

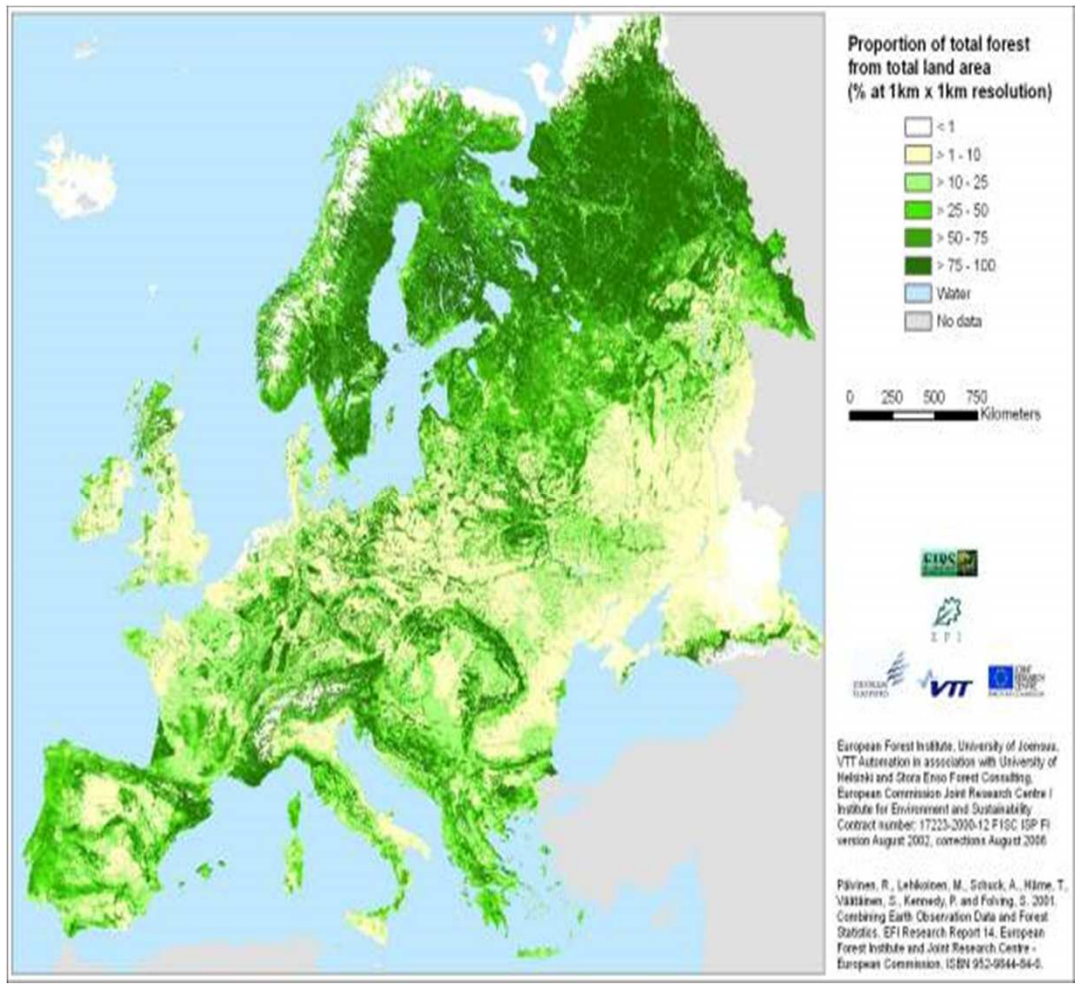
# Agroforestry and silvopastoral systems in Europe

## Afforestation, Reforestation and Agroforestry

Mosquera-Losada MR, Pantera A, Pisanelli A, Santiago-Freijanes



- **Introduction**
- Afforestation in Europe
- Policy measures in Europe
- Fire Risk: Agroforestry as a solution
- Conclusions



189,433,600 ha

Uneven distributed

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## **Amount of new forest land in Europe**

- **1 million hectares** where afforested in Europe between 1993-1997
- **79,941 hectares** between 2000-2006
- **260,579 hectares** between 2007 and 2013,

