



GREEN

HOMES

STARTERS KIT

Green in 
EVERYDAY LIFE

Green Homes is an **educational programme** for families concerned about the environmental and social impact of their decisions and daily habits. This initiative helps them in the process of change towards a more responsible management of their home:

- Promoting control of domestic consumption of water and energy.
- Introducing water and energy saving measures and behaviours.
- Helping to make shopping more ethical and green.

While the focus of the Green Homes Programme is for families, in reality it can be implemented with virtually any type of group, adapting the methodology and educational materials to the profile of the participants. In this guide we offer variations of the Programme for three different groups: groups at risk of social exclusion, schools and associations.

a. Green Homes Programme for schools:

The Green Homes Programme can be developed in the same way and using the same methodology in schools as with families. The objectives of the Programme in schools are:

- Promote the implementation of Green Homes Programme in schools.
- **Provide teachers with tools and resources** to act as environmental educators.
- **Promote ecological values** encouraging changes in behaviour patterns and strengthening behaviours that contribute to mitigate climate change.
- **Educate families and teachers to develop responsible consumption habits**, thus promoting rational and sustainable use of natural resources.
- **Provide parents with skills and strategies for the education of their children**, strengthening their responsibility in acquiring key skills and achieving educational success.
- **Foster communication, participation and teamwork** of the educational community.

The Green Homes Programme was created as a proposal to find alternative spaces and times, for both families and the educational community, in relation to the **sustainable management of the schools and homes of families and teachers**. Thus, although the implementation of the Programme is done at schools, students, their families and teachers can transfer their learning to their homes, amplifying the results and exchanging experiences.

The topics covered in the Green Homes Programme in schools are the same as when working with families, accompanying the participants in the transformation of their schools and their homes, with the aim of achieving a more responsible and sustainable management .

b. Green Homes Programme for associations:

The Green Homes Programme can also be organized with associations, the objectives and methodology can stay exactly the same as with families.

The only difference is that when conducting meetings, environmental audits as well as any other activity, the technicians of the Green Homes Programme will coordinate their work with the contact person from the participant entity and the entity in turn will be responsible for inviting and motivating participants, as well as it will be co-responsible of Programme monitoring. Also, the contact person will provide the technicians of Green Homes Programme with the profile of the participants: their expectations, prior knowledge, etc., so that the technicians can adjust the methodology and educational materials to the group characteristics.

c. Green Homes Programme for groups at risk of social exclusion:

Saving energy and water and their efficient use in general is an issue of crucial importance in all countries, which has been reinforced by the economic crisis. In this situation, the groups at risk of social exclusion face a higher risk of fuel poverty, so saving and efficient resource management are key factors to improving their economic situation and therefore to reducing their vulnerability. Waste is another emerging issue in developed and developing countries and in the consumer society in which we live. The groups, however, at risk of social exclusion often do not think about the waste they produce when making shopping. Waste reduction would not involve any financial effort on their part, but nevertheless would have a positive impact on the environment.

There are even more reasons for organizing Green Homes Programme with groups at risk of social exclusion:

- One of the characteristics of these groups is low level of information and awareness on climate change, the consequences of the high consumption of energy from fossil fuels, waste related issues and the importance of efficient use of water. Most of these people lack basic information on these issues, which have reached the rest of the population through various local campaigns and the media. This lack of information is directly related to low levels of education, poor access to technology, often with a reduced understanding of the local language (in the case of immigrant, minorities and semi-illiterate locals), advanced age for the elderly, intellectual, physical or sensory disability. Taking into account the economic difficulties these groups face, they tend to prioritize other issues over the environment.
- These groups often rely on different types of social assistance, depending on their specific situation and needs. This assistance ranges from representing their interests and organising activities (e.g. in the case of intellectual or sensory disabilities etc.), training for employment and improvement of social skills (e.g. the long-term unemployed, immigrant women), temporary accommodation and assistance to meet the basic needs, such as food, housing and education (victims of gender based violence, children living in supervised housing, immigrant women with dependent children, the homeless, etc.) to detoxification programmes and labor insertion (as in the case of drug dependencies).
- In many cases they are highly motivated to learn about saving energy, water and waste. This motivation is often reinforced by the context of isolation in which they find themselves and the monotony of their daily lives, which makes any different activity on different topic of great interest.

Based on the reasons explained above, the Green Homes Programme has the following benefits for groups at risk of social exclusion:

- The Programme provides **training and practical recommendations for saving energy and water as well as reducing waste, thus helping to reduce their bills and therefore improves their economic situation**, which is often precarious.
- **It improves their training and education** in relation to environmental problems such as climate change, water scarcity, desertification, waste generation, etc.; allowing them to be closer to the level of the general population and therefore to be able to relate to other groups that are not at risk of social exclusion (improving their social and labor insertion).
- **It fosters their self-esteem, commitment and the acquisition of values.** Self-esteem is strengthened because in the Programme the participants can share their knowledge, making them feel useful. The commitment is strengthened by the Green Homes methodology, where it is permanently pointed out that the objective of the Programme is

to achieve collective challenges. The values are strengthened by promoting the respect for the environment and saving resources, even in cases where there is no financial motivation. For some participants the knowledge and awareness gained in the Programme will give them an 'eco advantage on the labor marketing', allowing them to demonstrate 'added value' at their job interviews.

The methodology of Green Homes Programme when working with groups at risk of social exclusion is the same as with families, schools and associations, adapting the educational materials to the characteristics of the group. The programme delivery organization is made the same way as in the case of partnerships with associations, that is, when organising meetings and environmental audits as well as any activity that may arise, the technicians of the Programme coordinate their work with the responsible person from the organisation or association representing the collective that the Programme is working with. This person is responsible for inviting and motivating the participants and is co-responsible for monitoring the programme and providing the Green Homes technician with information on the profile of participants: their expectations, previous knowledge, etc.

There have also been cases in which entities working with groups at risk of social exclusion, have trained their own technicians to take advantage of their regular visits to implement the Green Homes Programme. This methodology is used, for example, by the Red Cross in Spain, which makes regular home visits to accompany the elderly.

1. Phases of Green Homes Programme:

The Green Homes Programme has **three phases, which are conducted in three consecutive years.**

- In the **first phase**, participants face the challenge of **saving a significant amount of water and energy in their home.**
- For participants who chose to stay in the Programme, in a **second phase**, a more **respectful way to consume** is proposed.
- The **third phase** consists of **workshops and practical activities that provide more in depth information** on the issues discussed during the first two phases.

Sometimes the structure of the project does not allow to work for three consecutive years, as there is funding only for a shorter period, usually one year. In this case, Green Homes Programme can be adapted to a shorter duration, addressing all issues during the same year and dividing the workshops or meetings on topics of energy and climate change, water, responsible consumption and sustainable mobility. In this case, domestic savings kit (explained below) can include elements corresponding to all three phases of the Programme.

2. Challenges of Green Homes Programme:

In the **first phase**, participants receive a simple yet ambitious collective challenge:

- **Reduce domestic CO₂ emissions by 10% within two years.**
- **Reduce between 6 and 10% domestic consumption of water**, depending on the type of housing.

The consumption of water and energy in households is very significant. To give an example, in Spain the citizens are directly responsible for 30% of the energy consumption and 10% of the water consumption. These statistics provide a reason to promote change for more sustainable and equal use of collective resources. These changes will have two positive consequences: for the wallet as it will reduce the energy and water bills, and for society, as the reduced consumption of resources helps to maintain the environment healthier.

During the **second phase** the participants of the previous phase are offered to continue with new challenges:

- **Exclude from the shopping list at least two products harmful** to environment and/or health.
- **Exclude from the shopping at least at least two superfluous products.**
- **Include or strengthen new criteria when choosing what to buy:** prioritise local products, avoid overpackaging, etc...

The main objectives of this second phase of the Programme are: to make the participating families more aware of the effects of their consumption decisions; teach them to plan what they really need; phase out products wasteful and harmful for the environment or their own health; and opt increasingly for healthier and more ethical products.

The ultimate goals of the **third phase** are:

- **Maintain the responsible consumption habits obtained** during the previous phases.
- **Analyse the evolution of water and energy consumption in their household** during the programme.

With these objectives the Programme intends to incorporate and internalise attitudes and habits worked on throughout the programme in the daily lives of the participants.

If the Green Homes Programme is conducted in a single phase, the objectives to be achieved in the three editions can be condensed in one year. In this case some of the proposed challenges can be reduced.

