

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 12.2.1 Material footprint, material footprint per capita, and material

footprint per GDP

1. Name of data series

Raw material consumption (abiotic and biotic material, abbreviation RMC) per capita

Compliant with SDG metadata: no SDG Metadata

#### 2. Definition of indicator

The indicator measures the amount of raw material used globally for the production of goods for domestic consumption, gross fixed capital formation, changes in inventories and acquisitions less disposals of valuables and relates it to the domestic population.

3. Comparison with SDG metadata (as of 12/02/2018)

Additional indicator

The RMC calculation is based on a hybrid model using domestic input-output-tables, life cycle information and other data sources. In the SDG metadata, a multi-regional input-output (MRIO) framework is mentioned. Further methodological differences may exist e.g. due to deviations in the treatment of secondary raw material.

### 4. Data description

Data on raw material consumption is gained from a hybrid estimation model combining physical and monetary information from official and other data sources. These calculations are project work run by the Environmental-Economic Accounts unit of the Federal Statistical Office.

For the population data, the results of the latest population census (currently: 2011 Census) are used. Data on population are the results of the latest population census (currently: 2011 Census) rolled forward in a breakdown by sex, age, marital status and citizenship, using both statistics of population change (migration, births, deaths, entering into marriages or registered same-sex partnerships) and information on changes in citizenship and the dissolution of marriages or registered same-sex partnerships. Before 2011, updated census data from 1987 (Federal Republic of Germany) and the population register of October 1990 (German Democratic Republic) were used. For the years before 2011 the results for population were calculated backwards using the census 2011 and migration, birth and death statistics.

For the calculation of RMC per capita, the average population of the respective year is used.

### 5. Calculation method

		RMC per capita = -	RMC in metric t
		KMC per capita –	average population
6.	Unit of measure		t per capita



7. Timeliness	8. Frequency
Irregular.	Annual
9. Last regular revision	10. Revised period
2017 (change to National Accounts' major revision 2014)	2010 to 2011

# 11. Accessibility of source data

RMC, RMC per capita (Only available in German):

https://www.destatis.de/DE/Themen/Gesellschaft-Umwelt/Umwelt/Materialfluesse-Energiefluesse/\_inhalt.html, "Aufkommen und Verwendung in Rohstoffäquivalenten 2010 bis 2014", Tables Z5 and Z6.

Average population (Only available in German):

https://www.destatis.de/DE/Themen/Gesellschaft-Umwelt/Bevoelkerung/Bevoelkerungsstand/\_inhalt.html.

#### 12. Metadata on source data

A methodological description for the calculation of raw material consumption including an English summary part is given in the project report:

https://www.umweltbundesamt.de/publikationen/rohstoffe-fuer-deutschland

The metadata on average population is included in the quality report for population estimates:

https://www.destatis.de/DE/Methoden/Qualitaet/Qualitaetsberichte/Bevoelkerung/einfuehrung.html

- 13. Related SDG data series (duplicate indicators or sub-indicators to same indicator)
- 8.4.1 Material footprint, material footprint per capita, and material footprint per GDP

For more information please contact:

https://www.destatis.de/EN/Service/Contact/Contact.html



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 12.2.1 Material footprint, material footprint per capita, and material

footprint per GDP

1. Name of data series

Raw material consumption (abiotic and biotic material, abbreviation RMC) per real

Compliant with SDG metadata: no SDG Metadata

#### 2. Definition of indicator

The indicator measures the amount of raw material used globally for the production of goods for domestic consumption, gross fixed capital formation, changes in inventories and acquisitions less disposals of valuables and relates it to real Gross Domestic Product (GDP).

3. Comparison with SDG metadata (as of 12/02/2018)

Additional indicator

The RMC calculation is based on a hybrid model using domestic input-output-tables, life cycle information and other data sources. In the SDG metadata, a multi-regional input-output (MRIO) framework is mentioned. Further methodological differences may exist e.g. due to deviations in the treatment of secondary raw material.

