



Clean up your act !

Dos and don'ts for a greener world

Clean up your act!

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Cataloguing data can be found at the end of this publication.

Luxembourg: Office for Official Publications of the European Communities, 2005
ISBN 92-894-8489-6

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Printed in Belgium - Printed on recycled paper



Hi! My name is Jiffy. Let me guide you through this brochure and help you clean up your act!

➤ Introduction

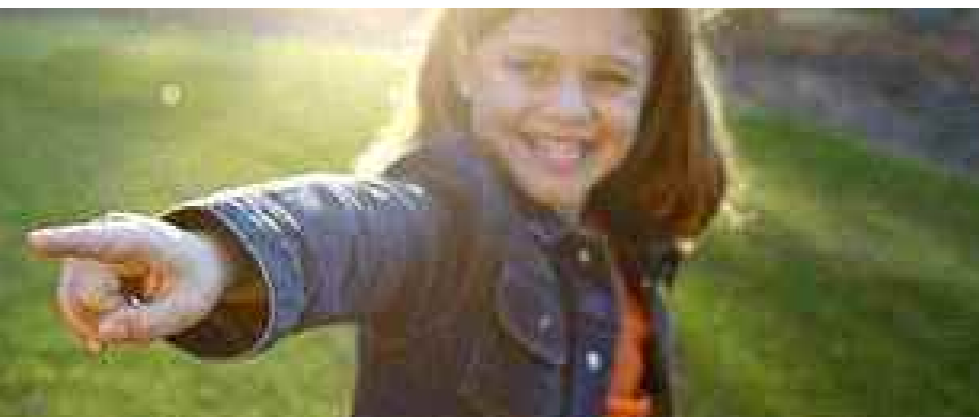
What's going on?

Human activity in the modern world has an impact on our environment. Over the past 50 years the situation has seriously aggravated: global warming, loss of biodiversity, exploitation of natural resources, mounting volumes of waste, increased use of chemicals... these are all issues that can, sadly enough, cause a threat to our environment.

But have we ever stopped for a minute to ask ourselves why all this is happening? Who is responsible for this? As European citizens we are indeed concerned about our environment, but we tend to be critical toward third parties such as industry or governmental institutions. We often forget that we also have a great impact on the environment, in the way we live and the things we do. By making the right choices in our daily activities, we could change our impact on the environment into a positive one. Small changes in our daily habits could collectively have a huge, positive effect on the environment.

Is anyone doing something about it?

EU policy has successfully reduced a number of pressures on the environment and national governments have taken substantial steps to implement EU legislation. Environment protection has become a top priority in nearly all policy areas. Industry is also making environment one of their top priorities and is introducing measures to perform effectively while being energy efficient and respectful toward the environment. However, not only the EU, national governments and industry have a role to play here. Most importantly, as European citizens, we too have the power to help relieve the pressure substantially.





So **what** can we do?

The small things we do every day can collectively have a great impact on our environment. By making the right choices, whether at home, at work, or at the supermarket we can become an important contributor to help reduce the burden on our environment.

This is why we have created the Environmental Toolkit, to help you change your ways, behave in an environmentally friendly way and **clean up your act!**

What is the Environmental Toolkit?

The Environmental Toolkit will help you change small habits and make a big difference. The toolkit includes Jiffy's Eco Quiz, which will provide you with some dos and don'ts of being environmentally-friendly, and a Toolkit Database, where you will find even more information to be environmentally friendly every single day.

Why should I use it?

Look at it this way: when we choose to take the car rather than the train, for instance, we generate up to 30 times more CO₂ emissions on average. When we choose to leave our electronic appliances on stand-by mode rather than switching them off completely, we continue to use energy and our electricity bill goes up 10% in a year. Well, we can do something about it, by simply changing those small ways in our daily lives. It takes a minimum effort, but creates an excellent effect.

So, **when** do I start?

