EU CAP
NETWORK

Analytical work – supporting the establishment of agroforestry systems

An analysis of different approaches in selected EU Member States - working document

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Disclaimer:

This working document describes the analysis of different approaches to agroforestry in selected EU Member States. The contents of this document are primarily based on information collected by the CAP Implementation Contact Point from representatives of Member State Managing Authorities during the period November-December 2022, complemented by information from desk research and expert interviews with representatives of the European Agroforestry Federation carried out in February-April 2023. The contents of this document do not necessarily reflect the opinion or the position of the European Commission.

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1. Introduction to the report

This report provides a snapshot of the current state of agroforestry in the EU and examines opportunities for the wider establishment, management and regeneration of agroforestry systems, with a focus on seven Member States and the tools available in their 2023-27 CAP Strategic Plans (CSPs).

Agroforestry has been defined in several different ways, for example as "*the practice of deliberately integrating woody vegetation (trees or shrubs) with crop and/or animal systems to benefit from the resulting ecological and economic interactions*"[1]. This definition is adopted here, meaning the integration of trees or shrubs with crops and/or livestock on the same plot of land. In the regulatory framework for the CSPs, agroforestry systems are recognised as part of the 'agricultural area' and may be associated with arable land, permanent crops and/or permanent grassland[2].

A large proportion of the current agroforestry farming systems in the EU are long-established, associated with low-intensity livestock farming and permanent tree crops. Many are at risk of abandonment or intensification, which would result in the consequent loss of the biodiversity and ecosystem services they provide. Agroforestry also includes woody landscape features on farmland, such as hedgerows and hedgerow trees, which are associated with a wider range of farming systems, though they are often scarce on intensive arable farms.

1.1 Structure of the report

The report is structured in three sections, which:

> provide a short overview of agroforestry in Europe (Section 1);

> focus on the barriers and the enabling conditions for the establishment and regeneration of agroforestry (Section 2);

> detail the key tools available within the CSPs that can be used in a coherent way to encourage the establishment and regeneration of agroforestry in different farming and policy contexts (Section 3).

The Annexes provide more details about agroforestry practices and support, focusing on seven EU Member States, and a list of publications and websites with advice and information on agroforestry establishment and regeneration in Europe that may be of interest to CSP managing authorities and others.

1.2 Methodology and sources of information

This report is not a review of the published CSPs. It is based on detailed semi-structured interviews carried out in November-December 2022 with CSP managing authorities (MAs) in Austria, Germany, Hungary, Latvia, the Netherlands, Poland, and Portugal. The focus is specifically on agroforestry, and the selection of these Member States aimed to cover a broad range of key characteristics including: EU biogeographical zones, predominant agricultural land use, support provided for agroforestry in the 2014-2022 Rural Development Plans (RDPs) and planned support in the 2023-2027 CSPs. These key characteristics in the selected seven Member States are summarised in Table 1 below. Details of the full list of Member States from which they were selected can be found in Annex 1. Information collected from the MA interviews was supplemented by interviews with the European Agroforestry Federation (EURAF) and the European Landowners' Organisation (ELO) as well as with additional analytical work. Further resources and useful links to further information related to the seven Member States studied are listed in Annex 7. Links to further resources and additional information on good practices are presented in Annex 8.

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[1] Den Herder, M., Moreno, G., Mosquera-Losada, R.M., Palma, J.H., Sidiropoulou, A., Freijanes, J.J.S., Crous-Duran, J., Paulo, J.A., Tomé, M., Pantera, A. and Papanastasis, V.P., 2017. Current extent and stratification of agroforestry in the European Union. Agriculture, Ecosystems & Environment, 241, pp.121-132.

[2] Regulation (EU) 2021/2115 of 2 December 2021, Article 4(3).

Table 1: Key characteristics of the 7 Member States selected for analysis

Member State	Predominant land use of UAA	EU biogeographic region[3]	M 8.2[4] programmed in 2014-2022 RDP	Agroforestry supported in CSP 2023-2027
Netherlands	A, G	Atlantic		Yes
Poland	A, G (Pc)	Continental		Yes
Germany	A, G (Pc)	Continental Atlantic		Yes
Portugal	G, A (Pc)	Mediterranean	Yes	Yes
Austria	A, G	Alpine Continental		Partly[5]
Latvia[6]	A, G	Boreal		No
Hungary	A, G (Pc)	Pannonian	Yes	Yes

Key to table: UAA = utilised agricultural area; A = arable; G = grassland; Pc = permanent crops; (Pc) = permanent crops are not predominant

1.3 Key findings

The key findings of this analytical work are:

› Agroforestry support has long been available under Pillar 2 of the CAP; however, not all Member States included the measure in their RDPs for 2007-2013 and 2014-2022 and uptake by farmers has been very limited, especially for the establishment of new agroforestry systems. Several of the Member States interviewed pointed to the reluctance of farmers to relinquish some of their entitlement to Pillar 1 direct payments as a result of the 'tree rule', under which infield trees and wide hedges were often not 'eligible land' for CAP direct payments.

› The new CAP, from 2023, should help to resolve the issue of eligibility of agroforestry and woody features for direct payments, depending on how Member States define the detailed rules.

› In some of the Member States interviewed, the political and policy climate is gradually shifting towards being more favourable for agroforestry; from a very low uptake of CAP support in previous programming periods these Member States have made available more agroforestry-relevant interventions in their CSPs for 2023-27, although only a few mentioned quantified targets.

› Agroforestry is seen as contributing to a wide range of CAP objectives and although Member States are programming a wider range of interventions for agroforestry, only some are offering 'packages' of agroforestry interventions from both CAP Pillars.

› The main barriers to increasing the establishment and regeneration of agroforestry concern lack of awareness and understanding; farmer attitudes; economic constraints; and regulatory aspects.

› Key enabling conditions to overcome the barriers include: more favourable options for agroforestry support programmed in the new CSPs; research and innovation projects that directly involve farmers; professional and technical support for policy makers and farm advisers; specialist on-farm advice and guidance publications and up-to-date geo-spatial data on agroforestry and woody landscape features, made available to farmers, managing authorities and researchers.

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[3] Data from EEA map. The different soils and climate of these regions may influence the type of agroforestry.

[4] Measure to support the establishment, regeneration or renovation of agroforestry systems (Art. 23 of Regulation (EU) 1305/2013)

[5] Not by the agroforestry investment intervention, but using other CAP interventions (e.g. direct payments, agri-environment schemes, compensation for areas with specific constraints)

[6] Latvia was included as an example of a Member State that had not supported agroforestry in the 2014-22 RDP and did not plan to do so in the 2023-27 CSP.

