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Scoping document - Justification and guidelines for a European register of agroforestry areas

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1 Objectives and structure

Task 1.7.5.A.IV.ii.c of ETC/BD 2016 Action Plan is: "based on the agroforestry scoping document prepared in 2015, elaborate a document to justify the needs (including potential link with JRC FISE) and propose guidelines for the implementation of a European register on Agroforestry with the support of EIONET". The major objectives of this document are to expose the main reasons that would recommend the implementation of a European agroforestry register and propose a structure and the mechanisms to put it in place.

The scoping document is structured in the following chapters. Chapter 2 briefly introduces agroforestry and, in order to justify the needs, enumerates the benefits that a European register would entail. Chapter 3 introduces the available information sources and datasets. Chapter 4 proposes the guidelines for the register implementation including some general principles and the structure and contents that it may contain. Chapter 5 synthesizes the process to implement the register and the parties involved. Chapter 6 draws some conclusions. The annexes show a table of relevant organizations and projects, a catalogue of available agroforestry datasets and a proposed model of factsheet for the register.

It must be highlighted that this scoping document is a follow-up of the ETC/BD Working paper N°C/2015 "State of agroforestry information across Europe" (García Feced, 2015; http://bd.eionet.europa.eu/Reports/ETCBDTechnicalWorkingpapers/State_agroforestry_in_Europe, last accessed 27 March 2016) which reviews the concept of agroforestry from a European perspective and presents in a synthetic way the main projects, initiatives and maps concerning agroforestry practices.

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2 Justification of a European register of agroforestry areas

2.1 Definition of agroforestry

Agroforestry can be broadly defined as "a sustainable way of land management which integrates both agricultural and forestry practices on the same land management base" (Mosquera-Losada *et al.*, 2009) or as "a land use practice combining trees, crops and/or livestock on the same area of land in all spatial or temporal arrangements" (Nair, 1993). Agroforestry is "the integration of woody vegetation, crops and/or livestock on the same area of land. Trees can be inside parcels or on the boundaries (hedges). Agroforestry can be applied to all agricultural systems, in all parts of Europe. Agroforestry systems are obtained by planting trees on agricultural land or introducing agriculture in existing woodland/orchards (e.g. silvopasture)" (European Agroforestry Federation (EURAF), http://www.agroforestry.eu/AgroforestryInEurope, last accessed 23 November 2015).

The combination of the different components of agroforestry systems (i.e. woody vegetation, crops and pasture/animals) allows a broad categorization of agroforestry practices (McAdam *et al.*, 2009): agrisilviculture, silvopastoral, agrosilvopastoral and others.

According to García Feced (2015), "agroforestry systems were largely developed in Europe ever since the Antiquity but declined severely after the Second World War, with intensification of farming practices. Most agroforestry systems have proved to provide a wide range of social and environmental benefits but also economical (see Box 2.1). The biodiversity rates are often high within agroforestry lands and many provisioning, regulating and cultural ecosystem services are usually supplied. Agroforestry practices are also suitable for climate change mitigation and wildfire prevention. Agroforestry is also crucial for the conservation of livestock breeds and genetic diversity and the production of food in a sustainable way".

Box 2.1 Benefits of agroforestry systems. Extracted from García Feced (2015). Compilation from the following sources: Den Herder and Rois-Díaz, 2014; http://www.agroforesterie.fr/definition-agroforesterie.php, last accessed 4 December 2015; and http://www.bioenergie-promotion.fr/23639/techniques-et-avantages-de-lagroforesterie-en-france/, last accessed 4 December 2015)

- ✓ Increase of farm production by optimizing land resources.
- ✓ Diversification of farm activities and the enterprise base, providing a variety of products that are often highly valued by the consumers.
- ✓ Improvement of the quality of wood products.
- ✓ Increase of the income for the farmer from selling crops or other products on an annual base and in the long run additional income from selling wood.
- ✓ Restoration of soil fertility and control of erosion.
- ✓ Guarantee of water quantity and quality.
- ✓ Enhancement of biodiversity and reconstruction of ecological networks.
- ✓ Conservation of genetic diversity through the provision of appropriate habitat for some of the autochthonous and locally adapted livestock breeds in Europe.
- ✓ Provision of an ideal environment for the conservation of European farmland birds and grassland butterflies, which have suffered a severe decline in the last decades.
- ✓ Storage of carbon for climate change mitigation.
- ✓ Increase of landscape amenity and rural tourism.

In a European context, agroforestry practices have been classified by Mosquera-Losada *et al.* (2009) as: silvoarable agroforestry, forest farming, riparian buffer strips, improved fallow, multipurpose trees and silvopasture. It must be highlighted that agroforestry areas are widespread across Europe and are not restricted to the Iberian dehesas and montados, as frequently considered.

2.2 Benefits of a potential register

The implementation of a European register of agroforestry areas would imply a number of advantages in the following aspects:

- **Compliance of EU policy requirements**

In a policy context, agroforestry is "a recognized practice in the ecological focus areas of the Common Agricultural Policy (European Commission, 2013a) and as a measure in rural development programmes (European Commission, 2013b). It is also mentioned in the EU Forestry Strategy (European Commission, 2013c) and as a sustainable land management practice by the Intergovernmental Panel on Climate Change (IPCC, 2014)" (den Herder *et al.*, 2015a). The availability of more systematized information on agroforestry areas across Europe could provide critical input to policy instruments and conservation programmes.

Agroforestry lands have proved their value as biodiversity-rich systems and ecosystem services suppliers, and their suitability for climate change mitigation and wildfire prevention. Their conservation must be a priority in European policies. With this aim, the agroforestry sector is advocating for the improvement of EU regulations and Member State implementation, and particularly, for the revision of the CAP eligibility rules for direct payments. A conclusion from the EU Policy Seminar "Europe's wood pastures: condemned to a slow death by the CAP? A test case for EU agriculture and biodiversity policy" (European Parliament, 17th of November 2015, http://www.efncp.org/events/seminars-others/wood-pastures-brussels2015/, last accessed 30 November 2015) is that "an urgent evaluation should be undertaken of the impacts of the new CAP eligibility rules for permanent pastures and how to harmonise them with other policy areas". A register of agroforestry areas could help to evaluate these impacts.

An objective of the European Union Forest Strategy adopted by the European Commission (COM 2013 (659 final)) is to improve the knowledge about forest ecosystems and a register could be very useful to understand better these systems where forest and farmland are interlinked.

The activities under the Mapping and Assessment of Ecosystems and their Services (MAES, Target 2 of the EU Biodiversity Strategy towards 2020) could also profit of a register given the high rate of regulating ecosystem services that these areas provide.

Policy instruments such as the EU Habitats and Birds Directives and Natura 2000 network would strongly benefit from the inputs provided by a register. For instance, the information could be useful for providing distribution maps, assessing the conservation status of habitat types and species, and reporting under Article 17 of the Habitats Directive and Article 12 of the Birds Directive every six years. Regarding wood pastures, Beaufoy (ed.) (2015) highlight that "in addition to the two types of wood pasture explicitly cited in Annex I of the Habitats Directive ("6310 Dehesas with evergreen Quercus species" and "9070 Fenoscandian wooded meadows"), many types of Annex I forest habitats have a long tradition of use as wood pastures, and appropriate grazing is a key tool for their conservation management in these cases, especially where they exist in a mosaic with shrub and grass habitats.

The LIFE programme finances conservation activities which are sometimes located in agroforestry areas. Thus the register and mapping could be a tool to prioritize conservation and restoration activities.

In a global context, a register and mapping of agroforestry areas could provide useful inputs to the Convention on Biological Diversity assessments and the instruments for climate change mitigation (following 2015 Climate Convention in Paris).

- **Potential links to FISE**

The Forest Information System for Europe (FISE) includes "not only European information on forests, but also all the relevant information on forests at the global scale that influences forests and forestry activities in Europe" (http://forest.jrc.ec.europa.eu/, last accessed 31 March 2016). This initiative is conducted by a group of scientist from research institutions such as the Joint Research Centre. The creation that such a system is an objective of the European Union Forest Strategy (COM 2013 (659 final)) by the European Commission.

The website of the system is accessible at http://fise.jrc.ec.europa.eu (last accessed 31 March 2016). The activities in FISE are organized in four modules dealing with: Forest Disturbances, Forest Ecosystem Services, Forest and the EU Bio-economy, Forests and climate change.

Given that agroforestry practices are both forestry and agriculture, for the implementation of the register (see Chapter 5) it is proposed that FISE plays a role on the delivery of information of the register at the European level. A number of meetings between EIONET parties (EEA and ETCs) and the European Commission (in particular, the JRC, DG ENV and DG AGRI) should be organized to set the guidelines and the mechanisms to include the register in FISE.

