# How Do Stakeholders Perceive Agroforestry in Europe?

A Systematic Map



Lizzy Rainey, Doctoral Researcher
UK Food Systems Centre for Doctoral Training



# Background

- Agroforestry (AF) is growing in popularity and tree planting on farms is widely pushed as a path to net zero
- AF uptake in Europe remains relatively low
- Stakeholder perceptions are important to understand AF uptake
- No systematic review to date on the views of AF stakeholders

This study creates a systematic map of the existing research on the perspectives of farmers and other stakeholders towards AF.

## Aims

- Identify perceived <u>benefits</u>, <u>challenges</u>, <u>drivers</u>, <u>barriers</u> and <u>opportunities</u> to AF
- Characterise temporal, spatial, and other elements of the research landscape
- Consider how these perspectives may influence AF decision- and policy-makers

# Methods

SEARCH

Search string with relevant keywords to identify peer-reviewed studies in English since 2017 from Scopus, Web of Science and ProQuest

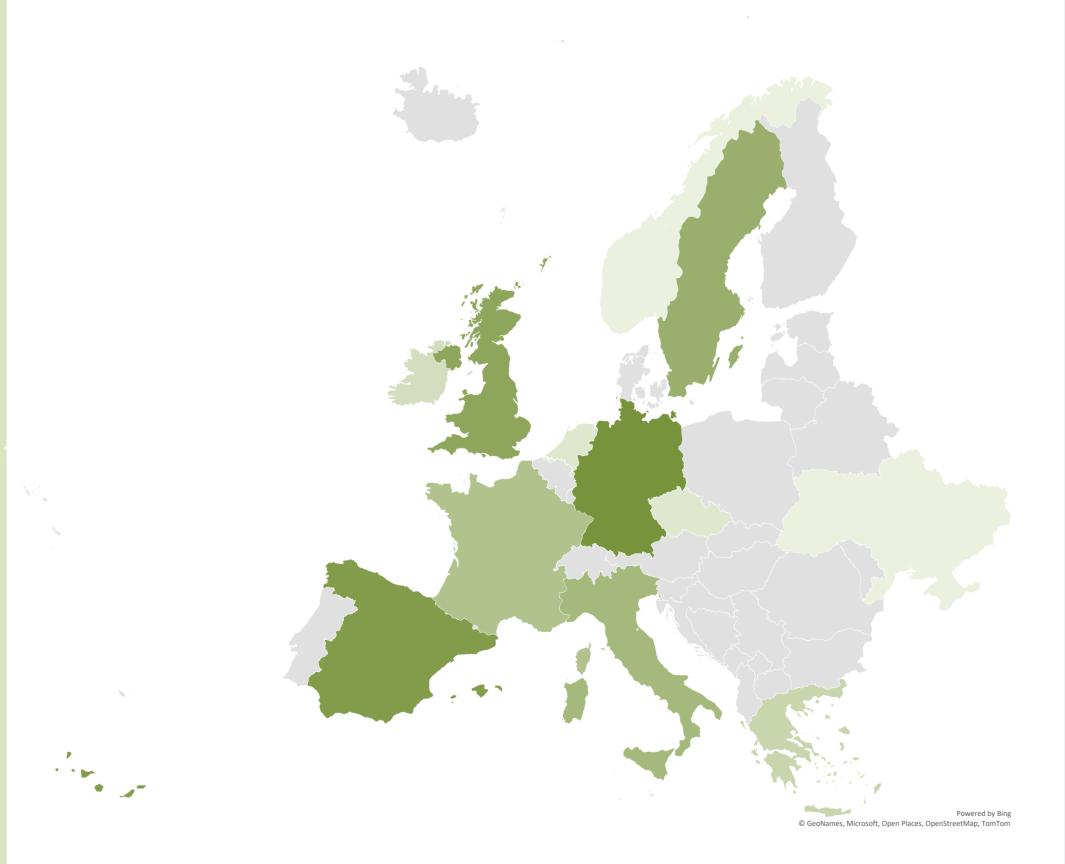
SCREENING

- Criteria for inclusion:
- Population = farmers & relevant stakeholders
   Interventions = practice or transition to AE
- Interventions = practice or transition to AF
- Outcomes = reported perceptions of AF

