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IRELAND'S CLIMATE CHANGE ASSESSMENT

An Independent Commentary





Ireland's Climate Change Assessment 2023

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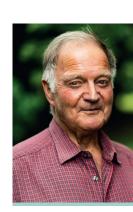
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An independent commentary by **Professor Tim O'Riordan OBE DL FBA**

A National Mission

I have the honour of being invited by the team creating Ireland's Climate Change Assessment to offer a commentary on the wider setting of this great achievement. This is a personal reflection composed to accompany the various documents provided by the team.

The ICCA in context

Ireland's climate change assessment (ICCA) provides a vital service for all present and future citizens of the country. This is an extraordinarily comprehensive compilation of all that is known about the most challenging prospect facing us. What may happen to Ireland and its peoples over the rest of this century is beginning to be imagined. As the day-to-day evidence of climate convulsions enter our consciousness, two perspectives spring to mind.

One is that there is no suitable language for all that is taking place. Without a basis for expressing a common purpose, it is impossible to share fears and hopes. Yet we must forge this language because it is possible to overcome climate alteration through transformation of who we are and what we can do. We can no longer be the same as we have been, think the same as we have thought, act the same as we have behaved, or treat each other on this unique planet as we have done.

The other is the realisation that addressing climate alteration encompasses every aspect of our governing activities, of our institutions, of our sociability, of our personae, and of our essential purpose. This assessment is far more than a scientific journey, a technological exploration, an economic and social odyssey, or a personal crusade. It is everything in a new guise. There has never been a challenge like this in the history of human experience. It is a national mission. And it is supposed to be accomplished in the blink of less than three decades.

The role of Ireland

Ireland is a small country with a big heart. For its size it is probably the most instantly recognisable nation on the planet. What Ireland does counts. This is particularly the case when all the Irish people act together. A common purpose, even if very challenging to create, captures a common spirit. The Irish Climate Change Assessment (ICCA) will succeed if it is energised by the collective will of all its citizens. It will triumph if its young conduct this mission throughout their lives. Ireland can truly lead from the middle of the global pack. Ireland should be enabled to play an effective role in the European Union and in the wider world to set an example of achieving successful net zero governance and delivery over the next three decades. This mission is a test of the Irish character which has proved its resilience over dozens of centuries.

Climate change is a powerful metaphor of our times. Metaphors are totems of deeper purposes that cannot be disentangled. They provide drivers of fears, hopes, and aspirations. In the right hands, metaphors energise progressive change leading to transformation. The documents which form this Assessment summarise all we know about the causes and how to handle climate change in the Irish context. The two major drivers of climate alteration are the burning of fuels which were locked away in vegetation, rivers, marshes, and seas over 200 million years ago, and the removal of living ecosystems on land and water which have nourished life on Earth for millennia, and which lock away airborne carbon dioxide.

Ireland is in a strong position to influence global climate futures both in its actions and through its EU and global roles. Ireland is a signatory of the UN Framework Convention on Climate Change. It is politically committed to playing its part in achieving the goals of the Paris Agreement which now frame global climate policy. Climate change policies are agreed in the context of organising coordinated actions for critical small nations with similar emissions contributions, notably in the context of the European Union. Its role as climate leader in the European Union is therefore a very important determinant of Ireland's climate change assessment.

The metaphor of renewal

Climate change is also a metaphor for the survival of humanity as a creature of planetary creation. It is propelled by inequality and injustice and, if continued, worsens both. The wealthy few contribute to most of the heat acceleration but are often least willing to forego their pleasures. The impoverished many are unable to avoid the consequences of climate change and have few means to reduce their contributions without almost unbearable cost and consequence. They face increasing hardships. The most desperate are trapped in despair. Energy poverty in Ireland is rising rapidly with over two fifths of households unable to pay their current bills. This is why removing the causes of climate change, even for a small country like Ireland, is a moral mission and a vital act of planetary compassion.

Currently Ireland contributes one thousandth of the total planet-warming greenhouse gas emissions. If Ireland was to become net zero through a combination of emissions removal and ecological absorption tomorrow, its massive effort would be inconsequential to the planetary crisis. But this is not the point. The purpose of the Ireland Climate Change Assessment is to show that tackling climate change can be designed to bring transformational benefits to all Irish people, and especially to the next generation. And in so doing carries the pride of innovation, achievement, and salvation for everyone. Taking a lead is courageous, but essential.