You already have! Reading this brochure is going to help you change your ways, become more environmentally friendly and, in addition, save you lots of money!

↗ Energy



Since the start of the 20th Century the Earth's temperatures have been rising fast - they have increased by an average of 0.6°C worldwide, and by 0.95°C in Europe. The global warming rate has now reached 0.2°C per decade - a very rapid change by historical standards. The impacts of this warming are already being felt and are expected to become stronger as temperatures continue to rise.

Climate change is a phenomenon that we hear and read about more and more every day. But what does it exactly mean? And, why is our climate changing? What's more, can we do something about it?

CO₂ and other greenhouse gases (GHG) occur naturally and help keep our planet warm. Without them, the average temperature on Earth would be some 30° lower. However, human

activities such as heating households, watching TV or driving cars need energy that is derived from burning fossil fuels, which in turn generates CO₂. This additional GHG causes the Earth to heat up unnaturally, which is what we call global warming and its overall effect is climate change. This is now confirmed by a large majority of the world's leading climate experts.

In the EU, industry (including energy production) is responsible for 48% of all GHG emissions. Transport accounts for another 21% and agriculture for 10%. The remaining 17% of GHG emissions is actually produced by households and small businesses. But we are also responsible for the emissions of the other sectors - for example, households alone use 30% of the electricity consumed in the EU, and half of the emissions from the transport sector come from private cars!

Some facts

➤ In Europe the average annual number of weather and climate-related disasters, such as storms and floods, doubled over the 1990s compared with the previous decade.

➤ Around Europe sea levels have risen by between 0.8 and 3 mm annually over the past 100 years and the rate of increase is projected to be 2-4 times higher this century.

➤ The extent of snow cover in the northern hemisphere has dropped by 10% since the mid 1960s. Three quarters of the glaciers in the Swiss Alps are likely to disappear by 2050.

The Kyoto Protocol

The United Nations' Kyoto Protocol, ratified by 148 governments and entered into force in February 2005, requires 36 industrialised countries to reduce or restrict their greenhouse gas emissions mostly between 5 and 8% below 1990 emissions levels by 2012.

European Climate Change Programme

In 2000, the EU launched the European Climate Change Programme to introduce measures to help Member States reduce GHG emissions in cost-effective ways and thus meet their commitments under the Kyoto Protocol. Within the Programme, the EU has developed and implemented a company-level Emissions Trading Scheme for CO₂ emissions: Each Member State has granted a limited amount of CO₂ emissions to their industries, which are able to buy and sell these emissions between each other in order to keep compliance costs low. This scheme covers almost half of the EU's CO₂ emissions.

There are more than 40 other measures under the Programme. For example: targets to increase the use of renewable energy sources; energy efficiency standards for new buildings; car manufacturers selling passenger cars in the EU have voluntarily commitments to reduce CO₂ emissions of their cars; etc.



How can I save energy?

There are many ways you can save energy without having to drastically change your habits. Jiffy has gathered a few tips, but you can find many more in the Toolkit:

➤ Switch off the light!

At home, many of us have the tendency to leave the light on when leaving a room. The more electricity we consume, the more fossil fuels are burned to be able to produce that electricity, and the more CO₂ is emitted into the atmosphere. The simple gesture of switching off five lights in your house every evening for one year will save you, on average, 60 euros on your electricity bill!

You can also save energy by buying energy-saving light bulbs – they are five times more energy-efficient. Energy-saving light bulbs are slightly more expensive but this is largely compensated by their reduced consumption and longer lifespan – on average 10 times longer.

➤ Energy-saving household appliances!

Refrigerators represent, on average, 25% of electricity consumption in households. Energy is lost whenever we leave the door open, if the fridge is not defrosted regularly, and whenever we place hot food in the fridge. In fact, 3 mm of frost in your refrigerator can make it consume an extra 30% energy. If you have to buy a new refrigerator, choose a self-defrosting one.

