



Livestock farmers knowledge and attitudes regarding agroforestry planning and management

Abstract 2212236

Session 88

"How the dairy sector copes with EU-Green deal"

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Introduction

- ▶ Silvopasture systems are a sustainable tool to achieve Net-Zero targets
- ▶ They can generate other benefits
 - ▶ Biodiversity, Resilience, Shade and Shelter
- ▶ UK government offers financial support for tree introduction and for already implemented silvopasture systems
- ▶ Are the farmers prepared to plan and manage a silvopasture system?



Introduction

- ▶ Achieving the silvopastoral system's benefits requires...
 - ▶ **Planning:** tree species and design (Jose et al., 2019)
 - ▶ **Management:** pruning and thinning → light input to improve the growth of trees and pastures (Brunetti et al., 2022; Pezzopane et al., 2020)
- ▶ Silvopasture systems are more complex as require to manage tree-pasture-animal synchronically
- ▶ Demands additional technical knowledge for farmers



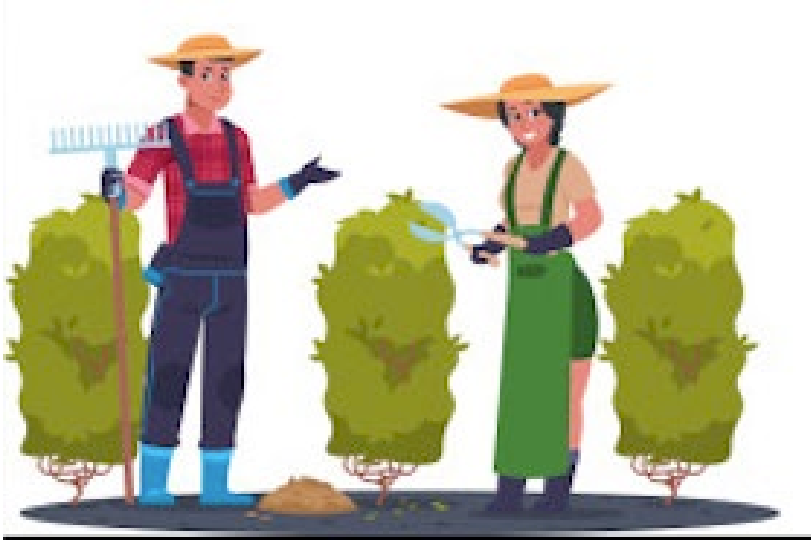
Introduction

- ▶ Specialised technical support is needed to...
 - ▶ Widely adoption
 - ▶ Maximise its benefits
 - ▶ Chances of success in the implementation



Objective

To explore the knowledge and attitudes of UK livestock farmers regarding silvopasture systems planning and management



Material and methods

- ▶ An online survey was carried out with farmers ($n = 48$) between Jan until Jul 2022
- ▶ Demographic data
- ▶ Farmers knowledge and attitudes

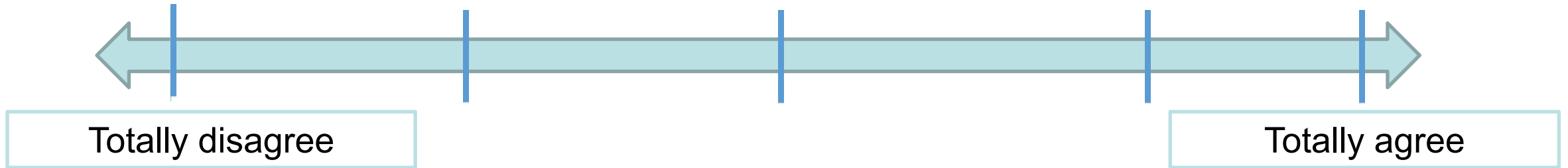


Google Forms



Material and methods

- ▶ They were asked their level of **agreement** :

