



## Testing innovative extension models in Cambodia's PADEE programme

### Programme overview

Agricultural productivity and profitability are crucial to reducing poverty and improving the livelihoods of rural farm households. Developing country governments have allocated considerable resources to improve agricultural practices by encouraging farmers to use improved intermediate inputs and adopt new technologies. However, a large majority of them are unaware of new cultivation practices or are unable to employ them optimally, even when these are easily available. This has led governments and other agencies to invest considerable resources in agricultural extension programmes.

The Government of Cambodia, through the Ministry of Agriculture, Forestry and Fisheries, is implementing the Project for Agricultural Development and Economic Empowerment (PADEE). This programme, funded by the International Fund for Agricultural Development, is experimenting with two innovative approaches to providing extension services: (1) extension staff are provided incentives based on effective dissemination of information among farmers; and (2) the use of information and communications technologies (ICT) enable farmers to communicate regularly with extension officers.

It is expected that the innovative approaches to extension will lead to increased awareness and knowledge among farmers about better and improved agricultural techniques, such as seeds or inputs. Enhanced knowledge will encourage more farmers to adopt these technologies and improve their practices, resulting in an increase in agricultural productivity and household welfare.

### About this grant

**Grant-holding organisation:**

International Food Policy Research Institute, United States

**Lead principal investigator:** Alan de Brauw (a.debrauw@cgiar.org)

**Award:** \$949,673

### Primary evaluation questions

1. Do traditional extension mechanisms have a positive impact on farmers' primary outcomes (knowledge of new technologies and agricultural practices) and secondary outcomes (input use and labour allocation across plots)?
2. Do financial incentives play a role in improving the effectiveness of extension programmes?
3. How can incentive schemes be better designed in extension programmes to improve effectiveness and diffusion of knowledge among non-participants?
4. Do ICT-based models (that allow for feedback and bottom-up questions) perform better than traditional extension methods?
5. Can financial incentives and ICTs be complementary? Which of these methods is more cost-effective?

## Impact evaluation overview

This impact evaluation is funded as part of 3ie's [Agricultural Innovation Thematic Window](#). 3ie conducted a scoping exercise that identified existing evidence and where there are gaps in the evidence base. The analysis and consultations during the exercise identified the need for more evidence on the effectiveness of interventions in four areas: (1) interventions that promote communicating effectively with farmers; (2) ones that promote adopting more productive technologies; (3) ones creating markets, and (4) ones strengthening value chains. All funded studies in this thematic window focus on programmes in at least one of these four areas and address one or more associated priority questions, of which this study will address this one:

- How should information be packaged and delivered to improve farmer decisions and uptake of improved seeds better soil management practices and technologies?

The study will test the relative effectiveness of these approaches and look at combining traditional approaches with innovative incentive schemes and remote communication through ICTs.

## Methodology and identification strategy

The study uses a randomised design and mixed-method approaches to data collection and analyses. The study will use a multi-stage stratified sampling design of 3,000 households in 150 villages (30 villages or clusters per group). The villages will be stratified by their agricultural potential in micro-regions. In each strata, the research team will draw a random sample of villages, from which there will be a random selection of households. Out of the sample of villages, each one will be randomly assigned to one of five groups: control; traditional training; training and incentive; training and ICTs; and training, ICTs and incentives. By comparing different groups, effects of each aspect of the intervention will be isolated. The team will also conduct focus group discussions with participating farmers. Information on the beneficiaries' experience with the programme will help researchers understand how it has affected agricultural knowledge and farmers' behaviour.

## Heterogeneity analysis

The study will use a stratified design that will describe which areas might react better to different interventions. Researchers will also analyse results by region, in addition to looking at effects based on sex and credit access.

### Timeline

**Start:** July 2015

**Baseline report:** July 2016

**Draft final report:** October 2017

**End:** January 2018



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