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Promoting Agroecological Practices among Cambodian Smallholder Farmers - Which Incentives Work?

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Abstract

Today, agroecology is a central issue in agriculture, as it enables more sustainable and resilient systems. Nevertheless, smallholder farmers may be reluctant to adopt agroecological practices; especially innovative ones, as they are knowledge-intensive and require investments which are perceived as risky, especially for the poorest farmers who are mostly women.

This paper investigates preferences of Cambodian smallholder farmers regarding incentives to adopt conservation agriculture practices in horticulture. It focuses more specifically on home gardens and small scale vegetable production in the northern province of Siem-Reap. The incentives considered are training, contract farming, technology (drip irrigation system), inputs (high quality seedlings) and financial services (microcredit).

The data were gathered during a discrete choice experiment involving two groups of farmers: the first group of 70 farmers was already part of a project providing incentives and had adopted conservation agriculture as a farming method., whereas the second group of 100 farmers consisted in vegetable farmers who had not adopted conservation agriculture yet. By comparing the relative value given to each incentive in the two groups, we obtained information about the needs of farmers already practicing conservation agriculture, as well as about the ideal design of a project aiming at convincing more farmers to switch their current practices to more ecological ones.

The results show that the incentives which farmers value the most are the access to microcredit and the access to technical know-how, consisting in the support of an agricultural technician and the organisation of trainings on specific topic, e.g pest management. By contrast, market access through contract farming as well as the use of technology, in our case a drip irrigation system, has a lower influence on the farmer's decision to adopt agroecological practices. Stakeholders involved in projects promoting conservation practices should thus concentrate their efforts on training and financial services in order to convince farmers.

Keywords: Cambodia, conservation agriculture, developing country, discrete choice experiment, drip irrigation, horticulture, incentives

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