



Northern Ireland
Assembly

Committee for Agriculture, Environment
and Rural Affairs

OFFICIAL REPORT (Hansard)

Climate Change Bill:
Dr Andrew Jackson,
University College Dublin

1 July 2021

NORTHERN IRELAND ASSEMBLY

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Members present for all or part of the proceedings:

Mr Declan McAleer (Chairperson)
Mr Philip McGuigan (Deputy Chairperson)
Ms Clare Bailey
Mrs Rosemary Barton
Mr John Blair
Mr Maurice Bradley
Mr William Irwin
Mr Patsy McGlone

Witnesses:

Dr Andrew Jackson University College Dublin

The Chairperson (Mr McAleer): I welcome, via StarLeaf, Dr Andrew Jackson, and I invite him to take up to 10 minutes to brief the Committee. Members will then ask questions. You are very welcome, Dr Jackson.

Dr Andrew Jackson (University College Dublin): In the interests of time, I propose to deliver not my full opening statement, which you have in writing, but part of it, and I will indicate the parts I am not covering and maybe try to work that material into responses to any questions you may have.

Thank you, Chair and Committee, for inviting me. I am an assistant professor of environmental law at University College Dublin (UCD) and a practising solicitor with qualifications in law and environmental science. I have published recently on climate law and biodiversity law, including a chapter on the history of Irish climate law that appears in a recent edited book, 'National Climate Acts'.

My previous roles include working for the UK Department for Environment, Food and Rural Affairs (DEFRA) in London, where I provided legal advice, drafted legislation and defended litigation. For many years, I have litigated cases before the Irish, English and EU courts. Recently, I acted for Friends of the Irish Environment in a case known as "Climate Case Ireland", in which the Supreme Court of Ireland in July 2020 quashed the Irish Government's national mitigation plan 2017. The perspectives I offer on the Climate Change Bill are, therefore, those of an academic, a former drafter of legislation and a litigator.

By way of giving context to the Committee's scrutiny of the Bill, I will say that it is important first to consider what the international scientific consensus tells us about climate change and biodiversity loss. As the Intergovernmental Panel on Climate Change (IPCC) and its biodiversity equivalent, the

Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES), concluded in a joint report published last month, neither biodiversity loss nor climate change:

"will be successfully resolved unless both are tackled together."

In that regard, it is important to emphasise that the summaries for policymakers of IPCC and IPBES reports are explicitly agreed line-by-line by the Governments that form part of those bodies, including the UK Government. That gives the reports a special status. They represent the international scientific consensus that has been explicitly endorsed by Governments, including the UK Government.

In the summary for policymakers of its 2019 global assessment report, IPBES states:

"Goals for conserving and sustainably using nature and achieving sustainability cannot be met by current trajectories, and goals for 2030 and beyond may only be achieved through transformative changes across economic, social, political and technological factors."

Transformative change is defined by IPBES as:

"A fundamental, system-wide reorganization across technological, economic and social factors, including paradigms, goals and values."

In other words, among the questions properly before the Committee in its scrutiny of any climate Bill such as this must be this: will the Bill help to achieve transformative change in the sense of that definition? Anything less will not do, according to IPBES and the UK Government.

In turn, in the summary for policymakers of its 2018 special report on 1.5°C, the IPCC states:

"In model pathways with no or limited overshoot of 1.5°C, global net anthropogenic CO2 emissions decline by about 45% from 2010 levels by 2030 ... reaching net zero around 2050 ... Modelled pathways that limit global warming to 1.5°C with no or limited overshoot involve deep reductions in emissions of methane and black carbon (35% or more of both by 2050 relative to 2010)."

Importantly, those are global averages. Developed country parties to the Paris agreement, such as the UK, are explicitly required to take the lead, that is, to do more than the global average and to adopt measures that represent the party's highest possible ambition.

As things stand, according to the IPCC, the world had in 2018 a remaining "forever" carbon budget of 420 gigatons of CO2 for a 66% probability of limiting heating to 1.5°C, and the remaining budget is being depleted by current emissions of about 42 gigatons of CO2 per year. In other words, as at 2018, we had just 10 years left of current global emissions before the "forever" carbon budget for 1.5°C is used up.

Significantly, as well as being global averages, the IPCC figures assume the deployment post-2050 of massive CO2 removal or negative emissions with technologies that are subject to "multiple feasibility and sustainability constraints", according to the IPCC. In other words, the IPCC does not say that it is possible to achieve negative emissions at the required scale or even that the necessary technologies exist; rather, it produces its emission-reduction trajectories on the assumption that negative emissions of a particular magnitude will be required and achieved. However, the world has no plan for that, and it would be deeply unjust for us to bestow that legacy on our children in order that we can continue to emit excessive greenhouse gases today. That would be the very essence of so-called predatory delay.

