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More information on the project can be found at: <a href="http://agroreforest.eu/">http://agroreforest.eu/</a>

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# **EXECUTIVE SUMMARY**

This report provides a detailed examination of the regulations, funding schemes, and policy frameworks currently applicable to European agroforestry. With the growing ambition of the European Green Deal to overcome current challenges related to climate change and environmental degradation, policy initiatives and sustainable practices aimed at transforming the European Union (EU) into a modern, resource-efficient and competitive economy are needed. Agroforestry is a multifunctional system used for centuries and may have untapped potential for a modern solution to environmental issues. Given its known environmental, economic and social benefits, agroforestry could be at the centre of this transformation in Europe. Despite this, direct policies and financial mechanisms aimed at supporting and developing agroforestry systems have traditionally been rare in Europe.

In this context, this report examines the policy framework for agroforestry in Europe and identifies the gaps in the existing regulations, policies and financial mechanisms. It provides an inventory of data and information gathered through reviewing scientific literature, policy documents and online sources. First, this report describes the current policy framework for agriculture and forestry, focusing on the EU policies, including the European Green Deal, Biodiversity and Farm to Fork strategies, EU forestry strategy for 2030, Common agricultural policy (CAP), and State aid rules. Then, it gives an overview of the agroforestry policy landscape in twenty European (17 EU and 3 non-EU) countries by examining the role of agroforestry in each country, the implementation of the CAP at the national level, and existing national policies. Finally, the report explores the links between agriculture, forestry and carbon markets, with a focus on the contribution of agroforestry to climate change mitigation through its possible future integration into carbon markets and the role of carbon farming at the EU level.

The study shows that the policy landscape for agroforestry is progressively growing in Europe. The primary source of support has been found within the CAP during the periods 2007-2013 and 2014-2020. Agroforestry receives support within the CAP (2023-2027) and major EU legislations such as the European Green Deal, Biodiversity and Farm to Fork, and the EU Forest strategy for 2030. There are also national policies supporting agroforestry in a number of countries, which generally focus on technical and agroeconomic aspects. However, there were many regulatory inconsistencies and a lack of political support between agriculture and forestry in the previous CAPs, which often prevented farmers from adopting agroforestry systems. Other public and private financing mechanisms and the rules for State aid for agriculture and forestry can also support the development of sustainable agroforestry practices. To improve agroforestry support policies and to create targeted agroforestry practice measures according to the needs of specific regions and the delivery of ecosystem services, it will be essential to identify the land where agroforestry is applied and examine how policies modify its implementation. To this end, the full recognition of agroforestry and its practices in the CAP is essential to foster the wider adoption of agroforestry in Europe. The slow expansion of agroforestry systems is also related to the fact that only the food production function can be readily monetised by farmers, which is why many farmers do not switch to agroforestry. Therefore, it is essential to identify and put the economic value of the ecosystem services and environmental benefits provided by agroforestry systems at the centre of the financial focus. In this regard, farmers implementing agroforestry practices that provide these benefits should receive full support payments from Pillars I and II of the CAP.

Agroforestry can contribute to achieving the carbon neutrality objective of the European Green Deal. The possible future integration of agriculture and forestry into the EU Emissions Trading System (EU ETS) will require strong support and acceptability among the institutions involved in the system and sufficiently robust monitoring, reporting and verification systems for carbon removals. Together with the CAP, the European Commission's legislative proposal for a regulatory framework for the EU carbon removal certification scheme and Communication on Sustainable Carbon Cycles promote carbon farming practices, including agroforestry. Carbon farming embodies a holistic approach to sustainability by creating an economic reward for farmers for environmental actions that benefit society. However, the practical implementation of carbon farming schemes and certification of sequestered carbon face several technical challenges. Therefore, the European Commission must create strong enabling conditions for farmers to participate in carbon farming schemes. Overall, this study reveals the need for a policy framework that links food systems, agriculture, forestry and rural development for a holistic approach to environmental, economic and social sustainability.



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# LIST OF ACRONYMS AND ABBREVIATIONS

Abbreviation	Definition
ABER	Agricultural Block Exemption Regulation
	Agence de l'environnement et de la maîtrise de
ADEME	l'énergie
AECM	Agri-environment-climate measures
AFOLU	Agriculture Forestry and Other Land Use
	Albanian Local Capacity Development
ALCDF	Foundation
ALM	Agricultural Land Management
ANCs	Areas facing natural or other specific constraints
ARR	Afforestation, Reforestation and Revegetation
BEECS	Bioenergy with carbon capture and storage
BPS	Basic payment scheme
CAP	Common agricultural policy
CDM	Clean Development Mechanism
CEJA	European Council of Young farmers
CERs	Certified emission reductions
CGLC	Cropland and Grassland Land-use Conversions
	Complementary Income Support for Young
CISYF	Farmers
CITL	Community Independent Transaction Log
CMEF	Common monitoring and evaluation framework



DACCS	Direct air capture with capture and storage
DAFM	Department of Agriculture, Food and the Marine
DEFRA	Department for Environment, Food and Rural
	Affairs
EAFRD	European agricultural fund for rural
	development
EAGF	European agricultural guarantee fund
EEA-EFTA	European Economic Area-European Free Trade
	Association
EFAs	Ecological Focus Areas
EFI	European Forest Institute
ELMS	Environmental Land Management scheme
ERDF	European Regional Development Fund
ERUs	Emission reduction units
EU ETS	EU Emissions Trading System
EURAF	European Agroforestry Federation
EUTL	European Union Transaction Log
EU	European Union
FAO	Food and Agriculture Organisation
GAEC	Good agricultural and environmental conditions
На	Hectare
IACS	Integrated administration and control system
ICM	Improved Cropland Management
IFM	Improved Forest Management
IGM	Improved Grassland Management
JI	Joint Implementation
LF	Law for Forests
LOUAL	Law on Ownership and Usage of Agricultural Land
LPAL	Law on the Protection of Agricultural Land
LSAP	Law for Supporting Agricultural Producers
LULUCF	Land Use, Land-Use Change and Forestry
MSR	Market Stability Reserve
PEPIT	Pole d'Expérimentation Partenariale pour
	l'Innovation et le Transfert
PFB	Protective forest belts
PFCs	Perfluorocarbons
PPPs	Plant protection products
RAINs	Regional Agroforestry Innovation Networks
RDPs	Rural Development Programmes
REDD	Reduced Emissions from Deforestation and
	Degradation
SAPS	Single area payment scheme
SFS	Small farmers scheme
SMEs	Small and medium-sized enterprises
SMR	Statutory management requirements
SNV	Dutch Development Organisation
ToF	Trees outside forests
TCE -	
TSEs	Transmissible spongiform encephalopathy's
VCS	Verified Carbon Standard
VCS WP	Verified Carbon Standard Work package
VCS	Verified Carbon Standard



# 1. Introduction

This report provides a detailed examination of the regulations, funding schemes, and policy frameworks currently applicable to European agroforestry. With the growing ambition of the European Green Deal to overcome current challenges related to climate change and environmental degradation, policy initiatives and sustainable practices aimed at transforming the European Union (EU) into a modern, resource-efficient and competitive economy are needed. Agroforestry is a multifunctional system that has been used for centuries and may have untapped potential for a modern solution to environmental issues. Direct policies and financial mechanisms to support and develop agroforestry systems have traditionally been rare in Europe. However, given the known environmental, economic and social benefits of these systems, the policy landscape for agroforestry is progressively growing in Europe. The primary source of support has been found within the Common Agricultural Policy (CAP) during the periods 2007-2013 and 2014-2020. This change has also been reflected by developing national policies supporting agroforestry in several countries. Moreover, agroforestry receives support within the CAP (2023-2027) and major EU legislations such as the European Green Deal, Biodiversity and Farm to Fork strategies, and the EU Forestry strategy for 2030.

In this context, this report examines the policy framework for agroforestry systems in Europe and identifies the gaps in the existing regulations, financial mechanisms and policies. It also explores the potential of agroforestry for climate change mitigation though its possible integration into carbon markets and the role of carbon farming at the EU level. We conduct in-depth research and compile information, and data gathered through the review of scientific literature, policy documents and online sources. The rest of the report is divided into five distinct sections. Section 2 describes the background, methodology, and defines the objectives and expected outcomes of the study. Section 3 provides a description of the current policy framework for agriculture and forestry. It focuses on the EU policies, including the European Green Deal, Biodiversity and Farm to Fork strategies, the EU Forestry strategy for 2030, the CAP and the rules for State aid. Section 4 gives an overview of the policy landscape for agroforestry in twenty European countries (17 EU and 3 non-EU countries) by examining the role of agroforestry in each country, the implementation of the CAP at national level, and existing national policies. Given the known environmental benefits of agroforestry systems, it is essential to study how agroforestry can contribute to the fight against climate change. To this end, section 5 examines the links between agriculture, forestry and carbon markets, with a focus on the contribution of agroforestry to climate change mitigation through its possible future integration into carbon markets and the role of carbon farming at the EU level. Finally, section 6 contains a summary of the findings of this study and the concluding remarks. Overall, this report aims to identify gaps in existing financing mechanisms and policies for agroforestry and opportunities for improvement to lay the foundation for developing innovative financial instruments and policy recommendations.

# 2. Agroforestry sector finance and policy

#### 2.1 Background and motivation

ReForest is an interdisciplinary project lying in the field of social science (co-creation, stakeholder engagement, knowledge transfer), with the integration of ecosystem science (ecosystem services), agronomy (productivity), technology development (remote sensing and neural networks), and economics (business models, value chains, finance and policies). The project's overall objective is to enhance the sustainability of food production in the EU by co-creating solutions to key barriers that hinder farmers' wider adoption of agroforestry. The most critical barriers to agroforestry adoption in Europe include the lack of knowledge and experience, the impact of tree planting on farm business, and unclear policy support positioned between agriculture and forestry. The expansion of agroforestry



systems is related to the fact that only the food production function can be readily monetised by farmers, which is why many farmers do not switch to agroforestry. Farmers need policy support for several reasons.<sup>1</sup> First, the average income of farmers remains significantly lower than the average income of the rest of the EU economy. Farming is risky and often costly because agriculture depends more on the weather and climate than other sectors. There is also an evident time lag between consumer demand and the ability of farmers to increase supply. Farmers are under pressure from increasing global trade in food products and trade liberalisation. Finally, globalisation and fluctuations in supply and demand have made agricultural market prices more volatile, creating concerns for farmers. These business uncertainties in agriculture justify the important role the public sector must play in ensuring a safety net for farmers' income and enabling them to adopt this practice.

Taking this into account, the ReForest project aims to promote the adoption of agroforestry systems by accelerating effective and sustainable financing of the agroforestry sector at the national and EU level. Therefore, it is essential to identify and put the economic value of the ecosystem services and environmental benefits provided by agroforestry systems at the centre of the financial focus. Carbon sequestration and biodiversity enhancement are good examples of ecosystem services for which enabling payments can incentivise farmers to adopt agroforestry systems. This would make agroforestry farm business models attractive by internalising the value of carbon storage and biodiversity enhancement. Clear legislation and political support between agriculture and forestry are needed to overcome the barriers to the broader adoption of agroforestry in Europe.

#### 2.2 Definition of Agroforestry

Agroforestry is receiving considerable attention from the scientific community and is recognised as a multifunctional land use practice with multiple environmental, social and economic benefits. Agroforestry systems can help mitigate climate change, protect soils, enhance biodiversity and water quality, and improve the overall condition of the landscapes.<sup>2</sup> Farmers who adopt agroforestry practices can diversify their production, reduce certain costs and improve their productivity.

Although agroforestry is a traditional land use type, its definition within the regulatory environment is often rudimentary or non-existent and differs across countries. The Food and Agriculture Organisation (FAO) of the United Nations gives the following definition of agroforestry: "Agroforestry is a collective name for land-use systems and technologies where woody perennials (trees, shrubs, palms, bamboos, etc.) are deliberately used on the same land-management units as agricultural crops and/or animals, in some form of spatial arrangement or temporal sequence". According to the FAO, agroforestry can also be defined as: "A dynamic, ecologically based, natural resource management system that, through the integration of trees on farms and in the agricultural landscape, diversifies and sustains production for increased social, economic and environmental benefits for land users at all levels".

In other words, agroforestry allows farmers to continue producing food, while significantly improving the environmental sustainability of their operations. Integrating trees into agricultural businesses can provide multiple ecosystem services, such as carbon sequestration and biodiversity enhancement.<sup>4</sup>

<sup>1</sup> European Commission (n.d.). Agriculture and rural development Income support explained. Available at: https://agriculture.ec.europa.eu/common-agricultural-policy/income-support/income-support-explained\_en

Available at: https://www.fao.org/forestry/agroforestry/80338/en/

<sup>&</sup>lt;sup>2</sup> Jose, S. (2009). Agroforestry for ecosystem services and environmental benefits: An overview. *Agroforestry Systems*, *76*, 1-10. https://doi.org/10.1007/s10457-009-9229-7

<sup>&</sup>lt;sup>3</sup> Food and Agriculture Organisation of the United Nations (2015). Agroforestry.

<sup>&</sup>lt;sup>4</sup> Jose, S. (2009). Agroforestry for ecosystem services and environmental benefits: an overview. *Agroforestry Systems*, *76*, 1-10. https://doi.org/10.1007/s10457-009-9229-7



Many studies have attempted to classify the existing agroforestry systems in the EU. This is a very challenging task given the number of possible combinations of woody components, crops, and livestock, as well as the variety of criteria to be considered.

In this report, we refer to the classification used by the AGROMIX project, which provides a simplified list of the main "spatial" forms of agroforestry:<sup>5</sup>

- Silvopastoral: Combining woody vegetation (trees and shrubs) with forage and animal production.
- Silvoarable: Woody vegetation (trees and shrubs) intercropped with annual or perennial crops;
- · Hedgerows, windbreaks and riparian buffer strips: Lines of natural or planted perennial vegetation (trees and shrubs) bordering croplands, pastures and water sources to protect livestock, crops, soil and water quality.
- Forest farming: Forested areas are used to produce or harvest natural-standing speciality crops such as mushrooms or medicines for medicinal, ornamental, or culinary purposes.
- Home gardens: Combination of trees and/or shrubs with vegetable production.

Silvopastoral and silvoarable are extensive forms of agriculture with a spatial mixture of trees and crops or livestock grazing in an open wooded area. In contrast, in linear systems such as hedgerows, windbreaks and riparian buffer strips, perennial vegetation is not interspersed within the cropping/grazing field. It is located exclusively on its margins.

As highlighted in Feliciano et al. (2018), agroforestry's potential lies in supporting climate change mitigation with soil and above-ground carbon benefits through practices such as silvopastoral, silvoarable, forest farming and home gardens.

In another very relevant study, Torralba et al. (2016) show that agroforestry systems can enhance biodiversity and ecosystem services compared to conventional agriculture and forestry in Europe. However, the results are heterogeneous, with differences between the types of agroforestry practices and ecosystem services assessed. Comparisons between different types of agroforestry and reference land use indicate that silvopastoral and silvoarable systems increase the provision of ecosystem services, especially when compared to forestry land.<sup>6</sup>

As a multifunctional land use, agroforestry can contribute to multiple sustainable development goals.

#### 2.3 OBJECTIVES AND EXPECTED OUTCOMES

This mapping report forms the basis of the "Work Package (WP) 5 Finance and Policy" of the ReForest project. It provides an inventory of current policy contexts, regulations and financing mechanisms for supporting European agroforestry systems. The main objective of WP5 is to promote the adoption of agroforestry systems by accelerating effective and sustainable financing of the agroforestry sector at the national and EU levels. To this end, this report aims to lay the foundation for developing innovative financial instruments and policy recommendations, building on the experiences of living labs and active engagement with policymakers and financial industry actors.

<sup>&</sup>lt;sup>5</sup> Donham, J., Venn, R., Schmutz, U. and Migliorini, P. (2022). Global inventory of current policy contexts, instruments and operational means for the support of mixed farming and agroforestry systems. Deliverable D6.1 for AGROMIX (862993). https://agromixproject.eu/project/

<sup>&</sup>lt;sup>6</sup> Torralba, M., Fagerholm, N., Burgess, P. J., Moreno, G. and Plieninger, T. (2016). Do European agroforestry systems enhance biodiversity and ecosystem services? A meta-analysis. Agriculture, Ecosystems & Environment, 230, 150-161. https://doi.org/10.1016/j.agee.2016.06.002



The objectives and expected outcomes of this report are to:

- Provide an assessment of the current regulatory and policy framework for agroforestry at the EU level;
- Identify gaps and opportunities for improvement of existing financing mechanisms and policies for agroforestry in Europe;
- Provide an overview of agroforestry practices and the policy situation in 17 EU and 3 non-EU countries;
- Increase the involvement of regional authorities, financial institutions and national policy experts in co-creation to stimulate the practitioner-led research and innovation of agroforestry at regional and local levels;
- Lay the foundation for the development of a new agroforestry financial model based on payment for ecosystem services and make agroforestry farm business models attractive by internalising the value of carbon storage and biodiversity enhancement;
- Provide insight into the contribution of agroforestry to climate change mitigation and agroecological transition through its possible future integration into carbon markets and the role of carbon farming at the EU level.

# 2.4 METHODOLOGICAL APPROACH AND DATA

This report provides information and data on current financial mechanisms and policy instruments supporting European agroforestry systems. The methodological approach of this study is based on desk research and information compilation from a wide range of existing resources.

This research draws on information and secondary data from policy documents, academic papers and online sources (e.g., EU and agroforestry institutions' websites). It also builds on previous EU-funded projects in the field of agroforestry, such as AGFORWARD and AGROMIX. Information on relevant EU policies and legislation comes mainly from the European Commission's website and law databases such as EUR-Lex. The European Agroforestry Federation (EURAF), academic papers and online sources were the primary sources used to find information and data to analyse the policy situation in the countries. The study of the links between agriculture, forestry and carbon markets is based on the resources available on the European Commission's website, existing academic studies and online sources. The complete list of references and data sources can be found in Appendix 1.

The policy landscape for agroforestry in twenty European countries (17 EU and 3 non-EU countries) is analysed. The study covers the previous CAP periods (2007-2013 and 2014-2020) and the CAP (2023-2027). Including countries outside the EU in the study is interesting from the perspective of learning from other examples of agroforestry and exploring what could be potentially transferrable to the EU context. The report organises the data and research into sections that examine European policies, country-specific policies, and the role of agroforestry in the fight against climate change.

Compared to "D5.1 Mapping report on agroforestry sector finance and policy 1", "D5.2 Mapping report on agroforestry sector finance and policy 2" also reflects the work achieved through collaborations with other projects and organisations. A detailed analysis of these collaborations and synergies can be found in "M3 Interim Assessment and Report on Networking Impact".



# 3. Policy framework for agriculture and forestry in the EU

This section provides an overview of Europe's current policy framework for agriculture and forestry. The policy landscape for agroforestry has been progressively growing in recent years. The primary source of support has been found within the CAP during the periods 2007-2013 and 2014-2020. Moreover, agroforestry receives support within the CAP (2023-2027) and major EU legislations such as the European Green Deal, Biodiversity and Farm to Fork strategies, and the new EU forest strategy for 2030. Other public and private financing mechanisms and the rules for State aid can also support the development of sustainable agroforestry practices. In December 2022, the European Commission adopted revised State aid rules for the agricultural and forestry sectors. The revised rules align State aid with the EU strategic priorities, including the current CAP and the European Green Deal. Moreover, several institutions and networks are working to promote the adoption of agroforestry practices across Europe. EU policies and other support mechanisms are described in this section.

#### 3.1 THE EUROPEAN GREEN DEAL

The European Green Deal<sup>7</sup> was launched in 2020 by the European Commission to overcome current threats and challenges related to climate change and environmental degradation. It is a set of policy initiatives to transform the EU into a modern, resource-efficient and competitive economy.

The European Green Deal aims to ensure:

- A reduction of at least 55% of net greenhouse gas emissions by 2030, compared to 1990 levels
- No net greenhouse gas emissions by 2050 (first climate-neutral continent)
- 3 billion additional trees to be planted in the EU by 2030
- Economic growth decoupled from resource use
- No person and no place left behind

# Benefits of the European Green Deal

It aims to enhance the well-being and health of citizens and future generations by providing:

- Fresh air, clean water, healthy soil and biodiversity
- Renovated and energy-efficient buildings
- Healthy and affordable food
- More public transport
- Cleaner energy and cutting-edge clean technological innovation
- Longer lasting products that can be repaired, recycled and re-used
- Future-proof jobs and skills training for the transition
- Globally competitive and resilient industry

#### Areas of work of the European Green Deal

The main areas of work of the European Green Deal are:

- REPowerEU: Affordable, secure and sustainable energy for Europe
- Climate: Becoming the first climate-neutral continent by 2050

<sup>&</sup>lt;sup>7</sup> European Commission (2021). Strategy and Policy A European Green Deal. Available at: https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/european-green-deal en



- Energy: A clean and efficient energy transition with a clean and circular economy
- Environment and oceans: Protecting our biodiversity and ecosystems
- Agriculture: A healthy food system for people and the planet
- Transport: Providing efficient, safe and environmentally friendly transport (e.g., sustainable, resilient and smart mobility)
- Industry: An industrial strategy for a competitive, green and digital Europe
- Research and innovation: Their role in driving transformative change
- New European Bauhaus: A creative and interdisciplinary initiative linking the European Green Deal to our living spaces and experiences
- Finance and regional development: Sustainable investment to deliver the European Green Deal

Agroforestry is mentioned once in the European Green Deal.

"The Commission will ensure that Strategic Plans are assessed against robust climate and environmental criteria. These plans should use sustainable practices, such as precision agriculture, organic farming, agroecology, agroforestry and stricter animal welfare standards. By shifting the focus from compliance to performance, measures such as ecoschemes should reward farmers for improved environmental and climate performance, including managing and storing carbon in the soil, and improved nutrient management to improve water quality and reduce emissions."

# 3.2 EU'S BIODIVERSITY STRATEGY FOR 2030

The EU's Biodiversity Strategy for 2030<sup>9</sup> is a long-term plan to protect nature and reverse the degradation of ecosystems. As a core element of the European Green Deal, the strategy aims to strengthen the resilience of our societies against future threats, such as climate change, forest fires, food insecurity and disease outbreaks. It contains specific commitments and actions to be implemented by 2030. These include establishing a larger EU-wide network of protected areas on land and at sea, launching an EU nature restoration plan, and introducing measures to enable the transformative change needed to address the global biodiversity challenge. It recognises the central and multifunctional role of forests. The Biodiversity strategy emphasises agroforestry as an important measure to help achieve the target of three billion additional trees to be planted by 2030.

Agroforestry is mentioned twice in the Biodiversity strategy. 10

- 2.2.2. Bringing nature back to agricultural land
  - "To support the long-term sustainability of both nature and farming, this strategy will work in tandem with the new Farm to Fork Strategy and the new Common Agricultural Policy (CAP), including promoting eco-schemes and result-based payment schemes. In implementing the Biodiversity and the Farm to Fork Strategies, the Commission will closely monitor progress and improvements in food security and farmers income. The Commission will ensure that the CAP Strategic plans are assessed against robust climate and

<sup>&</sup>lt;sup>8</sup> EUR-Lex (2019). COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS The European Green Deal. Available at: https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1576150542719&uri=COM%3A2019%3A640%3AFIN

<sup>&</sup>lt;sup>9</sup> European Commission (n.d.). Environment Biodiversity strategy for 2030.

Available at: https://environment.ec.europa.eu/strategy/biodiversity-strategy-2030\_en

<sup>&</sup>lt;sup>10</sup> EUR-Lex (2020). COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS. EU Biodiversity Strategy for 2030: Bringing nature back into our lives. Available at: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52020DC0380



environmental criteria and that Member States set explicit national values for the relevant targets set in this strategy and the Farm to Fork Strategy. These plans should lead to sustainable practices such as precision agriculture, organic farming, agro-ecology, agroforestry, low-intensive permanent grassland, and stricter animal welfare standards."

- 2.2.4. Increasing the quantity of forests and improving their health and resilience
  - o "To make this happen, the Commission will propose a dedicated EU Forest Strategy in 2021 in line with our wider biodiversity and climate neutrality ambitions. It will include a roadmap for planting at least 3 billion additional trees in the EU by 2030, in full respect of ecological principles. This will create substantial job opportunities linked to the collecting and cultivating of seeds, planting seedlings, and ensuring their development. Tree planting is particularly beneficial in cities, while in rural areas it can work well with **agroforestry**, landscape features and increased carbon sequestration. At the same time, the Commission will continue to work with Member States to ensure that the EU is sufficiently equipped to prevent and respond to major forest fires, which can inflict significant damages on forest biodiversity."

The mention of agroforestry and landscape features in the Biodiversity strategy is important and shows recognition by policymakers of the benefits of this practice.

#### 3.3 FARM TO FORK STRATEGY

As a central element of the European Green Deal, the Farm to Fork strategy<sup>11</sup> aims to make food systems fair, healthy and environmentally friendly. It highlights the need to redesign our food systems, which account for nearly one-third of global greenhouse gas emissions and consume large amounts of natural resources. They also lead to biodiversity loss and negative health impacts and do not allow fair economic returns and livelihoods for all actors. The strategy sets out regulatory and non-regulatory initiatives to adapt common agricultural and fisheries policies as tools to accelerate the transition to a sustainable food system. This system is expected to deliver environmental benefits, mitigate climate change, reverse biodiversity loss, ensure food security and nutrition, and preserve food affordability.

Agroforestry is only mentioned once in the Farm to Fork strategy.

- 2.1. Ensuring sustainable food production
  - o "The new 'eco-schemes' will offer a major funding stream to boost sustainable practices, such as precision agriculture, agro-ecology (including organic farming), carbon farming and **agroforestry**. Member States and the Commission will have to ensure that they are appropriately resourced and implemented in the Strategic Plans. The Commission will support the introduction of a minimum ring-fencing budget for eco-schemes." 12

The strategy explicitly reveals the importance of providing substantial funding to encourage sustainable practices such as agroforestry and carbon farming.

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<sup>&</sup>lt;sup>11</sup> European Commission (n.d.). Food Safety Farm to Fork strategy. Available at: https://food.ec.europa.eu/horizontal-topics/farm-fork-strategy\_en

<sup>&</sup>lt;sup>12</sup> EUR-Lex (2020). COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS. A Farm to Fork Strategy for a fair, healthy and environmentally-friendly food system.

Available at: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52020DC0381



# 3.4 THE NEW EU FOREST STRATEGY FOR 2030

The new EU forest strategy for 2030<sup>13</sup> was published in July 2021 and is one of the flagship initiatives of the European Green Deal, which builds on the EU Biodiversity strategy for 2030. It sets out a policy framework to increase forest quality, quantity and resilience. It aims to adapt forests to the new conditions, extreme weather and high uncertainty caused by climate change so that they can continue to deliver their socio-economic functions and ensure vibrant rural areas. The new EU strategy aims to protect, restore and enlarge the EU's forests to mitigate climate change, reverse biodiversity loss, and ensure resilient and multifunctional forest ecosystems by:

- Promoting the sustainable forest bioeconomy for long-life wood products
- Ensuring the sustainable use of wood-based resources for bioenergy
- Promoting the non-wood forest-based bioeconomy, including ecotourism
- Developing skills and empowering people for a sustainable forest-based bioeconomy
- Ensuring forest restoration and strengthening sustainable forest management for climate adaptation and forest resilience
- Afforestation of biodiverse forests, including the planting of 3 billion additional trees by 2030
- Providing financial incentives for forest owners to improve the quantity and quality of forests

Agroforestry is mentioned several times in the new EU Forest Strategy 2030.<sup>14</sup>

- 3.3. Re- and afforestation of biodiverse forests
  - "This concerns mainly urban and peri-urban areas (including, e.g., urban parks, trees on public and private property, greening buildings and infrastructure, and urban gardens) and agricultural areas (including, e.g., in abandoned areas as well as through agroforestry and silvopasture, landscape features and the establishment of ecological corridors). It is important to capitalise on this potential, as enhanced afforestation is also among the most effective climate change and disaster risk mitigation strategies in the forest sector, and create substantial job opportunities, e.g., in relation to collecting and cultivating of seeds, planting seedlings, and ensuring their development, as well as providing socio-economic benefits to local communities. Also, exposure to green and forested areas can greatly benefit people's physical and mental health."
- 3.4. Financial incentives for forest owners and managers to improve the quantity and quality of EU forests
  - "In light of the increased climate and biodiversity ambition of the EU, the Member States are specifically encouraged, as relevant to their national circumstances, to set up a payment scheme for ecosystem services for forest owners and managers, to cover for costs and income foregone similarly to exemplary national schemes such as the Finnish METSO programme. Member States are also encouraged to accelerate the rollout of carbon farming practices, for instance, via eco-schemes on agroforestry or rural development interventions to cover biodiversity-friendly re- and afforestation investments, agroforestry and other non-productive investments for the environment- and climate-related objectives.

