

Acknowledgements

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Table of Contents

Introduction	1
Mother Earth	3
Save Energy	9
Home Sweet Home	10
Cool is Hot	12
Get Smart with Water	13
Switch it Off	14
In the Kitchen	14
Let there be Light	17
Water	19
The Sun	22
Carbon Free Travel	24
Electric Vehicles	25
Aircraft Pollution	26
Waste not Want Not	28
Compost	32
Recycling	35
Dangerous Stuff	37
Looking Good - Acting Badly	37
Biodiversity	43
On the Farm	48
Trees are Magic	50
A Few Suggestions	52
The Lions Vision	53
Lions and the Environment	55





Photo of Wolfe Tone Square, Bantry by Francis Greaves

Introduction

This 'Little Green Book' is brought to you by Bantry Bay Lions Club in the hope that you will fall in love with the amazing planet on which we live and help to avert the extreme environmental crisis which we are facing.

It is 'Little' because it is short, presenting facts and ideas rather than long explanations and discussions.

You can pursue any of the topics through your local library or the Internet.

It is 'Green', because it is about nature and particularly the natural environment of our country, how it is threatened and how you can help.

It is a 'Book' because it wants to be read, 'from cover to cover'. We hope that you will do just that.

Photo Opposite Page by Francis Greaves shows the 'Spirit of Love' in Bantry The Artist Paddy Campbell says this:-

"The two figures convey love, loss, anguish, peace, reaching, letting go......"





Mother Earth

We are truly blessed to live on the most beautiful planet ever known. Placed perfectly within the Solar System, on just the right orbit, warmed by the sun and enriched with water and oxygen, Mother Earth has existed for 4.5 billion years and has supported life for at least six million of those years.

'Modern humans' first emerged about 200,000 years ago and have since enjoyed the bounty of the planet as they built civilisations.

Our planet continues to support our lives through an environment which enables us to produce energy and the many everyday items which we often take for granted.

A Delicate Gift

Over many millennia, Earth has created an eco-system of animal and plant life which is awesome in its beauty and balance. An estimated 8 million species co-exist in our oceans, rivers, land and air. They range from microorganisms, to insects, fish, birds and a glorious array of animals from the newt to the Bengal tiger.

The crowning achievement of nature is that each of these species has a specific role to play in the life of the planet. If they all work in harmony, we achieve natural perfection. If, for any reason, they cannot, our world faces harm.

Harming Nature

Over 6,000 years of recorded history, Humans lived in sympathy with nature. They farmed the land, raised animals, harvested crops and made the items of everyday life (and sometimes war), from the wood, stone and metals which were readily available. Nature





responded by creating even more species and nourishing the environment.

It was not until the 19th Century, when the 'machine age' ushered in the Industrial Revolution, that this balance began to change. Initially there was a huge increase in the use of coal for industry and home heating and this was followed by an astronomical demand for oil, gas and other fossil fuels to power a whole array of inventions from the motor car to aircraft and even space rockets. New manufacturing techniques and new products, from washing machines to laptop computers, also demanded enormous energy supplies.

The Consumer Society arrived.

A Very Hot Planet

We love sunshine and a warm Summer's day, but a world that is just too hot can result in very serious environmental problems.

And Planet Earth is getting too hot to handle.

The Industrial Revolution resulted in a steady but slow rise in global temperatures between 1880 and 1980, but over the past 40 years this rate of warming has doubled. Nine of the ten warmest years since 1880 have occurred since 2005 with five of the hottest years on record experienced since then.

The Villains

'Greenhouse Gases' are the main cause of global warming. Carbon Dioxide and other pollutants get trapped in the atmosphere and absorb sunlight and solar radiation as they 'bounce back' from the surface of the Earth, preventing them from escaping into space.

The 'Greenhouse Gas' family is more than CO2, it also includes methane, nitrous oxide, water vapour and synthetic fluorinated gases.

The huge concentration of greenhouse gases in our atmosphere is largely due to human activity. Modern energy production, based on fossil fuels (gas and oil), spew out billions of tonnes of carbon gas over the decades and this just sits there in our atmosphere, building the 'Greenhouse Effect' which is the principal cause of a warming planet.

The Victims

We are all victims of Global Warming and future generations will suffer more unless it can be reversed, or at least slowed down.

Already our oceans are warming, ice flows are melting, droughts, heat waves, tsunami, hurricanes and other extreme weather events are becoming more intense and more frequent.

These weather events are worldwide and we have already experienced severe storms and flooding in our own country.



If global warming continues at its present pace, the damage to our planet will be irreversible. A rise in sea levels, due to warmer water, could result in the flooding of low-lying coastal areas on this island, making parts of some cities and towns uninhabitable

The Fight Back

If we are to avert the worst effects of Global Warming, we, the people of The Earth, must dramatically reduce the level of carbon gases which we are now releasing into the atmosphere.

At a minimum, we must limit the rise in Global Warming to 1.5 degrees C. by 2040. This will not eliminate Global Warming, but it will delay its worst effects, which tend to cause more severe suffering to poorer populations around the world. If current trends continue, millions of people in economically marginalized nations will be displaced.

