

16 December 2020

Environmental accounts: Material flow accounts
Preview data 2019

The national consumption of materials decreased by 3.0% in 2019, reaching 426.1 million tonnes

Productivity of materials in the Spanish economy increased by 5.1%

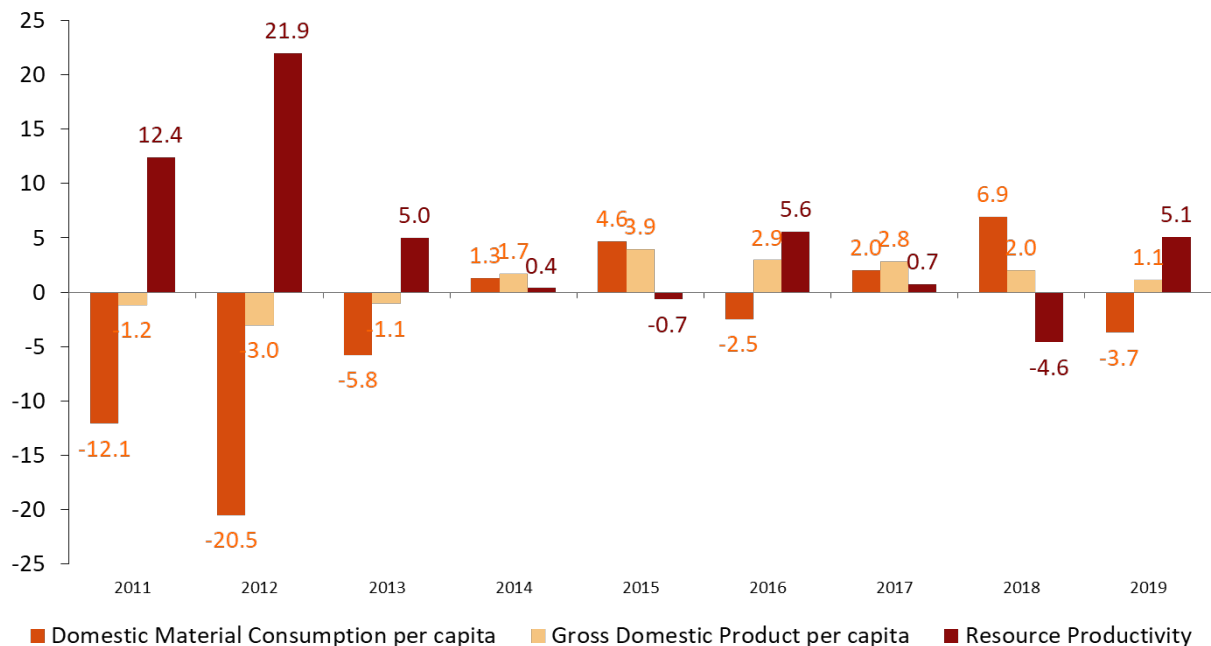
The national consumption of materials, which measures the annual quantity of solid, liquid and gaseous materials (excluding air and water) used directly by the economy, decreased by 3.0% in 2019, reaching 426.1 million tonnes.

Productivity of materials, or the amount of Gross Domestic Product (GDP) generated per unit of consumption of materials, reached 2,801.8 euros per tonne, with an increase of 5.1% compared to the previous year.

In turn, the consumption of materials per capita decreased by 3.7%, reaching 9.0 tonnes.

Leading Indicators

Annual variation rates



Components of the national consumption of materials

As with previous years, the main component of the consumption of materials was national extraction, with 82.9% of the total. It reached 353.1 million tonnes, 3.5% less than in 2018.

The physical trade balance (imports minus exports) was 73.0 million tonnes in 2019, or practically the same as in the previous year. Imports amounted to 261.0 million tonnes, compared with 188.0 million tonnes of exports.

