Promoting agroecological practices among Cambodian smallholder farmers - which incentives work?

Emilie Perrousset¹, Dirk Landmann¹

¹ Göttingen University, Department of Agricultural Economics and Rural Development

Introduction

- Conservation agriculture relies on no-tillage, permanent cover of the soil such as mulch and crop rotation
- Conservation agriculture together with drip irrigation leads to higher yields in horticulture
- In Siem-Reap, Cambodia, different incentives are provided to encourage vegetables farmers to switch to conservation agriculture

Research objective

- Identify the preferences of the farmers regarding those incentives.

Choice Card and incentives

<table>
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<tr>
<th>A</th>
<th>B</th>
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<tbody>
<tr>
<td>Training</td>
<td>Commercialization</td>
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<td>Seedlings</td>
<td>Microcredit</td>
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<td>Drip irrigation</td>
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<td>Time</td>
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<td>Commercialization</td>
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Data and Analysis

- 148 vegetables farmers interviewed from January to March 2017
- 84% are female, 16% are male
- 50% have a plot smaller than 200 sqm
- Discrete-Choice-Experiment carried out based on a paper-pen survey
- Each farmer had 18 choices between 2 “fictional” projects (Figure 1)
- Each project provided different incentives to switch to conservation agriculture
- Conditional logit model used to determine the relative importance of the different incentives
- Variation in the working time - quantitative attribute enables further analysis

Attributes (ranked by importance) | Coefficient | Standard error
--- | --- | ---
Commercialization contract | 0.796*** | (0.0430)
Microcredit | 0.517*** | (0.0489)
Drip irrigation | 0.311*** | (0.0470)
Training | 0.296*** | (0.0321)
Working time (increase) | -0.193*** | (0.0464)
Seedlings | 0.0754 | (0.0450)

* p<0.05, ** p<0.01, *** p<0.001

Results

Conclusions

- Financial security is the main driver of farmers’ behaviour
- Farmers are not technology-adverse
- Potential differences between stated preferences and revealed preferences

Recommendations

- Adoption of agroecological practices can be incentivized by reducing the financial risk

Contact

Emilie Perrousset: emilie.perrousset@hotmail.fr
Dirk Landmann: dirk.landmann@agr.uni-goettingen.de

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