

Material Flow Account

Year 2017

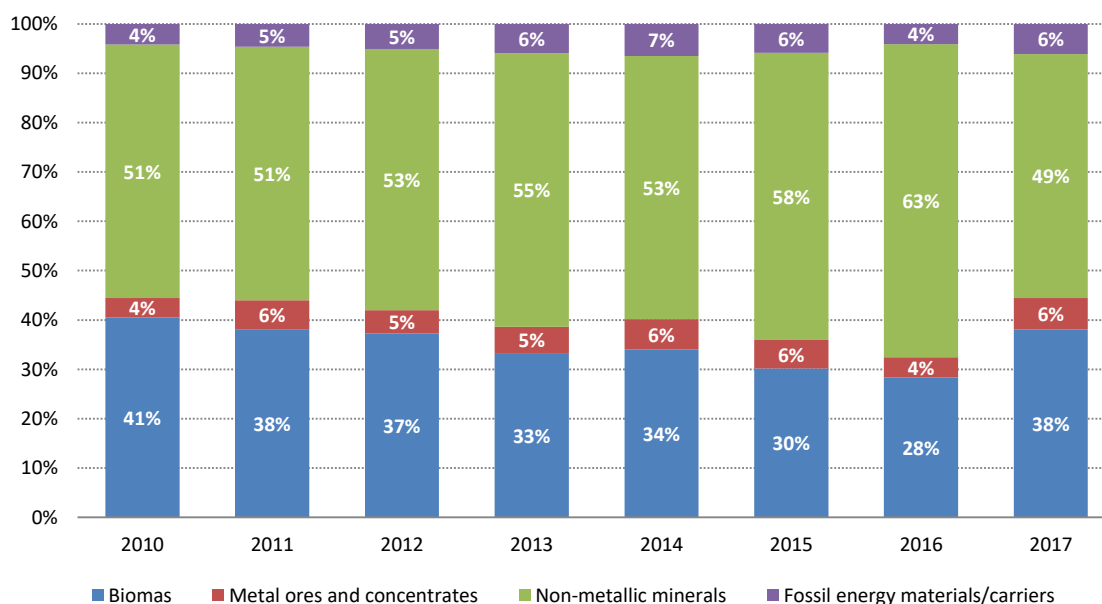
Tirana, 26 April 2019: In 2017, materials extracted from domestic natural resources which represents the total amount of materials directly used in the economy, amounted to about 21,4 million tonnes with an decrease of 24.77 % compared to 2016. According to the structure, in 2017, non-metallic minerals account for 49.46 % at the total, followed by biomass with 38.12 %, metal ores with 6.33% and fossil energy materials and carriers with 6.09 %.

Tab. 1 Domestic extraction (DE)

(000 tonnes)

Year	2013	2014	2015	2016	2017
Biomass	7,839.18	7,883.96	7,970.00	8,066.48	8,164.13
Metal ores	1,243.79	1,436.88	1,528.71	1,180.02	1,356.78
Non-metallic minerals	13,058.92	12,351.07	15,380.51	18,062.48	10,593.31
Fossil energy materials/carriers	1,395.00	1,515.23	1,546.46	1,161.15	1,304.88
Total	23,536.90	23,187.14	26,425.68	28,470.13	21,419.10

Fig.1 Structure of domestic extraction (DE)



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The total amount of imports of materials in 2017 was about 4,2 million tonnes, which is 5.23 % higher compared to 2016. The largest share hold the group of biomass with 1,378 thousand tonnes, followed by non-metallic minerals with 954.87 thousand tonnes, metal ores and concentrates with 829.91 thousand tonnes, fossil energy materials with 813.04 thousand tonnes, and other products including imported waste with 302.18 thousand tonnes.