2. Agroforestry in the EU

Agroforestry has been defined in several different ways, for example as *"the practice of deliberately integrating woody vegetation (trees or shrubs) with crop and/or animal systems to benefit from the resulting ecological and economic interactions"*[7]. In Europe agroforestry systems can be divided into four broad types, of which the first two are the most common:

> **Long-established agroforestry systems of high nature value (HNV) and also cultural value, which were once more widespread**, but still include large areas of habitats which are 'of European interest and concern' and protected under the Habitats Directive. Examples include *dehesa*, *montado*[8] and Boreal wood pasture, which depend on low intensity grazing and browsing by livestock (cattle, goats, sheep, pigs) and, in the case of some systems in southern Europe, intermittent cereal/fallow cropping. Old, traditionally managed orchards, groves, and vineyards may also be rich in biodiversity and have HNV semi-natural elements. Many of these habitats lie outside Natura 2000 protected sites and their survival depends on low-intensity agricultural management, which is vulnerable to economic pressures;

> **Woody landscape features such as hedges, hedgerow trees and traditional orchards;**

> **High value agroforestry** with trees such as fruit trees, olives and chestnut; and

> **'New agroforestry'** – recently, 'modern' agroforestry systems have been established on arable farms, where trees in lines, alleys or individually are grown with annual or perennial crops, leaving sufficient space for machinery to operate between the trees;

similarly, on livestock farms trees are established, individually or in blocks, within improved grasslands.

Almost all the current agroforestry in the EU is long-established, highly adapted to the local soil and climatic conditions and associated with low-intensity livestock farming, permanent tree crops and woody landscape features. There are no current definitive estimates of the extent of agroforestry in the EU, but a detailed analysis published in 2015[9] estimates that agroforestry covers about 6.5% of the utilised agricultural area in Europe[10].

The proportion of utilised agricultural land involving agroforestry is much higher in the Mediterranean than in central and northern Europe. Estimates suggest that the *dehesas* in Spain and *montados* in Portugal cover about 4.6 million hectares; Greece has about 1.9 million hectares of agroforestry, including grazed woodland and oak trees on agricultural land; and Italy has about 279,000 hectares of grazed oak woodlands. North of the Mediterranean the areas of wooded meadows and pastures are smaller but still significant (403,000 ha)[11], as are scattered trees and hedgerows (for example, it is estimated that France has about 460,000 ha in total). New agroforestry is relatively scarce.

Annex 1 provides information about EU Member States regarding the predominant agricultural land use, biogeographic zone(s), and the programming of the agroforestry measure (M8.2) during the 2014-2022 RDP period.

The pictures in Figure 1 in the next page illustrate some examples of agroforestry systems in Europe.

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[7] Den Herder, M., Moreno, G., Mosquera-Losada, R.M., Palma, J.H., Sidiropoulou, A., Freijanes, J.J.S., Crous-Duran, J., Paulo, J.A., Tomé, M., Pantera, A. and Papanastasis, V.P., 2017. Current extent and stratification of agroforestry in the European Union. Agriculture, Ecosystems & Environment, 241, pp.121-132.

[8] Dehesas in Spain and montados in Portugal are silvopastoral systems of open woodlands mainly of cork oak (Quercus suber) and holm oak (Quercus rotundifolia) with grassland below (and occasionally dryland arable crops).

[9] den Herder, M., Burgess, P.J,., Mosquera-Losada, M.R., Herzog, F., Hartel, T., Upson, M., Viholainen, I. and Rosati, A. (2015). Preliminary stratification and quantification of agroforestry in Europe. Milestone Report 1.1 for EU FP7 AGFORWARD Research Project (613520). (22 April 2015). 57 pp. https://www.agforward.eu/preliminary-stratification-and-quantification-of-agroforestry-in-europe.html

[10] The estimate excludes reindeer husbandry areas, but is still substantially larger than the 3.3 million hectares categorised as "agroforestry" by the CORINE Land Cover classification. The difference may be due to agroforestry also occurring in other CORINE classes for mixed land cover

[11] These figures do not include estimates of wood pasture in Poland, Romania, and Bulgaria, which would increase the area in central Europe.

Figure 1: Examples of agroforestry systems in Europe (Sources: AGFORWARD, Growing trees on farmland – choice to plant 3 billion additional trees. A policy brief by ELO and WWF, July 2020)

Apple trees and vegetable crops, UK (Tolhurst Organics)

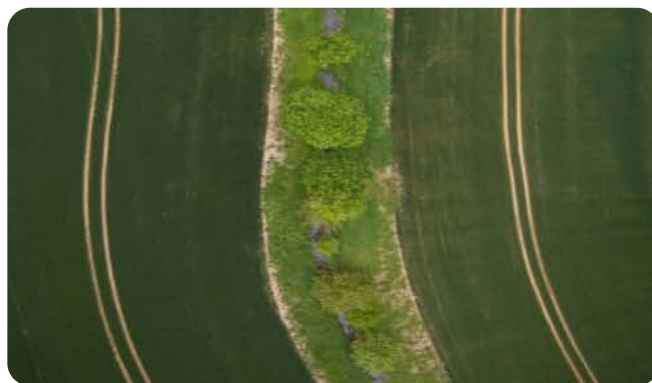Sheep grazing in a vineyard, Portugal (AGFORWARD)

Silvoarable with poplar trees, UK (Chris Wright)

Alley cropping walnut trees and cereal crop, France (Jabier Ruiz)

Pines and vines, France (AGFORWARD)

Aerial view of trees along a watercourse, France (Yulian Alexeyev)

Montado with Iberian pigs, Portugal (AGFORWARD cornakut)

Trees on farmland, the Netherlands (Ties Rademacher)

The CAP has long been the major source of public funding for agroforestry, but significant changes in the new CAP 2023 – 2027 are expected to provide a more favourable context for Member States to support agroforestry than in the past (Box 1).

Box 1: Agroforestry in the new CAP

This will be the third successive CAP programming period in which Member States can offer farmers support for the establishment and maintenance of agroforestry. Changes in the interventions available for the CSPs in 2023-27 and the increased flexibility enable Member States to offer farmers a coherent package of agroforestry support under both CAP funds (EAGF and EAFRD), tailored to local needs and circumstances, that could help to overcome many of the barriers identified in this report.

The most significant of these changes are rules and interventions wholly funded by the EAGF that:

> Allow Member States to define eligibility for the Basic Income Support Scheme (BISS) and other direct payments under Pillar 1 to include **trees and woody features** within the 'eligible area'. Depending on how Member States define this rule at field level, this largely removes the constraint of the CAP 'tree rule', which discouraged farmers from declaring their trees and shrubs and from planting new ones because this would reduce the area on which they could claim direct payments.

> Introduce **eco-schemes for the climate and environment**, in the form of an annual top-up to the BISS or an 'entry-level' environmental management contract, for land management going beyond conditionality (GAEC and SMR standards and baselines). Agroforestry is identified by the EC as one of the agricultural practices that eco-schemes could support, including the establishment and maintenance of landscape features and of high-biodiversity silvopastoral systems, as well as the management of [existing] landscape features[12].

3. Agroforestry in selected EU Member States

The information gathered from the seven Member States surveyed confirms the distribution outlined above and that **surviving agroforestry systems are diverse**, well-adapted to local soil and climatic conditions, but often not fully recognised in Member State policies and threatened or in decline.

For example, in Latvia there is a strict, **legal distinction between forests and farmland** and there is very little surviving agroforestry - small forest meadows that in the Soviet era were grazed with a few sheep and cattle belonging to 'poor' farmers are now recorded as forest 'open spaces'. Poland also appears to have little or no agroforestry and in Hungary only sporadic examples remain of agroforestry systems established in the 1970s.

