

## Using Decision Support Tools to foster good agricultural practices among cocoa farmers, what is needed for success? A case study from Cameroon

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### INTRODUCTION

- ❖ In Cameroon, improving cocoa productivity and profitability is considered an option to curb increasing rates of poverty and increase government export revenue (PRDFCC, 2014).
- ❖ Increasing good agricultural practices uptake by cocoa farmers is essential to achieve these goals and Decision Support Tools (DSTs) have the potential to contribute towards this achievement.
- ❖ DSTs are designed to assist users in selecting the best course of action when making decisions.
- ❖ We investigated the utilization of one DST (Farmer Development Plan (FDP)) in cocoa farm management in the Centre region of Cameroon.
- ❖ FDPs are farmer-specific paper-based DSTs. Grounded on individual farmer production system characteristics, they are designed to display optimal production estimates and provide recommendations on good agricultural practices.

**Research Question:** To what extent do cocoa farmers use FDP and what factors influence their utilization?

#### Study Objectives:

- Assess the level of FDP utilization by cocoa farmers,
- Identify barriers to DST utilization,
- Identify the condition necessary for the effective use of FDP as perceived by its end users.

### METHODOLOGY

- Mixed research method design
- Semi-structured interviews with 87 individuals (2 key informants, 14 extension agents and 71 cocoa farmers) purposefully selected based on their awareness of the FDP,
- Interviews transcribed and coded.

### RESULTS

#### Extent of FDP uses and non-users' willingness to use it in the future

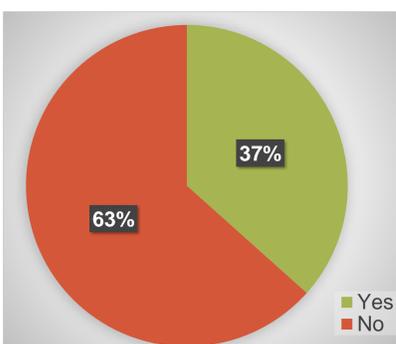


Fig 1. Distribution of farmers depending on whether they use FDP or not.

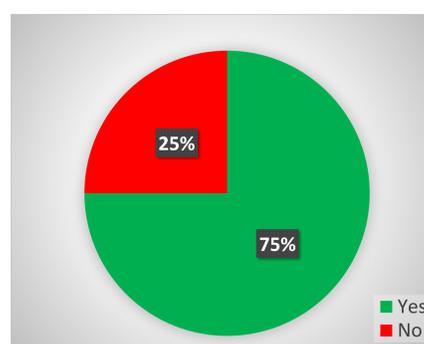


Fig 2. Distribution non-users' willingness to use FDP in the future

- 42% of users consult it on a monthly basis, and 34% rarely.

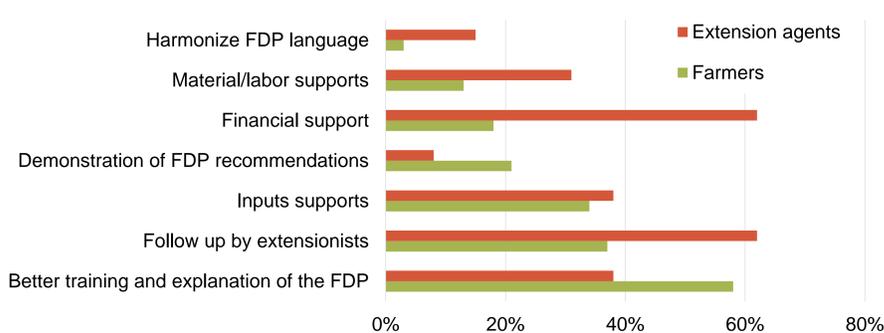


Fig 5. Key conditions stated by farmers (n=71) and extensionists (n=14) for the effective use of FDP

