

Website at [www.energyneighbourhoods.eu](http://www.energyneighbourhoods.eu)  
**USING LESS IS BEST AND IT PUTS  
CASH BACK IN YOUR POCKET**



Well done to you for getting this far and trying to reduce consumption in your home. This information sheet will provide **specific conservation advice which has been designed to suit Tipperary households**. We hope that it is useful and helps you to reach the 9% target or more.



As we all know using up or consuming energy, food, water and waste at home, using the car and flying produces carbon dioxide emissions. This consumption is depleting natural resources and producing emissions which are causing global warming with impacts on extreme weather events like tornadoes, storms, droughts, floods etc. Did you know that the highest rates of asthma, lung disease, & respiratory problems are found in those communities where coal & gas powered plants are located? Emissions also impact on our health including increased heat stroke, asthma, respiratory illness, skin cancer, cataracts etc.

Below you can find detail on how to reduce your bills and your impact on the environment as we take household energy use first then waste use, transport use, food, water & clothes use.

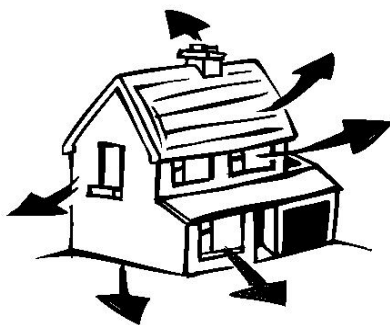
### (1) Energy use

Emissions due to our use of fossil fuels at home come from consumption of electricity, gas, coal, turf, wood and briquettes. Home energy use is a large producer of emissions in Tipperary at approximately one quarter of your total household emissions. Home energy consumption is broken down into several categories for ease of explanation and they are: home heating, cooking, lighting and appliances.

### Home Heating

You can try to do some of the following things and help reduce emissions and save money:

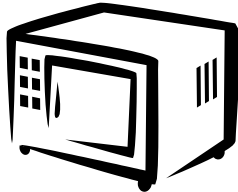
- 1) Reducing internal temperatures will have a big effect. **Reducing your thermostat by 1 degree can put €350 back in your pocket every year.** Other householders who have done this in Tipperary acclimatize within days to a temperature as low as 19°C. Save more money by reducing the temperature of bedrooms and halls to 18°C.
- 2) By ensuring your **hot water tank is well insulated**, you'll put **€20 back in your pocket per year.**
- 3) Controls within your central heating system will also help. Local control of heat can be achieved inexpensively with a **thermostatic radiator valve (€30)** on each radiator. Intelligent central heating controls will also help. A good heating programmer puts **over €200 back in your pocket each year.**
- 4) **Maintain boilers** annually & this saves money on fuel bills.
- 5) Did you know that when you add up the cracks and gaps in the average home they let out the same amount, of your warm internal air, as a **hole in your wall the size of a basketball.** Draughtstrip and **seal your home** and put money back in your pocket. Check windows carefully with a candle, when the flame quivers you have unnecessary cold air coming in. Silicone any gaps and cracks and fit large curtains to window openings. If ventilation inlets let too much cold air in try to fit adjustable/closable covers on them. This will save you lots as 2/3's of what you pay for your heating can leak straight out of your house. Remember that simply closing doors and closing unused chimneys are important also.
- 6) Hot water needs are creeping upwards as power showers are installed in homes. You could easily **save €100** on water heating every year by **taking shorter showers** and not baths.
- 7) **Close all curtains** at dusk to keep the heat in and allow lower temperatures when you are out of the house as this puts money back in your pocket.



- 8) When **sun rooms are warm open connecting internal doors** to let the warmth travel through your home and when you air-out a room do it for 15 to 60 minutes only.
- 9) Cooking and shower air extractors remove a lot of heat from your house so remember to knock them off when the excess moisture is removed.

## Cooking

The cheapest way to cook is with **gas hobs, induction hobs, pressure cookers and microwaves** as this saves energy in comparison with other forms of cooking. Cook as much as possible at the same time using **divided pans or steamers** so that carrots and potatoes would be in the same pot but in different places. Its a good idea to cook several dishes together in the oven, freezing extra portions. It



is very important to choose the correct pan size and cooker ring for what you are cooking. On a gas cooker, the flames should not cover the sides of the pan as if they do the heat travels up the side and away. It conserves energy to always put lids on pans once boiled and to turn down the heat for a gentle simmer. Use little water—most vegetables only need to be just covered. A simple way of conserving energy is cutting food into smaller pieces as this

shortens the cooking time. Cook smaller food items such as chops, under the grill rather than the oven. Also when preparing food use manual utensils whenever possible. Microwave ovens are especially efficient for heating single or small portions and save you money because they just heat the food being cooked and not oven space, air, water etc.

