2.12 HOUSEHOLDS

This chapter covers the residential sector (which consists of all households) from a water- and energy-consumption, waste generation, CO_2 emissions, private car use and gross income point of view. This sector can be considered to be simply one more economic sector; therefore the pressures it generates on the environment can be monitored and its main trends discussed.

According to the National Institute of Statistics (INE), the terms "household" and "home" are two different concepts: a "household" is considered to be a group of people who reside in the same family home (without necessarily being related), whereas the "family home" is the property itself. A household can consist of one or more people and can have various homes (e.g. main and second home).

The population growth of the last few years has resulted in an increase in the number of households and homes, although to different degrees, as can be seen from the table below. The increase in the number of households is partly due to migration, whereas house building has been affected by market pressures and has not always responded to the actual needs of the resident population.

INDICATOR	GOAL	TREND
Number of passenger vehicles per household	Promote urban and inter-urban mobility using other, more eco-friendly forms of transport	A minor increase in the number of passenger vehicles per household with respect to the previous year, although the growth rate and sale of more powerful cars have both slowed
Urban waste production per household	Minimise production of urban waste	Household waste production appears to have stabilized and even dropped slightly in 2006 with respect to 2005. The amount of selectively collected waste increased.
Energy consumption per household	Improve the efficiency of the energy consumed	Energy consumption per household fell more for electrical usage than for heating/air conditioning
CO_2 emissions by the residential sector	Reduce CO_2 generation in the sector	After the important decrease in 2006 (8%), CO2 emissions increased again in 2007
Water consumption per household	Minimise water consumption per household	A notable decrease in water consumption per household has been observed
Gross disposable household income	Achieve consumption more in line with sustainable development	Gross disposable income per household increased, with major differences remaining between Autonomous Communities
Eco-efficiency in the domestic sector	Decouple household income from resource consumption	Energy consumption and waste generation per household are slowing down and water consumption is falling

POPULATION, HOUSEHOLDS AND HOMES 2001-2007

	2001	2004	2005	2006	2007	Increase 2001-2007
Population	41,116,842	43,197,684	44,108,530	44,708,964	45,200,737	10.08%
Households	13,468,068	14,528,259	14,865,707	15,855,594	16,280,438	21.49%
Homes	21,033,759	22,623,443	23,210,317	23,859,014	24,495,844	16.46%

Population: INE: Population and housing census 2001. Municipal register as of January 1: various years.
Households: INE. Ongoing Survey on Household budgets 2000-2005 and Survey on Household budgets 2006-2007.
Homes: Ministry of Housing: Estimated Housing Stock 2001-2007

As far as number of people per household is concerned, all bands show significant rises in 2007 with respect to 2006, except those households containing five/six members or more, which fell in line with the downward trend in large families. Households containing one or two people now account for 46.22% of the total. The increase in the number of households is due mainly to this decrease in the number of people which make up each household, although the immigrant flow, which has been especially intensive since the beginning of this century, should also be taken into account. The average number of people per household, which was 3.0 in 2001, dropped to 2.8 by 2007.

Over three million housing units were built in Spain in the period 2001-2007, bringing the total stock to almost 24.5 million. Around 16.7 million of these correspond to main residences, whereas 7.1 million correspond to a second or non-main residence. This increase in house building has had important environmental consequences: land use, water, materials, increased traffic and effects on the landscape, especially in coastal regions. It has also significantly affected levels of family debt (mainly due to the large increase in house prices) and the current state of the financial system, although, on a more positive note, it has contributed to economic growth and job creation.

As regards the tenancy regime, the balance between home ownership and rented accommodation which was apparent up to the midpoint of the 20th century has tipped strongly in favour of ownership (14,621,334) rather than rented or borrowed accommodation. However, Ministry of Housing data for 2007 show that rented accommodation grew strongly (by 137,492, 7.69%) between 2004 and 2007.

The indicators presented in this chapter concern the household sector from an environmental point of view and highlight the most important trends. In general terms, the increasing pressure of this sector on the environment, which is closely related to the consumption patterns that have become widespread during the period of economic growth which began in the 1990s, can be seen. Influencing these patterns requires campaigns to raise public awareness alongside appropriate policies, in particular in terms of consumption of resources such as water, land and energy.

It should be noted that consumption is analysed in terms of number of households or, on occasions, per person (consumption per capita), but never in terms of the number of homes. This is because the number of empty and second homes is so high in Spain, which would lead to an artificial reduction in these indices.

HOUSEHOLDS ACCORDING TO NUMBER OF MEMBERS

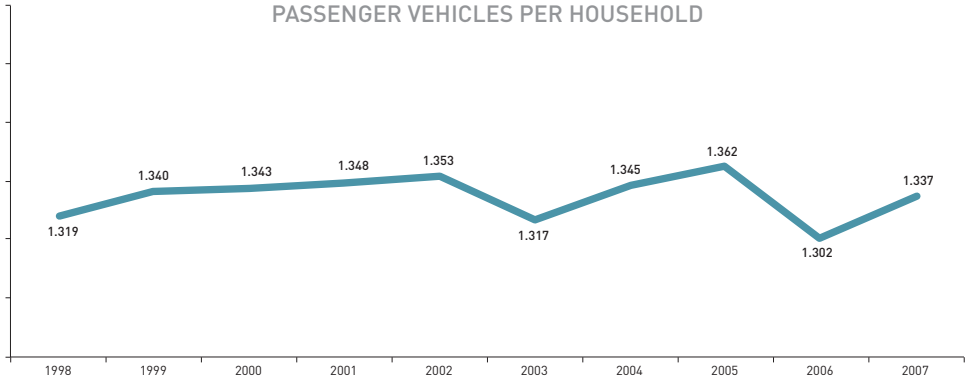
No. of members	2006	2007	Variation 2006-2007
1	2,704,547	2,857,737	5.66
2	4,503,716	4,666,801	3.62
3	4,171,250	4,249,126	1.87
4	3,259,819	3,325,275	2.01
5	898,208	863,717	-3.84
6 or more	318,054	317,781	-0.09
TOTAL	**15,855,594**	**16,280,438**	**2.68**

Source: Household budget survey. 2006-2007

Number of passenger vehicles per household

The number of passenger vehicles per household increased slightly in 2007 despite the increase in the number of households

PASSENGER VEHICLES PER HOUSEHOLD



Source: DGT, INE

The total number of passenger vehicles reached 21.7 million in 2007, an increase of 34.5% with respect to 1998. The number of households has also increased steadily, from 12.3 million in 1998 to 16.3 million in 2007, an increase of 32.76%.

