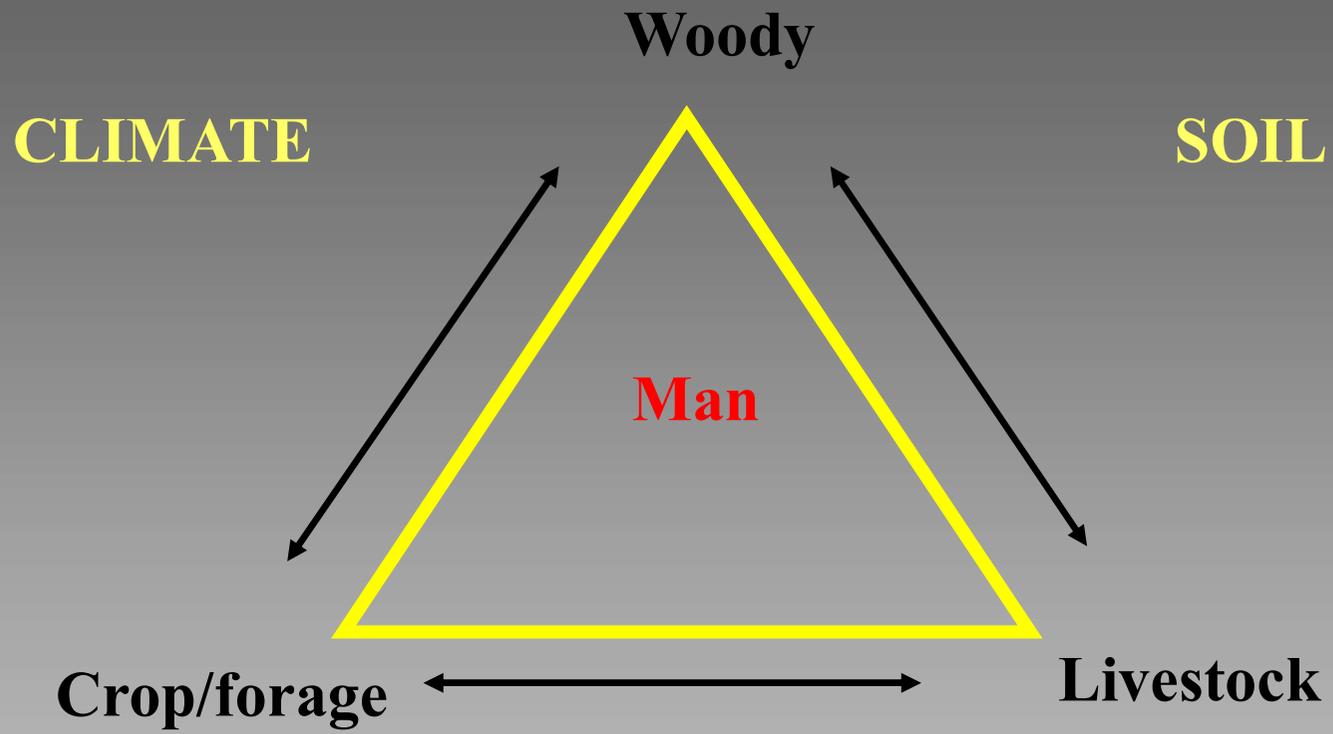


# Agroforestry: a tool to increase sustainability in arable lands

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Crop Production Department  
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# Europe agriculture goal

Increase food production in a sustainable way

FAO

Agriculture firstly included in Climate Change issues (GACSA)

