

climate change in a nutshell

Greenhouse gases in our atmosphere act like a blanket and trap heat at the surface giving us an average global temperature of 10°C - without them the Earth would be a chilly -15°C.

Climate change is being caused by elevated levels of greenhouse gases, the main culprit being Carbon Dioxide (CO²). This gas is released whenever we burn fossil fuels in our homes, cars, factories and power stations. Normally CO² is absorbed by plants and oceans but we are adding it so fast that **concentration levels have risen 35% since 1900.**

The result so far is an observed rise in global average temperature of 0.8°C over the last century with a further 1°C rise already "in the pipeline". On current trends the high temperatures of the 2003 European heat wave, which, according to official figures, killed 14,800 people in France alone, will be normal by 2050 and cool by 2060!

What scientists fear most, however, is that if temperatures increase by more than 2°C above pre-industrial levels positive feedbacks within the climate system could cause a runaway effect.

To keep below this danger level the latest IPCC report warns that **emissions need to be reduced by 50% to 85% by 2050.** Given that 84% of the energy we consume is derived from fossil fuels that is a tall order.

drawing the curtain on fossil fuels

Before the era of fossil fuels humanity was constrained by the limited yearly supply of food and energy that could be harvested from nature. The discovery of oil, coal and gas lifted that constraint and enabled civilisation to develop to where it is today.

But fossil fuels buried within the Earth's crust are finite and are depleting at an alarming rate. For example, geologists warn that world oil discovery peaked in the '60's and now stands at 1 barrel discovered for every 4 consumed. At current rates of consumption world petroleum reserves will be exhausted within 35 years.

However, the most interesting point is that if we are to prevent climate change we must leave much of the remaining oil, coal and gas in the ground let alone begin extracting unconventional fossil fuels such as tar sands, shale and ocean bed methane deposits. To exploit these resources would be to commit "ecocide".


grey clouds with silver linings

What all this means is that our present carbon based society is unsustainable and will destroy the environment. We must draw the curtain on this era and learn to live again within nature's limits. This will mean a powering down of our economies and a rapid descent from our current energy intensive way of life.

Although making this transition is a daunting challenge it offers humanity a unique opportunity to embrace a cleaner more sustainable lifestyle. Whatever happens, as we combat global warming and reduce our consumption of fossil fuels we will increasingly depend on locally produced food, goods, services and energy sources. This shift could act as a force for positive change and enable communities in Ireland and around the world to strengthen and become self reliant.

The **Transition Initiative** is about communities unleashing their own latent collective genius to look Peak Oil and Climate Change squarely in the eye and to discover and implement ways to address the questions of the future. If you would be interested in starting up a Kilkenny Transition Towns group have a look at the site below and contact Sophia on 0872383678.

<http://www.transitiontowns.org/>



**GLOBAL DAY
OF ACTION
AGAINST
CLIMATE
CHANGE
SAT 8TH DEC**

GLOBAL DAY OF ACTION AGAINST CLIMATE CHANGE

Today environment ministers meet in Bali to begin talks on creating a successor to the Kyoto protocol and set out a new international treaty to tackle global warming.

130 nations now agree that evidence of human induced climate change is "unequivocal" and warn of dire consequence unless drastic action is taken as soon as possible. The head of the International Panel on Climate Change has stated that "If there's no action before 2012, that's too late. What we do in the next two to three years will determine our future. This is the defining moment."

To highlight the importance of these talks, demonstrations and events are taking place all over the world to raise awareness about Climate Change and to promote action.

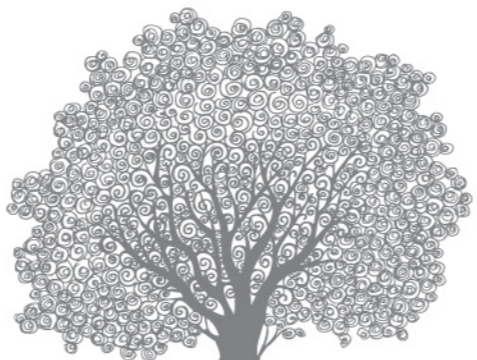
why plant trees ?

As part of this campaign we encourage you to purchase a native Irish tree and plant it in your garden as a symbol of hope for the future and a way of reminding ourselves to take action.

As trees grow they absorb carbon dioxide through photosynthesis and turn it into themselves. As long as they are replanted when they die or are cut down, trees are one of the few proven methods of removing this greenhouse gas from our atmosphere.

Depending on tree type, planting 10-15 trees is enough to absorb the emissions produced by an average household in one year. In addition they store up fuel for future generations, build up and protect the soil, clean up the air and water and provide shelter for wildlife.

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take action today and reduce your carbon footprint

Of course it is also vitally important to tackle emissions directly. In Ireland we have the second highest level of emissions per person in Europe. As an individual the easiest way to tackle this is to reduce the size of your carbon footprint – the amount of CO² generated by your lifestyle.

As part of the Global day of Action against Climate Change here are 10 easy steps you can take today:-

- * **unplug chargers and equipment on standby**
- * **turn down your central heating by 1°C**
- * **switch off lights when leaving a room and install cfl bulbs**
- * **keep curtains closed at night and avoid heat loss**
- * **take a shower rather than a bath**
- * **make sure you have a lagging jacket on your hot water cylinder**
- * **start recycling your rubbish and setup a compost bin**
- * **drive at a slower speed and avoid over-revving the engine**
- * **purchase locally produced food and eat less meat**
- * **plant a tree in your garden**



For a comprehensive list of energy saving tips and how you can tackle climate change visit the Sustainable Energy Ireland website www.sei.ie