The number of passenger vehicles increased by 5.4% in 2007 with respect to the previous year, whereas the number of households increased by 2.7%. This similar increase in both passenger vehicles and households means that the number of vehicles per household (1.3) remained relatively stable between 1998 and 2007, with some minor variations. However, the stability of this rate should not hide the environmental pressures that are likely to be occurring due to the increased number of passenger vehicles and subsequent increase in private transport. As would be expected, not all households have a car, whereas some have two or more. According to the INE (Living conditions Survey, 2007), only 22.7% of households have no car.

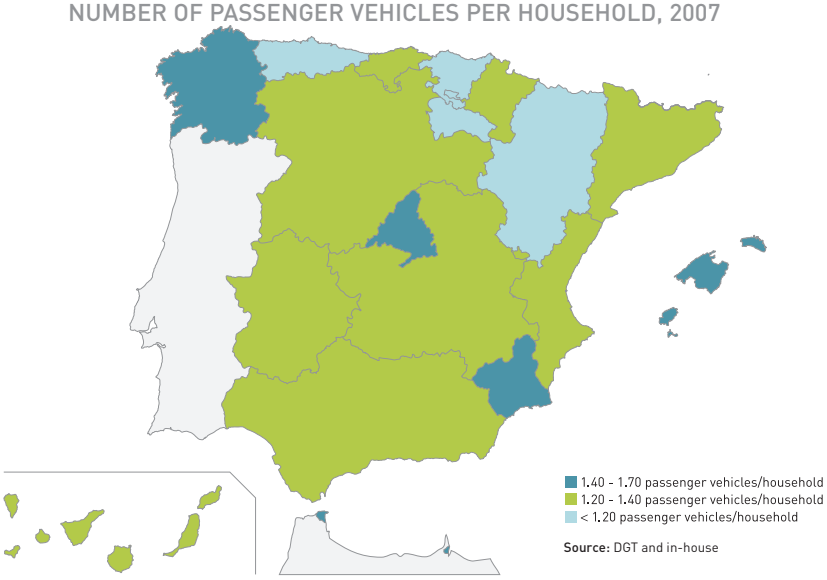
INCREASE IN PASSENGER VEHICLES AND HOUSEHOLDS

	1998	2000	2005	2007	Increase 2007/1998
Passenger vehicles	16,176,787	17,570,782	20,250,377	21,760,174	34.5%
Households	12,263,412	13,086,197	14,865,709	16,280,438	32.8%

Source:
Passenger vehicles: DGT. General Statistics Yearbook. 2007
Households: INE. Ongoing Survey on Household budgets.

Ceuta and Melilla (1.76), the Balearics (1.67), Madrid (1.53), Galicia (1.48), Murcia (1.45), the Canary Islands (1.39), Cantabria (1.36) and Castile-La Mancha (1.36) exceed the national average, whereas the remaining Autonomous Communities meet that figure or lie below it. La Rioja (1.10), the Basque Country (1.15), Asturias (1.18) and Aragon (1.17) have the lowest number of passenger vehicles per household.

NUMBER OF PASSENGER VEHICLES PER HOUSEHOLD, 2007



From an environmental point of view, it is vital to promote vehicle renewal as new vehicles incorporate technology that reduces consumption and pollution. A total of 887,395 vehicles were scrapped in 2007, more than the average for the period 2000-2007 (3.19%). Some 82.66% of these vehicles were first registered before 2000.

It is well known that there is a growing trend in favour of diesel vehicles over those powered by petrol. Thus, in 2000, 27% of passenger cars ran on diesel, while by 2007 that figure had risen to 47.13%. It is clear that fuel prices and economic policies have influenced the trend in favour of this fuel, which is considered to be responsible for the increase in particulate air pollution.

More than half of passenger vehicles in 2007 (52.96%) were cars with a cylinder capacity of more than 1600 cc. The number of cars with a greater capacity (more than 1999 cc) dropped by 6455 in 2007 with respect to 2006.

NOTES

- The total number of vehicles stood at 30,318,457 vehicles on 31/12/2007 (lorries and vans, buses, passenger vehicles, motorcycles, industrial tractors and other vehicles); 67% of these vehicles were registered between 1997 and 2007. Passenger vehicles accounted for the largest proportion (71.77%).
- The Directorate General for Traffic (DGT) calculates the ratio between population and total number of vehicles (of all types), which increased from 278 per 1000 inhabitants in 1980 to 685 in 2007.
- The DGT defines the term "passenger vehicle" as a "vehicle, other than a motorcycle, designed and constructed specifically for the transport of people and with a capacity of up to nine people, including the driver". Rental fleets and commercial vehicles that meet this definition are also included in this indicator. This category does not include vans, which are included together with lorries. (DGT. General Statistics Yearbook).