- **Improvement of classifications and mapping of land uses/covers and habitats**

Two of the conclusions of the review made by García Feced (2015) are that "agroforestry lands are not properly included or neglected in the available Pan-European land use/land cover, ecosystem and habitat classifications. Their double character of forest and agriculture land makes difficult their positioning into classifications. It would be advisable to better define agroforestry-related classes in the existing European datasets" and that "although there have been some attempts to map agroforestry areas and related lands at the Pan-European and national scales, there is still a lack of explicit delimitation of agroforestry areas in the majority of Europe. Mapping activities should be coordinated and harmonized across Europe. Copernicus land monitoring products could play an important role in that respect".

According to den Herder *et al.* (2015a), "in Europe there is a lack of cartographic information on the location of different types of agroforestry practices. Moreover, the information that is available is scattered and fragmented. European land cover and land use classifications have traditionally separated "farmland" from "forests" and this in turn feeds through discrete policies and incentives which can cause problems both to farmers and policy makers". The scale at which agroforestry operates (i.e. field, farm or landscape) is also critical for mapping.

A register of agroforestry areas could improve land use/cover and habitat classifications and environmental mapping Europe-wide.

Firstly, Corine Land Cover could be enhanced using the inputs of an agroforestry areas register, in particular class 2.4.4 which represents "agro-forestry areas". However, according to Rois-Díaz *et al.* (2006), agroforestry areas may fall under several classes of Corine Land Cover, such as "olive groves",

"pastures", "annual crops associated with permanent crops", "land principally occupied by agriculture, with significant areas of natural vegetation" or "natural grasslands". A register could help to discriminate better the lands where agroforestry practices are taking place.

A classification that could also be benefited by a register is the EUNIS, which is a habitat classification but considers as well some aspects related to management. In EUNIS, given its strict assignation rules, agroforestry lands are distributed across several habitat types. Particularly, "pasture woods" (with a tree layer overlying pasture) are included in the group "habitat complexes" (code X09). On the other hand, the European Forest Types classification (European Environment Agency, 2007) does not consider agroforestry areas strictly although grazing may be a recurrent activity in some of the defined forest types.

As mentioned above, there are several Annex I habitat types related to agroforestry practices. The distribution maps of these habitat types included in the Habitats Directive (European Commission, 2013d) could also be enhanced by an improved identification and understanding of agroforestry areas. Given the high biodiversity rates usually existing in these areas, distribution maps of flora and fauna species could be refined, helping as well to identify and assess the status of red list species.

Furthermore, the assessment and mapping of High Nature Value (HNV) farmlands (Paracchini *et al.*, 2008) would also be benefited by a proper delimitation of agroforestry areas.

The improvement of Copernicus products (http://land.copernicus.eu/pan-european/high-resolution-layers/#, last accessed 1 December 2015) and the increasing resolution of imagery may enhance the discrimination capacity between land uses/covers. Copernicus images and processed outputs could thus be instrumental for the identification and mapping of agroforestry areas. In more detail and providing 3D data, LIDAR can also be a very useful tool for the inventorying and measurement of agroforestry areas attributes.

Den Herder *et al.* (2015a) recommend that "it would be good to properly include agroforestry in existing Land Use and Land Cover classification nomenclatures, for instance in the Land Use and Land Cover Aerial Frame Survey (LUCAS)". Plieninger *et al.* (2015) have used LUCAS information to generate the first Pan-European map of wood-pastures and quantify their extent.

It must be highlighted that, under the framework of the project AGFORWARD, a relevant report has been elaborated where "the agroforestry areas of Europe were primarily mapped using LUCAS. The Copernicus Land Monitoring Survey (high resolution maps with tree cover density) was also used to estimate tree cover on agricultural land in seven countries (Austria, Switzerland, Estonia, Latvia, Lithuania, Sweden and Norway). Both sets of results were compared with a review of the literature and statistical inventories" (den Herder *et al.*, 2015b).

On the other hand, the Land Parcel Identification Systems (LPIS) can help creating a Pan-European register by providing accurate information of the different agroforestry lands within each country.

- **Delimitation of protected lands and Natura 2000 areas**

Many agroforestry areas are included within Natura 2000 and other protected lands. A register and mapping of these areas can enhance the selection of new priority areas for protection and the design of adequate conservation measures.

- **Update of indicators**

Some SEBI indicators could benefit of the inputs of a register of agroforestry areas, specially the SEBI 020 Agriculture: area under management practices potentially supporting biodiversity, which is based on the estimated High Nature Value (HNV) farmland presence in Europe. Other SEBI indicators that could indirectly benefit from a register are: SEBI 001Abundance and distribution of selected species, SEBI 002 Red List Index for European species, SEBI 003 Species of European interest, SEBI 005 Habitats of European interest, SEBI and 008 Sites designated under the EU Habitats and Birds Directives (accessible at http://biodiversity.europa.eu/topics/sebi-indicators, last accessed 31 March 2016).
The following CMEF (Common Monitoring and Evaluation Framework; DG AGRI, 2015) Context Indicators are also related to agroforestry areas: C.34 Natura 2000 area, C.35 Farmland Bird Index (FBI), C.36 Conservation status of agricultural habitats (grassland) and C.37 HNV (high nature value) farming. The ETC/BD scoping document "Biodiversity indicators related to agriculture" (García Feced and Condé, 2015) provides an overview of these CMEF indicators.

- **Encouragement of national initiatives**

The creation of a Pan-European register can have a positive effect on countries to study better their agroforestry areas and put in place the tools and measures to protect them.

- **Improvement of the European research network and knowledge transfer**

Understanding the processes and functions occurring in these agroforestry areas has always drawn the attention of the researchers. Yet, there is still much to understand of these complex systems. The proper mapping of these spaces could help identifying pilot areas that could be investigated in deep. The design and implementation of a register could also strength collaborative efforts between research institutes, consortia and universities across Europe. The European Union has funded some research projects with this aim.

For instance, AGFORWARD (AGroFORestry that Will Advance Rural Development) is a four-year (2014-2017) research project funded by the European Union's Seventh Framework Programme with the overall aim of promoting agroforestry practices in Europe. The project involves two international institutions and over 23 universities, research and farming organisations from across Europe.

- **Participation of agroforestry organizations and environmental ONGs**

Throughout Europe there is an increasing interest in protecting these areas and the ancestral practices they are derived from. Several relevant associative initiatives are taken place in Europe, such as the European Agroforestry Federation (EURAF) and the European Forum on Nature Conservation and Pastoralism (EFNCP) (see Annex 1 for more details on the main projects and organizations related to agroforestry in Europe). They are very active in promoting the benefits that these systems provide to society and the environment and advocating for policy improvements in relation to these practices. A good example of the latter is the "Wood pastures manifesto for urgent change to the CAP" (http://www.efncp.org/policy/wood-pastures-manifesto/, last accessed 23 April 2016) that the EFNCP has launched.

3 Available information sources and datasets

As mentioned above, the ETC/BD Working paper N°C/2015 “State of information of agroforestry areas” (García Feced, 2015) reviews the existing and available information sources related to agroforestry areas at European, national and regional scale. This synthesis showed that information is still scarce and an effort must be done to typify and map agroforestry systems in Europe.

Based on García Feced (2015), Annex 2 provides a catalogue of the available datasets and maps presented in standardized factsheets that collect the following information: Coverage (continental, national or regional), Dataset title, Original title (in original language if different than English), Source (main provider of information), Classes (types of agroforestry areas or legend of map), Shape/Spatial resolution (if the map has a point or polygon shape, and resolution), Year (of dataset creation), Availability (GIS files, map viewer, only tables or images), Definition/Criteria/Indicators (used to distinguish the agroforestry area), Main reference, Main webpage and Map image.

The catalogue of datasets and maps is useful for determining the availability of sources and databases from which a register could be populated. These standardised forms can be filled in with existing or new datasets.

4 Guidelines for a register of agroforestry areas

As mentioned above, there is a lack of available explicit information on agroforestry areas across Europe. However, some countries have already created partial registers in certain regions.

France is a very active country in the promotion of agroforestry practices. The French Ministry of Agriculture, Food and Forests has launched the national plan for the development of agroforestry (Plan de développement de l'agroforesterie, in French) during the 2nd national conference of agroforestry (Paris, 17th of December 2015; http://agriculture.gouv.fr/stephane-le-foll-presente-le-plan-national-de-developpement-de-lagroforesterie, last accessed 18 December 2015). This plan aims at dinamizing and promoting the agroforestry practices in France and internationally. In particular, Action 5.1 seeks to promote the development of agroforestry practices at the European level (http://agriculture.gouv.fr/sites/minagri/files/151215-ae-agrofesterie-v2_plan.pdf, last accessed 18 December 2015). In France, several registers and mapping activities at the national and regional levels have been carried out. A relevant example is the AGR'EAU Project, which aims at identifying the farms with agroforestry practices and soil conservation in the Adour-Garonne basin. Factsheets of pilot farms have been produced (see Figure 4.1 for example factsheets) with information about their uses and covers, management, history or pedoclimatic conditions.

