

# WATER MANAGEMENT PRACTICES AND ADAPTATION TO CLIMATE CHANGE: COCOA FARMERS' PERCEPTIONS IN ALTO BENI, BOLIVIA

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## INTRODUCTION

-Cocoa production is being threatened by climate change in Alto Beni

-Climatic situation in Bolivia:

- Forecast of decrease of annual renewable water
- Significant warming and cooling
- Increasing frequency of water-related climate change (droughts and floods)



Figure 1. Drought effects on cocoa

COCOA FARMERS' PERCEPTIONS AND PRIORITIES IN THE CONTEXT OF WATER MANAGEMENT AND WATER-RELATED CLIMATE CHANGE WERE EVALUATED IN THIS STUDY

## METHODS

Umbrella cocoa cooperative in Alto Beni "El Ceibo"



Semi-structured interviews with 5 farmers of each of the 7 areas of "El Ceibo"

Selection criteria

- ✓ 10 or more years of experience
- ✓ Use of innovative practices
- ✓ Active participation in the cooperative

Figure 2. Interviewed farmer

Qualitative Analysis (Patton, 2002)

## RESULTS

Table 1. Farmers' perceptions on the current climate in Alto Beni.

Farmers' perceptions of the climate in Alto Beni	%
Great irregularity of meteorological patterns	68.6%
Rise of temperatures	65.7%
Extreme temperature drops	62.9%
Absence of monthly rainfall (high uncertainty)	22.9%
Extremely long dry season	20.0%
Water bodies are drying out	20.0%
More frequent fires	5.7%

Figure 3. Farming activities affecting water management. Tasks and execution (%)

