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Material Flow Accounts

Year 2018

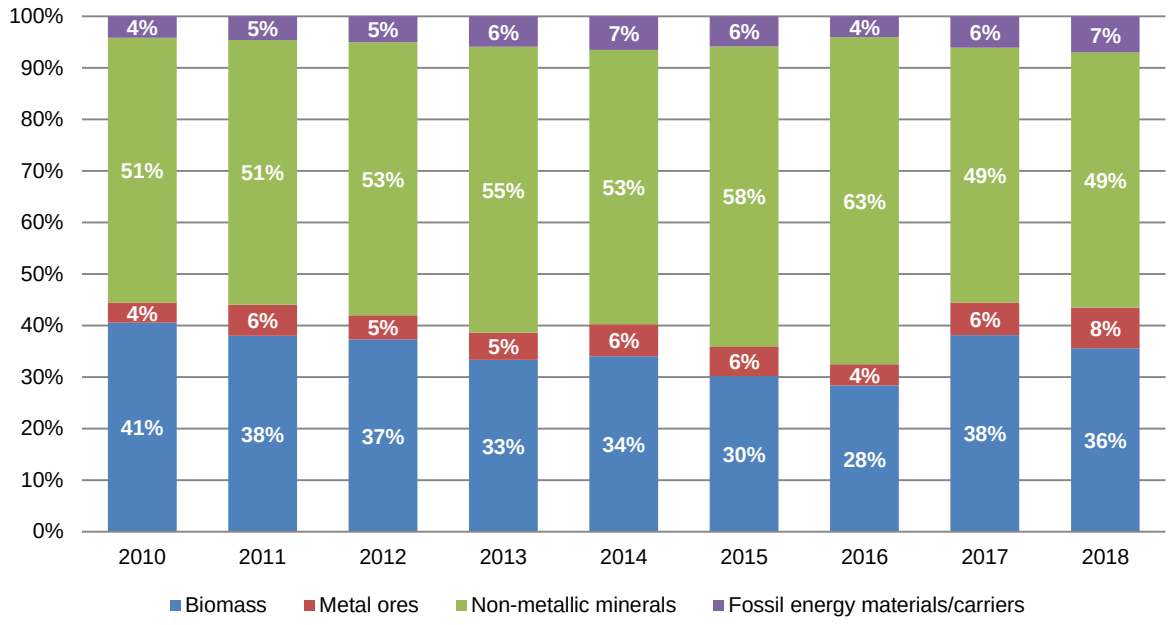
Tirana, 24 April 2020: In 2018, the materials extracted from the domestic natural resources amounted to about 22.4 million tonnes with a growth of 4.6 % compared to 2017. In 2018, the structure of domestic extraction, shows that non-metallic minerals account for 49.5 % of the total, followed by biomass with 35.6 %, metal ores with 7.9% and fossil energy materials and carriers with 7.1 %.

Tab. 1 Domestic extraction (DE)

(000 tones)

Year	2014	2015	2016	2017	2018
Biomass	7,884.0	7,970.0	8,066.5	8,164.1	7,970.6
Metal ores	1,436.9	1,528.7	1,180.0	1,356.8	1,766.0
Non-metallic minerals	12,351.1	15,380.5	18,062.5	10,593.3	11,074.6
Fossil energy materials/carriers	1,515,2	1,546.5	1,161.2	1,304.9	1,582.6
Total	**23,187.1**	**26,425.7**	**28,470.1**	**21,419.1**	**22,393.8**

Fig.1 Structure of domestic extraction (DE)



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The total amount of imports of materials in 2018 was about 4,4 million tonnes, which is 4.9 % higher compared to 2017. The largest ammount of imports consists of biomass, with 1,465 thousand tonnes, followed by fossil energy materials with 912.6 thousand tonnes. Than we have non-metallic minerals with 905.9 thousand tonnes, metal ores and concentrates with 883.6 thousand tonnes and other products including imported waste with 319.1 thousand tonnes.