Figure 4.1 Examples of factsheets of pilot farms in the AGR'EAU Project (http://www.agroforesterie.fr/AGREAU/agreau-reseau-fermes-pilotes-agroforesterie-couverts-vegetaux.php, last accessed 24 April 2016)

In Spain, an example of a regional register of agroforestry areas is the "Censo de Dehesas de Andalucía" (Decreto 70/2012, de 20 de marzo, Boletín Oficial Junta de Andalucía núm. 63). Given the importance of the dehesas in this region, they are regulated by their own Law (Ley 7/2010, de 14 de julio, para la Dehesa, Boletín Oficial Junta de Andalucía núm. 144), which contemplates the creation of a register. Plans and measures to manage, protect and study these areas are also established in the law.

These guidelines may not be common to all the regions or agroforestry areas of Europe but could be used as a reference to set criteria and indicators in a more systematic manner across Europe.

A register of agroforestry areas at the European scale must contain the basic information to identify them and the main characteristics of the different types of agroforestry practices. As García Feced (2015) showed, the availability of information is very uneven across countries and therefore the register must also contemplate certain flexibility subjected to availability.

Thus, the fields that are proposed for the creation of a register of agroforestry areas are organized in three sections: basic information of the agroforestry area, main practices and other interesting information. Annex 3 shows a proposed model of factsheet containing these fields.

The basic information to identify the farm includes: Region/Country, Farm name, Property, Geo-location, GIS availability, Source(s), Reference(s)/Webpage(s) and Register date (and identification number). In most cases, these fields will be associated to the information collected in the dataset factsheets that have been previously mentioned.

It is also needed to register the main practices of these farms. The following fields are proposed: Type of agroforestry practice, Total area, Protected area, Main tree species and cover, Presence of old trees, Main crop/s and area, Main grassland species and area and Main livestock species and number.

Agroforestry systems are varied and fall into different categories depending on their structure and main components (i.e. distribution of the silvo, agro and pastoral element). Although the term "agroforestry" can be used as an umbrella for all types of agroforestry practices, further differentiation is needed. It must be highlighted that if a register were to be used for policy purposes, types could not be mixed. For instance, dehesas have different particularities and problematic than wood pastures. At least it is recommended to distinguish between lands with extensive or pastoral practices and lands that have been planted or have an intensive management.

The total area (in ha) of the exploitation is important for the calculation of indicators as expressed above. This information could be extracted using geospatial techniques or ancillary maps of land uses and cover. Satellite images as obtained from Copernicus programme may be very useful for calculating areas. It is also useful to specify if the area is protected and under which policy instruments.

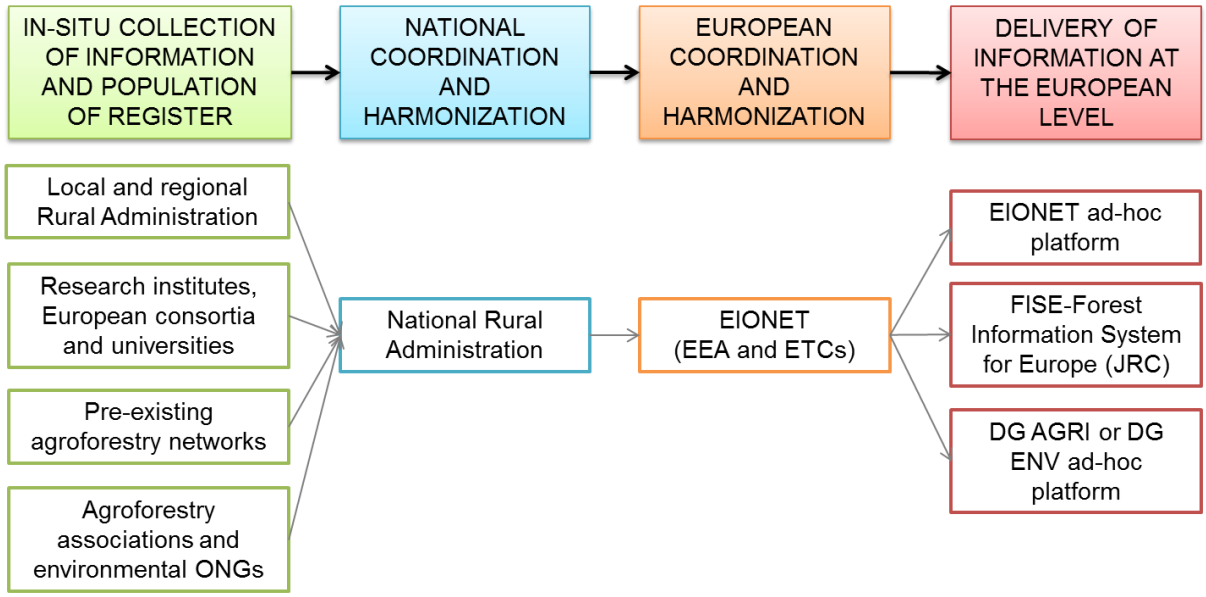
A register must contain the main species of the different components of the agroforestry area, i.e. the main tree species, the main crop/s, the main grassland species and the main livestock species. In each of these components, it must be respectively specified the cover (in percentage), the area (in ha) or the number. In the case of the tree component, it is interesting to note if there are old trees present.

A third component of the register could be more open and generically referred as "Other interesting information". Depending on availability of information, some fields could be added to the factsheets, such as Farm history, Farm management, CAP eligibility, Main activities/products, Biodiversity indicators, Representative and/or threatened flora and fauna species, Pedoclimatic conditions, Map image or Farm picture/s.

5 Implementation of the register

The register must be implemented systematically. The proposed flow of information is shown in Figure 5.1.

Figure 5.1 Basic process for the implementation of a register



Among the alternative and complementary sources of information can be highlighted the local or regional rural administrations that collect first-hand data, the academia and research institutions carrying out projects focusing on agroforestry practices (e.g. AGFORWARD or SAFE), the pre-existing European agroforestry networks (e.g. EURAF, EFNP), the national agroforestry associations (e.g. AFAF, the Spanish Platform for Extensive Livestock Systems and Pastoralism, FEDEHESA) and environmental ONGs. These institutions and stakeholders should gather the information in as homogeneously as possible, using factsheets similar to the one proposed. At least a number of fields must necessarily be filled-in. All the information already existing must be also transformed into these templates in order to be later used. National Rural Administrations must centralize and collect all the information and generate national databases and maps about these areas. It must be noted that some countries such as France (e.g. AGR'EAU Project) and Spain (e.g. Censo de Dehesas de Andalucía) have already created registers of agroforestry areas in certain regions.

The European environment information and observation network (EIONET) has an instrumental role on the collection and harmonisation of the datasets provided by the countries and other parties. EIONET is a partnership network of the European Environment Agency (EEA) and its member and cooperating countries. It consists of the EEA itself, six European Topic Centres (ETCs) and a network of around 1000 experts from 39 countries in over 350 national environment agencies and other bodies dealing with environmental information. These are the National Focal Points (NFPs) and the National Reference Centres (NRCs). EIONET must benefit of this large knowledge network to coordinate and harmonize the European register. In the case of trans-national projects developed by consortia or initiatives such as the AGFORWARD project, EIONET may also be instrumental for the collection and harmonisation of the data.

The information contained in the register may be delivered at the European level using an ad-hoc platform included in EIONET. It could also be incorporated to the Forest Information System of Europe (FISE-JRC), mentioned above, which is an objective of the EU Forest Strategy. Another alternative is that the information could also be allocated in an ad-hoc platform administrated by DG AGRI or DG ENV services. In all cases, an appropriate infrastructure and powerful servers to store and display a large amount of data and maps (maybe interactively) are needed.

6 Conclusions

- The creation of a European register of agroforesty areas can be justified by the benefits that it would entail in the compliance of EU policy requirements (including potential links to FISE-JRC), the improvement of mapping and classifications, the delimitation of protected land, the update of indicators, the encouragement of national initiatives, the knowledge transfer and the satisfaction of societal demands.
- The available datasets related to agroforestry reviewed in ETC/BD Working Paper N°C/2015 (García Feced, 2015) and catalogued in this scoping document are useful to explore the information sources from which the register could be populated.
- In order to create an harmonised register, a model of factsheet with needed fields is proposed. These fields contain basic information to identify the agroforestry area, data of the main agroforestry practices and other interesting information.
- The implementation of a register must be a collaborative effort with the involvement of institutions and stakeholder at all levels. An organized framework of information sources, national administrations, EIONET and FISE-JRC is recommended.

