SDG Goal 11 Sustainable cities and communities

SDG Target 11.7 By 2030, provide universal access to safe, inclusive and accessible, green and public spaces, in particular for women and children, older persons and persons with disabilities

SDG Indicator 11.7.1 Average share of the built-up area of cities that is open space for public use for all, by sex, age and persons with disabilities

1. Name of time series	
Share of open space to total area in cities with more than 100,000 inhabitants	
Compliant with global metadata: yes	Global Metadata

2. Definition of time series
The time series represents the average share of the built-up area of cities that is potentially open space for public use.
3. Comparison with global metadata (as of 28/03/2020)
The time series is compliant with the global metadata. It is based on remote sensing derived information land cover data. As a constraint, it must be mentioned that it cannot be determined which of these areas are publicly and freely accessible. For this reason, only potential open public spaces can be identified here, similarly to the description in the global metadata ("Spatial analysis to identify potential open public spaces").

4. Data description
The calculation of the time series and the original data stem from the Federal Agency for Cartography and Geodesy. Information on land cover and land use categories is taken from the digital land cover model for Germany (LBM-DE). Since the time series is based on remote sensing data, only potential open public spaces can be identified, and it cannot be determined which of the areas are accessible to the public and are free of charge. The time series is based on special evaluation. The build-up areas are derived from Rapid Eye satellite data, and stored as the LBM-DE feature attribute “degree of imperviousness”. Then the following steps were carried out during the calculation: 1. Selection of all digital land cover model objects with a degree of sealing of more than 25 % equivalent to the metadata description. 2. These objects were transformed into a grid with 10 m grid widths (sentinel-2 resolution for future calculations). 3. A spatial analysis was performed for these pixels. Then, the pixels were divided into three groups according to their density, in a circle having a radius of 564 m. 4. The classes urban and suburban were combined to form an urban cluster. 5. Appending a 100 m buffer around the urban clusters and selecting the included open spaces whose contiguous areas are smaller than 200 ha. 6. The urban clusters determined are clipped to the administrative boundaries of the municipalities. For the derivation of the time series it is necessary to determine the "total surface of open public space" as well as the "total surface of land allocated to streets", to then calculate the total area. By using the LBM-DE, the two areas can be surveyed together in one step. This is done by selecting the objects according to land use, which also includes streets.
5. Calculation method
Special evaluation

6. Unit of measure	%

7. Timeliness	8. Frequency
t + 6 months	Triennial
9. Last regular revision	10. Revised period
Not applicable	Not applicable

11. Accessibility of source data
The time series is based on special evaluation by the Federal Agency for Cartography and Geodesy. Source data are available for a fee, and only in German. https://gdz.bkg.bund.de/index.php/default/digitales-landbedeckungsmodell-fur-deutschland-stand-2015-lbm-de2015.html https://gdz.bkg.bund.de/index.php/default/digitales-landbedeckungsmodell-fur-deutschland-stand-2018-lbm-de2018.html
12. Metadata on source data
Land cover model for Germany (LBM-DE) (only available in German) https://gdz.bkg.bund.de/index.php/default/digitales-landbedeckungsmodell-fur-deutschland-stand-2015-lbm-de2015.html https://gdz.bkg.bund.de/index.php/default/digitales-landbedeckungsmodell-fur-deutschland-stand-2018-lbm-de2018.html

13. Related time series
Not available

For more information, please contact: https://www.destatis.de/EN/Service/Contact/Contact.html