Annexed Tables for Part III

Table 85: Key parameters and thresholds for assessment of quantitative indicators

Ind.	Key parameter	Unit	Thresholds				
			🌲	🌲🌲	🌲🌲🌲	🌲🌲🌲🌲	🌲🌲🌲🌲🌲
1.1	**Annual change in forest cover 1990-2010**	% points	<-0.2	-0.2-0.0	0.0-0.1	0.1-0.2	>0.2
	Measure of change has been preferred to a measure of present status in order to avoid comparing very different histories and situations. Implicitly assumes that increase in forest area is positive.						
1.2	**Annual change in growing stock/ha, 1990-2010**	m^3	<-1.0	-1.0 - 0	0-1.0 (or only one data point)	1.0-3.0	>3.0
	Growing stock per hectare may increase if cuttings are consistently below net increment. It may decrease if there is overcutting, but also (as is the case in several countries) when there is rapid expansion of forest onto non-forest land, which, when planted, has very low growing stock per hectare, bringing down the average.						
1.3	**Percent of even-aged forest in age class 0-40 years**	%	n.a.	<20 (gaps)	Balance	n.a.	n.a.
	An unbalanced age class structure (e.g. because of past overcutting or irregular planting activity) can perturb future wood supply. In practice, the age class structure reflects past silvicultural decisions and is a weak indicator of sustainability.						
1.4	**Annual change in total living carbon stock on FOWL, 1990-2010**	% p.a.	< -1.0	-1.0 - 0.0	0.0 - 1.0	1.0 - 2.0	> 2.0
	Build up of carbon in the forest ecosystem is a proof of success in carbon sequestration (and, as regards carbon in living trees, will be determined by trends for growing stock). Carbon in soil, deadwood and litter is ignored (despite the significance of these carbon stocks) as practically no data are available on change.						
2.1	**Percentage of natural ecosystem area at risk of eutrophication for an emission scenario based on current legislation**	%	>80	50-80	20-50	1-50	0
	Source: work under the ECE Convention on Transboundary Air Pollution (ICP Modelling and mapping). Derived from model data and based on principle of critical loads[1]. Applies to all land, not only forest land. Based on a grid of 25*25 km squares: if 5 percent of a square is over the critical limit for nitrogen deposition, which takes into account soil type as well as deposition, that square is considered "at risk". Cross checked against results of ICP Forest (as reported under indicator 2.1), which could not, however, be used at the country level because of small number of sample plots in many countries. The two methods are approximately in agreement.						
2.2	**C/N index, median value for the country**	Index	<1.0	1.0-1.2	1.2-1.3	1.3-1.5	>1.5
	From the Biosoil project. This index is the proportion of the ratio of carbon to nitrogen in the forest floor (C/N_{FF}) to the ratio of carbon to nitrogen in the mineral soil (C/N_{MIN}). It is a valuable indicator of the imbalance induced by excessive nitrogen input. If the index is below 1, the organic matter and nutrient cycling is probably disturbed, and forest health may be at risk. As this is a median value, it should be borne in mind that for each country, half the observations will be below the value shown, and half above, so that if the median value is near 1, it is likely that nearly half the individual observations are below 1, which is the warning level.						
2.3	**Percent of sample trees in defoliation classes 2+3+4**	%	>80	50-80	20-49	10-19	<9
	Result of annual crown condition survey under ICP Forests (in 2009, 7 193 plots in 30 countries), using standardised methodology. In some smaller countries the results may not be statistically representative of the national situation because of the insufficient number of sample plots.						
2.4	**Percent of forest area damaged by biotic, abiotic and human-induced causes/ percent damaged by fire**	%	>12/ >2	4-12/ 0.5-2.0	1-4/ 0.3-0.5	0.1-1/ <0.3	<0.1
	For most countries the total was taken of biotic (insects, pests, diseases), human-induced (harvesting) and abiotic (storm, wind and snow) damage, with non-reported damage and years ignored. Examination of the results shows that there are still some comparability problems. For countries in southern Europe, the percentage of damaged forest (biotic, abiotic, and human) was replaced by the percentage of forest damaged by fire (average of years reported).						
3.1	**Ratio fellings/NAI, 2005**	%	>100	95-100	n.a.	<95	n.a.
	Felling more than increment over a long period is clearly unsustainable although it may be necessary on a temporary basis either because of damage or to rejuvenate the resource. Every value of the ratio under 95 percent[2] is considered equally acceptable, as it is not appropriate to prefer one rate of resource use to another.						
3.2	**Ratio value of marketed roundwood/ growing stock, 2005**	EUR/ 1 000 m^3	<255	255-390	390-870	870-930	>930
	Measures the intensity of use of the wood resource, in economic terms (preferred to EUR/ha as it takes account of stocking levels).						
3.3	**Value per hectare of marketed non-wood goods**	EUR/ ha of FOWL	n.a.	<5	5-30	30-65	>65
	Measures the intensity of use of the forest to supply non-wood goods. The data supplied are clearly not fully comparable among countries but are the best available.						

[1] Source: (Hettelingh, Jean-Paul 2008)

[2] 95 percent is chosen to take account of harvesting losses, etc. and as a measure of prudence.