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Mosquera-Losada, M.R., McAdam, J., Romero-Franco, R., Santiago-Freijanes, J.J., Riguero-Rodríquez, A., 2009. Definitions and components of agroforestry practices in Europe. In: Rigueiro-Rodríguez, A., McAdam, J., Mosquera-Losado, M.R. (eds.). Agroforestry in Europe: current status and future prospects. Springer Science + Business Media B.V., Dordrecht, p. 3-19.

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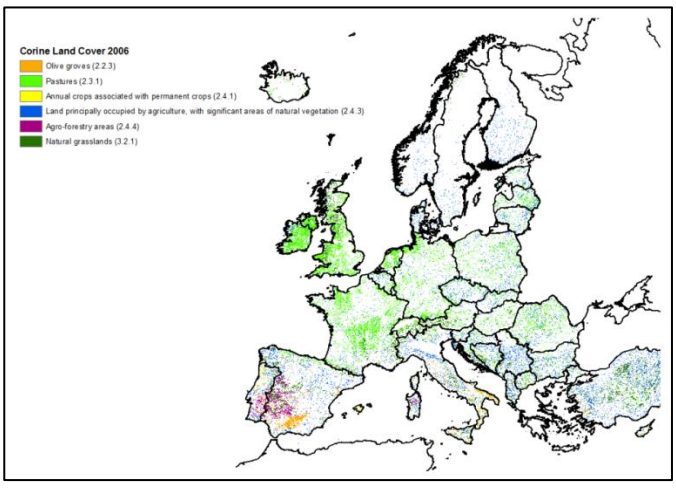
Annex 1 Main European projects and organizations related to agroforestry

NAME	BRIEF DESCRIPTION	PARTICIPANTS	WEBPAGE
AGFORWARD: AGroFORestry that Will Advance Rural Development	It is a four-year (2014-2017) research project funded by the European Union's Seventh Framework Programme for Research and Technological Development. The overall aim of the project is to promote agroforestry practices in Europe that will advance rural development.	The project involves two international institutions and over 23 universities, research and farming organisations from across Europe.	http://www.agforward.eu/index.php/en/, last accessed 1 December 2015
SAFE: Silvoarable Agroforestry For Europe	The project was sponsored by the European Union and coordinated by INRA (France). In support of the European Common Agricultural Policy, the SAFE project provided models and databases for assessing the profitability of silvoarable systems and suggested unified European policy guidelines for implementing agroforestry.	More than 70 scientists from eight European countries participated in the project from August 2001 to January 2005.	http://www1.montpellier.inra.fr/safe/english/index.htm, last accessed 1 December 2015
EURAF: The European Agroforestry Federation	The main aim of the Federation is to promote the use of trees on farms as well as any kind of silvopastoralism throughout the different environmental regions of Europe.	280 members from 20 different European countries, such as Albania, Belgium, Bulgaria, Denmark, Finland, France, Sweden, Germany, Switzerland, Greece, United Kingdom, Hungary, Italy, Poland, Portugal, Spain and The Netherlands.	http://www.agroforestry.eu/, last accessed 1 December 2015
EFNP: European Forum on Nature Conservation and Pastoralism	It is the only European organisation focusing on the maintenance of low-intensity livestock farming.	The projects have been carried out in the following countries: Bulgaria, Estonia, France, Ireland, South-Eastern Europe countries, Spain, Sweden, Romania and the United Kingdom.	http://www.efncp.org/,last accessed 1 December 2015
Plataforma por la Ganadería Extensiva y el Pastoralismo (Spanish Platform for Extensive Livestock Systems and Pastoralism)	The lines of work of the Plataforma mainly focus on "the need for a coherent and effective legal framework, the need to properly address pastoralism and grazing livestock systems on the Common Agricultural Policy and the social visibility and image of pastoralism and pasture-based livestock farming".	It is a network of over 200 people and organisations committed to supporting this farming activity.Through the Plataforma, livestock farmers, conservationists, researchers, government officers, farm advisors and many other third-sector actors and stakeholders can exchange information and collaborate more closely.	http://www.ganaderiaextensiva.org/, last accessed 27 November 2015
AFAF: Association Francaise d'Agroforesterie (French Agroforestry Association)	The main objective of the Association is the development of agroforesry in France. It brings proposals at the national and international level to make the trees return to its place within agricultural systems.	The Association is a platform for exchanges and partnership between farmers, tree operators, researchers, managers, collectivities and administrations.	http://www.agroforesterie.fr/index.php, last accessed 1 December 2015)

Annex 2 Catalogue of available agroforestry datasets

EUROPEAN COVERAGE

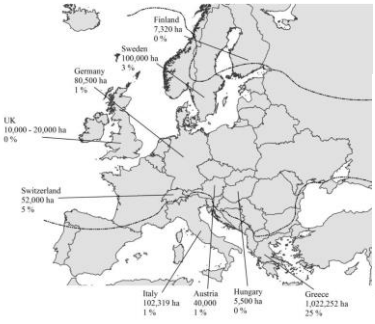
DATASET WITH INFORMATION RELATED TO AGROFORESTRY AREAS IN EUROPE	
Coverage	**EUROPE**
Title	**Corine Land Cover (2006) classes that can potentially hold agroforestry practices**
Source	Extracted from García Feced (2015) based on Plieninger *et al.* (2015) and Rois-Díaz *et al.* (2006).
Classes	Corine Land Cover classes: olive groves, pastures, annual crops associated with permanent crops, Land principally occupied by agriculture with significant areas of natural vegetation, Agroforestry areas, Natural grasslands.
Shape/Spatial resolution	Raster, 100 m.
Year	2006. An update for the year 2012 will be available soon.
Availability	Shapefile and raster.
Definition/Criteria/Indicators	Corine Land Cover class 2.4.4 is "agro-forestry areas", which are defined according to its nomenclature as "annual crops or grazing land under the wooded cover of forestry species, where the annual crops or grazing land and fallow land cover less than 50 % of the surface; it includes combinations of forest trees with fruit and olive trees and agricultural land shaded by carob and palm trees". However, according to Rois-Díaz *et al.* (2006), agroforestry areas may fall under several classes of Corine Land Cover, such as "olive groves", "pastures", "annual crops associated with permanent crops", "land principally occupied by agriculture, with significant areas of natural vegetation" or "natural grasslands".
Main reference	García Feced, C., 2015. State of agroforestry information across Europe. ETC/BD Working paper Nº C/2015.



DATASET WITH INFORMATION RELATED TO AGROFORESTRY AREAS IN EUROPE	
Coverage	**EUROPE**
Title	**Estimation of the extent of selected agroforestry systems in each country**
Source	Den Herder *et al.* (2015)
Classes	Area estimations (in hectares and percentage) of Mediterranean oak tree systems, Wood pastures and meadows, Reindeer husbandry, Fruit tree systems and Olive tree systems.
Shape/Spatial resolution	
Year	2015
Availability	Image
Definition/Criteria/Indicators	Den Herder *et al.* (2015) provide detailed lists of agroforestry systems existing in European countries, showing as well their estimated extent based on a literature review. Agroforestry systems are classified in four target groups: - Agroforestry of high nature and cultural value: oak dominated agroforestry in the Mediterranean, other wood pasture systems, hedgerow systems and scattered trees, and reindeer husbandry. - Agroforestry with high value trees: agroforestry with fruit trees and agroforestry with other trees (olive, vine, pine tree, chestnut and carob tree). - Agroforestry in arable systems: linear features with trees and within-field agroforestry. - Agroforestry practices for livestock systems.
Main reference	Den Herder, M., Burgess, P.J., Mosquera-Losada, M.R., Herzog, F., Hartel, T., Upson, M., Viholainen, I., Rosati, A., 2015. Preliminary stratification and quantification of agroforestry in Europe. Milestone Report 1.1 for EU FP7 AGFORWARD Research Project (613520).
Main webpage	http://www.agforward.eu/index.php/en/preliminary-stratification-and-quantification-of-agroforestry-in-europe.html