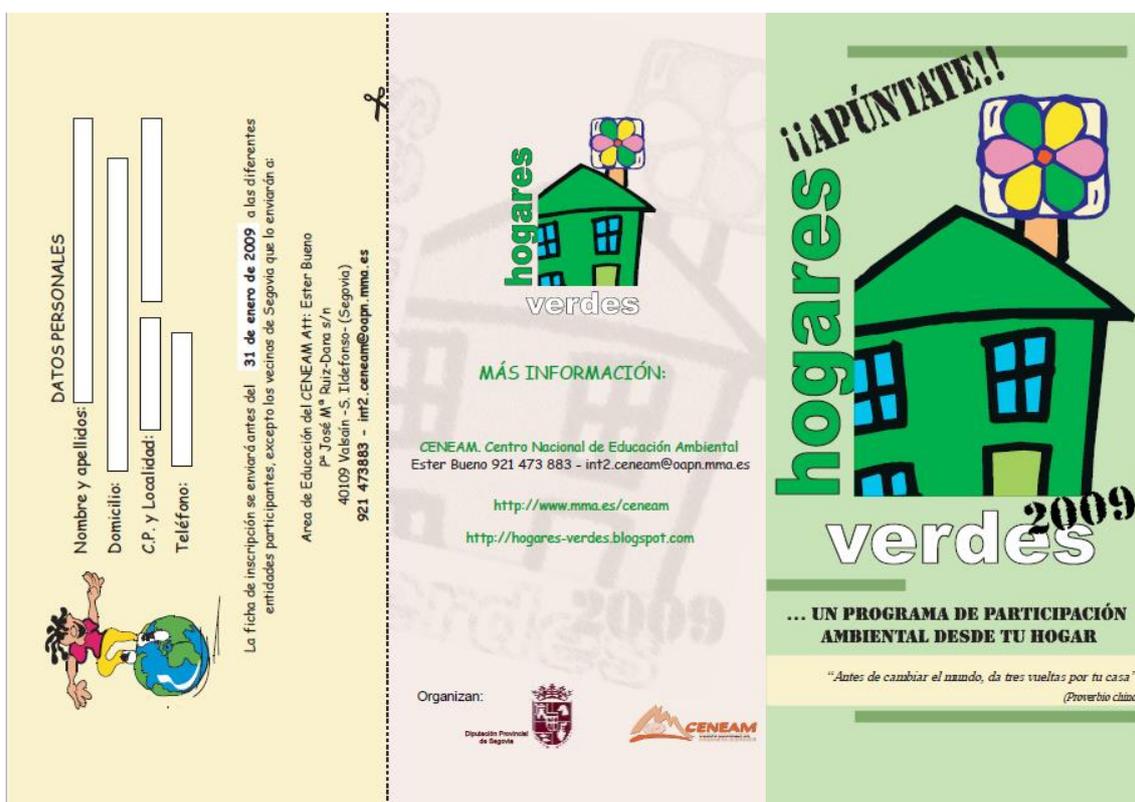
3. Practical organization of the Green Homes Programme

a. Dissemination of the programme and recruitment of the participants

To apply for participation in the Programme the interested families must fill in an **application form**, attached to the Green Homes leaflet (do not confuse with initial questionnaire). This application form contains the basic data of each household, which some selection criteria if necessary (type of housing, number of residents in the home, existence of individual water meters, etc.).

Leaflet also informs the possible participants about the objectives and duration of the Programme, the commitments made by each party involved and ways to contact the technician who will "provide tutoring" to the group.

Examples of leaflets used by various Spanish organizations:



<p><i>Personal data</i></p> <p>Full name</p> <p>Address</p> <p>Postal Code and City</p> <p>Phone number</p> <p>Send the inscription form before 31.05.2009 to the entity organising Green Homes near your place of residency. The neighbors from Segovia should send their form to:</p>	<p><i>More information:</i></p> <p>CENEAM National Centre of Environmental Education</p> <p>Ester Bueno 921 473 883</p> <p>Organized by:</p>	<p>Green Homes 2009</p> <p>A participatory environmental programme from your home</p> <p>"Before changing the world, first walk around your home three times"</p> <p>Chinese proverb</p>
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En nuestros hogares consumimos una cantidad de energía y agua muy importante, por ello son un escenario perfecto para impulsar cambios de comportamiento que supongan un uso más razonable y solidario de estos recursos colectivos.

Queremos invitar, a un conjunto de familias segovianas, a participar en un programa que impulse el consumo responsable del agua y la energía en el hogar, lo cual tendrá dos consecuencias muy positivas: para nuestro bolsillo, un ahorro en la factura familiar y para el patrimonio común, un ahorro de recursos que se traduce en un ambiente más saludable.

Contamos con la gran ventaja de que nuestro bienestar y calidad de vida no van a verse afectados porque, con acciones sencillas y pequeños cambios de hábitos, es posible reducir significativamente el consumo de agua y de energía.

El Centro Nacional de Educación Ambiental CENEAM- y la Diputación de Segovia, junto con algunos ayuntamientos de la provincia, colaboran en la puesta en marcha del Programa HOGARES VERDES y se comprometen a poner a disposición de las familias participantes todos los recursos necesarios para el desarrollo del mismo, así como a hacer el seguimiento y prestar el apoyo necesario a las acciones que se realicen en los hogares.

Tienes la posibilidad de participar, junto con más familias segovianas, en un reto colectivo:

- * Reducir las emisiones de CO2 en un 5,2% (el objetivo del Protocolo de Kioto).
- * Disminuir entre un 6 y un 10% el consumo doméstico de agua.

DESDE LA COORDINACIÓN DEL PROGRAMA OFRECEMOS:

- * Reuniones trimestrales donde se informará sobre cuestiones básicas y muy prácticas sobre el consumo y ahorro de agua y energía en el hogar. Dichas reuniones se celebrarán en los diferentes municipios.
- * Atención personalizada, a través de teléfono y correo electrónico, para ayudar a resolver todas las dudas que surjan.
- * Materiales con información y recomendaciones prácticas y un sencillo equipo de ahorro.

LAS FAMILIAS PARTICIPANTES SE COMPROMETEN A:

- * Enviar la ficha de inscripción adjunta.
- * Asistir a las reuniones informativas trimestrales.
- * Entregar datos de consumo de luz y agua (estos datos serán tratados confidencialmente)
- * Rellenar y enviar cuestionarios para el seguimiento del consumo en cada domicilio.

¡PARTICIPA Y AHORRA PARA TI Y PARA TODOS!

hogares Verdes

DATOS DE LA VIVIENDA

¿Tiene residentes:

Tipo de vivienda: Piso Adosado Pareado Individual

Superficie (m² aprox):

Jardín: SI NO

Calfacción: individual colectiva

Energía utilizada para calentar su hogar* (puede marcar más de una casilla):
 electricidad gasoil gas (natural, butano) leña otra

* ¿Tiene contador individual de agua? SI NO

<p>We consume important amounts of energy and water in our homes. This makes our homes the perfect stage for promotion of more reasonable and just usage of these collective resources.</p> <p>We want to invite a group of Segovian families to participate in a programme promoting responsible usage of water and energy in their homes, which will have a positive impact on their economy reducing the bills as well as will help save the common resources, which in turn will translate into healthier environment.</p>	<p>You have an opportunity to participate in a collective challenge together with other Segovian families:</p> <ul style="list-style-type: none"> -To reduce your CO2 emissions by 5.2% (According to protocol of Kyoto) - To reduce your water consumption by 6-10% <p>As the coordinators of the programme we promise:</p> <ul style="list-style-type: none"> -Quarterly meetings where we will provide you useful and practical information for reduction of your water and energy consumption. These 	<p>Data of the household:</p> <p>Number of habitants</p> <p>Type of housing: <input type="checkbox"/> Flat, <input type="checkbox"/> Attached house, <input type="checkbox"/> Semi-detached house, <input type="checkbox"/> Detached house</p> <p>Approximate floor area (m²):</p> <p>Garden: <input type="checkbox"/> Yes <input type="checkbox"/> No?</p> <p>Heating system is: <input type="checkbox"/> individual, <input type="checkbox"/> communal?</p> <p>What is the <u>main</u> heating system in your home? (Mark only one)</p> <p><input type="checkbox"/> I don't have one <input type="checkbox"/></p> <p>Radiators <input type="checkbox"/> Underfloor</p>
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<p>The great advantage of the programme is that it will not affect your well-being, as it is possible to reduce the energy and water consumption through simple actions and small changes in habits.</p> <p>CENEAM – The National Environmental Education Centre – together with some local town councils are starting the GREEN HOMES programme, and promise to provide families with all the resources needed for the implementation of the programme, as well as to realize follow up and support families in the changes in their households.</p>	<p>meetings will be celebrated in different municipalities.</p> <p>-Personalized attention through email and phone to solve all your doubts.</p> <p>-Materials with information and simple tools for saving</p> <p>The families promise:</p> <ul style="list-style-type: none"> - To send in the application form - To attend the meetings - Provide their consumption data (which will be kept confidential) - To fill in questionnaires for the follow up 	<p>heating <input type="checkbox"/> Fireplace Heater</p> <p>Do you have water metre:</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No?</p>
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Buscamos familias que quieran mejorar su economía y ayudar al Planeta.