<sup>&</sup>lt;sup>13</sup> European Commission (n.d.). Environment New EU forest strategy for 2030. Available at: https://environment.ec.europa.eu/strategy/forest-strategy en

<sup>&</sup>lt;sup>14</sup> EUR-Lex (2021). COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS: New EU Forest Strategy for 2030. Available at: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52021DC0572



To support Member States, the Commission will provide advice and technical guidance on the development of payment scheme for ecosystem services."

- 5. A strong research and innovation agenda to improve our knowledge of forests
  - "The multiple benefits from forest ecosystem services and their interdependencies will be further addressed in an interdisciplinary and integrative manner aiming to add more value to sustainable and multifunctional forests and to maximise their benefits for society. Research and innovation on agroforestry systems and other trees outside the forests will be reinforced."

## 3.5 AGRICULTURAL STATE AID

# 3.5.1 Agricultural State Aid Guidelines

The agricultural State aid guidelines help EU countries correctly apply EU rules on state subsidies in agriculture, forestry and rural areas. Aid must be transparent, published and have an incentive impact.

Agriculture State aid can be classified into several categories:15

<u>Categories of aid for small and medium-sized enterprises (SMEs) in primary agricultural production, processing and marketing</u>

- Investments in tangible or intangible assets on holdings linked to primary agricultural production (limited to € 500,000 per undertaking per project
- Agricultural land consolidation
- Investments concerning the relocation of farm buildings (limited to € 500,000 per project);
- Investments in connection with processing and marketing agricultural products (limited to €
   7.5 million per undertaking per investment project
- Start-up aid for young farmers and the development of small farms
- Start-up aid for producer groups and organisations in the agricultural sector
- Participation of producers of agricultural products in quality schemes
- Knowledge transfer and information
- Advisory services
- Farm replacement services
- Agricultural product promotion
- Compensating for damage caused by adverse climatic events considered to be natural disasters
- Prevention, control and eradication of animal diseases and plant pests and to make good any damage caused
- Livestock sector and fallen stock
- Payment of insurance premiums

Categories of aid for research and development in the agricultural and forestry sectors

- Afforestation and the creation of woodland (limited to € 7.5 million per establishment project)
- Agroforestry systems (limited to € 7.5 million per agroforestry system establishment project)

<sup>&</sup>lt;sup>15</sup> EUR-Lex (n.d.). State aid - agricultural, forestry, fishery and aquaculture sectors. Available at: https://eur-lex.europa.eu/EN/legal-content/summary/state-aid-agricultural-forestry-fishery-and-aquaculture-sectors.htm



- Prevention and restoration of damage to forests from forest fires, natural disasters, adverse climatic events, plant pests and catastrophic events
- Investments in improving forest ecosystem resilience and environmental value (limited to €
   7.5 million per investment project)
- Disadvantages related to Natura 2000 forest areas
- Forest-environmental and climate services and forest conservation
- Knowledge transfer and information in the forestry sector
- Advisory services in the forestry sector
- Investments in infrastructure related to the development, modernisation or adaptation of the forestry sector (limited to € 7.5 million per investment project)
- Investments in forestry technologies and processing, mobilising and marketing forestry products (limited to € 7.5 million per investment project)
- Conservation of genetic resources in forestry
- Forestry land consolidation

<u>Categories of aid for SMEs in rural areas co-financed by the European agricultural fund for rural development (EAFRD) or additional to such co-financed measures</u>

- Aid for investments concerning the processing of agricultural products into non-agricultural products or the production of cotton (limited to € 7.5 million per investment project)
- Business start-up aid for non-agricultural activities in rural areas
- Aid for advisory services for SMEs in rural areas
- Aid for knowledge transfer and information actions in favor of SMEs in rural areas
- Aid for new participation of active farmers in quality schemes for cotton and foodstuffs
- Aid for information and promotion activities concerning cotton and foodstuffs covered by a quality scheme

#### Other categories of agriculture sector aid

- Investments in conserving cultural and natural heritage located on agricultural holdings (limited to € 500,000 per undertaking per investment project and limited to € 10,000 per year for capital works)
- Repairing damage caused by natural disasters in the agricultural sector;
- Research and development in the agricultural and forestry sectors (limited to € 7.5 million per project)

Most categories target key features related to agroforestry, although only a few explicitly mention agroforestry. Under "the categories of aid for research and development in the agricultural and forestry sectors", there is a state subsidy for establishing agroforestry system projects.

# 3.5.2 Revised State aid rules for the agricultural and forestry sectors

In December 2022, the European Commission adopted revised State aid rules for the agricultural, forestry, fisheries and aquaculture sectors. The revised rules align State aid with the EU strategic priorities, particularly the CAP (2023-2027) and the European Green Deal. The new State aid rules are:<sup>16</sup>

 The revised Agricultural Block Exemption Regulation (ABER) declares specific categories of aid compatible with EU State aid rules. It exempts them from the obligation of prior notification

<sup>&</sup>lt;sup>16</sup> European Commission (2022). Press corner State aid: Commission adopts new rules for agriculture, forestry and fishery and aquaculture sectors. Available at: https://ec.europa.eu/commission/presscorner/detail/en/IP 22 7670



to and approval by the European Commission if they fulfil certain conditions. This allows Member States to quickly provide aid, where conditions limiting the distortion of competition in the Single Market are met. The rules laid down in the ABER are complementary to those set out in the Guidelines applicable to the agricultural and forestry sectors.

• The new Guidelines for State aid to the agricultural and forestry sectors and in rural areas ("Agricultural Guidelines") reflect the current EU strategic priorities, in particular the CAP, European Green Deal, Biodiversity and Farm to Fork strategies.

The main changes to the ABER include a significant extension of the scope of block-exempted measures. Specifically, they include:

- New categories of block-exempted measures, such as aid for environmental management commitments and cooperation in the agricultural and forestry sectors;
- Tailor-made block-exempted measures for Community-led Local Development projects aimed at promoting the development of rural areas at the local level;
- A new ceiling for European Innovation Partnership Operational Group projects aimed at innovations in agriculture and rural areas. From now on, projects below € 500,000 or up to € 2 million per company are block-exempted.

Changes in the ABER for State Aid to agriculture, forestry, fisheries and aquaculture were published in December 2022 as Commission Regulation (EU) 2022/2472, which replaces Regulation 702/2014. The main changes include extending funding to restore existing agroforestry areas rather than new planting, increasing payments for the establishment and restoration from 80 to 100% of eligible costs, and increasing the eligibility period for annual premiums from 5 to 12 years. These changes could put reforestation schemes on an equal footing with afforestation in countries like Ireland, Netherlands and Finland, which finance forestry using national or European funds outside of the CAP. However, there is concern that these Member States are not required to provide any reporting at a European level on their forestry and agroforestry activities.

The revised Agricultural Guidelines introduce the following main changes:

- A new simplified procedure that authorises State aid for measures co-financed under the CAP;
- An expanded scope of measures targeting animal diseases and plant pests, allowing for aid to be granted for emerging animal diseases and certain invasive alien species;
- New incentives for farmers to commit to schemes under which they comply with stricter environmental standards than what is required by law.

Agroforestry is mentioned several times in the EU Guidelines for State aid in the agricultural and forestry sectors and in rural areas from 2014 to 2020. 19 Below are few examples:

• 2.1.2. Aid for the establishment of agroforestry systems

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<sup>&</sup>lt;sup>17</sup> EUR-Lex (2022). Commission Regulation (EU) 2022/2472 of 14 December 2022 declaring certain categories of aid in the agricultural and forestry sectors and in rural areas compatible with the internal market in application of Articles 107 and 108 of the Treaty on the Functioning of the European Union (Text with EEA relevance). Available at: https://eurlex.europa.eu/eli/reg/2022/2472/oj

<sup>&</sup>lt;sup>18</sup> European Agroforestry Federation (2022). EURAF Policy Briefing No.19. Agroforestry and the ABER Regulation. Available at: https://euraf.net/2022/12/31/policybriefing19/

<sup>&</sup>lt;sup>19</sup> EUR-Lex (2014). European Union Guidelines for State aid in the agricultural and forestry sectors and in rural areas 2014 to 2020. Available at: https://eur-lex.europa.eu/legal-content/en/TXT/?uri=uriserv:OJ.C .2014.204.01.0001.01.ENG



- (513) "The Commission will consider aid for the establishment of agroforestry systems compatible with the internal market under Article 107(3)(c) of the Treaty if it complies with the common assessment princi-ples of these Guidelines and with the following conditions."
- (514) "The aid may be granted for establishing land use systems in which trees are grown in combination with agriculture on the same land as defined in point (35)65. of these Guidelines."
- (518) "The aid may be up to 80% of the amount of the eligible investment costs for the establishment of agroforestry systems and up to 100% of the amount of the annual premium."

# 3.6 COMMON AGRICULTURAL POLICY

# 3.6.1 Objectives of the EU's Common Agricultural Policy

The EU's CAP<sup>20</sup> was launched in 1962 and is one of the most fundamental structures of the EU for agricultural development. It is a partnership between agriculture, society, Europe and farmers. The CAP is a common policy for all EU countries and is managed and funded at the European level from the resources of the EU's budget. It is based on two pillars that cover three measures:

- Pillar I: Direct payments (income support and market measures)
- Pillar II: Rural development

Through the two pillars, the CAP aims to:

- Support farmers and improve agricultural productivity to ensure food security;
- Protect EU farmers to make a reasonable living;
- Contribute to the fight against climate change and ensure the sustainable management of natural resources;
- Maintain rural areas and landscapes across the EU, and protect biodiversity;
- Keep the rural economy alive by promoting jobs in farming, agri-food and other related sectors.

In 1992, the CAP, for the first time, included measures to support planting trees on agricultural land.

# 3.6.2 Conditionality

To receive EU income support, farmers must comply with a set of rules, known as "conditionality". 21

Conditionality (cross-compliance previously) encourages farmers to meet high EU standards for public, plant and animal health and welfare, and to maintain good agricultural and environmental conditions.

Farmers are expected to comply with the following two rules:

Statutory management requirements (SMRs)

Available at: https://agriculture.ec.europa.eu/common-agricultural-policy/income-support/conditionality\_en

<sup>&</sup>lt;sup>20</sup> European Commission (n.d.). Agriculture and rural development The common agricultural policy at a glance. Available at: https://agriculture.ec.europa.eu/common-agricultural-policy/cap-overview/cap-glance en

<sup>&</sup>lt;sup>21</sup> European Commission (n.d.). Agricultural and rural development Conditionality.



Whether or not all farmers receive CAP support, they must respect statutory management requirements (SMRs). The SMRs include EU rules on public, animal and plant health and the environment. These rules have evolved, adding new ones for each successive CAP period.

Good agricultural and environmental conditions (GAECs)

In addition to the SMRs, farmers receiving CAP support must comply with EU standards on GAECs.

These standards aim to:22

- o maintain a stable area of permanent grassland;
- o protect wetlands and peatlands;
- o maintain soil organic matter and soil structure by banning the burning of arable stubble;
- protect water from pollution by establishing buffer strips along water courses;
- o prevent soil erosion through appropriate practices;
- o protect the soil by defining rules for minimum soil cover;
- o preserve the soil potential through crop rotation;
- maintain non-productive areas and landscape features and ensure the maintenance of landscape features, for example, by prohibiting the cutting of hedges and trees during the breeding and rearing season of birds;
- protect environmentally-sensitive permanent grasslands in Natura 2000 sites.

The CAP (2023-2027) includes strengthened conditionality with "greener" requirements. Under the previous CAP, farmers received green direct payments for carrying out three practices: Crop diversification, the maintenance of permanent grassland, and the dedication of land to ecological focus areas (EFAs.) These practices are now incorporated into new conditionality rules in the current CAP. These include, for example, GAECs on soil protection, quality, biodiversity, and landscape. In addition, CAP payments are linked to compliance with certain EU labour standards, and beneficiaries are encouraged to improve working conditions on farms.<sup>23</sup> The CAP aims to enhance overall social sustainability alongside its environmental and economic objectives by integrating social conditionality.

Conditionality ensures that all beneficiaries of CAP payments follow a baseline of practices that go well beyond the legal minimum, thereby contributing to climate and environmental objectives. Farmers who do not comply with EU legislation on the environment, public and animal health, animal welfare or land management will have their EU support reduced and may face other penalties. For example, direct payments and most rural development payments (e.g., area-based payments including agrienvironmental and climate commitments, areas with natural constraints, NATURA 2000 measures, afforestation, forest environmental payments, agroforestry and organic farming) may be reduced.<sup>24</sup>

## 3.6.3 CAP financing

The European Commission ensures that funding for the CAP is fair and transparent to meet the needs of farmers and rural communities. The EU supported farmers with € 57,98 billion in 2019, among which € 41.43 billion was devoted to income support, € 14,18 billion to rural development and € 2.37 billion to market measures. The CAP is financed through two funds as part of the EU long-term budget:<sup>25</sup>

<sup>&</sup>lt;sup>22</sup> Ibid.

<sup>&</sup>lt;sup>23</sup> European Commission (n.d.). Agriculture and rural development The Common agricultural policy: 2023-2027. Available at https://agriculture.ec.europa.eu/common-agricultural-policy/cap-overview/cap-2023-27\_en

<sup>&</sup>lt;sup>24</sup> European Commission (n.d.). Agricultural and rural development Conditionality.

Available at: https://agriculture.ec.europa.eu/common-agricultural-policy/income-support/conditionality\_en

<sup>&</sup>lt;sup>25</sup> European Commission (n.d.). Agriculture and rural development Common agricultural policy funds. Available at: https://agriculture.ec.europa.eu/common-agricultural-policy/financing-cap/cap-funds en



- The **European Agricultural Guarantee Fund (EAGF)** provides direct income support and funds market measures. It has an allocation of € 291.1 billion.
- The European Agricultural Fund for Rural Development (EAFRD) finances rural development. The total allocation amounts to € 95.5 billion.

CAP strategic plans are due to be implemented from 1 January 2023. They will allow greater flexibility between the two funds and will integrate the ambitions of the European Green Deal.

3.6.4 Pillar I: Direct payments (income support and market measures)

Pillar I: Direct payments (income support and market measures)<sup>26</sup>

- i. **Income support** through direct payments ensures income stability and remunerates farmers for environmentally friendly farming and public services not normally paid by the markets (e.g., taking care of the countryside).
- ii. **Market measures** to deal with difficult market situations such as sudden drop in demand due to a health scare or a fall in prices following a temporary oversupply of the market. They aim to stabilise agricultural markets, prevent worsening market crises, stimulate demand and help EU agricultural sectors to better adapt to market changes.

#### Income support

Farmers generally receive income support based on the size of their farms in hectares. All EU countries have to offer a basic payment for sustainable farming methods and for young farmers ("compulsory payments"). Paper specific schemes are designed to help small and medium-sized farms, young farmers, and farmers operating in areas with natural constraints or sectors undergoing difficulties ("voluntary payments"). Each year, farmers must submit an aid application declaring all the agricultural parcels on their farms. Although the rules governing income support are set at the EU level, each country implements them on the ground. National authorities are responsible for administering income support for farmers in their country ("shared management"). Within the EU legal framework, each country has a certain level of flexibility in making these payments to account for national farming conditions, which vary widely across the EU.

# **Eligible hectares**

Farmers who manage agricultural land are entitled to a basic payment per hectare. The CAP has defined an "eligible hectare" or an "agricultural area".

In the CAP 2014-2020, an eligible hectare is: "Any agricultural area of the holding, including areas that were not in good agricultural condition on 30 June 2003 in Member States acceding to the Union on 1 May 2004 that opted to apply the single area payment scheme, that is used for an agri-cultural activity is eligible to benefit from the basic payment" 28

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<sup>&</sup>lt;sup>26</sup> European Commission (n.d.). Agriculture and rural development The common agricultural policy at a glance. Available at: https://agriculture.ec.europa.eu/common-agricultural-policy/cap-overview/cap-glance\_en

<sup>&</sup>lt;sup>27</sup> European Commission (n.d.). Agriculture and rural development Income support explained. Available at: https://agriculture.ec.europa.eu/common-agricultural-policy/income-support/income-support-explained\_en

<sup>&</sup>lt;sup>28</sup> EUR-Lex (2013). REGULATION (EU) No 1307/2013 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 17 december 2013: establishing rules for direct payments to farmers under support schemes within the framework of the common agricultural policy and repealing Council Regulation (EC) No 637/2008 and Council Regulation (EC) No 73/2009. Available at: https://eur-lex.europa.eu/legal-content/en/ALL/?uri=CELEX:32013R1307



Within the CAP regulations 1306/2013 and 1307/2013, an agricultural area is occupied by arable land, permanent grassland or pasture, or permanent crops. They all have their specific definitions within the CAP.

#### Definition of arable land, permanent crops, and permanent grassland and pasture

#### Arable land

Arable land refers to land under cultivation for crop production or areas available for crop production that are lying allowed. Once an area is determined to meet the requirements of Regulation 1307/2013 requirements, the eligible land under agroforestry must fulfil cross-compliance requirements, including the maintenance of landscape features such as hedgerows, isolated trees and trees in lines or groups.<sup>29</sup> The CAP by Delegate Act 640/2014 defines the maximum density of trees and states that the tree density cannot be above 50 trees per hectare in the CAP 2007-2013 and 100 trees per hectare in the CAP 2014-2020. The arable land and agroforestry on such land are not eligible for direct payments if they contain more than 100 trees per hectare. This rule made it difficult for farmers (especially small-scale farmers) to plant trees on arable land, significantly limiting the adoption of agroforestry in Europe. However, this requirement for maximum density is no longer in the CAP.

Trees also have to meet crown requirements. According to Delegated Act 639/2014, isolated trees must have a crown diameter of a minimum of 4 m. This implies a minimum tree cover of 12.56 m². Trees with a crown diameter above 4 m cannot be considered mature in most cases. Therefore, isolated trees below this target are not protected and cannot be declared landscape features. If trees are grouped rather than isolated, the maximum area for woody vegetation is even lower. Moreover, Regulation 639/2014 protects existing hedges with a maximum width of 10 m, while only those with a 2-m width can be eligible for CAP funding. Although mature trees are protected, protections are also needed for trees with a width below 4 m so they can become mature. Trees that do not reach this diameter are unprotected, even in maturity.

Moreover, forest land is not eligible for payments under Pillar I of the CAP, even if it has a profitable agricultural activity. Land with more than 10% tree cover is considered a forest and, therefore, cannot receive these payments. This is significantly limiting the adoption of agroforestry systems.<sup>32</sup> However, the rules for forests vary across countries. For instance, some countries require a minimum tree cover of 20% or 30% for agricultural land to be fully recognised as forest.

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<sup>&</sup>lt;sup>29</sup> Mosquera-Losada, M.R., Santiago Freijanes, J.J., Pisanelli, A., Rois, M., Smith, J., den Herder, M., Moreno, G., Malignier, N., Mirazo, J.R., Lamersdorf, N., Ferreiro Domínguez, N., Balaguer, F., Pantera, A., Rigueiro-Rodríguez, A., Gonzalez-Hernández, P., Fernández-Lorenzo J.L., Romero-Franco, R., Chalmin, A., Garcia de Jalon, S., Garnett, K., Graves, A. and Burgess, P.J. (2016). Extent and success of current policy measures to promote agroforestry across Europe. Deliverable 8.23 for EU FP7 Research Project: AGFORWARD 613520. Available at: https://www.agforward.eu/extent-and-success-of-current-policy-measures-to-promote-agroforestry-across-europe.html

<sup>&</sup>lt;sup>30</sup> Mosquera-Losada, M. R., Santiago-Freijanes, J. J., Pisanelli, A., Rois-Díaz, M., Smith, J., den Herder, M., Moreno, G., Ferreiro-Domínguez, N., Malignier, N., Lamersdorf, N., Balaguer, F., Pantera, A., Rigueiro-Rodríguez, A., Aldrey, J. A., González-Hernández, M. P., Fernández-Lorenzo, J.L., Romero-Franco, R., and Burgess, P. J. (2018). Agroforestry in the European common agricultural policy. *Agroforestry Systems*, *92*, 1117-1127. Available at: https://doi.org/10.1007/s10457-018-0251-5 
<sup>31</sup> Donham, J., Venn, R., Schmutz, U. and Migliorini, P. (2022). Global inventory of current policy contexts, instruments and operational means for the support of mixed farming and agroforestry systems. Deliverable D6.1 for AGROMIX (862993). Available at: https://agromixproject.eu/project/

<sup>&</sup>lt;sup>32</sup> Mosquera-Losada, M.R., Santiago Freijanes, J.J., Pisanelli, A., Rois, M., Smith, J., den Herder, M., Moreno, G., Malignier, N., Mirazo, J.R., Lamersdorf, N., Ferreiro Domínguez, N., Balaguer, F., Pantera, A., Rigueiro-Rodríguez, A., Gonzalez-Hernández, P., Fernández-Lorenzo J.L., Romero-Franco, R., Chalmin, A., Garcia de Jalon, S., Garnett, K., Graves, A. and Burgess, P.J. (2016). Extent and success of current policy measures to promote agroforestry across Europe. Deliverable 8.23 for EU FP7 Research Project: AGFORWARD 613520. Available at: https://www.agforward.eu/extent-and-success-of-current-policy-measures-to-promote-agroforestry-across-europe.html



Table 1 shows minimum values for area size, tree crown cover and tree height defined by EU countries.

Country	Area (ha)	Tree crown cover (%)	Tree height (m)
Austria	0.05	30	2
Belgium	0.5	20	5
Bulgaria	0.1	10	5
Cyprus	N/A	N/A	N/A
Czech Republic	0.05	30	2
Denmark	0.5	10	5
Estonia	0.5	30	2
Finland	0.5	10	5
France	0.5	10	5
Germany	0.1	10	5
Greece	0.3	25	2
Hungary	0.5	30	5
Ireland	0.1	20	5
Italy	0.5	10	5
Latvia	0.1	20	5
Lithuania	0.1	30	5
Luxembourg	0.5	10	5
Malta	N/A	N/A	N/A
Netherlands	0.5	20	5
Poland	0.1	10	2
Portugal	1	10	5
Romania	0.25	10	5
Slovakia	0.3	20	5
Slovenia	0.25	30	2
Spain	1	20	3
Sweden	0.5	10	5
United Kingdom	0.1	20	2

Table 1: Minimum values for area size, tree crown cover and tree height in the CAP 2014-2020, as specified by Member States for the definition of forest. Source: AGFORWARD.

## Permanent crop

Regulation 1307/2013 gives the following definition of permanent crop:

 "Non-rotational crops other than permanent grassland and permanent pasture that occupy the land for five years or more and yield repeated harvests, including nurseries and short rotation coppice"<sup>33</sup>

For permanent crops, the tree density requirements for arable areas do not apply, and combinations with crops or grasslands are allowed. Fruit trees combined with grazing are considered a permanent crop, and no requirements on tree density are applied. They include trees with specific varieties (e.g., apple, apricot, peach, pear, nectarine, orange, small citrus, lemon, olive trees or vineyards).<sup>34</sup>

<sup>33</sup> EUR-Lex (2013). Regulation (EU) No 1307/2013 of the European Parliament and of the Council of 17 December 2013 establishing rules for direct payments to farmers under support schemes within the framework of the common agricultural policy and repealing Council Regulation (EC) No 637/2008 and Council Regulation (EC) No 73/2009. Available at: https://eur-

lex.europa.eu/legal-content/EN/TXT/?uri=celex:32013R1307

34 Mosquera-Losada, M.R., Santiago Freijanes, J.J., Pisanelli, A., Rois, M., Smith, J., den Herder, M., Moreno, G., Malignier, N., Mirazo, J.R., Lamersdorf, N., Ferreiro Domínguez, N., Balaguer, F., Pantera, A., Rigueiro-Rodríguez, A., Gonzalez-Hernández,



#### Permanent grassland and pasture

Permanent grassland and pasture are defined within Regulation 1307/2013 of the CAP as:

"Permanent grassland and permanent pasture" (together referred to as "permanent grassland") means land used to grow grasses or other herbaceous forage naturally (self-seeded) or through cultivation (sown) and that has not been included in the crop rotation of the holding for five years or more; it may include other species such as shrubs and/or trees which can be grazed provided that the grasses and other herbaceous forage remain predominant as well as, where Member States so decide, land which can be grazed and which forms part of established local practices where grasses and other herbaceous forage are traditionally not predominant in grazing areas"

This definition recognises all types of permanent grasslands in European biogeographic regions.

# 3.6.5 Pillar II: Rural development

#### Pillar II: Rural Development

3) <u>Rural development</u> is the "second pillar" of the CAP. It reinforces the "first pillar" of income supports and market measures by strengthening rural areas' social, environmental and economic sustainability. The CAP has three long-term objectives to support the sustainable development of rural areas:<sup>36</sup>

- Fostering the competitiveness of agriculture and forestry;
- Ensuring the sustainable management of natural resources and climate action;
- Achieving a balanced territorial development of rural economies and communities, including creating and maintaining jobs.

These objectives are achieved through national and regional rural development programmes (RDPs), which are co-financed by the EAFRD and the national budgets of EU countries. There are six EU Rural Development policy priorities:<sup>37</sup>

- Priority 1: Knowledge Transfer and Innovation
- Priority 2: Farm Viability and Competitiveness
- Priority 3: Food Chain Organisation and Risk Management
- Priority 4: Restoring, Preserving and Enhancing Ecosystems
- Priority 5: Resource-efficient, Climate-resilient Economy
- Priority 6: Social Inclusion and Economic Development

P., Fernández-Lorenzo J.L., Romero-Franco, R., Chalmin, A., Garcia de Jalon, S., Garnett, K., Graves, A. and Burgess, P.J. (2016). Extent and success of current policy measures to promote agroforestry across Europe. Deliverable 8.23 for EU FP7 Research Project: AGFORWARD 613520. Available at: https://www.agforward.eu/extent-and-success-of-current-policy-measures-to-promote-agroforestry-across-europe.html

Available at: https://agriculture.ec.europa.eu/common-agricultural-policy/rural-development en

<sup>&</sup>lt;sup>35</sup> EUR-Lex (2013). Regulation (EU) No 1307/2013 of the European Parliament and of the Council of 17 December 2013 establishing rules for direct payments to farmers under support schemes within the framework of the common agricultural policy and repealing Council Regulation (EC) No 637/2008 and Council Regulation (EC) No 73/2009. Available at: https://eurlex.europa.eu/legal-content/EN/TXT/?uri=celex:32013R1307

<sup>&</sup>lt;sup>36</sup> European Commission (n.d.). Agriculture and rural development Rural development.

<sup>&</sup>lt;sup>37</sup> European Network for Rural Development (2017). Policy in Action Priority & Focus Area Summaries. Available at: https://ec.europa.eu/enrd/policy-in-action/rural-development-policy-figures/priority-focus-area-summaries en.html



EU Member States and regions must address at least four of these priorities when designing their RDPs. While the European Commission approves and monitors RDPs, national and regional managing authorities make decisions on selecting projects and granting payments. Notable features of RDPs include spending on climate and environment, support for local actions, and the promotion of smart villages and financial instruments. For instance, at least 30% of funding for each RDP must be dedicated to environmental and climate change measures. Through financial instruments, the EAFRD provides loans, annual payments, microcredit, guarantees and equities. These financial instruments are made available to recipients in agriculture, forestry and rural areas who undertake financially viable projects that support the priorities of the EAFRD.

The RDP for the period 2007-2013 was composed of 44 measures. Among them, 18 were related to the first axis "Improving the competitiveness of the agricultural and forestry sector" and 13 to the second axis "Improving the environment and the countryside". In contrast, 8 and 5 measures were related to the third "Quality of life in rural areas and diversification of the rural economy" and the fourth "Implementation of the Leader approach" axes. The promotion of agroforestry was mainly linked to Axis 2. Table 2 shows the 27 measures found relating to agroforestry.

Axis	Cluster	Measures	
1. Improving the	1.1. Measures aimed at promoting	111. Vocational training and	
competitiveness	knowledge and improving human	information actions, including diffusion	
of the agricultural	potential	of scientific knowledge and innovative	
and forestry		practices, for persons engaged in the	
sector		agricultural, food and forestry sectors	
		112. Setting up of young farmers	
		114. Use of farm and forestry advisory	
		services	
	1.2. Measures aimed at	121. Modernisation of agricultural	
	restructuring and developing	holdings	
	physical potential and promoting	122. Improving the economic value of	
	innovation	forests	
		123. Adding value to agricultural and	
		forestry products	
		125. Infrastructure related to the	
		development and adaptation of	
		126. Restoring agricultural production	
		potential damaged by natural disasters	
		and introducing appropriate prevention	
		actions	
	1.3. Measures aimed at improving	132. Participation of farmers in food	
	the quality of agricultural	quality schemes	
	production and products	133. Information and promotion	
		activities	
2. Improving the	2.1. Measures targeting the	211. Natural handicap payments to	
environment and	sustainable use of agricultural land	farmers in mountain areas	
the countryside		212. Payments to farmers in areas with	
		handicaps, other than mountain areas	
		213. Natura 2000 payments and	
		payments linked to Directive	
		2000/60/EC	
		214. Agri environment payments	
		215. Animal welfare payments	



		216. Support for non-productive	
		investments	
	2.2. Measures targeting the	221. First afforestation of non-	
	sustainable use of forestry land	agricultural land	
		222. First establishment of agroforestry	
		systems on agricultural land	
		223. First afforestation of non-	
		agricultural land	
		225. Forest environment payments	
		226. Restoring forestry potential and	
		introducing prevention actions	
		227. Support for non-productive	
		investments	
3. Quality of life	3.1. Measures to diversify the rural	311. Diversification into non-	
in rural areas and	economy	agricultural activities	
diversification of		312. Support for the creation and	
the rural		development of micro enterprises	
economy	3.2. Measures to improve the	322. Village renewal and development	
	quality of life in rural areas	323. Conservation and upgrading of the	
		rural heritage	
4.Implementation	4.1. Local development strategies	412. Local development strategies.	
of the Leader		Environment/land management	
approach			

Table 2: Measures found in the 2007-2013 RDPs relating to agroforestry. Source: AGFORWARD.

