Summary of Data from the 35 Country Reports

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Throughout the duration of COST Action FP1301, much coppice-related data and information was collected on the 35 countries involved. Each of the countries were featured in the previous sections of this chapter; a few of the key aspects are summarised below. First is a table on the amount of coppice in each country, followed by a list of the tree species. Finally, countries that offer coppice-related subsidies are highlighted. This summary is by no means all-encompassing, it is only meant to give a brief overview of some of the key information on coppice forests in Europe.

Coppice forest area

Table 1 lists the countries in this chapter by their reported area of coppice forests, from lowest to highest. The **data was extracted from the Country Reports**; if several figures were cited, generally the more conservative amount, closer to the amount of active coppice, was taken (e.g. the 1,351,815 ha of "conversion coppice" in Bulgaria are excluded) and for cases in which only a percentage as given (e.g. Romania), the area of coppice was calculated based on the share of the total forest area. The countries without figures have either a negligible and/or unknown (e.g. Latvia) amount of coppice.

The **figures on land and forest area** were taken from the State of Europe's Forests (SoEF) 2015 report (FOREST EUROPE 2015), from Table 1 and Table 2 of Annex 8, respectively. The "forest area (ha)" figures only include forest, not "other wooded land (OWL)". Coppice forests as a share of total forest area was calculated based on those figures.

It must be noted that there are the usual difficulties here in stating and comparing forest area statistics, which are in fact magnified for coppice due to its relative neglect as a forest management form. The figures cited here **can only be viewed as approximations**, since the definitions of coppice between countries vary, as do the inventory methods.

The figure of 29 million hectares of **total coppice forest area in Europe** is higher than other sources, such as Zlatanov and Lexer (2009), who cite the UN/ECE-FAO (2000) for over 23 million ha of coppice forests in Europe, as well as giving their own figures per country. In another source, the SoEF 2015 (FOREST EUROPE 2015), the sum comes to approximately 8.7 million ha of coppice. Concerning the latter, the countries with the largest variation in data compared to the Country Reports are France, Spain, Italy, Turkey, Greece, Serbia and Bosnia & Herzegovina, which are, apparently, underreported in the SoEF 2015 report by between 4.67 and 1.25 million ha, with some countries not having provided any data. Bulgaria is an exception, in which 1.29 million ha more are reported in the SoEF 2015 report than in Table 1 here (for the reason stated above, first paragraph).

Despite this comparatively high figure, the **area of forests of coppice origin, including overaged coppice, can be considered to be greater than reported here**, because of: the use of rather conservative estimates (see first paragraph above); overaged coppice is often not included in the forest inventory (e.g. in the German National Forest Inventory, forests are only considered to be coppice if they were cut within the past 40 years); and in many cases the OWL areas could be coppiced (e.g. Albania, in which 60 % of the total wooded area is managed as coppice, as opposed to the 38 % from forest cited here).

	Land area (ha)*	Forest area (ha)*	Forest as share of land area (%)	Coppice forest area (ha)†	Coppice as share of forest area (%)		
Ireland	6,889,000	754,000	11 %	-	0 %		
Lithuania	6,267,500	2,180,000	35 %	-	0 %		
Estonia	4,522,700	2,232,000	49 %	-	0 %		
Latvia	6,218,000	3,356,000	54 %	-	0 %		
Norway	30,427,000	12,112,000	40 %	-	0 %		
Finland	30,389,000	22,218,000	73 %	-	0 %		
Sweden	41,033,000	28,073,000	68 %	-	0 %		
Netherlands	3,375,000	376,000	11 %	1,500	0.4 %		
United Kingdom	24,193,000	3,144,000	13 %	2,000	0.1 %		
Denmark	4,243,000	612,200	14 %	6,000	1.0 %		
Czech Republic	7,721,600	2,667,400	35 %	11,703	0.4 %		
Poland	30,622,000	9,435,000	31 %	21,477	0.2 %		
Slovakia	4,810,000	1,940,000	40 %	34,463	1.8 %		
Switzerland	4,000,000	1,254,000	31 %	35,200	2.8 %		
Slovenia	2,014,000	1,248,000	62 %	36,340	2.9 %		
Germany	34,861,000	11,419,000	33 %	78,120	0.7 %		
Austria	8,243,500	3,869,000	47 %	93,000	2.4 %		
Belgium	3,027,800	683,400	23 %	115,000	17 %		
Albania	2,751,500	785,000	29 %	295,440	38 %		
Romania	23,002,000	6,861,000	30 %	343,050	5 %		
Bulgaria	10,856,000	3,823,000	35 %	481,747	13 %		
Croatia	5,596,000	1,922,000	34 %	533,828	28 %		
Macedonia	2,543,000	987,500	39 %	564,000	57 %		
Hungary	9,303,600	2,069,100	22 %	581,420	28 %		
Portugal	9,025,500	3,182,100	35 %	863,000	27 %		
Bosnia & Herzegovina	5,120,000	2,115,000	41 %	1,252,200	59 %		
Serbia	8,746,000	2,720,000	31 %	1,456,400	54 %		
Ukraine	57,938,000	9,657,000	17 %	1,531,824	16 %		
Greece	12,890,000	3,903,000	30 %	1,930,000	49 %		
Italy	29,414,000	9,297,000	32 %	3,666,310	39 %		
Spain	49,880,000	18,417,900	37 %	4,000,000	22 %		
Turkey	76,963,000	11,943,000	16 %	4,874,712	41 %		
France	54,766,000	16,989,000	31 %	6,372,000	38 %		
TOTAL	611,651,700	202,244,611		29,180,734			

Table 1. Area of coppice forests in Europe based on data from the Country Reports, compared to total forest area (excludes the reports from Israel and South Africa).

