



# FEED THE FUTURE

The U.S. Government's Global Hunger & Food Security Initiative

# EFFECTIVENESS OF VIDEO- ENABLED AGRICULTURE EXTENSION IN ETHIOPIA

## What

The Feed the Future Developing Local Extension Capacity (DLEC) measured the effectiveness of a video-enabled extension approach piloted by Digital Green and the Ethiopian Ministry of Agriculture (MoA) to amplify the public extension system in Ethiopia. Traditionally, Ethiopia's frontline extension workers (Development Agents / DAs) have provided information to farmers through in-person farm visits, group meetings, and training sessions. Since 2014, MoA has been equipping DAs with locally produced videos on recommended agricultural technologies and practices that are disseminated using USB-charged projectors. The approach has reached 400,000 farmers across four regions with the aim of increasing DA coverage, reducing the cost of extension, and accelerating the adoption of productivity-enhancing technologies and practices. DLEC also studied its impact on on-farm yields and other outcomes.

## Why

The engagement supported MoA efforts to scale and institutionalize the video-enabled extension approach. Specifically, the randomized trial was designed to provide rigorous evidence—concise measurement of the causal relationship between the video-enabled approach and outcomes of



interest to decision-makers in charge of strategies for scaling and institutionalization.

## How

The engagement used a multi-year randomized controlled trial (RCT) conducted during the 2017/18 and 2018/19 rainy (meher) seasons to evaluate the impact of the video-enabled approach on farmers' access to extension, farmer knowledge and adoption of new technologies and practices promoted in the videos, and farm-level yields. The trial design included both a general treatment (screening videos with the head of household - typically male) as well as a gendered treatment (screening videos with both the male and female co-heads of household), as well as an in-depth qualitative investigation of the video-enabled approach. The trial focused specifically on the application of the video-enabled approach to the promotion of three technologies (row planting, precise seeding rates, and urea top/side dressing) for three priority crops (teff, wheat, and maize).

## Partners

DLEC, Ethiopian Ministry of Agriculture (MoA), Regional Bureaus of Agriculture (RBoA), Digital Green, International Food Policy Research Institute



**USAID**  
FROM THE AMERICAN PEOPLE

Digital  
Green



INTERNATIONAL  
FOOD POLICY  
RESEARCH  
INSTITUTE



global forum for rural advisory services  
forum mondial pour le conseil rural  
foro global para los servicios de asesoría rural