*Improvement efficiency in the use of resources*

ECOINTENSIFICATION

# AGROFORESTRY

Best tool to

## ECOINTENSIFICATE



Aboveground



Belowground

# AGROFORESTRY

Best tool to

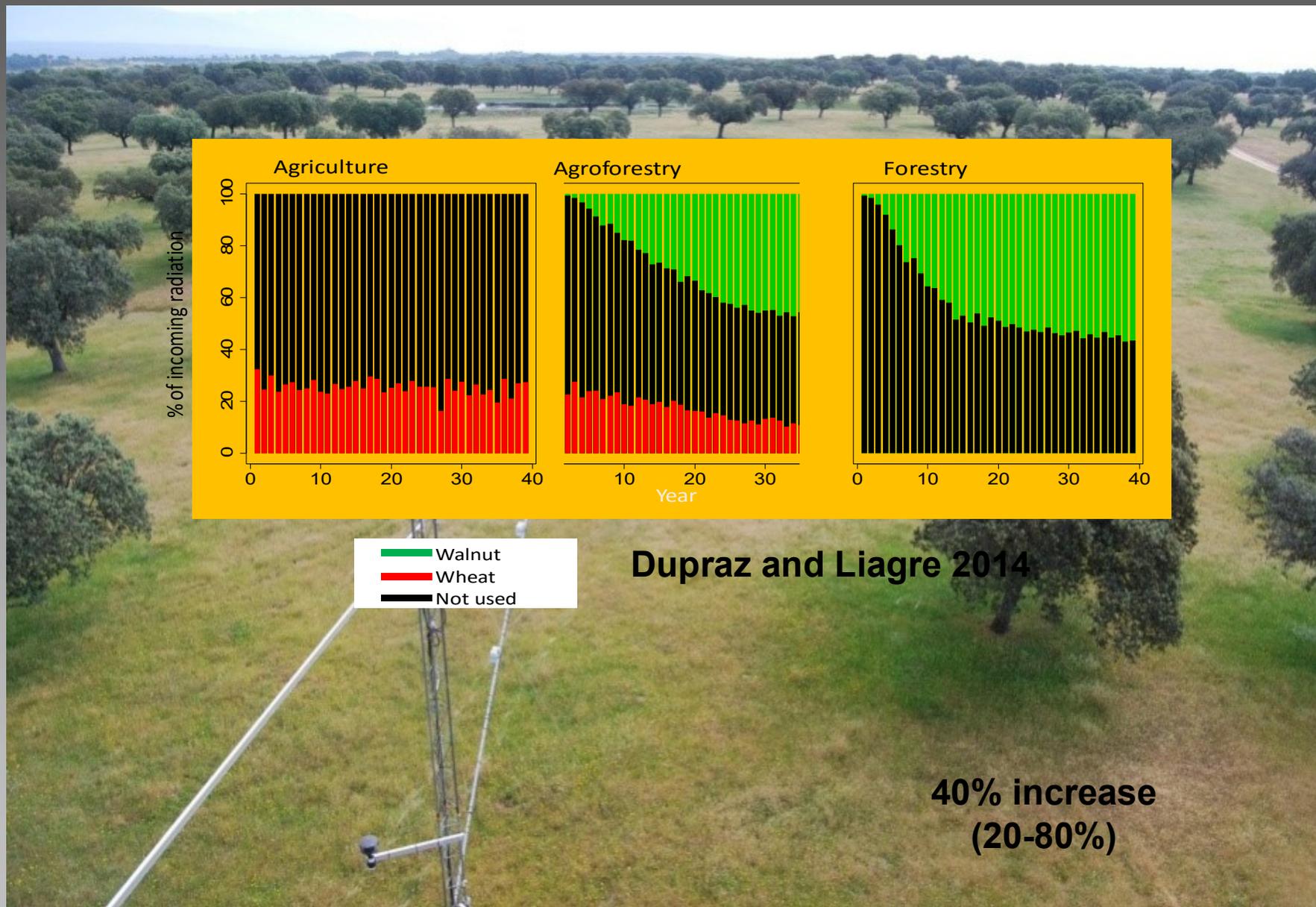
## ECOINTENSIFICATE



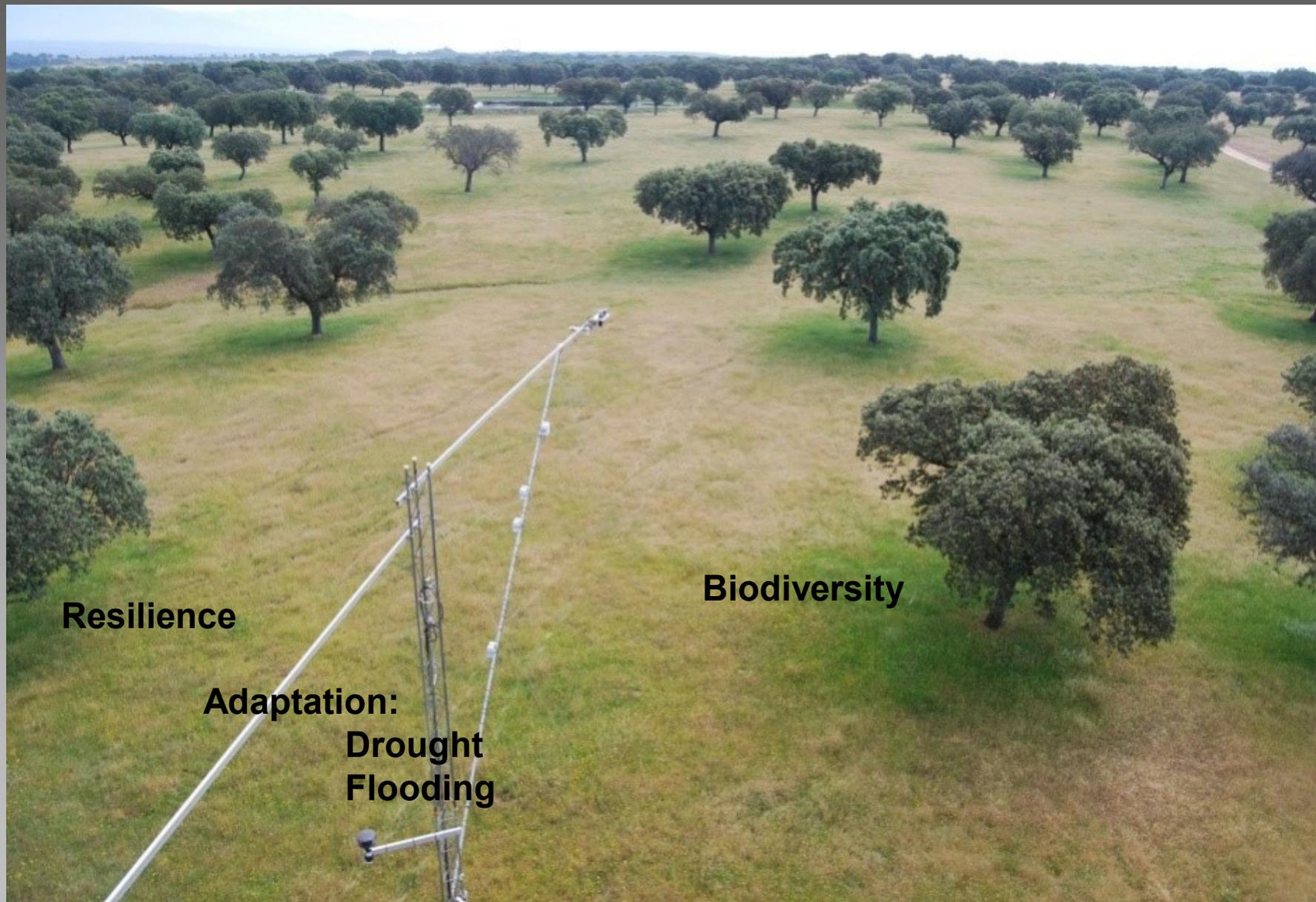
**Aboveground**

**Belowground**

# Aboveground level



# Aboveground level



**Resilience**

**Adaptation:  
Drought  
Flooding**

**Biodiversity**

Initial costs

Benefits

Compensated

Crop or Livestock Farm

Continuous

Not initially compensated

Pruning, uncommercial and commercial thinning

Forest farm

Punctual and Final

Compensated

