DESTATIS | **ZIELE FÜR NACHHALTIGE ENTWICKLUNG**
Statistisches Bundesamt

SDG Goal 11	**Sustainable cities and communities**
SDG Target 11.3	**By 2030, enhance inclusive and sustainable urbanization and capacity for participatory, integrated and sustainable human settlement planning and management in all countries**
SDG Indicator 11.3.1	**Ratio of land consumption rate to population growth rate**
Time series	**Ratio of land consumption rate to population growth rate (year-to-year)**

1. General information on the time series

- Date of national metadata: 04 May 2022
- National data: http://sdg-indikatoren.de/en/11-3-1/
- Definition: The time series measures the relation of land use and the development of the population. Land use, which shows the development of the settlement and transport area, includes the usage types buildings and open spaces, commercial/industrial land (except mining), transport land, recreational land and cemeteries. This indicator does not focus on sealed land, but also records undeveloped and non-sealed land such as gardens, yard areas and landscaping around transport infrastructure as well as open spaces such as parks and green spaces, allotments, garden landscape within towns and villages, sports and recreational facilities, camp sites as well as cemeteries.
- Disaggregation: Not available.

2. Comparison with global metadata

- Date of global metadata: March 2021
- Global metadata: https://unstats.un.org/sdgs/metadata/files/Metadata-11-03-01.pdf
- The time series is not compliant with the global metadata. It provides information on the ratio of land consumptionrate to population growth rate for the entire country and not only for urban areas.

3. Data description

- The settlement and transport area is derived from the area survey of the Federal Statistical Office, which categorizes the surface by land cover or land use. The main categories are settlement, transportation, vegetation and water surfaces, which are further subdivided into different subtypes. The area survey as a total calculation is based on administrative data of the Official Real Estate Cadastre of the Länder (federal states). Until 2015, the data was derived from the old Automated Real Estate Books (ALB). Since 2016 the Authoritative Real Estate Cadastre Information System (ALKIS) is used nation-wide in all Länder. With that semantic change a new land use type catalogue was applied. Therefore, a data comparison between the reference year 2016 and earlier years leads partly to inconsistencies. From 2016 onwards the time line is consistent again.

  The population data comes from the intercensal population updates, the basis of which is the last census conducted in 2011. The population data is rolled forward using statistical results on natural population change (births, deaths) and migrations. For calculating the 2011 growth rate, the population 2010 was calculated backwards using the 2011 census and migration, birth and death statistics. For calculating the 2010 growth rate, the intercensal population updates are based on the 1987 census (Federal Republic of Germany) and the population register as of 3 October 1990 (German Democratic Republic).

4. Accessibility of source data

- Housing and transport area – GENESIS online 33111-0005:
  https://www-genesis.destatis.de/genesis//online?operation=table&code=33111-0005&bypass=true&levelindex=1&levelid=1630489451493#abreadcrumb
- Population: reference date – GENESIS online 12411-0006:
  https://www-genesis.destatis.de/genesis//online?operation=table&code=12411-0006&bypass=true&levelindex=1&levelid=1639396599054#abreadcrumb
- Population data based on Census 2011 – 1991 to 2011 (only available in German):
  https://www.destatis.de/DE/Themen/Gesellschaft-Umwelt/Bevoelkerung/Bevoelkerungsstand/_inhalt.html#sprg233540

5. Metadata on source data

- Quality Report - Microcensus (only available in German):
  https://www.destatis.de/DE/Methoden/Qualitaet/Qualitaetsberichte/Bevoelkerung/einfuehrung.html
- Quality Report - Area survey by Type of Actual Use (only available in German):
  https://www.destatis.de/DE/Methoden/Qualitaet/Qualitaetsberichte/Land-Forstwirtschaft-Fischerei/flaechenerhebung.pdf

6. Timeliness and frequency

- Timeliness: Land consumption rate: t + 11 months; Population growth rate: t + 8 months
- Frequency: Annual

7. Calculation method

- Unit of measurement: No unit
- Calculation method:

$$\textbf{Ratio of land consumption rate to population growth rate} = \frac{\text{Land consumption rate}\,[\%]}{\text{Population growth rate}\,[\%]}$$

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SDG Indicator 11.3.1	**Ratio of land consumption rate to population growth rate**
Time series	**Proportion of settlement and transport areas to population**

1. General information on the time series

- Date of national metadata: 04 May 2022
- National data: http://sdg-indikatoren.de/en/11-3-1/
- Definition: The time series measures the relation land used as settlement and transport area in relation to the population, in detail the amount of square kilometre of settlement and transport area per inhabitant. Settlement and transport area per inhabitant declines with rising population density. Settlement and transport area are not be compared with sealed area, because they also cover untilled and unsealed areas e.g. for sport or recovery.
- Disaggregation: Not available.

