



ASSESSMENT OF POLICIES FOR LL1 (OLIVE MULTIFUNCTIONAL SYSTEM): EUROPEAN LEVEL

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ABSTRACT

This report aims to highlight how European agricultural policies promote agroforestry systems (section 1 and 2) and support olive sector across EU (section 3). The report is based on the consultation of relevant papers (project reports, scientific literature, European Commission documents) dealing with agricultural policies in Europe.

In particular, available reports and papers produced within the most relevant projects focused on agroforestry funded by the EU in the last 15 years within the Seventh Framework Programme for Research and Technological Development (AGFORWARD project: <https://www.agforward.eu/index.php/en/>) and the Horizon 2020 Research and Innovation programme (AFINET project: <https://euraf.isa.utl.pt/afinet>) were reviewed.

The first part of the report (section 1) focuses on the definition of agroforestry systems and on the extent of agroforestry practices across Europe. In particular, the report aims to make in evidence the discrepancy between the scientific definition of agroforestry (that includes both trees and shrubs in combination with crops and or livestock) and the definition that was initially receipted by European policy (that included only trees on arable lands, Reg. 1698/2005). This is an important legal aspect, under the political point of view, since agroforestry is usually seen on the border between the agriculture and forestry sectors creating conflicts and confusion among the stakeholder communities, in particular policy makers at different levels (national, regional and local).

In this contest, European Agroforestry Federation (EURAF: <https://euraf.isa.utl.pt/welcome>) since its establishment in 2012 played an important role to increase the awareness and knowledge about agroforestry systems within the stakeholder communities, and the European Commission. And, finally, the Reg. 1305/2013 acknowledged the scientific definition of agroforestry systems.

The section 2 aims to assess the Common Agricultural Policy (2007-2013 and 2014-2020 programming periods) tools and measures promoting the establishment and management of agroforestry systems. During the 2007-2013 programming period, a specific measure (measure 222) supporting the establishment of agroforestry systems was introduced for the first time in the Rural Development Programmes, RDPs.



Nevertheless, the measure was unsuccessful also because the conflict between measure 222 and the Single Farm Payment, SFP, according to which the presence of trees reduces the amount of direct farm payments.

In the 2014-2020 programming period, the RDPs still has a support to the establishment of agroforestry systems (measure 8.2). However, a limited number of regions across Europe included in the RDPs, although the support to indirectly maintain agroforestry systems such as hedgerows, isolated trees and small woodlands are promoted by the Pillar I.

Based on the experience carried out during the last 15 years, a set of recommendations are provided in order to increase the adoption of agroforestry practices in rural areas.

Section 3 is an overview of European policies addressed to olive-based products that are primary elements in the agricultural economy of the EU's southern countries, with about 5 million hectares of olive orchards and more than €7,000 million in production value every year.

EU producing countries account for 70 to 75 % of world production of olive oil and more than one third for table olives. EU legislation aims to sustain and enhance this leading role, with a framework of rules on areas ranging from aid to producers to promotion initiatives, and from plant health to quality and marketing standards (EPSR briefing, 2017).

The CAP Proposals for the 2021-27 period, published by the European Commission in June 2018, recognise that greater environmental and climate ambition is required and have made this an explicit requirement on Member States within the draft legislative text. A major feature of the proposals involves a fundamental change in the delivery approach towards one in which all CAP support (both Pillar 1 and Pillar 2) is focused on performance, delivering results against a set of EU objectives in light of national and regionally identified needs. It is still early to know the specific measures that will be adopted for the olive sector but it is certain that environmental sustainability will play a crucial role.



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1. CHARACTERISING AGROFORESTRY IN A POLICY CONTEXT

1.1 Policy definition of agroforestry

Agroforestry is recognized 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” (Nair 1993). This definition is also adopted by the European Agroforestry Federation (EURAF) according to which agroforestry is “the integration of woody vegetation, crops and/or livestock in the same area of land. Woody vegetation can be inside parcels or on the boundaries (hedges)”.

Within the European Union (EU), Article 23 of Regulation 1305/2013 defined agroforestry systems as “land use systems in which trees are grown in combination with agriculture on the same land.” This definition is just focused on trees, rather “trees and shrubs” and it suggests that agroforestry may be limited to arable lands.

Moreover, this definition differs from the most common definitions across the world (i.e. World Agroforestry Centre, FAO, Association For Temperate Agroforestry, etc.) that take into consideration that shrubs, because of their woody perennial nature, can provide many of the same productive, environmental or social benefits of trees.

1.2 Agroforestry practices

The most common agroforestry practices can be classified as follow (Mosquera-Losada et al. 2009):

- silvopasture: combining woody with forage and animal production. It comprises forest or woodland grazing and pastoral land with hedgerows, isolated/scattered trees or trees in lines or belts;
- homegardens or kitchen gardens: combining trees/shrubs with vegetable production in peri-urban and urban areas, also known as part of “trees outside the forest”;
- riparian buffer strips: strips of perennial vegetation (trees/shrubs) natural or planted between croplands/pastures and water sources such as streams, lakes, wetlands, and ponds to protect water quality. They can be recognized as silvoarable or silvopasture but are signified by its role in preserving water streams;



- silvoarable: widely spaced woody vegetation intercropped with annual or perennial crops. Also known as alley cropping. Trees/shrubs can be distributed following an alley cropping, isolated/scattered trees, hedges and line belts design;
- forest farming: forested areas used for harvesting of natural standing speciality crops for medicinal, ornamental or culinary uses.

1.3 Extent of agroforestry in Europe

Agroforestry systems can be also classified according to four main farming sectors: (i) livestock farmers, (ii) high value tree farmers, (iii) arable farmers, and (iv) existing agroforestry systems of high nature and cultural value. Such an objective-driven categorisation is useful to facilitate uptake, adoption and engagement of agroforestry by farmers (Mosquera et al, 2017).