In contrast, Portugal has around one million ha of long-established *montados*, a diverse agroforestry system combining trees (cork oak, holm oak, black oak, chestnut, stone pine) with grazing (by cattle, sheep and goats, and pigs and horses) or with a range of crops, including Mediterranean rainfed pastures and forage crops (rainfed and irrigated). In Austria, small elements of agroforestry such as woody landscape features and orchards survive on many farms. Fruit orchards are also mentioned in Germany (referred to as "uneconomic old orchards") and in the Netherlands, where established orchards are grazed by cattle. More recently created agroforestry systems are found in three of the seven Member States – energy crops in Austria, alley cropping in Germany and in the Netherlands (with new agroforestry systems established quite recently, mainly in the southern provinces).

Availability and uptake of agroforestry investment support has grown slowly since 2007, but many of the Member States surveyed were introducing additional interventions for agroforestry compared to their 2014-2022 RDPs or placing more emphasis on the use of a range of interventions. For example, in Austria farmer interest in agroforestry is growing, and although the agroforestry investment intervention has not been programmed in the CSP, both established and new agroforestry will be supported through other interventions in the CSP[13], especially for scattered fruit trees. In Germany, agroforestry had limited support in the 2014-2022 RDP (through some nature conservation and landscape management contracts), but interest in agroforestry has increased significantly, both in practice and politically. This has made new CSP interventions with a focus on productive agroforestry feasible, including an eco-scheme offering €60/ha/year for agroforestry management. In Hungary, the establishment of new agroforestry systems was very limited[14] in the last two programming periods because farmers were unwilling to accept the consequent reduction in their Pillar 1 direct payments. The CSP includes a package of agroforestry investment coupled with eco-scheme maintenance support for seven years to be offered nationwide. The Netherlands, which has set a target area of 25 000 ha of agroforestry by 2030, also offers agroforestry investment support and may introduce an eco-scheme during the course of the CSP. There are also innovative support interventions planned – result-based environmental land management contracts for montado systems in Portugal, and the possibility of an EIP Operational Group on agroforestry in Hungary.

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[12] European Commission (2021) List of potential agricultural practices that eco-schemes could support
   https://agriculture.ec.europa.eu/news/commission-publishes-list-potential-eco-schemes-2021-01-14_en#moreinfo

[13] For example, in direct payments, environmental management commitments, payments for area-specific disadvantages.

[14] In the 2014-2022 programming period, the target set for establishment of new agroforestry systems was 2000 hectares out of which only 26.6 hectares was actually established.

In contrast, in Latvia there are no plans for agroforestry in the CSP, after two previous programming periods during which agroforestry was neither supported nor widely practiced. If this is to change in future, agroforestry would need to be newly established, particularly as a policy priority.

The interviews also revealed **a range of CSP objectives under-pinning the agroforestry proposals in different Member States**, including biodiversity, sustainable farming, climate mitigation and resilience of farming systems to climate change, as well as soil and water protection. Germany, the Netherlands, and Portugal referred to productive agroforestry (providing a source of income for the farm business). Portugal also identified the objective of counteracting the abandonment of productive cork oak forests (montados) and highlighted the contribution they could make to sustainable local development and employment.

Annex 2 summarises the interview responses on objectives and CSP interventions for agroforestry from each of the seven Member States. Annex 3 presents further details related to agroforestry interventions in the seven Member States (definition of agroforestry, extent of coverage, targeting).

3.1 Key enabling conditions for the establishment, regeneration and uptake of agroforestry

Key enabling conditions identified in the interviews and in the reviewed published material relate mainly to the need to overcome the hitherto negative attitudes of many farmers to agroforestry, and address the skills and knowledge gap in policy, farming, advisory and research sectors. They include:

› more favourable options for agroforestry support in Member States' CSPs;

› research and innovation projects that directly involve farmers;

› professional and technical support for policy makers and farm advisers;

› specialist on-farm advice and guidance publications; and

› up-to-date geo-spatial data on agroforestry and woody landscape features, accessible to farmers, managing authorities and researchers[15].

Several of the managing authorities interviewed pointed out that it will not be easy to challenge long-held views of the farming community on the conflict between agroforestry and CAP direct payments, or to address a generational gap in the skills and capacity of farmers to effectively manage agroforestry systems.

More favourable approach to support for agroforestry in the new CAP and other EU legislation

Box 1 at the end of Chapter 2 identified the key changes in Pillar 1 rules and payments which enable Member States to resolve the counter-productive effect of the 'tree rule' on uptake of agroforestry support since decoupled direct payments were introduced in the 2003 CAP reform. How favourable this change is at farm level will depend on the way in which Member States choose to define woody landscape features and agroforestry systems that are eligible for BISS and eco-scheme payments. From the Member States interviewed, Austria and Germany offered clear examples of definitions (see Annex 3 for details). There can be many types of agroforestry systems and landscape features within a Member State, and greater clarity for land managers on what is (and is not) eligible for CAP support might help to make agroforestry more attractive. There is still considerable flexibility in the wording of the CSP Regulation, as shown in Annex 4, and much will depend on the clarity with which Member States define eligible woody features and communicate this convincingly to farmers.

Member States may soon have a further incentive to support the establishment and restoration of agroforestry, to help meet their obligations under two forthcoming pieces of EU legislation. Firstly, the amendment of the LULUCF Regulation towards a policy focused on increasing the carbon sink potential of land use and forestry which will take effect from 2026. Secondly, the targets in the proposed Nature Restoration Regulation for restoration of protected habitats (which include dehesa and montado and Boreal wood pastures) and for high biodiversity landscape features.

Research and innovation projects directly involving farmers

The number of country-specific research projects on the topic of agroforestry has risen substantially in the last few years, resulting in a growing group of researchers and practitioners specialising in agroforestry. In Portugal, for more than five years, the 17 partners of the LIFE montado-Adapt project have developed, implemented and demonstrated solutions for adapting montados to climate change, promoted the dissemination of knowledge, developed environmental education interventions, monitored impacts, produced technical materials and publicised the actions undertaken[16].

Despite the low level of current interest in agroforestry in Poland and Latvia, both managing authorities mentioned participation of stakeholders in the Horizon 2020 research project AFINET (2017 – 2021)[17], a thematic network fostering exchange and the knowledge transfer between scientists and practitioners on agroforestry involving 13 partners from 9 European countries. A key element was the creation of Regional Agroforestry Innovation Networks (RAINs)[18], interconnected working groups in Spain, UK, Belgium, Portugal, Italy, Hungary, Poland, France and Finland, which included farmers, policy makers, advisory services, extension services, etc. The Agroforestry Network in the Netherlands consists of the key agroforestry players in the country, including researchers, advisers, representative from the provinces, and the Ministry of Agriculture.

EURAF drew attention to the EU-funded (Horizon 2020) DigitAF project launched in October 2022 to provide digital tools to boost agroforestry in Europe to meet climate, biodiversity, and farming sustainability goals (Box 2).

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[15] Source: EURAF, personal communication.