TOTAL AFFORESTED: 1,340,579 ha

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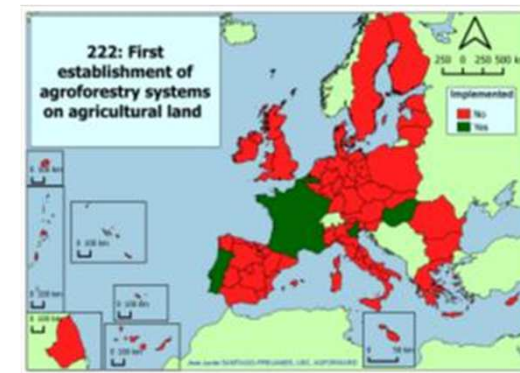
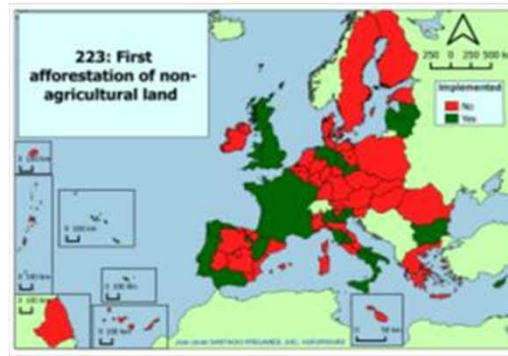
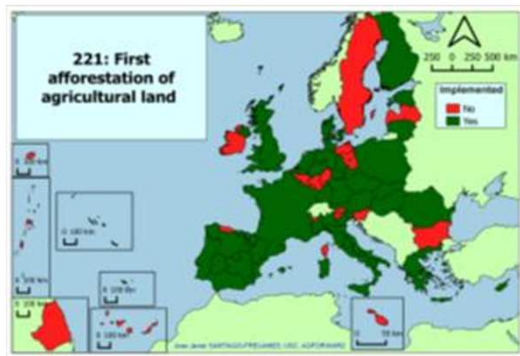
## Aforestation, Reforestation and Agroforestry measures in 2007-2013

Measure code	Measure title	Subsidies	Impact
221	First afforestation of agricultural land	Establishment cost; maintenance costs; compensation for loss of income	Biodiversity; soil; climate change; water
222	First establishment of agroforestry systems on agricultural land	Establishment costs	Biodiversity; landscape; water, climate change
223	First afforestation of non-agricultural land	Establishment costs; maintenance costs	Landscape; biodiversity; water, climate change

Number of hectares			
Measure	Value	Target	Implementation rate
221	260579	596861	43.7
222	1212	29716	4.1
223	79941	187063	42.7

## Expenditure to afforest land

Forestry measures		Programmed	% of forestry measures	Realised	Implementation rate
221	Afforestation of agricultural lands	2,575,758,231	36.49	2,049,895,408	79.6
222	Establishment of agroforestry	14,742,871	0.21	946,089	6.4
223	Afforestation of non-agricultural lands	397,964,012	5.64	192,062,182	48.3
<b>Total</b>		<b>7,059,746,833</b>	<b>100.00</b>	<b>4,751,689,038</b>	<b>67.3</b>





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# Fired area between 2008-2017

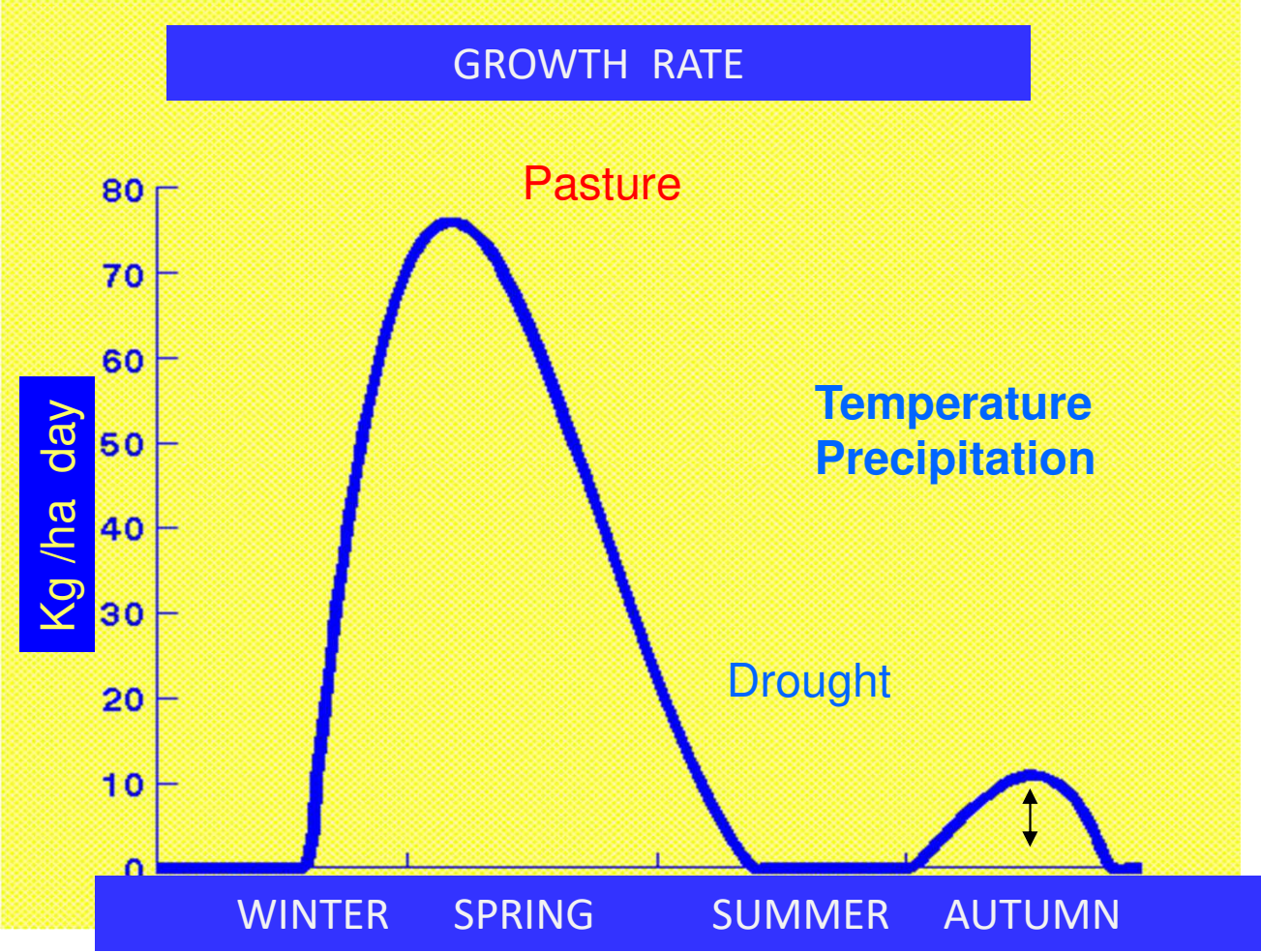
TOTAL AFFORESTED 1990-2013: 1,340,579 ha

