



# **Survey on Households and the Environment 2008**

## **Methodological note**

(Version: April 2009)

**Subdirectorato-General for Social Statistics  
and Analysis**

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## Introduction

In January 2006, the National Statistics Institute (INE) offered the statistics offices of the Autonomous Communities (CCAA) the opportunity to cooperate, from the beginning, the in implementation in Spain of the social survey project that is being managed in Eurostat with the name *European Household Survey* (EHS).

The EHS, as it was initially conceived, is an annual modular survey aimed at individuals or households, comprised of fixed and variable modules, which would have the objective of being able to collect, in an agile manner, information regarding different social interest subjects in the European scope, without having to go through the complicated gestation process necessary to conduct ad-hoc surveys. Having built the instrument (the EHS), it was only necessary, each year, to submit for discussion, among the Member States, those subjects to be included in the modules of the annual survey.

The initiative of the INE was admitted favourably. A meeting was held with the directors of the statistics offices of the Autonomous Communities in Sevilla in April 2006, in which an agreement was made to develop a survey project jointly between the statistics bodies of the CCAA and the INE. Given the degree of uncertainty remaining in the European project at that time, it was decided to undertake an edition, in 2008, of a social survey in Spain, for the purpose of adapting to the methodological and content guidelines received from Eurostat when the time came, but that would begin without waiting for all of those doubts to be resolved.

In 2006, a technical working group was created to develop the methodology, which began working in July 2006, and which shall continue its activity though all of the phases of the project. After different attempts related to the subject of the survey, the work was begun relating to *households and the environment* in March 2007. The organisations in attendance at this meeting were the INE, the Statistics Institute of Cataluña (IDESCAT), the Statistics Institute of Andalucía (IEA), the Statistics Institute of Galicia (IGE), the Statistics Institute of País Vasco (EUSTAT) and the Statistics Institute of Navarra (IEN).

The work of the technical group produced the methodology presented herein. In this sense, it is necessary to point out the this survey has been conducted in partnership with IDESCAT, EUSTAT, IEA and IGE, which not only were responsible for the fieldwork in their respective territorial scopes, handling in some cases, important sample increases, but also have participated, from the beginning of the same, in the design of the questionnaire and in the preparation of the methodology, until the end, with the selection of the basic results tables.

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## 0 Objectives

The objectives of the Survey on Households and the Environment 2008 are:

- To study the habits, consumption patterns and attitudes of households as regards the environment.
- To study the equipment in the dwellings, and the use that they make of the same, regarding the different aspects of the environment, for the purpose of being able to create environmental policies related to households (saving

energy, reducing the consumption of energy, sorting waste, ...). In addition, the study allows for obtaining indicators that are comparable by Autonomous Community.

The final aim, though not a priority, is to achieve comparability with other countries that have carried out this type of study.

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## 1 Work units

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### 1.1 UNITS OF ANALYSIS

The survey considers two basic units of observation and analysis:

- Main family dwellings
- Persons 16 years old and over

Main family dwellings are understood to be the group of persons residing in the same family dwelling. One or more households, in the traditional sense of the term, may reside in the same family dwelling.

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### 1.2 SAMPLING UNITS

The sampling unit is considered to be the *main family dwelling*, and the last sampling unit is considered to be a person 16 years old and over who resides in that dwelling. The primary sampling unit is the census section, and the dwelling is the unit for the second stage.

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## 2 Research scope

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### 2.1 POPULATION SCOPE

The population that is the object of study (target population) is that of the entire group of main family dwellings, and the group of persons who reside in said dwellings.

For Survey on Households and the Environment 2008 (SHE), and given the subject at hand, the population scope extends to those persons 16 years old and over who reside in main family dwellings.

The SHE is aimed at the population that resides in main family dwellings, that is, those used during the entire year, or most of it, as the regular or permanent dwelling. Therefore, the survey does not consider the so-called *group households* (hospitals, residences, barracks, etc.) or secondary or seasonal dwellings (used during summer or holiday periods, at weekends, etc.). The survey does include, however, families that, forming an independent group, reside in said group establishments (for example, the director or caretaker of the centre).

In the particular case of families that use two dwellings regularly (the mother, alone or with children, in one of them, and the father in the other, as a result of work, studies, etc., or complete families using two dwellings at the same time or by season), the main dwelling is considered to be that which the family itself recognises as such. The other dwelling will be considered secondary.

Lastly, it is important to note that, regarding the delimitation of what is considered the target dwelling of the survey, or *surveyable* dwelling, the generic denomination of *family dwelling* includes that whose components do not have family ties, provided that, as a human group, it fulfils the specific characteristics required to be surveyable.

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## 2.2 TERRITORIAL SCOPE

This includes all of Spain.

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## 2.3 TIME SCOPE

The fieldwork began in April and ended in September 2008, although in some sections, it was necessary to extend the collection until December.

The reference periods vary, depending on the blocks of questions in the questionnaire (last week, last month, last year).

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## 3 Basic concepts

For the purpose of ensuring the comparability between different sources, as regards the common characteristics that might exist, the same definitions are used as in existing surveys.

This section expressly includes the main basic concepts of the survey (family dwelling, main family dwelling, household, members of the household, reference person, domestic service, guest, visitor, student, ...).

### Dwelling

This is a structurally *separate* and *independent* venue that, given how it was constructed, reconstructed, transformed or adapted, is conceived to be inhabited by persons or, if this is not the case, is used as somebody's *regular residence*. As an exception, dwellings will not include venues that, despite being initially conceived for human habitation, are dedicated totally to other purposes (for example, used as commercial premises).

A venue is considered **separate** if it is surrounded by walls, fences, gates..., it is covered by a roof and it allows a person, or group of persons, to be isolated from others, in order to prepare and eat food, to sleep and to find shelter from the weather and the environment.

The venue will be considered **independent** if it can be accessed directly from the street or from a public or private area, either common or individual, or from any staircase, hallway, corridor...; that is to say, when the occupants of the dwelling can enter and exit it without having to go through a venue occupied by other persons.

In any case, this considers the current situation of the venue-dwelling and not the primitive state of construction, in such a way that, in the aggregates or subdivisions of dwellings, it considers how many units have resulted from the transformation process, provided that they comply with the previously-defined conditions, and irregardless, therefore, of the initial situation of construction.

There are two types of dwelling: *group dwellings* (also known as group establishments) and *family dwellings*. Inside the group of family dwellings, there is a subtype called *accommodation*. The definitions for each of these concepts appear below.

### **Group dwelling**

This is a dwelling designed to be inhabited by a group, that is, by a group of persons subject to an authority or common regime, not based on family ties or on coexistence. The group dwelling may only partially occupy a building, or more frequently, may occupy the entirety of the building.

This includes both group establishments (convents, barracks, homes, student halls of residence or worker housing, hospitals, prisons, etc.), and hotels, boarding houses and analogous establishments.

When, within the group establishment, there are dwellings of a family nature (see the following definition), normally used for the managerial, administrative or service personnel of the establishment, these shall be considered family dwellings.

### **Family dwelling**

This is a dwelling designed to be inhabited by one or several persons, generally, but not necessarily linked by family ties, and that does not constitute a *group dwelling* (see the above definition of group dwelling).

This does not include, however, those venues initially built to be dwellings, but that are used solely for other purposes (dwellings that have been transformed completed into offices, workshops, warehouses, etc.).

Despite not complying strictly with the definition, the following *accommodation* types are considered family dwellings.

### **Accommodation**

This is a family dwelling that presents the particular feature of being mobile, semi-permanent or improvised, or rather that has not been conceived initially for residential purposes, but that constitutes the residence of one or several persons.

Accommodation may be:

#### **a) Fixed**

- Semi-permanent dwellings which, although they resemble family dwellings in some aspects, are used during a limited time (normally under 10 years).
- Certain venues used as dwellings that are constructed without pillars and with waste material (tins, boxes...): huts, shacks, etc.
- Other venues, whose initial purpose is not to be a dwelling, and that have not been rebuilt or reformed to be used for residential purposes, but that, despite this, have persons living inside of them; for example, spaces located in stables, barns,

windmills, garages, warehouses, commercial premises etc., as well as caves and other natural shelters that have been fitted out to live in them.

## **b) Mobile**

Those which have been built to be transported, or that constitute a mobile venue, and serve as a domicile for one or several persons, such as tents for camping, boats, yachts, trailers, ... Mobile accommodation does not include those departments that are reserved for travellers in group transport (boats, trains, ...).

### **Member of a (main) family dwelling**

A person is considered to be a member of a family dwelling if s/he regularly resides in it (and when at least one person resides in a family dwelling, said dwelling is considered to be a main family dwelling, and therefore, target of study in this survey).

### **Main family dwelling**

A main family dwelling is considered to be any family dwelling that is used as the *regular residence* of one or more households. Those family dwellings that are used seasonally, are uninhabited, etc., are not a regular residence, and are therefore not considered main family dwellings.

### **Regular residence**

A person is considered to **reside regularly** (or to have her/his **main residence** or **live regularly**) in the dwelling established as her/his address, and where s/he spends most of the time when not working. However, if for whatever reason, work, studies, etc., a person has several addresses, it must be remembered that only one of them is considered the regular or main address. Likewise, for persons who, for any given reason, do not have an address they can consider their regular residence, and who are residing in a dwelling in the sample at the time of the interview, it is necessary to establish whether or not they are considered members of the household that resides in said dwelling. In order to decide in these cases, it is necessary to bear the following in mind:

1. If a person is **residing in several dwellings**, the residence considered in the survey will be the place considered to be the main dwelling in the last 6 months.
2. If a person **has changed residence recently**, the survey cannot use the previous 6-month criterion, and will consider that the new residence is the regular residence, if the person aims to reside within it for a period of six months or more.
3. **The domestic service and other persons displaced due to work, studies, residence in centres, etc.:**

a) **Domestic service.** This includes any person who provides domestic services to the household (such as chauffeurs, maids, nannies, domestic staff) in exchange for remuneration (in cash or in kind). For these persons, their main residence is considered to be the dwelling in which they currently work or live, if they do not have another in Spain that, on being their property or that of their family, they consider to be such. This is irregardless of the duration of this situation.



b) **Persons displaced due to work, studies, travel, etc.** This considers the same criterion is that used for domestic service.

c) **Persons *absent* from their regular dwelling due to being admitted** to hospitals, clinics, homes, prisons and other institutions. It is not considered that these persons reside in said dwelling, if the total absence will be longer than or equal to six months.

4. **Persons *present*, without a regular residence:** A person who is residing in a dwelling in the sample at the time of the survey, and for whatever reason, does not have a residence that can be considered a main or regular residence, according to that which is described above, for the purposes of the survey, is considered to be resident in said dwelling, and therefore, target of study within the same.

### **Presence / Absence**

A person is considered to be present if s/he sleeps in the dwelling at least one night during the interview period (the interview period is the *time the interviewer remains* in the section).

A person who regularly resides in a dwelling is considered to be absent (temporarily) from the same if s/he does not sleep there any night during the interview period. Temporary absence may be due to several causes, such as staying in a hospital or clinic, in a boarding regime educational establishment, university dormitory or hall of residence, in another institution (prisons, homes, etc.), or due to working elsewhere, being on a trip, or other reasons.

### **Reference person**

The reference person of the dwelling is considered to be that member, who is 18 years old or over, who resides in the dwelling, and whose name appears on the property deed (owned dwellings) or the rental or sub-lease contract of the dwelling (rented dwellings). In the case that the dwelling were used free of charge, the reference person of the dwelling would be considered to be the individual to whom the dwelling was granted.

If **two or more persons** share the responsibility of the dwelling, that person who provides the most income to the common budget shall be the reference person.

### **Informant of the dwelling**

The ideal informant to be interviewed in the initial contact, and who should give the general information of the dwelling, should be the reference person of the dwelling. If this were not possible, it should be another adult of the dwelling who can "speak in her/his name".

Therefore, in general, the following order of preference is recommended:

- The reference person of the dwelling
- Another adult person, member of the dwelling
- In very exceptional cases, as would occur, for example, in a dwelling comprised of elderly or disabled persons who live alone, it would be allowed for the informant to be a person who is not a member of the dwelling (for example, a

son/daughter or close friend who is perfectly aware of the situation of the dwelling). In any case, the informant is a person 18 years old or over.

### **Surveyable person**

Surveyable persons are considered to be those persons, members of a dwelling, who in the month prior to that of the interview, were 16 years old or over.

It is necessary to determine the surveyable persons, in order to select, from among them, one who should answer the individual module of the questionnaire.

### **Selected person**

The selected person is considered to be that person who is obtained from the *table of members of the dwelling* (Kish table), and who will be the person in charge of responding to the module of questions regarding persons.

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## **4 Characteristics to research in the survey**

The questionnaire modules related to the environment that will be studied are:

- Water
- Energy
- Waste
- Equipment and use of the dwelling as related to the environment
- Problems with noise and bad smells
- Transport and mobility
- Lifestyles and consumption patterns

For more information, see the questionnaire by visiting the INE, in the corresponding place, and the logical scheme for completing the same, and clicking on the icon that indicates Annex 1 of this document.

The target characteristics of study may be classified into two types: characteristics of dwellings and characteristics of persons.

