Instituto Nacional de Estadística

Press Release

22 April 2009

Survey on Households and the Environment. Year 2008

Provisional results

Main Results

– 96.9% of Spanish households develop a habit for saving water. Eight in 10 use their washing machines and dishwashers on full load.

– Availability of electricity is practically universal in Spanish households. Liquid petroleum gases (butane, propane...) are available in 42.1% of dwellings and piped gas in 40.5%. Less than 1% of households have a device installed for utilising solar power.

– Seven in 10 households have heating. 45.9% of heating systems use gas, and 26.5% are electric. Air conditioning is available in 35.5% of dwellings.

– In three in four households, paper, glass and plastic and metal packaging are sorted in order to take them to a specific collection point. In six in 10 households organic waste is sorted for taking to a collection point.

– Public transport is used as the main mode of transport by 21.7% of citizens, while private transport is used by 45.3%. 30.3% walk.

– 85.5% of Spanish dwellings have energy-saving lights.

Habits for reducing water consumption

96.9% of Spanish households developed a habit for saving water. The main practices for reducing water consumption were defrosting of food prior to eating (86.6% of families), using washing machines and dishwashers on full load (81.9%), keeping a bottle of chilled water in the refrigerator (64.2%), keeping a waste basket in the bathroom to avoid using the toilet for waste disposal (54.7%), allowing the dishes to accumulate before washing up (38.8%), not turning the tap on a minimum flow (30.8%) and water recycling (22.9%).

When analysing measures for reducing water consumption specifically for environmental purposes, it is worth noting that water recycling was taken more into account in Communities with shortages, and less so where it is in abundance.

It could be observed the fewer inhabitants in a municipality, the fewer the habits or devices for saving water. Conversely, **the larger the household, the greater the effort made to reduce water consumption.**

Considering the average net household income, those households with a monthly income below 1,100 euros adopted the fewest measures in terms of saving water.

Percentage of dwellings whose residents have developed measures for the environmental purpose of reducing the consumption of water

Year 2008

	Recycle water	Fill the kitchen sink	Run the dishwasher /washing machi on full load	Turn the tap on minimum flow
TOTAL	**22.9**	**38.8**	**81.9**	**30.8**
Andalucía	31.5	31.8	78.5	24.5
Aragón	21.9	34.3	88.0	29.8
Asturias (Principado de)	3.8	33.0	70.8	27.3
Balears (Illes)	20.7	74.0	89.5	30.6
Canarias	27.0	19.9	69.4	63.1
Cantabria	12.3	25.7	89.4	27.2
Castilla y León	15.0	41.8	83.9	21.0
Castilla-La Mancha	16.7	50.2	85.9	27.8
Cataluña	28.1	52.9	82.6	30.3
Comunitat Valenciana	20.1	38.1	91.6	21.3
Extremadura	17.5	49.7	87.6	15.9
Galicia	10.5	34.3	77.9	26.7
Madrid (Comunidad de)	27.8	33.1	79.1	50.7
Murcia (Región de)	27.6	24.6	80.7	27.5
Navarra (Comunidad Foral de)	12.4	36.9	74.6	21.6
País Vasco	13.3	37.5	82.6	28.4
Rioja (La)	14.8	37.9	87.5	20.7
Ceuta and Melilla	6.6	34.2	79.5	24.1

Sources of energy

The main sources of energy used in Spanish households were electricity, the availability of which was practically universal, liquid petroleum gases (butane, propane,..), available in 42.1% of dwellings, piped gas (40.5%) and liquid fuels such as diesel (12.5%). Other lesser-used sources of energy were wood (6.7%) and solar power (0.9%).

The use of liquid petroleum gases was highest in southern Spain and lowest in Comunidad de Madrid and regions along the river Ebro (Cantabria, País Vasco, La Rioja, Comunidad Foral de Navarra, Aragón and Cataluña). In the case of piped gas the opposite was true: its use was highest in Comunidad de Madrid, Cataluña and other Communities, which the Ebro passes through, and lowest in the southern Communities. In Canarias piped gas was not yet available.

The Communities with the highest percentage of use of diesel were Castilla–La Mancha, La Rioja, Castilla y León and Aragón. Wood was of relevance in Galicia, as is solar power in Andalucía.

The main source of energy in provincial capital and municipalities with more than 100,000 inhabitants was piped gas (56.8%), while in the remainder of municipalities the gas cylinder took precedence. Alternative sources of energy to gas were only relevant in municipalities with fewer than 10,000 inhabitants.

In one-person dwellings, gas cylinders were more commonplace than piped gas, and its use was similar in households with more members.

By level of income, it could be observed that the higher the level of income, the greater the percentage of households with piped gas, diesel and solar power.