Agroforestry farm

Continuous and final

Increase up to 25% over Crop-Livestock farms

Profitability depends on: combination of crops



## Tree lines



20% increasing crop production

# AGROFORESTRY

Best tool to

## ECOINTENSIFICATE



Aboveground

**Belowground**

# AGROFORESTRY

Best tool to

## ECOINTENSIFICATE



Aboveground

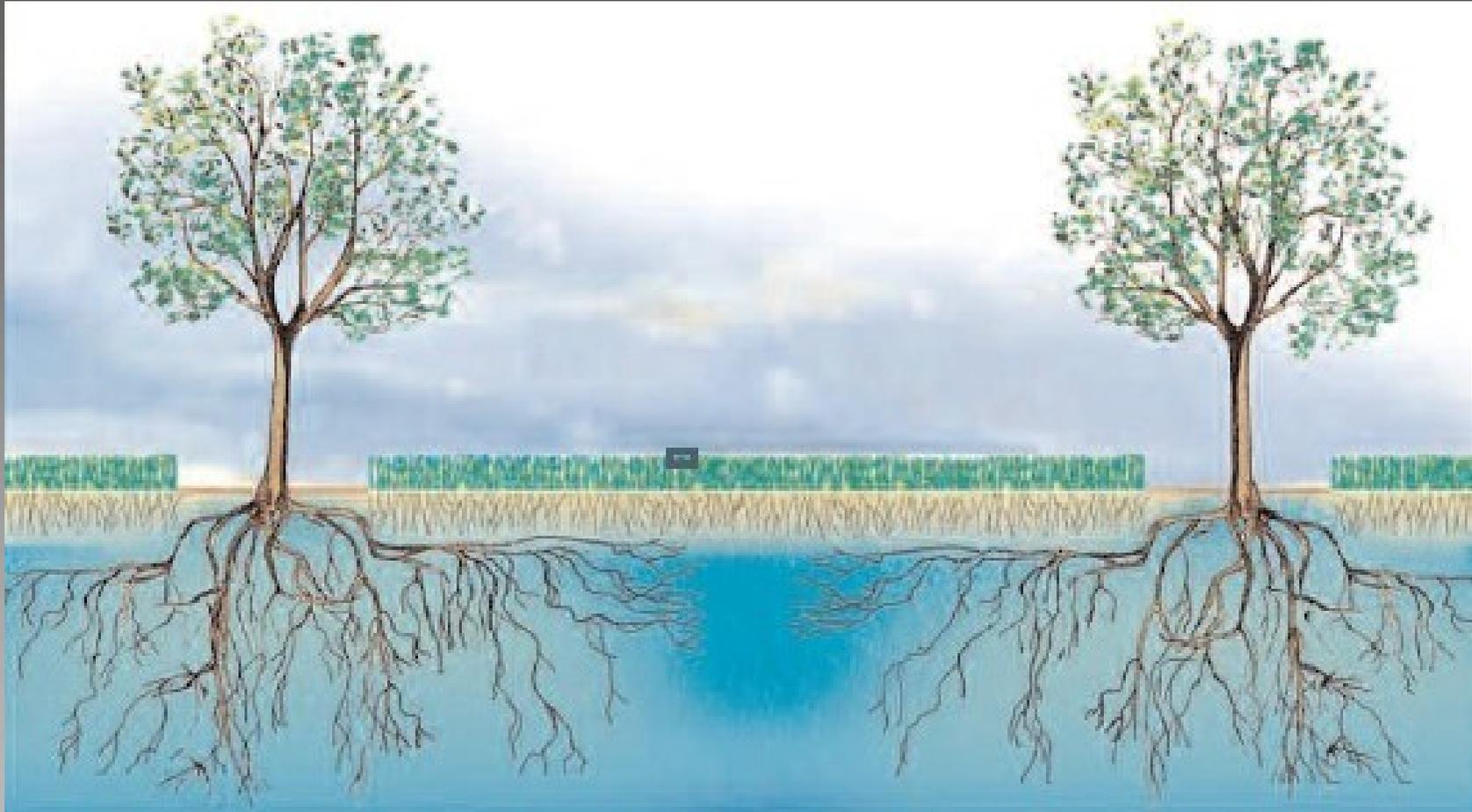
**Belowground**

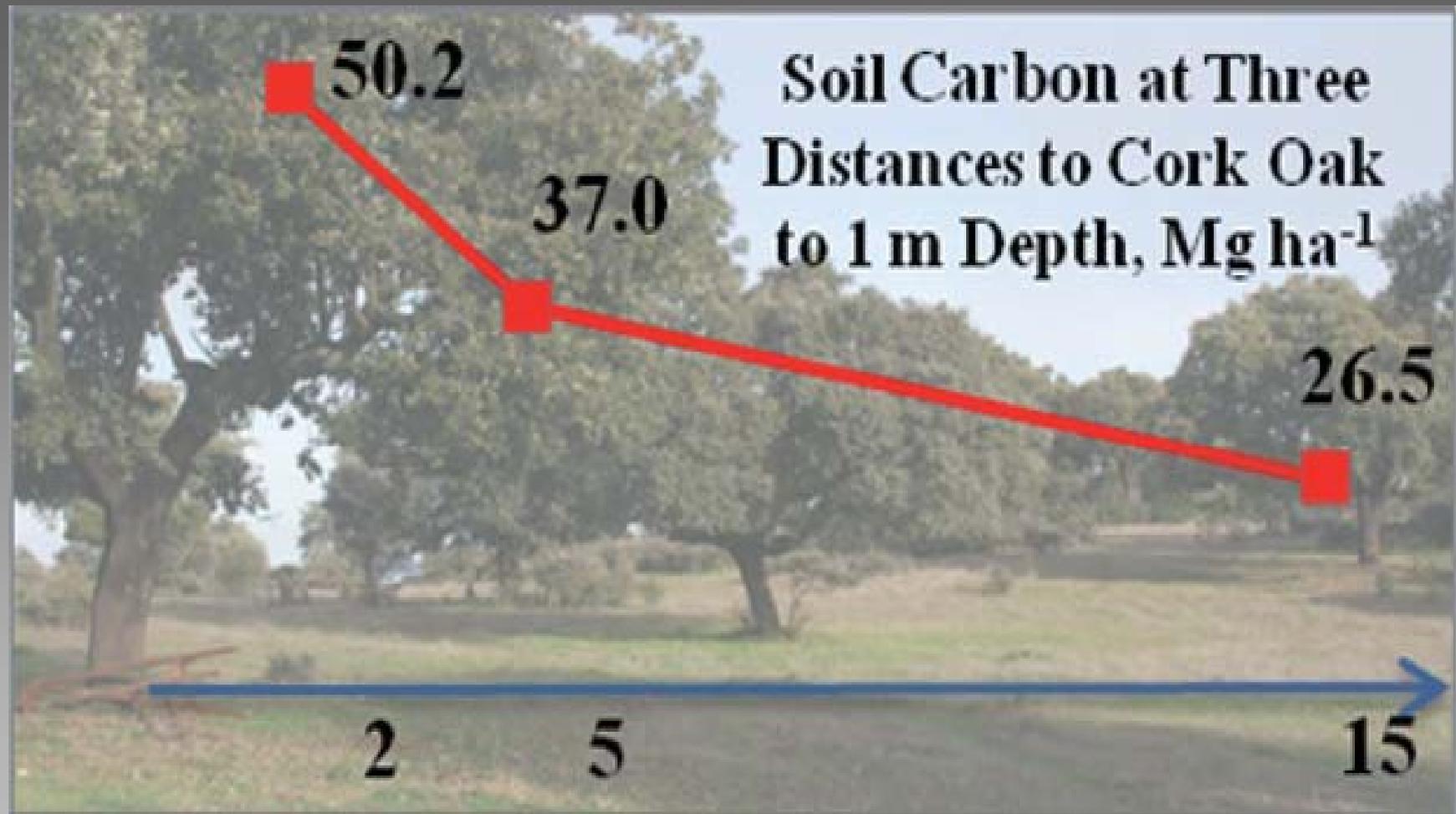
# Belowground level



Rivers

Carbon





Agroforestry is an excellent tool to increase the use of resources at below and aboveground levels

Is this a tool extensively used in Europe?