Achieving net zero, even in three decades will be extremely daunting. The documents which form this Assessment reveal why. Already Ireland is falling behind on its national commitments. There is nothing in current policy measures which will substantially reverse this failing. Expenditures incurred in seeking to reduce greenhouse gases are increasingly outweighing the deeply damaging immediate consequences of failing to meet these costs. The clear benefits of a climate calmer world with much less atmospheric and ecological disruption, are not fully appreciated because they are not widely evident right now. Yet these costs may well bring many nations to their knees in the coming momentous three decades, when most people alive today will experience the consequences of delay if all nations fail to reach their net zero obligations.

The ICCA recognises the interdependence of climate, ecosystems and biodiversity, and the health and wellbeing of all human societies. It champions the value of diverse forms of knowledge. The relevant knowledge is an amalgam of three elements. One is scientific made believable because of its evidential proof and its informed reviews by knowledgeable peers. The second is the vernacular, the collective values and beliefs of many individuals and groupings which create democracies. The third is the creative, the rich amalgam of emotions, feelings, visuals, and narratives which extend the mind into unfolding imaginaries. The ICCA is a process. It begins with the scientific, it will energise the vernacular, and it will stimulate the creative. It starts with documents but will only end when Ireland proclaims the emergence of a new brave world.

The vision of transformation

In the emerging transformation, the merits of designing low carbon technologies are appreciated and accelerated. The downward costs of producing non-carbon energy become impossible to ignore. Individual and collective behaviour will alter because fresh ways of sharing and living in harmony are enticing and right. Retaining the status quo becomes very depressing and dangerous. Climate comforting learning is universal. The people begin to stir, citizens' assemblies flourish, communities mobilise, and an exuberant, attractive, fairer non-carbon society starts to emerge. The politics of the net zero transformation are more consensual. The net zero society is on its way.

Addressing this vision is even more imperative because Ireland is already vulnerable to existing climate change. The accompanying ICCA reveals the measurable dangers and costs associated with heat, drought, flooding, coastal erosion, and wildfire, and storm. It also recognises the growing disruption and costs of adaptation, and the shattering consequences of being sluggish in preparation. Its open tourism and trading economies are already exposed. GHG emissions breaching international agreements are already penalising Ireland.

It suggests that a national scientific mechanism for determining the attribution of human caused climate change to significant and damaging events be established. Such an arrangement would be welcome as it could lead to more focussed and justified emissions payments, as well as in credits for locking away unavoidable discharges.

Achieving net zero by 2050, which is mandated Ireland's political policy, means coming to terms with five great challenges in the coming decade.

- 1. Creating a permanent and flexible governance.
- 2. Providing employment and economic security for families currently dependent on greenhouse gas generating activities.
- 3. Establishing an economy capable of running on renewable energy, smart technology, enterprising employment, and reconstituting waste.
- 4. Providing guarantees for landuse covenants which enhance biodiversity over hundreds of years, but especially for peat reclamation and afforestation.
- 5. Energising all citizens into forming and appreciating supportive net zero communities.

Failing to get to grips with these challenges will weaken the authority of the ICCA, whatever its merits. What follows is to some extent covered in the summary for policy makers for Volume 4. There is still more to express here.

There is growing concern that current politicians are beginning to back away from their predecessors' commitments to a rapid acceleration to net zero. One reason is the anxiety over the possible electoral backlash when those already experiencing considerable cost of living increases must face the potentially enormous expenditures of insulating their homes, redesigning their radiators, purchasing air sourced heat pumps (which cool homes in hot summers), and exchanging their fossil-fuelled transport to electric vehicles. In addition, there is cultural resistance to rapid conversion to plant-based diets. This is the case even though vegetarianism and veganism are becoming more widespread amongst the young, and associated personal health benefits are more universally understood.

