

Appendix 1. List of ecosystem services used in the workshop.

We used a list of ES adapted from the Millennium Ecosystem Assessment and CICES typologies (MEA 2005, Haines-Young and Potschin 2013). During a workshop, participants were given 10 stickers each and asked to distribute them over the ES list to spot the ES they considered the most at stake (i.e. beneficial and threatened). Participants could give more than one sticker to any ES.

Table A1.1. List of ES used in the workshop and total number of stickers each ES received from participants. ES in bold correspond to selected ones.

ES description	Number of stickers
Provisioning services: Nutrition and health	
Cultivated crops (cereals, fruits, vegetables, etc.)	16
Reared animals and their outputs (meat, dairy products, eggs)	5
Other reared animals and their outputs (apiculture, aquaculture)	0
Food from wild animals (hunting or fishing)	0
Food from wild plants (aromatic plants, mushrooms, fruit, etc.)	4
Medicinal and genetic resources (leaves, barks, etc.)	0
Provisioning services: Materials	
Timber	2
Fibers (cotton, hemp, silk, wool, etc.)	0
Biochemical products, natural medicines, pharmaceutical products	0
Genetic material (for bioprospecting, industry, etc.)	9
Feed for animals (grass, fodder, etc.)	0
Provisioning services: Energy	
Firewood and charcoal	2
Animal outputs for energy (excrement, fats, oils)	0
Biofuels (cane for bioethanol, corn for biofuel, etc.)	0
Regulating services: Control of soil and water fluxes	
Control of soil sheet erosion rates (laminar erosion)	15
Control of rill and gully soil erosion rates (linear erosion)	0
Buffering and attenuation of mass movement (mass erosion)	8
Control of bank erosion	0
Regulation of surface water flows (river base flow, lake levels)	17
Regulation of groundwater flows (aquifer levels)	9
Flood control	0

Regulating services: Regulation of physical, chemical, biological conditions

Global climate regulation by reduction of greenhouse gas concentrations	0
Micro and regional climate regulation	11
Regulation of air quality	2
Pollination and seed dispersal	7
Pest and disease control	

Regulating services: Mediation of waste, toxics and other nuisances

Water purification	10
Decontamination of soils and sediments by micro-organisms, algae, plants, and animals	0
Sequestration of toxics by micro-organisms, algae, plants, animals or soils	0
Waste water treatment by soils or vegetation	0
Dilution of toxics by freshwater or the atmosphere	0

Cultural services: Physical and experiential interactions with natural environment

Ecotourism (watching plants and animals)	12
Recreation (hiking, mountaineering, leisure fishing and hunting)	5
Aesthetic values (scenic beauty)	0
Artistic inspiration	4
Education and training (studying nature)	7

Cultural services: Spiritual, symbolic and other interactions with natural environment

Cultural heritage or historical knowledge	2
Spiritual and religious values (sacred places, plants and animals)	5
Identity, sense of place	3
Existence, option or bequest value (important to others and future generations)	4

After participants distributed their stickers on the list, a general discussion took place to decide upon the final list of prioritized ES.

Participants suggested to merge “Cultivated crops” (16 stickers) with “Reared animals and their outputs” (5 stickers) into a category named “Agricultural production”. They also merged “Regulation of surface water” (17 stickers) with “Regulation of groundwater flow” (9 stickers) into a category named “Regulation of water quantity”.

They also decided that the “Ecotourism” ES should not be limited to animal and plant watching, but also include recreation activities, because tourists practice such activities simultaneously with wildlife and landscape observation.

The “Genetic material” ES was reformulated as “Medicinal plants” after some participants underlined that there were no industrial or pharmaceutical uses in the region. All participants agreed that current uses corresponded more to the “Medicinal and genetic resources” category from the “Provisioning services: Nutrition and health” section.

And finally, the absence of knowledge on local climate regulation by ecosystems (including in the urban area) led participants to include “Global climate regulation by reduction of greenhouse gas concentrations” instead of “Micro and regional climate regulation”.

As a result, the final list included the following ES:

- Agricultural production
- Medicinal plants
- Water purification (labeled “Water quality”)
- Regulation of water quantity (labeled “Water quantity”)
- Buffering and attenuation of mass movement (labeled “Mass erosion”)
- Control of soil sheet erosion rates (labeled “Sheet erosion”)
- Global climate regulation by reduction of greenhouse gas concentrations (labeled “Global climate”)
- Ecotourism

References

- Haines-Young, R., and M. Potschin. 2013. Common International Classification of Ecosystem Services (CICES) : Consultation on Version 4.
- MEA. 2005. *Ecosystems and human well-being: current state and trends: findings of the Condition and Trends Working Group of the Millennium Ecosystem Assessment*. Page (R. M. Hassan, R. J. Scholes, and N. Ash, editors). Island Press, Washington, DC.