SOURCES

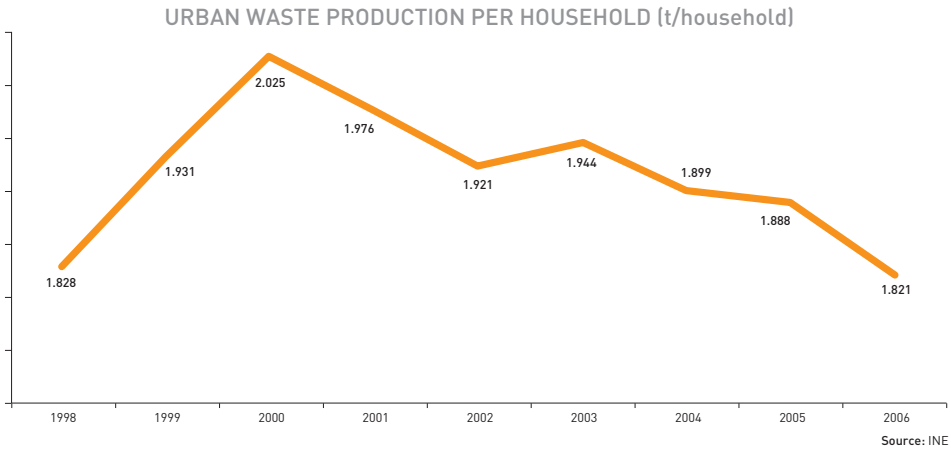
- Households: INE. Ongoing Survey of Household Budgets. 1998-2004 (no longer collected) and Survey on Household Budgets (national evolution).
- Households: Living conditions Survey (rate by Autonomous Community).
- Passenger vehicles: DGT. General Statistics Yearbook. 2007.

MORE INFORMATION

- http:// www.ine.es/inebase.
- http:// www.dgt.es/estadisticas.htm

Urban waste production per household

Although the amount of urban waste generated continues to grow in absolute terms, the amount generated per household per year in 2006 (1.821 tonnes) was slightly lower than in 2005



Source: INE

This indicator estimates the average amount of urban waste (UW) generated per household per year. The total amount of waste generated by the residential sector as a whole in 2006 was 28,418,545 t, 1.27% more than in the previous year. However, due to the higher number of households, this increase in absolute terms was not replicated in the amount generated per household. Indeed, in 2006 each household generated an average of 1.821 t of urban waste, a slight reduction on the value for 2005 (1.888 t).

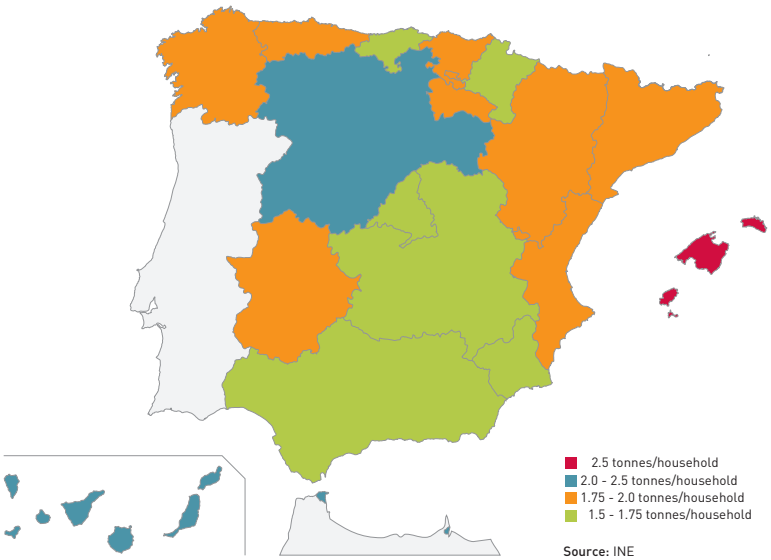
According to the INE methodology, 76.92% of urban waste is mixed waste, in other words, that generated domestically together with that collected from public highways, whereas the remaining 23.07% is selectively collected urban waste. The positive trend in the increase of selectively collected urban waste from 1,470,095 t in 1998 to 6,556,300 t in 2006, an increase of 346%, should be highlighted. Thus, in 1998 each household generated 120 kg of this type of waste, whereas the figure for 2006 was 420 kg.

Despite the steady growth in both total waste (26.7%) and number of households (27.2%) between 1998 and 2006, the amount of waste generated per household dropped slightly in 2007 with respect to 1998 after reaching a highpoint in 2000.

The breakdown by Autonomous Community shows that nine, along with Ceuta and Melilla (2.43 t per household), generate higher than average amounts of waste per

household: Balearics (2.98), Castile and Leon (2.28), the Canary Islands (2.13), Cantabria (1.99), Madrid (1.93), Castile-La Mancha (1.93), Andalusia (1.92) and Navarre, whereas the rest generate less than average amounts. Asturias (1.57), Galicia (1.56) and Catalonia (1.50) generate the lowest amount of waste per household.

WASTE PRODUCTION PER HOUSEHOLD, 2006



According to the latest data from Eurostat, the average amount of waste generated per person per year in the EU-27 was 522 kg in 2007, with 11 countries exceeding this value. The volume of municipal waste generated ranges between 801 kg in Denmark and 294 kg in the Czech Republic. This waste is, however, treated differently: controlled landfill (42%), incineration (20%), recycling (22%) and composting (16%). Germany recycles the highest proportion of municipal waste (46%), whereas Denmark incinerates the most (53%).

NOTES

- Urban waste is that generated in households, shops, offices and services, as well as that which is not considered hazardous and, in light of its nature and composition, can be combined with that produced in the aforementioned locations or activities. The following are also regarded as urban waste: waste arising from the cleaning of public highways, green areas, recreational areas and beaches, dead pets, as well as furniture, fittings and abandoned vehicles and, finally, waste and debris from minor construction works and home repairs. (Waste Act 10/1998)
- According to data from the INE, the average amount of waste collected per person per year in Spain in 2006 was 553.3 kg, 500 kg of which was mixed waste, 22.1 kg paper and cardboard, 12.6 kg glass and 18.6 kg mixed packaging.