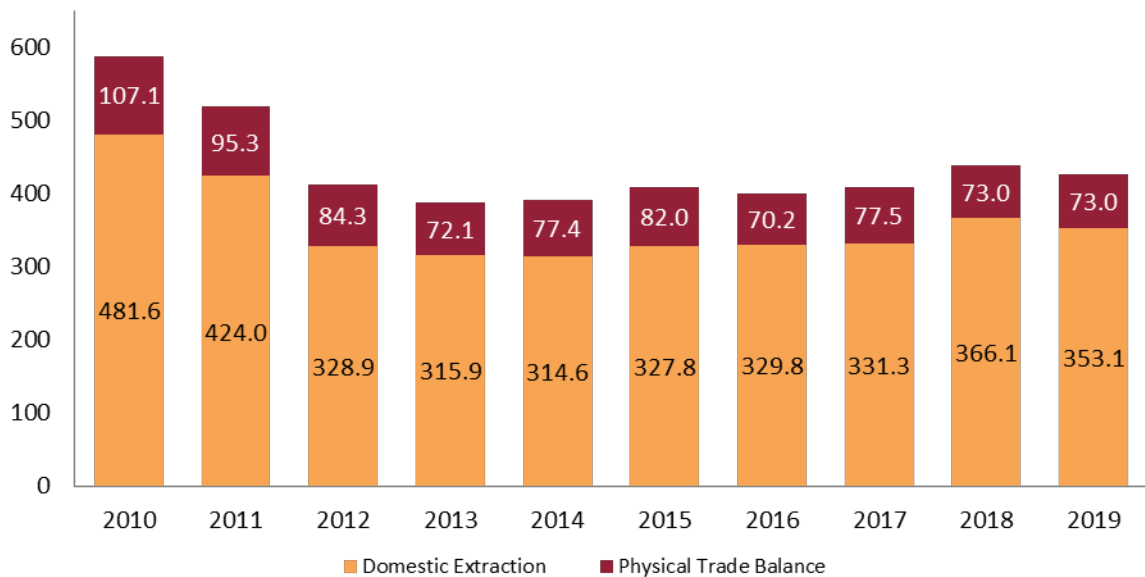
Domestic Material Consumption. Year 2019

Unit: Thousand tonnes

	2019	Annual rate
Domestic Material Consumption.	426,115.5	-3.0
Domestic Extraction	353,148.7	-3.5
Physical trade balance	72,966.9	0.0
Imports	261,008.9	-6.5
Exports	188,042.0	-8.8

Domestic Material Consumption.

Unit: Thousand tonnes



National extraction of materials

The main materials extracted in national territory in 2019 were *Non-metallic minerals*, mainly limestone, plaster and sand, followed by *Biomass* (notably cereals, fruits and vegetables), with 209.8 and 124.8 million tonnes respectively.