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### **4.1 4.1 CHARACTERISTICS RELATED TO THE DWELLING**

#### **4.1.1 WATER**

##### **4.1.1.1 Main source of drinking water supply**

This requests the main source of drinking water supply of the dwelling, giving the possibility of responding whether the water comes from:

- Urban supply system
- Water from a private well, a fountain, a spring, a lake or a river
- Another supply source that should be specified
- Does not know / Does not answer

For these purposes, a **water supply system** is considered to be that group of pipes, installations and accessories used to lead the required water under a given

population in order to satisfy the needs of the population, from its natural place of existence or source, to the household of the users.

#### 4.1.1.2 Devices for saving water

The members of the dwelling are asked to inform on whether or not they have any of the following devices/mechanisms for saving water in taps, showers and toilets:

- Mixer or thermostat tap
- Other water-economising devices, such as water-saving shower roses, atomisers, flow reducers, with infrared sensor detectors, with timed pulsating devices, etc.
- Discharge-limiting mechanisms for cisterns, including the placement of a bottle full of water or another object inside the cistern, to achieve the same effect.

For these purposes, **mixer taps** are understood to be those which have a single tap to regulate the flow, quantity and temperature of the water.

A **thermostat tap** is that which disposes of a temperature pre-selector that maintains the desired heat. The selection is made with a scale of degrees on the handle of the tap. This system allows the consumer to close the tap in order to lather up, and open it later, knowing that the water will still be the same temperature. Both devices allow for saving energy and water, due to the evident expense of regulating the temperature of the water.

**Water-saving shower roses** are devices that mix air with the water, even at low pressure, causing the drops of water to exit the rose in the shape of "pearls". Thus, the consumer gets the impression of receiving a greater volume of water, when it is actually water mixed with air. **Atomisers** are devices that work as water diffusers; they are simple appliances, some of which are as well-known as the traditional "heads" of the taps. **Flow reducers** are devices that reduce the flow of water, depending on the pressure, and can achieve an important savings.

**Discharge-limiting mechanisms for cisterns** are devices that, placed in the overflow tube, or on the discharge valve of the toilet, convert, in a very simple and economic way, a traditional cistern into a saving cistern. This accessory automatically closes the valve when two litres of water have been discharged; this amount being considered sufficient to clean the toilet in most cases. If this were not enough, it would be only be necessary to hold down the handle for a few seconds for the cistern to discharge completely. The devices are inexpensive and easy to install in most toilets. The exception is with high cisterns, which require a slight modification.

#### 4.1.1.3 Habits for reducing water consumption

They are asked regarding a series of habits for reducing water consumption, and should be answered "yes" or "no", according to the behaviour of the members of the dwelling. The goal is to ascertain whether the members of the household:

- Recycle water
- Keep a bottle of cold water in the refrigerator in order to avoid leaving the tap running
- Defrost food ahead of time so as to avoid doing so under the tap
- Fill the sink before doing the washing up

- Wait until the dishwasher and washing machine are full before turning them on
- Close the water main a little bit in order to decrease the flow of the taps
- Keep a wastepaper basket in the bathroom so as not to use the toilet as a rubbish bin

#### 4.1.2 ENERGY

##### 4.1.2.1 Use of electricity in the dwelling

We wish to ascertain whether or not electricity is used in the dwelling.

For these purposes, a dwelling is considered to have electricity available when it comes from a general distribution network and is conducted into the dwelling through a fixed installation, or is produced by a generator that is part of the building.

##### 4.1.2.2 Availability of solar energy in the dwelling

We wish to ascertain whether or not solar energy is available in the dwelling.

##### 4.1.2.3 Sources of energy used in the dwelling

In addition to electricity, we wish to ascertain the sources of energy used in the dwelling. To this end, the following are considered:

- Channelled gas
- Liquid petroleum-based gases (butane, propane, etc.) / Gas tank
- Wood
- Liquid fuels (diesel, etc.)
- Other source of energy or fuel that should be specified

##### 4.1.2.4 Availability of heating

We wish to ascertain whether or not heating is available in the dwelling.

A dwelling is considered to have **heating** when it has some type of installation or system that allows for raising the temperature throughout the dwelling or in most of it. This includes hot air and hot water feeding systems.

##### 4.1.2.5 Heating systems

They are asked regarding each of the following heating systems, if they are used by the dwelling.

###### Electrical heating

- Individual electrical furnace
- Electrical radiators and accumulators
- Under-floor heating

###### Gas heating

- Central gas heating
- Individual gas heating
- Non-channelled gas (Gas tank stoves)

###### Heat pumps

- Channelled (by conducts)
- Non-channelled

#### Other heating systems

- Individual diesel heating
- Central diesel heating
- Coal heating
- Wood
- Other heating systems

For these purposes, a dwelling is considered to have **individual heating** when the generation of the heating system is produced from a feeding system located inside of the dwelling itself.

A dwelling is considered to have **group heating (central heating)** when the generation of the heat is produced from a common feeding system for the building or the group of buildings.

#### 4.1.2.6 Availability of air conditioning

They are asked about whether or not air conditioning is available in the dwelling.

A dwelling is considered to have **air conditioning or refrigeration** when it has some type of installation, system or appliance that allows for lowering the temperature throughout the dwelling or in part of it.

#### 4.1.2.7 Thermal insulation

They are asked about the availability of the following devices in the dwelling:

- Canopies
- Persian blinds or shutters
- Tinted glass or solar protectors
- Double glazing for windows
- Thermal bridge breaking

In the case of having any of them, it must be specified whether or not they are available for all of the windows or only some of them.

#### 4.1.2.8 Available of fluorescent tubes or lights

They are asked about whether or not fluorescent tubes or lights are available in the dwelling.

#### 4.1.2.9 Availability of other energy-saving light bulbs

They are asked about the availability of energy-saving lights other than fluorescent tubes or lights (including halogen bulbs).

### 4.1.3 WASTE

#### 4.1.3.1 Availability of specific containers

The members of the dwelling are asked to inform regarding the distance to specific containers that allow for classifying the following types of waste:

- Only organic waste
- Paper and cardboard
- Glass
- Plastic and metal containers (tins, etc.)

#### 4.1.3.2 Sorting of waste

They are asked about the sorting and deposit (or failure to deposit), at a specific collection point, of the following waste:

- Only organic waste
- Paper and cardboard
- Glass
- Plastic and metal containers (tins, etc.)

If the answer is “yes”, they are asked about the frequency with which each type of waste is deposited at a collection point:

- Daily, at least 5 days a week
- Every week, but not daily
- At least once a month, but not every week
- Less frequently
- Does not know / Does not answer

In the case of not sorting waste, they are asked regarding the main reasons why not:

- There is not enough space
- It is not worth it because the dwelling does not generate enough waste
- There is no local collection service for said waste
- Not interested / it implies too much effort
- Does not know / Does not answer

#### 4.1.3.3 Availability of a vehicle

We wish to ascertain whether or not vehicles are available in the dwelling, for personal or professional use.

#### 4.1.3.4 Place for disposal of waste from vehicles

In the case of having a vehicle available for personal or professional use, they are asked regarding whether they usually dispose of:

- Tyres
- Motor oil
- Batteries

in any of the following places:

- Litter bins
- Recycling centres
- Companies or shops that sell them, or workshops
- Down the sink or drain (in the case of motor oil)
- Other places / Not applicable when they have not recycled these products, do not have them or recycle them in other places.

#### 4.1.3.5 Place for disposal of other waste

They are asked regarding whether they usually dispose of:

- Chemical products, paints and cleaning products
- Medicine
- Batteries
- Mobile phones

- Electrical devices (household appliances, computers, etc.)
- Furniture and other household goods
- Rubble and waste from small construction jobs
- Cooking oil
- Fluorescent tubes
- Textiles and footwear

in any of the following places:

- Litter bins
- Recycling centres
- Companies or shops that sell them (SIGRE point, in the case of medicine)
- Special collection service
- Specific collection container ("Tragamóvil", in the case of mobile phones)
- Down the sink or drain
- Other places / Not applicable when they have not recycled these products, do not have them or recycle them in other places.

#### 4.1.4 EQUIPMENT AND USE OF THE DWELLING AS RELATED TO THE ENVIRONMENT

##### 4.1.4.1 Equipment and characteristics of the main household appliances

For the main household appliances of the dwelling:

- Refrigerator
- Washing machine
- Independent dryer
- Dishwasher
- Oven

they are asked regarding:

- Availability, or not, of the indicated household appliances
- Their age, distinguishing between:
  - Less than one year
  - Between one year and less than five years
  - Between five years and less than 10 years
  - 10 years or more
- Their energy rating A, A+ or A++
  - Yes
  - No
  - Does not know / Does not answer
- The frequency of use (except for the refrigerator), according to the following categories:
  - Once a week or less
  - 2 - 4 times a week
  - 5 - 7 times a week
  - More than 7 times a week
- The availability of half-load or energy-saving programmes (except for the refrigerator and the oven)

Yes, but they do not usually use them  
Yes, and they usually use them  
Not available

#### 4.1.4.2 Availability of an independent freezer

They are asked about whether or not an independent freezer is available

#### 4.1.4.3 Temperature of washing machine in use

They are asked about the temperature at which the washing machine is set, distinguishing between:

- Hot (over 40 degrees Celsius)
- Warm (30 to 40 degrees Celsius)
- Cold (under 30 degrees Celsius)
- Several, depending on the clothing, the grime, etc.

#### 4.1.4.4 Availability and frequency of use of small household appliances

They are asked about the availability of a series of small household appliances:

- Microwave oven (with or without a convection oven)
- Extractor fan
- Food processor
- Blender
- Electric juicer
- Electric toaster or sandwich toaster
- Electric coffee-maker
- Grill or electric griddle for cooking
- Electric razor
- Hairdryer
- Fan (portable or ceiling) (in the summer)
- Steam cleaner
- Vacuum cleaner
- Iron
- Heating blanket (in the winter)

in the case of an affirmative answer, they are asked to specify the frequency of use, choosing from among the following:

- Daily, at least 5 days a week
- Every week, but not daily
- At least once a month, but not every week
- Less frequently

#### 4.1.4.5 Availability and frequency of use of other devices

They are asked about the availability of a series of devices:

- Television
- DVD player / recorder
- DTT decoder (including those integrated in the television)
- Stereo, music system
- Computer (desktop and / or laptop)
- Video-console (games)



- Video Cassette Recorder

In case of an affirmative answer, they are asked to specify the frequency of use, according to the following brackets:

- Daily, at least 5 days a week
- Every week, but not daily
- At least once a month, but not every week
- Less frequently

#### 4.1.4.6 Stand-by option

They are asked about whether or not the "Stand-by" option is used in certain electrical devices on turning them off (leaving the red pilot light turned on).

For these purposes, **Stand-by** refers to the stand-by consumption of the different electronic devices, such as televisions, audio and video players, etc. In "Stand-by", the device is connected, waiting to receive orders, and therefore consumes electrical energy.

### 4.1.5 PROBLEMS WITH NOISE AND BAD SMELLS

#### 4.1.5.1 Noise situation

The households are asked whether or not they have suffered problems with noise during the year 2007.

#### 4.1.5.2 Cause and intensity of the noise

In case of having suffered problems with noise, we intend to ascertain the causes of the noise:

- Land traffic
- Air traffic
- Neighbours
- Animals
- Mechanical causes, including construction
- Trade and recreational activities
- Informal urban get-togethers (outdoor drinking)
- Other causes that should be specified,

the frequency with which they suffer the noise:

- Sometimes
- Often
- Daily

and the intensity of the same, choosing from among the following:

- Tolerable
- Fairly strong
- Very strong

#### 4.1.5.3 Measures adopted in order to solve the noise problem

The goal is to research the measures taken to deal with the noise suffered. To this end, the members of the dwelling choose up to three of the following measures:

- Soundproof the dwelling
- Change of residence
- Complain to the person causing the noise
- Make a formal complaint
- Create an association, or associate with organisations to fight the problem
- Other measures that should be specified

or express that no measure has been taken.

#### 4.1.5.4 Bad smell situation

The households are asked whether or not they suffered bad smells during the year 2007.

#### 4.1.5.5 Cause and intensity of the bad smells

In case of having suffered problems with bad smells, we intend to ascertain the causes of the bad smells:

- Smoke, tobacco, etc.
- Pipelines, sewerage, etc.
- Agrarian operations
- Industries (food, fishing, workshops, etc.)
- Trade (supermarkets, fishmongers, etc.)
- Litter bins
- Dumps
- Other causes that should be specified,

the frequency with which they suffer the bad smells:

- Sometimes
- Often
- Daily

and the intensity of the same, choosing from among the following:

- Tolerable
- Fairly strong
- Very strong

#### 4.1.5.6 Measures adopted in order to solve the problem with bad smells

We aim to research the measures taken to deal with the bad smells suffered. To this end, the members of the dwelling choose up to three of the following measures:

- Place air purifiers in the dwelling
- Change of residence
- Clean the area
- Complain to the person causing the bad smells
- Make a formal complaint
- Create an association, or associate with organisations to fight the problem
- Other measures that should be specified

or express that no measure has been taken.

### 4.1.6 TRANSPORT AND MOBILITY

#### 4.1.6.1 Means of transport of the members of the dwelling

We wish to obtain information regarding the means of transport mainly used by the members of the dwelling for their commutes on working days. To this end, a single means of transport should be assigned per person, that is, that which the person most uses. In this way, the total members of the household are distributed, according to the following means of transport:

- Public transport
- Car
- Motorcycle / moped
- Bicycle
- On foot
- They do not commute

#### 4.1.6.2 Number of vehicles

This studies the exact number of vehicles, for personal use, available to the members of the dwelling.

