4. With 12 years left to limit climate catastrophe, Ireland needs to govern the clock

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1. Introduction

In October 2018, the Intergovernmental Panel on Climate Change (IPCC) published a special report¹⁴ looking at the likely impacts if the world warms by 1.5°C, the target almost all the world's governments agreed to in the 2015 Paris Climate Agreement. Having already warmed 1°C since the start of the Industrial Revolution, the Earth is well on its way to exceeding 1.5°C. In fact, even if all the United Nations achieve their intended nationally determined contributions to achieve the goals of the Paris Agreement, we are still looking toward a world that is at least 2.7°C warmer by the end of the century compared to the 1850s. The IPCC's latest report says that by 2030 emissions need to be about 45% below what they were in 2010 to stay below 1.5°C. That estimate gives us just 12 years to rapidly decarbonise and avoid climate catastrophe. Such an extreme transformation is the price we pay for kicking the can down the road and delaying action to date.

Fortunately, much of the world has already begun to embrace the transition to a low-carbon economy. In 2015, Costa Rica achieved a record-breaking 75 days on completely renewable energy sources¹⁵; Denmark is well on their way to achieving a low carbon future, with residents in Copenhagen already producing half the greenhouse gas emissions of the OECD average¹⁶; and Iceland, who suffered a similar banking-related economic collapse to Ireland, credits their economic recovery to investment in green

Intergovernmental Panel on Climate Change (2018) Global Warming of 1.5 °C http://www.ipcc.ch/report/sr15/

The Guardian (26 Mar 2015) https://www.theguardian.com/world/video/2015/mar/26/costa-rica-only-renewable-energy-first-75-days-of-2015-video

DECD (29 Jan 2013) http://www.oecd.org/cfe/leed/Measuring%20Local%20Green%20Growth_ Copenhagen_29%20January%2013%20FINAL%20for%20Francois.pdf

energy¹⁷. Some of the world's least developed countries (such as Ethiopia, Bangladesh, and Bhutan) are leap-frogging the old carbon-based economic model in favour of the new low-carbon economy¹⁸, in a similar fashion to the way they embraced mobile-phone technology over land line phones. Ireland remains one of the only EU countries that continues to lag, with greenhouse gas emissions rising rather than declining.

Ireland's fuel mix for electricity generation is dominated by carbon-based fossil fuels (83%), including gas (48%), coal (22%), peat (12%) and oil (1%)¹⁹. In 2013, then Minister for Environment, Phil Hogan, defined a low-carbon society as "near zero carbon dioxide emissions by 2050 in the case of energy, buildings and transport, and carbon neutrality in the case of agriculture."²⁰ Currently, energy, transport and agriculture emit approximately 20%, 19% and 32% of total Irish greenhouse gas emissions, respectively²¹. Ireland has the third highest emissions per capita for residential energy use in the EU and total greenhouse gas (GHG) emissions have been increasing by over 3.5 per cent per year since 2015²². No matter how 'low-carbon' society is defined, Ireland is still a long way away from realising it.

Ireland enacted its first legislation to address climate change in the form of the Climate Action and Low Carbon Development Act in 2015. The act was intended to "provide certainty surrounding Government policy and provide a clear pathway for [greenhouse gas] emissions reductions" and referenced the Government's National Policy Position to achieve near zero carbon dioxide emissions by 2050 in the case of energy, buildings and transport, and carbon neutrality in agriculture. The legislation forced the Government to publish their first National Mitigation Plan in over 8 years. However, the plan was weak in measurable impact and criticised by NGOs and the Government's own Climate Change Advisory Council, who warned that the actions in the National Mitigation Plan were "not sufficient to put Ireland on a pathway

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Graeiber, D. (2 Mar 2013) https://oilprice.com/Finance/the-Economy/Iceland-Credits-Green-Energy-for-GDP-Growth.htm

International Institute for Environment and Development (22 Jan 2013) https://www.iied.org/low-carbon-resilience-least-developed-countries-panacea-address-climate-change

¹⁹ SEAI (2014) Energy in Ireland 1990-2013 Report

Oireachtas.ie (2013) http://oireachtasdebates.oireachtas.ie/Debates%20Authoring/ DebatesWebPack.nsf/committeetakes/ENJ2013071000003?opendocument#B00100

