

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: 6 September 2022

• National data: http://sdg-indicators.de/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. Comparability with the global metadata

- Date of global metadata: August 2022
- Global metadata: https://unstats.un.org/sdgs/metadata/files/Metadata-12-02-02.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. Access to data source

• Domestic extraction of raw materials (used), imports and exports of goods (national concept) – GENESIS online 85131-0004:

https://www-genesis.destatis.de/genesis//online/data?operation=table&code=85131-0004&bypass=true&language=en

• 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

 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

5. Metadata on source data

 Eurostat metadata on material flow accounts: https://ec.europa.eu/eurostat/cache/metadata/EN/env_ac_mfa_simsmf_de.htm

Methodology of economy-wide material flow accouning (only available in German):
https://www.destatis.de/DE/Themen/Gesellschaft-Umwelt/Umwelt/UGR/rohstoffe-materialfluesse-wasser/Publikationen/Downloads/gesamtwirtschaftliches-materialkonto-fb_5851314189004.pdf

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

Quality report – Economic Accounts (only available in German):
https://www.destatis.de/DE/Methoden/Qualitaet/Qualitaetsberichte/Umwelt/ugr.pdf?

6. Timeliness and frequency

• Timeliness: t + 24 months

• Frequency: Annual

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7. Calculation method

- Unit of measurement: Million tonnes; Tonnes per capita
- Calculation:

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

$$\begin{aligned} \textbf{DMC[t per capita]} = & \frac{ \texttt{DMC[metric t]} }{ \texttt{Average population[number]} } \end{aligned}$$

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

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

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