The total area under agroforestry in the EU 27 is estimated to be about 15.4 million ha which is equivalent to about 3.6% of the territorial area or 8.8% of the utilised agricultural area (Den Herder et al., 2017). Livestock agroforestry covers about 15.1 million ha which is by far the largest area. High value tree agroforestry and arable agroforestry cover 1.1 million and 358 thousand ha respectively. A high abundance of areas under agroforestry can be found in south, central and north-east Portugal, south-west, central and parts of north Spain, south of France, Sardinia, south Italy, central and north-east Greece, south and central Bulgaria, and central Romania.

Spain (5.6 million ha), Greece (1.6 million ha), France (1.6 million ha), Italy (1.4 million ha) and Portugal (1.2 million ha) have the largest absolute extent of agroforestry. However, looking at the extent of agroforestry in relation to the Utilised Agricultural Area (UAA), countries like Cyprus (40% of UAA), Portugal (32% of UAA) and Greece (31% of UAA) have the largest percentage of agroforestry cover.

High value tree agroforestry systems.

Agroforestry systems involving high value trees (intercropped or grazed fruit, olive and nut tree area) cover about 1.1 million hectares corresponding only to about 0.2% of the territorial area in the EU. The largest extent of agroforestry with high value trees can be found in Spain (261 thousand ha) followed by Italy (202 thousand ha) and Portugal (154 thousand ha). Greece also has a considerable area (137 thousand ha) under agroforestry with high value trees. The largest extent of intercropped high value trees is found in Italy (90



thousand ha) followed by Spain (52 thousand ha) and Portugal (36 thousand ha). The largest extent of grazed high value tree practices is found in Spain (217 thousand ha), Greece (123 thousand ha), Portugal (123 thousand ha) and Italy (116 thousand ha).

Arable agroforestry systems.

Silvoarable agroforestry (agroforestry areas under permanent crops such as fruit, nut and olive trees, woodlands and shrublands with sparse trees) covers about 358 thousand hectares corresponding only to about 0.1% of the territorial area in the EU. The largest extent of silvoarable agroforestry can be found in Spain (117 thousand ha) followed by Italy (106 thousand ha). The largest extent of arable agroforestry with permanent crops (planted fruit, nut and olive trees) is found in Italy (90 thousand ha) followed by Spain (52 thousand ha) and Portugal (36 thousand ha). The largest extent of arable agroforestry in woodlands is found in Spain (65 thousand ha) and Portugal (40 thousand ha). These mainly oak-dominated woodlands often combine silvopastoral and silvoarable practices and are called *dehesas* and *montados*. Cereal cultivation is the most common arable agroforestry practise in these oak woodlands. Italy also had a considerable area (16 thousand ha) under arable agroforestry. There were almost no arable agroforestry systems linked with shrublands (tree height < 5 m) with sparse trees.

Livestock agroforestry systems

Agroforestry systems with livestock (agroforestry areas under permanent crops, woodlands, shrubland and grassland) cover about 15.1 million hectares in Europe corresponding to about 3.5% of the territorial area in the EU. The largest extent of livestock agroforestry systems can be found in the Mediterranean countries like Spain (5.5 million ha), Greece (1.6 million ha), France (1.6 million ha), Italy (1.3 million ha) and Portugal (1.1 million ha). The largest extent of livestock systems associated with permanent crops is found in Spain (217 thousand ha), Greece (123 thousand ha) and Portugal (122 thousand ha). The largest areas of livestock systems on woodland are found in Spain (3.5 million ha), Portugal (799 thousand ha), Greece (656 thousand ha), France (648 thousand ha) and Italy (622 thousand ha). The largest extent of livestock agroforestry on shrublands with sparse tree cover is found in Spain (589 thousand ha) and Greece (534 thousand ha). The largest extent of livestock agroforestry on grassland with sparse tree cover is found in Spain (1.2 million ha), France (749 thousand ha) and Romania (670 thousand ha).



Other agroforestry systems, such as hedgerows and isolated trees, cover about 1.78 and 300 thousand hectares, respectively. Even if these systems interest a limited portion of territorial areas (0.42% and 0.02%, respectively), their conservation and management should be encouraged because of their values in terms of landscape improvement, biodiversity conservation and hydrogeological stability (Eichhorn et al., 2006).

There is a global and European recognition of the role that agroforestry can play to provide products but also to deliver highly important ecosystem services. Global policies related to agroforestry are considered the FAO Guidelines for Sustainable Agriculture and Rural Development, the Orlando and Lugo declarations, and the Global Research Alliance, and the Millennium Development Goals.

Agroforestry systems can be linked to most relevant international declarations and agreements aimed to preserve biodiversity, contrast climate change, improve rural livelihood, landscape protection, etc. (Santiago-Freijanes et al., 2018).

However, there is a lack of knowledge transfer and adequate policies that promote agroforestry at field level, which could be approached by involving stakeholders in the policy development (Burgess et al, 2017).

2. AGROFORESTRY IN THE COMMON AGRICULTURAL POLICY (CAP) FRAMEWORK

2.1 CAP 2007-2013: Pillar I

The 2003 reform of the CAP introduced a new system of direct support to farmers, known as the Single Payment Scheme (SPS). An objective of the 2003 CAP reform was “the farmers should produce what markets demand”. Payments linked to the area of specific crops or per head of livestock were generally transformed into a single payment.

In the CAP (2007-2013), each country had to identify its own Good Agricultural and Environmental Conditions (GAEC). Some standards were compulsory and some were voluntary. The conditions cover compulsory and voluntary measures to minimise soil erosion (e.g. minimum coverage, minimal management reflecting the specific local conditions, and terraces), maintain soil organic content (e.g. crop rotation, stubble management), maintain soil structure and to ensure minimum levels of maintenance on agricultural land (e.g. minimum livestock density, permanent pasture protection, maintenance of landscape characteristics



such as hedges and trees in line, in groups, isolated, field margins, and preventing unwanted shrub encroachment on agricultural land).

The presence of woody vegetation is known to help to minimize soil erosion, maintain and even steadily increase the amount of soil organic matter content, improve soil structure and maintain the minimum agricultural land (by grazing for example). However, agroforestry was rarely mentioned within the 2007-2013 CAP.