For these purposes, this includes those that belong to the household that do not have industrial registration (or having such, are used preferentially by the members of the household as a means of personal transport). This excludes taxis and other public transport automobiles not preferentially used as a means of personal transport by the members of the dwelling. However, the section includes those all-terrain vehicles or vans whose purpose is personal transport.

#### 4.1.6.3 Characteristics of the vehicles

For each of the vehicles, we research:

1. The type of vehicle, distinguishing between:
  - Small car
  - Medium-sized car
  - Large car
  - Minivan
  - All-terrain vehicle (4X4)
  - Van
  - Moped
  - Motorcycle up to 125 cc
  - Motorcycle greater than 125 cc
2. Availability of air conditioning or heating (unless it is a motorcycle or moped).
3. Type of fuel used:
  - Premium unleaded petrol (95 RON)
  - Super unleaded petrol (98 RON)
  - Automotive diesel
  - Improved automotive diesel
  - Biofuels (biodiesel, bioethanol, etc.)
  - Other
  - Does not know / Does not answer
4. Kilometres driven in the last year
5. Age of the vehicle

## 6. Parking place, distinguishing between:

- Garage or other parking lot with restricted usage
- On the street

A household is considered to have a **garage** when it owns or rents a space located in the building of the dwelling or near it, which may be used for daily or regular use, is isolated from the outside by a roof and walls, is connected to the road network by a door, ramp or road, and is appropriate for housing therein one or several vehicles.

### 4.1.7 LIFESTYLES AND CONSUMPTION PATTERNS

#### 4.1.7.1 Use of certain products

In order to study the consumption habits of the households, they are asked about the frequency of use of the following products:

- Throwaway products
- Recycled paper
- Returnable containers
- Rechargeable batteries

For which, the following categories are considered:

- Never
- Sometimes
- Somewhat frequently
- As often as possible
- Does not know / Does not answer

#### 4.1.7.2 Factors considered on purchasing a new product

An assessment is requested of some characteristics of a product, at the time of going to purchase a new one. The characteristics are:

- Price
- Brand
- Consumption / energy efficiency (in the case of household appliances)
- Ecological label / ecological guarantee (ecological food)
- Local product / proximity of production

The assessment may be:

- Not at all important
- Not very important
- Quite important
- Very important

### 4.1.8 OTHER CHARACTERISTICS TO STUDY OF THE HOUSEHOLDS

#### 4.1.8.1 Application of an additional treatment to the drinking water

They are asked about whether or not they apply any additional treatment, in the dwelling, to treat the drinking water before consuming it.

#### 4.1.8.2 Use of an additional treatment of the drinking water

In case of an affirmative answer to the previous question, they are asked about the treatment used:

- A purifying filter
- Boiling the water before using it
- Another system that should be specified

#### 4.1.8.3 Availability of an electric night rate

We wish to ascertain the availability, or lack thereof, of an electric night rate in the dwelling.

#### 4.1.8.4 Availability of solar panels

We wish to ascertain the availability of:

- Thermal solar panels for heating water
- Photovoltaic solar panels for obtaining electricity

For these purposes, a **thermal solar panel (collector)** is understood to be a device that converts radiation energy into useful thermal energy, and a **photovoltaic solar panel (collector)** is understood to be a device that converts solar radiation into electrical energy.

#### 4.1.8.5 Change of heating system

They are asked whether they have changed the heating system in the last twelve months, or whether they have decided to change it in the coming twelve months, or neither of the two.

#### 4.1.8.6 Reasons for the selection of a new heating system

In case of having responded "yes" to the above question, this tries to analyse which are the reasons that brought them to choose a given system. The informant indicates the options that s/he considers most applicable, from the following list:

- Cost of installation
- Savings in the bill
- Use of less energy / more efficient
- Comfort
- Environmental considerations
- Aesthetics
- Subsidies / financial incentives
- Recommended by an expert / friend

#### 4.1.8.7 Rooms with heating

This records the number of rooms in the dwelling that have heating, giving the possibility of answering whether:

- All or most of them
- Only part of them

A **room** is understood to be a space located in a family dwelling (or accommodation that is enclosed by walls that rise from the floor to the ceiling, or at least to a minimum height of two metres from the floor, and that has a minimum surface area of four square metres, and a minimum of two metres of height over its surface area, and that is used and apt for use as a human room.

The total rooms include: bedrooms, dining rooms, living rooms, sitting rooms, offices, studies, playrooms, servants' quarters, etc. as well as those rooms used jointly for professional or commercial and domestic purposes.

This also includes lumber rooms, basements and attics, if in addition to fulfilling the basic requirements to be considered as such, they have access from the interior of the dwelling, and are used for residential purposes, as well as kitchens, so long as they have a surface area of at least 4 m<sup>2</sup> and 2 metres of minimum height over most of the surface area.

It excludes kitchens with a surface area smaller than 4 m<sup>2</sup>, bathrooms or toilets, terraces, clothes drying areas, etc.

#### 4.1.8.8 Months of using heating

The goal is to record the period of heating use throughout the year 2007. To this end, the following options exist:

- Less than one month
- From one month to less than three months
- From three months to less than six months
- Six months or more
- Does not know / Does not answer

#### 4.1.8.9 Availability of a thermostat for the heating

They are asked about whether or not an environmental thermostat is available in the heating. A **thermostat** is understood to be that device that serves to automatically regulate the temperature.

#### 4.1.8.10 Use of heating when they sleep

The goal is to study whether or not they turn the heating off when they sleep. In case of an affirmative answer, distinction is made whether it is turned off from a central heating service or whether the members of the dwelling turn it off at night.

#### 4.1.8.11 Temperature of the dwelling when they sleep

If they have a thermostat, the goal is to record the temperature (in degrees Celsius) at which the households that do not turn the heating off at night keep the heating.

#### 4.1.8.12 Temperature of the dwelling during the day

If they have a thermostat, the goal is to record the temperature (in degrees Celsius) at which they keep the heating when it is functioning during the day.

#### 4.1.8.13 Heating use when they are absent

They are asked about whether or not they turn the heating off if they are absent from the dwelling for more than one day.

This question is not pertinent if they are not usually absent from the dwelling for more than one day.

#### 4.1.8.14 Temperature of the heating when they are absent

If they have a thermostat, they are asked regarding the temperature, in degrees Celsius, at which they keep the heating when they are not in the dwelling.

#### 4.1.8.15 Rooms with air conditioning

This records how many rooms in the dwelling have air conditioning:

- All of them
- Most of them
- Only part of them

#### 4.1.8.16 Air conditioning system

They are asked to specify whether the air conditioning system is:

- Individual
- Central
- Does not know / Does not answer

#### 4.1.8.17 Temperature of the air conditioning

They are asked about the temperature, in degrees Celsius, at which they set the air conditioning.

#### 4.1.8.18 Use of air conditioning when they sleep

We study whether or not they turn off the air conditioning when they sleep. In case of an affirmative answer, distinction is made as to whether it is turned off from the central system, or whether the members of the dwelling turn it off at night.

#### 4.1.8.19 Temperature of the air conditioning at night

In the case that they do not turn the air conditioning off at night, they are asked at what temperature (in degrees Celsius) they set the air conditioning at night.

#### 4.1.8.20 Reasons not to use fluorescent bulbs or energy-saving light bulbs

The aim is to ascertain the reasons why not to have fluorescent bulbs or energy-saving light bulbs.

- They are more expensive
- They give less light
- Another reason (specify)

#### 4.1.8.21 Rooms with fluorescent lights or other energy-saving lights

In case of having fluorescent lights or energy-saving lights, they should specify how many rooms of the dwelling have this type of light:

- All of them
- Most of them
- Only part of them

#### 4.1.8.22 Availability of a cooker, according to type

The members of the dwelling are asked to specify whether or not they have the following types of cooker:

- Conventional gas cooker
- Electric grill or cooker
- Induction cooker
- Electric glass-ceramic cooker (different from induction)

- Gas glass-ceramic cooker
- Mixed electric and gas cooker
- Other type of cooker (specify)

#### 4.1.8.23 Type of oven

The members of the dwelling are asked to indicate whether they have a:

- Gas oven
- Electric oven
- Other type of oven

#### 4.1.8.24 Acquisition of a new vehicle

They are asked whether or not they have acquired a new vehicle in the last 12 months.

#### 4.1.8.25 Main factors considered on purchasing a new vehicle

The informant marks (up to a maximum of three) the factors that they considered at the time of acquiring a new vehicle, from the following list:

- Price
- Type (passenger car, van, 4X4)
- Size
- Number of seats
- Design
- Accessories (air conditioning, etc.)
- Brand
- Reliability
- Safety
- Fuel consumption
- Environmental impact (CO2 emissions)
- Power
- Another characteristic that should be specified

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## 4.2 CHARACTERISTICS RELATED TO THE SELECTED PERSON

### 4.2.1 WATER

#### 4.2.1.1 Habits of the selected person to reduce water consumption

S/he is asked about a series of habits to reduce water consumption, and the selected person should answer "yes" or "no", according to her/his behaviour:

- Turn off the tap while brushing teeth or lathering up
- Have showers rather than baths

### 4.2.2 TRANSPORT

#### 4.2.2.1 Means of transport used by the selected person

We wish to ascertain the means of transport used by the selected person. The possible means considered are:

- Car
- Motorcycle/moped



- Taxi
- Bus
- Underground/tram (including light train)
- RENFE or other trains
- Other collective means to be specified, including school transport or bus lines made available by companies for their employees
- Bicycle
- On foot
- None

#### 4.2.2.2 Reasons for using public transport

We wish to ascertain the reasons (up to a maximum of three) for which the selected person usually uses public transport, according to the following list:

- Comfort / less stress
- The stop is close to home
- It is safer
- It is faster
- It is less expensive
- S/he does not have a vehicle
- S/he does not have a driving licence
- Another family member needs the vehicle
- S/he does not have a place to park where s/he goes
- Environmental conscience
- Another reason that should be specified

#### 4.2.2.3 Reasons for not using public transport

In the case of not using public transport as the main means to commute, the selected person is asked what the reasons are (up to a maximum of three) for not using it, according to the following list:

- There is no service where s/he goes
- The stop is far from home
- Long intervals
- The duration of the trip is very long
- S/he has to change (lines or means) many times
- The vehicles or links are not adapted
- S/he has to take / pick up the children from school
- It is more expensive
- Comfort
- S/he needs the vehicle to work or for another subsequent activity
- S/he has a place to park where s/he goes
- Another reason that should be specified

#### 4.2.2.4 Reasons to go on foot or by bicycle

We wish to ascertain the reasons (up to a maximum of three) for which the selected person mainly walks or rides a bike in commuting, according to the following list:

- Exercise / health
- Proximity
- Cost
- There are adequate lanes or roads

- There is no other transport
- For training
- Because s/he cannot park the car
- Environmental conscience
- Another reason that should be specified

#### 4.2.2.5 Reasons not to go on foot or by bicycle

We wish to ascertain the reasons (up to a maximum of three) for which the selected person does not regularly walk or ride a bicycle, according to the following list:

- Work or studies are far away
- Physical problems
- Too much traffic
- Too much time to get there
- Narrow sidewalks
- There is no complete bicycle lane network
- There are no bicycle parking installations
- S/he needs the vehicle to work or for another subsequent activity
- S/he has to transport equipment
- Personal safety
- Another reason that should be specified

#### 4.2.2.6 Covering distances shorter than two kilometres on foot

We wish to ascertain whether or not the selected person who has not chosen "on foot" as her/his usual means of transport, does cover distances shorter than two kilometres walking.

### 4.2.3 ENVIRONMENTAL CONSCIENCE

#### 4.2.3.1 Concern about the environment

We wish to ascertain the concern of the selected person about the environment. The possible response categories are:

- None
- Little
- A lot
- Does not know / Does not answer

#### 4.2.3.2 Detection of some environmental problem

We wish to ascertain whether or not, during the year 2007, the selected person detected an environmental problem in her/his surroundings.

#### 4.2.3.3 Participation in activities related to the environment

We wish to ascertain whether or not, during the year 2007, the selected person participating in the following activities:

- Cooperate with some organisation in defence of the environment
- Participate as an environmental volunteer
- Sign petitions against situations that are considered dangerous to the environment (urban developments or specific projects of any type)
- Demonstrate against any situation that is dangerous to the environment
- Personally report on some problem that s/he identified

#### 4.2.3.4 Opinion regarding certain measures towards environmental protection

We wish to ascertain whether or not the selected person would be in favour of a series of measures for environmental protection. The possible measures are:

- To obligate, through fines, the sorting of domestic waste
- To regulate or restrict the abusive consumption of water of each dwelling
- To establish an environmental tax for the most contaminating fuels
- To establish restrictive measures in the use of private transport
- To establish an ecological tax for tourism
- To install a renewable energy (wind or solar) park in her/his municipality, despite the effect on the landscape
- To pay more for the use of alternative energy
- To reduce the noise in the main traffic routes (anti-noise panels, sound-reducing pavement)

#### 4.2.4 OTHER CHARACTERISTICS TO STUDY OF THE SELECTED PERSON

##### 4.2.4.1 Days of public transport use

In the case that the selected person has stated that s/he uses public transport as her/his main means of commuting, s/he is asked about the days in which s/he mainly uses public transport:

- Weekdays
- Weekends
- Every day

##### 4.2.4.2 Knowledge of some environmental protection awareness campaign

We wish to ascertain whether or not the selected person had knowledge of any environmental protection awareness campaign (water, energy, recycling, etc.) in the last year.