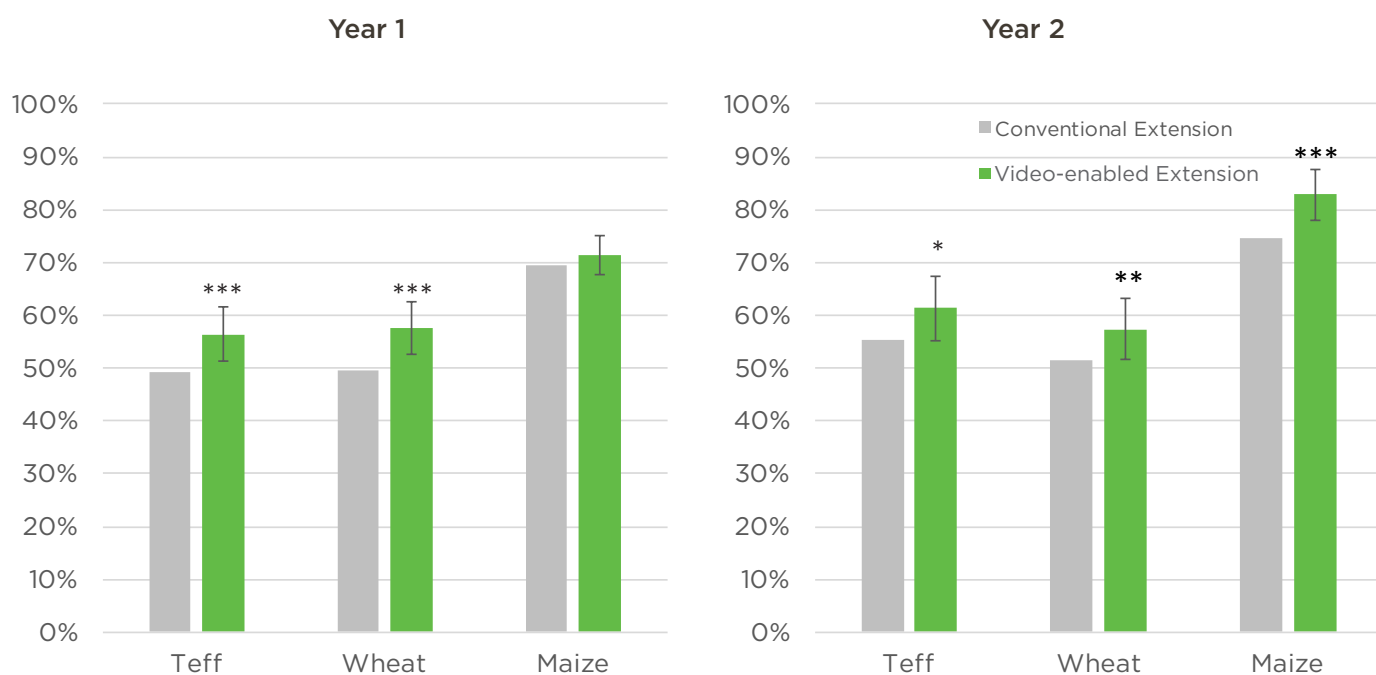
## Results

Results from the first year of the trial indicate statistically significant increases in (1) access to extension services and (2) knowledge about the subject technologies and practices, both of which are directly attributable to the video-enabled approach. Results also indicate statistically significant increases in (3) uptake of the technologies and practices promoted in the videos, and (4) similarly significant yield gains at the plot level<sup>1</sup>. There are, however, notable variations in these outcomes by crop and technology.

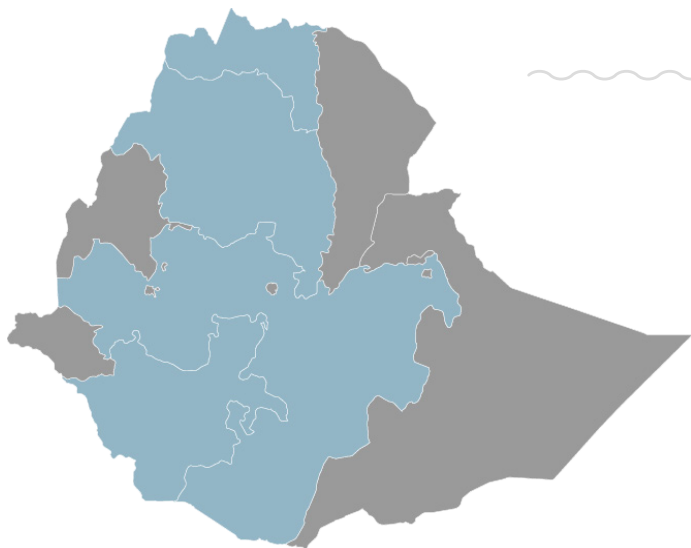
<sup>1</sup>Yield gain estimates are obtained when plot areas are calculated using GPS coordinates, but not when calculated using farmer-reported areas.

Results further indicate that the effects on extension access and technology adoption are sustained into the second year of the trial. With regard to gender, effects are generally similar in magnitude to the standard (screening videos with the typically male head of household) approach, indicating that there was no incremental increase in outcomes achieved by screening the videos to both the male and female co-heads. Finally, we find that the video-enabled approach becomes less costly as the scale of operation increases.

## Technology Adoption



Statistical significance: \*\*\* 1% level; \*\* 5% level; \* 10% level



Amhara, SNNPR, Oromia & Tigray regions of Ethiopia

## Contacts

### KEBEDE AYELE

Country Director - Ethiopia, Digital Green  
([kebede@digitalgreen.org](mailto:kebede@digitalgreen.org))

### GASHAW T. ABATE

Research Fellow, International Food  
Policy Research Institute  
([g.abate@cgiar.org](mailto:g.abate@cgiar.org))

### DAVID SPIELMAN

Senior Research Fellow, International  
Food Policy Research Institute  
([d.spielman@cgiar.org](mailto:d.spielman@cgiar.org))