Instituto Nacional de Estadística

Press Release

16 November 2016

Environmental accounts
Material flow accounts. Base 2010. 2010 – 2014 Accounting series

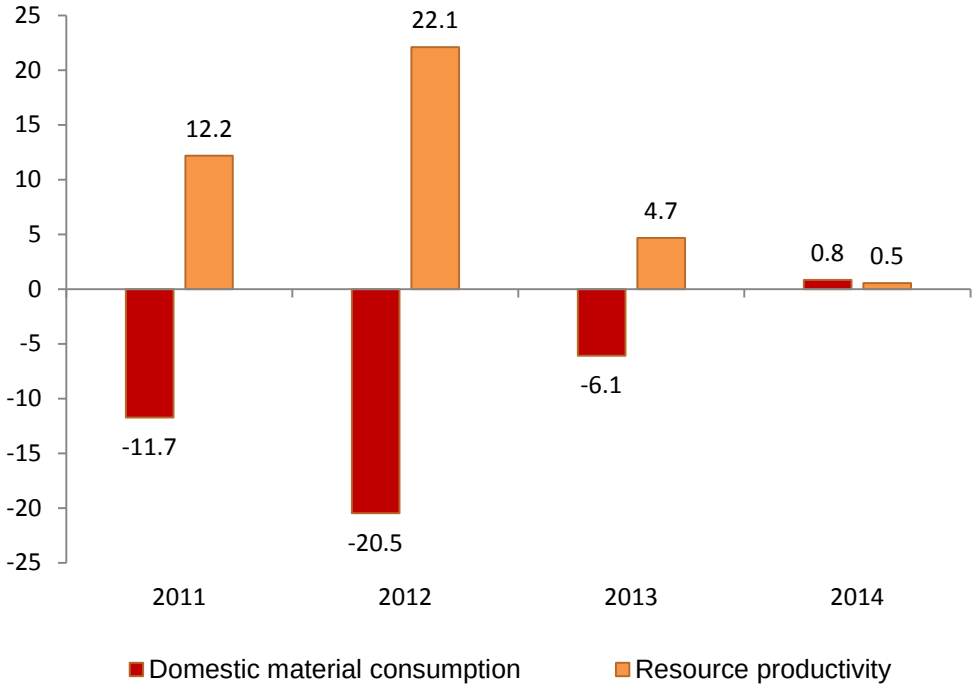
The domestic material consumption registers 391.1 million tonnes in 2014, 0.8% more than in 2013

The resource productivity of the Spanish economy increases 0.5% in 2014

The domestic material consumption, a measure of the total quantity of materials directly used by the economy, reached 391.1 million tonnes in 2014, representing an increase of 0.8% as compared with 2013.

As for resource productivity or the amount of Gross Domestic Product created per domestic material consumption unit, it reached 2,646.7 euros per tonne in 2014, representing an increase of 0.5% as compared with the previous year.

Main indicators.
%interannual variation. Unit: percentage



Components of the domestic material consumption

The domestic extraction of materials was the main component of domestic material consumption in 2014, with 314.2 million tonnes, which represented 80.3% of the total. Regarding the year 2013, there was a 0.5% decrease.

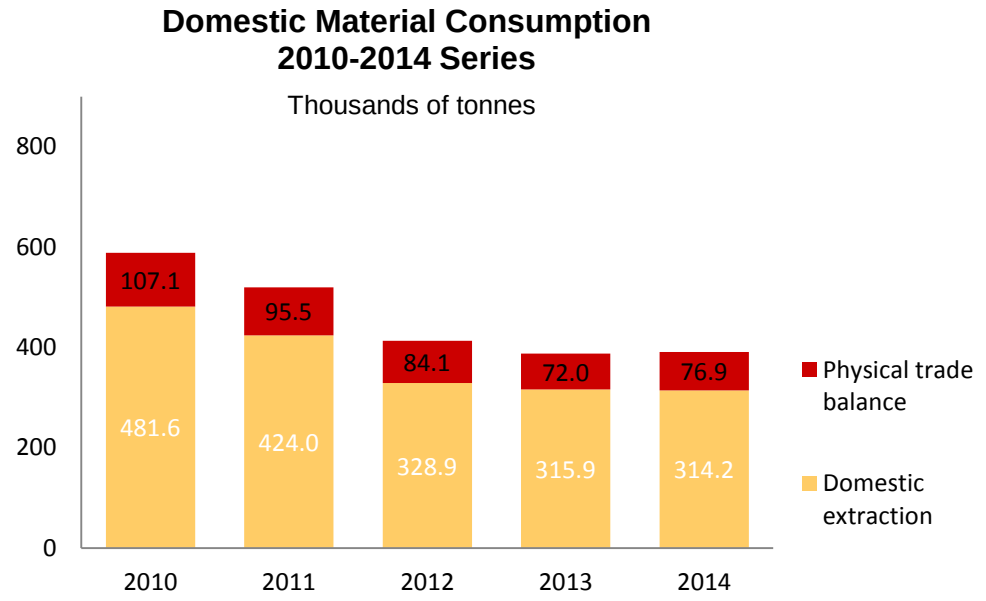
The physical trade balance, which is the physical trade surplus or deficit of an economy (imports - exports), was of 76.9 million tonnes in 2014 (representing 19.7% of the domestic material consumption). This figure represented a 6.8% increase as compared with the previous year.