Ind.	Key parameter	Unit	Thresholds				
3.4	Value of marketed services per hectare	EUR/ ha of FOWL	n.a.	n.a.	<6	>6	n.a.
	Measures the intensity of use of the forest to supply services. The data supplied are clearly not fully comparable among countries but are the best available. As many countries did not respond, there are only two classes.						
3.5	Percentage of FOWL under management plan or equivalent	%	0-20	21-40	41-60	61-80	81-100
	Objective and explicit long-term planning is clearly a part of sustainable forest management. However, the data are not fully comparable without reference to the footnotes as countries vary in the way they have interpreted the instructions on treatment of informal plans for small forest owners.						
4.1	Share of single species stands in FOWL, 2005	%, adjusted for trend[3]	>70	40-70	20-40	15-20	<15
	A proxy for loss of biodiversity, as often single species stands have less biodiversity. In many parts of Europe, single species stands are less natural and have poorer biodiversity. However, this is not the case in other areas, notably the boreal regions where natural forests are often monospecific.						
4.2	Share of natural regeneration in total regeneration, 2005	%, adjusted for trend[4]	<15	15-50	51-80	81-95	>95
	Measures the extent to which naturally occurring genetic diversity is preserved over rotations. Higher rates of natural regeneration are considered more favourable to the protection of genetic diversity.						
4.3	Share of plantations in FOWL	%	>75	21-75	6-20	1-5	<1
	Approximates lack of "naturalness" (there are too few "undisturbed" areas in Europe to construct a credible direct indicator of naturalness). A higher share of plantations indicates a "less natural" forest resource overall. Their benefits for wood production will be covered in other indicators, not in the biodiversity criterion.						
4.4	Share of introduced species in FOWL	%	>45	21-45	1.5-20	0.2-1.5	<0.2
	An indicator of change in species diversity and a frequent biodiversity indicator. The higher the percentage of introduced species, the greater disturbance to native biodiversity (even if the introduced species make a significant contribution to wood production).						
4.5	Volume of deadwood per hectare of FOWL	m³/ha	n.a.	n.a.	<7	7-15	>15
	An indicator of conditions and silvicultural practice favouring biodiversity. Insufficient knowledge is available to estimate what are "desirable" deadwood levels in different circumstances, or to measure change, so it has been assumed that more deadwood is correlated with higher biodiversity.						
4.6	Share of forest land managed for conservation of genetic resources	%	n.a.	0-0.08	0.08-0.25	0.25-1.35	>1.35
	Includes area managed for *in situ* and *ex situ* gene conservation (but not for seed production), as a share of total forest. Does not address the question of whether this is "enough" or whether the genetic diversity of particular species is adequately protected, but seems an adequate proxy for now.						
4.7	Landscape pattern index	Index 1-5	<1.49	1.5-2.49	2.5-3.49	3.5-4.49	>4.49
	See report on indicator 4.7 for background and methods. The index combines scales for state and trend for two parameters, both expressed as country average, and rated by frequency distribution[5]: 1. Normalised connectivity per landscape unit. 2. Average proportion of forest classified as "core natural", expressed as the maximum difference in the proportion.						
4.8	Availability of data on threatened forest species	Scale 1 to 4	n.a.	Insufficient data	Data for most of the categories	Full or near full data for one year	Evidence of improved situation
	Data are available for many countries on threatened species, but often not on total forest-related species. Furthermore it is hard to interpret the raw data: a high number of threatened species might mean a danger to biodiversity, but could also reflect diligent data gathering or a country with many species at the edge of their ranges. For that reason the parameter chosen for SoEF 2011 addresses only the availability of information.						
4.9	Area protected as percent of FOWL	%	n.a.	<15	15-20	>20	n.a.
	The definitions of "protected" forest have been harmonised by MCPFE. The threshold chosen for 🌲🌲🌲 is around the agreed CBD target of 17 percent protected area (all ecosystems, not just forests). It is acknowledged that this is a simplification of the desirable percentage of protected forest which must be based on assessment of specific ecosystems.						
5.1	Protective function index: soil and water	Scale 2-4	n.a.	no data on area	data on area with protective functions	data on area designated	n.a.
	There is ambiguity in the responses about whether the data supplied refer to forests which have a protective function, sometimes measured by national forest inventory, or those which have a designated status (as intended by the enquiry). Many countries could not supply any information at all. Therefore an index was created, combining availability of information and status of designation.						
5.2	Protective function index: infrastructure etc.	Scale 2-4	n.a.	no data on area	data on area with protective functions	data on area designated	n.a.
	See 5.1. Often countries were unable to separate protective functions (soil and water) from protective functions (infrastructure). In this case, 5.2 was scored at 🌲🌲.						

[3] One class extra if clear downward trend, one class less if clear upward trend, over the whole period.
[4] One class extra if clear upward trend, one class less if clear downward trend, over the whole period.
[5] Rating as follows: Lowest ten percentiles, next 20 percentiles, middle 40 percentiles, next 20 percentiles, top 10 percentiles.

