

NEW ECONOMIC OPPORTUNITIES AND GREEN JOBS

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23 RECOMMENDED INDICATORS OF NEW ECONOMIC OPPORTUNITIES AND GREEN JOBS

23.1 Valuation of NBS

23.1.1 Value of NBS calculated using GI-Val

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

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Valuation of NBS	New Economic Opportunities and Green Jobs
Description and justification	GI-Val is The Mersey Forest's green infrastructure valuation toolkit. The current prototype is free and open source, and can be downloaded under a Creative Commons License from: https://www.merseyforest.org.uk/services/gi-val/ .

The toolkit takes the form of a spreadsheet calculator and a user manual. There has been a great deal of research on the valuation of the benefits provided by the natural environment using a wide range of techniques. Many of these are academic and not accessible to project managers who need to be able to rely on sound data from easily accessible sources to provide a robust valuation that they can employ as justification to funders and/or developers. To enable such a valuation to be carried out, The Mersey Forest has developed GI-Val. The GI-Val toolkit calculates monetary values for the social, economic and environmental benefits provided by green infrastructure. The following fully-operational tools are currently available in the GI-Val toolkit and can, in combination, yield an overall value for implemented NBS:

- Tool 1.4. Reduced peak summer temperature
- Tool 1.6. Reduction in carbon emissions from buildings – cooling
- Tool 2.1. Energy and CO₂ emissions savings from reduced volume of water entering combined sewers
- Tool 2.2. Savings in wastewater treatment costs to domestic and commercial water customers
- Tool 4.2. Reduced mortality rates from increased walking and cycling
- Tool 4.6. Avoided costs for air pollution control measures
- Tool 5.1. Residential land and property uplift
- Tool 8.1. Volume and value of tourism related expenditure
- Tool 9.1. Recreational value
- Tool 10.1. Willingness to pay for protection or enhancement of biodiversity
- Tool 11.1. Employment-based GVA generated by land management

An independent assessment of GI Val by the Ecosystems Knowledge Network is available from this link, along with links to other tools:

<https://ecosystemsknowledge.net/green-infrastructure-valuation-toolkit-gi-val>

Definition

The GI-Val toolkit provides a simple framework to identify and broadly assess the benefits of proposed NBS investments and existing green assets, including direct contributions to the local economy and wider non-market returns for society and the environment.

<p>Strengths and weaknesses</p>	<ul style="list-style-type: none"> - Tool developed using English data. - The toolkit remains a prototype and this means there are some green infrastructure benefits for which it cannot calculate a direct financial value. While there is a rich body of evidence that illustrates and demonstrates the different types of benefits deriving from quality green infrastructure, robust valuation techniques do not yet exist for all benefits. Therefore some valuations come with detailed caveats as they are based on limited evidence at this stage. - The toolkit's calculation is designed to be useful for initial, indicative project appraisal, providing a range of figures indicating the potential impact of a green infrastructure intervention or the value of an existing green infrastructure asset. The toolkit does not assess the quality of the design or detailed management requirements of green infrastructure. It does not replace a full cost benefit analysis, but it provides a basic valuation at a much lower cost. - Valuations such those made with a toolkit or cost benefit analysis also need to be seen as part of a much bigger picture. The valuation should not replace community engagement and local dialogue about what is valued about a place. Calculating economic value of green assets will always be a controversial technique and financial value should only be seen as one factor in decision-making. - The reported GVA values include transfers from one organisation to another, which means that although GVA increases for the beneficiaries, it may not increase for the study area as a whole.
<p>Measurement procedure and tool</p>	<p>The toolkit provides a set of calculator tools, to help assess an existing green asset or proposed green investment. They are organised under eleven key benefits of green infrastructure:</p> <p>The toolkit looks at how the range of green infrastructure benefits derived from an asset or investment can be shown:</p> <ul style="list-style-type: none"> • in monetary terms – applying economic valuation techniques where possible • quantitatively – for example with reference to jobs, hectares of land, visitors • qualitatively – referencing case studies or important research where there appears to be a link between green infrastructure and economic, social or environmental benefit but where the scientific basis for quantification and/or monetisation is not yet sufficiently robust.

	<p>The toolkit uses standard valuation techniques to assess the potential benefits provided by green infrastructure within a defined project area. These benefits are assessed in terms of the functions that the green infrastructure may perform, support or encourage, depending upon the type of project.</p> <p>Once data are entered into the toolkit, financial values are generated for many NBS benefits. The toolkit identifies the marginal benefit and the additional value of the green infrastructure/NBS. Coded algorithms ensure that there is no 'double counting' of component values.</p>
Scale of measurement	Plot to city scale
Data source	
Required data	General information about baseline conditions and NBS interventions for the area under examination
Data input type	Numeric data
Data collection frequency	Individual assessments
Level of expertise required	Technical / Expert
Synergies with other indicators	
Connection with SDGs	SDG3 / SDG11
Opportunities for participatory data collection	<p>Developing the toolkit's next iteration will require wide and sustained collaboration. To facilitate this process, interested parties are invited to pass the toolkit to others who might be able to incorporate it into their work and to provide feedback on their experience in using the toolkit, good and bad! Sources of improved evidence Suggestions for improving the tools Ideas for new tools The consortium who led the development of this toolkit has handed over the responsibilities for co-ordinating future work to the Green Infrastructure Value Network (GIVaN). Further information on the network can be found at:</p> <p>www.bit.ly/givaluationtoolkit</p>
Additional information	
References	<p>URBAN GreenUP Deliverable D5.3: City Diagnosis and Monitoring Procedures</p> <p>https://www.urbangreenup.eu/insights/deliverables/d5-3-city-diagnosis-and-monitoring-procedures.kl</p> <p>http://www.merseyforest.org.uk/services/gi-val/</p>

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23.1.2 Economic Value of Urban Nature Index

Project Name: Naturvation (Grant Agreement no. 730243)

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Economic value of urban nature	New Economic Opportunities and Green Jobs
Description and justification	A score on economic value of nature that reflects its value to the urban residents, relative to other types of urban nature types. It therefore provides a relative value of one type of urban nature relative to another, within an urban setting. This means that while the economic value of nature, in monetary terms, may differ between cities, or also within cities, the relative values can be used to compared values between different NBS even though economic levels different between cities
Definition	Relative value of one type of urban nature relative to another, within an urban setting.
Strengths and weaknesses	
Measurement procedure and tool	Economic values are based on a database of monetary values of urban nature from a wide range of academic research studies (36 published peer-reviewed studies in total, for references see (1)). This database consists of previously performed valuation studies of urban nature in