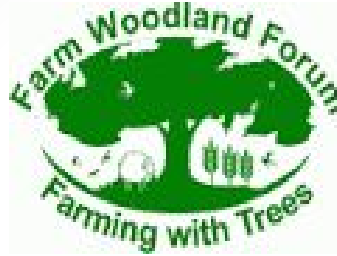


Policies to encourage trees on farms in the UK and Ireland: comparison of CAP (2014-2020) Pillar I and Pillar II measures.



5 Countries, 5 Approaches

Gerry Lawson (Centre for Ecology and Hydrology, Edinburgh), Eugene Curran (Forest Service, Skibbereen), Jim McAdam (Agri-Food and Biosciences Institute, Belfast), Mike Strachan (Forestry Commission, Perth), Tim Pagella (University of Wales, Bangor) Terry Thomas (University of Wales (rtd), Bangor), Jo Smith (Organic Research Centre, Newbury)

Farm Woodland Forum, Annual Meeting, Ballyhaise, Cavan, Ireland, 21-23 June 2016

Definitions matter for the CAP and GHG emissions accounting

“agroforestry”, “forest”, “tree”, “agricultural activity” ,
“reference parcel”, “agricultural parcel”, “landscape feature”,
“ecological focus area”

“Agroforestry”: a range of definitions

- **ICRAF (1)**: “The deliberate growing of **woody perennials** on the same unit of land as agricultural crops and/or animals, either in some form of spatial mixture or sequence” (Lundgren 1982)
- **ICRAF (2)**: “A dynamic, ecologically based, natural resource management system that, through the integration of **trees** in farm- and rangeland, diversifies and sustains smallholder production for increased social, economic and environmental benefits”(Leahey 1996)
- **USDA**: “The intentional growing of **trees and shrubs** in combination with crops or forage ... agroforestry is distinguished from traditional forestry by having the additional aspect of a closely associated agricultural or forage crop.” (USDA 2011)
- **EU**: “Land use systems in which **trees** are grown in combination with agriculture on the same land. *The minimum and maximum number of trees per hectare shall be determined by the Member States taking account of local pedo-climatic and environmental conditions, **forestry species** and the need to ensure **sustainable agricultural use of the land.***” (Article 23 of Regulation 1305/2013)

The EU definition is **SIMPLE & MEASURABLE** (once “tree” is defined!)



Definitions of “sustainable agriculture use”?

“Agricultural Activity” in the EU is defined by Article 51 of Regulation (EC) No 1782/2003:

1. production, rearing or growing of **agricultural products**, including harvesting, milking, breeding animals, and keeping animals for farming purposes, or
2. maintaining an agricultural area in a state which makes it **suitable for grazing or cultivation without preparatory action** going beyond usual agricultural methods and machineries, based on criteria established by Member States on the basis of a framework established by the Commission, or
3. carrying out a **minimum activity**, defined by Member States, on agricultural areas naturally kept in a state suitable for grazing or cultivation (e.g. Scotland is 0.05 LSU/ha)

But the EU has set the bar higher for agricultural parcels containing trees ... Article 8 of Regulation 796/2004:

*‘A parcel that contains trees shall be considered an agricultural parcel for the purposes of the area-related aid schemes provided that agricultural activities referred to in Article 51 of Regulation (EC) No 1782/2003 or, where applicable, the production envisaged can be carried **out in a similar way as on parcels without trees in the same area.**’*

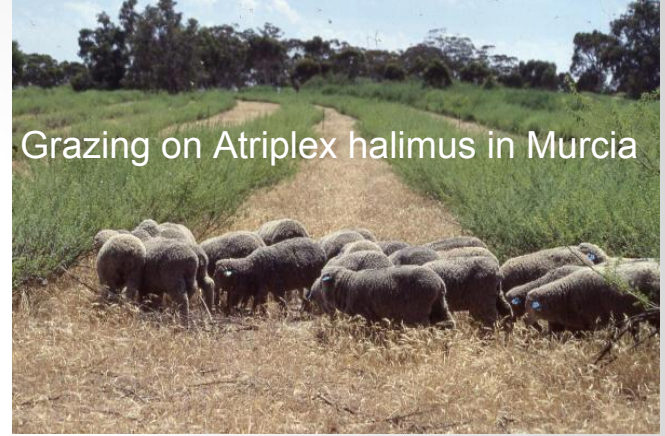
Definitions of “agroforestry”?

Grazing in Scottish heather moor



AGFORWARD: “the practice of deliberately integrating **woody vegetation** (trees or shrubs) with crop and/or livestock production systems to benefit from the resulting ecological and economic interactions”

Grazing on *Atriplex halimus* in Murcia



Domestic reindeer in Lapland



Lone tree in arable land



Simpler version: “land use system in which **trees** are grown in combination with agriculture on the same land. Trees can be inside parcels or on boundaries (e.g. hedges)”

Grazing on bamboo in China

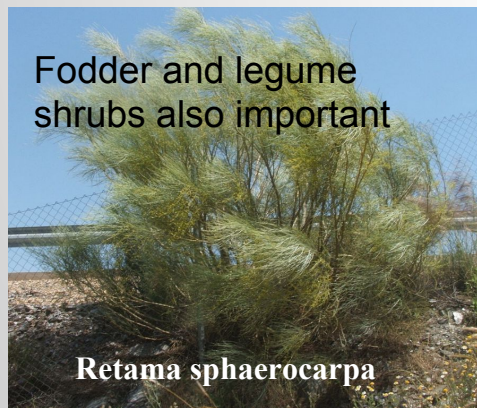


So what is a tree”?

Minimum tree height for forests is defined by Member States in the “LULUCF Decision” (specifically : *“potential height in situ”*)

Only 6 EU Member States use the FAO minimum area, crown cover and tree height criteria in their UNFCCC/ LULUCF accounting.

8 EU Member States think that “trees” need only be 2-3 m high.



Annex V In Decision No 529/2013/EU of the European Parliament and of the Council 21 May 2013

Member State	Area (ha)	Tree crown cover (%)	Tree height (m)
Austria	0,05	30	2
Belgium	0,5	20	5
Bulgaria	0,1	10	5
Czech Republic	0,05	30	2
Denmark	0,5	10	5
Estonia	0,5	30	2
Finland	0,5	10	5
France	0,5	10	5
Germany	0,1	10	5
Greece	0,3	25	2
Hungary	0,5	30	5
Ireland	0,1	20	5
Italy	0,5	10	5
Latvia	0,1	20	5
Lithuania	0,1	30	5
Luxembourg	0,5	10	5
Netherlands	0,5	20	5
Poland	0,1	10	2
Portugal	1,0	10	5
Romania	0,25	10	5
Slovakia	0,3	20	5
Slovenia	0,25	30	2
Spain	1,0	20	3
Sweden	0,5	10	5
United Kingdom	0,1	20	2
Cyprus			
Malta			

