FAMILY LABOUR AND FARM PRACTICES AMONG COCOA PRODUCING FARMERS IN THE COASTAL REGION OF ECUADOR

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Introduction

Family farming systems (FFSs) are crucial for enhancing food security and promoting sustainable development globally.

In Ecuador, FFSs account for 60% of food production and play a significant role in generating export goods such as cocoa.

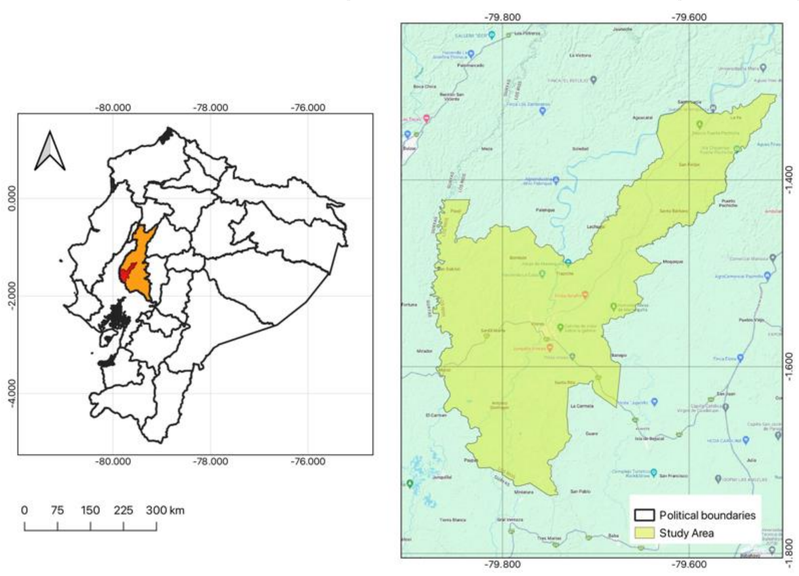
There is limited knowledge about the performance and sustainability of FFSs in the coastal region.

→ **FFSs within an agricultural association of cocoa producers were characterized.**

Methods

Location

The study was conducted within members of the farmers association “15 de septiembre” located in cantos Vinces, Los Ríos province, Ecuador (N=160).



Map 1. Vinces canton, Los Rios province. Ecuador
Source: Main author

Data collection

Information on farm characteristics, cocoa varieties cultivated, agricultural practices, and labour dynamics was collected through a questionnaire.

Data analysis

Data were filtered to focus on cocoa-producing households where family members represented more than half of the labour input (n=111).

Farms were categorized based on the cocoa variety cultivated into three groups: CCN-51, nacional, and a combination of both.

Cash crop diversity in each farm was evaluated using the Shannon diversity index.

Relationships between variables were explored using pair plots with the R Ggally library.

Pearson correlations between variables were tested for statistical significance at a 5% level.

Results

Cocoa variety distribution

60% of farms cultivated CCN-51, 25% cultivated nacional, 15% cultivated both varieties.

Cash crop diversity

Farms cultivating CCN-51 and both cocoa varieties exhibited the highest diversity in cash crops (Fig. 1).

Farms with only nacional, showed lower diversity.