As Professor Kevin Anderson and colleagues noted in a recent peer-reviewed paper in 'Climate Policy':

"If, instead, the mitigation agenda of 'developed country Parties' is determined without reliance on"

highly speculative "planetary scale" negative emissions technologies (NETs) and with:

"genuine regard for equity and 'common but differentiated responsibilities and respective capabilities', the necessary rates of mitigation increase markedly."

In the case of the UK:

"the carbon budgets underpinning mitigation policy are halved, the immediate mitigation rate is increased to over 10% per annum, and the time to deliver a fully decarbonized energy system is brought forward to 2035-40."

The UK's current emissions pathway, therefore, implies:

"a carbon budget of at least a factor of two greater than [its] fair contribution to delivering on the Paris Agreement's ... Commitment."

It is important to note that Professor Anderson's date of 2035-2040 for total decarbonisation is based on a global carbon budget that gives only a 33% chance of staying below 1.5°C. A better chance implies an even smaller budget, even steeper mitigation and even earlier decarbonisation. Thus, in addition to asking whether the Climate Change Bill will help to achieve transformative change, in my view, the Committee faces a second vital question: does the Climate Change Bill represent Northern Ireland's highest possible ambition, ignoring highly speculative negative emissions technologies? Nothing less will do.

The first thing that I will say about the Bill is that it is a welcome development to see a domestic framework climate law proposed in Northern Ireland. It is very positive too, I think, that the Bill seeks to plan not only for greenhouse gas emissions reductions but for water quality, soil quality and biodiversity, recognising that action on climate change requires action on those matters too. To further reflect this fact, to my mind, it would be good to see the declaration in clause 1 extended to refer to the "climate and biodiversity emergency"; in other words, not just the climate emergency but climate and biodiversity.

The remainder of my opening statement in writing, which I understand will be made available on your website in due course, covers some issues that I saw were discussed in previous sessions, including the net zero target and what the appropriate target should be for Northern Ireland in the Bill. Leading on from that, I also consider the fact that Northern Ireland and the Republic of Ireland may end up having different targets for 2050 and what that may mean and what ought to be done about it. I then consider some specific points about the Bill, including whether it would be a good idea to include in the Bill an interim target or targets en route to total decarbonisation by 2045. I look at climate justice and at a just transition and how those principles might be more fully enshrined in the Bill.

I consider reporting obligations and suggest that perhaps the proposed climate commissioner could be tasked with reporting very regularly on whether Northern Ireland's current plans — in other words, its ultimate decarbonisation year, the ambition in its climate action plan, and so on — still represent the country's highest possible ambition. I recommend that that be done monthly. I will make the point that I have said that, while some might consider that excessive, we know from governments' responses to COVID-19 what an emergency response looks like. It means daily briefings by public health experts, amongst other things. Given that the climate and biodiversity emergency represents an unprecedented public health emergency, and, indeed, an existential threat to our civilisation for which there is no vaccine, monthly reporting on Northern Ireland's climate ambition would, in my view, be not only appropriate but necessary.

I conclude by making some suggestions as to how legal accountability generally might be beefed up in the Climate Change Bill, and, in ultimate conclusion, I say that, to stand a chance of limiting heating to 1.5°C, Northern Ireland's emissions need to fall very deeply and very rapidly, starting immediately. The Assembly, therefore, has just one shot at getting the legislation right. We know that robust framework climate laws enable effective action, and we know how such laws are designed. I wish the Committee every success in its work.

The Chairperson (Mr McAleer): Thank you for that introduction, Dr Jackson, and for your written briefing.

Mr McGuigan: Thank you very much for your presentation. I will make a couple of quick points. You referenced the need to include the biodiversity crisis in greater detail. Professor Thorne mentioned that in his presentation, and that is welcome. You mentioned the just transition and climate justice. My party supports a just transition committee and climate justice. I know that that was part of the discussion with the Bill's architects, who felt that the Bill contains the principles on just transition lifted from the Scottish Act, although it does not mention it specifically. You say that it needs to go further in order to do justice to a just transition and that it needs to mention it specifically.

