

## 8.14 Tree biomass stock change

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Tree Biomass Stock Change	Green Space Management
<b>Description and justification</b>	Indicators of Aboveground C Cycle sub-criterion will assess the forest carbon storage and sequestration.
<b>Definition</b>	Several studies analysed carbon stocks in forest ecosystems using forest inventory data (Cannell et al., 1992; Kauppi et al., 1992), using data directly from national inventories (e.g., Baritz & Strich, 2000), or from data reported to the FAO, which are originally based on national inventories. At regional and larger scales, changes in carbon stocks are commonly assessed by comparing the stocks from several inventories over time (Wutzler et al., 2011).
<b>Strengths and weaknesses</b>	
<b>Measurement procedure and tool</b>	Survey/GIS
<b>Scale of measurement</b>	ton/ha/year
<b>Data source</b>	
<b>Required data</b>	
<b>Data input type</b>	Quantitative
<b>Data collection frequency</b>	
<b>Level of expertise required</b>	High
<b>Connection with SDGs</b>	13

<b>Opportunities for participatory data collection</b>	
<b>Additional information</b>	
<b>References</b>	<p>Cannell M., Dewar R., Thornley J. (1992). Carbon flux and storage in European forests. Responses of Forest Ecosystems to Environmental Changes, 256–271. DOI: 10.1007/978-94-011-2866-7_23</p> <p>Kauppi P.E., Mielikäinen K., Kuusela K. (1992). Biomass and carbon budget of European forests, 1971 to 1990. Science 256(5053): 70–74. DOI: 10.1126/science.256.5053.70</p> <p>Baritz R., Strich S. (2000). Forests and the national greenhouse gas inventory of Germany. Biotechnology, Agronomy, Society and Environment, 4, 267–271.</p> <p>Wutzler T., Profft I., Mund M. (2011). Quantifying tree biomass carbon stocks, their changes and uncertainties using routine stand taxation inventory data. Silva Fennica, 45(3), 359–377. DOI: 10.14214/sf.449</p>

## 8.15 Soil carbon content

### 8.15.1 Measured soil carbon content

**Project Name:** UNaLab (Grant Agreement no. 730052)

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Total carbon storage and sequestration in soil per unit area per unit time	Climate Resilience Green Space Management
<b>Description and justification</b>	Accounting for C stored in soil and vegetation in an urban area can provide an indication of the condition of natural green spaces, total free surface area and total quantity of vegetation in the area examined. Measures of C storage and sequestration also provide a tangible connection to climate change mitigation, and the impacts of local land use, planning and management decision-making. It is important to note the substantial variation in C sequestration and storage capacity of different types of NBS.