CAP Pillar I

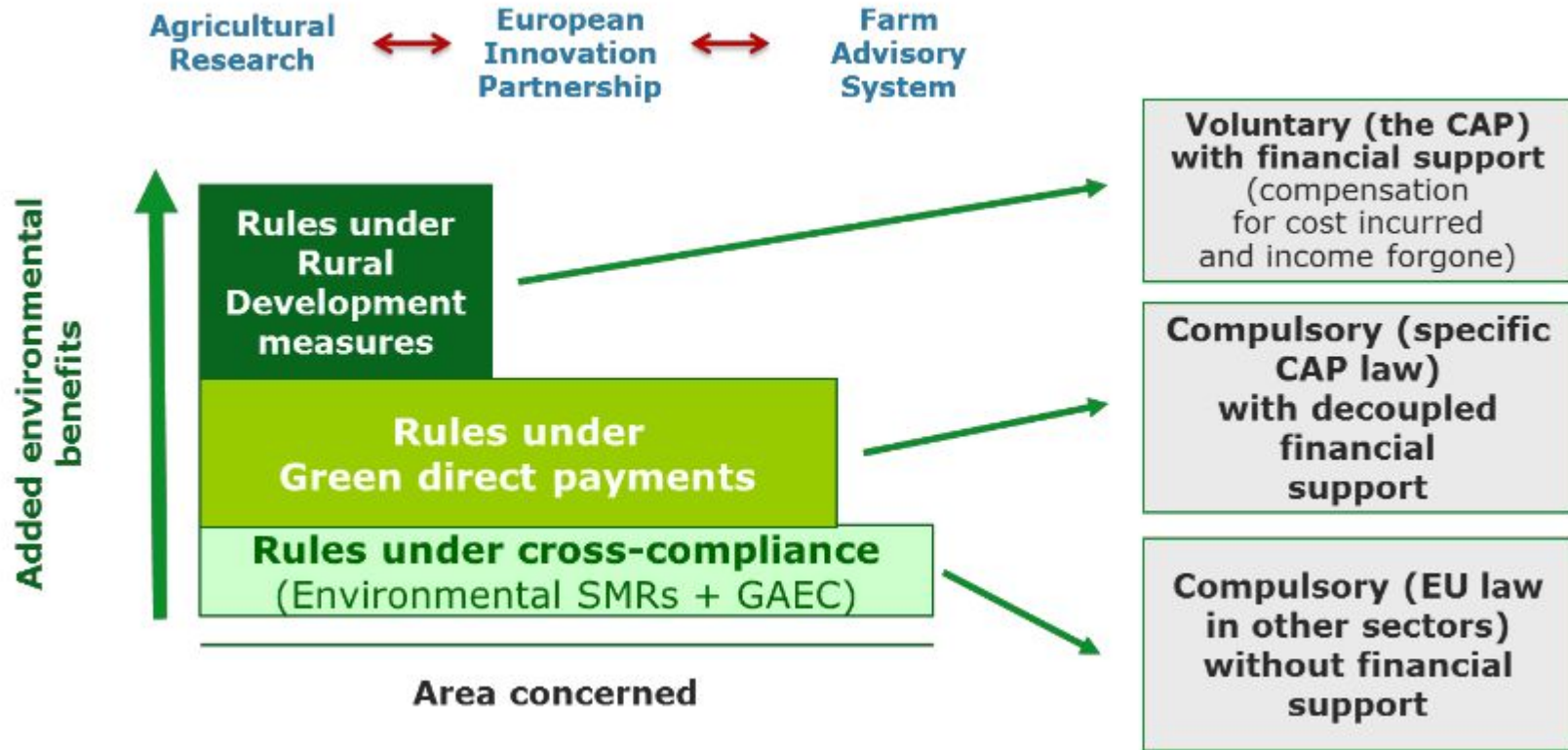
Targeted support to farmers

CAP Pillar I (targeted direct support to farmers)

Direct support to farmers but shifted from 'decoupling' to 'targeting'. Generic income support introduced in 2003 is now replaced by support linked to seven specific objectives (first 3 compulsory, MS must use 30% of direct payments budget for Greening):

1. **basic payment per hectare (*with level “harmonised according to national or regional economic or administrative criteria and subject to an ‘internal’ convergence process”*);**
2. **‘greening’ component, as support to offset the cost of providing environmental public goods not remunerated by the market;**
3. **additional payment for five years for young farmers;**
4. *payment whereby farmers are granted additional support for the first hectares of farmland (“redistributive payment” - only BE, BG, DE, FR, HR, LT, PL, RO);*
5. *additional income support in areas with specific natural constraints (only Denmark?);*
6. *coupled support for production, granted in respect of certain areas or types of farming for economic and/or social reasons (“voluntary coupled support” . only UKS and IE);*
7. *simplified system for small farmers, with payments of up to EUR 1,250.*

Greening and GAEC in Pillar 1



Agroforestry counts an Ecological Focus Area (EFA) but only areas declared as new agroforestry in Pillar II. the other “Tree” Landscape Features are more important.

[illegible]

Pillar I - reduction in BPS based on tree numbers

Commission Delegated Regulation 640/2014. Article 9

[Commission Delegated Regulation 640/2014](#) (supplementing and interpreting Regulation 1306/2013) devotes its Chapter II to “**Agricultural parcels with landscape features and trees**”. There are two Articles in the Chapter:

Article 9 “Determination of areas where the agricultural parcel contains landscape features and trees”:

1. *Where certain landscape features, in particular **hedges**, ditches and walls, are traditionally part of good agriculture cropping or utilisation practices on agricultural area in certain regions, **Member States may decide that the corresponding area shall be considered part of the eligible area** of an agricultural parcel within the meaning of Article 67(4)(a) of [Regulation \(EU\) No 1306/2013](#) provided that it does not exceed a total width to be determined by the Member State concerned.*
2. ***Any landscape features subject to the requirements and standards listed in Annex II to Regulation (EU) No 1306/2013 which form part of the total area of an agricultural parcel shall be considered part of the eligible area** of that agricultural parcel.*
3. *An agricultural parcel that contains **scattered trees** shall be considered as eligible area provided that the following conditions are fulfilled:*
 - a) ***agricultural activities can be carried out in a similar way** as on parcels without trees in the same area; and*
 - b) ***the number of trees per hectare** does not exceed a maximum density..... “The maximum density... **shall be defined by Member States** and notified on the basis of traditional cropping practices, natural conditions and environmental reasons. **It shall not exceed 100 trees per hectare**”. (EURAF has [asked](#) for the following clarification “**farmers can plant more than 100 seedlings/ha under submeasure 8.2, but they must regularly thin, prune or pollard to ensure that there are never more than 100 trees/ha with a crown diameter exceeding 4m**”)*

Pillar I - alternative reduction in BPS based on crown density

Commission Delegated Regulation 640/2014. Article 10

[Commission Delegated Regulation 640/2014](#) (supplementing and interpreting Regulation 1306/2013) devotes its Chapter II to “**Agricultural parcels with landscape features and trees**”. There are two Articles in the Chapter:

Article 10, Pro-rata system for permanent grassland containing landscape features and trees. Note: if selected by MS this is an alternative to the Article 9 - but is only applicable to trees on permanent grasslands.

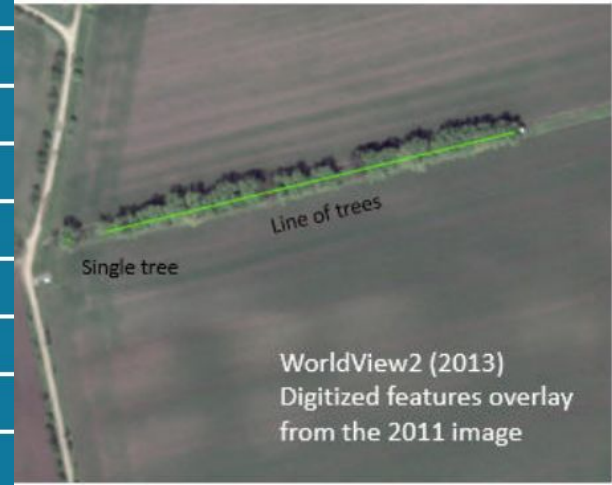
1. *As regards permanent grassland with **scattered ineligible features, such as landscape features and trees**, Member States may decide to apply a pro-rata system to determine the eligible area within the reference parcel.*
*The pro-rata system referred to in the first subparagraph shall consist of **different categories of homogeneous land cover types for which a fixed reduction coefficient based on the percentage of ineligible area is applied.***
2. *Any landscape features subject to the requirements and standards listed in Annex II to [Regulation \(EU\) No 1306/2013](#) which form part of the total area of an agricultural parcel shall be considered part of the eligible area.*
3. *This article shall not apply to permanent grassland containing fruit trees which yield repeated harvests.*