Finally, you have made some suggestions on the interim targets. Can you elaborate on their importance, where you would set them, and in what year? I want to emphasise the point that was made previously that we are on an island. You are suggesting that the South needs to be more ambitious and should head for the 2045 target so that we have some kind of all-Ireland cooperation rather than our going the other way. I hope that I have picked you up right on those points.

Dr Jackson: Thanks very much for the questions, which I will take in turn. On climate justice and the just transition, I suggest exactly what you said: the Bill needs to go a little further. The Scottish Act is a good exemplar, and I say that as a lawyer, not as a Scottish person. I am not endorsing it simply because it is Scottish. What I said about that in my written evidence was this:

"The term climate justice does not currently appear in the Bill. An appropriate body could for example be required to report on how and the extent to which the principle to be defined in the Bill"

then, I refer to the provisions in Scotland's Act that define climate justice

"has been taken into account in setting/reviewing the net zero target date, interim targets, carbon budgets, nitrogen budgets, climate action plans, and so on."

Then

"similarly (there is) no reference in the Bill to the concept of a just transition"

although the Bill contains just transition-related concepts in section 3, amongst other places.

I go on to say that if you contrast that with Scotland's Act, it sets out detailed "just transition principles" in section 35C

"and requires the Scottish Government to explain the extent to which its climate plans take account of these principles"

and the sustainable development goals (SDGs).

For me, the Scottish Act is one of the best examples internationally of well-designed national framework climate legislation. That is borne out on the ground, if you look at Scotland's performance in reducing emissions.

Mr McGuigan: I am sorry to interrupt you —.

Dr Jackson: It would be important to build explicitly into the fabric of the Bill in Northern Ireland what we mean by climate justice and a just transition; to impose specific obligations on institutions in Northern Ireland; to take account of those things in developing plans; and to think about how targets ought to change, and so on.

Mr McGuigan: I am sorry that I interrupted you before you answered the final point. I do not know whether you heard our previous discussion with the Ulster Farmers' Union (UFU). If the principles were inserted into the Bill as you suggest, would that address the concerns of some sectors about how targets might affect their industry, its workers and its revenue etc?

Dr Jackson: I did not hear the previous discussion, but section 35C of the Scottish Act states:

"the 'just transition principles' are the importance of taking action to reduce net Scottish emissions of greenhouse gases in a way which—

(a) supports environmentally and socially sustainable jobs,

(b) supports low-carbon investment and infrastructure,

(c) develops and maintains social consensus through engagement with workers, trade unions, communities, non-governmental organisations, representatives of the interests of business and industry and such other persons as the Scottish Ministers consider appropriate,

(d) creates decent, fair and high-value work in a way which does not negatively affect the current workforce and overall economy,

(e) contributes to resource efficient and sustainable economic approaches which help to address inequality and poverty."

I do not think that the just transition principles would put a brake on the transformative change that is needed. What they do, in the way that they have been legally woven into the fabric of the Scottish Act, is ensure that, when the Scottish Government act, those important matters are front and centre of their minds. That is how I would answer your question.

Mr McGuigan: Thank you, that is fine.

Ms Bailey: Thank you for the presentation and for speaking to us today. Thanks for all your work. I follow a lot of the stuff that you produce, and it would not be the first time that I have been jealous of Scotland and how far ahead it is on many issues.

How important is political will in establishing whether targets are credible? I know that you use the Scottish Act as a good example. Was there a political consensus in Scotland? If there is a political will to achieve a target, is it more important that the political system builds the pathways to achieve the target or should we focus on debatable science within the sectors?

Dr Jackson: That is a good question. I am not sure that I am best placed to answer it, to be honest. When we took the case against the Irish Government in the Supreme Court, we had to be careful to emphasise that we were not trying to prescribe a particular policy outcome. We were simply making an argument that, "This is what the science says. Here is the length we say exists between the agreed science and human rights". The argument should pass to government and Parliament to take the necessary political decisions and make the trade-offs between sectors that are a matter for the political sphere.

It is very important that political consensus be developed both in the legislature but also, crucially, in the broader community. One of the discussions that we had about Ireland's proposed climate Bill was on how to beef up public participation in the development of plans. Public participation is highly relevant. The current model of your Bill, which sees the targets set by the climate action plans, has built public participation obligations into the Bill. However, consensus must be built on the science and how urgent and serious it is that we take action.