## Lighting

As well as simply turning unused lights off, homes in Tipperary have now installed energy-saving light bulbs (CFL) and have placed these where they are most heavily used. By using just **4 CFL bulbs in this way you will use 80% less electricity and put €320 back in your pocket** within 6 years. Change all of your remaining lights to CFL bulbs and save over €90 per year for the average home. CFL bulbs can be bought for €2-4 in many shops now. If you are buying lights have a look for LED lights as they also conserve energy and shed attractive light.



## Electric appliances



Energy labelling – is a really good help and the energy efficiency of a model is shown on a scale from A to G, where A is best. Other important properties such as noise and volume, or how well the machine washes, dries or washes the dishes is also shown on the Energy Label. If you want to find out how much electricity an appliance uses log onto [www.sust-it.net](http://www.sust-it.net) . This is a very useful website which will allow you to find the main energy hogs in your home. The biggest users of electricity

around the home are the tumble dryer, the refrigerator, the washing machine, the dishwasher and the plasma screen TV. Your Energy Master has an energy meter, so borrow this and this will show energy use in your home in real time. If you are not changing your washing appliances please make sure to run them at 30°C or on the energy saving program.

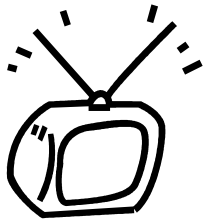
Save money by keeping your fridge or freezer full – if you do not have enough food you can fill empty gaps with boxes. If you leave the freezer door open for one minute it can take up to half an hour to get it back to the correct temperature. Therefore when shopping just load the fridge and freezer by opening and closing the door once. Using a simple thermometer set the right temperature in the freezer (-18 °C) and the fridge (-5 °C) and defrost the freezer as soon as the layer of ice is 3-5 mm. An easy way to help your fridge run more efficiently is to clean the coils, which dissipate heat from the fridge. Keeping fridges and freezers in unheated rooms can save you lots of money too. **If you have to buy new more efficient fridge freezers can put €60 back in your pockets every year.**

We need to kill standby for example take a family watching 4 hours of TV per day and compare a 28 inch old TV (no standby) versus 50 inch new Plasma TV (standby for 20 hours (20+4=24 hours)).

**New TV** 190W x 4h + 10W x 20h = 277kWh+73kWh = **350kWh** releasing 187kg emissions

**Old TV** 140 W x 4 h = **204kWh** releasing 108kg emissions

Every year you would have to spend about €20 more with the new TV and you emit 80kg more CO<sub>2</sub>. The old TV also needs to be recycled. If you are replacing your TV buy a small liquid crystal display (**LCD**) screen (19-20"). It will save the household 60kg per year in emissions and lots of money. Big flat-screen plasma TVs – best avoid them. Digital set-top boxes like sky boxes are big users of power, even when not actually working using a lot of continuous power every hour on standby. Best knock them off with the TV. If you watch a film on a **DVD player** for two hours then more electricity is used on standby than when in use. Games, consoles and TV's are good but what's happened to cards, monopoly, reading books.....



Using **spare rooms in winter for drying clothes, and clothes lines** in summer instead of tumble dryers, puts lots back in your pocket. Line drying your washing saves approximately €1 for each load. If you feel you must use a tumble dryer always make sure it's full. You can put over **€50 back in your pocket** each year by turning your washing machine dial to **30 degrees centigrade** rather than 40. Choose energy efficient washing machines and full loads and save loads each year.



A **Bye Bye Standby System** is a device to cut wasteful standby use of electrical appliances. This small piece of electronics plugs into a wall socket. Your appliance(s) then plugs into this. The householder uses a remote control to cut the power to the appliance(s). When going to bed it is a simple matter of pressing one button which will turn off up to four electronic appliances; computers, TV, DVD, mobile phone chargers etc. A home with a set-top box, a computer, a games console and a couple of others devices such as mobile phone chargers can **save €60 a year** with just one of these devices. You can check [www.maplin.co.uk](http://www.maplin.co.uk), [www.naturalcollection.com](http://www.naturalcollection.com), Lidl or Aldi. Or go to a reputable electric store like Maplin stores, nationwide, they stock this and it costs about €30. **By turning everything off at the wall emissions from electricity can be reduced saving hundreds of Euro.** What can you turn off and save? TV, microwave, chargers, transformers etc. Extension leads can be useful here and make 'turn-off' convenient.