CODING

Data extracted and thematically coded based on preset and emerging primary, secondary, and tertiary themes

SYNTHESIS & ANALYSIS Knowledge gaps and clusters identified and relevance to future research and AF practice and policy considered



Map 1. Distribution of studies in Europe (range 1-11)

# Results: Characteristics

- Research is increasing over time
- Studies are concentrated in Western Europe
- Agrosilvoculture & agrosilvopasture systems dominate

  December for the systems are formed as a formula system.
- Research focuses on farmers (rather than other stakeholders) already practicing AF
- Most research is regional or national in scale
- Lack of demographic or farm-level data
- Methods are primarily surveys & interviews
- Analysis methods are mixed

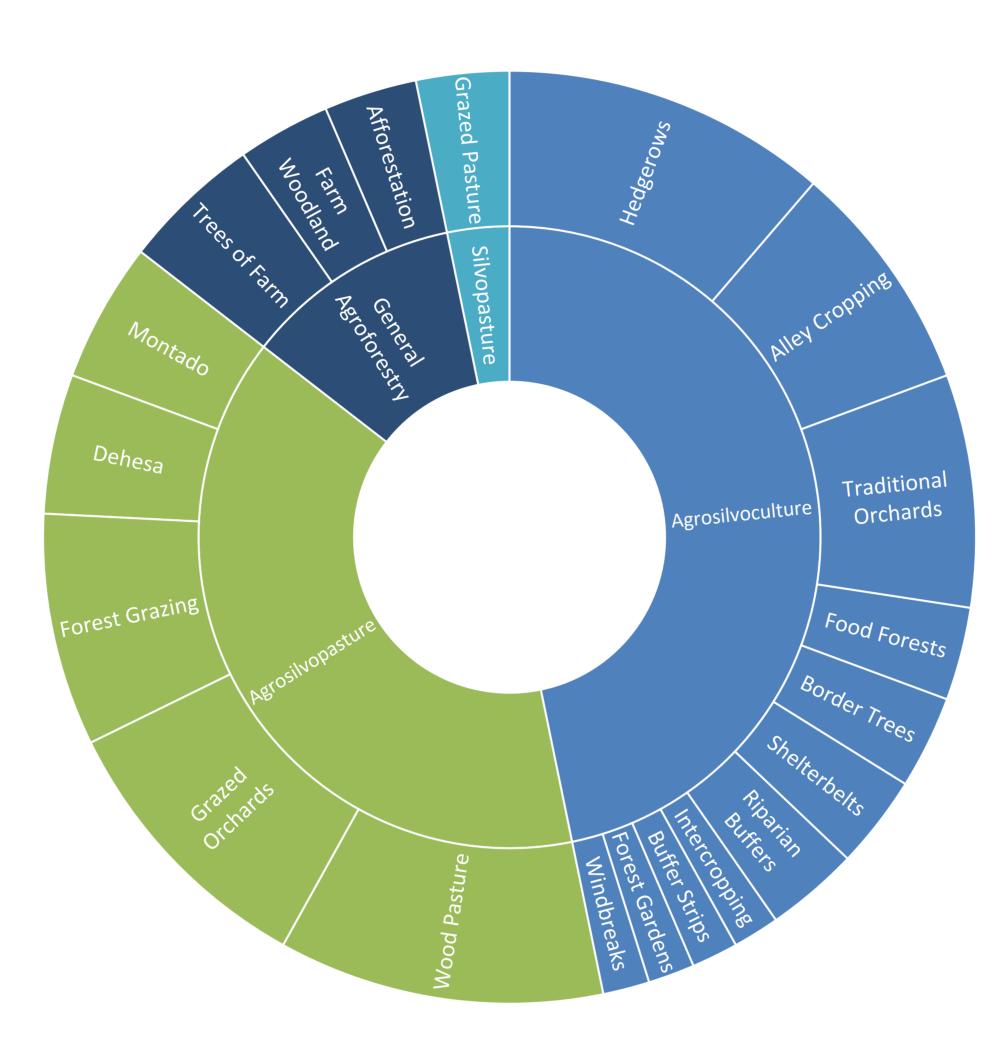


Chart 1. Types of AF systems & practices, based on Nair (1985)