The participation process has worked well in the Republic of Ireland using the Citizens' Assembly. The Citizens' Assembly randomly selects 100 individuals to be broadly representative of life to consider important issues facing our society, such as climate change. The Citizens' Assembly hears expert evidence and reports to a committee, like your own, which produces a report for the government. The Citizens' Assembly model has worked well in Ireland, and it is doing precisely what you say is necessary. It is trying to build the political consensus for the necessary outcomes. My role, as a lawyer embedded in climate science, is to say, "This is what science says is necessary". I will say how that links to legal obligations such as human rights obligations. I will not say how that should be agreed or what trade-offs could be made for the various sectors. *[Inaudible owing to poor sound quality.]* That is not my job; that is someone else's job.

Ms Bailey: That was a lot of feedback *[Inaudible owing to poor sound quality.]*

Mr Irwin: Thank you for your presentation. On net zero in Northern Ireland, a Climate Change Committee has been set up in the UK to look at the four regions: England, Scotland, Wales and Northern Ireland. It was easier for Scotland to reach net zero because it has a much smaller livestock sector than Northern Ireland. Northern Ireland has a large and intensive livestock sector. The CCC recommended that Northern Ireland reach 82% by 2050, which, in turn means that the UK reaches net zero. We have an advantage in being part of the UK. Northern Ireland reaching 82% by 2050 ensures that the UK as a whole reaches net zero. What is your view on that?

Dr Jackson: It is multilayered, I suppose. My first point is that net zero by 2050 is, in short order, going to look insufficient for the United Kingdom, the European Union and so on. That is my starting point. Whatever Northern Ireland's contribution is in the United Kingdom, the United Kingdom's overall target is insufficient for the reasons that I have mentioned. It is predicated on massive negative emissions for which there is no plan.

On the question of the CCC's advice, I tend towards the analysis of Northern Ireland Environment Link (NIEL), which gave evidence before the Committee on 11 June. In other words, the figure of greenhouse gas reductions of at least 82% is a minimum. It is a floor and not a ceiling, and it is a recommendation that can be tightened. As the CCC noted in its sixth carbon budget report:

"There is no purely technical reason why Net Zero is not possible in Northern Ireland."

While the CCC's letter to Minister Poots in April stated:

"At this time, our assessment is that a Net Zero target covering all GHGs cannot credibly be set for Northern Ireland",

That statement has to be considered, as NIEL argued, in the context of another statement by the CCC, in its 2019 report, that:

"A net-zero GHG target is not credible unless policy is ramped up significantly."

To say that a net zero target covering all greenhouse gases cannot credibly be set for Northern Ireland sounds to me like a judgement of what is deemed politically feasible, rather than what is scientifically or technically achievable. It is hard for me to see how such a judgement fits with the "highest possible ambition" requirement of the Paris agreement.

I will make an additional point, if I may. That is an argument made already before the Committee; this point has not been made, I think. If you consider a separate passage from the CCC's letter to Minister Poots, which says that the reduction of at least 82% in all greenhouse gases by 2050:

"would require Northern Ireland to reach net-zero CO2 emissions by 2050, as well as significantly reducing emissions of other GHGs including methane."

With the footnote:

"In our Balanced Pathway, methane emissions in Northern Ireland fall by 42% from 2020 to 2050."

So, the CCC recommendation is broadly comparable to the IPCC advice that I read out at the start of my opening statement; in other words, on a global average, net zero CO2 emissions by 2050 and a reduction of 35% or more in methane by 2050 compared with 2010.

As a developed party, with among the highest per capita emissions in the world, Northern Ireland should clearly be doing much more than the global average to improve its fair share of contribution. As I have already indicated, once we exclude speculative CO2 removal technologies, as, I think, we must, that implies much more rapid mitigation and much earlier decarbonisation than is currently envisaged. All of that points towards selecting for the Bill as early a decarbonisation date as possible. So, if the choice is 2050 or 2045, 2045 is clearly preferable, as a matter of climate science and climate justice. Take other European countries: Austria 2040, Finland 2035, Iceland 2040, Norway 2030 with offsets, Sweden 2045. I opened my remarks by saying that the UK's and the EU's current 2050 targets will need to be brought forward soon, perhaps even as soon as after the IPCC's sixth assessment report is published this year and next.

Mr Irwin: The Climate Change Committee made clear and stark recommendations, given our intensive livestock sector in Northern Ireland. It said in one paragraph that, in every scenario that it looked at — in every scenario that it looked at — Northern Ireland could not reach net zero by 2050. That is why it made that recommendation on reaching net zero by 2050. So you disagree with the Climate Change Committee report: is that what you are saying?

Dr Jackson: Yes.

Mr Irwin: All the other regions of the UK are happy with it and are taking it on board. What is the Republic of Ireland's recommendation?