Tab. 2 Imports of materials by category

(000 tonnes)

Year	2013	2014	2015	2016	2017
Biomass and biomass products	1,179.41	1,242.29	1,233.87	1,369.55	1,378.44
Metal ores and concentrates	668.87	782.80	816.90	752.43	829.91
Non-metallic minerals	832.97	854.25	810.53	770.37	954.87
Fossil energy materials/carriers	984.13	872.13	818.00	891.12	813.04
Other products and waste imported	275.02	276.58	266.42	282.17	302.18
Total	3,940.39	4,028.05	3,945.72	4,065.64	4,278.44

Exports of materials in 2017 amounted to about 4 million tonnes, which is 0.28 % lower compared to 2016, mainly due to fossil energy materials whose exports decreased by 28.53 %.

Tab. 3 Exports of materials by category

(000 tonnes)

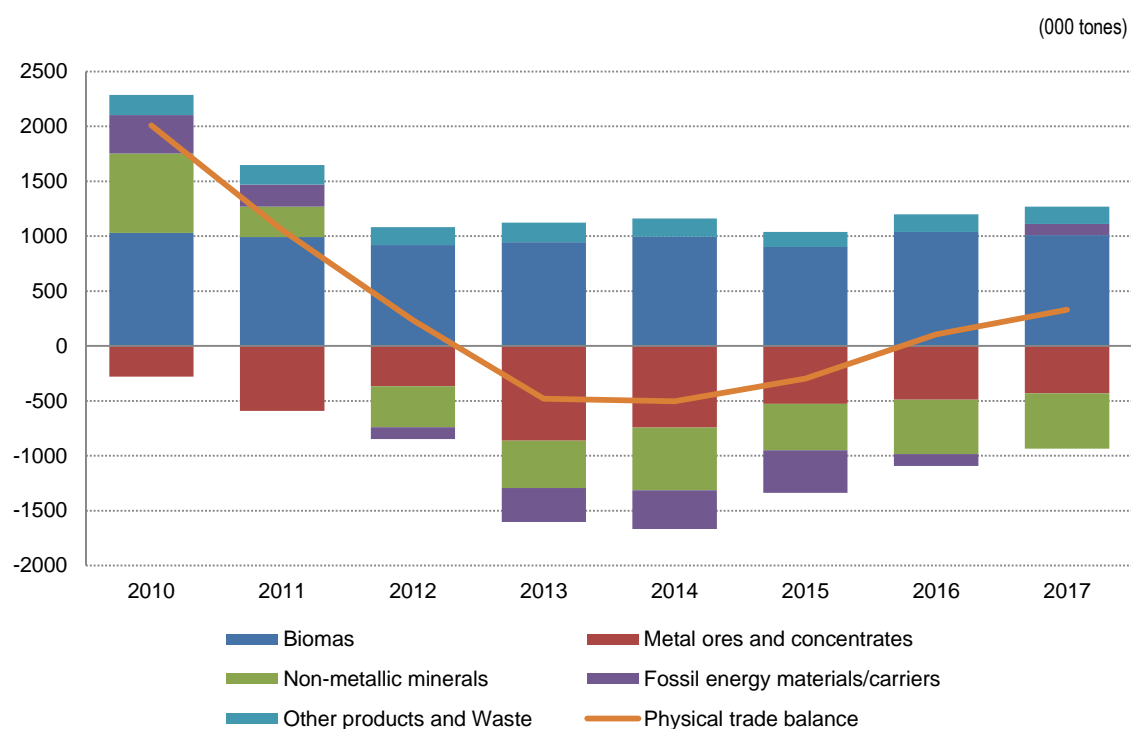
Year	2013	2014	2015	2016	2017
Biomass	233.62	248.16	333.31	331.20	369.10
Metal ores and concentrates	1,531.23	1,525.61	1,345.15	1,242.14	1,262.56
Non-metallic minerals	1,265.36	1,424.85	1,232.28	1,266.36	1,458.97
Fossil energy materials/carriers	1,291.83	1,225.92	1,205.87	997.20	712.63
Other products and waste exported	98.13	108.62	127.50	122.16	144.68
Total	4,420.18	4,533.16	4,244.10	3,959.04	3,947.94

The physical trade balance shows the difference between imports and exports for all material categories reaching 330 thousand tonnes for 2017, which is 223.9 thousand tonnes more compared to 2016. The material group biomass, fossil energy materials/carriers and other products including imported waste have a positive balance, while the group non-metallic minerals, metal ores and concentrates have a negative balance for 2017.

