

## Environment

**2013-360**

**16/04/2013**

Mr Michael McCarthy, T.D.

Leinster House,

22/3/13

Dear Deputy McCarthy,

I enclose a commentary by our Executive Professor Noel Convery which I hope is of interest

My interests are in the fishing business in Galway and I am very pleased to see from your website that you are fully aware of the importance of the industry.

With best regards

Yours sincerely

David J. Keenan

Direct Public Policy . ie

## The First Steps in Ireland's Emerging Climate Strategy Assessed

Frank Convery, chair, Publicpolicy.ie and Senior Fellow, UCD Earth Institute<sup>1</sup>

### Key Point

The Irish government has published the draft heads of a climate bill. Because we won't know the essence of what is proposed until we see the national and sectoral roadmaps that will follow, it is not possible to draw definitive conclusions as to the sense and effectiveness of what is proposed. But we can surmise that it has some strengths, and some gaps. The strengths are:

- Commitment to sectoral roadmaps; each sector has particular characteristics that require separate design and implementation. Developments in the Common Agricultural Policy (Multiannual Financial Framework) and in the food industry (Glanbia) make agriculture especially interesting as a focus of attention, and improved efficiency in buildings can yield big economic, social and environmental gains.
- The primacy of policies that are cost effective (likely to achieve outcomes at least cost). [But the considerable achievements of the existing policy portfolio need more recognition and support]
- Avoidance of 'ourselves alone' targets disassociated from the wider European policy framework.
- Institutional integration, with the EPA, Sustainable Energy Authority of Ireland, Teagasc and the Economic and Social Research Institute anchoring the National Expert Advisory Body, and Ministers reporting to the Dail on the performance of their sectors.

Gaps include no overt treatment of:

- Innovation and associated research and development as an essential instrument for progress, and for the development of business.
- Supporting European action as a means of helping China make the transition to a low carbon future.
- Climate justice, where we have an important contribution to make, and only passing reference to adaptation to the climate change that is already happening or in the pipeline.
- Engaging effectively with the generation that will be most impacted by climate change.

### Introduction

The Irish government recently approved the draft heads of a 'Climate Action and Low Carbon Development Bill, 2013,'<sup>2</sup> – referred to in this paper as the 'climate bill' - which lays out a general scheme. This was complemented by the simultaneous publication of a detailed analysis of the context and choices by the National Economic and Social Council (2013).<sup>3</sup> The essence of the

<sup>1</sup> Declaration of interests. I was a member of the Research Prioritisation Steering Group, served as chair of the Sustainable Energy Authority of Ireland, am on the board of the Mary Robinson Foundation, and have received research funding from the EPA

<sup>2</sup> <http://www.environ.ie/en/PublicationsDocuments/FileDownload,32468,en.pdf>

<sup>3</sup> 'Ireland and the Climate Change Challenge: connecting 'How Much' with 'How Do'. Final Report of the NESC Secretariat to the Department of Environment, Community and Local Government, Dublin, 2013. Available at: <http://www.environ.ie/en/PublicationsDocuments/FileDownload,32467,en.pdf>

proposed approach is 'to achieve transition to a low carbon, climate resilient and environmentally sustainable economy in the period up to and including the year 2050'. This is to be achieved by preparing and implementing national and sectoral road maps that are informed by scientific evidence, research findings, and the advice of an Expert Advisory body, and consistent with existing and future European Union and other obligations. The plans will specify the policy measures to be undertaken for both mitigation (reduction of greenhouse gas emissions) and adaptation (accommodating the climate change that is already upon us, or very likely to happen), and they are to be cost effective and economically efficient.

Until the national and sectoral road maps are available, it is impossible to draw conclusions about the likely quality and effectiveness of what is proposed, but we can identify the characteristics that would lead us in a useful direction.

### 1. Will the road maps and their implementation help us be positive and effective leaders for Europe on climate change?

The centre of gravity of the global economy is shifting to Asia, and this is reflected in greenhouse gas emissions, with China and India in 2011 accounting for over a third of CO<sub>2</sub> emissions.