Imports reached 240.6 million tonnes in 2014, as compared with the 163.7 millions in exports.

Domestic Material Consumption. Year 2014

Unit: thousands of tonnes

	2014	% interannual variation
Domestic extraction	**314,193.1**	**-0.5**
Physical trade balance	**76,894.5**	**6.8**
Imports	240,618.0	6.7
Exports	163,723.5	6.6
Domestic material consumption	**391,087.6**	**0.8**



Domestic extraction of materials

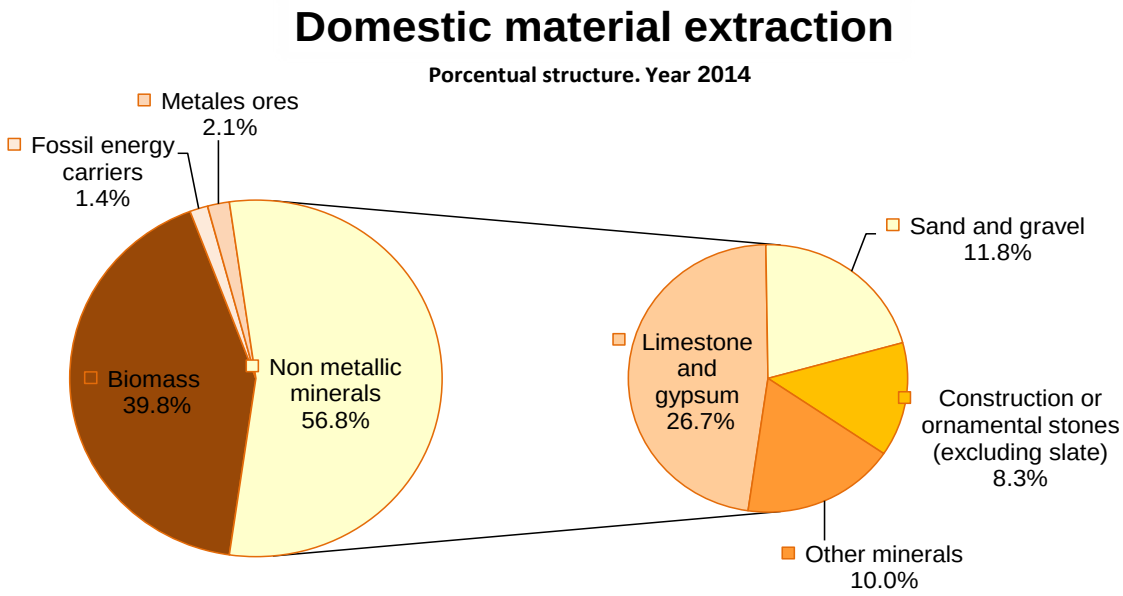
The main materials extracted within the domestic territory in 2014 were non-metallic minerals and biomass with 178.3 and 125.1 million tonnes respectively.

In 2014, biomass extraction decreased 5.7% while the extraction of non-metallic minerals increased 3.5%.

The increase of non-metallic minerals, which represented 56.8% of total extractions in 2014, was due to the behaviour of limestone, gypsum, sand and gravel (67.8% of this kind of minerals).

Domestic Extraction in thousands of tonnes. Year 2014
Unit: thousands of tonnes

	2014	%	% interannual variation
Domestic extraction	**314,193.1**	**100**	**-0.5**
Biomass	**125,076.1**	39.8	**-5.7**
Metales ores	**6,537.2**	2.1	**8.2**
Non metallic minerals	**178,332.2**	56.8	**3.5**
Limestone and gypsum	83,800.1	26.7	2.4
Sand and gravel	37,074.4	11.8	2.7
Construction or ornamental stones (excluding slate)	26,120.6	8.3	10.0
Chalk and dolomite	5,517.8	1.8	-0.6
Slate	1,293.1	0.4	33.4
Chemical and feritiser minerals	3,932.2	1.3	4.5
Salt	4,976.3	1.6	0.0
Clays and kaolin	10,019.2	3.2	5.2
Other n.e.c	5,598.5	1.8	-4.7
Fossil energy carriers	**4,247.5**	1.4	**-13.4**



