Working Notes Issue 72 Editorial

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In his homily at the Mass to mark the formal beginning of his papal ministry, Pope Francis spoke about the importance of the vocation of "protecting all creation [and] the beauty of the created world". He added that this is not a vocation which involves only Christians, but rather one that arises simply from being human, and so involves everyone. He appealed to all those in positions of responsibility in economic, political and social life and to "all people of goodwill", to become "protectors of creation ..." The need to respect and protect the environment is a theme to which the Pope has returned many times since then, and it is clear that it will be a key concern of his papacy. Even in his choice of name, the new Pope was reflecting this concern: explaining why he had chosen to be called after St Francis of Assisi, he described the saint as "the man of poverty, the man of peace, the man who loves and protects creation".

The seriousness of the environmental crisis facing the Earth is highlighted throughout the various articles in this issue of *Working Notes*. Even a country like Ireland which prides itself on its 'green' image still faces significant environmental problems – exemplified in loss of biodiversity, the startling decline in the populations of some bird species, and the threat to the water quality in our streams, rivers and lakes.

Globally, it is of course the unremitting rise in the emission of carbon dioxide and the influence of this on climate patterns which poses the most serious threat to the environment and to humanity's ability to live sustainably in many parts of the world. In its latest report, published in September 2013, the Intergovernmental Panel on Climate Change (IPCC) is 'unequivocal' that climate warming is occurring and that it is human activity which is the dominant cause of this warming. The Panel warns that, unless the current levels of emissions are drastically reduced, the Earth will continue to experience an increase in warming, so that by the end of this century the 'danger threshold' of a rise in global temperatures of 2°C above pre-industrial levels is likely to be reached. The trend in global warming raises profound questions of social justice, since it is future generations and people living in poor countries – in other words, those contributing least to carbon emissions – who face the greatest threat of damaging climate change.

It is obvious that action in response to environmental degradation is urgently needed.
Several articles in this issue of Working Notes point to the importance of initiatives by individuals, households and communities. But it is clear that effective action for the protection of the environment requires a framework of appropriate legislation and policies, along with the political will and administrative commitment needed to ensure their implementation. In relation to climate change, in particular, effective policies are required at both global and national level.

However, the obstacles to agreeing and implementing environmental laws and policies are formidable. Such policies involve long-term goals and consistent action – but politicians are more inclined to think and act within the limits of each electoral cycle. Alongside this is the reality of widespread public indifference and the opposition of many powerful interest groups. Overall, even in the face of mounting evidence of the extent and seriousness of the damage to the environment,

and the threat of climate change, countries in both the developed and developing worlds have shown themselves resistant to the adoption of more sustainable models of economic development.

The former environmental advisor to President Carter and President Clinton, James Gustave Speth, has said: “I used to think that the top global environmental problems were biodiversity loss, ecosystem collapse and climate change. I thought that with 30 years of good science we could address these problems, but I was wrong. The top environmental problems are selfishness, greed and apathy and to deal with these we need a spiritual and cultural transformation and we scientists don’t know how to do that.” Bringing about that transformation is a task for all of us – as Pope Francis makes clear. It is a particular challenge for political and economic leaders. And it is a challenge too for church leaders – as Pope Francis also makes clear.

Working Notes

facts and analysis of
social and economic issues

Issue 72 October 2013

Jesuit Centre for Faith and Justice
26 Upper Sherrard Street, Dublin 1

Phone: 01 855 6814
Email: info@jcfj.ie
Web: www.jcfj.ie

Editor: Margaret Burns

Production Team: Berna Cunningham
Lena Jacobs

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John Sweeney

The Nation State and Individual Self-interest

A recent text dealing with the issue of climate politics coined the term 'cancer of Westphalia' to describe the current ailment of the international logjam in addressing what has been described as the greatest problem facing humanity in the twenty-first century.[1] It is a rather strange evocation of the peace treaty of 1648 which ended the Thirty Years War of religion in Europe. The link to the present topic, however, lies in the fact that in the Peace of Westphalia the roots of the modern nation state can be traced. Individuals' loyalties henceforth were to be focused on the government of the state they resided in, and not on any religious or secular entity. The nation-state became the embodiment of its individual citizens, looking to maximise its advantage – at the expense of its neighbours if necessary – and distancing itself from concepts of the common good. Not in the political sense, but in the linguistic sense, the expression *sinn féin* captures the essence of nation states behaving like individuals in this manner.

International Climate Negotiations

International climate negotiations epitomise this evolution. The yearly Conference of the Parties (COP) to the United Nations Framework Convention on Climate Change (often referred to as the UN Climate Change Conference) has evolved into a major event which promises much but often falls asunder under the imperative of national self-interest. The now infamous Climate Change Conference in Copenhagen in 2009 (COP15) attracted delegates from 192 countries, including 119 Heads of State, but ended in a 'car crash' as nations refused to limit their economic aspirations in the short and medium term to ensure a sustainable planet for those being born today and over the next few decades. A wish to carry on as before on the part of the developed world, exemplified by the USA, and an aspiration to develop along similar consumerist lines on the part of the developing world, exemplified by China, combined to defeat moves to push forward the radical changes necessary to produce meaningful progress.

As COP19 (Warsaw, November 2013) approaches, more positive signs are emerging that the logjam may at last be broken. In a historic speech in late June 2013, hardly reported in the Irish media, President Obama indicated that the United States would at last move to a leadership position after many years of being a laggard or even spoiler in global climate politics. Actions rather than rhetoric are, however, urgently required, and the focus in Warsaw will now also turn to the ambiguous position of the planet's biggest greenhouse gas polluter – China, which is at once a leader of the developing country negotiating bloc and a country with a per capita emission rate that is on a par with the average for the EU as a whole, and in excess of the rate for many individual EU Member States. Perhaps the tipping point is approaching.

Climate Policy at National and EU Level

Moving down the scale from international to national level, the same exigencies exist. Sectoral and vested interests continue to exert powerful influences on attempts within nation states to control greenhouse gas emissions in the interests of the global community at large. During the 2012 US Presidential election no candidate seemed willing to address the issue for fear of losing votes, or possibly even funding. In Ireland, we are in the process of making yet another attempt to legislate for action in response to climate change. Over the past decade, we have had an All-Party Bill, a Fianna Fáil/Green Party Bill, two Independent Bills and a Sinn Féin Bill. In February 2013, the Fine Gael/Labour Party Coalition published the 'Draft Heads' of the *Climate Action and Low Carbon Development Bill 2013*. The successive efforts to introduce climate legislation have exposed strong opposition on the part of various sectoral interests to having strategic targets for emission reductions, even as far ahead as 2050, enshrined in law.

In the European Union, international agreements under the UN Framework Convention on Climate Change are handled on a 'burden sharing' basis – in other words, the EU as a whole negotiates a target it will sign up to and its Member States agree what will be their specific contribution to meeting this target.

When the Kyoto Protocol was agreed at COP3 in 1997, Ireland received very favourable treatment from its fellow EU states, being allowed, for the period 2008 to 2012, to increase its emissions over 1990 levels by 13 per cent. By contrast, an average reduction of 15 per cent for the then EU-15 Members States applied, so as to enable the EU as a whole to reach its emissions reduction target of 8 per cent below the 1990 level. However, in 1997 the Celtic Tiger had still to roar and Ireland could legitimately claim that requiring a large decrease in emissions would impose a heavy cost burden on its then only slowly growing economy.

Once Ireland's economy boomed, emissions grew rapidly, reaching 27 per cent above 1990 levels by 2001. Thereafter, a slow decline set in, even at the height of the boom, as natural gas replaced coal as the preferred fuel for industry and power generation and as renewables such as wind began to make an impact. With the sharp decline in economic activity from 2008 onwards, emissions fell rapidly and compliance with Kyoto occurred. New undertakings for a second Kyoto commitment period extending from 2013 to 2020 were agreed at COP18 in Doha in December 2012, though details of how this will apply to Ireland have still to emerge.

In 2007, the European Council initiated a process of agreeing a self-imposed EU commitment to a low-carbon, energy-efficient future, embodied in the 'climate and energy package', finalised by the Council and adopted by the European Parliament in December 2008. This entailed a target, to be reached by 2020, of reducing EU greenhouse gas emissions by 20 per cent as compared to 1990.

For a then still-booming Ireland, the 2007 EU negotiation process produced a very different outcome from that which emerged from the 1997 negotiations regarding the Kyoto target. Ireland's burden was one of the heaviest compared to other Member States, requiring that it achieve a 20 per cent reduction, relative to 2005 levels, in emissions not covered by the EU-wide Emissions Trading Scheme (ETS).

Ireland is not on track to meet the required emissions reduction of 20 per cent by 2020. Yet achieving this target is obligatory and failure to do so may well necessitate the purchase of emissions quota from other countries. Up until 2009, when purchases ceased, Ireland had spent €73.7 million on emission credit purchases. These were ultimately not needed to meet the Kyoto target, but can at least be banked for future compliance, though under-achievement of annual targets set by the EU Directive for non-ETS emissions may have consequences for such flexibility should Ireland continue to exceed its annual limits to 2020. The ultimately non-productive investment in buying emissions quota is a reminder that doing nothing about climate change may come at a considerable cost to the Irish taxpayer.

The Costs of Climate Change

Nation states and sectoral interests argue against taking action on climate change mainly from an economic perspective. The validity of this will be questioned later. However, even from an economic perspective, the damage costs associated with climate change are considerable. The 2006 seminal review conducted by Lord Nicholas Stern on behalf of the UK Government calculated that inaction would cost 5 per cent of global domestic product each year, with an upside risk of this increasing fourfold.[2] By contrast, the cost of action to stabilise concentrations of greenhouse gases at 500–550 parts per million (ppm) equivalent CO2 would amount to 1 per cent of global GDP. But the window of opportunity is closing rapidly.

Even from an economic perspective, the damage costs associated with climate change are considerable.

Above a concentration of about 550ppm, global warming over 2°C above pre-industrial levels is likely, a threshold at which currently unquantifiable but very serious adverse consequences may occur. Avoiding this temperature change is now the guiding principle of international climate diplomacy, though there is a greater than 50 per cent likelihood of exceeding this level of warming even with greenhouse gas concentrations of 450ppm. The 'emissions cliff' – the climate change equivalent of the fiscal cliff – means that if global emissions reductions do not kick in for the next couple of decades the rates of annual reductions required thereafter become extremely difficult, some three to seven times greater than might be possible if we started in the next year or two.

Lord Stern is more pessimistic now than in 2006.