Si eres familia numerosa, poco numerosa, monoparental, soltero, soltera o vives en pareja (da igual) puedes participar gratuitamente en el programa. Sólo necesitas no tener prevista tu mudanza próximamente.

Beneficios para los participantes:

1. Asistencia a reuniones informativas y sesiones prácticas, con consejos para reducir los consumos de agua, energía, producción de residuos y ahorro económico.
2. Obtención de los materiales del programa: kit de ahorro doméstico, fichas informativas, manual de buenas prácticas...
3. Acceso a un servicio personal de consulta y seguimiento durante un año, para resolver las dudas y ayudarte a poner en marcha los consejos para ahorrar agua y energía, así como para ahorrar en tus facturas.
4. Y todo esto, ¡de forma totalmente gratuita!

Compromiso:

1. Seguir las indicaciones que me proporcionen los técnicos del programa.
2. Completar un cuestionario inicial sobre agua, energía, movilidad...
3. Completar un cuestionario final sobre los mismos temas.
4. Facilitar datos sobre los consumos domésticos de agua y energía.

Cuando antes te inscribes, más posibilidades tendrás de ser seleccionado!

HOGARES VERDES PARTICIPA

EL PLANETA Y TU BOLSILLO TE LO AGRADECERÁN

Información, inscripción y contacto:
www.columbares.org/hogaresverdes
 hogaresverdes@columbares.org
 966432147 / 661854424

cuando ya no lo necesitas, no olvides reciclar el tríptico en el contenedor azul

HOGARES VERDES

PARTICIPA AHORRARÁS en tus facturas y contribuirás a la conservación del medio AMBIENTE!

<p>We are looking for families wanting to improve their economy and help the planet.</p> <p>It doesn't matter if your family is big or small, you can be living even alone, you can still participate in this free programme. All you need is not to have planned to change your place of residence in some time.</p> <p>Benefits for the participants:</p> <ol style="list-style-type: none"> 1. Assistance to informative meetings and practical sessions with advices to reduce your water and energy consumption, waste you produce and economic savings. 2. Materials of the programme: Domestic savings kit, information sheets, best practices guide. 3. Personalised consultation and follow up service for one year to solve your doubts and get you started to save and reduce your bills. 4. And all of this is totally free. 	<p>Participate</p> <p>The planet and your wallet will be thankful</p> <p>For further information on how to join the programme, contact: hogaresverdes@columbares.org</p>	<p>Green Homes</p> <p>Participate: You will save on your bills and help the conservation of the environment</p>
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We have tried different ways to disseminate the information on the Programme to people who might be interested in participating. Depending on the type of locality (city, rural territory, etc.), the media used should be different.

I. In case of a city:

- Posters and brochures placed in the busiest places in the city (markets, pedestrian streets, cultural centres, sports centres, etc.).
- Mailing to the Parent Associations of local schools.
- Letters to people that have participated in other educational activities organized by the entity that wants to promote the Programme.
- Presentations of the Programme in civic associations, training courses, schools, citizen participation events, etc.).
- Informational stand in shopping centres.
- Information in social networks and web
- Information on the web and social networks.

II. In rural territories:

The recruitment of participants is easier due to the close relationship that people tend have with the technicians that organise the Programme. In any case, it is easier to inform people, with posters and brochures placed at key meeting points and presentations for target groups or community leaders.

III. In schools:

The best way how to reach schools is to contact the management team and the Parent Teacher Associations, Student Associations or similar institution, to inform them about the Programme opportunity. It is advisable to hold an informative meeting at school and provide a kindergarten service for the youngest children, so the families are able to participate in the meeting. It is also essential to have the commitment and support of both teachers and non-teaching personal.

IV. With citizen associations:

When working with associations, first it is recommended to organise a communication campaign directed at the selected type of entities, and, where appropriate, municipal services working within the relevant sectors. For example, if you are planning to work with groups at risk of social exclusion, in addition to contacting social organisations, you should contact Municipal Social Services and other municipal agencies that provide assistance to the target groups (day centres for seniors, shelters for immigrant women and victims of gender violence, supervised apartments for minors, juvenile prisons, multipurpose centres for people with disabilities, etc.). You can send them a presentation of the project including a brief description, its objectives, activities, duration, commitments made by each party involved and ways to contact the technician who will "provide tutoring" to the group.

After an initial expression of interest, you should arrange a meeting with the representatives of the organizations to explain the Programme and evaluate the real possibilities of its implementation in their organisation, depending on the profile of their users who and the commitment the social educators and technical personal of the entity are willing to accept. This is extremely important, because to ensure the success of the Programme when working with civic associations, it is essential to have involvement of a contact person from the partner entity. To design the partnership with a high degree of involvement, since the partner entity will be responsible for convening and motivating its members and will be co-responsible, along

with the Green Homes technician for the monitoring of the Programme. This person will also provide detailed information to the Green Homes technician on the profile of participants, their expectations, prior knowledge, etc., so that the technician can adjust the methodology and educational materials to the characteristics of the group.

b. The methodology of Green Homes Programme:

The working methodology of the Green Homes Programme consists of **organising regular meetings or workshops with families (or with other groups)** in which the participants work on the various issues addressed by the Programme: saving energy and water, responsible consumption and sustainable mobility. Furthermore, at the first meetings, the participants will receive a **domestic savings kit**, which is explained to them. During this first meeting the families are invited to complete an initial questionnaire, which contains data of their energy and water consumption from the year before the Programme and their consumption and mobility habits. At the end of the Programme, families complete the final questionnaire, providing data on the energy and water consumption during the year of participation in the Programme, and their consumption and mobility habits. In this way, the organisers can evaluate the energy and water savings and changes in habits.

As a variation to the traditional methodology, organisers can conduct environmental audits (eco-audits) in the homes of participating families, schools and local civic associations.

In continuation the methodology of different parts of the Programme is explained in detail:

1. *Environmental audits*

Environmental audits are an instrument that involves **environmental assessment and improvement** of housing, offices of civic associations or schools, inviting people to reflect on the consumption of natural resources, waste production, contamination, our relationship with other living beings and spatial planning; detecting errors in management, applying corrective measures to increase and improve the environmental quality of housing, offices or schools and their immediate surroundings.

As discussed above, the audits are not part of the general Green Homes methodology, but represent a modification and additional activity which provides more personalised information on how to save energy, water and residues at home, school or office and have more sustainable consumption and mobility habits. If the Green Homes Programme includes audits, they should take place at the beginning of the Programme, so subsequent meetings and workshops will serve to strengthen and expand the ideas that have been pointed out during in the audit.

Depending on human and economic resources, **audits can be done individually** in each of the participating households (maximum degree of customisation of the recommendations for saving energy, water and waste) or **for a group** (either at the headquarters of the partner organization, or in one household inviting several families). If the audit is conducted for a group, the trainer has to give recommendations for the different situations that may occur in houses (for example, providing information about different heating systems, water heaters, etc.), so that all participants can transfer these recommendations to their homes.

Environmental audit in schools consists of a number of activities **to find out the energy the school uses** for lighting, heating, etc.; **What are the characteristics** of different types of energy

(where do they come from, how do they arrive to the school, what are their environmental impacts), and finally we find out if **the energy is used wisely**.

A protocol for conducting audits in homes and schools are explained in detail:

1. Environmental audits in households:

The protocol for environmental audits in homes can be used in audits in associations. In this case, if the office does not have all the usual characteristics of a house (kitchen, bathrooms, dining room and living room), the audit can be completed with a power-point presentation containing images of equipment or consumption points of energy and water consumption, as well as waste generation in the missing rooms. For example, one of the most common cases is that the office lacks a kitchen, but this can be solved easily by projecting some images of a fridge, a washing machine, a microwave oven...).

The proposed protocol can be adapted depending on the type of housing and the region where the Programme is implemented.

