Characterization of Maize-legume Farming Systems and Farm Households in Mozambique

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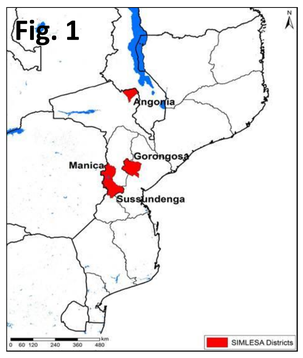
BACKGROUND

Agriculture is one of the main activities of the Mozambique's economy yet yields remain very low and rural poverty is high. In this country, maize & legumes are among the most important crops with potential to reduce poverty with technological change. However, little is known about the Mozambique's socio-economic aspects of the maize & legume systems.

OBJECTIVES

➢Characterize the maize & legume farming systems in central Mozambique in order to identify opportunities & constraints for technology development and diffusion.

Fig. 1



METHODS

•Descriptive analysis using SIMLESA Baseline data from Mozambique, 2010.

• 510 households (HHs) & 1609 plots

• 4 districts (Angonia, Sussundenga, Manica, Gorongosa) (Fig. 1).

Fig. 2

RESULTS

Table 1. Household Socio-demographic Characteristics

Characteristics	District			
	Angonia (n=127)	Sussundenga (n=131)	Manica (n=127)	Gorongosa (n=125)
Male headed HH (%)	84.3	84.0	81.9	85.6
Age of HH head (years)	44.4 (15.30)	47.4 (15.63)	48.7 (15.28)	44.5 (14.57)
HH size (adult equivalent)	4.2 (1.62)	5.9 (2.56)	5.9 (3.17)	5.7 (2.76)
Education HH head (yrs)	2.9 (2.91)	4.3 (3.26)	4.4 (3.33)	3.2 (2.59)

•About 16% of the HHs are female headed. The average age of the HH head is 46.3 yrs with 3.7 years of schooling (Table 1).

•HHs have an average of 5.4 adults (Table 1).

•The average walking time to market & agricultural information is 119 to 233 minutes (Figure 3).

Fig 3. Access to Market and Agricultural Information

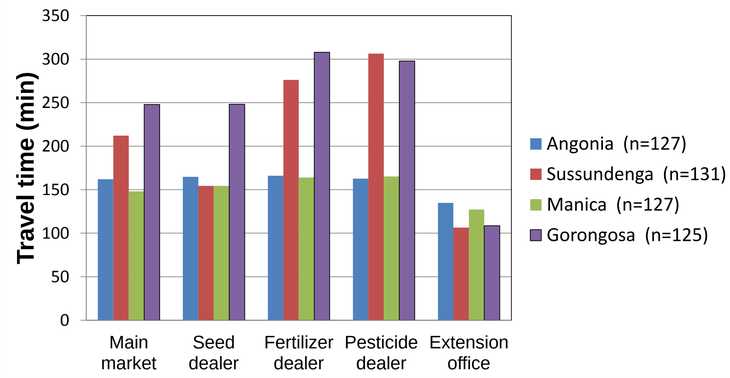
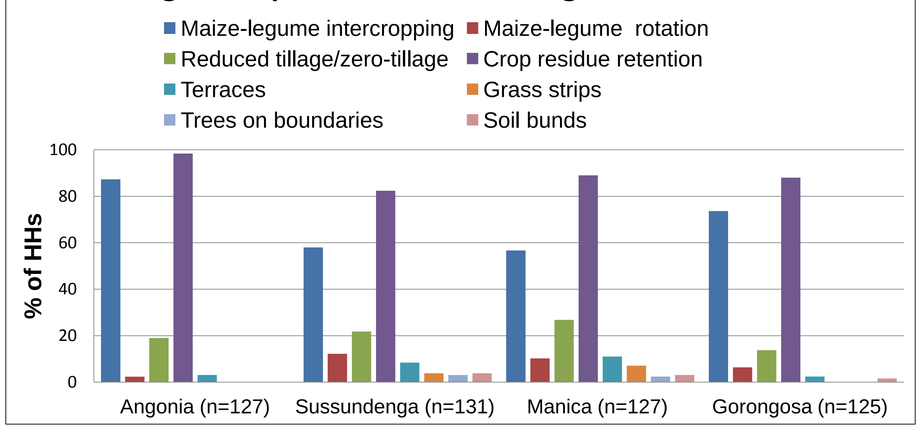


Fig 4. Adoption of Sustainable agricultural Practices



•The use of improved agricultural technologies is already in place.

•89% of farmers retained residues in the field after harvesting. 68% of farmers intercroped maize and legumes (Figure 4).

•More than 35% of farmers used improved maize varieties (Figure 4).

•37% of farmers used fertilizers and 9% of farmers used chemicals (Table 2).

Table 2. Technology adoption (% of HHs)

Technology	Total (n=510)
Hybrid maize	42.2
OPV maize	36.5
Local maize	46.1
Improved common bean	15.5
Improved groundnut	14.7
Other improved legumes	13.7
Chemicals	9.4
Fertilizer adoption	37.1
Manure adoption	6.1

SUMMARY

•Farmers have limited access to market and agricultural information. The diffusion of CA practices through SIMLESA should be in hand with other policy measures to solve this problem.

•In central Mozambique, farmers are already familiar with some sustainable agricultural practices and improved maize and legumes varieties. This can be considered as an opportunity for the SIMLESA project success.

FUTURE OUTLOOK

• Identify different farmer's typologies in order to recommend appropriate policy interventions.

• Evaluate the impact of SIMLESA on food security and poverty, and downside risks.

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