Supplement material

Table S1: ES assessment matrix with expert scores.

	Agroecosystem types						Landscape elements								Forest types			Near-natural elements			Settlement related corine land cover types									Inland waters	
Ecosystem service vs. land cover/use type (EN)	Arable land	Fallows, set-aside land	Fruit trees and berries, Orchards	Pastures/Meadows	Truck farms	Land principally occupied by agriculture, with significant areas of natural vegetation	Hedges	Tree rows	Field copse/thickets	Single trees	Pools, ponds	Field borders	Wetlands	Ditches	Broad- leaved forest	Coniferous forest	Mixed forest	Moors and heath-lands	Transitional woodlands, clerophyllous vegetation	Sparesly vegetated areas	Continuous urban fabric	Discon-tinuous urban fabric	Industry and commerce	Airports	Road and railroad networks, traffic areas	Mineral extraction sites	Dump sites	Sport and leisure facilities	Urban areas	Rivers, flowing waters	Lakes
Crops (human nutrition) Cultivation of edible plants and harvest of these plants on agricultural fields and gardens which are used for human nutrition.	5,0	0,0	4,4	0,6	5,0	3,9	0,6	0,6	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,6	0,6	0,0	0,6	1,7	0,0	0,0	0,0	0,0	0,0	0,6	0,6	0,0	0,0
Biomass for energy Plants used for energy conversion (e.g. sugar cane, maize)	5,0	0,0	0,6	2,8	0,0	2,8	1,1	1,1	1,1	1,1	0,0	0,0	0,0	0,0	1,1	1,1	1,1	2,8	0,6	0,0	0,6	0,6	0,0	0,6	0,6	0,0	0,6	0,6	0,6	0,0	0,0
Crops (fodder) Cultivation and harvest of fodder for domestic animals.	5,0	2,8	0,6	5,0	0,6	3,9	0,0	0,0	0,0	0,0	0,0	0,6	0,0	0,0	0,0	0,0	0,0	0,6	1,7	0,0	0,0	0,6	0,0	0,0	0,0	0,0	0,0	0,0	0,6	0,0	0,0
Livestock Production and utilization of domestic animals for nutrition and use of related products (e.g. dairy, wool).	0,0	0,0	1,1	4,4	0,0	2,8	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,6	0,0	0,6	0,6	1,1	1,1	0,6	1,1	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Timber Wood used for construction purposes.	0,0	0,0	0,6	0,0	0,0	1,7	1,1	4,4	1,1	4,4	0,0	0,0	0,0	0,0	5,0	5,0	5,0	0,6	1,1	0,6	0,6	1,1	0,6	0,0	0,6	0,0	0,0	0,6	1,1	0,0	0,0
Fibers Cultivation and harvest of natural fibre (e.g. cotton, jute sisal, silk, cellulose) for, e.g. cloths, fabric, paper.	5,0	0,6	0,0	0,0	0,0	1,1	1,1	2,8	2,8	2,8	0,0	0,0	0,0	0,0	3,9	3,9	3,9	0,6	0,6	0,0	0,6	0,0	0,0	0,0	0,6	0,0	0,0	0,0	0,0	0,0	0,0
Wood fuel Wood used for energy conversion and/or heat production.	0,0	0,0	2,2	0,0	0,0	1,7	5,0	5,0	4,4	5,0	0,0	0,0	0,0	0,0	5,0	5,0	5,0	0,6	1,7	0,6	0,6	1,1	0,0	0,0	0,6	0,0	0,0	1,1	1,1	0,0	0,0
Wild food Harvest of berries, mushrooms, (edible) plants, hunted wild animals, fish catch from recreational fishing	0,6	2,8	2,2	1,7	0,6	2,8	4,4	2,8	2,2	2,8	0,0	0,0	0,0	0,0	5,0	5,0	5,0	3,9	5,0	3,9	0,6	0,0	0,0	0,0	0,6	0,0	0,0	0,0	1,1	3,3	3,3

Fish and Seafood Catch of fish, seafood/algae for food, fish meal and fish oil.	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	1,7	1,7
Beach wrack, Flotsam Organic Material from submerged macrophytes (e.g. seaweed and algae) which is accumulated regularly along the coast.	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	1,7	1,7
Ornamentals* collection of natural ornaments (e.g. seashells, stones/amber, leaves and twigs for ornamental or religious purposes).	1,1	3,9	0,0	0,0	0,6	0,6	1,1	0,6	1,1	0,6	0,0	1,1	0,6	0,0	0,6	2,8	1,7	0,6	0,6	0,6	0,0	0,0	0,0	0,0	0,0	1,1	0,0	0,0	0,6	1,7	1,7
Drinking water Used freshwater for drinking	0,0	0,0	0,6	0,0	0,0	1,7	0,0	0,0	0,0	0,0	2,8	0,0	2,8	2,8	1,1	1,1	1,1	0,0	0,0	0,6	0,0	0,6	0,0	0,0	0,0	0,0	0,0	0,6	0,6	1,7	2,8
Abiotic energy* Sources used for energy conversion (e.g. solar power, wind power, water power and geothermic power)	0,0	0,0	1,1	2,8	0,0	1,1	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,6	2,8	2,2	2,2	0,6	0,6	0,6	0,6	0,0	0,0	1,1	1,1
Minerals* Minerals excavated close from surface or above surface (e.g. sand for construction, lignite, gold)	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	5,0	0,0	0,0	0,0	1,7	0,6
Groundwater recharge, water flow Maintaining of water cycle features (e.g. water storage and buffer, natural drainage, irrigation and drought prevention).	3,3	3,9	2,8	3,9	2,2	2,8	3,9	3,9	3,9	3,9	4,4	2,2	4,4	4,4	5,0	5,0	5,0	4,4	3,9	2,8	0,0	0,6	0,6	1,1	0,6	1,1	0,6	1,7	2,2	5,0	5,0
Local climate regulation Changes in local climate components like wind, precipitation, temperature, radiation due to ecosystem properties.	2,2	2,2	1,7	2,2	0,6	2,2	3,9	2,8	2,2	1,1	0,0	2,2	3,9	0,0	5,0	5,0	5,0	3,9	3,3	1,1	1,4	1,1	0,0	0,6	0,6	0,0	0,0	1,1	2,8	3,9	3,9
Global climate regulation Long-term storage of greenhouse gases in ecosystems.	0,6	2,2	1,7	4,4	0,0	2,8	3,9	4,4	3,3	3,3	0,0	1,7	5,0	0,0	5,0	5,0	5,0	5,0	3,3	1,7	0,0	1,1	0,6	0,6	0,6	0,0	1,1	1,1	2,8	1,7	2,2
Flood protection Protection and mitigation of floods.	0,6	1,1	0,6	2,8	0,6	1,1	2,8	1,7	2,2	0,6	2,2	2,2	1,7	2,2	3,9	3,9	3,9	1,7	1,7	0,6	0,0	0,0	0,0	0,0	0,6	0,0	0,0	0,6	1,7	3,3	3,3
Air quality regulation Capturing/filtering of dust, chemicals and gases.	1,1	1,7	1,7	1,7	0,6	1,7	2,8	2,8	2,8	1,7	0,6	2,2	1,7	0,6	5,0	5,0	5,0	1,7	3,3	0,6	0,0	0,6	0,0	0,0	0,6	0,0	0,0	0,6	2,2	0,6	0,6
Erosion regulation,wind Soil retention and the capacity to prevent and mitigate soil erosion by wind.	1,1	3,9	2,2	3,9	1,1	2,8	4,7	4,4	4,4	1,7	1,1	1,7	1,7	0,0	5,0	5,0	5,0	1,7	2,2	0,6	0,0	0,6	0,0	0,6	0,6	0,0	0,0	1,1	1,7	0,0	0,0

Erosion regulation, water Soil retention and the capacity to prevent and mitigate soil erosion and landslides.	1,1	5,0	2,2	4,4	0,6	2,8	3,9	3,9	3,9	3,3	2,8	4,4	1,7	2,8	5,0	5,0	5,0	1,7	3,3	0,6	0,0	1,1	0,6	1,1	0,6	0,0	0,0	1,1	1,7	1,1	1,1
Nutrient regulation The capacity of an ecosystem to store and recycle nutrients, e.g. N, P.	0,0	2,8	2,8	2,8	1,1	2,8	4,4	4,4	4,4	3,9	0,0	2,8	3,9	0,0	5,0	4,4	5,0	3,9	3,9	0,6	0,0	1,7	0,0	0,6	0,6	0,0	0,0	1,1	2,2	1,7	2,2
Water purification The capacity of an ecosystem to purify water, e.g. from sediments, pesticides, disease-causing microbes and pathogens.	0,6	2,2	2,2	2,8	1,1	1,7	4,4	4,4	3,9	3,3	0,0	2,2	3,9	0,0	5,0	5,0	5,0	3,9	3,9	0,6	0,0	1,7	0,0	0,6	0,0	0,0	0,0	1,7	2,8	2,8	2,8
Pest and disease control The capacity of an ecosystem to control pests and diseases due to genetic variations of plants and animals making them less disease-prone and by actions of predators and parasites.	1,1	4,4	2,8	3,9	1,1	2,2	5,0	4,4	4,4	3,3	4,4	3,3	4,4	4,4	5,0	4,4	5,0	3,9	4,4	2,8	0,0	1,1	0,0	0,0	0,0	0,0	0,0	1,7	1,7	1,7	1,7
Pollination Bees, birds, bats, moths, flies, wind, non-flying animals contribute to the dispersal of seeds and the reproduction of lots of plants.	1,7	3,9	5,0	3,9	3,3	3,9	5,0	3,3	4,4	3,3	2,8	3,3	2,8	2,8	4,4	3,9	4,4	4,4	3,9	2,8	0,0	2,2	0,0	1,1	0,6	0,0	0,0	1,1	2,2	1,7	1,7
Recreation and tourism Outdoor activities and tourism relating to the local environment or landscape, including forms of sports, leisure and outdoor pursuit.	2,2	3,3	2,8	2,8	2,2	3,3	3,9	4,4	3,3	3,9	4,4	2,2	4,4	3,9	5,0	5,0	5,0	3,3	3,3	2,2	0,6	1,7	0,0	0,6	1,7	1,1	0,0	4,4	4,4	4,4	5,0
Landscape aesthetics + inspiration Visual quality of the landscape/ecosystems or parts of them which influences human well-being and the need to create something, esp. in art, music and literature. The sense of beauty people obtain from looking at landscapes/ecosystems as ecosystems provide a rich source of inspiration for art, folklore, national symbols, architecture, advertising and technology.	2,8	3,3	2,8	2,8	2,2	2,8	5,0	5,0	4,4	5,0	4,4	3,3	4,4	3,9	4,4	3,9	4,4	4,4	2,8	2,2	0,6	1,7	0,0	0,6	1,1	0,6	0,0	1,1	2,8	5,0	5,0
Knowledge systems Environmental education based on ecosystem/landscape, i.e. out of a formal schools context, and knowledge in terms of traditional knowledge and specialist expertise.	2,2	2,8	3,3	2,2	2,2	2,8	2,8	2,8	2,8	2,8	2,8	1,1	2,8	2,8	4,4	4,4	4,4	2,8	2,8	1,7	1,1	2,2	0,6	0,6	0,6	1,7	0,6	0,6	2,8	4,4	3,9

Cultural heritage Values that humans place on the maintenance of historically important (cultural) landscapes and forms of land use (cultural heritage).	3,9	2,8	2,8	2,8	3,3	2,8	5,6	4,4	3,3	4,4	3,9	3,3	3,9	3,9	3,9	3,9	3,9	2,8	2,8	1,7	2,2	2,2	0,6	0,6	1,7	1,1	0,0	1,1	3,3	4,4	4,4
Regional identity Elements or processes of ecosystems that contribute to a person's individual identity (sense of belonging) or strengthen people's group identity.	3,9	2,2	3,3	3,9	2,8	2,8	5,3	4,4	3,9	4,4	4,4	3,9	4,4	3,9	4,4	4,4	4,4	3,9	2,8	1,7	2,2	2,8	0,6	0,6	1,7	1,1	0,0	1,1	3,3	4,4	4,4
Natural heritage The existence value of nature and species themselves, beyond economic or human benefits	1,7	3,3	2,2	2,8	1,7	3,3	3,9	5,0	4,4	5,0	4,4	2,2	4,4	4,4	4,4	3,9	4,4	5,0	3,9	3,9	0,6	1,1	0,0	0,6	0,6	0,6	0,0	1,1	1,7	4,4	4,4

Ecosystem condition map

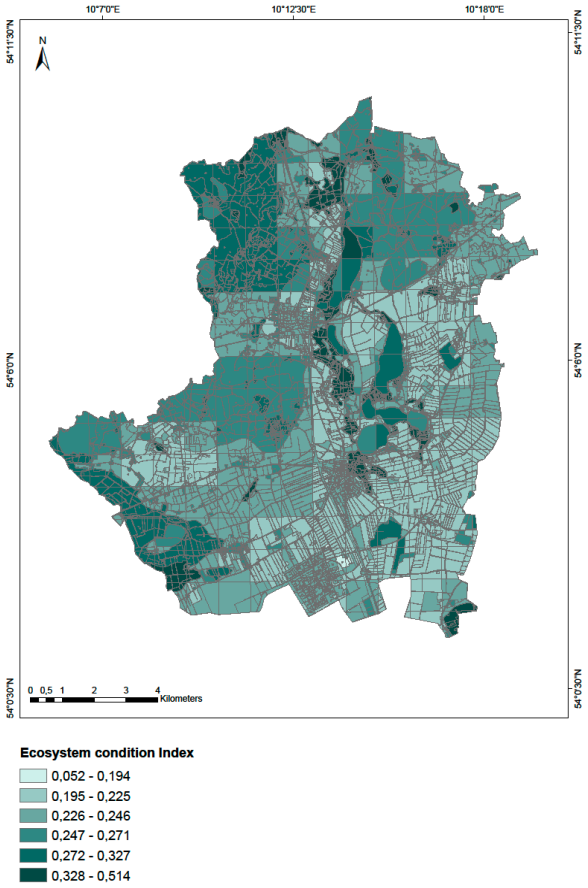

Figure S1: Distribution of the ecosystem condition index values within the CSA.