Ind.	Key parameter	Unit	Thresholds				
6.1	Availability of information on ownership and private holdings	Scale 3-4	n.a.	n.a.	Data on ownership only	Data on ownership and holdings	n.a.
	Ownership and holding structures are clearly central to forest policy. The official rationale for indicator 6.1 refers to the important contribution of private forest holders to the rural economy. The number of private forest holdings could be taken as a proxy[6] for the number of forest owners and compared to the total rural population, but this ignores the problem of fragmentation (many small holdings hamper management and increase costs) and the importance of public forests. For the time being, the key parameter only measures availability of information, although ownership/holding structure is mentioned in the comments The pattern of ownership and holdings is mentioned in the comments.						
6.2	Share of GDP taken by forest sector, 2010	%	n.a.	<0.7	0.7-1.5	1.5-3.0	>3.0
	Measures the relative importance of the forest sector in the national economy. Includes the forest industries (sawmills, panel, pulp and paper plants) as well as forest management.						
6.3	Net entrepreneurial revenue per hectare, average of years reported	EUR/ha	negative	0-35	35-80	80-175	>175
	Measures the contribution of forest ownership to revenue of forest owners.						
6.4	Government expenditure for forest services per ha of forest, average of years supplied	EUR/ha	n.a.	<10	10-20	>20	n.a.
	Indicator intended to measure income from non-marketed services, but in practice few, if any, respondents were able to supply this. However, information was provided on government subsidy schemes and incentive programmes, even if not directly connected to specific services, which provides useful indications of the extent to which government contributes to the forest sector. However, the approach varies, even among the countries which reported, so data comparability is very weak.						
6.5	Forest sector labour force as percent of population	%	<0.2	0.2-0.4	0.4-0.9	0.9-1.3	>1.3
	Measures the relative importance of the forest sector as a provider of jobs.						
6.6	Non-fatal accidents per 1000 workers, 2010	No.	n.a.	n.a.	>35	5-35	<5
	Measures the safety and health of the forest workforce. Non-fatal accidents were used as they are more numerous than fatal accidents and thereby less subject to arbitrary variation. This rate is influenced not only by working practices but also by natural conditions (slopes, windblow). There seem to be variations in the data set which are difficult to explain.						
6.7	Consumption of wood products (roundwood equivalent), per head, 2007-2009,	m3	<0.45	0.45-0.8	0.8-1.6	1.6-2.9	>2.9
	As wood is a renewable raw material, and sound use of wood is an objective of many policies, this parameter measures (indirectly) sustainable consumption patterns, to the extent that forest products are consumed instead of non-renewable, less sustainable materials.						
6.8	Net imports as percent of apparent consumption, 2007-9	%	>65	20-65	-20 to +20	-20 to -70	< -70
	Measures the degree to which countries are dependent on external sources of forest products or, conversely, contribute to the sustainable consumption of other countries.						
6.9	Share of energy from wood in national energy production	%	n.a.	<5	5-20	20-50	>50
	Measures the extent to which wood contributes to national energy supply. Includes all types of wood energy, not only "fuelwood" from forests.						
6.10	Annual visits per hectare of FOWL	No.	n.a.	<50	50-150	151-500	>500
	Should measure the intensity of recreation use, as in all countries, nearly all forests are "accessible for recreation". Unfortunately, relatively few countries have data on number of visits or even on areas where recreation is a major management objective.						
6.11	Index of data availability on number of cultural and spiritual sites	Scale 3-4	n.a.	n.a.	Partial data	Complete data	n.a.
	There is no possible comparability among the number of cultural and spiritual sites (archaeological remains, exceptional trees, historic sites, etc.), so the availability of data on the different categories is used as a (weak) proxy for effective national recognition and management of these sites.						

[6] Because of owners with multiple holdings and holdings with multiple owners, the correlation is not direct, and the number of private holdings is not the same as the number of private owners.

Table 86: Key aspects for assessment of qualitative indicators

Ind.	Title	Aspects assessed on the basis of national reports
A.1	**National forest programmes or similar**	Is there an NFP or similar? What is the level of the decision making body (ministry alone or with others, e.g. parliament, or other level)? Was the process participatory? Were other sectors consulted (formally or informally)? Is there reference to national development strategy and international commitments? Is monitoring periodic and pre-specified? Is there a recent policy document?
A.2	**Institutional frameworks**	Was full information supplied on: Institutional arrangements? Level of responsibility for policy decisions? Administrative staffing for forest sector?
A.3	**Legal/regulatory frameworks and international commitments**	Is the formal authority on main forest matters in parliament, in the constitution or at the administrative level? Is the latest amendment or enactment recent (after 2003)? Is there international reporting on forest matters (CBD, UNCCD, UNFF, UNFCCC)?
A.4	**Financial instruments/ economic policy**	Public expenditure per hectare on: Transfer payments Forest administration Management of public forests Research, education and training.
A.5	**Informational means**	Are the instruments of a forest-related informational strategy described? Is there a formal communication and outreach strategy?
B.1 to B.12	**Policies, institutions and instruments by policy area**	For each indicator: Are the objectives clearly described? Is there an institutional framework in place to achieve these objectives? Are there legal/regulatory instruments in place to achieve these objectives?

