IFPRI REACHING WOMEN FARMERS WITH CSA

POLICY NOTE 12

Challenges and opportunities in implementing video-based extension approaches targeting women farmers: An implementer's perspective

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SUMMARY

Agricultural extension services play an important role in agricultural development. Timely and reliable information services are key to improving farmers' knowledge of strategies to increase agricultural productivity, assisting them in accessing inputs and credit, providing early warning against pests and other shocks, and offering them critical advice on climate action. However, equitable access to knowledge, information, and technology remains challenging in most countries. This inequity is even more pronounced among farmers from marginalized groups, including women farmers, resulting in their limited access to climate resilience-enhancing technologies and practices. This note summarizes findings from implementers of participatory video-based extension interventions in India, Kenya, and Uganda. The findings suggest that videos targeting women farmers can reach them effectively. Still, participatory video-based extension should be accompanied by group discussions, providing complementary inputs, and dismantling other barriers that impede women's agency and achievements in agriculture.

INTRODUCTION

In India, agricultural extension is provided under the government's flagship Agriculture Technology Management Agency (ATMA) scheme. However, between its inception in 2005–06 and December 2018, only one-fourth of participants in farmer-oriented activities—such as exposure visits, training, demonstrations, farm schools, and Kisan Melas (farm exhibitions)—were women. In Kenya, extension services also face challenges reaching women farmers, which reduces their access to improved seeds, fertilizers, and pesticides. In Uganda, the Ministry of Agriculture, Animal Industry and Fisheries (MAAIF) acknowledges that while women provide 70 percent of the labor force in agriculture, fewer than 20 percent have access to agricultural extension, and women-managed plots produce 17 percent less, on average, than those managed by men or jointly. In all three countries, women who do access extension services do so braving additional constraints, such as limited mobility, a shortage of qualified women extension staff, inappropriate extension packages, and extension events that fail to consider women's time constraints.

To address this inequality in information access, the International Food Policy Research Institute (IFPRI)—together with the Africa Institute for Strategic Resource Services and Development (AFRISA) of Makerere University and MAAIF in Uganda, GROOTS Kenya, the Self Employed Women's Association (SEWA) in India, and University of Hohenheim, Germany—conducted a study to assess the potential of using a participatory video-based intervention for disseminating information on climate-smart agricultural (CSA) practices, targeting women farmers. The study was conducted in six districts in central Uganda (Bukomansimbi, Kalungu, Kiboga, Mubende, Nakasongola, and Rakai); three counties in Kenya (Busia, Laikipia, and Nakuru); and nine districts in Gujarat State, India (Ahmedabad, Anand, Arvalli, Chhota Udaipur, Gandhinagar, Kutch, Mehsana, Patan, and Surendranagar). The CSA practices were selected based on local demand and agroclimatic conditions and included: soil health testing, climate-smart pest management, and use of organic pesticides in Gujarat, India; conservation agricultural practices, zai pits, and minimum tillage in Kenya; and climate-smart pest management, soil bunds, and climate-smart poultry and pig management in Uganda. Between 2021 and 2023, the videos were shown to more than 34,000 women farmers in Gujarat, 2,311 farmers in Kenya (including 1,766 women), and 1,228 farmers in Uganda (including 801 women).

KEY FINDINGS

From an implementer's perspective, videos present a unique opportunity to better reach women farmers but also pose challenges in implementation. We discuss key findings from the video rollout in the three countries that can guide the scaling of such approaches in other contexts.

In India, adopting a participatory approach to identify the topics for training increased interest in and effectiveness of the trainings (Magalhaes et al. 2023). Making videos with women from the community as protagonists and using local languages and dialects imbued a sense of ownership of the videos and helped women understand and connect to the content (Aladesuru et al. 2023). Moreover, using multiple modes of information delivery, or stacking of tools, can be an effective solution for delivering agricultural extension services. We found that combining videos and posters for imparting agricultural training helped women retain more information (Barooah et al. 2023). For information delivery to be most effective, the use of ICT tools must be integrated with face-to-face communication; that is, a "phygital" approach. In India, this involved showing the videos, facilitated and followed by SEWA master trainers or agricultural extension workers using posters to provide more details on the topic. This interactive training not

only helped capture the attention of trainees but also facilitated discussions, deliberations, and participation.

In Kenya, smallholder farmers typically engage in multiple economic activities, on- and off-farm, as agricultural income often cannot meet their livelihood needs. It is, therefore, not uncommon that while women focus on agricultural activities, male household members seek employment in small towns where they may gather information on agriculture. In contrast, women often have no time or other resources to access agricultural information. The participatory video interventions in Kenya supported women farmers and positively affected neighbors and family members. We found that the mode of information sharing is an important determinant of how climate and farming information services are perceived. Farmers were more trusting of extension officers on the topic of CSA practices but more dependent on television for weather and climate information. Farmers noted that localized, prerecorded videos ensured that they saw, internalized, and questioned practices such as intercropping, mulching, and zai pits. Expert support, particularly from government extension officers, supplemented this information-sharing mode through enhanced and localized explanations. This created better rapport with farmers and facilitated follow-up interactions.

