13.5 Recreational value of public green space

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Recreational value of blue-green spaces (Applied and EO/RS combined)	Place Regeneration
Description and justification	The most basic measure for this indicator is increase/decrease in the number of visitors to a blue-green space before and after a change in how it is designed or managed. This data can be captured through a variety of methods including interviewing locals on likelihood of visiting the space (Coldwell and Evans 2018) and monitoring visitor numbers through physical counts or visitor profiling in relation to specific pursuits (Cope et al. 2000; Cessford and Muhar 2003). The most typical practice for assessing the causal link for recreational value of blue-green spaces is through generating direct feedback from users and/or local communities in the form of questionnaires. A combination of the number of visitor metrics and attractiveness of 'offer' metrics (functional, physical characteristics considered to be associated with the attractiveness of a space) can generate the most useful data in relation to value of NBS interventions and promotion of learning for NBS delivery in other blue-green spaces. The contribution of earth observation/remote sensing tools for the assessment of the cultural value of blue and green spaces are restricted to supporting measures mapping Land Use/Land Cover (LULC), for instance a basic modelling approach currently emerging uses aerial photography to quantify NBS quality. Evaluation of recreational value of blue-green space can be used to: • Ensure that changes related to NBS implementation has a positive impact on visitors; • Ensure that green-blue spaces are providing a broad offer in terms of attractiveness for communities; • Support the design of green-blue spaces to ensure they are providing a NBS offer in terms of social, economic and environmental benefits.
Definition	This indicator represents a quantification of the number of visitors/recreational activities within a greenspace or blue-green space in order to evaluate, or measure an increase in, recreational benefits as a result of NBS. Examples of

	features and activities that can attract visitors to NBS include features such as large trees, benches, education days, and communication zones for picnicking.
Strengths and weaknesses	**Applied methods:** Robustness of evidence is very much based on the design of the questionnaire and the sample size of respondents. Visitor number count robustness can be a challenge due to the difficulty in capturing visitor numbers at some sites. **EO/RS methods:** The finescale resolution of some greenspace features of cultural value makes identification from anything less than high resolution images unreliable. Combining participatory assessment of cultural value and mapping of greenspace features can increase the reliability of evidence generated.
Measurement procedure and tool	A variety of methods exist from applied/public participation techniques through to earth observation/remote sensing approaches. For further details on measurement tools and metrics, including those adopted by past and current EU research and innovation projects, refer to Connecting Nature Indicator Metrics Reviews Env24_Applied and Env24_RS.
Scale of measurement	**Applied methods:** Analysis is performed on a single site scale and can comprise sites ranging from very large parks and open spaces to micro-scale pocket parks. Typically, replication across sites is used for comparative purposes as city-wide assessment is possible, although generally spatial modelling methods would be applied for this to minimise effort required. **EO/RS methods:** Remotely sensed land use/land cover data is available for use at various geographical scales
Data source	
Required data	Required data will depend on selected methods, for further details on applied and earth observation/remote sensing metrics refer to Connecting Nature Indicator Metrics Reviews Env24_Applied and Env24_RS.
Data input type	Data input types will be depend on selected methods, for further details on applied or earth observation/remote sensing metrics refer to Connecting Nature Indicator Metrics Reviews Env24_Applied and Env24_RS.
Data collection frequency	Data collection frequency will be depend on selected methods, for further details on applied or earth observation/remote sensing metrics refer to Connecting Nature Indicator Metrics Reviews Env24_Applied and Env24_RS.

Level of expertise required	**Applied methods:** Some expertise is needed for the design of the evaluation (e.g., survey method, question selection). Once decided though, a low level of expertise is required for carrying out the survey or carrying out counts. Similarly, data analysis can require low expertise if basic inventories or correlations are required.
	EO/RS methods: The Sentinel Application Platform for Earth Observation processing and analysis requires advanced expert sensing data, including derived knowledge.
Synergies with other indicators	**Applied methods:** Strong synergies with health and wellbeing indicators and social cohesion indicators in relation to public use of the sites for physical activity and social events. Also, synergies with environmental indicators (e.g., biodiversity measures, water regulation and air temperature) in relation to synergies and trade-offs in benefits driven by changes in use of blue-green spaces.
	EO/RS methods: Demographic, structural and remotely-sensed data can be combined to develop a set of indicators to assess green space, with consideration to three main dimensions: quantity (indicators include green space per inhabitant, green space per bare soils), quality (e.g., mean size of green space, shape index of green space) and spatial distribution (e.g., share of population served by green space, aggregation index of green space).
Connection with SDGs	SDG3, SDG4, SDG5, SDG9, SDG10, SDG11, SDG13-SDG17: Links to quality of greenspace; Links to environmental education; Gender neutral recreation activities; Improved green infrastructure; Social equality in relation to recreation opportunities; Sustainable urban development; Thermal comfort zones for recreation; Potential for the creation of more water bodies; Potential habitat creation; Environmental Justice in relation to greenspace recreation; Opportunities for collaborative working.
Opportunities for participatory data collection	Good opportunities for participation through which communication of the benefits of an NbS approach can be delivered. This can be achieved both through the questionnaire process and involving citizen science in data collection. Methods of amenity characterisation can also encourage stakeholders to consider what they would like in their local blue-green space and give a broader view of what is possible. Combining participatory assessment of cultural value and mapping of greenspace features can increase the reliability of evidence generated.
Additional information	
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