Big Brother

The Governments of the world's 200 nations are well aware of the Global Warming crisis and at a meeting in Paris in 2015, most of them agreed to setting targets to lower greenhouse gas emissions and finding alternatives to fossil fuels.

Although much has been achieved to-date, the plan is well behind schedule and another meeting in Glasgow in 2021, set new targets. But some major producers of fossil fuels did not agree to the targets, and as a result it will be more difficult to achieve them.

Many countries have developed their own Environment

Policies and good work is taking place in the EU, North and South America and Africa to reduce carbon emissions and to move towards more sustainable living.

Ireland began its journey towards Net Zero emissions in 2015 with the passing into law of the Climate Act and took another step forward with the Climate Action and Low Carbon Development (Amendment) Act 2021.

This Act embeds the process of setting into Law, binding and ambitious emission-reduction targets. It provides for a national climate objective, which 'commits to pursue and achieve no later than 2050, the transition to a climate resilient, biodiversity-rich, environmentally-sustainable and climate neutral economy'.

It also provides that the first two five-year carbon budgets proposed by the Climate Change Advisory Council should produce a total reduction of 51% over the period to 2030, relative to a baseline of 2018.

Local Authorities must prepare individual Climate Action Plans which will be updated every five years.

Large corporations which produce carbon emissions in any way must also contribute to a successful Zero Carbon movement. To date, some businesses have made a start, but many have not. Some businesses have also employed false claims to create an



impression that they are reducing their carbon, so beware of this practice which is called 'Greenwashing'.

.....And Us

If the war against Global Warming is to be won , we must move from making plans to taking action. A massive team effort is essential. Nations and corporations must take significant steps on a large scale, and just about everyone else must make relatively small changes to lifestyle.

Taking these 'small steps' can be a win-win exercise. We can often save money, enjoy better health and grow our appreciation of nature while simultaneously reducing carbon emissions and saving threatened species of plants, insects, fish, birds and animals.

How to Do It

Opportunities to reduce carbon emissions can be seen in every aspect of our lives, but the most effective practice is to:-

Save Energy

Even though Governments (including our own), are working hard to encourage the production of renewable sources, most of the energy we use is still extracted from fossil fuels, principally oil and gas. If we can help, even in a small way, to reduce consumption of energy in our homes, when we travel or through what we buy, we will have made a contribution to reducing Global Warming.

So let us see where and how we can take action



Home Sweet Home

We love our homes, and rightly so. Be it a one bedroom apartment or a 25 room mansion, our home provides us with a safe haven from the rest of the world. So, we want it to be secure, comfortable, efficient, cosy and warm

But 'Home' is also where we consume most energy for heating, cooking, washing, entertainment and more recently work.

We tend to have a general idea of our home energy use by looking at our regular bills for electricity, gas, oil and other fuels. And we realise only too well how these bills have been increasing in recent times.

So how about reducing that spending and helping the Planet?



The Great Escape

A first step in conserving energy in the home is to stop it escaping.

Every day and night, in the vast majority of Irish dwellings, heat escapes through doors, roofs, chimneys, windows and even letter boxes, ending up warming the garden or the street instead of the home.

We can recapture this escaping heat in many ways, some as simple as blocking up the letterbox or fitting a draught excluder, fixing a badly fitted door or window. We can close doors between heated and unheated rooms and fix a special balloon in the chimney of a fireplace we do not use. Heavy curtains can also regulate energy. Close them to keep the heat from escaping and open them when the sun shines to invite natural heat to enter.

Bigger gains can be achieved by improving the overall insulation of the roof, walls and windows of our homes. This work involves an up front investment, but it will pay back over time through lower energy bills. Generous grants are also available to cover part of the cost

Visit the Sustainable Energy Authority of Ireland website (www.seai.ie) for details.

Over recent decades, new Building Regulations have raised the standard of house insulation so the older your house, the more likely it is to be leaking energy.



Cool is 'Hot'

Finding just the right temperature for our living space can enable us to save money while feeling comfortable. Experts recommend 20C in the living area and 15C-18C in bedrooms and hallways. You are likely to hit your ideal 'warm spot' by turning down the heat until you feel cool and then rising it gradually.

You can also turn off (or down) radiators in rooms you use only occasionally.

And the pay-off; just one degree cooler equals about 10% on your heating bill.

If you have a radiator based heating system, the water involved will be heated by your boiler, so it must operate efficiently. It will need to be serviced annually and it is a good idea to be very familiar with the controls, so ask the service engineer for advice if you need it



Get Smart with Water

We use a lot of energy heating up water, including some that is just wasted. Why fill the kettle when you only need to make a cup of tea?

Your hot water tank just eats energy, so use it smartly. Setting the hot water thermostat at around 60-65C is smart and using an immersion only when you need hot water is even smarter.

A timer on the immersion is also smart and of course you do not want any of that expensive hot water used to heat the air, so fit a lagging jacket to the water tank for a big energy-saving bonus.

Clothing and dish washers are also heavy on energy, most of which it used to heat up water. The trick is to lower the water temperature. If clothes are not heavily soiled, a 30C wash is usually perfect. Try it and be surprised.