Ecosystem service potential maps

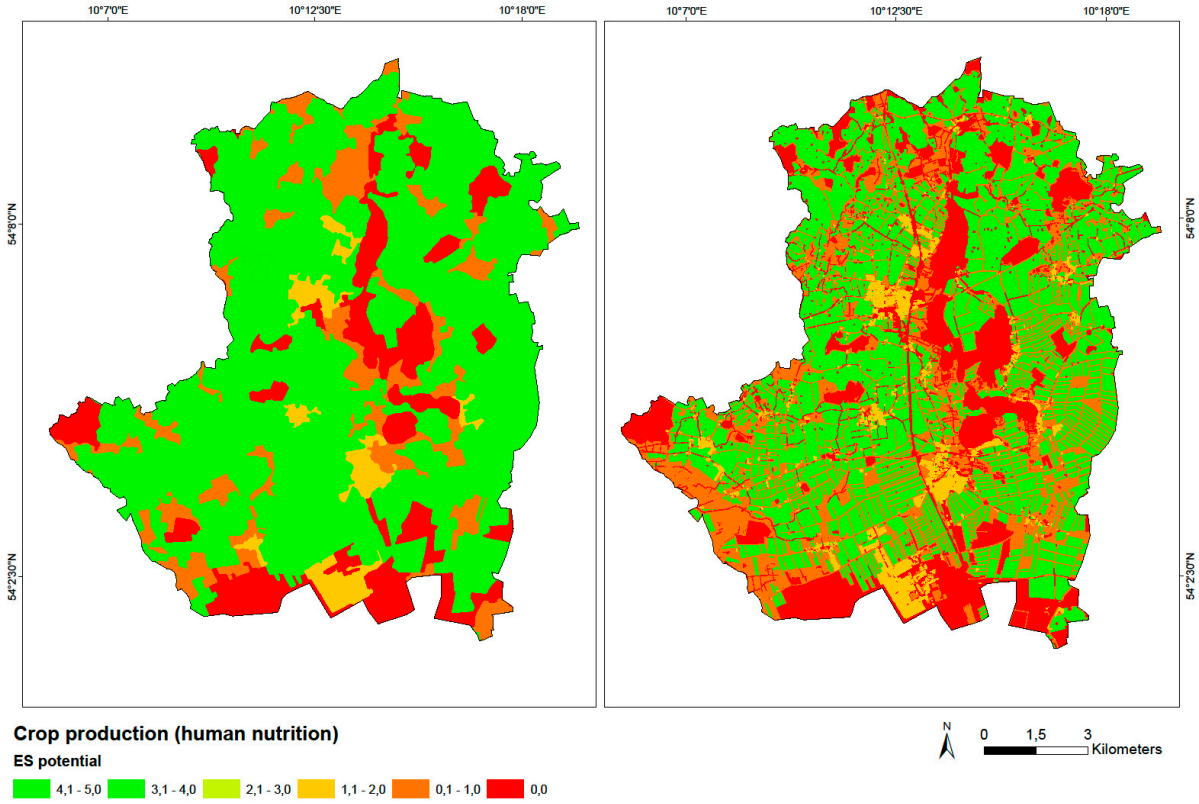

Figure S2: Crop (human nutrition) production service potential maps using CLC (left) and ATKIS/InVeKoS (right) land cover data and the ES potential matrix. 0: no potential, 1: very low potential, 2: low potential, 3: moderate potential, 4: high

potential, 5: very high potential

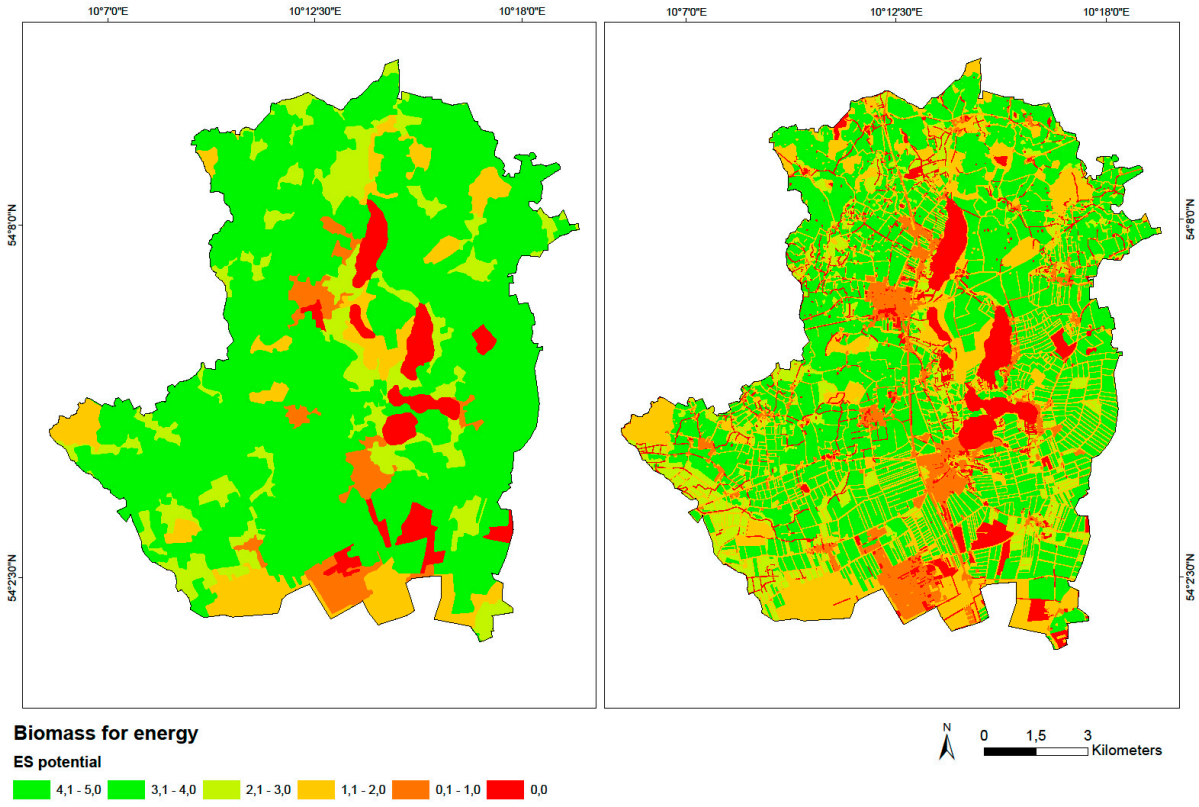

Figure S3: Biomass for energy service potential maps using CLC (left) and ATKIS/InVeKoS (right) land cover data and the ES potential matrix. 0: no potential, 1: very low potential, 2: low potential, 3: moderate potential, 4: high potential, 5: very high potential.

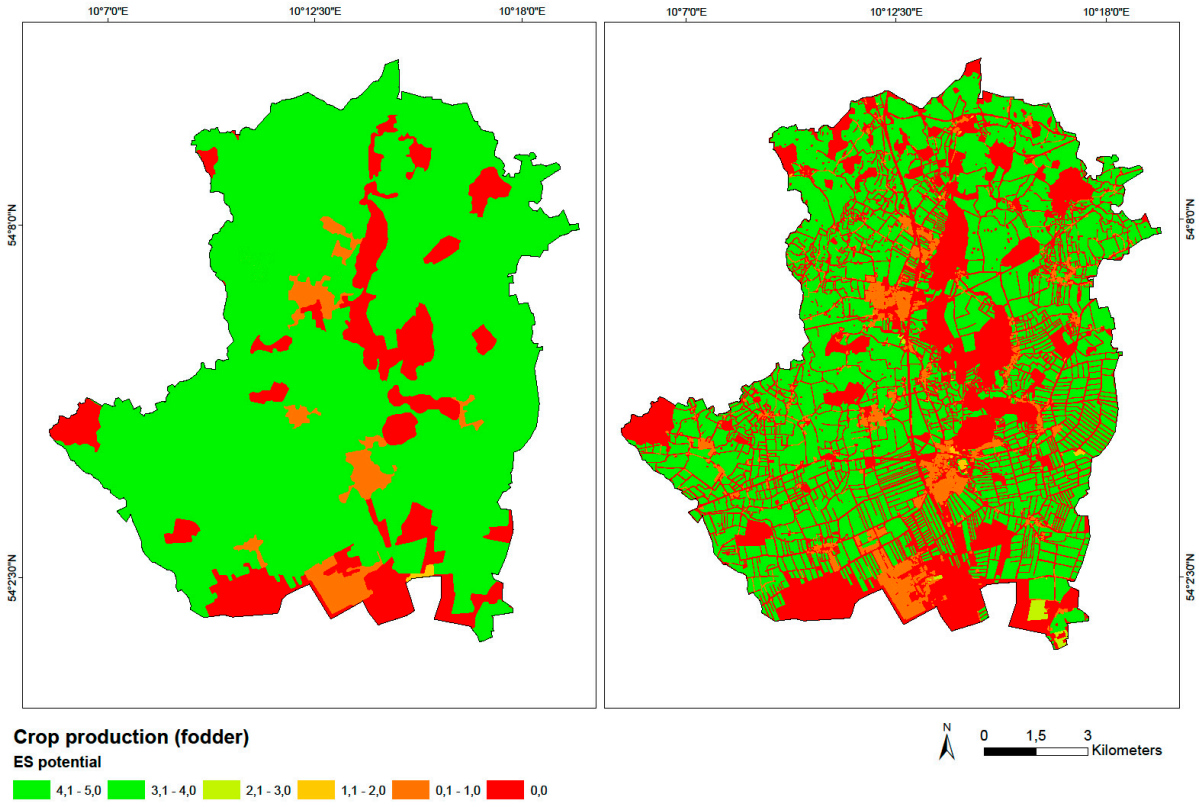

Figure S4: Crop (fodder) production service potential maps using CLC (left) and ATKIS/InVeKoS (right) land cover data and the ES potential matrix. 0: no potential, 1: very low potential, 2: low potential, 3: moderate potential, 4: high potential, 5: very high potential.

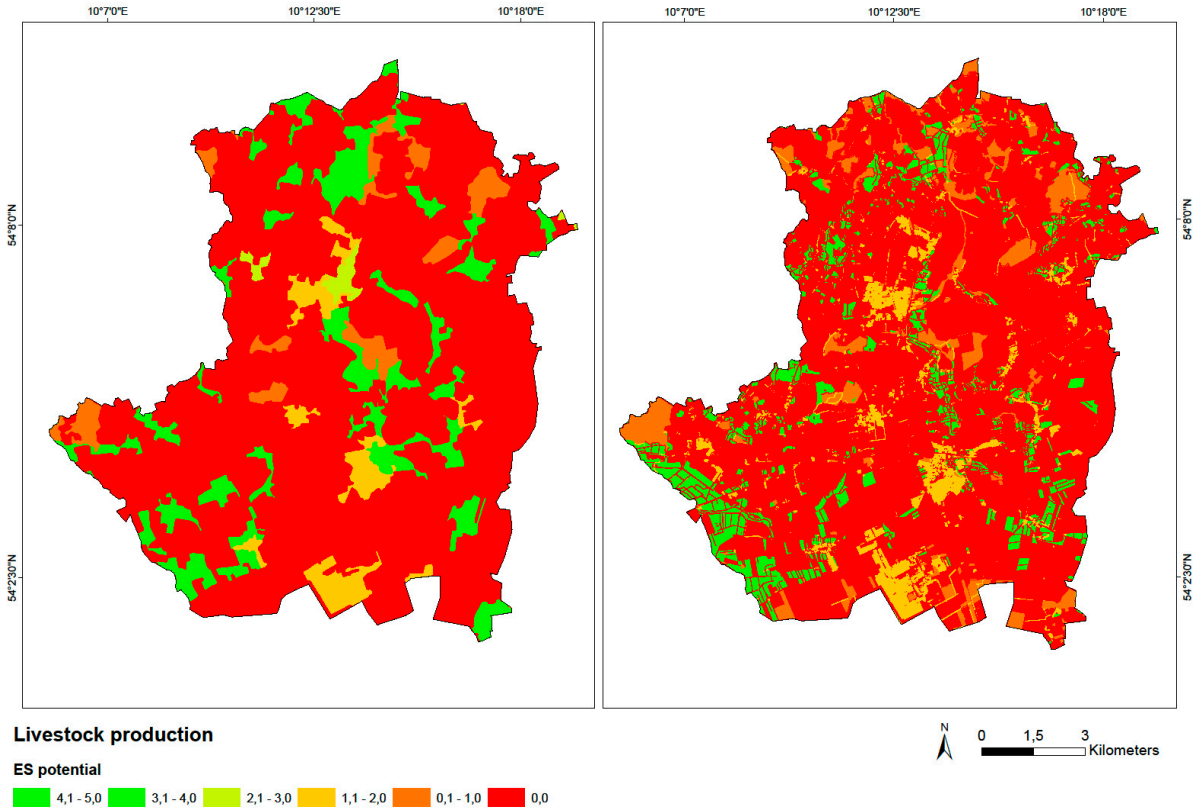

Figure S5: Livestock production service potential maps using CLC (left) and ATKIS/InVeKoS (right) land cover data and the ES potential matrix. 0: no potential, 1: very low potential, 2: low potential, 3: moderate potential, 4: high potential, 5: very high potential.