When using a kettle only use as much water as you need. **Eco-kettles** cost €45 at [www.ethicalsuperstore.com](http://www.ethicalsuperstore.com) and would make a great present. On average we boil twice the volume of water we need so this could **put €100 back in your pockets per year**. Many more tips are included on these websites:



- [www.ul.ie/lowcarbonfutures](http://www.ul.ie/lowcarbonfutures)
- [www.100ideashouse.com](http://www.100ideashouse.com)
- [www.sei.ie](http://www.sei.ie) and then got to 'your home'
- [www.est.org.uk](http://www.est.org.uk)
- [www.change.ie](http://www.change.ie)

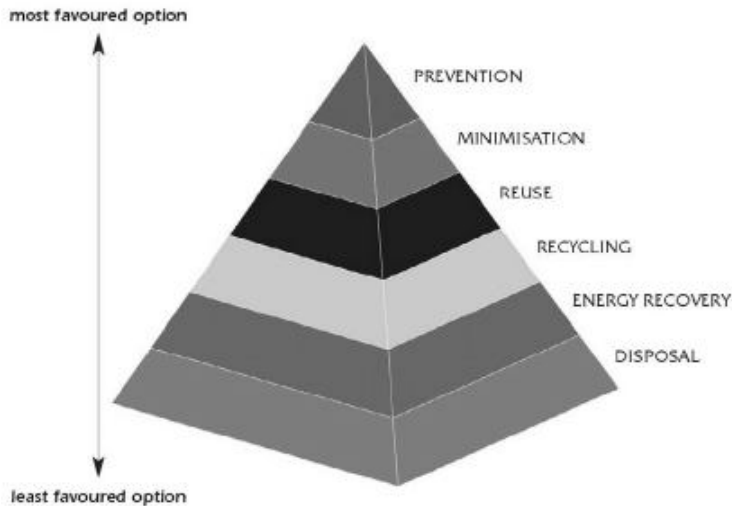
**Case Study: Mr and Mrs X, An example of low energy use within a Tipperary home**

One family, who wish to remain anonymous, have been trying to save on energy and have extremely low carbon dioxide emissions from their home in Ballina, Tipperary. Their energy use and emissions are over half that of other Tipperary residents. They have reduced emissions painlessly by changing their habits. Habits such as no tumble drying and washing at 30°C have helped them conserve energy. They are now busy carrying out changes to their home in order to reduce further emissions. Amongst other things they explained that each floor of their home is on a separate thermostat allowing individual and cost effective control of heating. They said that the next job on their 'to do list' was fitting thermostatic radiator valves to each radiator allowing local control of temperature in each room. These small changes will save them hundreds of €each year and help benefit the environment. Well done to this family they know who they are as RTE 1 and its Plobal programme did an interesting piece on their sustainable lifestyle habits and their home [www.ul.ie/lowcarbonfutures](http://www.ul.ie/lowcarbonfutures).



## (2) Domestic Waste

Waste put to landfill rots & causes emissions while recycled waste requires energy to process after we are finished with it at home. The waste we produce makes up at least 1/5th of our emissions. Approximately one half of the average persons waste is recycled & the other half goes to landfill.



**Our recycled waste is mainly exported to countries like China, Spain, England, & Belgium.** Our waste habits are responsible for a column of carbon dioxide one square metre in extent, sitting on top of each wheelie bin & extending upwards into the sky for 1.5km. If there are three people in your home this extends to almost 5km & that's all out of one bin in one year! The best option to the left is prevention and the worst is disposal.

### Prevention

It is clear that we need to prevent waste accumulation. Simple things like bringing your own bags to the shop & buying items with no packaging. Various ways of reducing our waste & its resultant emissions are displayed in the pyramid which shows prevention of waste is the best way while landfill is the worst. Reducing waste volumes helps:

- To reduce our global warming impact.
- To protect wildlife habitats.
- To reduce the demand for natural raw materials.
- To reduce the need for landfill space.
- To reduce our refuse bills.

### Case Study: Family X – Domestic Waste Prevention, Reduction and Composting

Many residents are behaving sustainably by not producing much waste or refuse. This Tipperary household is one such home where waste volumes and emissions are close to 1/4 of that of many others. They compost and also buy fresh produce with very little or no packaging at the local farmers market. They do not use cans at all and feel this cuts their waste volumes down hugely. They have some fruit trees and sometimes grow some vegetables and this further reduces packaging volumes. Why buy heavily packaged fruit and veg from China or South Africa when you can grow and pick it in your own back yard. Fruit trees require very little space and can add to the biodiversity of your garden.

If there are times we cannot prevent waste then waste diversion into landfill & into recycling or reuse is important. Recycling has carbon dioxide emissions too due to the huge distance this waste is carted around the globe & due to the energy intensive conversion of this waste into something useful. It is for this reason that prevention, reduction & re-use are better than recycling in the pyramid above.