In an interview at the World Economic Forum in 2013 he was quoted as follows:

Looking back, I underestimated the risks. The planet and the atmosphere seem to be absorbing less carbon than we expected, and emissions are rising pretty strongly. Some of the effects are coming through more quickly than we thought then.[3]

Economic Costs for Ireland

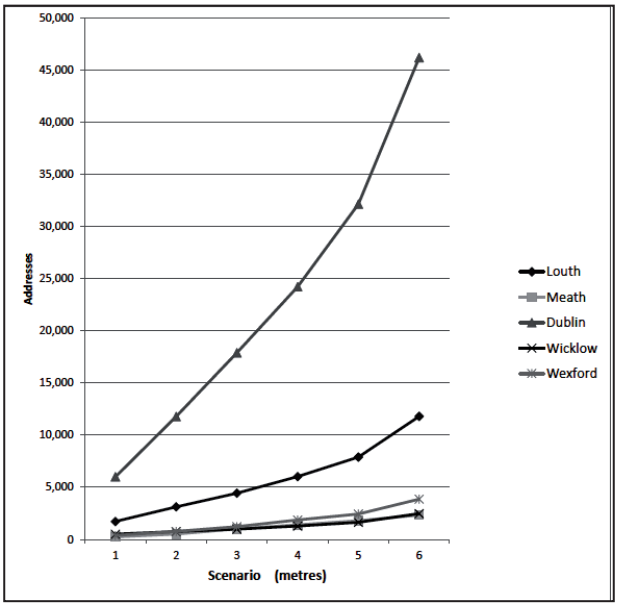
Ireland's GDP is only 0.34 per cent of the global total; it amounts to approximately €160 billion. While applying a global figure of 1 per cent – that is, Stern's estimated cost of action to stabilise concentrations of greenhouse gases at 500–550 ppm – to Ireland's GDP is inappropriate (Ireland is likely to experience less radical changes in climate due to its oceanic location), even a highly optimistic 0.1 per cent would yield a total cost of €160 million per annum.

However, no comprehensive economic study of the costs of climate change for Ireland has yet been done. Perhaps this is because it is such a difficult task: how do we cost potential impacts on, for example, tourism, water resources, energy, transport, agriculture, and – most difficult of all – biodiversity? What value do we place on the boglands, the turloughs, the salmon, or even the humble Kerry slug?

A first pass can be made at estimating potential damage costs using some of the latest Geographical Information Systems technology. With reference to sea level and storm surges, it is possible to estimate the vulnerability of major cities using digital elevation models combined with knowledge of where people actually live. For example, about 20,000 addresses in Dublin city lie below an elevation of 3 metres above high-water mark, with about half that number at similar heights in Cork (Figure 1). In many cases, of course, coastal defences exist to protect these districts, but the lesson of history is that these do not always work. The once-in-a-century storm surge height along the east coast of Ireland is probably about 2.5 metres, and this is based on past sea level. With elevated sea level, vulnerability increases considerably.

What would flooding 20,000 houses cost in insurance claims? This can be estimated using claims data from past flood events. The disastrous 2009 floods in Co. Galway provide a reasonable estimate. The average claim in respect of domestic

Figure 1: Number of Addresses below Selected Heights in Five Coastal Counties



Source: Stephen Flood and John Sweeney, 'Quantifying Impacts of Potential Sea-level Rise Scenario on Irish Coastal Cities' in Konrad Otto-Zimmermann (ed.), *Resilient Cities*, London: Springer, 2011.

property was €16,600; for commercial property it was €103,000, and for motor claims the average was €3,500. Using these figures, it is clear that flooding in Dublin and Cork as a result of elevated sea levels could account for over €1 billion in damage, with a national exposure of up to twice this amount.

Costs for the Natural Environment

Placing an economic value on threatened aspects of the natural environment is an even more difficult task. Ecosystems provide essential elements of the food chain, cleansing functions for the air and water around us, and an aesthetic value which evokes a spiritual response in all of us. They are also frequently public goods which entail no utilisation costs and may not incentivise individuals to maintain them. Valuations are thus complex and can be based on use value, the actual direct exploitation of a resource, such as for fishing or hill-walking, or indirect use such as for educational purposes.

Ecosystems can also have future use value, such as people willing to pay for a future option to enjoy a scenic location, or a 'bequest value', reflecting people's willingness to pay to conserve aspects of the built or natural heritage to ensure that they are available for future generations. But these are only a sample of the different evaluation methodologies in circulation. One example valued European wetlands at €6,700 per hectare.[4] It this measure were applied to just one Irish county – Wexford –

we would find that its beaches, coastal lagoons and salt marshes lying less that 1 metre above sea level would have a valuation of around €5 billion.[5]

Plant and animal communities are also likely to see significant changes in their composition as a result of climate change – with both winners and losers. Invasive species are already gaining a toehold, partially assisted by current warming of both the ocean and land.

People may have very different responses to this. Some may accept it as inevitable; others may see it as tragic that the Ireland of their youth is no more. In a survey of Irish emigrants to North America, for example, it was the potential loss of the cry of the Curlew that evoked the greatest emotional response from the diaspora.[6] Mountain habitats, heathlands, peatlands, dunes, coastal wetlands – all are part of our national psyche, and all are vulnerable to the effects of climate change, but they are not amenable to the economist's accounting rules.

Rethinking the Criteria: Some Ethical Considerations

It is clear that, as with all environmental hazards, the negative consequences of climate change will fall inequitably: the main burden will be on those least able to bear it.

Whether it be heat waves (as in Europe in 2003), tsunamis (the Indian Ocean tsunamis of 2004), or hurricanes (Hurricane Katrina in 2005), it is the elderly and people who are poor or otherwise disadvantaged who are in the frontline of vulnerability. It is also clear that the developing world will suffer for a problem not primarily of its making, but one created and sustained by consumer demand in the developed world. An Irish citizen is responsible for 25 times as much greenhouse gas emissions as a citizen of Malawi.

Furthermore, the developed world will, in the medium term at least, have the financial and organisational resources to better adapt to the problem of global climate change. The 'cancer of Westphalia' will continue to drive self-interest among developed nation states at the expense of their neighbours in the Global South. This is the basis of concerns collectively captured by the expression 'climate justice'. At a global scale, however, the spatial and social inequalities associated with climate change are symptoms common to a wider malaise relating to human misuse of the environment.

An Anthropocentric World

Throughout recorded history, humans have exploited their environment to create an anthropocentric world fashioned to suit their needs for food, shelter, transport and technology. Driving wild game by setting fires undoubtedly helped create and maintain the grassland biomes. In Ireland, for example, deforestation associated with the medieval monastic settlements, or to remove cover for rebels, or to supply timber for Elizabethan naval vessels, was instrumental in the creation of the treeless landscape of much of the island.

Canals, railways, roads, mines, reservoirs, dams and farms fashioned a landscape designed for supporting better the ecologically dominant creature of the biosphere. Once part of nature, struggling to overcome its vicissitudes and caprices, humans have increasingly, as a result of technological advances, become exploiters and dominators of a natural world more and more geared to meeting their material needs. Nature has been tamed. Climate, which once imprisoned our ancestors by its vicissitudes through the medium of the harvest, has now become the prisoner of humankind.

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In his classic essay, 'The Historical Roots of our Ecological Crisis' (1967), Lynn White attributed this attitude of dominance over nature to deep-rooted cultural traits imbued by what he termed the Judeo-Christian tradition. Marxism and Islam were included in this Judeo-Christian categorisation, though White traced the separation of humankind from nature primarily as coincident with the emergence of Christianity.[7]

Certainly, anthropocentrism has been a major feature of Christianity for most of the past two millennia. Humankind has been elevated above nature as part of this process. A dualism between humankind and a natural world created for human purposes has evolved. In part, this can be traced back directly to the urging of the Book of Genesis:

And God blessed Adam and Eve and said, 'Multiply

and fill the earth and subdue it; you are the masters of the fish and the birds and all the animals'. (Genesis 2:28)

While the same text contains other passages emphasising care and stewardship of the natural world, the biblical imperative of destroying pagan animism was probably a powerful force divorcing humankind from the natural world in the early Christian era. Interestingly, and by contrast, in the Celtic Ireland of the early medieval period a more harmonious and respectful relationship between people and nature is apparent. This is evident in some parts of the Brehon Laws – for example: "It is illegal to override a horse, force a weakened ox to do excessive work or threaten an animal with angry vehemence which breaks bones."

White absolved eastern philosophies from this anthropocentric view of nature, though this position was challenged by Yi-Fu Tuan, a Chinese-US geographer, who argued that the introspective ideals of oriental cultures are seldom practised.[8] The headlong rush for economic growth, seemingly at any environmental cost, of many Asian countries in recent decades would seem to vindicate this view.

The Scientific Tradition

Anthropocentrism was further enhanced by the emergence of the scientific tradition in Europe. Latin translations, dating from the eleventh century, of the works of earlier great Islamic and Greek scientists provided a major impetus for a revolution in western scientific thought. This irrevocably altered the pre-existing relationships between humankind and nature in Europe. Understanding processes became a theological objective. Most major scientists rationalised their work as having religious motivations, and 'science and religion' slipped off the tongue as readily as 'science and technology' do today. Ordering the universe and placing it in human comprehension reinforced the role of people as the lynchpins in the functioning of the natural world.

Later on, science became aided by technology to the extent that the two terms have become almost interchangeable in today's world. Unfortunately, harsh lessons that technology alone could not overcome nature's limitations were not learned in the first half of the twentieth century. When the Great Plains of North America became the Dust Bowl, or the Virgin Lands of Siberia refused to grow wheat, there was always new land further out to provide the safety valve for burgeoning populations. 'Exploit and move on if you fail' was always an option as settlements pushed west into North America and east into Russia.

Such options have now closed off, especially where burgeoning populations in the poorer tropics have removed the safety valve of new lands. Increasing numbers of people are forced into vulnerable locations which would have been shunned by their ancestors. Risk has increased and any natural disruption to assumed continuity can be catastrophic. Climate is just the latest facet of nature to show vulnerability to human action. Now confronted with what Sir David King, former Chief Scientific Adviser to the UK Government, has labelled 'the biggest challenge our civilisation has ever had to face up to' it is clear that only a reorientation of how we view nature offers a viable solution to global climate change.

Atmospheric pollution through industrial emissions
© iStock Photo

Most of the earth's resources have been privatised. Utilisation of a resource involves either paying an access cost or conforming to regulatory requirements such as licensing. Water, for so long thought of as part of our birthright, has now been commoditised in most parts of the world. Resistance to the process has been marked – witness the hostile reaction to water charges in Ireland.