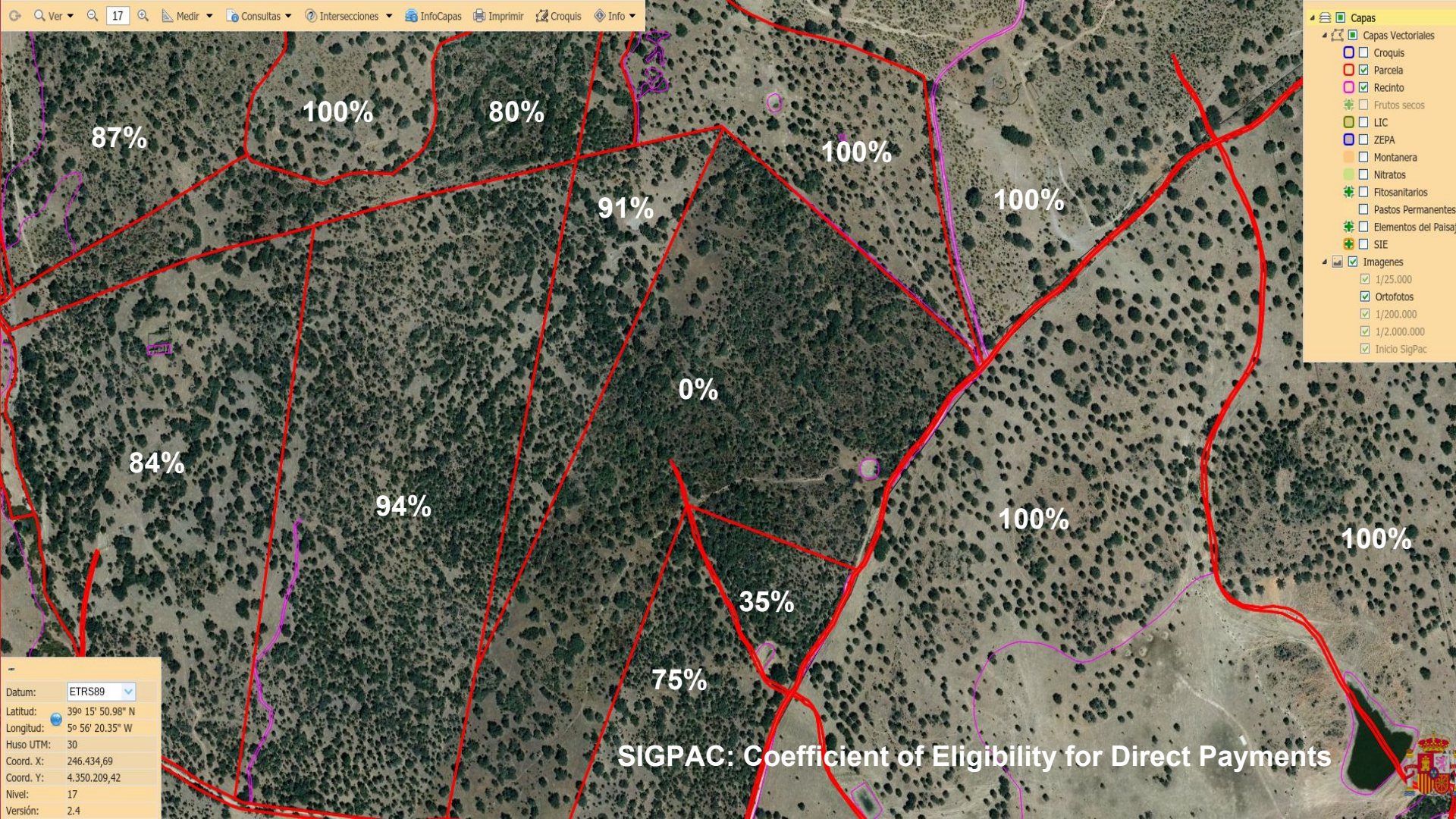
LPIS can hold landscape features as polygons, polylines or polydots

- Images are increasingly available with pixel resolution less than 1m
- National/regional LPIS systems are expected to make images available to farmers at 1:5000 resolution (i.e pixel size is 0.5m)
- VHR vital for Landscape Features & EFAs
- Most data is publicly available in Spain, France, Flanders, Czech Republic, Estonia, Slovakia, Slovenia .. and list is growing
- LPIS data is difficult to obtain in the UK - even for research purposes

In Spain NDVI (to distinguish bare ground), DTMs (to eliminate steep slopes) and LIDAR (to distinguish tree from shrub cover) are used to establish eligibility for Direct Payments. The "SIGPAC Visor" is fully public (next slide).

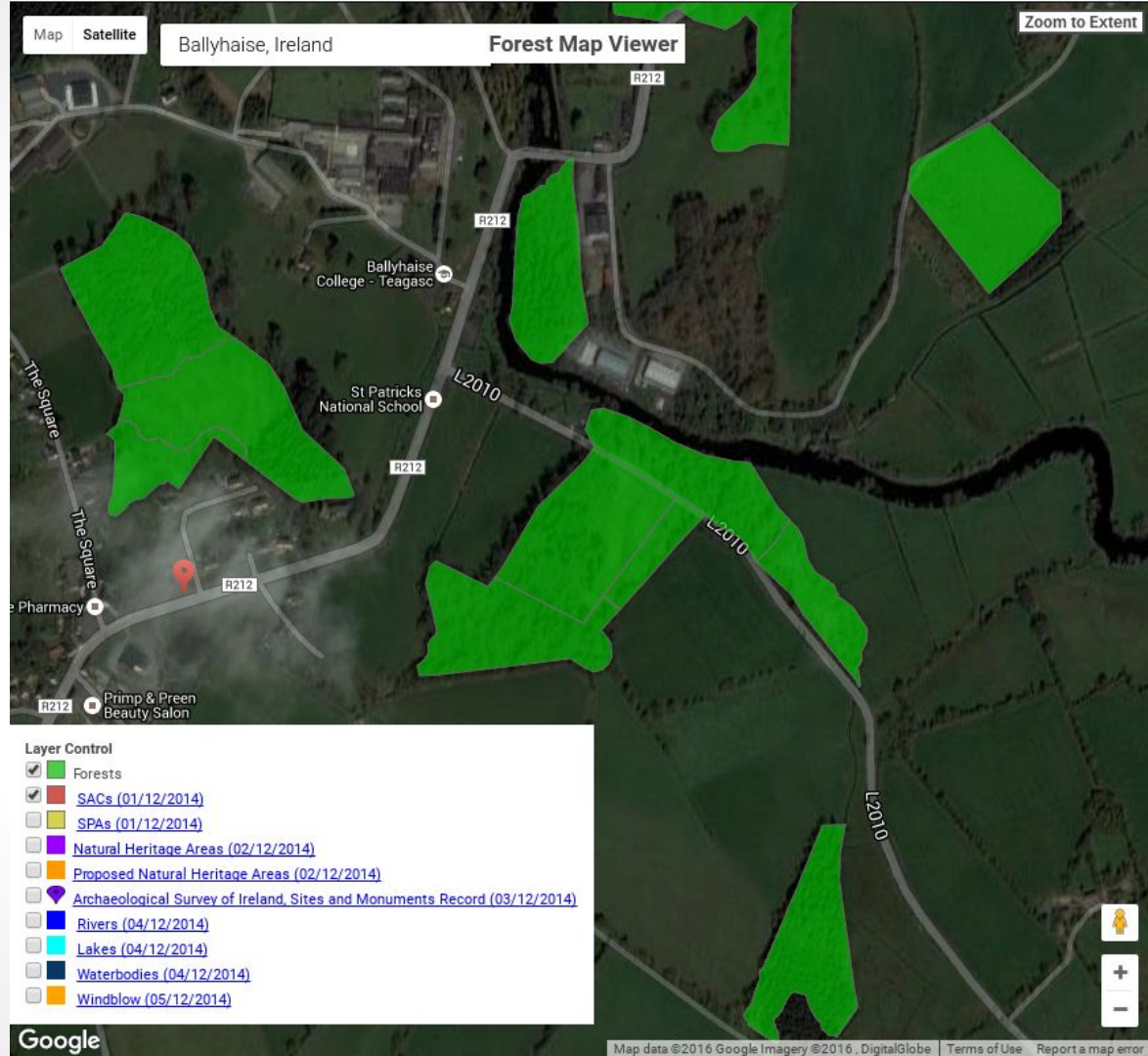
GeoEye-1 (0.46m)	😊
GeoEye-2 (0.34m)	😊
WorldView-1 (0.46m)	😊
WorldView-2 (0.46m)	😊
WorldView-3 (0.31m)	😊
Pleiades-1A (0.5m)	😊
Pleiades-1B (0.5m)	😊
KOMPSAT-3A (0.55m)	
KOMPSAT-3 (0.7m)	
QuickBird (0.65m)	
Gaofen-2 (0.8m)	
TripleSat (0.8m)	
IKONOS (0.82m)	
SkySat-1 (0.9m)	
SkySat-2 (0.9m)	