SOURCES

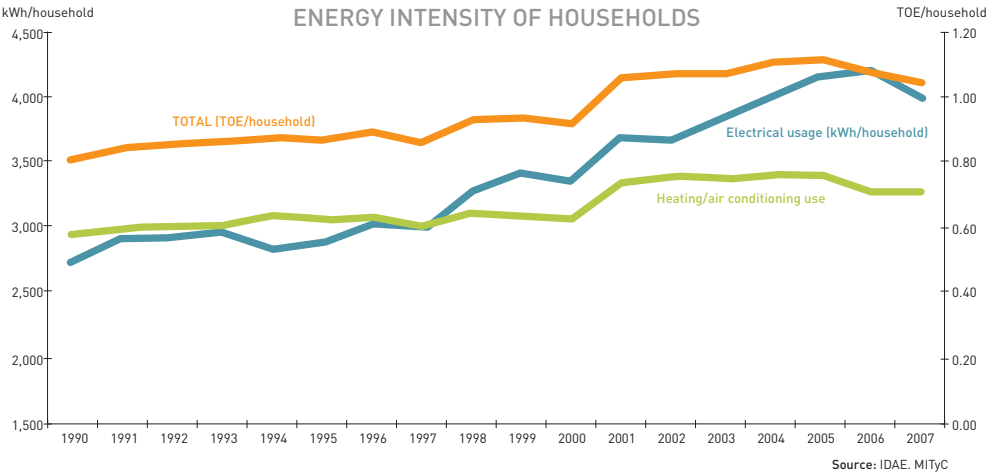
- Waste: INE. Urban waste collection and treatment survey. 2006.
- Number of households up to 2005: INE. Ongoing Survey of Household Budgets. Various years. Base year 1997.
- Number of households up to 2006: INE. Living conditions Survey. 2006.

MORE INFORMATION

- http:// www. ine.es/inebase
- http://www.eea.europa.eu
- http://www.epp.eurostat.ec.europa.eu

Energy consumption per household

Energy consumption per household in 2007 fell by 0.8% with respect to the previous year



This indicator measures energy consumption per household broken down into *electrical usage* (kWh/household) and *heating/air conditioning* (TOE/household). Energy consumption for electrical use was estimated to be 3,992 kWh/household in 2007, whereas that for heating/air conditioning was 0.703 TOE/household. Total consumption, at 1.047 TOE/household, was 0.86% lower than in 2006 (1.056 TOE/household), a similar figure to that seen in 2001, which could indicate a reversal in trend or at least an inflexion point.

Energy consumption for electrical use rose by 46.24% and that for heating/air conditioning by 21.83% in the period 1990-2007, thus giving an overall increase of 28.89% and an average annual increase of 1.70%. Growth was continual over the whole period due to increased economic growth and consumption, with the minor falls in some years, which were rather more significant for heating/air conditioning than for electrical use, being strongly linked to extreme temperatures.

An analysis from 2000 onwards shows that electrical use grew by 19.04% and heating/air conditioning use by 11.99%, which means a total increase of 14.21%. The annual average increase for this period was 2.72% for electrical use and 1.71% for heating/air conditioning use, which gives a combined average of 2.03%.

Spain's residential sector still consumes less energy than in the majority of European countries, although the trend up to 2006 was strongly upwards, whereas the trend in

neighbouring countries and in the EU as a whole was towards a reduction in consumption.

As regards final energy consumption by sector, the residential sector was in third place in 2007, with 16.60% of the total, behind transport (40.30%) and industry (29.60%). Services (9.60%) and agriculture (3.80%) consume much less energy than the other sectors. Industry was, for many years (until the early 1990s), the largest consumer of final energy in Spain, although the application of energy-saving measures increased this sector's energy efficiency to such an extent that the transport sector moved into first place.

The application of measures aimed at the renewal of electrical appliances could produce similar results in the household sector. Thus, the Plan Renove, whose aim is to replace less efficient electrical appliances with more efficient ones with a "class A", or higher, rating, has again been included in the second Action Plan 2008-2012. As 2.8 million electrical appliances are replaced in Spain each year, the effect on the sector's final energy consumption should be significant.

According to the IDEA, average household consumption is around 4000 kWh per year. Supposing that the only energy supply to a household is electrical, this consumption would be divided as follows: lighting (18%), refrigeration (18%), heating (15%), television (10%), hob (9%), washing machine (8%), small electrical appliances (7%), oven (4), tumble dryer (2%), microwave (2%), dishwasher (2%), air conditioning (1%) and computer (1%).

EUROPE 2000-2006: HOUSEHOLD ELECTRICITY CONSUMPTION (units: kTOE)

EU and countries	2000	2005	2006	Increase 2006/2000 (%)	Increase 2006/2005 (%)
EU-27	61,161	68,361	69,348	13.4	1.4
EU-25	59,656	66,790	67,688	13.5	1.3
EU-15	54,608	61,120	61,823	13.2	1.2
Germany	11,084	12,193	12,167	9.8	-0.2
France	11,068	12,815	12,636	14.2	-1.4
Spain	3,751	5,488	5,650	50.6	3.0
Greece	1,222	1,451	1,520	24.4	4.8
Italy	5,255	5,758	5,816	10.7	1.0
Portugal	865	1,139	1,153	33.3	1.2
United Kingdom	9,617	10,044	10,013	4.1	-0.3

Source: Eurostat 2008. Note: this indicator shows household electricity consumption. Household consumption includes total electricity use for appliances, heating/air conditioning and hot water. Data for the EU and Spain are provisional.

NOTES

- From a methodological perspective, it should be noted that when compiling these energy statistics it is not easy to separate consumption attributable to families from that of small tertiary sector businesses that are often signed up to domestic gas and electricity tariffs on account of their small size.