Data for Key Parameters by Country and Indicator

Table 87: Criterion 1. Forest Resources and Global Carbon Stock

Country	1.1 Annual change in forest cover 1990-2010 (percentage points)	1.2 Annual change in growing stock/ha, 1990-2010 (m^3)	1.3 Percent of even aged forest in 0-40 age class	1.4 Annual change in total living carbon stock on forest, 1990-2010 (%)
Russian Federation	-0.01	0.09	24.5	0.00
North Europe				
Denmark	0.06	2.37	51.7	3.76
Estonia	0.00i	-0.24	41.1	0.90
Finland	0.05	0.57	34.8	0.77
Iceland	0.01	-0.54	93.7	6.92
Latvia	0.13	1.91	42.2	2.02
Lithuania	0.18	-0.54	31.9	0.80
Norway	0.06	1.60	44.9	2.13
Sweden	-0.01	1.51	44.0	0.33
Central-West Europe				
Austria	0.06	1.97	40.9	0.80
Belgium	0.01	2.81	44.4	1.39
France	0.09	1.06	22.8	1.26
Germany	0.05	2.50	27.7	2.16
Ireland	0.20	-1.58	94.6	2.15
Liechtenstein	0.13	-0.86	ND	0.31
Luxembourg	-0.01	3.08	43.1	1.37
Netherlands	0.03	2.02	39.1	1.76
Switzerland	0.13	0.24	27.6	0.67
United Kingdom	0.06	1.49	43.9	0.67
Central-East Europe				
Belarus	0.21	2.72	34.5	2.92
Czech Republic	0.02	3.91	31.3	1.19
Georgia	-0.03	0.95	ND	0.54
Hungary	0.13	-2.72	58.3	1.16
Poland	0.06	5.53	32.4	2.76
Republic of Moldova	0.16	0.41	ND	1.49
Romania	0.01	0.00	35.2	0.15
Slovakia	0.02	3.21	30.2	1.49
Ukraine	0.04	3.29	31.0	2.63
South-West Europe				
Andorra	0.00	ND	ND	ND
Holy See	0.00	ND	ND	ND
Italy	0.30	1.54	48.7	2.43
Malta	0.00	0.00	ND	0.00
Monaco	0.00	ND	ND	ND
Portugal	0.15	-0.59	79.2	0.12[ii]
Spain	0.19	0.48	ND	2.29

Country	1.1 Annual change in forest cover 1990-2010 (percentage points)	1.2 Annual change in growing stock/ha, 1990-2010 (m^3)	1.3 Percent of even aged forest in 0-40 age class	1.4 Annual change in total living carbon stock on forest, 1990-2010 (%)
South-East Europe				
Albania	-0.02	-0.18	ND	-0.04
Bosnia and Herzegovina	0.30	2.12	ND	1.15
Bulgaria	0.24	2.54	36.5	2.98
Croatia	0.31	2.31	36.7	1.67
Cyprus	0.17	0.41	ND	0.96
Greece	0.01	0.01	ND	0.90
Montenegro	0.00[i]	0.00	ND	ND
Serbia	0.16[i]	2.57	ND	4.83
Slovenia	0.11	5.09	ND	2.69
The former Yugoslav Republic of Macedonia	0.17	0.00	ND	0.02
Turkey	0.07	0.78	ND	0.99

(i) 2000-2010
(ii) 2005-2010 only

Table 88: Criterion 2. Health and Vitality

Country	2.1 Percentage of natural ecosystem area at risk of eutrophication for an emission scenario based on current legislation (CLE) (% area at risk)	2.2 C/N index, median value	2.3 Percent of sample trees in defoliation classes 2+3+4	2.4 Share of forest damaged (exc. Fire) (%)	2.4 Share of forest damaged by fire, selected countries, %
Russian Federation	24	ND	6.2i	0.51	0.13
North Europe					
Denmark	100	1.09	5.5	3.5	
Estonia	57	1.70	7.2	0.8	
Finland	41	1.31	9.1	0.08	
Iceland	ND	ND	ND	ND	
Latvia	99	1.02	13.8	0.2	
Lithuania	100	1.72	17.7	4.8	
Norway	14	ND	21	1.2	
Sweden	47	1.28	15.1	12.3	
Central-West Europe					
Austria	94	1.40	15.1[ii]	4.3	
Belgium	99	1.01	20.2	ND	
France	95	1.12	33.5	ND	0.11
Germany	67	1.12	26.5	2.7	
Ireland	81	1.18	12.5	0.04	
Liechtenstein	ND	ND	ND	ND	
Luxembourg	100	ND	ND	ND	
Netherlands	88	ND	17.9[ii]	ND	
Switzerland	96	ND	18.3	ND	
United Kingdom	19	1.26	22.2[ii]	0.4	
Central-East Europe					
Belarus	99	ND	8.4	2.6	
Czech Republic	100	1.14	56,8[iii]	3.3	
Georgia	ND	ND	ND	ND	
Hungary	100	1.42	18.4	12.5	
Poland	100	1.26	17.7	5.2	
Republic of Moldova	100	ND	25.2	ND	
Romania	20	ND	18.9	24.4	
Slovakia	100	1.49	32.1	1.5	
Ukraine	100	ND	6.8	0.13	
South-West Europe					
Andorra	ND	ND	6.8	ND	
Holy See	ND	ND	ND	ND	
Italy	61	1.62	35.8	22.4	0.42
Malta	ND	ND	ND	ND	
Monaco	ND	ND	ND	ND	
Portugal	83	1.61	17.1[ii]	24.5	3.0
Spain	93	1.70	17.7	ND	0.3