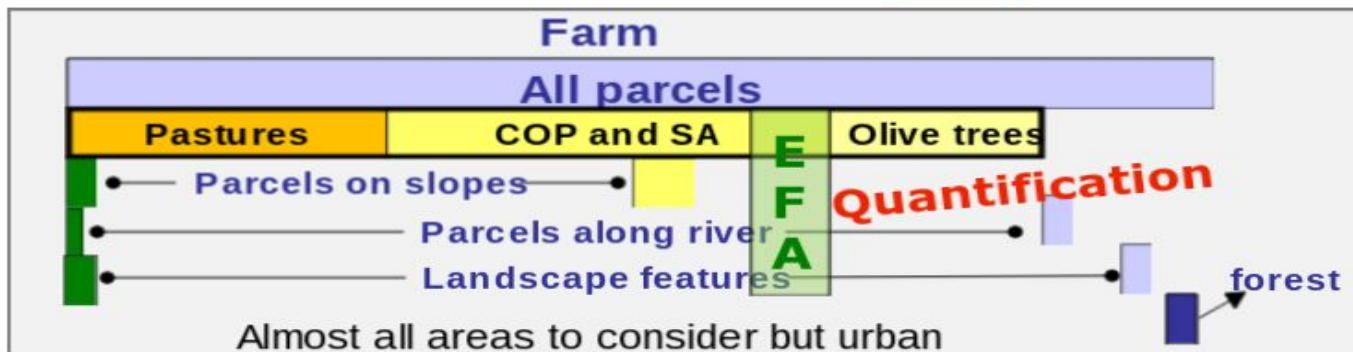




The Irish Forestry Geoportal

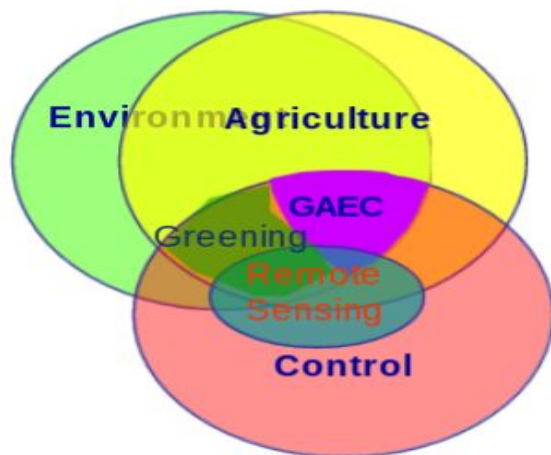
The portal shows forest areas from two sources: a) afforestation shown in the Irish Land Parcel Information System (LPIS) up to 2013 and legacy forestry polygons from the Forest Inventory and Planning System Project (“FIPS98”).





Greening of the CAP
(crop diversification,
winter cover, permanent
pasture ...)

More complex land use-
land cover management

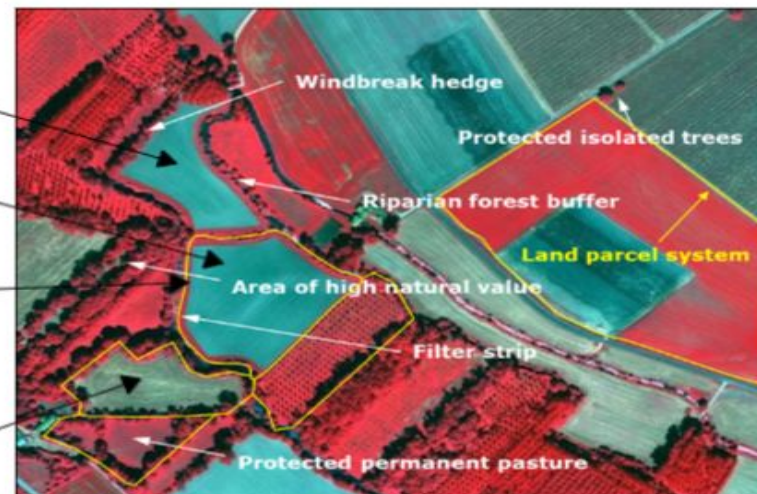


Area

Crop group

Land maintenance

EFA quantification



Increased VHR images need (at least 50 cm + maybe 3 D information)

IACS/LPIS defines whether a parcel is AGRICULTURE or FOREST

And can provide a typology of agroforestry systems ...

Tree Location	AF System	Official Land Use Classification (Cadastre/LPIS)		
		Forest Land	Agricultural Land	Other Land
Trees within parcels	Silvopastoral	Forest Grazing	Wood pasture Orchard grazing	n/a
	Silvoarable	Forest Farming	Alley Cropping Alley Coppice Orchard Intercropping	
Trees between parcels	Boundary Agroforestry	Forest Strips	Shelterbelt Networks Wooded Hedges Riparian Tree Strips	
Urban trees	Urban Agroforestry	n/a		Home Gardens

CAP Pillar II

Rural Development Policy - including
cofinancing, multiannual national or regional
programming from a European 'menu of measures'

CAP Pillar II

Introduced as part of 'Agenda 2000'. Financed by the European Agricultural Fund for Rural Development (EAFRD) and intended to help develop an agriculture which is balanced from the **regional** and **environmental** points of view, avoids damaging the **climate**, and is **resilient in a context of climate change**, as well as being **competitive** and **innovative**.

The six policy priorities for Rural Development Policy for 2014-2020 are as follows:

- to promote **knowledge transfer and innovation** in agriculture and forestry (developing the knowledge base in rural areas; fostering links between agriculture, forestry and research);
- to increase the **viability and competitiveness** of all types of agriculture, promote innovative agricultural technologies and support sustainable forest management;
- to promote the organisation of the **food production chain, animal welfare and risk management in farming**;
- to restore, preserve and reinforce agricultural and forest ecosystems (biodiversity, water and soil);
- to promote the **efficient use of resources** (water and energy) and support the transition to a **low-carbon economy** (using renewable energy, reducing greenhouse gas emissions, carbon sequestration and storage);
- to promote **social inclusion, poverty reduction and economic development** (facilitating job creation, promoting local development and improving access to information and communication technologies).

Implementation of AF in Pillar II CAP 2007- 2013

Planned Measure 222 spend was only 0.2% of planned total forestry spend (7€ billion)

And only 6.4% of this 0.2% was spent!

Beneficiary targets (achieved)

- Belgium 75 (7)
- France 610 (15)
- Hungary 300 (93)
- Italy 1032 (2)
- Portugal 575 (3)
- **Total 2592 (120) - 4.6%**

Area targets (ha) (achieved)

- Belgium 250 (7.55)
- France 3032 (92)
- Hungary 3000 (905.5)
- Italy 6729 (24)
- Portugal 15025 (183)
- **Total 28036 (1212) - 4.3%**

Financial Targets

Country	Region	Financial plan	Financial execution	Implementation rate (%)
Belgium	Flanders	500000	11752	
	Total	500000	11752	2.4
France	Hexagon	2852202	101138	
	Guadeloupe	326000	0	
	Guyana	50000	0	
	Total	3228202	101138	3.1
Hungary	Total	2813540	720574	25.6
Italy	Marche	1270000	0	
	Veneto	30000	9797	
	Total	1300000	9797	0.8
Portugal	Mainland	6644519	102827	
	Azores	160000	0	
	Total	6804519	102827	1.5
Total EU 27		14646261	946088	6.4

Support for AF in CAP 2014-20 compared with 2007-13

Regulation 1698/2005 (“RDR Basic Act” for CAP 2007-13)

- Article 44 “**First establishment of agroforestry systems on agricultural land**”
Support ... to farmers to create agroforestry systems combining **extensive** agriculture and forestry systems. Support shall cover the **establishment costs**. Agroforestry systems refer to land use systems in which **trees** are grown in combination with agriculture on the same land (*but Pillar I, Single Farm Payments were limited to <50 trees/ha in Working Document [Agri/2254/2003](#)*)

Regulation 1305/2013 (“RDR Basic Act” CAP 2014-2020)

- Article 23. “**Establishment of Agroforestry**”. “Land use systems in which **trees** are grown in combination with agriculture on the same land. (*but Pillar I, Basic Payments are limited to < 100 trees/ha, or a pro-rata reduction in payment based on crown cover, in Commission Delegated Regulation [640/2014](#)*)
- Article 21. “**Investments in forest area development and improvement of the viability of forests**”. Para (1)(b) “Establishment of agroforestry systems”.
- Article 24. “**Prevention and restoration of damage to forests from forest fires and natural disasters and catastrophic events**”. Para (1)(b) : “Local small scale prevention activities against fire and other natural hazards **including the use of grazing animals**”.

Will uptake of AF funds be better in the CAP 2014- 20?