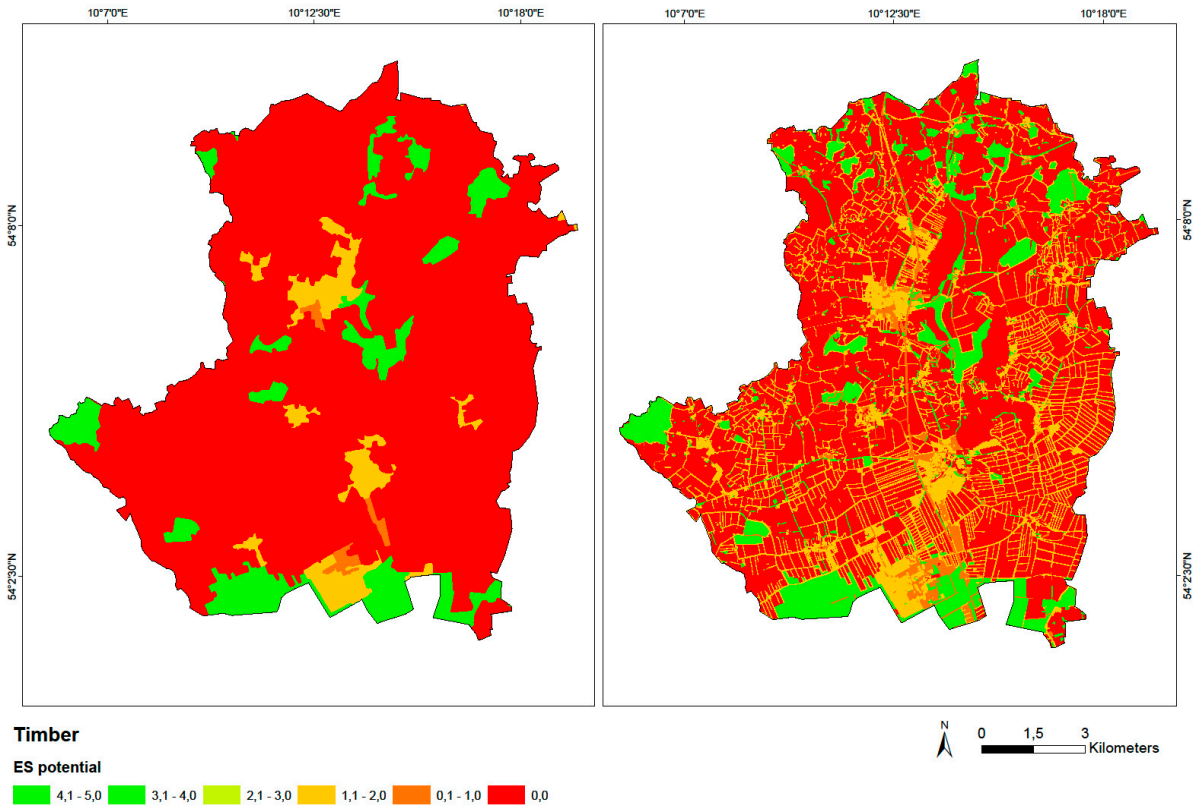

Figure S6: Timber service potential maps using CLC (left) and ATKIS/InVeKoS (right) land cover data and the ES potential matrix. 0: no potential, 1: very low potential, 2: low potential, 3: moderate potential, 4: high potential, 5: very high potential.

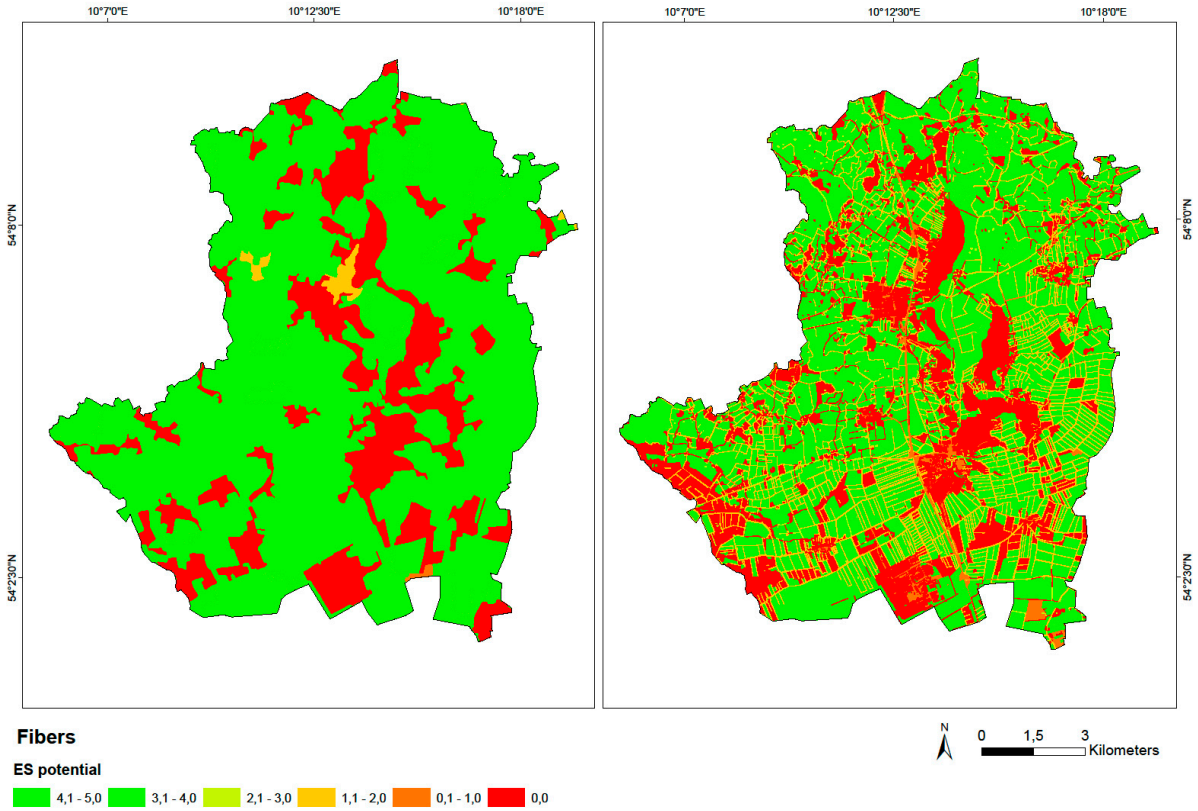

Figure S7: Fibers service potential maps using CLC (left) and ATKIS/InVeKoS (right) land cover data and the ES potential matrix. 0: no potential, 1: very low potential, 2: low potential, 3: moderate potential, 4: high potential, 5: very high potential.

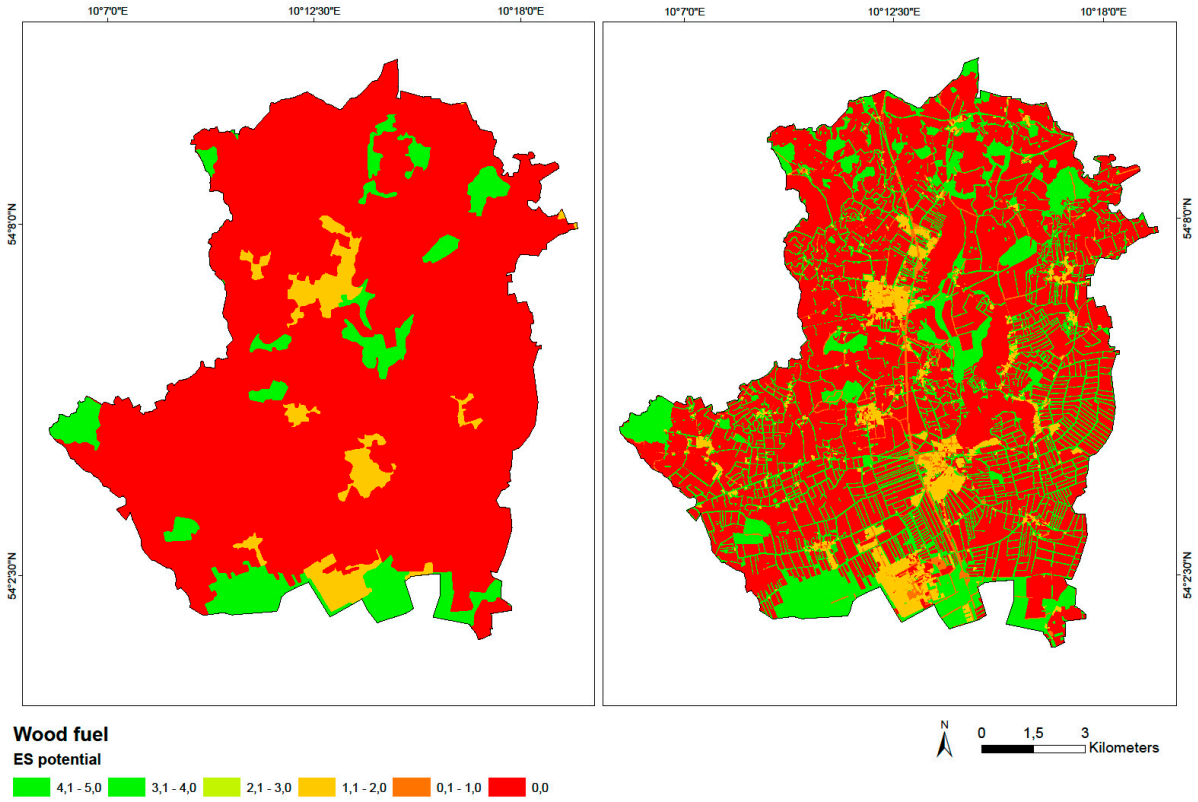

Figure S8: Wood fuel service potential maps using CLC (left) and ATKIS/InVeKoS (right) land cover data and the ES potential matrix. 0: no potential, 1: very low potential, 2: low potential, 3: moderate potential, 4: high potential, 5: very high potential.

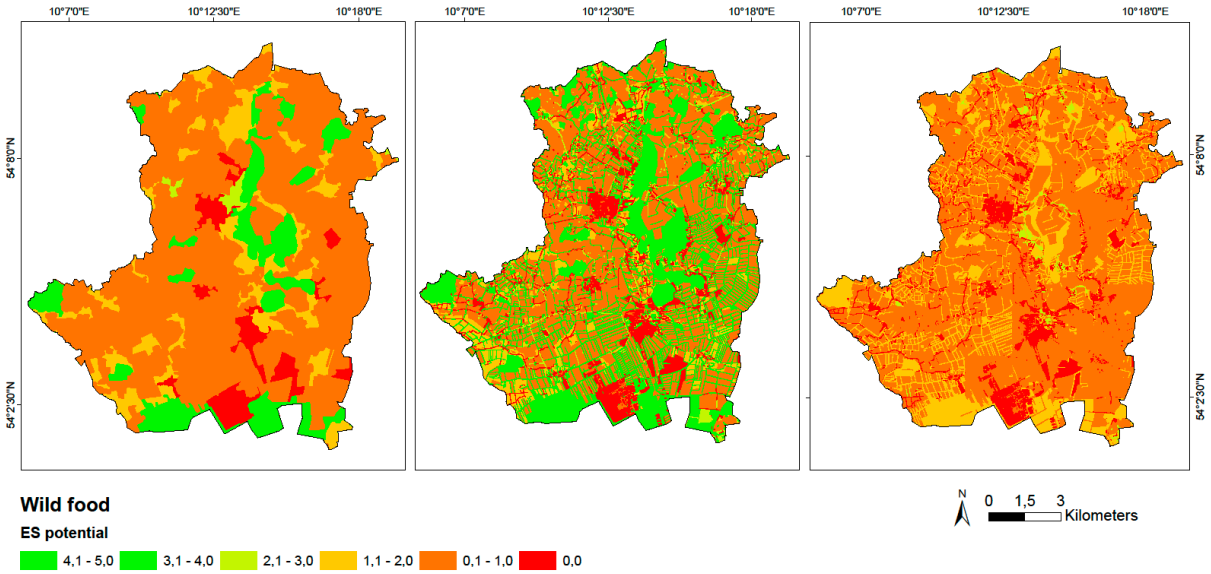

Figure S9: Wild food service potential maps using CLC land cover data and the ES potential matrix (left), ATKIS/InVeKoS land cover data and the ES potential matrix (middle), ATKIS/InVeKoS land cover data, the ES potential matrix and ecosystem condition indicators (right). 0: no potential, 1: very low potential, 2: low potential, 3: moderate potential, 4: high potential, 5: very high potential.

