## **Material Flow Accounts**

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2. Metadata update	
2.1. Metadata last certified	March 12, 2024
2.2. Metadata last posted	March 12, 2024
2.3. Metadata last update	March 12, 2024

# 3. Statistical presentation

#### 3.1. Data description

The material flow accounts is a comprehensive information system that reflects the interaction of the domestic economy with the natural environment and the rest of the world economy in terms of material resources, represented in physical units. It includes solid, gaseous and liquid raw materials exept water and air. The above metadata refers to the data set used to generate the material flow accounts and various indicators, see structure of the material flow data: <a href="https://ec.europa.eu/eurostat/documents/1798247/6191533/Annexes+of+EW-MFA+questionnaire">https://ec.europa.eu/eurostat/documents/1798247/6191533/Annexes+of+EW-MFA+questionnaire</a>

**Material flows by categories** represent the total flow of resources entering the country's economy (Domestic extraction and import) and outgoing (export), from which the main indicators of material flows are calculated;

**Domestic consumption per capita, material intensity and resource productivite** are relative indicators and additionally are represented as percentage change by the chain index (2014 = 100%);

**Import, export and trade balance** are classified according to production stages (raw products, semi-manufacture products, finished products).

### 3.2. Classification system

Material flow accounts - Handbook

https://ec.europa.eu/eurostat/documents/3859598/9117556/KS-GQ-18-006-EN-N.pdf/b621b8ce-2792-47ff-9d10-067d2b8aac4b?t=1537260841000

#### 3.3. Sector coverage

The whole economy, according to institutional sectors and types of economic activities. Also, all material resources that enter the economic territory of the country.

#### 3.4. Statistical concepts and definitions

**Domestic extraction (DE):** The total amount of raw materials extracted from the natural environment by individuals and legal entities, intended for future production.

**Imports (IMP):** Material resources imported from outside the country.

**Exports (EXP):** Material resources exported abroad.

**Physical trade balance (PTB):** physical imports minus physical exports.

**Direct material input (DMI):** All kinds of material resources available for production and consumption. DMI is equal to the sum of domestic extraction and imports.

**Domestic material consumtion (DMC):** Domestic consumption of material resources. Domestic consumption is calculated as the difference between DMI and exports.

#### 3.5. Statistical unit

The statistical units on which the material flows report is based, vary according to the data sources and include statistics on agriculture, forestry, fishing, entrepreneurs, energy, foreign trade and etc.

### 3.6. Statistical population

Economic territory of the country.

#### 3.7. Reference area

Entire country (Georgia), excluding occupied regions.

#### 3.8. Time coverage

Since 2014.

### 3.9. Base period

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#### 4. Unit of measure

Thousand tonnes, %.

#### 5. Reference period

Year.

#### 6. Institutional mandate

#### 6.1. Legal acts and other agreements

The Law of Georgia on Official Statistics;

https://www.geostat.ge/media/56202/The-Law-of-Georgia-on-Official-Statistics.pdf

Statistical Work Programme (annual);

https://www.geostat.ge/en/modules/categories/307/statistical-work-programme

Charter of the National Statistics Office of Georgia.