The atmosphere, however, remains largely an open-access resource. For greenhouse gases, it is still effectively a global commons. As with all resources, common resources provide a facility and, if no utilisation cost is involved, tend to get overexploited. This is the root problem of atmospheric pollution by industrial emissions, such as sulphur dioxide, or by greenhouse gases. The proposed international agreement on climate change, which is expected to be signed at COP21 in Paris in December 2015, is thus of crucial importance for humankind. This agreement,

intended to integrate the various regional actions undertaken under the UN Framework Convention on Climate Change, will require all states, not just developed nations, to be bound by legally binding commitments aimed at limiting global warming to 2°C above pre-industrial levels, the value now accepted as constituting the threshold of 'dangerous climate change'.

Towards Stewardship

Private gain versus public and community good is a familiar issue for those seeking to manage environmental resources of all kinds. In a similar vein is the issue of short-term pain versus long-term gain – or intergenerational equity, as it is more properly referred to. Do we have an ethical responsibility to leave the earth for future generations in at least as good a state as we inherited it from our forebears? By not acting on climate change now we reduce options for those who come after us and bequeath them damaged goods. This is why sustainable development needs to move from a nebulous concept to a reality in decision-makers' minds.

Ireland is one of the world's top greenhouse gas polluters on a per capita basis.

Ireland is one of the world's top greenhouse gas polluters on a per capita basis. It has a serious responsibility to play its part in addressing the problem of climate change. Thus far it has failed to do so, and the radical measures necessary are not forthcoming. The political will to make the necessary policy changes in how Irish society is organised is not yet evident.

In tackling the problem of climate change, a revision of our deeply-ingrained attitudes towards the natural world is clearly required. The anthropocentric view of the natural world has blinded humanity to the obvious fact that far from being above nature we are as dependent on it today as were the Neanderthals, though the relationship is more complex. Scientific advances have given us answers to fundamental questions of earth functioning. But these often come in an ethical and religious vacuum. Perhaps the non-anthropocentric view of humankind as humble components of a natural web, as espoused by Francis of Assisi, offers an alternative perspective. *Humans as stewards of the earth* is perhaps the ideology which needs to be inculcated in all of us if we are to have success in tackling the environmental problems facing us, especially that of climate change.

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John Sweeney is Professor of Geography, NUI Maynooth, and was one of the contributing authors and review editors of the Fourth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC), 2007.

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Will the Government's Climate Bill Work?

Oisín Coghlan

Introduction

The outline of the Government's proposed climate legislation (*Climate Action and Low Carbon Development Bill 2013: Draft Heads*) published in February 2013, was the subject of three full days of hearings by the Oireachtas Joint Committee on the Environment in July 2013.[1] The Committee's report to the Minister for the Environment, Community and Local Government, Phil Hogan TD, is due this autumn and the Government has promised to introduce its proposed legislation in the Dáil before the end of 2013.

In the years during which groups such as Friends of the Earth have been working towards obtaining a statutory framework for climate policy, politicians have often claimed: "Nobody asks about climate change on the doorstep". There is one obvious reply to this claim: nobody on the doorsteps was asking about banking regulation in 2002, or even 2007, but this does not mean there was no need for political leadership on foot of the evidence of economic overheating, or no need to manage the risk by strengthening the regulatory framework before the economic crisis hit.

Indeed, there are parallels between the causes of the financial crash and the causes of the climate crisis: poorly understood risk, a short-term focus on business-as-usual, and faith in 'light-touch' regulation. We cannot afford to repeat those mistakes. If we let the climate crisis become a crash there is no way back; as the slogan puts it: 'Nature doesn't do bailouts'.

Climate legislation is, therefore, both a cornerstone of a genuinely sustainable, low carbon, economic recovery and a key element of 'never again', post-crash, political reform. Effective climate legislation can help make Ireland a hub for green enterprise and innovation. Putting our long-term carbon reduction targets into law would give businesses and households the certainty they need to invest in the transition to sustainability.

Why Do We Need a Climate Law?

Our political and public administration systems, with their origins in the nineteenth century, are not well suited to tackling a twenty-first century problem such as climate change. Politicians are incentivised to think in five-year electoral cycles and with an eye to the 24/7 news cycle, and so to prioritise the expressed, immediate, concerns of voters, as amplified by the media and interest groups.

Climate change, by contrast, seems remote and intangible. We cannot see the carbon emissions and we imagine the impacts are either in distant lands (the Arctic, Africa) or in the distant future. Even if you are a farmer having to import fodder as a result of a poor harvest followed by a prolonged winter, or a homeowner who cannot obtain insurance because your home has been flooded twice in five years, you may not see climate change as a possible reason for the abnormal weather conditions giving rise to these problems.

Compounding the challenge is a public administration system entrenched in departmental silos, with an instinct for incremental change at best, and at risk of 'regulatory capture' by vested interests determined to shape the regulatory system for their own benefit. Climate change requires radical, large-scale action, starting now but sustained over decades, across a range of government departments and sectors, to prevent disaster some way in the future. Those who are anxious to avoid the short-term costs of adjustment are concentrated in specific sectors, are well-informed, and are organised. Those who will pay the price of inaction are dispersed, unorganised – or as yet unborn.

Time after time, between 1997 and 2007, measures to meet Ireland's carbon reduction target under the Kyoto Protocol were discarded or delayed due to opposition or inertia; crucially, there was nothing to compel the Government to ensure that either agreed measures were implemented or alternative measures devised. Only the economic crash of 2008 'saved' Ireland from missing its Kyoto target. Had we not – in effect, by default – met that target, Ireland would have had to purchase hundreds of millions of euro in overseas carbon credits in order to 'offset' the overshoot in emissions.

The apparent intangibility of climate change, the mismatch between the scope of action required across government and the dispersed and disconnected nature of the responsibility to act, and the challenge of 'chronic urgency' are key reasons why a strong statutory framework is required. Legislation is the best way to ensure that all departments across government, and all governments across time, take climate change seriously and take action consistently. Such legislation should 'hardwire' action and accountability on climate change into the political system.

How Does a Good Climate Law Work?

The constituent features of robust climate legislation are clear. We have good examples in the provisions of the UK *Climate Change Act 2008* and the later, even stronger, Scottish legislation, *The Climate Change (Scotland) Act 2009*.

The essential elements are:

1. An overall long-term national target for reduction in carbon emissions is set down in law.
2. An independent body is established to provide expert advice on the development and implementation of policies in relation to climate change.
3. The Government proposes and parliament adopts *interim* national carbon reduction targets in line with both the long-term national target and the country's medium-term international obligations.
4. That national target is the starting point for a national action plan.
5. The members of Cabinet negotiate the allocation of emissions between sectors in the same way as they negotiate the allocation of spending between departments in the fiscal budget.
6. These allocations are the starting points for sectoral action plans.
7. The independent body produces an annual progress report for *parliament*.
8. Ministers make statements to parliament, responding to the points raised in the progress reports, and revise action plans as necessary.

How Does the Draft Bill Measure Up?

The Government's Draft Heads of Bill signals climate legislation that will be too weak to work. It contains elements of the structure suggested above, most positively in the area of reporting to the Oireachtas, but it falls well short in key respects.

1) Absence of 2050 Target

Internationally, 2050 is a key target date for reductions in carbon emissions. The EU Heads of Government, for example, have already agreed as the objective for 2050 the reduction of emissions within the EU as a whole to between 80 to 95 per cent below where they were in 1990.

The proposed Climate Bill, however, does not contain any national target for emissions reduction by 2050. Climate legislation lacking such a target will not work. The target is what drives the rest of the policy cycle: it provides a legal impetus for timely and adequate action to cut emissions, and a clear benchmark against which to measure progress. Only a numeric target can be clear. Prior to the current Government's draft legislation, five Climate Bills had been initiated in the Oireachtas and all of these had a target of reducing emissions by 80 per cent by 2050.

A number of objections to having a 2050 target have been raised and these are worth addressing.

Danger of Exposure to Court Action?

It has been suggested that the inclusion of a 2050 target could expose the Government to litigation. This is to misunderstand the purpose of targets. They are to drive political action and parliamentary accountability, not legal action and judicial review. This can be made very clear in the law and has been dealt with in other jurisdictions.[2]

Moreover, the Fianna Fáil/Green Party Coalition Government produced a Climate Bill with a 2050 target, signed off by the Attorney General, so legal concerns about targets cannot have been decisive. After two years of review, the current Government has proposed a very similar Bill, but with the 2050 target taken out. So it is clear that, ultimately, the decision on whether to include targets will be a political, not a legal, one.

Threat to Competitiveness and Scope for Negotiations?

Another argument made against including a 2050 national target in the legislation is that doing so would result in Ireland's economy being made less competitive and would tie Ireland's hands in negotiations regarding how the overall EU emissions reduction target for 2050 should be allocated among Member States.

There is a moral argument against this line of reasoning. Those campaigning for the abolition of slavery were told it would undermine the competitiveness and prosperity of the then United Kingdom of Great Britain and Ireland. That line of reasoning was both immoral and false. Our economy now depends on fossil fuels in the way economies once depended on slavery. Now that we know the damage which burning fossil fuels is causing, the moral choice is to wean ourselves off these fuels, for the sake of our children, no matter what others do.

We do not even need to reach for this overarching moral argument, however. Ireland does not have to adopt unilateral targets or tie its own hands in EU negotiations. It does not, for example, have to enshrine an interim target, for 2030, in Irish law right now. Ireland's 2030 target will flow from the negotiations underway within the EU.

Since the EU has already set a target of 80 to 95 per cent reduction target for 2050, the inclusion in the legislation of, say, an 80 per cent target for 2050 could not be seen as pre-empting negotiations; rather, it would be merely showing a willingness to turn up at the starting line. It is difficult to imagine any outcome from negotiations regarding the EU 2050 target which would see Ireland with an easier target than an 80 per cent reduction in emissions – that is, if we are speaking of a target that is in line with what the science shows is needed to contain climate change.

Moreover, as the reports of the Ernst &Young 'Cleantech' Center[3] and the work of the business group, Irish Corporate Leaders on Climate Change,[4] make clear, there is real economic opportunity for Ireland in the transition to a low-carbon economy. A 2050 target shows that Ireland means business on climate change and it can actually help attract investment and grow sustainable employment.

How Would We Meet a 2050 Reduction Target?
The claim, 'We don't know exactly how we would deliver an 80 per cent reduction in emissions by 2050', in fact serves to highlight the importance of having a target. The point of a target is that it sets the direction. It drives the innovation and action required to meet it. It raises expectations and performance. Ireland's target of generating 40 per cent of the electricity we use from renewable sources by 2020 is one such 'stretch target' and it has significantly improved our performance already, with renewable fuels reaching 20 per cent in 2011.

