LIFE AgroForAdapt project: Promoting Mediterranean agroforestry as a tool for climate change adaptation and enhanced provision of ecosystem services

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Background

Agroforestry systems are the combination of woody vegetation with agricultural and / or livestock uses to obtain benefits from the resulting interactions.

These systems allow for a **more efficient use of resources** and **diversify and increase productivity** and overall farm profitability compared to conventional agricultural or livestock uses. In addition, these systems are **more resistant** than agriculture, livestock or conventional forestry in the face of the main direct and indirect impacts of **climate change.**

The agroforestry systems we are working with are **silvoarable** (trees or shrubs combined with crops) and **silvopastoral** (combining grazing with woody vegetation, either in grasslands or in forests).

How does it work?

The main objective of the LIFE AgroForAdapt project **(2021-2026** - **www.agroforadapt.eu**) is to **promote agroforestry systems as a measure of adaptation to climate change** in the Mediterranean agriculture and forestry sectors.

The specific **objectives of the project** are:

1) **To increase the agroforestry demonstration area** by installing and/or managing 76 demonstration systems: 850 ha and inducing replication in a further 1,400 ha.

2) **Evaluate the impact** of these agroforestry demonstration systems **on multiple ecosystem services** and indicators related to profitability (yield and economic balance), adaptation to climate change (air and soil moisture and temperature and vulnerability to forest fires) and biodiversity (flora, birds, insects and IBP)

3) **Develop and apply innovative design, planning and commercial tools** to facilitate the adoption of agroforestry.

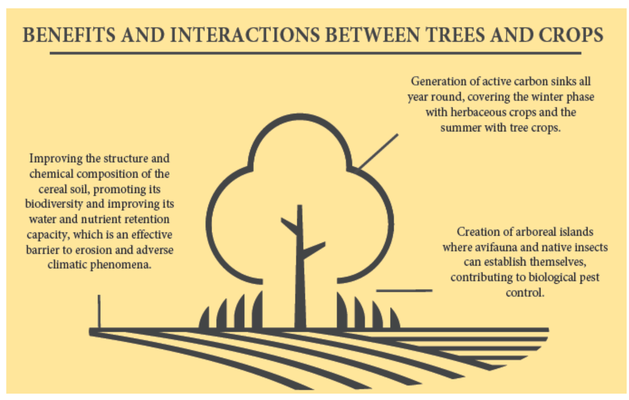
4) **Promote agroforestry systems in policies and regulations** and in climate change adaptation plans.

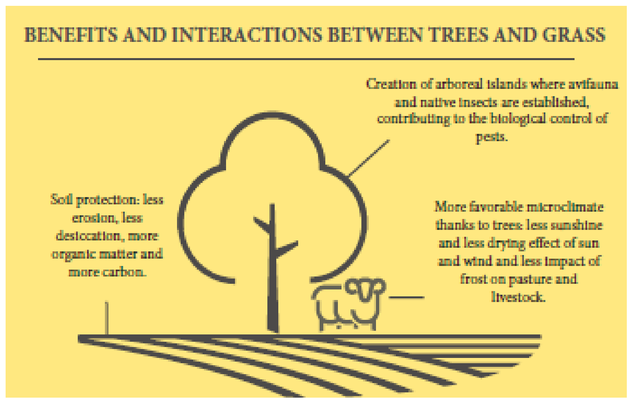
5) **Sensitize** of the interest and multifunctionality of these systems **to the society in general** and to the agri-livestock and forestry sectors in particular.

Work area: Catalonia, Castilla y León, Occitanie and Provence-Alpes-Côte d'Azur.

Agroforestry systems are known for their productive and environmental benefits thanks to the ecosystem services they impact:

- Greater productive and economic resilience
- Better ecological functionality, enhanced biodiversity and better connected
- Less impact of drought and extreme weather events
- Less vulnerability to fires in forest systems
- Greater vitality and availability of auxiliary fauna
- Greater long-term carbon fixation and creation of local, renewable and sustainable bioeconomic resources





Featured project products

76 demonstration systems implemented, 854 ha(14 systems in Castilla y León, 206 ha): 38 Silvoarable systems, 226 ha, 17 new open-landscape silvopastoral systems, 205 ha, 21 livestock use in forest environments, 423 ha.

Innovative tools to prioritize areas for promotion of agroforestry systems, where they would be particularly beneficial, considering the ecosystem services they provide.: **PrioSilvAra and PrioSilPas**

Starting a **Mediterranean Agroforestry Network** using social media for knowledge transfer:

Working groups in order to integrate agroforestry systems in regulations, policy and adaptations plans: CAP integration and carbon farming

Knowledge transfer activities: 2 technical trips to visit some demonstration systems and exchange experiences: Mediterranean France (2024) and Castilla y León (2025)

Technical guidelines for implemented agroforestry systems

References

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The project has eight partners: Forest Science and Technology Centre of Catalonia - CTFC, coordinator, Provincial Councils of Barcelona and Girona, Metropolitan Barcelona Council, Catalan Department of Climate Action, Food and Rural Agenda, two private consulting companies Agresta S. Coop and Agroof SCOP and a land stewardship NGO (Fundació Emys). Tarragona Provincial Council and the French Water Agency (AE-RMC) as co-financiers and the company Sorbus Bosques Multifuncionales and the Baix Llobregat County Council as collaborators

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Scientific symposium

Promoting diversity in plant-based ecosystems as a tool for Ecosystem Services provision