- Only buy what you need - buy more & you'll throw it out!
- Drink tap water instead of bottled water - keep a jug in the fridge
- Send emails whenever possible - never print them out.
- Put as note on your letter box – no junk mail please!.
- When you next need to buy a vacuum cleaner with no bags



## Reduce

We need to reduce the overall amount of waste we produce. For example, when you're in a supermarket, don't bother using a plastic bag for a bunch of bananas. Also many Tipperary residents are composting and some other tips are:

- Avoid buying heavily packaged goods & buy concentrated products that use less packaging. Buy products such as washing powder, cereals, yoghurts, milk etc. in large containers to reduce packaging.
- Try to grow your own and/or buy loose fruit & veg instead of pre-packed.
- Use refillable & rechargeable products for example ink pen, batteries etc.
- Choose products in packaging that you know can be reused or recycled.
- Use reusable or recycled products wherever possible.
- Take your reusable shopping bags with you to the shops every trip.
- Try to get off mailing lists for junk mail, faxes & emails.
- Use & refill durable drink bottle.
- Use & refill durable yoghurt container.
- Try to keep your bin from filling up.
- Dogs are a useful way of reducing cooked kitchen scraps/waste.
- A floor or wall can crusher can reduce the space cans take up by 70%. Suitable for soft drinks & steel cans.



## Reuse

Have you ever reused an empty ice-cream tub for storing leftovers instead of just throwing it out? By reusing items, we save money because we reduce our waste volumes. Reusing items is quick & easy to do — in fact, you're probably already reusing a lot of household products so see what else you can do.

- Give unwanted clothes, furniture, bric-a-brac or books to family, friends & charity shops. Don't forget to buy from charity or second-hand shops too & pick up bargains.
- Buy a paper & cardboard briquette maker from [www.naturalcollection.com](http://www.naturalcollection.com) & make your own fuel.
- Choose reusable, washable napkins not disposable ones.
- Bring old glasses back to the optician for use in the developing world.
- Refurbish your sofa instead of buying a new one.
- Mend clothes & get shoes re-heeled so they last longer.
- Buy products with refillable solutions eg. washing powder, detergents, salt & pepper mills.
- Look for long lasting & energy efficient appliances — keep them well-maintained to increase their life cycle & repair them when necessary.
- Reuse scrap paper for writing notes.
- Use washable dishcloths instead of disposable wipes or kitchen towels.
- Take your packed lunch in a sandwich box instead of wrapping it in kitchen foil or cling film. Your lunch box needs to be the right size in order to keep your unwrapped lunch from rolling around.
- Avoid buying disposable products eg. razors, plastic cups, plates or cutlery.
- Reuse empty jam jars & old ice cream tubs for storage or keeping leftovers.
- Don't accept every paper bag you are offered in the shops bring your own.
- Use rechargeable items instead of disposable ones eg. batteries & cameras.
- Reuse envelopes by sticking a label over the old address.
- Pass on old magazines to others like your doctor or dentist's surgery.
- Buy a vacuum cleaner with reusable/washable or even no bags.
- Choose reusable nappies.
- Use Styrofoam or broken crockery as drainage in plant pots.



## Recycling

In Tipperary we recycle a lot of our rubbish – about 50% of the average residents waste is recycled. It takes only 25 plastic drink bottles to make one fleece jacket and over 176,000 fleece jackets could have been made from the amount of plastic sent to Irish landfills in 2001. Many household products can be recycled today like paper, magazines, junk mail, cardboard, aluminium cans, steel cans, plastic bottles, tetrapak's, glass bottles & jars, soft plastic packaging, textiles & clothes, hazardous household waste, timber waste, electrical equipment, batteries, computers, brown goods (TV, radio etc), white goods (fridge, washing machines etc), furniture, fluorescent bulbs, ink jet/toner cartridges & mobile phones. Look and try to buy items using recycled goods in your weekly shopping.

## Composting

Nature produces compost every day and more Irish people are composting now than ever. A lot of your rubbish is kitchen & garden waste & most of this material can be turned into compost by means of a compost heap. Because of this composting can reduce your waste by one third, put money back in your pocket & help your garden. Compost can be used in your garden as a soil conditioner or surface mulch. It not only returns nutrients to the soil, but it improves soil structure & increases water holding capacity & aeration. You can make a compost bin yourself, purchase one from your local hardware store or your County Council. Compost bins cost from €35 (including kitchen caddy) & are available at the Machinery Yard Recycling Centre, Limerick Road, Nenagh or from Waller's-Lot Recycling Centre and Legaun Recycling Centre For further details see [www.homecomposting.org.uk](http://www.homecomposting.org.uk), [www.enfo.ie](http://www.enfo.ie) or Irish seedsavers who run courses on composting for those who would like to learn. Composting speeds up the rotting down of organic materials and can be a cheap & hygienic method of converting waste into clean-smelling garden material. It is important to ensure that your compost bin is correctly constructed & that the compost is properly maintained. Carelessness can lead to problems with flies, rodents & foul smells. Your compost is mature & ready to use when it has a crumbly appearance & a slightly earthy smell. The compost can then be dug into the top-soil of garden beds, spread under trees & bushes as a mulch, or used to make up a potting mix for houseplants or seedling trays.