Tumble dryers are big energy guzzlers, so dry clothes on a clothes horse or washing line on warm and dry days. If you must use a dryer, try to put heavy and light clothes into separate loads.

Heat When You Need It

There are times when we do not need to heat our home, when it is empty, for instance, because everyone who lives there is at work, school or play or when we are asleep. If we set the timer to start the heating system when we need it and switch it off when we don't, the savings will again pop up on the monthly bill. When switching off the heat at night, remember

that the radiators will continue to heat the surrounding space for around 30 minutes.

Many people also now use smart heating controls to switch heating and appliances on and off remotely from a smart phone... and grants are available to cover part of the cost. (www.seai.ie)

Switch it Off

Burning energy for no good reason would appear to be a 'nobrainer', yet we often do just that by leaving the tv, computer and other devices on 'stand-by' at night or when we are out of the house. And we very often leave lights burning when they are not needed. Just having a routine of 'switching off before locking up', can result in energy saving.

In the Kitchen

'If you can't stand the heat in the kitchen - get out' is a phrase often used when we are challenged.

Kitchens get hot from cooking energy generated by the oven, hob, toaster, coffee-maker, mixer, food processor and any number of appliances and gadgets. We need to cook of course, but we can save energy if we:

- Keep the oven door shut
- Use oven space carefully
- Batch cook
- Cover pots and pans with a lid.
- Match the pot or pan to the nearest-size hob
- Cook by microwave.



Leaving the fridge door open is expensive in energy terms because for every 10-20 seconds it remains open, the fridge will have to work for 45 minutes to regain its previous temperature. The fridge also has to work very hard if it is used to cool warm food. Fridges should also be defrosted at least twice a year if they are to operate efficiently.

Here is one more kitchen tip; turn off the cooker when food is nearly cooked. The built up heat will finish the job.





Let There Be Light

We have a wonderful source of heat and light that comes absolutely free and is available every day. It is called Sunlight.

Even on the darkest days, the sun will light up our homes, it is just a matter of letting it in. You can save energy and money by delaying the switching on of lights until it is really necessary. And the sun, with a little help from the wind, will also get your laundry dry, free, gratis and for nothing.

When you need artificial light choose energy-efficient bulbs like LFDs

Outdoor lighting can be fitted with sensors and timers which enable you to have light just (and only) when you need it

Bath Luxury

There are few pleasures in life that surpass soaking in a hot bath, but like most luxuries, it comes at a price.

A shower typically uses around 20% of the energy consumed to fill a bath. That amounts to considerable expense and energy use. So, enjoy the bath by all means, but regard it as a 'treat'.

Keeping Tabs

We use so much energy in so many activities, that it can be very difficult to know just how well (or badly) we are faring. Energy monitors can tell us how much energy we are using in real time. If you switch on the shower or the kettle, you can see the numbers jump. They are brilliant for getting a handle on where we use the most energy.

Top energy saving tips

- Turn off all your appliances. ...
- Turn your heating down a notch. ...
- Take a shower. ...
- Cook efficiently. ...
- Keep your fridge and freezer cool. ...
- Hang your clothes out to dry. ...
- Use energy-saving gadgets and tools. ...

Another Way....

If our planet is to be saved from the worst effects of Global Warming, we must dramatically reduce the levels of greenhouse gases being pumped into the atmosphere. And that means seriously reducing our use of fossil fuels.

Thankfully, bountiful Nature has gifted us with alternatives and the world community is slowly moving towards switching to these.

In Ireland (as in many countries), we get most of our energy from fossil fuels, with oil and gas powering transport, industry and homes. For instance, we generate more than half of all our electricity from natural gas. We are however moving gradually from fossil fuels to renewable energies for our electricity needs. As recently as 2005 only 6% of our electricity came from renewable sources. Now it is more than 40%.



WWWWW...Onderful

The letter 'W' takes centre stage when it comes to our renewable energy sources. Water, Wind, Waves, Wood and Waste.

But we also use the Sun and Biomass.

After a slow start, our use of these energy sources is growing and now accounts for around 40% of our energy output. This figure is set to grow rapidly over the coming years.

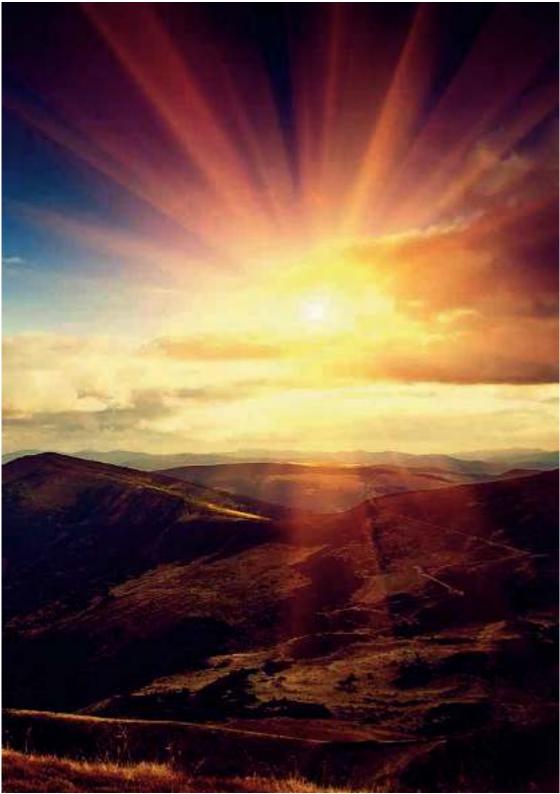
Water:

Ireland was a pioneer in developing hydroelectricity, harnessing the power of cascading water at Ardnacrusha on the Shannon, Turlough Hill in the Dublin Mountains and on several other rivers and lakes. These hydropower stations produce about 2.5% of our energy needs

New technologies also enable us to harvest energy from water in the air and under the ground.

Modern heat pumps control the climate in a building by distributing the heat that is already available in the air. A heat pump is a smart and clean way to heat, cool, purify, and dehumidify your home.

For an average home it currently involves an investment of €12K to €18K which may reduce as competition in the market intensifies. A return on this investment is likely in around a decade.





We can also harvest warm water from under the ground through a geothermal heating system. With most of our land sitting on shallow groundwater, Ireland is an ideal location for this system. It requires some space however and an investment of €11K-€13K.

Grants are available for both of these projects. See www.seai.ie

Wind

Strong winds continuously blow around the island of Ireland (Try standing on Bray Head on a windy day to feel their power).

We have known this for centuries, but we have only recently become serious about harnessing wind power with dedicated modern turbines located both on land and sea.

Waves

A visit to the Wild Atlantic Way will graphically illustrate the awesome power of ocean waves. We have yet to harness this energy in a meaningful way, but watch this space.

Waste

Some of our household waste is now incinerated to generate electricity and we can help this process by segregating our waste and recycling it in a responsible manner. (See Recycling section)

Wood

Not just wood, but also harvest residues, purposegrown crops and organic waste from our homes and businesses, convert to electricity when burned. The process is called Bioenergy and it is used in former peat-burning power stations. Biomass can also be processed to produce fuel for aircraft, ships and large trucks.

The Sun

Ireland is sunnier than many people think. It's just that on many days the sun's rays reach us through a filter of cloud.

We can harness this solar energy through roof panels and other devices, saving on energy bills and reducing our carbon footprint.

At present (2022), solar energy accounts for around 5% of our total requirement, but the graph is moving upwards, with energy providers, farms, industries, public and private building owners and roads authorities turning to solar power for a wide range of services from water heating to signage.

Solar panels on the roof or an average suitable house cost around €7K and the return in energy bill savings is attractive. Increased competition in this sector is also likely to drive down prices. Grants are also available (see www.sai.ie)

Out and About

When we are not at home, we are usually Out and About going places, playing sports, at the theatre or cinema, the club meeting, religious services, school, college and much more.

During most of these activities we are consuming energy as individuals or in groups. Sometimes we have no choice in relation to the energy we use at these times, but often we do.



Carbon Free Travel

Getting from A to B involves energy and how we choose to travel determines how much fossil fuel-based energy we consume.

Some journeys are carbon-free. Walking and running or riding a bicycle. Other journeys absorb significant levels of energy driving a car, riding in a bus or train and flying in an aircraft.

We can however minimise the impact of these journeys on the environment by being smart.

Bus, Train or Car?

A large vehicle like a bus or train, powered by a diesel engine, electric cable or even green hydrogen, will need a lot of energy to complete its journey, but this energy is shared among the passengers. Around 80 in a bus or several hundred on a train or tram.

The same rule applies to a motor car. A single driver uses 100% of the journey energy, a driver and three passengers share the same fuel demand between four people.

Opting for walking and cycling, which are also healthy activities, helps reduce carbon in the atmosphere and so does choosing public transport over the private car.

There are times when travelling by car is an absolute necessity, but there are also times when it is optional. These might include a short walk to school with the children, a light shopping expedition, walking or cycling to an event within 1km of home.



Which Car?

The lower the emissions produced by a vehicle, the better for the environment, and for your bank balance.

Vehicle Registration Tax and Motor Tax, levied on all cars, are now based on the emissions which the vehicle produces. The lower the emissions, the lower the tax.

It pays therefore to research the emissions of a car or other vehicle before it is bought and to choose a vehicle (family car for instance) which does not exceed your needs.



Do not worry! This is an electric car being plugged in!!

Electric Vehicles

The automotive industry is rapidly increasing its output of electrically powered vehicles with the support of many governments, including our own. The Irish Government plans to have 936,000 EVs on our roads by 2030 and to phase out petrol, diesel and gas powered vehicles over the coming decades.

Large investments are planned in public and private charging points and other infrastructure while tax incentives also apply to electric cars and vans.

A Government Task Force is also working on the reduction of emissions on all public transport.

The roll-out of this infrastructure requires much work and money as does the transition to sustainable fuels. EVs are energy-efficient, but at present much of the electricity used to power EVs is generated from fossil fuels

This situation is likely to change significantly over the coming decade.