2. Comparison with global metadata

- Date of global metadata: March 2021
- Global metadata: https://unstats.un.org/sdgs/metadata/files/Metadata-11-03-01.pdf
- The time series is not compliant with the global metadata, but provides additional information.

3. Data description

- The settlement and transport area is derived from the area survey of the Federal Statistical Office, which categorizes the surface by land cover or land use. The main categories are settlement, transportation, vegetation and water surfaces, which are further subdivided into different subtypes. The area survey as a total calculation is based on administrative data of the Official Real Estate Cadastre of the Länder (federal states). Until 2015, the data was derived from the old Automated Real Estate Books (ALB). Since 2016 the Authoritative Real Estate Cadastre Information System (ALKIS) is used nation-wide in all Länder. With that semantic change a new land use type catalogue was applied. Therefore, a data comparison between the reference year 2016 and earlier years leads partly to inconsistencies. From 2016 onwards the time line is consistent again.

  The population data comes from the intercensal population updates, the basis of which is the last census conducted in 2011. The population data is rolled forward using statistical results on natural population change (births, deaths) and migrations. For 2010, the population was calculated backwards using the 2011 census and migration, birth and death statistics.

4. Accessibility of source data

- Housing and transport area – GENESIS online 33111-0005:
  https://www-genesis.destatis.de/genesis//online?operation=table&code=33111-0005&bypass=true&levelindex=1&levelid=1630489451493#abreadcrumb
- Population: reference date – GENESIS online 12411-0006:
  https://www-genesis.destatis.de/genesis//online?operation=table&code=12411-0006&bypass=true&levelindex=1&levelid=1639396599054#abreadcrumb
- Population data based on Census 2011 – 1991 to 2011 (only available in German):
  https://www.destatis.de/DE/Themen/Gesellschaft-Umwelt/Bevoelkerung/Bevoelkerungsstand/_inhalt.html#sprg233540

5. Metadata on source data

- Quality Report - Microcensus (only available in German):
  https://www.destatis.de/DE/Methoden/Qualitaet/Qualitaetsberichte/Bevoelkerung/einfuehrung.html
- Quality Report - Area survey by Type of Actual Use (only available in German):
  https://www.destatis.de/DE/Methoden/Qualitaet/Qualitaetsberichte/Land-Forstwirtschaft-Fischerei/flaechenerhebung.pdf

6. Timeliness and frequency

- Timeliness: Settlement and transport area: t + 11 months; Population: t + 8 months
- Frequency: Annual

7. Calculation method

- Unit of measurement: 2015 = 100
- Calculation method:

$$\textbf{Proportion of settlement and transport areas to population} = \frac{\text{Settlement and transport area}\,[2015=100]}{\text{Population}\,[2015=100]} \cdot 100\,[\%]$$

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SDG Indicator 11.3.1	**Ratio of land consumption rate to population growth rate**
Time series	**Land consumption rate**

1. General information on the time series

- Date of national metadata: 04 May 2022
- National data: http://sdg-indikatoren.de/en/11-3-1/
- Definition: The time series measures the annual rate at which cities uptake land for urbanized usage. Human settlement areas in this context include the land use types of dwelling and housing, commercial and industrial sites (except open pit mining areas), transportation networks, and sport, leisure, cultural and recreational areas as well as cemeteries. These areas include buildings and associated land as well as open spaces under the named usages. The time series does not focus only on sealed surfaces, but also includes non-sealed and directly associated land of the above mentioned land use types. It contains also gardens, yard areas, parks and green spaces, allotment gardens, or camp sites.
- Disaggregation: Not available.

2. Comparison with global metadata

- Date of global metadata: March 2021
- Global metadata: https://unstats.un.org/sdgs/metadata/files/Metadata-11-03-01.pdf
- The time series is not compliant with the global metadata, but provides additional information. It is relevant for calculating the ratio.