Tab. 2 Imports of materials by category (000 tones)

Year	2014	2015	2016	2017	2018
Biomass and biomass products	1,242.3	1,233.9	1,369.5	1,378.4	1,465.3
Metal ores and concentrates	782.8	816.9	752.4	829.9	883.6
Non-metallic minerals	854.3	810.5	770.4	954.9	905.9
Fossil energy materials/carriers	872.1	818.0	891.1	813.0	912.6
Other products and waste imported	276.6	266.4	282.2	302.2	319.1
Total	**4,028.1**	**3,945.7**	**4,065.6**	**4,278.4**	**4,486.5**

Exports of materials in 2018 amounted to about 3.9 million tonnes, which is 0.1% lower compared to 2017, mainly due to metal ores and concentrates whose exports decreased by 9.7 %. During 2018 there has been an increase in exports for all other categories of environmental materials, fossil energy materials carriers Increased by 6.4 %, biomass by 1.2 % and non-metallic minerals by 1.1 %

Tab. 3 Exports of materials by category (000 tones)

Year	2014	2015	2016	2017	2018
Biomass	248.2	333.3	331.2	369.1	373.5
Metal ores and concentrates	1,525.6	1,345.1	1,242.1	1,262.6	1,140.2
Non-metallic minerals	1,424.8	1,232.3	1,266.4	1,459.0	1,475.0
Fossil energy materials/carriers	1,225.9	1,205.9	997.2	712.6	758.3
Other products and waste exported	108.6	127.5	122.2	144.7	196.5
Total	**4,533.2**	**4,244.1**	**3,959.0**	**3,947.9**	**3,943.5**

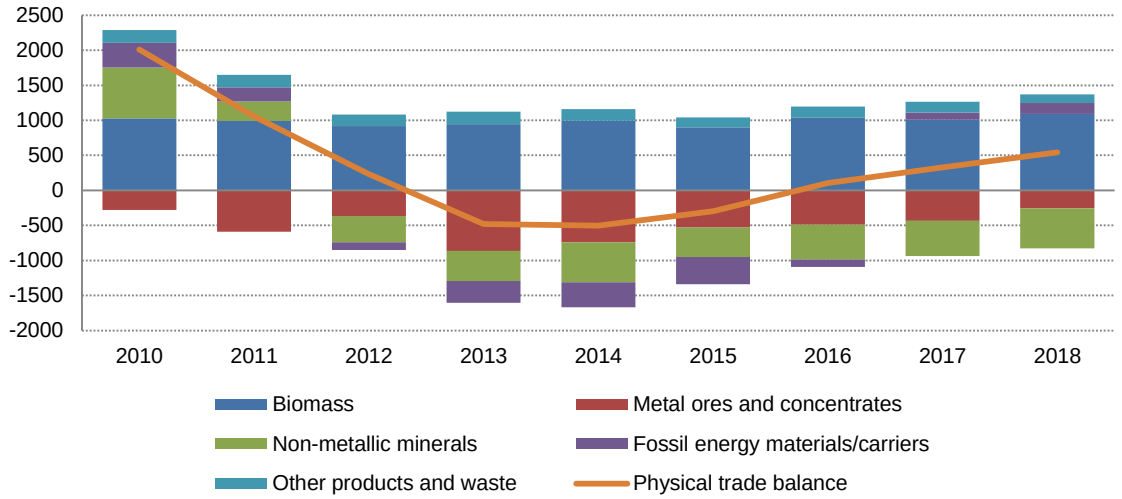
The physical trade balance shows the difference between imports and exports for all material categories reaching 543 thousand tonnes for 2018, which is 212.5 thousand tonnes more compared to 2017. As it can be seen in Figure 2, the material groups biomass, fossil energy materials/carriers and other products including imported waste have a positive trade balance, while the groups non-metallic minerals, metal ores and concentrates have a negative trade balance for 2018.

Tab.4 Physical trade balance (PTB)

(000 tones)

Year	2014	2015	2016	2017	2018
Physical trade balance	**-505.1**	**-298.4**	**106.6**	**330.5**	**543.0**
Import	4,028.1	3,945.7	4,065.6	4,278.4	4,486.5
Export	4,533.2	4,244.1	3,959.0	3,947.9	3,943.5

Fig.2 Physical trade balance



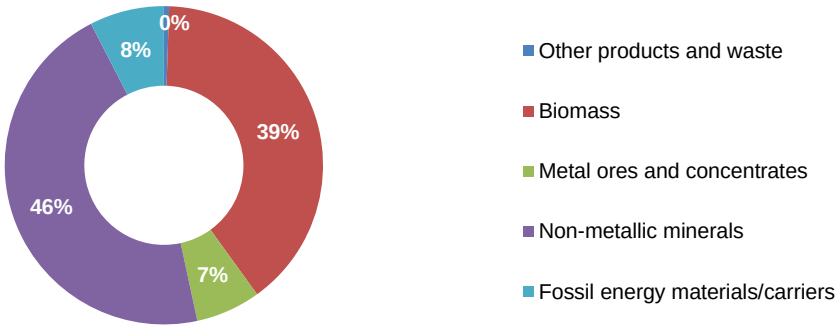
(000 tones)