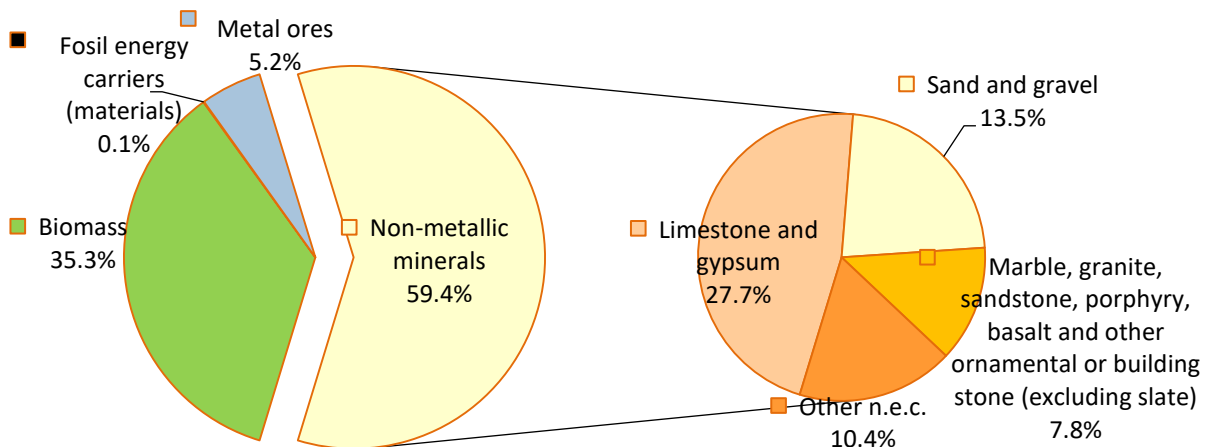
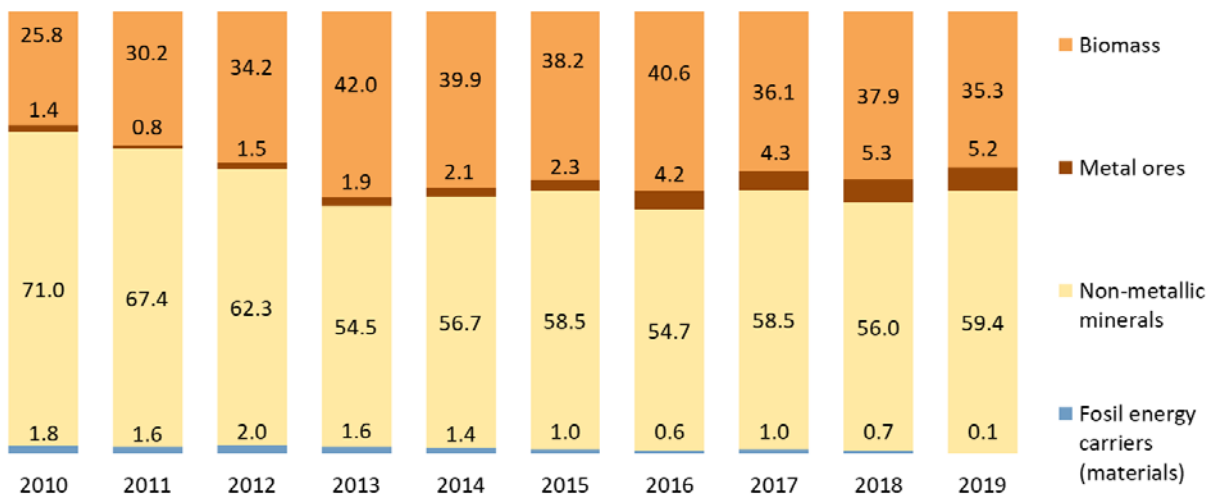
Extraction of non-metallic minerals increased by 2.4% compared to the previous year, while that of biomass decreased by 10.4%.

Domestic extraction. Year 2019

Unit: Thousand tonnes

	2019	%	annual rate
Domestic Extraction	353,148.7	100.0	-3.5
Non-metallic minerals	209,841.8	59.4	2.4
Biomass	124,814.9	35.3	-10.4
Metal ores	18,262.4	5.2	-5.7
Fossil energy carriers (materials)	229.6	0.1	-91.4

Domestic extraction distribution (percentage). Year 2019



Components of the physical trade balance

Fossil fuels (coal, crude oil, natural gas and derivatives) were the materials that made the biggest contribution to the physical trade balance in 2019, both in imports (50.8% of the total) and exports (28.2%). It is followed by Biomass (20.8% and 25.2% respectively).

Fossil fuels had the most positive physical trade balance (79.7 million tonnes). By contrast, non-metallic minerals registered the most negative balance (-24.4 million).