## Wormeries & Pets

Dogs & cats can be very useful for decreasing your food waste volumes. Their droppings can be added to composters to speed up composting. If you do not have a pet, a wormery will reduce your cooked kitchen waste (landfill) into fine soil. This will help save you money as you reduce your waste volumes going to landfill.

## Useful waste reduction websites are:

[www.raceagainstwaste.ie/take\\_action/at\\_home/](http://www.raceagainstwaste.ie/take_action/at_home/)  
[www.homecomposting.org.uk](http://www.homecomposting.org.uk)



## (3) Travel

### Car Travel



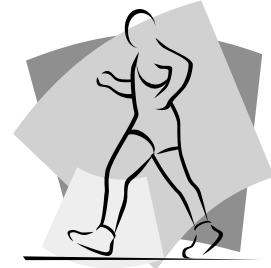
Tipperary residents can feel the benefit to their pocket and their health and fitness by reducing their car journeys of 3 miles or under through increasing their walking, cycling and/or taking public transport. If you travel 3 miles maybe have a number of reasons for doing so; try to shop just once a week using a plan or lists.

### Why use 2 litres of petrol to buy one litre of milk!

There are many small but important ways in which you as a driver can make significant savings on fuel costs and reduce your emissions and pollutants:

- A regular driver can **save a tonne of CO<sub>2</sub> and put €1000 into their pockets** each year by sharing their daily journey with just one person.

- Turn off your engines if you think you will be stopped for more than 9 seconds and this will save your fuel and money.
- Plan ahead by combining trips (shopping, school runs etc.), use less congested routes & avoid rush hour.
- A cold engine uses significantly more fuel than a warm engine – drive off gently as soon as possible after starting your engine and use the choke sparingly: an open choke can increase fuel use 2 fold.
- An energy-aware driving style can save you up to 1/8th on your fuel
- Keep your engine tuned. Have your car regularly serviced.
- Inflate tyres correctly to manufacturer's recommendation.
- Poor engine lubrication, wheel alignment and poorly adjusted brakes can all increase fuel consumption.
- An aggressive driving style can increase fuel consumption by 1/8<sup>th</sup> above average and increase environmental pollution by 4/10's.
- Avoid harsh acceleration or heavy braking also slowing down in good time saves fuel.
- Avoid using your car for short or unnecessary journeys: use public transport, cycle or walk.
- Compared to fuel use at 50mph, fuel use at 60 mph rises by close to 1/5<sup>th</sup> and at 70 mph by close to 1/3<sup>rd</sup>.
- Avoid over-revving the engine, drive in a gear position suitable to road conditions.
- On bends reduce speed in time and accelerate smoothly when you are halfway through a bend. Late heavy braking before a bend & rapid acceleration leads to excessive use of fuel.
- A roof rack can increase fuel consumption by 4/10's and a cycle rack with two bicycles by over 1/8<sup>th</sup>.
- Use air-conditioning sparingly – as it increases fuel consumption.
- Be aware that the use of electrical devices increases fuel consumption.
- Rear screen heater's increases fuel consumption by up to 1/20<sup>th</sup>, so switch it off when the window is demisted.
- Front windows half open consume more fuel at higher speeds so use the air vents instead.
- Do not carry unnecessary weights in the boot.
- The average car emits 180g of carbon dioxide for every kilometre travelled. SUV's can emit a staggering 330g carbon dioxide per km; this is double what many family estate cars use.
- Change your car for a small/medium-sized diesel with manual transmission and your emissions to below 130g per kilometre.
- Buy the most fuel efficient car if you have to have one, and use it sparingly.
- Work from home, whenever possible.
- Use local shops & services, select local schools, take holidays close to home, & bus or walk.



You can check your cars emissions at  
[www.seai.ie/uploadedfiles/Energyandyou/SIMIEmissionsGuide2004.pdf](http://www.seai.ie/uploadedfiles/Energyandyou/SIMIEmissionsGuide2004.pdf).

### Electric Cars

Incentives including a zero rate of VRT, an initial purchase grant of €5,000 and reduced road tax, plus ongoing fuel savings, mean lower costs making e-cars far more advantageous in the long term.