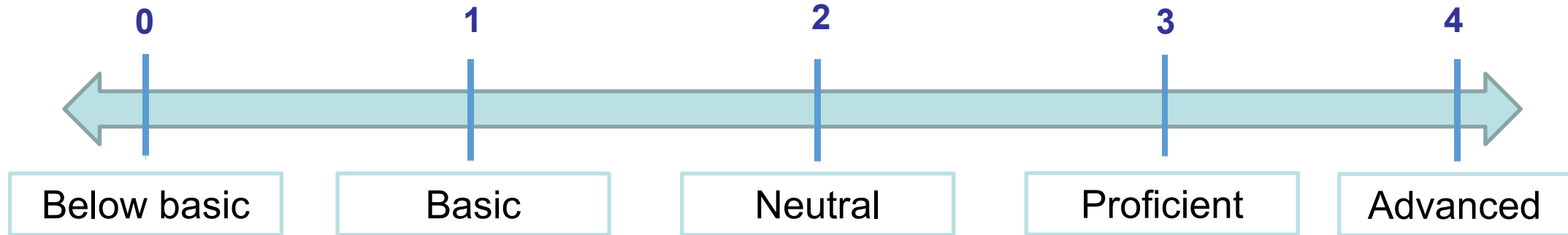


- ▶ Q1: the **technical support** is important for **planning** agroforestry
- ▶ Q2: I have the **information necessary to successfully introduce** agroforestry
- ▶ Q3: I have the **information necessary to successfully manage** my agroforestry
- ▶ Q4: I would like to **improve my knowledge on the management** of agroforestry



Material and methods

- ▶ Then they were asked their level of knowledge 10 topics:



- ▶ **To plan** → species selection / spacing / tolerance of pasture to shade / how to protect trees
- ▶ **To manage** → thinning / pruning / replanting / protecting / grassland management / soil fertility amendments

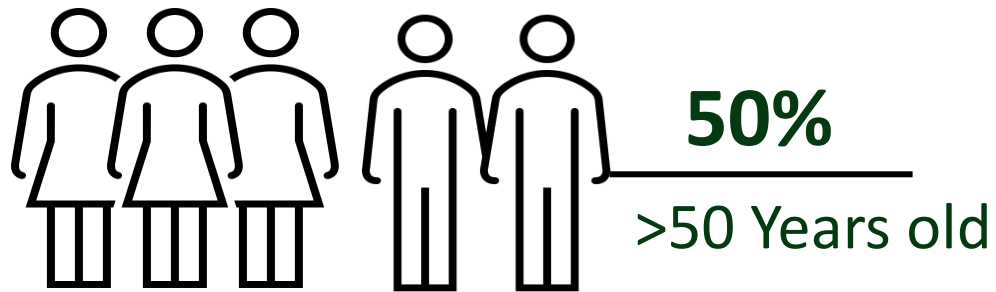
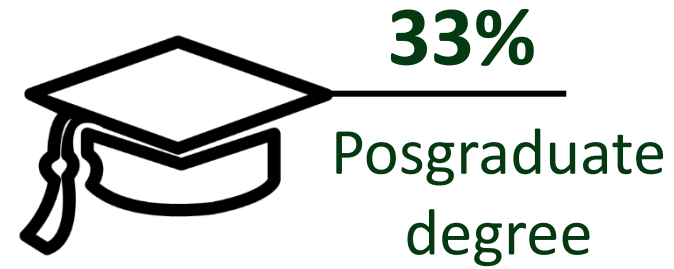
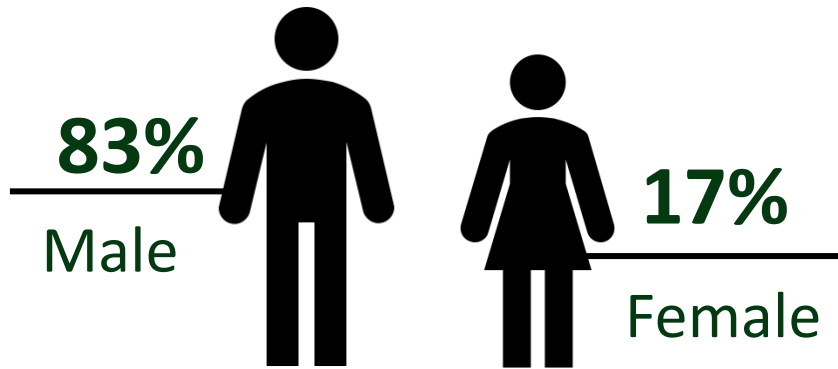
Statistical analysis

- ▶ Descriptive data are presented
- ▶ Difference in the participants' knowledge were analysed using confirmatory analysis by the Kruskal Wallis
 - ▶ Multiple comparisons by the Bonferroni test (95% confidence level)