Since 2009, activities related to maintenance of landscape characteristics have been compulsory, with specific mentions in Austria, Cyprus, the Czech Republic, Finland, Germany, Hungary, Ireland, Italy, Luxembourg, Malta, Slovakia, Portugal, Slovenia and Spain. Most of these practices are in line with the use of agroforestry, as it is a demonstrated way to enhance flora and fauna biodiversity, increase resource use efficiency (therefore preventing from nutrient leaching), reduce erosion, increase soil organic matter and reduce encroachment.

2.2 CAP 2007-2013: Pillar II

The European Common Agricultural Policy (CAP) recognised that agroforestry systems should be encouraged because of their “high ecological and social value”. For this reason, in the 2007-13 Rural Development Plans (RDPs) a dedicated financial support has been foreseen for the establishment of agroforestry systems on arable land through the introduction of a specific measure (Measure 222).

Measure description

The fiche of the measure 222 for the period 2007-13 defines agroforestry systems as land use systems in which trees are grown in combination with agriculture in the same land. According to the fiche, the basic principle of agroforestry practices is the combination between extensive agriculture and forestry systems, aimed at the production of high-quality wood and other forest products. The intercropping between wheat and walnut is reported as an example of a system that could be supported. The measure is addressed to farmers establishing for the first time an agroforestry system on agricultural land. The measure should contribute to the maintenance of high nature value farmland and forestry, the reversal of biodiversity decline, the improvement of water quality and the contribution to combating climate change. The impact of the measure should be assessed through the number of beneficiaries and the number of hectares under new agroforestry systems.



The measure provides a grant to cover up to 80% of the establishment costs, without any additional contribution to cover the maintenance costs. This is in divergence with other forestry measures, such as the first afforestation of agricultural land (measure 221), according to which farmers may also receive support to cover the maintenance cost up to 5 years.

According to the measure, a limited range of agroforestry systems can be supported under the current RDP programme (i.e. silvoarable systems such as the combination between walnut and wheat). Silvopastoral systems, the intercropping between fruit trees and arable crops, linear systems bordering the fields, for example, cannot be supported under the current grant scheme. Furthermore, the fiche explicitly mentions that agroforestry systems can be established in “extensive” agriculture. But the border between extensive and intensive is not clearly defined.

Moreover, the application of the measure 222 appears in contrast with the Single Farm Payment (SFP). According to the Reg. 1782/2003 criteria, the SFP is reduced if a linear system is more than 2 m wide. In case of scattered trees, the criteria are the following: i) tree density lower than 50 trees/ha: no SFP reduction is applied; ii) tree density between 50 and 100 trees/ha: the NAA is reduced by 100 m² per ha; iii) tree density higher than 100 trees/ha: NAA is reduced by 5 or 10 m² per tree according to its dimension.

Implementation state of measure 222 and comparison with other forestry measures

The most relevant “forestry measures” of the Rural Development Programme are contained in the Axis 2. These measures aim at addressing the economic, social and environmental dimensions of forestry and are aimed at promoting sustainable forest management and the multifunctional role of forests (European Commission, 2009). At EU 27 level, during the current programme, a total amount of about 7.5 billion of Euro have been allocated to the forestry measures (table 1), of which almost 4 billion have been spent to implement the measures (an average implementation rate of 52.4%). Among the forestry measures, almost 90% of the total resources have been allocated to the measures 221, 226 and 227. Only about 15 million (0.2% of the total) have been allocated to the measure 222.

In terms of realised expenditures, the measures 221 and 226 effectively invested more than half of the available resources. On the contrary, only 3.4% of the resources allocated has been invested to implement the measure 222 (Pisanelli et al., 2014).



Measure	Allocated resources		Invested resources	
	000 €	% of total	000 €	% of the planned
measure 221	3,017,900	40.2	1,741,533	57.7
measure 222	15,057	0.2	522	3.4
measure 223	423,531	5.6	161,993	38.2
measure 224	85,261	1.1	24,395	28.6
measure 225	316,351	4.2	65,440	20.7
measure 226	2,425,703	32.3	1,389,036	57.3
measure 227	1,219,510	16.3	549,230	45.0
total	7,503,313	100	3,932,139	52.4

Table 1: resources allocated and invested in the forestry measures of the RDPs 2007-2013 at EU27 level.

Among the EU27 countries, only 6 of them (Belgium, France, Hungary, Italy, Portugal and Spain) have destined resources to implement the measure 222 (table 2). Nevertheless, the implementation rate is very low (average 3.4% of the available resources, the lowest rate in comparison to other forestry measures). Among those countries, Hungary appears to be the most virtuous in terms of implementation rate of the available resources. In Belgium and Spain, although the availability of resources, none fund has been effectively invested in establishing agroforestry systems. In the other countries, such as Italy, Portugal and France, the implementation rate is less than 2%.



Country	Resources allocated	Financial execution	Implementation rate
	€	€	%
Belgium	500	0	0.0
France	3,228	39	1.2
Hungary	2,813	380	13.5
Italy	1,300	10	0.8
Portugal	6,804	93	1.4
Spain	411	0	0.0
Total EU 27	15,056	522	3.4

Table 2: resources allocated to the measure 222 and realized expenditures at country level (EU27)

The limited investment of economic resources in establishing agroforestry systems determined a weak % on target, in terms both of beneficiaries and area under new agroforestry systems (outputs indicators). In the six countries, 3.2% and 5.5% of expected beneficiaries and invested area have been targeted, respectively (tables 3 and 4).



Country	Target	Realised	% of the target
Belgium	75	0	0
France	610	4	0.7
Hungary	300	59	19.7
Italy	1032	2	0.2
Portugal	575	0	0
Spain	205	0	0
Total EU 27	2797	64	2.3

Table 3: number of beneficiaries responding to the measure 222 during the period 2007-13

Country	Target	Realised	% of the target
Belgium	250	0	0
France	3.032	34	1.1
Hungary	3.000	594	19.8



Italy	6.729	9	0.1
Portugal	15.025	0	0
Spain	1.600	0	0
Total EU 27	29.636	637	2.1

Table 4: hectares of new agroforestry systems established during the period 2007-13.

The measure 222 reveals an extremely weak implementation at EU 27 level under the rural development programme, 2007-2013. A limited amount of economic resources has been allocated to the measure 222 in comparison to other forestry measures. Moreover, those resources have been underutilised determining a low implementing rate of the measure 222.