Driving an electric car costs just 1-2 cent per km compared to 10-12 cent per km for conventional cars. Also, due to its lack of moving parts, servicing an electric car will cost substantially less than servicing a conventional car. There are numerous advantages associated with electric cars:

- Benefit of savings in yearly running costs.
- Lifestyle convenience of charging your electric car at home overnight.
- Access to a developing nationwide network of charge points.
- Major environmental kickback.
- Choice of energy supplier and competitive tariff offerings.
- Full 24-hour customer care through AA.

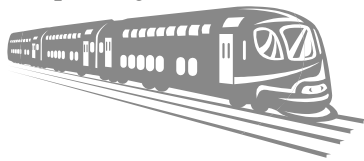
More information on massive cost savings and low emissions can be accessed by clicking on links at <http://www.esb.ie/electric-cars/electric-cars-ireland.jsp>.

### **Case Study: Family Y Sustainable Transport Choices**

This family have made sure that the emissions from their transport habits are smaller than most others in Tipperary. This is due to their careful use of the train and buses for some of their weekly transport. In the past Caroline has used buses for 70 miles per week and trains for about 250 miles per week. This conscientious sustainable behaviour also saves time as she was able to work, read or even rest while in traffic free transit. She says “There are times when buses and trains do not fit into our busy schedule but a small increase in their use would really help reduce our transport emissions in Tipperary” and bring with it the obvious benefits in terms of reduced global warming, increased social and health benefits and traffic relief. The choices made by this family have meant that their travel has caused only 20g of carbon dioxide emissions per mile instead of maybe 300g of carbon dioxide emissions per mile in an SUV car. This is 15 times better for the environment!

### **Public transport**

On average a bus or train has 10 times less impact on the environment than a car per km therefore we need to walk, bus, bike and use trains more - these are sustainable choices. Actual emission figures vary according to the type of vehicle and the number of people using it. Intercity coaches are best – with as low as 20g of emissions per passenger kilometre. These coaches travel long distances and often carry large numbers of passengers. This makes them the best form of travel if one wants to avoid carbon dioxide.



Use of public transport reduces congestion, the effect of rising fuel prices and parking fees. You could try a trip by bus maybe for shopping and test out the buses. Before you go on a bus ring the limerick bus office to verify the bus times at 061 313333 or train times at 061 315555, 06731232, 061 379118.

### **Air travel**

Our air travel is much more polluting than our car journeys due to the massive distances planes travel As well as carbon dioxide, jet engines emit oxides of nitrogen & huge quantities of water vapour which are powerful global warming agents. The contrails are released at an extremely damaging part of the atmosphere. As a result of these extra emissions, it is now thought that air travel emissions are about three times as bad as the carbon dioxide output might suggest. **We know that if you are travelling to a warmer climate then flying is convenient but it is also one of the fastest & cheapest ways to cook the planet.** Air transport is very environmentally costly & cheap seats are exactly that; their negative environmental impact is massive! Travelling by air is an almost unmitigated disaster for the environment. Although an efficient aircraft, travelling fully loaded, can cover miles with less fuel per person than the average car, aircraft travel covers vastly greater distances than cars. One return flight to the US can exceed the emissions of a year's car use. A few flights to remote locations, & we have been responsible for tens of tonnes of global warming gases. Air travel is growing year on year, & although engines are becoming more efficient, carbon emissions are certainly increasing overall. There is no end to this growth—cheap air travel is immensely popular & many governments are willing to build airports to accommodate the extra travel.

Holidaying in Ireland or maybe not travelling as far & using ferries are good alternatives. Some of the quotes of people using ferries instead of planes are: ‘It was a fun holiday’, ‘The ferry was nice and spacious’, ‘We saw a lot more than we would on an air trip’, ‘We had some time in Nice and Lille, including a good breakfast on the way back with another family we'd met’, ‘The view of the Cote D'Azur from the boat was wonderful’, ‘We never had the sense of being herded through the travel process’, ‘There was plenty of time at every stage’ and ‘We got to bring back whatever we wanted’.



## (4) Food Consumption

Food is responsible for well over a third of our emissions in Tipperary. While this is very large, because of its sheer size, we can make small changes and create big reductions in our emissions.

Some facts:

- While we eat 1354g of food per day in Ireland we throw out 451g per day on average (1/3<sup>rd</sup> of our food). Using platters, cooking less and **reusing leftovers** are ways of reducing this.
- About 1/5<sup>th</sup> of the average grocery basket in Tipperary is produced within a 50 mile distance of our homes. The rest of the basket comes from outside of this distance and often being international causes huge transport emissions. A kiwi fruit needs its own weight in aeroplane fuel to arrive on your plate. Ouch! **Buy Irish groceries.**
- About one quarter of our grocery basket is made up of produce which is **'out of season'**. This produce is forced to grow using centrally heated green houses in distant countries and much energy-intensive cold storage is used to get it to your plate. It is best to buy **fresh food** in season or grow your own. Self-sufficiency (gardening) allows you to grow herbs, vegetables and berries in your garden, balcony or even in your window. Co-sufficiency is swapping your excess garden produce with other like minded folk. There are useful organic gardening courses now & check out [giyireland.com](http://giyireland.com). Foraging or picking berries, mushrooms, plants etc is also supported by courses at Irish Seedsavers and Cultivate. Courses also allow enjoyable weekends away.