SOURCES

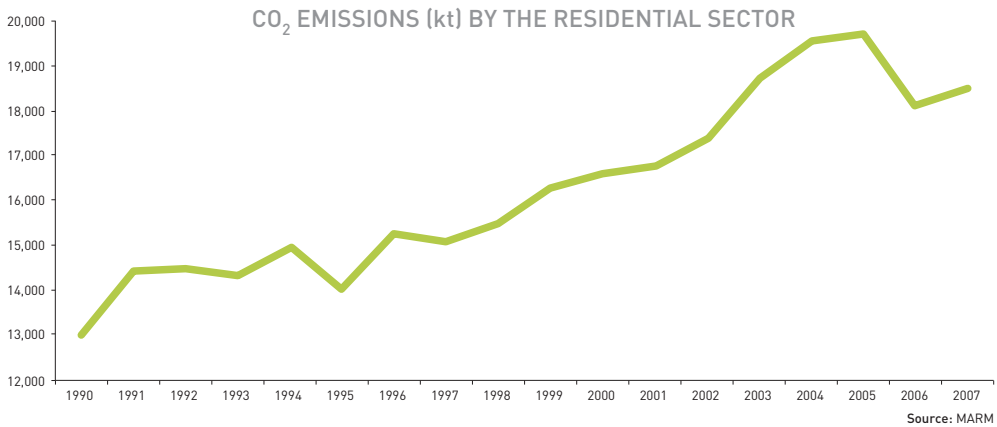
- Data provided by IDAE.
- Institute for Energy Saving and Diversification (IDAE). *Energy Efficiency and Renewable Energy* (Report Series).
- Spanish Sustainability Monitoring Centre (OSE). *Sustainability in Spain, 2007.*
- *Energy in Spain, 2007*. Ministry of Industry, Tourism and Trade.

MORE INFORMATION

- **http:// www. idae.es**
- **http://www.eea.eu.int**
- **httppwww.mityc.es**
- **http://epp.eurostat.ec.europa.eu**

CO_2 emissions by the residential sector

CO_2 emissions by the residential sector rebounded in 2007 (1.6%), with each household emitting an average of 1.132 t of CO_2 per year



Source: MARM

CO_2 emissions by the residential sector as a whole rebounded slightly in 2007, increasing by 1.6% with respect to 2006, after the significant fall in emissions (approximately 8%) seen in the previous year. This fall was the largest since 1990, although large falls were also seen in 1993, 1995 and 1997. In absolute terms, household emissions were 18,435 kilotonnes in 2007, 5.03% of total emissions of this gas in Spain.

The increase in emissions between 1990 and 2007 was 42%, whereas the increase between 2000 and 2007 was 11.2%. Each household produced 1.132 tonnes of CO_2 in 2007, which is still lower than the European average, due to the fact that energy consumption for heating is much higher in many other European countries because of their lower winter temperatures. The fact that emissions per household were similar to those of the previous year, and even slightly lower (1.132 t vs. 1.142 t in 2006) is due to the large increase in the number of households from 15.8 million in 2006 to 16.3 million in 2007.

The reduction of household emissions is a question of awareness and stimuli from central and regional governments (such as the Plan Renove for electrical appliances).

Improvements to heating systems, reductions in the use of fossil fuels and improved bioclimatic conditions in buildings, on application of the Technical Building Code guidelines, should also result in reductions.

NOTES

- This indicator shows CO_2 emissions from residential combustion plants, a sub-activity belonging to group 2 "Non-industrial combustion plants" in the Selected Nomenclature for Sources of Air Pollution (SNAP)-97. It includes emissions produced by: boilers, gas turbines, stationary engines and other appliances such as heaters, cookers, etc.
- SNAP-97 from the CORINAIR project reflects the relationship between emission sources associated with certain pollutants in accordance with structural principles that allow emissions to be determined by sector, sub-sector and activity.

SOURCES

- Data on CO_2 emissions taken from the Spanish National Atmospheric Emissions Inventory. Edition 2009 (series 1990–2007). Directorate General of Environmental Quality and Assessment. MARM.
- INE. Living conditions Survey (2006).
- INE. Household Budget Survey 2006.

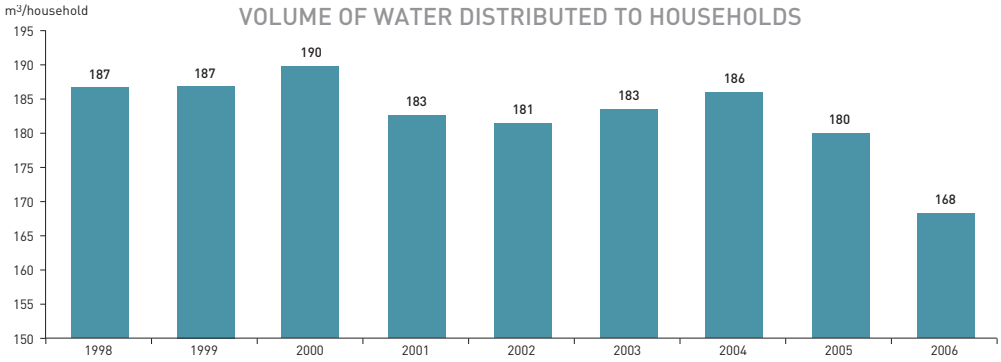
MORE INFORMATION

- http://www.marm.es
- http://www.ine.es

Household water consumption

Water consumption by the residential sector fell again in 2006, as was the case in 2005

VOLUME OF WATER DISTRIBUTED TO HOUSEHOLDS



Source: INE

According to data from the INE, Spain had water reserves of 4.698 hm^3 in 2006, 175 hm^3 less than in 2005. Household consumption, municipal services and the various economic sectors, in other words water for urban supplies, accounted for 83.3% of this figure. Water used for crop irrigation is not included.