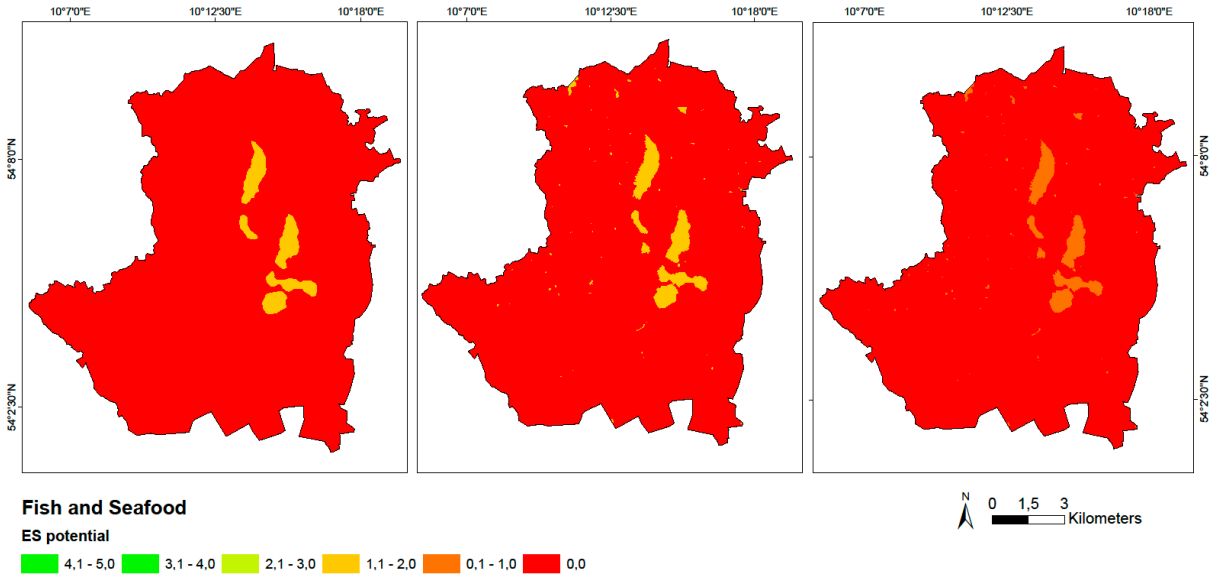

Figure S10: Fish and seafood service potential maps using CLC land cover data and the ES potential matrix (left), ATKIS/InVeKoS land cover data and the ES potential matrix (middle), ATKIS/InVeKoS land cover data, the ES potential matrix and ecosystem condition indicators (right). 0: no potential, 1: very low potential, 2: low potential, 3: moderate potential, 4: high potential, 5: very high potential.

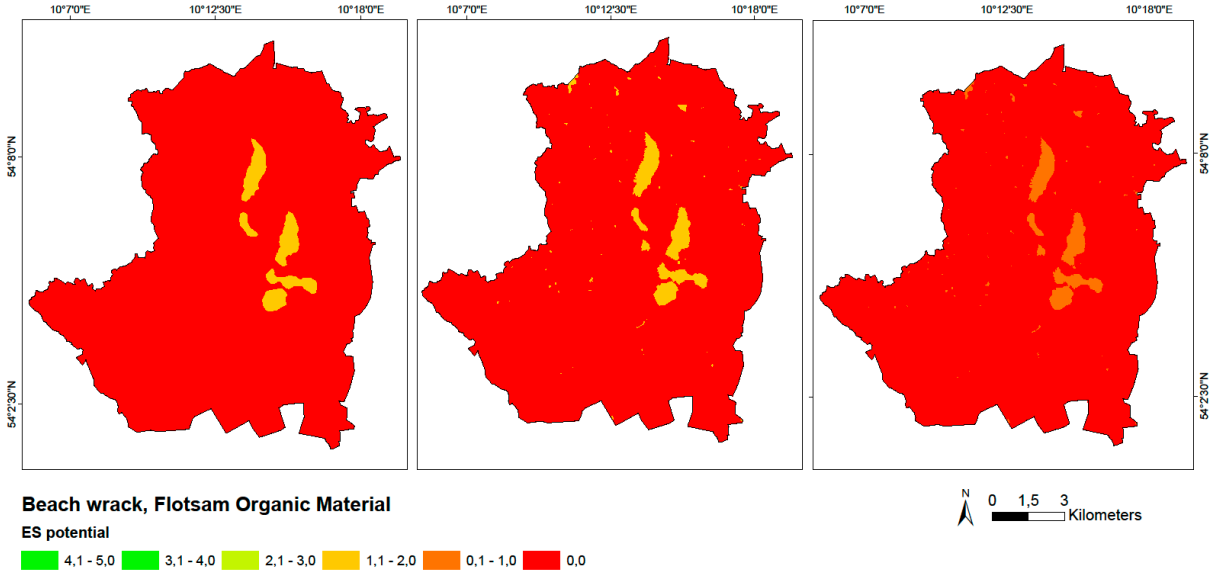

Figure S11: Beach wrack and flotsam organic material service potential maps using CLC land cover data and the ES potential matrix (left), ATKIS/InVeKoS land cover data and the ES potential matrix (middle), ATKIS/InVeKoS land cover data, the ES potential matrix and ecosystem condition indicators (right). 0: no potential, 1: very low potential, 2: low potential, 3: moderate potential, 4: high potential, 5: very high potential.

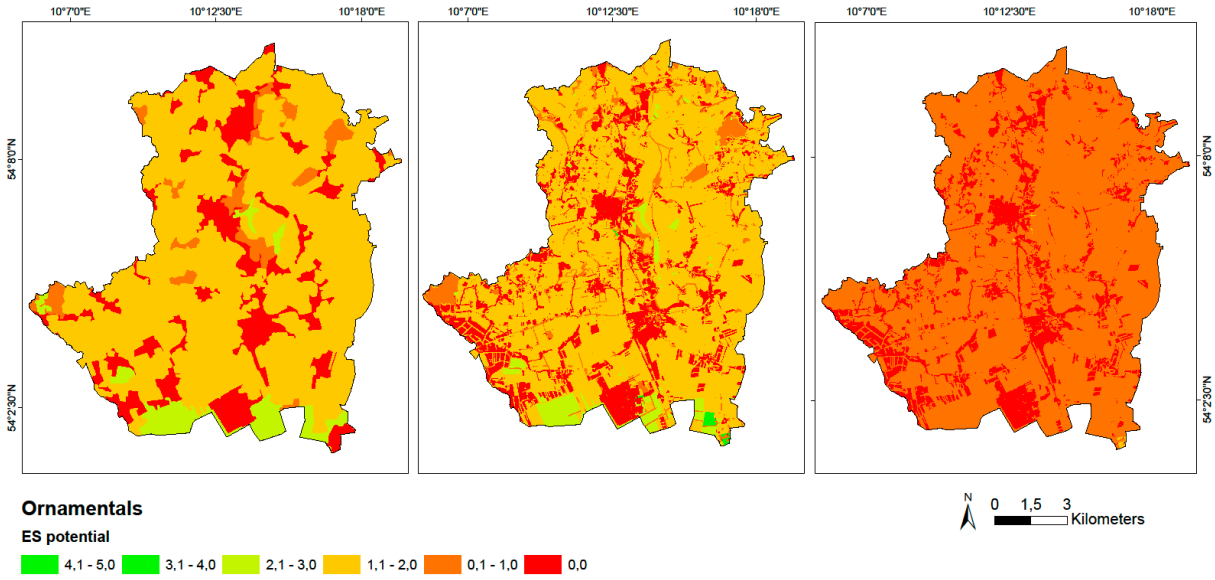

Figure S12: Ornamental service potential maps using CLC land cover data and the ES potential matrix (left), ATKIS/InVeKoS land cover data and the ES potential matrix (middle), ATKIS/InVeKoS land cover data, the ES potential matrix and ecosystem condition indicators (right). 0: no potential, 1: very low potential, 2: low potential, 3: moderate potential, 4: high potential, 5: very high potential.

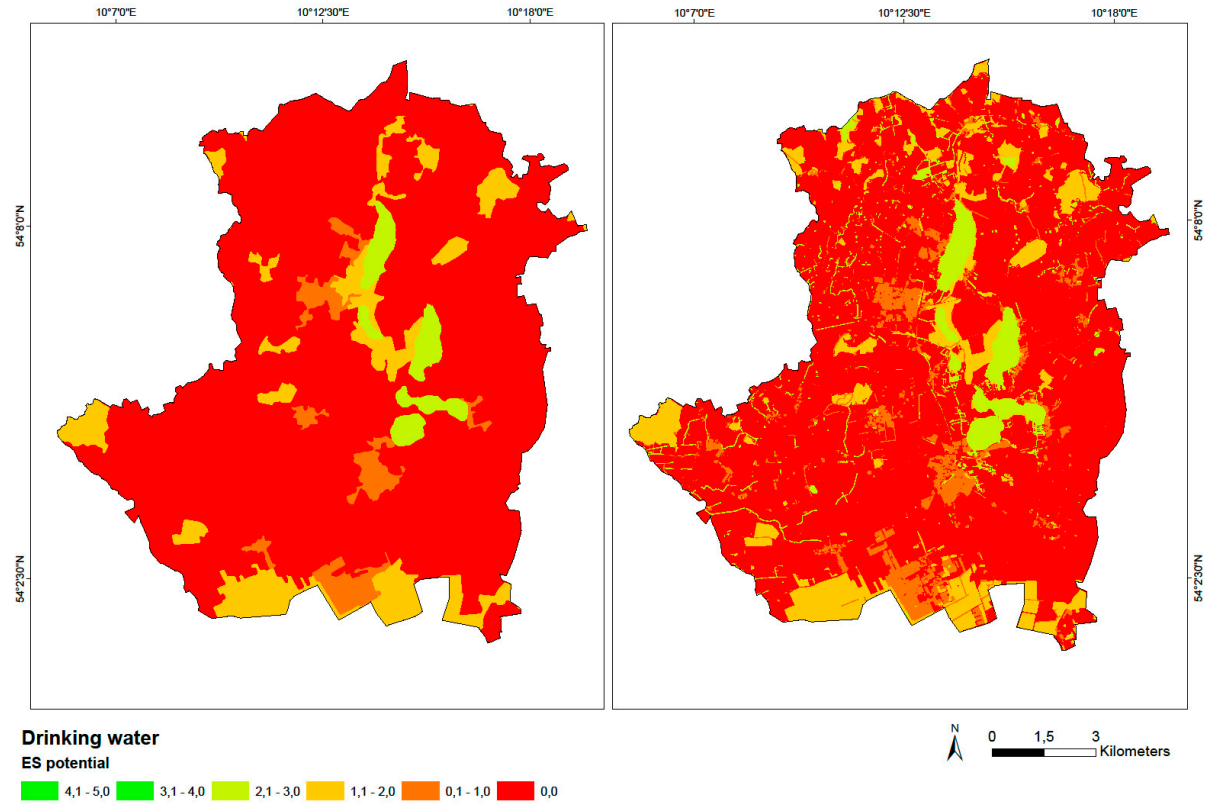

Figure S13: Drinking water service potential maps using CLC (left) and ATKIS/InVeKoS (right) land cover data and the ES potential matrix. 0: no potential, 1: very low potential, 2: low potential, 3: moderate potential, 4: high potential, 5: very high potential.

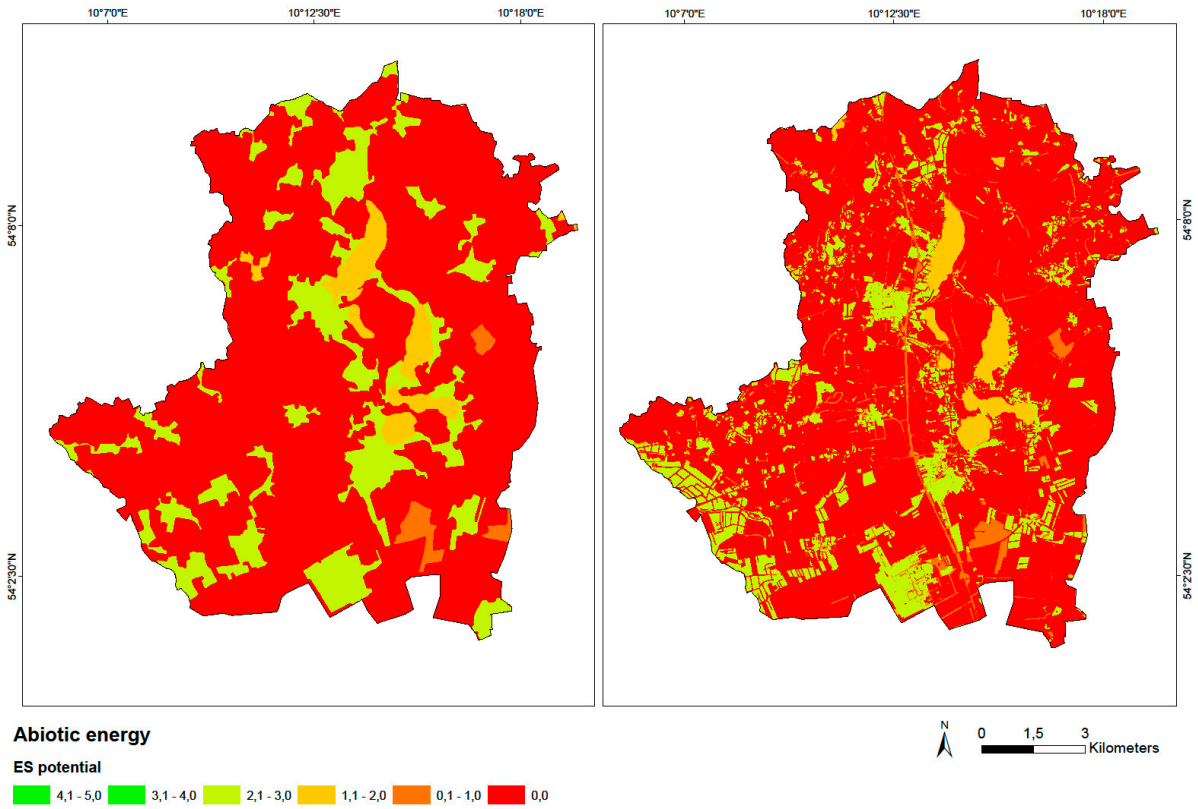

Figure S14: Abiotic energy service potential maps using CLC (left) and ATKIS/InVeKoS (right) land cover data and the ES potential matrix. 0: no potential, 1: very low potential, 2: low potential, 3: moderate potential, 4: high potential, 5: very high potential.