- **Organic food:** avoids energy intensive nitrogenous fertilizers, nitrous oxide emissions and provides greater biodiversity. Less than 1/5<sup>th</sup> of our purchased food is organic in Ireland and so over 3/4's of our food items use artificial pesticides and fertilisers. Land drains into rivers which in turn run into the sea – **if only fish could speak!**

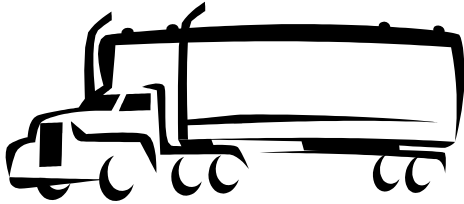


- Locally produced foods require less packaging so your domestic waste and your waste bills reduce too!
- Check how far food has come – for example some yoghurts cause a staggering **3,000 miles** of transport to get to your supermarket shelf. **If you do not know where something is produced is it wise to buy it?**
- The diet of the average Irish person is 2/3's plant based and 1/3<sup>rd</sup> animal based. We all know that meat production on farms requires food.



- If the animal eats plants like grass they convert this to meat internally. This conversion of plant into meat is very inefficient and the animal produces lots of methane which it belches out into the air. Methane is over 20 times a worse global warmer than carbon dioxide. So we need to reduce this methane.
- If the animal eats meal we still have some methane problems but we also have to make the meal. This requires huge resources of land, fossil fuel, processing, chemical fertilisers and pesticides. So we need to reduce here too.
- Each day the average Irish person eats 808g veg.& fruit (contributing just 1/4 of our food related emissions impact) and 546g animal based food (contributing 3/4 of our food related emissions impact). Eat vegetarian once in a while, maybe start with once a week.

- Choose sustainable fisheries as unsustainable fishing causes a lot of problems whereby the fish on your plate has huge food miles associated with it. The global fishing fleet is 2-3 times larger than what the oceans can sustainably support. In other words, people are taking far more fish out of the ocean than can be replaced by those remaining. Try to eat fish from well-managed, sustainable stocks or farms, or fish that are resilient to fishing pressure. Ask where your fish was caught because the negative impacts of eating fish >> the negative impacts of eating beef >> which in turn are greater than those associated with cheese, and cheese has a large negative environmental impact, so going easy on your cholesterol is good for the environment!
- **Rice** is the second most cultivated cereal and over ¾'s of it is produced in Asia and this increase your food miles. Flooded rice fields also emit methane gas which has over 20 times the global warming impact of carbon dioxide.
- Eating less meat will produce less emissions and we need to buy locally produced meat where possible. Many of us love meat so we are not encouraging you to become vegetarian if you do not want to. We can make big reductions in our emissions and savings to our pockets by eating a little less meat and more fruit and veg.



- It does not make much sense to **import** beef from Argentina and export our 'premium' beef to Asia as is the current practice. Its best to make sure the meat you eat is fresh, traceable and local. Next time a restaurant or butcher tells you its

Irish meat you are buying ask to see proof, ask to see the country of origin or better still ask to see the guaranteed Irish label. Better still you can search for Guaranteed Irish suppliers on [www.guaranteedirish.ie](http://www.guaranteedirish.ie). We found one butcher who has complete guaranteed Irish status and that is Twomey Butchers, Railway View, Macroom, Co. Cork, Ireland. You can order their meat online at: <http://www.mtwomeybutchers.ie/> or by phone at: 026 42436. Or check for others yourself. Fresh, local food reduces your emissions and provides jobs too.

- Use the **local** bakery, fish shop and farmers markets for the same reasons.

**A site with lots of good ideas is: [www.guardian.co.uk/environment/treadlightly](http://www.guardian.co.uk/environment/treadlightly)**

### **Case Study: Family Z Sustainable Food Choices**

This family visit the local farmers market and get the benefit of buying fresh, local food which creates jobs. One of their children loves the local chocolate and says 'it makes her weekend' while one of her parents says 'the fish I buy comes from an organic farm on Clare Island and the vegetables are grown locally and I especially like this because it makes jobs in this recession'. Her husband mentioned that recently a restaurant served him up a fresh Irish steak but he knew it was not fresh meat. He complained several times and when he finally got the chef they admitted that the meat came from Argentina. He said 'they had to admit it, as they had no paper work for Irish beef'. This Tipperary family are making sure that they eat the best, that its local, fresh and its creating jobs.