https://www.geostat.ge/media/20845/10%2Csaqstatis-konsolidirebuli-debuleba.pdf

#### 6.2. Data sharing

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### 7. Confidentiality

### 7.1. Confidentiality – policy

- 1. The Law of Georgia on Official Statistics:
  - According to the article 5 of the law Statistical confidentiality and exclusive use for statistical purposes individual data collected or received by the producer of official statistics, relating to natural or legal persons, must be strictly confidential and used only for statistical purposes.
  - •According to the article 34 (Observing Confidentiality of Statistical Data) of the law 1. Data collected, processed, and stored to produce official statistics are confidential if they enable the direct or indirect identification of a statistical unit. In addition, aggregated data are subject to statistical confidentiality: a) Aggregates composed of 1 to 3 units, when the unit is a natural or legal person if one of these units could be identified indirectly, thereby disclosing individual data about this unit. Aggregates composed of more than 3 units may be declared confidential by the Executive Director if required to ensure statistical confidentiality; b) Information declares as a state secret on the basis of the "Law of Georgia on State Secrets". 2. Confidential data shall be used exclusively for the purposes of producing statistics in accordance with this law. 3. Statistical data about the administrative body cannot be considered confidential information, except for the information determined by the Law of Georgia "On State Secrets". 4. Individual data obtained from publicly available sources, which are defined as public information in accordance with the legislation of Georgia, shall not be considered confidential information. 5. Confidential (individual) data may be published if there is written consent from the statistical unit regarding the publication of such data. 6. It is not allowed to disseminate and distribute confidential data or use it for non-statistical purposes.
  - According to the article 38 (Confidentiality commitments) of the law the confidential statistical data collected and processed for statistical purposes shall not be used or disseminated either for personal, academic, research or any other activities, by the employees of the producers of Official Statistics.

 $\underline{https://www.geostat.ge/media/56202/The-Law-of-Georgia-on-Official-Statistics.pdf}$ 

- 2. Data Confidentiality Policy at Geostat
  - https://www.geostat.ge/media/20860/Data-Confidentiality-Policy-at-Geostat En.pdf
- 3. Procedure for providing access to confidential data for research purposes (in Georgian) <a href="https://www.geostat.ge/media/58983/დადგენილება--3.pdf">https://www.geostat.ge/media/58983/დადგენილება--3.pdf</a>
- 4. The Law of Georgia on Personal Data Protection https://matsne.gov.ge/en/document/view/1561437?publication=9

# 7.2. Confidentiality – data treatment

- Confidentiality guidelines.
- Written undertakings by an employee of Geostat on ensuring confidentiality of gained/collected data as a result of official duties.

### 8. Release policy

#### 8.1. Release calendar

Data dissemination dates are defined by the calendar developed on the basis of the Statistical Work Programme, which is published on the website of Geostat and is publicly available.

#### 8.2. Release calendar access

https://www.geostat.ge/en/calendar

#### 8.3. User access

All users have the equal access to the statistical data simultaneously.

#### 9. Frequency of dissemination

Annual.

### 10. Accessibility and clarity

#### 10.1. News release

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### 10.2. Publications

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#### 10.3. On-line database

The data is published as table on the website of National Statistics Office of Georgia:

https://www.geostat.ge/en/modules/categories/566/environmental-economic-accounts

Also, the data is disseminated via PC-AXIS database.

The main indicators of Material Flow Accounts:

https://pc-axis.geostat.ge/PXweb/pxweb/en/Database/Database Environment%20Statistics Environmental-

Economic%20Accounts/1.MFA.px/?rxid=b4fec5bc-409f-4489-9622-19652d797754

DMC per capita, Material Intensity and Resource Productivity:

 $\underline{https://pc\text{-}axis.geostat.ge/PXweb/pxweb/en/Database/Database} \quad \underline{Environment\%20Statistics} \quad \underline{Environmental-ptips://pc-axis.geostat.ge/PXweb/pxweb/en/Database/Database} \\ \underline{Environment\%20Statistics} \quad \underline{Environmental-ptips://pc-axis.geostat.ge/PXweb/pxweb/en/Database/Database} \\ \underline{Environment\%20Statistics} \quad \underline{Environment\%20Statistics} \\ \underline{Environment\%20Statistics} \quad \underline{Environment\%20Statistics} \\ \underline{Environment\%20Statistics} \quad \underline{Environment\%20Statistics} \\ \underline{Environment\%20St$ 

Economic%20Accounts/2.MFA-DMC.px/?rxid=b4fec5bc-409f-4489-9622-19652d797754

## 10.4. Micro-data access

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### 10.5. Other

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## 10.6. Documentation on methodology

The Methodology of Material Flow Accounts:

 $\underline{https://ec.europa.eu/eurostat/documents/1798247/6191533/3-Economy-wide-material-flow-accounts...-A-methodological-guide-2001-edition.pdf/$ 

#### 10.7. Quality documentation

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# 11. Quality management

### 11.1. Quality assurance

To ensure the quality of the statistical processes and products Geostat follows Chapter 10 – Quality of official statistics – of the Law of Georgia on Official Statistics, as well as the European Statistics Code of Practice, the UN Fundamental Principles of Official Statistics and Quality Assurance Framework of the European Statistical System (ESS QAF).