Physical trade balance

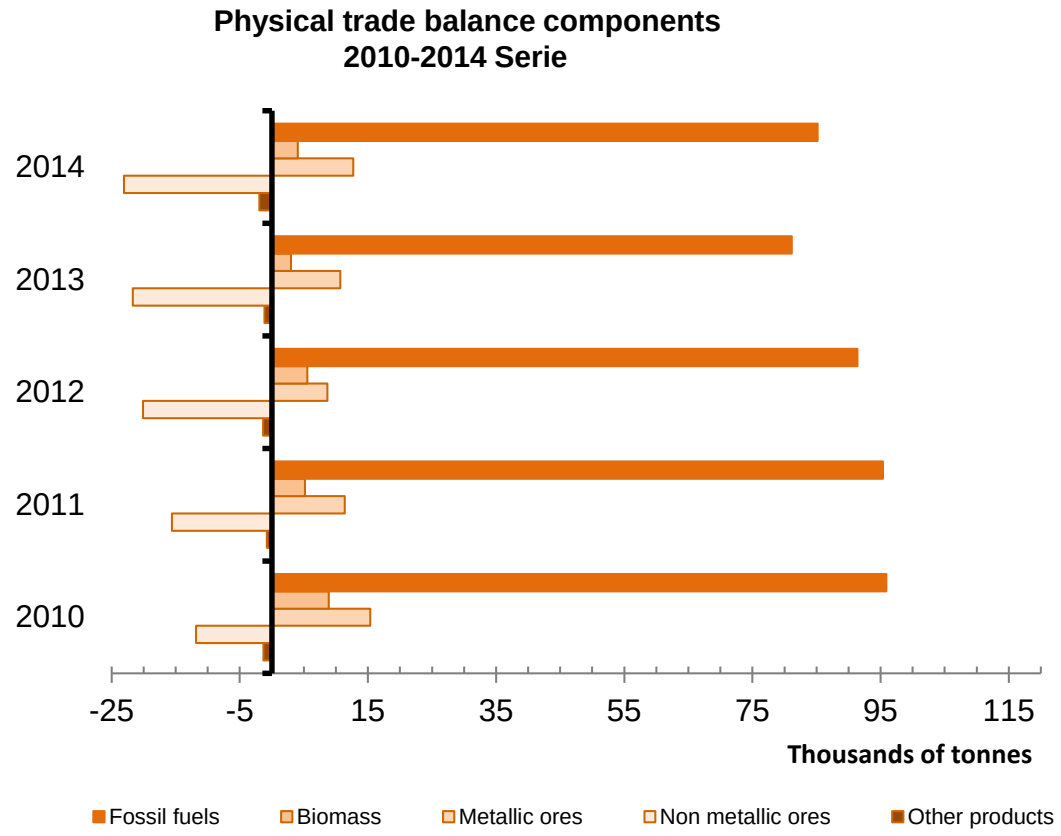
Fossil fuels were the material with the greatest weight in the physical trade balance in 2014, both in imports (55.9%) and exports (30.1%). Biomass stood right behind, with 19.1% and 25.6%, respectively.

As for Non-metallic minerals, Imports were 10,680.3 thousand tonnes and exports, 33,766.9, resulting in a negative balance of 23,086.5 thousand tonnes for this type of material.

Components of the physical trade balance. Year 2014

Unit: thousands of tonnes

	Physical trade balance	Imports	%	Exports	%
	76,894.5	**240,618.0**	**100**	**163,723.5**	**100**
Fossil fuels	85,156.3	134,462.1	55.9	49,305.8	30.1
Biomass	4,057.4	45,950.0	19.1	41,892.7	25.6
Metallic ores	12,688.8	39,062.3	16.2	26,373.5	16.1
Non metallic ores	-23,086.5	10,680.3	4.4	33,766.9	20.6
Other products	-1,921.6	10,463.1	4.4	12,384.7	7.6



Indicators derived from Material Flow Accounts

The main indicators derived from the Material Flow Accounts are Resource Productivity and Domestic material consumption per inhabitant.

Resource Productivity refers to the quantity of GDP created per domestic material consumption unit, in euro per tonne. We use the ratio between GDP and domestic material consumption, which enables to understand the behaviour of the economy in relation to the environment.