# Agroforestry practices

Silvopasture

Silvoarable

Kitchengardens

Forest Farming

Riparian buffer strips

## Silvopasture

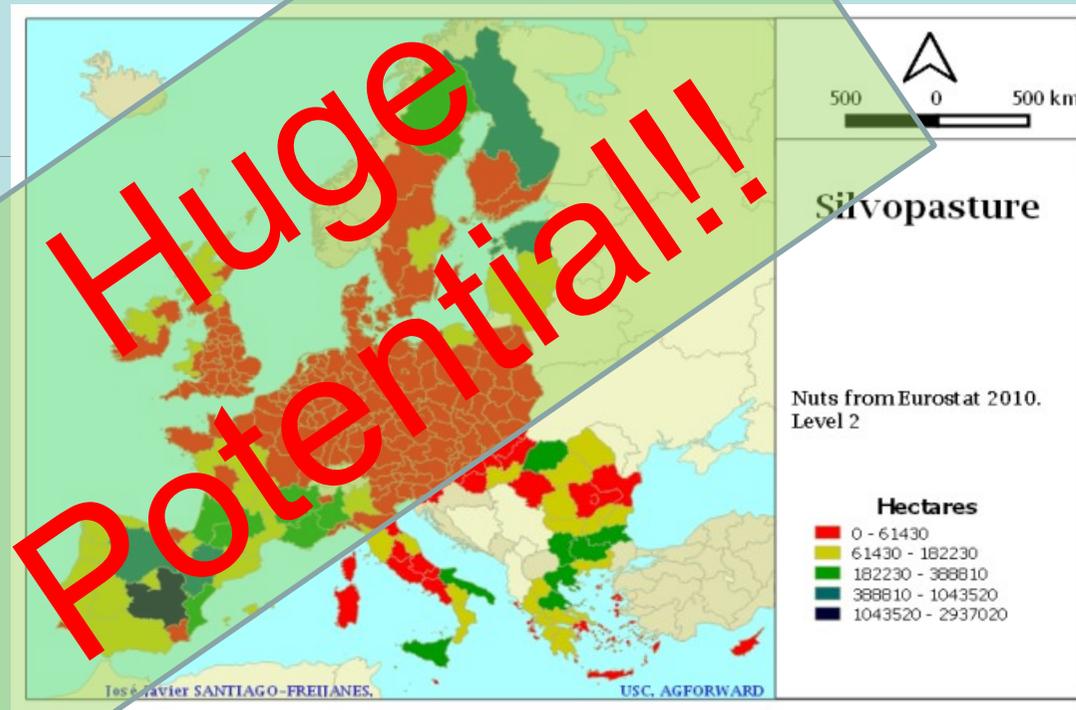
## Brief description



Woody + forage and animal production

19.5 Million ha

10% EU potential area



## Silvoarable

## Brief description

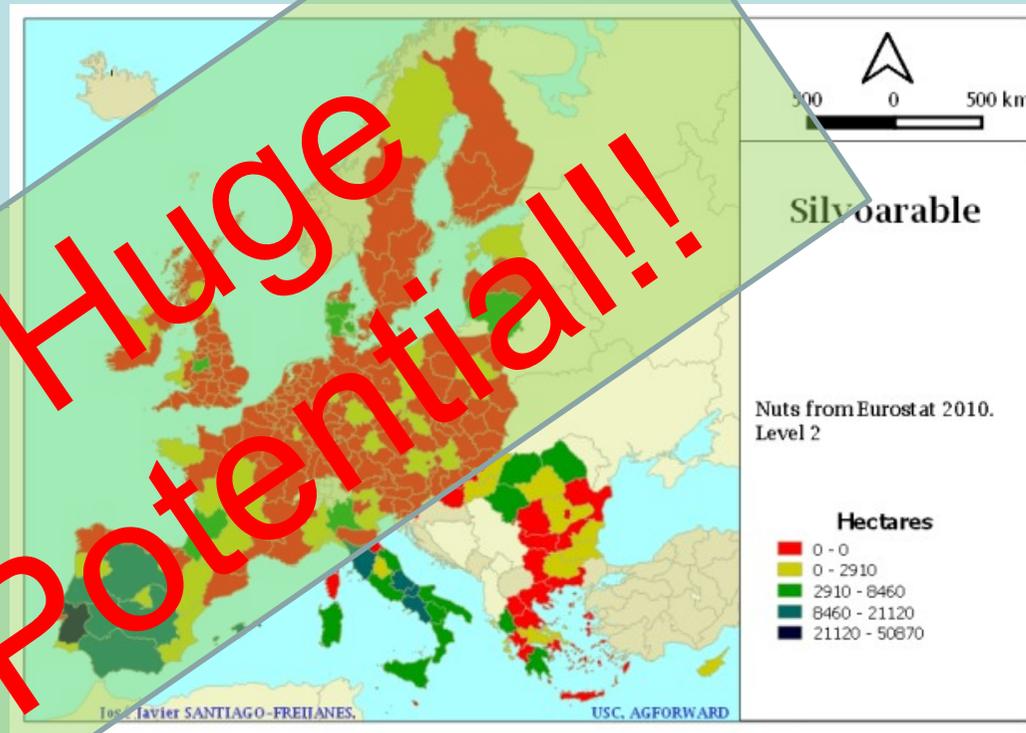


Woody + annual or perennial crops