Make sure your household appliances are graded "A" under the mandatory European energy-efficiency label. For instance, a washing machine with an A grade consumes half as much energy as a standard one.

➤ Dry naturally!

Drying clothes naturally is by far the best way to do it: it consumes no energy, and does not damage them! If you can't avoid using a tumble dryer, be sure your clothes are well spun first and then use the medium instead of the high setting. Overloading or under loading your dryer leads to higher energy consumption. Also check the filter regularly to ensure maximum energy efficiency.

➤ Turn your thermostat down!

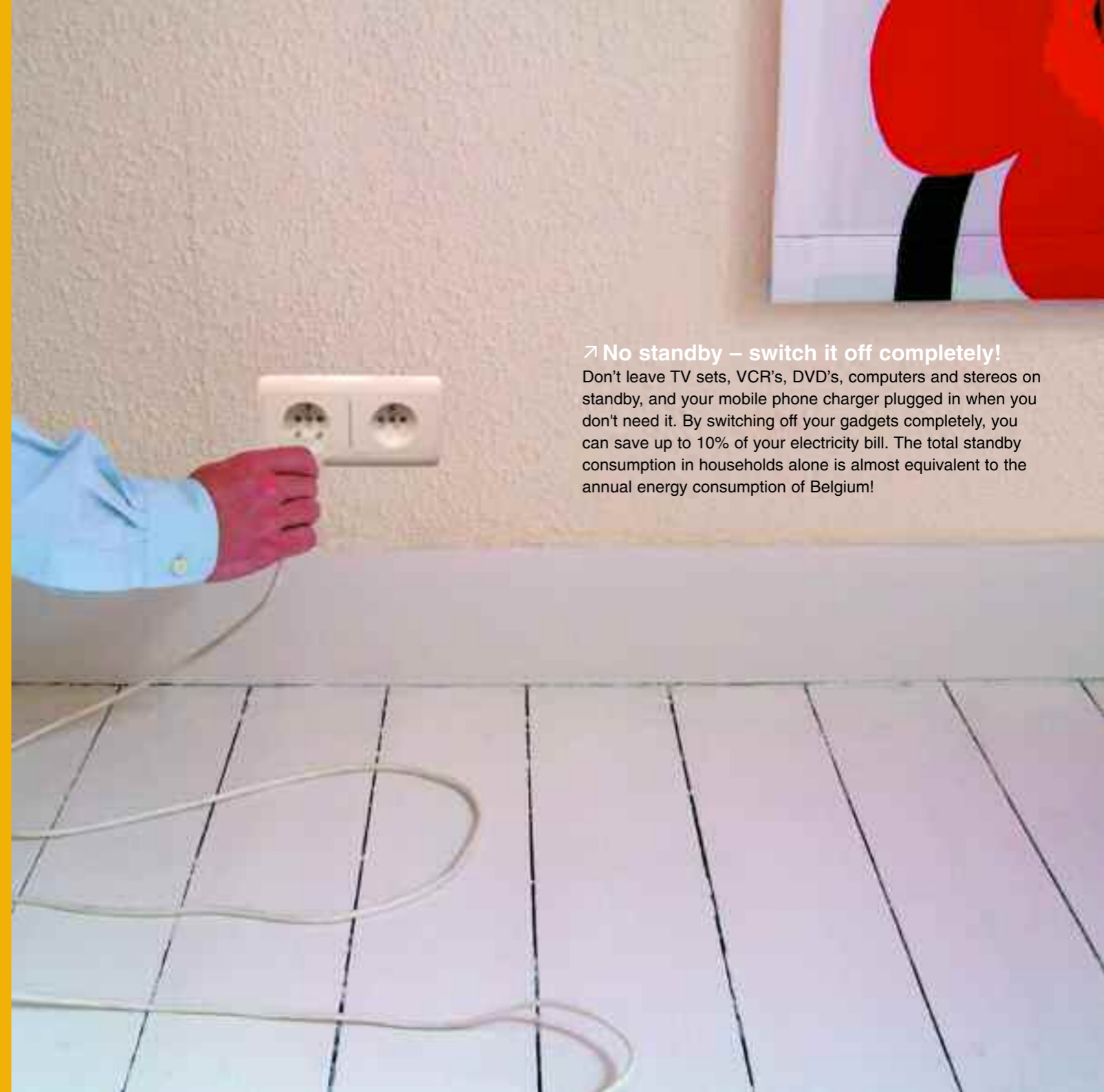
Around 60% of the European household's average energy consumption goes to indoor heating. If we turned down our thermostat only 1°C, we would hardly be able to tell the difference, but we would save 7% on our annual electricity bill.