In Uganda, extension staff found the videos convenient for cost-effectively training a large number of farmers. Videos did not require purchase of demonstration materials, which are often not durable. Video showings worked particularly well for women because they saw their peers on the screen and were able to relate to the messages. Moreover, approximately one-third of women who participated in a survey supporting this study identified community meetings as a source of information on CSA practices, suggesting that communal video showings are an appropriate information channel for them. However, lack of appropriate communication with women prior to the video showings as well as their time constraints resulted in only 29 percent of targeted women actually seeing them.

Across all countries, it was challenging for smallholder farmers to retain many technical details in one viewing, so it is important to keep videos short, focusing on key concepts. Hence the length of videos should not be more than 3 to 4 minutes, with more technical details provided as part of follow-on discussions. That said, some farmers noted that not all aspects of practices had been conveyed in the short videos. Moreover, in Kenya and India, sharing videos in digital form (and in India also the posters) with farmers with mobile phone access increased outreach, since the information was stored for future reference and later shared with family members. Given the low bandwidth of the network in rural areas and the overall lower quality of mobile devices owned by women farmers, the need for keeping videos short was reinforced for easier sharing through mediums such as WhatsApp.

Facilitating community viewing of videos was not without challenges. Low Internet connectivity and lack of infrastructure for community viewing in rural areas—such as a room equipped with a projector, large screen, and speakers—made it difficult to screen videos everywhere. Lack of a reliable power supply was also a challenge. As a result, SEWA resorted to handheld devices, such as tablets, for showing videos in smaller groups.

CONCLUDING REMARKS

Some key findings emerge from our experience of implementing the participatory video extension in three different contexts. Given increasingly frequent climate and market shocks, agriculture is becoming less viable and profitable for small and marginal farmers. As a result, farmers' risk-taking appetite to adopt any new agricultural technology or make changes to existing practices based on a single training intervention is low.

To support the uptake of learning provided by videos, interventions should provide complementary inputs and services, such as credit or an insurance product. Lack of finance to implement CSA practices was the major barrier identified that stymied adoption followed by lack of information and training on these practices across all three countries. Additionally, video-based training must be imparted over a longer timeframe, that is beyond a single intervention, to increase recall of video content and knowledge imparted and to increase adoption. Adoption was not significant in Kenya where the lag between the video intervention and data collection on changes in awareness, knowledge and adoption was the longest.

Our findings suggest that the most widely used information sources for CSA are traditional forecasters, indigenous knowledge and agricultural service providers,

community meetings, and neighbors and friends. While these sources can provide important information to support climate-resilience strategies, they might be less effective in adding new technologies or practices to the mix, including climate mitigation practices. At the same time, more formal extension services, such as government extension or farmer field days, are less likely to reach women farmers. Training videos accompanied by group discussions can thus fill an important information gap on CSA practices and strategies for women farmers, if they respond to women's needs and preferences. To yet further align with traditional information channels, these videos should also better integrate traditional knowledge sources.

MAAIF in Uganda has already integrated the videos into its e-extension platform, and the district of Mubende has purchased video-showing equipment based on experiences from the project. GROOTS Kenya has developed other CSA projects using video-based extension approaches and SEWA has opened climate schools for capacity sharing on CSA practices.

More efforts are also needed to recruit women extension personnel into the formal extension system. Priority in resource allocation for localized, grassroots-informed extension services and human resource recruitment and allocation that intentionally supports women farmers is needed.

SEWA's experience has shown the importance of involving rural youth in the design of extension services and of training young rural women from the community as extension officers. This generates employment opportunities for rural youth and can reduce outmigration. Extension workers who come from the same trade and community have a better understanding of the challenges and issues faced by women farmers and can better deliver and design localized extension services. Moreover, beneficiaries are likely to have more faith in such people and the training they impart. Several states in India are already experimenting with the concept of community-based frontline workers to convey agricultural and livestock information.

In addition, there is a lack of resources to support smallholder women farmers in adopting climate resilience strategies. Budgetary resources need to be allocated to local, women-centered climate actions, such as the women-preferred crop and livestock practices identified in this study as well as post-harvest management and food storage, and to foster greater collaboration among women farmers at the local level.

We therefore call for better financing of women-centered climate action at the local level. There is already considerable dependence on civil society organizations to provide capacity and financing for climate action. These services need to be better funded and accompanied by larger efforts to support women farmers by the public sector.

We also note that no CSA practice works for all farmers or even for many farmers. And practices that men

farmers would like to adopt often differ from those that women farmers are interested in. As such, programs supporting climate action in agricultural areas should provide a broad menu of adaptation options that farmers can pick from and further adapt to their own local context. While many farmers were aware of certain CSA practices, they often lacked the in-depth technical knowledge to ensure that they are climate-smart. Many other farmers, on the other hand, were not interested in adopting these practices due to past, negative experiences with CSA practices.

Gender equality contributes to increasing productivity, improving the socioeconomic status of smallholder farmers, and revitalizing rural economies. However, sociocultural barriers and exclusion of women from access to resources and information and other inequalities based on wealth, place of residence, race, or ethnicity increase the gender gap in achievements, adversely affecting food security and rural livelihoods. Bridging this divide calls for strategic action in policy and transformative social norms that dismantle these barriers, providing women with greater ownership and control over resources and information.

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