



Insights from farmers and extension agents: Perceptions of a participatory video intervention in India, Kenya, and Uganda

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SUMMARY

Digital tools, including video-based extension, are increasingly being recognized as a viable alternative to traditional extension approaches given their cost-effectiveness and potential to reach large groups of farmers quickly. They are also increasingly seen as an effective medium for reaching out to women farmers, who face particular constraints in accessing agricultural information. This policy note summarizes fieldwork on perceptions of video-based agricultural extension on climate-smart agriculture (CSA) shared by men and women farmers and extension workers in Gujarat, India, parts of Kenya, and central Uganda. The results can be useful for designing innovative extension approaches for promoting CSA practices in low- and middle-income countries.

INTRODUCTION

Since the 1990s and early 2000s, digital tools (television, radio, telephone calls and messages, integrated voice response, etc.) have emerged as an effective alternative to traditional extension approaches for delivering agricultural information (Khan 2023). More recently, videos have been gaining prominence, especially for reaching out to women farmers, who might not be able to fully benefit from other digital tools that require users to be literate and comfortable with using digital technology. However, evidence around the effectiveness of videos, delivered via participatory video extension, for achieving the goal of improved information access for women farmers remains limited.

The “Reaching Smallholder Women with Information Services and Resilience Strategies to Respond to Climate Change” project implemented by the International Food Policy Research Institute (IFPRI) collected qualitative insights from women and men

farmers and extension workers in India, Kenya, and Uganda to obtain feedback on changes in their knowledge, attitudes, and practices related to the videos on CSA practices that they were shown as part of the project. This qualitative fieldwork sought to understand the advantages and disadvantages of videos compared to other forms of extension and explored mechanisms through which videos affected adoption of CSA practices. Furthermore, the comparison across the three countries offers critical lessons around contextual factors that shape the effectiveness of video-based extension.

FARMERS’ VIEWS ON THE USE OF VIDEO-BASED EXTENSION

Farmers across all three countries perceived videos to be a very effective medium for imparting information on different CSA practices. They noted that the “real-life” settings depicted in the videos – that is, use of

TABLE 1 Quotes illustrating the perceptions of women farmers about the usefulness of video-based extension

India	Kenya	Uganda
Usually, no other agency is providing any information to us. KVKs [Krishi Vigyan Kendra, farm science center] often show videos on farming, but often to men only.	The medium of using videos is a good one because it brings direct things that I am able to see from different parts of the country. [...] It helps us not to lose hope because we realize it is not just us who are affected by climate [change] but people from other parts of the country as well.	Visual representation is useful as we can simultaneously learn and observe.
We could connect with the content shown in the videos, as we grow the same crops as shown in the videos like cotton and castor.	We have been planting cover crops like potatoes like mentioned but not with the knowledge that it is a cover crop. Rather with the ideology that it is a normal crop which is expected to give great yields.	Videos give me constant information, and I don't have to pay for gas or airtime for an extension worker or veterinary officer to come to my house.

Source: Authors, based on qualitative survey data.

local dialect, localized content featuring women farmers from the audience's community or region, on their own farms – helped them absorb the information better than lecture-based training sessions. These aspects of the video messages made the content more relatable and thus aided in better and easier understanding and recall. Moreover, visual representation captured their attention and stimulated their interest. This supported viewing of several videos showcasing different CSA practices, over a short period of time. Farmers shared that learning about a wide range of practices through other means of communication can be overwhelming for them and that it is often difficult to sustain their interest. Women participants across the three countries appreciated that videos could be watched near their homes, without a need for them to travel and find someone to manage their household chores during their absence. As several other extension methods, including field demonstrations and other training events, require women's absence from their homes, they are often excluded from these opportunities.

Farmers in Kenya noted that well-detailed and accurate videos can enable them to observe the methods other farmers are implementing on their farms without physically visiting them. They found it particularly helpful to learn about practices in more distant or less accessible locations.

Participants in India highlighted that localization of the video content established a reliable and trustworthy connection with the video messages. Women farmers in India also indicated that they preferred videos over

posters as they are often unable to read the messages presented in the posters given their limited literacy, which limits their ability to engage with the material.

