

Number

AD1

Indicator name

The area of green infrastructure

Area

A

Indicator definition

The indicator expresses the ratio of the area of green infrastructure to the total area of the administrative area. For the purposes of the Klimasken assessment, the term "green infrastructure (GI)" means natural greenery and greenery created by human activity (i.e. anthropogenic greenery). The determining condition is that these areas also provide a wide range of ecosystem services. This means that we include only healthy ecosystems with a rich diversity of species among the areas of GI. They do not count here e.g. low-mowed lawns of football pitches, areas managed in the form of intensive agriculture, etc.).

Examples:

Among the areas of anthropogenic (created by human activity) greenery we rank:

- Public greenery - which makes greenery accessible to all citizens without restrictions and is used for general use. It includes areas of all publicly accessible parks with unlimited and regulated accessibility, as well as smaller landscaped areas, greenery of residential complexes (e.g. greenery in inner blocks), historic greenery - parks connected with historic buildings, greenery with civic amenities, greenery of city squares and pedestrian zones, insulating green zones by type, e.g. line greenery at transport routes and streets (road greenery), accompanying greenery of railways, etc.
- Dedicated greenery - which makes the greenery accessible only to a certain defined group of people, such as the greenery of preschool and school buildings and areas, the greenery of industrial and production areas, cemeteries, etc.
- Private greenery - these are areas of greenery used on private land. These include front gardens, family gardens, farmsteads, cottages and cottages.

Furthermore, the included areas include natural and landscape greenery and various natural ecosystems valuable from the point of view of nature protection (e.g. forest and wetland communities, elements of Territorial System of Ecological Stability, protected areas, including the NATURA 2000 system). Linear elements, such as bio corridors, areas of tree lines and alleys, as well as areas of green roofs and elements of surface infiltration and areas of elements of sustainable rainwater management, such as e.g. seepage rain gardens are also part of the GI. Water bodies and streams themselves are not included in this indicator (only if they are part of the equipment of greenery such as a pond in the park).

Indicator unit	%
Key words	Green infrastructure, close to nature solutions, microclimate, biodiversity
Reason for tracking and usability	<p>An ecologically balanced settlement is considered to be a settlement with a 40–60% share of green space (when planning "eco" neighborhoods in the UK, the general rule is that 40% of private and public land should be "green").</p> <p>Monitoring the indicator provides the city/city district/municipality with information on whether the functional greenery that provides the necessary ecosystem services in the administrative territory of the municipality is increasing or decreasing (relatively). Green infrastructure is extremely important in the context of climate change. On the one hand, it can partially absorb greenhouse gas emissions, but its role in settlements is mainly in the area of adaptation to climate change. It is of great importance for the retention and precipitation of rainwater, cooling and maintaining a pleasant microclimate, reducing dust and the like.</p> <p>The information obtained will make it possible to respond to the deterioration of the situation and also to compare the situation in the given city/city district/municipality with other similar settlements, as well as with the recommended values. Negative developments can be responded not only by creating new areas and elements of GI (quantitative aspect), but also by changing the quality of care for greenery, which loses the ability to provide ecosystem services and perform adaptation and mitigation functions.</p>

Completeness, representativeness, validity

The indicator is also closely related to the monitoring and protection of biodiversity in settlements. For this reason, part of the official set is the measurement of urban biodiversity City Biodiversity Index, where it is included under the indicator expressing what part of the settlement has a natural character. The spatial planning coefficient is used in spatial planning, as is the green coefficient. These coefficients are indicative because they determine the future development in a given area in terms of development and the amount of greenery. A prerequisite for completeness and representativeness is a detailed analysis of the entire administrative area and good knowledge of all areas and line elements (e.g. regularly updated passport / general green).

A prerequisite for sufficient validity is a good knowledge of the actual state of greenery and competent classification of individual areas according to the criteria / definition of GI. All data must be current, based on the actual state. Within Klimasken, the indicator is linked to descriptive indicators (area and share of different types of areas), exposure indicators (share of tropical days and nights, climatic drought), other indicators of sensitivity and adaptive capacity (availability of greenery, share of paved impermeable areas, retention capacity) and readiness indicators (area of areas converted to blue-green infrastructure). This indicator does not have significant limits.

Description of data processing

The area of greenery meeting the conditions of the criteria for GI calculated by a suitable method (spatial analysis) is divided by the total area of the administrative territory of the city/city district/municipality (the total area is also part of the descriptive indicators). The result is expressed as a percentage.

Data source

The source of data is the departments of the city/municipal office/local office of the city district (mainly the department of land usage plan, greenery or environment, general or passport greenery, map GIS data, freely available data including satellite imaging (CORINE, LandCover, Copernicus Land Monitoring Service – Urban Atlas (land.copernicus.eu), The Landsat Program (landsat.gsfc.nasa.gov), ESRI basemaps (arcgis.com), Google maps (maps.google.com)).

Tracking frequency

1 x 2 years (or according to the frequency of Klimasken monitoring)

Urban influence

The indicator applies to all greenery, regardless of owner. The city/city district/municipality can influence the extent, condition, quality and character of greenery only in its administration. The city/city district/municipality can affect the greenery managed by other owners by consistent application of Generally Binding Regulation on greenery, nature and landscape protection law (especially in the field of woody plants), rules in spatial planning, application of appropriate regulations of spatial development and construction as well as awareness-raising activities.

Presentation method

The results will be presented in a single KLIMASKEN framework on a five-step scale according to specified intervals.

Responsibility

Processor KLIMASKEN, city, city district, municipality