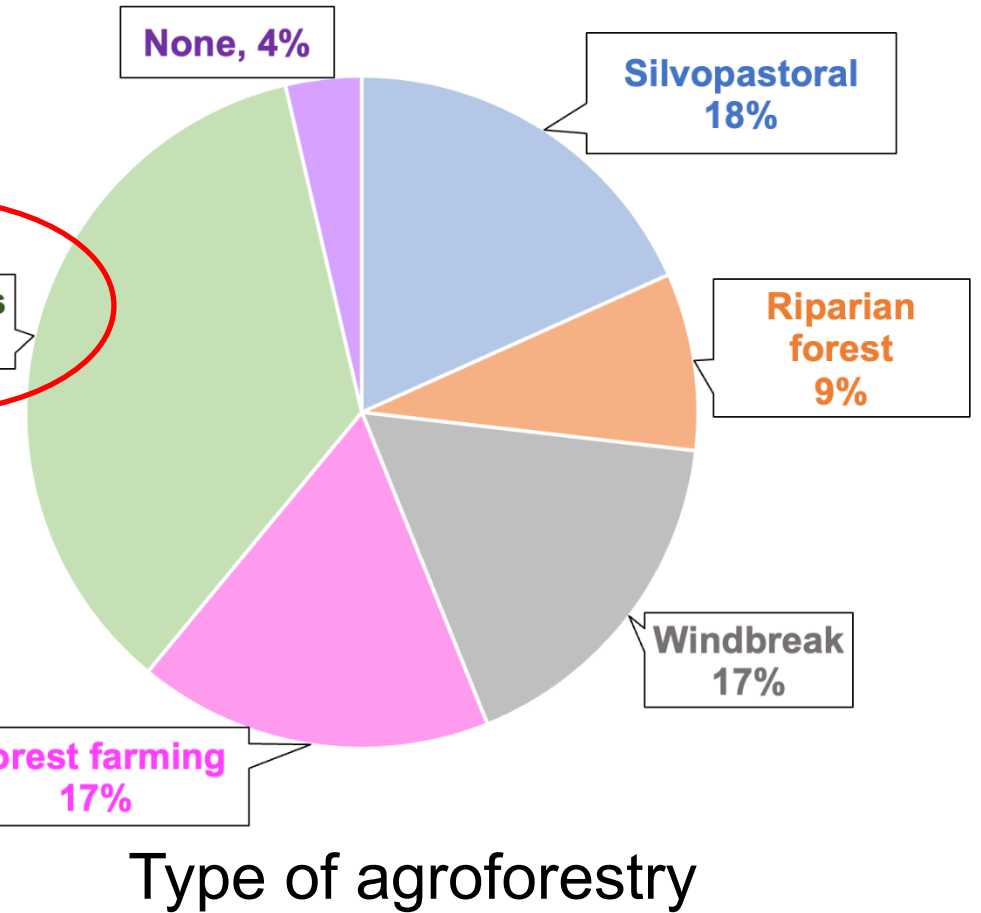
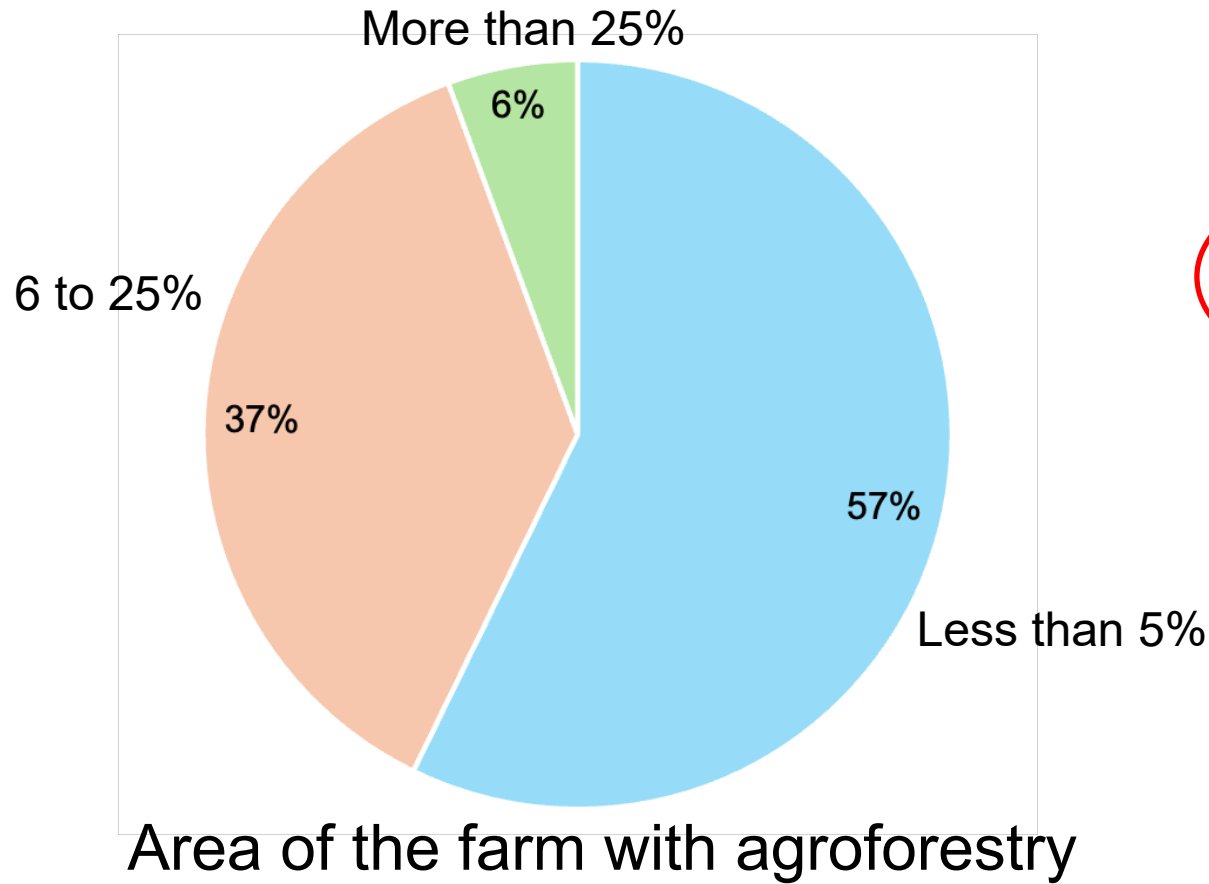
Results