##### 4.2.4.3 Reasons why s/he has not participated in activities related to the environment

In the case that s/he has not participated in any activity related to the environment, we wish to ascertain the reasons (up to a maximum of three) for which the selected person has not participated in any of those activities. The possible options are:

- Lack of time
- Lack of money
- Lack of knowledge
- Indifference
- Health, age
- Lack of reasons
- Distrust of some organisations
- Another reason that should be specified

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## 5. Main classification variables

Although it was intended, in general, for the classification variables to be those corresponding to the *basic European social variables* that were hoped to be passed shortly at the heart of Eurostat, it has been necessary to agree, in some cases, within

the broad scope of possibilities, a specific breakdown, so as not to overwork the survey (encoding, recording, etc.). Such is the case of the variables, *country of birth, country of nationality, economic activity, highest educational level reached and occupation*.

For classification purposes, distinction is made between the classification variables of households/dwellings and the classification variables of persons.

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## 5.1 CLASSIFICATION VARIABLES OF DWELLINGS/HOUSEHOLDS

Dwellings are classified, considering their own characteristics and those of the reference person of the dwelling.

### 5.1.1 VARIABLES RELATED TO THE CHARACTERISTICS OF THE DWELLING/HOUSEHOLDS

The characteristics of the dwellings that have been considered for dwelling classification purposes, are the Autonomous Community in which the dwelling is located, the type of municipality to which the dwelling belongs, the type of household and household income.

#### 5.1.1.1 Autonomous Community

The following classification is considered

- Andalucía
- Aragón
- Asturias (Principado de)
- Balears (Illes)
- Canarias
- Cantabria
- Castilla y León
- Castilla-La Mancha
- Cataluña
- Comunitat Valenciana
- Extremadura
- Galicia
- Madrid (Comunidad de)
- Murcia (Región de )
- Navarra (Comunidad Foral de)
- País Vasco
- Rioja (La)
- Ceuta and Melilla

Due to the scant quantity of the sample, aggregate results are given for Ceuta and Melilla.

#### 5.1.1.2 Type of municipality

The breakdown used in the results tables is as follows:

- Provincial capitals and municipalities with more than 100,000 inhabitants
- 50,000 to 100,000 inhabitants
- 20,000 to 50,000 inhabitants
- 10,000 to 20,000 inhabitants

- Fewer than 10,000 inhabitants

#### 5.1.1.3 Dwelling size

Dwellings are classified as:

- dwelling with 1 person
- dwelling with 2 persons
- dwelling with 3 persons
- dwelling with 4 persons or more

#### 5.1.1.4 Type of household of the reference person of the dwelling

For these purposes, a **child** is understood to have been born to or adopted by the couple, or belonging to only one of the spouses, so long as her/his regular residence is in the dwelling, and s/he does not have a partner or her/his own children living in the same dwelling.

In turn, consider that, if several households live in the dwelling, this classification shall apply to the household of the reference person of the dwelling.

S/he is asked about the type of dwelling, according to the following classification:

- Single-person household
- Couple alone
- Household of parents and children without "other" persons:
  - Couple with (at least) one child under 25 years of age
  - Couple with all children over 25 years of age
  - Father or mother alone, with (at least) one child under 25 years of age
  - Father or mother alone, with all children over 25 years of age
- Household with "other" persons:
  - Couple or father or mother alone, with (at least) one child under 25 years of age and other persons living in the household
  - Another type of household

Though, for result-tabulation purposes, the following is used:

- Single-person household
- Couple alone
- Couple with children
- Father or mother alone, with (at least) one child
- Another type of household (households with "other persons")

#### 5.1.1.5 Household income of the reference person of the dwelling

We count the sum of the average regular income from all sources, received by all members of the household, as the average of the last 12 months, deducting taxes and social contributions. It is necessary to average the extraordinary payments and other extraordinary income received regularly. This considers the income of all members of the household, whether this income is contributed in its entirety or partially in order to pay the household expenses.

In the computation of the value of this monthly income, we consider that, for the **income from working for others**, we must add, to the monthly value, the proration of the regular income that is not monthly (extraordinary payments and other extraordinary income that is received regularly). For the **income from freelance work**,

we must subtract, from the value of the monthly income, the deductible expenses, withholdings or fractioned payments.

If there are several households in the dwelling, only the income from the members of the household to which the reference person belongs appears.

This considers the following brackets of regular net monthly income of the whole of the members of the household:

- Less than 1,100 euros
- 1,101 to 1,800 euros
- 1,801 to 2,700 euros
- More than 2,700 euros
- Does not know / Does not answer

## 5.1.2 VARIABLES RELATED TO THE CHARACTERISTICS OF THE REFERENCE PERSONS

### 5.1.2.1 Sex of the reference person

Persons are classified as:

- Males
- Females

### 5.1.2.2 Age of the reference person

They are classified as:

- Under 25 years of age
- 25 to 44 years of age
- 45 to 64 years of age
- 65 years old or over

### 5.1.2.3 Nationality of the reference person

In the questionnaire, the reference person is classified according to her/his nationality, as:

- Spanish
- Foreign
- Spanish and other
- None

In addition, the questionnaire records if the country of nationality of the reference person, foreign or with dual nationality, one of them being Spanish, is:

- A country from the European Union
- A country outside of the European Union

For these purposes, the countries that comprise the European Union, in addition to Spain, are:

Germany, Austria, Belgium, Bulgaria, Cyprus, Denmark, Slovakia, Slovenia, Estonia, Finland, France, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, United Kingdom, Czech Republic, Rumania and Sweden.

The results tabulation proceeds to integrate the two previous classifications into the following:

- Spanish
- Foreign
  - A country from the European Union
  - Other countries (including stateless)

In this sense, those persons with dual nationality, one of them being Spanish, are included among the Spanish persons.

#### 5.1.2.4 Educational level completed of the reference person

This characteristic refers to the highest level of studies completed by the reference person. The results tables classify them into the following codes:

- Without studies
- Primary education or equivalent
- First-stage secondary education
- Second-stage secondary education
- Intermediate professional training or equivalent
- Advanced professional training or equivalent
- First-cycle university studies or equivalent
- Second- or third-cycle university studies or equivalent
- Does not know or does not answer

#### 5.1.2.5 Relationship of the reference person with economic activity

They are classified as:

- Employed
  - Employed full-time (performing a full-time job)
  - Employed part-time (performing a part-time job)
- Unemployed
- Inactive
  - Pensioners (retired persons and persons who are permanently disabled)
  - Homemaker
  - Other inactive persons (students and the remaining inactive persons)

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## 5.2 CLASSIFICATION VARIABLES OF PERSONS

The variables regarding the selected persons are classified according to their socio-demographic characteristics and their socio-economic characteristics.

### 5.2.1 VARIABLES RELATED TO THE SOCIO-DEMOGRAPHIC CHARACTERISTICS OF THE SELECTED PERSON

#### 5.2.1.1 Autonomous Community of residence of the selected person

The following classification is considered:

- Andalucía
- Aragón
- Asturias (Principado de)
- Balears (Illes)
- Canarias

- Cantabria
- Castilla y León
- Castilla-La Mancha
- Cataluña
- Comunitat Valenciana
- Extremadura
- Galicia
- Madrid (Comunidad de)
- Murcia (Región de )
- Navarra (Comunidad Foral de)
- País Vasco
- Rioja (La)
- Ceuta and Melilla

Due to the scant quantity of the sample, aggregate results are given for Ceuta and Melilla.

#### 5.2.1.2 Type of municipality of residence of the selected person

The breakdown used in the results tables is as follows:

- Provincial capitals and municipalities with more than 100,000 inhabitants
- 50,000 to 100,000 inhabitants
- 20,000 to 50,000 inhabitants
- 10,000 to 20,000 inhabitants
- Fewer than 10,000 inhabitants

#### 5.2.1.3 Sex of the selected person

Persons are classified as:

- Males
- Females

#### 5.2.1.4 Age of the selected person

They are classified as:

- Under 25 years of age
- 25 to 44 years of age
- 45 to 64 years of age
- 65 years old or over

#### 5.2.1.5 Country of birth of the selected person

They are classified as:

- Spain
- Outside of Spain
  - Another country from the European Union
  - A country outside of the European Union

#### 5.2.1.6 Nationality of the selected person

In the questionnaire, the selected person is classified, according to her/his nationality, as:

- Spanish



- Foreign
- Spanish and other
- None

In addition, the questionnaire records whether the country of nationality of the selected person, foreign or with dual nationality, one of them being Spanish, is:

- A country from the European Union
- A country outside of the European Union

For these purposes, the countries that comprise the European Union, in addition to Spain, are:

Germany, Austria, Belgium, Bulgaria, Cyprus, Denmark, Slovakia, Slovenia, Estonia, Finland, France, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, United Kingdom, Czech Republic, Rumania and Sweden.

The results tabulation proceeds to integrate the two previous classifications into the following:

- Spanish
- Foreign
  - A country from the European Union
  - Other countries (including stateless)

In this sense, those persons with dual nationality, one of them being Spanish, are included among the Spanish persons.

#### 5.2.1.7 Legal marital status of the selected person

The following classification is considered

- Single
- Married
- Widowed
- Legally separated or divorced

#### 5.2.1.8 Cohabitation of the selected person as a couple

The selected person is classified as:

- currently living with her/his partner
- not currently living with her/his partner

#### 5.2.1.9 Level of studies completed by the selected person

This characteristic refers to the highest level of studies completed by the selected person. These are classified into the following codes:

- Without studies
- Primary education or equivalent
- First-stage secondary education
- Second-stage secondary education
- Intermediate professional training or equivalent
- Advanced professional training or equivalent
- First-cycle university studies or equivalent
- Second- or third-cycle university studies or equivalent

- Does not know or does not answer

## 5.2.2 VARIABLES REGARDING THE SOCIO-ECONOMIC CHARACTERISTICS OF THE SELECTED PERSON

### 5.2.2.1 Relationship of the selected person with economic activity

They are classified as:

- Employed
  - Employed full-time (performing a full-time job)
  - Employed part-time (performing a part-time job)
- Unemployed
- Inactive
  - Pensioners (retired persons and persons who are permanently disabled)
  - Homemaker
  - Other inactive persons (students and the remaining inactive persons)

### 5.2.2.2 Type of employment of the selected person

The type of employment classifies the selected person, if s/he has work, into one of the following headings:

- Working freelance or self-employed
- Working for others (employee)
  - With a permanent contract
  - With a temporary or limited-duration contract
- Does not know or does not answer

### 5.2.2.3 Main activity of the company in which the selected person works

This is classified by National Classification of Economic Activities (CNAE) 2009, as:

- Agriculture, livestock, forestry and fishing (CNAE A)
- Extractive industries (CNAE B)
- Manufacturing industry (CNAE C)
- Supply of electrical energy, gas, steam and air conditioning (CNAE D)
- Water supply, sewerage, waste management and decontamination (CNAE E)
- Construction (CNAE F)
- Trade; repair of motor vehicles and motorcycles (CNAE G)
- Transport and storage (CNAE H)
- Catering (CNAE I)
- Information and communications (CNAE J)
- Financial and insurance activities (CNAE K)
- Real estate activities (CNAE L)
- Professional, scientific and technical activities (CNAE M)
- Administrative and support service activities (CNAE N)
- Public Administration and defence; compulsory Social Security (CNAE O)
- Education (CNAE P)
- Health and social service activities (CNAE Q)
- Artistic, recreational and entertainment activities (CNAE R)
- Other services (CNAE S)
- Activities our households that employ domestic personnel (CNAE T)
- Activities of extraterritorial organisations and institutions (CNAE U)
- Does not know or does not answer

#### 5.2.2.4 Occupation of the selected person

This is classified according to National Classification of Occupations (CNO) 1994, as:

- Business and public administration management (CNO 01)
- Scientific and intellectual technicians and professionals (CNO 02)
- Support technicians and professionals (CNO 03)
- Administrative-type employees (CNO 04)
- Workers in catering, personal and protection services and trade salespersons (CNO 05)
- Workers skilled in agriculture and fishing (CNO 06)
- Craftspersons and workers skilled in the manufacturing, construction and mining industries (except installation and machinery operators) (CNO 07)
- Installation and machinery operators and installers (CNO 08)
- Unskilled workers (CNO 09)
- Armed forces (CNO 10)
- Does not know or does not answer

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## 6 Sample design

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### 6.1 TYPE OF SAMPLING

A stratified tri-stage sampling is used in the first-stage units. An independent sample is selected in each Autonomous Community.

The first-stage units are the census section into which the national territory is divided at the time of the survey.

The second-stage units are the main family dwellings, and, in each one of them, a person aged 16 years old and over is selected, who constitutes the third-stage unit, and who responds to a certain block of questions in the questionnaire.

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### 6.2 SAMPLING FRAMEWORK

The framework used for the selection of the sample of first-stage units is a framework of areas comprised of the listing of existing census sections referring to January 2008. For the second-stage units, we use the listing of family dwellings provided by this same framework in each of the sections selected for the sample.

For the selection of the third-stage units, we use the listing of surveyable persons in the dwelling at the time of conducting the interviews.

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### 6.3 STRATIFICATION CRITERIA

For each Autonomous Community, in general, the first-stage units are stratified, following a geographical criterion, which assigns a stratum according to the size of the municipality to which the section belongs.