#### 11.2. Quality assessment

Methodology and Quality Management Division of Geostat, along with the sectoral departments, is responsible for the quality of the produced statistical products and processes. The Division carries out quality audit, self-assessment of statistical processes and assesses the risks for the quality of statistical processes and products. Geostat has developed policy documents, guidelines and standard routine descriptions. These documents ensure the standardization of statistical processes and products and the establishment of a unified quality assurance system.

Quality policy is available on the following link:

https://www.geostat.ge/media/44380/QP Geostat EN.pdf

#### 12. Relevance

#### 12.1. User needs

The main users of the Material Flow Accounts indicators are: government organizations, educational institutions, scientific-research organizations, international and non-governmental organizations, media, various legal entities and individuals. These users use the requested information for different purposes. Government agencies need data to make decisions, educational institutions and research organizations - for scientific activities, international organizations - to compare and analyze data from different countries, legal entities and individuals - for personal use, to analyze the situation in the country, etc.

## 12.2. User satisfaction

In 2021 user satisfaction survey was conducted, the target of the survey was to analyze the assessment of quality of statistical data by users and explore ways to improve user services. The survey report is available on the website of Geostat (in Georgian):

https://www.geostat.ge/ka/page/customer-service

### 12.3. Completeness

The data are comparable to international standards.

### 13. Accuracy and reliability

#### 13.1. Overall accuracy

Data accuracy is ensured by comparability of survey and calculation methods to international methodology.

### 13.2. Sampling error

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#### 13.3. Non-sampling error

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## 14. Timeliness and punctuality

#### 14.1. Timeliness

The data are published one year after the end of the reporting period, in the second half of February.

#### 14.2. Punctuality

The data is published according to the date specified in the statistical work program. There has not been any violation of publication dates.

## 15. Coherence and comparability

#### 15.1. Comparability – geographical

The same methodological approaches are used for all regions of Georgia and they are comparable to international standards.

### 15.2. Comparability – over time

Data are comparable.

#### 15.3. Coherence – cross domain

Coherent.

### 15.4. Coherence - internal

Coherent.

#### 16. Cost and burden

The data are processed based on internal resources, so no additional expenses are incurred.

### 17. Data revision

### 17.1. Data revision - policy

Statistical data revision policy is available on the website of Geostat:

https://www.geostat.ge/media/59824/Data-Revision-Policy-and-Error\_Correction-at-Geostat\_Eng.pdf

### 17.2. Data revision - practice

The statistical data revisions and adjustments are made on a regular basis rely on relevant sources. In addition, a large-scale revision is performed once a year to obtain verified data. Main purpose of this procedures to obtain statistically valid data.

# 18. Statistical processing

#### 18.1. Source data

The main sources of EW-MFA are Survey of Agricultural Holdings, Statistical Survey of Enterprices, Database of Custom Declaration and other Administrative Sources.

## 18.2. Frequency of data collection

Annual.

# 18.3. Data collection

Material flow accounts - Questionnaire:

MFA%29+questionnaire

### 18.4. Data validation

The data provided for the creation of the MFA is additionally verified by the staff of the Environmental Statistics Division.

### 18.5. Data compilation

Formulas for calculating the main indicators of the MFA:

Physical trade balance (PTB): exports - imports;

**Direct material input (DMI):** DE + IMP;

**Domestic material consumtion (DMC):** DMI – EXP;

Domestic material consumprion per capita: DMC/POP;

 $\textbf{Resource productivity:} \ GDP/DMC;$ 

Material intensity: DMC/GDP;

## 18.6. Adjustment

Not applicable.

### 19. Comment