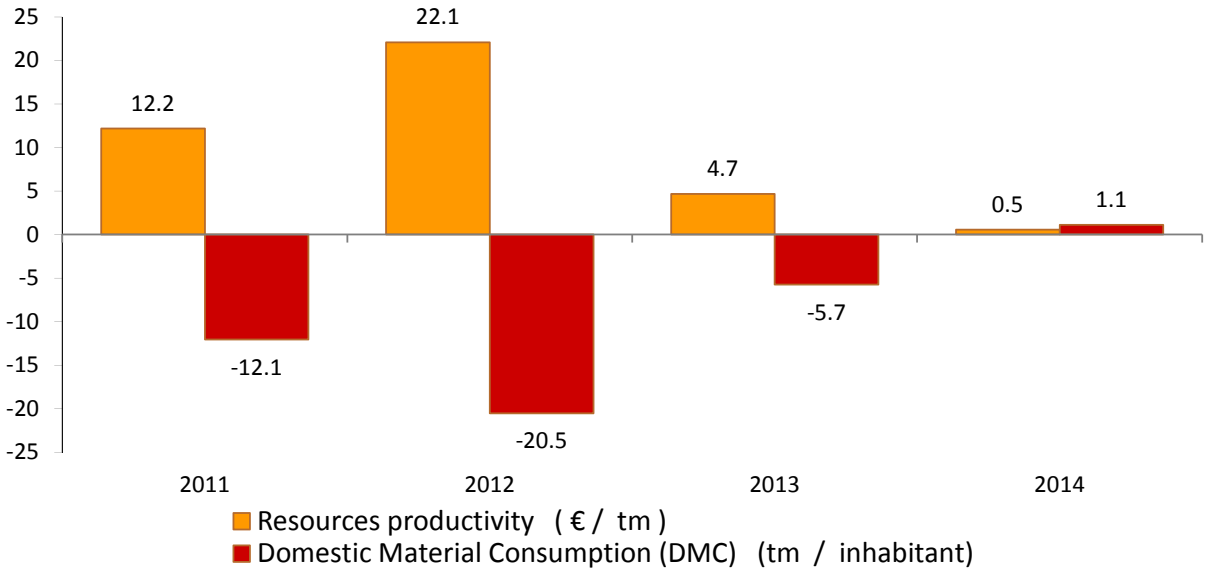
In 2014, resource productivity reached 2,646.7 euros per tonne, with a 0.5% increase as compared with the previous year.

The **Domestic consumption of materials per inhabitant** may be observed by relating the domestic material consumption with the size of the population. The average consumption of materials reached 8.4 tonnes per inhabitant in 2014, 1.1% more than in the previous year.

Material flow indicators. Year 2014

	2014	% interannual variation
Resources productivity (€ / tm)	2,646.7	0.5
Domestic Material Consumption (DMC) (tm / inhabitant)	8.4	1.1

Material flows. Interannual variation rates. Unit percentage



Methodological note

The National Statistics Institute presents today the estimates corresponding to 2010-2014 of the Material flows accounts 2010 base.

The ***Environmental Accounts*** (EA) are a synthesis statistical operation with the general objective of integrating environmental information coherently in the central system of National Accounts, following the methodology of the United Nations System of Integrated Environmental and Economic Accounting (UNSD), which constitutes the conceptual framework of the EA.

The European Parliament and Council Regulation (EU) No. 691/2011, of 6 July 2012, regarding the European economic environmental accounts, constitutes the frame of reference of concepts, definitions, classifications and common accounting standards for the compilation of the Environmental Accounts and includes a module of such accounts for annual transmission.

Material Flow Accounts reflect the physical inputs of materials that enter the national economic system in physical units (tonnes). These accounts provide a set of aggregate indicators on the use of natural resources for 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 the intensity of materials in lifestyles, considering the size of the population and other demographic indicators.

There is an increase of the need of materials, such as the ones for construction and energy resources, which is usually linked to the growth of the economy. A more rational use of natural resources provides a greater economic value to each used unit and thus the growth rate of the use of resources may be lower than the economic growth rate. When this happens, it is said that a ***decoupling takes place between the use of materials and economic growth***.

One of the main goals of the EU is to achieve a decoupling between economic growth and environmental degradation. An efficient use of resources constitutes one of the flagship initiatives of the Europe 2020 strategy.

Main definitions:

- *Domestic extraction* is the annual quantity of solid, liquid and gaseous materials (excluding air and water) that are extracted from the natural environment to be used as inputs in the economy.

- *Physical imports and exports* include all goods imported or exported, in mass units. Goods exchanged include assets in all transformation stages, from basic products to finished products.

- *Direct material input* registers as resource the direct input of materials in the economic system, from the natural environment of the country and of the rest of the world, that is, domestic extraction and imports.

- *Domestic material consumption* is obtained by deducting exports from the Direct Material Input indicator.

- *Resource productivity* is defined as the amount of GDP created per unit of domestic material consumption (euros per tonne).

The INE website http://www.ine.es shows the complete published methodology of the operation.

Press Office: Telephone numbers: 91 583 93 63 / 94 08 – Fax: 91 583 90 87 - **gprensa@ine.es**
Information Area: Telephone number: 91 583 91 00 – Fax: 91 583 91 58 **– www.ine.es/infoine/?L=1**