**Table 1. CO<sub>2</sub> emissions, by selected jurisdictions, 1990 and 2011, Billion tonnes.**

Jurisdiction	1990	% of Total	2011	% of Total	Per Capita 2011
EU 27	4.35	19.2	3.79	11.2	7.5
US	4.99	22.0	5.42	16.0	17.3
China	2.51	11.1	9.70	28.6	7.2
India	0.66	2.9	1.97	5.8	1.6
Total	22.7	100	33.9	100	

Source: Olivier, Jos G.J., Greet Janssens-Maenhout, Jeroen A.H.W. Peters, 2012.. *Long-Term Trend in Global CO<sub>2</sub> Emissions, 2012 Report*, Netherlands Environmental Assessment Agency and JRC European Commission 39 pp.

[http://edgar.jrc.ec.europa.eu/news\\_docs/CO2%20Mondiaal\\_%20webdef\\_19sept.pdf](http://edgar.jrc.ec.europa.eu/news_docs/CO2%20Mondiaal_%20webdef_19sept.pdf)

China alone now accounts for almost 30% of the global CO<sub>2</sub> emissions, and its share is rising. It is instituting a number of very ambitious measures to address greenhouse gas emissions. Success or otherwise in addressing the global challenge will be decided there. And the difficulties in doing so are immense. China's GDP per capita in 2012 in purchasing power parity was \$12,302. Ireland's was over three times that level (\$41,739). There is intense political and popular pressure to keep growing so as to catch up with the richer countries. There is a chance that the transition to a low carbon and prosperous economy will be achieved, but it will take a comparable effort and support from the EU and the US if the climate progressives in China are to prevail.

Ireland's greenhouse gas emissions are about 0.1% of the global total. On our own, whether we succeed or fail to cut emissions is immaterial, unless our performance has a multiplier effect on others. Action at European level can provide the multiplier. We have the advantage of being at the decision making table of the European Union, which has real leverage. Although the EU in 2011 only accounted for 11.2% of total global CO<sub>2</sub> emissions - and this share is shrinking - it is still a major

global player; it has some negotiating heft because it is doing rather than talking, and, as the largest importer of goods and services in the world, it has incomparable market power. Our own roadmap should first and foremost assist the EU in shaping and the advancing the European and global agendas, and this should be recognised as a priority in the Irish roadmap.

### The Issue of Targets

The meat in any policy sandwich is the quality and credibility of the policies that are proposed and then implemented, and their prospects of achieving a productive change in direction. Do not judge any policy process by what it aspires to in the long term – such commitments are politically costless and so can be extremely ambitious, because they become due for delivery way beyond the current political cycle. Focus instead on what is proposed now to achieve a change of direction; this is where difficult choices, tradeoffs, priorities and allocation of scarce financial, political and administrative effort are to be found, and where political skill and courage (or its absence) can be judged.

Having Irish climate targets is not irrelevant, but they are relevant only in the context of contributing to the ambitions of Europe, and thereby as a means of helping China make progress, for reasons outlined above. There is no logic in establishing targets for ourselves alone, independent of the European context. But a sinn féin approach has its supporters.

In 'Climate Report is a dismal technocratic document' (I Times February 22, 2013) Frank McDonald bemoans the absence of 'specific real targets' in the recent NESC report on facing the climate change challenge in Ireland. This enthusiasm for targets is also shared by a number of non-governmental organisations (Friends of the Earth, Stop Climate Chaos, Environmental Pillar, Irish Corporate Leaders on Climate Change) who on February 20 issued 'Six Tests for the Government's Climate Change Bill' the leading two of which are: 'Is there a 2050 target?' and 'Are there interim targets?'

Making 'real targets' the top priority is misconceived for three reasons.