➤ Insulate your home!

Make sure your home is well insulated. For instance double-glazed windows can prevent up to 20% of heat loss – on average, they will pay for themselves in 6 years. There are other simple measures to avoid heat loss in homes, such as drawing the curtains in the evening or airing a room only for a few minutes, which is sufficient to renew a large quantity of indoor air. You can also easily insulate your hot water tank by wrapping a lagging jacket around it.

➤ Keep a lid on it!

Covering the casserole while the food is cooking can help save up to 60 to 70% of the energy needed for preparing the dish. Cooking in a pressure cooker also reduces energy consumption. And boil only as much water as you need to make your cup of tea.



➤ No standby – switch it off completely!

Don't leave TV sets, VCR's, DVD's, computers and stereos on standby, and your mobile phone charger plugged in when you don't need it. By switching off your gadgets completely, you can save up to 10% of your electricity bill. The total standby consumption in households alone is almost equivalent to the annual energy consumption of Belgium!

Today, almost 80% of Europeans live in urban areas. The hustle bustle of big cities and the heavy traffic on roads and motorways have a great impact on air quality and therefore on our health, bringing about respiratory problems and allergies. EU and national legislation have made much progress in tackling air pollutants such as sulphur dioxide, lead, nitrogen oxides, carbon monoxide and benzene. For example, sulphur dioxide emissions in the EU-15 have been reduced by over 60% since 1990 and nitrogen oxide emissions by 21%. However, air quality continues to cause problems. The main pollutants of concern are particulate matter and ground-level ozone. Particulate matter is estimated to result in the premature death of 348,000 Europeans for the year 2000, and ground

level ozone 21,000. On average, the life expectancy of Europeans has been reduced by 9 months. The negative impact due to air pollution will go down somewhat in Europe, following the present air pollution policies, but will remain large in future if no further action is taken.

Apart from producing CO₂ emissions, road transport is a heavy contributor to air pollution. Although car manufacturers have achieved important emission reductions by producing energy-efficient cars, there are more cars on the road every day that continue to keep road transport as an important source of pollution.

Particulate matter and ozone

- ↗ Particulate matter is mostly formed from combustion-related sources, but it is also formed from gaseous pollutants such as nitrogen oxides (NOs) and volatile organic compounds (VOCs).
- ↗ VOCs include sources from the petrochemical industry, petrol, motor traffic, solvents used in paints and many household products. There are also natural sources of VOCs such

as forest trees like conifers. Nitrogen oxides are primarily produced by the combustion of fossil fuels, e.g. in motor engines and power plants.

↗ Ozone is a gas created by a photochemical reaction between two groups of chemicals – volatile organic compounds (VOCs) and oxides of nitrogen – under the influence of sunlight and heat. This is why ground level ozone tends to increase during the summer and has adverse effects on human health (throat and eye irritation, or breathing difficulties, especially amongst susceptible groups like asthmatics, children and the elderly). In contrast, the presence of ozone in the stratosphere protects life on Earth from the sun's dangerous UV-rays.

How can I help clean the air?