### **(5) Consuming Drinks and Water Use**

While brushing your teeth, rinsing recycling materials, doing the dishes, showering , bathing, washing our clothes and cars we use a lot of hot and cold water. Water wisdom is very important! Our average water use is 180L per/person/day. This is made up of personal care (65L). Toilet (35L), Laundry (25L), Dishes (35L), food and drinking (10L) and others (10L). Some tips to reduce this are:

- (1) A power shower can use 12L/minute whereas a conventional shower can be as low as 5L/minute. A 10 minute power shower uses 150L (10 x 15) while a 5 minute shower uses 25L. If you are careful each day and use a conventional shower you can save over €200 per year.
- (2) Use a full load for your washing machine and energy saving programs or low temperature washes save too. Reducing the amount of washing powder sometimes has absolutely no effect as there have been vast improvements in washing powder effectiveness.
- (3) Its best to turn off unused water in the bathroom when brushing our teeth, shaving, washing our hands. One just needs to rinse soapy hands for 15 seconds to kill germs. This can also be done in the kitchen by taking care when rinsing dishes, cleaning vegetables, and getting a cold drink. Scraping rather than rinsing dishes is effective. .
- (4) Relying on a dishwasher is a good way to save water. If you don't pre-rinse your dishes, running a full load through the dishwasher will save as much as 35% of the water used to do a load of dishes by hand.
- (5) Recycling waste only rinse packaging for recycling in waste or cold water.
- (6) If you have to purchase a new tap:
  - A low flow tap is good..
  - Make sure its easy to set the right temperature.
  - Make sure the tap has a cold start function, it means that the levers start position doesn't mix hot and cold water.
  - Identify your real needs before purchasing.
  - Push and spray taps save water.
- (7) Your choice of toilet can make a big difference in your total water consumption. On average, a single flush toilet uses around 12L of water per flush. An efficient dual flush toilet uses less than half this amount. Switching can save over 7,000L of water per year.
- (8) If you want to keep your old toilet you can install a water saving device or even one or two recycled mineral bottles.
- (9) If you plan to replace a tap or a toilet to reduce water consumption, choose the ones you use most frequently at home.
- (10) Drinks which are environmentally friendly are organic lemonade and other minerals, organic wine, organic beer and tap water as bottled water and drinks cause problems.

## **(6) Clothes**

Shopping smartly and also applying a little imagination to your existing wardrobe can make your clothes last longer and reduce their climate change impact. There is no need to sacrifice your style as charity shops are the in fashion.

Every year we chuck away, on average, 30kg of clothes into landfill or recycling. All told, our clothes purchases account for about 1,000kg of emissions a year - roughly half that emitted by a small diesel car. But buying quality clothes that will last, buying and exchanging second hand clothes, and recycling clothes when we're finished with them can substantially reduce that impact. Another problem is clothes have huge transport miles as many of the retail chains import from India and China. Again we should really be buying locally made or Irish clothes.

Instead of buying stuff:

Second hand, garage sale, antique store, vintage, auction buy and sell.

Borrow, rent. Almost everything can be rented or borrowed today.

Share the lawnmower, high-pressure washing appliance, trailer, car roof rack, bike etc. We don't need to buy everything. To join a car sharing system might be another alternative or even to share your car. Are the kids bored to death of their old toys, films, book, computer or video games? Have you read all you pocketbooks or magazines, or are you longing for a new handbag? Find someone to make a swap with.

Repair and fix. Patch the worn-out jeans for the kids and glue the chair back together. Try to reuse materials and make something new, perhaps make a baby dress from your old favourite shirt. Its best

not to throw stuff away immediately once its broken as perhaps you or someone else can turn it into something useful.

### **One last thought**

Total Life Cycle Assessment measures environmental impact from the cradle to the grave; so if you buy a car for example it looks at where all the materials came from, their mining, the car assembly, road and car maintenance, car use and car dismantling. All the activities in products require enormous amounts of energy such as mining, oil drilling, transportation, production, marketing, purchasing, delivery, in-use and scrapping and dismantling. This type of analysis shows us that it is not always best just to buy, but that repairing, maintenance exchange and sharing are frequently more environmentally friendly than simply buying new stuff..



### **Your Challenge**

Take ideas from this information paper and implement them. Or use your own ideas.

Reduce by 9% or more

Prove it by inputing your energy use data into the website

Tell us what you are doing in an essay and it could win **€100 for you**



### **Rough Work and Notes**