In the CAP 2007-2013, agroforestry was included under Measure 222 "First establishment of agroforestry systems on agricultural land" to be supported in countries' RDPs. However, the measure did not consider agroforestry as a system of diverse practices and was only concerned with new planting.

The 2014-2020 RDP was divided into 20 measures with multiple sub-measures. The measures found relating to agroforestry in Europe are listed in Table 3.

These measures do not specifically mention agroforestry and its practices, except for Measure 8.2 "Support for establishment and maintenance of agroforestry systems". During the CAP 2014-2020, measures 8.1 and 8.2 were primarily used to support agroforestry systems and landscape elements. Other RDPs measures that support more indirectly agroforestry were measures 4.3 "Support for investments in infrastructure related to development, modernisation or adaptation of agriculture and forestry", 4,4 "Support for non-productive investments linked to the achievement of agrienvironment-climate" and 10.1 "Payment for agri-environment-climate commitments".

Measure	Sub-measure
1. Knowledge transfer	1.1 Support for vocational training and skill acquisition actions
and information actions	1.2 Support for demonstration activities and information actions
2. Advisory services,	2.1 Support to help benefiting from the use of advisory services
farm management and farm relief services	2.3 Support for training of advisors
	4.1 Support for investments in agricultural holdings



	126	
4. Investment in	4.2 Support for investments in processing/marketing and/or	
physical assets	development of agricultural products	
	4.3 Support for investments in infrastructure related to development,	
	modernisation or adaptation of agriculture and forestry	
	4.4 Support for non-productive investments linked to the achievement	
C. Dootoving agricultural	of agri-environment-climate	
5. Restoring agricultural	5.1 Support for investments in preventive actions aimed at reducing the	
production potential	consequences of probable natural disasters, adverse climatic events	
and introduction of	and catastrophic events	
prevention actions 6. Farm and business	6.1 Dusings start up aid for young formers	
	6.1 Business start-up aid for young farmers	
development	6.3 Business start-up aid for development of small farms	
7. Basic services and	7.4 Support for investments in the setting-up, improvement or	
village renewal in rural	expansion of local basic services for the rural population including	
areas	leisure and culture, and the related infrastructure	
	7.6 Support for studies/investments associated with the maintenance,	
	restoration and upgrading of the cultural and natural heritage of	
	villages, rural landscapes and high nature value sites including related	
	socio-economic aspects, as well as environmental awareness actions	
8. Investments in forest	8.1 Support for afforestation/creation of woodland	
area development and	8.2 Support for establishment and maintenance of agroforestry systems	
improvements of the	8.3 Support for prevention of damage to forests from forest fires and	
viability of forests	natural disasters and catastrophic events	
	8.4 Support for restoration of damage to forests from forest fires and	
	natural disasters and catastrophic events	
	8.5 Support for investments improving the resilience and	
	environmental value of forest ecosystems	
	8.6 Support for investments in forestry technologies and in processing,	
0.6.111	mobilising and marketing of forest products	
9. Setting up of	9.1 Setting up of producer groups and organisations in the agriculture	
producer groups and	and forestry sectors	
organisations	10.1 December for a serious income and alimenta account the series	
10. Agri-environment	10.1 Payment for agri-environment-climate commitments	
climate	11.1 Decrease to convert to expense forms in a prosting and mostly all	
11. Organic farming	11.1 Payment to convert to organic farming practices and methods	
	11.2 Payment to maintain organic farming practices and methods	
12. Natura 2000 and	12.1 Compensatory payments for the arable land in NATURA 2000	
Water Framework		
Directive Payments		
13. Payments to areas	13.2 Compensation payment for other areas facing significant	
facing natural or other	constraints	
specific constraints		
15. Forest-	15.1 Payment for forest -environmental and climate commitments	
environmental and		
climate services and		
forest conservation		
16. Cooperation	16.5 Support for joint action undertaken with a view to mitigating or	
	adapting to climate change, and for joint approaches to environmental	
	projects and ongoing environmental practices	

Table 3: Measures found in the 2014-2020 RDPs relating to agroforestry. Source: AGFORWARD.



Unlike Pillar I, EU support for rural development is co-funded by EU countries or regions. Measure 8.2 supports the establishment and maintenance of agroforestry systems, covering the establishment costs (up to 80 %) and the maintenance costs with an annual premium for five years. The measure is linked to Article 23 "Establishment of agroforestry systems" of Regulation 1305/2013. Article 23 defines agroforestry as "land-use systems in which trees are grown in combination with agriculture on the same land". In 2017, Regulation 2017/2393 (the Omnibus Regulation) improved the eligibility of agroforestry within the CAP by expanding the definition of Measure 8.2 to include the regeneration and renovation of existing agroforestry systems.

During the CAP 2014-2020, the EAFRD contributed € 100 billion to RDPs. The rules applicable to rural development spending during 2021-2022 were set out in the CAP transitional regulation, adopted in 2020. The regulation greatly extended the existing rules for 2014-2020 and contained some additional elements to ensure a smooth transition to the CAP (2023-2027). In the current CAP, rural development actions were included under the framework of national CAP strategic plans.

In summary, farmers can receive direct payments per hectare of land devoted to agroforestry under Pillar I and support for establishing or maintaining agroforestry systems under Pillar II.

# 3.6.6 Management of CAP funds

#### Shared management

Although the European Commission has overall responsibility for the financial management of the CAP, it does not normally make payments to beneficiaries.<sup>38</sup> Most of the CAP budget (99.1%), including allocations for income support, market measures, and rural development, is implemented under the principle of "shared management" between the European Commission and EU countries, with the remainder falling under "direct management".

EU countries are responsible for setting up payment management and control systems that are compliant with EU regulations.<sup>39</sup> They must ensure this system operates effectively and can prevent, detect, and correct irregularities. The European Commission has a supervisory role in ensuring the arrangements governing the management and control system comply. To do this, it verifies the correct functioning of this system and makes financial corrections if necessary. EU countries make payments to CAP beneficiaries through officially designated bodies, called paying agencies, which are accredited according to detailed criteria laid down by the European Commission. They must ensure the eligibility of all fund applications and the proper execution of payments to farmers and other CAP beneficiaries. All expenditure is recorded in the paying agencies' annual accounts and is subject to further levels of control, checks and audit as part of the financial assurance process.

# Direct management

Around 0.8% of the CAP budget is managed directly by the European Commission (including allocations to EU delegations and executive agencies).<sup>40</sup> This funding is provided for:

• Promotion activities for EU agricultural products by international organisations, executive agencies, and the European Commission itself;

<sup>&</sup>lt;sup>38</sup> European Commission (n.d.). Agriculture and rural development Common agricultural policy funds. Available at: https://agriculture.ec.europa.eu/common-agricultural-policy/financing-cap/cap-funds\_en

<sup>&</sup>lt;sup>39</sup> Ibid.

<sup>&</sup>lt;sup>40</sup> Ibid.



 Administrative and technical support activities required for the implementation of the CAP, including surveys and monitoring, audit and inspection measures, and the maintenance of agricultural accounting IT systems.

The European Commission also provides grants for information measures relating to the CAP and issues contracts for third-party services (e.g., evaluations and studies, technical assistance and training, consultancy, conferences, and publicity).

#### Assurance and audit

The European Commission draws assurance on expenditure from CAP funds through a comprehensive management and control system.<sup>41</sup> The European Commission ensures that a system is in place to provide reasonable assurance that these funds are spent correctly and that any irregular payments can be detected and recovered. The objective is to ensure that CAP funds are paid out correctly.

#### Declaration of assurance

All EU expenditure within the CAP is subject to a declaration of assurance from the European Commission's Director-General for Agriculture and Rural Development.<sup>42</sup> This declaration states that:

- CAP funds have been used for their intended purposes;
- Expenditure was made following the principles of sound financial management;
- The control procedures provide the necessary guarantees for the legality and regularity of all transactions.

The declaration is published annually in the department's annual activity report, with a detailed breakdown of spending activities under the CAP.

A comprehensive management and control system

The Director-General issued a declaration of assurance to confirm that a comprehensive management and control system is in place for CAP expenditure.<sup>43</sup> This system is made up of four levels:

- Good financial management and internal controls in EU countries;
- Detailed checks carried out before payments are made;
- Audits and reviews by independent certification bodies;
- Final audits and clearance of accounts from the European Commission.

# Single audit approach

The management and control system for CAP funds operates under a single audit approach, in which each level relies on the assurance provided by other levels.<sup>44</sup> This approach enables the European Commission to audit the work of the paying agencies and certification bodies, ensuring:

- An accurate estimation of error rates;
- Effective detection of the sources of errors;

<sup>&</sup>lt;sup>41</sup> European Commission (n.d.). Agriculture and rural development Assurance and audit.

Available at: https://agriculture.ec.europa.eu/common-agricultural-policy/financing-cap/assurance-and-audit\_en

<sup>42</sup> Ibid.

<sup>43</sup> Ibid.

<sup>44</sup> Ibid.



• The implementation of remedial actions and the reduction of error rates year after year.

These different levels and the results they produce enable the European Commission to obtain reasonable assurance that taxpayers' money is spent correctly, per EU law.

## Sound management and internal control

Under shared management, EU countries are responsible for implementing and controlling the various schemes under the CAP legislation. The European Commission ensures that they carry out their tasks properly. EU countries pay farmers and other beneficiaries through national or regional paying agencies. The assurance on proper management of CAP funds is ensured by:

- The compliance of paying agencies with detailed accreditation criteria defined at the EU level;
- A management declaration from the director of the paying agency, accompanied by complete accounts, control data and statistics.

#### Checks and administrative controls

For each support scheme financed by the EAGF and EAFRD, paying agencies carry out a rigorous system of checks before payments are made.<sup>46</sup> For most payments and checks, paying agencies use the integrated administration and control system (IACS), an interconnected set of databases that can be applied to several support schemes.

## Certification bodies

Certification bodies are independent auditors appointed at the national level following EU specifications.<sup>47</sup> Their role is to verify and certify the activities of paying agencies.

Each year, the certification bodies issue an opinion on:

- The completeness, accuracy and veracity of their annual accounts;
- The proper functioning of their internal control systems;
- The legality and regularity of the expenditure for which reimbursement has been requested from the European Commission.

Certification bodies also verify the compliance of paying agencies with the accreditation criteria and management declarations. The audit work of certification bodies is essential for the assurance of CAP expenditure, as it provides the basis for the subsequent audit work of the European Commission.

#### Commission audits and clearance of accounts

As a final level of assurance, the European Commission undertakes a clearance of accounts procedure.<sup>48</sup> It consists of:

• An annual financial clearance of accounts, which covers the completeness, accuracy and veracity of the paying agencies' accounts;

<sup>&</sup>lt;sup>45</sup> European Commission (n.d.). Agriculture and rural development Assurance and audit.

Available at: https://agriculture.ec.europa.eu/common-agricultural-policy/financing-cap/assurance-and-audit\_en

<sup>46</sup> Ibid.

<sup>&</sup>lt;sup>47</sup> Ibid.

<sup>48</sup> Ibid.



 A multi-annual conformity procedure includes audits to verify the management and control systems in the individual paying agencies and assess how effectively these systems protect the EU budget.

As part of the single audit approach, the European Commission audits the certification bodies' work. If irregular expenditure is detected, the European Commission covers the risk of financial losses for the EU budget by applying financial corrections. These are determined according to the nature and gravity of the infringement and the financial damage caused to the EU.

## **European Court of Auditors**

The European Court of Auditors is responsible for checking spending made by the EU and EU countries.<sup>49</sup> It conducts regular audits of EU's funding mechanisms and spending, particularly regarding legality, regularity, and performance audits to ensure that money is spent correctly and that the EU's internal control systems are properly designed.

## Protecting against fraud

To better protect the CAP budget against fraud, the European Commission has put in place a specific anti-fraud policy. <sup>50</sup> The anti-fraud strategy is based on the principles of sound financial management and good governance of the CAP budget by EU countries and the European Commission. OLAF is the EU's anti-fraud body and is responsible for investigating any suspected fraud, corruption or serious misconduct within the EU institutions or beneficiaries of EU funds.

#### Legal basis

Regulation (EU) 1306/2013 - on the common agricultural policy's financing, management and monitoring. [Articles 111-114]

Commission Implementing Regulation (EU) 908/2014 - laying down rules for the application of EU regulation 1306/2013 regarding paying agencies and other bodies, financial management, clearance of accounts, rules on checks, securities and transparency [Articles 52-62]

Commission Delegated Regulation (EU) 907/2014 - supplementing EU Regulation 1306/2013 regarding paying agencies and other bodies, financial management, clearance of accounts, rules on checks, securities and transparency.

# 3.6.7 Beneficiaries of the CAP

The CAP supports nearly 7 million beneficiaries across the EU.<sup>51</sup> In 2021, there were over 6 million beneficiaries under direct support schemes, around 3.6 million beneficiaries under RDPs, and 0.1 million beneficiaries of market measures. Most rural development beneficiaries also receive income support and are therefore only counted once in the number of beneficiaries. Each beneficiary receiving EU funding under the CAP is on publicly available lists designed to promote transparency and trust in EU funding measures.

Available at: https://agriculture.ec.europa.eu/common-agricultural-policy/financing-cap/assurance-and-audit\_en

Available at: https://agriculture.ec.europa.eu/common-agricultural-policy/financing-cap/beneficiaries\_en

<sup>&</sup>lt;sup>49</sup> European Commission (n.d.). Agriculture and rural development Assurance and audit.

<sup>&</sup>lt;sup>51</sup> European Commission (n.d.). Agriculture and rural development Beneficiaries of CAP funds.



Under transparency rules, EU countries must publish detailed information of the beneficiaries of CAP payments. This publication must contain:<sup>52</sup>

- The name of the beneficiary, with exceptions made for recipients of very small payments, the thresholds of which are set by EU countries;
- The municipality where the beneficiary resides or is registered;
- The breakdown of payment amounts for each measure and the sum of the amounts received by each beneficiary during the financial year;
- A description of the measures financed by the funds, including their nature and objective.

For funding from the EARDF, the amounts published include the funds received from EU funds and those from the EU country. The amount reported reflects the total public expenditure devoted to the project. This information is made available by each EU country and is all published on a single website. <sup>53</sup> It is publicly available from May 31 of the year after the payments were made and for two years after its publication. EU countries also submit annual data to the European Commission on the payments made to EAGF beneficiaries. On this basis, the European Commission presents the breakdown of income support by country and aid category.

# 3.6.8 CAP paying agencies

Paying agencies ensure the timely and accurate payment of CAP funds, under the supervision of the European Commission and EU countries.

## The role of paying agencies

A paying agency is the department or body of an EU country responsible for managing and controlling expenditure from the two funds of the CAP, the EAGF and the EAFRD.<sup>54</sup>

Paying agencies must make payments to beneficiaries and provide sufficient guarantees that:

- The admissibility of claims and compliance with EU rules are checked before authorisation of payment;
- Payments are correctly and completely recorded in the accounts;
- Requested documentation is submitted on time and following EU rules.

Under the principle of shared management, paying agencies make payments. All elements of their management and control systems are subject to checks and audits by the European Commission and certification bodies as part of the financial assurance process.

## Execution of payments

Although a paying agency can assign certain aspects of its work to delegated bodies, the payment execution must be carried out directly by the paying agency. Farmers and other potential beneficiaries apply for support from the CAP budget using relevant information and online platforms provided by national administrations. After carrying out detailed checks on beneficiaries, a paying agency pays the amounts due and declares them to the European Commission. The European

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<sup>&</sup>lt;sup>52</sup> European Commission (n.d.). Agriculture and rural development Beneficiaries of CAP funds.

Available at: https://agriculture.ec.europa.eu/common-agricultural-policy/financing-cap/beneficiaries\_en

<sup>&</sup>lt;sup>53</sup> Ibid.

<sup>&</sup>lt;sup>54</sup> European Commission (n.d.). Agriculture and rural development CAP paying agencies.

Available at: https://agriculture.ec.europa.eu/common-agricultural-policy/financing-cap/cap-paying-agencies\_en bid.



Commission then reimburses the appropriate amounts to the EU countries, on a monthly basis for the EAGF and on a quarterly basis for the EAFRD. All expenditure is recorded in the paying agencies' annual accounts and is subject to further levels of control, checks and audit as part of the financial assurance process.

# 3.6.9 Income support

# Eligibility conditions

Farmers need to fulfil several eligibility conditions to receive income support:56

- Their farm must be located in the EU.
- The minimum requirements to receive income support must be met. Income support is not granted for less than € 100 to € 500 (depending on the EU country) and/or where the eligible area is less than 0.3 to 5 ha.
- They must carry out an agricultural activity (e.g., production, rearing or growing of agricultural products, maintaining land in a good agricultural state) on the agricultural area (e.g., encompassing arable land, permanent crops and grassland) at their disposal.
- They must meet the compulsory and flexible definition of "active farmer", which is contained in the CAP. It refers to minimum levels of agricultural activity, lists of ineligible economic activities, pluri-active and part-time farmers, and the reduction of administrative burdens.
- In EU countries that apply the basic payment with a system of payment entitlements, a farmer needs payment entitlements to access decoupled income support payments. Decoupled support refers to agricultural subsidies or income support payments that are not directly linked to the production of certain crops or items, unlike coupled support.

Traditionally, Pillar I gave a single payment per farm. Since the CAP 2014-2020, the "Single Payment Scheme" was replaced by three compulsory and four voluntary payments.

Table 4 provides an overview of income support schemes under CAP Pillar I.

Income support scheme	Туре
1. Basic payment (per hectare)	Compulsory
2. Young farmers	Compulsory
3. Green direct payments	Compulsory
4. Income support for areas facing natural or specific constraints	Voluntary
5. Voluntary coupled support	Voluntary
6. Small farmers scheme	Voluntary
7. Redistributive payment	Voluntary

Table 4: Overview of income support schemes under CAP Pillar I

The voluntary payments were not activated constantly. Only Denmark provided income support for areas facing natural or specific constraints. At the same time, eight EU Member States (Belgium, Bulgaria, France, Germany, Hungary, Latvia, Poland and Romania) made redistributive payment to support farmers with their first hectares of farmland. In addition, all Member States except Germany

Available at: https://agriculture.ec.europa.eu/common-agricultural-policy/income-support/income-support-explained\_en

<sup>&</sup>lt;sup>56</sup> European Commission (n.d.). Agriculture and rural development Income support explained.



gave payments for voluntary coupled support, while only Latvia and Portugal give payment for small farms.<sup>57</sup>

The seven income support schemes are described in more detail below.

#### **Compulsory payments**

#### 1. Basic payment (per hectare)

The basic payment is an income support scheme for farmers engaging in agricultural activities. There are two different types of schemes:<sup>58</sup>

## The basic payment scheme

The basic payment scheme (BPS) system is based on payment entitlements allocated to farmers. During the first year of implementing the BPS, eligible farmers were allocated payment entitlements. In general, each eligible hectare gives the right to one entitlement. Support under the BPS is then granted annually to farmers with payment entitlements. This activation is done annually by declaring eligible hectares accompanied by several payment entitlements. The actual payment is then made to active farmers based on activating their payment entitlements and calculated based on the eligible land they declare.

#### The single-area payment scheme (a simplified transitional scheme)

In Bulgaria, Czech Republic, Estonia, Cyprus, Latvia, Lithuania, Hungary, Poland, Romania and Slovakia, the single area payment scheme (SAPS) is used instead of the BPS. The SAPS is a transitional measure resulting from the accession treaties of specific countries. In the SAPS, there are no payment entitlements and the support paid is solely based on the eligible hectares declared by farmers. Moreover, the level is the same for all hectares in the country.

Other income support payments supplementing the basic payment

The basic payment is supplemented by other income support payments targeting specific issues or types of beneficiaries. These include payments to young farmers, greening payments and additional optional schemes that EU countries can choose to implement.<sup>59</sup>

## 2. Young farmers

With the ageing of the farming population (only 11% of all farm holdings in the EU are run by farmers under 40), the EU is stepping up its efforts to encourage young people to take up farming through start-up grants, income support and benefits such as additional training.

<sup>&</sup>lt;sup>57</sup> Mosquera-Losada, M.R., Santiago Freijanes, J.J., Pisanelli, A., Rois, M., Smith, J., den Herder, M., Moreno, G., Malignier, N., Mirazo, J.R., Lamersdorf, N., Ferreiro Domínguez, N., Balaguer, F., Pantera, A., Rigueiro-Rodríguez, A., Gonzalez-Hernández, P., Fernández-Lorenzo J.L., Romero-Franco, R., Chalmin, A., Garcia de Jalon, S., Garnett, K., Graves, A. and Burgess, P.J. (2016). Extent and success of current policy measures to promote agroforestry across Europe. Deliverable 8.23 for EU FP7 Research Project: AGFORWARD 613520. Available at: https://www.agforward.eu/extent-and-success-of-current-policy-measures-to-promote-agroforestry-across-europe.html

<sup>&</sup>lt;sup>58</sup> European Commission (n.d.). Agriculture and rural development The basic payment.

Available at: https://agriculture.ec.europa.eu/common-agricultural-policy/income-support/basic-payment\_en <sup>59</sup> Ibid



Young farmers receive additional help from EU income support measures through the young farmer payment (YFP). Strategies to support young farmers include combining several interventions or actions, such as the Complementary Income Support for Young Farmers (CISYF) and the installation of young farmers, new farmers and rural business start-ups. EU countries must dedicate at least 3% of their direct payments budget to support young farmers. This support may be income, investment, or start-up aid for young farmers. The CISYF is a voluntary direct payment scheme that provides enhanced income support to young farmers setting up for the first time and entitled to basic income support. The support is an annual payment per eligible hectare or annual lump sum. Moreover, rural development measures can provide additional opportunities to help young farmers get started. This support can include grants, loans and guarantees designed to help develop rural businesses or advice on how best to start farming.

## 3. Green direct payments

The "green direct payment" supports farmers who adopt or maintain farming practices that contribute to the environmental and climate objectives of the EU.<sup>61</sup> The EU rewards farmers for preserving natural resources and providing public goods, which are benefits to the public that are not reflected in market prices. EU countries must allocate 30% of their income support to "greening".

Farmers willing to receive income support from the CAP must comply with three mandatory practices that provide benefits to the environment (soil and biodiversity in particular):<sup>62</sup>

• Crop diversification: A greater variety of crops makes soil and ecosystems more resilient

The "crop diversification" measure states that farmers must cultivate at least two crops when their arable land exceeds 10 hectares and at least three crops when their arable land exceeds 30 hectares. Exceptions may occur when the forage or land lying fallow is part of the arable land.

• Maintaining permanent grassland: Grassland supports carbon sequestration and protects biodiversity (habitats)

The "permanent grassland" measure establishes that each Member State must ensure that the ratio of areas of permanent grassland to the total agricultural area declared by farmers will not decrease by more than 5% compared to a reference ratio set by the Member State in 2015.<sup>64</sup> Given the large area of permanent grasslands with woody vegetation in Europe, this measure is highly relevant for agroforestry, as it protects already existing agroforestry systems linked to silvopasture practices.

• Dedicate 5% of arable land to areas beneficial for biodiversity: Ecological Focus Areas (EFAs) (e.g., trees, hedges or land left fallow that enhance biodiversity and habitats)

An EFA is a land where agricultural practices provide environmental benefits. It must occupy at least 5% of the arable land of farms with a farm area of more than 15 hectares (excluding permanent grassland). 65 All countries are bound by the rules of the EFA, except for the Netherlands and Poland.

 $^{61}$  European Commission (n.d.). Agriculture and rural development Sustainable land use (greening). Available at: https://agriculture.ec.europa.eu/common-agricultural-policy/income-support/greening\_en

<sup>&</sup>lt;sup>60</sup> Ibid.

<sup>62</sup> Ibid.

<sup>63</sup> Ibid.

<sup>64</sup> Ibid.

<sup>&</sup>lt;sup>65</sup> Mosquera-Losada, M.R., Santiago Freijanes, J.J., Pisanelli, A., Rois, M., Smith, J., den Herder, M., Moreno, G., Malignier, N., Mirazo, J.R., Lamersdorf, N., Ferreiro Domínguez, N., Balaguer, F., Pantera, A., Rigueiro-Rodríguez, A., Gonzalez-Hernández, P., Fernández-Lorenzo J.L., Romero-Franco, R., Chalmin, A., Garcia de Jalon, S., Garnett, K., Graves, A. and Burgess, P.J. (2016). Extent and success of current policy measures to promote agroforestry across Europe. Deliverable 8.23 for EU FP7 Research



In addition, some countries may decide not to implement EFAs when they have more than 50% of their land allocated to forests. <sup>66</sup> The "forest exemption rule" has been activated in Finland, Latvia, Estonia, and Sweden. Each country should choose one or more EFA measures.

Table 5 shows the number of Member States that have chosen to activate each EFA measure. 67

Ecological Focus Area feature	Number of Member States
Nitrogen fixing crops	27
Land lying fallow	26
Landscape features (at least one)	24
Short rotation coppice	20
Catch crops	19
Buffer strips	17
Afforested areas	14
Agroforestry	11
Strips along forest edges (with production)	7
Strips along forest edges (without production)	9
Terraces	8

Table 5: Ecological Focus Area activation by Member States in the CAP 2014-2020. Source: AGROMIX.

Agroforestry is an option for member states when choosing an EFA. From the table, it can be noted that eleven EU Member States have selected "Agroforestry". However, it is restricted only to agroforestry practices within the Rural Development measures 222 (2007-2013) and 8.2 (2014-2020).<sup>68</sup> In other words, agroforestry practices already existing and established outside these measures will not be recognised as an EFA, although they may have ecological benefits.

### **Exemptions:**

- The greening rules do not apply to farmers who have chosen the small farmers scheme for administrative and proportionality reasons;
- Organic farmers automatically receive a greening payment for their farm, as they provide environmental benefits by the nature of their work;
- Other exemptions may apply, depending on a farmer's situation.

### Alternatives to greening

EU countries may allow farmers to meet one or more greening requirements through equivalent practices, which must be based on agri-environment schemes under countries' RDPs or national/regional certification schemes.<sup>69</sup> Each country must ensure that farmers using alternative practices do not benefit from income support from mandatory greening and rural development funds.

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Project: AGFORWARD 613520. Available at: https://www.agforward.eu/extent-and-success-of-current-policy-measures-to-promote-agroforestry-across-europe.html

<sup>66</sup> Ibid.

<sup>&</sup>lt;sup>68</sup> Donham, J., Venn, R., Schmutz, U. and Migliorini, P. (2022). Global inventory of current policy contexts, instruments and operational means for the support of mixed farming and agroforestry systems. Deliverable D6.1 for AGROMIX (862993). Available at: https://agromixproject.eu/project/

<sup>&</sup>lt;sup>69</sup> European Commission (n.d.). Agriculture and rural development Sustainable land use (greening). Available at: https://agriculture.ec.europa.eu/common-agricultural-policy/income-support/greening en



### Penalties for non-compliance

Farmers who do not comply with greening rules receive less money. These reductions reflect the number of hectares identified as non-compliant and consider the nature of the greening requirement. Since 2017, national governments have imposed administrative penalties. They have to be proportionate, depending on the severity and scope of the non-compliance.

Greening is governed by the rules on direct payments under the CAP (EU Regulation 1307/2013, EU Delegated Regulation 639/2014, EU Implementing Regulation 641/2014).

# **Voluntary payments**

Additional optional schemes help small and medium-sized farms, as well as farmers who operate in areas of natural constraint and sectors undergoing difficulties. There are four categories of schemes:<sup>70</sup>

4. Income support for areas facing natural or specific constraints

Areas facing natural or other specific constraints (ANCs) are more difficult to farm effectively due to specific problems caused by natural conditions. To prevent this land from being abandoned, the EU provides support through both rural development and income support schemes:

- Rural development payments for ANCs: EU countries may provide payments to ANCs from rural development funds. These funds are designed to cover the financial difference between areas unaffected by constraints and farming in an ANC.
- Income support payments for ANCs: EU countries can provide specific income support
  payments to ANCs. This payment is only provided by Denmark and Slovenia to date. Up to 5%
  of the national income support allocation can be used for top-up payments to farmers in ANC
  areas.