It may be hard to believe but we can help clean the air from particulate matter and pollutants whenever we drive to work or school, use our heater or air conditioner, or even when we clean our windows. Here are some tips to help you do it right:

- ↗ **Why not go for local produce!** Transporting goods by plane from one side of the world to the other generates 200 to 400 times more GHG than transporting them by truck over 50 km. Try to eat local products that are in season: they are good for your health, they are much tastier and transporting them doesn't generate as many GHG.



➤ Carpool or take public transport!

A great solution for longer journeys is carpooling or public transport, since more people can be transported in one single vehicle. Doing a 1,200 km trip by car will generate the same amount of CO₂ emissions as a train going all around the world!

➤ If you have to use your car...!

- Letting your car warm up while stationary can make it consume up to 50% more fuel. If you start driving immediately, the engine will reach its working temperature quicker.
- Try to have the right tyre pressure: if the pressure is down by 0.5 bars, you need 5% more petrol and you also give off more pollution.
- Driving with the air conditioner turned on increases its consumption by 30%; driving with windows open only increases consumption by 5%.
- Using a roof rack on your car can increase fuel consumption by 20 to 30%. Bicycles are better off when attached at the back of the car.
- 4th or even 5th gear is the most economical in terms of fuel consumption.
- Respect the speed limit: you will save petrol, produce less exhaust fumes and of course drive more safely!

➤ Look for the flower!

The Eco-label is a voluntary scheme designed to encourage businesses-to-market products and services that are environmentally friendly. Products that carry the flower label are VOC free and therefore help improve indoor air quality. Look for the flower on laundry detergents, tissue paper and indoor paints and varnishes or vacuum cleaners, televisions, footwear and bed mattresses!



➤ Don't drive...ride!

27% of the particulate matter emitted in Europe in 2001 came from transport. On average, one out of three journeys we do by car is to go only as far as 2 km. Taking the bicycle out for a ride not only helps reduce traffic but also emissions. Biking to your local newsagent or to the bakery is healthy and also doesn't cost any money!



Globally, water is becoming one of the scarcest natural resources: less than 1% of the planet's water is available for human consumption and more than 1.2 billion people have no access to safe drinking water. Fortunately, across Europe water is generally plentiful, although in some areas in southern Europe water stress and drought are increasingly common. While the quantity of water on the continent is not so much of an issue, the quality and management of our water is far from satisfactory and faces considerable pressures.

Approximately 35% of the water that comes out of our taps comes from surface waters (lakes, rivers), of which 20% is seriously threatened by pollution. The remaining 65% comes from groundwater also called 'aquifers', which hold the rainwater that seeps through the soil.

The quality of drinking water in the European Union is generally very good, and tap water is safe to drink nearly everywhere. However, all water must be treated before it is safe to drink, as it may be contaminated by substances that can be washed into groundwater and surface water (fertilisers, pesticides, industrial toxic chemicals or germs that may have entered from human or animal waste). The treatment of water is a costly and energy-consuming process.

Reducing water pollution is important not only because we want to use the water, but also to protect the plants and animals that live in our rivers, lakes and seas. Although the EU has done a lot to reduce pollution over the last 30 years, there is still much to be done and we can each play a part.

You may be surprised to know that industry, although it is responsible for some pollution, is not considered to be the biggest culprit. It is relatively easy to legislate so that industry is forced to reduce water consumption, improve efficiency and reduce pollution. The biggest problems are caused by the use of fertilisers and pesticides. As water comes into contact with these, it carries them into the rivers and then the sea. Nutrients, mainly from fertilisers and agricultural runoff (manure from

animals), are one of the main causes of surface water pollution. They cause an accelerated growth of algae and higher forms of plant life which starves other plants and animals of oxygen, light and space. This phenomenon, called eutrophication harms our biodiversity and pollutes our surface waters. A visual sign of 'eutrophication' is the presence of excessive algal blooms.

How can I use water more responsibly?

On average, 7% of the drinking water we use actually goes to drinking and cooking. 22% is used for dishwashing and laundry, 20% for sanitary systems, 39% for baths and showers, and 6% for car washing and watering the garden. Jiffy has gathered some great tips for you to use water in a more responsible way:

↗ Rain, rain ...don't go away!

