Prioritizing Investments in Climate-Smart Agriculture in Guatemala

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INTRODUCTION

Challenges to agriculture in Guatemala’s Dry Corridor

300,000 households affected (18.7% total national population) [1]

55-100% maize and bean yield losses [2]

Response:
The Ministry of Agriculture, Livestock, and Food (MAGA) is providing farmers with incentives to adopt climate-smart agriculture (CSA) that aims to increase:

- Productivity
- Resilience
- Low-emissions development

MAGA, CCAFS, and CIAT partnered to develop and test a CSA Prioritization Framework to support decision makers in identifying best-bet CSA investment portfolios. MAGA is using the results to revise the government plan for landscape transformation in the Dry Corridor (‘Del corredor seco al corredor de oportunidades,’ 2014).

Research questions:
- How do policy and stakeholder investment priorities align with local realities?
- What adoption gaps exist for priority CSA practices?
- What strategies can be used to take CSA practices and services to scale?

PRELIMINARY FINDINGS

Identifying stakeholder priorities for CSA investments

NATIONAL STRATEGIC PLAN ON CLIMATE CHANGE

Agricultural priority themes

FARMERS

adopted practices [3]

On-farm CSA Implementation

Percentage of farmers (% general adoption of top 3 CSA practices in the Dry Corridor)

Resilience (R)

- Food security
- Gender: Labor, income
- Efficient use of water: fertilizer, other inputs
- Biodiversity
- Extractor
- Soil quality

Low-emissions development (LED)

- Emissions intensity
- Average value of qualitative indicators evaluation (-10 to 10) e.g. for Conservation agriculture

CSA Evaluation Indicators

Productivity (P)

- Yield
- Labor
- Variability
- Income

RESULTS

- Evaluation of practices and services based on indicators
- Stakeholder prioritized short list of top CSA practices and services
- Analysis / valuation of short list of top options
- Stakeholder determined CSA investment portfolios
- Adoption opportunities and constraints
- Implementation strategy
- Economic analysis

HIGHLIGHTS

Uptake of practices promoted as national CSA priorities is occurring, but not always at high rates of adoption.

- Drought related CSA practices (water reservoirs, heat and water-stress resistant crop varieties) are priorities to policy makers and funders, yet many farmers face technical and financial barriers to adoption.

Financial and non-financial incentives, such as technical assistance, investments in infrastructure, and/or food aid, were received by roughly 64% of farmers in the region. Food aid is used to incentivize adoption of two or more CSA practices by household per season.

Practices and services ranked high related to the CSA goals and with low adoption rates are potential priorities for targeting incentives as part of national agricultural and climate change strategies.

More than 50% of farmers implement two to three practices simultaneously, indicating that CSA investments need to refer to technological packages, rather than isolated solutions.

CSA policies should promote both practices and services, such as financial services (crop insurance, subsidies, credits, etc.) and strategies for knowledge sharing and management (extension services, early warning system, etc.).

Multi-level and cross-sector decision-making processes are needed to identify, assess, and prioritize context appropriate CSA initiatives to effectively scale out CSA to targeted farming communities.

We thank Andy Jarvis1,2, Ana Maria Loboguerrero2, Deissy Martinez2, Fanny Howland3,4, and Barbara Oliveira3 for support in the implementation of the project in Guatemala. We also acknowledge the financial and technical support of CCAFS to design and pilot the process.

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