When John F Kennedy said: "We choose to go to the moon in this decade ... not because [it is] easy, but because [it is] hard" scientists were aghast because the necessary technology did not yet exist. But the setting of the objective drove progress and eight years later a man stepped onto the moon. Now, scientists are telling us we have eight years to start cutting emissions enough to contain climate change. And politicians seem to be saying: "It is too hard". This stands in sharp contrast to Kennedy's belief that a demanding goal can serve "to organize and measure the best of our energies and skills ...".

A climate Bill without specific, explicit, targets raises the question: do those proposing it not want us to measure our progress?

2) Proposed Policy Cycle is Flawed

The sequencing of the policy-making cycle envisaged in the Government's Draft Bill would entrench an anachronistic silo-based approach to policy-making. The Draft provides that each government department would develop a 'sectoral roadmap' – a plan specifying the measures proposed for (a) reducing carbon emissions within the sector for it is responsible and (b) enabling the sector to adapt to the effects of climate change. Following the development of these sectoral roadmaps, a national low carbon roadmap (the 'national roadmap') would be developed.

Such an approach means that government departments would develop their sectoral roadmaps in isolation from one another, with each having a natural vested interest in not offering to make more substantial commitments than other departments. The 'national roadmap' as envisaged would then be little more than a lowest-common-denominator compilation of the sectoral roadmaps.

This policy process will not lead to the transformation in our energy, transport, food, planning and housing systems that is required to avoid unmanageable climate change. As noted earlier, the purpose of climate legislation is to reform policy-making so as to make it fit-for-purpose to tackle a challenging, cross-departmental issue in a transparent, evidence-based and accountable way.

Under the provisions of the Draft Bill, the national roadmap would be developed no later than twelve months after the enactment of the legislation and thereafter at intervals of no more than seven years.

A seven-year period for achieving the targets of a national roadmap is too long – it undermines the possibility of parliamentary accountability by being significantly longer than the electoral cycle. The legislation should instead provide that the Cabinet would be required to agree a five-year headline national target for carbon reductions, based on our international obligations and our long-term target. This should be the starting point for the national roadmap or action plan.

Then, to use the analogy of fiscal policy, the Cabinet should negotiate and agree the allocation of emissions under the national target to different departments and sectors just as it negotiates and agrees spending allocations to departments before the fiscal Budget. The national roadmap, with its five-year national target, should ultimately be adopted by way of a vote by the Oireachtas, just as the key provisions of the fiscal Budget are.

Without the firm central direction provided by climate legislation, along with a Cabinet decision on a national target, the debate about action on climate change becomes one about *whether* to cut emissions rather than *how* to do so, with each department taking a 'not-us, not-yet' line in respect of its own sector.

In summary, just as with fiscal policy, the climate policy process should start with the national target, proceed to Cabinet negotiations and then on to sectoral measures. Instead, the Government's Draft Bill proposes departmental-led sectoral roadmaps, Cabinet agreement on a patchwork national roadmap and no targets. This represents a continuation of the limited ambition and failure of implementation we experienced with Irish policy for Kyoto compliance – the very problems that climate legislation is supposed to rectify, not institutionalise.

3) Expert Advisory Body Not Sufficiently Independent

The Bill proposes the establishment of a National Expert Advisory Body on Climate Change, whose functions would include advising and making recommendations to the Minister for the Environment, other Ministers of the Government, and the Government as a whole in relation to the development of the national low carbon roadmap, sectoral roadmaps, and on policies regarding the reduction of greenhouse gas emissions and adaption to the effects of climate change.

The composition and functions of the Expert Advisory Body proposed in the Bill would not allow it sufficient independence and authority to be truly effective. It would not be able to publish its own reports unless and until the Government of the day sees fit. Furthermore, it is proposed that four of the 'ordinary' members of the Expert Body (that is, members other than the Chairperson) would be the chief executives of four State agencies, appointed *ex officio*. Given that the body would have a maximum of seven 'ordinary' members, and a minimum of five, these *ex officio* members would represent a majority of appointees.

The Advisory Body should be a properly independent council of experts, like the UK Climate Change Committee, established under UK *Climate Change Act 2008*, or like Ireland's Fiscal Advisory Council, established after the economic crash, with the power to independently monitor and assess whether the Government is meeting its own stated budgetary targets.[5]

There should be no *ex officio* members. The state agencies should provide their expertise at the secretariat level, not at the council level. The Expert Body should be able to directly publish its own reports and not depend on the grace and favour of the Government of the day. It should report directly to parliament, not just to Government, as the Comptroller and Auditor General does here and the Committee on Climate Change does under the UK Act.

Three objections have been raised to the idea of adopting a model similar to the UK one. The first is that Ireland has an emissions profile very different to that of the UK, since agriculture plays a much larger role in our economy. However, an independent council is about the *way* we make policy, not about the specific details of policy, and there is no reason Irish policy-making should be less evidence-based, less open and transparent or less monitored or accountable to parliament than elsewhere.

The second objection is that the UK Committee has found itself in public disagreement with the HM Treasury and that this is somehow unseemly or incoherent. On the contrary, it is an example of what transparency in arriving at policy decisions might look like. When the UK Committee proposed a national target for 2027, ministries lined up on different sides: the Treasury and the Department for Business opposed the tough target; the

Department of Energy and Climate supported it. Interestingly, the Foreign Office also supported it, seeing leadership in relation to climate change as a positive part of Britain's international image and reputation. Ultimately, the Prime Minister came down in favour of the Committee's proposal and parliament adopted the tough target.

The third objection is that it is too easy for Government to ignore the advice of a council that is 'outside the system'. However, the impact of the UK Climate Committee so far shows that it is possible for an 'outside' committee to have real influence.

Obviously, legislation could not require that the Government would have to abide by the recommendations of an external advisory committee. However, the fact that the views and advice of such a body would enter the public and media debate would mean that the Government could not simply ignore what the committee had to say and hope that no-one would notice. Instead, Ministers would have to engage in the debate, explain their stance in parliament, and muster support for their position. A fully independent committee can therefore have a galvanising and constructive impact on the shaping of climate policy.

The Way Forward?

Climate legislation is not some magical solution which will make the problem of carbon emissions disappear. But Ireland's experience under the Kyoto Protocol is that traditional policy-making is not equal to the challenge of generating the kind of sustained impetus to act on carbon reduction which is required across a range of departments and agencies and across time.

Effective legislation on climate change is a key element of political reform necessary to make this area of policy-making more long-term, more evidence-based, more transparent and more accountable to the Oireachtas.

The July 2013 hearings of the Oireachtas Joint Committee on the Environment represented a positive, serious and constructive engagement with issues arising from the Government's outline draft legislation on climate change. It allowed in-depth discussions to take place with an array of stakeholders from the business, farming and environmental sectors as well as overseas aid agencies and economic and legal experts.

The Minister for the Environment, Community and Local Government, Phil Hogan TD, has continually stated how central he sees the role of the Committee in framing climate legislation. In the course of the debate on the proposal to abolish Seanad Éireann, Government Ministers frequently cited 'pre-legislative' All-Party hearings as an example of serious political reforms that could be implemented in a single-chamber parliament. A significant test of the commitment of the Government to permitting such hearings to have real impact will come when the Environment Committee publishes its report on the draft climate change legislation.[6] Simply put: will the Government be prepared to change the draft Bill in light of the Committee's recommendations?

Notes

1. The written submissions made to the Joint Committee in advance of the July 2013 hearings are available on the website of Friends of the Earth (see: http://www.foe.ie/news/2013/07/01/submissions-on-the-outline-heads-of-the-climate-action-and-lowcarbon-development-bill/).
2. These issues were explored at the Oireachtas Joint Committee hearings on the *Climate Action and Low Carbon Development Bill: Draft Heads* in July 2013 by Peter Doran (Ceartas), Conor Linhean (William Fry) and Roderic O'Gorman (DCU). Their submissions and opening statements and the video and transcripts of the hearings are available on the website of Friends of the Earth (http://www.foe.ie/news/2013/07/29/one-stop-shop-on-the-oireachtas-climate-bill-hearings-all-you-need-to-know-and-more/).
3. See Ernst & Young, *Cleantech Matters – Global Competitiveness: Global Cleantech Insights and Trends Report 2012*, Ernst & Young Global Cleantech Center 2012 (http://www.ey.com/Publication/vwLUAssets/Global_cleantech_insights_and_trends_report_2012/$FILE/cleantech_matters.pdf).
4. "The Irish Corporate Leaders on Climate Change brings together business leaders from a broad cross-section of Irish based businesses to trigger a step-change in policy and action needed both to meet the scale of the threat posed by climate change, and to grasp the business opportunities created by moving to a low climate risk economy." (See: http://www.corporateleaders.ie/)
5. The Fiscal Advisory Council was established under the Fiscal Responsibility Act 2012.
6. You can follow developments in climate science and policy and the fate of the Government's Climate Bill on the website of Friends of the Earth (http://www.foe.ie/climatechange) and on Twitter @foeireland.

Oisín Coghlan is the Director of Friends of the Earth, an Irish NGO which campaigns for environmental justice and sustainability. (http://www.foe.ie)

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Jesuit Centre for Faith and Justice
26 Upper Sherrard Street, Dublin 1

Phone: 01 855 6814
Email: info@jcfj.ie
Web: www.jcfj.ie

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Production Team: Berna Cunningham
Lena Jacobs

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Protecting Ireland's Birds and Biodiversity: Time for Action

Anja Murray

The Call of the Curlew

Many Irish people will be familiar with the call of the Curlew, a wading bird that breeds in rushy pastures and upland bogs through the summer months. For generations, it has been a cherished and familiar bird of Ireland's farmed and coastal landscapes. In 1990, Ireland still had a sizeable population of Curlew, at around 5,000 breeding pairs. Now, however, it is estimated that there may be fewer than 200 pairs left. Such has been the decline of the Curlew that its extinction as a breeding bird in Ireland now seems certain unless urgent action is taken. It has become one of two bird species nesting in Ireland that are globally threatened (the other is the Corncrake).

Loss of suitable breeding habitat has led to this steep decline in the number of Curlew, with afforestation of upland pastures, mechanised peat extraction, intensification of grassland management and wind farm developments in upland areas all contributing to the difficulties for breeding Curlew. Fragmentation and degradation of breeding habitat have reduced numbers and as the remaining pairs occupy smaller areas they experience increased vulnerability to predators. Members of the public who have heard about the decline of the Curlew may be puzzled by the fact that during the summer months many Curlew may be seen along our coastlines. But these are migratory Curlew, the result of an influx which arrives in Ireland each year as early as June from continental and UK populations.