WATER SUPPLIED TO PUBLIC URBAN SUPPLY NETWORKS 2006

	hm^3	%
Households	2,616	55.7
Economic sectors (industry, services, livestock farming)	911	19.4
Municipal consumption	328	7.0
Other consumption	58	1.2
Network losses	785	16.7
Total water supplied	**4,698**	**100**

Source: INE

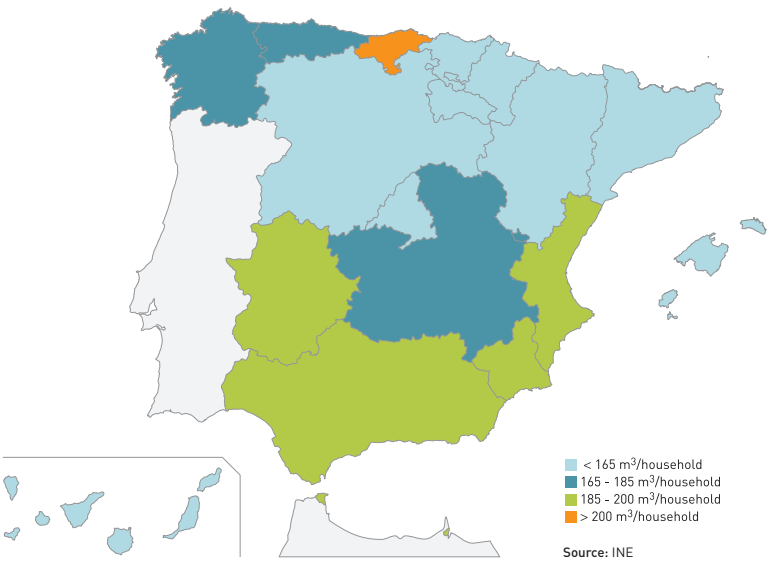
Water consumption by Spanish families stood at 2,616 hm^3 in 2006, a 2.2% decrease on the previous year's figure of 2,673 hm^3. Consumption per household per year was 167.6 m^3 (based on the number of households from the INE's *Living Conditions Survey 2006* of 15,604,300).

As can be seen from the graph above, household consumption has remained relatively steady since 2001, with the occasional variation. This evolution could be due to a balance between two opposing trends: an increase in consumption due to a higher standard of living and the population increase, and a fall in consumption due to higher prices, the implementation of technologies to prevent unnecessary waste and,

in some years, water restrictions due to drought. The effect of awareness campaigns aimed at promoting responsible consumption should also be taken into account.

Consumption per person per day was estimated to be 160 litres, six litres less than in 2005. As can be seen from the table below, average water consumption per person per day increased by 14 litres (9.6%) between 1996 and 2006, although the figure for 2006 is similar to that for 1998.

VOLUME OF WATER DISTRIBUTED TO HOUSEHOLDS, 2006 (m^3/household)



As regards consumption by Autonomous Community, seven of them consumed more than the national average of 167.6 m^3 per household per year in 2006: Cantabria (215.4), Extremadura (197.4), Andalusia (194.6), Valencia (188.8), Murcia (187.4), Castile-La Mancha (178.5) and Asturias (178). The remainder consumed less than the national average, with lowest consumption being seen in the Basque Country (126.9), Balearics (150.5) and Navarra (135.0).

AVERAGE CONSUMPTION PER PERSON PER DAY (litres)

1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
146	153	159	165	168	165	164	167	171	166	160

Source: INE

In terms of water-demand management, an important factor to be taken into account is the price of this service. According to the INE, the unit cost of water in Spain rose by 5.9% in 2006, to an average of 1.08 €/m^3, compared with 0.98 €/m^3 the previous year. The highest water prices were found in the Canary Islands (1.74), the Balearics

(1.61), Murcia (1.53), Valencia (1.30), Madrid (1.27), Navarre (1.25) and Catalonia (1.1), all of which had prices above the national average.

According to the OCDE, European households consume an average of 150 litres per person per day. The figure for France (160 litres, 2001) is similar to that for Spain in 2006. As for losses in the distribution networks, France has a very high percentage (26%), whereas Germany (9%) and the Netherlands (5%) have much lower rates. Water losses in the Spanish public urban distribution networks were estimated to be around 785 hm^3 in 2006, 16.7% of all the water distributed by these networks, although 6.7% less than the previous year. The main causes for these losses were leaks, bursts, damage, measurement errors, frauds, etc.

NOTES

- Water consumption in households is calculated from the INE's *Water Supply and Treatment Survey* for the period 1996-2006. It includes the volume of water measured and distributed to households. Water distribution includes the total amount of water available in the distribution network, plus losses from the network itself. It is calculated from total water abstraction by the supply company plus the net balance of water purchase and sale by other companies and local councils. In the series of data provided by the INE's *Water Indicators* (Series 1996-2003), the indicators used are water supply and treatment, volume of water available and volume of water supplied (litres/inhabitant/day).

SOURCES

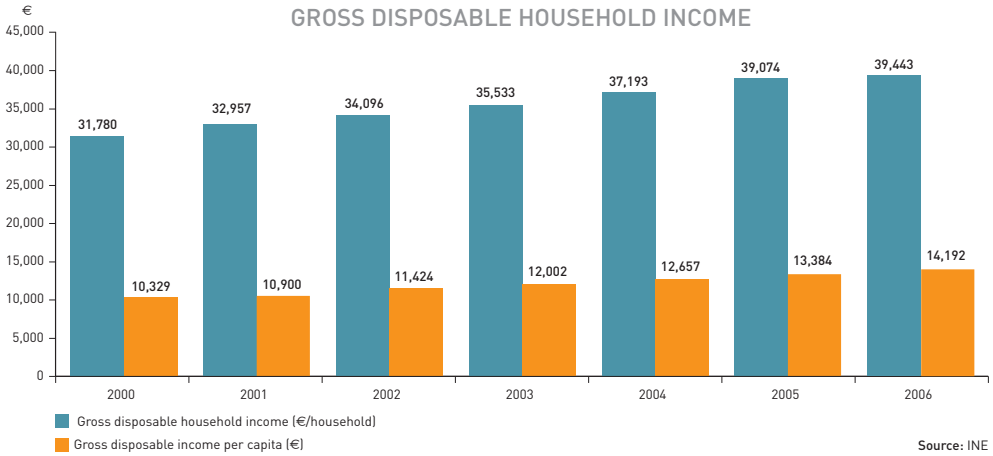
- INE. Survey on Water Supply and Treatment. 1996-2006.
- INE. Survey on Water Supply and Treatment. Press release July 17th, 2008.