Protocol - script of key questions and tips to conduct an environmental audit in a household:

1. Kitchen / the laundry room

General questions:

- **Take a look at the lighting.** Advice using energy efficient light bulbs. LED is the best option, but fluorescent light bulbs and downlights can be used if LED are not available.
- **What do the habitants do with the leftover oil after cooking?** Advice to collect it in a closed jar and either bring it to recycling centre (if one exists) or make soap from it.
- **How do the habitants wash their fruit and vegetables?** Advice to use a bowl.
- **Important:** cover the pans and pots when cooking; adjust the size of the pot/pan to the size of the heat source.
- **Ceramic hob:** use the residual heat.

Q & A related to the dish washing:

- **Is there a dishwasher?**
 - **NO: How do they wash the dishes?** One sink for the soaping and other for rinsing (a bowl can be used as well).
 - **YES: How do they use the dishwasher?** Economic programme, fully loaded, rinse with dishwasher, not by hands, if possible (see instructions of the dishwasher), use low water temperature and let the dishes air dry.

Q & A related to the fridge:

- **Does the refrigerator form frost?** If so, defrost regularly.
- **Does it close hermetically?** If not, change the seals.
- **When placing the food inside the fridge:**
 - Cover the liquids and wrap the food (to avoid liberating moistness and overwork the fridge).
 - Allow the products to cool before putting them in the refrigerator and freezer.
 - Thaw the products by placing them in the refrigerator the night before (the cold given off is used by the fridge and in this case it is not necessary to use oven or microwave oven) or by placing them at room temperature. Never under the tap.

- **Where is it located in the kitchen?** It should be placed away from heat sources and be slightly separated from the wall to ensure aeration.
- **When buying a new fridge,** advice choosing one with automatic humidity control and energy class A+++.

Q & A related to the oven:

- **How do they check if the food is done?** Open only when absolutely necessary, because 20% of the energy is lost when the oven door is opened. Use light and the glass door instead.
- **For small amounts of food** it is better to use toaster oven or microwave oven with grill function.
- **When buying new oven or gas furnace:** advice choosing one with automatic electric ignition to save gas.

Q & A related to the washing machine:

- **How do they use the washing machine?** At full load, better with cold water, do not tumble dry, if possible.

Q & A related to the waste:

- **Do they separate the waste?** Speak about the recycling and the need to bring electric appliances, furniture, batteries, electronic devices, etc. to the recycling point.
- **Do they use disposable products of (paper towels, paper table covers, plastic cups and plates, etc.) often?** Change them for their reusable versions.
- **Do they think about the type and quantity of food wrapping?** It is better to buy in bulk or in recyclable wrapping, reduce the use of polystyrene, plastic bags and avoid aluminum.
- **Do they consume bottled water or use water filters?** Explain the residues generated from buying bottled water and explain the alternatives.
- **Important:** Reduce the use of batteries and use rechargeable batteries.
- **Where do they usually do their shopping?** Better buy local (less transport, more local development), ecological and fair trade.
- **Explain shortly fair trade and ecological products.**
- **Speak about composting.**

2. Bathroom

General questions:

- **Have you ever checked your household for water leaks?** Only thing you have to do is to read the metre before going to bed and in the morning.
- **Tip:** Close the stopcock slightly and always close the main stopcock when leaving your house for a trip.

Q & A related to the sink:

- **How do they brush their teeth, hands and how do they shave?** Turn off the tap; for teeth use a glass and fill the sink to shave.
- **If they are going to change the taps,** suggest choosing mono-bloc (save water and energy) with upper limitation of flow and standard opening position being “cold”. **If not, use temperature regulators with thermostat.**

Q & A related to the shower:

- **How frequently do they take a bath?** Shower is better.
- **Do they collect the cold water that comes out from the shower before showering?** Use a bucket.

Q & A related to the WC:

- **Do they have a paper bin in WC?** Throw everything possible there, including toilet paper.
- **Do they know how to check if their tank is losing water?** Put a couple of drops of ink or food coloring in the tank. If after 15 minutes the water in the accumulating in the toilet bowl has changed color, the tank is losing water.
- **Important:** use white toilet paper, without chemical substances. It is easier to treat it.

**DEMONSTRATION OF WATER CONSUMPTION WITH AND WITHOUT AERATORS
DEMONSTRATION OF LOW-CONSUMPTION SHOWER HEAD**

3. Living room/Dining room

Q & A related to the windows:

- **How are the windows and doors isolated?** Check for leaks.
- **If they change the windows** suggest double glazing windows.
- **How long to they open the windows for the air to change?** 10 min. are enough.
- **Do they have any element that protects the house from sun?** Install curtains and blinds or white reflective sheeting on windows and awnings on the outside. In summer, keep blinds and curtains half way down during the day and open at night; in winter do it the other way around.

Q & A related to lighting:

- **Do they clean their light bulbs?** It should be done.
- **Important:** Use the natural light any time it is possible and turn the lights off when they are not necessary.
- **Speak about incandescent bulbs, low consumption light bulbs and LED.**

Q & A related to heating:

- **What temperature do they keep in winter in their homes?** Between 19-21°C (in bedrooms this temperature can be 3 - 5°C lower).
- **Do they have central heating?** If so,
 - Do they bleed the radiators?
 - Do they do the periodic maintenance? Cleaning of the filters.
- **For any type of heating:** Do not block it and clean it periodically.

Q & A related to the air conditioning:

- **Do they have air conditioning?**
 - **YES. At what temperature do they usually set it?** Between 25-26°C. **Hint:** Complement the air conditioning with a ventilator (better distribution of the air).
 - **NO. If they are planning to install it:** place it in shadow, preferably in the northern side, if not possible: place a small roof over it that gives it a shadow. Choose class A.

Q & A related to electronic appliances:

- **Do they turn off the stand-by?** Explain the ghost consumption and advice using power strips with switch

- **Do they leave the mobile phone charger plugged in constantly or do they charge the phone over night?** Relate this to the timers.
- **Do they leave computer and monitor turned on for a long periods of time? Do they turn off the monitor when switching off the computer?** Turn it off when it is not being used, and programme to go into hibernation after 5 minutes of inactivity.

DEMONSTRATION OF A MEASUREMENT OF ENERGY CONSUMPTION OF VARIOUS ELECTRIC APPLIENCES AND VARIOUS TYPES OF LIGHT BULBS.

DEMONSTRATION OF DIFFERENT TYPES OF LIGHT BULBS.

4. Garden

- **How do they clean their garden?** Using a broom, not a hose.
- **What type of plants de they have?** Better local ones.
- **Do they have lawn?** It is better to use ground cover plants (protect the soil from erosion, limit the evaporation, reduce the growth of the weeds and do not need a lot of care); if they want lawn, it should be a mix of resistant species with lower need for maintenance.
- **When do they water their plants?** Early in the morning or late in the evening, one can use water collected from the shower, water from cooking, etc.
- **How do they water the plants?** Better drip irrigation, there are programmable versions.
- **Tip if the garden is big with many plants.** Set up a rain water collecting cistern.
- **Do they have a pool?**
 - **YES. Do they cover it during the winter?** Cover it to protect water from getting dirty and avoid changing it in the beginning of the summer.
- **What's the lighting system used in the garden?** Speak about solar lamps and photosensitive lamps.

5. Mobility

- **Speak a bit about sustainable mobility.** Compare the same using different means of transportation.
- **Speak about low emission vehicles found in the market.**
 - **Important:** chose a vehicle adapted to the needs, taking into account the consumption and emission data.
- **Some tips for efficient driving:**
 - Circular with the highest gear possible and at low rpm.
 - Circular at moderate speed and avoid sudden braking and acceleration.
 - When slowing down, let the car roll braking only when necessary.
 - The extra weight, air conditioning, a roof rack and circulation with windows open increases fuel consumption.
 - Heat the car for more than 30 seconds is ineffective.
 - Maintenance of the vehicle.

2. Environmental audits in schools.

To perform an environmental audit in schools, it is more appropriate to use an **interdisciplinary approach**, since the topics of the audit are present in all educational areas and form part of the school life. The audit is motivating because it implies a possible resolution of environmental problems in the centre, contributing to an improvement of the school. Finally, **the audit should be active and participatory**. Last but not least, it is necessary to consider local environmental problems, promoting individual and group involvement of students, teachers and parents.

Protocol - script to perform an environmental audit in a school:

During the **first phase** the educator approaches **the students** and ascertains their preconceptions in addition to introducing the subjects to study (energy, water, waste, etc.).