Decline and Possible Extinction of Species

Is the decline in the Curlew population here just one isolated case or is it indicative of a much broader trend? Unfortunately, the stark decline in numbers of this iconic bird is but one example of widespread degradation of native ecosystems and associated species declines.

There has been a 50 per cent fall in farmland bird populations across Europe. In Ireland, many previously common farmland birds have suffered major population and range declines since the 1970s. Many of these declines are a direct result of changes in farming systems over recent decades, changes which have been incentivised by EU farm payments. As a consequence, populations of distinctive and well-known farmland birds which are largely dependent on sensitive farming are in trouble across Ireland. This is not an issue only for those interested in nature: birds are indicators of the health of the natural environment; in a sense, they are the environmental equivalent of 'the canary in the coalmine'.

Recent national estimates indicate startling levels of decline in some bird populations in Ireland. As well as the Curlew, which fell by 84 per cent between 1993 and 2008, other species of breeding waders suffered dramatic declines over the same period: Lapwing and Redshank each fell by 88 per cent, and Snipe by 73 per cent. These population declines occurred in both the wider countryside and at special sites which had long contained good populations.[1]

There has been a 50 per cent fall in farmland bird populations across Europe.

It is forecast that, at the current rate of decline, and without intervention, breeding waders generally are likely to be at too low a level to maintain their populations by 2015. Possible extinctions could occur within thirty years, even sooner for Curlew.

Other, once common, farmland birds to have suffered major population declines since the 1970s include Kestrel, Barn Owl, Swift, Skylark and Yellowhammer. The Countryside Bird Survey has been monitoring commonly occurring bird species in Ireland since 1998 and it has shown some populations decreasing while others remain stable or even increase. However, when species become increasingly scarce their trends are unable to be monitored – and so instances where the Survey has been cited to report healthy farmland bird populations serve to misrepresent the bigger picture.

Grassland butterflies too have been victim of the same changes in land use. *The European Grassland Butterfly Indicator: 1990–2011* (published June 2013) shows that grassland butterflies across Europe have declined by almost 50 per cent since 1990, reflecting a dramatic loss of grassland biodiversity.[2] Ireland is no exception to this trend.

Losses such as those described result from changes in the way grasslands are managed, with flatter and most fertile land being utilised more intensively and the abandonment of farming practices in upland areas and on poorer land. Farmed semi-natural grasslands, such as upland pastures and lowland hay meadows, are rich in birds, pollinating insects and cultural heritage. Such grasslands depend on sensitive farming. These habitats are very different to the intensively managed and heavily fertilised grasslands that now dominate many agricultural landscapes.

The Curlew – an iconic bird under threat.

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Low input semi-natural pastures and meadows, including those vital for butterflies and breeding waders, are threatened and in decline. They are often part of farming systems which generate lower income from the market than other, more intensive, farming systems. These 'nature-rich' farming systems need to be supported if they are to be saved from abandonment or intensification. Maintaining nature-friendly farming practices in these areas would be better for the farmers working this land and for nature.

EU Agricultural Policy

The Irish Government is now facing important decisions regarding the allocation of resources under the forthcoming Rural Development Programme 2014–2020, which will be largely funded via Pillar II of the EU Common Agricultural Policy (CAP). CAP uses a significant proportion (40 per cent) of the European Budget (the 'Multi-Annual Financial Framework'). The huge amount of public funding associated with this policy needs to bring better value for money. Agri-environment schemes, 'the green backbone' of CAP, have a crucial role in supporting farmers to introduce wildlife friendly practices and have a proven delivery for the environment.

The design of agri-environment schemes and allocation of funding is being decided at the moment. Well-designed and soundly implemented agri-environment schemes can deliver targeted support to address known conservation problems, counter declining farmland bird populations and offer much-needed support to marginal farming communities who often find it difficult to attract outside investment to their area.

Conservation groups across Europe are calling for governments to ensure that the 25 per cent of existing farm support budgets set to go to agri-environment measures is spent properly on targeted and well-designed and implemented schemes which support farming to support nature. In other words, we are calling for public money to be spent on public goods. Recent decisions on related policies have favoured supports for the most intensive, and polluting, farming systems. Support measures have also been 'broad and shallow' achieving little environmental benefit for the significant allocation of taxpayers' money.

Food Security

The environment is important for food security. There is a growing need to produce food in a way that protects and maintains the key resource upon which food productivity depends: a healthy natural environment. The ability to maintain production into the future will depend greatly on the resilience of farmed landscapes in the face of climate change and the maintenance of ecosystem services such as pollination and soil fertility. Current market failures relate to declining health of the environment and it is this area which is most in need of public support through publicly-funded policy. Crucially, food insecurity is more about affordability of food and access to food than about the quantity of food produced.

Stemming the Decline

Why should we care about the loss of birds and butterflies or about the decline of healthy natural habitats? There are many answers to this question, not least of which is the intrinsic value of naturally occurring species and habitats, regardless of

their use and function for humans. Biodiversity 'indicators' are commonly used to assess the state of the wider environment. Recent global efforts to monitor the health of the natural world have shown that despite some local successes and increasing responses to known threats (including efforts to maintain the extent and biodiversity coverage of protected areas; sustainable forest management; policy responses to invasive alien species, and biodiversity-related aid), the rate of biodiversity loss does not appear to be slowing. Assessment of global biodiversity indicators tells us that much needs to be done to step up collective action for nature conservation.

The most pressing challenges are to reverse detrimental policies, integrate biodiversity into land-use planning, incorporate economic value adequately into decision-making, target funding where the evidence base shows it is most needed, and implement sound policies that tackle biodiversity loss.

In relation to the specific example of the Curlew, Lapwing, Redshank and Snipe, we know that there is a great deal that Ireland can do to stem declines. Providing support for farmers to manage semi-natural grassland habitat is one example of the kind of positive action that is necessary. This would entail providing incentives for sympathetic grassland management through existing European funding mechanisms such as CAP. In addition to helping these and other farmland birds, rolling out such actions would help other wildlife, such as butterflies, bees and wild plants, and would contribute much to maintaining the cultural and social heritage of many of Ireland's smaller farms and extensive farming systems.

The Importance of Ecosystems

But what of the bigger picture: the disconnect of policies and practices from the natural basis of productivity and prosperity? A concept that has strengthened efforts to move nature conservation into the centre of public decision-making is that of 'ecosystem services': the recognition of the wide-ranging and hugely valuable benefits to humans which are provided by nature.

'Ecosystem' is a term used to describe a community of plants, animals, fungi and micro organisms that live, feed and interact together in the same area or environment. Peat bogs, mountain pastures, rivers, lakes, sand dunes and coastal mudflats are all examples of ecosystems which provide important services to society in Ireland. Many wetlands, for example, help protect towns from flooding. Clean lakes and rivers provide both fresh water and fish for recreation and consumption. Biodiversity in farmed landscapes helps to maintain soil fertility and control pests and diseases. Our agriculture depends on biodiversity and ecosystem services, as do marine and freshwater food resources.

Healthy peat bogs and other wetlands filter and purify water, making it cheaper to treat for human consumption. It is because of this benefit that water companies in Northern Ireland are funding peatland conservation which eases the task of providing clean drinking water to the populace. Intact peat bogs also absorb greenhouse gasses from the atmosphere thus helping to combat climate change. This important role is reversed when peat bogs are cut and degraded. In general, however, nature-based solutions to climate change have not been given much recognition in Ireland to date.

Nature-based solutions to climate change have not been given much recognition in Ireland to date.

Valuing and Protecting Biodiversity

So what should we, as a society and in practical terms, be doing to combat the drastic decline in biodiversity? To begin with, we need to recognise and value the goods and services provided by nature. A report commissioned by the (then) Department of the Environment, Heritage and Local Government, and published in 2008, gives a preliminary estimate of the value of ecosystem services in Ireland, in terms of their contribution to productive output and human utility: it calculated that this amounted to over €2.6 billion per annum.[3] This figure is based on an assessment of just a few key examples of ecosystem services and as such is a very conservative estimate.

Regarding the global situation, The Economics of Ecosystems and Biodiversity (TEEB) project seeks to draw attention to the economic benefits of diversity and to promote the systematic assessment in economic terms of both the contribution of biodiversity to human well-being and the costs inherent in biodiversity loss.[4] In its first report,[5] TEEB drew attention to the findings of the Cost

of Policy Inaction (COPI) study, which was commissioned by the Directorate-General for the Environment of the European Commission and published in 2008. This study estimated that by 2050 the economic cost in global terms of not halting the current trend in biodiversity loss could be equivalent to a staggering US$14 trillion per annum, or 7 per cent of global GDP.[6] Yet, even as our knowledge of the value of healthy natural habitats grows, we are still continuing to destroy nature at an alarming rate.

It is clear that we need to move on from a perception that protecting nature runs counter to economic development. Instead, we need to recognise that nature provides a basis for our well-being and for long-term jobs: a sound future for people requires a sound future for wildlife. Public money should deliver a wide range of 'common good' benefits for society, rather than priority being given to short-term and narrow economic interests. Such common good interests include mitigating against climate change and restoring ecosystems, so as to support delivery of ecosystem services, sustain resilient communities, provide sustainable jobs and ensure high quality of life. Nature is at the heart of our future prosperity.

We need to move on from a perception that protecting nature runs counter to economic development.

On a more immediate and tangible scale, leaders of Ireland's agri-food industry have identified that a significant share of the country's export-led future prosperity is to be based on agriculture. Without improving the delivery of targeted measures that enable farming to support biodiversity, we can expect to see continuing declines in farmland bird populations in the immediate future. This will be accompanied by losses in ecosystem services and will damage the 'green' image that Ireland values so greatly.

Public policy, especially in the areas of agriculture and food, forestry and aquaculture, planning and development, must reflect the importance of maintaining a healthy natural environment. If we are serious about wanting to reverse the degradation of the natural environment, we need to incentivise positive land management and make better use of existing schemes and publicly supported policies. Fisheries policies must bring an end to overfishing and damaging fishing methods; healthy seas can secure a future for fish, other wildlife and our fishing communities. In relation to climate change, nature must be recognised as a natural ally: healthy ecosystems are more resilient to a changing climate and can help communities adapt to the changes we are already seeing.

Need for Action – Now

Our society needs a healthy environment to thrive and build an economy that supports jobs, our health and our future. The true cost to society of environmental damage needs to become transparent across all sectors. And all sectors need to address the loss of the biodiversity and the natural capital on which we all depend.