To be called an ANC, the land must fall under one of the following three categories:<sup>71</sup>

- Mountain areas are defined according to their altitude or the steepness of their slopes.
- Areas facing significant natural constraints are based on eight biophysical criteria and a process known as "fine-tuning".
- Other areas affected by specific constraints are limited to 10% of the country's total area and are defined by the EU country itself.

## 5. Voluntary coupled support

Under the CAP, the link between receiving income support payments and producing specific products has been progressively removed to avoid overproduction of certain products and ensure that farmers accurately respond to market demand. However, targeted aid to a specific agricultural sector or subsector may be needed if the latter faces difficulties in certain situations.

The Voluntary coupled support scheme aims to prevent these difficulties, which could lead to the abandonment of production and affect other parts of the supply chain. Therefore, EU countries can continue to link limited income support payments to certain sectors or products. This is subject to

<sup>70</sup> European Commission (n.d.). Agriculture and rural development Additional optional schemes. Available at: https://agriculture.ec.europa.eu/common-agricultural-policy/income-support/additional-optional-schemes\_en

<sup>&</sup>lt;sup>71</sup> European Commission (n.d.). Agriculture and rural development Areas of natural or other specific constraints. Available at: https://agriculture.ec.europa.eu/common-agricultural-policy/income-support/additional-optional-schemes/anc\_en



various conditions and strict limits to mitigate the risk of market distortion. The potentially eligible sectors are cereals, oilseeds, protein crops, grain legumes, flax, hemp, rice, nuts, starch potato, milk and milk products, seeds, sheep meat and goat meat, beef and veal, olive oil, silkworms, dried fodder, hops, sugar beet, cane and chicory, fruit and vegetables and short rotation coppice.<sup>72</sup>

### 6. Small farmers scheme

More than three-quarters of farms in the EU are small (less than 10 hectares, with a large number having less than five hectares). EU countries can apply the small farmer scheme (SFS). SFS is a simplified income support scheme that provides a one-off payment to participating farmers. It replaces all other forms of income support payment. The maximum level of the payment is decided at the national level but cannot exceed € 1,250. The SFS exempts participating farmers from greening obligations, and cross-compliance sanctions are not applied to their income support payments.

## 7. The redistributive payment

The majority of farms in the EU are small (less than 28 hectares), meaning they cannot benefit from economies of scale. EU countries can support smaller farmers through redistributive payment by allocating up to 30% of their national income support budget. The number of hectares for which this payment can be allocated is limited to a threshold set by national authorities (30 hectares or the average size of farms in the country if it is greater than 30 hectares). Each EU Member State sets the amount per hectare and cannot exceed 65% of the average payment per hectare.

## 3.6.10 Common monitoring and evaluation framework

The European Commission has set up the common monitoring and evaluation framework (CMEF) to assess the CAP 2014-2020 performance and improve its efficiency.

### Monitoring

The monitoring element of the CMEF provides information on the CAP implementation. The European Commission monitors current developments in agricultural markets, rural development and the use of CAP Funds. Seven indicators were defined to support the assessment of the CAP's performance:<sup>73</sup>

- Context indicators describing general policy-relevant information, such as the amount of agricultural land available or information on the average age of farm managers;
- **Income support and market measure output indicators**, which provide various information such as the number of beneficiaries of CAP income support;
- Output indicators monitoring EU policies on rural development, such as public expenditure on investment;
- Results indicators for the income support measuring the direct and immediate effects of
  policy interventions, such as the percentage of farmers' income coming from income support;
- Rural development results indicators assessing the effect of rural development policy, such as preventing soil erosion and enhancing soil management;
- Target indicators used to set quantified objectives at the start of the programming period for the rural development policy;
- Impact indicators measuring the impact of policy interventions in the long term.

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<sup>72</sup> Ibid.

<sup>&</sup>lt;sup>73</sup> European Commission (n.d.). Agriculture and rural development Common monitoring and evaluation framework. Available at: https://agriculture.ec.europa.eu/common-agricultural-policy/cap-overview/cmef en



#### Evaluation

Evaluation is a tool to assess the impact of policy interventions.<sup>74</sup> It provides useful evidence for decision-making and improves the CAP's effectiveness, utility and efficiency. Evaluations of the measures relating to income support for farmers, assistance in complying with sustainable agricultural practices, and market support are carried out by independent external contractors (e.g., research bodies, universities, and consultancy firms). They operate under the responsibility of the European Commission based on a multiannual evaluation plan. EU countries carry out evaluations for the RDPs. The European Commission prepare syntheses of the ex-ante and ex-post evaluations prepared by the countries. To ensure that evaluations are integrated into the policy-making process and that established benchmarks are met, the European Commission has prepared guidelines and a toolbox for improved regulation, outlining requirements and best practices for the evaluations of the CAP. The reports of evaluations can be divided into six categories: 1) Farmers and farming; 2) Environmental and climatic sustainability; 3) Rural areas; 4) Research, innovation and technology; 5) Products and markets; 6) Regulation and simplification. The European Commission releases reports on the implementation of the CMEF and the results assessing the performance of the CAP.

## 3.6.11 The CAP (2023-2027)

The CAP (2023-2027) and its specific objectives

The CAP (2023-2027) will be essential to secure the future of agriculture and forestry and to achieve the objectives of the European Green Deal. It is a modernised policy that strongly focuses on results and performance. 75 It aims to ensure a sustainable future for European farmers, provide more targeted support to smaller farms, and give greater flexibility to EU countries in adapting measures to local conditions. The current CAP was formally adopted on 2 December 2021. It sets out a simpler and more efficient policy that will integrate the sustainable ambitions of the European Green Deal. The CAP began in 2023 and will pave the way for a fairer, greener and more performance-based CAP.

The CAP will be a key tool to achieve the ambitions of the Farm to Fork and Biodiversity strategies of the European Green Deal. The CAP will continue to benefit from a significant long-term budget coming from the EAGF and the EAFRD, with € 387 billion allocated to the CAP for 2021-2027. EU countries can better adapt the policy to their agricultural sectors' priorities by having the right to transfer up to 25% of their CAP allocations between income support and rural development. They can apply flexibilities for various purposes, including supporting environmental objectives and young farmers, and where countries have below-average direct payments.

For 2023-2027, the CAP is built according to ten objectives focused on social, environmental and economic goals. They were the basis upon which EU countries designed their CAP strategic plans.

<sup>74</sup> Ibid.

<sup>&</sup>lt;sup>75</sup> European Commission (n.d.). Agriculture and rural development The Common agricultural policy: 2023-2027. Available at https://agriculture.ec.europa.eu/common-agricultural-policy/cap-overview/cap-2023-27 en





Figure 1: Ten objectives of the CAP (2023-2027). Source: European Commission. The stated objectives are to:  $^{76}$ 

- Ensure a fair and viable income for farmers and support the resilience of the agricultural sector across the EU, in order to enhance food security and agricultural diversity in the long term, as well as to ensure the economic sustainability of agricultural production;
- Increase farm competitiveness and enhance market orientation in the short and long term, with greater emphasis on research, technology and digitalisation;
- Improve the position of farmers in the food value chain;
- Contribute to climate change mitigation and adaptation by reducing greenhouse gas emissions, enhancing carbon sequestration, and promoting sustainable energy;
- **Preserve the environment** by fostering sustainable development and efficient management of natural resources such as water, soil and air;
- **Preserve landscape and diversity** by contributing to halting and reversing biodiversity loss, enhancing ecosystem services, and preserving habitats and landscapes;
- **Support generation renewable** by attracting and sustaining young farmers and new farmers, and facilitating the development of sustainable business in rural areas;
- Keep vibrant rural areas by promoting employment, growth and gender equality, including the participation of women in farming, social inclusion and local development in rural areas, as well as the circular bio-economy and sustainable forestry;
- **Protect food and health quality** by improving the response of agriculture to societal demand for food and health. It includes high-quality, safe and nutritious food produced sustainably, to reduce food waste, improve animal welfare and combat antimicrobial resistance;
- **Foster innovation and knowledge** by modernising agriculture and rural areas by promoting and sharing knowledge, innovation and digitalisation and encouraging farmers' uptake through improved access to research, innovation and knowledge exchange.

These objectives will support the transition towards sustainable agriculture and forestry in the EU, and contribute to a greener and fairer CAP.

The CAP (2023-2027) introduces several reforms.<sup>77</sup> First, it takes further steps towards a fairer distribution of income support and will better address the income needs of small and medium-sized farms. Second, the current CAP will provide greater support for young farmers, with at least 3% of each

<sup>76</sup> European Commission (n.d.). Agriculture and rural development The Common agricultural policy: 2023-2027. Available at https://agriculture.ec.europa.eu/common-agricultural-policy/cap-overview/cap-2023-27 en

<sup>77</sup> European Commission (n.d.). Agriculture and rural development Key reforms in the CAP. Available at: https://agriculture.ec.europa.eu/common-agricultural-policy/cap-overview/cap-2023-27/key-reforms-new-cap en



EU country's direct payment envelope to support young farmers who wish to set up a farm. This support can be income support, investment support or start-up aid. Third, improving gender equality and increasing women's participation are the CAP's stated objectives. Fourth, income support levels will converge further within and between EU countries. Finally, EU countries should establish a mandatory and flexible definition of "active farmer" in the new legislation. Only active farmers will be eligible for certain EU support.

## CAP strategic plans

Each EU country designed a national CAP strategic plan to be implemented.<sup>78</sup> Each strategic plan combines a wide range of targeted interventions addressing the country's specific needs and delivers tangible results concerning objectives at the EU level while contributing to the ambitions of the European Green Deal. Each country was required to produce an in-depth assessment of what must be done, based on an analysis of the strengths, weaknesses, opportunities, and threats of their territory and agri-food sector. They will contribute to the ten specific objectives through a toolbox of broad policy measures provided by the European Commission, which can be adapted to national needs and capabilities. They were given until 31 December 2021 to submit their CAP strategic plans. Following this, the European Commission had six months to approve the plans ahead of their implementation in January 2023. The approval process was based on the criteria set out in Regulation (EU) 2021/2115, which establishes rules on support for strategic plans to be drawn up by EU countries under the CAP. In this regard, The European Commission assessed whether the countries' strategic plans contribute to and are consistent with the EU climate and environment legislation and commitments, including those set out in the European Green Deal's Biodiversity and Farm to Fork strategies.

The European Commission supported EU countries throughout preparing their CAP strategic plans to ensure that each country takes full advantage of the current CAP and its instruments to support their farmers in the transition towards greater sustainability in food systems. Each strategic plan includes an intervention strategy explaining how each EU country will use CAP instruments to achieve the objectives of the CAP, in line with the European Green Deal. All EU countries must review whether they have achieved their targets and submit the performance report to the European Commission to ensure they have been met. The review will be carried out by the responsible parties and national stakeholders' monitoring committee.

### Agroforestry in the CAP (2023-2027)

The CAP Strategic Plan Regulation and its annexes mention agroforestry eleven times.<sup>79</sup> The practice is eligible for support under pillars I and II of the CAP (2023-2027), with a focus on climate and environmental services. EU Member States have had to decide how and to what extent to support agroforestry when preparing their CAP strategic plans. Agroforestry will be essential for the green architecture of the future CAP. In particular, eco-schemes and the interventions under the AECMs are designed to ensure the best climate and environmental practices and may include agroforestry.<sup>80</sup>

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<sup>&</sup>lt;sup>78</sup> European Commission (n.d.). Agriculture and rural development CAP Strategic Plans. Available at: https://agriculture.ec.europa.eu/cap-my-country/cap-strategic-plans\_en

<sup>&</sup>lt;sup>79</sup> EUR-Lex (2021). Regulation (EU) 2021/2115 of the European Parliament and of the Council of 2 December 2021 establishing rules on support for strategic plans to be drawn up by Member States under the common agricultural policy (CAP Strategic Plans) and financed by the European Agricultural Guarantee Fund (EAGF) and by the European Agricultural Fund for Rural Development (EAFRD) and repealing Regulations (EU) No 1305/2013 and (EU) No 1307/2013. Available at: https://eurlex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32021R2115

<sup>&</sup>lt;sup>80</sup> Guyomard, H., Détang-Dessendre, C., Dupraz, P., Delaby, L., Huyghe, C., Peyraud, J.-L., Reboud, X. and Sirami, C. (2023). How the Green Architecture of the 2023-2027 Common Agricultural Policy could have been greener. *Ambio*, *52*, 1327-1338. https://doi.org/10.1007/s13280-023-01861-0



The proposed regulation on CAP strategic plans foreseen eight types of rural development interventions. Most of them are well suited to support agroforestry, in particular: "Environmental, climate and other management commitments" (Article 70), Natural or other area-specific constraints (Article 71), "Area-specific disadvantages resulting from certain mandatory requirements" (Article 72), and "Investments" (Articles 73 and 74). In addition, "Knowledge exchange and information" (Article 78) provides that Member States may grant support for exchanging knowledge and information on agriculture, forestry and rural business.

## Stronger requirements

The payments received by all beneficiaries of the CAP will continue to be linked to a set of mandatory rules, known as "conditionality" in the CAP (2023-2027), comprising of SMRs and GAECs. S1 Compared to the previous CAP, the rules will include a higher level of ambition in several domains. Farmers received green direct payments in the previous CAP for three practices: Crop diversification, maintaining permanent grassland, and dedicating land to EFAs. These practices will be incorporated into new conditionality rules in the current CAP. For instance, these include: S2

- GAEC on soil protection and quality: Crop rotation will be required on all farms of at least 10
  hectares. Crop diversification will only be authorised when it contributes to preserving the
  potential of soil. There are exemptions made for farms with a lot of grasslands, while organic
  farms are considered to fulfil the obligation;
- GAEC on biodiversity and landscape: 4% of the land will be dedicated to non-productive elements and areas (e.g., fallow land, on all farms of at least 10 hectares), more than under the previous greening system.

### **Eco-schemes**

Eco-schemes are a new direct payment instrument to support farmers in their transition towards sustainability for practices that go beyond conditionality rules and benefit the climate, the environment and animal welfare.<sup>83</sup> The annual payment per hectare granted for eco-schemes can be a payment in addition to the basic income support or a payment to compensate for potential income losses resulting from the commitment to certain practices. Eco-schemes are designed to support farmers who adopt farming practices that benefit the climate and the environment. They reward them for preserving natural resources and providing public goods that benefit society and are not reflected in market prices. Eco-schemes are mandatory for EU countries and optional for farmers.

To be supported by eco-schemes, agricultural practices should cover climate, environment, animal welfare and antimicrobial resistance activities. They must be based on the needs and priorities identified at the national and regional levels in the countries' strategic plans. EU countries could flexibly tailor the eco-schemes to national climate and environmental needs. Under the CAP (2023-2027), 25% of the direct payments must be allocated to eco-schemes to strengthen incentives for climate and environment-friendly farming practices.

The European Commission has published a list of agricultural practices that eco-schemes under the CAP could support. This instrument can support organic farming, agroecological practices, precision

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<sup>&</sup>lt;sup>81</sup> European Commission (n.d.). Agriculture and rural development Key reforms in the CAP. Available at: https://agriculture.ec.europa.eu/common-agricultural-policy/cap-overview/cap-2023-27/key-reforms-new-cap\_en

<sup>82</sup> European Commission (n.d.). Agriculture and rural development Key reforms in the CAP. Available at: https://agriculture.ec.europa.eu/common-agricultural-policy/cap-overview/cap-2023-27/key-reforms-new-cap\_en

<sup>83</sup> European Commission (n.d.). Agriculture and rural development Eco-schemes.

Available at: https://agriculture.ec.europa.eu/common-agricultural-policy/income-support/eco-schemes\_en



farming, **agroforestry**, **carbon farming**, and animal welfare improvements.<sup>84</sup> Eco-schemes must also include interventions that significantly contribute to the CAP's ten objectives. They are a new way of rewarding farmers for being environmentally friendly. While AECMs under Pillar II require national or regional co-funding, eco-schemes are fully funded by the EU. They can support commitments annually, based on needs identified in CAP strategic plans, or on a multi-annual basis, as EU countries decide. During the two-year "learning period" (2023 and 2024), countries can spend less than 25% of the direct payments if farmers' uptake is lower than planned. However, most of the shortfall must be compensated by the end of 2027.

### Rural development

The second pillar of the CAP, "Rural development", will dedicate a greater share of its resources to climate and environmental interventions. At least 35% of funds are allocated to measures to support climate, biodiversity, environment and animal welfare. In comparison, 30% of rural development funds were dedicated to the environment and climate in the previous CAP. Moreover, 50% of payments for ANCs will count towards this ring-fenced amount.

## Knowledge, research and innovation

Advancing research, knowledge-sharing and innovation will be essential to ensuring a smart and sustainable agricultural sector. As part of its commitment to support research and innovation in agriculture, the European Commission has proposed to allocate € 10 billion from the Horizon Europe programme for projects related to food, farming, rural development and the bioeconomy. <sup>86</sup> The CAP (2023-2027) will benefit from greater investment and integrate stronger agricultural knowledge and innovation systems to stimulate the development of innovation projects, disseminate their results, and encourage their use. Farm advisory services are essential for sharing new knowledge and ideas.

## 3.6.12 Legal foundations for the CAP

The legal basis for the CAP<sup>87</sup> is established in the Treaty on the Functioning of the European Union.

The following four regulations define the different elements of the CAP work:

- EU Regulation 1307/2013 on rules for direct payments to farmers;
- EU Regulation 1308/2013 on a common organisation of the markets in agricultural products;
- EU Regulation 1305/2013 on support for rural development;
- EU Regulation 1306/2013 on the financing, management and monitoring of the CAP.

The CAP (2023-2027) is covered by three regulations, which generally apply since 1 January 2023:

- EU Regulation 2021/2116, repealing EU Regulation 1306/2013 on the financing, management and monitoring of the CAP;
- EU Regulation 2021/2115, establishing rules on support for national CAP strategic plans, and repealing EU Regulations 1305/2013 and 1307/2013;

<sup>84</sup> European Commission (2021). Agriculture and rural development. Commission publishes list of potential eco-schemes. Available at: https://agriculture.ec.europa.eu/news/commission-publishes-list-potential-eco-schemes-2021-01-14\_en

<sup>&</sup>lt;sup>85</sup> European Commission (n.d.). Agriculture and rural development Key reforms in the CAP. Available at: https://agriculture.ec.europa.eu/common-agricultural-policy/cap-overview/cap-2023-27/key-reforms-new-cap\_en

<sup>&</sup>lt;sup>86</sup> European Commission (n.d.). Agriculture and rural development The common agricultural policy: 2023-27. Available at: https://agriculture.ec.europa.eu/common-agricultural-policy/cap-overview/cap-2023-27 en

<sup>&</sup>lt;sup>87</sup> European Commission (n.d.). Agriculture and rural development The common agricultural policy at a glance. Available at: https://agriculture.ec.europa.eu/common-agricultural-policy/cap-overview/cap-glance en



• EU Regulation 2021/2117, amending EU Regulations 1308/2013 on the common organisation of the agricultural markets; 1151/2012 on quality schemes for agricultural products; 251/2014 on geographical indications for aromatised wine products; and 228/2013 laying down measures for agriculture in the outermost regions of the EU.

For 2021-2022, a transitional regulation (EU Regulation 2020/2220) was in force. The regulation laid down conditions for providing support from the EAGF and EAFRD during these years, extending and amending provisions set out in the preceding regulations. It ensured continued support for agriculture, forestry and rural areas until the introduction of CAP strategic plans in 2023.

The European Commission's Department for Agriculture and Rural Development manages the CAP. It can adopt delegated and implementing acts to implement the CAP.

## 3.6.13 Financial support for forestry in the CAP

The EU has nearly 182 million hectares of forests, covering 43% of its land area. <sup>88</sup> There is a wide variety of forest types, characteristics and ownership structures. They provide many benefits for society and the economy while being a major source of biodiversity. Moreover, they are essential for improving the quality of life and creating employment. The EU supports forestry through the CAP and the EU Forest strategy and plays a key role in helping EU countries coordinate their approaches and tackle the issues faced by forests. The CAP provides financial support to rural areas in EU countries, which can choose to fund forestry measures through their national RDPs. These measures aim to protect forests, make them more resilient to climate change, and safeguard their multiple environmental, ecological and socio-economic functions. These measures can support:<sup>89</sup>

- Afforestation or creation of woodland;
- New agroforestry systems (where trees and agricultural crops occupy the same land);
- Prevention of forest damage caused by fires, natural disasters or catastrophic events, and restoration of damaged forests;
- Climate resilience and the environmental value of forest ecosystems;
- Investments in forest technologies, mobilising, processing and marketing of forest products;
- Land management contracts for forest-environment-climate services and forest conservation;
- Conservation and promotion of forest genetic resources.

As part of its commitment to ensuring the efficient use of public funds, the European Commission has evaluated the impact of forestry-related measures carried out through countries' RDPs. The results from this evaluation will be used to inform future policy.

## 3.6.14 Main limitations of the CAP

Many measures within the CAP are designed to support sustainable and environmental practices. However, only a few of them specifically mention agroforestry. The many regulatory inconsistencies and lack of political support between agriculture and forestry are significant barriers preventing farmers from adopting agroforestry systems and woody vegetation on their farmland. Several factors can also make it difficult to understand the impact of the CAP on agroforestry land. For instance, these include the capacity of countries to choose between different options within the CAP, the variety of options over the implementation period, the different environmental and socio-economic situations

<sup>&</sup>lt;sup>88</sup> European Commission (n.d.). Agriculture and rural development Forestry explained. Available at: https://agriculture.ec.europa.eu/sustainability/forestry/forestry-explained\_en
<sup>89</sup> Ibid.



of EU countries, and the varying number of EU countries implementing the CAP.<sup>90</sup> Moreover, EU countries must build their own CAP based on the EU CAP framework and choose among the alternatives to adapt the CAP to their needs and requirements.

In the CAP 2014-2020, Regulation 640/2014 establishes that arable land, and therefore agroforestry on such land, is not eligible for direct payments if it contains more than 100 trees/ha. The respective tree density limits of 50 and 100 trees/ha set for arable land in the previous CAP periods 2007-2013 and 2014-2020 made it difficult for farmers (particularly small-scale farmers) to plant trees on arable land. About hedges or hedgerows, Delegated Act 639/2014 protects those already existing with a width of up to 10 m. However, only hedges with a 2-m width can be declared as eligible land for payment, even if the country protects wider hedges. Therefore, farmers may see hedges as a loss of income and not essential for ecosystem services. Trees also have to meet crown requirements. According to Delegated Act 639/2014, isolated trees must have a crown diameter of minimum 4 m. In other words, this means that isolated trees below this target are not protected and cannot be declared as landscape features. Moreover, forest land is not eligible for payments under Pillar I of the CAP, even if it has a profitable agricultural activity. Land with more than 10% tree cover is considered a forest and, therefore, cannot receive these payments.

Although agroforestry is a traditional land use type, its definition within the regulatory environment is often rudimentary or non-existent and differs across European countries. The lack of a common definition of agroforestry can explain the difficulty in promoting agroforestry practices. Different practices such as silvopasture, silvoarable, hedgerows, windbreaks, riparian buffer strips, forest farming, and home gardens within Pillar I are not identified as agroforestry. Due to the lack of data, it is also very difficult to identify which agroforestry practices are linked to CAP payments. Receiving support from Pillars I and II is conditional on compliance with cross-compliance rules. They relate to measures for existing woody components in arable and pasture land but do not enhance or promote them. Overall, these inconsistencies in terms of definition and regulation have considerably limited farmers' adoption of agroforestry systems during the previous CAPs.

There were difficulties in promoting agroforestry practices at a European scale. Agroforestry was adopted little in European countries during the CAP 2007-2013. The CAP defines agroforestry as a "land use system in which trees are grown in combination with agriculture on the same land". This definition did not include the other types of woody vegetation. Agroforestry was more widely adopted in the CAP 2014-2020 due to the recognition of woody vegetation and the five-year compensation granted for maintenance once agroforestry is established. Although several measures were related to agroforestry in the RDP 2007-2013 and 2014-2020 (e.g., Measure 10 "Agri-environment climate"), only a few specifically mention agroforestry. The lack of recognition of agroforestry in the various measures of the CAP limited the adoption of agroforestry practices. <sup>93</sup> In the CAP 2007-2013 and 2014-2020, agroforestry was directly supported through measures 222 and 8.2, respectively. These two measures were aimed at establishing trees on arable land. While Measure 222 only supported the establishment of agroforestry systems, Measure 8.2 also supported the five-year maintenance. However, Measure 8.2 had a low degree of implementation in most EU countries.

Mosquera-Losada, M. R., Santiago-Freijanes, J. J., Pisanelli, A., Rois-Díaz, M., Smith, J., den Herder, M., Moreno, G., Ferreiro-Domínguez, N., Malignier, N., Lamersdorf, N., Balaguer, F., Pantera, A., Rigueiro-Rodríguez, A., Aldrey, J. A., González-Hernández, M. P., Fernández-Lorenzo, J.L., Romero-Franco, R., and Burgess, P. J. (2018). Agroforestry in the European common agricultural policy. *Agroforestry Systems*, *92*, 1117-1127. Available at: https://doi.org/10.1007/s10457-018-0251-5
 Mosquera-Losada, M. R., Santiago-Freijanes, J. J., Pisanelli, A., Rois-Díaz, M., Smith, J., den Herder, M., Moreno, G., Ferreiro-Domínguez, N., Malignier, N., Lamersdorf, N., Balaguer, F., Pantera, A., Rigueiro-Rodríguez, A., Aldrey, J. A., González-Hernández, M. P., Fernández-Lorenzo, J.L., Romero-Franco, R., and Burgess, P. J. (2018). Agroforestry in the European common agricultural policy. *Agroforestry Systems*, *92*, 1117-1127. Available at: https://doi.org/10.1007/s10457-018-0251-5
 Ibid.

<sup>93</sup> Ibid.



According to Mosquera-Losada et al. (2018), the implementation of agroforestry practices under Measure 8.2 may contribute to the loss of direct payments for specific plots, which in turn may prevent farmers from applying for them due to the lack of an adequate link between Pillar I and Pillar II. Moreover, the lack of knowledge on better integrating woody and agricultural components to increase productivity and the absence of a market for woody or agricultural components represent important limiting factors. Lastly, the lack of payment to farmers for ecosystem services or environmental benefits that agroforestry provides does not encourage farmers to adopt agroforestry systems on their farmland. In the CAP, several farming practices, including agroforestry, have been listed as ways to reduce greenhouse gas emissions. However, the CAP (2023-2027) does not address the feasibility of these practices, which lacks specific targets and pathways for reducing emissions. Since the current CAP entered into force on 1 January 2023, it is still premature to assess its effectiveness.

To improve agroforestry support policies, it is essential to identify the lands where agroforestry is applied and examine how the policy modifies its implementation to create targeted agroforestry practice measures according to the needs of specific regions and the delivery of ecosystem services. <sup>96</sup> Although there was a clear recognition of the woody component in the previous CAPs, there was little appreciation of agroforestry, except for measures 222 and 8.2. This lack of recognition of agroforestry undermines farmers' flexibility in finding the best combinations between agricultural activities and the woody component. Therefore, recognising agroforestry and its practices in the CAP is essential to foster the wider adoption of agroforestry in Europe. The expansion of agroforestry systems is also related to the fact that only the food production function can be readily monetised by farmers, which is why many farmers do not switch to agroforestry. Carbon sequestration and biodiversity enhancement are good examples of ecosystem services for which enabling payments can incentivise farmers to adopt agroforestry systems. As a result, it is essential to identify and put the economic value of the ecosystem services and environmental benefits provided by agroforestry systems at the centre of the financial focus. In this regard, farmers implementing agroforestry practices that provide these benefits should receive full support payments from Pillars I and II of the CAP.

### 3.7 OTHER FINANCING MECHANISMS SUPPORTING AGROFORESTRY

### 3.7.1 Public financing mechanisms

In the EU, several other financing mechanisms are available to support agroforestry initiatives:

- Horizon Europe<sup>97</sup> is the EU's research and innovation program that provides funding for research on sustainable agriculture and forestry practices and the development of innovative agroforestry technologies;
- LIFE Programme<sup>98</sup> is the EU's environmental and climate action funding instrument. It provides funding for projects that contribute to the conservation of natural resources, circular economy, climate change mitigation, and biodiversity protection. The LIFE Programme supports the implementation of agroforestry practices that promote the conservation of biodiversity;

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<sup>94</sup> Ibid.