Percentage of dwellings, by type of energy used (except electrical energy) and Autonomous Community

Year 2008

	Piped gas	Liquid petroleum gases / gas cylinder	Wood	Liquid fuels	Solar power
TOTAL	**40,5**	**42,1**	**6,7**	**12,5**	**0,9**
Andalucía	11,2	77,0	6,4	3,8	3,0
Aragón	41,5	16,7	7,8	34,0	0,6
Asturias (Principado de)	52,4	27,5	2,8	13,7	-
Balears (Illes)	23,7	58,5	12,0	4,8	1,2
Canarias	-	48,8	0,4	0,4	1,4
Cantabria	56,0	23,0	5,0	11,4	_
Castilla y León	38,8	31,4	12,7	34,0	0,4
Castilla-La Mancha	25,1	49,8	7,5	39,2	0,2
Cataluña	72,3	20,8	4,1	9,9	0,9
Comunitat Valenciana	27,6	56,9	3,4	3,1	0,3
Extremadura	15,7	70,4	8,4	8,1	_
Galicia	18,3	64,0	29,1	28,2	0,5
Madrid (Comunidad de)	76,7	13,3	2,1	10,0	0,4
Murcia (Región de)	18,0	65,6	9,2	4,0	0,6
Navarra (Comunidad Foral de)	57,7	16,4	9,3	29,4	0,7
País Vasco	59,9	14,9	3,4	12,2	0,4
Rioja (La)	53,2	15,8	8,6	34,4	0,3
Ceuta and Melilla	-	94,0	0,7	-	0,3

Heating and air-conditioning

70.3% of households had heating. Their distribution by Autonomous Community was closely related to the winter temperatures experienced.

Considering the source of energy used for generating heat, **32.3% of Spanish heating systems used gas**, primarily by means of an individual boiler (23.4%) or central heating (6.6%). Gas-powered heating was used most in regions with colder and wetter winters.

On the other hand, el 18.6% of dwellings had an electrical heating system, either with an individual boiler (4.6%) or with radiators and accumulators (14.0%). It is worth highlighting that the use of electricity for generating heat was mainly used along the Mediterranean, where intensive use of energy during prolonged periods of time is not necessary.

Diesel provided heating for 11.7% of Spanish families.

Air-conditioning was available in 35.5% of households, the highest incidence being in Communities with hotter summers.

By size of the municipality of residence, it is worth noting that the availability of air-conditioning diminished noticeably in municipalities with fewer than 10,000 inhabitants.

Average household temperature and thermal insulation

Main heating systems used and availability of air conditioning in dwellings, by Autonomous Community (percentage of households that have them)

Year 2008

	Have heating %	First system	%	Second system	%	Have air conditioning %
TOTAL	70.3	Gas	32.3	Electrical	18.6	35.5
Andalucía	43.1	Electrical	23.5	Heat pump	3.8	57.4
Aragón	92.0	Gas	41.8	Diesel	32.8	37.4
Asturias (Principado de)	84.9	Gas	50.4	Electrical	17.5	0.4
Balears (Illes)	88.1	Electrical	46.9	Gas	18.6	46.1
Canarias	2.7	Electrical	1.6	-	-	6.3
Cantabria	76.9	Gas	52.4	Electrical	13.1	0.7
Castilla y León	90.8	Gas	39.2	Diesel	32.3	3.3
Castilla-La Mancha	86.2	Diesel	38.3	Gas	27.6	36.2
Cataluña	76.0	Gas	48.3	Electrical	15.4	36.1
Comunitat Valenciana	61.1	Electrical	23.9	Heat pump	20.8	54.5
Extremadura	79.7	Electrical	28.3	Gas	23.7	58.0
Galicia	59.9	Diesel	24.6	Gas	17.0	1.0
Madrid (Comunidad de)	90.4	Gas	66.4	Electrical	15.6	43.5
Murcia (Región de)	87.6	Electrical	40.6	Heat pump	28.1	63.9
Navarra (Comunidad Foral de)	94.6	Gas	57.2	Diesel	28.7	11.4
País Vasco	89.9	Gas	57.2	Electrical	22.0	1.7
Rioja (La)	97.2	Gas	53.2	Diesel	33.6	13.3
Ceuta and Melilla	20.6	Heat pump	4.6	Electrical	2.3	27.6

The average temperature programmed for households with heating was 21.3 degrees Celsius. In the Communities with a sunnier climate in winter, the temperature of the heating was programmed higher, whereas in the rainier Communities, it was programmed lower.

In the dwellings with air conditioning, the average temperature programmed was 22.3 degrees. In the Communities that are warmer in summer, the temperature programmed for air conditioning was higher.

The main measures of thermal insulation adopted by Spanish households were the installation of Persian blinds or shutters (94.0% of dwellings), double-glazing for the windows (39.3%), canopies (23.0%), thermal bridge-breaking devices (11.4%) and the mounting of tinted glass or solar protectors (4.1%).