Farmers in Uganda appreciated that they could rewatch the videos whenever they needed to, and they considered the video-based extension methods inexpensive compared to in-person training sessions, which involve transportation costs as well as other costs associated with extension workers' visits. However, they noted that videos need to be shown in community settings to avoid excluding farmers who do not have smartphones. Women farmers noted the lack of access to videos outside of the group showings as part of the project.

EXTENSION WORKERS' PERCEPTIONS ON THE USE OF VIDEO-BASED EXTENSION

Extension workers across the three countries seemed enthusiastic about the use of videos as an agricultural extension tool. They felt videos go beyond theoretical discussions in representing how CSA practices are to be undertaken on farms, and thus can directly support their adoption.

Extension workers in Uganda noted the cost-effectiveness of providing information through videos as compared to other methods that involve paying transportation costs to farmers and/or trainers for

TABLE 2 Quotes illustrating the perceptions of extension workers about the usefulness of video-based extension

India	Kenya	Uganda
There are often audio-related issues when we show the videos, especially when the group size is more than 10 – it becomes difficult for everyone to hear properly. Speakers then become necessary. (Female extension officer, Gujarat)	When you teach without a video not all farmers will understand. We need the video, [and] then an extension officer for explaining. (Female extension officer, Busia)	Women farmers were inspired and motivated by the video. [...] Because the women in the videos were just like them, it gave the women farmers hope that they, too, could reach their farming goals. (Male district veterinary, Bukomansimbi)
With videos, women understand easily. However, if we want to share the videos with them, it would be a problem as some women won't have access to mobile phones. (Female extension officer, Gujarat)	Seeing is believing so if you ask me, I feel like it's a good idea to use the videos in reaching out to many farmers and getting them more educated on different agricultural practices. (Male extension officer, Nakuru)	Women usually feel inferior, so when they see fellow woman taking on a lead role in doing something to the extent that they are recorded on video, they get very encouraged. (Male crop extension officer, Kalungu)

Source: Authors, based on qualitative survey data.

Note: Unlike in Kenya and Uganda, in India, videos were shown on a tablet.

participating in field days. Moreover, they noted that videos do not require the physical presence of extension workers, suggesting potential for wider reach. Extension workers also remarked that women drew inspiration from the women farmers shown in the videos who had taken the initiative to improve their livelihood opportunities by adopting the recommended CSA practices.

A major concern raised by participants in both Kenya and Uganda was that to ensure that video length was manageable, videos provided only basic information about the practices, but not in-depth information on all aspects of CSA or on the entire production system. Further, videos are often more suited for a younger audience, but younger farmers often lack decision-making power, limiting their adoption of new practices. Finally, extension workers across all countries remarked

that despite being cost-effective, using videos for larger groups involves a range of logistical challenges. These include obtaining a good-quality projector and speakers; providing for back-up power and associated rental and electricity costs; identifying screening locations that are enclosed and ideally dark for better viewing quality; and having the technical know-how to run the video equipment. Extension workers in India highlighted the issue of limited smartphone ownership, especially among women, for refresher viewings.

CONCLUDING REMARKS

These results suggest that video-based approaches could play a significant role in enhancing the effectiveness of extension systems across diverse contexts. While videos can be hugely beneficial for quality and



timely information delivery to a large number of both men and women farmers, the study identified several aspects that need to be strengthened to ensure their effectiveness and sustainability.

Customizing content based on local conditions and providing locally relevant information that responds to the needs of farmers makes videos more relatable and increases the likelihood of adoption of CSA practices. Participatory development of videos also facilitates incorporation of in-depth information, taking into account wider perspectives.

Further, considering the inequities that exist in terms of access to resources – including smartphones as well as limited digital literacy, especially among women farmers – video viewings in group settings in the presence of extension agents are preferred over watching on personal devices. Group interaction and engagement around the video content was seen as improving learning and motivation on the part of farmers to adopt CSA practices. However, group viewings and the presence of extension support reduce the cost advantage associated with digital tools. Group meetings also run the risk of excluding women farmers, who are often not recognized as “farmers” according to conventional

definitions based on land rights. Furthermore, to enhance the effectiveness of video showings, it is important to build the capacities of extension workers to handle the logistics involved in delivering information through videos, along with developing infrastructure for cost-effective information delivery.

These challenges call attention to the need for gender-transformative approaches, which supplement agricultural information with efforts to address gender-based inequities within societies that prevent women farmers from enjoying opportunities equal to those of men. Videos can be a crucial and influential medium to achieve this goal.

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