3. Data description

- The data is derived from the area survey of the Federal Statistical Office, which categorizes the surface by land cover or land use. The main categories are settlement, transportation, vegetation and water surfaces, which are further subdivided into different subtypes. The area survey as a total calculation is based on administrative data of the Official Real Estate Cadastre of the Länder (federal states). Until 2015, the data was derived from the old Automated Real Estate Books (ALB). Since 2016 the Authoritative Real Estate Cadastre Information System (ALKIS) is used nation-wide in all Länder. With that semantic change a new land use type catalogue was applied. Therefore, a data comparison between the reference year 2016 and earlier years leads partly to inconsistencies. From 2016 onwards the time line is consistent again.

4. Accessibility of source data

- Soil area (actual use): reference date (until 2015-12-31), types of use – GENESIS online 33111-0003: https://www-genesis.destatis.de/genesis//online?operation=table&code=33111-0003&bypass=true&language=en
- Soil area (actual use): types of use – GENESIS online 33111-0001: https://www-genesis.destatis.de/genesis//online?operation=table&code=33111-0001&bypass=true&language=en
- Housing and transport area – GENESIS online 33111-0005: https://www-genesis.destatis.de/genesis//online?operation=table&code=33111-0005&bypass=true&levelindex=1&levelid=1630489451493#abreadcrumb

5. Metadata on source data

- Quality Report - Area survey by Type of Actual Use (only available in German):
  https://www.destatis.de/DE/Methoden/Qualitaet/Qualitaetsberichte/Land-Forstwirtschaft-Fischerei/flaechenerhebung.pdf

6. Timeliness and frequency

- Timeliness: t + 11 months
- Frequency: Annual

7. Calculation method

- Unit of measurement: Percentage
- Calculation method:

$$\textbf{Land consumption rate} = \left(\frac{\text{Settlement and transport areas}_t \, [\text{km}^2]}{\text{Settlement and transport areas}_{t-1} \, [\text{km}^2]} - 1 \right) \cdot 100 \, [\%]$$

t = present year
t - 1 = past year

SDG Goal 11   **Sustainable cities and communities**

SDG Target 11.3   **By 2030, enhance inclusive and sustainable urbanization and capacity for participatory, integrated and sustainable human settlement planning and management in all countries**

SDG Indicator 11.3.1   **Ratio of land consumption rate to population growth rate**

Time series   **Population growth rate**

1. General information on the time series

- Date of national metadata: 04 May 2022
- National data: http://sdg-indikatoren.de/en/11-3-1/
- Definition: The time series measures the annual increase of a population in a country.
- Disaggregation: Not available.

2. Comparison with global metadata

- Date of global metadata: March 2021
- Global metadata: https://unstats.un.org/sdgs/metadata/files/Metadata-11-03-01.pdf
- The time series is not compliant with the global metadata, but provides additional information. It is relevant for calculating the ratio.

3. Data description

- Population growth rate is the increase of a population in a country during a period, usually one year, expressed as a percentage of the population at the start of that period.

  The population data comes from the intercensal population updates, the basis of which is the last census conducted in 2011. The population data is rolled forward using statistical results on natural population change (births, deaths) and migrations. For calculating the 2011 growth rate, the population 2010 was calculated backwards using the 2011 census and migration, birth and death statistics. For calculating the 2010 growth rate, the intercensal population updates are based on the 1987 census (Federal Republic of Germany) and the population register as of 3 October 1990 (German Democratic Republic).

4. Accessibility of source data

- Population: reference date – GENESIS online 12411-0006: https://www-genesis.destatis.de/genesis//online?operation=table&code=12411-0006&bypass=true&levelindex=1&levelid=1639396599054#abreadcrumb
- Population data based on Census 2011 – 1991 to 2011 (only available in German): https://www.destatis.de/DE/Themen/Gesellschaft-Umwelt/Bevoelkerung/Bevoelkerungsstand/_inhalt.html#sprg233540

5. Metadata on source data

- Quality Report - Microcensus (only available in German): https://www.destatis.de/DE/Methoden/Qualitaet/Qualitaetsberichte/Bevoelkerung/einfuehrung.html

6. Timeliness and frequency

- Timeliness: t + 8 months
- Frequency: Annual

7. Calculation method

- Unit of measurement: Percentage
- Calculation method:

$$\textbf{Population growth rate} = \left(\frac{\text{Population}_t \ [\text{number}]}{\text{Population}_{t-1} \ [\text{number}]} - 1 \right) \cdot 100 \ [\%]$$

t = present year

t - 1 = past year