Measure 8.2 is now activated in 35 regions

- **France** (15 of 27 regions: Auvergne, Basse-Normandie, Guadeloupe, Guyane, Haute-Normandie, Île-de-France, Limousin, Lorraine, Martinique, Midi-Pyrénées, Nord-Pas-de-Calais, Pays de la Loire, Picardie, Poitou-Charentes, Rhone-Alpes)
- **Spain** (6 of 17 regions: Andalucía, Asturias, Extremadura, Galicia, País Vasco, Comunidad Valenciana)
- **Italy** (5 of 21 regions: Basilicata, Marche, Puglia, Umbria, Veneto)
- **Portugal** (3 of 3 regions: Continente, Azores, Madeira)
- **United Kingdom (3 of 4 regions: Northern Ireland, Scotland, Wales)**
- **Belgium** (1 of 2 regions: Flanders)
- **Hungary** (single RDP for whole MS)
- **Greece** (single RDP for whole MS)

Ireland chose to support AF with the equivalent of Measure 8.1 (afforestation). Parcels will change to “forest” in the LPIS, but direct payments are protected for 12 yrs.

Pillar II 2013-2020 Measure 8.2: Budget & Planned Areas

Country	Region	Area (ha)	Amount (€)	Cost/ha
Italy (5)	Basilicata	50	826488	16,530
	Marche	437	2000000	4,577
	Puglia	500	5000000	10,000
	Umbria	200	1000000	5,000
	Veneto	77	231911	3,012
	TOTAL	1264	9058399	7,166
France (15)	Auvergne	100	793650	7,937
	Bass Normandie	not specified	200000	
	Guadeloupe	30	363353	12,112
	Guyane	500	870000	1,740
	Haute Normandie	not specified	700000	
	Ile de France	500	800000	1,600
	Limousin	500	400000	800
	Martinique	10	117648	11,765
	Midi Pyrenees	1000	754717	755
	Rhone Alpes	420	573 333	1 365
	Lorraine	600	1 358 570	2 264
	Nord Pas de Cal	1000	754717	755
	Pays de Loire	400	1000000	2,500
	Picardie	350	666667	1,905
	Poitou Charentes	230	133333	580
	TOTAL	5640	7554085	1,339

Country	Region	Area (ha)	Amount (€)	Cost/ha
Spain (6)	Andalucia	48800	26000000	533
	Asturias	1200	18333333	15,278
	Extremadura	6894	43813392	6,355
	Galicia	852	764000	897
	Pais Vasco	539	1418000	2,631
	Comunidad Va	985	1300000	1,320
	TOTAL	59270	91628725	1,546
UK (3)	Wales	147	491800	3,346
	Scotland	300	1200000	4,000
	N Ireland	52	121951	2,345
	TOTAL	499	1813751	3,635
Portugal (3)	Continente	2372	2585951	1,090
	Açores	70	941176	13,445
	Madeira	200	900000	4,500
	TOTAL	2642	4427127	1,676
Belgium (1)	Flanders	150	500000	3,333
Hungary	National	1800	7272000	4,040
Greece	National	2000	21367521	10,684
ALL	Grand Total	73265	143621608	1,960

Around 74,000 ha at a cost of €143.6 M

See datafile (and possible updates) [here](#)

Country Details

Ian, Jim, Gerry, Terry, Gerry

Ireland (1)

Ireland is unique in funding forestry directly from the National Development Plan rather than the Rural Development Programme (which does fund the the Green Low-Carbon Agri-environment Scheme (GLAS), including some native tree planting).

Scheme	€
Measure 1: afforestation and Creation of woodlands	€199,486,744
Measure 2: Investments improving the Resilience and Environmental value of Forestry: - NeighbourWood Scheme	€1,050,000
Measure 3: Investments in Infrastructure: Forest Road Scheme	€30,600,000
Measure 4: Prevention and Restoration of Damage to Forests: - Reconstitution Scheme	€4,668,000
Measure 5: Investments improving the Resilience and Environmental value of Forestry: - Woodland Improvement	€6,750,000
Measure 6: Investments improving the Resilience and environmental value of Forests: - Native Woodland Conservation Scheme	€7,258,000
Measure 7: Knowledge Transfer and Information Actions	€8,700,000
Measure 8: Setting up of Producer Groups	€300,000
Measure 9: Innovative Forest Technology	€900,000
Measure 10: Forest Environment and Climate Services: -Forest Genetic Reproductive Material	€420,000
Measure 11: Forest Management Plans	€1,800,000

100% state support and payment of BPS for 15 years after afforestation (check this!)

Forestry Programme 2014 – 2020: IRELAND

Submitted in accordance with European Union Guidelines on State aid for agriculture and forestry and in rural areas 2014 to 2020



"To develop an internationally competitive and sustainable forest sector that provides a full range of economic, environmental and social benefits to society and which accords with the Forest Europe definition of sustainable forest management . " - The strategic goal stated in Forests, products and people, Ireland's forest policy review, July 2014

Ireland (2) - 195 ha of agroforestry planned at cost of €971k

Agro-Forestry (Grant and Premium Category 11)



Agroforestry is the practice of combining forestry and agriculture in a mutually beneficial way.

Tree species

Acceptable species include oak, sycamore and cherry but other species can also be considered on a case by case basis. Large plants (90 cm - 120 cm) should be used. Planting should be carried out using pit planting where possible.

Initial stocking rate should be between 400 and 1000 trees per hectare equally spaced out. Minimum plot size is 0.5 ha while minimum plot width is 20 metres.

Allowable agricultural activities

Grazing by sheep or young domestic stock is permitted during spring and summer for the first six to eight years. Trees must be

protected and tree shelters checked regularly. Once trees are of a sufficient size, tree shelters can then be replaced with plastic mesh and larger stock can be introduced.

Silage and hay production is also permitted. It is important that appropriate machinery is used when cutting silage and/or hay so as to ensure that the trees are not inadvertently damaged.

Ireland (3) - Teagasc advice on agroforestry

Soils

Ideally, sites should contain free draining mineral soils and should have no requirement for additional drainage.

In general, sites suitable for agro-forestry should not require additional fertiliser for tree growth. However, additional nitrogen (up to 100kg/ha) may be required to promote grass growth for spring/summer grazing. This can be assessed on a site by site basis.

Grant aid

80% of eligible costs are covered. Land classified by the Department as 'unimproved/unenclosed' (i.e. GPC 1) will not be eligible for support under GPC11.

Grant rates and payment structure are paid on a fixed grant basis. Premiums will be paid for five years and will cover the cost of maintenance only.

The maximum grant and premium rates are detailed below. The afforestation grant is a fixed grant to cover the costs incurred in the establishment of a forest and paid exclusive of VAT. It is paid in two instalments as outlined below. An additional allowance for fencing (to the maximum rates detailed below) is payable with the First Grant instalment.

Please note that agro-forestry must remain under forestry and therefore is subject to a re-planting obligation.

The grant application is made by the forest owner in association with a [Registered Forester](#) (PDF 54 KB). Valuable information on how to make a grant application, eligibility requirements, available options, etc. can be found in [this section](#).



Ireland (4) Agroforestry grant rates

Grant Rates (€/ha)

Grant/Premium Category (GPC)	1st Grant (€/ha)	2nd Grant (€/ha)	Additional Fencing Allocation (IS436)	Alternative Fencing Allocation (Non IS436)	Total Available Funding (€/ha)
GPC 11 – Agro-Forestry	2960	990	500	450	4450

Premium Rate (€/ha)

Grant/Premium Category (GPC)	Annual premium (€/ha)	Duration (years)
GPC 11 – Agro-Forestry	260	5



Ewes at Liscubba, Co Cork



Cutting silage when ewes move on

Ireland (5) Early AF Adopters

Alan Kingston's demonstration plot at Kilnaclasha,. Planted 2-14, 1.9 Hectares of agroforestry. Part of a larger plantation. Single tree plots 5x5 meter spacing silvopastoral). Rows at 6 x 1.5 meter spacing (silvopastoral. Rows at 8x 1.5 meter spacing (silvoarable).



