

QUALITY REPORT FOR STATISTICAL SURVEY

Economy-wide Material Flow Accounts for 2022

Organisational unit: Environment Statistics Unit

Prepared by: Bernarda Šimunić

November 2023

0. Basic information

- Purpose, goal, and subject of the survey

Economy-wide material flow accounts encompass domestic extraction of materials, intra and extra EU import and export of raw materials as well as domestic processed output for the Republic of Croatia.

- Reference period

Calendar year

- Legal acts and other agreements

Decision on the National Classification of Activities – NKD 2007 (OG, Nos 58/07 and 72/07)

Customs Service Act (OG, Nos 68/13, 30/14 and 115/16)

Regulation (EC) No 691/2011 of the European Parliament and of the Council of 6 July 2011 on European environmental economic accounts

- Classification system

The economy-wide material flow accounts (EW-MFA) record physical flows of materials broken down by type of flow and by type of material. The types of flow dimension correspond to the EW-MFA questionnaire reporting tables and derived indicators, namely:

- domestic extraction (Table A)
- physical imports (Table B)
- physical exports (Table D)
- domestic processed output (Table F)
- balancing items (Table G)
- direct material input (indicator)
- domestic material consumption (indicator)
- physical trade balance (indicator).

- Concepts and definitions

Biomass refers to the biodegradable components of products, waste and residue of agriculture (including plant and animal matter), forestry and wood industries, as well as biodegradable parts of municipal and industrial waste, the energy usage of which is allowed.

Minerals are natural homogeneous bodies of permanent chemical composition and determined physical characteristics that occur in specific geometric forms (crystals) or undetermined physical characteristics.

Ore is a mineral aggregate from which it is technically viable and economically justifiable to produce metals and/or other minerals usable in industry.

Concentrates are products of ore enrichment that have a significantly increased metal content compared to ore contents and are appropriate for further metallurgic processing and production of metal.

Non-metallic mineral raw material are raw materials which do not produce new raw materials as a result of melting, and are usually integrated in sedimentary rocks (quartz raw materials, clay, salt, dolomite, phosphorite, graphite, bauxite and cement raw materials).

Fossil energy materials/carriers are produced naturally beneath Earth's surface during a long period of time from biological remains. Fossil fuels are not renewable energy sources. There are three main forms of fossil fuels: coal, petroleum and natural gas.

Waste is every substance or object that was, is going to be or has to be discarded by its owner. Every discarded object and substance the gathering, transport and processing of which are necessary for the protection of the public interest is considered waste.

Domestic extraction used (DEU) is the annual amount of raw materials (except for water and air) extracted from the natural environment to be used in the economy.

Domestic material consumption (DMC) is defined as the total amount of material directly used in the economy.

Domestic material consumption (DMC) = domestic extraction used + import - export

Direct material input (DMI) = domestic extraction used + import

Physical trade balance (PTB) is calculated by subtracting the amount of export in physical units from the amount of import in physical units, as follows:

- physical trade balance (PTB) = import - export.

- **Statistical units**

Statistical units differ, depending on different data sources. Economy-wide material flow accounts are compiled from data of various statistics of the Croatian Bureau of Statistics (e.g. agriculture, forestry and fishery statistics, foreign trade in goods statistics, industry, energy, etc.) and from data taken over from administrative sources.

- **Statistical population**

Data sources for economy-wide material flow accounts are data of the Croatian Bureau of Statistics and other administrative sources.

Economic material flow accounts refer to the entire national economy.

Economic material flow accounts include all materials (excluding water and air) crossing the system boundary (between the environment and the economy) on the input side or on the output side.

Material inputs to the economy cover extractions of natural resources (excluding water and air) from the natural environment and imports of material products (goods) from the rest of the world (RoW) economy.

Material outputs are disposals of materials to the natural environment and exports of material products and waste to the RoW.

1. Relevance

1.1. Data users

Scientists, students

1.1.1. User needs

Users are looking for information for the following reasons:

Scientists – for research purposes

Students – for writing academic papers.

1.1.2. User satisfaction

The Croatian Bureau of Statistics conducted the User Satisfaction Survey in 2013 and 2015.