[16] https://www.lifemontadoadapt.com/?p=76

[17] https://agroforestrynet.eu/afinet/

[18] https://agroforestrynet.eu/afinet/rains

Box 2: DigitAF EU-funded research project

DigitAF is a consortium of 26 European and international partners aiming to:

> Support policy actors at regional, national and European level in order to design more efficient and effective policies to support agroforestry adoption and monitor their impact on biodiversity, climate change mitigation and agricultural sustainability;

> Support farmers in designing and managing agroforestry systems in order to optimise agronomic, economic, social and environmental performance;

> Allow actors in agroforestry value chains to verify and market the benefits resulting from these systems, including enhanced biodiversity, carbon sequestration and soil health. DigitAF also supports consumers looking for food of high nutritional quality and farmed in a way that respects the environment;

> Overcome socio-technical barriers to widespread implementation of agroforestry by setting up six Living Labs across the EU;

> Provide researchers and software developers with FAIR (findable, accessible, interoperable and reusable) open platforms in order to encourage data sharing and software interoperability and foster open science practices;

> Convince decision-makers that agroforestry is a concrete solution to improve agricultural sustainability and resilience to climate change[19].

Targeted support for policy makers and advisers

The lack of understanding of agroforestry systems is not confined to farmers, it applies also to policy makers, paying agencies, farm advisers and other stakeholders. Several Member States have sought help outside government institutions to feed into their policy design processes to support agroforestry. Portugal relied on expertise from the University of Evora to assist in developing a new intervention for the CSP (Box 3), while in Hungary the Sopron University Forestry Research Institute played a considerable role in designing the interventions. In the Netherlands the provinces and the Ministry of Agriculture are involved in the Agroforestry Netwerk Nederland.

Box 3: New results-based land management contracts for montado farmers in Portugal

Portugal's CSP includes a new agri-environment **result-based** payment aimed exclusively at *montado* systems, which has four objectives:

1. Improvement of the natural regeneration of trees;

2. Improvement of soil condition and regeneration of its productive capacity;

3. Improvement in the composition of biodiverse Mediterranean pastures; and

4. Diversification and conservation of characteristic landscape elements, such as riparian galleries, oak and/or pine groves, scrub patches, Mediterranean temporary ponds and permanent ponds.

Farmers are paid for the environmental results achieved through their management of the montado, based on the measurement of verifiable indicators (in contrast to traditional agri-environment interventions, where payment is for the adoption of a list of management practices).

The CSP scheme draws on the experience of an **innovative pilot scheme**, co-constructed by farmers, public officials and researchers, for montado systems in a Natura 2000 site and its surroundings, in Alentejo, South Portugal,[20]. The field-testing of result-based indicators specifically for montado in this pilot led to the choice of 10 result-based indicators for the final CSP intervention, covering soil health and function; oak tree regeneration; and biodiverse Mediterranean pastures. Adopting this new approach to paying farmers should lead to environmental improvements in the condition of the montado (including biodiversity) and consequently improve the productivity of this agroforestry system in the long term.

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[19] Source: https://digitaf.eu/key-benefits/

[20] https://www.rbpnetwork.eu/country-infos/portugal/montado-produzir-e-conservar-payment-for-environmental-results-in-the-portuguese-montado-43/

Specialist on-farm advice and guidance publications

This is particularly important for several reasons. One of these is to ensure that agroforestry management is appropriate for the farm and for the environmental objectives of the EU and Member State. Another is to raise the profile of agroforestry among farmers, explain the CAP rules and financial support available and to demonstrate 'official recognition' of agroforestry. This kind of awareness raising is especially important in countries where there has been a generation gap in which knowledge and skills as to the management of agroforestry systems have been lost.

Annex 5 provides a summary of the advice and capacity-building support the seven Member States plan to provide for farmers interested in agroforestry. For example, in Hungary, 'green advisors' and support units (under the Agricultural Knowledge and Innovation System (AKIS)) will be key players and leaders in promoting agroforestry and relevant capacity building with the involvement of the forestry unit under the Ministry of Agriculture. In Portugal, there are associations of producers that provide advice, namely the UNAC – *União da Floresta Mediterrânica* (https://www.unac.pt), which is also a promoter of EIP-AGRI Operational Groups, involving farmers, forest producers and researchers. Box 4 identifies two useful examples of practical guidance and information for farmers.

Box 4: Practical guidance on establishing and regenerating agroforestry systems

The survey of just seven Member States revealed a wide diversity of locally adapted agroforestry systems. This, together with a lack of farmer and adviser expertise, points to the need for a practical reference guide for farmers, advisers and policy makers, appropriate for the country or region. Two examples below, going beyond EU, published in English are illustrated with photographs and diagrams:

> The AGFORWARD FP7 research project (2014-2017) published 10 best practice leaflets and an agroforestry folder for farmers, and also 46 Innovation leaflets that showcase examples representing all the major agroforestry systems in Europe.

> The agroforestry handbook published by the Soil Association (in English) is a 150 page guide to design principles and economics of the main agroforestry systems in the UK

Links to other publications and useful resources, including the European Agroforesty Federation (EURAF) and EU research projects, are presented in Annex 8.

3.2 Key barriers encountered in the establishment and regeneration of agroforestry and possible solutions

The Member State interviews revealed significant challenges to improving the establishment and regeneration of agroforestry. Three main types of barriers - described below and further details presented in Annex 6 - were identified:

> lack of awareness and understanding of agroforestry by farmers and their advisers, and farmer attitudes;

> economic constraints; and

> constraints linked to regulatory aspects.

Lack of awareness and understanding, and farmer attitudes

This was identified as a key barrier in several Member State interviews. The reasons included:

> very few farmers actively practice agroforestry (Austria),

> trees are a new type of crop for which the necessary knowledge is not often present (Netherlands),

> negative farmer attitudes developed during the past two programming periods, and knowledge was lost due to the recent focus on more intensive arable farming and attitudes (Hungary),

> a negative mindset among farmers, perhaps because agroforestry is seen as historically associated with 'being poor' (Latvia),

> farmers and advisers are not familiar with agroforestry systems and the term itself is not recognised by agricultural producers and decision makers (Poland).

A key issue is farmers' need for clarity and reassurance about the eligibility of these areas for Pillar 1 payments; a Swedish observer noted that "the changes in CAP rules on eligibility of farmland trees for direct payments and in Member State implementation over time has made it a challenge to talk [to farmers] about increasing the number of trees in agricultural land"[21]. The importance of clarity on this issue is discussed in Box 5.

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[21] Comment at a recent workshop organised by the Swedish Board of Agriculture, focusing on agroforestry systems to increase carbon storage.

Box 5: Farmers' need for clarity and reassurance about eligibility for Pillar 1 payments

One of the key barriers is the lack of clarity (and regulatory reassurance) for farmers about the positive changes in the new CAP concerning the eligibility of trees, hedges and shrubs on farmland for CAP direct payments.

In 2008 in Sweden, farmland with more than 50 trees per hectare was not eligible for CAP direct payments, and research by the Swedish Board of Agriculture showed that clearance of tree-covered pastures increased as a result[22]. From 2014 this limit was relaxed, and Member States had flexibility to set their own tree density limit (up to 100 trees per hectare) or instead use a fixed reduction coefficient based on the different categories of 'ineligible land cover' within a parcel of land[23]. Furthermore, some trees are now eligible for direct payments and do not count towards the density limit (fruit trees, trees that can be 'grazed' and trees identified in the Member State's definition of GAEC 8). As highlighted recently by Swedish experts, previous inventories and tree counts that led to trees being removed to 'fit' the CAP payment eligibility requirements have made it difficult to explain to farmers that tree numbers should increase[24].