For the audit it is important that **the participants know the school well**. For this reason one of the first activities is to get to know different dependencies of the school, its distribution and the used given to every space. It helps to plan the audit better and allows the participants to form an idea of the characteristics and dimensions of the questions dealt with. To do this, we can deliver to every student a plan of the centre where they will have to place (preferably in small groups and during a short walk through the school) the various departments: classrooms, laboratories, offices, toilets, storage spaces, etc ... and all elements related to, for example, energy: boiler, transformer, meters, light bulbs, radiators, different types of machines, etc. They should take into account not only the space and its uses but also the ventilation, orientation, etc... We end this phase by sharing of the plans and an open debate in which we observe the ideas students have on the energy use and consumption. We can also ask each student to fill in a short questionnaire about their own energy consumption habits. Later we can ask them to fill in the questionnaire once more in order to observe possible changes in attitudes and habits.

We can establish **three blocks of activities**:

- Block I: What kind and how much energy the school uses?
- Block II: What are the characteristics of different types of energy we use at school?
- Block III: How do we use energy in our school?

To facilitate this work sheets and questionnaires should be used.

In a second phase **we collect the data, systemize and analyse it**.

Finally we draw conclusions and proposals for the development of the action plan. After thinking about the results, the group develops some proposals to rationalise and improve the use of energy in the centre from the environmental point of view, which are later sent to the Environmental Committee (or Board of Governors) of the school, which will be responsible for drafting a final report with PLAN OF ACTION and a CODE OF CONDUCT to be agreed by all.

II. Meetings or workshops:

1. Timing of the meetings:

The frequency of the meetings can vary, depending on the duration of the Programme. If the Programme is annual (calendar year) meetings of presentation of each topic can be done quarterly. In addition, the participants can be proposed to take part involuntary additional meetings or workshops for those who would like to obtain more information.

The invitation to the meetings can be done by email and by making a confirmation call a few days before the meeting. The ability to offer a kindergarten service parallel to the meetings is a key element to facilitate assistance, given the family nature of the Programme.

As an example, we propose a possible schedule of meetings and issues to be addressed in each of them:

• Saving water and energy:

- 1st Meeting: Presentation of the module. Saving energy at home.
- 2nd Meeting: Saving water at home.
- 3rd Meeting: Transport and sustainable mobility.
- 4th Meeting: Final evaluation and a celebration.

• Responsible consumption:

- 1st Meeting: Presentation of the module. Ecological agriculture and farming.
- 2nd Meeting: Where to find the products that interest us. Consumer groups.
- 3rd Meeting: Fair trade and ethical shopping.
- 4th Meeting: Final evaluation and a celebration.

• The workshops module:

- 1st Meeting: Presentation of the module. Home composting.
- 2nd Meeting: Organic farming practices.
- 3rd Meeting: Efficient driving.
- 4th Meeting: Development of natural products for cleaning and personal hygiene.
- 5th Meeting: Final evaluation and a celebration.

Keep in mind that this proposed schedule is highly variable, as it depends on the length of Programme, availability and characteristics of the group, prior knowledge and expectations, etc.

For example, in the case of groups at risk of social exclusion with limited financial capacity, it is preferable to place more emphasis on saving energy and water, waste reduction and management, sustainable mobility habits and responsible shopping from the point of view of consuming local products. In these cases, you can introduce ecological agriculture and farming as well as fair trade, but they are likely to be unaffordable for these groups because these products are generally more expensive than their alternatives. The same situation may arise in countries where the supply of such products is limited or nonexistent. Therefore, **flexibility and adaptation to the reality of the territory and the needs and characteristics of the group is vital** to ensure not only the success and usefulness of the Programme, but the motivation of the participants as well.

In the event that the Programme lasts only one year, the organizers should increase the frequency of meetings and workshops, for example once a month, to deal with all the issues.

When working with schools or civic associations school or organization should be responsible for inviting the participants.

2. Organization of meetings on WATER, ENERGY AND MOBILITY:

It is important to take into account that at the first meeting, before speaking about energy saving at home, there should be a space for attendees to present themselves. In the case of working with groups at risk of social exclusion these presentations should be guided by the Green Homes trainer: after presenting himself/herself the trainer will invite the participant to tell their name and add, for example "something you'd like to learn" or something "you do well" or "something you teach the rest". Thus the organizers can avoid uncomfortable situations and presentations that do not bring anything to the Programme, when participants tell their problems to the others and explain why they are facing a situation of social vulnerability.

The trainer must provide a comprehensive introduction to the Programme and deliver the domestic savings kit.

Finally, there should be space for the participants to express their opinions and ask questions.

To facilitate the presentation of issues related to saving water and energy and sustainable mobility the trainer can use power-point presentations, videos, simulation games or any other fun and participatory activity.

3. Organization of meetings on CONSUMPTION:

In the consumption module you can invite some local producers or marketers to directly what the organic farming and fair trade is, or how a group of green consumption works.

In the first session, the participants receive a bag of commodities from ecological agriculture or farming, fair trade products and local products, to allow participants to familiarise with the options available nearby.

In the remaining sessions, organized as workshops, participants will be encouraged to research and test new products, even order them together, to achieve the objectives of the Programme.

Other topics related responsible consumption issues can be included in the workshops as well, such as technology, clothing, etc. considering the earlier mentioned idea of taking into account the characteristics of the group and the need for adaptation of the contents, so that they are useful for the needs and purchasing power of the group.

Non-formal activities, such as role play, group dynamics, etc., during which the participants think about their consumption habits are very useful. The topics of these activities can be the difference between buying in the local market or supermarkets; social, environmental and economic consequences of each alternative; the importance of labeling... This applies to any other product like clothing, technology, etc.

Finally, it is important to note that apart from the contact with participants during the meetings, periodic monitoring and contact is recommended, via telephone, e-mail, personal visits, etc., and maintain an open communication links, such as email or a Facebook group where the group can receive updated information, invitations to interesting events, etc. When working with schools or associations, this responsibility can be given to the contact person in the participant entity, who will be responsible for follow up with the participants and intermediary between them and the Green Homes technician, informing about developments and possible doubts.

4. Energizing the workshops

Maintaining the methodology of the Programme, it is recommended to give the participants a product or item that facilitates and encourage savings: solar or dynamo flashlight, natural hygiene or cleaning products. It is also useful to perform some recreational activity that combines several of the issues discussed during the Programme. For example, you can make cycling tour visiting various shops for ecological, fair trade and local products, markets, thus combining sustainable mobility and responsible consumption. This proposal is particularly useful in the cases when Programme has been developed with various associations independently, allowing the participants from different entities to meet and exchange their experiences.

5. Educational materials:

I. Domestic savings kit:

The domestic savings kit consists of a series of **tools and devices that help families to save energy, water and reduce and manage their waste and improve their consumption habits**. It is very important to convey that although the kit can help them in the process, the most important thing is to change their consumption habits.

The kit is delivered **in the start of each of the first two phases of the Programme**, during the first two consecutive years. The first year the participants receive a kit for saving energy, water and mobility is delivered, while the second year they receive a kit related to responsible consumption. **If the programme lasts only a year, the delivery of the kit can be done in two phases as well**, so that the second kit coincides with the start of the meetings or workshops on consumption. Thus, the participants remain motivated to stay in the Programme to receive the second kit.

If the Programme is implemented with organisations, the number of kits can be adapted to the characteristics of the group. For example, in the case of associations whose users go to the office of the association just for a few hours, we can choose to provide a kit per household; while in shelters, prisons, with drug rehabilitation centres, etc., we can deliver one or more kits for the centres in which they users live.

Finally, in the case of schools, **we may choose to deliver either a kit for the centre**, if the evaluation of the consumption takes place in the centre itself, or **provide savings kits for selected parents and teachers**, which may apply simultaneously saving devices and recommendations of the in their homes.

An example of domestic savings kit that can be delivered to the participants in each of the two modules is offered in the continuation. However, this kit can be adapted to the economic possibilities of the project, the characteristics of the territory and the profile of participants.

Example of domestic savings kit for the first phase of the Programme: “Saving water, energy and mobility”:

To be coherent with the philosophy of the Programme, the materials for the domestic savings kits should be bought in local establishments, so that any participant in the Programme can buy any product from the kit locally, if they choose so, without any complications and promoting local trade.

As a guideline, we offer a content of an example domestic savings kit, costing around 50 EUR

- **Light bulb:** OSRAM DULUX SUPERSTAR 16W/827 LUMILUX Warm White
- **Digital thermometer:** TFA/Germany
- **Shower head:** TRES nº 913472906.
- **Aerator:** Bossini nº R000060030035
- **IDEA(Institute for Diversification and Saving of Energy) guide (in Spanish):**<http://dl.idae.es/Publicaciones/11046%20Guia%20Practica%20Energia%203%20Ed.rev%20y%20actualizada%20A2011.pdf>
- Sheets with recommendations for saving energy and water and to a more sustainable transportation (attached below).
- Magnets, stickers, bookmarks, or other materials that can help remind the recommendations, tips and tasks.