Agroforestry of high nature and cultural value

Mediterranean oak tree systems

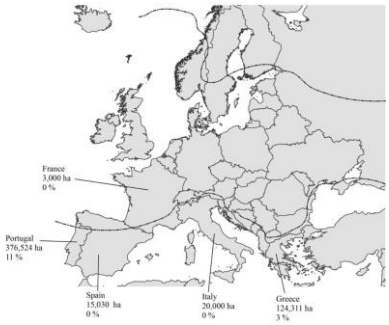


Wood pastures and meadows

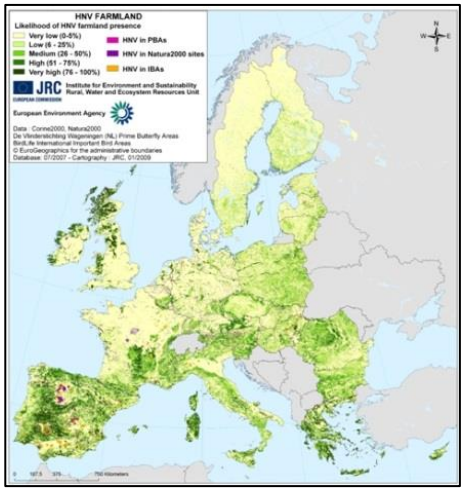
Reindeer husbandry

Agroforestry with high value trees

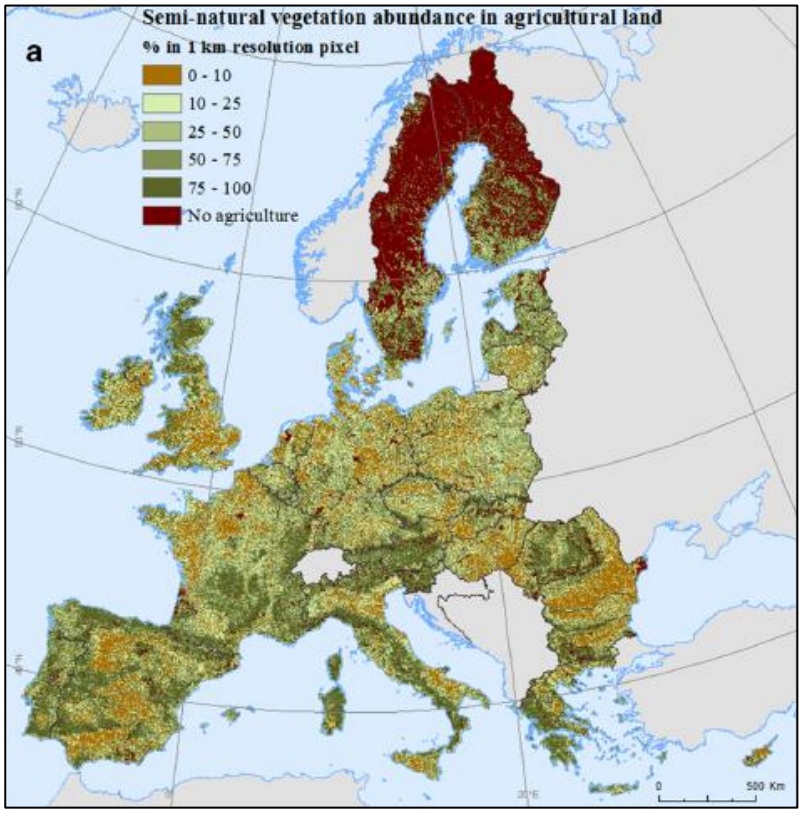
Fruit tree systems



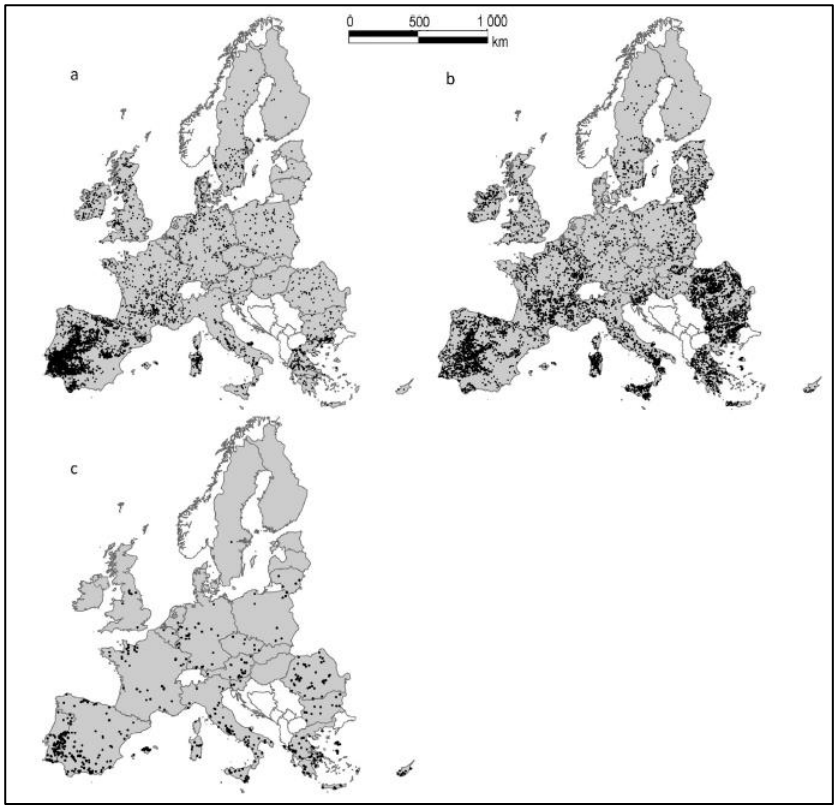
Olive tree systems

DATASET WITH INFORMATION RELATED TO AGROFORESTRY AREAS IN EUROPE	
Coverage	**EUROPEAN UNION**
Title	**High Nature Value Farmland in Europe**
Source	JRC and EEA
Classes	Likelihood of HNV farmland presence: Very High, High, Medium, Low, Very Low.
Shape/Spatial resolution	1 km raster resolution
Year	2008. An update is foreseen in 2016.
Availability	Image
Definition/Criteria/Indicators	High Nature Value (HNV) farmlands (Paracchini *et al.*, 2008) are defined as "those areas in Europe where agriculture is a major (usually the dominant) land use and where that agriculture supports, or is associated with, either a high species and habitat diversity or the presence of species of European conservation concern, or both" (Andersen *et al.*, 2003). HNV farmland can be classified into three main types: farmland with a high proportion of semi-natural vegetation (Type 1); farmland dominated by low intensity agriculture or a mosaic of semi-natural and cultivated land and small-scale features (Type 2); and farmland supporting rare species or a high proportion of European or World populations (Type 3). Although not all HNV farmland is agroforestry land, it is clear that agroforestry practices may be widespread in these extensive agricultural areas.
Main reference	Paracchini, M. L., Petersen, J.-E., Hoogeveen, Y., Bamps, C., Burfield, I., van Swaay, C., 2008. High Nature Value Farmland in Europe. An Estimate of the Distribution Patterns on the Basis of Land Cover and Biodiversity Data. European Commission Joint Research Centre, Institute for Environment and Sustainability. Report EUR 23480 EN. 87 p. Office for Official Publications of the European Communities, Luxembourg.
	

DATASET WITH INFORMATION RELATED TO AGROFORESTRY AREAS IN EUROPE	
Coverage	**EUROPEAN UNION**
Title	**Abundance of semi-natural vegetation in European Union agricultural lands**
Source	García-Feced *et al.* (2015)
Classes	Percentage of semi-natural vegetation in 1km resolution pixel
Shape/Spatial resolution	1 km raster resolution
Year	2015
Availability	Image
Definition/Criteria/Indicators	In the Joint Research Centre (JRC) of the European Commission, a first Pan-European map of abundance of semi-natural vegetation (both semi-natural grasslands and woody vegetation) in agricultural land was generated using remote sensing images and available European spatial datasets.
Main reference	García-Feced, C., Weissteiner, C., Baraldi, A., Paracchini, M.L., Maes, J. *et al.*, 2015. Semi-natural vegetation in agricultural land: European map and links to ecosystem service supply. Agronomy for Sustainable Development 35(1):273–283.
Main webpage	doi:10.1007/s13593-014-0238-1

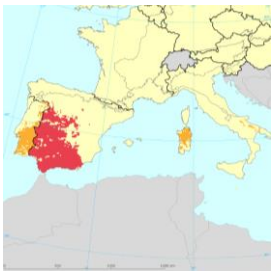


DATASET WITH INFORMATION RELATED TO AGROFORESTRY AREAS IN EUROPE	
Coverage	**EUROPEAN UNION**
Title	**Distribution of wood-pastures in Europe**
Source	Plieninger *et al.* (2015)
Classes	a) Pastures in open woodland; b) Pastures with sparse trees; and c) Pastures with cultivated trees. Grey background indicates the surveyed area, while areas in white remained unconsidered. Note that points represent the location but not the extent of wood-pastures as they are not at scale.
Shape/Spatial resolution	Point
Year	2015
Availability	Image
Definition/Criteria/Indicators	Plieninger *et al.* (2015) have used LUCAS information to generate the first Pan-European map of wood-pastures and quantify their extent.
Main reference	Plieninger, T., Hartel, T., Martín-López, B., Beaufoy, G., Bergmeier, E. *et al.*, 2015. Wood-pastures of Europe: Geographic coverage, social–ecological values, conservation management, and policy implications. Biological Conservation 190 (2015) 70–79.
Main webpage	doi: 10.1016/j.biocon.2015.05.014