<sup>&</sup>lt;sup>95</sup> Cuadros-Casanova, I., Cristiano, A., Biancolini, D., Cimatti, M., Sessa, A.A., Yeraldin Mendez Angarita, V., Dragonetti, C., Pacifici, M., Rondinini, C. and Di Marco, M. (2023). Opportunities and challenges for Common Agricultural Policy reform to support the European Green Deal. *Conservation Biology*, *37*(3), 1-13. https://doi.org/10.1111/cobi.14052

Mosquera-Losada, M. R., Santiago-Freijanes, J. J., Pisanelli, A., Rois-Díaz, M., Smith, J., den Herder, M., Moreno, G., Ferreiro-Domínguez, N., Malignier, N., Lamersdorf, N., Balaguer, F., Pantera, A., Rigueiro-Rodríguez, A., Aldrey, J. A., González-Hernández, M. P., Fernández-Lorenzo, J.L., Romero-Franco, R., and Burgess, P. J. (2018). Agroforestry in the European common agricultural policy. *Agroforestry Systems*, *92*, 1117-1127. Available at: https://doi.org/10.1007/s10457-018-0251-5
 European Commission (n.d.). Research and Innovation Horizon Europe. (n.d.). Available at: https://research-and-innovation.ec.europa.eu/funding/funding-opportunities/funding-programmes-and-open-calls/horizon-europe\_en

<sup>&</sup>lt;sup>98</sup> European Commission (n.d.). European Climate, Infrastructure and Environment Executive Agency Life Programme (n.d.). Available at: https://cinea.ec.europa.eu/programmes/life en



• European Investment Bank<sup>99</sup> is the EU's financing institution that provides loans and guarantees to support sustainable development initiatives such as agroforestry. It provides funding for agroforestry projects contributing to sustainable land use, climate change mitigation and adaptation, and biodiversity conservation.

These mechanisms provide diverse funding opportunities for agroforestry initiatives in the EU. They support the implementation of agroforestry practices, research and innovation, and the development of agroforestry systems, which contribute to the sustainable development of rural areas.

## 3.7.2 Private financing mechanisms

In addition to public financing mechanisms, private sector entities support the financing of agroforestry projects in the EU. These entities can include banks, impact investors and venture capitalists. Examples of private-sector financing mechanisms include:

- Impact investors are private individuals or organisations who invest in projects to generate social and environmental impact and financial returns. They can provide funding for agroforestry projects that are aligned with their social and environmental objectives;
- Green bonds are fixed-income securities companies or governments issue to finance projects
  with environmental benefits. Agroforestry projects that provide ecosystem services such as
  carbon sequestration and biodiversity conservation may be eligible for this funding;
- Venture capitalists are investors who provide funding for start-ups or early-stage companies with high growth potential. Agroforestry start-ups that develop innovative technologies or business models can attract venture capital financing;
- Banks can fund agroforestry projects through loans or other financing instruments. They may
  be willing to finance agroforestry projects that demonstrate strong financial viability and
  contribute to sustainable development;
- Crowdfunding platforms allow individuals to invest in projects aligned with their values and interests. Agroforestry projects that attract socially and environmentally aware investors may be able to secure funding through crowdfunding.

Private sector financing mechanisms can provide additional sources of funding for agroforestry projects, which can support the development of sustainable agroforestry practices in the EU.

### 3.8 Main agroforestry institutions and networks in Europe

Several institutions and networks are working to promote the adoption of agroforestry across Europe.

## 3.8.1 European Agroforestry Federation

The European Agroforestry Federation (EURAF)<sup>100</sup> aims to promote the use of trees on farms and any types of silvopastoralism in the different regions of Europe by bringing together land users, farmers, pastoralists and academics. EURAF represents agroforestry associations from over 20 European countries and collaborates with academia, policymakers and EU stakeholders.

<sup>99</sup> European Investment Bank (n.d.). Available at: https://www.eib.org/en/index

<sup>&</sup>lt;sup>100</sup> European Agroforestry Federation (2023). Available at: https://euraf.net



## 3.8.2 European Forest Institute

The European Forest Institute (EFI)<sup>101</sup> is an international organisation composed of 30 European States, which have ratified the Convention on EFI. EFI conducts research and provides policy support on issues related to forests. It stimulates forest-related networking and promotes the dissemination of policy-relevant information on forests. EFI hosts the International Partnerships Facility, a global centre of knowledge and expertise supporting policy and governance reforms to protect forests.

## 3.8.3 Agroforestry Innovation Networks

A consortium of 13 partners from 9 European countries launched Agroforestry Innovation Networks (AFINET)<sup>102</sup>. AFINET is a thematic network facilitating knowledge transfer between scientists and practitioners in agroforestry. It acts at the EU level to put research results into practice and promote innovative ideas to address the challenges and resolve the issues of practitioners. To this end, AFINET proposes an innovative methodology based on the creation of:

- A European Interregional network composed of Regional Agroforestry Innovation Networks (RAINs). RAINs are working groups created in nine strategic regions of Europe (Spain, United Kingdom, Belgium, Portugal, Italy, Hungary, Poland, France and Finland);
- An European reservoir of scientific and practical agroforestry knowledge with an end-user friendly access ("Knowledge Cloud"), where all the information collected and the materials created in the project are published.

### 3.8.4 EU CAP Network

The EU CAP Network<sup>103</sup> is a forum set by the European Commission through which national CAP networks, organisations, administrations, researchers, entrepreneurs and practitioners can share knowledge and information on agriculture and rural policy. The Network supports the design and implementation of CAP strategic plans, innovation, knowledge exchange, and monitoring of the CAP. It also includes the European Innovation Partnership "Agricultural Productivity and Sustainability", which aims to foster innovation in the agricultural and forestry sectors by combining research and practice.

# 3.8.5 European Council of Young farmers

The European Council of Young farmers (CEJA)<sup>104</sup> is a forum for dialogue between the next generation of farmers and key decision-makers in Europe. Its main objective is to promote a younger and more innovative agricultural sector and to create good working and living conditions for young farmers.

# 4. Policy Landscape in European countries

This section provides an overview of the policy landscape of agroforestry through the application of the CAP and national policies. The group of European countries included in this study is composed of seventeen EU countries (Austria, Belgium, Bulgaria, Croatia, Czech Republic, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Netherlands, Poland, Portugal, Spain, Sweden) and three non-EU countries (Albania, Switzerland, United Kingdom). The study covers the previous CAP periods (2007-2013 and 2014-2020) and the CAP (2023-2027), which entered into force on January 1, 2023. A transnational regulation was in place for 2021 and 2022 to bridge the gap between the 2014-2020

<sup>&</sup>lt;sup>101</sup> European Forest Institute (n.d.). Available at: https://efi.int/about

<sup>&</sup>lt;sup>102</sup> Agroforestry Innovation Networks (n.d.). Available at: https://euraf.isa.utl.pt/afinet

<sup>&</sup>lt;sup>103</sup> EU CAP Network (n.d.). Available at: https://eu-cap-network.ec.europa.eu/about-european-cap-network\_en

<sup>&</sup>lt;sup>104</sup> European Council of Young farmers CEJA (n.d.). Available at: https://www.ceja.eu/home



policies and the new legislation. Subsection 4.1 provides an overview of the policy situation in EU and non-EU countries. Section 4.2 examines the role of agroforestry in these countries and whether they have implemented Measure 8.2 "Support for establishment and maintenance of agroforestry systems" of the CAP (2014-2020). The analysis focuses on Measure 8.2 as it is the only measure that specifically mentions agroforestry and its practices. This subsection also examines whether EU countries have included agroforestry in their CAP (2023-2027) strategic plans. Finally, it describes national policies supporting agroforestry and identifies the main agroforestry associations.

## 4.1 Overview of the policy situation in EU and non-EU countries

The policy landscape for agroforestry has been progressively growing in Europe. The CAP provided the primary source of support during the periods 2007-2013 and 2014-2020. Agroforestry receives support within the CAP (2023-2027) and major EU legislations such as the European Green Deal, Biodiversity and Farm to Fork strategies, and the EU forestry strategy for 2030. In addition, several European countries have developed national policies to support the adoption of agroforestry. Tables 6 and 7 give an overview of the policy landscape of agroforestry in Europe.

- Measure 222 "First establishment of agroforestry systems on agricultural land" CAP (2007-2013)
  - Applied in five EU Member States: Belgium (Flanders), France, Hungary, Italy and Portugal
    - Although Measure 222 was implemented in all five countries, only 6% of the total project budget was spent
- Measure 8.2 "Support for establishment and maintenance of agroforestry systems" CAP (2014-2020)
  - Applied in eight EU Member States and thirty-five regions: Belgium (Flanders), France, Hungary, Italy, Portugal, Spain, United Kingdom and Greece
    - Greece did not implement Measure 8.2 although it budgeted for it
    - Spain had no farmer uptake
- Inclusion of agroforestry in the CAP (2023-2027) strategic plan
  - o Included in twelve EU Member States: Belgium (Flanders), Bulgaria, Czech Republic, France, Germany, Hungary, Ireland, Italy, Netherlands, Poland, Portugal, Spain
- National policies for agroforestry in twelve countries: Belgium, Bulgaria, Croatia, Finland, France, Germany, Hungary, Ireland, Portugal, Sweden, Switzerland, United Kingdom

Table 6: Current policy landscape of agroforestry in European countries (i)

Agroforestry was little adopted in European countries in the CAP 2007-2013. The European Commission defined agroforestry as a "land use system in which trees are grown in combination with agriculture on the same land". This definition did not include the other types of woody vegetation. Agroforestry has been more widely adopted in the CAP 2014-2020 due to the recognition of woody vegetation and the five-year compensation granted for the maintenance once agroforestry is established.

Country	National policies for agroforestry	CAP implementation of Measure 8.2 (2014- 2020)	Inclusion of agroforestry in the CAP strategic plan (2023-2027)
Albania	No	CAP does not apply	CAP does not apply
Austria	No	No	No
Belgium (Flanders)	Yes	Yes	Yes
Belgium (Wallonia)	Yes	No	No
Bulgaria	Yes	No	Yes

<sup>&</sup>lt;sup>105</sup> EUR-Lex (2013). Regulation (EU) No 1305/2013 of the European Parliament and of the Council of 17 December 2013 on support for rural development by the European Agricultural Fund for Rural Development (EAFRD) and repealing Council

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Regulation (EC) No 1698/2005. Available at: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32013R1305



Croatia	Yes	No	No
Czech Republic	No	No	Yes
Finland	Only reindeer husbandry	No	No
France	Yes	Yes	Yes
Germany	Yes	No	Yes
Greece	No	No	No
Hungary	Yes	Yes	Yes
Ireland	Yes	No	Yes
Italy	No	Yes	Yes
Netherlands	No	No	Yes
Poland	No	No	Yes
Portugal	Yes	Yes	Yes
Spain	No	Yes	Yes
Sweden	Only reindeer husbandry	No	No
Switzerland	Yes	CAP does not apply	CAP does not apply
United Kingdom	Yes	Yes	CAP does not apply

Table 7: Current policy landscape of agroforestry in European countries (ii)

In the CAP 2007-2013 and 2014-2020, agroforestry was directly supported through Measure 222 and Measure 8.2, respectively. These two measures were aimed at establishing trees on arable land. While Measure 222 only supported the establishment of agroforestry systems, Measure 8.2 also supported the five-year maintenance. However, the specific Measure 8.2 had a low degree of implementation in most EU countries. Agroforestry could also be supported under measures 221 "First afforestation of nonagricultural land" CAP (2007-2013), 223 "First afforestation of non-agricultural land" CAP (2007-2013) and 8.1 "Support for afforestation/creation of woodland" CAP (2014-2020). <sup>106</sup> However, policies that support traditional systems, the implementation of new systems and the yearly support for managing these new systems are the most beneficial for agroforestry.

Measures 222 and 8.2 were included in the RDPs of five and eight countries, respectively. However, although Measure 222 was implemented in all five countries, only 6% of the total project budget was spent. According to the EURAF Policy Briefing No.6., Measure 8.2 was applied in the RDPs of eight countries and thirty-five regions - France (15 of 27 regions: Auvergne, Basse Normandie, Guadeloupe, Guyane, Haute Normandie, Ile de France, Limousin, Martinique, Midi Pyrenees, Rhone Alpes, Lorraine, Nord Pas de Calais, Pays de Loire, Picardie, Poitou Charentes); Spain (6 of 17 regions: Andalucia, Asturias, Extremadura, Galicia, Pais Vasco, Communidad Valenciana); Italy (5 of 21 regions: Basilicata, Marche, Puglia, Umbria, Veneto); Portugal (all 3 regions: Continente, Azores, Madeira); United Kingdom (3 of 4 regions: Northern Ireland, Scotland, Wales); Belgium (1 of 2 regions: Flanders); Hungary (single RDP for the whole country); Greece (single RDP for the whole country). However, Greece did not implement Measure 8.2, although it budgeted for it and Spain had no farmer uptake.

The CAP (2023-2027) has the same structure as previous CAPs with two support pillars for EU farmers. However, it has a new political approach that prioritises results and performance over rules and compliance and gives EU countries greater flexibility to adapt measures to local conditions. Each EU country designed and implemented a national CAP strategic plan. 108 It combines a wide range of

<sup>&</sup>lt;sup>106</sup> Mosquera-Losada, M.R., Santiago Freijanes, J.J., Pisanelli, A., Rois, M., Smith, J., den Herder, M., Moreno, G., Malignier, N., Mirazo, J.R., Lamersdorf, N., Ferreiro Domínguez, N., Balaguer, F., Pantera, A., Rigueiro-Rodríguez, A., Gonzalez-Hernández, P., Fernández-Lorenzo J.L., Romero-Franco, R., Chalmin, A., Garcia de Jalon, S., Garnett, K., Graves, A. and Burgess, P.J. (2016). Extent and success of current policy measures to promote agroforestry across Europe. Deliverable 8.23 for EU FP7 Research Project: AGFORWARD 613520. Available at: https://www.agforward.eu/extent-and-success-of-current-policy-measures-to-promote-agroforestry-across-europe.html

<sup>&</sup>lt;sup>107</sup> European Agroforestry Federation (2020). EURAF Policy Briefing No.6. Agroforestry and Pillar II of the new CAP. Available at: https://euraf.net/2020/09/25/policybriefing6/

<sup>&</sup>lt;sup>108</sup> European Commission (2023). Agriculture and rural development. CAP Strategic Plans by country. Available at: https://agriculture.ec.europa.eu/cap-my-country/cap-strategic-plans-country en



targeted interventions addressing the specific needs of the country. It delivers tangible results in relation to EU-level objectives, while contributing to the ambitions of the European Green Deal. Twelve EU Member States (Belgium (Flanders), Bulgaria, Czech Republic, France, Germany, Hungary, Ireland, Italy, Netherlands, Poland, Portugal, Spain) included agroforestry in their CAP strategic plans.

Moreover, national policies support agroforestry in twelve European countries (Belgium, Bulgaria, Croatia, Finland, France, Germany, Hungary, Ireland, Portugal, Sweden, Switzerland, United Kingdom), which generally focus on technical and agroeconomic aspects. The most extensive policy landscape for agroforestry can be found in France and Portugal. The policy approaches to agroforestry in non-EU countries are informative. However, none of them are currently suitable for EU conditions.

## 4.2 Policy Situation per country

### 4.2.1 Albania

Country	National policies for agroforestry	CAP implementation of Measure 8.2	Inclusion of agroforestry in the CAP strategic plan
Albania	No	CAP does not apply	CAP does not apply

## Agroforestry in the country

There is currently no national agroforestry association in Albania. However, several organisations focus on agroforestry issues, such as the Forestry Association, the Agriculture Association and the Albanian Local Capacity Development Foundation (ALCDF)).<sup>109</sup>

The ALCDF was founded in 2010 as a spin-off of the "Dutch Development Organisation" (SNV), and has been working closely with agroforestry actors for many years. SNV worked in Albania since 1996 and focused on agriculture, forestry and rural development. 110

## CAP

The CAP does not apply to Albania.

## National policies for agroforestry

There is currently no national policy for agroforestry.

# **Agroforestry associations**

There is currently no national agroforestry association.

<sup>&</sup>lt;sup>109</sup> European Agroforestry Federation (2023). Albania. Available at: https://euraf.net/2023/01/20/albania/
<sup>110</sup> Ibid.



### 4.2.2 Austria

Country	National policies for agroforestry	CAP implementation of Measure 8.2	Inclusion of agroforestry in the CAP strategic plan
Austria	No	No	No

## Agroforestry in the country

Agroforestry has traditionally been playing an important role in Austria. Streuobstwiesen (a type of meadow orchard) were widely spread in the pre-alpine areas. They mainly represent a combination of apple/pear trees with grassland for ruminants. The arable areas of the East and North of Austria were also shaped by hedges, ditches and fields comprising randomly spread groups of trees. It

Agriculture intensified after the Second World War. Technological advances allowed economies of scale, which required simpler field structures. Land reforms followed this historic period. They cleared plots of disturbing structures and obstacles, sometimes accompanied by the establishment of shelter belts. Although only a handful of farmers are actively involved in developing agroforestry systems, many are integrating trees and shrubs into their farms. Silvoarable alley crop systems (consisting of quality wood or short rotation coppice production) are a modern practice. Combinations of trees/shrubs with free-range poultry can also be found in the country.

### **CAP**

Measure 8.2 of the CAP was not implemented in Austria. Moreover, agroforestry is not included in the CAP strategic plan.

## **National policies for agroforestry**

The restrictive forestry law explains why the national application of the CAP does not include any programme for agroforestry. The law assimilates agricultural land with a certain number of trees to a forest, therefore devaluing the land for farmers. 116

### **Agroforestry associations**

**ARGE Agroforst** 

<sup>111</sup> European Agroforestry Federation (2023). Austria. Available at: https://euraf.net/2023/01/20/austria/

<sup>112</sup> Ibid.

<sup>113</sup> Ibid.

<sup>&</sup>lt;sup>114</sup> Ibid.

<sup>115</sup> Ibid.

<sup>116</sup> Ibid.



## 4.2.3 Belgium

Country	National policies for agroforestry	CAP implementation of Measure 8.2	Inclusion of agroforestry in the CAP strategic plan
Belgium (Flanders)	Yes	Yes	Yes
Belgium (Wallonia)	Yes	No	No

### Agroforestry in the country

Belgium has a wide variety of agroforestry systems such as alley cropping, tree lines surrounding fields, orchards, hedges and riparian buffers. In the poultry free range areas, silvopastoral systems and trees on grazing land for cows can also be found. Over the last decade, about 650 hectares of new agroforestry systems (often alley cropping) have been planted. Fruit and nut-producing trees are becoming increasingly popular in the northern part of the country, where the community supports agriculture. In recent years, there has also been a significant increase in farmers' interest in agroforestry practices. This is mainly linked to the extreme weather events that have affected the country, as farmers perceive these practices as a powerful way to improve the resilience of systems.

#### CAP

Belgium is a country divided into distinct policy areas, which also has important implications for agroforestry. In the previous CAPs, Flanders implemented measures 222 and 8.2, while Wallonia did not implement them. <sup>120</sup> Moreover, agroforestry is included in the CAP strategic plan in Flanders, while it is not in Wallonia. In Flanders, the strategic plan mentions the need to support existing agroforestry systems to maximise the ecosystem services and the benefits they provide.

## **National policies for agroforestry**

A few national policies support agroforestry in Belgium. In Flanders, the Immovable Heritage Decree policy supports the installation of tree orchards and other woody landscape elements with related subsidies. <sup>121</sup> In Wallonia, agroforestry development is mainly supported by regional financial aids (80 to 100% of eligible costs) of hedgerows, orchards and tree rows plantations. <sup>122</sup>

## **Agroforestry associations**

Agroforestry Vlaanderen (in the North, Flanders); AWAF (in the South, Wallonia).

<sup>&</sup>lt;sup>117</sup> European Agroforestry Federation (2023). Belgium. Available at: https://euraf.net/2023/01/20/belgium/

<sup>118</sup> Ibid.

<sup>&</sup>lt;sup>119</sup> Ibid.

<sup>120</sup> Ibid.

<sup>&</sup>lt;sup>121</sup> Donham, J., Venn, R., Schmutz, U. and Migliorini, P. (2022). Global inventory of current policy contexts, instruments and operational means for the support of mixed farming and agroforestry systems. Deliverable D6.1 for AGROMIX (862993). Available at: https://agromixproject.eu/project/

<sup>122</sup> European Agroforestry Federation (2023). Belgium. Available at: https://euraf.net/2023/01/20/belgium/



# 4.2.4 Bulgaria

Country	National policies for agroforestry	CAP implementation of Measure 8.2	Inclusion of agroforestry in the CAP strategic plan
Bulgaria	Yes	No	Yes

## Agroforestry in the country

Agricultural crops and tree species are grown together in Bulgaria using intercropping techniques.<sup>123</sup> It is a classic agroforestry system whose purpose is the initial cultivation of young forest plantations and their conversion into a forest. Protective forest belts (PFBs) are linear forest plantations designed to protect soil, civil engineering constructions and urbanised areas. The first PFBs were established in 1925 and their wider application began in the middle of the last century. Widespread silvopasture or forest-grassland complexes were also created. These areas (in which tree and shrub plant species are mixed with herbaceous forage crops) are used for freely grazing animals. Farms are used to produce edible mushrooms, medicinal plants, fruits, bee and oil-bearing crops, ornamental plants and trees.<sup>124</sup> This practice is important for cultivating fruit-productive forest trees in forest areas.

#### **CAP**

The Ministry of Agriculture and Forestry is the authorised institution that endorses the direct payment schemes and support within the CAP. Although agroforestry has not been supported through measures 222 and 8.2, green payments have been part of the country's strategy to support agroforestry. <sup>125</sup> For instance, the national Law for supporting agricultural producers and the Law for Forests (LF) provided nearly 800 million euros in green payments until 2020. Moreover, the LF gives green payments to PFBs. <sup>126</sup>. In the RDP 2014-2020, several non-direct measures supported agroforestry to reconstruct and establish shelterbelts, agroecological activities, organic farming, and erosion control. They also provided funding to support activities that diversify production and the restructuring of small farms. <sup>127</sup> Moreover, agroforestry is included in the country's CAP strategic plan.

## National policies for agroforestry

There are multiple policies, strategies, program documents and legislations (e.g., The Law on Ownership and Usage of Agricultural Land (LOUAL), the LF; the Law on the Protection of Agricultural Land (LPAL); the Law for Supporting Agricultural Producers (LSAP)) that promote the development of agroforestry systems. <sup>128</sup> In the LSAP, the schemes for direct payments (the single payment per area and the scheme for "green payments") and the RDP's rules, approvals and implementations are regulated. <sup>129</sup>

## **Agroforestry associations**

**Bulgarian Association of Agroforestry** 

<sup>&</sup>lt;sup>123</sup> European Agroforestry Federation (2023). Bulgaria. Available at: https://euraf.net/2023/01/20/bulgaria/

<sup>124</sup> Ibid.

<sup>125</sup> Ihio

<sup>&</sup>lt;sup>126</sup> Kachova, V., Hinkov, G., Popov, E., Trichkov, L. and Mosquera-Losada, R. (2018). Agroforestry in Bulgaria: history, presence status and prospects. *Agroforestry Systems*, *92*(3), 655-665. https://doi.org/10.1007/s10457-016-0029-6

<sup>&</sup>lt;sup>128</sup> European Agroforestry Federation (2023). Bulgaria. Available at: https://euraf.net/2023/01/20/bulgaria/ <sup>129</sup> Ibid.



### 4.2.5 Croatia

Country	National policies for agroforestry	CAP implementation of Measure 8.2	Inclusion of agroforestry in the CAP strategic plan
Croatia	Yes	No	No

## Agroforestry in the country

Agroforestry is still quite unknown in Croatia, although keeping livestock in the open was a common agricultural practice in the country's coastal area. <sup>130</sup> In the continental part of Croatia, it was common to feed pigs with acorns from grand oak forests. <sup>131</sup> The damage to olive growth caused by sheep grazing negatively affects farmers' motivation to integrate livestock grazing with other agricultural production such as orchards. <sup>132</sup> In the eastern part, there is an initiative to support the breeding the Black Slavonian pig (a pig kept in the open). However, due to the low price of imported meat, the pig is not getting the price needed to make its breading profitable. <sup>133</sup>

Today, agroforestry is still not fully recognised as a practice and these two separate issues are major obstacles in developing silvopastoral systems. If the country succeeds in controlling sheep grazing in olive grows and if farmers can get the proper price for the meat of the Black Slavonian pig, then it should be possible to develop silvopastoral practices.<sup>134</sup>

### **CAP**

Measure 8.2 of the CAP was not implemented in Croatia. Moreover, agroforestry is not included in the CAP strategic plan.

# National policies for agroforestry

A new legislation based on green payments was adopted in 2019 and has made adding trees to the agricultural land more attractive. Under this legislation, every farmer who owns more than 15 hectares of land has to practice ecological and conservation agriculture on at least 5% of its land. There is a list of tree species approved for green payments on agricultural land.<sup>135</sup>

### **Agroforestry associations**

Unknown

<sup>130</sup> European Agroforestry Federation (2023). Croatia. Available at: https://euraf.net/category/countries/croatia/

<sup>131</sup> Ibid.

<sup>132</sup> Ibid.

<sup>133</sup> Ibid.

<sup>&</sup>lt;sup>134</sup> Ibid.

<sup>&</sup>lt;sup>135</sup> Official Gazette (2019). Regulation on the list of plant species for approval for establishing short rotation coppice stands and the manner and conditions under which they can be grown No. 16/19. Government of the Republic of Croatia, Zagreb, Croatia. Available at: https://leap.unep.org/countries/hr/national-legislation/regulation-list-plant-species-establishment-short-flowering-woody



# 4.2.6 Czech Republic

Country	National policies for agroforestry	CAP implementation of Measure 8.2	Inclusion of agroforestry in the CAP strategic plan
Czech Republic	No	No	Yes

## Agroforestry in the country

Agroforestry was a common land use practice in the Czech Republic until the mid-nineteenth century. However, the tradition has almost completely disappeared nowadays due to political, socio-economic and demographic changes. Fruit cropland, meadows and pastures were closely related to the highly developed agriculture of most fertile lowlands. On the other hand, pastures and meadows using wood are more often found in the mountainous, forested regions. 137

The country's most common traditional agroforestry practice is the silvopastoral system (grazing of extensive fruit orchards), remaining in sites with less favourable conditions for intensive agriculture. There are other agroforestry systems, such as trees on pastures (found in mountain areas, for instance in Jeseníky) and intercropping of forest trees and forest farming. In contrast, agrisilvicultural systems (intercropping under fruit orchards) are not very widespread. There are a few examples of forest farming/gardening (usually hobby farming). The total extent of agroforestry systems in the Czech Republic was estimated at around 36,000 hectares in 2018, equivalent to approximately 0.45% of the territorial area and 0.8% of the utilised agricultural area.

### **CAP**

Measures 222 and 8.2 were not implemented in the Czech Republic. However, the "greening" payments described in Regulation (EU) No 1307/2013, which focus on crop diversification, maintenance of permanent grassland and EFAs, were activated. Due to the 100 tree per hectare limitation in the CAP 2014-2020, the RDP supported only extensively grazed orchards with landscape elements and ecological functions. Agroforestry is included in the CAP strategic plan, which highlights the importance of agroforestry practices in mitigating climate change mitigation.

### National policies for agroforestry

The implementation of agroforestry is complicated as the Czech law number 334/1992 Coll (law on the conservation of Agricultural Land) does not allow tree growing on farmland, except for using agricultural land for plantations of fast-growing trees. However, such plantations can be grown on farmland for a maximum duration of 30 years. Czech experts on agroforestry proposed a modification of this law and this proposition was recently sent to the Ministry of Agriculture for further examination.

### **Agroforestry associations**

Czech Association for Agroforestry

<sup>136</sup> European Agroforestry Federation (2023). Czech Republic. Available at: https://euraf.net/2023/01/20/czech-republic/

<sup>&</sup>lt;sup>137</sup> Ibid.

<sup>138</sup> Ibid.

<sup>139</sup> Ibid.

<sup>140</sup> Ibid.

<sup>&</sup>lt;sup>141</sup> Donham, J., Venn, R., Schmutz, U. and Migliorini, P. (2022). Global inventory of current policy contexts, instruments and operational means for the support of mixed farming and agroforestry systems. Deliverable D6.1 for AGROMIX (862993). Available at: https://agromixproject.eu/project/

<sup>&</sup>lt;sup>142</sup> European Agroforestry Federation (2023). Czech Republic. Available at: https://euraf.net/2023/01/20/czech-republic/



### 4.2.7 Finland

Country	National policies for agroforestry	CAP implementation of Measure 8.2	Inclusion of agroforestry in the CAP strategic plan
Finland	Only reindeer husbandry	No	No

# Agroforestry in the country

In Finland, agroforestry includes reindeer husbandry and the collection of non-wood forest products such as berries, mushrooms, wild herbs, and grazing of wood pastures. Forest and wood pasture grazing was common in the 1930s, but disappeared almost completely since the 1950s, with the intensification of agriculture and forestry. The country had about 2 million hectares of forest and wood pastures in the 1950s. Since then, the area of wood pastures has decreased to about 1900-3300 hectares and the area of forest pastures to about 5000-9000 hectares. The quality of the remaining woody traditional biotopes has deteriorated significantly due to eutrophication and forestry operations. However, the maintenance of traditional biotopes, their landscape values and delivered ecosystem services provide opportunities for entrepreneurship and the development of modern silvopastoral systems. Government support is the primary source of income for farms managing rural biotopes important for biodiversity and traditional rural landscapes by grazing.

