What are the benefits of agro-climate service scaling? **Case study in Dien Bien, Vietnam**

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1. Agro-climate services (ACS)

- Climate information provision gap: useful vs. usable
- Losses in agricultural harvests and inputs, animal deaths \rightarrow need for ACS investment

2. ACS decision analysis valuation method

- Decision-focused, participatory, probabilistic modeling
- Capture current state of system understanding



Valuation of ACS: uncertain, complex, lack of data

Dien Bien location

- Rice cultivation, animal raising
- 7 ethnic groups, poverty rate 17%
- Temperature increase, seasonal change, drought, cold-spells, flash-floods
- Complex decision: what to invest and how?



Figure 2: The steps in decision analysis approach

3. Net Present Value and benefit-cost ratio

Figure 1: Map of the agro-climate service research area, Dien Bien District, Vietnam

4. Conclusions

- Decision analysis can aid uncertain, complex decision-making: positive investment signal
- Mismatch between real-life complex and



Figure 3: Net Present Value (a) and benefit-cost ratio (b) of four agro-climate service (ACS) interventions in Dien Bien

Chance of ACS providing net benefits: 98.35–99.81%

- dominant use of deterministic approaches
- Enabling environment for probabilistic approach is needed

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Investments in ACS return benefits between 1 and 16

USD per 1 USD invested (90% CI)

Reduced agricultural inputs, increased yield/reduced losses, fewer animal deaths, cleaner water, reduced GHG emissions, economic return from gender equality, reduced health expenditure