The following strata have been established in line with this criterion:

Stratum 0: Municipalities with 500,000 inhabitants or more

Stratum 1: Provincial capital municipality with fewer than 500,000 inhabitants

Stratum 2: Municipalities with more than 100,000 inhabitants, except the above  
Stratum 3: Municipalities with 50,000 to 100,000 inhabitants, except the above  
Stratum 4: Municipalities with 20,000 to 50,000 inhabitants, except the above  
Stratum 5: Municipalities with 10,000 to 20,000 inhabitants  
Stratum 6: Municipalities with fewer than 10,000 inhabitants

Notwithstanding the above, in some Autonomous Communities in which the sample was extended, a different stratification was considered, according to the objectives of the extension itself.

In addition, we must consider that, given the different distribution of municipality sizes among the different Communities, it has not been possible to carry out a uniform stratification for all of them. Thus, for example, in the Community of Cantabria, strata 5 and 6 are grouped, and therefore, strata 6 is the grouping of municipalities with fewer than 20,000 inhabitants. Conversely, Aragón has grouped strata 4, 5 and 6, and therefore, strata 6 in Aragón is defined as the grouping of municipalities with fewer than 50,000 inhabitants. Logically, this different way of aggregating municipalities by strata would affect the national results by municipality size. Therefore, we have used the Register figures of the selected municipalities in the sample for this tabulation.

Within each geographical stratum, the census sections are grouped in sub-strata, according to the socio-economic characteristics of the population that has its residence in the census section.

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## 6.4 SAMPLE SIZE

To attain the objectives of national interest, the sample size was set at 14,000 dwellings, in each of which a cooperating person was selected.

The goal with this sample was that, in the national scope, the characteristics presented in the population with a proportion of 10% would have a relative sampling error around 3%.

Bearing in mind that the characteristics under study may be strongly homogeneous within the census section, that it is used as the primary sampling unit, the estimation of the sample size has been performed considering a design effect (DEFF) of 2.

In order to attain the objective of obtaining representative data in the Autonomous Community scope, it is necessary to guarantee a minimum sample size in each one of them. To this end, the sample was distributed among them, assigning one part uniformly, and another part proportionally to the size of each Community. The minimum sample size for each Community has been set at 300 dwellings. With this size, the characteristics that are around 20%, have a variation coefficient of approximately 15%.

According to that indicated in the second paragraph, the number of dwellings to be selected in each census section was set at eight.

From the initial sample, some Autonomous Communities have requested a sample extension in order to be able to obtain estimates of characteristics on a more broken-down level, such as province, county or other administrative unit.

The sample size of dwellings is presented in Table 1.

The sample size in first-stage units is **3479**. Each section studies a total of **eight dwellings**.

## 6.5 SAMPLE SELECTION

The sections are selected within each stratum, with a probability proportional to the size. The dwellings, in each section, with the same probability via random start systematic sampling. This procedure leads to self-weighted samples of dwellings in each stratum.

For the selection of the person in each dwelling, we used a random procedure than assigns an equal probability to all of the surveyable persons within the same.

**Table 1. Distribution of the sample by Autonomous Community**

| <b>Autonomous Community</b>  | <b>Initial sample</b> | <b>Increment</b> | <b>Final sample</b> |
|------------------------------|-----------------------|------------------|---------------------|
| Andalucía                    | 1,808                 | 4,192            | 6,000               |
| Aragón                       | 552                   |                  | 552                 |
| Asturias (Principado de)     | 512                   |                  | 512                 |
| Balears (Illes)              | 504                   |                  | 504                 |
| Canarias                     | 688                   |                  | 688                 |
| Cantabria                    | 416                   |                  | 416                 |
| Castilla y León              | 776                   | 728              | 1,504               |
| Castilla-La Mancha           | 672                   |                  | 672                 |
| Cataluña                     | 1,656                 | 1,848            | 3,504               |
| Comunitat Valenciana         | 1,216                 | 1,200            | 2,416               |
| Extremadura                  | 512                   |                  | 512                 |
| Galicia                      | 824                   | 288              | 1,112               |
| Madrid (Comunidad de)        | 1,456                 |                  | 1,456               |
| Murcia (Región de)           | 568                   | 560              | 1,128               |
| Navarra (Comunidad Foral de) | 424                   | 424              | 848                 |
| País Vasco                   | 712                   | 4,288            | 5,000               |
| Rioja (La)                   | 368                   | 304              | 672                 |
| Ceuta and Melilla            | 336                   |                  | 336                 |
| <b>TOTAL</b>                 | <b>14,000</b>         |                  | <b>27,832</b>       |

## 6.6 ESTIMATORS

In order to estimate the characteristics of the sample, we have used ratio estimators, to which calibration techniques are applied, taking as auxiliary variables the information available on household and population variables of the Autonomous Community, and which are related to the characteristics under study.

## 7 Sample incidences

Throughout the process that the interviewer has to perform until s/he collects the completed questionnaire from a dwelling, in such a way that it is considered interviewed, different incidences may occur that prevent its cooperation. A description of the same follows.

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## 7.1 INCIDENCES IN THE DWELLING

### **Unlocatable dwelling**

This incidence occurs when the dwelling cannot be located, due to an error in the initial address. The dwelling cannot be located at the address that appears in the listing of selected dwellings, either because the address is not correct, or because the dwelling no longer exists.

### **Dwelling used for other purposes**

The dwelling selected is dedicated entirely to purposes other than a family residence. For example: convent, retirement home, garage, office, etc.

### **Inaccessible dwelling**

That dwelling that cannot be accessed to conduct the interview, due to weather conditions (floods, snowstorms, etc.), geographical conditions (when there are no passable roads to arrive at the same) or any other type.

### **Empty dwelling**

The selected dwelling is not the main dwelling, and could be a seasonal dwelling (inhabited or not at the time of the interview), or be uninhabited for whatever the reason, such as a death or change in residence of the persons who lived therein. In "observations", we record how it has been ascertained that the dwelling is empty.

### **Surveyable dwelling**

When none of the above incidences occur, the dwelling is surveyable, and we proceed to conduct the interview. The possible incidences that could occur on trying to conduct the interview are listed in the following section.

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## 7.2 INCIDENCES IN THE HUMAN GROUP THAT RESIDES IN THE DWELLING

Once we have contacted a person resident in the selected dwelling, we proceed to conduct the interview, and as a final result, the case may be that said interview is achieved, or that, for the following reasons, the interview is not achieved.

### **Refusal**

This is considered to be the case when it is not possible to conduct the interview, and the cause is the refusal of the person(s) whom we have initially contacted, and whether it is a direct refusal from the first moment, or it occurs subsequently, after having begun to collaborate.

### **Absence**

This occurs when, after successive visits to the dwelling, it has not been possible to conduct the interview because all of the members of the human group are absent, making it impossible to contact them.

### **Inability to answer**

This occurs when it has not been possible to conduct the interview because of an inability to answer the same, whether due to age, disability, illness, language difficulties or any other circumstance in all of the members of the human group.

#### **Previously selected dwelling**

This occurs when a dwelling that, having previously been selected (less than five years prior) in any other population survey, and having cooperated in the same, appears newly selected.

#### **Collaborator**

This situation occurs when, in the questionnaire, they have completed **at least** the block of questions regarding the dwelling; that is, it is considered that there has been collaboration, even if the block of questions regarding the selected person is not reached.

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### 7.3 INCIDENCES IN THE SELECTED PERSON

#### **Refusal**

This is considered to be the case when the selected person refuses to give the information requested of her/him, and whether it is a direct, initial refusal, or it occurs subsequently, after having begun to collaborate.

#### **Absence**

This occurs when, after successive visits to the dwelling, it has not been possible to conduct the interview because the selected person is absent, or it has not been possible to contact her/him via personal visit or by telephone.

#### **Inability to answer**

This incidence occurs when the selected person is unable to respond to the interview, whether due to age, disability, illness, language difficulties or any other circumstance.

It is necessary to warn that the existence of incidences only in the selected person does not imply that the human group should be considered not collaborating, as commented above.

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### 7.4 PROCESSING OF INCIDENCES

#### 7.4.1 INCIDENCES IN THE DWELLING

a) The empty and unlocatable dwellings and dwellings used for other purposes were replaced by other dwellings in the same section.

To this end, the interviewer had a listing of reserve dwellings to be used when it was necessary to replace any of the originally selected dwellings.

b) Inaccessible dwellings were only replaced if the cause of the inaccessibility did not disappear during the fieldwork period in the municipality.

#### 7.4.2 INCIDENCES IN THE HOUSEHOLD

## **Refusal**

The dwelling was replaced by the first available reserve dwelling.

## **Absence**

If, following the fieldwork period in the section, and having completed all of the foreseen visits, the residents of the dwelling remain absent, then the dwelling is replaced. In "observations", we record how we ascertained that they were absent, and the cause, if known.

## **Inability to answer**

When none of the members of the human group resident in the dwelling can respond to the interview, due to problems with health, age, language, etc., we tried (always without forcing them) to get them to answer with the help of someone close. However, if this is not possible in the end, then we proceed to their replacement.

## **Previously selected dwelling**

In the case of the dwellings that have been selected previously, if the human group does not accept collaborating, due to a previous collaboration, then the dwelling is replaced by the first available valid reserve dwelling.

### 7.4.3 INCIDENCES IN THE SELECTED PERSON

In none of the three situations (refusal, absence and inability to answer) is it allowed for another person from the human group to answer for the selected person (proxy).

In the case of absence, we tried to acquire a contact telephone for the selected person, to try to conduct the interview with her/him by telephone.

This type of incidence, as it is not a reason for replacing the dwelling in itself, was accepted as such, and received no treatment at all.

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## 7.5 LISTING OF RESERVE DWELLINGS

For each census section, there was a listing of dwellings that were used as reserve dwellings to replace the incidences in the initial dwellings.

These reserve dwellings were used following the order in which they appeared in the listing.

This listing was not subject to extension, and therefore, in the case of running out of reserve dwellings, it took on the corresponding sample loss (except in País Vasco and in some sections that are inaccessible or that are seasonal dwellings).

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## 8 Data collection

### 8.1 COLLECTION METHOD

The interview method used, in general, was the personal interview, although it also offered the possibility of providing the information online, or even on a 900 telephone number (in Cataluña, we managed the use of this telephone method for



the collection). In the case that the information were obtained for the dwelling, but not for the individual, we considered the possibility of the rest of the interview being conducted by telephone.

The personal interview was conducted by paper-based questionnaires throughout the national territory, except in the Autonomous Community of Andalucía, where it was carried out through a CAPI procedure.

In the Communities that did not participate in the project, the INE performed the collection. For the purpose of guaranteeing homogeneity, the following aspects were universal throughout the country:

- Questionnaire. Each Community that carried out the collection within its own scope, could add an additional module to the questionnaire, so long as it did not interfere in the quality of the data collection.
- Collection method
- Definition of incidences and their treatment
- Collection tools: job reports, letters of presentation, 900 telephone numbers, etc.
- Work ratios
- Training of the personnel related to the data collection. Manuals
- Follow-up and inspection procedures
- Norms for filtering and encoding, both in the collection phase
- Collection calendar

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## 8.2 COLLECTION ELEMENTS

Some universal criteria were assumed in the collection elements and stages, which were reflected in a single manual. This included the definitions, concepts and flows that were determined.

The flows and control programmes of incidences and duplicates were similar throughout the country. The incidence codes for the fieldwork were identical.

Regarding the filtering, encoding and recording, the same company that performed the collection (in case of hiring) was in charge of these stages, and the norms were the same and fixed in the conditions of the different contracts signed by each Autonomous Community and the INE, for the purpose of achieving the maximum comparability.

Also identical were the work ratios, and the training of interviewers, responsibility of those persons in charge of the collection in each territorial scope.

For those Communities with co-official languages, the questionnaires were translated into the language specific to the Community, from which the information was compiled in Castilian Spanish. Said questionnaires could be bilingual, or prepared with one in each language, depending on the complexity of the same, and after analysing both options.

All of the material that was made available to the informants was universal and bilingual for those Communities with two official languages. The INE logo, and the logo of the statistics institute of the Community performing the collection, appeared in both the questionnaires and the rest of the material. In the case of the latter institute, it was the Community itself that took charge of the printing of the material and questionnaires.

The Autonomous Communities that were in charge of collecting the data in their own territory were: Andalucía, Cataluña, Galicia and País Vasco.

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### 8.3 FIELDWORK INSPECTION AND SUPERVISION

There were universal procedures for follow-up and inspection. Regarding the latter, there were two levels: one which the hired companies themselves should carry out, and another higher level to control the correct performance of the collection on behalf of said companies.

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### 8.4 RESULTS OF THE FIELDWORK

The final effective result was 26,689 dwellings and 24,571 persons, with a sample loss of 4%. The response rate in initial dwellings was 65%. Almost 22,000 reserve dwellings were used. The distribution of the final sample, between initial and reserve dwellings, was 61% and 39%, respectively.

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## 9 Data processing

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### 9.1 ELEVATION OF RESULTS. POPULATION PROJECTIONS AND CALIBRATION

The INE publishes the results for the entire national territory, and its distribution by Autonomous Community, from its population projections. By agreement, the reference date of the population projections was mid-May.

Regarding the calibration, in the household factors, in addition to the five-year groups by sex and age, we used as calibration variables, the size of the household, due to the greater non-response in smaller households, and the population totals by province. In the factors of selected persons, the five-year age and sex groups, the population totals of Spaniards and foreign nationals and the population totals by province.