²¹ EPA (2014) http://www.epa.ie/pubs/reports/air/airemissions/GHGprov.pdf

Ireland's Environmental Protection Agency (2017) Greenhouse gas emissions report http://www.epa. ie/pubs/reports/air/airemissions/ghgemissions2016/Report_GHG%201990-2016%20April_for%20 Website-v3.pdf

to achieve our 2020 targets or our long-term decarbonisation objective" 23 . The Council explained that "If Ireland does not introduce major new policies and measures it will miss its 2020 targets", resulting in large EU fines estimated at up to \le 455 million. On its current trajectory, Ireland will also miss the proposed 2030 EU decarbonisation targets.

Ireland's troubling increase in greenhouse gas emissions is largely due to a booming economy, which (unlike most other EU countries) failed to decouple from fossil fuel consumption when it had the chance. Government policies to promote intensification of beef and dairy farming; to prioritise road construction over sustainable transport options, and to continue burning peat and coal for energy are leading the country in the wrong direction with respect to climate change. Most recently, the Government rejected the advice of their Climate Change Advisory Council to impose a modest carbon tax in Budget 2018 to kick start a low-carbon direction of travel and simultaneously address fuel poverty. Such a tax was also recommended by the Citizens Assembly in 2017 when they considered 'How Ireland can be a leader in tackling climate change', demonstrating the people are further ahead than the politicians when it comes to understanding the urgent need to transition to a low-carbon economy and a willingness to make sacrifices to encourage that transition.

In October 2018, the United Nations Special Rapporteur on Human Rights and the Environment called the Irish Government's failure to take more effective measures to address climate change "a breach of Ireland's human rights obligations", stating the Government "must take additional actions on an urgent basis on climate change", and concluding "climate change clearly and adversely impacts the right to life, a right which the Government of Ireland is legally obligated to respect, protect and fulfil" Friends of the Irish Environment is now taking a legal case against the Government to ask the High Court "to quash and remit the inadequate 2017 National Mitigation Plan in order that it can be remade to protect these fundamental human rights".

²³ Ireland's Climate Change Advisory Council (2017) Periodic Review http://www.climatecouncil.ie/ media/FINAL%20Web%20Version%20PRR%20Press%20Release.pdf

United Nations Human Rights Special Procedures (2018) Statement on the human rights obligations related to climate change, with a particular focus on the right to life https://www.ohchr.org/ Documents/Issues/Environment/FriendsIrishEnvironment250ct2018.pdf

2. Governing the clock

With a planetary clock counting down toward 1.5°C of planetary warning, there is an urgent need for Ireland to enact new policies and measures to bend the country's greenhouse gas emissions curve downward and move onto a sustainable path to 2050. The Government's Climate Change Advisory Council has recommended several measures including a substantial increase in the carbon tax; phasing out coal and peat for heating and power generation; more investment in clean public transport and electric vehicles; improved planning to minimise commuting; and urgent implementation of decarbonisation measures in the agricultural sector.

A major obstacle to implementing such measures is the dearth of analysis and governance to plan for such transition. For example, the agricultural research body Teagasc's work is dominated by improving livestock farming rather than diversifying out of such climate intensive farming practices into practices like horticulture, organic farming, or agro-forestry. Over 30% of Ireland's greenhouse gas emissions come from agriculture, making Ireland unique as a developed country with a developing country's emissions profile. Ireland has strengths that offer opportunities to become a leader in addressing the challenge of climate change in the agricultural sector, but to lead in climate smart agriculture Ireland needs to reduce absolute emissions from agriculture. Based on future climate projections, Europe will experience increasing drought conditions over the coming years and such conditions have already taken a significant toll on food production. In the long term, this means Ireland could have to produce more food to try to help support the rest of Europe and should focus on producing food products that will be needed in Europe and appropriate to Ireland's changed climate. Ireland's current focus on Infant formula for the Chinese market is clearly not one of those products. There is an urgent need for Irish agricultural policy to stop putting short-term financial gains above the long-term well-being of the Irish landscape, environment, public health, and climate projections. For GHG emissions from the agricultural sector to decline while simultaneously increasing profit, there is an urgent need to develop alternative agricultural models away from the Government's business-as-usual approach to intensify livestock farming.