Several reasons concurred to this un-success. i) the lack of knowledge and awareness of farmers, consultants and managing authorities concerning agroforestry; ii) the limited range of agroforestry systems that could be supported (only trees for timber or biomass, excluding, for example fruit trees, silvopastoral systems, etc.); iii) the lack of funding to cover maintenance costs of the systems; iv) the conflict between measure 222 and other CAP instruments such as the Single Farm Payment, according to which the presence of trees reduces the amount of direct farm payments.

In order to solve these constraints, the European Agroforestry Federation, EURAF (www.agroforestry.eu) was constituted in 2012. The EURAF position paper stressed the importance to improve the next rural development programme, for the period 2014-2020, in order to allow European farmers to have the free choice to adopt agroforestry systems. EURAF aims at promoting the use of any agroforestry systems in different environmental regions of Europe. EURAF has about 250 members from 18 different European countries and supports awareness, education, research and policy about agroforestry in Europe. One of the main actions of the federation concerns the promotion of agroforestry by any communication means, including lobbying for agroforestry-adapted policies at the European scale. The EURAF position remarks that: i) agroforestry systems are productive systems also when they are included in an Ecological Focus Area; ii) the agricultural area should include also agroforestry systems; iii) agroforestry should not influence the Single



Farm Payment mechanism; iv) the support should cover the establishment costs and an annual premium to compensate the maintenance costs for a period of 5 years; v) agroforestry systems should not be limited to extensive agriculture and should include all trees species and not only forest species.

2.3 CAP 2014-2020: Pillar I

Direct payments (Pillar I) are calculated according to cultivated area (ha) and three land use practices:

- Arable lands: eligible silvoarable practice if tree density is < 100 trees/ha, tree cover is < 10%, hedgerows with width < 2m;
- Permanent crops: fully eligible silvopastoral and silvoarable practices, there is no limit of tree density;
- Permanent grassland and permanent pasture: eligible silvopastoral practice if tree density is < 100 trees/ha, tree cover is < 10%, hedgerows with width < 2m.

Besides the basic payments, the other compulsory multipurpose payment established within the direct payments in the 2014-2020 period is the Payment for agricultural practices beneficial for the climate and the environment or the so called "greening". Among the three basic measures foreseen within the greening, Ecological Focus Area (EFA) can contribute to preserve agroforestry systems. In fact, the Ecological focus areas are associated to:

- Landscape features (hedgerows, isolated trees)
- Buffer strips
- Agroforestry areas established within Measure 222 and 8.2

2.4 CAP 2014-2020: Pillar II

The lobby action conducted by EURAF at level of European Commission and Parliament produced positive effects and the new fiche of the agroforestry measure receipts the most relevant constraints that EURAF have highlighted. In the rural development programme 2014-2020, agroforestry systems are defined as the scientific community and agroforestry can contribute to target the priority 4 (Restoring, preserving and enhancing ecosystems related to agriculture and forestry) and 5 (Promoting resource efficiency and



supporting the shift towards a low carbon and climate resilient economy in the agriculture and food sectors and the forestry sector).

In the CAP 2014–2020, agroforestry is promoted through Article 23 of the new Rural Development Regulation 1305/2013 linked to the sub-measure 8.2. Beneficiaries of the measure should be not limited to farmers but may include also municipalities and associations. Moreover, supporting scheme should include the cost of establishment (up to 100% of the total costs) and cost of maintenance for a period of 5 years through annual premium per hectare afforested.

The trees may be arranged as single stems, in rows or in groups, while grazing may also take place inside parcels (silvoarable agroforestry, silvopastoralism, grazed or intercropped orchards) or on the limits between parcels (hedges, tree lines) so fully considering the woody vegetation (trees and shrubs) and not only trees. Besides that change, the main difference between the RDP of both periods is that 222 is only allocated to the establishment of agroforestry practices, while sub-measure 8.2 includes maintenance for a period of 5 years of new agroforestry practices, besides the establishment.

Through the analysis of the Rural Development Programmes, the regions of 6 European countries allocated resources to implement the sub-measure 8.2 (table 5).

Country (regions)	Budget allocated to sub-measure 8.2 (000€)
Belgium (Flanders)	500
Greece	21,333
Spain (Galicia, Asturias, Pais Vasco, Comunidad Valenciana, Andalucia)	28,717
Hungary	7,272



Italy (Puglia, Basilicata, Veneto, Umbria, Marche)	7,058
United Kingdom (Wales, Scotland)	2,220
Total	67,980

Table 5: resources planned to implement measure 8.2 at EU27 level

In total, about 68 million Euro should be distributed among farmers interested to adopt agroforestry practices in their farmlands. In comparison, in the former programming period (2007-2013) the total amount of resources allocated to implement the measure 222 was about 15 million Euro. Indeed, the available resources to create news agroforestry systems are higher but their effective expenditure depends on the regions interest to open the call. For example, currently in Italy only Puglia region has adopted the measure 8.2 funding about 90 farmers (1,273 ha, 2,861,000 €).

Other measures indirectly promote agroforestry systems. Silvoarable practices can be enhanced by measures linked to the promotion of forest strips and small stands, isolated trees and “hedgerows” on arable land. Silvopastoral activities are supported by forest understory grazing and grazing under permanent crops (multipurpose or fruit trees).

2.5 Recommendation CAP post 2020.

Agroforestry practices have the potential to be regenerative, improve and increase the provision of ecosystem services at the farm and landscape level, while improving farm productivity and profitability. These services include the possibility to improve carbon sequestration, biodiversity, erosion control, and water management, all of particular long-term interest. However, the short-term transition from specialised crop and livestock systems to agroforestry can be challenging.

Agroforestry systems are more complex and knowledge-intensive to manage. Their success relies on conditions which go beyond the farm level and include:

- improve the systemic understanding of farm systems through participatory approaches;



- promote adequate training through several means to reach all concerned actors and provide relevant practical examples for learning purposes;
- support design and decision-making through networking. Information, guidelines and tools should be easily accessible;
- facilitate producer–consumer contact and promote the value of agroforestry products;
- adapt legal frameworks to ensure consistency, allow the development of local best practices, and facilitate day to day management of agroforestry systems;
- monitor agroforestry systems to assess changes and to evaluate possible success.