# 4. Data description

Data on raw material consumption is gained from a hybrid estimation model combining physical and monetary information from official and other data sources. These calculations are project work run by the Environmental-Economic Accounts unit of the Federal Statistical Office.

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.

5. Calculation method

RMC per real GDP =  $\frac{\frac{RMC \text{ in metric t for current year}}{RMC \text{ in metric t for 2010}} \cdot 100}{\frac{RMC \text{ in metric t for 2010}}{\text{real GDP as index with base year 2010}}} \cdot 100$ 

6. Unit of measure Index 2010 = 100



7. Timeliness	8. Frequency
Irregular.	Annual
9. Last regular revision	10. Revised period
2017 (change to National Accounts' major revision 2014)	2010 to 2011

### 11. Accessibility of source data

### RMC, RMC per capita

https://www.destatis.de/DE/Themen/Gesellschaft-Umwelt/Umwelt/Materialfluesse-Energiefluesse/\_inhalt.html, "Aufkommen und Verwendung in Rohstoffäquivalenten 2010 bis 2014", Tables Z5 and Z6.

## GDP (Only available in German):

https://www.destatis.de/DE/Themen/Wirtschaft/Volkswirtschaftliche-Gesamtrechnungen-Inlandsprodukt/\_inhalt.html

#### 12. Metadata on source data

A methodological description for the calculation of raw material consumption including an English summary part is given in the project report:

https://www.umweltbundesamt.de/publikationen/rohstoffe-fuer-deutschland

The metadata on GDP is included in the publication mentioned above (Only available in German):

https://www.destatis.de/DE/Themen/Wirtschaft/Volkswirtschaftliche-Gesamtrechnungen-Inlandsprodukt/\_inhalt.html

- 13. Related SDG data series (duplicate indicators or sub-indicators to same indicator)
- 8.4.1 Material footprint, material footprint per capita, and material footprint per GDP

For more information please contact:

https://www.destatis.de/EN/Service/Contact/Contact.html



# 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 12.2.1 Material footprint, material footprint per capita, and material

footprint per GDP

1. Name of data series				
Raw material consumption (abiotic and biotic material, abbreviation RMC)				
Compliant with SDG metadata: no	SDG Metadata			

#### 2. Definition of indicator

The indicator measures the amount of raw material used globally for the production of goods for domestic consumption, gross fixed capital formation, changes in inventories and acquisitions less disposals of valuables.

3. Comparison with SDG metadata (as of 12/02/2018)

#### Additional indicator.

The RMC calculation is based on a hybrid model using domestic input-output-tables, life cycle information and other data sources. In the SDG metadata, a multi-regional input-output (MRIO) framework is mentioned. Further methodological differences may exist e.g. due to deviations in the treatment of secondary raw material.

#### 4. Data description

Data on raw material consumption is gained from a hybrid estimation model combining physical and monetary information from official and other data sources. These calculations are project work run by the Environmental-Economic Accounts unit of the Federal Statistical Office.

5. Calculation method

Cf. 3.

6. Unit of measure Mn t

7. Timeliness	8. Frequency
Irregular.	Annual
9. Last regular revision	10. Revised period
2017 (change to National Accounts' major revision 2014)	2010 to 2011



# 11. Accessibility of source data

Raw material consumption (Only available in German):

https://www.destatis.de/DE/Themen/Gesellschaft-Umwelt/Umwelt/Materialfluesse-Energiefluesse/\_inhalt.html, "Aufkommen und Verwendung in Rohstoffäquivalenten 2010 bis 2014", Table Z5.

### 12. Metadata on source data

A methodological description for the calculation of raw material consumption including an English summary part is given in the project report:

https://www.umweltbundesamt.de/publikationen/rohstoffe-fuer-deutschland

- 13. Related SDG data series (duplicate indicators or sub-indicators to same indicator)
- 8.4.1 Material footprint, material footprint per capita, and material footprint per GDP

For more information please contact:

https://www.destatis.de/EN/Service/Contact/Contact.html