The interviews for this report and recent analysis by EURAF[25] of all Member States' CSPs has revealed very significant differences in the scope and detail of their definitions of agroforestry and other farmland trees, and their eligibility for CAP direct payments. Given that the lifespan of woody features far exceeds CAP programming periods, and farmers' previous experience of the negative effect of 'too many' trees on their direct payments, it will be a considerable challenge to convince farmers that the relationship between agroforestry and CAP support has changed for the better. This will require concerted action at Member State or regional level, not just to clarify the 'tree rules' but alongside this to build capacity and skills, and provide CAP support for agroforestry establishment and restoration.

Economic barriers

These include high initial investment costs and long capital commitments (Germany, the Netherlands), unfavourable profitability, absence of financial support and flexibility to adapt to changing market conditions, lack of marketing structures and the long production cycle (Germany) and non-productive early years (the Netherlands). In Portugal, although the montado systems can be economically viable, almost 5 000 ha of agroforestry are lost each year mainly due to trees dying and soil degradation, but problems with access to support/finance is a barrier to regeneration of the cork oak systems.

Regulatory barriers

In addition to changes in CAP eligibility rules discussed above, there are also barriers in existing legislation in some Member States. In Poland, the development of agroforestry on farmland is hindered by existing legislation on trees outside forest (primarily related to protection orders for individual trees, and the fact that responsibility for trees in spatial plans is in the hands of municipalities). The Polish Forest Act can also be a barrier to the recognition of silvopastoral systems (for example, where small permanent pasture parcels partly covered by a tree canopy are considered to be forest land). Similarly in Latvia, legislation on the management of forest land is quite strict, whereas it is much more flexible for farmers. Property rights were an issue in Germany, where most farms are on rented land, and in Poland the problem of fragmented land ownership presented a barrier to agroforestry implementation.

4. Encouraging the establishment and regeneration of agroforestry, using the key tools available under the CAP Strategic Plans

Encouraging the establishment and regeneration of agroforestry in EU Member States is a multi-faceted task that requires an integrated approach. One way to address this would be to design packages of agroforestry interventions that can be promoted by the advisory services, implemented, and verified by the paying agency in a coherent way, and will be 'a good fit' with the farm business and the farm's other CAP payments and requirements.

This points to a significant first step – to persuade farmers to consider the potential for agroforestry to contribute to their business and the long-term resilience of their farm in the face of physical and economic effects of a changing climate. A key role could be played by AKIS (e.g., specialist agroforestry advisers) in training farmers and advisers. Additionally, EIP-AGRI Operational Groups and locally led projects under the cooperation intervention may bring together farmers, researchers, agroforestry experts and actors in the value chain to develop locally appropriate agroforestry. Pilots and demonstration projects on 'real' farms could illustrate different types of agroforestry systems, test them and develop results-based environmental land management contracts for agroforestry.

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[22] Swedish Board of Agriculture (2010). New rules on trees and shrubs in pastures - how is the environment affected by changes in clearing? Report 2010:8.

[23] Commission Delegated Regulation (EU) No 640/2014 (consolidated version 03.09.2021) Article 9 and Article 10.

[24] Experts who contributed to a workshop on 10 December 2021, involving participants from SLU, Naturbeteskött i Sverige, WWF, Biosphere Reserve Östra Vätterbranterna, Swedish Environmental Protection Agency, LRF, farmers and the Agroforestry Sweden Association.

[25] Source: EURAF (2023) Agroforestry definitions in the new CAP EURAF Policy Briefing 22, (in press).

This approach, which prioritises positive improvements in attitudes, skills and capacity, needs to be accompanied by agroforestry-friendly CSP definitions and interventions, but it is aimed at addressing the root causes behind the previously poor uptake of agroforestry support that has been in place for the last two programming periods. It is perhaps comparable to the widespread introduction of CAP agri-environment contracts in the 1990s, which at the time were equally unfamiliar to most farmers.

Table 2 illustrates how managing authorities could provide a coherent framework of support for agroforestry, by making a sequence of specific choices at key points in designing, implementing and revising their CSPs, in line with the CSP Regulation.

› the first step would be to ensure that existing and new agroforestry systems and landscape features are eligible for direct payments;

› the second would be to provide farmers and land managers with CAP-funded agroforestry advice and training; and

› the third step is the design of coherent 'packages' of CAP interventions for agroforestry that can be used singly or concurrently without risk of double funding.

It is worth noting that the majority of CAP funds allocated to Member States and received by farmers come from the EAGF, mostly in the form of direct payments which are not co-financed by the Member State (in contrast to the EAFRD-funded interventions). Rural development interventions are essential to encouraging uptake of agroforestry, but the policy leverage of Member States' decisions on the direct payment eligibility rules, GAEC 8 definitions and eco-schemes for agroforestry should not be underestimated.

Table 2: Key decision points for Member States relating to definitions and options for packages of CAP agroforestry support under the CSPs

CAP Strategic Plan decision points (references are to Regulation (EU) 2021/2115 of 2 December 2021)	Key choices for Member States to incentivise agroforestry establishment and regeneration
Member State definition of 'rules' that determine eligibility for CAP payments, and the associated farm-level requirements for GAEC 8 conditionality	
Definition of 'agricultural activity' (Article 4(2)a, and of 'eligible hectare' (Article 4(4)b(i)(ii) and 4(4)c(ii)	› ensure that 'eligible hectare' includes all woody landscape features on the farm (not just those defined for GAEC 8) and agroforestry
Definition of 'permanent grassland' and 'permanent pasture' (Article 4(3)b and c)	› ensure that this definition includes permanent grassland habitats with shrubs and/or trees, including pastoral agroforestry systems
Definition of 'arable land' (Article 4(3)a)	› ensure that this definition includes arable agroforestry systems
Definition of standards of Good Agricultural and Environmental Condition (GAEC) (Article 13 and Annex III)	› protect all existing woody landscape features (GAEC 8)
Member State provision of advice, training and capacity building on agroforestry	
Farm Advisory Service and Agricultural Knowledge and Innovation System (Articles 3(9), 15 and 114)	› ensure that Farm Advisory Services and the wider AKIS system provide up-to-date technical advice on needs/benefits/techniques of all agroforestry systems and practices. This advice should take into account the costs and benefits to the farm business and sources of CAP and other funding (especially important for the regeneration and maintenance of long-established agroforestry systems which are economically fragile and at risk of abandonment or intensification)
	› provide technical training on agroforestry for advisory services (public and private), farmers and paying agency inspectors

CAP Strategic Plan decision points (references are to Regulation (EU) 2021/2115 of 2 December 2021)	Key choices for Member States to incentivise agroforestry establishment and regeneration
Member State choice of CAP interventions (payments) that could be used concurrently to build up a coherent 'package' of agroforestry support at farm or landscape scale	
Eco-schemes (Articles 31 and 97)	Offer eco-schemes that provide a: › top-up to basic income support, for agroforestry systems › top-up to basic income support, proportional to the density of trees, woody features on the farm, and/or contracts for management of these features (going beyond requirements set out in GAEC 8)
Environmental **land** management **contracts** (Article 70)	› results-based pilot and action-based schemes for management and regeneration of low-intensity traditional agroforestry systems under threat
Natura 2000 **compensation** (Article 72)	› Natura 2000 compensation payments for permanent grassland with trees/shrubs and agroforestry systems
Investments in biodiversity, ecosystem services, habitats and landscapes, and the establishment and regeneration of agro-forestry systems, (Articles 6(1)d and 6(1)f and Article 73(4)c(i)	Make eligible for investment support the: › restoration/creation of new woody landscape features › restoration of low-intensity traditional agroforestry systems under threat › creation of new agroforestry systems
Cooperation (Article 77)	› enable the setting up of European Innovation Partnership Operational Groups and/or LEADER initiatives for agroforestry, including results-based pilot schemes