Hybrids

Many of the benefits of all-electric cars also apply to plugin hybrid electric vehicles which reduce emissions and fuel consumption. Hybrids also use 30 to 60 percent less fuel than conventional cars.

Air(craft) Pollution

Mile for mile, flying harms the climate more than any other form of transport.

For many of us, flying is regarded as essential, but it is worth realising that a family holiday involving a two hour return flight will generate more carbon emissions than running two family



cars for a year. For thousands of Irish families, holiday flights are the biggest single contributor to their carbon footprint.

While aviation accounts for less than 3% of global CO2 emissions and aircraft manufacturers have worked hard to increase the fuel efficiency of their planes, the sector remains a major source of air pollution, principally because of a huge and rapid growth in the number of flights across the skies of the world.

Travelling by air is of major importance to many people, but a good motto is: 'Think Before You Fly'.

Waste Not - Want Not

Waste is stuff we no longer want, so we have to get rid of it, one way or another.

Depending on how we do this, we can help or harm the environment

People living in Ireland produce a lot of waste. More than 14 million tonnes every year. We do this in our homes, our places of work and leisure.

International and national waste policy is drawn up so that we produce less waste, and that the waste we do create is recycled as much as possible. What cannot be recycled should at least serve another useful purpose (such as energy production).

Ireland remains heavily dependent on export markets in managing its waste; 35% of our municipal waste was exported for recycling or recovery in 2018 (over 654,000 tonnes for recycling, 287,000 tonnes for energy recovery and almost 75,000 tonnes for composting). A further 6,000 tonnes was exported for disposal.

In 2018, 38% of municipal waste was recycled, 43% used for energy recovery and 14% disposed to landfill. These rates are a long way from the 2020 target to recycle 50% of municipal waste (increasing to 65% in 2035) and the 2035 target to dispose of 10% or less in landfill

See www.epa.ie



Each and every person in Ireland can contribute to the responsible management of waste by taking a few common-sense decisions and acting on them.

Cut the Waste Flow

Most of our waste is delivered to us, whether we want it or not. Packaging, flyers, shopping bags, bottles, junk mail and many other items, simply arrive in our homes, leaving the responsibility of disposal with us.

So, here are some ideas on how to reduce this unwanted stuff and save money:

- Use reusable shopping bags...and remember to bring them with you to the shop.
- Make a weekly meal plan and shopping list.
- Start composting at home (more on this below).
- Stop using plastic water bottles. Buy one refillable bottle
- Stop buying items wrapped in plastic, e.g. buy loose fruit and vegetables.
- Bring your own refillable container for various foodstuffs, soaps and shampoos etc.
- Use cloth instead of plastic nappies there are easy to use varieties available
- Buy 'previously-loved' (used) clothing, furniture and household items.
- Switch to reusable or compostable alternatives in your home.
- Display a 'no junk mail' sign on your letterbox.
- Buy less.

Collecting Your Waste

Local Authorities must arrange for the collection, disposal and recovery of household waste in your area. In general, waste collections are carried out by private operators every week or two, depending on the type of waste. Some operators collect different types of waste on different days. Many waste collectors use a wheelie bin system to collect waste. You may get several wheelie bins, with each taking a different type of waste. Waste collectors have a colour-coded system for separating household waste. Usually, brown bins are for

organic waste, green bins are for recyclable waste and black bins are for general waste. Your waste collector will provide detailed information about what goes in each bin or bag.

For more information on what to do with your household waste, go to mywaste.ie

Some waste collectors use bin bags. If this is the case, you will need to attach a pre-paid tag to each bag. If you do not add a tag to your bin bag, your waste will not be collected. Your waste collector will tell you where to buy the tags.

Depending on where you live, you may have a kerbside collection or a communal bin system. Collection procedures vary, so you should check this with your waste collector.

The Waste Food Mountain

We buy a lot of food that is never eaten, so it just becomes Food Waste. Every household in Ireland is responsible for 117kgs of food waste per year. That's between €400 and €1,000 per household per year thrown into the bin. And it's not just a waste of money, it is also harming the environment. Food waste sent to landfill releases methane, a greenhouse gas 25 times more potent than carbon dioxide. As with general waste, it is sensible to prevent food waste in the first instance. Top tips to prevent food waste include checking your store cupboard before you shop, having a list, only buying what you need and refusing to be tempted by special offers on perishable foods.

We can also be sensible about food portions. Leftovers add to household waste.

Things like bread crusts and potato skins are 'avoidable waste' which could be used in another way. Try making bread crumbs from crusts and 'heels', they freeze perfectly.

The good news is that food waste doesn't have to end up in landfill. It can be recycled by using the food waste (brown) recycling bin. All households living in a community of 500 or more are entitled to a community Food Waste Recycling service from their waste collector.

Households with a kerbside collection for food waste can simply separate cooked and raw food and leave the bin out as part of the normal kerbside waste collection so it can be sent to a composting site or to an anaerobic digestion plant to make green energy. Visit stopfoodwaste.ie for more resources such as weekly planners, Stop Food Waste recipes and much more.

