

6.1 Activating connected pleasant urban green and blue space – to ensure the presence of many, distributed and well-connected green spaces and water assets.

Objectives	Rating Scale	Guiding questions	Suggested data collection sources	Facilitator guiding questions and notes
<p>The presence of many, distributed and connected green spaces and water assets.</p>	<p>1. Very low number of green spaces or waterways with active recreation infrastructures such as bike paths and walking grounds. Many people find the urban landscape oppressive. Green and blue assets are mostly absent, polluted, or otherwise unattractive and unappreciated.</p> <p>2. Low number of green spaces or waterways with active recreation infrastructures such as bike paths and walking grounds. These places are generally not well-connected.</p> <p>3. Fair number of distributed green spaces or waterways with active recreational infrastructures such as bike paths and walking grounds. Most people appreciate the green and blue assets. These places are reasonably well-connected.</p> <p>4. High number of distributed, well-connected green spaces or waterways with active recreational infrastructures such as bike paths and walking grounds. Green and blue assets are highly appreciated. The urban landscape is considered very pleasant to work and live in, and the area is attractive to visitors.</p> <p>5. Very high number of distributed, well-connected green spaces or waterways with active recreational infrastructures such as bike paths and walking grounds. The urban landscape is an important factor in the happiness of the people living and working in the area. The area is frequently visited because of its attractive urban landscape. People attribute the attractiveness to a considerable degree to the presence and accessibility of green and blue assets which are supported by alternative water supplies, and contribute noticeably to the character of the area.</p>	<p>How green spaces and water assets are linked (waterway corridors, walking paths, bike paths, etc.)?</p> <p>What is the condition and quality of the blue-green areas?</p>	<p>GIS mapping of green spaces and water assets, bike paths and walking paths</p> <p>Open space strategy and policy</p>	<p>Hierarchy</p> <ul style="list-style-type: none"> • Very low number of green spaces that are not connected and unattractive • Low number of green spaces that are generally not connected • Fair number of green spaces that are appreciated and reasonably well-connected • High number of distributed green spaces that are well-connected, highly appreciated, and attractive to visitors • Very high number of distributed green spaces that are well-connected, highly appreciated, attractive to visitors, and contribute to the character of the area <p>Examples</p> <p>Definitions</p> <p>'Green and blue assets' refers to the use of vegetation and water sensitive practices in an urban context to deliver landscape and water management benefits. It can include WSUD, urban forests, open space and public realm areas, waterways, public areas within the green wedge, etc.</p> <p>Connection relates to bike paths and walking paths.</p> <p>Common Q and A's</p> <p>Is private open space included? Only if is deliberately designed to be integrated with the public realm and allows for public access and enjoyment e.g. Private realm green spaces can be building forecourts</p> <p>Consider recreation in blue assets as well – e.g. fishing, swimming</p> <p>Connotations on land ownership should be discussed/contextualised before workshop</p> <p>Can score highly in this one but detrimental to environment – e.g. wrong plant types, not supporting biodiversity. This is nothing to do with sustainability, this is purely pleasantness and urban amenity.</p> <p>Must mention</p> <p>Condition of the assets – reflecting how well maintained they are is picked up in the indicator for maintenance (under the goal of Promote Adaptive Infrastructure)</p> <p>Biodiversity is covered in 5.1 Healthy and biodiverse habitats</p>

6.2 Urban elements functioning as part of the urban water system – to ensure adequate urban space and built form functions as an integral part of the water system