3. THE EU POLICY FRAMEWORK FOR OLIVE SECTOR

3.1 The olive sector in Europe

Olive production is a significant land use in the southern Member States of the EU with important environmental, social and economic considerations. The main areas of olive oil production are in Spain (2.4 million ha), followed by Italy (1.4 million ha), Greece (1 million ha) and Portugal (0.5 million ha). France is a very much smaller producer, with 40,000 ha.

There are considerable differences between olive farming areas and, in some cases, between different farms within a given area. These differences are strongly apparent in the physical characteristics of the plantations, management practices, socioeconomic situation and environmental effects. Olive farms in the EU range from the very small (<0.5ha) to the very large (>500ha) and from the traditional, low-intensity grove to the intensive, highly mechanised plantation.

Community policies are the most significant policies affecting olive farming in the EU Member States. There are very few national and regional measures of significance outside the EU policy framework. In particular, the CAP support regime for olive production has played a powerful role in the way in which the olive sector has developed since the 1980s (in Greece, Spain and Portugal) and earlier in Italy. The support regime continues to be an important driving force which strongly influences the scale and nature of olive farming in the EU.



Since the 1998 “interim reform” of the CAP olive regime, the basic support provided for olive farming has been in the form of a subsidy paid in direct proportion to the production of olive oil or table olives. Previously, small producers (those producing less than 500kg of oil per year), received a support payment based on tree numbers and historic yields in the district.

In Greece and Spain, the introduction of this policy during the 1980s and 1990s has coincided with intensification and increased planting and output in the main producing regions, with generally negative consequences for the environment. Furthermore, prior to Spain’s accession to the EC in 1986, olive farming was in decline in this country.

Intensification and expansion processes have been less pronounced in Portugal, where olive farming had been in strong decline for many years at the time of EC accession, but are discernible nevertheless. Factors not directly linked to the CAP, such as technological developments, no doubt have also contributed to the intensification of production systems.

In Italy, different circumstances seem to apply. The CAP regime has applied since the 1960s, but a large proportion of producers received aid on the basis of tree numbers, rather than real production. Holdings are smaller on average than the other countries and a significant proportion of production is for home consumption. Rural areas generally are not so dependent on olive production as equivalent areas in Spain and Greece; the agricultural economy tends to be more diversified.

For these and other reasons, it seems that the CAP olive regime has not promoted olive expansion and intensification in many parts of Italy on the same scale as in Spain and Greece. Even so, modern intensive systems have been developed in specific areas with favourable conditions (e.g. availability of irrigation water), such as in Puglia.

The intensification process has led to a reduction in environmental values (particularly biodiversity) and an increase in negative impacts (notably soil erosion and over-exploitation of scarce water resources) in many olive-farming areas of the EU. However, there is a clear potential for reducing negative environmental effects by modifying farming practices.

A more environmentally-positive influence of the CAP olive regime is that it probably has helped to reduce the abandonment of small, traditional plantations in many marginal regions, thus preventing the loss of certain environmental and social values.



This production-support system produces negative environmental effects by rewarding intensification and expansion. In addition to the negative effects of intensification and expansion, these processes lead to increasing production and thus lower prices and subsidies for all producers, with potentially negative effects on low-input traditional farms which are of most environmental value but which are also at or below the limits of economic viability at present.

Converting all or a part of the production support into a direct payment decoupled from production reduces the incentive for intensification (and promotes some reduction in intensity) and thus can be considered broadly positive in environmental terms.

In the last 20 years, the CAP has undergone five reforms that have progressively and profoundly modified the original layout based on guaranteed minimum prices and protection against frontiers, towards a support model decoupled from production.

3.2 EU action plan for the olive oil sector

In June 2012, the Commission presented an action plan for the EU olive oil sector to the Council's agriculture configuration, with the objective of strengthening the sector's competitiveness, taking advantage of the widely-recognised image of olive oil as a quality product. The action plan indicated the following six areas of action, which are now mostly covered by various instruments under the common agricultural policy (CAP) 2014- 2020:

- quality and control, with measures relating to the safeguard of olive oil quality by improving controls, methods of analysis and marketing standards;
- action to restructure the sector, also involving rural development (RD) measures;
- industry structure, with action aiming to reinforce producers' organisations (also using RD support), which are widespread in some but not all producing countries, such as Spain and Greece, but are generally too small compared with other actors in the food chain;
- promotion, to improve the image of the product, stimulate its consumption and conquer markets in third countries, mostly taking advantage of the revised EU promotion policy but also finding synergies between different measures, such as those financed by the EU and the IOC (International Olive Council);



- support for the IOC and the international agreement on olive oil and table olives;
- competition with third countries, where the EU should support respect for the quality parameters established within the IOC and oppose any measure by third countries that could present a technical barrier to trade.

3.3 Single Common Market Organisation

The olive oil and table olive market is covered by Regulation (EU) No 1308/2013 (the CMO Regulation). Its single common market organisation (CMO) provisions regulate EU agricultural markets and provide policy tools to help improve their functioning. In addition to the general provisions, rules on the areas listed below can apply specifically to the olive and olive oil sector for the products listed in Annex 1, Part VII to the regulation:

- aid for private storage (Articles 17 and 18), which may be granted to private operators for product storage in case of difficult market situation;
- aid in the olive oil and table olive sector (Articles 29 to 31), implemented through the financing of three-year work programmes drawn up by recognised producers' organisations for action in areas such as marketing, traceability and improvement of environmental impact, competitiveness and production quality in the sector EPRS EU olive and olive oil sector Members' Research Service Page 7 of 12 (the detailed list of measures eligible for EU funding is set out in Article 3 of Commission Delegated Regulation (EU) No 611/2014);
- marketing standards (Article 75), set out in Commission Implementing Regulation (EU) No 29/2012, which covers issues such as labelling rules and packaging capacity, plus the monitoring of the application of the rules by a watchdog in each Member State;11
- definitions, designations and sales description (Article 78), defined in Commission Regulation (EEC) No 2568/91 and its successive amendments, on the characteristics of olive oil and olive-residue oil and on the relevant methods of analysis;
- recognition of producers' organisations (Articles 159) and interbranch organisations (Article 162) and rules on contractual negotiations by producers' organisations on behalf of its members (Article 169);



- import and export licences (Article 176) that can be issued to applicants by EU Member States and tariff quotas (Article 184) that can be opened by the Commission, such as in the case of the import quota for Tunisian olive oil for release into free circulation in the EU at a zero duty rate of an annual amount of 56 700 tonnes (see Commission Regulation (EC) No 1918/2006), plus an additional temporary amount of 35 000 tonnes for 2016 and 2017 to support Tunisian economy following the terrorist attack of June 2015 (see Commission Implementing Regulation (EU) 2016/605).