422,250 hectares

0,4 % EU Arable land

USA: <1%



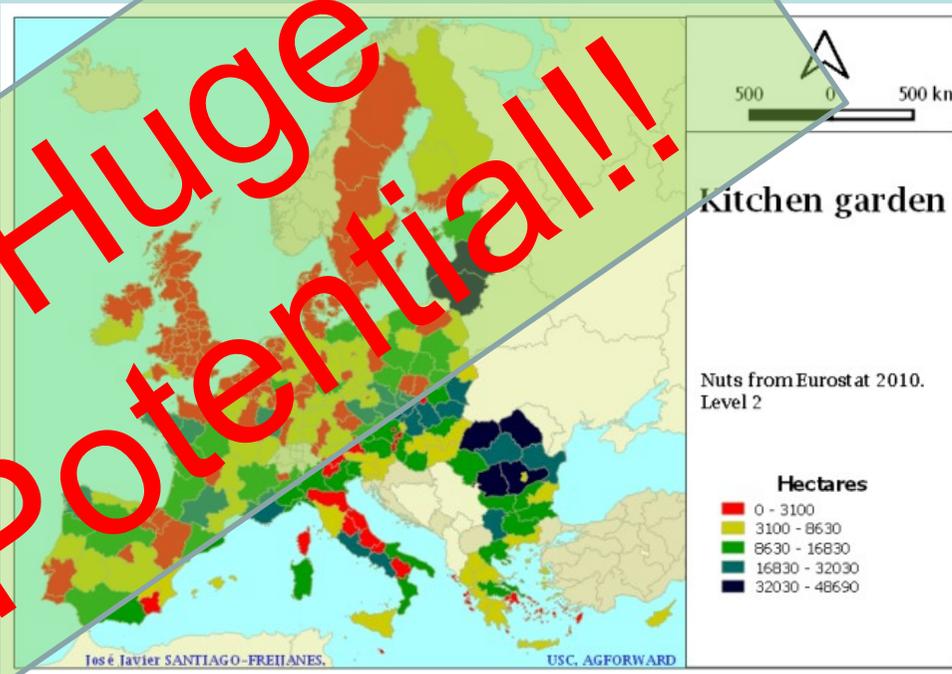
## Kitchengardens

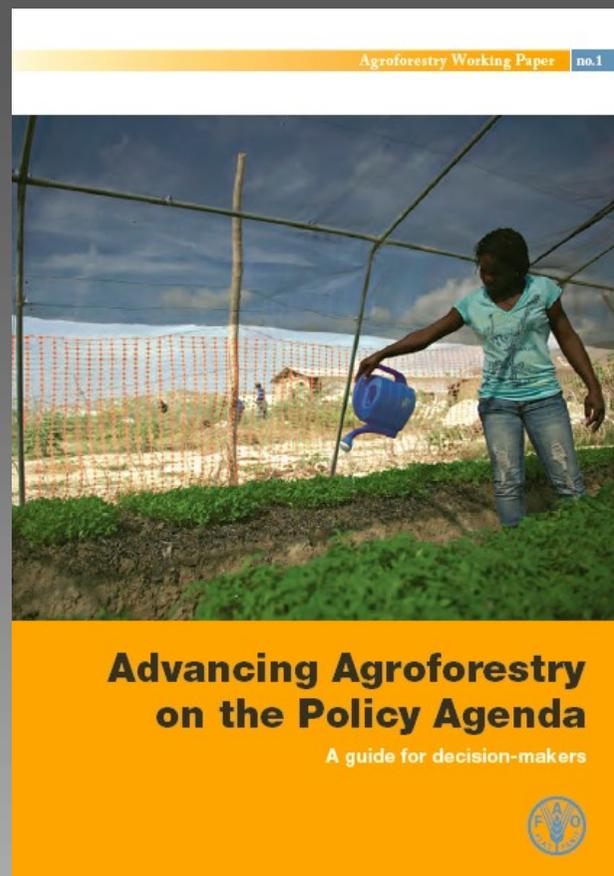
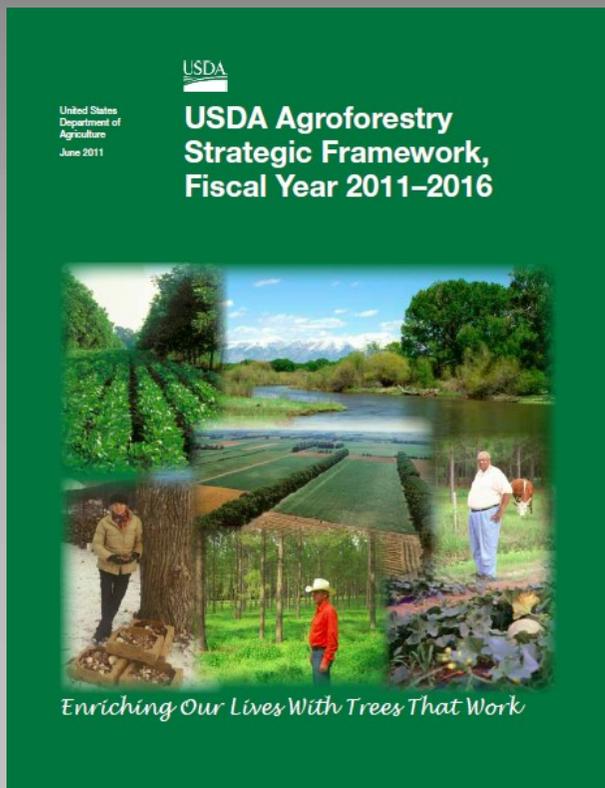
## Brief description



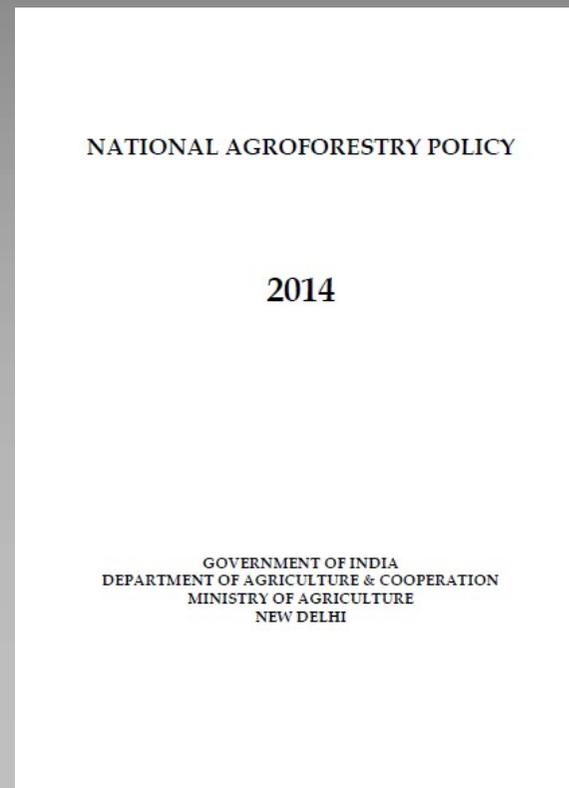
Trees + vegetable production in urban or periurban areas, also known as part of “trees outside the forest”