Rainwater is the perfect alternative to drinking water. You can collect rain water by placing empty buckets or other recipients outside. You can use this water to wash your car or water the garden. Keep in mind that the best time for watering your garden is in the evening.



➤ Check your taps!

A tap that drips all day wastes around 25 litres of water. If we turned the tap off while brushing our teeth we could save up to 12-15 litres. If all Europeans turned the tap off whilst brushing their teeth, the water saved in one year would fill up 6,000 Olympic swimming pools. A shower uses 4 times less water than a bath. Take a shower, be eco-friendly and save money on your water bills!

➤ Wait or use half load function

Try to run your washing machine and dishwasher when they are full. If not, use the half load function of your washing machine or dish washer when you have less to wash. A half load will not only help save on water but will also save on electricity.

➤ Paints, varnish, medicine, oil...

Do not throw any chemicals down your sink – no paint, varnish, insecticides or medicine. Avoid throwing any oil down your sink – no frying or seasoning oil, and certainly no engine oil! All these products can damage the functioning of your sewage treatment by killing the fauna or by blocking the pipes. Check if there are collection centres for medicine and oils in your neighbourhood, so you can take your old medicine and used oil there.



➤ Check your taps!

A shower uses 4 times less water than a bath. Take a shower, be eco-friendly and save money on your water bills!

Biodiversity refers to the diversity of life in all its forms – the diversity of species, of genetic variations within one species and of ecosystems. Biodiversity provides a wide range of essential services like food and clean water and pollination. It also keeps a check on climate change, mitigation of natural hazards, etc. The financial value of the goods and services provided by ecosystems and species – by life on Earth – has been estimated at 26 trillion euros per year – nearly twice the value of what humans produce each year.

It has been estimated that the current global extinction rate for biodiversity loss is 1,000 to 10,000 times higher than the natural background extinction rate. The principle causes of this loss are intensive production systems, altering habitat for construction, extractive industries, over-exploitation of natural resources via fishing and hunting, pollution and global climate change.

The ecological footprint of a European covers 4.97 ha*. If today's 6 billion human beings were all to live and consume like Europeans, we would need almost 3 Earth's. But we have only one!

Contrary to widespread belief, today the main problem generated by current patterns of resource use is their environmental impact, and not the possible scarcity of certain non-renewable resources. For example, the seemingly limitless availability of fossil fuels, and consequently their extensive use to generate energy, has produced some of the most serious environmental problems: air pollution and global warming. In the case of renewable resources (plants, fish, animals), scarcity in itself constitutes an environmental problem. For example, the extinction of certain species means loss of biodiversity, and land take means loss of habitats.

Each year in the European Union alone we throw away 1.3 billion tonnes of waste – some 40 million tonnes of it is hazardous. This amounts to about 3.5 tonnes of solid waste for every man, woman and child. Add to this total a further 700 million tonnes of agricultural waste and it is clear that treating and disposing of all this material - without harming the environment - becomes a major headache. By 2020, the OECD estimates that we could be generating 45% more waste than we did in 1995. Further, most of what we throw away is either burned in incinerators or dumped into landfill sites. Both waste treatment methods have a negative impact on the environment. The waste discharges CO₂ and methane into the atmosphere, and chemicals and pesticides into the earth and groundwater. Although waste is inevitable, we can all do our bit to reduce our own waste.

Some facts ...

- In Europe, some 42% of mammals and 45% of butterflies are under threat. 80% of fish stocks face collapse or are of unknown status due to overfishing.
- In Europe, common farmland and woodland bird numbers declined by 71% between 1980 and 2002.
- But 18% of the (EU15) territory now enjoys protected status as part of the EU's Natura 2000 network.

Did you know?

