



SDG Goal 12 Responsible consumption and production

SDG Target 12.2 By 2030, achieve the sustainable management and efficient use of

natural resources

SDG Indicator 12.2.2 Domestic material consumption, domestic material consumption per capita, and

domestic material consumption per GDP

Time series Domestic material consumption (DMC)

1. General information on the time series

• Date of national metadata: 17 December 2021

National data: http://sdg-indikatoren.de/en/12-2-2/

• Definition: The time series measures the amount of materials used in a national economy in metric tons. It is calculated as the domestic extraction of raw materials from the environment plus imports of goods (raw materials, semi-finished and finished products) minus exports of goods. Imports and Exports of goods enter the time series with their actual weight.

• Disaggregation: Not available.

2. Comparison with global metadata

• Date of global metadata: February 2021

• Global metadata: https://unstats.un.org/sdgs/metadata/files/Metadata-08-04-02.pdf

• The time series is compliant with the global metadata.

3. Data description

• The data on domestic material consumption is calculated within the material flow accounting system run by the Environmental-Economic Accounts unit of the Federal Statistical Office. Data on domestic extraction of raw materials stems from various, mostly official, statistics and data sources. For imports and exports, data from foreign trade statistics is used.

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.

The data on GDP is calculated by the Federal Statistical Office's National Accounts as a secondary statistic. GDP is adjusted based on a price base changing every year (previous year's price base). After several revisions due to new data input, final results are available four years after the first preliminary release.

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4. Accessibility of source data

- Raw materials, material flows, water domestic material consumption (DMC) (only available in German):
 https://www.destatis.de/DE/Themen/Gesellschaft-Umwelt/Umwelt/UGR/rohstoffe-materialfluesse-wasser/_inhalt.html
- National accounts Gross value added, gross domestic product (nominal/price-adjusted) GENESIS online 81000-0001:

https://www-genesis.destatis.de/genesis//online?operation=table&code=81000-0001&bypass=true&language=en

- Average population GENESIS online 12411-0041:
 https://www-genesis.destatis.de/genesis//online?operation=table&code=12411-0041&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

- A methodological description for the calculation of the domestic extraction part of domestic material consumption is given in Germany's annual quality report for Eurostat: https://ec.europa.eu/eurostat/cache/metadata/EN/env_ac_mfa_simsmf_de.htm
- Raw materials, material flows, water -supply and use in raw material equivalents (RMC) (only available in German):

https://www.destatis.de/DE/Themen/Gesellschaft-Umwelt/Umwelt/UGR/rohstoffe-materialfluessewasser/_inhalt.html

Quality Report - Microcensus 2020 (only available in German):
 https://www.destatis.de/DE/Methoden/Qualitaet/Qualitaetsberichte/Bevoelkerung/mikrozensus-2020.pdf

6. Timeliness and frequency

• Timeliness: t + 24 months

Frequency: Annual

7. Calculation method

- Unit of measurement: 2015 = 100; Million tonnes; Tonnes per capita
- Calculation method:

DMC[Mnt] = Domestic Extraction[Mnt] + Imports [Mnt] - Exports [Mnt]

$$DMC[t per capita] = \frac{DMC[metric t]}{Average population[number]}$$

DMC [per real GDP (2015 = 100)] =
$$\frac{\frac{DMC [metric t]t1 \cdot 100}{DMC [metric t]t0}}{Real GDP [2015 = 100]} \cdot 100$$

t1 = current year; t0 = base year (2015)

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