

## Appendix 1: Statistical agreement between forest function and ecosystem service maps (Table A1.1.) and mentioned CICES divisions of ecosystem services and corresponding forest functions (Table A1.2.)

Table A1.1. Agreement of forest functions and ecosystem services maps; true positive (TP), true negative (TN), false positive (FP), positive predictive value (PPV), negative predictive value (NPV); sensitivity (agreement of pixels classified as ESS or forest function) and specificity (agreement of pixels not classified as ESS or forest function) are scaled between 0 and 1. If an ESS/forest function is not indicated, it will not have been mentioned by the table group.

Combinations	ESS/forest functions	TP	TN	FP	FN	PPV	NPV	Sensitivity	Specificity
ESS (all)/forest functions									
	Biodiversity	24,204	0	4	0	1.00	NaN	1.00	-
	Recreation	24,204	0	10,439	0	0.57	NaN	1.00	-
	Drinking water	24,204	0	686	0	0.97	NaN	1.00	-
	Drinking water (hotspot)	5,126	19,078	0	0	1.00	1.00	1.00	1.00
	Climate regulation	24,204	0	5,460	0	0.77	NaN	1.00	-
ESS 1/forest functions									
	Biodiversity	24,204	0	4	0	1.00	NaN	1.00	-
	Recreation	24,204	0	10,439	0	0.57	NaN	1.00	-
	Drinking water	24,204	0	686	0	0.97	NaN	1.00	-
	Drinking water (hotspot)	5,126	19,078	0	0	1.00	1.00	1.00	1.00
ESS 2/forest functions									
	Biodiversity	7,576	16,628	0	16,624	1.00	0.00	0.31	1.00
	Recreation	6,956	17,248	3,248	10,057	0.53	0.42	0.27	0.69
ESS 3/forest functions									
	Biodiversity	5,898	18,306	0	18,302	1.00	0.00	0.24	1.00
	Recreation	24,204	0	10,439	0	0.57	NaN	1.00	-
	Drinking water	24,204	0	686	0	0.97	NaN	1.00	-
	Climate regulation	24,204	0	5,460	0	0.77	NaN	1.00	-
ESS 4/forest functions									
	Biodiversity	9,558	14,646	0	14,642	1.00	0.00	0.39	1.00
	Recreation	11,026	13,178	5,963	8,702	0.46	0.34	0.37	0.43
	Drinking water	1,008	23,196	0	22,510	1.00	0.03	0.04	1.00
ESS 5/forest functions									
	Biodiversity	17,661	6,543	0	6,539	1.00	0.00	0.73	1.00
	Recreation	7,024	17,180	2,344	9,085	0.67	0.47	0.34	0.78
ESS 2&3/forest functions									
	Biodiversity	10,250	20,980	0	20,976	1.00	0.00	0.42	1.00
	Recreation	24,204	17,248	10,439	17,248	0.57	0.00	1.00	-
ESS 2&4/forest functions									
	Biodiversity	18,102	20,114	5,058	20,110	0.72	0.00	0.54	1.00
	Recreation	12,859	19,081	6,628	11,225	0.48	0.41	0.45	0.75
ESS 2&5/forest functions									
	Biodiversity	18,102	17,069	0	17,065	1.00	0.00	0.75	1.00
	Recreation	10,248	20,472	4,145	11,480	0.60	0.44	0.44	0.86
ESS 3&4/forest functions									
	Biodiversity	13,794	22,542	0	22,538	1.00	0.00	0.57	1.00
	Recreation	24,204	13,178	10,439	8,702	0.57	0.34	1.00	0.43
ESS 3&5/forest functions									
	Biodiversity	18,409	19,054	0	19,050	1.00	0.00	0.76	1.00
	Recreation	24,204	17,180	10,439	9,085	0.57	0.47	1.00	0.78
ESS 4&5/forest functions									
	Biodiversity	17,793	14,778	0	14,774	1.00	0.00	0.74	1.00
	Recreation	12,972	19,126	6,436	10,558	0.50	0.45	0.47	0.82
ESS 2,3&4/forest functions									
	Biodiversity	15,045	23,215	0	23,211	1.00	0.00	0.62	1.00
	Recreation	24,204	19,081	10,439	14,605	0.57	0.23	1.00	0.43
ESS 2,3&5/forest functions									
	Biodiversity	18,615	21,215	0	21,211	1.00	0.00	0.77	1.00
	Recreation	24,204	20,472	10,439	12,377	0.57	0.40	1.00	0.78
ESS 3,4&5/forest functions									
	Biodiversity	18,445	22,638	0	22,634	1.00	0.00	0.76	1.00
	Recreation	24,204	19,126	10,439	11,031	0.57	0.42	1.00	0.78
ESS 2,3,4&5/forest functions									
	Biodiversity	18,645	23,225	0	23,221	1.00	0.00	0.77	1.00
	Recreation	24,204	21,379	10,439	12,387	0.57	0.42	1.00	0.86

Table A1.2. CICES sections, divisions and classes for ESS mentioned in the workshop, short names used in the text and corresponding forest functions.

CICES section	CICES division	classification used	CICES class	corresponding forest functions
Provisioning	Nutrition	Food	Reared animals and their outputs	NA
			Wild plants, algae and their outputs	use function
			Wild animals and their outputs	
	Materials	Timber	Fibres and other materials from plants, algae and animals for direct use or processing	use function
			Materials from plants, algae and animals for agricultural use	
			Genetic materials from all biota	protection genetic resources
Energy	Fuelwood	Plant-based resources	use function	
Regulation & Maintenance	Mediation of waste, toxics and other nuisances	Imission control	Filtration/sequestration/storage/accumulation by micro-organisms, algae, plants, and animals	local imission control
			Mediation of smell/noise/visual impacts	noise protection
				visual protection
	Mediation of flows	flood protection	Flood protection	water protection
	Maintenance of physical, chemical, biological conditions	Mediation of climate and water quality	Chemical condition of freshwaters	NA
			Global climate regulation by reduction of greenhouse gas concentrations	
Micro and regional climate regulation			regional climate protection	
			local climate protection	
Cultural	Physical and intellectual interactions with biota, ecosystems, and land-/seascapes [environmental settings]	recreation	Experiential use of plants, animals and land-/seascapes in different environmental settings	recreation
			Physical use of land-/seascapes in different environmental settings	
			Educational	
			Heritage, cultural	historical forest management/ cultural monument
			Aesthetic	landscape aesthetics