An emerging feature of the troubling political pause is the attempt by populist parties to relocate getting to net zero as a party political process. There is huge danger if the electorate is encouraged to assume that delay is in their better economic interests. Delay adds considerably to atmosphere warming gas concentrations. In part this is because the effects of climate change reinforce climate change. Ice melt darkens the seas: drought induced dust covers mountain glaciers. Increased freshwater flows from the Arctic helps to weaken the gulf stream increasing the northwards spread of heat and drought. Greenhouse gas emissions amplify their consequences. Even a decade away, the costs of delay will afflict the impoverished far more than is the case today. Political opportunism may calm the anxious, but its perpetrators will not be in power when the consequences afflict the coming ill-prepared generation. The dangers of failing to forge a healing democracy become uncomfortably real.

Another feature causing delay is that responsibility for climate altering emissions comes from very few people. This is due to carbon embedded consumption as well as high emitting activities. As regards global emissions between 1990 and 2019, the top 1% was responsible for 23% of emissions growth while the bottom 50% was responsible for 16% of this growth. Nowadays 63% of global inequality in individual emissions is due to a gap between low and high emitters within countries rather than between countries. The wealthy are more able to influence voting patterns and hence to shape party politics.

Both features are aggravated by lack of informed and sensitive public debate. Not preparing the electorate for what lies ahead risks electoral friction and strong democratic headwinds for net zero transformations. Ireland has a proud history of both citizen assemblies and community conversations. There is a strong case for considering these approaches in the wake of the ICCA. It is also vital that the ICCA signals that its publication heralds a beginning and by no means the end for the transformation journey.

Governing for transforming to net zero

The institutions of governing in any country are not adapted to the thirty-year journey of necessary transformation. The points below should be addressed in the ICCA aftermath through active public conversations. Here the young should be enabled to take a lead.

- 1. Permanent but progressively adaptable commitment across successive governments and parliaments irrespective of party composition. This is a very demanding requirement as no government in power likes its hands to be tied by its predecessor. Failure to provide permanent political assurance of policy setting and delivery of policy measures will undermine and protract timely investments.
- 2. Comprehensive coordination by all policy delivery means getting to net zero must bind all sectors of government through coordinating politician/business/civil society networks. Above all the economic departments must be fully integrated into the post-ICCA process.
- 3. All regulatory bodies must coordinate their guidelines. At present regulatory bodies operate with very different remits and procedures, and often act at cross purposes.
- 4. Agreed incentives should be suitably designed into fiscal and economic procedures aimed at removing asymmetric carbon creating emissions and activities. Fiscal consistency should be a prime focus of the ICCA. This means systematically removing all climate change accelerating subsidies from the consumer and taxpayer. This is an international matter. A successful ICCA process should enable Ireland to take a moral lead as well as national courageous political/fiscal initiatives.
- 5. Guarantees must be put in place to ensure reliable supply chains of metals and materials vital for the permanence of the net zero economy. These refer to the so-called "vital materials" or "rare earths". This is both an EU and Ireland national matter. Eventually a job exploding circular economy of electronic components should be put in place.
- 6. Legally binding arrangements need to be established so that transforming to net zero should be undertaken in agreed stages. This is to ensure that the expensive (but cost effective) conversions to net zero are not forced onto the future generations who happen to be alive for the final phases of the transition. Net zero cannot be achieved with public support if those whose livings are displaced are not treated with decency and compassion.
- 7. Wide ranging approaches will have to be explored for informing, enabling, and supporting all people to appreciate the overall benefits of their net zero futures with scope for effective participation and mutual learning. Net zero governance needs to create a culture of net zero exuberance.
- 8. Ireland should be enabled to play an effective role in the European Union and in the wider world to take a lead and to set an example of achieving successful net zero governance and delivery over the next three decades. Exemplar status carries high political and moral authority.

Reclaiming Irish peatlands

The ICCA reveals that nearly half of existing peat has been effectively destroyed. Agriculture accounts for 37.5 % of the national GHG total in 2021. It is almost exclusively responsible for all ammonia emissions, for almost all methane from livestock, and of nitrous oxide from manure and fertilizer applications. Nowadays land use in Ireland is a net emitter of carbon equivalent gases. There is at present no authoritative assessment of land use carbon budgets for Ireland, and no clear scientific evidence of the degree to which disturbed peatlands could successfully absorb airborne carbon.

