

Adoption of climate-smart agriculture in smallholder agri-food systems in Kara, Togo: Trade-offs and synergies

Introduction

- Climate-smart agriculture (CSA) has been heralded as a solution to agriculture in the face of climate change.
- Millions of euros have been earmarked for agricultural interventions promoting climate-smart agricultural practices and technologies.
- This study aims to analyse the impact of the various knowledge sources of CSA practices on the farm household food production and security.
- A catalogue of 28 CSA practices, which fall under 5 groups, was explored in Kara-Togo, a region that has benefited from several agricultural intervention projects.

Methods

- Field research was carried out from January 2023 – March 2023
- Multistage random sampling to select 539 farm households to participate in the survey.
- Interviews with smallholder farmers in all four communes of the Kozah Prefecture in the Kara region.
- Focus group discussions with 25 farmers and expert interviews with:



03 Research scientists at the University of Kara-Togo



NGOs: PADES, AJT, GIZ ProSecAI, and GIZ ProCiv



Government officials: ITRA, ICAT Director Min of Agriculture Kara.

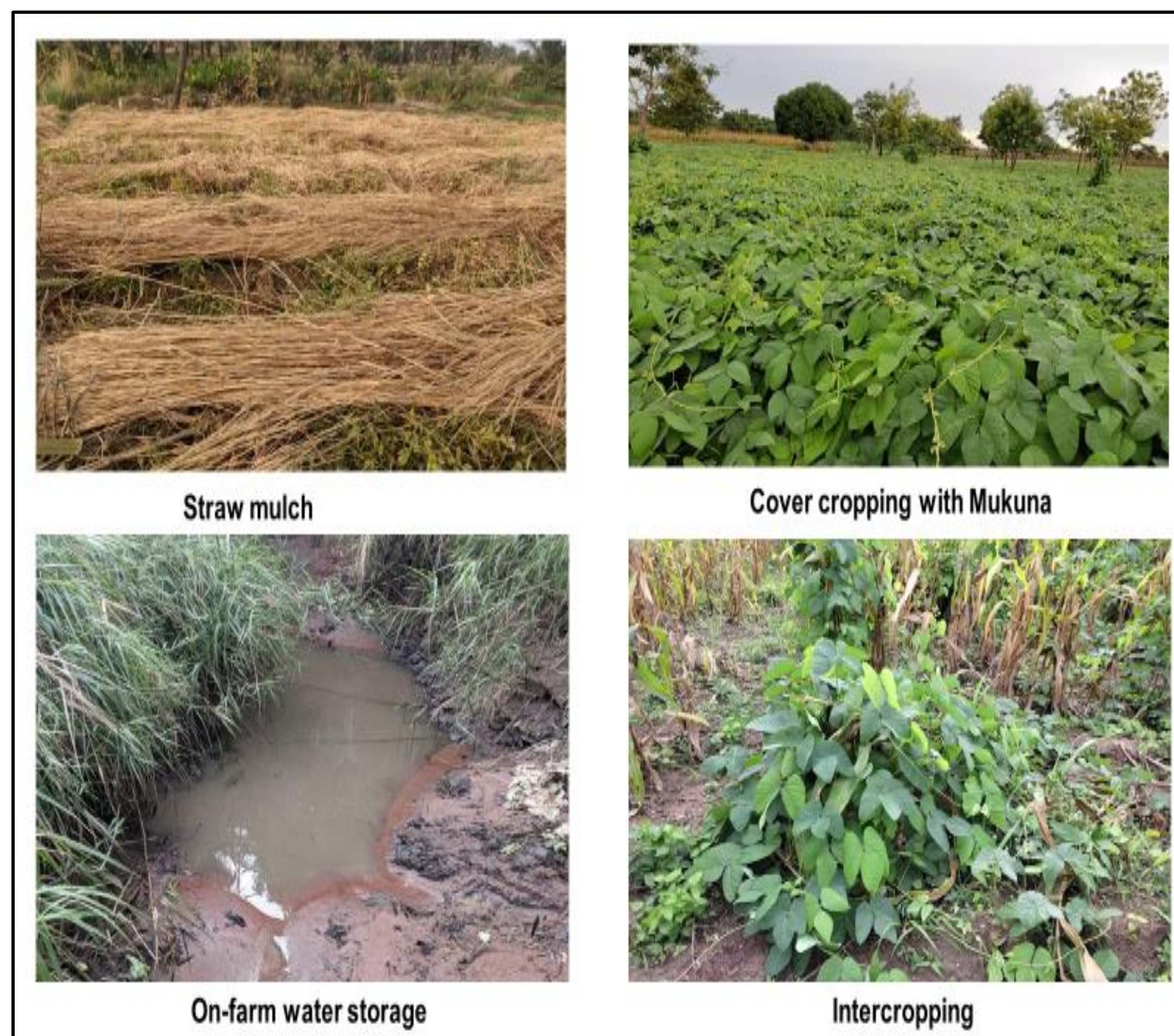


Fig. 1: Some CSA practices adopted in Kara

Results

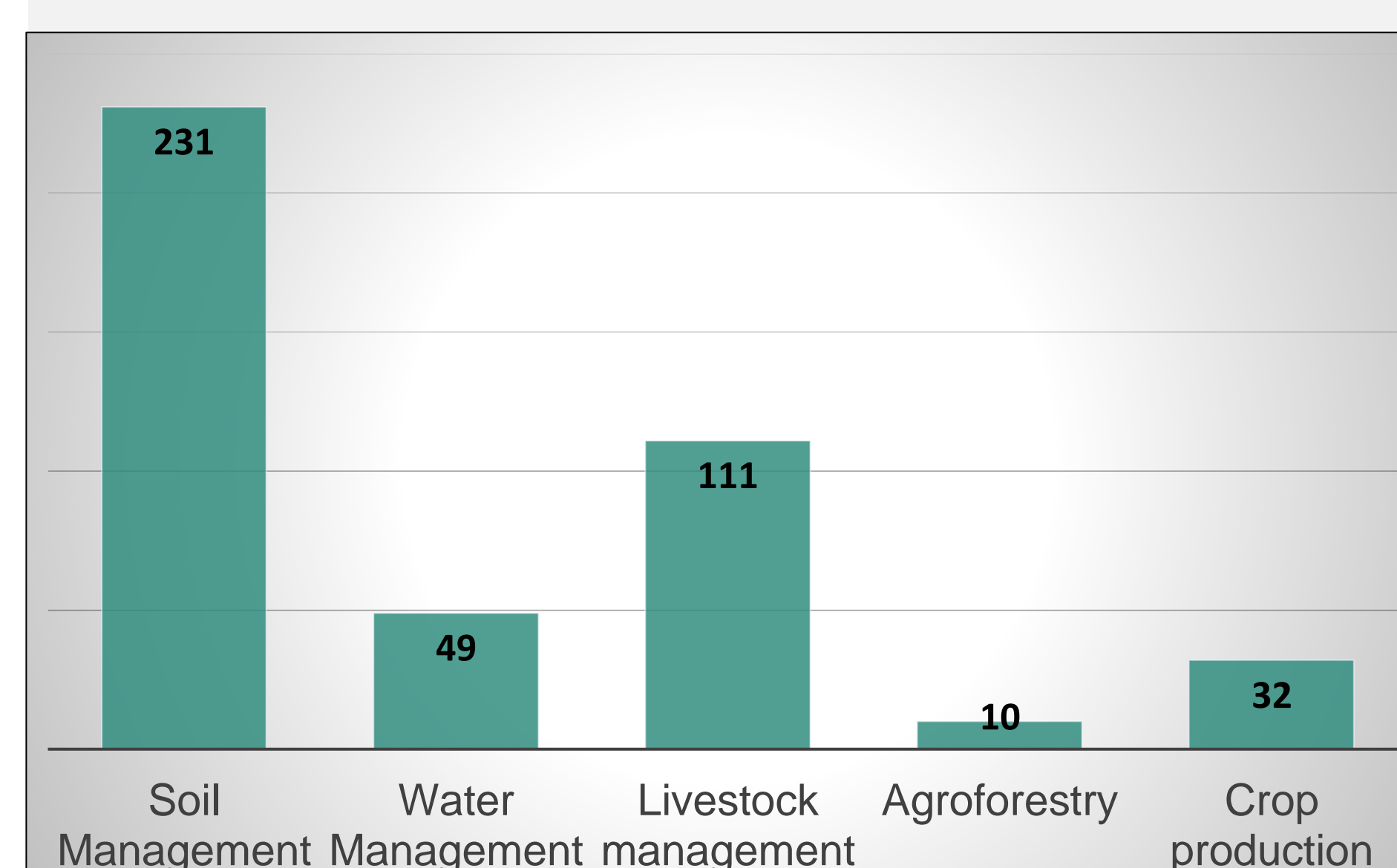


Fig. 2: Farmers adoption of CSA practices in various groups

- Over 75% of farm households barely have enough food all year round with household food shortage highest between May and September.
- Over 80% of farmers lose their crops before harvest due to dry spells. However, less than 15% of farmers adopted water management practices.
- Intervention projects mainly promote CSA practices farmers already know from traditional knowledge.

