

Material flow accounts. Base 2008.
2008 – 2012 accounting series

The Domestic material consumption registers 414 million tonnes in 2012, 20.0% less than in 2011

The resource productivity of the Spanish economy increases 23.0% in 2012

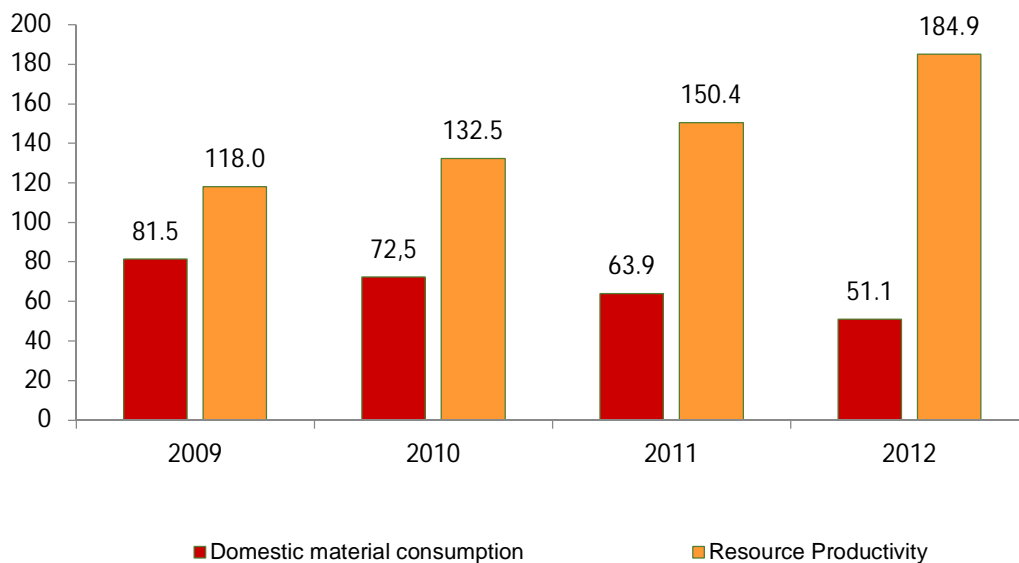
The domestic material consumption, a measure of the total quantity of materials directly used by the economy, reached 414.0 million tonnes in 2012, representing a decrease of 20.0% as compared with 2011 and of 48.9% as compared with 2008.

As for resource productivity (the amount of Gross Domestic Product created per domestic material consumption unit) there was a 23.0% growth in 2012, while in the 2008-2012 period there was a 84.9% increase.

In the 2008-2012 period, a gradual disconnection between the use of resources and economic growth had occurred.

Main indicators.

Indices. Reference year 2008=100



Components of the domestic material consumption

The domestic extraction of materials was the main component of domestic material consumption in 2012, with 327.2 million tonnes, which represented 79.0% of the total. Regarding the year 2011, there was a 22.7% decrease.

The physical trade balance, which is the physical trade surplus or deficit of an economy (imports - exports), was of 86.8 million tonnes in 2012 (representing 21.0% of the domestic material consumption). This figure represented a 8.1% decrease as compared with the previous year. In the 2008-2012 there was a 41.9% decrease.

Imports reached 234.3 million tonnes in 2012, as compared with the 147.5 millions in exports.

Domestic Material Consumption. 2008-2012 Series

Unit: thousands of tonnes

	2012	% interannual variation	% variation on 2008
Domestic Extraction Used (DEU)	327,217.6	-22.7%	-50.5%
Physical Trade Balance (PTB)	86,771.6	-8.1%	-41.9%
Imports	234,253.9	0.5%	-15.3%
Exports	147,482.3	6.3%	15.8%
Domestic Material Consumption	413,989.2	-20.0%	-48.9%

Domestic Material Consumption



Domestic extraction of materials

The main materials extracted within the domestic territory in 2012 were non-metallic minerals and biomass with 204.9 and 111.1 million tonnes respectively.

In the 2008-2012 period, biomass extraction decreased 15.2% while the extraction of non-metallic minerals decreased 60.4%. Worth noting was the greater importance of biomass over the total extraction, going from 19.8% of the total extraction in 2008 to 33.9% in 2012.

The strong decrease of non-metallic minerals during the 2008-2012 period, which represented 62.6% of total extractions in 2012, was due to the behaviour of limestone, gypsum, sand and gravel (68.9% of this kind of minerals).