#### Contribution of the FDP to Cocoa Farm Management

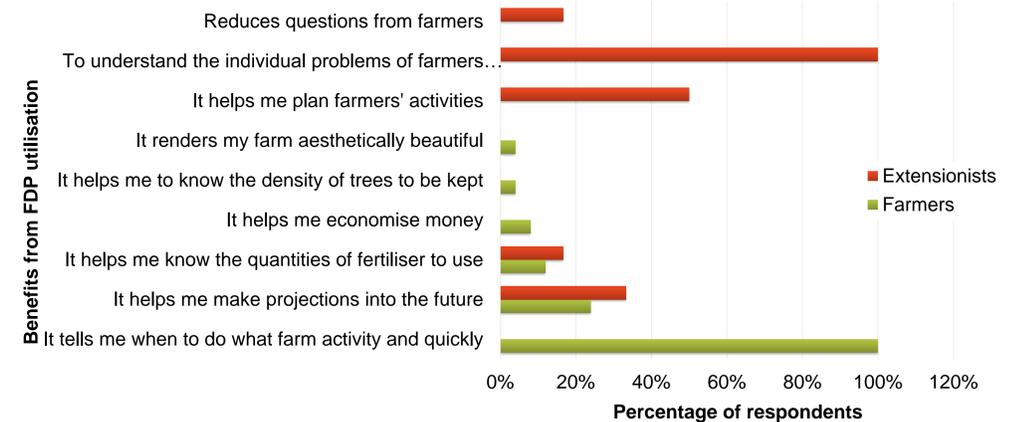


Fig 3. Distribution of extensionists and farmers depending on benefits derived from FDP utilization

- FDP is mostly used to plan activities (100% farmers, 50% extensionists (one page has a cocoa farming calendar which is the most consulted page).

#### Barriers to FDP utilization and condition for effective use

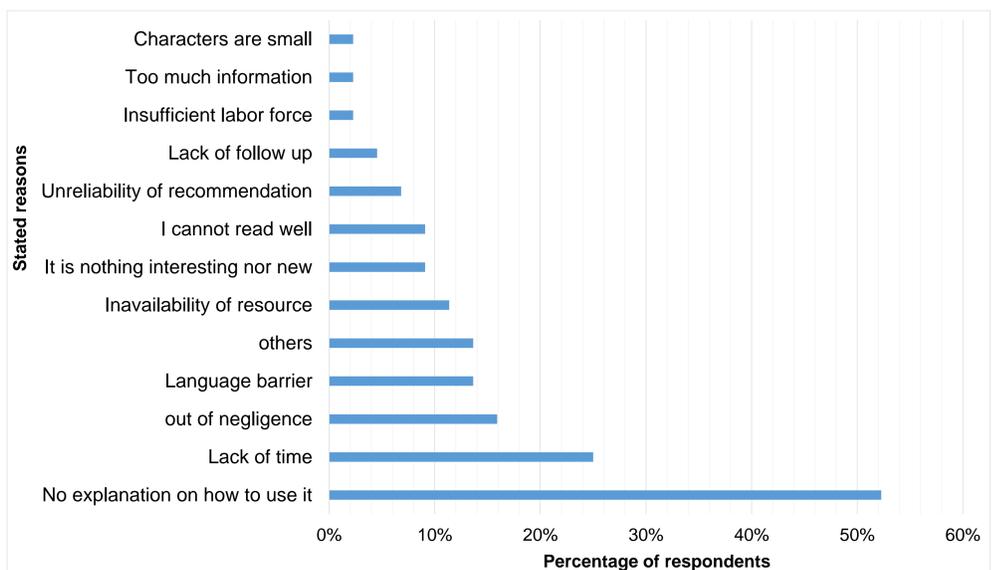


Fig 4. Reasons justifying the non utilization of FDP by cocoa farmers (n=45)

- The main barriers to FDP use are limited knowledge of how to use it (53%), its format (languages, character size, contents etc.) and limited resources to implement the recommendations.
- FDP users experience difficulties due to language complexity (58%), specifications not tailored to zone realities (32%) and unavailability of finance to purchase inputs (20%), among others.

### CONCLUSION

- ❖ FDP has the potential to foster GAP adoption and increase extensionists' effectiveness and efficiency.
- ❖ Yet, the majority of farmers receiving the FDP have never used it BUT are willing to use it in the future.
- ❖ The utilization of FDP depends on its mastering by prospective users and the availability of material and immaterial resources necessary to implement recommendations.
- ❖ Farmers' training on FDP utilisation, continual interaction between farmers and extensionists, and follow-up of recommendations implementation by extensionists after hand over is essential.
- ❖ Codesigning FDP with farmers can enhance appropriation and increase its use. However, this requires farmers' ability to earn sufficient income for their living and to support production costs.