Testing adoption pathways of agro-climate services

Case study in Dien Bien, Vietnam

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Agro-climate services (ACS)

- ACS have an important role in agricultural planning and practices
- Last-mile delivery' and adoption still weak
- Understanding ACS causal adoption impact pathways increases farm resilience

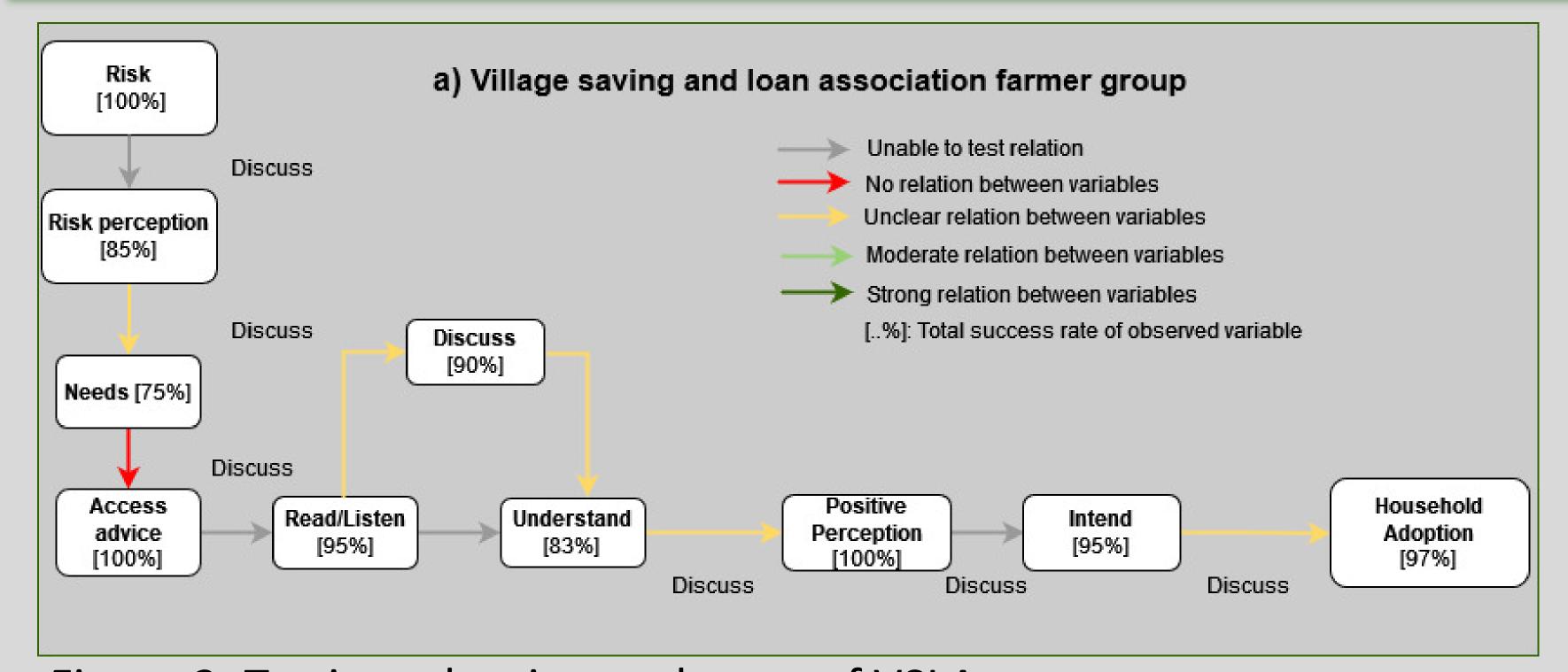
ACS delivery and adoption pathways

- Group discussion: Framework for causal impact pathway with binomially distributed variables
- Survey with two farmer groups
 - Village saving and loan associations (VSLA) structured
 - Conventional –unstructured
- Validate causal relationships of ACS adoption
 - Quantify confidence interval difference in response rates
 causal variable [yes/no] → resulting variable of interest [yes]
 - Quantify strength of causal relations: Range of CI and practical pre-defined threshold



Figure 1: Focus group discussion with rice farmers

Testing causal relationship of VSLA and non-VSLA adoption pathways



- Figure 2: Testing adoption pathways of VSLA group
- Risk b) Conventional farmer group [98%] Unable to test relation No relation between variables Discuss Unclear relation between variables Moderate relation between variables Risk perception Strong relation between variables [73%] [..%]: Total success rate of observed variable Discuss Discuss [73%] Needs [54%] Discuss Positive Household Access Read/Listen Understand Intend Adoption Perception advice [90%] [49%] [82%] [86%] Discuss Discuss Discuss

Figure 3: Testing adoption pathways of conventional group

- VSLA: Very likely to access, read, discuss, understand, positively perceive, intend to adopt and adopt ACS
- 1 surveyed household recommends
 → 4.5 peers
- Conventional farmer group: Less likely to understand but still having high likelihood to adopt ACS
- Chance non-VSLA recommend peers is 12%-46% smaller than VSLA
- 1 surveyed household recommends
 → 2.2 peers
- There are multiple adoption pathways. It is not linear, static but rather dynamic
- Interpersonal effect plays crucial role in peer to peer learning and scaling-out ACS