DATASET WITH INFORMATION RELATED TO AGROFORESTRY AREAS IN EUROPE	
Coverage	**EUROPEAN UNION**
Title	**Description, distribution and assessment of conservation status at the Member State level in some habitat types related to wood pastures.**
Source	García Feced (2015)
Classes	Conservation status legend: Favourable (green), Unknown (grey), Unfavourable-inadequate (orange) and Unfavourable-bad (red).
Shape/Spatial resolution	10x10 km raster resolution
Year	2007-2012
Availability	Image
Definition/Criteria/Indicators	Reporting under Article 17 of the Habitats Directive provides distribution maps and assesses the conservation status of habitat types every six years. Regarding wood pastures, Beaufoy *et al.* (2015) highlight that "in addition to the two types of wood pasture explicitly cited in Annex I of the Habitats Directive ("6310 Dehesas with evergreen Quercus species" and "9070 Fenoscandian wooded meadows"), many types of Annex I forest habitat have a long tradition of use as wood pastures, and appropriate grazing is a key tool for their conservation management in these cases, especially where they exist in a mosaic with shrub and grass habitats. Examples include "9230 Galicio-Portuguese oak woods with Quercus robur and Quercus pyrenaica" and "5210 Arborescent matorral with Juniperus spp.". Hartel and Plieninger (2014) add that "among the 233 European natural habitat types listed in Annex I, no less than 65 are to some extent related to wood pasture. Of these, only four habitat types are explicitly recognised as grazed woody formations (i.e. "5130 Juniperus communis formations on heaths or calcareous grasslands", 5210, 6310 and 9070).
Main reference	García Feced, C., 2015. State of agroforestry information across Europe. ETC/BD Working paper Nº C/2015.
Main webpage	http://bd.eionet.europa.eu/article17/reports2012/habitat/summary, last accessed 1 December 2015.

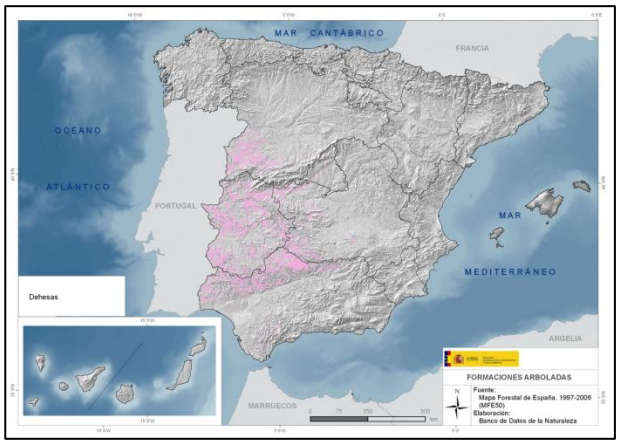
Annex I habitat type name and description	**Distribution**
5130 Juniperus communis formations on heaths or calcareous grasslands Formations with Juniperus communis of plain to montane levels. They mainly correspond to phytodynamic succession of the following types of vegetation: a) generally, mesophilous or xerophilous calcareous and nutrient poor grasslands, grazed or let lie fallow, of the Festuco-Brometea and Elyno-Sesleretea; b) more rarely, heathlands of the Calluno vulgaris-Ulicetea minoris.	

5210 Arborescent matorral with Juniperus spp. Mediterranean and sub-Mediterranean evergreen sclerophyllous scrub organized around arborescent junipers with a high taxonomic variety: Juniperus oxycedrus, J. phoenicea, J. foetidissima, J. excelsa and J. communis, J. drupacea, J. thurifera.	
6310 Dehesas with evergreen Quercus spp. Dehesas with evergreen Quercus species form a characteristic landscape of the Iberian peninsula in which crops, pasture land or Meso-Mediterranean shrubby matorral (in juxtaposition or rotation) are shaded by a fairly closed to very open canopy of native evergreen oaks (Quercus suber, Q. ilex, Q. rotundifolia, Q. coccifera). It is an important habitat of endangered animals. This habitat type is only reported in the Mediterranean region Although typical of Spain and Portugal (where this habitat is known as montado), the habitat is also found locally in France and Italy. The percentage of coverage by Natura 2000 sites of this habitat type by country is 33% in Spain, 10% in Italy and unknown in Portugal.	
6530 Fennoscandian wooded meadows Fennoscandian wooded meadows represent a species-rich vegetation complex consisting of small copses of deciduous trees and shrubs and patches of open meadows. Ash (Fraxinus excelsior), birch (Betula pendula, B. pubescens) and Quercus robur, Tilia cordata, Ulmus glabra or Alnus incana are the common tree species. Nowadays very few areas are managed but traditionally these areas were managed by a combination of raking, hay-cutting, grazing of grassland and pollarding or lopping of trees.	
9070 Fennoscandian wooded pastures A vegetation complex in which the tree layer varies from sparse forest to small copses of trees and shrubs and patches of open grassland. These habitats have a representative mosaic of copses of trees (usually deciduous trees) and grassland with a long continuity of grazing. The tree layer consists either of deciduous broad-leaved species such as Quercus robur, Fraxinus excelsior, Tilia cordata, Betula spp., Alnus incana or conifers (Picea abies, Pinus sylvestris). Particularly in Sweden there are pastures with old, large oaks.	
9230 Galicio-Portuguese oak woods with Quercus robur and Quercus pyrenaica This habitat includes a varied group of forests dominated by Pyrenean oak (Quercus pyrenaica) from the Iberian Penninsula and southwestern France with five regional subtypes. Quercus robur, Fraxinus angustifolia and Acer granatense occur in the tree layer.	

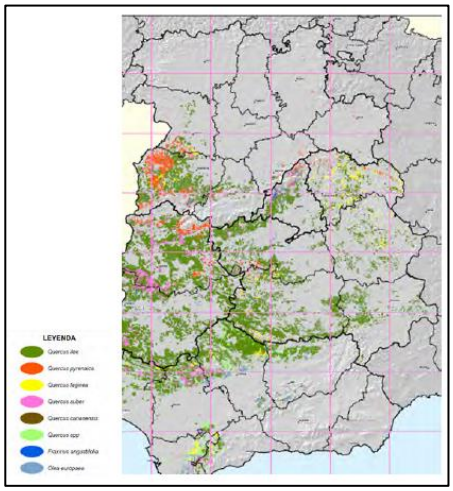
DATASET WITH INFORMATION RELATED TO AGROFORESTRY AREAS IN EUROPE	
Coverage	**EUROPE**
Title	**Interactive map of agroforestry research and demonstration in Europe**
Source	AGFORWARD Project
Classes	AGFORWARD stakeholder group, AGFORWARD replicated experiment, AGFORWARD demonstration or trial site, Other agroforestry replicated experiment, Other demonstration and trial site
Shape/Spatial resolution	Point with information about surface
Year	2015
Availability	Interactive map
Definition/Criteria/Indicators	An output of the project AGFORWARD is an interactive map of agroforestry research and demonstration in Europe, displaying the location of the project's stakeholder groups, replicated experiments, demonstration or trial sites, other agroforestry replicated experiments and other demonstration and trial sites.
Main reference	AGFORWARD Project
Main webpage	http://www.agforward.eu/index.php/en/map-of-agroforestry-research-and-demonstration-in-europe.html, last accessed 24 November 2015

NATIONAL COVERAGE

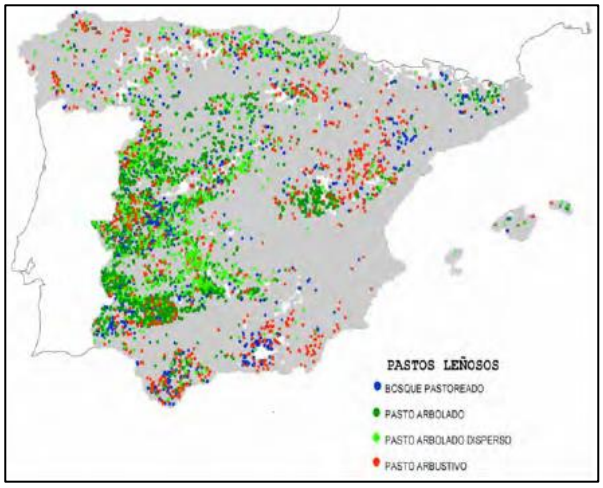
MAPS WITH INFORMATION RELATED TO AGROFORESTRY AREAS IN EUROPE	
Coverage	**SPAIN**
Title	**Distribution of dehesas in Spain**
Source	Spanish Ministry of Agriculture, Food and Environment, 2006
Classes	Dehesas in pink colour
Shape/Spatial resolution	
Year	2006
Availability	Image
Definition/Criteria/Indicators	The Spanish Forest Map (1997-2006, scale 1:50.000) delimits the dehesas country-wide. These unique agrosilvopastoral systems have an extraordinary ecological, economic and cultural importance in Spain.
Main reference	
Main webpage	http://www.magrama.gob.es/es/biodiversidad/servicios/banco-datos-naturaleza/informacion-disponible/mfe50.aspx, last accessed 1 December 2015



