

23.2 Mean land and/or property value in proximity to green space

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Land and property value	New Economic Opportunities and Green Jobs
Description and justification	<p>The change in attractiveness of an area due to the presence of public green space or other NBS can be determined by an individual's willingness to pay for, and thus the sale price or value of, land or property located in proximity to the NBS (Gore et al., 2013).</p> <p>Similar effects are likely to occur when implementation of NBS encourages development of new housing areas. A survey of real estate developers and consultants from across Europe revealed that 95% of respondents believe that open space readily adds value to commercial. On average, property developers would be willing to pay $\geq 3\%$ more for the opportunity to be near public open space, with some putting the premium as high as 15-20% (Gensler, the Urban Land Institute [ULI], & the Urban Investment Network [UIN], 2011; Roebeling et al., 2017).</p>
Definition	<p>Mean or median value of land and property according to linear distance from NBS distance. For consistency with "Green space accessibility" indicator, land and property within 300 m linear distance from NBS of at least 0.5 ha in size can be considered 'in proximity' to the NBS. In the case of large-scale NBS, the maximum adopted distance can be up to 1000 m.</p>
Strengths and weaknesses	<p>+ The indicator is easy to define - A great deal of input data needs to be collected and processed</p>
Measurement procedure and tool	<p>Hedonic analysis can be used to understand the effect of NBS on property value. This method enables analysis of property sale data, yielding the difference in sale prices as a function of various attributes that are thought to affect the price. As a result, hedonic analysis can identify the price premium associated with the presence of and access to NBS (Crompton, 2005; Troy & Grove, 2008).</p>

	<p>Change in mean and median land and property prices following implementation of NBS can also be assessed (Forest Research, 2005). The change in mean or median land and property prices can be measured as a percentage or monetary value; however, information may need to be gathered over a period of years to gain a full understanding of the change in value. Data required include real estate values in the area defined as “surrounding the NBS”. These data can be extracted annually from municipalities, cadastre and real estate agencies before and after the NBS implementation (see, e.g., Bockarjova et al., 2020) or be simulated based only on pre-existing data and information (see, e.g., Roebeling et al., 2017; Mendonça et al., 2020).</p> <p>Understanding and identifying the buffer zone surrounding NBS and assessing the change in property value in parallel is a critical component. Proximity of land or property to NBS could be defined similarly to urban green space accessibility as in the indicator <i>Accessibility of urban green spaces</i>, i.e., land or properties within a 300 m distance from NBS (Tamosiunas et al., 2014; WHO, 2016), particularly those of small or medium size. The type, quality and size of a given NBS, including the different recreational opportunities and aesthetic values, associated with the NBS, will largely determine the extent (in distance or time) and magnitude of its impact on local land and property values. In the case of large-scale NBS, the value of land or properties within a 1000 m linear distance of the large NBS may be influenced by their proximity to the NBS.</p>
Scale of measurement	Local, neighbourhood or district scale
Data source	
Required data	Property sale data from municipalities, cadastre and real estate agencies as well as area and categorisation of green spaces
Data input type	Qualitative and quantitative
Data collection frequency	Before and after NBS implementation
Level of expertise required	Low to moderate
Synergies with other indicators	Synergies with the <i>Green space accessibility</i> indicator, and the other indicators in the <i>New Economic Opportunities and Green Jobs</i> indicator group
Connection with SDGs	SDG 8 Decent work and economic growth, and SDG 9 Industry, innovation and infrastructure
Opportunities for participatory data collection	No opportunities identified

Additional information

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23.2.1 Change in mean house prices/ rental markets

Project Name: URBAN GreenUP (Grant Agreement no. 730426)

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Changes in mean house prices/rental markets	New Economic Opportunities and Green Jobs
Description and justification	Rental and market prices for homes and retail/commercial spaces can be seen as a good barometer of economic prosperity. A wealth of data exists illustrating the association between high quality green space and NBS and increased real estate values. Research suggests that prices can increase by up to 20% of home or retail spaces overlook or are located near to high quality green and open spaces. It has also been reported that an improved physical environment in terms of aesthetic quality is used by businesses when deciding to locate to an area. Thus, with interventions in NBS there is a potential for improved economic development activities to be situated in each of the demo sites. Such data would also allow the municipality to think more strategically about how they align their economic development targets with their understanding of how, where and NBS could be implemented in the future.
Definition	In progress This KPI will assess the Rental and market prices for homes and retail/commercial spaces through questionnaires and municipality data collection and the influence of the GI or NBS on it.
Strengths and weaknesses	
Measurement procedure and tool	The change in house/rental prices in NBS intervention areas will be measured primarily using secondary analysis of property market data (assessments n Zoopla or similar). A full database of property market value will be collected