DIY Compost

Converting food waste into compost at home will create rich soil for growing plants, reduce waste and save money. Composting is the controlled decomposition of organic material such as light garden waste, vegetables scraps, wood shavings, cardboard and paper. It is a means of recovery or recycling of organic matter into compost, for soil improvement or as a fertilizer.

The compost you can make at home is rich in nutrients and full of life and when used in your garden and on





your plants, feeds the ecosystem of the soil and slowly releases nutrients that plants can absorb. Using compost is the foundation of maintaining healthy soil for stimulating all plant growth and creating a beautiful garden.

Home composting will help to reduce the amount of waste that goes to the landfill or incineration and reuses valuable nutrients that would have otherwise gone to waste.

It can save you money because you don't need to pay for a collection service.

Making compost is fun, but it requires some time, effort and knowledge.

For some good advice go to:

https://untamedscience.com/biology/ecology/ecologyarticles/the-science-of-compost/

https://ctc-cork.ie/wp-content/uploads/2014/12/Composting-Guide-2012-Small.pdf

Recycling

Recycling turns waste materials into new useful products or back into the same thing again. Glass bottles and jars are a great example as they are infinitely recyclable. This reduces the use of raw materials, saves energy and helps control air, water and land pollution.

Recycling is a group effort, but we contribute very well by using the Green Bin. We all have our part to play to not only recycle as much waste as possible but to also make sure our recycling is properly sorted. Recycling that includes nonrecyclable items or is contaminated with food waste can end up in landfill.

It only takes a few minutes to rinse out plastic, glass and tin containers and sort cardboard, a simple climate action we can all take.

Soft plastics, such as food wrappers and containers, can now be recycled in the Green Bin with Paper, Cardboard, Cans and Tins. Glass jars and bottles can often be recycled in a small, separate, Green Bin. Charities also have recycling centres, so you can simultaneously recycle and help a good cause.

Currently Ireland recycles approximately 30% of all plastics in use in the country. Recycling targets for packaging are very challenging, by 2025 the target set by the EU is to recycle 50% of all plastic and 55% by 2030.

Large Stuff

Many items, such as old furniture or unwanted bikes, can be upcycled to give them a new lease of life or stripped for parts to create something completely new.

Those items, too big for regular waste collection, such as furniture, mattresses and old fitness and play equipment, can be taken away for recycling by special arrangement or dropped off at your local Recycling Centre. Beware of bogus independent collectors.



Dangerous Stuff

From the cleaning cupboard to the bathroom shelf, homes contain an array of chemicals and other substances that can be harmful to our health or hazardous to the environment.

It is wise, therefore to be aware of the chemicals you use. Do you really need all these different products for everyday cleaning and gardening chores?

When disposing of unused hazardous materials, try to do so responsibly. Check with your local civic amenity site as most will be able to take them or else advise you what to do with particular items.

Looking Good - Acting Badly

We all like to look our best and for most of us, that involves being aware of current fashion trends.

Until fairly recently, this was not a major environmental problem because fashion evolved at a leisurely pace and clothes could remain 'in' for more than a year.

Not any more.

Since the first decade of this century, the evolution of fashion accelerated until it reached today's dizzy speed, with some trends lasting for only a few weeks.

According to an army of pr people, journalists and social media 'influencers', it became 'so lame' to wear the same outfit twice in a similar situation (office, college, night club).

Welcome to Fast Fashion.





Its parents are fabric and clothing manufacturers, whose output grew from 50 billion to 100 billion items between 2010 and 2015. Today that figure is around 120 billion (120,000,000,000). The industry was able to do this by slashing production time and costs, a goal which was achieved by basing production in locations of low labour costs, poor working conditions and 'light' regulation of environmental practice. Slick warehousing and shipping techniques deliver these garments to high street and online retailers who can sell them at most affordable prices.

It is a highly profitable business, now generating sales of more than €27bn a year. However, the 'Fast Fashion' phenomenon sadly comes at a high price to workers, populations of the countries of manufacture and the environment

The first link in the Fast Fashion chain is the fabric used in much of the clothing, notably polyester, which is derived from fossil fuels, contributes to global warming, and can shed microfibres that add to the increasing levels of plastic in our oceans when it is put through the wash.

Next come the dyes used to produce the latest 'fashion colours'. Cheap, toxic dyes, often used in the manufacture of low cost clothing, are a major contributor to the fashion industry being the second largest polluter of clean water globally after agriculture.

Add in the human cost to thousands of low paid employees working long shifts in poor conditions to understand the production picture.

Fast Fashion issues do not end when the clothing arrives in your home, because wearing the garments only a few times, presents a very big disposal problem. Of the 120 billion garments produced globally every year, 70% (84bn) are incinerated or go to landfill.

Even washing these garments is an environmental hazard because polyester and some other fabrics shed microfibres during the washing process, and these enter the oceans of the world causing severe risk to marine life. More than 500,000 tonnes of these harmful fibres are released into the oceans every year.

What to Do?