Liam Beechinors demonstration plot, Liscubba (near Dunmanway) Planted in April of 2012, 1.89 hectares of silvopastoral, ash and oak, single tree at 5 x5 meter spacing. Sheep have grazed it, silage and hay cut



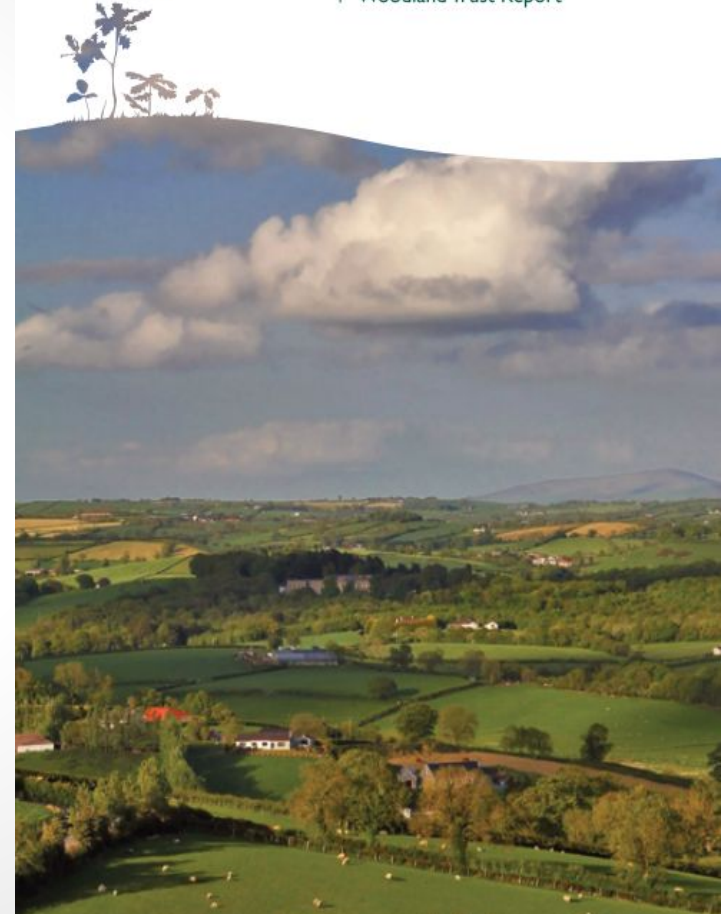
Christoph Eisele /Jaap agroforestry plots in Ballydehob. Using Paulownia and Dutch elm disease tolerant elms (Silvopastoral). New plantation planned for next 2016



Northern Ireland (1)

Submeasure 8.2 (agroforestry) is included in the Rural Development Programme (2014-2020) under Measure 8 (Investments in forest area development and improvement of the viability of forests).

- Focus is mainly on silvopastoral systems.
- AF is available as an option in the Environmental Farming Scheme (EFS).
- Establishment costs of £1572/ hectare in year 1.
- Annual maintenance payment - £65 / hectare per year in years 1-5.
- Costs are estimated for trees established at a density of 400/hectare (5m x 5m spacing)
- Budget in in the RDP is to plant 52ha at a cost of €121951 (€2,345/ha) by 2020.



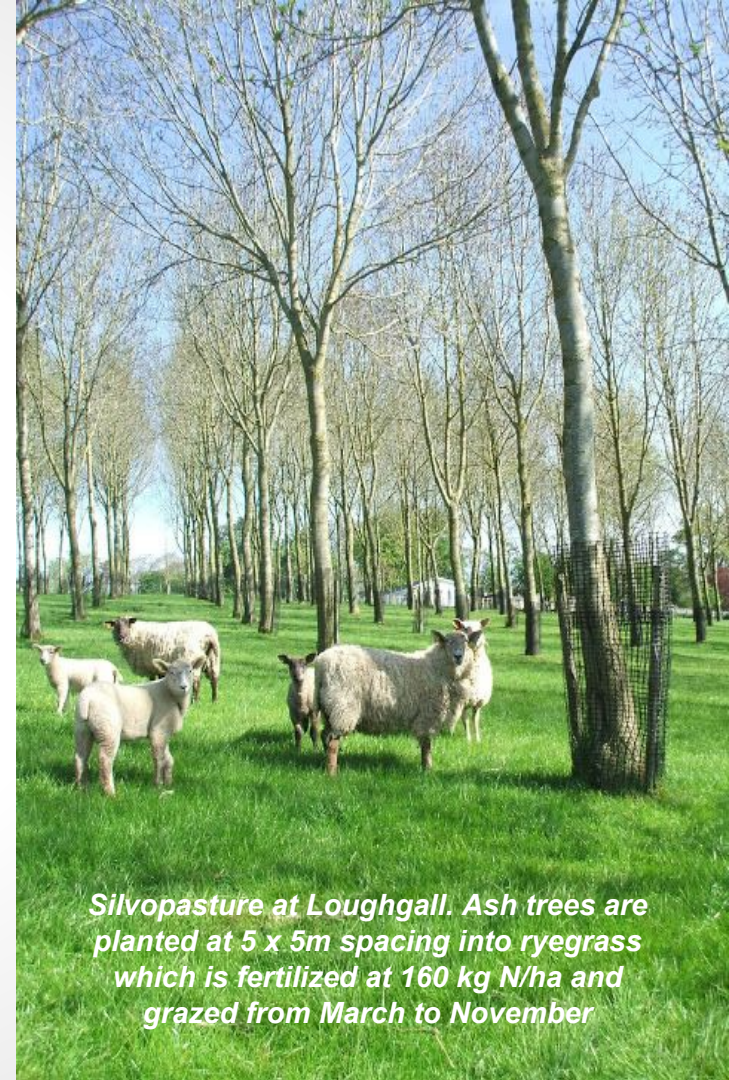
Northern Ireland (2)

Submeasure 8.2 - Establishment of agroforestry

- Agro-forestry should not be established on **semi-natural habitat**.
- Where **fruit trees** are planted, they must be combined with forest tree species and the forest species should be in majority (more than 50%).
- Agro-forestry support will be delivered as part of the Environmental Farming Scheme under Measure 10, delivering benefits of carbon sequestration, biodiversity, soil and water quality.
- AFBI recommends that trees are initially planted at **400 stems/ha**, with first thinning when pasture forage levels are shown, second thinning needed at at years 15-20, to leave a final stocking of 120-150 /ha
- **Support rates** will be 80% of eligible costs for establishment and 100% of eligible costs for maintenance. **Establishment** - £1572 per hectare in Year 1. **Annual maintenance cost** - £65 per hectare per year in Years 1-5. These cost are for trees established at a density of 400 per hectare. The costs may be converted to a cost per hectare for trees established at other densities.

Submeasure 10.1 - payment for agri-environment-climate commitments

- Create a **traditional orchard** to maintain and conserve the genetic resource of traditional fruit varieties
- **Native tree corridors**



Silvopasture at Loughgall. Ash trees are planted at 5 x 5m spacing into ryegrass which is fertilized at 160 kg N/ha and grazed from March to November

Scotland

Submeasure 8.2 (agroforestry) is included in the Rural Development Programme (2014-2020) under Measure 8 (Investments in forest area development and improvement of the viability of forests).

- Focus is mainly on **silvopastoral systems**.
- Budget in RDP is 300ha at a cost of €1,200,000 (€4,000 per ha).
- Minimum eligible area is 0.25ha
- Land must be **permanent pasture** (class 3.1 to 4.2 inclusive)
- Land can only be used for grazing sheep and must be **available for grazing for 20 years**
- Species should be **productive broadleaf species** suitable for the site (e.g. oak, sycamore, cherry, beech)
- **Must maintain the initial tree density** for 20 years and trees must be evenly distributed
- Rate per ha set to cover trees, stakes, protection, planning, site assessment, supervision, ground preparation, planting, beating up, weeding.



Agroforestry trial at Glensaugh

Planted Spring
1988

Planting density	Initial payment	Annual maintenance
400 trees/hectare	£3,600/hectare	£84/hectare/year
200 trees/hectare	£1,860/hectare	£48/hectare/year

Wales (1) - Overview

Submeasure 8.2 (agroforestry) is included in the Rural Development Programme (2014-2020) under Measure 8 (Investments in forest area development and improvement of the viability of forests).

