

Supplementary Materials for

A social-ecological analysis of ecosystem services supply and trade-offs in European wood-pastures

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SUPPLEMENTARY MATERIALS

table S1. English version of the initial questions in the semistructured questionnaires.

Total area of managed land (Ha)	
Number of farm units	
How many people live in the farm?	Permanently
	Temporary
How many houses do the farm have?	Permanently
	Vacations
Which other buildings exist in the farm?	
% wood pasture	Owned
	Rented
% forest	Owned
	Rented
% tree less pasture	Owned
	Rented
% agriculture	Owned
	Rented
Sex	
Age	
Main purpose for owning the land	
Continuity in the management (years)	
How many people work the land?	Permanent
	Temporal
How many family members work/collaborate in the farm? Fulltime? Part time? (in case part time how much) Seasonally? (in case is seasonal for what)	
Do you help and/or receive help from other farmers (for what activities)?	
How do you pay for the temporary work?	Money
	Products
	Both
How do you delimit your farmland? (Do you fence?) Everything? For which reasons?	
What material do you use for fencing?	
How much distance to you fence (km)?	
How many rivers and water courses cross your land?	
Do you have any other source of water (Whoch? How many?)	
How many animals do you have?	Cows

	Pigs
	Sheep
	Goats
	Chicken
	Bee hives
	Horses
	Others
Which breeds of animals do you have? Which ones are traditional?	
What do you produce on the farm?	
Which % of the animal supplementary fodder do you..	Cultivate
	Import
What type of fodder do you buy and how much it is approximately? (kg/year)	
How much time do the animals graze in the pasture?	
Do you produce wool? What do you do with it?	
How many animals do you loose due to "natural death" (illness...)	
Do you apply for CAP grants? Which ones?	
Do you cut trees? How many ha? How much wood do you extract/year?	
Do you get external help for cutting the wood? How do you pay this: with wood or money?	
What do you do with the cut wood? (%s)	
Do you practice organic farming?	
How much money do you invest per year in	Pesticides
	Fertilizants
	Gasoil
	Supplementary fodder
	Salaries
How much do you fertilize? (ha/year)	
How much artificial fertilizant do you ise? (ton/year)	
Do you fertilize with animal manure? How often? How much do you use? (tons/year)	
Do you cultivate land? (Ha) What do you cultivate? (in Ha)	
Do you use pesticide? How many times/year?	
Do you rotate the crops? (Which)	
Do you plough the land? (Ha/year)	
How is the distribution of your farm products? (Local vs non local in %.)	
How many access do your farm have (Trails/roads)	
Is the access public to your farm?	
Is there any other product harvested in your land? (mushrooms, berries...) Which? How often? By whom?	

Is there any building/trace of historical/cultural value in your land?	
Is there any festivity, recreational activity organized in your land? Which? How often?	
Do people use your land for recreational purposes (running, walking, bird watching...)? How often?	
Is there hunting in you land? Who? How many animals are hunted approximately/year? (and which)	
Is there fishing in you land? Who? How many fishes are fished approximately/year? (and which)	
What are the main challenges you confront in your work	
How does your work (and the way of life it involves) contribute to your quality of life?	

table S2. Average (\pm SD) values of ES supply values for each study area.

ES indicator		Östergötland	Southern Transylvania	Llanos de Trujillo	La Serena
Animal production	Mean	0.730	0.606	0.703	0.483
	SD	0.726	0.423	0.324	0.260
Number of products	Mean	5.778	5.447	5.405	8.263
	SD	1.355	1.501	2.750	2.232
Cereal production	Mean	53.114	31.362	5.770	68.827
	SD	21.299	23.541	8.272	26.554
Authochtonous breeds	Mean	0.833	3.000	0.833	1.684
	SD	0.971	1.319	1.057	0.749
Timber production	Mean	272.381	0.501	33.342	54.553
	SD	342.421	1.086	44.522	60.361
Mineral inputs	Mean	49.319	2.039	4.528	5.704
	SD	30.153	4.481	13.095	4.012
Capital input	Mean	483.984	101.985	118.699	100.636
	SD	256.004	85.444	97.614	77.396
Historic and cultural features	Rel. Frequency Presence	77.778	2.128	26.190	5.263
	Rel. Frequency No Presence	22.222	97.872	73.810	94.737
Outdoor recreation	Rel. Frequency Presence	94.444	29.787	61.905	52.632
	Rel. Frequency No Presence	5.556	70.213	38.095	47.368
Recreation Events	Rel. Frequency Presence	44.444	100.000	11.905	73.684
	Rel. Frequency No Presence	55.556	0.000	88.095	26.316
Nature recreation	Rel. Frequency Presence	50.000	55.319	69.048	10.526
	Rel. Frequency No Presence	50.000	44.681	30.952	89.474
Harvesting of wild products	Rel. Frequency Presence	77.778	40.426	78.571	100.000
	Rel. Frequency No Presence	22.222	59.574	21.429	0.000
Recreation Hunting	Rel. Frequency Presence	97.222	0.000	92.857	94.737
	Rel. Frequency No Presence	2.778	100.000	7.143	5.263

table S3. Summary statistics of the MFA.

Variables	F1	F2	F3	F4
Productivity related trade-offs	0.900	0.117	-0.294	0.027
Crop production related trade-offs	0.062	0.797	0.493	-0.284
Multifunctionality related trade-offs	0.250	-0.260	0.725	0.572
Accessibility related trade-offs	-0.183	0.485	-0.352	0.765
Land use diversity	0.053	0.651	0.189	0.124
Property size	0.829	-0.053	0.160	0.167
Hired workforce	0.563	0.327	0.029	0.090
Local products distribution ratio	0.401	-0.390	0.073	0.254
Family involvement	-0.395	0.213	-0.011	-0.040
Self-consumption ratio	-0.783	0.079	0.256	0.139
Proportion of the property privately owned	-0.107	0.273	0.226	-0.133
Property access policy	-0.255	0.498	-0.398	0.199
Fuel consumption	0.670	0.182	0.049	-0.068
Use of animal workforce	-0.457	0.214	0.176	0.010
Economic investment	0.880	0.289	-0.075	-0.176
Östergötland	1.048	0.890	-0.617	-0.154
Southern Transylvania	-1.581	0.555	0.390	0.107
Llanos de Trujillo	0.359	-1.214	-0.540	-0.048
La Serena	1.048	-0.346	1.419	0.138
<i>Eigenvalue</i>	1.791	1.251	1.060	1.033
<i>Variance explained (%)</i>	26.381	18.429	15.608	15.222
<i>Cumulative variance (%)</i>	26.381	44.809	60.417	75.640