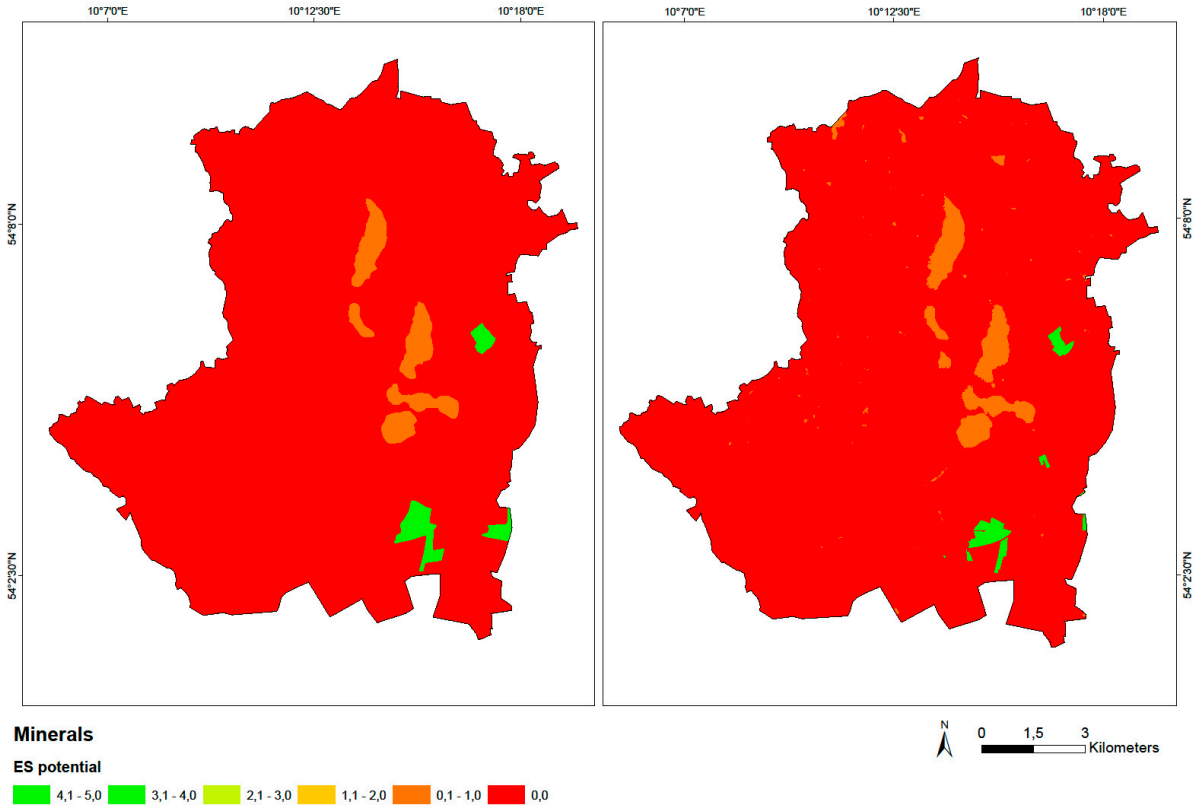

Figure S15: Mineral production service potential maps using CLC (left) and ATKIS/InVeKoS (right) land cover data and the ES potential matrix. 0: no potential, 1: very low potential, 2: low potential, 3: moderate potential, 4: high potential, 5: very high potential.

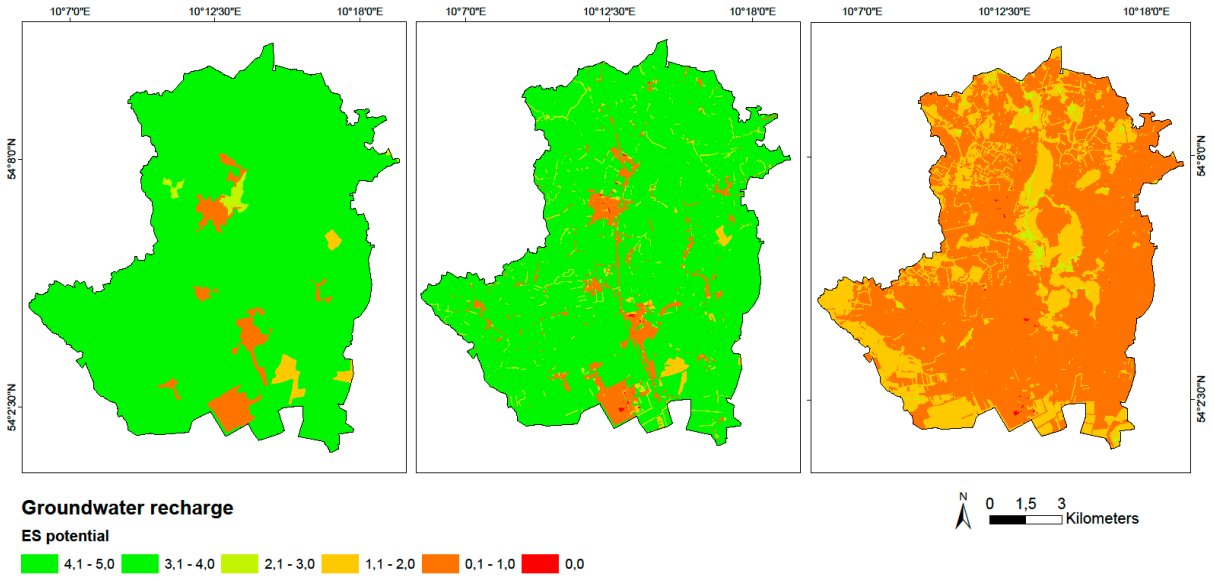

Figure S16: Groundwater recharge service potential maps using CLC land cover data and the ES potential matrix (left), ATKIS/InVeKoS land cover data and the ES potential matrix (middle), ATKIS/InVeKoS land cover data, the ES potential matrix and ecosystem condition indicators (right). 0: no potential, 1: very low potential, 2: low potential, 3: moderate potential, 4: high potential, 5: very high potential.

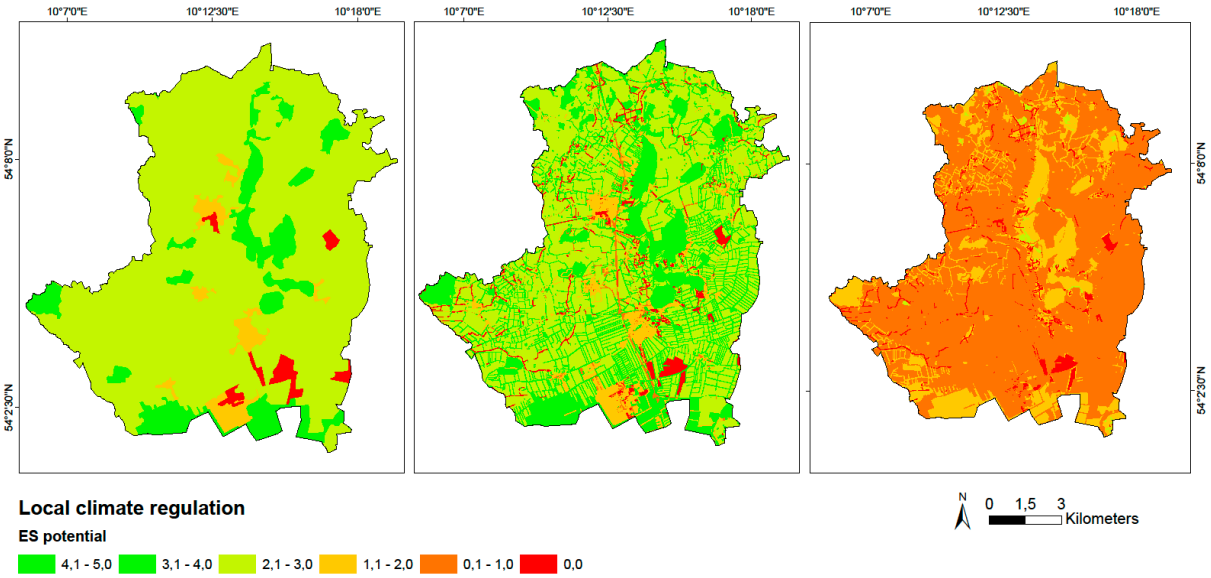

Figure S17: Local climate regulation service potential maps using CLC land cover data and the ES potential matrix (left), ATKIS/InVeKoS land cover data and the ES potential matrix (middle), ATKIS/InVeKoS land cover data, the ES potential matrix and ecosystem condition indicators (right). 0: no potential, 1: very low potential, 2: low potential, 3: moderate potential, 4: high potential, 5: very high potential.

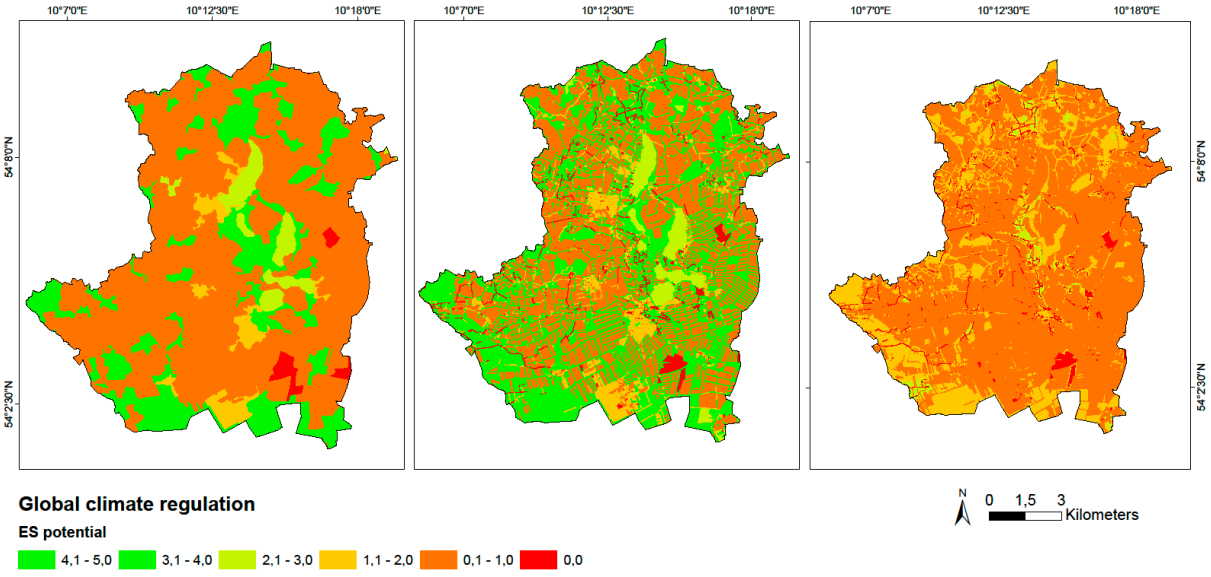

Figure S18: Global climate regulation service potential maps using CLC land cover data and the ES potential matrix (left), ATKIS/InVeKoS land cover data and the ES potential matrix (middle), ATKIS/InVeKoS land cover data, the ES potential matrix and ecosystem condition indicators (right). 0: no potential, 1: very low potential, 2: low potential, 3: moderate potential, 4: high potential, 5: very high potential.