The causes of peat degradation are linked to agricultural incentives, to particular farming cultures, to peer group influences, and to levels of awareness and scientific proof over carbon losses and gains. The need for incentives to rewet peat coupled to the more complete science of sequestration should be quickly but carefully examined. There is a possible benefit for high carbon emitters to finance this carbon absorbing activity if it can be shown to be scientifically trustworthy and permanent.

Experiments should be initiated to test out the value of placing the ownership of land into neighbouring multi-farm conservation covenants so that groups of peat-connected farmers and their successors (as covenants are tied to the land and not to ownership) can form beneficiary carbon removing cooperatives. It might be possible for such covenants to be funded in part by present-day carbon emitters (including those whose businesses lead to the removal of wet peat). These peat

restoration funds would support the creation via apprenticeships of peat restoration and biodiversity enhancing employment for local people otherwise displaced or impeded from further degrading peat or grassland. This would be genuinely transformative.

The ICCA notes that restoring forests and peatland will be at a scale which is "unprecedented". A key component is consideration of the culture of modern Irish grass and peat farming, attitudes of established farmers to nature-based approaches, possible resistances of farmer associations and unions as well as the landscape loving public to such transformative changes. It is important here to acknowledge the role of landowners who still have active carbon removing peat on their property. Incentivising peat reclamation must extend to supporting financially those who have actively committed to existing peat conservation.

Research on the role of Irish beef farmers facing calls for more people to change their diets to plant-based foods highlights the significance of the loss of status, including identity, social life, and cultural heritage that may be experienced during a transition process. To ensure that all affected by planned climate actions participate in deliberation processes, significantly greater attention needs to be paid to recognition and representation from livestock owners. This can assist with guiding action, building legitimacy, and trust, and ensuring that no communities or constituencies are left behind.

Case studies such as the Dingle Hobs and the Burren holistic nature care schemes provide inspiration for others to experiment. Carefully conducted and monitored case studies should pepper the learning outcomes of the ICCA. Ecologically enhancing livestock production can sustain enduring and much-loved landscapes.

The role of the courts

The international community to which Ireland has committed itself has agreed to a process of reaching net zero by 2050. This is not legally binding on current and future Irish governments, but it carries both parliamentary and moral international force. However, the courts elsewhere have sought to make both the objective and the journey to net zero legally transparent and accountable on all relevant governments and public/bodies.

There is a strong case for the post ICCA public debate to consider that the relevant Irish courts take such a step. One post ICCA debate might be to consider converting the quasi-legal role of the Irish Climate Change Advisory Committee (CCAC) onto a more statutory footing. Successful and unsuccessful cases also highlight the level of public concern, increase public discourse, transparency, and signal to policy makers the growing consensus and support for climate among the public keeping climate on the agenda.

Giving the courts a voice would galvanise non-governmental and community organisations alike. It also encourages the formation of innovative participatory approaches such as listening circles, community conversations, and local assemblies. All aspects of learning should encourage skills and confidence building for effective community engagement. The courts can also help to ensure that pathways to net zero are properly phased, and are not concentrated expensively to the final few years of international commitments.

Equity, social justice, and ecosystem rights

At the heart of the sustainability transition lies justice. This is especially the case as inequality grows alarmingly, as disparity of ability to cope with the net zero consequences widen, and as the dispossessed increasingly are unable to afford the net zero journey. The post-ICCA debate needs to canvas opinion in a variety of informal ways to gauge the scope for transformational acceleration or friction. Moving forward towards transformational change requires that the pressure to act and to take advantage of opportunities that promote and accelerate a pathway to sustainability, wellbeing and equity, remains high.

The post-ICCA debate may consider

- 1. A reformed CCAC reporting to the whole cabinet could itemise the key benefits of getting to net zero based on wellbeing (and not just GDP) criteria. Ireland is a small country with a very collegiate citizenry. It is in an ideal setting for championing wellbeing.
- 2. The critical feature of this assessment is the layering of equity and injustice between groups of different ethnicities, educational backgrounds, gender, age, disability, and location. This may sound very demanding. But conducted well, this could have a galvanising effect on the public embrace of the transformation to net zero. Without such a bold and imaginative move, it is possible that the purpose of the ICCA will not be met. Informed citizen knowledge, participation (which enhances knowledge and compassion), and progressive consent are vital ingredients for getting to net zero.