1.8 million ha  
60% Agroforestry





## French National Agroforestry Strategy

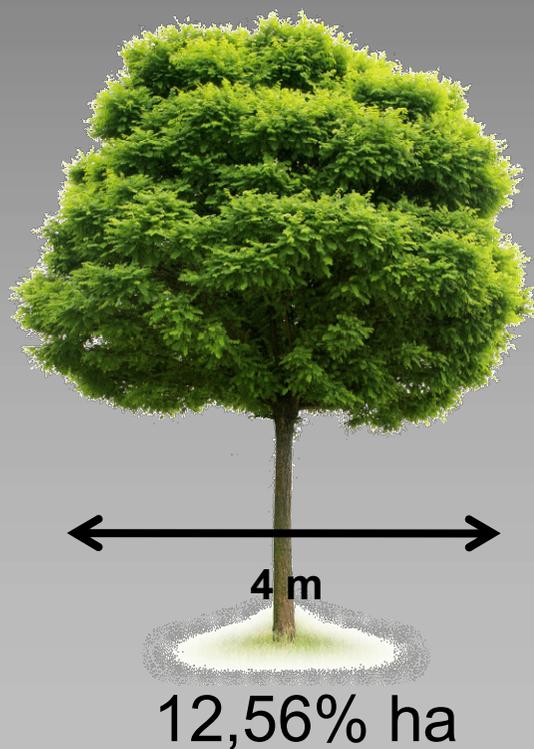


Arable land

Policy

## Eligibility limited by

- \* Regulation 1305/2013
- \* Delegate act 640/2014: 100 trees ha<sup>-1</sup>
- \* Delegate act 639/2014: How are the trees known as Isolated trees



2 m x 10 m

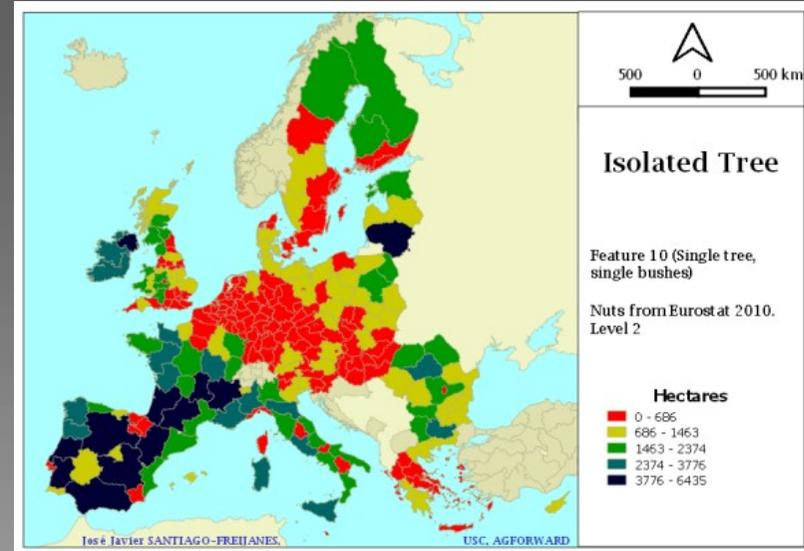
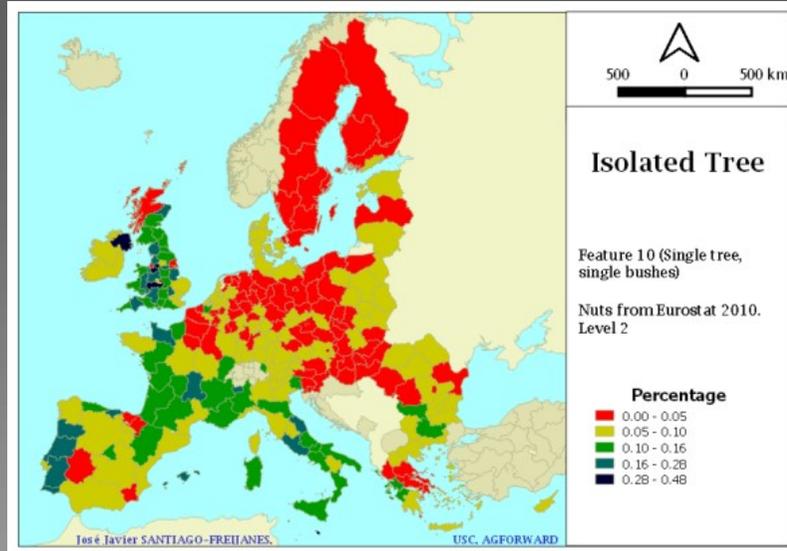
ALREADY EXISTING

Text indicating the dimensions and status of the trees shown in the landscape image.

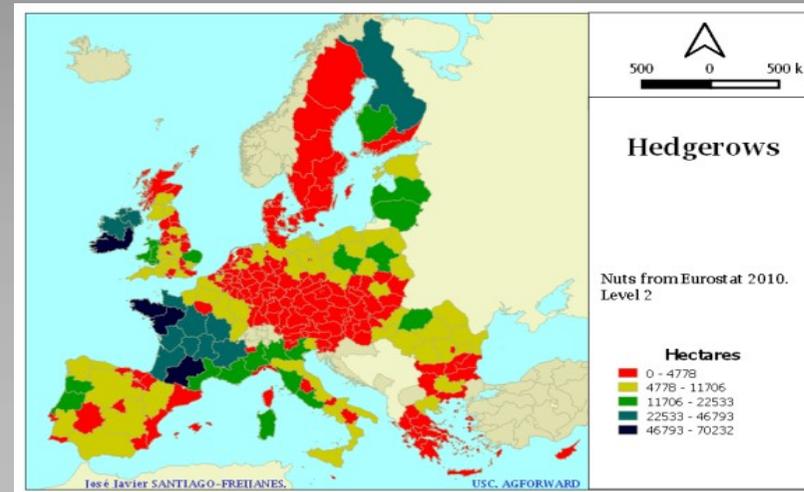
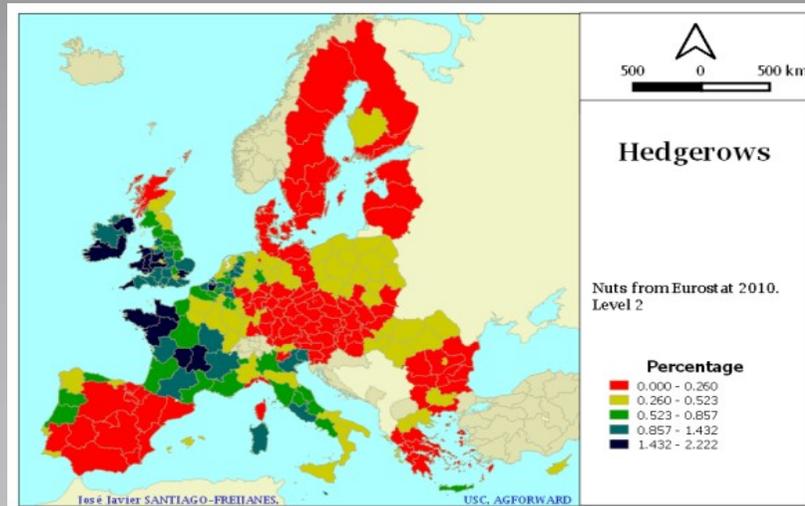