3.4 Direct payments – voluntary coupled support

Direct payments are a form of income support granted to EU farmers on a per-hectare basis, independently of the production of a specific product. In addition to this basic support scheme, Member States may grant voluntary coupled support linked to production in the olive oil sector that may be undergoing difficulties, under conditions laid down in Article 52 of Regulation (EU) No 1307/2013. Only Italy has opted for this voluntary scheme, with an overall amount of more than €400 million for the years 2015 to 2020.

3.5 Rural development measures

Several measures introduced by Regulation (EU) No 1305/2013 on support for rural development can assist the olive and olive oil sector, whether directly targeting this farming activity or by addressing general agricultural and rural issues closely related to it. Among the first type of measures, the possibility for the Member State to include thematic sub-programmes (Article 7) in rural development programmes (to address the needs of areas of particular importance, or of agricultural sectors that have a strong impact on the development of rural areas) is a new feature of the rural development policy framework for 2014-2020 and has been used for the olive oil sector in the rural development programme of Andalusia (Spain). Other producing regions have addressed the needs of the sector by shaping their measures under the general rural development priorities. This includes planned support for investment for the prevention of damage caused to olive trees by *Xylella fastidiosa* (see Box 2, next page) in the rural development programme of Puglia (Italy), as part of the measures under Priority 3 on promotion of food chain organisation, animal welfare and risk management in agriculture. Olive and olive oil farms can also benefit from other rural development measures that have a broader scope but address important issues for the sector. In addition to strategic support for investment in assets, innovation and business development, it is also worth mentioning support granted to participate in quality or certification schemes for agricultural products and foodstuffs (Article 16), to facilitate



the setting up of producers' groups (Article 27), to carry out agri-environment-climate commitments on agricultural land (Article 28), to convert to or maintain organic farming practices and methods (Article 29), and to make financial contributions to farmers for insurance premiums and mutual funds with the risk management tools (Articles 36 to 39).

3.6 Promotion of EU farm products

Olives and olive oil are eligible for promotion initiatives in the EU and third countries through the promotion policy laid down in Regulation (EU) No 1144/2014. The Commission defines the strategic priorities and available budget for promotion initiatives in an annual work programme and publishes calls for proposals for its implementation. The overall co-financing budget for 2016 was €111 million, with table olives and olive oil being part of several campaigns; the 2017 budget amounts to €133 million, with plans for this figure to increase in the coming years.

3.7 Disease control in olive tree

Council Directive 2000/29/EC provides the basis for protecting EU plant health from the introduction or spread of harmful organisms within Union territory. When such harmful pests and diseases are detected, further ad hoc legislation intervenes to regulate control and emergency measures.¹² One recent example are EU emergency measures set by Commission Implementing Decision (EU) 2015/789 and successive amendments, following the outbreak of *Xylella fastidiosa* in Southern Italy, where since 2013 the disease has been attacking olive groves in Puglia, the biggest producer of olive oil among Italian regions. The emergency measures include action to combat the disease in the so-called demarcated areas (i.e. infected and buffer zones), by removal of infected plants or containment of the bacterium by other means when removal is impossible, to prevent its further spread and to avoid further introduction from infected third countries. Furthermore, with Commission Implementing Decision (EU) 2015/2417, Member States were requested to set up contingency action plans in the event of confirmed or suspected presence of the bacterium and campaigns to raise the awareness of the general public, travellers, professionals and international transport operators regarding the threat for EU territory. In 2015, the French authorities reported an outbreak of *Xylella* in France, where the bacterium attacked ornamental plants in the regions of Corsica and Provence-Alpes-Côte d'Azur, requesting the implementation of surveillance and containment measures. At the end of 2016, the Spanish authorities reported the presence of *Xylella* in Spain, affecting a number of fruit and ornamental plants; the whole territory of the Balears islands was declared a demarcated area in January



2017. However, the most critical situation remains that in the region of Puglia, where after a difficult start, the implementation of emergency measures has led to the eradication of many infected olive trees and also healthy ones within one hundred metres of the infected plants. To compensate olive producers for the damage and costs related to these measures, resolution 240 of 13 June 2017 of the Regional Council of Puglia establishes an aid scheme for agricultural holdings that have had to destroy *Xylella*-infected plants following the removal order. Compensation to farmers for the loss of revenue as a result of the eradication measures, as well as stronger control measures to prevent the spread of the bacteria within the EU and avoid entrance of infected plants into the EU, were also requested in the European Parliament resolution 2015/2652(RSP) on the outbreak of *Xylella fastidiosa* affecting olive trees. The resolution called upon the Commission to improve scientific knowledge on the disease. In this respect, an ongoing multidisciplinary research project financed by the EU framework programme for research and innovation, Horizon 2020, (for a total cost of €7 064 125, of which the EU contribution is €6 903 000), is aimed at improving prevention, early detection and control of *Xylella fastidiosa*.