Experimenting with participatory democracy

Imaginative and creative ways of including all citizens need to be transformed. This is a cultural issue. Participation is always limited by the logistics of inclusion, the incompatibilities of personal ability meaningfully to participate. The marginal and the timid do not come forward, nor do those who believe their views are not respected. If net zero is to be attained peacefully and progressively, the citizenry, and most especially the young, need to be fully engaged and confident about driving the whole process.

A good example of citizen deliberation is the processes underlying pursuit of A People's Plan for Nature. This was undertaken in 2022 to create a UK wide deliberation of embedding nature into everyday life and sentiment. It consisted of five stages: Input, Recommend, Decide, Agree, and Perform.

The Input phase called for a National Conversation. This was an open call for ideas which generated 30 000 submissions in a month. The next phases built on an impressive set of very positively evaluated experiences drawn from all participants. The critical success of the process was the complete resetting of the culture of transformation over enthusiastic participation and ensuring real outcomes.

Something like this could be initiated in Ireland through the post-ICCA debate and its institutional affiliates, such as the CCAC, the core cabinet committees, the cross-section of businesses, the supportive EU agencies, the wide range of social, cultural, and economic NGOs and think tanks, and a network of community organisations created and maintained by the assembly process itself. This will cost money. But the expenditure would be small given the scope for forging a true national consensus. A very exciting outcome of the ICCA would be the preparation and staging of an Irish People's Plan for Net Zero.

The initial phases of this would look at the various themes outlined in Volume 4.

- An integrated holistic approach to policy coordination and permanent delivery, backed by statute and legal mandate.
- Shaping demand for consumption of all goods, food, energy, water, critical materials.
- Initiating a wide discussion of new topics such as basic income guarantees, universal basic services, four-day working week, degrowth, circularity, citizens assemblies and deliberative participation.
- Redesigning mobility and the connectedness of settlements based of localised economies and creative hinterlands, through the digital town and the socially connected neighbourhood.
- Shaping mobility for the age of the electric vehicle.
- Creating building design, ventilation, energy and water recycling, and construction materials for a net zero age.
- Reassessing the digital economy and personal connectedness linked to universal digital literacy.
- Providing the input for the net zero economy based on the supply and circularity of critical materials.
- Re-examining incentive financing and just redistribution for the net zero transition.
- Offsetting carbon friction and international dispute, focussing on the massively lopsided distribution of carbon emissions by individuals and by nations.
- Reframing the roles of land use, natural diversity, agriculture, forestry, landscape scale recovery, and connected water management.
- Creating a national debate on diet, health, self-esteem, and landscape integrity.
- Grappling with the culture and politics of the just transition across a swathe of circumstances.

Living and learning

A significant majority of Ireland's people live in cities and towns. Getting these settlements to net zero will help to break the back of the transformative journey. This will not be easy, because carbon presently underpins almost every aspect of how our urban/rural settlements function. Designing the future net-zero community should be a focus of the post ICCA debate. This will combine the scientific, the vernacular, the political, and above all, the creative. It must actively involve citizens. And through the planning process, the interests of citizens and wider net zero shaped expectations will have to be reconciled. Shifting the focus of planning to net-zero is a priority.

Learning is the lifeblood knowledge. Lifeblood flows in networks and networks like connectivity and complexity. Creative learning encourages exploration at the boundaries of knowledge and does not shy away from indeterminacy. The next generation should help to shape learning for net zero in schools, colleges, and universities. Everyone should be able to embrace uncertainty, revel in complexity, demonstrate confidence and leadership, and communicate sociably. We should all become net zero diplomats, ambassadors, and advocates.

The legacy of the ICCA

The purpose of the ICCA is to embrace the vision of a sustainable net zero society and polity and put it into action in the coming years. All that is canvassed here will enhance the betterment of Ireland, its institutions, its peoples, its values, and its aspirational visions. Getting to net zero should do nothing but good. It should initiate a year-long post ICCA debate for everyone in Ireland. This is Ireland's chance to show the way for all nations of democratic decency and social caring. This is possible if the post-ICCA processes rise well above the cacophony of day-to-day distractions, and worthily becomes regarded as national crusade for the permanent betterment and peaceful wellbeing of the whole nation. The Ireland experience could become the global experience.

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