Profile of participants



Results

Agroforestry area



Results

Knowledge

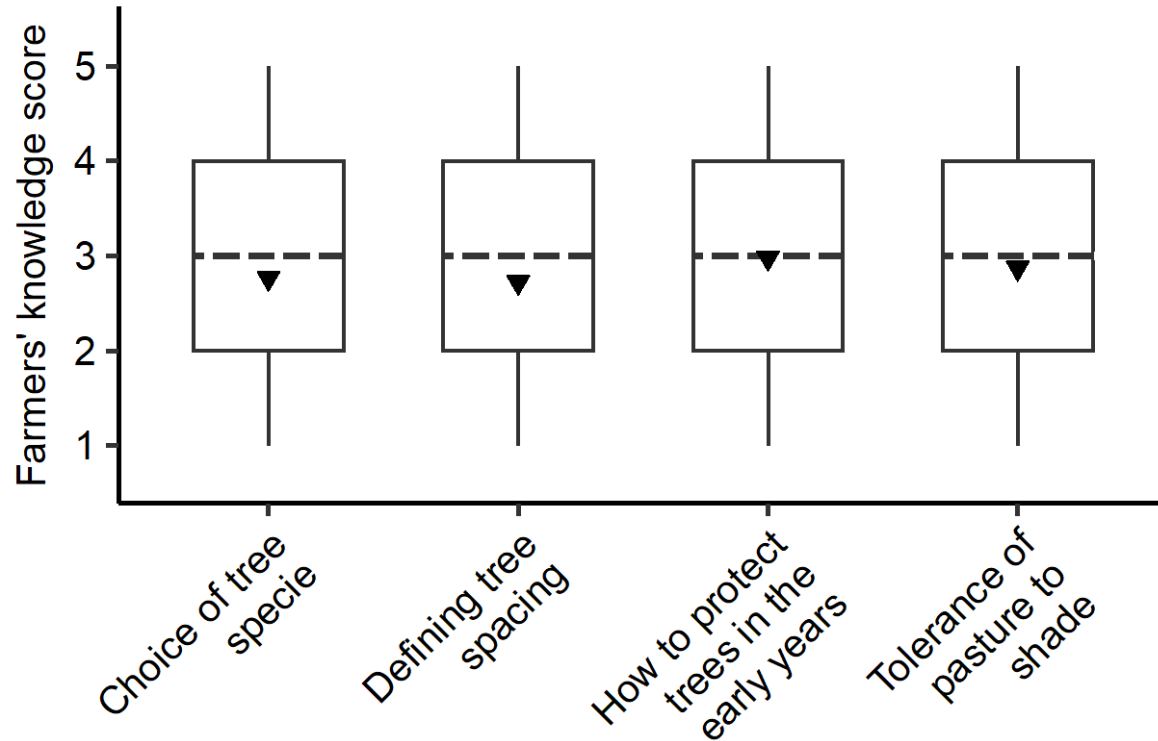
- ▶ 55% did **not have enough information** to successfully plan and manage an agroforestry system
- ▶ 71% considered **important to receive technical support**
 - ▶ 74% had **low expectations** of getting it from governmental agencies
 - ▶ 62% were **eager to improve** their knowledge and skills



