Instituto Nacional de Estadística

Press Release

14 November 2019

Environmental accounts. Air Emission Accounts
Preview 2018 and year 2017

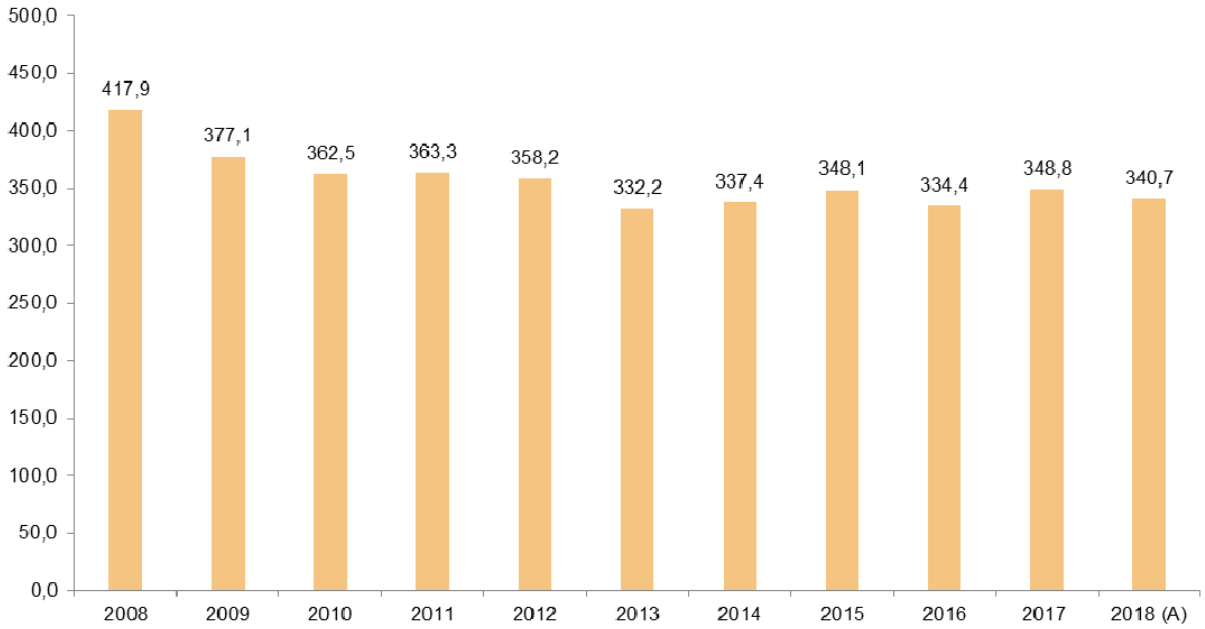
The Spanish economy emitted 340.7 million tonnes of greenhouse gases in 2018, 2.3% less than in 2017.

21.0% of emissions corresponded to households

The Air Emission Accounts record the emissions made by resident economic units, both within and outside the economic territory.

In 2018, greenhouse gas (GHG) emissions decreased by 2.3% and stood at 340.7 million tonnes of Carbon Dioxide (CO_2) equivalent (tCO_2e)[1].

Greenhouse Gas Emissions
Unit: million tonnes of Carbon Dioxide equivalent (tCO_2e)



There are different types of Greenhouse Gases. The main ones, due to their level of emissions, are Carbon Dioxide (CO_2), Methane (CH_4) and Nitrous Oxide (N_2O).

[1] In order to make a comparison of atmospheric emissions of greenhouse gases other than carbon dioxide, all are converted to their carbon dioxide equivalent (CO_2e) value by multiplying the mass of the gas in question by its global warming potential.

In 2018, Carbon Dioxide emissions to the atmosphere decreased by 1.9% and Nitrous Oxide emissions decreased by 2.8%. In contrast, Methane emissions increased by 0.1%.

Greenhouse gas emissions by type of gas. Year 2018
Unit: thousand tonnes of Carbon Dioxide equivalent (tCO_2e)

	Total	% of the total	% annual variation	impact
CO_2 – Carbon dioxide	283,568.1.	83.3	-1.9	-1.544
CH_4 – Methane	33,659.1.	9.8	0.1	0.013
N_2O – Nitrous oxide	18,071.3.	5.3	-2.8	-0.151
Other GHGs	5,421.2.	1.6	-28.7	-0.625
TOTAL	340,719.7	100.0	-2.3	

The branch of activity that decreased its GHG emissions the most in 2018 was *Electricity, gas, steam, air conditioning and water supply* (-11.6%). On the contrary, *Transport and storage* saw the largest increase (2.6%).