Possible materials to be included in the kit for water and energy savings and sustainable mobility.



You can also include other materials in the kit, such as LED, timer, multiple power strip with switch, flow restrictor for the shower, solar flashlight, standby eliminator, etc ... always taking into account our target group and economic resources available.

Examples of stickers included in the savings kit



Better between 24 – 26 °C

Decide what you want before you opening it

Better with cold water and fully loaded

Turn off the stand-by when you are not using me



I'm not a garbage bin

Turn me off and don't pay

The fuller the better

Better between 20 – 21 °C



Not a garbage bin

Ghost consumption. Turn me off!

Always full and with cold water

**Example of the alternative shopping cart for the second phase of the Programme:
"Responsible consumption"**

The "alternative shopping cart" helps the participants to become familiar with different types everyday consumer goods, is valued at about 20 EUR and consists of:

- ½ kilo of locally produced organic meat.
- 1 packet of legumes of a local variety.
- 1 packet of organic and fair trade coffee.
- 1 tablet of fair trade chocolate.
- 1 packet of ecological rice.
- 1 microfibre dishcloth that reduces the use of cleaning products.



As noted above, the contents of the basket can be changed considerably to adapt to the reality of the local reality and the profile of the group. For example, in the case of groups at risk of social exclusion it can be more useful to provide bags for selective waste separation, since often the their level of awareness in this area is low, as well as cleaning products prepared from natural products such as soap, vinegar or lemon, food products purchased in bulk at local markets or shops, etc. Besides being associated with responsible consumption these products also help reduce waste generation and improve the economy of the participants, which is often very precarious. Similarly, the kit will vary in each country, since in some countries it is much easier to find products in bulk and almost impossible to buy fair trade or ecological products.

II. Recommendation sheets:

For saving energy:

Advices for saving...on electric appliances

Do I need it?

Sometimes we buy electrical appliances of doubtful utility or ones we use rarely. Before buying an electric appliance take a moment and ask yourself: Do I really need it?

Choose appliances of class A + (or more)

Refrigerators, freezers, washing machines, dishwashers and other appliances have a label that informs us about the efficiency of energy use. The most efficient are those belonging to categories A +++, A ++ and then A +. Remember that the length of the usage of the appliances is usually over 10 years, so that the difference in initial price of an efficient model is usually repaid with energy savings achieved.

Do not leave your appliances in "standby"

The so-called "stand by" is common in devices with remote control, such as TVs, DVDs and stereos. In the "standby" device appears to be turned off, but is actually using energy. This is known as "ghost consumption", which represents up to 15% of energy consumption of turned on device. We can avoid this unnecessary expense by plugging appliances into a power strip with a switch.

Fridge

Size Matters

Also the size of the refrigerator affects its energy consumption (the larger the fridge, the greater the consumption), so simply choosing an efficient model is not enough – you should suite the size of the fridge to the real needs of the household (number of residents and consumption level).

Do not put hot food in the refrigerator.

Let cooked foods cool before putting them in the refrigerator, thus the fridge will work less. And, whenever possible, defrost food in the refrigerator.

Place your fridge in a cool, ventilated place.

It is important that the refrigerator is away from sources of heat and that the place is well ventilated to ensure the efficient operation of the device.

Maintenance also saves energy.

Clean refrigerator at least once a year: clean the back of the device, defrost when necessary to remove the ice and keep the insulation strips in good condition... these are the three rules to ensure the smooth operation of the refrigerator.

Dish washer and washing machine***Wash clothes in cold water***

Between 80 and 85% of energy consumption of a washing machine is used for heating the water. By washing in cold water or low temperature, this expenditure is avoided or reduced. The new detergents allow for efficient washing without using hot water.

Use economic programmes

It is also important to adjust the washing programme. Check if the dishes and clothes are clean after the use of short or economic programmes and, if the test is positive, use them!

Load appliances fully before using them

Using the ability of washing machines and dishwashers fully avoid their unnecessary use.

Screens***Beware the big screens!***

Remember that consumption is proportional to the size of the screen. A TV with 20-inch LCD screen consumes between 45 and 65 W while if the size of the screen is 32 inches, the consumption reaches between 115 and 160 W.

Screens that consume less

The new screens with LED technology consume about 40% less than traditional LCD displays.

Kitchen***Do not waste heat***

If you have the glass ceramic stoves, use containers with a diameter equal to or greater than the burner zone, so the heat produced is used properly.

Cook with pressure cooker

The pressure cooker is a fast and very effective way of cooking. Use it, all the advantages are there!

Use lids on pots and pans

With conventional pans, you can save up to 65% energy with the simple gesture of using the lid.

Reduce the heat when the water starts to boil

Once the water starts to boil, we should reduce the temperature of the fire for not doing so is a waste of energy.

Advices for saving... on lighting***Use the natural light whenever you can***

No light is as nice, healthy and cheap as the sun. Arrange the lighting in our house trying to make the most of natural light is the main recommendation to take into account.

The walls also illuminate

The walls painted in light colors allow you to get more out of sunlight and reduce the need for artificial lighting.

Plan the lighting

Search for the most suitable location of the points of light and think what intensity is required and what will be the time of their normal usage to choose one or another solution.

If you do not need it, turn it off

Do not leave lights on in rooms that are not being used.

Replaced incandescent bulbs with energy saving lamps

They save up to 80% energy and last up to 8 times longer. Incandescent bulbs convert into light only 5% of the electricity they consume. The rest is lost as heat.

Keep the lamps and fluorescent tubes clean

Dust that accumulates on the bulbs decreases their luminosity, so cleaning them from time to time gives us more lighting without increasing the consumption.

Lights and shadows of the halogen spotlights

If you plan to use halogen light bulbs, think about whether it is the most suitable type of light, given that they produce a very intense, but very concentrated light (which increases the need for points of light) and at it can be annoying. Their consumption of electricity is quite high as well, as it is largely wasted as heat.

Beware the dimmers

Many of the devices that regulate light intensity (resistors) work dissipating the energy that is not used by the lamp as heat; so even when the light is dimmed, the consumption level is the same. Therefore, it is advisable to replace the dimmers with electronic controllers, which only use energy the lamp actually consumes.

Consider sunlamps for the outdoors

In the market there is a wide and affordable supply of outdoor lamps that have a built in their own solar panel, thus using solar energy to recharge.

Advices for saving... on heating**Watch the thermostat**

A temperature of 20 ° C is sufficient to be comfortable in a home. In the bedrooms that temperature should be lowered by about 3 ° C. For every degree we increase the temperature, the energy consumption increases by 7%! If you're feeling cold, first try putting on a sweater.

Turn it off at night

At night, turn off the heat, it's healthier for the sleep. In the morning do not turn it on until you have finished ventilating the house and have closed the windows. If the house is empty in the morning, you only have to keep the thermostat at 15-17° C.

If you leave the house, turn down the thermostat

It is absurd to heat an empty house. Remember lowering the thermostat to about 15 ° C; when you return, it will be easy to heat it again up to 20° C.

Do not place objects on the radiators

To ensure optimal performance of the radiator, it is best not to block it with furniture or any object that can block the air flow.

Ventilate the house for 10 minutes

Ventilating the house is a very healthy habit, but without going overdoing it. Ten minutes of ventilation ensures the air renewal but avoid excessive cooling of the rooms.

Choose a 4 star heater

Just as refrigerators or washing machines, domestic heating boilers are classified according to the efficiency of their energy usage. The rating goes from one to four stars. One star more saves at least 3% of the energy. It is worth to choose a four-star boiler!

Remove air from the radiators

Each year, before starting to use the heating, you must bleed the radiators, i.e., extract the air that accumulates in the circuit and reduces their effectiveness. It is a very simple operation that improves the functioning of our heating system.

Do not forget the maintenance

Proper maintenance of the heater can result in savings of up to 15%. Do not wait for it to break to invite a technician to review it.

Useful things

Thermostats: Allows temperature regulation preventing energy waste and generation of excessive heat.

Programmable thermostats: useful for setting the temperature for different time slots and days of the week. If the house already has a conventional thermostat, replacement is very simple.

Thermostatic valves: are installed directly on radiators. The valves open or close the passage of the hot water in function of temperature that we wish to maintain.

How to save... with insulation

A poorly insulated house needs more power: in winter it cools faster and it gets hotter in summer. Small improvements in insulation may result in up to 30% in energy savings on heating and air conditioning.

Do not skimp on insulation

When building or rehabilitating a house, good insulation is the best investment. You gain in well-being and save money on air conditioning and heating.