MORE INFORMATION

- http://www.ine.es/inebase

Gross disposable household income

Gross disposable household income averaged almost ¤40,000 in 2006, an increase of 24.1% since 2000

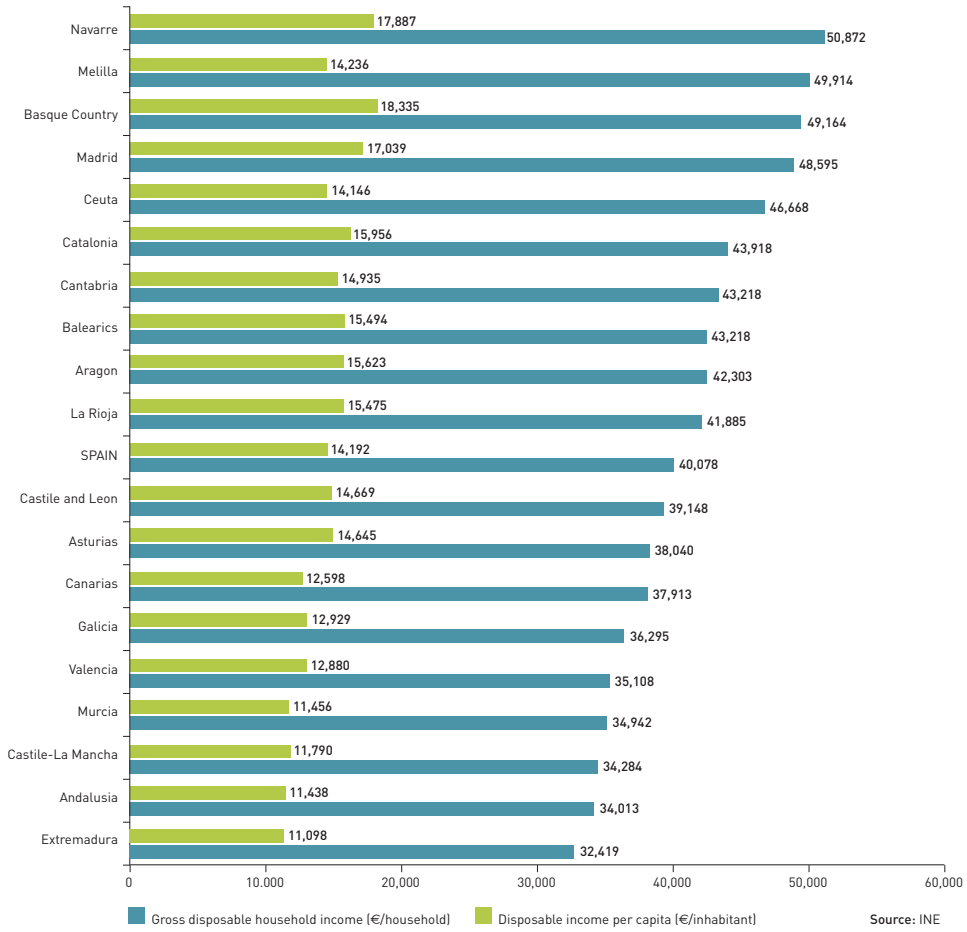


Gross household income averaged €39,443 in 2006, 0.5% more than in the previous year, whereas income per capita increased by 6.0% with respect to 2005 to €14,192. Gross household income increased by 24.1 points up to 2006 with respect to 2000 (index = 100), whereas income per capita increased by 37.4 percentage points. This increase coincided with a period of strong economic growth and a large population increase.

Households in eight Autonomous Communities, as well as the enclaves of Ceuta and Melilla, exceeded the national average, with Navarre heading the list (€50,872, 26.9% above the average), followed by Melilla, the Basque Country, Ceuta, Madrid, Catalonia, Cantabria, Balearics and Aragon. Extremadura, Andalusia and Valencia had the lowest gross household income.

If a similar analysis is performed to calculate gross disposable income per capita, the Basque Country heads the list with €18,355 (29% higher than the average), followed by Navarre, Madrid and Catalonia.

GROSS DISPOSABLE INCOME PER HOUSEHOLD (€/HOUSEHOLD) AND PER CAPITA (€/INHABITANT), 2006



Source: INE

As for household spending, each household spent an average of almost €30,000 per year, an increase of around 7.7% with respect to the previous year once the bridging calculations with the survey performed previously by the INE (ECPF) are carried out.

The highest proportion of this figure corresponds to housing (including an estimated rent for owned houses) and housing supplies (26.4%), followed by transport (14.31%) and food, including non-alcoholic drinks (14.0%). Average spending per person in 2006 was €10,632.

AVERAGE SPENDING AND PERCENTAGE DISTRIBUTION OF HOUSEHOLD SPENDING, 2006

Spending groups	%	Av. household spending (€)
Housing, water, electricity and fuel	26.39	7,757.35
Transport	14.31	4,207.61
Food and non-alcoholic drinks	14.04	4,126.98
Hotels, cafes and restaurants	9.61	2,823.34
Other goods and services	7.96	2,338.81
Recreation, events and culture	6.75	1,983.80
Clothing and footwear	6.66	1,958.92
Furniture, equipment and other housing costs	5.78	1,699.32
Communications	2.91	856.33
Health	2.88	846.35
Alcoholic drinks and tobacco	1.78	523.56
Teaching	0.92	271.55
TOTAL	**100.00**	**29,393.93**

Source: INE. Ongoing Survey of Household Budgets. 2006.