By size of the municipality, more installation of thermal insulation was observed in provincial capitals and municipalities with more than 100,000 inhabitants, and less was observed in those with fewer than 10,000 inhabitants.

By household size, the greater the number of members, the higher the degree of insulation used.

Regarding the level of income, households with fewer than 1,100 euros of net monthly income presented a lower degree of insulation, which increased in line with the level of income.

Selective waste disposal

Three in four Spanish households sorted paper, glass, and plastic and metal packaging to take them to a specific collection point.

In addition to these basic groups of waste, the Survey on Households and the Environment studies the selective disposal at a specific collection point of another 11 groups of waste, these being organic waste (six in 10 households sort them to take them to their collection point), small batteries (72.3% of households sort them and deposit them in appropriate places for recycling or disposal), medicines (69.5%), chemical products (21.1%), electrical appliances, household appliances and computers (65.9%), mobile phones (35.6%), furniture and household furnishings (65.2%), rubble and waste from building sites (43.7%), cooking oils (24.0%), fluorescent lighting (19.9%) and clothing and footwear (56.0%).

As an influence on these percentages and territorial distribution, we found not only the inclination of the households to selective waste disposal, but also the available infrastructure and its proximity to be able to carry it out.

By size of the municipality, provincial capitals and municipalities with more than 100,000 inhabitants showed the most favourable behaviour in the selective sorting of waste.

The inclination of the household to sort waste was greater in the most numerous dwellings, and also in households with medium and high income.

Percentage of dwellings whose residents take waste to their specific collection point, by some types of waste and Autonomous Community

Year 2008

	Paper and cardboard	Glass	Plastic, metal packaging	Chemical products, paints and cleaning products	Medicines	Small batteries	Cooking oils	Fluorescent tubes
TOTAL	74,5	75,3	71,8	21,1	69,5	72,3	24,0	19,9
Andalucía	64,9	65,5	65,7	17,9	66,5	61,9	18,9	10,0
Aragón	84,6	86,9	80,2	10,5	61,5	73,4	31,5	18,4
Asturias (Principado de)	68,0	65,6	63,9	10,6	59,3	66,8	12,0	17,3
Balears (Illes)	77,2	76,0	69,3	21,7	66,3	72,3	35,0	21,0
Canarias	52,0	58,9	54,0	22,2	69,6	75,9	15,1	7,4
Cantabria	76,1	75,5	71,5	26,5	64,7	70,8	27,7	19,7
Castilla y León	74,5	75,4	58,1	14,2	66,6	73,2	19,6	16,6
Castilla-La Mancha	69,9	73,8	68,3	12,8	59,8	54,7	13,1	20,0
Cataluña	85,6	86,3	82,5	31,0	83,3	84,9	33,5	32,6
Comunitat Valenciana	72,1	72,0	68,1	11,6	66,6	66,5	13,6	21,8
Extremadura	46,0	47,9	51,8	6,3	61,4	55,5	12,2	2,6
Galicia	58,6	60,9	58,8	12,8	69,9	67,7	14,4	13,2
Madrid (Comunidad de)	88,0	86,5	85,4	31,9	68,9	81,1	31,2	23,1
Murcia (Región de)	63,0	71,3	62,7	16,6	68,7	70,1	23,0	22,4
Navarra (Comunidad Foral de)	87,5	86,1	83,3	20,6	66,7	75,6	42,9	15,5
País Vasco	92,3	91,6	90,2	37,3	73,5	82,3	41,3	31,4
Rioja (La)	90,7	90,1	89,9	12,7	68,4	80,5	38,8	20,1
Ceuta and Melilla	31,2	19,8	4,8	4,0	37,6	30,6	1,7	1,7

Means of transport used

Public transport (bus, subway, tram, train, ...) was mainly used by 21.7% of citizens, whereas private transport (car or motorcycle) was used by 45.3%. The remainder walked (30.3%), rode bicycles (1.3%) or did not travel (1.4%).

In public transport, the most common means was the bus (it was used by 14.7% of persons). In public transport, the most frequently used means was the car (used by 43.2%).

By Autonomous Community, worth noting was the greater use of public transport, as compared with the national total, in Comunidad de Madrid, Canarias, Cataluña and País Vasco.

Among the Communities in which public transport was not dominant, we can establish three groups. In the first group, there are the Communities that used both private transport and walking to a greater extent than the national average (Andalucía, Illes Balears, Cantabria, Castilla-La Mancha and Comunidad Foral de Navarra).

In the second group, there are the regions whose percentage of persons who walk was above the average (Aragón, Castilla y León, Comunitat Valenciana, Extremadura, La Rioja and Principado de Asturias).

The third group is comprised of the Communities in which the use of private transport was greater than the national average (Galicia and Región de Murcia).