Dr Jackson: The Republic of Ireland, of course, is following the European Union target, which is also net zero by 2050. Again, I make the same criticism of the European Union's 2050 target. *[Inaudible owing to poor sound quality.]*

Mr Irwin: It has the same target as the UK. Is that right?

Dr Jackson: The European Union as a whole has a 2050 net zero target. Ireland is setting, in its Climate Action and Low Carbon Development (Amendment) Bill, a 2050 climate neutrality goal. One point that is important to emphasise, and which I make in my written submission, is that the 2050 end point is a snapshot. Equally, if not more, important is the pathway followed between now and the ultimate decarbonisation year, because, of course, what matters is cumulative emissions and the carbon budget over that entire period. If we look at what Ireland is planning to enshrine in its national legislation, we see that it is looking to reduce its emissions by 51% by 2030 compared with the 2018 level. I have some concerns about how that provision is drafted in Irish law, but, globally, that represents the second most ambitious target, after Denmark's, for action over the next 10 years.

As for whether it makes sense for Northern Ireland and the Republic of Ireland to align targets and so on, it is not simply a matter of comparing 2050 versus 2045 or 82% by 2050 or whatever. We have to consider the pathway recommended and likely to be followed. It is certainly the case that Ireland's starting point was that emissions had risen between 1990 and 2020, but it is planning an ambitious emissions reduction over the next decade. I know that Northern Ireland reduced emissions over that period, so the starting point may be slightly different. However, my broader point is that it is not enough just to look at the end point; we need to consider the pathway and the budget over the period.

Mr Irwin: Maybe it is just me, but I would have thought that the end point was the most important point.

The Chairperson (Mr McAleer): We will have a last point from Clare before we move on.

Ms Bailey: Thanks very much for allowing me back in. That is really interesting stuff. There has been commentary on the UK's reliance on what is deemed highly speculative negative emissions technology. Given the use of carbon capture and storage (CCS) technology and the fact that that has not been proven at scale, how should carbon budgets be designed to ensure that net zero is reached, regardless of whether CCS technology is widely rolled out in the future?

Dr Jackson: I cited — this is in response to the previous question too — the fact that I am not the only one, by any means, who is critical of net zero by 2050 targets and the reliance on massive speculative future removal from the atmosphere. The level of CO₂ removal planned in the scenarios set out in the IPCC report is extraordinary. One of the leading ideas is direct air capture — power plants that suck carbon dioxide from the atmosphere. Again, that is not being done at scale at the moment. As you said, the other idea is carbon capture and storage, but another important addition at the start of that, when we talk about negative emissions, is bioenergy with carbon capture and storage; in other words, we grow trees and plant forests and then we burn that biomass in power plants and capture the carbon using CCS technology. That is the negative emissions part.

A lot of the focus, both in Northern Ireland and in the Republic of Ireland, has been on the projected impacts of acting on the agriculture sector, but the impacts of not acting are not considered. The less we do to reduce emissions, the more we have to rely on future negative emissions technologies to remove carbon dioxide from the atmosphere. Even at the moment, on the basis of the plans of the UK and Irish Governments, we need to do massive CO₂ removal, including massive bioenergy with carbon capture and storage. That means massive land-use change and huge areas of land given over to forestry planting to feed bioenergy power plants with carbon capture and storage.

We all know that it takes time for forests to establish, so I ask the Committee to consider where the planning is for that to happen on the scale necessary. What would that mean for Northern Ireland's land-use change? What would it mean for the rest of the United Kingdom's land-use change? Where will the enormous forests be planted to feed bioenergy carbon capture and storage plants? The previous questioner seemed surprised that I disagree with the CCC. I am not the only one, and maybe the Committee could ask the CCC to explain, in the Northern Irish context, the UK context and the global context, what the plan is now for the scale of negative emissions. How can we justifiably base our decisions on emissions reductions now on a punt that places the burden on and passes the baton to our kids and says, "We have had a great time, and, by the way, we have planned for you to invent a unicorn, and we hope that you can do that because you will need to do that"?

The Chairperson (Mr McAleer): Dr Jackson, thank you very much for your evidence this afternoon; it was very helpful and informative. Can I seek agreement to publish Dr Jackson's briefing paper on the Committee's web page?

Members indicated assent.

The Chairperson (Mr McAleer): Thank you, Dr Jackson, and hopefully we will hear from you again.

Dr Jackson: Thank you very much.

The Chairperson (Mr McAleer): Take care, Dr Jackson. Bye.