NOTES

- The Survey on Family Budgets (EPF), launched in 2006, replaces the Ongoing Survey on Family Budgets (ECPF; base year 1997), which was taken quarterly from 1997 to 2005. The new survey provides annual information regarding the nature and destination of consumer spending, as well as various characteristics concerning households' living conditions. Bridging tables have been established between these two surveys for the various spending groups

SOURCES

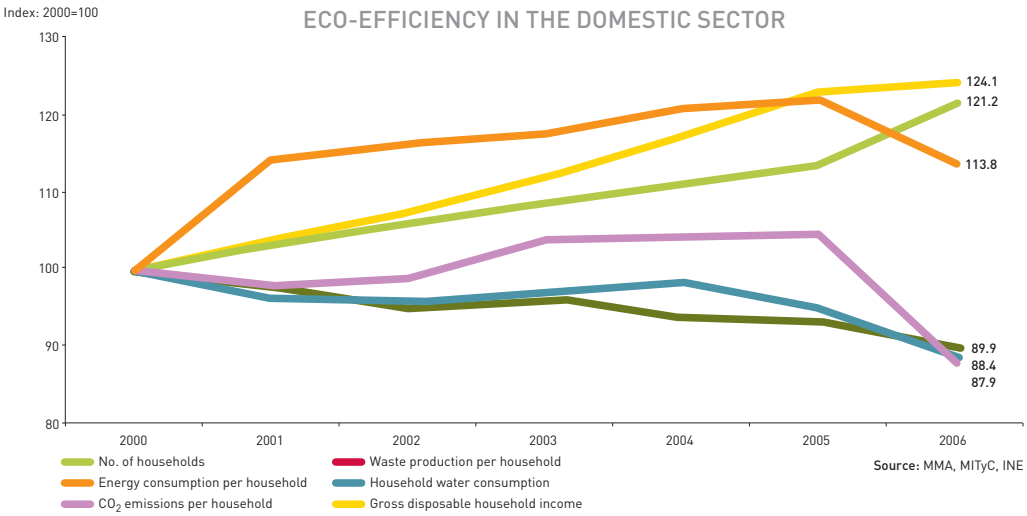
- INE. Spanish Regional Accounts. Base 2000. Gross Disposable Household Income. Series 2000-2006.
- INE. Spanish Regional Accounts. Base 2000 (CRE-2000). Household Income Accounts. Series 2000-2007. Press release, December 30th, 2008.
- INE. Household Budget Survey. 2006. Main findings. Press release, December 16th 2007.

MORE INFORMATION

- http://www.ine.es/inebase

Eco-efficiency in the domestic sector

Whereas the number of households and their gross income continued to increase in 2006, other indices decreased



The above graph shows the evolution of the residential sector between 2000 and 2006 on the basis of some of its variables (data for 2007 have not been included as not all series are available up to that year). The size of the sector, which has increased from 13.0 million to 16.3 million, should be highlighted initially. This demographic growth has been accompanied by strong economic growth, which means that household income has increased from €31,780 in 2000 to €39,443 in 2006.

In light of this scenario of both economic and demographic growth, it is logical that the sector's variables have also trended upwards over the same period. Spanish households as a whole have consumed more energy, emitted more CO_2 into the atmosphere and produced more waste. However, there have been some positive trends in the past few years: stabilization in urban waste generation since 2000 as well as decreased household water consumption in 2005 and 2006.

As for household energy consumption, this also decreased in terms of both electrical and heating/air conditioning use in 2006. Likewise, according to data from the INE, the amount of waste generated per household in 2006 decreased to 1.821 t from the 1.888 t of the previous year. In contrast, CO_2 emissions, which remained steady between 2003 and 2005, dropped sharply in 2006. These figures should be interpreted in light of the increase in the number of households.

Water consumption per household behaves differently to the other variables, showing fluctuations that could be related to meteorological parameters. It shows a certain decoupling from growth in gross disposable income per household and number of households, and a sharp fall in 2006 with respect to 2005. This effect could also be due to greater awareness of sustainable water use or the price increases imposed in almost all Autonomous Communities.

NOTES

- This indicator is calculated using the annual change in each of the indicators discussed, with 2000 as reference year and quoting each indicator's value as a percentage.
- European households account for nearly 27% of energy consumption, mainly for heating and air conditioning. This figure is lower in Spain, due above all to the milder climate, which means that intense use of heating systems is not necessary. Domestic energy consumption, excluding transport, is increasing overall due to the growth in both the number of households and their spending. The greater efficiency of household appliances is counteracted by the large number of these devices used in households.
- The 2005-2007 Action Plan drawn up under the Spanish Energy Saving and Efficiency Strategy set a savings target of approximately 500,000 TOE in 2007 for the Construction subsector. To achieve this objective, a series of measures were established. Some of these were directed at the existing stock of buildings, while other more ambitious measures target new buildings. All these measures could bring about a fall in residential energy consumption in the future.
- Practically all Spanish households have access to water, although its cost and the rationing imposed in times of drought prevent unlimited consumption. The Segura, Júcar, Sur and Guadiana river basins, inland basins in Catalonia and certain areas of the Ebro Basin suffer periods of water scarcity. These were particularly acute in the 2004-2005 hydrological year. In Spain, 17% of water consumed is used for urban supply, whereas in the rest of the European Union this figure does not exceed 10%.

SOURCES

- Number of households: INE. Ongoing Survey of Household Budgets. Base 1997. INE. Household Budget Survey.
- Waste: INE. Survey on Waste Collection and Treatment, 2006.
- Energy: Institute for Energy Saving and Diversification (IDAE).
- Ministry of Industry, Tourism and Trade. General Secretariat for Energy, 2006. "Energy in Spain, 2007".
- Water consumption: INE. Survey on Water Supply and Treatment. Various years.

MORE INFORMATION

- http://www.ine.es