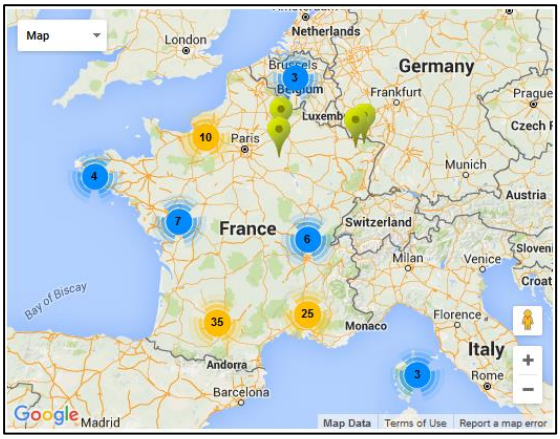
MAPS WITH INFORMATION RELATED TO AGROFORESTRY AREAS IN EUROPE	
Coverage	**SPAIN**
Title	**Distribution of Spanish Mediterranean dehesas**
Source	MAPA, 2008
Classes	Colours represent the dominant tree species (several Quercus species, Fraxinus angustifolia and Olea europaea).
Shape/Spatial resolution	
Year	2008
Availability	Image

Definition/Criteria/Indicators	The Spanish Platform for Extensive Livestock Systems and Pastoralism (Plataforma por la Ganadería Extensiva y el Pastoralismo, in Spanish; http://www.ganaderiaextensiva.org/, last accessed 27 November 2015) published a report on the eligibility of Spanish wood pastures for the direct payments of the CAP (Informe sobre la elegibilidad para pagos directos de la PAC de los pastos leñosos españoles, in Spanish; Ruiz and Beaufoy, 2015).
Main reference	Ruiz, J., Beaufoy, G., 2015. Informe sobre la elegibilidad para pagos directos de la PAC de los pastos leñosos españoles 2015. Plataforma por la Ganadería Extensiva y el Pastoralismo.
Main webpage	http://www.ganaderiaextensiva.org/InformeElegibilidadPastos.pdf
	

MAPS WITH INFORMATION RELATED TO AGROFORESTRY AREAS IN EUROPE	
Coverage	**SPAIN**
Title	**Distribution of types of silvopastoral lands in Spain based on LUCAS database**
Source	
Classes	Grazed woods (blue), Wood-pasture (green), Scattered wood-pasture (light green) and shrub-pasture (red).
Shape/Spatial resolution	
Year	
Availability	Image
Definition/Criteria/Indicators	The Spanish Platform for Extensive Livestock Systems and Pastoralism (Plataforma por la Ganadería Extensiva y el Pastoralismo, in Spanish; http://www.ganaderiaextensiva.org/, last accessed 27 November 2015) published a report on the eligibility of Spanish wood pastures for the direct payments of the CAP (Informe sobre la elegibilidad para pagos directos de la PAC de los pastos leñosos españoles, in Spanish; Ruiz and Beaufoy, 2015).
Main reference	Ruiz, J., Beaufoy, G., 2015. Informe sobre la elegibilidad para pagos directos de la PAC de los pastos leñosos españoles 2015. Plataforma por la Ganadería Extensiva y el Pastoralismo.
Main webpage	http://www.ganaderiaextensiva.org/InformeElegibilidadPastos.pdf



MAPS WITH INFORMATION RELATED TO AGROFORESTRY AREAS IN EUROPE	
Coverage	**FRANCE**
Title	**Market gardens with agroforestry practices**
Source	The project SMART (Systèmes Mixtes Agroforestiers: création de Références Techniques & économiques, in French).
Classes	The market gardens can be searched by fruit tree species, type of crop or French Department.
Shape/Spatial resolution	Point
Year	2015
Availability	Web platform
Definition/Criteria/Indicators	The project SMART (Systèmes Mixtes Agroforestiers: création de Références Techniques & économiques, in French) provides a map of the market gardens with agroforestry practices at the national level (Association Francaise d'Agroforesterie, in French, AFAF)
Main reference	The SMART Project (Systèmes Mixtes Agroforestiers: création de Références Techniques & économiques, in French) and the French Agroforestry Association (Association Francaise d'Agroforesterie, in French, AFAF)
Main webpage	http://www.agroforesterie.fr/SMART/cartographie_SMART/smart-cartographie-des-projets.php#, last accessed 30 November 2015



MAPS WITH INFORMATION RELATED TO AGROFORESTRY AREAS IN EUROPE	
Coverage	**HUNGARY**
Title	**Hungarian wood pastures**
Source	Varga *et al.* (2014)
Classes	Wood pastures (red dots), Natura 2000 areas (green line)
Shape/Spatial resolution	Point
Year	2014
Availability	Image
Definition/Criteria/Indicators	The term agroforestry is not widely used but there are traditional wood pasture and wood meadow systems in Hungary.
Main reference	Varga, A., Bölöni, J., Saláta, D., Biró, M., Horváth, F., Samu, Z. T., Bodor, Á., Molnár, Zs., 2014. Magyarországi fáslegelők legelőerdők természetvédelmi helyzete és jelenlegi problémái. (Current conservation situation and issues of the wood-pastures in Hungary) Nyugat-Magyarországi Egyetem, Erdőmérnöki Kar Növénytani Természetvédelmi Intézete. p.225.
Main webpage	

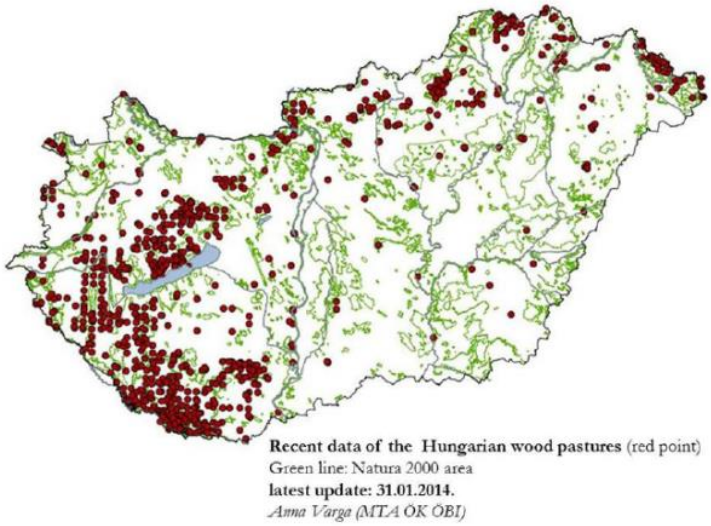
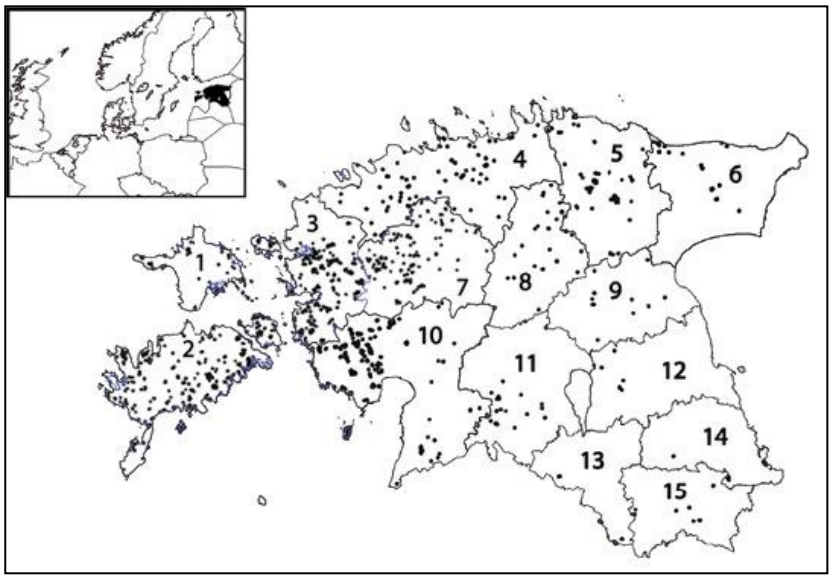
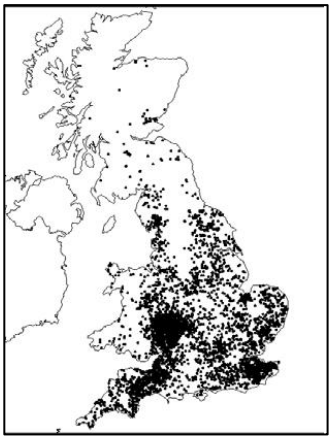