The Communities that requested additional specifications in the sample design, provided these characteristics for the calibration.

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### 9.2 FILTERING AND IMPUTATION

The treatment of non-response and the filtering norms were universal throughout the national territory. Each statistical institute in charge of the collection used its own imputation criteria of partial non-response.

The design of the final register was also universal for all of the bodies responsible for the collection.

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## 10 Results tables

A minimum group of results tables was compiled, which was universal for all of the offices, leaving open the possibility of a freely-chosen additional subsequent use by each statistical office.

The basic tabulation of results appears in this INE website.

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## **11 Dissemination of the results**

The statistics offices that collected data submitted the microdata file to the INE, and therefore, a universal register design was created for sending the file, once it was filtered and had the imputation incorporated.

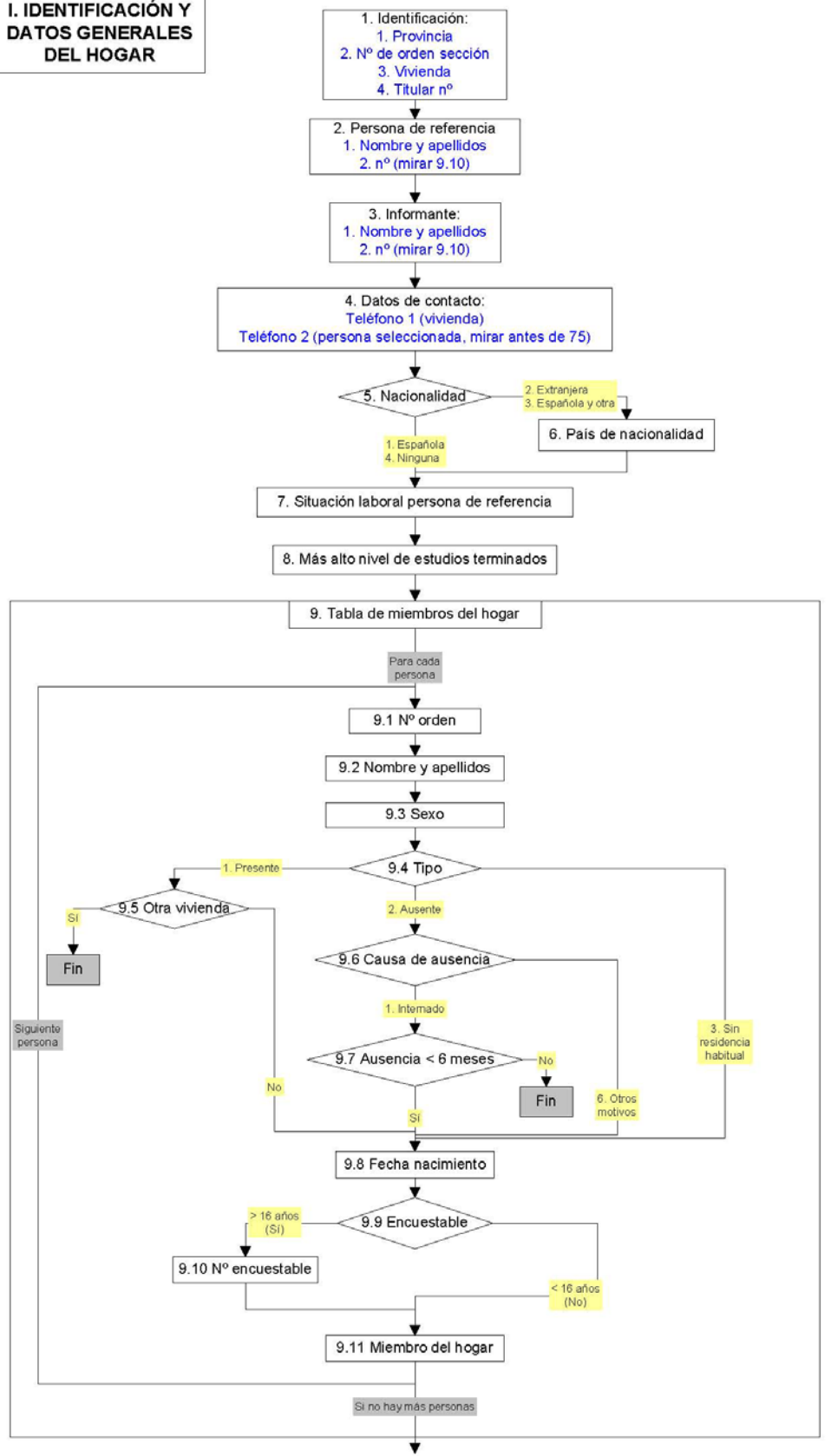
The INE publishes the results on a national level (and broken down by Autonomous Community). The different statistics offices disseminate their results in their territory of jurisdiction.

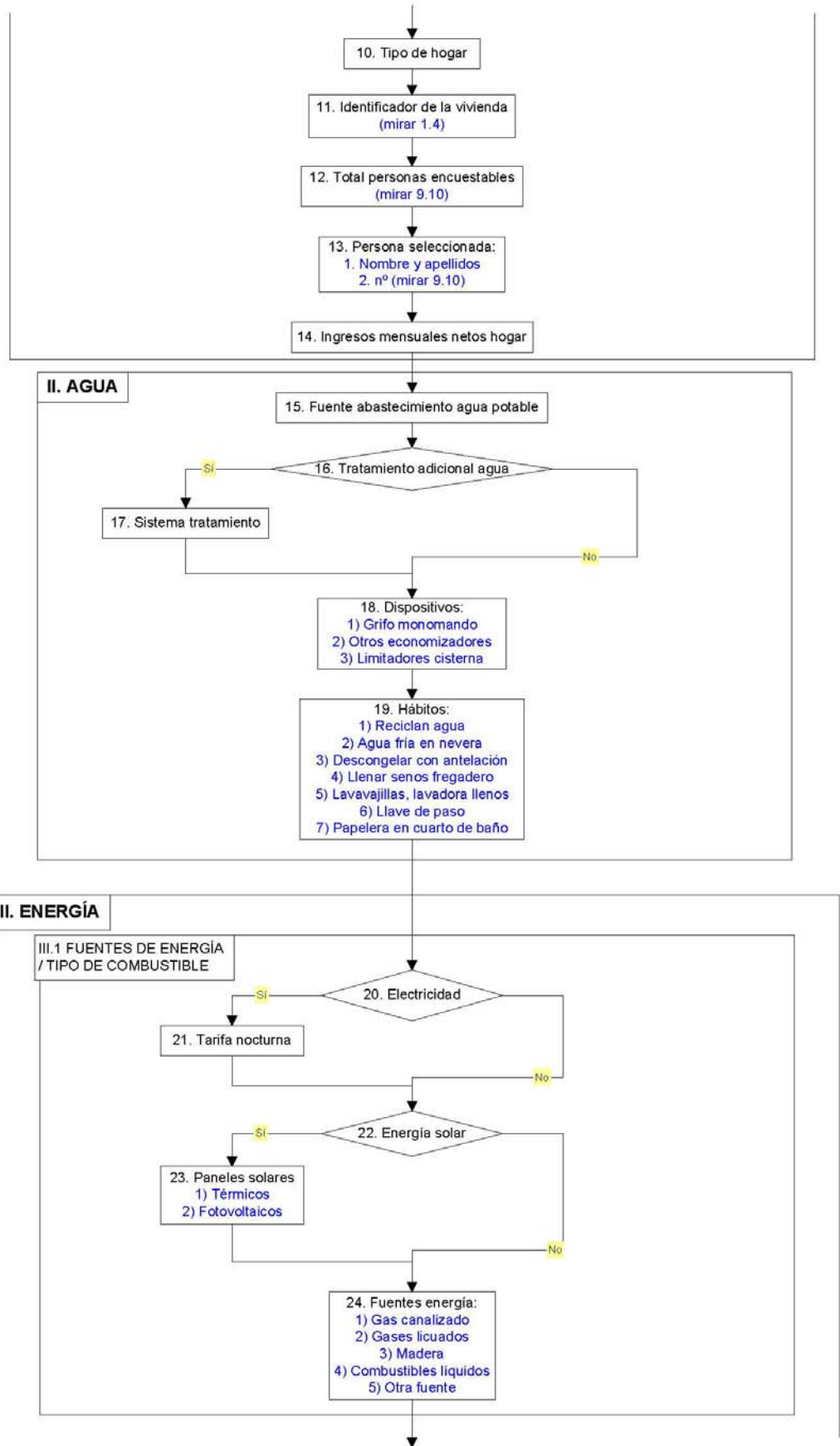
In accordance with the transparency agreement that affects the activity of the INE, this being a statistical operation considered in the National Statistical Plan, the INE makes the microdata file available to users, together with the tables, at the time of publication. In order to respect the restrictions of some Communities in the dissemination of said file, it has been anonymised so as not to identify the province, and any characteristics that might imply identification at said level. The INE, therefore, will provide information only on an Autonomous Community level, in any of its dissemination products.