The first is that Irish (and other) governments consistently do not meet many environmental and other targets that are legally binding, especially those that come due outside the electoral cycle in which the target was set. And this is true even when non achievement results in large lump sum and daily financial fines being imposed on us by the European Court. In 'Implementing EU Directives – an Opportunity to Lead' (available at: <http://www.publicpolicy.ie/wp-content/uploads/Implementing-EU-directives.pdf>), I elaborate on the reasons for this lack of action. Irish governments do not embarrass easily. It is optimistic beyond reason to imagine that a target for 2050, which between now and then will see about 9 governments come and go, will have any real purchase on how these many governments will act.

The second reason why national targets covering the whole economy will be ineffective is that our emissions from the power sector and heavy industry (cement, refineries etc.) are already part of an EU-wide cap which is fixed at EU level; this is called the European Union Emissions Trading Scheme (EU ETS). Even if we reduce to zero our emissions from the traded sectors, there will be no commensurate reduction in total emissions.

A third reason is that under European Law we already have very demanding legally binding annual targets over the 2013 to 2020 period for emissions from sectors not in EU ETS, i.e. emissions from

agriculture, transport (excluding aviation), buildings (heat), waste. The total reduction from a 2005 base for the EU is -10%. Ireland (with Luxembourg and Denmark) was given the most demanding minus 20% target. The huge task we face can be judged from the fact that our annual non traded emissions in 2011 (41.7 million tonnes) - after 3 successive years of decline in GDP - still exceeded our legally binding target for these sectors (40.56 million tonnes). We have a huge mountain to climb, and this challenge will intensify if this cap is further tightened at EU level.

## 2. Are we transforming agriculture to be climate efficient?

In 2011, agriculture in Ireland contributed over 44% of the total greenhouse gasses emitted from the non-traded sectors. There are ambitious plans to expand output once quotas are removed.<sup>4</sup> Without an effective strategy, emissions will grow and result in some combination of tax payer buying of allowances from other countries to cover the deficit, and compensating reductions from the transport and heat sectors which could be very difficult and expensive.

There are initiatives and instruments emerging to support farmers in making the transition: In the Conclusions of the European Council on the EU budget to apply from 2014 to 2020<sup>5</sup>, we find the following (p. 27):

*“The overall environmental performance of the CAP will be enhanced through the greening of direct payments by means of certain agricultural practises, to be defined in the Regulation of the European Parliament and of the Council establishing rules for direct payments to farmers under support schemes within the framework of the common agricultural policy, beneficial for the climate and environment, whilst avoiding unnecessary administrative burden, that all farmers will have to follow. In order to finance those practises, Member States will use 30% of the annual national ceiling, with a clearly defined flexibility for the Member States relating to the choice of equivalent greening measures. “*

And from the enterprise sector, we find a very interesting initiative with huge potential: Glanbia is a major Irish food company that has ambitious plans, which are summarised by the National Economic and Social Council (2013, p. 74) as follows:

*“Glanbia views the drive to reduce energy costs and environmental impact as key to future growth. To support this it has created a very sophisticated process by which it assists farmers to farm more efficiently and reduce emissions. Bord Bia and Teagasc were centrally involved in this project. They designed the data collection questionnaire, collected the information on farms, developed the methodology and model and achieved certification from The Carbon Trust.*

*There is now a Code of Practice that supports continuous improvement on farms. This includes things that farmers must do and should do. Independent audits will be used to determine if standards are reached. There is also an education and awareness programme to introduce the code of practice, explain how it works and highlight its impact on farms, particularly the scope to reduce costs. It allows farmers to assess their performance relative to national benchmarks and with local*

<sup>4</sup> See 'Food Harvest 2020', available at: <http://www.agriculture.gov.ie/media/migration/agri-foodindustry/foodharvest2020/2020FoodHarvestEng240810.pdf>

<sup>5</sup> European Council (from General Secretariat of the Council to Delegations) 'Conclusions: Multiannual Financial Framework', EUCO 37/13, February 7/8 2013.

peers. In addition, farmers receive a visit from in-house advisers working with the company who provide advice based on detailed analysis of the audit and ongoing performance data for the farm. Having completed a pilot programme, Glanbia is planning to roll out this initiative to all of its milk suppliers over 2013/14.<sup>6</sup>

This initiative is potentially transformative: What doesn't get measured doesn't get done; this provides the measurement, Glanbia can see advantage in the global market place from adopting this approach, and the CAP provisions noted above can be designed and implemented so as to reward farmers who embrace the approach. It needs to be re-enforced by an innovation and research and development strategy (see below).