Source: CAPI CP expert's compilation, based on Regulation (EU) 2021/2115 of 2 December 2021

Expert conclusions on the use of CAP Strategic Plans to support agroforestry in seven Member States interviewed for this analysis

This analysis has illustrated how varied the responses of the seven Member States have been to the opportunities outlined in Table 2 to offer support for agroforestry in their CSPs, and none has used the full range of possible interventions. Most recognise at least some forms of agroforestry as eligible for direct payments and, depending on a specific Member State's definition of trees and shrubs permitted within an 'eligible hectare', this should go some way to overcome the barrier of the previous 'tree rule' and loss of direct payments. However, it may take some time for the effect to be seen, as farmers are understandably wary of changes in payment eligibility rules until they are sure how to avoid penalties.

The lack of familiarity with agroforestry techniques among many farmers and advisers and the limited interest in agroforestry interventions in previous CAP programmes means there is often no 'bottom-up' advocacy from the farming sector. Despite this, in some countries with significant areas of long-established agroforestry systems (e.g. Portugal) it is environmental researchers and NGOs who have been arguing the case for agroforestry support and innovation, often with the support of EU research funding. Another issue may be that, although there are clear environmental co-benefits to society for the widespread uptake of locally appropriate agroforestry systems, it is not always clear to farmers what the economic and other benefits are for their businesses.

This analysis may help to explain the cautious approach of managing authorities to agroforestry support. However, it was clear from several of the Member States studied that they may explore additional interventions (e.g., agroforestry eco-schemes, EIP-AGRI operational groups) during the course of the 2023-27 CSPs.

5. Annexes

Annex 1: Key characteristics of EU Member States related to agroforestry

Key to table: UAA = utilised agricultural area; A = arable; G = grassland; Pc = permanent crops; (Pc) =. permanent crops are not predominant.
Bold text indicates the 7 Member States chosen for this analytical report

Member State	UAA predominant land use	EU biogeographic zone(s)	M8.2[26] programmed in 2014-2022 RDP
Austria	**A G**	**ALPINE**	
Belgium	A G	ATLANTIC	
Bulgaria	A G (Pc)	CONTINTENTAL ALPINE	
Croatia	A G (Pc)	ALPINE	
Cyprus	A Pc	MEDITERRANEAN	
Czechia	A G (Pc)	CONTINTENTAL	
Denmark	A G	CONTINTENTAL ATLANTIC	
Estonia	A G	BOREAL	
Finland	A	BOREAL	
France	A G Pc	ATLANTIC CON	Yes
Germany	**A G (Pc)**	**CONTINTENTAL ATLANTIC**	
Greece	G A Pc	MEDITERRANEAN	Yes
Hungary	**A G (Pc)**	**PANNONIAN**	**Yes**
Ireland	G	ATLANTIC	
Italy	A G Pc	MEDITERRANEAN CONTINTENTAL ALPINE	Yes
Latvia	**A G**	**BOREAL**	
Lithuania	A G	BOR CONTINTENTAL	
Luxembourg	G A	CONTINTENTAL	
Malta	A (Pc)	MEDITERRANEAN	
Netherlands	**A G**	**ATLANTIC**	
Poland	**A G (Pc)**	**CONTINTENTAL**	
Portugal	**G A Pc**	**MEDITERRANEAN**	**Yes**
Romania	A G (Pc)	CONTINTENTAL ALPINE	
Slovakia	A G	ALPINE	
Slovenia	G A	ALPINE CONTINTENTAL	
Spain	A G Pc	MEDITERRANEAN	Yes
Sweden	A G	BOREAL ALPINE	

[26] Measure to support the establishment, regeneration or renovation of agroforestry systems (Art. 23 of Regulation (EU) 1305/2013)

Annex 2: Summary of information provided by the 7 Member States interviewed on their CSP objectives and planned interventions for agroforestry

Note: Latvia is not introducing support for agroforestry under its CSP, therefore is not represented in this table.

Member State	CSP objectives to which agroforestry is expected to contribute	Agroforestry eligible for BISS and other CAP direct payments	Eco-schemes
Austria	Biodiversity, sustainable agriculture	Yes, depending on type of trees and land management	n/a
Germany	Climate mitigation, soil and water protection, climate resilience of agriculture, biodiversity, ecosystem services	Yes, productive woody plants in strips up to 40% of field area or scattered at 50-200 per hectare.	Yes, €60/ha/year for agroforestry management
Hungary	Environment, climate, enhancing biodiversity, landscape diversity	Yes	Yes
Netherlands	Sustainable agriculture providing ecosystem services. Agroforestry target for 2030 is 25 000 ha. (1 000 ha. of which is 'food forest')	Yes	Not yet, but the opportunity exists to develop an eco-scheme during this CSP period
Poland	Climate mitigation and adaptation, preventing soil erosion and pollution of surface water, biodiversity and landscape	Yes, if meets conditions of investment support intervention	n/a
Portugal	Counteract abandonment of high biodiversity value agroforestry (montados). Climate mitigation and adaptation, sustainable development, biodiversity, employment, growth, gender equality, social inclusion and local development	Yes, cork oak for production (at least 40 per ha and 60% of tree cover); permanent pasture with oak pine, chestnut, olive not used for fruit or cork production.	n/a

Member State	ANC	Environmental management contracts	Agroforestry investment	Cooperation	AKIS
Austria	Yes	Yes	n/a	n/a	Yes
Germany	n/a	n/a	Yes	n/a	(regional decision)
Hungary	n/a	n/a	Yes	EIP expected	Yes
Netherlands	n/a	n/a	Yes	n/a	(regional decision)
Poland	n/a	n/a	Yes	n/a	Yes
Portugal	n/a	Yes, including distinct options for management of *montados* and *lameiros*[27]; traditional permanent crops; agroforestry mosaics; Some schemes are targeted at biodiversity-sensitive areas and critical zones, including the new 'montado management by results'.	Yes	n/a	Yes

[27] Mountain semi-natural pastures.