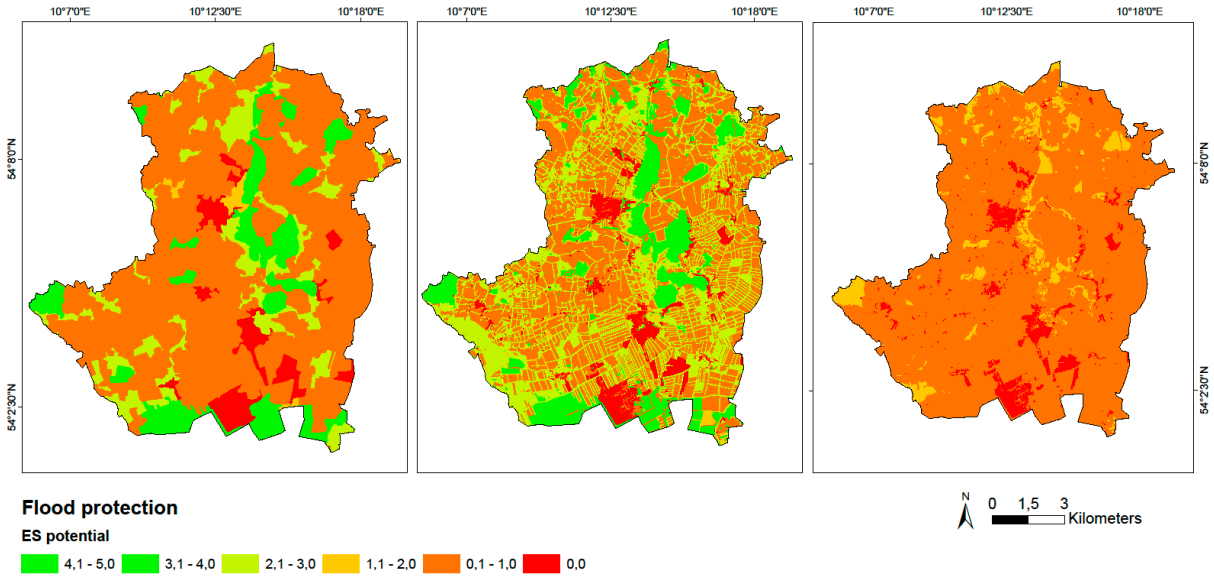

Figure S19: Flood protection service potential maps using CLC land cover data and the ES potential matrix (left), ATKIS/InVeKoS land cover data and the ES potential matrix (middle), ATKIS/InVeKoS land cover data, the ES potential matrix and ecosystem condition indicators (right). 0: no potential, 1: very low potential, 2: low potential, 3: moderate potential, 4: high potential, 5: very high potential.

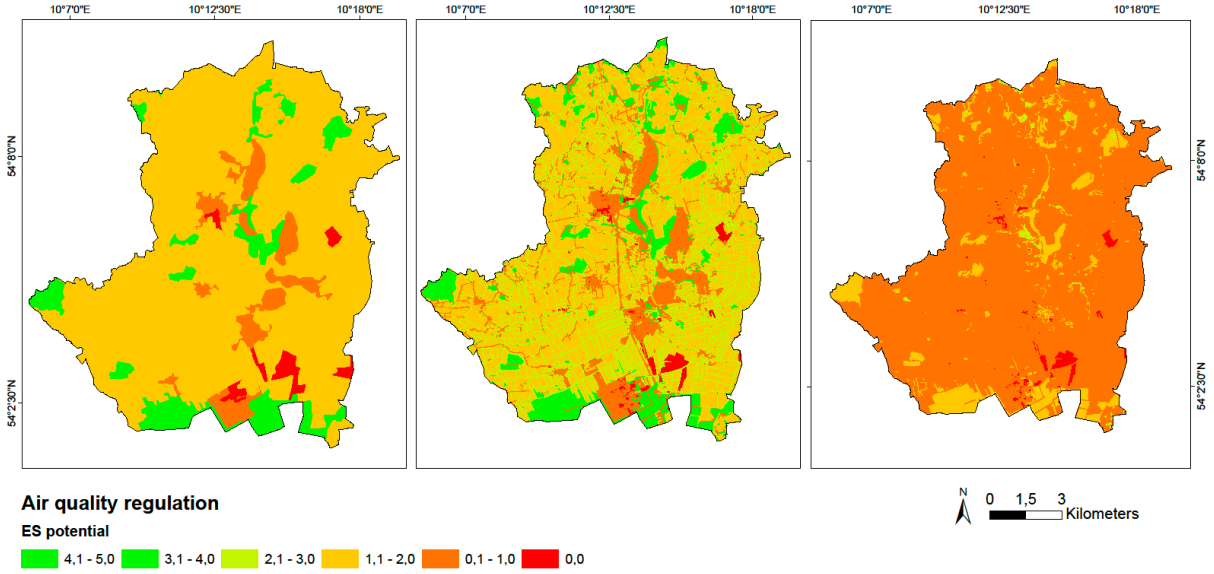

Figure S20: Air quality service potential maps using CLC land cover data and the ES potential matrix (left), ATKIS/InVeKoS land cover data and the ES potential matrix (middle), ATKIS/InVeKoS land cover data, the ES potential matrix and ecosystem condition indicators (right). 0: no potential, 1: very low potential, 2: low potential, 3: moderate potential, 4: high potential, 5: very high potential.

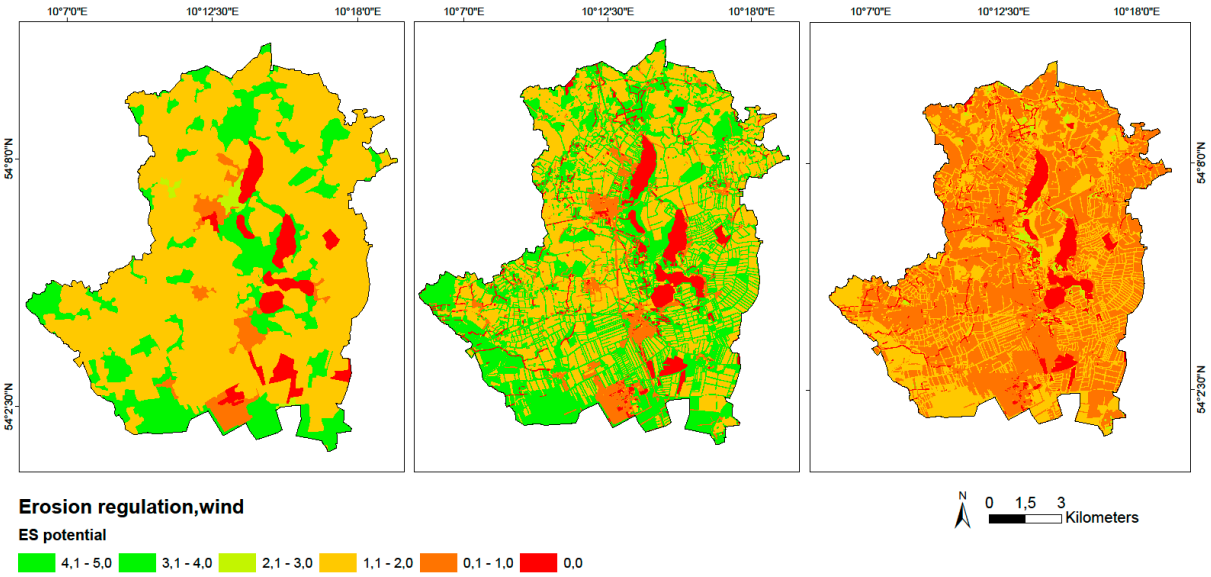

Figure S21: Erosion regulation (wind) service potential maps using CLC land cover data and the ES potential matrix (left), ATKIS/InVeKoS land cover data and the ES potential matrix (middle), ATKIS/InVeKoS land cover data, the ES potential matrix and ecosystem condition indicators (right). 0: no potential, 1: very low potential, 2: low potential, 3: moderate potential, 4: high potential, 5: very high potential.

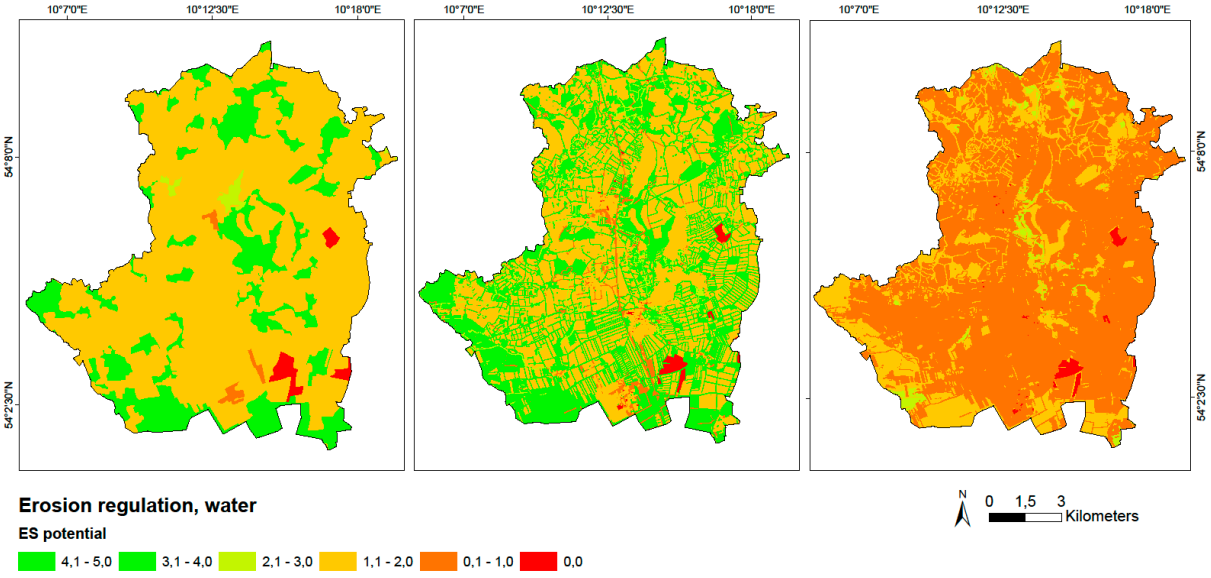

Figure S22: Erosion regelation (water) service potential maps using CLC land cover data and the ES potential matrix (left), ATKIS/InVeKoS land cover data and the ES potential matrix (middle), ATKIS/InVeKoS land cover data, the ES potential matrix and ecosystem condition indicators (right). 0: no potential, 1: very low potential, 2: low potential, 3: moderate potential, 4: high potential, 5: very high potential.

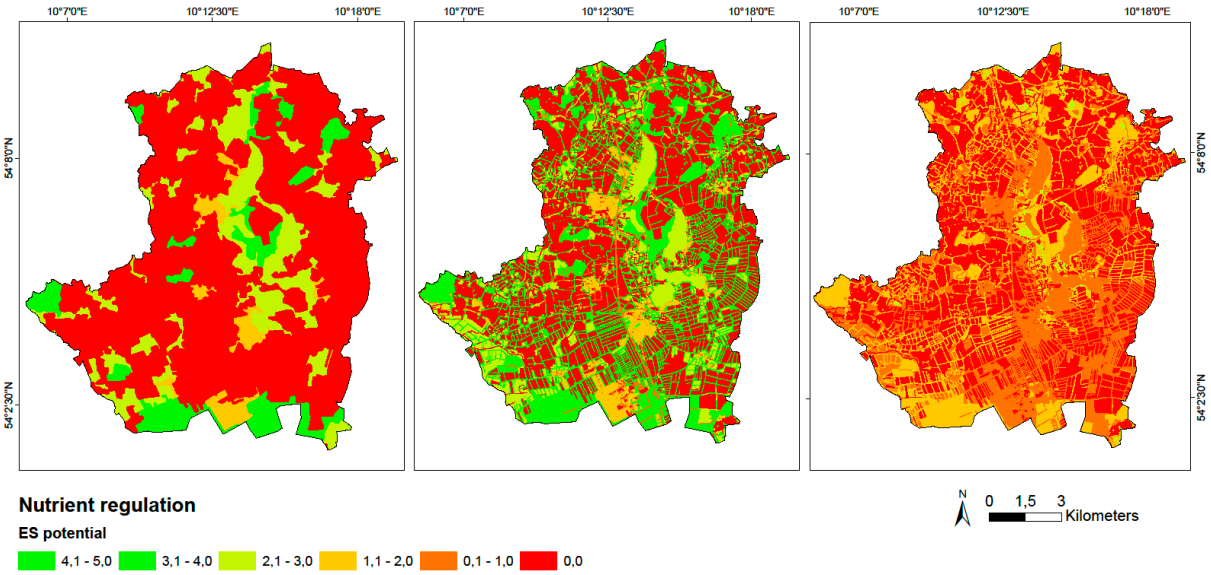

Figure S23:Nutrient regulation service potential maps using CLC land cover data and the ES potential matrix (left), ATKIS/InVeKoS land cover data and the ES potential matrix (middle), ATKIS/InVeKoS land cover data, the ES potential matrix and ecosystem condition indicators (right). 0: no potential, 1: very low potential, 2: low potential, 3: moderate potential, 4: high potential, 5: very high potential.