Agroforestry has attracted the interest of Finnish farmers in recent years. For instance, the cultivation of mushrooms has become more popular and is a promising way to generate additional income from farmland forest and ecologically produce food. Certain farmers have established new alley cropping areas with fruit trees, willow, alder, walnut and hazel.<sup>147</sup>

### CAP

Measure 8.2 of the CAP was not implemented in Finland. Moreover, agroforestry is not included in the CAP strategic plan.

## **National policies for agroforestry**

Although no direct agroforestry policy can be found in Finland, there is strong legislative support for reindeer husbandry. There are support measures for establishing buffer strips and riparian buffers and maintaining traditional rural biotopes and natural pastures. The existing measures also support rearing local breeds, honey production, apiculture, and free-range livestock. Moreover, alley cropping is now eligible for subsidies and permanent grasslands are allowed to include 50 trees/ha. However, these support measures are only national and unrelated to the CAP. Regarding landscape elements, Finland lacks regulations protecting trees.

## **Agroforestry associations**

There is no national agroforestry association at present.

<sup>145</sup> Ibid.

<sup>&</sup>lt;sup>143</sup> European Agroforestry Federation (2023). Finland. Available at: https://euraf.net/2023/01/20/finland/

<sup>144</sup> Ibid.

<sup>&</sup>lt;sup>146</sup> Ibid.

<sup>&</sup>lt;sup>147</sup> Ibid.

<sup>148</sup> Ibid.

<sup>&</sup>lt;sup>149</sup> Ibid.

<sup>&</sup>lt;sup>150</sup> Donham, J., Venn, R., Schmutz, U. and Migliorini, P. (2022). Global inventory of current policy contexts, instruments and operational means for the support of mixed farming and agroforestry systems. Deliverable D6.1 for AGROMIX (862993). Available at: https://agromixproject.eu/project/



### 4.2.8 France

Country	National policies for agroforestry	CAP implementation of Measure 8.2	Inclusion of agroforestry in the CAP strategic plan
France	Yes	Yes	Yes

## Agroforestry in the country

The agroforestry landscape in France is very diverse. There are many different variations of fruit and nut trees with animals such as sheep, cattle and pigs. Intra-plot agroforestry is a novelty in the country and is still being established experimentally by many farmers.

#### CAP

France has made provisions for agroforestry in the CAPs 2007-2013 and 2014-2020 in certain regions. Over the period 2014-2020, 15 regions out of 18 integrated Measure 8.2 in their RDPs (Auvergne, Basse Normandie, Guadeloupe, Guyane, Haute Normandie, Ile de France, Limousin, Martinique, Midi Pyrenees, Rhone Alpes, Lorraine, Nord Pas de Calais, Pays de Loire, Picardie, Poitou Charentes)<sup>151</sup>. Three main measures were adopted within the CAP 2014-2020 for GAECs, the green payment for EFAs and AECMs.<sup>152</sup> Concerning agroforestry, the GAECs focused on hedges, while the green payments focused on hedges, trees and buffer strips for agroecological infrastructure to favour habitat for functional biodiversity.<sup>153</sup> AECMs financed the installation and maintenance of intra-parcel trees and hedges. The CAP strategic plan emphasises the importance of supporting agroforestry systems. The budget for AECMs has been increased, providing financial support for practices that promote carbon sequestration, reduce emissions, protect water and soil resources, and enhance biodiversity.

## National policies for agroforestry

Many policies support agroforestry at the regional level in France. Policies with regional funding such as the *Plans Ambition Filière Avicole* plant trees for free-range poultry in the Auvergne-Rhône Alpes Region.<sup>154</sup> In the Hauts de France, Picardie and Nouvelle Aquitaine regions, there is direct support for installing agroforestry systems.<sup>155</sup> In the Grand East region, there are funds for the *Trame Verte et Bleue*, a network of terrestrial and aquatic ecological continuities.<sup>156</sup> Groups of farmers can apply for funds to preserve or restore the functioning of the local ecological network, mainly by planting hedges and fruit trees. Moreover, there are national and regional policies for agriculture research such as the ADEME (Agence de l'environnement et de la maîtrise de l'énergie)<sup>157</sup> and PEPIT (Pole d'Expérimentation Partenariale pour l'Innovation et le Transfert).<sup>158</sup>

### **Agroforestry associations**

Association Française d'Agroforesterie

<sup>&</sup>lt;sup>151</sup> European Agroforestry Federation (2020). EURAF Policy Briefing No.6. Agroforestry and Pillar II of the new CAP. Available at: https://euraf.net/2020/09/25/policybriefing6/

<sup>&</sup>lt;sup>152</sup> Donham, J., Venn, R., Schmutz, U. and Migliorini, P. (2022). Global inventory of current policy contexts, instruments and operational means for the support of mixed farming and agroforestry systems. Deliverable D6.1 for AGROMIX (862993). Available at: https://agromixproject.eu/project/

<sup>153</sup> Ibid.

<sup>154</sup> AFIVOL Auvergne-Rhône-Alpes (n.d.). Available at: https://www.afivol.com/soutien-a-la-filiere/

<sup>&</sup>lt;sup>155</sup> Donham, J., Venn, R., Schmutz, U. and Migliorini, P. (2022). Global inventory of current policy contexts, instruments and operational means for the support of mixed farming and agroforestry systems. Deliverable D6.1 for AGROMIX (862993). Available at: https://agromixproject.eu/project/

<sup>&</sup>lt;sup>156</sup> Trame verte and bleu Centre de ressources pour la mise en œuvre de la Trame verte et Bleu (n.d.). Available at: https://www.trameverteetbleue.fr

<sup>&</sup>lt;sup>157</sup> ADEME The French Agency for Ecological Transition. (n.d.). Available at: https://www.ademe.fr/en/ademe-the-french-ecological-transition-agency/

<sup>158</sup> Chambres d'agriculture Auvergne-Rhône-Alpes (n.d.). PEPIT. Available at: https://aura.chambres-agriculture.fr/pepit/



# 4.2.9 Germany

Country	National policies for agroforestry	CAP implementation of Measure 8.2	Inclusion of agroforestry in the CAP strategic plan
Germany	Yes	No	Yes

## Agroforestry in the country

Agroforestry has a long tradition in Germany. Forest farming, pastures, hedgerow systems and meadow orchards are wide-spread. Traditional systems such as windbreaks, hedgerows, silvoarable fruit orchards, rows of pollarded trees, willow strips and forest pasture, are still being practised today. Windbreaks and hedgerows are present in the landscapes, especially in Northern Germany. Wallhecken are hedgerows found on man-made soil ridges and are covered with shrubs, trees and herbs. Silvopastoral systems are extensively managed fruit orchards with grassland or meadows that are used for grazing sheep, cattle, horses or chickens. Modern forms of agroforestry consist mainly of alley cropping systems and various types of agroforestry systems combining different broadleaved tree species for valuable wood production with various crops and pastures. They are primarily found in experimental fields, used for research and as a showcase for farmers.

#### CAP

The second pillar of the CAP is implemented at the federal state level and involves 13 different RDPs. Although the establishment and maintenance of agroforestry systems was not considered in any of the programs, all programs support the maintenance of agroforestry systems at some level (e.g., hedgerow systems are considered a protected landscape element). Five federal states provide support measures to preserve existing hedgerow systems or plant new ones. Most federal states implement programs to maintain orchard meadows. Six RDPs support measures to restore and preserve existing orchard meadows or plant new ones. Nevertheless, an important precondition for the establishment of new agroforestry systems is that subsidies from Pillar I and II of the EU's agricultural support are provided for agroforestry as a land use system, including its both components (crops/pasture and trees/shrubs). Funds are granted, but the wooded and the farmed part are treated as separate plots. Due to the absence of a clear definition of agroforestry in the EU, agroforestry systems are not recognised as land use systems by national laws and are not considered eligible for support, which are based on agricultural EU funding programs and regulations. Agroforestry is mentioned several times in the country's strategic plan, which may indicate a positive stance towards supporting agroforestry practices within the CAP.

## National policies for agroforestry

Most of the national policy support is for Streuobstwiesen (extensively managed fruit orchards). <sup>164</sup> These orchards can be financed under two programs: the Agrarinvestitionsförderprogramm and Landschaftpflegerichtlinien. If fruit trees are cut down and then replanted, further funding is available under the Produktionsintegrierte Kompensation program in Baden-Württemberg. All regulations at the national level for trees on farms are concerning the CAP. The only "separate" regulations are the ones about trees not on arable land, such as woody components or trees.

### **Agroforestry associations**

AG Agroforst Deutschland; DeFAF (Deutscher Fachverband für Agroforstwirtschaft)

<sup>&</sup>lt;sup>159</sup> European Agroforestry Federation (2023). Germany. Available at: https://euraf.net/2023/01/20/germany/

<sup>&</sup>lt;sup>160</sup> Ibid.

<sup>&</sup>lt;sup>161</sup> Ibid.

<sup>162</sup> Ibid.

<sup>163</sup> Ibid.

<sup>&</sup>lt;sup>164</sup> Donham, J., Venn, R., Schmutz, U. and Migliorini, P. (2022). Global inventory of current policy contexts, instruments and operational means for the support of mixed farming and agroforestry systems. Deliverable D6.1 for AGROMIX (862993). Available at: https://agromixproject.eu/project/



## 4.2.10 Greece

Country	National policies for agroforestry	CAP implementation of Measure 8.2	Inclusion of agroforestry in the CAP strategic plan
Greece	No	No	No

## Agroforestry in the country

Agroforestry systems are a traditional land use practice and are widespread in Greece. They are three types of systems:<sup>165</sup> 1) Silvoarable involving trees and crops grown on arable land; 2) Silvopastoral involving trees and pasture/animals grown on forest and arable land; 3) Agrosilvopastoral involving trees, crops and grazing animals grown on arable land. The estimated area covered by these systems is more than 3 million hectares (23% of the whole country).<sup>166</sup> They provide various goods and services and constitute a cultural heritage. The role of trees is also essential in supporting production and enhancing the environment in rural areas. However, despite their economic, ecological and cultural importance, traditional agroforestry systems have deteriorated in recent decades due to the extensification and intensification processes imposed by socio-economic changes.<sup>167</sup>

### **CAP**

Greece agreed to apply Measure 8.2, but only to establish new agroforestry systems in agricultural and private areas grazed by animals. <sup>168</sup> The measure was to be implemented by Forest Service, with a total support of € 21,000,000 for an area of 2,000 hectares. <sup>169</sup> However, Greece did not implement Measure 8.2 in the end, despite it budgeted for it. Within the CAP (2023-2027), agroforestry is not included in the country's strategic plan.

### National policies for agroforestry

There is no agroforestry policy found in Greece.

### Agroforestry associations

Hellenic Agroforestry Network

<sup>&</sup>lt;sup>165</sup> European Agroforestry Federation (2023). Greece. Available at: https://euraf.net/2023/01/20/greece/

<sup>166</sup> Ibid.

<sup>&</sup>lt;sup>167</sup> Ibid.

<sup>&</sup>lt;sup>168</sup> Ibid.

<sup>&</sup>lt;sup>169</sup> Ibid.



## 4.2.11 Hungary

Country	National policies for agroforestry	CAP implementation of Measure 8.2	Inclusion of agroforestry in the CAP strategic plan
Hungary	Yes	Yes	Yes

### Agroforestry in the country

Although agroforestry is not very common in Hungary, traditional silvopastoral systems, grazed fruit orchards, shelterbelts and other woody components on arable lands could be found in the past. Nowadays, alley cropping, mixed vegetable, fruit tree plantations, hedges and the remnants of old traditional silvopasture systems are the most common traditional and modern agroforestry systems. According to the assessment made by AGFORWARD, there are about 38,000 hectares of agroforestry in the country, 95% of which are livestock systems.

#### CAP

Hungary implemented both measures 222 and 8.2 nationwide. Within the CAP 2007-2013, Measure 222 contributed to the establishment of agroforestry systems for grazing purposes to maintain sustainable land management and facilitate soil protection against erosion.<sup>173</sup> In the CAP 2014-2020, agroforestry was promoted through Article 23 of Regulation 1305/2013. The national RDP supports the implementation and maintenance of the following types of agroforestry systems:<sup>174</sup>

- Grassland management (mowing or extensive livestock production) combined with agroforestry system
- Field-protective afforestation (e.g., shelterbelts or woody spots)
- Innovative agroforestry systems (Forestry Innovation Operative Groups)

The basic subsidies are the following:175

- Crop-forest mix: plantation (once): 872 EUR/ha + yearly management 26-52 EUR/ha
- New silvopasture: plantation (once): 1652 EUR/ha + yearly management 26-52 EUR/ha
- Silvopasture + already existing meadows: 872 EUR/ha + yearly management 26-52 EUR/ha
- Hedges with alleys: plantation (once): 1249-1682 EUR/ha + yearly management 670 EUR/ha/5 years
- Hedges with tree groups: 1249-1682 EUR/ha + yearly management 670 EUR/ha/5 years
- New plantations of silvopasture mixed with fields of hay: 116-255 EUR/ha

<sup>170</sup> European Agroforestry Federation (2023). Hungary. Available at: https://euraf.net/2023/01/20/hungary/

<sup>&</sup>lt;sup>171</sup> Donham, J., Venn, R., Schmutz, U. and Migliorini, P. (2022). Global inventory of current policy contexts, instruments and operational means for the support of mixed farming and agroforestry systems. Deliverable D6.1 for AGROMIX (862993). Available at: https://agromixproject.eu/project/

<sup>&</sup>lt;sup>172</sup> Mosquera-Losada, M.R., Santiago Freijanes, J.J., Pisanelli, A., Rois, M., Smith, J., den Herder, M., Moreno, G., Malignier, N., Mirazo, J.R., Lamersdorf, N., Ferreiro Domínguez, N., Balaguer, F., Pantera, A., Rigueiro-Rodríguez, A., Gonzalez-Hernández, P., Fernández-Lorenzo J.L., Romero-Franco, R., Chalmin, A., Garcia de Jalon, S., Garnett, K., Graves, A. and Burgess, P.J. (2016). Extent and success of current policy measures to promote agroforestry across Europe. Deliverable 8.23 for EU FP7 Research Project: AGFORWARD 613520. Available at: https://www.agforward.eu/extent-and-success-of-current-policy-measures-to-promote-agroforestry-across-europe.html

<sup>&</sup>lt;sup>173</sup> European Agroforestry Federation (2023). Hungary. Available at: https://euraf.net/2023/01/20/hungary/ <sup>174</sup> Ibid.

<sup>&</sup>lt;sup>175</sup> Donham, J., Venn, R., Schmutz, U. and Migliorini, P. (2022). Global inventory of current policy contexts, instruments and operational means for the support of mixed farming and agroforestry systems. Deliverable D6.1 for AGROMIX (862993). Available at: https://agromixproject.eu/project/



Thanks to these subsidies, other agri-environmental CAP-related subsidies, natural conservation management practices and the growing demand for organic food, Hungary has considerably increased the number of newly established agroforestry systems. <sup>176</sup> For instance, some abandoned systems are now again being used as woodland pastures. Forest grazing is also now legally allowed under certain conditions, while it was prohibited before. <sup>177</sup> The country's strategic plan includes agroforestry within the CAP (2023-2027).

## National policies for agroforestry

National policies for agroforestry in Hungary include the following elements: 178

- Agroforestry is supported in Act 2009/XXXVII on forests, forest protection and forest management
- The Hungarian Forest Law states that any parcel of land larger than 0.5 hectares, with at least 30% tree cover, is considered to be forest land
- Hedges are subject to specific protection

## **Agroforestry associations**

Hungarian Agroforestry Civil Association

<sup>&</sup>lt;sup>176</sup> European Agroforestry Federation (2023). Hungary. Available at: https://euraf.net/2023/01/20/hungary/

<sup>&</sup>lt;sup>178</sup> Donham, J., Venn, R., Schmutz, U. and Migliorini, P. (2022). Global inventory of current policy contexts, instruments and operational means for the support of mixed farming and agroforestry systems. Deliverable D6.1 for AGROMIX (862993). Available at: https://agromixproject.eu/project/



## 4.2.12 Ireland

Country	National policies for agroforestry	CAP implementation of Measure 8.2	Inclusion of agroforestry in the CAP strategic plan
Ireland	Yes	No	Yes

### Agroforestry in the country

Agroforestry systems are relatively rare in Ireland. There are systems that are not grant aided and are poorly recorded and those that are grant aided and are well recorded. Most of the grant aided plantations are silvopastoral and the products include silage, hay, grazing, pigs, poultry and sheep. Silvoarable systems currently not do not receive any grant, but this will change under a new forestry programme, which is due to be launched in 2023.

#### CAP

In Ireland, the Irish Exchequer funds the establishment of agroforestry systems.<sup>181</sup> Measures 222 and 8.2 of the CAP were not implemented by the country. However, agroforestry is mentioned several times in the country's strategic plan.

## National policies for agroforestry

The Department of Agriculture, Food and the Marine (DAFM) started developing demonstration plots in 2012. The success of these plots resulted in the introduction of an afforestation scheme in 2015. The Irish Afforestation Scheme is implemented by the Department and is carried out by contractors on farmers' land. <sup>182</sup> The government has designed a new forestry programme starting in 2023. The programme will include a significant increase in agroforestry premia (30%) and in the duration of agroforestry premia payments. It will also provide additional agroforestry categories. <sup>183</sup> In addition, the minimum area required for an agroforestry plantation has been reduced from 0.5 ha to 0.2 ha and the plant size has been reduced from 90 cm-120 cm to 60 cm-90 cm. <sup>184</sup>

Under the basic payment rules for 2022, in order to be eligible for basic payment, a parcel of land could not have more than 10% of what was classified as ineligible features such as scrub, trees, copses, woodland, habitat and rock.<sup>185</sup> The DAFM has now increased this to 50% of a parcel, allowing land in areas of natural constraint to remain classified as productive farmland and encouraging farmers to continue using the ground as a working part of their farm.

# **Agroforestry associations**

Irish Agroforestry Forum

<sup>&</sup>lt;sup>179</sup> European Agroforestry Federation (2023). Ireland. Available at: https://euraf.net/2023/01/20/ireland/

<sup>180</sup> Ibid

<sup>&</sup>lt;sup>181</sup> Donham, J., Venn, R., Schmutz, U. and Migliorini, P. (2022). Global inventory of current policy contexts, instruments and operational means for the support of mixed farming and agroforestry systems. Deliverable D6.1 for AGROMIX (862993). Available at: https://agromixproject.eu/project/

<sup>&</sup>lt;sup>182</sup> European Agroforestry Federation (2023). Ireland. Available at: https://euraf.net/2023/01/20/ireland/

<sup>183</sup> Ibid.

<sup>&</sup>lt;sup>184</sup> Ibid.

<sup>&</sup>lt;sup>185</sup> Ibid.



## 4.2.13 Italy

Country	National policies for agroforestry	CAP implementation of Measure 8.2	Inclusion of agroforestry in the CAP strategic plan
Italy	No	Yes	Yes

# Agroforestry in the country

Agroforestry was a common landscape practice in Italy for centuries, representing the most widespread cropping system in plains, hills and mountains. Efficient and productive agroforestry systems such as silvopastoral and agrosilvopastoral systems can be found in about 1,300,000 hectares of land in the territory, where trees are integrated with livestock production. The largest areas devoted to silvopastoral systems comprising wooded pastures and grazed woodlands are found in Sardinia and in the Alpine Region. Intercropping and grazing in olive orchards are still occasionally practised in the country. Although silvoarable systems are less common, they are being relaunched in northern Italy, as they can support national wood production and promote multifunctional agriculture.

### CAP

Five regions (Basilicata, Marche, Puglia, Umbria, Veneto) out of twenty activated Measure 8.2 in the CAP 2014-2020. However, only Puglia had farmer uptake. Table 8 provides an overview of the focus of each region. 188

Region	Supported operations	Maximum amounts €/ha + €/ha/year	Beneficiaries
Basilicata	1. Establishment of silvopastoral systems: Cultivation of forestry and agricultural woody species, with mediumlong cultivation cycle, aimed to produce timber or biomass and other non-wood forest products, on the same area with livestock activity. Tree density: 60-200/ha. Allowed on agricultural lands or abandoned lands classified as forests; not allowed on permanent grassland or pastures.	2,000 + 200	Private landowners and/or associations; municipalities
	2. Establishment of linear systems: Cultivation of one or more forestry and agricultural woody species, with medium-long cultivation cycle on field border of arable lands to realise hedges, windbreaks or buffer strips. Tree density: 60-200/ha, tree distance < 6 m.		
Marche	<ul> <li>The establishment of the following agroforestry systems:</li> <li>Creation of small wooded areas;</li> <li>Realisation of linear systems (hedges and rows);</li> <li>Planting isolated trees scattered in the field.</li> <li>The maximum density for trees is 50-100 trees/ha; and &lt; 200 shrubs/ha.</li> </ul>	Agricultural areas: 3,100 + 300 Abandoned agricultural areas: 4,600 + 300	Private landowners; municipalities
Puglia	<ul> <li>The establishment of the following agroforestry systems:</li> <li>Linear systems (hedges, rows, windbreak, etc.);</li> <li>Planting one or more forestry or agricultural woody species and/or shrubs, with medium-long cultivation cycle.</li> </ul>	2,750 + 1,200	Private or public landowners, municipalities

<sup>&</sup>lt;sup>186</sup> European Agroforestry Federation (2023). Italy. Available at: https://euraf.net/2023/01/20/italy/

<sup>&</sup>lt;sup>187</sup> Ibid.

<sup>188</sup> Ibid.



	The maximum tree density is 50-250 plants/ha		
Umbria	1. The establishment of silvopastoral systems includes planting forestry tree species on agricultural land, with a medium to long cultivation cycle, combined with livestock activity and aimed to produce timber, biomass or other non-forest products. The maximum tree density is 20-50 trees/ha, with a tree distance of more than 10 m.	2,000 + 500	Private and public landowners or land managers
	2. The establishment of silvoarable systems, including planting one or more forest trees or shrubs species in linear system or scattered in the field, with a medium to long cultivation cycle, aimed to produce timber, biomass and other non-forest products.		
	In the case of linear system: The tree density requirements are 40-100 trees/ha, with a distance of 20-30 m between tree rows and 5-10 m between trees. Trees can be planted in field borders such as hedges, windbreak or buffer strips. In the case of scattered trees, the tree density requirements are 20-50 trees/ha with a tree distance of >10 m.		
Veneto	<ol> <li>The establishment of silvopastoral systems includes selective thinning of tree species already present on agricultural lands to implement agricultural or livestock activity. It includes the recovery of abandoned agricultural lands occupied by natural vegetation.</li> <li>The establishment of silvoarable systems, including planting one or more forestry trees or shrubs species,</li> </ol>	The maximum amount based on regional prices; maintenance contribute is 250	Private and public landowners
	scattered or in regular design, with medium-long cultivation cycle, aimed to produce timber and/or biomass and/or non-forest products.	The maximum amount based on regional prices; maintenance contribute is 110	

Table 8: Agroforestry support in the 2014-2020 RDPs of five Italian regions. Source: EURAF.

Within the CAP (2023-2027), agroforestry is included in the country's strategic plan, which focuses on the financial support for establishing and maintaining agroforestry systems.

## **National policies for agroforestry**

There is no national policy that directly supports agroforestry in Italy. Since there are no subsidies or payments for the maintenance of trees on farms at the CAP and state level, Italian law protects certain landscape features (e.g., monumental trees, rows of trees of particular landscape, historical and cultural value, trees in architectural complexes of historical and cultural importance). 189

## **Agroforestry associations**

Italian Association of AgroForestry; SISEF Agroforestry Working Group of the Italian Scientific Society on Silviculture and Forest Ecology; Compagnia delle Foreste; PEFC Italy

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<sup>&</sup>lt;sup>189</sup> Donham, J., Venn, R., Schmutz, U. and Migliorini, P. (2022). Global inventory of current policy contexts, instruments and operational means for the support of mixed farming and agroforestry systems. Deliverable D6.1 for AGROMIX (862993). Available at: https://agromixproject.eu/project/



### 4.2.14 Netherlands

Country	National policies for agroforestry	CAP implementation of Measure 8.2	Inclusion of agroforestry in the CAP strategic plan
Netherlands	No	No	Yes

## Agroforestry in the country

Agroforestry systems are occasional in the Netherlands. The main types of systems include: 190

- Silvopastoral systems (combination of productive grassland and cattle with trees or shrubs);
- Row-growing or alley cropping systems (combinations of arable farming, field-grown vegetable growing or fruit and trees or shrubs);
- Food forests (cultivation systems comprised of several vegetation layers for producing a wide range of fruit, nuts, seeds, vegetables and herbs).

#### CAP

There are limitations due to laws and regulations in the Netherlands. In terms of policy, agroforestry is currently not legally recognised as an agricultural system.<sup>191</sup> CAP measures 222 and 8.2 were not implemented, and no provision was made directly for agroforestry within the CAP. However, agroforestry is included in the country's strategic plan within the CAP (2023-2027). The Netherlands CAP strategic plan includes measures to expand agroforestry on approximately 15,000 hectares.

## **National policies for agroforestry**

There is currently no national policy that support agroforestry directly, although there are some policies at the regional level. 192

### **Agroforestry associations**

Agroforestry Nederland; Agroforestry Zuid-Nederland/Network Brabant; Stichting Voedselbosbouw Nederland; Agroforestry Network Gelderland

<sup>&</sup>lt;sup>190</sup> European Agroforestry Federation (2023). Netherlands. Available at: https://euraf.net/2023/01/20/netherlands/ <sup>191</sup> Ibid.

<sup>&</sup>lt;sup>192</sup> Donham, J., Venn, R., Schmutz, U. and Migliorini, P. (2022). Global inventory of current policy contexts, instruments and operational means for the support of mixed farming and agroforestry systems. Deliverable D6.1 for AGROMIX (862993). Available at: https://agromixproject.eu/project/



### 4.2.15 Poland

Country	National policies for agroforestry	CAP implementation of Measure 8.2	Inclusion of agroforestry in the CAP strategic plan
Poland	No	No	Yes

### Agroforestry in the country

Agricultural producers and decision-makers in Poland do not recognise agroforestry. However, trees outside forests (ToF) are considered as important element of environmental policy, despite no clear definition for ToF. Shelterbelts systems in Wielkopolskie province and riparian buffers are well known in the country. Moreover, sheep and goats grazing on wooded pastures can often be found.<sup>193</sup>

### **CAP**

The development and implementation of agroforestry systems in Poland was blocked at the level of legislative acts and there was no financial support for agroforestry practices. As a result, Poland did not implement measures 222 and 8.2 of the previous CAPs.

Agroforestry is mentioned several times in the country's strategic plan and is recognised as an important practice for achieving environmental and climate objectives. Financial support is provided for in-field trees outside the forest (field windbreaks and copses) and agroforestry as two optional measures for farmers interested in afforestation. <sup>194</sup> These measures are entitled "Establishment of field windbreaks and copses" and "Establishment of agroforestry systems". Both measures could receive a 5-year premium to compensate for the maintenance costs of the intervention. Nevertheless, organic farms cannot receive support for the establishment of agroforestry.

### **National policies for agroforestry**

In Poland, there is no national policy that directly supports agroforestry. However, the State Forestry Policy and the State Ecological Policy set up rules for introducing and managing trees and shrubs in agricultural landscapes. 195

## **Agroforestry associations**

Polish Agroforestry Association; Beef Cattle Farmers Association "Pastwisko"; Organic Agriculture Forum

<sup>&</sup>lt;sup>193</sup> European Agroforestry Federation (2023). Poland. Available at: https://euraf.net/2023/01/20/poland/

<sup>&</sup>lt;sup>195</sup> Borek, R. (2015). Agroforestry Systems in Poland: A preliminary identification. *Papers on Global Change IGBP*, *22*(1), 37-51. https://doi.org/10.1515/igbp-2015-0014



## 4.2.16 Portugal

Country	National policies for agroforestry	CAP implementation of Measure 8.2	Inclusion of agroforestry in the CAP strategic plan
Portugal	Yes	Yes	Yes

## Agroforestry in the country

Portugal has a long tradition of agroforestry due to the variability of bioclimatic conditions, diverse land uses, and a considerable variation in land tenure between the country's north (small, scattered properties) and the south (large properties). Several articles studied agroforestry in Portugal. Reis et al. (2014) provides an overview of agroforestry systems. Belo et al. (2014) focus on the Montado, which predominates in the South-montado region and is Portugal's most important agroforestry system. The most relevant aspects of the Montado system are forage resources and livestock activities with higher economic value. These studies reveal that agroforestry systems are present on about 25% of the agricultural and forestry mainland territory. They integrate species of trees such as holm oak, cork oak, chestnut, pine and carob, with grazing animals under cover and fruit production.