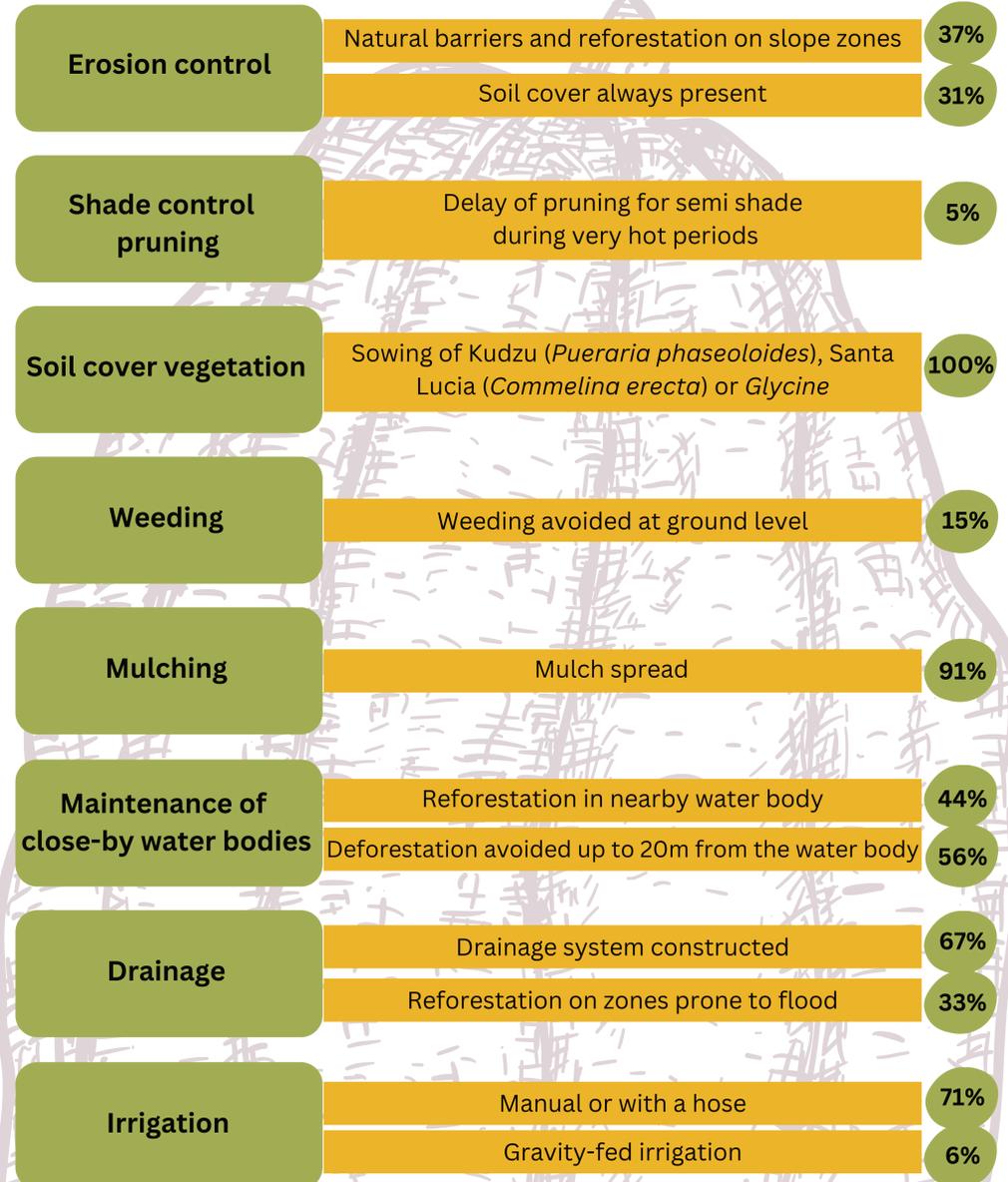
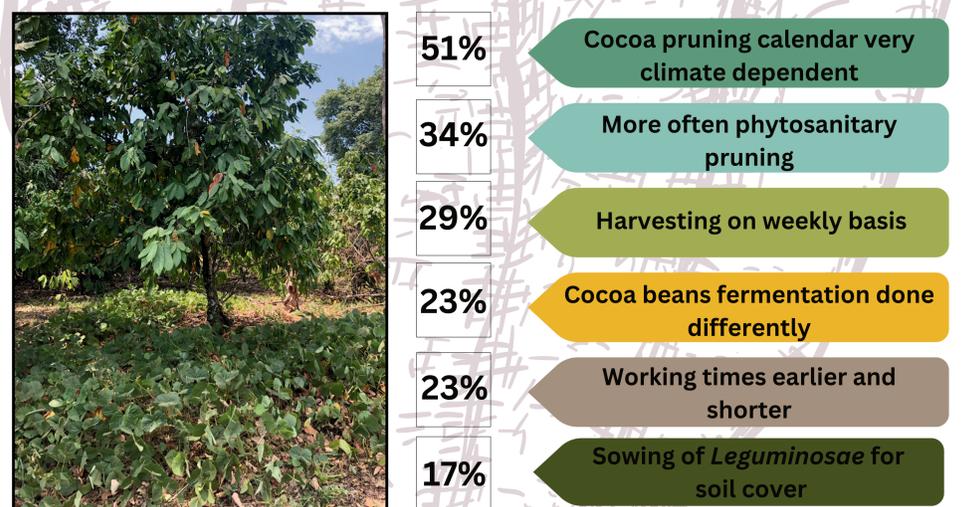


Figure 4. Farmers' adaptations to water-related climate change in the last decade



## RECOMMENDATIONS

1) Further research and policymaking on **emerging adaptations** for water-related climate change is imperative:

- **Irrigation and shade control management**

2) Consideration of other drivers of adoption e.g., learning opportunities, financial support and specialized labour

Acknowledgment: Special gratitude to the cooperative El Ceibo, for their support in the accomplishment of the field work for this study, their extension officers and the farmers, for their committed participation. Also, thanks to the Foundation Fiat panis for their financial support.



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