The value to society of nature protection needs to be fully recognised, and a support system to assist implementation of preventive and restorative measures, including new legislation, is needed. Our landscapes need to be safe places, poison-free for both people and wildlife, while providing opportunities for tourism, agriculture, communities and business.

By investing in the network of protected nature conservation sites designated under *Natura 2000*,[7] and ensuring access to resources only to those who behave in a socially and environmentally responsible manner, we can help protect nature for future prosperity. An end to environmentally harmful subsidies and a shift of taxation from labour to pollution and resource consumption are urgently needed and should form the basis of job creation and the 'greening' of national and European economies.

On a community scale, there is much that can be done to support nature and restore biodiversity. Many communities recognise the beauty and recreational benefits of special natural places in their locality, whether a native woodland, a floodplain wetland, a mountain range or coastal heath land. However, most do not appreciate the full value of these habitats in terms of the wider ecosystem services they provide.

Appreciation of the underlying ecology and merit of such places can be the basis for collective, optimally targeted, local action. Through knowledge and a sense of stewardship, a greater

mandate will arise for effective national action. Only then will we see adequately-resourced and correctly-targeted policies which implement positive solutions to conservation challenges. There is no time for complacency: Ireland's biodiversity needs action, now.

Notes

1. C. Lauder and A. Donaghy, *Breeding Waders in Ireland: A Review and Recommendations for Future Action*, Dublin: BirdWatch Ireland, 2008 (http://www.birdwatchireland.ie/).
2. European Environment Agency, *The European Grassland Butterfly Indicator: 1990–2011*, Luxembourg: Publications Office of the European Union, 2013 (http://www.eea.europa.eu/publications/the-european-grassland-butterfly-indicator-19902011).
3. Craig Bullock, Conor Kretsch and Enda Candon, *The Economic and Social Aspects of Biodiversity – Benefits and Costs of Biodiversity in Ireland*, Dublin: Stationery Office, 2008 (http://www.cbd.int/doc/case-studies/inc/cs-inc-ireland-en.pdf).
4. The Economics of Ecosystems and Biodiversity (TEEB) website is at: http://www.teebweb.org/
5. TEEB, *The Economics of Ecosystems and Biodiversity: An Interim Report*, 2008. (http://www.teebweb.org/publication/the-economics-of-ecosystems-and-biodiversity-an-interim-report/#.UjwtTp1OO70)
6. L. Braat and P. ten Brink (eds.), *The Cost of Policy Inaction: The Case of Not Meeting the 2010 Biodiversity Target*, Brussels, May 2008, p. 136. (http://www.globio.info/downloads/85/Report%20-%20Braat%20&%20ten%20Brink%20eds%20(2008)%20The%20Cost%20of%20Policy%20Ina.pdf)
7. *Natura 2000* is a network of important ecological sites across the European Union. It is comprised of areas known as Special Protection Areas (SPAs), which are designated under the EU Birds Directive (2009), and Special Areas of Conservations (SACs), which are established under the Habitats Directive (1992) and are designated for species other than birds, and for habitats.

Anja Murray is part of the Policy and Advocacy Team in BirdWatch Ireland. BirdWatch Ireland is an environmental NGO, working altruistically for birds and biodiversity in Ireland. (http://www.birdwatchireland.ie/)

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Jesuit Centre for Faith and Justice
26 Upper Sherrard Street, Dublin 1

Phone: 01 855 6814
Email: info@jcfj.ie
Web: www.jcfj.ie

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Lena Jacobs

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Water for All of Life

Sinéad O'Brien

Introduction

Water is vital to all of life. All living creatures, including humans, need enough water, of sufficient quality, to survive and thrive. We in Ireland are fortunate: most of the time, our citizens have access to a clean, healthy, supply of water for drinking and sanitation. Around 768 million people, one tenth of the world's population, do not have this.

There is a downside to our privileged position in Ireland: we take water for granted. Furthermore, water is often associated only with what is piped into our homes. We often forget that the water in our tap or toilet cistern is part of a much wider natural water-cycle involving all of Ireland's water systems: our rivers, lakes, groundwaters, coastal areas and, ultimately, the world's oceans. One need only sit by the lakeshore in Glendalough or by the wild Atlantic coast on a summer's evening to realise that the Irish water environment has so much more to offer than simply tap water.

Our water resources play an intrinsic role in the domestic, agricultural, business and recreational life of the country. In addition to providing us with drinking water, our watercourses carry away our sewage and industrial waste, support large and small businesses, and provide valuable habitats for nature and wildlife. They are a recreational resource to be enjoyed by local communities and tourists and quiet places of reflection and beauty for us all.

The world's major religions have traditionally recognised the value of water and its centrality in human life. This is evident in the way water is seen by religions as a purifier, and in the way it is incorporated into religious rituals and practices so as to serve the process of spiritual cleansing and renewal. Religions also recognise water as the source of all life, as an element vital to the survival of human beings and to sustaining existence on earth. And so water is often seen as a symbol for life itself.

Pressures and Threats

Because of the many uses to which it is put, and because of its omnipresence in our lives, water is subject to a multiplicity of pressures and threats. Our business, domestic, leisure and development activities all have impacts on the water environment. In the case of Ireland, the results of these pressures are starkly illustrated in the findings of the Environmental Protection Agency report, *Water Quality in Ireland, 2007–2009*, which showed that only around half of our rivers and lakes (52 per cent and 47 per cent, respectively) were at a satisfactory standard.[1]

These findings are disappointing but not surprising when you consider that Ireland's water is the final recipient and carrier of many of the chemicals and pollutants that we release, knowingly and unknowingly, while going about our lives, making a living and producing goods and services. Some of these chemicals and pollutants are absorbed and diluted by soil and water. Many, however, persist in the environment and interact in ways we do not yet understand. Many find their way into water supplies; some are removed by water treatment, some are not.

Physical alterations to our rivers, such as dredging and infill of river-side wetlands, also have a serious cumulative effect. One consequence may be limited floodplains to absorb rainwater, so that heavy downpours during a storm may result in river water surging downstream, gathering force until it finds a weak spot and breaches the river bank. Over the last five years, we have seen the terrible damage that can accrue, and indeed the tragic accidents that can occur, as a result of flooding events.

The pressures on our water systems and river catchments begin as soon as rivers and streams bubble from their mountain source and intensify as they make their way to the sea. Silt and pollution from upland forestry felling can cause significant pollution in hilly areas. Agricultural chemicals, slurry-spreading, and leaking from faulty septic tanks take their toll once the rivers flow down into agricultural and more populated areas. Discharges from town and city sewerage plants and from large and small industrial units are added to the mix as the river travels to the sea. Drainage of wetlands, building on floodplains and other physical alterations also change the natural course

of rivers and leave less space for nature and natural processes. Moreover, along the course of a river, water is abstracted in large quantities for industrial and domestic use.

The story of a river and its water cycle is a complex one. All of the activities and developments impacting on a river may individually represent modest pressures, but cumulatively the risk becomes significant and can lead to the river, its lakes, or the bay into which it flows, falling below the standards required for human health, for nature and indeed for what is required to meet our obligations under EU and national law.

EU Water Framework Directive

The EU Water Framework Directive (WFD) came into force in 2000 with the aim of tackling the myriad pressures on Europe's waters by setting ecological targets and requiring EU Member States to develop integrated river basin management plans to meet them.[2] Whilst the Directive has been the driver for a move towards more integrated management of water, it is fair to say that its effects so far have been a great deal more modest than hoped.

Irish river landscape.

© iStock Photo

Because rivers cross national and county boundaries and protecting them involves such a diverse range of issues, managing and protecting our water resources is a complex task that involves a wide range of state agencies. If we in Ireland are to protect our water resources and meet our obligations under the Water Framework Directive, the currently fragmented system of water administration must be overhauled to provide a streamlined and integrated system for managing water.

The current reform of the water services sector, through the setting up of Irish Water, has generated significant political support and considerable public interest, mainly because it will involve the introduction of water charging. Unfortunately, in this process, the protection of the wider water environment has been ignored. As we have seen, water services are only part of a much bigger catchment-based water cycle which the Government appears to be neglecting in the drive to get Irish Water up and running.

While environmental groups are supportive of a fair and equitable water charge, the lack of political interest in the protection of our inland and coastal waters is of serious concern to the Irish environmental organisations which make up the Sustainable Water Network (SWAN).

This lack of political interest in safeguarding our water systems is particularly regrettable, given the commitments in regard to their management and protection set out in Ireland's River Basin Management Plans, drawn up as a requirement of implementing the Water Framework Directive (WFD), and published in 2010.[3] The Directive requires that these plans be implemented so as to achieve 'good' status for our waters by 2015, or by 2027, where exemptions have been formally agreed. Under the Directive, waters are classified as either 'high'; 'good'; 'moderate'; 'poor'; or 'bad', depending on whether and to what extent they deviate from what the water body should be under natural conditions. 'Good' status is defined as ecological conditions which deviate only slightly from those found under undisturbed conditions. Only waters classified as having 'high' or 'good' status pass the WFD test.

The River Basin Management Plans have been in place now for three years and there is little indication that much is being done to implement them. SWAN is urging political support for reform to address this debilitating lack of coordination between government agencies and departments in regard to the protection of the natural water environment. New integrated structures must have a river catchment approach and be provided with the resources and statutory power to coordinate, oversee and enforce implementation across all relevant public bodies.

What Households Can Do

While managing a whole water catchment area is a complex task requiring expert planning and implementation, every Irish home is part of the water cycle and there are ample opportunities for individuals and families to make changes to ensure

a cleaner and healthier water environment for ourselves and our community.

There are simple things that everyone can do to cut down wastage of water and to minimise the pollutants that are released from their home, business or farm into the waterway. In addition to making local streams, rivers, and bays, cleaner and safer for individuals, families and communities, and for wildlife, these actions often make sound financial sense.

Actions which can be taken include:

- Ensuring that taps are not left running or constantly dripping: a tap dripping once a second wastes about 10,000 litres of water over a year;
- Fitting an eco shower head – this uses 50 per cent less water;
- Since one-third of all water used in the home is flushed down the toilet, considering options for adaptations to the toilet cistern that reduce the amount of water per flush;
- Collecting rainwater for watering gardens and plants, washing cars and other household activities;
- Using a bucket of water, rather than a hose, for washing the car;
- Using phosphate-free dishwasher and laundry products;
- Being careful about what goes down the drain, as this may end up in a local river, lake or bay. Paints, oils, wood preservatives, solvents, varnish, thinners, pesticides, fertilisers, poisons or acids should not be poured down the drain; instead, they should be brought to the appropriate waste facilities;
- Minimising the use of bleaches, disinfectants and anti-bacterial products and in so far as possible using environmentally friendly products instead;
- Avoiding the use of pesticides, fertilisers and other chemicals in the garden, unless absolutely necessary;
- Where a home is not on a mains sewerage system, emptying and maintaining the septic tank regularly and ensuring that it is serviced by an authorised company.