Greenhouse Gas Emissions by industry and households. Year 2018
Unit: thousand tonnes of Carbon Dioxide equivalent (tCO2e)

	TOTAL GHG	% annual variation	Carbon Dioxide (CO_2)	Methane (CH_4)	Nitrous Oxide (N_2O)
Manufacturing industry	81,333.1.	-1.6	76,139.1	1,904.1	621.0
Electricity, gas, steam, air conditioning and water supply	71,159.8.	-11.6	59,667.6	9,597.9	1,546.7
Transport and storage	51,480.4.	2.6	50,790.7	29.1	579.1
Agriculture, livestock, forestry and fishing	48,464.0.	0.6	13,109.5	21,105.5	14,232.7
Other industries	16,877.9.	-2.1	14,870.4	233.2	416.2
Households	71,404.5.	2.0	68,990.8	789.3	675.6
TOTAL	340,719.7	-2.3	283,568.1	33,659.1	18,071.3

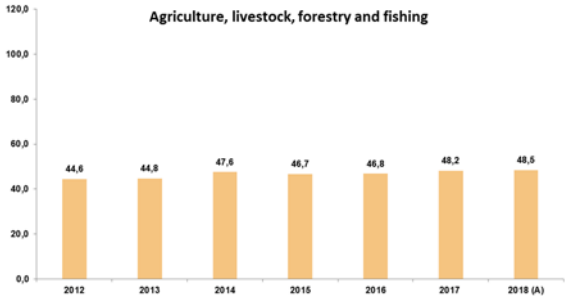
Manufacturing industry accounted for 23.9% of the total Greenhouse Gas emissions in 2018. *Households* emitted 21.0% of the total and *Electricity, gas, steam, air conditioning and water supply* contributed 20.9%.

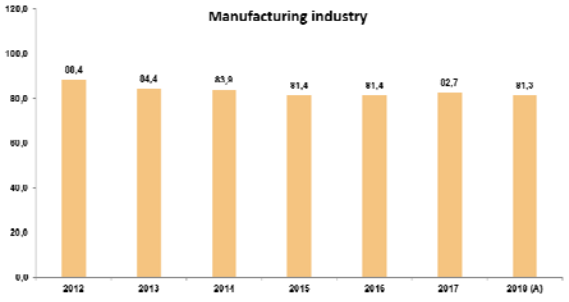
The largest amounts of Carbon Dioxide emitted corresponded to the *Manufacturing industry* (76.1 million tonnes), *Households* (69.0 million) and *Electricity, gas, steam, air conditioning and water supply* (59.7 million). Together, these three sectors accounted for 72.2% of total carbon dioxide emissions into the atmosphere.

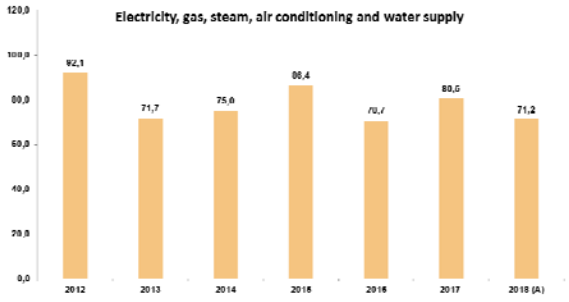
Meanwhile, *Agriculture, livestock, forestry and fishing* emitted the largest quantities of Methane and Nitrous Oxide. Specifically, 62.7% of the total Carbon Dioxide equivalent of methane and 78.8% of Nitrous Oxide.