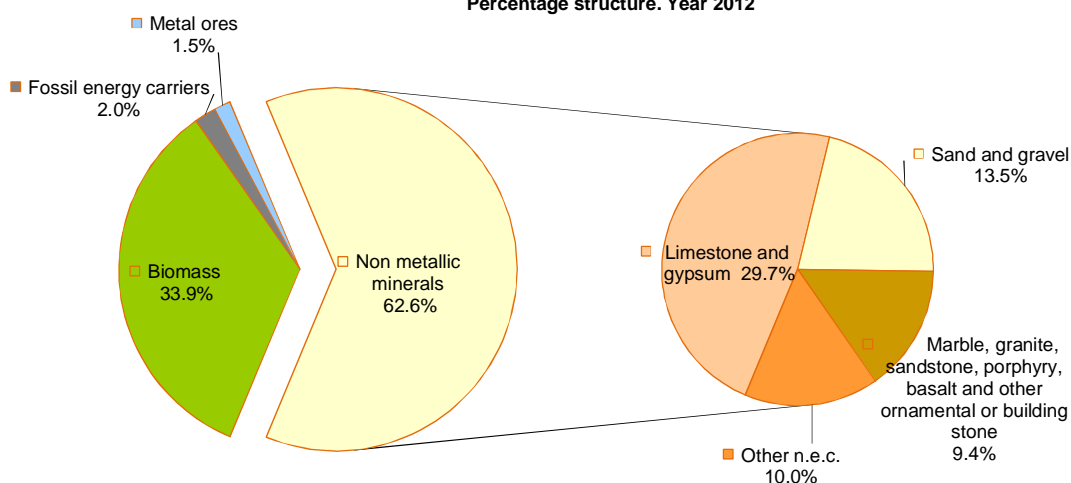
Domestic Extraction Used (DEU) in thousands of tonnes. 2008-2012 Series

Unit: thousands of tonnes

	2012	% interannual variation	% variation on 2008
Domestic Extraction Used (DEU)	327,217.6	-22.7%	-50.5%
Biomass	111,054.2	-13.3%	-15.2%
Metal ores	4,836.2	34.3%	146.7%
Non metallic minerals	204,882.2	-28.0%	-60.4%
Limestone and gypsum	97,259.8	-30.0%	-62.2%
Sand and gravel	43,992.4	-32.1%	-65.0%
Marble, granite, sandstone, porphyry, basalt and other ornamental or building stone	30,782.1	-24.9%	-55.6%
Chalk and dolomite	7,570.9	-34.8%	-58.7%
Slate	1,002.2	-5.3%	-45.0%
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Chemical and fertiliser minerals	4,032.1	5.6%	-8.5%
Salt	4,108.7	-8.8%	-4.5%
Clays and kaolin	10,078.4	-13.5%	-59.9%
Other n.e.c.	6,055.6	-16.2%	-49.3%
Fossil energy carriers	6,445.0	-6.0%	-38.3%

Domestic Material Consumption.

Percentage structure. Year 2012



Physical trade balance

Fossil fuels were the material with the greatest weight in the physical trade balance in 2012, both in Imports (57.8%) and Exports (28.1%). Biomass stood right behind, with 18.9% and 26.3%, respectively.

As for Non-metallic minerals, Imports were 9,043.0 thousand tonnes and Exports, 29,156.3, resulting in a negative balance of 20,113.3 thousand tonnes for this type of material.

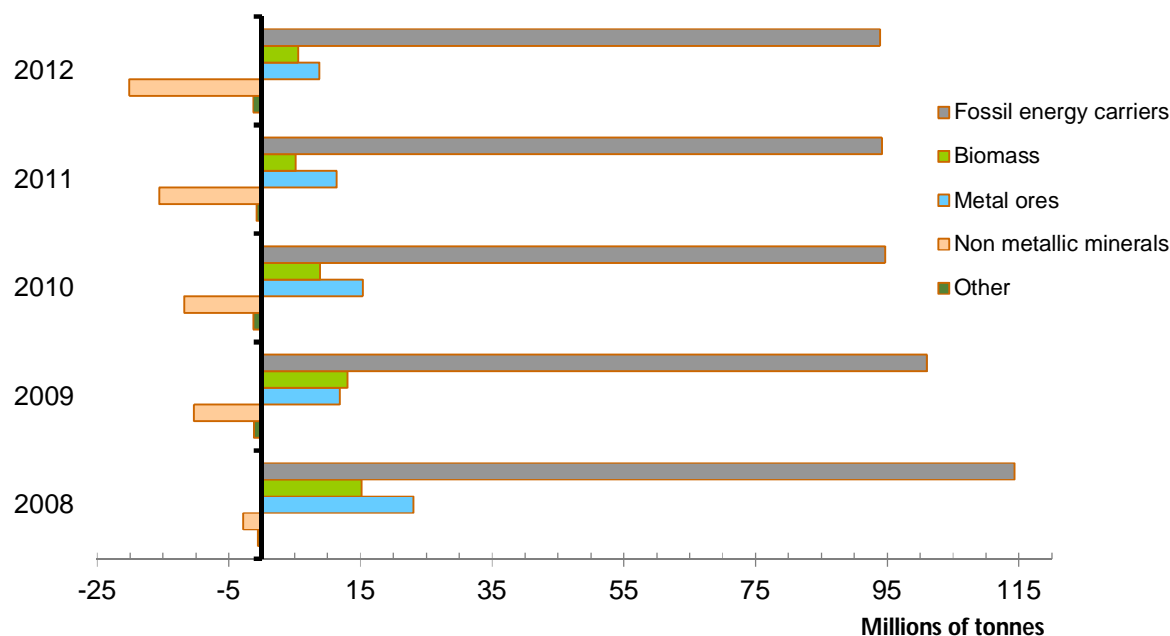
Components of the Physical Trade Balance. Year 2012

