

SDG Goal 8 Decent work and economic growth

SDG Target 8.4. Improve progressively, through 2030, global resource efficiency in consumption and production and endeavour to decouple economic growth from environmental degradation, in accordance with the 10-year framework of programmes on sustainable consumption and production, with developed countries taking the lead

SDG Indicator 8.4.1 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. 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	
$\text{RMC per capita} = \frac{\text{RMC in metric t}}{\text{average population}}$	
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
<p>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.</p> <p>Average population (Only available in German): https://www.destatis.de/DE/Themen/Wirtschaft/Volkswirtschaftliche-Gesamtrechnungen-Inlandsprodukt/_inhalt.html Fachserie 18 Reihe 1.4 - Table 2.1.13.</p>
12. Metadata on source data
<p>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</p> <p>The metadata on average population is included in the quality report for population estimates (Only available in German): https://www.destatis.de/DE/Methoden/Qualitaet/Qualitaetsberichte/Bevoelkerung/einfuehrung.html</p>
13. Related SDG data series (duplicate indicators or sub-indicators to same indicator)
12.2.1 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>

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SDG Indicator 8.4.1 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 GDP	
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	
$\text{RMC per real GDP} = \frac{\frac{\text{RMC in metric t for current year}}{\text{RMC in metric t for 2010}} \cdot 100}{\text{real GDP as index with base year 2010}} \cdot 100$	
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
<p>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.</p> <p>GDP (Only available in German): https://www.destatis.de/DE/Themen/Wirtschaft/Volkswirtschaftliche-Gesamtrechnungen-Inlandsprodukt/_inhalt.html</p>
12. Metadata on source data
<p>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</p> <p>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</p>
13. Related SDG data series (duplicate indicators or sub-indicators to same indicator)
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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	
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5. Calculation method	
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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)
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