The domestic material consumption (DMC) measures the total amount of materials extracted and used from the environment, taking into account the physical balance of trade. In 2018 the DMC reached about 22.9 million tonnes, 5.5 % less compared to 2017. Domestic material consumption is dominated by non-metallic minerals reaching 45.8 % of the total, followed by biomass with 39.5 %, fossil energy materials with 7.6 %, metal ores and concentrates with 6.6 % and other products including imported waste with 0.5 %.

Tab.5 Domestic material consumption (DMC) (000 tones)

Year	2014	2015	2016	2017	2018
Biomass	8,878.1	8,870.6	9,104.8	9,173.5	9,062.4
Metal ores and concentrates	694.1	1,000.5	690.3	924.1	1,509.4
Non-metallic minerals	11,780.5	14,958.8	17,566.5	10,089.2	10,505.5
Fossil energy materials/carriers	1,161.4	1,158.6	1,055.1	1,405.3	1,736.9
Other products and waste	168.0	138.9	160.0	157.5	122.5
Total	**22,682.0**	**26,127.3**	**28,576.7**	**21,749.6**	**22,936.8**

Fig.3 Structure of Domestic material consumption 2018 (DMC)



The domestic material consumption per capita in 2018 was about 8.0 tonnes, showing an increase of approximately 5.7 % compared to 2017, which amounted to about 7.6 thousand tonnes.

Tab.6 Domestic material consumption (DMC) per capita (tones/capita)

Year	2014	2015	2016	2017	2018
Biomass	3.1	3.1	3.2	3.2	3.2
Metal ores and concentrates	0.2	0.3	0.2	0.3	0.5
Non-metallic minerals	4.1	5.2	6.1	3.5	3.7
Fossil energy materials/carriers	0.4	0.4	0.4	0.5	0.6
Other products and waste	0.1	0.0	0.1	0.1	0.0
Total	**7.9**	**9.1**	**9.9**	**7.6**	**8.0**

Methodology

The Material flow Accounts (MFA) are one of the modules of the Environmental Accounts which collects complementary data on environment in line with the concept used to compile the System of National Accounts (SNA)

The Material Flow Accounts (MFA) have the main objective to describe the relationship between the domestic economy and its natural environment. It includes the total amount of natural resources and products used in the economy, either directly in the production and distribution of products and services, or indirectly by extracting the materials that will be used for production.

These data are subject to revision. For more information refer to: http://www.instat.gov.al/al/rrethnesh/cilësi-statistikore.aspx/ Statistical revision policy.

Some of the key categories and main indicators of the material flow accounts are:

Biomass

Biomass includes organic non-fossil materials. According to the definitions of the MFA, the materials extracted from natural resources includes all agricultural products, wild fish and hunting animals. Livestock and livestock products (such as milk, meat, eggs) are not included.

Metal ores and non metalic minerals

Metal ores and non-metallic minerals are two main material groups of the MFA. According to the definitions of the Material Flow Accounts (MFA), those categories consists of minerals obtained in the mining and construction industry.

Fossil energy materials/carriers

Include sources of oil and other fossil energy materials that have been formed in the geological past from biomass. They include solid substances, liquids and gases.

Domestic extraction (DE)

The domestic extraction (DE) includes the amount of materials (excluding water and air) extracted from the environment for the use of economic purposes.

Domestic material consumption (DMC)

The domestic material consumption (DMC) measures the annual amount of materials extracted and used in the national economy, plus all physical imports, excluding all physical exports.

Physical trade balance (PTB)

The physical balance of trade is equal to physical imports minus physical exports.

Data sources

The data used to compile the Material Flow Accounts are administrative data received from the Ministry of Agriculture and Rural Development (MARD), the National Agency of Natural Resources (NANR) Water Resources Management Agency (WRMA) and the Institute of Statistics (INSTAT)

The methodology used for the calculation complies wth the Regulation (EU) No. 691/2011 on Material Flow Accounts and Eurostat manuals.