Unit: thousands of tonnes

	Physical Trade Balance	Imports	%	Exports	%
	86,771.6	234,253.9	100.0%	147,482.3	100.0%
Fossil energy carriers (materials)	93,899.7	135,397.5	57.8%	41,497.8	28.1%
Biomass	5,527.6	44,324.8	18.9%	38,797.2	26.3%
Metal ores	8,762.3	34,180.6	14.6%	25,418.3	17.2%
Non metallic minerals	-20,113.3	9,043.0	3.9%	29,156.3	19.8%
Other	-1,304.7	11,308.1	4.8%	12,612.8	8.6%

Components of the Physical Trade Balance.

2008-2012 Series



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.

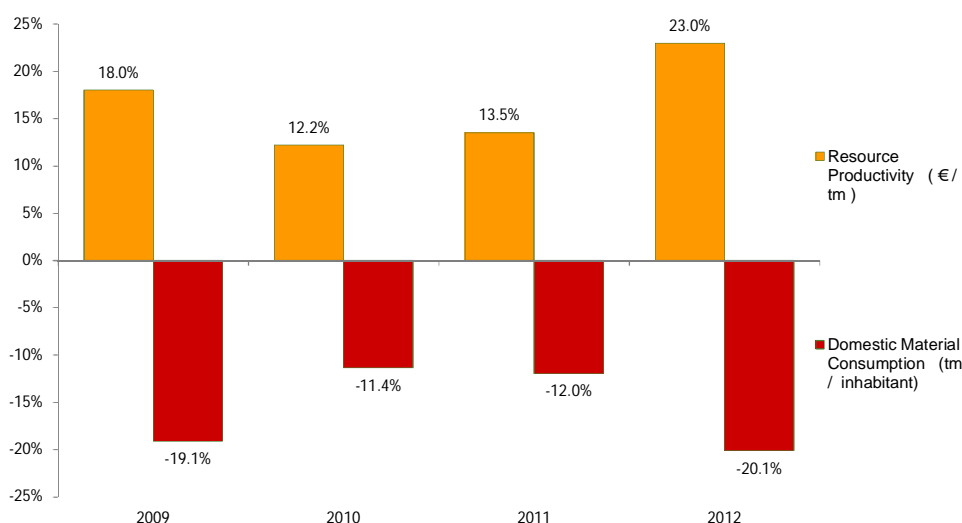
In 2012, resource productivity reached 2,481.6 euros per tonne, with a 23.0% increase as compared with the previous year. In the 2008-2012 period, the resource productivity increased by 84.9%.

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 decreased by 9 tonnes per inhabitant in 2012, 20.1% less than in 2011. In the 2008-2012 period, there was a 49.6% decrease.

Material Flow Indicators. 2008-2012 Series

	2012	% interannual variation	% variation on 2008
Resource Productivity (€ / tm)	2,481.6	23.0%	84.9%
Domestic Material Consumption (DMC) (tm / inhabitant)	9.0	-20.1%	-49.6%

Material Flows. Interannual variation rates



Methodological note

The **Environmental Accounts** (EA) are a synthesis statistical option 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 2011, 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 for the first time includes a module of such accounts for their annual dissemination.

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 usually an increase of the need of materials, such as the ones for construction and energy resources, which is 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** 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, is registered as resource.
- **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.

For further information see [INEbase-www.ine.es/en/](http://www.ine.es/en/)

All press releases at: www.ine.es/en/prensa/prensa_en.htm

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