- Budget for SM8.2 in the RDP is for 147 ha at cost of €491800 (€3346 per ha)
- Another budget also available for small-scale tree planting which is not eligible for forestry support
- *“Agroforestry is a ‘win-win’ multifunctional land use providing strategic placement of small groupings of trees to deliver multiple benefits including for farm productivity, biosecurity, soil and water management and biodiversity”*
- Will allow the extension of initiatives such as that undertaken by the Pontbren farmers
- Shelterbelts will be established with M8.1 to complement small-scale tree planting under SM8.1 and SM4.4 (“non productive investments”)



Shelterbelt at Pontbren,
Powys

Wales (2) - Current Grants:

TABLE 1 WOODLAND CATEGORY, SPECIFICATIONS AND GRANT RATES FOR GLASTIR WOODLAND CREATION

Woodland Category	Glastir Capital Works No.	Specification	New planting payment £ per ha	Annual Maintenance payment £ per ha	Annual Premium Payment £ per ha
Enhanced Mixed Woodland	803	<ul style="list-style-type: none"> Minimum of 5 major species (at least 10% of each) Minimum of 25% broadleaves inclusive of woody shrub element Maximum 10% woody shrub element No more than 50% of a single species Stocking density 2,500/ha 	3,600	60 (Years 2-12)	350
Native Woodland - Carbon	802	<ul style="list-style-type: none"> Native species mixture Suitable provenance planting stock* Maximum 20% woody shrubs allowed Stocking density 2,500/ha It is a requirement you register your new planting scheme with the Woodland Carbon code. 	4,500	60 (Years 2-12)	350
Native Woodland - Biodiversity	801	<ul style="list-style-type: none"> Native species - mix should be site native and largely conform to Habit Action Plan types (for example upland oak, lowland mixed deciduous woods) however local conditions may necessitate some variation from these. Suitable provenance planting stock* Maximum 20% woody shrubs allowed Clumped distribution of species with variable spacing Stocking density 1,600/ha 	3,000	60 (Years 2-12)	350
Agroforestry – scattered trees	804	<ul style="list-style-type: none"> 80 trees per hectare Not eligible for fencing grant Not eligible for Premium payment 	1,600	30 (Years 2-6)	N/A
Fencing	595	Post and wire fencing and stock netting	3.48/metre		

Wales (3) The agroforestry option on offer

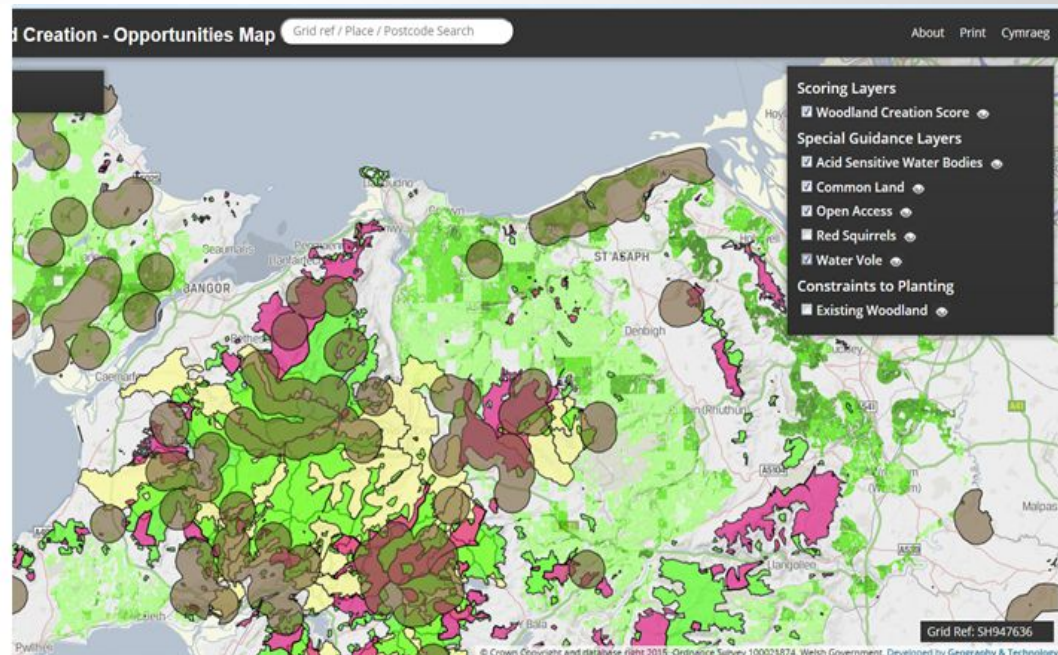
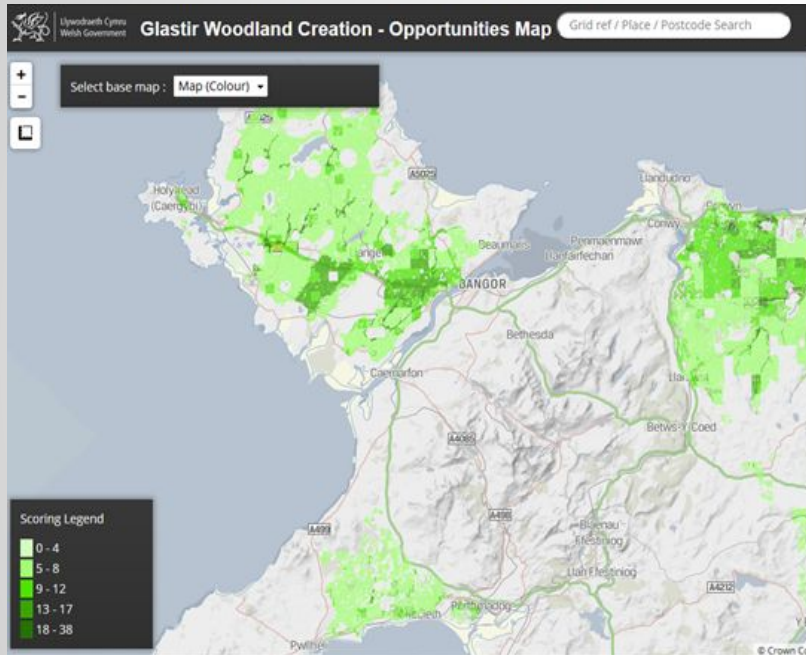
80 scattered trees per ha on permanent grassland grazed at typical stocking levels

Additional options may be introduced if their experience in developing agreements with this initial option is successful

Wales (4): Current adoption

- Just over 1.5 ha of uptake of the agroforestry option in the first application window
- Approximately 130 ha of woodland creation
 - Unofficially we expect approximately half of this will be farm woodlands and shelterbelts
- The two stakeholders have different objectives (government and farmers/land owner).
 - Agroforestry can address the needs of both but the instrument designed to deliver this doesn't !!!
 - Agroforestry for production and agroforestry for Societal Benefits

Wales (4) “Opportunities/constraints map for woodlands



England (1) - Overview

- Did not adopt submeasure 8.2 in the Rural Development Programme ☹️
- Cited lack of farmer interest as a reason
- But following letter from Nic Lampkin, Stephen Briggs and 24 other signatories to Liz Truss, Secretary of State for Environment, Food and Rural Affairs, DEFRA is carrying out a review of evidence base for AF and how the submeasure 8.2 might operate in practice within the RDP. To be published end July
- Tree planting on farms is possible under Measure 8.1 (afforestation) and Measure 10 (agri-environment climate).
- Strong interest in agroforestry for flood control
- Interest in forestry for GHG emissions reduction.

Rt Hon. Elizabeth Truss MP
Secretary of State for Environment, Food and Rural Affairs
Defra
17 Smith Square
London
SW1P 3JR

January 14th 2016

Dear Secretary of State

We the undersigned welcome your statement in December on the need for "tree-planting that can both reduce flood risk and improve the environment at the same time". Your statement at the Jan 2016 Oxford Farming Conference, that "In the past, the department and its agencies have been accused of operating in silos – looking just at flood protection, just farming or just the environment. This is going to change" is also refreshing.

Following these statements, we are writing to collectively request that you review your department's position on the adoption of Pillar I & II agroforestry measures within England, which if adopted could make a positive contribution to climate change mitigation, flood prevention and agricultural productivity. For the reasons set out below, we ask that you review the department's position as soon as possible.

We believe that the environmental benefits, not least in relation to the prevention of flooding and water management generally, and the potential uptake of agroforestry have been underestimated. In our view, the premature rejection of agroforestry options by your predecessor was at least in part, based on lack of familiarity (on the part of officials and of the limited number of stakeholders consulted by Defra) with the subject itself, with the evidence for its benefits and with current levels of stakeholder interest.

Natural England have previously commissioned the Organic Research Centre to collate the available evidence and make proposals for possible options. As research and advisory organizations who are involved in a developing UK and EU-funded research and advice on agroforestry, we therefore have an interest in the outcome, but this is one shared by the many other organisations that are concerned about the lack of support for agroforestry measures and options in England.

What is agroforestry?