Country	2.1 Percentage of natural ecosystem area at risk of eutrophication for an emission scenario based on current legislation (CLE) (% area at risk)	2.2 C/N index, median value	2.3 Percent of sample trees in defoliation classes 2+3+4	2.4 Share of forest damaged (exc. Fire) (%)	2.4 Share of forest damaged by fire, selected countries, %
South-East Europe					
Albania	99	ND	ND	13.2	0.79
Bosnia and Herzegovina	81	ND	ND	0.0	
Bulgaria	91	ND	21.1	3.6	
Croatia	100	ND	26.3	3.4	
Cyprus	68	1.87	36.2	5.8	0.20
Greece	97	ND	24.3	ND	ND
Montenegro	95	ND	ND	ND	1.03
Serbia	95	ND	10.3	4.8	
Slovenia	92	1.31	35.5	0.2	
The former Yugoslav Republic of Macedonia	100	ND	ND	4.9	
Turkey	ND	ND	18.7	1.9	

(i) North-West Russia only
(ii) 2005
(iii) Some differences in the level of damage across national borders may at least partly be due to differences in standards used. This restriction does not influence the reliability of trends over time.

Table 89: Criterion 3. Productive Functions

Country	3.1	3.2	3.3	3.4	3.5
	Ratio fellings/ NAI, 2005 (%)	Ratio value of marketed roundwood/growing stock, 2005 (€/1000m³)	Value per hectare of marketed non-wood goods (€/ha of FOWL)	Value per hectare of marketed services (€/ha of FOWL)	Percentage of FOWL under management plan or equivalent (%)
Russian Federation	21.91	24	0.3	0.18	100
North Europe					
Denmark	44.57	695	299.0	ND	69.4[i]
Estonia	58.64	423	2.2[ii]	ND	69
Finland	71.84	915	4.3	ND	100
Iceland	ND	202	5.2	242.86	30.39
Latvia	71.81	ND	ND	ND	89
Lithuania	83.20	439	7.4	0.40	100
Norway	48.39	460	1.7	5.59	48
Sweden	93.34	909	ND	2.73	100
Central-West Europe					
Austria	93.54	840	24.6	28.41	100
Belgium	84.61	831	5.3	ND	74
France	57.84	639	8.1	3.37	60.6[vi]
Germany	61.75	706	66.3	5.52	68
Ireland	ND	1696	ND	ND	77
Liechtenstein	81.90[i]	ND	ND	ND	100
Luxembourg	ND	279	ND	42.21	60[vii]
Netherlands	69.32	473	37.9	ND	100
Switzerland	94.79	881	22.4	ND	71[vii]
United Kingdom	51.01	1008	31.5	13.36	57
Central-East Europe					
Belarus	61.86	ND	ND	ND	100
Czech Republic	80.61	993	50.2iii	ND	100
Georgia	42.30[i]	ND	ND	ND	87
Hungary	71.15	839	ND	ND	100
Poland	56.68	607	5.0	ND	91
Republic of Moldova	ND	ND	ND	ND	ND
Romania	60.27	ND	1.7	ND	94
Slovakia	70.81	765	6.9	118.93	100
Ukraine	30.94	ND	ND	ND	100
South-West Europe					
Andorra	ND	ND	ND	ND	ND
Holy See	ND	ND	ND	ND	ND
Italy	37.07	371	30.2	ND	89[vii]
Malta	ND	ND	ND	ND	100
Monaco	ND	ND	ND	ND	ND
Portugal	75.41	2025	98.2[iv]	ND	45[vii]
Spain	39.57	1006	23.9[v]	ND	12.1[viii]

Country	3.1 Ratio fellings/ NAI, 2005 (%)	3.2 Ratio value of marketed roundwood/growing stock, 2005 (€/1000m³)	3.3 Value per hectare of marketed non-wood goods (€/ha of FOWL)	3.4 Value per hectare of marketed services (€/ha of FOWL)	3.5 Percentage of FOWL under management plan or equivalent (%)
South-East Europe					
Albania	550.32	ND	ND	ND	100[vii]
Bosnia and Herzegovina	75.10[i]	ND	ND	ND	ND
Bulgaria	40.85	451	0.8	ND	100
Croatia	51.01	885	0.7	7.71	100
Cyprus	26.00	151	0.6	0.34	40.82[ix]
Greece	48.31	ND	ND	ND	ND
Montenegro	39.67	ND	17.6	ND	47
Serbia	55.97	519	ND	ND	83
Slovenia	39.20	232	7.8	1.09	100
The former Yugoslav Republic of Macedonia	ND	402	10.3	ND	92
Turkey	ND	749	1.9	ND	100

(i) 2000
(ii) ncludes value of all game meat, not only of meat which is marketed.
(iii) Value of all non-wood goods, not only of those which are marketed (which are considered "minor"). This is therefore an overestimate.
(iv) Mostly cork
(v) Total value, not just what is marketed. However all cork and resin is marketed.
(vi) Forest only, not FOWL
(vii) 2005
(viii) Percentage with "management plan". No data on "equivalents" as these are managed by the autonomous regions.
(ix) About 60% for "forest", but much less for OWL

