

Impact Area & Indicator Factsheet: Ecosystem Services

Short name	Spiritual meaning of nature
CICES class name	Spiritual meaning of nature
CICES Section	Cultural (biotic)
CICES Class code	3.2.1.2

Brief Description

- The things in nature that have spiritual importance for people
- The biophysical characteristics or qualities of species or ecosystems (settings/landscapes/cultural spaces) that are deemed to have sacred or religious significance for people

Sample Indicators

Indicator values from				
Experiment or direct measurement	B	Survey		
Expert assessment		Statistical- or census data		
Model or GIS	Ţ	Literature values	Ш	
Stakeholder participation		Not provided	\otimes	

Table 3: Regional Scale

Indicator	Unit	Indicator values from
^[1] Participatory mapping of inspiration, spiritual and religious values: Respondents in an online survey mark on a map areas in their region where different cultural ES are provided. Then, the proportion of markings in each of the investigated land cover classes is calculated and multiplied with the area extent of the respective land cover classes in the sub region. Finally, the result for all land cover classes are summed up.	[ha]	
^[2] For services that can be monetized: value of cultural services	[\$ * km- ² * yr ⁻¹]	\otimes
^[2] For services that can not be monetized: qualitative value assessment using Likert-scales	[-]	\otimes



Table 4: National Scale

Indicator	Unit	Indicator values from
^[3] Religious monuments	[not specified]	\otimes
^[3] Pilgrim paths in agro-ecosystems	[not specified]	\otimes

References

No.	Citation
1	Jaligot R, Chenal J, Bosch M, Hasler S (2019) Historical dynamics of ecosystem services and land management policies in Switzerland. Ecological Indicators 101: 81-90. DOI:
	10.1016/j.ecolind.2019.01.007
2	Gasparatos A, Romeu-Dalmau C, von Maltitz GP, Johnson FX, Shackleton C, Jarzebski MP, Jumbe C, Ochieng C, Mudombi S, Nyambane A, Willis KJ (2018) Mechanisms and indicators for assessing the impact of biofuel feedstock production on ecosystem services. Biomass & Bioenergy 114: 157-173. DOI: 10.1016/j.biombioe.2018.01.024.
3	Maes J, Liquete C, Teller A, Erhard M, Paracchini ML, Barredo JI, Grizzetti B, Cardoso A, Somma F, Petersen JE, Meiner A, Gelabert ER, Zal N, Kristensen P, Bastrup-Birk A, Biala K, Piroddi C, Egoh B, Degeorges P, Fiorina C, Santos-Martín F, Naruševičius V, Verboven J, Pereira HM, Bengtsson J, Gocheva K, Marta-Pedroso C, Snäll T, Estreguil C, San-Miguel-Ayanz J, Pérez-Soba M, Grêt-Regamey A, Lillebø AI, Malak DA, Condé S, Moen J, Czúcz B, Drakou EG, Zulian G, Lavalle C (2016) An indicator framework for assessing ecosystem services in support of the EU Biodiversity Strategy to 2020. Ecosystem Services 17: 14-23. DOI: 10.1016/j.ecoser.2015.10.023