3.8 Challenges and prospects

Main challenges faced by the sector Grown in the Mediterranean area since ancient times, olive groves have shaped the rural landscape of many EU regions. Beyond their productive value, they can also constitute a rural tourist attraction with the presence of ancient olive trees or outstanding olive plantation landscapes. Their main product, olive oil, is widely recognised as being an icon of Mediterranean cuisine and as being healthy. Consumption has therefore increased in non-producing countries all over the world and the EU is the world's main exporter, as well as being the main consumer market. Nevertheless, the sector is facing challenges that need to be addressed if it is to avoid disruptive effects on its future development. A primary challenge, also common to other agricultural activities, is the pace of farm structural development into a more efficient and modern production system. This is often linked to the idea of increasing farm size and introducing mechanisation in the production processes. This evolution has taken place in parts of Spain and Portugal, while in general production systems remain very traditional and cohabitation between large and modern and small and traditional productive units is typical. Nevertheless, a Spanish research article (Arcas N. et al. 2013) on the sustainability of olive tree cultivation notes that transforming traditional olive orchards into more intensive olive plantations is not a one-size fits all solution. This can be owing to the characteristics of the producing areas (e.g. a fragile environment or significant slope), production methods (e.g. traditional harvesting is preferred to avoid damaging olives), or the trees themselves (e.g. being a perennial permanent crop causes rigidity in adaptation to new productive schemes). This is why researchers suggest that the



sustainability of olive production should not rely on production intensification in bigger farms only, but more on innovative harvesting solutions, new cultivars or better pest management, in order to grow olive orchards that are more profitable – and less exposed to market volatility – in smaller productive units too.

The olive oil market can fluctuate for several reasons, such as the cyclical alternation of good and poor harvests or the timespan before new plantations become fully productive. Other factors are less predictable and potentially more disruptive, such as extreme weather conditions or a plant disease outbreak. These elements create a highly volatile market, which means that producers are confronted with unstable prices and revenues and thus reduced capacity of investment plans for the upkeep of their olive plantations. A recent EPRS briefing analyses the risk-management instruments available for farmers under the CAP. The current debate on the future of EU agriculture policy is meanwhile focussing on their development as tools to address the challenges linked to volatility. Another area of concern relates to marketing standards and trade. To prevent loss of consumer trust in the image of olive oil as a high quality product, a continuous effort is needed at EU and national level to set and implement appropriate rules and measures against food fraud. Indeed, olive oils are subject to regular monitoring and control to prevent fraud, especially in the category of extra virgin olive oils.

The EU also plays an important role in defending its products on the international market, in the framework of the IOC, for issues linked to the sector's products, and of World Trade Organization agreements, in cases of disputes on the application of commercial rules.

3.9 Economic prospects and innovation

According to the Commission's latest medium-term agricultural outlook, the economic forecasts for the sector up to 2026 point to increased production in Spain (where the Commission's estimates show considerable growth of irrigated olive groves in the coming years) by about 10 %, and a less dynamic trend in Greece (+2 %) and Italy (-1 %). In these three main producing countries consumption trends should experience a certain stabilisation or minor decrease, largely offset by increased consumption in non-producing countries inside and outside the EU. This is the trend that has characterised recent years, according to the Commission's short-term agricultural outlook of July 2017. As regards international trade, the outlook for 2026 is a considerable reinforcement of the EU's leading role in exports (+45 % over the period) and a possible increase in imports from non-EU Mediterranean countries. These predictions could be proved correct, especially if producers satisfy EU and world demand by offering the high quality expected from their products. In this respect, the EU is financing research and innovation work into new techniques so as to



achieve more efficient and sustainable growing systems, better treatment of diseases and pests such as olive fruit fly, etc. By way of example of the many EU-funded research projects, it is worth mentioning a 2010 Commission report that describes EU projects focussing on cultivation practices designed to improve environmental performance in the olive oil sector. Earlier still, an olive growers' demand-driven research project initiated in 1979 resulted in large-scale adoption of integrated pest management innovation in Italian olive groves. More recently, besides the above-mentioned multidisciplinary research project on prevention, early detection and control of *Xylella* disease, another Horizon 2020 project seeks to improve the way olive oil quality and authenticity is guaranteed, by detecting and preventing fraud. Other projects funded by the rural development programmes meanwhile also address olive sector issues. Take for instance the innovative composting technique developed in a Spanish organic olive oil cooperative, which turns a polluting by-product (olive cake) into green fertiliser, or the innovative filtering prototype for olive oil production developed by an Italian olive oil mill enterprise in partnership with a university, chamber of commerce and private companies.

3.10 Opportunities in the CAP post 2020

The Common Agricultural Policy is the key EU funding mechanism to support environmental and climate action in the EU agricultural and forest sectors. The evidence demonstrates that efforts to date to green the CAP have not been sufficient to outweigh the damage being done to biodiversity, water quality, soils and air quality. Furthermore, the recent IPCC report shows that the EU is not on track to meet its contribution towards the Paris Agreement's long-term aim of limiting the Earth's temperature increase to 1.5°C above pre-industrial levels.

The CAP Proposals for the 2021-27 period, published by the European Commission in June 2018, recognise that greater environmental and climate ambition is required and have made this an explicit requirement on Member States within the draft legislative text. A major feature of the proposals involves a fundamental change in the delivery approach towards one in which all CAP support (both Pillar 1 and Pillar 2) is focused on performance, delivering results against a set of EU objectives in light of national and regionally identified needs. If this ambition were to be realised, this could provide a real opportunity to scale up environmental and climate action across the agriculture and forest sectors to meet EU and national targets and priorities (Hart K. & Bas-Defossez F., 2018).

The 2013 CAP reform introduced a significant change in the structure of the CAP, mainly Pillar 1, but also some changes to Pillar 2. The changes were influenced by a number of factors, namely the desire: a) to make the distribution of direct payments more equitable, both between and within Member States; b) to improve



the legitimacy of direct payments by making environmental management and the delivery of public goods a more integral part of agricultural support; and c) to continue the longstanding efforts to simplify the operation of the CAP (Swinnen J. ed., 2015). From an environmental perspective, the major change to the architecture of Pillar 1 of the CAP in the 2014-2020 period was the inclusion of three measures providing ‘payments for agricultural practices beneficial for the climate and the environment, otherwise known as ‘green direct payments’, for which Member States must allocate 30 per cent of their national CAP Pillar 1 budget. These practices are mandatory for farmers to which they apply and are: crop diversification; the maintenance of permanent grassland; and Ecological Focus Areas (EFA). The introduction of ‘greening’ meant that the cross-compliance framework for standards of Good Agriculture and Environmental Condition (GAEC) was restructured and consolidated into a reduced list, since some of the previous standards had evolved into the greening measures.