Many readers of this booklet will want to remain trendy and fashionable in their dress

This does not sit well with Fast Fashion, but it is possible to a least minimise the damage. Try to:

- · Buy new clothing a little less frequently
- Choose garments made from natural fabrics
- Repair slightly damaged garments
- Change the 'look' of an outfit with accessories.
- Pass your clothing to a friend or charity shop
- Pick up a bargain in the local 'reused' shop
- Get a 'guppy bag' for the washing machine, it will catch microfibres.
- Shop Ethical, support environmentally conscious designers and retailers.
- Be your own influencer.





Biodiversity

Biodiversity is a single word to describe the variety of life on Earth, in all its forms and all its interactions.

Much of this life is under severe threat and many species are disappearing.

Scientists predict that on our current trajectory of habitat loss and global warming, between one third and one half of all species will face extinction by the end of this century. Their disappearance will upend ecosystems and destabilize human civilization. It is a very serious crisis for all of us.

Biodiversity starts with genes, then individual species, then communities of creatures and finally entire ecosystems, such as forests or coral reefs, where life interplays with the physical environment. These myriad interactions have made Earth habitable for billions of years.

For many of us who live in towns and cities, wildlife is often something we watch on television. But the reality is that the air we breathe, the water we drink and the food we eat all ultimately rely on biodiversity. Without plants, for instance, there would be no oxygen and without bees to pollinate there would be no fruit.

When scientists explore each ecosystem, they find countless interactions, all created by millions of years of evolution. If undamaged, this produces a finely balanced, healthy system which contributes to a healthy sustainable planet.

Photo Opposite: a Seaweed called Oarweed 'Laminaria digitata' - Julia Cooper

Each and every one of the millions of species is unique, a natural work of art that cannot be recreated once lost. Some 1.7million species have been identified, but the true number is much higher, maybe as high as 100 million.

In recent times, thousands of species are simply disappearing, rendered extinct, like the proverbial Dodo. The number of animals living on Earth, for instance, has halved since 1970. Since then , we have also lost 75% of flying insects. Be they bugs, insects, birds, fish or animals, all play a vital role in keeping our planet alive and healthy. As the song goes 'All God's Creatures Sing in the Choir'





Our Biodiversity Crisis

Much of the World Biodiversity Crisis is focussed on far off lands in Africa, South America and Asia, but Ireland is also deeply involved. We too have agricultural, industrial and domestic practices which harm the miracle of Biodiversity. For instance, we lose 6,000 km of hedgerows every year.

Around 31,000 species are known to occur in Ireland, yet the conservation status of only about 10% has been assessed. This means we have a fundamental knowledge gap in how biodiversity is changing in Ireland

But what we do know is:

- Of the species that have been assessed, one in every five is threatened with extinction here.
- One in every three species of bee is threatened with extinction.
- The conservation status of one third of our habitats afforded legal protection under the EU Habitats Directive disimproved between 2007 and 2013.
- 37 species of bird are of high conservation concern, including the curlew, hen harrier, twite and yellowhammer.
- Three of our iconic fish, the Atlantic salmon, European eel and angel shark have suffered catastrophic population declines, and the freshwater pearl mussel, Ireland's longest living animal, is facing extinction.
- Our fields have fallen silent and hedgerows and patches of scrub are under attack like never before.





On the Farm

Climate change has presented Irish farmers with a daunting challenge. On the one hand they produce worldclass beef, milk and other produce in very large quantities, making a very significant contribution to our economy. But on the other hand, many farm activities contribute to global warming and the erosion of biodiversity.

Our agriculture sector was directly responsible for around 37% of national greenhouse gas emissions in 2020, mainly methane from livestock, and nitrous oxide from the use of nitrogen fertiliser and manure management.

Farmers continue to be major users of chemical fertilizers while the national herd continues to grow.

This contribution to the national carbon footprint needs to reduce significantly if Ireland is to meet its declared targets. The Government is working closely with farmers to achieve its goals and the Climate Action Plan 2021 aims to give Irish agriculture a viable future, producing world class food with a lower carbon footprint through a science based approach while improving biodiversity and protecting nature.

Farmers will be incentivised to make changes and there will be new income streams in areas, such as the generation of renewable energy.

Creating profitable sustainable farming is however a major challenge for all concerned.



The Destroyers

Species of animals, fish, birds and insects are killed off by humans who cut down forests and hedgerows, use modern weapons for hunting, pollute the seas and spread invasive plants.

The hardest hit of all habitats are our rivers and lakes. Freshwater animal populations have collapsed by 81% since 1970 as a result of huge water extraction for farms and people, pollution and dams.

The Rescuers

We can all help. Most wildlife is destroyed by land being cleared for cattle, soy, palm oil, timber and leather. Most of us consume these products every day, with palm oil being found in many foods and toiletries. Choosing only sustainable options helps, as does eating less meat.

In Ireland we can also take simple actions which will support Biodiversity.