TOTAL FIRED: 2,772,868 ha forest and woodlands emitting GHG

Countries	BURNT AREA ha	NUMBER OF FIRES
Cyprus	13258 (0.5%)	39 (0.6%)
France	61558 (2.2%)	247 (3.5%)
Greece	258440 (9.3%)	476 (6.8%)
Italy	447795 (16.2%)	2152 (30.6%)
Portugal	1317266 (47.5%)	2538 (36%)
Spain	674551 (24.3%)	1587 (22.5%)
sum	2772868	7039

# Percentage of fired area per landuse

Countries					Total #
	Agroforestry %	Forest %	Shrubland %	Grassland %	
Cyprus	3.6%	21.4%	53.6%	21.4%	28
France	0%	26.7%	43.3%	30%	30
Greece	12.5%	10.2%	65.6%	11.7%	128
Italy	11.7%	25.7%	22.9%	39.7%	179
Portugal	2.6%	46.8%	39.5%	11.1%	648
Spain	6.4%	36.9%	41.2%	15.5%	328
Total	<u>5.7%</u>	27.1%	40.6%	16.6%	1341













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## CONCLUSIONS

- EU have put a strong effort to afforest agricultural lands
- One of the main risks associated to them are Forest fires
- Agroforestry is a good tool to reduce this hazard while
  - \* increasing land profit and
  - \* combating climate change, land degradation and erosion of biodiversity

## More information

- Projects
  - [AGFORWARD](#)
  - [AFINET](#)
- Reports
  - [Mosquera-Losada, M.R., Santiago Freijanes, J.J., Pisanelli, A., Rois, M., Smith, J., den Herder, M., Moreno, G., Malignier, N., Mirazo, J.R., Lamersdorf, N., Ferreiro Domínguez, N., Balaguer, F., Pantera, A., Rigueiro-Rodríguez, A., Gonzalez-Hernández, P., Fernández-Lorenzo J.L., Romero-Franco, R., Chalmin, A., Garcia de Jalon, S., Garnett, K., Graves, A., Burgess, P.J. \(2016\). Extent and success of current policy measures to promote agroforestry across Europe. Deliverable 8.23 for EU FP7 Research Project: AGFORWARD 613520. \(8 December 2016\). 95 pp.](#)
  - [Mosquera-Losada, M.R., Santiago Freijanes, J.J., Pisanelli, A., Rois, M., Smith, J., den Herder, M., Moreno, G., Lamersdorf, N., Ferreiro Domínguez, N., Balaguer, F., Pantera, A., Papanastasis, V., Rigueiro-Rodríguez, A., Aldrey, J.A., Gonzalez-Hernández, P., Fernández-Lorenzo, J.L., Romero-Franco, R., Lampkin, N., Burgess, P.J. \(2017\). Deliverable 8.24: How can policy support the appropriate development and uptake of agroforestry in Europe? 7 September 2017. 21 pp.](#)
- Thank you!

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