Due to the social and landscape characteristics of the mountainous areas of northern and central Portugal, land use is characterised by a great diversity of tree and shrub species. Rural populations in these regions use traditional agroforestry systems (e.g., lameiros, soutos, castinçais) to diversify production and income, with various products such as meat, milk, fruits, forage, fodder, vegetables, olives, grapes, and wood products. Lameiros are natural pastures with isolated trees, hedges, tree borders and riparian buffers. They are important for local firewood production, animal fodder, soil protection and pasture improvement. Soutos and castinçais areas include low densities of Castanea sativa (sweet chestnuts) trees. They are managed for chestnut production or high-quality wood, with natural or improved permanent pastures grazed by livestock. Together, these systems cover 41,410 hectares. Moreover, there are traditional olive tree systems which cover about 340,000 hectares.

### **CAP**

Portugal has been transposing European policy which supports agroforestry into national legislation since the first appearance of the article 44 in Regulation 1698/2005.<sup>200</sup> The country implemented agroforestry measures 222 and 8.2 of the CAP. Measure 8.2 was adapted by farmers with about 26% of the intended budget spent.<sup>201</sup> Within Pillar I, agroforestry systems such as the Montado and permanent tree crops (e.g., holm and cork oak, olives, stone pines, vines, cherries) are eligible for direct payments.<sup>202</sup> Within Pillar II, Portugal has several measures in the CAP 2014-2020 related to trees on farms (e.g., forest stands, orchards, riparian buffers, forest farming of non-woody forest products).<sup>203</sup> The country's strategic plan includes agroforestry within the CAP (2023-2027). The strategic plan emphasises the importance of agroforestry practices for reducing greenhouse gas emissions and

<sup>&</sup>lt;sup>196</sup> Donham, J., Venn, R., Schmutz, U. and Migliorini, P. (2022). Global inventory of current policy contexts, instruments and operational means for the support of mixed farming and agroforestry systems. Deliverable D6.1 for AGROMIX (862993). Available at: https://agromixproject.eu/project/

<sup>&</sup>lt;sup>197</sup> Ibid.

<sup>&</sup>lt;sup>198</sup> Ibid.

<sup>&</sup>lt;sup>199</sup> Ibid.

<sup>&</sup>lt;sup>200</sup> European Agroforestry Federation (2023). Portugal. Available at: https://euraf.net/2023/01/20/portugal/

<sup>&</sup>lt;sup>201</sup> Donham, J., Venn, R., Schmutz, U. and Migliorini, P. (2022). Global inventory of current policy contexts, instruments and operational means for the support of mixed farming and agroforestry systems. Deliverable D6.1 for AGROMIX (862993). Available at: https://agromixproject.eu/project/

<sup>&</sup>lt;sup>202</sup> Ibid.

<sup>&</sup>lt;sup>203</sup> Ibid.



includes the objective of planting new trees, while respecting ecological principles. It contains financial support measures for the maintenance of agroforestry systems.

## **National policies for agroforestry**

There are national policies that support agroforestry in Portugal. The *Fundo Ambiental* (Environmental Fund) contributes to projects supporting adaptation to climate change, sustainable development, defence against forest fires, and water and biodiversity protection. It specifically mentions agroforestry. <sup>204</sup> *Fundação para a Ciência e a Tecnologia* (Foundation for Science and Technology) is a public agency that supports research. <sup>205</sup> They launched calls for three consecutive years (2017, 2018 and 2019) dedicated to fire prevention and combat, which clearly state the importance of agroforestry mosaic landscapes through the use of extensive silvopastoralism. The *Jovem Empresário Rural* (Young Rural Entrepreneur) is a program aimed at promoting entrepreneurship in the rural world, creating new businesses and establishing young entrepreneurs in rural areas. <sup>206</sup> The Fundo Florestal Permanente program is managed by the Institute for the Conservation of Nature and Forests and grants financial support to spread awareness and information on agroforestry. <sup>207</sup>

Portugal has national guidelines on which tree species can be planted<sup>208</sup> and legislations for wood coming from thinning, clear cuts and other silviculture practices.<sup>209</sup> There is also the Decree-Law No. 169/2001, which protects cork oak and holm oak forests. This law comprises 27 articles establishing tree protection and specifying the requirements to be fulfilled to practice agroforestry, silvopastoralism and combat desertification.<sup>210</sup>

## **Agroforestry associations**

União da Floresta Mediterrânica; Associação Florestal de Portugal; Associação Portuguesa da Cortiça; Federação Nacional de Produtores Florestais; Associação Portuguesa da Castanha; Forest Research Center

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<sup>&</sup>lt;sup>204</sup> Fundo Ambiental, Ministério do Ambiente (n.d.). Available at: https://www.fundoambiental.pt/

<sup>&</sup>lt;sup>205</sup> Fundação para a Ciência e a Tecnologia (n.d.). Available at: https://www.fct.pt/

 $<sup>^{206} \ \ \, \</sup>text{Dire}\\ \zeta \tilde{\text{ao}}\text{-}\text{Geral} \ \ \, \text{de Agricultura e Desenvolvimento Rural (n.d.)}. \ \ \, \text{Jovem Empresário Rural.} \ \ \, \text{Available at: https://www.dgadr.gov.pt/mecanizacao/caof/43-balcao-unico-conteudo/918-jovem-empresario-rural}$ 

<sup>&</sup>lt;sup>207</sup> ICNF - Instituto da Conservação da Natureza e das Florestas. (n.d.). Fundo Florestal Permanente. Available at: https://www.icnf.pt/apoios/fundoflorestalpermanente

<sup>&</sup>lt;sup>208</sup> ICNF - Instituto da Conservação da Natureza e das Florestas (n.d.). Espécies Arbóreas. Available at: https://www.icnf.pt/florestas/plantasesementes/especiesarboreas

<sup>&</sup>lt;sup>209</sup> Diário da República Eletrónico. (2020). Decreto-Lei no. 31/2020. Available at: https://dre.pt/home/-/dre/136900600/details/maximized

<sup>&</sup>lt;sup>210</sup> Diário da República Electrónico. (2001). Decreto-Lei no. 169/2001. Available at: https://dre.pt/pesquisa//search/332749/details/maximized



# 4.2.17 Spain

Country	National policies for agroforestry	CAP implementation of Measure 8.2	Inclusion of agroforestry in the CAP strategic plan
Spain	No	Yes	Yes

## Agroforestry in the country

Spain has a vast establishment of agroforestry systems. The deseha (silvopastoral system with trees of the Quercus genus) is the most popular system. It occupies the largest part of the territory and is responsible for producing Iberian pigs.<sup>211</sup> Pomarada is a system linked to apple plantations in the north of Spain, where animals graze between trees.<sup>212</sup> There are other systems of chestnut trees grazed by both ruminants and pigs for the consumption of chestnuts, known as Soutos.<sup>213</sup>

#### **CAP**

In Spain, agricultural policies are characterised at the autonomous community level rather than at the country level. 17 parliaments establish different measures within the national and European legislative framework. While Measure 222 was only activated by C. Valenciana, Measure 8.2 was budgeted and activated by more regions in the CAP 2014-2020. However, this measure was controversial, because of the maximum tree density rule, which states that for a parcel of land to be declared arable, it must not exceed 100 trees per hectare. This limitation affected many producers in the dehesas.

Green payments could also be granted to farms with more than 15 hectares of arable land that allocated 5% of their area to an EFA.<sup>215</sup> Of the 19 eligible EFAs, Spain activated 4, including one for agroforestry areas. However, funding can only be received if the system has been established with Measure 8.2. 6 out of 17 autonomous regions (Andalusia, Asturias, Extremadura, Galicia, Basque Country, Valencian Community) included Measure 8.2 in their RDPs.<sup>216</sup> Among these regions, only Andalucia, Asturias, Extremadura and Galicia activated it, with former uptake in Asturias and Galicia.

The country's strategic plan includes agroforestry within the CAP (2023-2027). The strategic plan mentions different forms of support for implementing agroforestry systems, which cover various aspects, such as the establishment of forest trees, the protection of natural regeneration, the improvement of pastures, and the establishment of woody agricultural crops.

### National policies for agroforestry

There is no policy for agroforestry found beyond the CAP in Spain.

### **Agroforestry associations**

Spanish Agroforestry Association

<sup>&</sup>lt;sup>211</sup> Donham, J., Venn, R., Schmutz, U. and Migliorini, P. (2022). Global inventory of current policy contexts, instruments and operational means for the support of mixed farming and agroforestry systems. Deliverable D6.1 for AGROMIX (862993). Available at: https://agromixproject.eu/project/

<sup>&</sup>lt;sup>212</sup> Ibid.

<sup>&</sup>lt;sup>213</sup> Ibid.

<sup>&</sup>lt;sup>214</sup> Ibid.

<sup>&</sup>lt;sup>215</sup> Ibid.

<sup>&</sup>lt;sup>216</sup> Ibid.



### 4.2.18 Sweden

Country	National policies for agroforestry	CAP implementation of Measure 8.2	Inclusion of agroforestry in the CAP strategic plan
Sweden	Yes (only Reindeer husbandry)	No	No

### Agroforestry in the country

In Sweden, traditional agroforestry systems include alley cropping, hedgerows, riparian buffers and semi-natural pastures.<sup>217</sup> A system called "summer farms" was very important in the north of Sweden during the period 1500-1850 and is now developing again because of its cultural and natural values. Subsidies in the CAP support the management of these systems. These systems include the free grazing of cattle, sheep and goats in mountainous areas for meat, milk, cheese and butter production.<sup>218</sup> Today, there are around 250 summer farms, with about 15,000 hectares.<sup>219</sup> Sweden maintains reindeer husbandry, which is the largest agroforestry system in Europe.<sup>220</sup> Moreover, semi-natural pastures with bushes and trees contribute to natural values (e.g., biodiversity).

### CAP

Measures 222 and 8.2 were not implemented in Sweden. However, traditional land uses can be classified as agroforestry systems and included in the program under Measure 10 (agri-environmental measures). Summer farms and semi-natural pastures get support under this measure. EU-subsidies for semi-natural pastures are based on the ecological and cultural values on the land and different levels of payment can be received depending on the values. For certain types of semi-natural pastures (e.g., silvopasture), there is only support from the RDP (Pillar II) and not from direct payments (Pillar I). Due to the greening of the direct payment, farmers may be required to have EFAs. Support is provided for managing and preserving semi-natural pasture, mown meadow, forest pasture, mountain pasture and mosaic grazing. However, forest pasture and mosaic pastoralism are not eligible for basic single payment schemes, unlike semi-natural pasture, mown meadow and mountain grazing. Finally, agroforestry is not included in the country's strategic plan.

#### National policies for agroforestry

Although no law prevents the implementation of agroforestry systems, agroforestry does not receive sufficient national support in Sweden.

### **Agroforestry associations**

Agroforestry Sverige (Agroforestry Sweden); Skogsträdgårdsodlarna (The Forest Gardeners); Permakultur i Sverige (Permaculture in Sweden)

<sup>&</sup>lt;sup>217</sup> European Agroforestry Federation (2023). Sweden. Available at: https://euraf.net/2023/01/20/sweden/

<sup>&</sup>lt;sup>218</sup> Ibid.

<sup>&</sup>lt;sup>219</sup> Ibid.

<sup>&</sup>lt;sup>220</sup> Ibid.

<sup>&</sup>lt;sup>221</sup> Ibid.

<sup>&</sup>lt;sup>222</sup> Donham, J., Venn, R., Schmutz, U. and Migliorini, P. (2022). Global inventory of current policy contexts, instruments and operational means for the support of mixed farming and agroforestry systems. Deliverable D6.1 for AGROMIX (862993). Available at: https://agromixproject.eu/project/
<sup>223</sup> Ibid.



### 4.2.19 Switzerland

Country	National policies for agroforestry	CAP implementation of Measure 8.2	Inclusion of agroforestry in the CAP strategic plan
Switzerland	Yes	CAP does not apply	CAP does not apply

### Agroforestry in the country

In Switzerland, there are traditional forms of silvopastoral systems, such as orchards, forest pastures and chestnut selvas.<sup>224</sup> In total, nearly 8% of the agricultural land use is devoted to agroforestry. During the 2000s, farmers started combining high-stem fruit trees with arable crops as a measure against erosion. In recent years, silvoarable systems with fruit and wild fruit trees (for producing fruit and wood) were further developed in the arable farming area of the country.<sup>225</sup>

### **CAP**

The CAP does not apply to Switzerland.

### National policies for agroforestry

The policy framework for the implementation of agroforestry has some limitations. The projects on practical farms can be implemented within the framework of biodiversity promotion and landscape quality. Farmers do not get any support for energy wood systems, as the demand for energy wood is covered by traditional forestry. Thus, valuable tree species such as oaks and lime trees do not receive subsidies. Start Switzerland's regulation on direct payments provides subsidies for annual maintenance and recognition of labour-economy. Moreover, initiatives from cantons, private enterprises and foundations can now promote the establishment of agroforestry systems as part of the voluntary climate protection measures. They pay part of the planting material and the advice to farmers.

The Federal Offices for Environment and for Agriculture have initiated a dialogue with stakeholders to find an appropriate approach for the role of traditional and modern agroforestry systems in the future agricultural policy. The Federal Office for Agriculture is developing proposals on how agroforestry can be included in various programmes of the Direct Payments Regulation. In addition, under the direction of AGRIDEA, Bio Suisse and three cantons, a new "Agroforestry Resource Project" is currently being developed in western Switzerland. The project aims to promote modern agroforestry and support its adoption through a participatory approach. Up to 140 farmers can carry out a personalised agroforestry project and obtain financial and expert support.

### **Agroforestry associations**

IG Agroforst; Plateforme Agroforesterie Romande

<sup>&</sup>lt;sup>224</sup> European Agroforestry Federation (2023). Switzerland. Available at: https://euraf.net/2023/01/20/switzerland/

<sup>&</sup>lt;sup>225</sup> Ibid.

<sup>&</sup>lt;sup>226</sup> Ibid.

<sup>&</sup>lt;sup>227</sup> Ibid.

<sup>&</sup>lt;sup>228</sup> Donham, J., Venn, R., Schmutz, U. and Migliorini, P. (2022). Global inventory of current policy contexts, instruments and operational means for the support of mixed farming and agroforestry systems. Deliverable D6.1 for AGROMIX (862993). Available at: https://agromixproject.eu/project/

<sup>&</sup>lt;sup>229</sup> European Agroforestry Federation (2023). Switzerland. https://euraf.net/2023/01/20/switzerland/

<sup>&</sup>lt;sup>230</sup> Ibid.

<sup>&</sup>lt;sup>231</sup> Ibid.

<sup>&</sup>lt;sup>232</sup> Agroforestie (n.d.). Projet ressource Agro4esterie. Available at: https://www.agroforesterie.ch/projets/projet-agroforesterie/



### 4.2.20 United Kingdom

Country	National policies for agroforestry	CAP implementation of Measure 8.2	Inclusion of agroforestry in the CAP strategic plan
United Kingdom	Yes	Yes	CAP does not apply

### Agroforestry in the country

In the United Kingdom, agroforestry systems include livestock and dairy production in the upland, wetter areas to the west and north, arable systems in the lowland, and drier areas in the south and east.<sup>233</sup> The proportion of the country's agricultural land (70%) is larger than in most European countries. Most land is managed intensively and the high population density means that agricultural land has important cultural and food production functions.<sup>234</sup> Much of lowland England and Wales has an agroforestry landscape with farmers managing a hedgerow-lined mosaic, including trees and agriculture. Trees on farms can have a variety of landscape features such as farm woodlands, shelterbelts, riparian buffers, and boundary hedgerows. There are also more integrated systems, including grazed woodlands and orchards, wood pasture, parkland, alley cropping and scattered trees.<sup>235</sup> The main forms of agroforestry systems are hedgerows, woodland chicken, and traditional silvopasture systems such as woodland grazing, wood pasture, parkland systems and grazed orchards.<sup>236</sup> There are also experimental areas of in-field agroforestry and an area of forest gardens and organic agroforestry.

#### CAP

The lack of policy support has been one of the main barriers to the wider adoption of agroforestry in the United Kingdom. Agroforestry was not included in the definition of an agricultural area in Pillar I in the CAP 2014-2020. There was also some confusion regarding the eligibility for direct payments of land with scattered trees. Permanent crops, including orchards and scattered fruit trees, tree nurseries and short rotation coppice, as well as hedges protected under Cross Compliance by GAEC 7 were all eligible for direct payments. In Pillar I, agroforestry was included as an option within the EFA measures at the European level. However, it has only been incorporated into national options in Northern Ireland. Other tree-based landscape features such as hedges and short rotation coppice have been included into national schemes. An agroforestry measure (Article 44) was available within Pillar I of CAP 2007-2013. However, it was only implemented in Northern Ireland, where support was available for the first establishment of agroforestry systems.

In the CAP 2014-2020, Northern Ireland, Wales and Scotland integrated Measure 8.2 into national schemes, while England did not. In Northern Ireland, agroforestry was included as an option in the Environmental Farming Scheme under Measure 10 (delivering benefits of carbon sequestration, biodiversity, soil and water quality), emphasising silvopastoral schemes and a target of 52 ha planted by 2020. Support rates are 80% of eligible costs for establishment (£ 1572/ha in Year 1) and 100% of eligible costs for maintenance (£ 65/ha/year in years 1-5), for trees established at a density of 400 trees/ha, with thinning to a final density of 120-150 trees/ha.

<sup>&</sup>lt;sup>233</sup> European Agroforestry Federation (2023). United Kingdom. Available at: https://euraf.net/2023/01/20/united-kingdom/

<sup>&</sup>lt;sup>234</sup> Ibid.

<sup>&</sup>lt;sup>235</sup> Ibid.

<sup>&</sup>lt;sup>236</sup> Ibid.

<sup>&</sup>lt;sup>237</sup> Ibid.

<sup>220 ....</sup> 

<sup>&</sup>lt;sup>238</sup> Ibid.

<sup>&</sup>lt;sup>239</sup> Ibid.

<sup>&</sup>lt;sup>240</sup> Ibid.

<sup>&</sup>lt;sup>241</sup> Ibid.



Scotland is mainly focused on silvopastoral systems, with a target of 300 ha by 2020 on permanent pasture only, which is used solely for grazing sheep.<sup>242</sup> At a planting density of 200 trees/ha, initial payment rates are £ 1860/ha with annual maintenance payments of £ 48/ha/year for 5 years.<sup>243</sup> In Wales, the target is for 147 ha and the specification set out in Glastir Woodland Creation is 80 trees/ha on permanent grassland grazed at typical stocking rates, with payments of £ 1600/ha for establishment and £ 30/ha/year for annual maintenance in years 2-6.<sup>244</sup> Although England has not implemented the agroforestry measure, Countryside Stewardship includes several options that can support traditional forms of agroforestry. These options include the protection of in-field trees in arable and intensive grasslands, hedgerow management, creation and management of traditional orchards, wood pasture, parkland. They also provide support for capital items such as hedgerow laying, coppicing and laying up, planting new hedges, fruit tree planting, tree surgery and tree protection.<sup>245</sup>

### National policies for agroforestry

The United Kingdom left the EU in 2021 and signed a trade and partnership agreement with the EU. Since then, direct farm subsidy payments that were previously provided under the CAP were replaced by a "public money for public goods" approach, implemented by an Environmental Land Management scheme (ELMS).<sup>246</sup> Although the new Agricultural Bill is still in review, it will include ELMS and is expected to make provisions for agroforestry. However, these policy instruments are under development and aim to be operational by 2024-2027. They will vary according to the administrations in the United Kingdom (England, Scotland, Wales, Northern Ireland) responsible for agricultural policy.

The Department for Environment, Food and Rural Affairs (DEFRA) has commissioned a range of "Test and Trial" programs to assess what the ELMS will include and how it will be implemented.<sup>247</sup> Initially, agroforestry was not included as a unique programme within ELMS. However, this has changed with implementing a specific ELM Agroforestry test group being coordinated by a consortium consisting of: The Organic Research Centre, the Soil Association, the Woodland Trust and Abacus Agriculture.<sup>248</sup> The main task of the consortium is to provide information to the DEFRA on farmers' preferred payment mechanisms and guidance for increasing the uptake of agroforestry after the Brexit. Since agriculture and forestry is a devolved policy within the four nations of the United Kingdom, different policies will emerge for England, Scotland, Wales, and Northern Ireland.

### ELM is planned in three tiers:

- Tier 1 will pay for any management changes aimed at improving the environmental performance of farms
- Tier 2 will pay for the management of lands that have specific environmental purposes
- Tier 3 will pay for large-scale environmental changes such as afforestation or creation of new wetlands

### **Agroforestry associations**

Farm Woodland Forum

<sup>&</sup>lt;sup>242</sup> European Agroforestry Federation (2023). United Kingdom. Available at: https://euraf.net/2023/01/20/united-kingdom/

<sup>&</sup>lt;sup>243</sup> Ibid.

<sup>&</sup>lt;sup>244</sup> Ibid.

<sup>&</sup>lt;sup>245</sup> Ibid

<sup>&</sup>lt;sup>246</sup> Donham, J., Venn, R., Schmutz, U. and Migliorini, P. (2022). Global inventory of current policy contexts, instruments and operational means for the support of mixed farming and agroforestry systems. Deliverable D6.1 for AGROMIX (862993). Available at: https://agromixproject.eu/project/

<sup>&</sup>lt;sup>247</sup> Ibid.

<sup>&</sup>lt;sup>248</sup> Ibid.



### 5. AGRICULTURE, FORESTRY AND CARBON MARKETS

This section examines the links between agriculture, forestry and carbon markets. It specifically focuses on the contribution of agroforestry to climate change mitigation through its possible future integration into carbon markets and the role of carbon removals in the context of farming at the EU level. Forest and agricultural lands cover three-quarters of the EU's territory and hold a large carbon stock, preventing it from escaping into the atmosphere through photosynthesis. The European Commission aims to set the EU-wide climate neutrality objective in 2035 for the land use, forestry and agriculture sector (LULUCF). Despite this, agriculture and forestry are not included in the revised EU Emissions Trading System (EU ETS). The most frequently cited reason is that there is currently no sufficiently robust certification system to accurately measure, report and verify emissions from this sector.<sup>249</sup> Given the urgent need to reduce greenhouse gas emissions at the global level, integrating agroforestry into carbon markets and promoting agroforestry as a carbon farming practice can be of key importance in achieving the objectives of the European Green Deal. The section describes the latest developments in the EU concerning agriculture, forestry and carbon markets.

### 5.1 CARBON MARKETS AND CLIMATE CHANGE

### 5.1.1 Compliance and voluntary carbon markets

Carbon markets may play an essential role in reducing greenhouse gas emissions in a cost-effective manner. Carbon markets are compulsory or voluntary schemes in which entities whose activities result in net carbon sequestration can obtain payments from entities whose activities result in net carbon emissions. An entity can compensate its greenhouse gas emissions by purchasing carbon credits to finance emissions reductions or removals elsewhere (offsetting). A carbon credit (or offset) is an instrument that represents the reduction of one metric tonne of carbon dioxide or greenhouse gas emissions. Today, the majority of carbon credits traded come from emission reductions.

Carbon pricing is an approach that can help the EU move faster towards a low-carbon economy. The number of emissions trading systems around the world is increasing. Besides the EU ETS, national systems are being developed in Canada, China, Japan, New Zealand, South Korea, Switzerland and the United States. Compliance markets include entities that are legally required to cover their greenhouse gas emissions by purchasing carbon credits for an equivalent amount. Mandatory national, regional or international carbon reduction regimes regulate them. These markets operate under a cap-and-trade system where only a certain number of allowances (a permit that allows an entity to emit greenhouse gas emissions) are created. Voluntary markets operate outside of compliance markets and allow entities seeking to offset their emissions to purchase carbon credits voluntarily with no intended use for compliance purposes. They support a wide variety of environmental projects to reduce or remove greenhouse gas emissions from the atmosphere. Gold Standard and VCS are examples of voluntary carbon markets.

### 5.1.2 EU Emissions Trading System (EU ETS)

The EU ETS was established in 2005 and is the world's first major compliance carbon market.<sup>250</sup> It operates in all EU countries plus Iceland, Liechtenstein and Norway (EEA-EFTA states). The EU ETS limits

<sup>&</sup>lt;sup>249</sup> EURACTIV (2020). Official: EU taking first steps to bring forestry into carbon market. Available at: https://www.euractiv.com/section/energy-environment/interview/official-eu-taking-first-steps-to-bring-forestry-into carbon-market/

<sup>&</sup>lt;sup>250</sup> European Commission (n.d.). Climate action EU Emissions Trading System (EU ETS). Available at: https://climate.ec.europa.eu/eu-action/eu-emissions-trading-system-eu-ets en



emissions from around 10,000 installations in the power sector and manufacturing industry, energy-intensive industrial sectors and airlines operating between these countries. Since 2005, EU emissions have been reduced by 41% in the sectors covered.<sup>251</sup> The EU ETS is the cornerstone of the EU's policy to combat climate change and its key tool for reducing greenhouse gas emissions.

The EU ETS is characterised by a "Cap and trade" system, which sets a cap on the total amount of certain greenhouse gases that installations covered by the system can emit. The cap is reduced over time, so that total emissions decrease. Within the cap, installations buy or receive emissions allowances, which they can trade with others. If a participatory installation reduces its emissions, it can keep part of its allowances to cover its own future emissions or sell them to another installation that is short of allowances. Installations that pollute more than they are entitled to must buy supplementary allowances on the market. The cap sets a market-based price per emission unit that incentivises reducing emissions and promoting investment in low-carbon technologies. The EU ETS covers sectors and gases for which emissions can be accurately measured, reported and verified. These include carbon dioxide emissions from electricity and heat generation, energy-intensive industry sectors (e.g., oil refineries, steel works, production of iron, aluminium, metals, cement, lime, glass, ceramics, pulp, paper, cardboard, acids and bulk organic chemicals) and aviation within the European Economic Area.<sup>252</sup> It also covers nitrous oxide (N2O) emissions from the production of nitric, adipic, adipic acids, glyoxal, and perfluorocarbons (PFCs) from aluminium production. Participation in the EU ETS is mandatory for installations in these sectors. However, only operators above a certain size are included in some sectors. Certain small installations can be excluded if governments put measures to reduce their emissions by an equivalent amount.<sup>253</sup>

### 5.1.3 Development of EU ETS (2005-2020)

The Kyoto Protocol set legally-binding emissions reduction targets or caps for 37 industrialised countries for the first time in 1997. This has led to the need for policy instruments to meet these targets. In March 2000, the European Commission presented a green paper with some initial ideas on the design of the EU ETS. The legislative framework of the European carbon market is specified in the ETS Directive.<sup>254</sup> The Directive was adopted in 2003 and the system was launched in 2005. The system operates in trading phases: Phase I (2005-2007); Phase II (2008-2012); Phase III (2013-2020) and Phase IV (2021-2030). This subsection describes the key features of the EU ETS in its trading phases.<sup>255</sup>

Phase I (2005-2007) was a three-year pilot of "learning by doing" to prepare for Phase II. It enabled the establishment of a price for carbon, free trade in emission allowances across the EU, and the infrastructure needed to monitor, report and verify emissions of covered installations. Due to the lack of reliable data on emissions, the caps for Phase I were set based on estimates. Consequently, the total amount of allowances issued exceeded emissions, and since the allowances could not be banked for use in Phase II, their price fell to almost zero in 2007. This in turn created less incentives to reduce emissions. Phase II (2008-2012) coincided with the first commitment period of the Kyoto Protocol, during which the countries in the EU ETS had concrete emission reduction targets to achieve. Phase II was characterised by a lower cap on allowances (about 6.5% less compared to 2005) and the

Available at: https://www.consilium.europa.eu/en/infographics/fit-for-55-eu-emissions-trading-system/

<sup>&</sup>lt;sup>251</sup> European Council, Council of the European Union (2023). Infographics.

<sup>&</sup>lt;sup>252</sup> European Commission (n.d.). Climate Action EU Emissions Trading System (EU ETS). Available at: https://climate.ec.europa.eu/eu-action/eu-emissions-trading-system-eu-ets\_en

<sup>&</sup>lt;sup>254</sup> EUR-Lex (2003). Directive 2003/87/EC of the European Parliament and of the Council of 13 October 2003 establishing a system for greenhouse gas emission allowance trading within the Union and amending Council Directive 96/61/EC. Available at: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:02003L0087-20180408

<sup>&</sup>lt;sup>255</sup> European Commission (n.d.). Climate Action Development of EU ETS (2005-2020). Available at: https://climate.ec.europa.eu/eu-action/eu-emissions-trading-system-eu-ets/development-eu-ets-2005-2020 en



proportion of free allocation fell slightly to around 90%. Since verified annual data on emissions from the pilot phase was available, the cap on allowances was reduced based on actual emissions in Phase II. The financial crisis let to a fall in the demand for emission allowances, while the supply remained fixed and was further expanded thanks to international carbon credits. As a result, the surplus of allowances and credits generated led to a collapse in the carbon price during the second phase.