Install double glazing or double windows

Between 25 and 30% of heat loss in a home occurs in the windows. Therefore, it is important to install double glazing or frames with double glazing and thermal break.

Become a draft hunter

In a windy day, hold a candle next to windows, doors, ducts or any place where outside air might get in. If the flame moves, you have located the point where the air enters. There are cheap means to solve this issue, such as caulking, weather-stripping or silicone.

Close blinds and curtains at night

Curtains and blinds reduce heat loss, preventing it from escaping through the windows.

How to save... on hot water

Hot water is a quarter of the total energy consumption of a home. It is the second biggest energy consumer, after the heating.

Regulate the temperature of hot water in the boiler

If your boiler allows to regulate the temperature of the hot water, adjust it so that you don't have to mix it with cold water.

Choose the shower instead of the bath

A shower consumes, on average, a quarter of the water required for the bath: you need around 200 litres of water to fill the tub, while a five-minute shower consumes around 50 litres of water.

Install a low-flow shower head

Efficient shower consumes about 6-7 litres of water per minute, compared to 12-15 litres of traditional shower head. Its installation is very simple: just unscrew the old shower head and screw the new one on the hose.

Control your shower time

It is easy to lose track of time in the shower. There are simple and inexpensive devices such as hourglasses, which let us know when you 4 or 5 minutes have passed by.

It is better to choose a tap which opens in the "cold"

In most mixer taps, when the lever is left in central position a mixture of hot water and cold water is obtained. If the tap is opened in that position for a short period of time (which is very common) the hot water does not even get to the tap. This waste of hot water mixers can be prevented by choosing taps with cold opening. In these models, the central control position is reserved for the cold water. The hot water is obtained by turning the knob to the left.

If you wash by hand ... use the plug

When washing dishes by hand you can reduce the water consumption with some simple "techniques": turn off the tap while soaping the dishes, use the sink stopper for both the washing and rinsing.

Prevent leaks and drips

Saving water, even the cold one, is also saving energy, since water is usually driven to our taps by electric pumps.

How to save... on cooling***Use awnings and blinds***

Installation of awnings and closing blinds and curtains are effective systems to reduce the temperature in the house, as they prevent the sun from entering through the windows.

Ventilate when it's cool

In summer you should ventilate the house when the air is fresh on the outside (early hours of the morning and at night).

The fan, a good invention

A fan, preferably ceiling, may be sufficient to maintain adequate thermal comfort at home. The movement of air produces a feeling of temperature drop by 3 to 5 degrees and their electricity consumption is much lower than the one of air conditioner.

Plants also help

Plants on balconies and terraces improve air quality and refresh the environment.

Air conditioning***Purchase an efficient model***

If you choose to buy an air conditioner, look for a high-efficiency model. Check the energy label and choose the type power according to your cooling needs.

Place it in a shady place

It is important to place the refrigeration in a place where it gets as little sun as possible and where there is a good air circulation. If condenser units are on the rooftop, they should be cover using a shading system.

Set the cooling temperature to 26 ° C

The adaptation of our body to summer and the wearing of less and lighter clothes explains why this is the temperature that allows us to feel comfortable inside a home.

The thermostat does not change the performance of the device

When you turn on the air conditioner, do not adjust the thermostat to a lower temperature than you really want to get: It will not cool the home faster and the drop in temperature may be excessive.

For saving water:**General advices*****Discover leaks: testing the meter***

Record the number the water meter marks before going to bed and read it again the next morning before any use of water is made. If the number of the counter has changed, you may have a leak.

Discover leaks: control the WC cistern

Sometimes water losses in WC are not visible to the eye. If we dye the water in the tank with a harmless dye, we can find out easily if there is a leak.

Close or repair the leaky faucet

The seemingly innocuous dripping tap can mean, ultimately, very significant water losses. A dripping tap loses about 30 litres of water every day.

If you go on a trip, close the stopcock

If you will be away from your home for a few days and you have not installed any irrigation system, it is best to close the stopcock. Thus you can avoid water losses from small leaks or flooding from sudden ruptures.

How to save water... in the kitchen

You can save even when washing by hand

The water consumption can be reduced substantially by using a small bowl of water to soap dishes and one for rinsing (or the sink itself closing it with a plug).

If you buy a washing machine, choose a low consumption model

Currently you can find in the market washing machines of a capacity of 7 Kg that consume from 42 to 62 litres of water, while for a load capacity 5 kg, the consumption varies between 39 and 52 litres. Considering the efficiency gains, washing machine can be considered low consumption if it uses up to 44 litres per wash (5 kg load capacity) or a maximum of 47 litres if has 7 kilos of cargo capacity.

If you buy a dishwasher, choose a low consumption model

The water consumption of the models that can accommodate 12 to 13 services ranges from 6.5 to 18 litres per wash. Given the improvements in efficiency, we can consider that a new dishwasher consumes little water if it spends under 10 litres per washing.

Select the most efficient washing programme

Some programmes consume only half the water than others. Read the instructions manual and take a look at the water and energy consumption of each programme. In dishwashers, the programme called "fast" often provide very substantial water savings by eliminating some phases, such as prewash and rinse.

Detergents: better non-phosphate ones

Detergents containing phosphates contribute to the proliferation of algae in rivers and reservoirs, depriving rest of the aquatic fauna from oxygen. There are phosphate-free laundry detergents and dish soaps in the market. Choose them.

Do not throw used oil down the sink.

Save it in a small container. When it is full, you can use it to make soap or take it to the recycling centre.

If you like your water cold, put it in the fridge

To obtain chilly water, do not let the tap run. Instead put a water bottle in the fridge.

Place an efficient aerator also on the sink tap

Saving water... in the bathroom

Choose the shower instead over a bath

A shower consumes, on average, a quarter of the water required for the bath: it takes around 200 litres of water to fill the tub, while a five-minute shower consumes around 50 litres.

Install a low-flow shower head

Efficient shower consumes about 6-7 litres of water per minute, compared to 12-15 litres of traditional shower head. Its installation is very simple: just unscrew the old shower head and screw the new one on the hose.

Control your shower time

It is easy to lose track of time in the shower. There are simple and inexpensive devices such as hourglasses, which let you know when you 4 or 5 minutes have passed by.

Open the tap only when you need the water

You can close the tap while you are soaping. Do the same while you brush your teeth or shave.

Use the toilet flush correctly

If your tank has a dual switch, use the reduced discharge when you need little water. You will use only half of the water from the tank and you will achieve the same result.

If the hot water takes its time to arrive...

You can use a bucket or bowl to collect the water from the shower until the water is hot. With this water you can water the plants, wash floors, etc.

Place a paper bin in the bathroom

It will be easier to prevent the WC from being used as a garbage bin. You will save water and avoid contamination.

Place an aerator on the sink tap

If your tap is not efficient, you can install an aerator. You will save between 40 and 60% of the water while maintaining a similar sensation of wetness. They are very cheap (about 3 €) and are installed simply by screwing them on the conventional taps.

Saving water... in the garden

In Spain, single-family homes with gardens consume between 2 and 5 times more water than the flats. The garden is often therefore a major water consumer. But there are solutions to avoid it...

Use plant species that consume little water

One of the most obvious ways how to reduce the consumption of water in the garden is to use plants with modest irrigation requirements or simply without any irrigation requirement after they have rooted well. This does not mean we have to fill the garden of cactuses. Actually most of the species traditionally used in Mediterranean gardens (trees, bushes and plants) are very undemanding when it comes to irrigation.

Replace the lawn or reduce its size

Typically more than two thirds of the water used in a garden is dedicated to the maintenance of the lawn. It is therefore no exaggeration to say that the grass is the major consumer of water in our modern gardens. Therefore, limiting its spread is the safest and most effective way to cut the water consumption. Some alternatives for this are the following:

- Reduce the area for grass with trees and shrubs, whose irrigation demands are much lower.
- Replace the lawn with ground covering plants.
- Use coatings (see next tip).

Use coatings

Cover surfaces in the garden with natural materials, such as stones, gravel, tree bark, etc. They greatly reduce the water usage, while looking beautiful. The coatings prevent excessive heating of the soil, protect against wind and erosion, prevent the emergence of weeds and facilitate the concealment of irrigation systems.

Install efficient irrigation systems

Localized irrigation systems provide water to the plants by "droppers" that provide water at low pressure (drop by drop). These systems allow each plant to get the exact amount of water they need, and prevents water loss by evaporation. Therefore, they use between a half and a quarter of the water than a sprinkler would use.

Take advantage of rainwater to water the garden

Rainwater that falls on rooftops and courtyards can be used for watering the garden. Once collected by the gutters or drainage the water can be collected in a small reservoir where it is stored and then used for irrigation.