Hidden waste generated for each item produced

- 1 kg aluminium **5 kg**
- A toothbrush **1.5 kg**
- A coffee machine **298 kg**
- A mobile phone **75 kg**
- A computer **1,500 kg**
- A gold ring **2,000 kg**

Source Wupperstal Institut (www.wupperinst.org)

Note: the website does not represent the European Commission's voice, nor is it managed or updated by the European Commission. It is possible that the site is not available in all European languages.

*To find out more: www.ecologicalfootprint.com

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How can I reduce waste?

On average, one European produces 1 kg of waste per day. To reduce this large quantity, the rule is "Reduce - Reuse - Recycle":

➤ REDUCE

Minimise packaging by buying in bulk or buy reusable products:

- Buy loose fruit and vegetables instead of pre-packed.
- Buy concentrated products that use less packaging.

➤ REUSE

Try and find other uses for things, instead of throwing them away:

- **Refurbish:** give your sofa a new trendy look instead of buying a new one.
- **Repair:** get your shoes re-heeled so they last longer.
- **Find a new use:** old documents as draft papers or plastic containers for storage.
- Give it away or sell it second-hand.

➤ RECYCLE

You can sort paper, cardboard, timber, aluminium cans, plastic bottles, glass bottles and jars, electrical equipment, IT hardware, batteries...

There will always be packaging you have to buy and that you can't reuse. For this, try to choose recyclable packaging and sort it. Your old cardboard packaging will be used to make your newspaper, your glass bottles will be used to make new glass bottles, and your plastic bottles will live again as new packaging, building materials or even clothes!

➤ No more wipes!

Disposable cleaning wipes are responsible for 50 kg of waste per year in an average European household. If every single household used them for both hygiene and cleaning, the sum would make an additional 9 million tonnes a year! By using dusters or rags for cleaning, you are not only avoiding all that waste, you are actually giving a second use to something you were about to throw away!

➤ Shop with reusable plastic (PE) bags!

Even compared with a paper bag of similar volume, the production of a reusable plastic bag needs 3 times less water. Moreover, it will release 80% to 90% less GHG and acid gases into the air! If we use a shopping basket we would be minimising our environmental impact even more.

➤ E-waste

Given the speed of technological innovation many of us are tempted to get a new mobile phone, a state-of-the-art TV or a dishwasher. Electronic waste is growing at 3-5% per year, each EU citizen produces around 17-20 kg e-waste per year, and until now 90% of this waste has been land filled, incinerated or recovered without any pre-treatment. E-waste contains substances such as heavy metals and chemicals which can be extremely harmful to human health if not disposed of carefully. From 13 August 2005, consumers will be able to hand in to shops their old equipment free of charge when they purchase a new one on a one-for-one basis.

➤ Buy rechargeable batteries!

Batteries contain harmful chemicals and metals and should therefore be disposed of carefully in the appropriate collection points in your area. Alternatively you could also use rechargeable batteries.

➤ Nature and biodiversity

Being aware, for instance, of the origin of the products we buy can help dissuade companies from marketing goods that harm the environment. Responsible tourism can help preserve the beauty of those areas that we like to visit.

➤ RECYCLE ...

You can sort paper, cardboard, timber, aluminium cans, plastic bottles, glass bottles and jars, electrical equipment, IT hardware, batteries...



JIFFY'S TIPS

Jiffy has a whole range of tips he would like to share with you. Play the Jiffy Quiz and discover more ways to clean up your act: http://europa.eu.int/comm/environment/toolkits/index_en.htm

THE TOOLKIT DATABASE

The Toolkit Database gathers over 140 different websites from all over Europe for you to consult. You can search for a toolkit by country, topic, language, tool and/or public audience. Find out how environmental concerns are being dealt with in your country and how you can be more environmentally friendly at home and in your own town. http://www.europa.eu.int/comm/environment/toolkits/search_en.htm

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Luxembourg: Office for Official Publications
of the European Communities
2005 - 20 pp. - 21 x 21cm
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