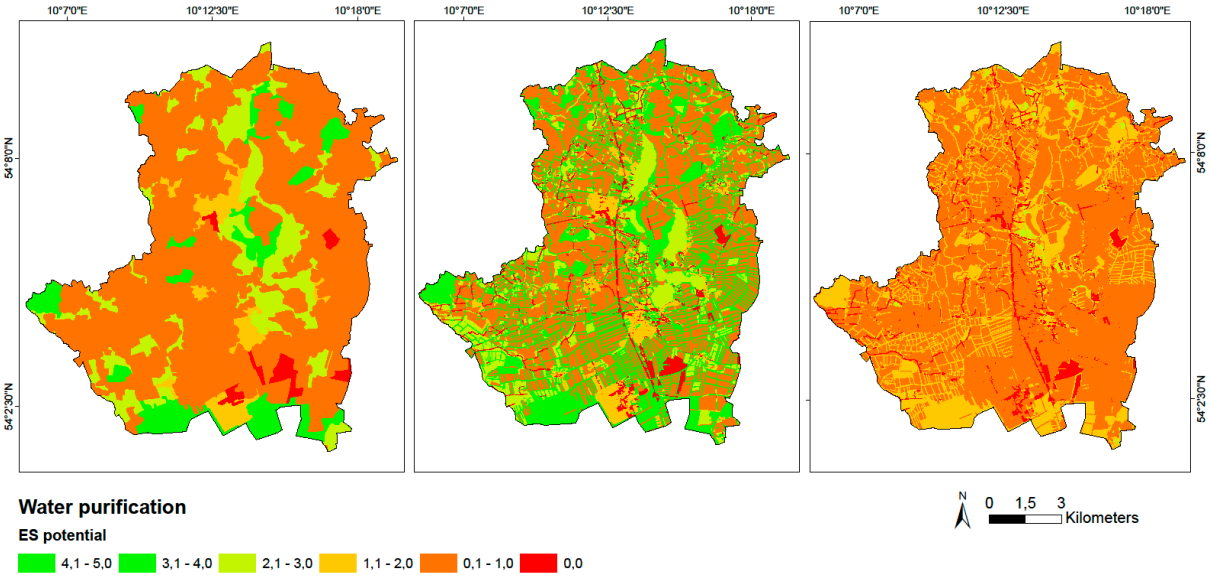

Figure S24: Water purification service potential maps using CLC land cover data and the ES potential matrix (left), ATKIS/InVeKoS land cover data and the ES potential matrix (middle), ATKIS/InVeKoS land cover data, the ES potential matrix and ecosystem condition indicators (right). 0: no potential, 1: very low potential, 2: low potential, 3: moderate potential, 4: high potential, 5: very high potential.

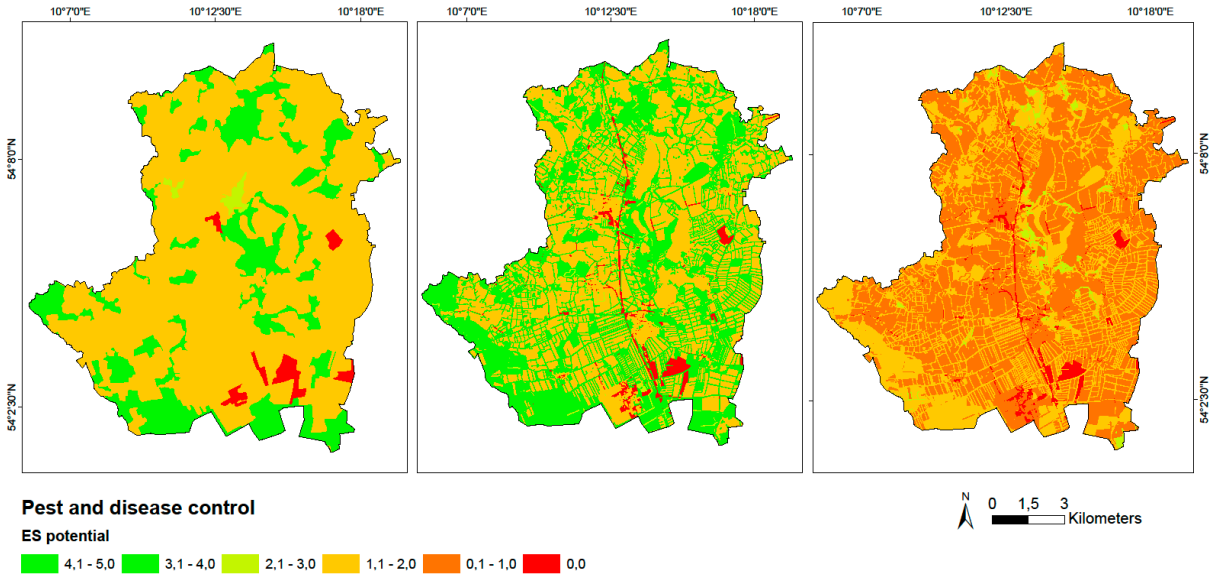

Figure S25: Pest and disease control service potential maps using CLC land cover data and the ES potential matrix (left), ATKIS/InVeKoS land cover data and the ES potential matrix (middle), ATKIS/InVeKoS land cover data, the ES potential matrix and ecosystem condition indicators (right). 0: no potential, 1: very low potential, 2: low potential, 3: moderate potential, 4: high potential, 5: very high potential.

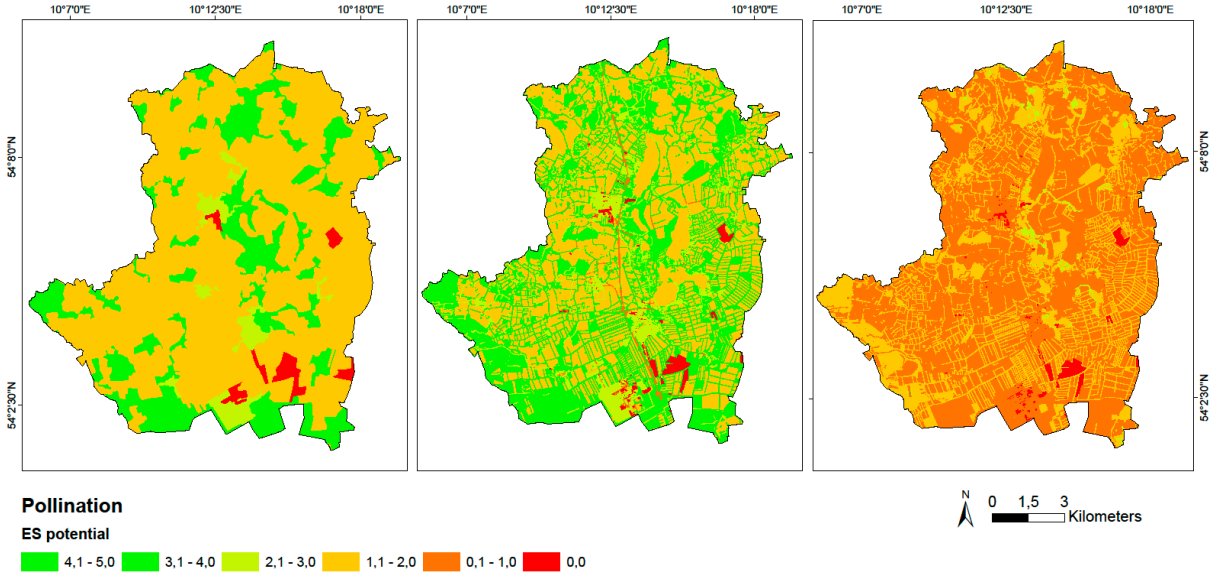

Figure S26: Pollination service potential maps using CLC land cover data and the ES potential matrix (left), ATKIS/InVeKoS land cover data and the ES potential matrix (middle), ATKIS/InVeKoS land cover data, the ES potential matrix and ecosystem condition indicators (right). 0: no potential, 1: very low potential, 2: low potential, 3: moderate potential, 4: high potential, 5: very high potential.

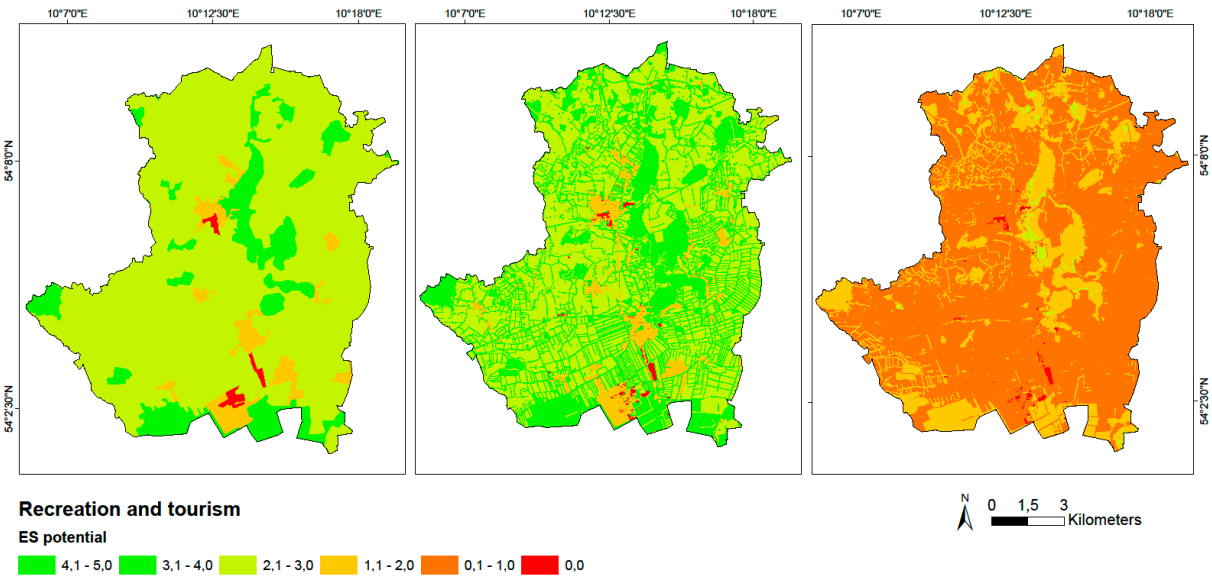

Figure S27: Recreation and tourism service potential maps using CLC land cover data and the ES potential matrix (left), ATKIS/InVeKoS land cover data and the ES potential matrix (middle), ATKIS/InVeKoS land cover data, the ES potential matrix and ecosystem condition indicators (right). 0: no potential, 1: very low potential, 2: low potential, 3: moderate potential, 4: high potential, 5: very high potential.

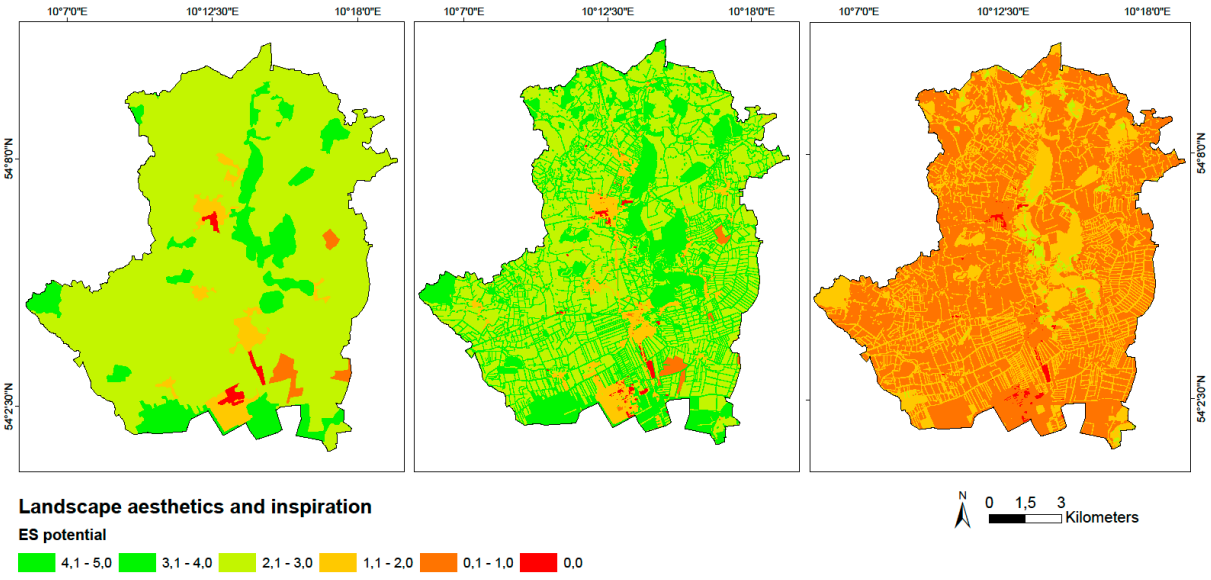

Figure S28: Landscape aesthetic and inspiration service potential maps using CLC land cover data and the ES potential matrix (left), ATKIS/InVeKoS land cover data and the ES potential matrix (middle), ATKIS/InVeKoS land cover data, the ES potential matrix and ecosystem condition indicators (right). 0: no potential, 1: very low potential, 2: low potential, 3: moderate potential, 4: high potential, 5: very high potential.