A small and half-buried container is ideal for storing rainwater, but we can also use other improvised containers, ranging from a barrel to an old bathtub. The container should be placed in a highest area of the garden, to use gravity for irrigation.

Water during the coolest hours of the day

Avoid evaporation losses and damage to plants. Also, remember that excessive watering makes plants less resistant to drought and more susceptible to diseases.

On transportation

The best transportation is the one you don't need

Is it always necessary to move so much and so far? Make an overview of the places to which you are traveling more often and think about whether and how- you could reduce the number of trips you make.

Chooses the near-by: the neighborhood stores

Discover nearby shops and what possibilities they offer to prevent or reduce long journeys to distant shopping centres. Compare the prices, but introduce in the calculation the expenditure of time and fuel. Maybe you will be surprised...

The car is not always the best option

The best option for short trips (around 2 km) is certainly walking not only in terms of health and ecology, but for saving time as well; for medium trips (5 - 6 km), the bicycle may be the most advantageous means; for long journeys, public transport is often the best option. Before taking the car, make sure you really do not have a better alternative.

Public transport, the unknown friend

Are you a car addict? Dare to try public transport! Discover the benefits of reading the newspaper, get rid of jams, avoid looking for parking spaces, talk with lost tourists...

Make the sport of walking your daily habit

Problems of overweight? Does the doctor recommend exercising? You do not have time or interest to go to the gym? The simplest and cheapest solution is to incorporate sport into your daily life, walking to one of your daily destinations. Walking is one of the most complete and healthiest activities, suitable for all ages, and the most efficient alternative from the energy point of view.

Cycling is also a means of transport

Bike has been, until recently, an exotic guest in the streets of many cities and, in any case, it was used for leisure or sport. But something is changing and many cities are beginning to promote the use of the bike as a daily means of transport by creating networks of bike paths, loan systems, installation of bicycle parking spaces, means to transport bicycle in trains and buses, etc. If you have a chance, try it and enjoy the freedom and satisfaction it provides.

Walk to school

How far is your school? If you can reach it with a short walk of 15 to 20 minutes, it makes no sense to drive there with your parents. Meet with your friends and use the moments of freedom to chat, get to know your neighbourhood, stretch your legs... and learn to be autonomous and if you can go by bicycle, it is a good experience! You can even organise a cycling group with your friends to go together and feel safer...

How to save... when using a car

Learn to drive efficiently

Even if you have a driver's license for more than 20 years, maybe you do not know some basic tricks of "efficient driving", which is lower the fuel consumption and allows you to use the vehicle better. Here are the main advices:

- Use first gear only to start the car and switch to 2nd 2 seconds after.
- Do not exceed 2,500 rpm in gasoline vehicles and 2,000 in diesel.
- Use the higher gears as much as possible and keep the speed as uniform as possible, avoiding unnecessary gear changes.
- Slow down by lifting the foot off the pedal, letting the vehicle roll with the gear engaged; brake smoothly and as late as possible.

Speed is dangerous and consumes a lot

Fuel consumption soars above 100 km/h, so here's another good reason for driving at moderate speed, apart from contributing to the safety of the streets and roads.

Turn the car off when you stop

There is nothing more absurd than to burn fuel while the car standing still; if the stop is longer than a minute, turn off the engine not to burn money and pollute the air without any benefit.

Keeping the vehicle in good condition is another type of savings

Check the engine frequently, control the levels and filters and, above all, the tyre pressure: it is a basic safety standard, but it also has a positive environmental consequence because it influences the car's fuel consumption.

Go easy on the air conditioning

The use of air conditioning represents around a 25% increase in fuel consumption, so try not to abuse it: an inner temperature of 25-26 °C is perfectly adequate and cheaper!

Avoid bumps on the outside of the vehicle

Any external accessory increases fuel consumption, particularly the roof rack loaded with luggage on the roof of the car. Whenever possible, load inside!

Carpooling for work

Maybe you are one of those who bump into the same person when arriving in the office; and find him/her once more again eight hours later, just when you both are taking your cars to go home. Yes, the same colleague who lives three streets away from your flat. Have you ever considered the possibility of suggesting car sharing to make the daily commute? How much would you save in a year? And maybe you will make a new friend...

*On responsible consumption:***Advices for consumption... Ecological farming and gardening**

Opt for ecological food. It's healthier and helps protect the environment.

In ecological farming, the vegetables are grown without pesticides or chemical fertilizers.

In addition, their consumption helps prevent soil and groundwater contamination and encourages a new way of understanding agriculture.

As for ecological farming, its principles are based on free grazing or extensive production, in healthy food for the cattle with ecological or wild products, health care based on therapies and alternative medicines, without the supply of antibiotics, hormones or other substances toxic to the animal or the consumer.

And remember...

- They help maintain the health of farmers and consumers. By respecting the natural rhythms and not using biocides produced foods are more healthy and balanced.
- With ecological food we get back to the real taste of food, also they preserve better than conventional products.
- The compost, a key ingredient for fertilization in organic farming makes the soil suitable for supporting life and feed the microorganisms that dwell in it, which are the ones who make the substances the plants need available to them. Chemical fertilization, however, mineralizes the soil, reduces microbial life and ultimately impoverishes it.
- Organic farming fertilizes the soil and slows the desertification by improving water retention.
- Organic farming maintains the habitats of wild animals, allowing and encouraging the life of many species thus helping to maintain biodiversity.
- Ecological agriculture and farming reduce energy consumption as they do not abuse the usage of machines.
- It promotes the creation of jobs in the countryside, by requiring, by its very nature, work and presence of farmers.

Look for the seal of ecological farming to ensure that the product you are buying meets the guarantees of the Regulatory Boards.

Ask your regular shop to start offering ecological products (rice, pasta, canned goods...)

Advices for consumption... fair trade

A fairer relationship between producers and consumers

For the products sold with the fair trade seal:

- The producers are organized into cooperatives and other voluntary organizations that operate democratically.
- The work is done with dignity and with respect for human rights.
- The price paid to the producers allows for decent living conditions.

- The quality of products and their production is assessed taking into account sustainability criteria.
- Buyers often pay in advance to prevent producers from being subject to inadequate financing conditions.

Delicious alternative

Some of the products with fair trade label you can purchase are: sugar and sweets, cocoa and chocolate, coffee, tea and juice.

Find your point of consumption

On this website http://www.fairtrade.net/buying_fairtrade.html you can find a list of stores that offer certified fair trade products in your country.

Look for the Fair trade seal

Fair trade products are identified by the fair trade label or seal, which ensures that the product has been produced and sold according to the international Fair Trade criteria.

Advices for consumption... the shopping cart

If you do not need it... do not buy it

Consumption is becoming a form of entertainment... or even therapy. Every year we buy products that do not need, simply because of their appearance, because they are fashionable... or because we cannot think of anything better to do. Before starting to buy, think about whether you really need the thing you are planning to buy and if you'll actually use it. Make a shopping list before you leave home, it will help you buy things that you really need.

Consume foods from ecological farming

They are healthy and help conserve the environment. They are grown without pesticides or chemical fertilizers. Look for the seal of organic farming to ensure that the product you are buying has the guarantee of the Regulatory Boards.

Buy in-season products

They are much cheaper. But also, by buying in-season products you avoid transport over long distances and conservation and artificial maturation that, besides the energy and chemical costs, reduce quality and even the taste of food.

Best fresh than frozen

If you can choose between the same product fresh, chilled or frozen, choose fresh, unless you are not going to consume it in a short period. If you must choose between refrigerated and frozen products, choose the refrigerated, as the water and energy consumption of refrigerated products and very inferior to their frozen versions (about one third of it).

Buy local products

It contributes to the economy and local culture and avoids transportation costs.

Buy fair trade products

Fair trade networks pay a fair price for the product they sell, and even help farmers in the financing of production and in their training, limiting the intermediaries. Some of the most common fair trade products include coffee, chocolate, tea and clothing.

Carry bag or cart for shopping

Make purchase with your cart, basket or reusable bag (which is washable, spacious and comfortable). Avoid using plastic bags and if you use them, at least reuse them.

Avoid products with excessive packaging

It is preferable to buy products in bulk or packaged in lighter and easily recyclable materials.

Avoid single-use products

Single use products, such as plates, glasses, cutlery or napkins entail an unnecessary waste of such resources as plastic or paper.

Better without foil

The traditional lunchbox and waxed paper are a good alternative to aluminum foil.

Consume tap water

According to some estimates, the consumption of water in plastic bottles supposes 250 times higher CO₂ emissions than those from the consumption of tap water.