Annex 3: Agroforestry in the CSPs – definition, extent of coverage, targeting

Member State	Definition of agroforestry, within the definition of 'agricultural land'	Extent of coverage of agroforestry within the CAP SP (2023-2027)	Targeted, regional, or presented as packages to farmers
Austria	There is no separate definition, agroforestry-elements have to be distinguished depending on the kind of trees and the management of the areas under the trees. Support is possible depending on the kind of element.	The following options that can be integrated into agroforestry are supported, depending on the kind of trees and the management of the areas below: > Individual landscape features > Large landscape features > Landscape elements > 2 m > Traditional features <2m > Permanent/Special crops > Multi-use hedges (new)	Support is possible for all areas in the whole country, depending on the type of agroforestry-elements. Support is possible via direct payments, agri-environment interventions and areas with specific constraints.
Germany	As defined in the Regulation on the Implementation of CAP Direct Payments (GAP-Direktzahlungen-Verordnung GAPDZV), agroforestry on arable land, in permanent crops or on permanent grassland consists of woody plants grown primarily for raw material extraction or food production. Federal state authorities (Länder) verify the details of such definitions, but woody plants are excluded if, on 31 12 2022, they met the GAEC requirements for a landscape element which may not be removed.	Agroforestry areas on agricultural land will be taken into account when calculating CAP direct payments if they are present in at least two strips (at a maximum of 40% of the agricultural area) or scattered over the area (50 - 200 woody plants per hectare), and meet the federal authority's definition of agroforestry as an agricultural activity. There is a negative list of woody plant species that are not eligible, which is applicable to new agroforestry systems set up as of 01/01/2022. There is an agroforestry eco-scheme paying 60 euros/ha of woody plant area/year, supplemented by the EAFRD investment intervention and complemented by the national investment funds from the GAK (Gemeinschaftsaufgabe Agrarstruktur und Küstenschutz). One of the requirements for including a new funding scheme in the GAKP is the approval of the majority of the Länder. The Länder also decide whether to offer this funding. The implementation of corresponding funding is also the responsibility of each Land.	
Hungary	The HU CAP SP defines agroforestry as an integral part of agricultural land used for arable crops and field crops	EU legal framework facilitates better agroforestry intervention mix	Linked eco-schemes, newly set up agroforestry systems approved as eco-schemes, non-productive investment, expected as EIP cooperation as well; the two interventions (non-productive investment for one year) and the maintenance commitment (seven years) are considered as one package and nationwide

Member State	Definition of agroforestry, within the definition of 'agricultural land'	Extent of coverage of agroforestry within the CAP SP (2023-2027)	Targeted, regional, or presented as packages to farmers
Netherlands	Defines as a cultivation system in which trees and shrubs are deliberately combined with livestock farming, arable farming and/or vegetable cultivation on the same plot.	For the programming 2023-2027 agroforestry is explicitly mentioned – there is scope for further development during the period, e.g., by the development of an agroforestry eco-scheme.	
Poland	Agro-forestry systems are arable land and permanent grassland that meet the conditions specified for intervention 10.13 - Establishment of agroforestry systems	Intervention 10.13 - Establishment of agro-forestry systems (planned to be activated in 2023)	Agroforestry throughout the country will be implemented under intervention 10.13 - Establishment of agroforestry systems.
Portugal	**Permanent crops:** Cork oaks for cork production with a minimum density of 40 cork oaks per hectare, exploited for cork production, where cork oaks account for a minimum of 60% of tree crown cover in the sub-plot. **Permanent grassland:** Sown or spontaneous permanent pasture under cover of various species of trees (Quercineae, Stone Pine, Chestnut Tree and Olive Tree) where they are not exploited for the production of fruit or cork.	The RDP 2014-2022 included four options to support the management of extensive farming systems of traditional landscape or high natural value - traditional permanent crops, Douro vineyards, Lameiros and Montado. For the 2023-27 CSP ambition was increased by adding a new intervention 'montado management by results' taking an innovative approach to paying farmers for environmental management. The novelty is not only in being aimed exclusively at montado, but also in the fact that farmers are paid in response to environmental results. Compared to previous period, there is an increase in the annual allocation of 105%. Other CSP interventions to support sustainable agroforestry systems include support for organic farming, biodiverse pastures, traditional orchards, and sustainable forms of production. Integrated territorial interventions are also proposed, such as zonal plans (management of grazing in unused plots; conservation of notable chestnut groves; maintenance of dryland cereal-fallow rotation); integrated management in critical areas and support for management of habitats of protected species (the Iberian Wolf, Iberian Lynx and nesting sites for large birds of prey and vultures)	CAP interventions may be targeted at specific types of land cover, others territorially at or within certain regions.

Annex 4: Member States' obligations and options for defining eligibility rules for CAP direct payments for woody landscape features and agroforestry in their CAP Strategic Plans

The following provision from Regulation (EU) 2021/2115[28] illustrates the obligatory link between CAP direct payments and Member State's definition of landscape features to be retained under GAEC 8, and the opportunities available to Member States to support other landscape features (emphasis by CAPI CP expert):

"Article 4(4)a,b

4. For the purpose of types of intervention in the form of direct payments, '**eligible hectare' shall be determined in such a way that it covers** areas which are at the farmer's disposal and which consist of:

(a) any agricultural area of the holding that, during the year for which support is requested, is used for an agricultural activity or, where the area is also used for non-agricultural activities, is predominantly used for agricultural activities; where duly justified for environmental, biodiversity and climate-related reasons, Member States may decide that eligible hectares also include certain areas used for agricultural activities only every second year;

(b) **any area of the holding which is**:

(i) **covered by landscape features subject to the retention obligation under GAEC standard 8** listed in Annex III;

(ii) used to attain the minimum share of arable land devoted to non-productive areas and features, including land lying fallow, under GAEC standard 8 listed in Annex III; or

(iii) for the duration of the relevant commitment by the farmer, **established or maintained as a result of an eco-scheme** referred to in Article 31.

If Member States so decide, 'eligible hectare' may contain other landscape features, provided they are not predominant and do not significantly hamper the performance of the agricultural activity due to the area they occupy on the agricultural parcel. In implementing that principle, Member States may set a maximum share of the agricultural parcel covered by those other landscape features.

As regards permanent grassland with scattered ineligible features, Member States may decide to apply fixed reduction coefficients to determine the area considered eligible."

Annex 5: Advice and support to agroforestry

Member State	Advice and support available to farmers engaging in agroforestry
Austria	Education and training-courses are supported by CSP, there is a small fee. Special education courses also offered on the topic by the farm advisory service.
Germany	Advice is the responsibility of the individual federal states.
Hungary	Free of charge (information, advisory services, `green advisors`), funded by the CSP. Agroforestry related advisory services will also be funded under the CSP.
Netherlands	Several organizations provide advice and support to farmers interested in agroforestry. This is often for free for farmers. The cost for the advice is often paid by the province. Support options may vary by province.
Poland	The farmer will have the opportunity for free consultations on the planned agroforestry system or establishment of tree canopies with an expert agricultural advisor. Agricultural consultants will provide agroforestry services.
Portugal	Advice is available through the farm advisory service. A part of the cost will have to be paid by the land manager and another part will be covered by the advisory service.

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[28] 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.

