

## 8.10 Diversity of green space

**Project Name:** Nature4Cities (Grant Agreement no. 730468)

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Shannon Diversity Index of Habitats		Biodiversity Green Space Management
<b>Description and justification</b>	This indicator is defined as the simple ratio of the natural areas (An) per the total area (Ac). The objective is to determine if the NBS solution increases or maintains the proportion of areas supporting biodiversity in the city or neighbourhood.	
<b>Definition</b>	Indicates the proportion of bare turf and sparse vegetation, grassland and herbs, shrubs, trees and of built environment to the total area.	
<b>Strengths and weaknesses</b>	+ standardizable, which makes the comparison with other cities easier	
<b>Measurement procedure and tool</b>	<ul style="list-style-type: none"> <li>- spreadsheet methods</li> <li>- or GIS-based models (spatial resolution of 1 meter)</li> <li>- calculation method:</li> </ul> $D = - \sum_{i=1}^5 (p_i \log_2 p_i)$ <p>Where pi corresponds to the proportion of each of the five kind of habitat</p>	
<b>Scale of measurement</b>	Object and neighbourhood scale	
<b>Data source</b>		
<b>Required data</b>	- Proportion of each class of habitat	
<b>Data input type</b>	quantitative	
<b>Data collection frequency</b>	Before and after the NBS implementation	
<b>Level of expertise required</b>	It is relatively easy to calculate, but field data is required.	
<b>Synergies with other indicators</b>	Shannon Index and Biotope Area Factor are also based on landcover data and assess the vegetation coverage and their quantities comparing to the total surveyed area.	
<b>Connection with SDGs</b>	SDG 13 Climate action, SDG 15 Life on land	
<b>Opportunities for participatory data collection</b>	-	

## Additional information

### References

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- Nature4Cities, D2.1 - System of integrated multi-scale and multi-thematic performance indicators for the assessment of urban challenges and NBS.  
<https://www.nature4cities.eu/post/nature4cities-defined-performance-indicators-to-assess-urban-challenges-and-nature-based-solutions>.
- Nature4Cities, D2.2 - Expert-modelling toolbox
- Nature4Cities, D2.3 – NBS database completed with urban performance data  
<https://www.nature4cities.eu/post/applicability-urban-challenges-and-indicators-real-case-studies>
- Nature4Cities, D2.4 - Development of a simplified urban performance assessment (SUA) tool

## 8.11 Stages of forest stand development -Number of class diameter

**Project Name:** PHUSICOS – According to Nature (Grant Agreement no. 776681)

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Number of Class Diameter	Green Space Management
<b>Description and justification</b>	Indicators of Stages of Forest Stand Development sub-criterion will assess the forest stand stages development.
<b>Definition</b>	A classification of trees based on diameter outside bark, measured at breast height 4.5 feet (DBH) (1.37 m) above the ground or at root collar (DRC). Diameter classes are