Percentages of use of means of transport

Year 2008

	Total public transport	Total private transport	Walking
TOTAL	21.7	45.3	30.3
Andalucía	12.0	47.1	38.0
Aragón	17.9	38.2	41.4
Asturias (Principado de)	21.7	42.9	34.2
Balears (Illes)	11.9	51.1	32.2
Canarias	30.5	62.0	5.2
Cantabria	17.1	47.8	33.5
Castilla y León	8.6	39.5	49.1
Castilla-La Mancha	5.8	46.3	45.8
Cataluña	28.4	43.5	23.5
Comunitat Valenciana	12.3	42.4	42.7
Extremadura	7.1	40.6	50.1
Galicia	18.8	60.0	19.3
Madrid (Comunidad de)	49.8	37.3	11.7
Murcia (Región de)	10.8	57.4	29.1
Navarra (Comunidad Foral de)	20.3	46.3	30.7
País Vasco	28.0	41.2	29.7
Rioja (La)	9.1	40.1	47.9
Ceuta and Melilla	13.3	51.5	34.0

By type of municipality, as compared with the national average, public transport predominated in provincial capitals and cities with more than 100,000 inhabitants. In the rest of the municipalities, private transport and walking prevailed.

The use of public transport or walking was greater in households with the lowest income, whereas private transport was used the most in households with higher income.

By sex, **women tended to travel more than average by public transport or walking, and men tended to travel more by public transport**.

By age group, the behaviour of the youngest persons (under 25 years of age) and the oldest (65 years and over) was similar, given that both groups used public transport more. Among middle-aged persons, private transport was used the most. Worth noting is that walking increased with the age of the person.

By level of studies completed, travelling by private transport increased along with the level of studies, while walking was preferred by persons with a lower level of studies.

The use of private transport on the part of employed persons was not related to their occupation or to the main activity of the company in which they worked, with the exception of domestic staff, who used public transport more.

Availability of a vehicle for personal use

Three in four Spanish households had a vehicle available for their personal use. **The average number of vehicles, over the total households with a vehicle, was 1.6.**

42.2% of households had a single vehicle, while 7.4% had three or more. Given this distribution, the pool of Spanish vehicles for personal use was more than 19 million cars, vans or motorcycles.

By Autonomous Community, these islands had the highest percentage of dwellings with a vehicle, while Comunidad de Madrid and Cataluña (where public transport was used the most) were at the other extreme.

The higher the number of members of a household, the higher the average number of available vehicles.

By average net monthly household income, we observed a direct relationship between the level of income and the availability of vehicles for private use, as well as with the average number thereof.

Energy-saving lights

85.5% of Spanish dwellings had energy-saving lights. 66.1% of them had at least one fluorescent tube or light, and 67.1% had at least one energy-saving light bulb (including halogen bulbs).

The lowest percentage of energy-saving light bulbs was observed in municipalities with fewer than 10,000 inhabitants, in dwellings occupied by one or two persons and in households with the lowest income.

Methodological note

The Survey on Households and the Environment 2008 is the first of a new series of surveys that the INE plans to carry out in order to measure different emerging subjects of social interest.

The objective of the Survey has been to study the habits, consumption patterns and attitudes of households regarding the environment. It also studies the equipment of dwellings and the use that they make thereof in terms of the different aspects of the environment (saving energy, reducing the consumption of water, sorting waste, ...). This is an innovative survey in its field, as very few foreign statistics offices (Canada, Australia, France) have put it into practice.

The Survey was carried out between April and September 2008, in partnership with the statistics offices of Cataluña (Idescat), País Vasco (Eustat), Andalucía (IEA) and Galicia (IGE), which not only were in charge of the fieldwork in their respective territories, in some cases undertaking important sample increases, but also contributed from the beginning, to the design of the questionnaire and the preparation of the methodology, to the end, with the selection of the basic results tables offered herein.

The design is a stratified tri-stage sample. The sample size, including those sample extensions, exceeded 26,000 dwellings, which allowed for obtaining results by Autonomous Community.

Most of the questions refer to the household and may be answered by any adult member. However, in each dwelling, a person aged 16 years and over is selected to provide information regarding some individual questions (habits, means of transport).

The collection method was mainly by personal visit to the household, though the possibility of answering the survey by telephone or online was also offered to the interviewees.

The modules of the questionnaire studied relating to the environment are: water, energy, waste, equipment and use of the dwelling as regards the environment, problems with noise and odours, transport and mobility, and lifestyles and consumption patterns. As a general rule, physical quantities are not studied. The use of fertilisers or subjects related to gardens, lawns and swimming pools is not studied either.

Broken-down data is offered by Autonomous Community, habitat (size of the municipality of residence), size and type of household, level of income thereof and other socio-demographic variables. In addition to the results tables published, the microdata file with the complete information from the Survey is also available.