If Ireland becomes a global leader in the area of transforming farming and forestry to be resource and environmentally efficient, it can have spillovers and insights for China and other countries that are struggling to expand food production while protecting local and global life support systems. [The other 'big win' opportunity is improving the energy efficiency of buildings, but this can only be achieved if the transaction costs of retrofit can be dramatically reduced, and this involves scaling up to community and neighbourhood levels]

### 3. Is energy efficiency prioritised?<sup>7</sup>

Energy efficiency is about getting more output per unit of energy input. As efficiency improves, it can lower energy prices, reduce greenhouse gas emissions, improve comfort and health levels, especially for the most vulnerable, and generate employment. But it only delivers these outcomes for households if the barriers inhibiting action are successfully addressed; these include small individual scale which increases unit costs and makes investment of limited interest to banks, fear of strangers in the house, apprehensions about disruption, split incentives - where landlords don't reap the benefits of their investment in energy efficiency. And this requires achieving substantial economies of scale and scope through community-wide schemes and making the choice 'opt out' rather than 'opt in'.

### 4. Is climate efficient innovation embedded so as to influence how we think and act as producers, consumers and government?

Business, families, farmers, civic society, the universities, government all need to do research, experiment, find new ways of doing more with less. And some of these new ways need to be converted into enterprises. Teagasc and the universities have key roles here. There needs to be a substantial research, development and demonstration programme in place to support the innovation imperative. The main vehicle for research funding in Ireland is Science Foundation Ireland (SFI), and it plans by 2015<sup>8</sup> to devote all of its funding to the 14 areas specified in the Report of the Research Prioritisation Steering Group<sup>9</sup>. In the priorities report, 'Climate Change and Related

<sup>6</sup> NESCC, 2013. "Ireland and the Climate Change Challenge: Connecting 'How Much' with 'How To'", Final Report of the NESCC Secretariat to the Department of Environment, Community and Local Government, available at: <http://www.environment.ie/en/PublicationsDocuments/FileDownload,32467,en.pdf>

<sup>7</sup> A discussion of the issues involved can be found in: Convery, Frank. 2011. 'Reflections—Energy Efficiency Literature for Those in the Policy Process', *Review of Environmental Economics and Policy*, 5 (1): 172-191.

<sup>8</sup> See SFI 'Agenda 2020', 2013, page 14, available at: <http://www.sfi.ie/about/sfi-strategy-and-operational-plan/>

<sup>9</sup> See: [http://www.forfas.ie/media/ffs20120301-Research\\_Prioritisation\\_Exercise\\_Report.pdf](http://www.forfas.ie/media/ffs20120301-Research_Prioritisation_Exercise_Report.pdf). The areas are: A. Future Networks, B. Data Analytics, C. Digital Platforms, D. Connected Health and Independent Living, E. Medical Devices, F. Diagnostics, G. Therapeutics, H. Food

Environmental Research’ is listed in an Annex as an example of policy research but is not addressed at all in the funding portfolio. An appropriately funded climate research, development and demonstration programme needs to be front and centre if the climate strategy is to succeed.

#### **5. Do our political and institutional arrangements foster and facilitate effective action?**

The 5 key sectoral players at national level are the departments of agriculture, employment, energy, environment and transport. They all need to be mobilised, with political leadership from An Taoiseach, and executive leadership from environment, reporting regularly to the appropriate Oireachtas committee.