# Results: Themes

#### **BENEFITS**

Environmental (biodiversity, soil, climate)
Economic (diversify income, quality products)
Land (aesthetic value)

### CHALLENGES

Practical (cultivation, competition, design)
Economic (labour, costs, inputs, profitability)

#### **DRIVERS**

Land (multifunctionality, restoration, utilisation)
Personal (characteristics, attitudes, beliefs)

#### **BARRIERS**

Personal (attitude, mindset)
Policy (bureaucracy, rigidity)
Practical (cultivation, competition)
Economic (productivity, costs, labour)
Education (lack of knowledge, skills & training)
Land (ownership, characteristics)

#### **OPPORTUNITIES**

Economic (marketing, branding)
Practice (site-specific design)
Education (knowledge exchange/transfer)

## Discussion

- Knowledge is clustered in specific regions and AF systems
- Farmers strongly recognize AF's environmental benefits (particularly for biodiversity & soil)
- Perceived economic and practical challenges are associated with AF
- Less focus on barriers, drivers, and opportunities or social-cultural factors
- Predominant research methods are surveys and interviews, with minimal demographic data collection
- Future studies should expand to regions beyond Western Europe and underrepresented AF systems
- More targeted research on stakeholder perspectives on the drivers, barriers, and opportunities of AF is necessary
- Participatory, local-level research is needed, involving both farmers and other stakeholders, including those not yet engaged with AF

## Limitations

Methodical & project-related limitations include:

- Limited to English-language
- Limited to selected databases
- No results prior to 2017
- No grey literature
- Single author

To provide a robust picture of stakeholder perceptions, the study would benefit from expansion and collaboration. This would allow for a methodically-rigorous screening and data extraction process, a review of the qualitative coding method, and a stronger systematic map overall.

**INVITATION TO COLLABORATE** If you are interested in joining or collaborating on this research, please be in touch.



Figure 1. AF research site in Devon, photo by the author

© POSTER TEMPLATE BY GENIGRAPHICS® 1.800.790.4001 WWW.GENIGRAPHICS.COM

## Contact

Lizzy Rainey, Doctoral Researcher Brunel University London Email: lizzy.rainey@brunel.ac.uk WhatsApp: +4407956805801

## Selected References

- 1. Haddaway, N.R. et al. (2018) 'ROSES RepOrting standards for Systematic Evidence Syntheses: pro forma, flow-diagram and descriptive
- summary of the plan and conduct of environmental systematic reviews and systematic maps', Environmental Evidence, 7(1), p. 7.

  2. Bayliss, H.R. et al. (2016) 'Updating and amending systematic reviews and systematic maps in environmental management', Environmental
- Evidence, 5(1), p. 20
  3. Nair, P.K.R. (1985) 'Classification of agroforestry systems', Agroforestry Systems, 3(2), pp. 97–128.
- 4. Castle, S.E. et al. (2022) 'Evidence for the impacts of agroforestry on ecosystem services and human well-being in high-income countries: a systematic map', Environmental Evidence, 11(1), p. 10.
- Fagerholm, N. et al. (2016) 'A systematic map of ecosystem services assessments around European agroforestry', Ecological Indicators, 62, pp. 47–65.
   Köthke, M., Ahimbisibwe, V. and Lippe, M. (2022) 'The evidence base on the environmental, economic and social outcomes of agroforestry is
- 6. Köthke, M., Ahimbisibwe, V. and Lippe, M. (2022) 'The evidence base on the environmental, economic and social outcomes of agroforestry is patchy—An evidence review map', Frontiers in Environmental Science, 10, p. 925477.