ARABLE LAND FEAR TO LOOSE DIRECT PAYMENTS

## Isolated trees in Europe (300000 ha)

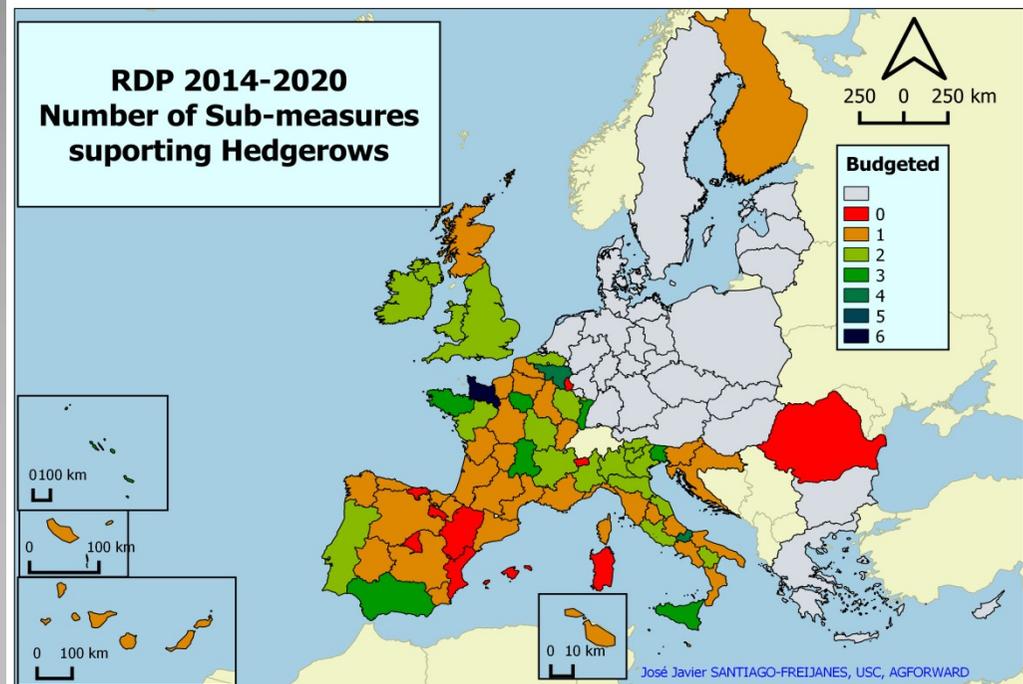
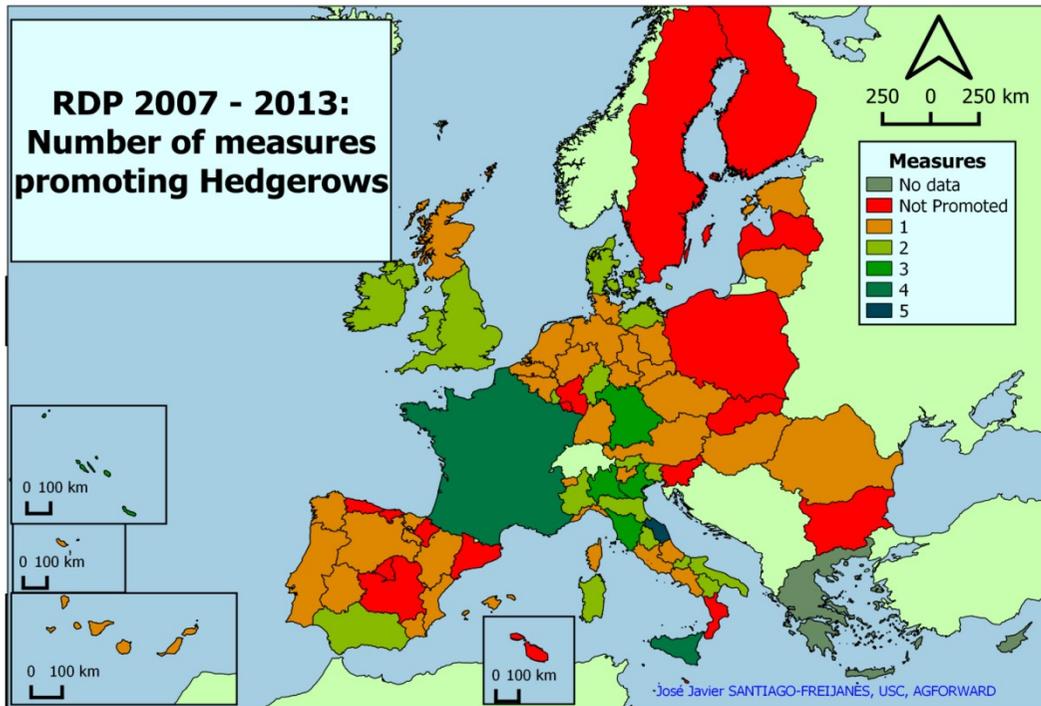