Tab.4 Physical trade balance (PTB)

(000 tonnes)

Year	2013	2014	2015	2016	2017
Physical trade balance	-479.78	-505.11	-298.38	106.60	330.50
Import	3,940.39	4,028.05	3,945.72	4,065.64	4,278.44
Export	4,420.18	4,533.16	4,244.10	3,959.04	3,947.94

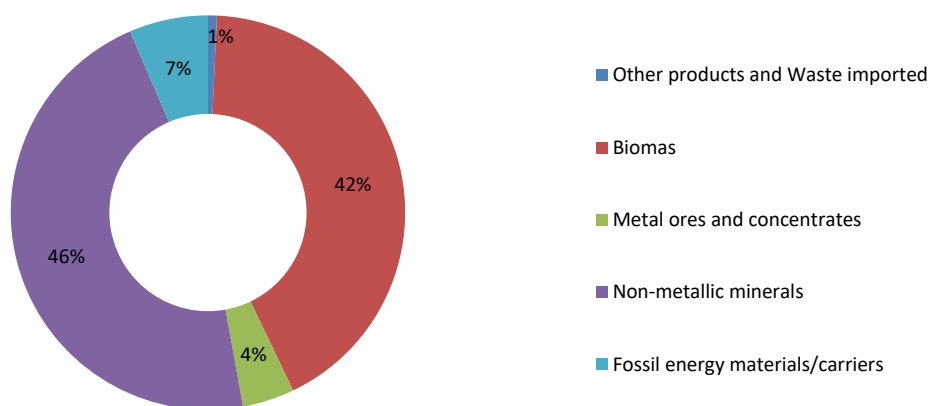
Fig.2 Physical trade balance

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 2017 the DMC reached about 21.7 million tonnes, 23.89 % less compared to 2016. Domestic material consumption is dominated by non-metallic minerals reaching 46.39 % of the total, followed by biomass with 42.18 %, fossil energy materials with 6.46 %, metal ores and concentrates with 4.25 % and other products including imported waste with 0.72 %.

Tab.5 Domestic material consumption (DMC)

(000 tones)

Year	2013	2014	2015	2016	2017
Biomass	8,784.97	8,878.09	8,870.56	9,104.83	9,173.47
Metal ores and concentrates	381.43	694.07	1,000.46	690.31	924.13
Non-metallic minerals	12,626.53	11,780.48	14,958.76	17,566.50	10,089.21
Fossil energy materials/carriers	1,087.29	1,161.44	1,158.59	1,055.08	1,405.29
Other products and waste	176.89	167.96	138.92	160.01	157.50
Total	23,057.11	22,682.03	26,127.30	28,576.73	21,749.60

Fig.3 Structure of Domestic material consumption 2017 (DMC)

The domestic material consumption per capita in 2017 was about 7.57 thousand tonnes, showing a decrease of approximately 23.82 % compared to 2016, which amounted to about 9.94 thousand tonnes.

Tab.6 Domestic material consumption (DMC) per capita

(tones/capita)

Year	2012	2013	2014	2015	2016
Biomass	3.03	3.07	3.08	3.17	3.19
Metal ores and concentrates	0.13	0.24	0.35	0.24	0.32
Non-metallic minerals	4.36	4.08	5.19	6.11	3.51
Fossil energy materials/carriers	0.38	0.40	0.40	0.37	0.49
Other products and waste	0.06	0.06	0.05	0.06	0.05
Total	7.96	7.85	9.07	9.94	7.57

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 metallic 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) and the Institute of Statistics (INSTAT)

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