In the context of the conflict in Northern Ireland, Frank McGuinness observed that “The greatest mistake we have made is not that we didn’t love our neighbour, rather we don’t know them, and that is our continued mutual choice.” In regard to policy development and implementation, this idea has its analogue in that each department and agency has its own missions, personnel and professional skills, ethos, priorities and budgets, and finds it difficult to impossible to reach across and know what others are doing, and collaborate effectively to advance a shared objective. This silo mentality and practise is damaging in general, but it is disastrous when it comes to addressing climate change, which is quintessentially a multi sectoral challenge. The draft Climate Bill includes an important feature that would make the silos more porous; it proposes (Heads 6-9) a National Expert Advisory Body with 5-7 members, four of whom will comprise the directors of the Environmental Protection Agency (EPA), the Sustainable Energy Authority of Ireland (SEAI), Teagasc, and the Economic and Social Research Institute (ESRI), to which should be added the Director of the National Transport Authority. It also provides for regular reporting to the Dáil by each Minister on his or her sectoral performance. Presumably periodic reporting to the relevant committee(s) will also be part of the oversight functions.

#### **6. Are the policies that are already working well being sustained and developed?**

As noted above, the degree of substance in a strategy can be judged by the quality and coherence of policies being pursued. The emphasis on the ‘how’ in the NESC analysis is well justified.

We are amongst the leaders in the EU in introducing and increasing a carbon tax, and in the recalibration of the vehicle registration tax and the annual road tax applied to new cars to reflect their emissions performance. The income from the carbon tax is helping avoid the need to raise other taxes, and both taxes are helping re-shape our behaviour in the direction of reducing climate change pressures. [Emissions from transport fell by over 10% between 2009 and 2011]. We have also been very effective at introducing an energy efficiency labelling scheme, and in making new houses almost carbon neutral. We need to continue with these policies, and re-enforce them. The first requirement in an effective strategy is to make sure not to weaken or abandon the policies in place that are effective. The second is to keep scanning the horizon for new and better ways to move the agenda forward. The emphasis in the draft bill on policy measures is important and should be retained, as should the focus on sectoral road maps; the three sectors that make up the non-traded emissions - agriculture, buildings (heat) and transport – have very particular technological, business, consumer and policy features that require separate treatment.

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for Health, I. Sustainable Food, J. Marine Renewable Energy, K. Smart Grids and Cities, L. Manufacturing, M. Processing technologies, N. Services.

### **7. Are we making sure that our children understand?**

We are the first generation in human history to, by our own actions, begin to shape how our planet's life support systems function. Most adults who interrogate the evidence<sup>10</sup> are convinced intellectually that climate change is happening, but for most, it is not embedded in how we think and act, and how we value what we have.

The costs of climate irresponsibility are likely to be borne tomorrow by those who are in our schools today. Every student needs to understand the issues, the evidence, the risks, the choices, and the likely implications of not taking action. In Ireland we have done well, with our Green Schools and Eco UNESCO initiatives, to embed the value of protecting the local commons with a global consciousness. Continuing and developing these initiatives need to be an integral part of the strategy.

### **8. Are we effectively addressing adaptation and climate Justice?**

Some climate change is already upon us. And the costs are being borne in the main by those with the least resources to adapt, namely, the 800 million who are already struggling to put enough food and clean water on the table to survive. The Mary Robinson Foundation is providing global leadership in giving an effective voice to the voiceless in this critical area. Irish Aid, Concern and others are making the link between climate change and nutrition, so we have a nucleus of advocacy, performance and expertise in adapting to climate change in ways that are effective and fair.

In the Climate road map, adaptation in general should be given more prominence, and global leadership in climate justice should feature.

If we can answer 'yes' to these 8 questions, we have a climate strategy we can be proud of.

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<sup>10</sup> A recent World Bank publication – *Turn Down the Heat – why a 4C warmer world must be avoided* – a report for the World Bank by the Potsdam Institute for Climate Impact Research and Climatic Analytics, Washington DC, 2012. Available at: [http://climatechange.worldbank.org/sites/default/files/Turn\\_Down\\_the\\_heat\\_Why\\_a\\_4\\_degree\\_centrigrade\\_warmer\\_world\\_must\\_be\\_avoided.pdf](http://climatechange.worldbank.org/sites/default/files/Turn_Down_the_heat_Why_a_4_degree_centrigrade_warmer_world_must_be_avoided.pdf) - provides the evidence.