

## 14.19 Cultural value of blue-green spaces

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Cultural value of blue-green spaces (Applied & EO/RS combined)	Place Regeneration
<b>Description and justification</b>	<p>The most basic measure for this indicator is counting an increase/decrease in the number of events promoting cultural benefits held in a blue-green space. This can be carried out before and after a change in how the blue-green space is designed or managed to assess the net benefit of a new NBS initiative. Cultural benefits are some of the non-material benefits of ecosystems, including providing opportunities for recreation, physical activity, socializing, and restoring capacities (Chen et al. 2019).</p> <p>In addition to the basic information on number of events, additional detail can be captured in relation to how well attended events were. This can be captured by counting the numbers of attendees through ticket sales, ticket collection on the day of the event, sign-in processes or monitoring visitor numbers through physical counts or visitor profiling in relation to specific pursuits (Cope et al. 2000; Cessford and Muhar 2003).</p> <p>There is no real direct contribution of earth observation/remote sensing tools for the assessment of the cultural value of blue and green spaces of NBS in cities. However, these tools could be used in an indirect way for mapping Land Use/Land Cover (LULC) as a background layer for mapping and presenting indicator results.</p> <p>Evaluation of cultural value of blue-green space can be used to:</p> <ul style="list-style-type: none"><li>• Monitor the value of cultural events in relation to visitor numbers;</li><li>• Assess that changes related to NbS implementation have a positive impact on visitors in relation to attending cultural events;</li><li>• Ensure that changes related to NbS implementation promote socio-environmental justice.</li></ul>

<b>Definition</b>	A measure of the number of cultural events/number of people involved to evaluate the cultural benefits of blue-green spaces using applied methods.
<b>Strengths and weaknesses</b>	<p><b>Applied methods:</b> Robustness of evidence is very much based on the design of the questionnaire and the sample size of respondents. Event counts are straightforward and robust, but without the additional data on attendees and demographics, the value of the data is limited. Visitor number counts and demographic data robustness can be a challenge due to the difficulty in capturing representative visitor numbers at some sites.</p> <p><b>Earth observation/Remote sensing methods:</b> See Applied above.</p>
<b>Measurement procedure and tool</b>	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 can be found in: Connecting Nature Indicator Metrics Reviews Env29_Applied and Env29_RS
<b>Scale of measurement</b>	<p><b>Applied methods:</b> 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. City-wide replication would involve substantial effort as remote sensing data is not an option for quantifying attendees or events.</p> <p><b>Earth observation/Remote sensing methods:</b> Mapping could be carried out on a city or city district scale.</p>
<b>Data source</b>	
<b>Required data</b>	Required data will depend on selected methods, for further details see applied and earth observation/remote sensing metrics reviews in: Connecting Nature Indicator Metrics Reviews Env25_Applied and Env25_RS
<b>Data input type</b>	Data input types will depend on selected methods, for further details see applied or earth observation/remote sensing metrics reviews in: Connecting Nature Indicator Metrics Reviews Env25_Applied and Env25_RS
<b>Data collection frequency</b>	Data collection frequency will depend on selected methods, for further details see applied or earth observation/remote sensing metrics reviews in: Connecting Nature Indicator Metrics Reviews Env25_Applied and Env25_RS

<p><b>Level of expertise required</b></p>	<p><b>Applied methods:</b> 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.</p> <p><b>Earth observation/Remote sensing methods:</b> See Applied above.</p>
<p><b>Synergies with other indicators</b></p>	<p>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.</p>
<p><b>Connection with SDGs</b></p>	<p>All SDGs except 6 &amp; 7: Potential for job creation, neighbourhood revitalisation; Links to historic food production; Links to social cohesion and recreation; Links to heritage education; Opportunities for gender fair cultural association; Income generation associated with heritage; Infrastructure renovation; Social equality in relation to cultural/heritage opportunities; Sustainable urban development; Links to responsible production and consumption if linked to historic sustainable practices; Climate change adaptation; Potential co-benefits related to more sustainable water management; Possibility for a return to more sustainable management; Environmental Justice in relation to greenspace heritage; Opportunities for collaborative working.</p>
<p><b>Opportunities for participatory data collection</b></p>	<p><b>Applied methods:</b> 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. Capturing data on types of cultural events and demographics of attendees can also encourage community members to input information to blue-greenspace managers about the type of events that would be most attractive.</p> <p><b>Earth observation/Remote sensing methods:</b> See Applied above.</p>
<p><b>Additional information</b></p>	
<p><b>References</b></p>	<p><b>Applied methods:</b></p> <p>Akpinar, A (2016) How is quality of urban green spaces associated with physical activity and health? Urban Forestry &amp; Urban Greening 16, 76-83.</p>

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