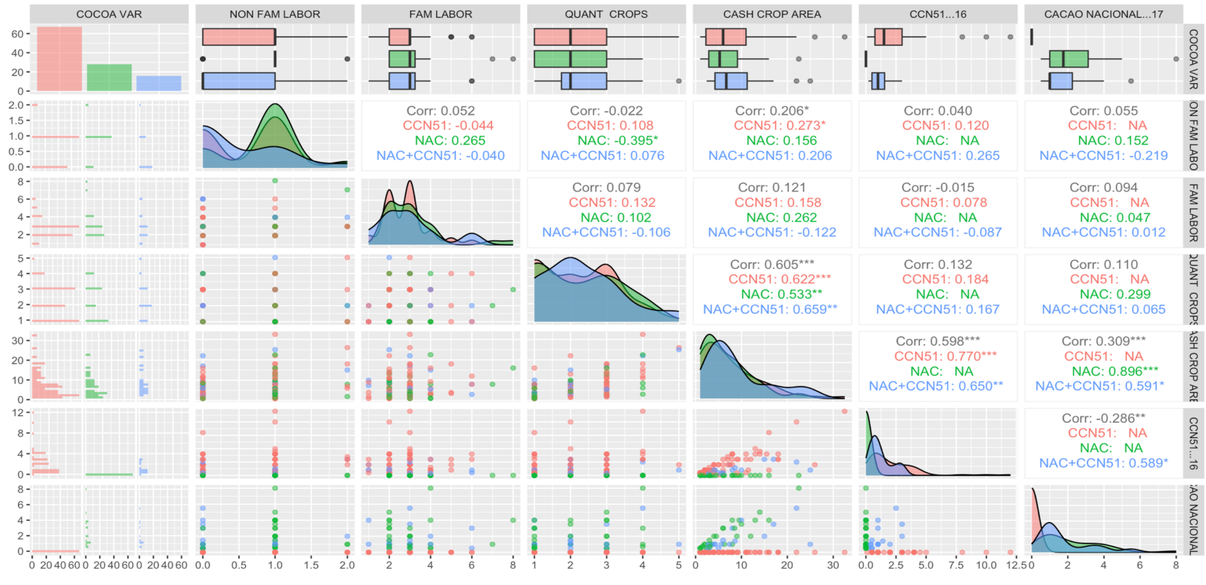


Fig 1. Pairs plot of the analyzed variables

Labour force

The external labour force was similar across the three groups. Farms cultivating both varieties hired less external labour force.

In all groups, there were at least three family members working in cocoa activities (Fig. 1).

Fertilizer use

Farmers with both cocoa varieties and only with nacional tended to use more organic fertilizers. Farmers cultivating CCN-51 primarily used chemical fertilizers (Fig. 2).

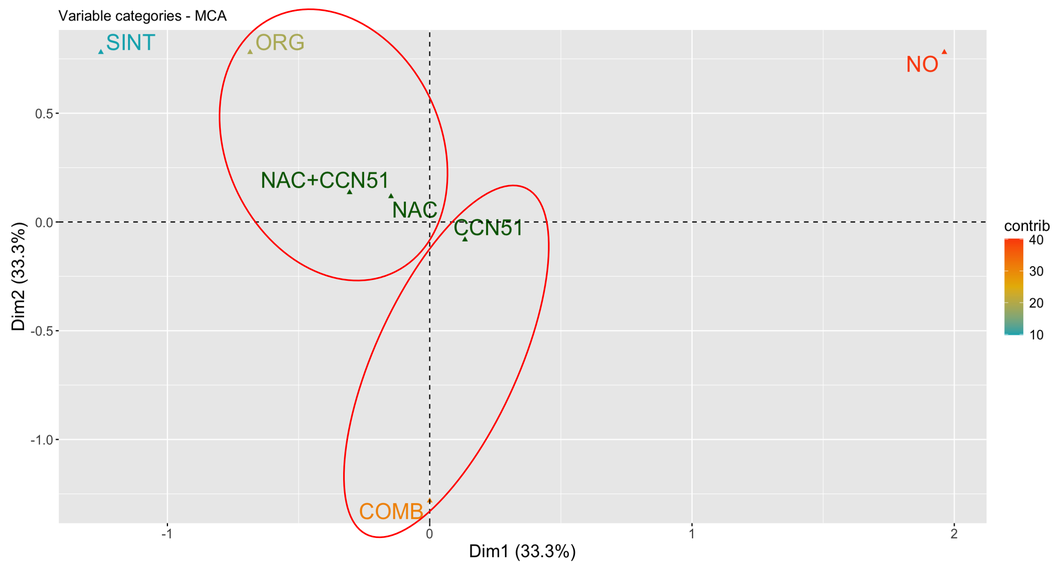


Fig 2. Multiple correspondence analysis between cocoa varieties and type of fertilization

Conclusions

There are variations in farming practices and labour force among FFSs with different cocoa varieties, even though no significant correlations were found between the studied variables.

More comprehensive studies incorporating farmers' perspectives and other techniques, such as remote sensing to analyze ecosystem services, are essential for a holistic understanding of FFSs.

Acknowledgements
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