- Improved seeds promoted by all intervention projects has a low adoption rate (13%).
- Experts believe the adoption of soil management practices such as planting leguminous plants and the efficient use of organic and inorganic fertilizers would optimize farm yield.

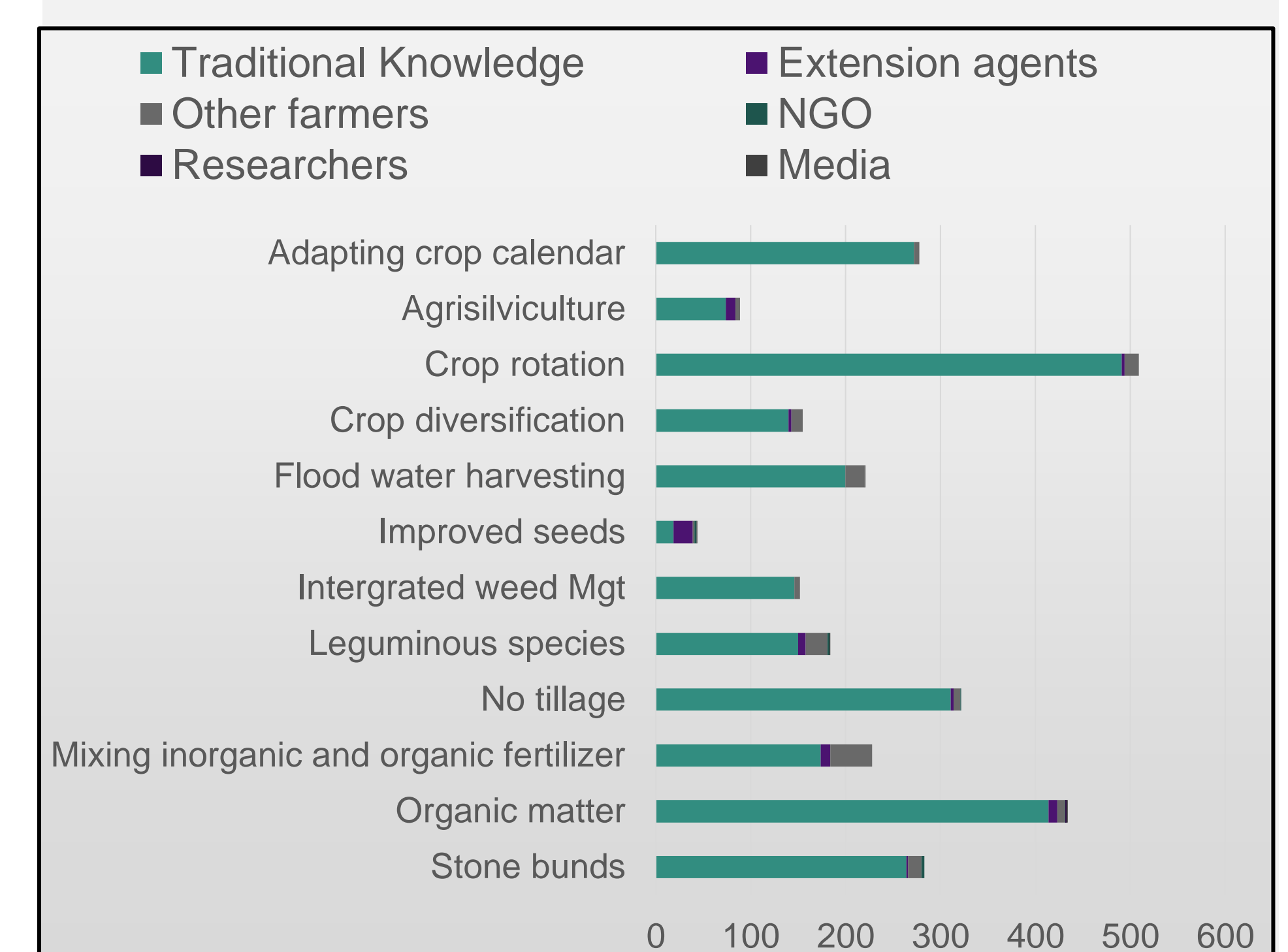


Fig. 3: Sources of knowledge of promoted CSA practices

- Farmers combine an average of 6 CSA practices on the same plot and find the impact of this combination to increase yield, yet risky compared to periods of non-adoption.

Outlook

- Farmers traditional practices amount to CSA practices, and they are aware of the complimentary benefits of most practices.
- Intensification practices exclude water management practices such as irrigation, driving adoption rates down due to the risk of livelihood or financial loss.
- Our findings are the baseline of ongoing analysis and aren't limited to descriptive analysis.