The results of the User Satisfaction Survey are available on request.

1.2. Completeness

Data are submitted to Eurostat in accordance with the relevant EU legislation.

1.2.1. Data completeness rate

The indicator for this survey is not applicable.

2. Accuracy and reliability

2.1. Sampling error

The indicator for this survey is not applicable.

2.1.1. Sampling error indicators

The indicator for this survey is not applicable.

2.2. Non-sampling error

The indicator for this survey is not applicable.

2.2.1. Coverage error

The indicator for this survey is not applicable.

2.2.2. Over-coverage rate

The indicator for this survey is not applicable.

2.2.3. Measurement errors

The indicator for this survey is not applicable.

2.2.4. Non-response errors

The indicator for this survey is not applicable.

2.2.5. Unit non-response rate

The indicator for this survey is not applicable.

2.2.6. Item non-response rate

The indicator for this survey is not applicable.

2.2.7. Processing errors

Data are compiled on the basis of data obtained from various sources (secondary and administrative ones) that enter their already verified data online.

2.2.8. Imputation rate

The indicator for this survey is not applicable.

2.2.9. Model assumption error

The indicator for this survey is not applicable.

2.3. Data revision

2.3.1. Data revision – policy

The users of statistical data are informed about revision (preliminary, final data) on the website of the Croatian Bureau of Statistics.

2.3.2. Data revision – practice

Provisional figures are not published in this survey and therefore regular revisions are not planned. Data revisions are carried out only in case of change in methodology or subsequent data that significantly impact the calculation.

2.3.3. Data revision – average size

The indicator for this survey is not applicable.

2.4. Seasonal adjustment

The indicator for this survey is not applicable.

3. Timeliness and punctuality

3.1. Timeliness

T + 11.17 months for the First Release

T + 12 months for database

3.1.1. Timeliness – first results

The indicator for this survey is not applicable.

3.1.2. Timeliness – final results

Timeliness of final results is: T + 11.17 months.

3.2. Punctuality

T + 0 months.

All data have been submitted on time based on planned release dates.

3.2.1. Punctuality – delivery and publication

Punctuality is: 0 months.

4. Accessibility and clarity

Data are disseminated in printed and in electronic format released on the website of the Croatian Bureau of Statistics in the form of the First Releases and PC-AXIS databases. The First Release contains brief methodological explanations on topics such as sources and methods of data collection and definitions.

4.1. News release

OEN-2022-1-7 Economy-Wide Material Flow Accounts, 2017 – 2021

Release date: 09 December 2022

4.2. Online database

PC-Axes Database (area: Environment, Environmental economic accounts)

Release date: 15 December 2022

4.3. Microdata access

Conditions under which certain users can have access to microdata are regulated by the Ordinance on the Conditions and Manner of Use of Statistical Data for Scientific Purposes.

4.4. Documentation on methodology

The basic methodological explanations are published in the First Release and in databases.

5. Coherence and comparability

5.1. Asymmetry for mirror flows statistics

Indicator is not applicable because physical import and export as recorded in economy-wide material flow accounts are not specified by origin and/or destination.

5.2. Comparability over time

Comparable data series refer to the period from 2008 to 2021.

When compiling economy-wide material flow accounts, new calculations are used every year in line with the Eurostat's recommended methodology. This is why data are not comparable to data issued in the First Release of the previous year.

5.2.1. Length of comparable time series

Length of comparable time series is: 14

5.2.2. Reasons for break in time series

No breaks in time series.

5.3. Coherence – short-term and structural data

The indicator for this survey is not computed.

5.4. Coherence – national accounts

The indicator for this survey is not computed.

5.5. Coherence – administrative sources

The indicator for this survey is not computed.

6. Cost and burden

6.1. Cost

Costs are associated with data production through material costs and employees' incomes (wages, etc.). Costs related to the collection of statistical data are minimal because all data have been obtained from other departments of the Croatian Bureau of Statistics and from administrative sources.

6.2. Burden

The workload of administrative and secondary sources is minimal because data are entered online by filling in an electronic form.