SDG Goal 11	Sustainable cities and communities
SDG Target 11.6	By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management
SDG Indicator 11.6.2	Annual mean levels of fine particulate matter (e.g. $PM_{2.5}$ and PM_{10}) in cities (population weighted)
Time series	Population weighted annual mean levels of fine particulate matter

1. General information on the time series

- Date of national metadata: 25 October 2023
- National data: http://sdg-indicators.de/11-6-2/
- Definition: The time series shows the average $PM_{2.5}$ and PM_{10} concentration per year in Germany, weighted by population.
- Disaggregation: fine particulate matter

2. Comparability with the UN metadata

- Date of UN metadata: December 2023
- UN metadata: https://unstats.un.org/sdgs/metadata/files/Metadata-11-06-02.pdf
- The time series is not compliant with the UN metadata, but provides additional information. It covers data on PM_{10} and $PM_{2.5}$ concentrations. The time series is population weighted across urban and rural areas in Germany with the exclusion of highly polluted traffic and industrial sites and not only across urban areas.

3. Data description

- The data is derived from the German Environment Agency (UBA). The dataset for the time series is calculated by combining modelled data from the REM-CALGRID chemical transport model with PM_{10} respectively $PM_{2,5}$ data provided by the Federal States of Germany and the UBA. The data are combined with the spatial distribution of population density and are finally distributed among the different PM_{10} respectively $PM_{2.5}$ concentration classes as an annual mean.

4. Access to data source

- Population-weighted particulate matter exposure ($PM_{2,5}$): https://www.umweltbundesamt.de/en/indicator-population-weighted-particulate-matter
- Population-weighted particulate matter exposure (PM_{10}): https://www.umweltbundesamt.de/en/indicator-population-weighted-particulate-matter-0

5. Metadata on source data

- Population-weighted particulate matter exposure ($PM_{2,5}$): https://www.umweltbundesamt.de/en/indicator-population-weighted-particulate-matter
- Population-weighted particulate matter exposure (PM_{10}): https://www.umweltbundesamt.de/en/indicator-population-weighted-particulate-matter-0

6. Timeliness and frequency

- Timeliness: Not available.
- Frequency: Annual

7. Calculation method

- Unit of measurement: Micrograms per m³
- Calculation:

Complex calculation method.

SDG Goal 11	**Sustainable cities and communities**
SDG Target 11.6	By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management
SDG Indicator 11.6.2	Annual mean levels of fine particulate matter (e.g. $PM_{2.5}$ and PM_{10}) in cities (population weighted)
Time series	Population with excessive exposure to fine particulate matter

1. General information on the time series

- Date of national metadata: 6 July 2023
- National data: http://sdg-indicators.de/11-6-2/
- Definition: The time series shows the population exposed to a concentration of fine particulate matter higher than the 2021 guideline values defined by WHO.
- Disaggregation: fine particulate matter

2. Comparability with the UN metadata

- Date of UN metadata: December 2023
- UN metadata: https://unstats.un.org/sdgs/metadata/files/Metadata-11-06-02.pdf
- The time series is not compliant with the UN metadata, but provides additional information. It covers data on PM_{10} and $PM_{2.5}$ concentrations. The time series represents data across urban and rural areas in Germany and not only across urban areas. Instead of the mean levels of fine particulate matter, it shows the population number exposed to fine particulate matter higher than the 2021 guideline values defined by the WHO.

3. Data description

- The data is provided by the German Environment Agency (UBA). The dataset for the time series is calculated by combining modelled data from the REM-CALGRID chemical transport model with PM_{10} measurement data provided by the Federal States of Germany and the UBA and additional spatial interpolation procedures. The PM_{10} data are first converted into $PM_{2.5}$ concentrations and are then combined with the spatial distribution of population density.

4. Access to data source

- Population exposed to $PM_{2.5}$ -concentrations exceeding the WHO 2021 annual mean guideline value: https://www.umweltbundesamt.de/en/data/environmental-indicators/indicator-population-exposure-to-particulate-matter
- Population exposed to PM_{10} -concentrations exceeding the WHO 2021 annual mean guideline value: https://www.umweltbundesamt.de/en/indicator-population-exposure-to-particulate-matter

5. Metadata on source data

- Population exposed to $PM_{2.5}$ -concentrations exceeding the WHO 2021 annual mean guideline value: https://www.umweltbundesamt.de/en/data/environmental-indicators/indicator-population-exposure-to-particulate-matter
- Population exposed to PM_{10} -concentrations exceeding the WHO 2021 annual mean guideline value: https://www.umweltbundesamt.de/en/indicator-population-exposure-to-particulate-matter

6. Timeliness and frequency

- Timeliness: Not available.
- Frequency: Annual

7. Calculation method

- Unit of measurement: Million inhabitants
- Calculation:

Complex calculation method.