Here are some suggestions:

- Avoid using pesticides in the garden
- Grow a small meadow by not cutting the grass and sowing wildflowers.
- Plant native trees and shrubs.
- Get involved in 'Citizen Science' by observing nature in your area and reporting what you see to the National Biodiversity Data Centre
- Plant Native Trees and Shrubs

- Preserve roadside verges
- Feed the Birds with a bird feeder and nesting box but get advice on the correct way of doing it.
- Sow bee friendly plants
- Don't Cut Bogs.
- Let Dandelions Grow.
- Use less water

Trees are Magic

Ireland's relationship with trees spans thousands of years. From the great oak woodlands of the southern plains to the majestic pines of the midlands rising into the juniper and scrub like woodlands of our hills and mountains, this cherished relationship between native trees and our cultural heritage runs deep in our collective memory.

Our waterways evolved in tandem with these native woodlands. Of the 16,000 townlands in Ireland 14,000 have names related to trees, forests and water. Over time these trees disappeared from the landscape because clearcutting and no planting reduced our woodlands to approximately 1 % land cover. But trees are returning and now cover around 11% of our land, compared to an average of 40% of land in other EU countries. Tree planting is accelerating, with a Government plan to plant or preserve 440 million trees by 2040.

Trees work 'magic' in the environment. While industry and agriculture add to our carbon footprint, our trees soak up CO2 and give us back oxygen. Tree planting therefore helps the environment, but it can also help us



produce more timber, provide biomass for energy production and forests for walking and a home for birds, small animals and insects.

Coillte manages a huge area of Irish forest and it works with the Tree Council of Ireland to promote a knowledge and love of trees. Each March, National Tree Week takes place during which schools, community groups and businesses gather to plant trees.

Get full details from www.treecouncil.ie and www.coillte.ie

But you don't have to wait for National Tree Week you can plant trees anytime, but do focus on our native varieties



A Few Suggestions

Quick and Easy

- Turn off energy when not needed
- Segregate waste
- Buy less clothing
- Take the bus or train wherever possible

With a Little Effort

- Insulate your home
- Choose a low emission car
- Shop from a list
- Compost food waste
- Bigger Changes
- Invest in solar panels
- Buy an electric vehicle
- Recycle Everything
- Grow your own fruit and vegetables

And Finally.....

If you learn to love, treasure and nurture Mother Earth, you will hand our world on to the next generation in better health.

You can do this by being aware of the awesome crisis which is unfolding and by making small changes to your lifestyle.

We hope that you will.



Lions Clubs of Ireland District 133 Environmental Charter

Our Vision

'To advocate for the protection and restoration of our environment, for the wellbeing of all our communities, through a wide range of community action projects'

Context

The environmental challenges of climate change and biodiversity loss are the biggest problem of our lifetime. It is beyond question that, without significant reductions in greenhouse gas emissions, and increased efforts to protect fragile eco-systems, our future is at risk.

It is a great injustice that the world's poorest, and most vulnerable communities, are suffering the worst impacts of the climate crisis, though they have contributed least to cause it. The burden placed on these, and all, communities must be alleviated and meaningful action at community level, is essential. Lions Clubs are at the heart of our communities so this is our opportunity to lead by example.

Our Mission Statement

'We serve from the heart'

By harnessing the skills and experience of our members, we aim to sustainably protect and restore our environment to improve the well-being of the communities we serve. We will, in the course of our activities, promote environmental best practice and protection of biodiversity, and we will advocate for the implementation of the UN Sustainable Development Goals.

Objectives

We commit to:

- 1. Using the collective leadership skills and experience of District 133 Lions Club members, to serve our communities, by practicing and promoting environmental best practice and advocating against biodiversity loss.
- 2. Promoting shared learning, with regard to environmental best practice and protection of natural habitats, amongst local and national Lions Club members.
- 3. Supporting local stakeholders to work collaboratively on projects and initiatives which seek to achieve a positive environmental impact in the community.
- 4. Making optimal use of environmental resources and minimizing consumption of energy and water, and the production of waste.
- 5. Encouraging all parties, with whom we engage, to adhere to environmental best practice.
- 6 Seeking to ensure that all products sourced for redistribution will be purchased with due consideration to protection of the Environment.
- 7. Promoting the UN Sustainable Development Goals, (SDGs), and llink their relevance directly to our projects.
- 8. Striving for continuous improvement of our environmental and biodiversity activities, through on-going monitoring and implementation of lessons learned.

For further information on Lions Clubs environmental activities in Ireland e-mail: environment@lionsclubs.ie





Lions and the Environment

Bantry Bay Lions Club is part of Lions Clubs International, the world's largest voluntary service organisation with 1.4m members in 44,000 clubs spread across 200 countries and territories.

The Environment is one of five pillar activities undertaken by Lions Clubs. The others are Diabetes, Vision, Hunger and Children's Cancer.

Lions Clubs seek to sustainably protect and restore our environment to improve the well being of all communities, working on many levels from global to local.

Bantry Bay Lions Club is part of District 133 of Lions Clubs International, which covers the island of Ireland, with 100 clubs and 2,000 members. The club undertakes a wide range of community service projects and is now forming an Environmental Team.

If you would like to join in our work, please contact us bantrybaylions@gmail.com or visit our website at https://bantrybaylions.com







"We Serve"