Annex 6: Barriers to agroforestry in Member States, as identified by Managing Authorities

Member State	Barriers to agroforestry
Austria	So far, agroforestry has not been extensively considered. The topic is not so simple, it is interlinked with other practices in Austrian agriculture and without an appropriate definition it is difficult to distinguish between them or to support them. One of the main barriers is the low level of awareness.
Germany	The expansion of agroforestry systems has so far been hindered by economic factors in particular. These include high initial investment and long capital commitment, unfavourable profitability, lack of subsidies, lack of flexibility to adapt to changing market conditions, lack of marketing structures and the long commitment period to the production system. Property rights issues also play a role, as farmers in Germany largely farm on rented land. To overcome some of these obstacles, agroforestry has been included in the CAP Strategic Plan and will receive improved subsidies from 2023 onwards.
Hungary	Main barriers are farmer attitudes developed during the past two programming periods, with the result that knowledge has been lost due to recent practices and attitudes.
Latvia	During Soviet times only a very small area of private holdings could be used for own production and cows and sheep were grazed in small forest areas - a form of agroforestry that is now related to 'being poor'. The separate legal definition of agriculture and forest land means that changing from pure forest to incorporate agriculture is very unlikely, but adding trees onto agricultural land may be possible. The beneficial effect of the shade trees, which provide for better grass growth and for animals, is acknowledged, but it is not an issue in Latvia (yet), although climate change may alter this.
Netherlands	The national policy is based on the three main barriers to overcome in the Netherlands: › Knowledge development and knowledge sharing, dissemination, › Barriers in regulation, › Financial barriers related to investment and the first non-productive years.
Poland	Existing legislation is identified as one of the main barriers of the development and implementation of agroforestry. More specifically, this relates to the fact that the legislation regards trees outside of forests as subject to protection orders for individual trees and delegates the responsibility for trees in spatial plans to municipalities. Other barriers referred to include limited knowledge about agroforestry and limited collaboration among relevant stakeholders in agroforestry. Source: Borek R., Gałczyńska M. Identifying bottlenecks and gateways for agroforestry development in Poland. EURAF Conference abstract (quoted during interview with the Polish Managing Authority)
Portugal	Access to support/financing for the renewal of cork oak areas (which may be in decline due to climate change), and for other agroforestry systems. The age of producers and the need for generational renewal is a barrier, and there is also a need for innovation

Annex 7: Further resources, useful links in Member States

EU MS	Further resources, good practices, contacts
Austria	> Herzlich Willkommen! - Agroforst - FiBL Österreich (https://agroforst-oesterreich.at/) > Verein zur Förderung von Agroforstwirtschaft | ARGE Agroforst | Wien (arge-agroforst.at) > Broschuere_Mehrnutzenhecke.pdf (noe.gv.at) > Bioprodukte aus der Streuobstwerkstatt - 100% aus Österreich > Agroforst in Österreich - Agroforst - FiBL Österreich (https://agroforst-oesterreich.at/)
Germany	> https://agroforst-info.de/ (website of the German Agroforestry Association) > https://agroforestrynet.eu/afinet/ (information about the AFINET project) > https://www.bmel.de/gap-strategieplan (CAP Strategic Plan for the Federal Republic of Germany)
Netherlands	Good practices > Agroforestry network (Agroforestry Netwerk Nederland) - good practices will be shared on this website > Green Deal Voedselbossen > Several Operational Groups, e.g., Agroforestry-Notenpark 't Zand | Projecten Netwerk Platteland
Poland	Publication (by the Institute of Soil Science and Plant Cultivation State Research Institute): https://www.iung.pl/2022/08/25/poradnik-agrolesnictwo-systemy-rolno-lesne/ Good practices: http://euraf.isa.utl.pt/afinet
Portugal	**Publications:** > http://www.ecomontadoxxi.uevora.pt/manual-tecnico-ecomontado-xxi/ (technical manual) > https://inovacao.rederural.gov.pt/projetos/projetos-rrn/37-projetos-rrn/1117-ecopol-internalizacao-da-narrativa-funcional-do-montado-na-formulacao-acompanhamento-e-avaliacao-das-politicas-de-desenvolvimento-rural > http://www.ecomontadoxxi.uevora.pt/ (Implementation of a new forest management practice with a view to recovering the cork oak ecosystem, using ecosystem restoration techniques resulting from the concepts of Permaculture and Agroecology) > https://www.lifemontadoadapt.com/?p=76 (For more than 5 years, the 17 partners of the LIFE Montado - Adapt project have developed, implemented and demonstrated solutions for adapting montados to climate change, promoted the dissemination of knowledge, developed environmental education actions, monitored impacts, produced technical materials and publicized the actions developed) > https://unac.pt/index.php/id-i/grupos-operacionais-accao-1-1-pdr2020/geosuber (GEOSUBER - Monitoring cork oak forests) > https://inovacao.rederural.gov.pt/grupos-operacionais/13-projectos-groupos-operacionais/84-geo-suber-monitorizacao-do-montado-2?cookie_4edc832c64da52717aa377e8ae55a36b=accepted (projects by operational groups) > https://inovacao.rederural.gov.pt/images/imagens/Docs_GO/ECOPOL_-_Relatorio_Final_2021.pdf

Annex 8: Other resources and good practice information (EU and UK)

European Agroforestry Federation (EURAF)

› Links to EU research projects, policy briefings, and country-specific information for 19 MS: https://euraf.net

› Agroforestry map of Europe – an interactive map featuring agro-forestry examples submitted by EURAF members https://euraf.net/about/

EU-funded Research Projects

› AGFORWARD (Agroforestry that will advance rural development) https://www.agforward.eu/

› AFINET (Agroforestry innovation networks) https://agroforestrynet.eu/afinet/

› AGROMIX (Agroforestry and mixed farming) https://agromixproject.eu/

› Interreg North-West Europe FABULOUS FARMERS (Agroforestry is one of 10 functional agrobiodiversity solutions being tested in pilot areas) https://www.nweurope.eu/projects/project-search/fabulous-farmers/#tab-1

› LIFE MONTADO ADAPT (supporting farmers in Portugal and Spain in adaptation of dehesa/montado systems https://www.lifemontadoadapt.com/?l=EN

Other research and information

› Growing trees on farmland – choice to plant 3 billion additional trees. A policy brief by ELO and WWF, July 2020 https://wwf.panda.org/wwf_news/?364674/Growing-trees-on-farmland

› EIP-AGRI Focus Group on Agroforestry https://ec.europa.eu/eip/agriculture/en/publications/eip-agri-focus-group-agroforestry-final-report

› The Agroforestry Handbook (Agroforestry for the UK) Soil Association UK (good practice advice and information https://www.soilassociation.org/farmers-growers/low-input-farming-advice/agroforestry-on-your-farm/download-the-agroforestry-handbook/

› Moreno, G., Aviron, S., Berg, S. et al. Agroforestry systems of high nature and cultural value in Europe: provision of commercial goods and other ecosystem services. Agroforest Syst 92, 877–891 (2018). https://doi.org/10.1007/s10457-017-0126-1

› 4th World Congress on Agroforestry 20-22 May 2019, Montpellier, France https://www.google.co.uk/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&cad=rja&uact=8&ved=2ahUKEwitifGHnb39AhUKY8AKHbG4BssQFnoECA0QAQ&url=https%3A%2F%2Fhal.inrae.fr%2Fhal-02789535%2Ffile%2FPublis19-system-033_1.pdf&usg=AOvVaw0_lGjEg0UTOs6F6-uOp_uT

› FAO (2013) Advancing Agroforestry on the Policy Agenda: A guide for decision-makers, by G. Buttoud, in collaboration with O. Ajayi, G. Detlefsen, F. Place & E. Torquebiau. Agro forestry Working Paper no. 1. Food and Agriculture Organization of the United Nations. FAO, Rome. 37 pp. https://www.fao.org/documents/card/en/c/e6656e1c-8e42-56e2-9d1b-010d6e988323

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