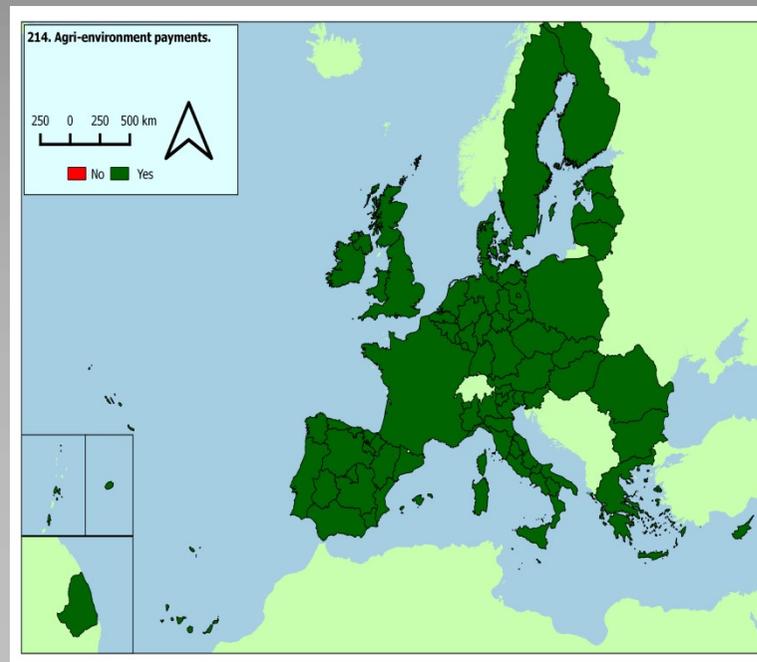
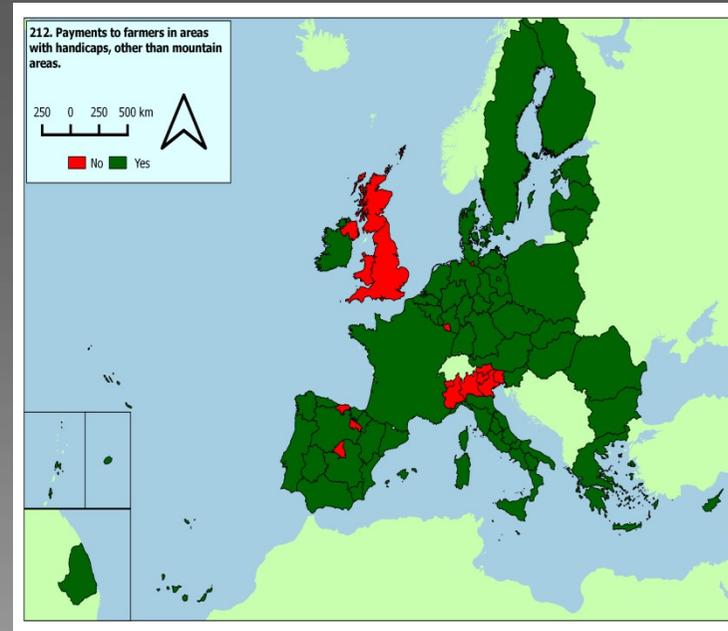
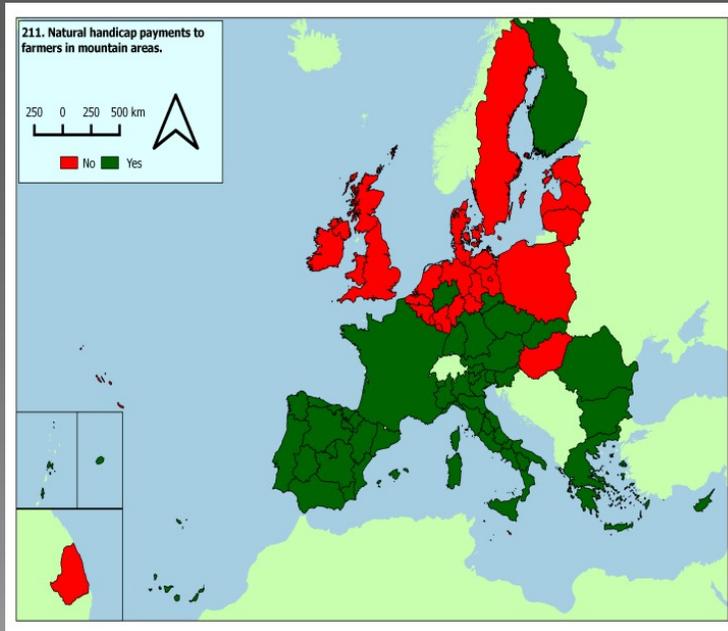
## Hedgerows in Europe (Hedgerows)



CROSS COMPLIANCE

ELIGIBILITY





Measure 222

2007-2013

## EU indicative measures that may be included in the information on LULUCF actions submitted pursuant to article 10(2)(d) (Decision 529/2013/EU) and may relate to Agroforestry

Measures related to	Examples
Cropland management	<ul style="list-style-type: none"> <li>• Agroforestry</li> </ul>
Grazing management and pasture improvement	<ul style="list-style-type: none"> <li>• Preventing Grassland to Cropland conversion to native vegetation</li> <li>• Increasing productivity</li> <li>• Improving nutrient management</li> <li>• Introducing more appropriate species, in particular deep rooted species</li> </ul>
Forest activities	<ul style="list-style-type: none"> <li>• Afforestation and reforestation</li> <li>• Conservation of C in existing forest</li> <li>• Enhancing production in existing forests</li> <li>• Increasing harvested wood products</li> <li>• Enhancing forest management (optimize species composition, tending, thinning and soil conservation)</li> </ul>
Preventing deforestation	
Strengthening protection against natural disturbances such as fire, pest and storms	
Substitution GHG intensive energy feedstock and materials with harvested wood products	

## *Conclusions*

- \* Agroforestry is an excellent tool to improve productivity per unit of land**
- \* There is a good opportunity to mitigate and adapt to climate change and make agricultural systems more resilient by using Agroforestry**

## *Conclusions*

**\*Adequate design of policies (research, learning, innovation) should be delivered in order to take advantage of Agroforestry practices to combat climate change (C increase, storage and stability)**

## POLICIES

- Arable lands: agricultural activity linked to woody vegetation should be promoted:

Pillar I: tree maximum density should be left to MS accordingly their pedoclimatic conditions

Pillar II: Simplification when woody vegetation is promoted by RDP

Pillar II: Inconsistencies between Pillar I and Pillar II

Allowing to better evaluate results and impacts.....

AGROFE: [www.agrofe.eu](http://www.agrofe.eu)

AGFORWARD: [www.agroforestry.eu](http://www.agroforestry.eu)

AFINET: Agroforestry innovation network

**Let's develop a European Agroforestry Strategy**

**Thanks!**

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