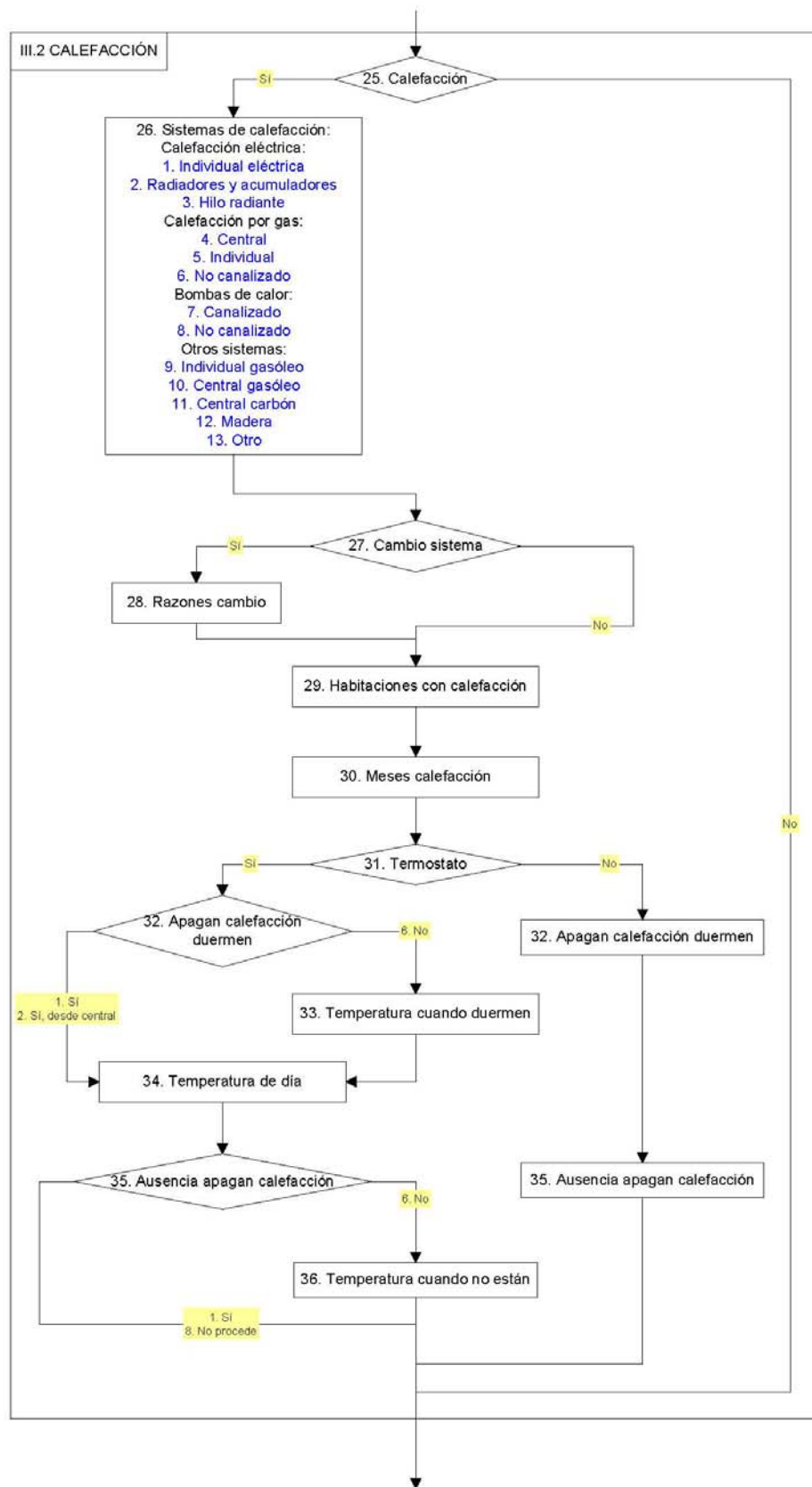
# **Annex 1.**

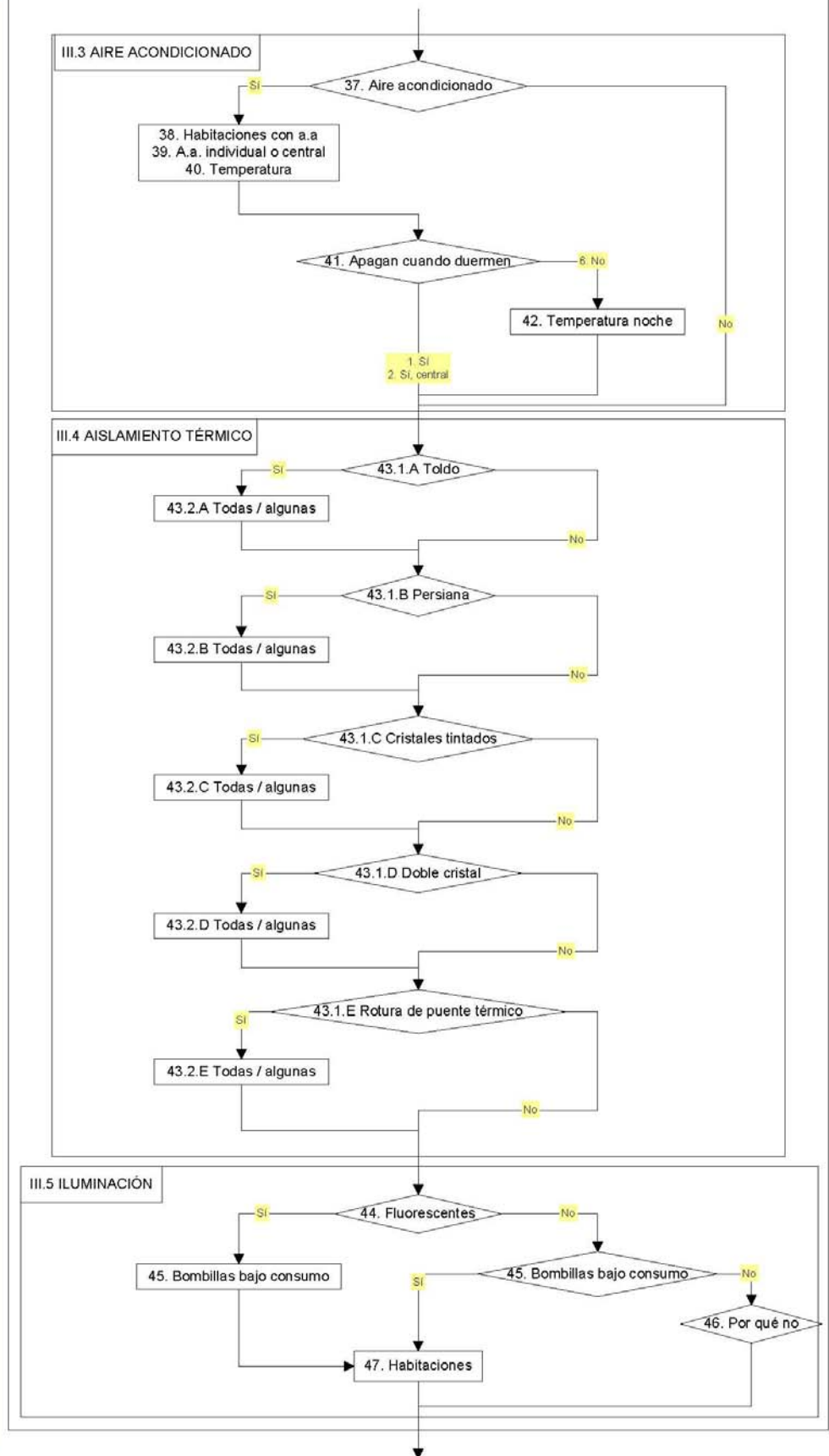
## **Questionnaire flow chart**

**I. IDENTIFICACIÓN Y DATOS GENERALES DEL HOGAR**

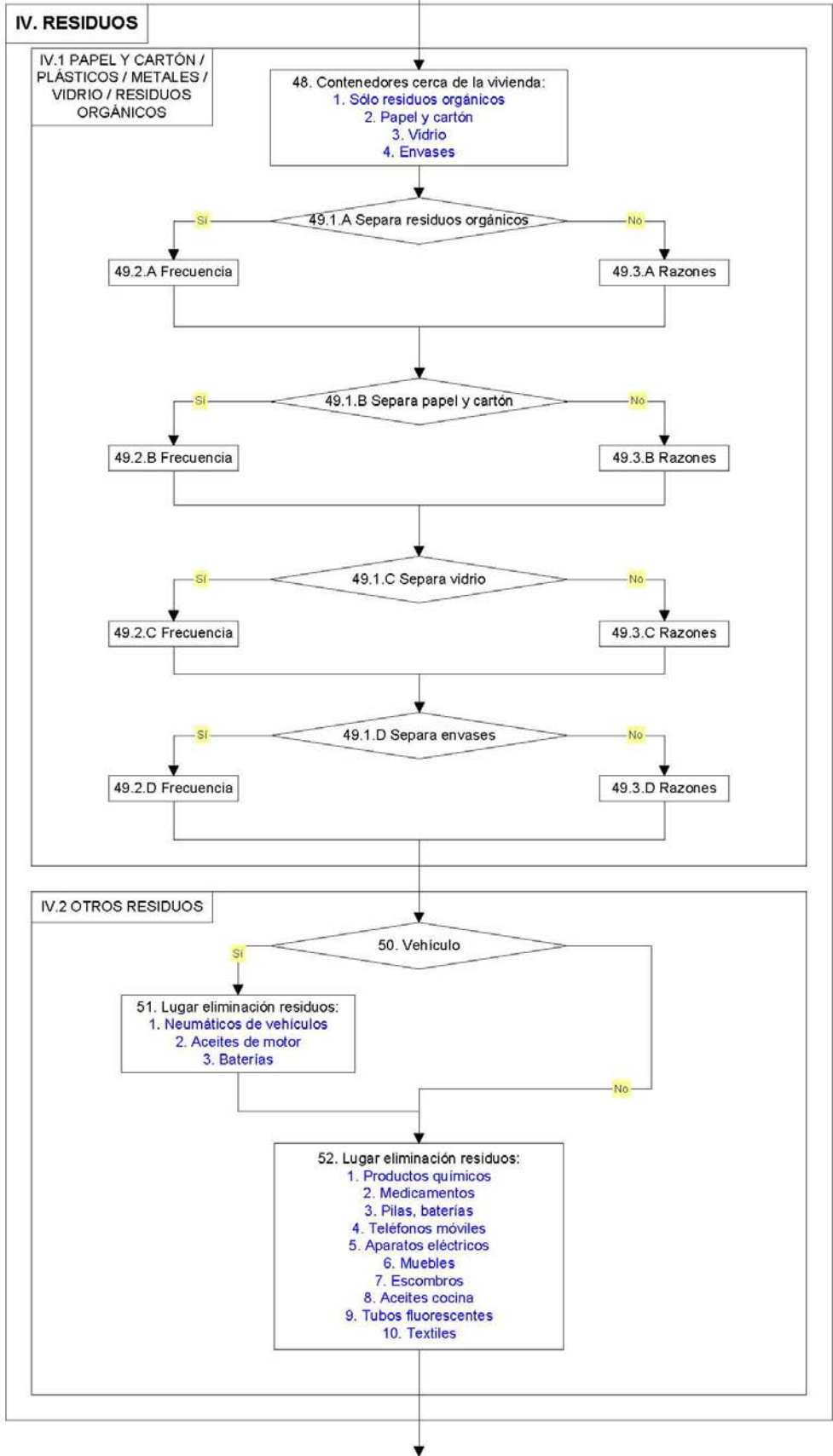




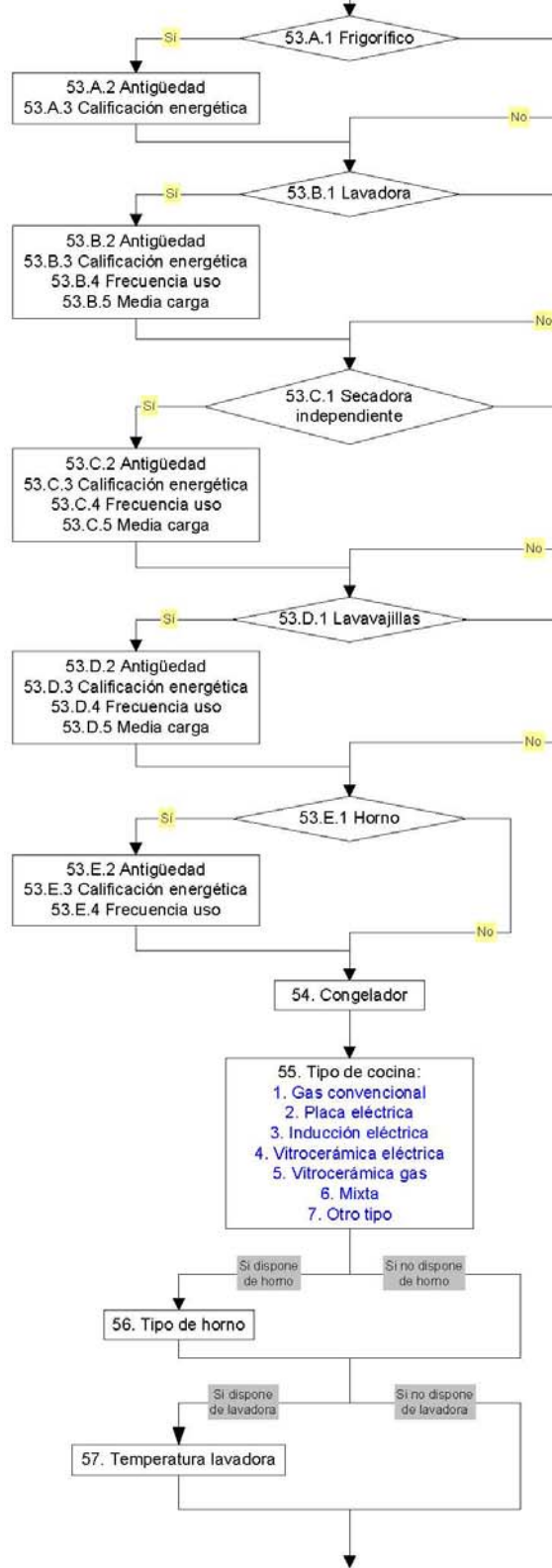


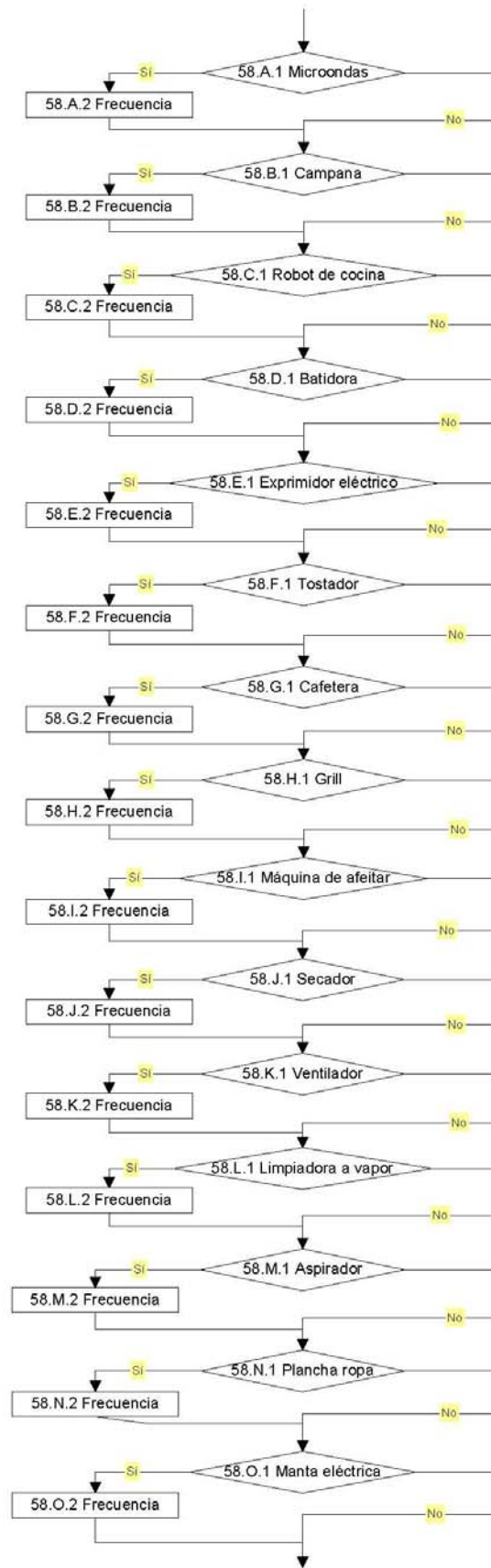


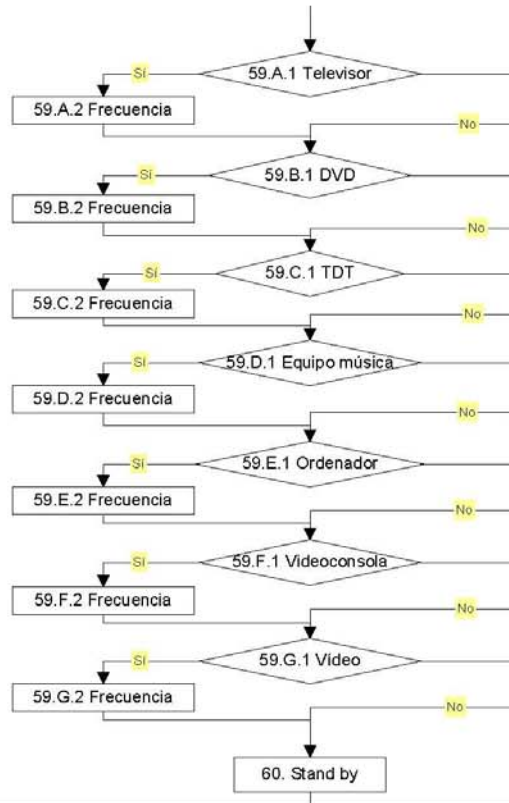