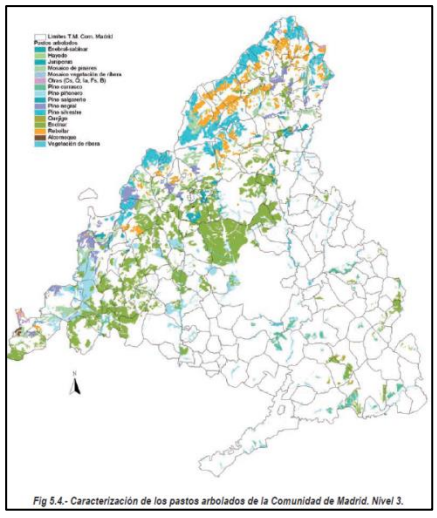
Figure 1. Presence of wood pastures in Hungary (Varga et al. 2014)

MAPS WITH INFORMATION RELATED TO AGROFORESTRY AREAS IN EUROPE	
Coverage	**ESTONIA**
Title	**Current distribution of wooded meadows in Estonia**
Source	Talvi, 2010
Classes	The numbers mark the counties.
Shape/Spatial resolution	Point
Year	2010
Availability	Image
Definition/Criteria/Indicators	
Main reference	Talvi, T., 2010. Estonian Wooded Meadows and Wooded Pastures. Brief summary of the manual translated to English. Keskkonnaamet.
Main webpage	http://www.keskkonnaamet.ee/public/PLK/Lisa_3_Puisniitude_puiskarjamaade_hoolduskava_2011.pdf

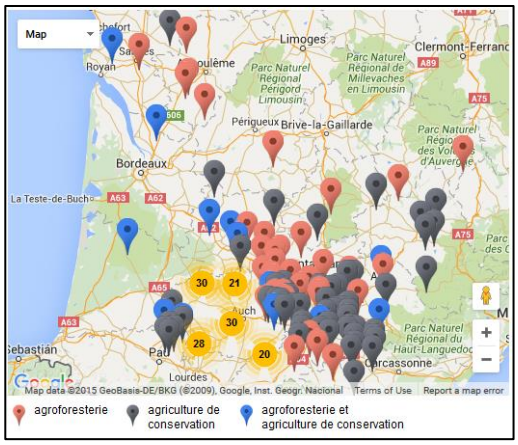


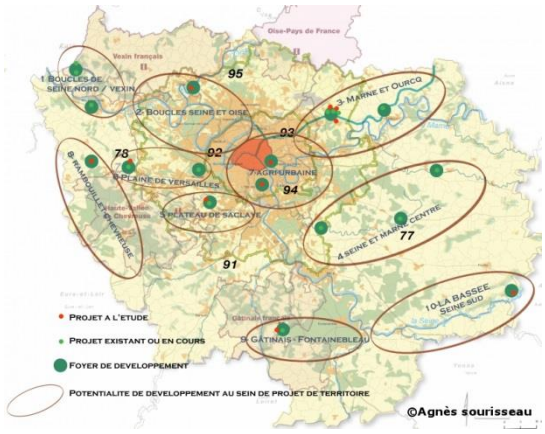
MAPS WITH INFORMATION RELATED TO AGROFORESTRY AREAS IN EUROPE	
Coverage	**UNITED KINGDOM**
Title	**Distribution of traditional orchards in the United Kingdom**
Source	UK BAP Biodiversity Reporting and Information Group, BRIG, 2011
Classes	
Shape/Spatial resolution	Point
Year	2011
Availability	Image
Definition/Criteria/Indicators	Traditional orchards are described as "structurally and ecologically similar to wood-pasture and parkland, with opengrown trees set in herbaceous vegetation, but are generally distinguished from these priority habitat complexes by the following characteristics: the species composition of the trees, these being primarily in the family Rosaceae; the usually denser arrangement of the trees; the small scale of individual habitat patches; the wider dispersion and greater frequency of occurrence of habitat patches in the countryside. Traditional orchards include plantings for nuts, principally hazel nuts, but also walnuts".
Main reference	BRIG, 2011. UK Biodiversity Action Plan; Priority Habitat Descriptions. BRIG (ed. Ant Maddock) 2008. (Updated 2011).
Main webpage	http://jncc.defra.gov.uk/PDF/UKBAP_PriorityHabitatDesc-Rev2011.pdf
	

REGIONAL COVERAGE

MAPS WITH INFORMATION RELATED TO AGROFORESTRY AREAS IN EUROPE	
Coverage	**Comunidad de Madrid (SPAIN)**
Title	**Characterisation of wooded pastures in the region of Madrid**
Source	Spanish Society for the Study of Pastures (Sociedad Española para el Estudio de los Pastos, in Spanish).
Classes	16 classes depending on the dominant tree species
Shape/Spatial resolution	
Year	2009
Availability	Image
Definition/Criteria/Indicators	The Spanish Society for the Study of Pastures (Sociedad Española para el Estudio de los Pastos, in Spanish) has carried out several projects to classify map and assess pastures in several regions (e.g. Balearic Islands, Cantabria, Madrid and Murcia).
Main reference	Consejería de Medio Ambiente, Vivienda y Ordenación del Territorio de la Comunidad de Madrid, 2009. Los pastos de la Comunidad de Madrid: Tipología, Cartografía y Evaluación. Serie Técnica del Medio Natural nº 4. 2009.
Main webpage	http://www.seepastos.es/proyecto%20pastos%20espa%F1oles.html, last accessed 30 November 2015
 Fig 5.4.- Caracterización de los pastos arbolados de la Comunidad de Madrid. Nivel 3.	

MAPS WITH INFORMATION RELATED TO AGROFORESTRY AREAS IN EUROPE	
Coverage	**Adour-Garonne basin (FRANCE)**
Title	**Farms with agroforestry practices and soil conservation in Adour-Garonne basin**
Source	AGR'EAU project. The French Agroforestry Association (Association Francaise d'Agroforesterie, in French, AFAF)
Classes	Type of agroforestry system, planted species or French Department. Agroforestry (red), Conservation agriculture (grey), Agroforestry and Conservation agriculture (blue).
Shape/Spatial resolution	Point
Year	2015
Availability	Web platform
Definition/Criteria/Indicators	In the AGR'EAU project, the farms with agroforestry practices within the Adour-Garonne basin have been identified.
Main reference	AGR'EAU project. The French Agroforestry Association (Association Francaise d'Agroforesterie, in French, AFAF)
Main webpage	http://www.agroforesterie.fr/AGREAU/cartographie_AGREAU/agreau-agroforesterie-couverture-vegetale-des-sols-cartographie-des-agriculteurs-references-dans-le-programme.php, last accessed 24 November 2015 http://www.agroforesterie.fr/AGREAU/agreau-reseau-fermes-pilotes-agroforesterie-couverts-vegetaux.php, last accessed 20 January 2016



MAPS WITH INFORMATION RELATED TO AGROFORESTRY AREAS IN EUROPE	
Coverage	**Ile-de-France (FRANCE)**
Title	**New projects and potential areas for agroforestry practices in Ile-de-France**
Source	The French Agroforestry Association (Association Francaise d'Agroforesterie, in French, AFAF)
Classes	
Shape/Spatial resolution	
Year	2015
Availability	Web platform
Definition/Criteria/Indicators	New projects and potential areas for agroforestry practices have been identified in the region.
Main reference	
Main webpage	http://www.agroforesterie.fr/agroforesterie-et-agriculture-durable-en-ile-de-france.php, last accessed 30 November 2015
	

Annex 3 Proposed model for a register of agroforestry areas

REGISTER OF EUROPEAN AGROFORESTRY AREAS	
Location	Click here to enter text.
Farm name	Click here to enter text.
Property	
Geo-location	Click here to enter text.
GIS availability	Click here to enter text.
Source/s	Click here to enter text.
References/Webpages	Click here to enter text.
Register date	Click here to enter text.
Type of agroforestry practice	Click here to enter text.
Total area	Click here to enter text.
Protected area	Click here to enter text.
Main tree species and cover	Click here to enter text.
Presence of old trees	Click here to enter text.
Main crop/s and area	Click here to enter text.
Main grassland species and area	Click here to enter text.
Main livestock species and number	Click here to enter text.
Farm history	Click here to enter text.
Farm management	Click here to enter text.
CAP eligibility	Click here to enter text.
Main activities/products	Click here to enter text.
Biodiversity indicators	Click here to enter text.
Flora and fauna	Click here to enter text.
Pedoclimatic conditions	Click here to enter text.

Map image	
Farm picture/s	