Table 90: Criterion 4. Biodiversity in Forest Ecosystems

	4.1	4.2	4.3	4.4	4.5	4.6	4.7	4.7	4.8	4.9
	Share of single species stands, 2005 (%)	Share of natural regeneration in total regeneration (%)	Share of plantations in FOWL (%)	Share of introduced species in FOWL (%)	Volume of deadwood on FOWL (m^3/ha)	Share of forest land managed for conservation of genetic resources (in situ and ex situ only) (%)	Landscape pattern index (0-5)	Trend in country based average proportion of 'core natural' forest pattern 1990-2006	Availability of data on threatened forest species (scale 1-4)	Area protected (MCPFE classes 1,1, 1,2, 1,3 and 2) as % of FOWL
Russian Federation	60.00	98	1.9	0.00	21.2	0.003	ND	ND	3	1.9
North Europe										
Denmark	35.25	18	76.2	46.24	4.8	0.498	1.5	0.0058	1	15.7[vi]
Estonia	22.44	93	0.1	0.04	14.0	0.141	4	0.0024	3	22.2
Finland	41.47	72	0.1	0.15	5.5	0.034	5	0.0015	3	16.3
Iceland	87.37	10	28.4	19.85	ND	1.161	3	-0.0036	3	8.1
Latvia	16.83	81	0.1	0.04	17.7	0.162	3.5	0.0050	1	14.8[vi]
Lithuania	25.95	76	0	0.18	23.3	0.172	2.5	0.0056	2	17.3
Norway	36.47	86	2.8[iii]	1.93	6.8i	0.135	4.5	-0.0001	1	2.3
Sweden	25.39	62	2.0	1.76	7.9	0.002	5	-0.0043	3	6.7
Central-West Europe										
Austria	45.90	ND	7.0	1.50	20.3[vi]	0.240	3.5	-0.0307	4	16.5
Belgium	51.79	42	40.5	40.58	7.3[vi]	0.277	2	0.0023	3	6.2[vi]
France	24.33	77[ii]	9.3	6.99	7.0[vi]	0.072	2	-0.0076	2	24.1[iv]
Germany	ND	52	0.0	3.98	15.0	0.158	2.5	0.0001	3	83.6
Ireland	ND	11	88.8[iii]	69.60v	6.6[iv,vi]	0.097	2	0.0175	1	0.9
Liechtenstein	ND	96	4.1	0.00	ND	18.535	4.5	ND	1	27.6
Luxembourg	6.44	67	32.6	30.20v	11.6[iv,vi]	4.197	2	-0.0087	3	2.3i[v,x]
Netherlands	19.94	16	1.1	24.93	9.75	0.092	2	-0.0044	3	24.7
Switzerland	20.51	84	0.1	0.50iv	21.3[vi]	0.077	ND	ND	4	22.5[iv]
United Kingdom	55.78	23	76.5	48.64	3.9	0.621	ND	ND	1	15.7
Central-East Europe										
Belarus	21.37	79	21.1	0.01	1.2	0.093	ND	ND	3	13.9
Czech Republic	18.48	1	0.0	1.55	11.6	4.218	2.5	-0.0010	4	25.0
Georgia	ND	93	2.2[iii,iv]	0.00	ND	0.030	ND	ND	1	19.7i
Hungary	35.58	21	6.4[iii]	34.94v	ND	0.002	2.5	-0.0090	3	21.9[vi]
Poland	49.90[i]	5	0.3	0.49	5.59[vi]	0.074	3	0.0100	3	17.3
Republic of Moldova	ND	99	0.5	ND	ND	0.579	1	ND	1	ND
Romania	ND	78	22.0	5.30iv,v	ND	0.173	3	-0.0039	1	8.4i[v,vi]
Slovakia	18.32	59	2.1	2.11	37.7	1.752	3	0.0349	4	42.5
Ukraine	36.76	50	4.1	4.12	27.0	0.266	ND	ND	3	11.7[iv]

	4.1	4.2	4.3	4.4	4.5	4.6	4.7	4.7	4.8	4.9
	Share of single species stands, 2005 (%)	Share of natural regeneration in total regeneration (%)	Share of plantations in FOWL (%)	Share of introduced species in FOWL (%)	Volume of deadwood on FOWL (m^3/ha)	Share of forest land managed for conservation of genetic resources (in situ and ex situ only) (%)	Landscape pattern index (0-5)	Trend in country based average proportion of 'core natural' forest pattern 1990-2006	Availability of data on threatened forest species (scale 1-4)	Area protected (MCPFE classes 1,1, 1,2, 1,3 and 2) as % of FOWL
South-West Europe										
Andorra	ND	ND	ND	ND	ND	ND	ND	ND	1	ND
Holy See	ND	ND	ND	ND	ND	ND	3	ND	1	ND
Italy	25.73	93	6.5	3.96	9.1[vi]	0.656	3	-0.0071	3	43.1
Malta	ND	0	100.0	ND	ND	ND	1	0.0000	1	ND
Monaco	ND	ND	ND	ND	ND	ND	2	ND	1	ND
Portugal	72.18	75	26.0	29.22	2.8[iv,vii]	0.003	2	-0.0210	3	44.1[iv]
Spain	18.72	ND	9.9	4.88	ND	0.027	2.5	-0.0068	4	18.5
South-East Europe										
Albania	68.09	88	9.0[iv]	0.80iv	0.5iv	ND	3.5	-0.0173	1	25.1[iv]
Bosnia and Herzegovina	ND	59	4.2	ND	ND	0.120	3.5	0.0095	2	ND
Bulgaria	41.38	79	20.8	5.27	ND	1.551	3	-0.0021	2	8.8
Croatia	20.53	96	4.0	3.35	14.0[vi]	0.066	3	0.0160	4	11.3
Cyprus	97.98	82	17.6	0.81v	0.9[viii]	3.146	4	0.0009	3	6.8
Greece	ND	96	2.1	ND	ND	0.789	2.5	0.0052	1	4.2[vi,xi]
Montenegro	41.69	50	1.3	ND	ND	ND	4	-0.0017	2	ND
Serbia	ND	93	5.8	0.10[iv]	1.6[iv,ix]	0.013	3	-0.0044	3	14.6[iv]
Slovenia	4.90	98	0.0	2.84	18.9	0.091	3.5	0.0002	4	21.9
The former Yugoslav Republic of Macedonia	ND	89	ND	ND	ND	0.109	4	0.0080	1	ND
Turkey	ND	70	33.0	0.64[v]	ND	0.306	3	0.0002	2	4.0[vi]