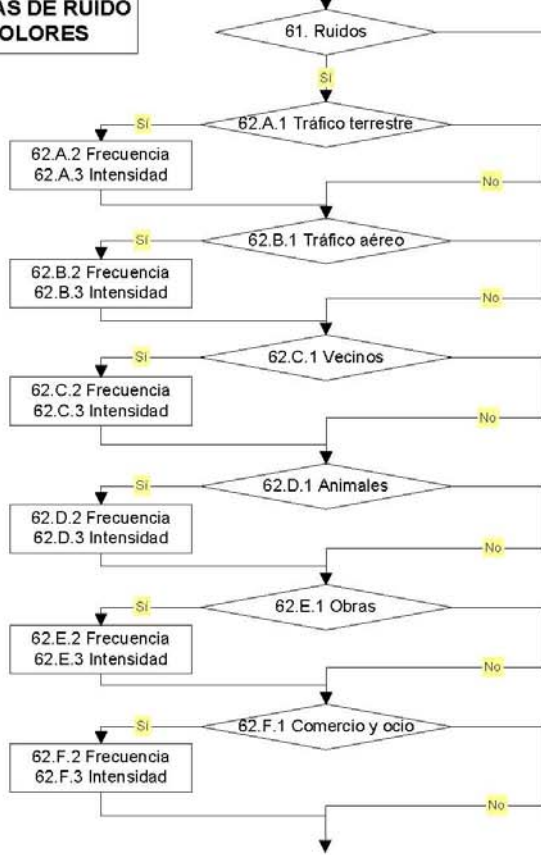
**V. EQUIPAMIENTO Y USO DE LA VIVIENDA EN RELACIÓN CON EL MEDIO AMBIENTE**



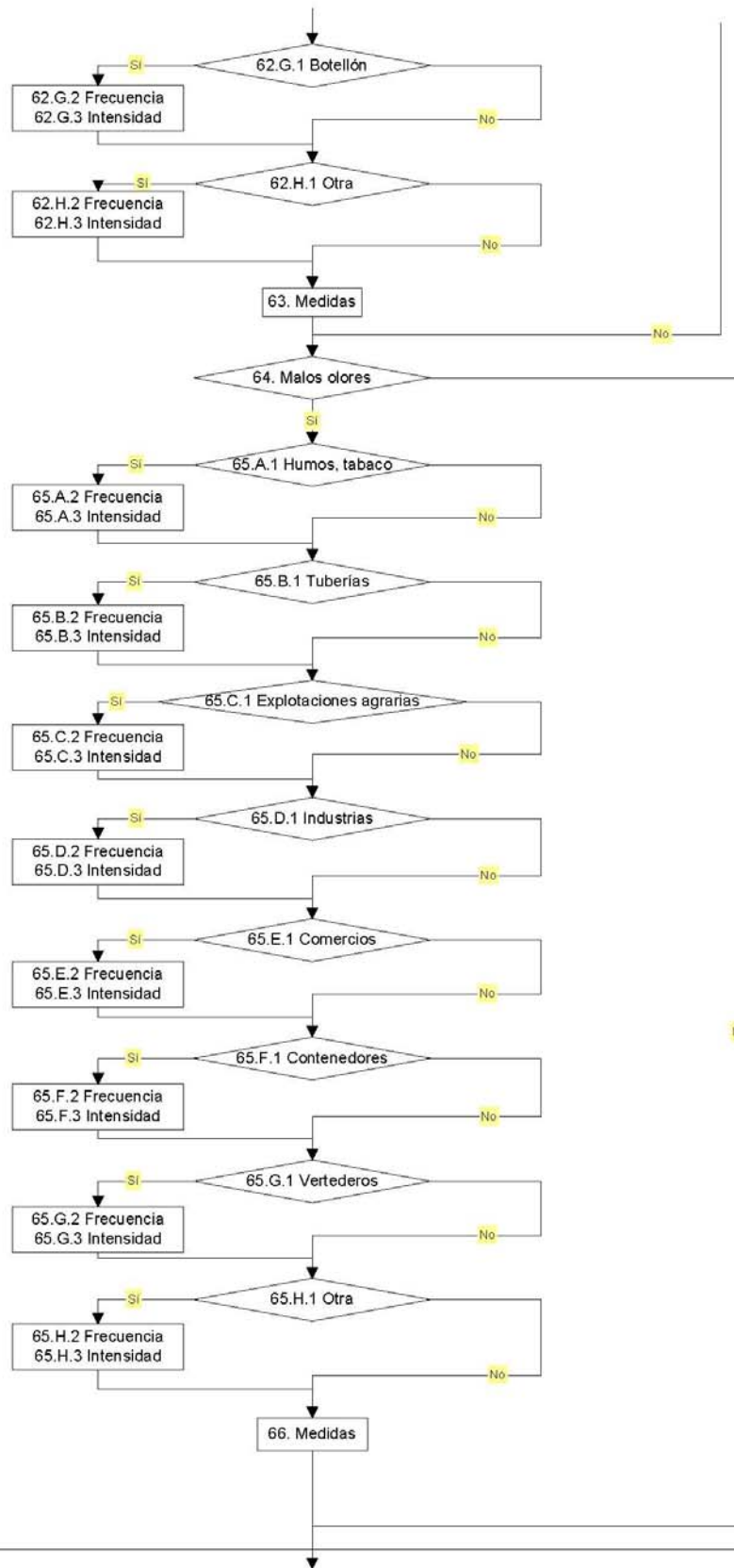


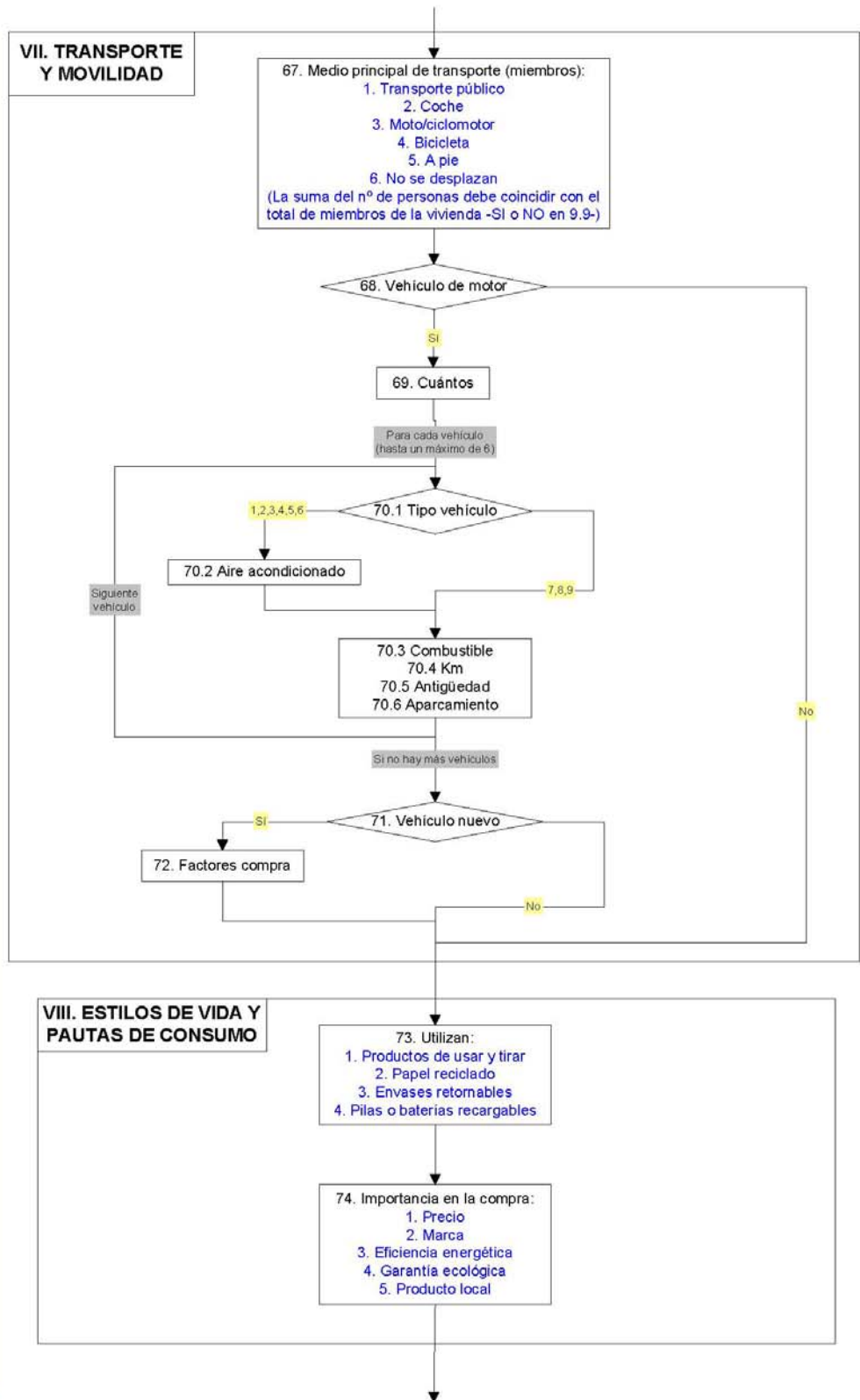


**VI. PROBLEMAS DE RUIDO Y MALOS OLORES**

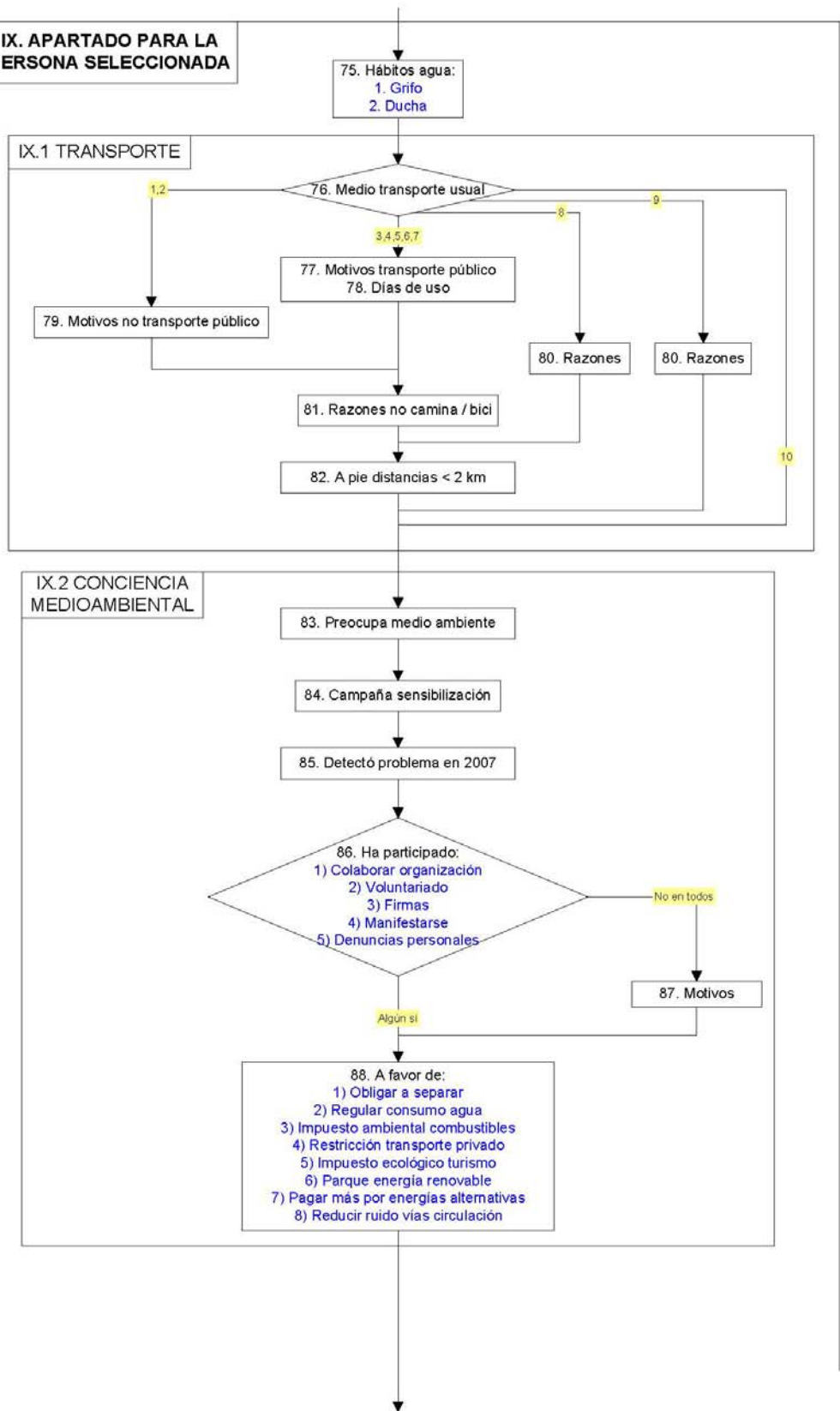


No





**IX. APARTADO PARA LA PERSONA SELECCIONADA**



Persona seleccionada

Entrevistador