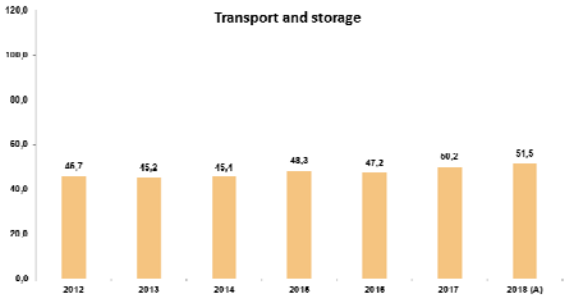
Greenhouse Gas Emissions by branches of activity and households. 2018

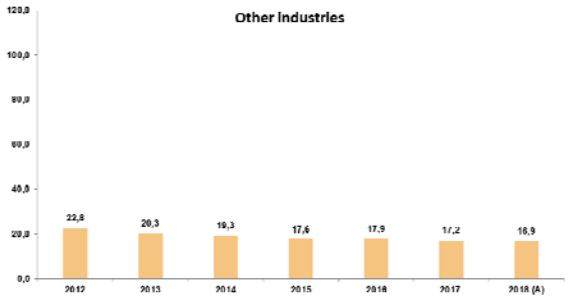
Unit: million tonnes of Carbon Dioxide equivalent (tCO_2e)

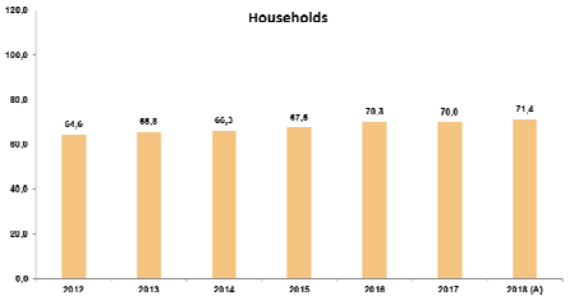












Other atmospheric emissions. Year 2017

Nitrogen Oxides (NO_x) include both Nitrogen Monoxide (NO) and Nitrogen Dioxide (NO_2). In 2017, Nitrogen Oxide emissions reached 903.3 thousand tonnes of Nitrogen Dioxide equivalent (tNO_2e), 1.2% more than in 2016.

The largest emissions corresponded to *Transport and storage* (262.6 thousand tonnes of NO_2e), *Agriculture, livestock, forestry and fishing* (191.8) and *Households* (163.8).

Emissions of Nitrogen Oxides (NO_x) by industry and households. Year 2017
Unit: thousand tonnes of Carbon Dioxide equivalent (tNO2e).

	Total	% of the total	% annual variation
Transport and storage	262.6.	29.1	9.7
Agriculture, livestock, forestry and fishing	191.8.	21.2	0.8
Manufacturing industry	136.5.	15.1	-1.3
Electricity, gas, steam, air conditioning and water supply	125.0.	13.8	-3.2
Other industries	23.6.	2.6	-2.0
Households	163.8.	18.2	-4.2
TOTAL	903.3.	100.0	1.2

Emissions of particles with an aerodynamic diameter of less than 10 microns (PM_{10}) decreased 0.2% in 2017 to 175.4 thousand tonnes. The largest quantities corresponded to *Households* (65.7 thousand tonnes) and *Agriculture, livestock, forestry and fishing* (64.8).

Emissions of PM_{10} particles by industry and households. Year 2017
Unit: thousand tonnes

	Total	% of the total	% annual variation
Agriculture, livestock, forestry and fishing	64.8.	37.0	0.0
Manufacturing industry	20.4.	11.6	6.5
Other industries	10.2.	5.8	6.8
Transport and storage	7.9.	4.6	27.7
Electricity, gas, steam, air conditioning and water supply	6.4.	3.6	-36.0
Households	65.7.	37.4	-0.6
TOTAL	175.4.	100.0	-0.2

Data review and update

The data published today are provisional and will be revised when next year's data are released.

Methodological note

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

The Air Emissions Accounts present data regarding the polluting emissions into the atmosphere, in a way that is compatible with the National Accounts System, registering the emitting agents, broken down by branch of economic activity and households as final consumers.

The estimations of the Air Emission Accounts are made using the National Inventories of Air Emissions, prepared by the Ministry for the Ecological Transition, which use the IPCC and EMEP/EEA methodology, with the NFR/CRF nomenclature (Nomenclature for Reporting/Common Reporting Format), which groups emissions into sectors, categories and subcategories.

For more information you can access the methodology at:

http://www.ine.es

And the standardised methodological report at:

https://www.ine.es/dynt3/metadatos/es/RespuestaDatos.html?oe=30084

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