Similarly, in transport, while some efforts have been made to incentivise electric vehicle (EV) purchase, the public charging infrastructure has been

neglected to the point of discouraging prospective buyers unless they have a second fossil-fuel based car for long-haul trips. While the Government's long-term commitment to ban the purchase of new diesel or petrol vehicles form 2030 sounds ambitious, but without a realistic action plan to transform charging infrastructure, this commitment is nothing more than a dream. A completely electrified transport system must be constructed over the next three decades, including both electric cars and an electrified public transport system. Most importantly, cycling must be part of the transition. There are many co-benefits in cycling beyond its role to address climate change. -Cycling could contribute to solving Ireland's obesity crisis, mental health crisis, and economically struggling high streets. There is evidence to show people who cycle are healthier, less prone to depression and more inclined to stop and shop. In Copenhagen, 45% of the population uses bikes for their daily commute, while in Dublin we're at less than 6%. Last year, Ireland spent less than 1.5% of the transport budget on sustainable transport (mostly in the form of safe cycling education for kids). The EPA reported last May transport emissions will increase 13%-19% on current levels by 2020. Hard questions must be asked about how and when transport will contribute to the low-carbon transition.

The same can be said for the Government's pledge to replace large-scale peat production with alternative energy sources by 2030, which has been referred to by activists as decidedly unambitious, creating a "fire sale" over the next 12 years that will result in most of the peat being harvested in that time. A lack of planning in household energy consumption is also apparent in Government policy. Ambitious regulations coming from the EU Buildings Directive will require new buildings to be designed to nearly zero energy building standards by 2021, leading to a 50% to 60% improvement in terms of energy efficiency and reduction in CO_2 emissions. Two million existing homes in Ireland will need retrofit, which requires a new national renovation strategy. At an average cost of EUR 28,000 per home for deep energy retrofit, this is a significant technical and financial challenge further exacerbated and ignored due to the country's current housing crisis, which prioritises speed in construction over energy efficiency.

3. Conclusion

One advantage of Ireland's self-proclaimed label as a "climate laggard" is that there is no shortage of ways to reduce greenhouse gas emissions when starting from such poor performance. Solutions exist for every sector. Aside from the positive benefits to climate change from moving to a low-carbon economy, there are numerous other social benefits from this transition, such as employment growth and greater social equity through increased energy and food sovereignty and improved public health from discontinuing the burning of fossil fuels. The technology already exists for Ireland to become a low-carbon society and, through the production of its own renewable energy and less dependency on fossil fuel imports, to become more stable economically and have higher employment and investment potential than Ireland's current system²⁵. The only missing piece is the planning and governance required to implement those solutions at a scale that can measurably reduce GHG emissions.

Irish society is designed to function within a narrow environmental envelope. When that environment fails, it impacts everything about the way people live and work. Risk of extreme storms on the West coast of Ireland is now up 25% due to climate change. Fodder crises due to extreme weather are becoming a regular occurrence. Over 260 homes were flooded in floods in December 2015 and will continually be at risk as the climate continues to warm. Combine this with the thousands of homes and businesses that are at risk due to sea level rise and Ireland will have another kind of housing crisis on our hands, one due to climate displacement. After the 2015 floods, then Taoiseach, Enda Kenny proposed the idea of relocating those who live in high risk flooding areas, but the Stern review has shown that the benefits of strong, early action to address climate change considerably outweigh the costs of doing so²⁶. As the Earth's temperature rises, so too will the cost of adaptation and residual damages will remain inevitable which the State must begin preparing for to protect citizens.

6 From Here to Where?

²⁵ Irish Examiner (14 Jul 2008) http://www.irishexaminer.com/ireland/energy-imports-near-top-in-eu-at-91-67253.html

http://www.wwf.se/source.php/1169157/Stern%20Report_Exec%20Summary.pdfhttp://www.wwf.se/source.php/1169157/Stern%20Report_Exec%20Summary.pdf

Israel's first female prime minister, Golda Meir, regarded as one of the most accomplished women of the twentieth century, once said "I must govern the clock, not be governed by it". The clock is unavoidable, but what Ireland's Government does with its limited remaining time is up to us. We control the activities we choose to do in that time and we must choose to do something to reduce our country's greenhouse gas emissions immediately.