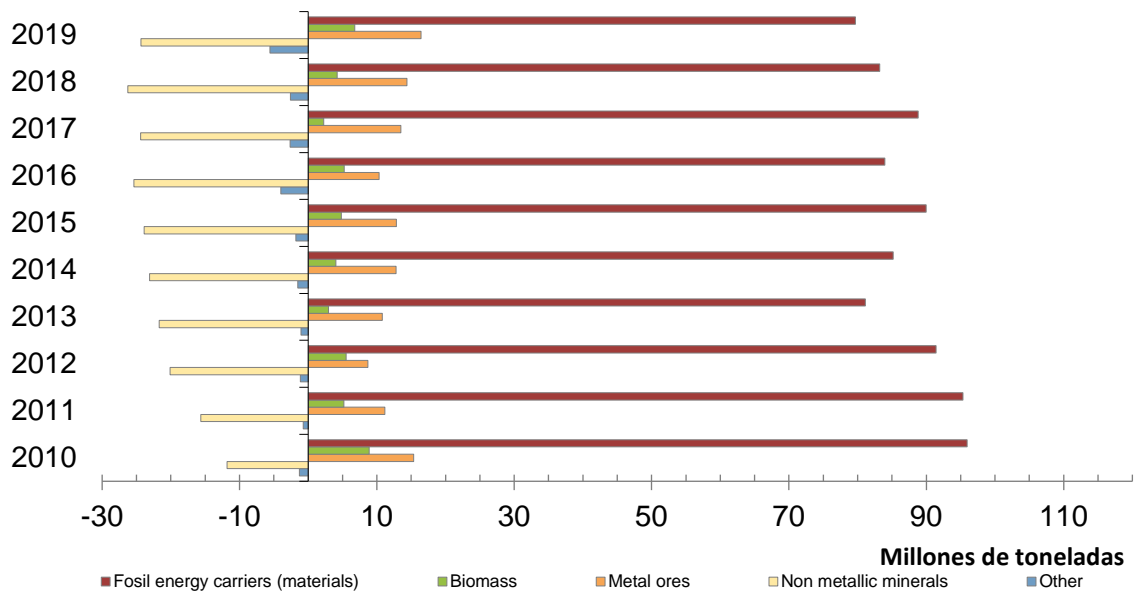
Components of the physical trade balance. Year 2019

Unit: Thousand tonnes

	Physical trade balance	Imports	%	Exports	%
TOTAL	72,966.9	261,008.9	100.0	188,042.0	100.0
Fossil energy carriers (materials)	79,680.5	132,631.0	50.8	52,950.5	28.2
Biomass	6,798.8	54,240.6	20.8	47,441.8	25.2
Metal ores	16,427.8	44,481.9	17.0	28,054.1	14.9
Non metallic minerals	-24,362.3	14,897.8	5.7	39,260.1	20.9
Other	-5,577.9	14,757.6	5.7	20,335.5	10.8

Components of the physical trade balance

Unit: Millions of tonnes



Data Review and Update

The INE is also publishing the complete estimates of the Material Flow Accounts for the 2008-2018 series today. The data for the 2015-2019 period are provisional and will be revised when the data for 2020 are released. All results are available on INEBase.

Methodological note

The objective of the Environmental Accounts (EA) is to integrate environmental information into the central system of National Accounts in a coherent way. They include a set of satellite accounts, which are transmitted annually, compiled using the accounting formats applicable to the different sectoral and territorial areas, with a strong use of physical data. They show the interaction between the economy, households and environmental factors.

The *Material Flow Accounts* show the physical inputs of materials that enter into the national economic system in physical units (tonnes). This makes it possible to obtain a set of aggregate indicators on the use of natural resources, from which indicators can be derived on the productivity of resources (eco-efficiency) in relation to GDP and other economic and employment indicators, in addition to indicators on intensity of materials from lifestyles, considering the size of the population and other demographic indicators.

Normally, an increase in the need for materials, such as construction and energy resource materials, linked to economic growth occurs. With more rational use of natural resources, a higher economic value is given to each unit used and, in this way, the rate of increase in the use of resources may be lower than the rate of economic growth. When this occurs, it is said that a decoupling of the use of materials and economic growth takes place.

For more information the methodology can be accessed at:

https://www.ine.es/dyngs/INEbase/es/operacion.htm?c=Estadistica_C&cid=1254736176943&menu=metodologia&idp=1254735976603

The standardized methodological report is at:

<https://www.ine.es/dynt3/metadatos/es/RespuestaDatos.html?oe=30086>

INE statistics are produced in accordance with the Code of Good Practice for European Statistics, which is the basis for the institution's quality policy and strategy. For more information see the section on [Quality at INE and the Code of Best Practices](#) on the INE website.

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