Political Commitment Needed

Whilst individuals and businesses can make real changes, such as those listed, which will help safeguard our water sources, commitment is also needed at political level to support and fund national measures for the protection and management of our rivers, lakes, bays and ground water. Properly managed, these natural water sources provide not just clean, healthy water for people, industry and nature: they support livelihoods and provide enjoyment and recreation for local communities and for many thousands of visitors every year.

We are indeed privileged in Ireland to have a plentiful supply of healthy drinking water. Politicians and citizens must not take the source of this for granted.

Notes

1. Environmental Protection Agency, *Water Quality in Ireland 2007–2009*, edited by Martin McGarrigle, John Lucey and Micheál Ó Cinnéide, Wexford: EPA, 2010.
2. European Parliament and Council of the European Union, 'Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy', *Official Journal of the European Communities*, 22.12.2000, L 327/1. (http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2000:327:0001:0072:EN:PDF) The Water Framework Directive was enacted in Ireland in 2003 through the European Communities (Water Policy) Regulations 2003 (S.I. 722 of 2003), subsequently amended in 2005 and 2008.
3. http://www.wfdireland.ie/documents.htm

Sinéad O'Brien is Coordinator of the Sustainable Water Network (SWAN), a network of twenty-five environmental organisations working together on water policy and protection issues. (http://www.swanireland.ie)

Environmental Initiatives by Church Groups in Ireland

Throughout Ireland, many individuals, families, schools, businesses, and voluntary groups are endeavouring to take action to protect and enhance the natural environment. In this section, initiatives by four Church groups are described.

Eco-Congregation Ireland

Catherine Brennan

For you love all things that exist ... For your immortal spirit is in all things. (Wisdom 11:24; 12:1)

God saw everything that God had made and indeed it was very good. (Genesis 1:31)

Love all God's creation, the whole and every grain of sand of it. Love every leaf, every ray of God's light. Love the animals, love the plants, love everything. If you love everything, you will perceive the divine mystery in things. … all things flow and are indirectly linked together… If you push here, something somewhere will move; if you strike here, something somewhere will wince … (Fyodor Dostoyevsky, *The Brothers Karamazov*)

The stark sign of our times is a planet in peril at our hands – with the added injustice that it is poor people who suffer most from environmental destruction. The work of loving, protecting, healing, celebrating and taking care of God's creation is foundational to the Christian gospel and central to the Church's mission. We truly live God's love for the whole of creation in the way we pray; celebrate Eucharist; educate; plant trees, vegetables, seeds and bulbs; deal with energy and litter; decorate; and make links to the local community and the wider global family.

An Ecumenical Initiative

In 2005, the Church and Society Forum of the Irish Inter-Church Meeting initiated Eco-Congregation Ireland – an all-Ireland programme supported by the Roman Catholic Church, the Church of Ireland, the Presbyterian Church in Ireland, the Methodist Church and the Religious Society of Friends (Quakers). The programme is facilitated by a committee representing these five denominations and appointed by the respective denominational leaders. All five committee members work in a voluntary capacity; a part-time Communications Officer is employed. The committee is in liaison with Christian ecological groups in Britain and Europe as well as throughout Ireland.

The vision of Eco-Congregation is to see churches of all denominations throughout Ireland – north and south – celebrate God's creation, recognise the interdependence of all creation and care for it in their life and mission and through members' personal lifestyles.

Eco-Congregation Ireland aims therefore to encourage churches to rediscover the connection between the environment and Christian faith. Christians are invited to reflect on the beauty and integrity of creation and to consider what practical steps can be taken to heal and protect the natural environment. Eco-Congregation encourages and promotes an eco approach to worship, lifestyle, community outreach and contact with the developing world. The programme emphasises the connection between environmental destruction and injustice and poverty in our world; it emphasises also the needs of future generations of humanity and of all other species.

Resources

Eco-Congregation Ireland offers support to individuals and faith communities as they endeavour to adopt an eco approach. Members of the committee are available to visit congregations and parishes if requested.

A wide range of resources is available to download from the website.[1] These are packed with ideas and suggestions which aim to integrate environmental care into different areas of church life. The resources include sections on worship, theology, work with children and young people, property and grounds management, finance, purchasing

and waste management, working with local communities, and 'thinking and acting globally'.[2] A section on climate change will be added in the near future. Links with a range of other environmental groups, including those associated with churches, are provided. Visitors to the website are invited to sign up to receive a monthly email newsletter.[3]

The website also includes a section on 'Eco Examples' and one on 'Eco Tips', which provide examples and suggestions showing practical and imaginative ways in which individuals, groups and communities can go about adopting a more environmentally friendly approach to life.

Environmental Audit

A church or congregation which wishes to take definitive steps towards a more eco-conscious way of being can start the process by assembling a group to undertake an 'environmental audit'. The Eco-Congregation Ireland website provides a checklist which enables groups to identify both existing good practice and areas which need to be addressed. This comprehensive checklist covers issues such as worship, theology, education, church management, personal lifestyle, community outreach and overseas concern. The environmental 'check-up' is done through using an easy 'tick box' format and it need take only an hour.

Groups often find themselves pleasantly surprised as they realise the number of ways in which their church or congregation is already being eco-friendly. The process also helps generate ideas as to how new and additional steps can be taken.

Eco-Congregation Award

Churches which have been working on environmental issues for at least two years are invited to apply for an Eco-Congregation Award. Applicants are assessed by two independent assessors. In total, ten awards have so far been presented in Ireland, the most recent being to Kilbridge Presbyterian Church, Co. Antrim, in May 2013. The Oblate parishes of Inchicore, Dublin, received an award in September 2012. The other churches which have received awards are: Whitechurch and Rathfarnham Church of Ireland; Dundrum Methodist Church; Churchtown Quaker Meeting – all in Dublin – and Fitzroy Presbyterian Church in Belfast. Clonakilty Methodist Church in Cork is the only church to have received two awards. Two dioceses have received awards – the Catholic Diocese of Kerry, which has more than twenty 'eco active' parishes, received an award in May 2012, and the Church of Ireland Diocese of Cashel and Ossory received its award in April 2013.

Whether the application is from a parish, community or diocese, the assessment criteria are the same. Evidence needs to be shown that eco progress has been made in four areas – spiritual, practical, community and global (for example, involvement with a development organisation such as Trócaire or Christian Aid).

The Importance of Action

Speaking at an Eco-Congregation Ireland event in Kilkenny in April 2013, the Columban priest, eco-theologian and author, Sean McDonagh SSC, encouraged parishes to take tangible steps to help safeguard and improve the environment: "Take even very small steps and keep at it. We have to live in a way that supports the planet into the future", he said.

The Justice, Peace and Integrity of Creation (JPIC) Group in Inchicore, Dublin has been doing just that for the past five years. Members of the group, who come from the three Oblate parishes in the area (Mary Immaculate, St Michael's and Our Lady of the Wayside, Bluebell), have worked hard to raise awareness of the interconnectedness of all life. One way in which they have done this is through holding 'Earth Days' where the local community is invited to special events such as nature appreciation walks. A ten-week gardening course to encourage people to grow their own vegetables proved popular with non-churchgoers as well as with parishioners. During Tree Week 2012 the group launched a unique Tree Gift Card to support an ambitious re-afforestation project taking place on the Indonesian Island of Nusa Kambangan.[4] This has proved hugely popular as the cards make ideal gifts.[5]

Eco-Congregation Ireland itself is an active member of Stop Climate Chaos – a coalition of civil, development, youth, environmental and faith organisations working together to prevent runaway climate change. Eco-Congregation supporters are encouraged to take part in Stop Climate Chaos campaigns.

'Creation Time'

Each year, Eco-Congregation Ireland strongly encourages churches of all denominations throughout Ireland to observe 'Creation Time' – from 1 September to 4 October – on either one

Sunday or all of the Sundays during this time. The setting aside a five-week period to celebrate a Time for Creation emerged from a proposal adopted at the Third Ecumenical Assembly in Sibiu, Romania, in September 2007. The start and conclusion of Creation Time reflect significant dates in both the eastern and western Christian Churches: the Orthodox Church year begins on 1 September and 4 October is the feast day of St Francis of Assisi – the patron saint of those who promote ecology.

Each year excellent resources on the selected theme for Creation Time (including sermon notes, prayers of intercession and fact sheets) are made available by the ecumenical network, Churches Together in Britain and Ireland (CTBI).[6] The theme for Creation Time 2013 is 'Water Justice' corresponding with the United Nations International Year of Water Cooperation.

Concluding Comments

Though the Eco-Congregation programme is designed to help churches work on environmental issues, participating churches find that it also boosts church life and mission, links people to those who suffer most from the degradation of our fragile planet, contributes to community building, stimulates church life and is enjoyable and fun.

Christians committed to ecological practice need to be mystics, finding God not only in the boundless beauty of the natural work but also in the painful dark night of loss and failure and in the enduring, life-long commitment to the earth and its creatures.

Notes

1. The website of Eco-Congregation Ireland is at: http://www.ecocongregationireland.com
2. For support and network administrative purposes, and for updating of the website, it is helpful for Eco-Congregation Ireland to have feedback on the resources it provides. Email comments to: info@ecocongregationireland.com
3. The monthly email newsletter can be obtained by sending an email with the word 'subscribe' in the subject line to info@ecocongregation.com
4. see http://oblatemissions.ie/jpic/gifttree
5. For further practical examples of environmental actions by parishes and dioceses see Eco-Congregation Ireland website (www.ecocongregationireland.com).
6. See the website of Chuches Together in Britain and Ireland (CTBI): http://www.ctbi.org.uk/creationtime. See also European Christian Environmental Network (ECEN), a church network promoting co-operation in caring for creation (http://www.ecen.org).

Sr Catherine Brennan SSL is the Roman Catholic representative on the committee of Eco-Congregation Ireland.

An Tairseach, Dominican Farm and Ecology Centre

Marian O'Sullivan

At the General Chapter of the Dominican Sisters held in Mexico in 1992 the Sisters chose 'Care of the Earth' as one of the priorities for their lives and mission.

Arising from this, the Regional Council in Ireland established a committee to explore the possibilities for an initiative in the Irish context.

It did not take long to decide that Wicklow would be the location for an initiative as we had a 70 acre farm there. This farm is within the town boundaries – you could say the town grew to surround the convent with its primary and secondary schools and large boarding school established in 1870.

