Animations Without Borders (SAWBO, <https://sawbo-animations.org/agriculture/>). [Here>](#)

AgDevCo's guide for agribusinesses on using video builds on the experiences of SDU-supported agribusinesses who have already adopted this approach.



See: https://www.agdevco.com/uploads/SDU/2020_Publications/AgDevCo_FarmersVideoGuide_Jan2020.pdf [Here>](#)

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VIDEOS ARE NOT A SUBSTITUTE FOR FACE-TO-FACE EXTENSION BUT THEY CAN AUGMENT EXTENSION AND CAN MAKE IT MORE EFFECTIVE AND EFFICIENT.



Contact us to learn more about AgDevCo's work and approach

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