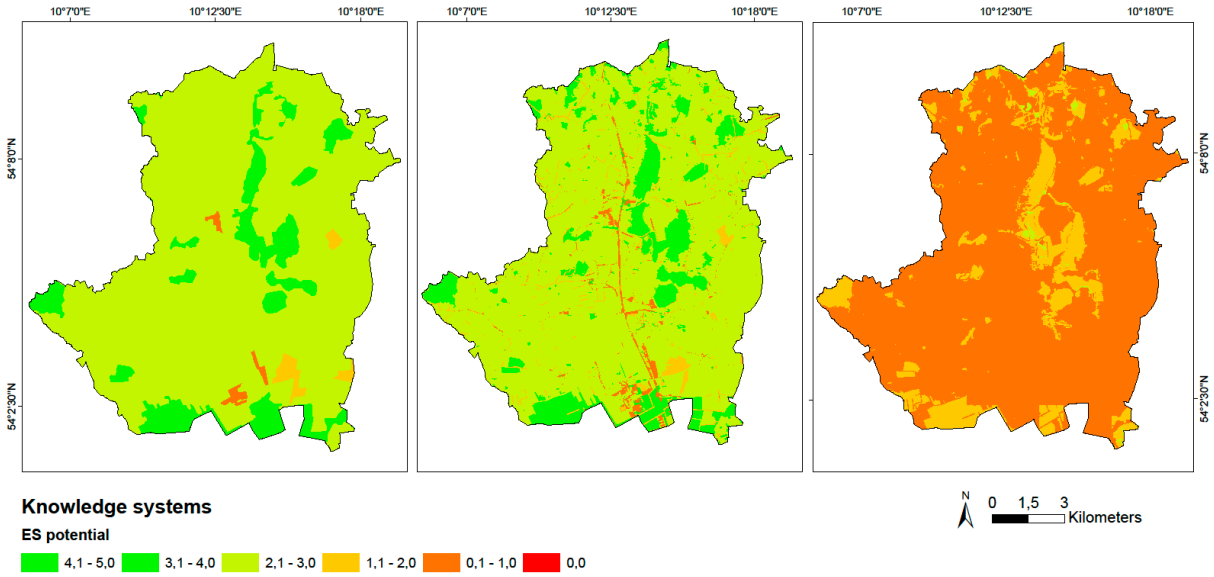

Figure S29: Knowledge systems service potential maps using CLC land cover data and the ES potential matrix (left), ATKIS/InVeKoS land cover data and the ES potential matrix (middle), ATKIS/InVeKoS land cover data, the ES potential matrix and ecosystem condition indicators (right). 0: no potential, 1: very low potential, 2: low potential, 3: moderate potential, 4: high potential, 5: very high potential.

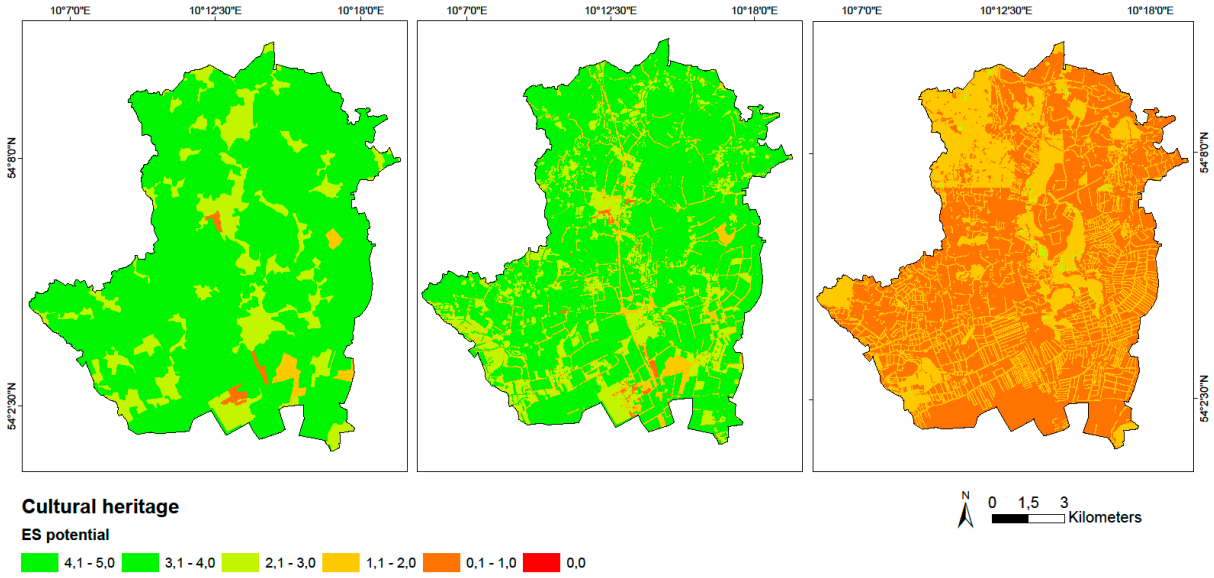

Figure S30: Cultural heritage service potential maps using CLC land cover data and the ES potential matrix (left), ATKIS/InVeKoS land cover data and the ES potential matrix (middle), ATKIS/InVeKoS land cover data, the ES potential matrix and ecosystem condition indicators (right). 0: no potential, 1: very low potential, 2: low potential, 3: moderate potential, 4: high potential, 5: very high potential.

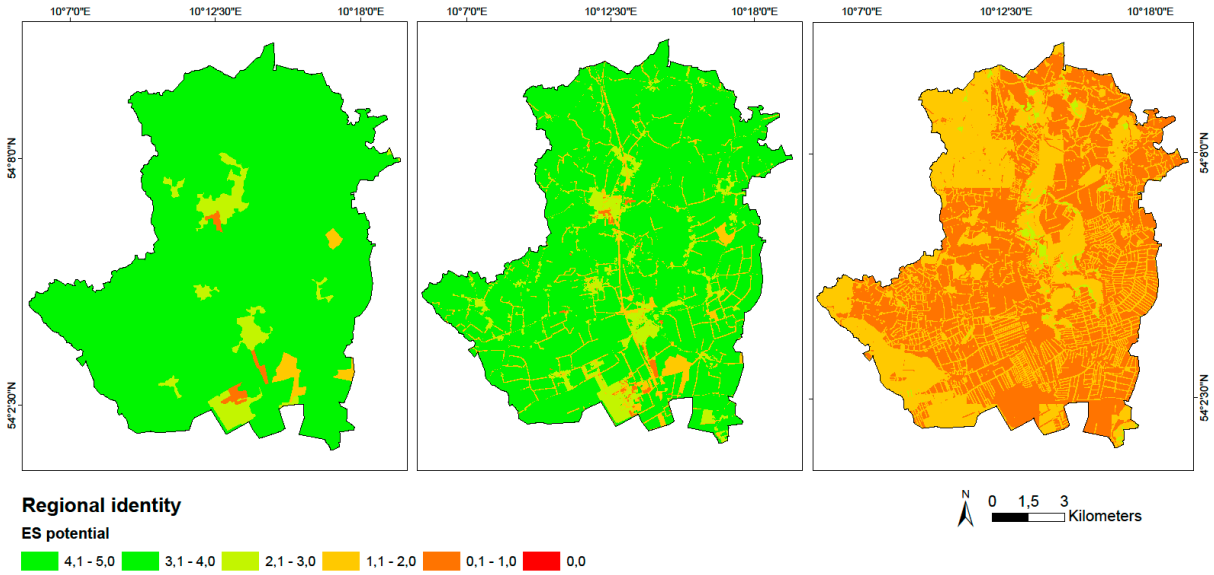

Figure S31: Regional identity service potential maps using CLC land cover data and the ES potential matrix (left), ATKIS/InVeKoS land cover data and the ES potential matrix (middle), ATKIS/InVeKoS land cover data, the ES potential matrix and ecosystem condition indicators (right). 0: no potential, 1: very low potential, 2: low potential, 3: moderate potential, 4: high potential, 5: very high potential.

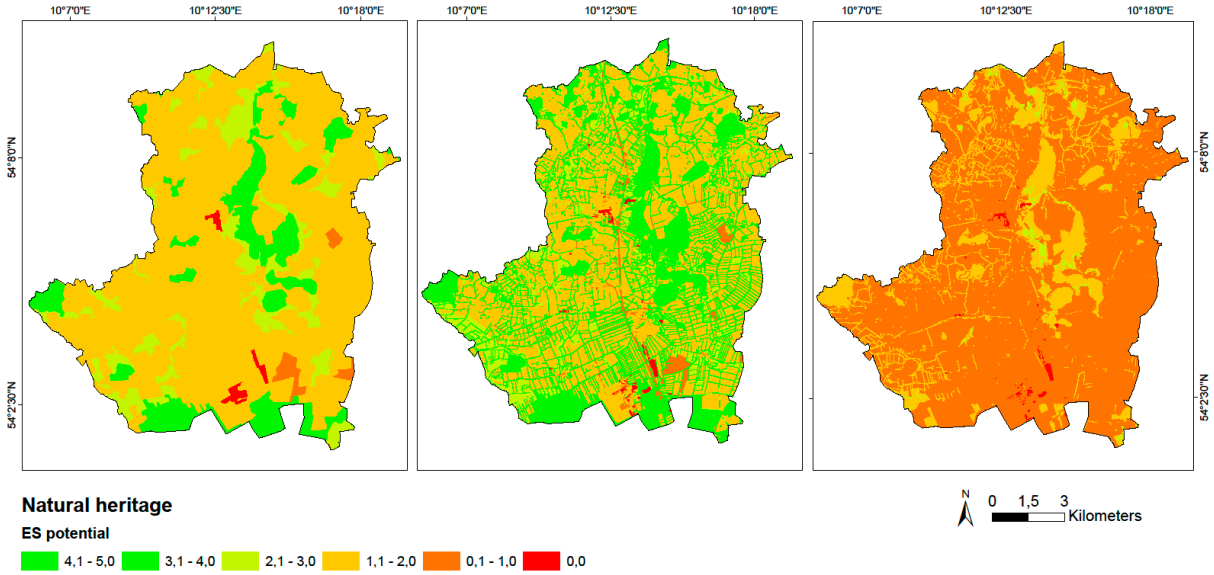

Figure S32: Natural heritage service potential maps using CLC land cover data and the ES potential matrix (left), ATKIS/InVeKoS land cover data and the ES potential matrix (middle), ATKIS/InVeKoS land cover data, the ES potential matrix and ecosystem condition indicators (right). 0: no potential, 1: very low potential, 2: low potential, 3: moderate potential, 4: high potential, 5: very high potential.

Table S2: Spatial agreement between ES potential maps based on CLC and ATKIS/InVeKoS datasets for three ES.

ES	Mean SSIM	% of the area where SIM > 0.5	% of the area where SIV > 0.5	% of the area where SIP > 0
Crops (human nutrition)	0,70	79,83%	84,73%	99,73%
Biomass for energy	0,77	88,81%	84,68%	99,69%
Crops (fodder)	0,76	86,87%	85,75%	99,91%
Livestock	0,74	76,17%	90,26%	99,82%
Timber	0,78	80,01%	85,65%	99,90%
Fibers	0,71	80,07%	84,79%	99,72%
Wood fuel	0,78	79,71%	85,58%	99,88%
Wild food	0,74	88,32%	83,74%	99,65%
Fish and Seafood	0,99	98,85%	99,19%	100,00%
Beach wrack	0,99	98,85%	99,19%	100,00%
Ornamentals	0,76	83,50%	89,43%	99,74%
Drinking water	0,85	86,34%	92,18%	99,93%
Abiotic energy	0,75	78,94%	88,80%	99,78%
Minerals	0,98	97,97%	99,04%	100,00%
Groundwater recharge	0,84	96,71%	85,23%	99,73%
Local climate regulation	0,82	98,11%	84,49%	99,84%
Global climate regulation	0,74	83,42%	83,65%	99,63%
Flood protection	0,74	82,00%	84,77%	99,70%
Air quality regulation	0,80	94,80%	84,75%	99,67%
Erosion regulation,wind	0,76	92,98%	84,41%	99,65%
Erosion regulation, water	0,77	86,06%	83,90%	99,71%
Nutrient regulation	0,69	73,85%	83,45%	99,65%
Water purification	0,74	83,46%	83,77%	99,63%
Pest and disease control	0,76	93,06%	83,98%	99,66%
Pollination	0,78	97,91%	83,24%	99,61%
Recreation and tourism	0,83	99,28%	84,63%	99,67%
Landscape aesthetics & inspiration	0,83	98,49%	83,88%	99,84%
Knowledge systems	0,84	99,69%	84,84%	99,89%
Cultural heritage	0,83	99,80%	83,90%	99,67%
Regional identity	0,85	99,41%	85,22%	99,84%
Natural heritage	0,81	98,78%	83,67%	99,68%

Table S3: Spatial agreement between ES potential maps based on ATKIS/InVeKoS dataset only and ATKIS/InVeKoS combined with ecosystem condition indicators for three ES.

ES	Mean SSIM	% of the area where SIM > 0.5	% of the area where SIV > 0.5	% of the area where SIP > 0
Wild food	0.46	26.79%	90.17%	99.99%
Fish and Seafood	0.98	99.11%	99.55%	100.00%
Beach wrack	0.98	99.11%	99.55%	100.00%
Ornamentals	0.53	33.20%	94.93%	100.00%
Groundwater recharge	0.44	21.84%	94.62%	99.98%
Local climate regulation	0.44	22.66%	90.76%	99.99%
Global climate regulation	0.44	22.95%	90.24%	99.99%
Flood protection	0.46	26.52%	90.44%	99.98%
Air quality regulation	0.45	23.39%	92.22%	99.99%
Erosion regulation,wind	0.46	23.91%	90.76%	99.97%
Erosion regulation, water	0.44	22.63%	90.82%	99.99%
Nutrient regulation	0.74	70.71%	89.10%	99.99%
Water purification	0.45	24.25%	89.09%	99.98%
Pest and disease control	0.45	24.12%	89.34%	99.97%
Pollination	0.44	23.27%	89.22%	99.97%
Recreation and tourism	0.44	22.48%	91.25%	99.98%
Landscape aesthetics & inspiration	0.44	22.42%	90.18%	99.98%
Knowledge systems	0.44	21.71%	94.63%	99.98%
Cultural heritage	0.43	21.72%	91.33%	99.96%
Regional identity	0.43	21.73%	92.56%	99.96%
Natural heritage	0.43	22.82%	89.80%	99.97%