Some changes were also introduced into the EAFRD (Pillar 2) for 2014-2020, both in terms of structure and content, with the aim of achieving a more integrated approach to the delivery of environmental, economic and social outcomes, responding more directly to the priorities and needs identified in different Member States and regions. Greater emphasis was put on the strategic, programmed, multi-annual approach of the Rural Development Programmes (RDPs), underlining the importance of clear objectives, achieving maximum value added, making the RDPs more result-oriented and effective monitoring and evaluation. As part of this, the three ‘axes’ of the previous programming period were replaced by six core priorities, one of which is environmental (Priority 4 - restoring, preserving and enhancing ecosystems related to agriculture and forestry) and one of which is climate related (Priority 5 - promoting resource efficiency and supporting the shift towards a low carbon and climate resilient economy in agriculture, food and forestry sectors).

Within the context of a declining overall CAP budget, enhancing ambition on environment and climate to make a greater contribution towards key EU environmental and climate objectives and targets has been one of the key issues driving the thinking about the redesign of the CAP, on paper at least. Other priorities have been to find ways to simplify and modernise the policy, encourage innovation, respond to societal concerns about the quality of their food and the production methods used and to encourage greater growth and jobs in rural areas. Two key structural changes have been made to seek to enable this: 1. reviewing and rebalancing the responsibilities between the EU and Member States; and 2. shifting the focus of payments and support away from compliance with detailed rules set at the EU level, towards a focus on performance. The four general objectives for the new CAP are:

- to foster a smart, resilient and diversified agricultural sector ensuring food security;




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- to bolster environmental care and climate action and to contribute to the environmental-and climate-related objectives of the Union;
- to strengthen the socio-economic fabric of rural areas;

And one cross-cutting objective:

- To modernise the sector by fostering and sharing knowledge, innovation and digitalisation in agriculture and rural areas, and encouraging uptake.

Under these sit nine specific objectives, three of which focus directly on climate and the environment (see Figure 1).

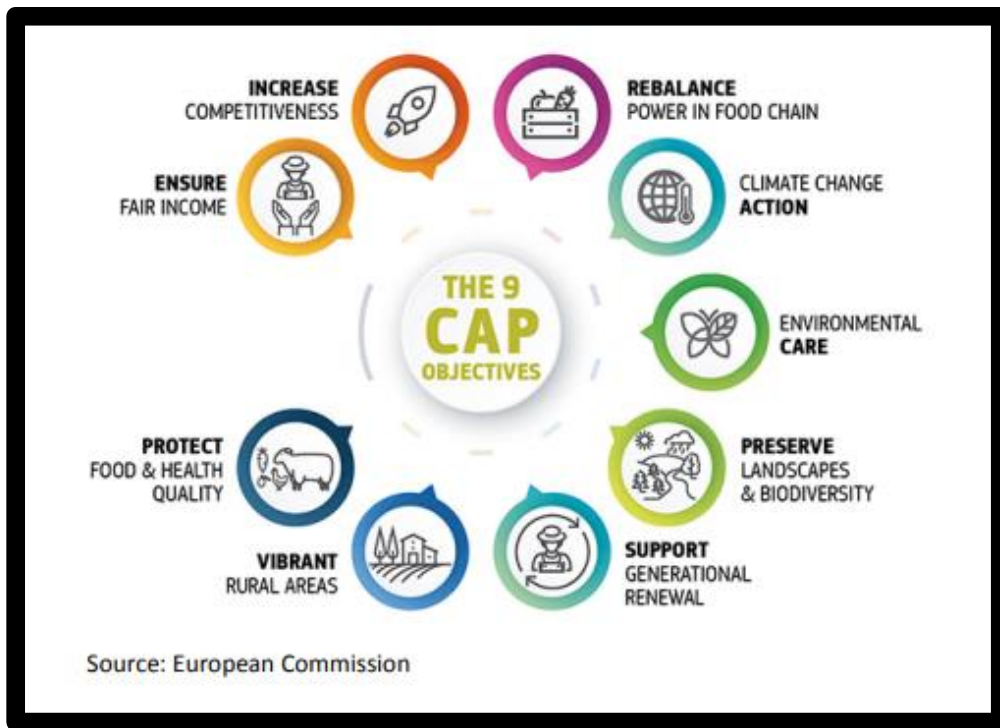


Fig. 1- The nine objectives proposed for the CAP 2021-27



The new architecture for the green elements of the CAP is illustrated in Figure 2



Source: Commission slide

Fig. 2 – The proposed new green architecture for the CAP 2021-2027

A new governance model is proposed for the CAP, the key element of which is to move towards one that rewards performance against a common EU framework of objectives, rather than one focussed on ensuring compliance with detailed EU-wide rules. The new model would require national authorities to define in Strategic Plans how common objectives set at the EU level could be implemented on the ground, reflecting geographical and sectoral specificities as well as local needs.



A new governance model is proposed for the CAP, the key element of which is to move towards one that rewards performance against a common EU framework of objectives, rather than one focussed on ensuring compliance with detailed EU-wide rules. The new model would require national authorities to define in Strategic Plans how common objectives set at the EU level could be implemented on the ground, reflecting geographical and sectoral specificities as well as local needs. Annual and multi-annual reporting would be required against a common set of metrics and the Commission will be responsible for approving the Strategic Plans and monitoring progress towards meeting the objectives set.

In drawing up their Strategic Plans, Member States are required to engage with a range of authorities and stakeholders. This stipulates that the competent authorities for the environment and climate are effectively involved in the preparation of relevant aspects of the plan and that Member States should set up a partnership with relevant stakeholders to support the preparation of the plan, including civil society.

However, as currently the proposals made do not contain sufficient provisions to guarantee the achievement of the objective. In particular, the objectives set are not sufficiently detailed or quantified, the indicators to measure performance remain very broad and, most importantly, there are insufficient provisions within the proposals to be confident that the Strategic Plan approval process will ensure that Member States are accountable and deliver what is required to address the environmental and climate targets and needs identified in their country.



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