Objectives	Rating Scale	Guiding questions	Suggested data collection sources	Facilitator guiding questions and notes
How much urban space and built form functions as an integral part of the water system, e.g. green walls, roofs, retarding basins in parks	<p>1. Very low proportion of the urban space and built form functions as an integral part of the water system (see examples). Climate impacts are not mitigated at all. The urban environment is not being designed with water outcomes in mind, leading to negative water outcomes.</p> <p>2. Some of the urban space and built form functions as an integral part of the water system (see examples). Few urban heat impacts are mitigated locally and mostly with indoor solutions having a high energy footprint such as air conditioning.</p> <p>3. Fair proportion of the urban space and built form functions as an integral part of the water system (see examples). Some urban heat impacts are mitigated in various ways including green infrastructure solutions (e.g. irrigated trees).</p> <p>4. Fairly high proportion of the urban space and built form functions as an integral part of the water system (see examples). Urban heat impacts are mitigated by means of passive watering practices and green infrastructure solutions (e.g. irrigated trees) as part of common practice.</p> <p>5. High proportion of the urban space and built form functions as an integral part of the water system (see examples). Heat impacts are mitigated structurally and as part of the urban design. E.g. blue-green corridors are strategically placed through the urban fabric and hotspots are equipped with additional measures.</p>	<p>What number of assets in the urban space and built form function as an integral part of the water system?</p> <p>What proportion of these spaces are irrigated using recycled water or harvested stormwater?</p> <p>Additional notes: The built form actively responds to and reflects changes in seasons, weather and water abundance scarcity.</p>	<p>Refer to urban planning and design reports/documents or maps to determine the number of assets in the urban space and built form function as an integral part of the water system e.g. green roofs, green walls, living walls, raingardens, wetlands, biofilters etc.</p> <p>Asset register and database, asset audits and maintenance records, etc.</p> <p>Planning and design policies and guidelines for the city may require or encourage incorporation of WSUD into the built form.</p>	<p>Hierarchy</p> <ul style="list-style-type: none"> • Very low proportion of the urban environment is designed as part of the water system • Some of the urban environment is designed as part of the water system • Fair proportion of the urban environment is designed as part of the water system • Fairly high proportion of the urban environment is designed as part of the water system • High proportion of the urban environment is designed as part of the water system
				<p>Examples</p> <p>Raingardens, rainwater and stormwater harvesting, flood storage and conveyance, and water sensitive landscaping (pervious surfaces, heat mitigation), green roofs and walls that capture and treat rainwater or greywater</p>
				<p>Definitions</p> <p>Urban elements: built form and city elements that are not traditional water infrastructure (pipes and pumps). A space has been defined by humans with design intent.</p> <p>Climate impacts: urban heat, drying, flooding</p>
				<p>Common Q and A's</p> <p>This indicator considers both current performance and active response – intent to improve current situation</p>
				<p>Must mention</p>

6.3 Vegetation coverage – to ensure adequate vegetation coverage (e.g. tree canopies)				
Objectives	Rating Scale	Guiding questions	Suggested data collection sources	Facilitator guiding questions and notes
The degree of vegetation coverage, e.g. tree canopies.	<p>1. Very low (< 10%) degree of vegetation canopy coverage, e.g. through tree canopies. Coverage defined as the proportion of human accessible area being covered or shaded. Very low meaning hardly any trees around at all. There is no urban tree/shade policy in place.</p>	<p>What is the percentage of vegetation coverage?</p> <p>What proportion of coverage is represented by tree canopy?</p>	<p>Calculate the percentage of vegetated area to impervious surfaces from GIS zoning or relevant maps</p> <p>Use Normalised Difference Vegetation Index (NDVI) to assess the extent of vegetation using satellite remote sensing data. Access to website which maps NDVI 'on demand': http://ivfl-info.boku.ac.at/index.php/eo-data-processing/dataprocess-global</p> <p>Review policy, planning reports and strategic plans</p>	<p>Hierarchy</p> <p>The hierarchy of indicator scores is simply based on the degree of vegetation canopy coverage</p>
	<p>2. Low degree (10-20%) of vegetation canopy coverage, e.g. through tree canopies. Coverage defined as the proportion of human accessible area being covered or shaded. Low meaning some streets have trees but many do not. There is an urban/tree shade policy in place, however there has been little implementation.</p>			<p>Examples</p>
	<p>3. Fair degree (20-30%) of vegetation canopy coverage, e.g. through tree canopies. Coverage defined as the proportion of human accessible area being covered or shaded. Fair meaning for example that a fair proportion of streets have trees. There is an urban/tree shade policy being actively implemented but progress is slow.</p>			<p>Definitions</p>
	<p>4. Fairly high degree (30-40%) of vegetation canopy coverage, e.g. through tree canopies. Coverage defined as the proportion of human accessible area being covered or shaded. Fairly high meaning for example that a high proportion of streets have trees. There is a long-standing urban/tree shade policy being actively implemented and significant progress is being made.</p>			<p>Common Q and A's</p> <p>Is private property included? Yes but only the open space areas that are accessible. i.e. the % canopy cover does not include the area occupied by building</p>
	<p>5. High degree (>40%) of vegetation canopy coverage, e.g. through tree canopies. Coverage defined as the proportion of human accessible area being covered or shaded. High meaning for example that most or all streets have trees. A long-standing urban/tree shade policy has been successfully implemented and established.</p>			<p>Must mention</p> <p>**Data is based on Australian examples and we are working to define it internationally</p>