(i) 2000
(ii) FAWS only
(iii) Plantations' share of forest, not of FOWL
(iv) 2005
(v) Introduced species' share of forest only, not of FOWL
(vi) Forest only
(vii) Standing deadwood only
(viii) Standing deadwood on forest only
(ix) Lying deadwood only
(x) No data on class 1.3
(xi) Class 1.1 (strictly protected) only

Table 91: Criterion 5. Protective Functions

Country	5.1 Protective function index: soil and water (scale1-4)	5.2 Protective function index: infrastructure etc. (scale1-4)
Russian Federation	4	4
North Europe		
Denmark	3	2
Estonia	4	2
Finland	3	2
Iceland	3	3
Latvia	3	2
Lithuania	3	3
Norway	3	2
Sweden	3	2
Central-West Europe		
Austria	4	4
Belgium	4	2
France	3	2
Germany	3	2
Ireland	2	2
Liechtenstein	2	3
Luxembourg	3	2
Netherlands	2	2
Switzerland	3	3
United Kingdom	2	2
Central-East Europe		
Belarus	4	4
Czech Republic	4	4
Georgia	3	2
Hungary	3	3
Poland	3	3
Republic of Moldova	2	2
Romania	3	3
Slovakia	3	3
Ukraine	3	2
South-West Europe		
Andorra	2	2
Holy See	2	2
Italy	3	2
Malta	2	2
Monaco	2	2
Portugal	3	3
Spain	4	3
South-East Europe		
Albania	3	2
Bosnia and Herzegovina	2	2
Bulgaria	3	3
Croatia	3	3
Cyprus	2	2
Greece	2	2
Montenegro	3	2
Serbia	4	4
Slovenia	3	3
The former Yugoslav Republic of Macedonia	2	2
Turkey	4	4

Index 1: Evidence of loss of ability to perform protective functions
Index 2: No data available on area of protective forest
Index 3: Data available on area of protective forest, but no formal designation
Index 4: Data available on area designated as protective forest in a formal way

Table 92: Criterion 6. Socio-Economic Functions

Country	6.1 Availability of information on ownership and private holdings (3-4)	6.2 Share of GDP taken by forest sector, 2010 (%)	6.3 Net entrepreneurial revenue per hectare, average of years reported (EUR)	6.4 Government expenditure for forest services per ha of forest, EUR, average of years supplied	6.5 Forest sector labour force as % of population	6.6 Non-fatal accidents per 1000 workers, 2010	6.7 Consumption per head, 2007-2009, m3 roundwood equivalent	6.8 Net imports as % of apparent consumption, 2007-9vii	6.9 Share of energy from wood in national energy production (%)	6.10 Annual visits per hectare of FOWL	6.11 Index of data availability on number of cultural and spiritual sites (scale 3-4)[xi]
Russian Federation	4	2.0	0.4[iii]	0.76	0.6	1.4i	0.7	-42.6	0.8	0.0[ix]	3
North Europe											
Denmark	4	0.9	318.8[iii]	35.00	0.4	6.0	3.6	79.6	3.7	125.9	3
Estonia	3	2.8	22.1	ND	1.8	2.7	3.3	-11.7	12.8	0.3	3
Finland	4	5.1	73.1	ND	1.3	34.8	4.8	-233.0	63.1	27.0	ND
Iceland	4	0.3[i]	ND	ND	0.3	ND	1.1	100.1	0.0	ND	3
Latvia	4	3.3	ND	ND	2.4	0.8	2.1	-66.9	85.3	ND	ND
Lithuania	4	2.0	37.3	0.29	1.4	ND	1.6	7.6	20.7	61.5	3
Norway	3	0.9	38.8	ND	0.6	6.4	2.4	-41.3	4.3	11.3	ND
Sweden	4	3.2	50.3	12.05	1.1	6.3	3.4	-217.8	26.1	ND	3
Central-West Europe											
Austria	4	2.0	203.4	1.79	0.9	185.8[vi]	3.0	-91.1	33.0	ND	ND
Belgium	4	0.8	125.9	ND	0.4	38.5	1.7	6.7	5.9	ND	3
France	4	0.7	105.3	10.85	0.3	8.5[i]	1.7	14.7	7.4	28.7	4
Germany	4	1.0	35.5	14.40	0.4	65.6	1.8	-5.0	11.0	135.4	4
Ireland	4	0.5	ND	1.67	0.3	3.3	1.0	21.0	0.6	24.2	3
Liechtenstein	4	ND	ND	ND	ND	ND	1.0	ND	31.1	ND	ND
Luxembourg	4	0.1[ii]	ND	ND	0.1	ND	2.6	5.6	ND	0.0	ND
Netherlands	4	0.5	-9.8	ND	0.3	ND	1.3	57.5	1.1	750.0	3
Switzerland	4	1.1	-9.0	54.69[iv]	0.7	126.0	1.6	16.2	0.0	420.6	ND
United Kingdom	4	0.5	-10.4	23.21	0.3	6.4	1.2	64.1	0.3	124.4	4
Central-East Europe											
Belarus	4	2.7[i,ii]	ND	ND	0.0	0.6	0.8	-24.2	31.0	ND	4
Czech Republic	4	1.9	ND	11.93	1.2	34.6	1.5	-14.8	5.4	81.6	ND
Georgia	3	ND	ND	ND	ND	ND	0.2	14.8	ND	ND	ND
Hungary	4	0.8	42.0	17.46	0.7	8.4	0.9	29.4	ND	ND	3
Poland	4	1.8	4.9	1.10v	0.6	67.0	1.1	15.1	4.5	0.0	ND
Republic of Moldova	3	ND	ND	ND	ND	ND	0.3	37.2	ND	ND	ND
Romania	3	1.8	ND	ND	0.9	2.1	0.7	-18.7	4.4	ND	ND
Slovakia	4	1.1	18.2	0.79	1.2	4.3	1.5	-24.8	3.0	0.0	4
Ukraine	4	ND	ND	ND	0.4	2.0	0.5	1.3	ND	0.3	ND