* Data from the "State of Europe's Forests 2015" (FOREST EUROPE 2015)

[†] Data from the 35 Country Reports in this volume, "Coppice Forests in Europe"

	Alder	Ash	Beech	Birch	Black locust	Elm	Eucalypt	Hazel	Hophornbeam	Hornbeam	Linden	Maple	Oak	Plane tree	Poplar/Aspen	Rowan	Sweet chestnut	Willow
Albania	xx	Р	хP		xx	Р		xx	Р	xx	Р	Р	xx		xx			xx
Austria										xx			xx		S			S
Belgium	xx	xx		xx				xx		xx		xx	xx		S		xx	S
Bosnia & Herzegovina			xx										xx					
Bulgaria		х	xx		xx					xx	xx		xx				х	
Croatia	х		xx		х				xx	xx			xx		х		х	х
Czech Republic	xxS	xxS		х	х	х		xx		xx	xx	xx	xx		xxS			PS
Denmark	xx	х		х				xx				х	xx		х	х		х
Estonia	xS														xS			xS
Finland	S			xS				х			х				S	х		xS
France	х		х	х	xS		S			xx			xx		xS		xx	S
Germany	xx		x		S			x		xx	x		xx		S		х	S
Greece			xx										xx		S		xx	
Hungary	xx				xx										xx			
Ireland		xx						xx					xx		xxS			xxS
Israel													xx		х			
Italy	xS		xx		xS	S	S	х	xx	х			xx	S	S		xx	xS
Latvia	xxS	х		xx				x			x				xxS			xxS
Lithuania	xxS	xx		xx											S			S
Macedonia		xx	х						xx	xx		xx	xx		xx			
Netherlands	xx	xx	x	х		x					x		xx		S			S
Norway		xx		xx		xx					xx					xx		
Poland	xx		х	xx						х	x		xx		S			S
Portugal		Р					xx						x		Р		x	
Romania					xx										x			x
Serbia			xx		xx					xx	xx		xx					S
Slovakia	х	х	xx		xx					xx			xx		xS			PS
Slovenia			xx		xx								xx				х	S
South Africa							xx											
Spain	х			xx			xx						xx	x	S		х	х
Sweden	xx	Р		xx							Р				xx			xxS
Switzerland	xx	xx	xx					х		х	х		xx				xx	Р
Turkey	xx		x				S			xx		х	xx	х	S		xx	S
Ukraine	xx	xx		xx	x			x		xx			xx		xxS	x		xxS
United Kingdom								xx		xx			xx				xx	S

Table 2. Main tree species managed as coppice by country, according to data from the Country Reports and supplemented by feedback from the authors. Modified version of table in Lazdina and Celma (2017).

xx = species used for coppice (current/historic)x = species less commonly used for coppice (current/historic)P = species only/mainly used for pollardingS = species used for Short Rotation Coppice (SRC)

Tree species managed as coppice

The main tree species managed as coppice (Table 2) are taken from the sections of the Country Reports; the authors were subsequently given the opportunity to make further adjustments. Most of the tree species mentioned in the reports are listed, although there are a few exceptions, such as wild cherry (Czech Republic) and elder (Denmark).

The categories were kept rather open by using the common names that could encompass several species. In the reports, quite a few authors specify major species that are particularly important for coppice in that country, such as oriental hornbeam in Bulgaria and European hop hornbeam in Italy.

Subsidies for coppice forest management

Some of the Country Reports mention subsidies related to coppice forest management. These range in their aims and instruments, for example:

Croatia: subsidies are possible in protection areas and for conversion to high forest (the latter in Chapter five, "Socio-Economic Factors Influencing Coppice Management in Europe"); management plans are necessary when applying.

Denmark: subsidies were introduced in 1994 to support traditional silvicultural systems.

France: the replacement of coppice through conifers was strongly encouraged through subsidies in the second half of the 20th century.

Netherlands: 1955-65 conversion to high forest; current policy to protect coppice forests, with management subsidies of 2,563 €/ha/yr for coppice forests on wet soil, 394 €/ha/yr on dry soil.

Norway: 50 €/tree managed as coppice, Regional Environmental Program for Agriculture (RMP)

Switzerland: 4000 CHF/ha⁻¹ per intervention for the restoration and tending of coppice forest with and without standards.

United Kingdom: some coppice-specific subsidies for coppice in some areas of England (in Chapter five, "Socio-Economic Factors Influencing Coppice Management in Europe").

Considering this diversity, a closer look at different subsidies related to coppice management could be an interesting topic for further research.

References

FOREST EUROPE (2015). State of Europe's Forests 2015 (pp. 243, 244 & 273)

- Lazdina, D., Celma, S. (Eds.) (2017). *National Factsheets on Coppice Forests. COST Action FP1301 Reports.* Freiburg, Germany: Albert Ludwig University of Freiburg.
- UN/ECE-FAO (2000). *Forest resources of Europe, CIS, North America, Australia, Japan and New Zealand. Main Report.* Geneva Timber and Forest Study Papers 17, Geneva, Switzerland.
- Zlatanov, T., Lexer, M.J. (2009). *Coppice forestry in south-eastern Europe: problems and future prospects*. Silva Balcanica 10(1), pp. 5-8.





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