The reform of the ETS framework for Phase III (2013-2020) has considerably changed the system compared to phases I and II. The main change included a single EU-wide cap on emissions replacing the previous system of national caps. The cap for stationary installations decreased each year by a linear reduction factor of 1.74%. The cap for 2013 was set based on the average total quantity of allowances issued annually over the period 2008-2012. Auctioning became the default method for allocating allowances. In addition, more sectors and gases have been included. The reforms of the EU ETS rules and the launch of Phase III (2013-2020) led to reduced imbalances. Towards the end of Phase III, a Market Stability Reserve (MSR) system was introduced to further reduce the excess supply and improve the system's resilience to major shocks by adjusting the supply of allowances to be auctioned. The level of the EU ETS carbon price increased significantly after the second half of 2017, probably due to measures affecting the supply side of the market (e.g., MSR).

### 5.1.4 EU ETS Phase IV (2021-2030)

EU ETS Phase IV regulates the current system. To meet the EU's overall greenhouse gas emissions reduction target for 2030, the sectors covered by the EU ETS must reduce their emissions by 43% compared to 2005 levels. To this end, the revised EU ETS Directive will use a mix of interdependent measures for the period 2021-2030.<sup>256</sup>

First, to accelerate the pace of emission reductions, the overall number of emission allowances will decrease at an annual rate of 2.2% from 2021 onwards, compared to 1.74% in the previous phase. Second, the MSR will be considerably strengthened. Third, the number of allowances in the reserve will double to 24% of the allowances in circulation between 2019 and 2023. The regular feeding rate of 12% will be restored from 2024. Fourth, to improve targeted carbon leakage rules, the revised EU ETS Directive will provide predictable, robust and fair rules to address the risk of carbon leakage. Fifth, the free allocation system has been revised to focus on the sectors most at risk of relocating their production outside of the EU. They will receive 100% of their allocation for free. Finally, low-carbon funding mechanisms will be implemented to help energy-intensive industries and the power sector meet the innovation and investment challenges of the transition to a low-carbon economy. These include two new funds: The Innovation Fund and the Modernisation Fund.

### 5.1.5 Use of international credits

International credits are financial instruments representing a tonne of carbon dioxide removed or reduced from the atmosphere due to an emissions reduction project. Until 2020, international credits were generated through two mechanisms set up under the Kyoto Protocol:<sup>257</sup>

• Clean Development Mechanism (CDM): Allows developed nations with a greenhouse gas reduction commitment to invest in projects that reduce emissions in developing nations as an alternative to more costly emissions reductions in their own countries.

<sup>&</sup>lt;sup>256</sup> European Commission (n.d.) Climate Action Revision for phase 4 (2021-2030).

Available at: https://climate.ec.europa.eu/eu-action/eu-emissions-trading-system-eu-ets/revision-phase-4-2021-2030\_en <sup>257</sup> European Commission (n.d.). Climate Action Use of international credits. Available at: https://climate.ec.europa.eu/eu-action/eu-emissions-trading-system-eu-ets/use-international-credits en



• Joint Implementation (JI): Allows developed nations to meet part of their required reductions in emissions by paying for projects that reduce emissions in other developed nations.

Within this market mechanism, the CDM provides for the creation of certified emission reductions (CERs), while the JI provides for the creation of emission reduction units (ERUs).

The Paris Agreement established a new market mechanism to replace the CDM and JI for post-2020. During Phase III, participants could use international credits from CDM and JI to meet part of their obligations under the EU ETS, subject to qualitative and quantitative restrictions.<sup>258</sup> Credits were accepted from all types of projects, except for nuclear energy projects, afforestation or reforestation activities and projects involving the destruction of industrial gases (HFC-23 and N<sub>2</sub>O). In addition, credits from hydroelectric projects exceeding 20 MW of installed capacity can only be accepted under certain conditions. The EU legislation specifies maximum limits on the eligible international credits that can be used for compliance in Phase III. The initial international credit entitlements for each participant in the EU ETS for phases II and III combined were determined by EU Member States and then approved by the European Commission under the legislation. Participants in the EU ETS used 1.058 billion tonnes of international credits during Phase II (2008-2012) to account for their emissions.<sup>259</sup> Unused entitlements were transferred to Phase III (2013-2020). Since Phase III, CERs and ERUs are no longer compliance units within the EU ETS and must be exchanged for EU ETS emission allowances. Operators must request the exchange of CERs and ERUs for general allowances within the limit of their entitlement set in the Union Registry.

The EU has a domestic emissions reduction target does not plan to continue using international credits for EU ETS compliance after 2020. The Paris Agreement sets out provisions on the use of markets to provide a clear and robust framework for linking carbon markets in the future. <sup>260</sup> These provisions will build on existing experience and must be adapted to the new context in which all countries make various contributions.

### 5.1.6 Union Registry

The Union Registry ensures accurate accounting of all allowances issued under the EU ETS. The registry keeps track of the ownership of allowances held in electronic accounts. In 2012, EU ETS operations were centralised in the Union Registry operated by the European Commission, which covers all countries participating in the EU ETS. It is an online database containing accounts for stationary installations (transferred from the national registries used before 2012) and aircraft operators (included in the EU ETS since January 2012). The Union Registry records:<sup>261</sup>

- National implementation measures (a list of installations covered by the ETS Directive in each EU country and any free allocation to each of these installations during the period 2013-2020);
- Accounts of companies or individuals holding allowances;
- Transfers of allowances ("transactions") made by account holders;
- Annual verified carbon dioxide emissions from installations and aircraft operators;
- Annual reconciliation of allowances and verified emissions, with each entity required to have surrendered enough allowances to cover all of its verified emissions;
- Entities or individuals have to open an account in the Union Registry to participate in the EU ETS.

<sup>259</sup> Ibid.

<sup>&</sup>lt;sup>258</sup> Ibid.

<sup>260</sup> Ihid

<sup>&</sup>lt;sup>261</sup> European Commission (n.d.). Climate Action Union Registry. Available at: https://climate.ec.europa.eu/eu-action/eu-emissions-trading-system-eu-ets/union-registry en



The European Union Transaction Log (EUTL) automatically verifies, records and authorises all transactions between accounts in the Union Registry, to ensure that all transfers comply with EU ETS rules. The EUTL is the successor of the Community Independent Transaction Log (CITL), which had a similar role before the introduction of the Union Registry in 2012.

### 5.1.7 First steps towards the integration of agriculture and forestry into the EU ETS

The European Commission's 2030 climate plan emphasises agriculture and forestry in the EU's fight against climate change. LULUCF Regulation 2018/841 aims to reduce greenhouse gas emissions in the agriculture, forestry, and other land use sectors. The regulation mentions agroforestry several times. Despite this, agriculture and forestry projects are not included in the revised EU ETS system. The most frequently cited reason is that there is currently no sufficiently robust certification system to measure, report and verify emissions from this sector accurately. According to the European Commission, the capacity of forests to act as "carbon sinks" has decreased over the years. To reverse this trend, the EU is taking the first steps to integrate agriculture and forestry into the EU ETS. In 2020, the European Commission explained its vision for achieving this.<sup>262</sup>

First of all, it will be necessary to ensure that every tonne of carbon dioxide in the forest can be counted, so that a certification system for carbon removals can be put in place. Since carbon removals will play an important role in the future, they must be counted, reported, and verified accurately. The problem is that carbon removals are only partially accounted for due to the lack of a reliable monitoring system. The European Commission also reveals that carbon farming can encourage farmers to uptake carbon in soils or vegetation and ensure that these are permanent removals. To this end, the EU has been developing a certification system for carbon removals. Certificates will be issued for each tonne of carbon dioxide stored in forests or agricultural land. However, if a forest burns down, the corresponding certificate will have to be cancelled. Forests could be brought under the EU ETS once a sufficiently robust certification system exists. In summary, if the standard is good enough and each tonne of carbon removal can be accurately measured, then the European Commission might be able to recognise forest credits as an emission allowance under the EU ETS.

Voluntary markets are currently in place, where certificates can be issued in exchange for carbon capture or removal projects. They allow landowners to be remunerated for their carbon-absorbing activities and companies buying credits to contribute to the fight against climate change. Carbon credits will be granted to landowners or managers whose practices increase carbon sequestration by soils and biomass. The beneficiaries could sell these credits on the carbon markets, which would provide them with an additional income for the environmental benefits of their practices.

Shrestha et al. (2021) explain that the possible future inclusion of forest carbon offsets into the EU ETS will require strong support and acceptability among the institutions and experts involved in the system. There are design and implementation challenges related to the risks and uncertainty of forestry offsets in the EU ETS that need to be addressed to ensure the permanence of carbon dioxide emissions reductions, minimize leakage from forest offset projects, and develop robust monitoring, reporting and verification. Given the urgent need to reduce greenhouse gas emissions globally, forestry credits with improved design and implementation features can potentially become a key mechanism in global carbon and climate change mitigation policies.<sup>264</sup>

<sup>&</sup>lt;sup>262</sup> EURACTIV (2020). Official: EU taking first steps to bring forestry into carbon market. Available at: https://www.euractiv.com/section/energy-environment/interview/official-eu-taking-first-steps-to-bring-forestry-into carbon-market/

<sup>&</sup>lt;sup>264</sup> Shrestha, A., Eshpeter, S., Nuyun, L., Jinliang, L., O. Nile, J., Wang, G. (2021). Inclusion of forestry offsets in emission trading schemes: insights from global experts. *Journal of Forestry Research*, *33*, 279-287. https://doi.org/10.1007/s11676-021-01329-5

### 5.2 AGROFORESTRY AND CARBON FARMING REMOVALS

### 5.2.1 Certification of carbon removals

EU carbon removal certification framework

On 30 November 2022, the European Commission published a legislative proposal to establish an EU certification framework for carbon removals. The EU carbon removal certification framework aims to scale up carbon removal activities and combat greenwashing by empowering businesses to show their action in this field<sup>265</sup>. Carbon removal activities can contribute significantly to the natural carbon sequestration in living biomass and soils, thereby increasing the carbon sink function of the land sector while enhancing soil fertility and biodiversity conditions.<sup>266</sup> The proposal will encourage land managers to go beyond what is required by the CAP and other legislations to support the increased ambition of the European Green Deal and the objective of climate neutrality by 2050.

Achieving climate neutrality requires compensating emissions (e.g., from industry and agriculture sectors) through carbon removals. Carbon can be removed and stored in three ways:<sup>267</sup>

- Permanent storage: Carbon can be captured from the air and stored in a stable form using
  industrial technologies such as direct air capture with capture and storage (DACCS) or
  indirectly through the processing of bioenergy with carbon capture and storage (BEECS);
- Carbon farming: Carbon can be stored naturally on land through activities and practices that
  enhance carbon capture in soils and vegetation (e.g., agroforestry, forest restoration, better
  soil management), and/or lower the release of carbon from soils to the atmosphere (e.g.,
  restoration of peatland). Carbon farming activities can contribute to the EU's target of -310 Mt
  of net carbon dioxide removals in the LULUCF sector;
- Carbon storage in products: Atmospheric carbon can be captured by trees. Industrial technologies can also store carbon in long-lasting products and materials, such as wood-based or carbonate-bonded construction materials.

The net carbon removal benefit should be quantified reliably and accurately. The European Commission promotes innovative carbon removal technologies and sustainable carbon farming solutions. A carbon removal certificate recognises that an activity provides high-quality carbon removals per the quality criteria and the certification process set out in the proposal.

The certification framework can create new income opportunities for industries deploying carbon removal technologies, developing long-lasting carbon storage products, and for farmers engaging in innovative carbon farming practices. However, the certified carbon removals cannot be used for compliance with the EU ETS.<sup>268</sup> Considering the benefits and risks of carbon removal activities, the European Commission will develop certification methodologies suitable for different carbon removal activities. They will be selected based on the mitigation potential, capacity to deliver environmental benefits, technical readiness, and monitoring and reporting methods robustness.<sup>269</sup>

<sup>&</sup>lt;sup>265</sup> European Commission (n.d.). Climate Action Carbon Removal Certification. Available at: https://climate.ec.europa.eu/eu-action/sustainable-carbon-cycles/carbon-removal-certification\_en

<sup>&</sup>lt;sup>267</sup> European Commission (2022). Press corner Questions and Answers on EU Certification of Carbon Removals Available at: https://ec.europa.eu/commission/presscorner/detail/en/qanda\_22\_7159
<sup>268</sup> Ibid.

<sup>&</sup>lt;sup>269</sup> Ibid.



### Voluntary certification of high-quality carbon removals

To receive certification, carbon removals must be correctly quantified, deliver climate benefits, store carbon for a long time, prevent carbon leakage, and contribute to sustainability. The EU carbon removal certification framework will be developed in two steps. <sup>270</sup> First, the European Commission will establish high-level quality criteria under the proposed legislation. Then, it will approve detailed certification rules for measuring, monitoring, reporting and verifying carbon removals from both industrial and nature-based activities. The certification framework will ensure transparency and environmental integrity and prevent negative impacts on biodiversity and ecosystems.

Operators of carbon removal activities must demonstrate that carbon removals comply with the EU quality criteria. The voluntary certification of carbon removals will require third-party verification and certification of the compliance of carbon removals with the quality criteria and the related certification methodologies. The voluntary certification will work in practice as follows:<sup>271</sup>

- An operator applies to a certification scheme approved by the European Commission.
- An independent certification body conducts periodic audits of the carbon removal activity to verify compliance with the quality criteria. If the assessment is positive, it will issue a certificate of compliance.
- The certification scheme registers the certificate and the certified "net carbon removal benefit" generated by the carbon removal in a public registry.

The proposal requires all relevant information on the certified removals to be publicly available to prevent the risk of double-counting and fraud. It will also help providers of carbon removals to access different types of funding opportunities.

The certification process proposed by the European Commission can provide knowledge and funding opportunities for interested parties who would like to engage further in carbon removal projects.

### Next steps

As regards the next steps, the legislative proposal will require adoption by the two co-legislators, the European Parliament and the Council.<sup>272</sup> The European Commission will set up the Expert Group responsible for providing technical advice on preparing certification methodologies for carbon removals. The first meeting is foreseen in the first quarter of 2023. The EU certificate framework for carbon removals will be fully operational once the European Commission has adopted the first certification methodology and recognised the first certification scheme.

### 5.2.2 The role of carbon farming to achieve sustainability in the EU

### Carbon farming and agroforestry

The land sector can support the transition to a climate-neutral economy by capturing atmospheric carbon dioxide. Agriculture and forestry sectors need to be encouraged to implement climate action and contribute to the European Green Deal. As there are currently no target policy tools to incentivise the increase and protection of carbon sinks significantly, it is necessary to create direct incentives for adopting climate-friendly practices. In 2021, the European Commission's Communication on

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<sup>&</sup>lt;sup>270</sup> European Commission (n.d.). Climate Action Carbon Removal Certification. Available at: https://climate.ec.europa.eu/eu-action/sustainable-carbon-cycles/carbon-removal-certification\_en

<sup>&</sup>lt;sup>271</sup> Ibid. <sup>272</sup> Ibid.



Sustainable Carbon Cycles specifies possible means for removing carbon and sets up short and medium-term actions to address the challenges of carbon farming.<sup>273</sup> These include:

- Promoting carbon farming practices under the CAP and other EU programmes;
- Enhancing the standardisation of monitoring, reporting and verification methodologies to provide a clear and reliable framework for carbon farming;
- Providing enhanced knowledge, data management and tailored advisory services to farmers.

Carbon farming aims to encourage farmers, land and forest owners to adopt practices that foster the absorption of carbon dioxide in the soil and in biomass to help limit climate warming.

The European Commission's Communication on Sustainable Carbon Cycles states that "by 2028 every land manager should have access to verified emission and removal data", and that "carbon farming should support the proposed 2030 net removal target of 310 Mt CO<sub>2</sub> eq".

The Communication lists several carbon practices, of which agroforestry is one:

- "Afforestation and reforestation that respect ecological principles favourable to biodiversity and enhanced sustainable forest management including biodiversity-friendly practices and adaptation of forests to climate change";
- "Agroforestry and other forms of mixed farming combining woody vegetation (trees or shrubs) with crop and/or animal production systems on the same land";
- "Use of catch crops, cover crops, conservation tillage and increasing landscape features: protecting soils, reducing soil loss by erosion and enhancing soil organic carbon on degraded arable land";
- "Targeted conversion of cropland to fallow or of set-aside areas to permanent grassland";
- "Restoration of peatlands and wetlands that reduces oxidation of the existing carbon stock and increases the potential for carbon sequestration".

Agroforestry has the potential to contribute significantly to mitigating climate change in the EU. However, there are several challenges in monitoring and reporting carbon sequestration, including in agroforestry. To provide clarity on the quality of carbon removals and to address the lack of standardisation of existing frameworks, the European Commission presented a legislative proposal in 2022 to develop a regulatory framework for the certification of carbon removals based on robust and transparent carbon accounting to monitor and verify their authenticity.

This proposal supports carbon farming and biodiversity. Carbon farming includes farming practices that remove carbon dioxide from the atmosphere while often delivering important ecosystem services and benefits for biodiversity. Carbon removal activities must ensure that the carbon removed is stored for as long as possible and minimize the risk of carbon release. The certificates will reflect the duration of carbon storage and distinguish between permanent and temporary storage. Certification will make it possible to reward carbon farming activities more effectively via the CAP or other public and private entities. For instance, food companies can reward farmers for higher carbon removals from increased carbon storage in soils and other climate-friendly practices such as agroforestry.<sup>274</sup> This would allow farmers to benefit from additional income and food companies to document their carbon footprint

Available at: https://ec.europa.eu/commission/presscorner/detail/en/qanda\_22\_7159

EUR-Lex (2021). COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT AND THE COUNCIL Sustainable Carbon Cycles. Available at: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52021DC0800
 European Commission (2022). Press corner Questions and Answers on EU Certification of Carbon Removals



credibly. The carbon removal certificates can be used for result-based financing under EU programs, such as the CAP or State aid schemes by EU Member States.<sup>275</sup>

Several existing standards and approaches (e.g., ICROA, Gold Standard, VCS).

Table 9 describes the Verified Carbon Standard (VCS), which includes specific requirements for agriculture and forestry to reduce greenhouse gas emissions.

#### **Verified Carbon Standard**

The Verified Carbon Standard (VCS)<sup>276</sup> is the largest voluntary greenhouse gas programme, with over 1,600 certified projects, reducing or removing over 500 million tonnes of greenhouse gas emissions. It drives finance toward activities that have positive environmental benefits, such as reducing and removing emissions, improving livelihoods, and protecting nature.

Projects are certified according to the rules and requirements of the VCS. These include specific requirements for Agriculture Forestry and Other Land Use (AFOLU), including rules for Afforestation, Reforestation and Revegetation (ARR), Agricultural Land Management (ALM), Improved Forest Management (IFM) and Reduced Emissions from Deforestation and Degradation (REDD) and Wetlands Restoration and Conservation (WRC). ALM is the most important for carbon farming in Europe, although ARR and IFM can also apply to areas of agroforestry and farm forest.

There are three VCS ALM certificates for agroforestry:<sup>277</sup>

- Improved Cropland Management (ICM): Include migration practices such as the adoption of no-till, elimination of bare fallows, use of cover crops, creation of field buffers (e.g., windbreaks or riparian buffers), use of improved vegetated fallows, conversion from annual to perennial crops and introduction of agroforestry practices on cropland;
- Improved Grassland Management (IGM): Includes practices that demonstrably decrease net greenhouse gas emissions of grassland ecosystems by increasing soil carbon stocks and reducing N<sub>2</sub>O and/or CH<sub>4</sub> emissions;
- Cropland and Grassland Land-use Conversions (CGLC): Include practices that decrease net greenhouse gas emissions by increasing carbon stocks and reducing N₂O or CH₄ emissions.

Table 9: Verified Carbon Standard

### Technical guidance on carbon farming

In April 2021, the European Commission published a technical handbook explaining how to set up and implement carbon farming in the EU, with the aim of helping private actors and public authorities to launch carbon farming initiatives. <sup>278</sup> The study reveals that result-based carbon farming can contribute considerably to the EU's efforts to combat climate change and provide concrete recommendations on its implementation. Pilot initiatives should be developed at local or regional levels to gain experience scaling up carbon farming. This will improve design aspects, such as the certification of carbon removals, and enhance farmers' knowledge of their potential benefits.

<sup>&</sup>lt;sup>275</sup> Ibid.

<sup>&</sup>lt;sup>276</sup> VERRA (n.d.). Verified carbon standard. Available at: https://verra.org/programs/verified-carbon-standard/

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### Funding of carbon farming

Carbon farming initiatives can be financed through the CAP, other public funding instruments such as State aid, private initiatives linked to carbon markets, or through a combination of these funding options.<sup>279</sup> The European Commission also offers financial support for pilot initiatives on carbon farming through the LIFE programme and the ERDF. Examples of co-financed projects on carbon farming are LIFE Carbon Farming Scheme and INTERREG Carbon Farming project.

### EU perspective on carbon farming

According to the European Commission, targeted policies for carbon removals can support the achievement of long-term environmental goals and create new opportunities for farmers and foresters. First, the increased demand for carbon credits can represent a new income opportunity. Then, more bio-based materials will be needed to make durable products that store carbon in the long term. This will increase the demand for raw materials and create new value chains in the bioeconomy sector, notably through renewable energy production. However, the practical implementation of carbon farming schemes and certification of sequestered carbon face several technical challenges. These include the duration of the removal, the risk of uncontrolled re-emission, the measurement uncertainty, and the identification of potential impacts on biodiversity. Page 181

The European Commission aims to create strong enabling conditions for farmers to participate in the carbon farming schemes implemented by EU Member States in their CAP strategic plans. The Communication on the Sustainable Carbon Cycles recognizes the benefits of combined approaches for carbon farming, where public funding can be complemented by selling carbon farming credits on voluntary carbon markets. Carbon farming should attract interest of the private sector and enable the development of a credible carbon market in the future. For instance, agricultural firms are increasingly interested in carbon sequestration in the land sector to offset emissions they cannot reduce. Carbon farming embodies a holistic approach to sustainability by creating an economic reward for environmental actions that benefit society. It will provide additional income for farmers while strengthening their contribution to the decarbonisation of our economy. This will also make their farms more resilient to natural disasters and ensure food security. According to the European Commission, farmers and foresters are at the front line in the fight against climate change.

<sup>&</sup>lt;sup>279</sup> Ibid.

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<sup>&</sup>lt;sup>281</sup> Ibid.

<sup>&</sup>lt;sup>282</sup> Ibid.



## 6. Conclusions

This report examines the regulation, funding schemes and policy framework currently applicable to European agroforestry. With the growing ambition of the European Green Deal to overcome current challenges related to climate change and environmental degradation, policy initiatives and sustainable practices aimed at transforming the EU into a modern, resource-efficient and competitive economy are needed. Agroforestry as a multifunctional system could be at the centre of this transformation given its environmental, economic and social benefits. This study examines the policy framework for agroforestry systems and identifies the gaps in the existing regulations, policies and financial mechanisms. It also explores the potential of agroforestry for climate change mitigation through its possible integration into carbon markets and the role of carbon farming at the EU level.

Section 3 describes the current policy framework for agriculture and forestry. The policy landscape for agroforestry is progressively growing in Europe. The primary source of support has been found within the CAP during the periods 2007-2013 and 2014-2020. Moreover, agroforestry receives support in the CAP (2023-2027) and major EU legislations such as the European Green Deal, Biodiversity and Farm to Fork strategies, and the EU Forest strategy for 2030. Concerning the role of State aid, the revised rules for the agricultural and forestry sectors align with the EU strategic priorities, including the CAP (2023-2027) and the European Green Deal. They help EU countries correctly apply EU rules on state subsidies to establish agroforestry systems. Several other public financing mechanisms such as Horizon Europe, LIFE Programme and the European Investment Bank support the implemention of agroforestry practices, research and innovation, and the development of agroforestry systems. In addition to public financing mechanisms, private sector entities (e.g., banks, impact investors, venture capitalists, companies issuing green bonds, crowdfunding platforms) can also provide additional funding sources for agroforestry projects, which can support the development of sustainable agroforestry practices. Several institutions and networks (e.g., EURAF, EFI, AFINET, EU CAP Network, CEJA) are also working to promote the adoption agroforestry practices across Europe.

Section 4 provides an overview of the policy landscape for agroforestry in twenty European countries (17 EU and 3 non-EU countries) by examining the role of agroforestry in each country, the implementation of the CAP at national level, and existing national policies. Policies that support traditional systems, the implementation of new systems and the yearly support for managing these new systems are the most beneficial for agroforestry. During the period 2007-2013, only five Member States (Belgium, France, Hungary, Italy and Portugal) supported agroforestry within the CAP, while it was supported by eight Member States (Belgium, France, Greece, Hungary, Italy, Portugal, Spain and the United Kingdom) during the CAP 2014-2020. Some Member States like Hungary supported agroforestry within the CAP in the whole country, while in other Member States such as Italy, Spain and the United Kingdom, agroforestry was only supported by certain regions. There has been little uptake from farmers in some countries. As a result, this has left them with large unspent budgets, which should have been allocated to agroforestry. The study also reveals a strong lack of financing for agroforestry. On the other hand, twelve Member States (Belgium (Flanders), Bulgaria, Czech Republic, France, Germany, Hungary, Ireland, Italy, Netherlands, Poland, Portugal, Spain) included agroforestry in their CAP strategic plan. Moreover, there are national policies supporting agroforestry in twelve European countries, which generally focus on technical and agroeconomic aspects. The most extensive policy landscape for agroforestry can be found in France and Portugal. The policy approaches to agroforestry in countries outside the EU are interesting and informative. However, none of them is specific and suitable for EU conditions at present.

The study conducted in sections 3 and 4 reveals the complexity of policy-making when achieving multiple objectives. There were many regulatory inconsistencies and a lack of political support between agriculture and forestry in the previous CAPs, which often prevented farmers from adopting agroforestry systems. To improve agroforestry support policies, it will be essential to identify the lands



where agroforestry is applied and examine how policies modify its implementation to create targeted agroforestry practice measures according to the needs of specific regions and the delivery of ecosystem services. To this end, the full recognition of agroforestry and its practices in the CAP is essential to foster the wider adoption of agroforestry in Europe. The expansion of agroforestry systems is also related to the fact that only the food production function can be readily monetised by farmers, which is why many farmers do not switch to agroforestry. It is essential to identify and put the economic value of the ecosystem services and environmental benefits provided by agroforestry systems at the centre of the financial focus. In this regard, farmers implementing agroforestry practices that provide these benefits should receive full support payments from Pillars I and II of the CAP.

Finally, section 5 examines the links between agriculture, forestry and carbon markets, with a focus on the contribution of agroforestry to climate change mitigation through its possible future integration into carbon markets and the role of carbon farming removals at the EU level. Agroforestry systems can contribute to the achievement of the carbon neutrality objective of the European Green Deal. The possible future integration of agriculture and forestry into the EU ETS will require strong support and acceptability among the institutions and experts involved in the system. There is need for sufficiently robust monitoring, reporting and verification systems for carbon removals. If the standard is good and each tonne of carbon removal can be accurately measured, then the European Commission might be able to recognise forest credits as an emission allowance under the EU ETS. The CAP promotes carbon farming practices that deliver environmental benefits such as carbon sequestration and biodiversity enhancement. Carbon farming embodies a holistic approach to sustainability by creating an economic reward for farmers for environmental actions that benefit society. Agroforestry is listed as a carbon farming practice in the European Commission's legislative proposal for a regulatory framework for EU carbon removal certification scheme and the Communication on Sustainable Carbon Cycles. This certification process can provide knowledge and funding opportunities for all interested parties who want to further engage in carbon removal projects. Carbon farming initiatives can be financed through the CAP, other public funding instruments such as State aid, private initiatives linked to carbon markets, or through a combination of these funding options. However, the certified carbon removals cannot be used for compliance with the EU ETS. The practical implementation of carbon farming schemes and certification of sequestered carbon face several technical challenges, including the duration of the removal, risk of uncontrolled re-emission, measurement uncertainty, and identification of potential impacts on biodiversity. Therefore, the European Commission must create strong enabling conditions for farmers to participate in carbon farming schemes.

In summary, this report reveals the need for a policy framework that links food systems, agriculture, forestry and rural development for a holistic approach on environmental, economic and social sustainability. To this end, innovative financial instruments and policies must be developed to overcome the most critical barriers to agroforestry adoption in Europe and empower farmers to deliver multiple objectives such as food production, carbon capture and biodiversity. This study can represent a useful starting point for future research on finance and policies in the agroforestry sector.



# APPENDIX 1: REFERENCES AND RELATED DOCUMENTS

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