Country	6.1 Availability of information on ownership and private holdings (3-4)	6.2 Share of GDP taken by forest sector, 2010 (%)	6.3 Net entrepreneurial revenue per hectare, average of years reported (EUR)	6.4 Government expenditure for forest services per ha of forest, EUR, average of years supplied	6.5 Forest sector labour force as % of population	6.6 Non-fatal accidents per 1000 workers, 2010	6.7 Consumption per head, 2007-2009, m3 roundwood equivalent	6.8 Net imports as % of apparent consumption, 2007-9vii	6.9 Share of energy from wood in national energy production (%)	6.10 Annual visits per hectare of FOWL	6.11 Index of data availability on number of cultural and spiritual sites (scale 3-4)[xi]
South-West Europe											
Andorra	3	ND	ND	ND	ND	ND		ND	ND	ND	ND
Holy See	3	ND	ND	ND	ND	ND		ND	ND	ND	ND
Italy	3	0.9	41.6[iii]	33.96	0.5	53.6	1.2	45.6	14.1	16.8	3
Malta	3	0.2	ND	ND	0.1	ND	0.5	100.0	ND	ND	ND
Monaco	3	ND	ND	ND	ND	ND		ND	ND	ND	ND
Portugal	3	1.6	156.2	ND	0.9	ND	0.8	-71.8	62.8[viii]	ND	4
Spain	4	ND	35.2	72.35	0.4	133.0	1.1	18.4	ND	ND	3
South-East Europe											
Albania	3	ND	ND	ND	ND	ND	0.2	37.9	ND	ND	3
Bosnia and Herzegovina	3	ND	ND	ND	ND	ND	0.6	-46.0	ND	ND	ND
Bulgaria	4	0.8[i]	8.5	2.25	0.8	ND	1.0	3.1	5.9	ND	3
Croatia	4	1.1	ND	ND	0.8	33.0	1.1	5.4	7.7	0.8[x]	3
Cyprus	3	0.9[i]	ND	20.03	0.6	12.7	0.8	96.9	4.5	1.7	3
Greece	3	0.3	0.7	ND	0.4	ND	0.8	52.5	ND	ND	ND
Montenegro	3	0.2	ND	ND	0.1	ND	0.4	-26.4	16.5	ND	3
Serbia	4	ND	ND	ND	ND	ND	0.7	36.2	3.3	ND	ND
Slovenia	4	1.8	36.1	16.30	1.2	92.6	1.7	-57.1	10.9	ND	4
The former Yugoslav Republic of Macedonia	3	0.9	ND	ND	0.3	ND	0.6	56.4	10.4	ND	ND
Turkey	3	ND	ND	ND	0.3	ND	0.6	23.3	8.6	ND	ND

(i) 2005
(ii) Pulp and paper not included
(iii) Factor income, not net entrepreneurial revenue. The difference is wage costs, so this figure is overestimated by the amount of the wage costs per hectare.
(iv) Expenditure on ecological and biospheric services only. Expenditure by Confederation only, expenditure by cantonal governments not included.
(v) "Total government expenditure for forestry"
(vi) Exceptionally high because of work on windblown timber. Average 2000-2005 was 110.
(vii) Therefore net importers have positive figures and net exporters negative figures.
(viii) Data for total energy production seem very low, so share of wood comes out very high.
(ix) 0.01 visits/ha
(x) Data supplied for "visits" are in fact sales of tickets for national parks, so are a significant underestimate.
(xi) 3: partial data availability - 4: data available for each type of site