Results

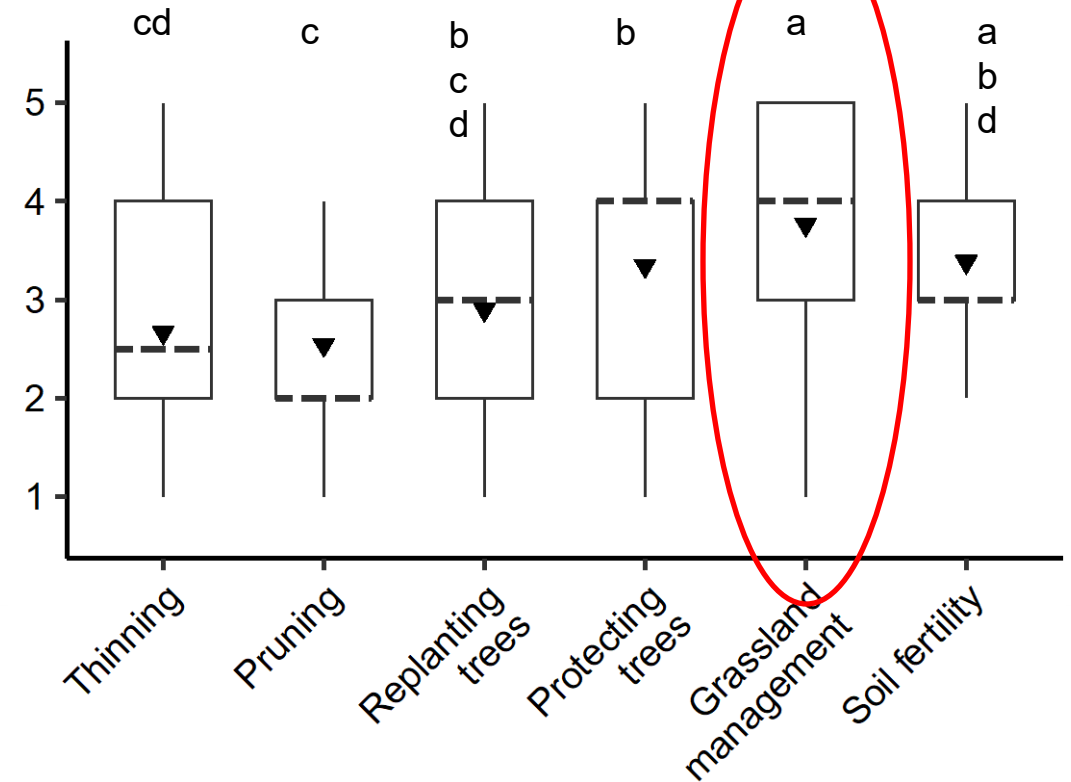
Knowledge level

a) Information to plan an agroforestry



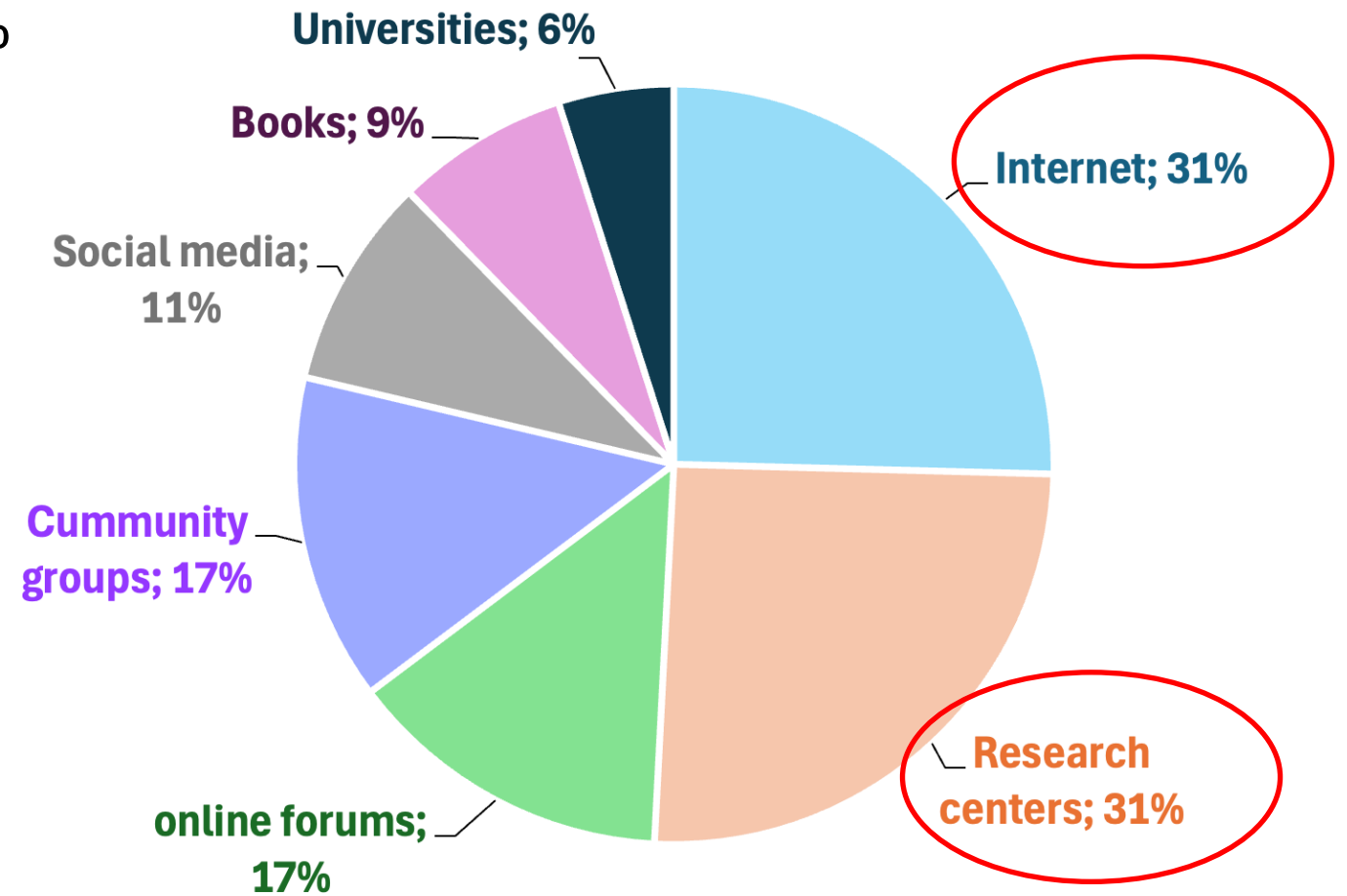
Similar (neutral for planning)

b) Management practices of an agroforestry



Results

► Search for information → 83%



What a successful agroforestry system means?



What a successful agroforestry system means?

- ▶ 56% financial aspects
- ▶ 42% benefits to the environment
- ▶ 39% benefits to the animals



Conclusion

- ▶ Farmers **don't have sufficient expertise** to plan and manage silvopasture systems successfully and **do not expect to receive government assistance**
- ▶ Farmers are **more aware of routine practices** such as grassland management than the management of trees
- ▶ They are **willing to improve their knowledge and skills**





Thanks for your attention!!!

Any question??

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