Considerable time was spent clarifying the vision and the possibilities for an initiative to be based on the farm. One of the members of the committee, Julie Newman OP, was appointed to take responsibilty for the project. Julie, with others, looked around for models and found one in Genesis Farm, New Jersey, established and run by another Dominican sister, Miriam Therese MacGillis.

After spending some time in New Jersey, Julie returned to Wicklow and started working to make the dream a reality. A five-year plan was drawn up and approved by the Leadership. The plan proposed:

- The conversion of the farm to organic production of vegetables.
- The establishment of a ten-acre wildlife sanctuary.
- The establishment of an Education Centre.

Organic Farm and Wildlife Sanctuary

The first tasks were restoring the farmyard, rebuilding the manager's house, and getting the land back to fertility. Organic farming was seen as the way forward since conventional farming, dependent as it is on petroleum-based fertiliser, is not sustainable into the future. It is also highly questionable in terms of human and indeed planetary health.

The second objective was to restore hedgerows, waterways, wetlands and plant 10,000 trees. Peter Bateman, a lecturer in an agricultural college in England and a qualified bio-dynamic farmer, was appointed farm manager in 1998. In brief, biodynamic farming acknowledges that the Earth is part of a much larger life system which inevitably contributes to its dynamism and life-giving possibilities.

Within a few years, An Tairseach had a fully certified organic vegetable garden and vegetable field. It now also produces chickens and pigs and has a suckler beef herd. The produce of the farm – vegetables, eggs, beef, lamb and pork – is sold in the An Tairseach Farm Shop, as well as in some shops and at a farmers' market in the area; produce is also supplied to some local restaurants.

Educational Dimension

However, the fundamental purpose of our initiative is educational. The name An Tairseach (the threshold) suggested itself. As a human species we are living on the cusp of a new dawn – a major threshold in time. Many theorists argue that we are at the end of the Cenozoic Era which began over 65 million years ago when an asteroid hit the Earth causing the extinction of the majority of plant and animal species then living, including the dinosaurs. We are privileged to be alive and to be part of the shaping of a new era. Will it be a 'technozoic era', where technology virtually takes over our lives, or will it be an 'ecozoic era', where humanity will learn to live in harmony with the rest of the community of life, respecting all species as modes of divine presence? Such thoughts prompted us to move as quickly as circumstances would allow to establish the educational dimension of the project.

It was decided that we would refurbish an existing building on the campus rather than construct a new building. While the refurbishment was under way we began offering programmes on a small scale to the local community. We also offered educational visits to schools and welcomed adult groups that were interested in what was happening and in the whole question of ecology and sustainability.

The Ecology Centre opened in 2005. Its purpose is to raise awareness about the perilous state of the planet and our responsibility, as humans, to be a more benign influence as participants in the community of life rather than continue to act as if we were 'lords of the universe'.

The Centre offers a wide range of courses including new cosmology, sacred dance, scripture, meditation, organic gardening, cookery, yoga, Tai Chi and art. Twice a year, the Centre offers a ten-week residential sabbatical programme exploring spirituality in the light of an evolving Universe, an endangered Earth and the Christian tradition. The Centre also hosts conferences.

Concluding Comments

We in An Tairseach realise that we have much to learn ourselves if we are to live sustainably. We find inspiration in the indigenous traditions, including our own Celtic tradition where our ancestors discovered the divine in the world around them. The mystics of all religious traditions are sources of inspiration, as is the best in our own Christian tradition. By means of advances in science we now know that the Universe began 13.7 billion years ago with a single explosion of energy so that we all come from the same source. We are intimately connected at every level of our being. We are in fact all One. We remember that Jesus said: "I came that they may be One". We are already One but we are a long way from realising it and acting out of that awareness. At An Tairseach we try to explore some of this richness in day and residential courses and we find it an exhilirating experience because it rings true.

Marian O'Sullivan OP is a founder member of An Tairseach and continues to be involved in developing the project.

An Tairseach, Dominican Farm and Ecology Centre
Wicklow Town
Web: www.ecocentrewicklow.ie

The Congregation of the Sisters of Mercy

Carmel Bracken
Marcella O'Connell

The *Congregation of the Sisters of Mercy* is one of nine congregations of Mercy Sisters throughout the world. While a majority of members of the Congregation live in Ireland members are also working in the following countries – Brazil, Britain, British Columbia, Kenya, Nigeria, Peru, South Africa, United States and Zambia. In Ireland there are four Provinces – Northern, Western, South Central and Southern.

Out of a growing awareness of the need to re-connect with our deepest roots, and find our rightful place in the web of life, as a means of addressing the urgent environmental crises of our time, our Congregational Mission Statement of 2000 called us to a greater consciousness of the interconnectedness of the whole community of life and our place within it. This embraced the recognition that when we abuse our planet we primarily victimise people who are poor – those to whom we, as Sisters of Mercy, have a special mission.

To reclaim our sense of awe and wonder at the sacredness of all life, our congregational policy for Ecological Responsibility encourages us "to foster among us a contemplative stance towards the mystery of God as revealed in the on-going story of the universe. A spirituality rooted in this contemplative stance influences our way of being in the world and informs all our actions and choices." Therefore, in each of the four Provinces in Ireland Mercy sisters are involved in educational and ecological initiatives which highlight the importance and potential of this way of living.

Northern Province

In the Northern Province, the Sisters explore together imaginative and respectful ways of living out of a new world view, re-connecting with our planet in an ever-deepening consciousness of the oneness of all life. At Glór na Mara in Bundoran, Co. Donegal, a sense of the Sacred is promoted and sustainable lifestyle choices are explored out of the context of the evolutionary story of the Universe. Organic growing is promoted among the local people as a more sustainable and wholesome way of relating to the earth. Part of a two-acre field has been developed into a Community Garden in collaboration with the Organic Centre in Rossinver and a plot of land has been offered to the Transition Year students of the local secondary school, as a way of re-skilling local people for a future without oil, when all food may have to be grown locally without chemicals.

Courses are offered to the local people on the new cosmology, biodiversity, energy, organic growing, cooking, herbs, health, spirituality, ritual and sustainable lifestyle choices. Other ministry areas of involvement include school environmental projects, developing retreat days on the new cosmology for Leaving Certificate students and writing introductory sessions on the Universe Story as the context for the 'Lifestart' Programme (for parents of 0–4 year olds).[1]

Western Province

In the Western Province, Sisters are committed to raising awareness of the interconnectedness of all of life and strive to educate themselves and others in the promotion of:

- sustainable living with prudent use of the Earth's resources;
- conservation of land;
- the protection of all species on Earth and their habitats.[2]

At 'An Gáirdín', in Portumna, Co. Galway, an education programme and organic growing are facilitated by a team of six people, two of whom are Mercy Sisters, along with volunteers as the need arises. A small group of those who share the vision of An Gáirdín meet regularly for support, study and reflection. The dwelling house was built from carefully sourced natural, renewable and recycled material, with a geo-thermal ground-source heating system. A recent undertaking has been the provision of a building adequate to meet the needs of the expanding range of courses and events. This has been a work of collaboration and every aspect of the building is a demonstration of sustainable practice.[3]

South Central Province

In the South Central Province, Tearmann Community Garden at Baltinglass, Co. Wicklow is a community-based organic garden where efforts are made to reduce environmental harm and

increase the care and sensitivity towards Earth's inhabitants and systems. There is a continuous call to a greater awareness of the interconnectedness of all of life and, in collaboration with others, through further education there is a greater understanding of the story of an evolving Universe.

Sisters from the South Central Province brought the 'Be the Change' Programme to Ireland in 2007. Four sisters went to England to train as facilitators and following their return, facilitated a one-day Symposium for the public in various venues throughout the Province. The following year, a workshop for the training of other facilitators (religious and lay people) took place in Dowdstown House in Navan. This was subsidised by the Province. Since then, the 'Be the Change' programme has been rolled out throughout the length and breadth of Ireland and continues to inspire and spur to action many people of all ages.[4]

Southern Province

The Southern Province has set aside land in Rosscarbery, West Cork to be used for ecological development. Conscious that intensive agriculture has greatly reduced the range of species in our fields, and of the need to support an increase in biodiversity, native woodland trees and wildflower areas have been planted, gardening is organic and sustainable living is practiced at the Ecological Community there.[5]

Over the 2011 and 2012 growing seasons (March to September), twenty-eight people participated in a gardening course. In the Community Garden in Rosscarbery, people enjoyed the learning aspect; they loved taking the food home, and, as time went on, the companionship became very precious to them. Alongside the Community Garden, there is a regular gardening course with a new group of participants. The awareness of being gifted with the efforts of myriads of organisms over billions of years evokes a sense of wonder, and respect for the life of the soil. This respect for the soil is what organic gardening is all about.[6]

General

In recent times, Mercy Sisters have been promoting and supporting the 'Transition Towns Initiative' which involves the town/village/community planning towards a future without oil. Transition Towns lead to the rebirth of local communities, which will generate their own sustainable energy systems, local food, organic growing, housing, local enterprise, small businesses and the development of local currencies to keep money in the area. An important part of the movement is the whole town working together on an 'energy descent' plan, seeing how to reduce its carbon footprint.[7]

Another initiative in which Sisters have been involved is the Green Sod Land Trust. This was set up to protect Irish ecosystems and educate people to be proactive in the preservation of nature.[8]

Notes

1. http://www.sistersofmercy.ie/ireland_britain/northern/2011_w_earth_wisdom.cfm
2. http://www.sistersofmercy.ie/ireland_britain/western/cosmology.cfm
3. http://angairdin.ie/index.php/about-us/
4. http://bethechangeireland.com/wp/
5. http://www.sistersofmercy.ie/ireland_britain/southern/2011_ecology.cfm
6. http://www.sistersofmercy.ie/news/article_display.cfm?article_id=2446
7. http://transitiontownsireland.ning.com/
8. http://www.greensodireland.ie/

Carmel Bracken rsm is a member of the Northern Province of the Sisters of Mercy and lives in Tullamore.

Marcella O'Connell rsm is a member of the Southern Province of the Sisters of Mercy and lives in Mallow.

Brú na Cruínne

Tom Costello

The Christian Brothers' monastery in Carrick-on-Suir, Co. Tipperary was due to be closed in 2001. Around that time, two Christian Brothers who had completed a course in cosmology in Australia approached the Provincial Leadership Team seeking suitable accommodation to bring the fruits of their learning to others. There was widespread delight in the Irish Province when they were asked to establish a new community in the 200 year-old building. They spent most of that year repairing and renovating the monastery's interior. A third brother joined them in late August 2002; he too had studied cosmology in Australia.