Agroforestry is the practice of integrating the cultivation of trees, crops and livestock on the same agricultural area for greater productivity and biodiversity. Trees are the greatest land-based contributor to climate, through production of oxygen and water vapour together with carbon dioxide exchange. In addition, tree cover provides many other services including shade and shelter, purification of air and water, production and maintenance of soil, and enhancing biodiversity. Agroforestry integrates these benefits with agricultural productivity, but currently falls between the traditional separation of land uses into forestry and agriculture which also governs much of the policy support framework.



England (2) Pillar II - Measure 8.2 not included but...

English RDP adopted by the Commission on 13.2.15

€4,056 million of public money that is available from 2014-2020 (€3 471 million from the EU budget)

The five biggest RDP measures in budgetary terms (public allocation) are:

- **€2,900m Measure 10: Agri-Environment Climate (Art 28)** *“Tree planting around point sources could help capture ammonia aerosols, The planting of individual or small groups of trees for parkland, hedgerows, orchards, Riparian and floodplain woodland can protect river morphology and moderate stream temperatures.”*
- €323m Measure 4: Productive and nonproductive investments
- **€218m Measure 8: Forestry (Art 22-26)** (14m ha to be planted, 10.5m ha native, 3.5 non-native)
- €174m Measure 19: Leader
- €107m Measure 6: Farm and business development
-
- **€27m Measure 15: Forest Environment and Climate services (Art 34)** *“The distinct character of wood pasture and parkland sets them apart from the surrounding landscape, creating a recognisable sense of space and often providing public access. Carbon sequestration through forest and woodland management”*

England (3) Pillar 1: - England has ignored the 100 tree-ha rule!

Ecological Focus Areas (England): implementation of Delegated Regulation 639/2014.

IN: buffer strips, catch crops, cover crops, fallow land, hedge (wooded strip?), nitrogen-fixing crop.

OUT: isolated trees, copses, trees in lines, ponds, ditches, stone walls, agroforestry, forest edges, SRC, afforestation

BPS eligibility

Land with trees on is eligible if the trees:

- are scattered within an agricultural land parcel
- allow agricultural activity to be carried out in the same way as in parcels without trees in them

Not eligible if they prevent the growth of vegetative under-storey (plants growing beneath the canopy of the trees) that is suitable for grazing.

Farmers don't need to reduce the area of land they claim for if they have eligible trees on it (they don't need to deduct the area taken up by tree trunks or tree cover).

Under cross compliance there is a no cutting period on eligible trees from 1 March to 31 August 2015.

EFA hedges

A hedge can only be used as part of an ecological focus area if it is growing on or next to arable land which forms part of the holding. In accordance with cross compliance rules, it must have:

- a continuous length of at least 20 metres, or is part of any such length or
- a continuous length of less than 20 metres where it meets (at an intersection or junction) another hedgerow at each end

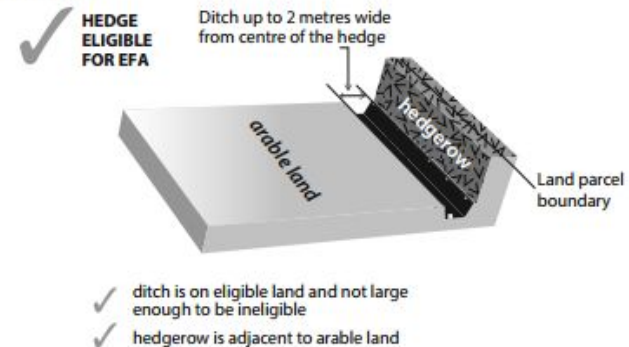
These hedges can be any width, or any height. They must be maintained for the whole scheme year (in line with cross compliance rules), however newly planted hedges can count for EFA if they are in the ground when a BPS application is made.

Hedges can include gaps. There is no limit on how many gaps a hedge can have – as long as each individual gap is not more than 20 metres.

Hedges not protected under cross compliance which are wider than 2 metres from the centre are not eligible. This applies for BPS and greening.

To count as an EFA, a hedge:

- must be on arable land or next to arable land along its longest edge (it's ok if there is an eligible feature in between, for example a ditch that is up to 2 metres wide from the centre of a hedge)



- must be at a farmer's disposal
- doesn't have to contain trees, but any trees that are in it do form part of the hedge
- is eligible if it's on a bank

In Conclusion - are we learning the lessons?

	AF Problems in RDPs 2007-13 (Measure 222)	Lessons learned in RDPs 2014-2020 (Measure 8.2)
1	Lack of knowledge of AF methods and profitability by farmers, officers, consultants? Too much bureaucracy and effort?	EURAF, AGFORWARD, AGROFE have helped. Massive effort in France with ministerial support (target - "50% farmers using agroforestry by 2025"). New national agroforestry associations being formed.
2	Little activation of M222 (only 17 RDPs) or uptake of funds (only 5 regions). Limited range of AF systems supported - mainly silvopastoral?	Now 35 regions in 8 countries. Emphasis seems still on silvopastoral. Need to ensure that availability of funds is advertised. Options to encourage agroforestry on forest land not activated by any/many MS (?).
3	No funding for maintenance costs ?	Maintenance costs now provided for 5 years. Long list of eligible operations including consultants and management plan. 80% of establishment costs and 100% of maintenance costs supported by the EU (See Regulation 702/2014).
4	Farmers worry change of land use classification to forest , and loss of value.	LPIS rules are clear that agroforestry is 'agricultural' IF evidence of farming is measurable AND tree canopy cover less than threshold of crown cover (Article 10) or density of trees, with 100 trees/ha the maximum (Article 9). Land classified as 'forest' will lose Basic Payments. Still great confusion over exemptions (See Regulation 640/2014). National Cadastral rules may be different from LPIS?
5	Loss of Single Farm Payment with densities >50 trees/ha?	The threshold is now 100 trees/ha for direct payments, but is being interpreted by some MS as "seedlings" at planting. Great confusion over exemptions allowed for GAEC-7 "landscape feature" trees, 'grazed trees' 'permanent crop trees'. EURAF proposed clarified wording to DGAGRI " <i>farmers can plant more than 100 seedlings/ha under submeasure 8.2, but they must regularly thin, prune or pollard to ensure that there are never more than 100 trees/ha with a crown diameter exceeding 4m</i> ".

Questions ?

In the middle is
Stéphane Le Foll,
French Minister of
Agriculture.

*“France is committed to
50% of its farmers using
agroforestry by 2025”*



Measure 8 Total Budget (Forestry)

A	B	C	D	E	F
EU RDP Thematic Objective (Measure 8 only)	England	N. Ireland	Scotland	Wales	Total
1. Strengthening research, technological development and innovation					
2. Enhancing access to, and use and quality of information and communication technologies (ICT)					
3. Enhancing the competitiveness of small and medium-sized enterprises (SMEs)		€202,762,698			€202,762,698
4. Supporting the shift towards a low-carbon economy in all sectors	€585,360	€9,679,535	€4,073,172	€49,410,279	€63,748,346
5. Promoting climate change adaptation, risk prevention and management	€5,000,000	€26,519,244	€45,337,108	€16,752,434	€93,608,786
6. Preserving and protecting the environment and promoting resource efficiency	€13,085,367	€103,878,897	€16,752,434	€1,200,184	€134,916,881
7. Promoting sustainable transport and removing bottlenecks in key network infrastructures					
8. Promoting sustainable and quality employment and supporting labour mobility			€16,752,434	€2,700,591	€19,453,024
9. Promoting social inclusion, combating poverty and any discrimination					
10. Investing in education, training and vocational training for skills and lifelong learning					
11. Enhancing institutional capacity of public authorities and stakeholders and efficient public administration					
TOTAL	€18,670,727	€342,840,373	€82,915,147	€70,063,488	€514,489,735

Big differences between UK countries in totals and in proportion of budget allocated to different Thematic Objectives

Forestry in Ireland not in RDP

	England	N Ireland	Scotland	Wales	Total
3. SME Competitiveness	0.0%	59.1%	0.0%	0.0%	39.4%
4. Low Carbon Economy	3.1%	2.8%	4.9%	70.5%	12.4%
5 Climate change adaption, risks and management	26.8%	7.7%	54.7%	23.9%	18.2%
6. Environment protection and resource efficiency	70.1%	30.3%	20.2%	1.7%	26.2%
	0.0%	0.0%	0.0%	0.0%	0.0%
8. Sustainable and quality employment	0.0%	0.0%	20.2%	3.9%	3.8%