## 21.6 Quality of Life

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Quality of Life - QOL Health and Wellbeing	
Description and justification	The Quality of Life indicator indicates the global level of perceived quality of Life. It is capable to describe initial planning problems like perceived health in urban areas).
	Environmental quality of life is a multidimensional concept and considers the benefits of environment on physical, psychological and social dimensions (WHO, 1998), as well as multiple aspects of interactions between individuals and their environment (thermal comfort, noise, air quality, ambience, etc.).
	The Environmental Quality of Life (EQoL) scale developed in Nature4Cities is dedicated to the assessment of NBS benefits on quality of life. Understanding NBS evaluation and NBS perceived benefits would be a major step in promoting existing NBS, as well as a key to success for new NBS projects (Nature4Cities D4.3).
Definition	WHO defines Quality of Life as an individual's perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns. It is a broad ranging concept affected in a complex way by the person's physical health, psychological state, personal beliefs, social relationships and their relationship to salient features of their environment (WHO, 1995).
	In Nature4Cities the Environmental Quality of Life Scale (EQoL) have been developed as an operational tool dedicated to the assessment of perceived benefits in terms of quality of life linked to Nature Based Solutions.
Strengths and weaknesses	This indicator is developed and applied within WHOQOL-BREF. When health providers implement new policies it is important that the effect of policy changes on the quality of life of people in contact with health services is evaluated. The WHOQOL instruments allow such monitoring of policy changes (Nature4Cities D2.1).

	In Nature4Cities the possibility of linking the EQoL scale scores to a variety of other physical, perceived or psychological indicators was demonstrated. In this sense, the EQoL scale can be used as a diagnostic tool in order to understand how people in a given area perceive and assess the benefits of NBS around where they live, with the possibility of targeting a particular type of inhabitant (for example, elderly people or patients
Measurement procedure and tool	In Nature4Cities the EQoL scale was developed with the idea of six separate modules, each one dedicated to a particular type of NBS: public gardens and parks, natural spaces, urban farms or collective gardens, green roofs and walls, blue spaces and biodiversity. This tool is meant to assess individual and collective perceptions and the impact of NBS on the different sub-dimensions of quality of life (i.e., physical, psychological and social quality of life).
	<ul> <li>In its final form, the EQoL scale can be used in a variety of ways:</li> <li>As a diagnostic tool: <ul> <li>To assess the overall satisfaction of individuals regarding their environment or existing NBS in their environment;</li> <li>To assess users' satisfaction if a given NBS is targeted.</li> </ul> </li> <li>As an assessment tool: <ul> <li>To measure the efficiency of an NBS after its implementation by comparison with environmental quality of life before the NBS implementation;</li> </ul> </li> <li>Finally, the EQoL scale can give specific hints if specific public and more vulnerable are targeted (for example, elderly</li> </ul>
Scale of measurement	people or patients). ☑ City ☑ Neighbourhood ☑ Object
Data source	• the response of the participant
Required data	• the participant response / the response is rated on a 5- point scale from « 1 = very poor » to « 5 = very good »
Data input type	Quantitative: The response of the participant on a lickert scale (a score from 1 to 5)
Data collection frequency	• One to several times in planning process. Before and after the NBS implementation.
Level of expertise required	Medium calculation difficulty and required data

Synergies with other indicators	
Connection with SDGs	SDG 3 Good Life and Well-being, SDG 11 Sustainable Cities and Communities
Opportunities for participatory data collection	This indicator is directly linked to the participants.
Additional information	The EQoL scale presented in Nature4Cities can deliver global environmental quality of life scores for each of the modules within the scale, which are related to the most common and well-known NBS forms. In this case, it is possible to consider implementing the EQoL scale for studies about the impact of physical, perceived or psychological predictors on environmental quality of life related to NBS. So far, the EQoL scale has been developed in eight different languages (English, French, Spanish, Dutch, German, Portuguese, Hungarian and Turkish), but base materials already exist for translation into other languages.
References	<ul> <li>The World Health Organization Quality of Life assessment (WHOQOL): position paper from the World Health Organization. (1995). Soc Sci Med, 41(10), 1403-1409</li> <li>The World Health Organization Quality of Life (WHOQOL)-BREF © World Health Organization 1996, http://www.who.int/mental_health/media/en/76.pdf</li> <li>The World Health Organization Quality of Life (WHOQOL)-BREF © World Health Organization 2004, http://www.who.int/substance_abuse/research_tools/en/english_whogol _pdf / http://www.who.int/substance_abuse/research_tools/en/english_whogol _pdf / http://www.who.int/substance_abuse/research_tools/who golbref/en/</li> <li>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</li> <li>Nature4Cities, D4.3 - Development of an alternative value scale for NBS implementation in cities. https://www.nature4cities.eu/post/eqol-scale-operational-tool-to-assess- nbs-benefits-on-quality-of-life</li> </ul>