

Carbon Budgets and Climate Action Governance: Assessing the Climate Action and Low Carbon Development (Amendment) Bill 2020

A submission to the Oireachtas Joint Committee on Climate Action

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Introduction

I thank the Joint Committee for the opportunity to make this written submission to its pre-legislative scrutiny of the draft Climate Action and Low Carbon Development (Amendment) Bill 2020. I will focus specifically on the role of the “carbon budget” concept and governance of climate change *mitigation*, including the issue of sectoral “decarbonisation target ranges”. Climate change mitigation and adaptation are both important, but **mitigation has an overriding physical and ethical priority**: without adequate mitigation, climate change impacts will physically overwhelm any possibility of effective, managed, adaptation; and the localised nature of adaptation *may* serve to obscure globalised injustice.

The National Climate Objective

The National Climate Objective (NCO) serves to set the overarching purpose and rationale for this legislation. All actions potentially arising under it must ultimately be derived from their contribution, or otherwise, to the NCO. It is therefore of critical importance to frame this in a way that captures the correct ultimate goal(s). **In my view, the text in the draft Bill has fundamentally failed to do this.**

The draft Bill defines the NCO as the *pursuit* (not the *achievement*) of a “... transition to a climate resilient and climate neutral economy by the end of the year 2050”, where “climate neutral economy” is defined as “... a sustainable economy, where greenhouse gas emissions are balanced or exceeded by the removal of greenhouse gases”. This echoes the recent adoption of some form of “net-zero by 2050” objective in a number of jurisdictions, including the UK and at EU level. Nonetheless, I would *strongly* urge the Committee to reconsider this formulation, which is subject to severe, well documented, and fundamental, flaws.

Global heating is a consequence of the combined global actions of all nations. Nation state mitigation can be effective *only* in a context of global coordination. Thus, any satisfactory national climate objective must be unambiguously aligned with the required global mitigation action. Unfortunately, nation level “net zero by 2050” targets generically fail this test. Coordination of global climate mitigation is currently addressed through the Paris Agreement. It is true that Article 4.1 of that agreement refers to achieving (not merely pursuing!), at global level, “... a balance between anthropogenic emissions by sources and removals by sinks of greenhouse gases in the second half of this century”, which superficially suggests a “net zero by 2050” formulation. But this is to fundamentally misread the Paris Agreement text. Article 4.1 clearly states that this (global) balance between emissions and removals is *not* an objective in itself; it is rather just one necessary (but insufficient) aspect of the means to achieve *the long-term temperature goal set out in Article 2*. Further, Article 4.1 is explicit that this “balance of emissions and removals” must not be simplistically applied in a uniform way at nation state level (“... recognizing that peaking will take longer for developing country Parties”); because of course, such a uniform approach would fly in the face of the commitment to equity and “common but differentiated responsibilities and respective capabilities” of different countries (Article 2.2).

In the current draft Bill, the overarching Paris Agreement temperature goals are only obliquely recognised in section 3(3)(a)(ii), merely as one among many matters to “have regard to”, rather than being the very essence and test of the required national contribution to effective global climate change mitigation.

By contrast, I recommend to the Committee to consider reformulating the NCO itself, replacing the flawed concept of national “net zero by 2050” with a simple but explicit commitment, on behalf of the Irish people, that the State will act to make a full, equitable and just national contribution to meeting the global temperature goals set out in Article 2.1(a) of the Paris Agreement.

Adopting the Rolling Carbon Budget Programme

The administrative provisions in the draft Bill for setting a rolling 15-year carbon budget programme, laying out cumulative 5-year emissions limits, appear well structured and appropriate. However: the basic starting point, where the Climate Change Advisory Council proposes the initial budget values is fundamentally problematic, because the criteria to be used by the Council in articulating such recommendations are not clearly specified. There is simply a reference to the omnibus list in section 3.(3)(a)-(y) of matters to “have regard to”, without any meaningful differentiation or prioritisation.

One might suppose that this could be resolved by reference to the overarching imperative of the National Climate Objective. But in addition to the criticisms already presented of the NCO, it is *also* entirely unsatisfactory for the purpose of grounding the development of the carbon budget programme. The scientific rationale for cumulative carbon budgets in policy and governance is that any agreed *global limit on temperature increase* can (with some caveats) be translated into a finite limit on future anthropogenic emissions of carbon dioxide — the so-called global carbon budget or GCB. This ultimate “forever” GCB provides the essential scientific grounding for national and temporal (e.g., five-year) carbon budgets, precisely because the aggregate total of these national and temporal budgets must be constrained to “add up” within the GCB. But the NCO, as drafted, makes no reference to a global temperature goal, and thus provides no basis for recognition of an overarching GCB constraint or recommendation of a specific local temporal carbon budget programme.

This failing in the draft Bill could be fully addressed firstly by the revision proposed above of the NCO (binding the NCO to the Paris temperature goals), and combining this with a revision of section 11(2A) to make clear that the ultimate, overriding criterion to be used by the Council in proposing the carbon budget program must be alignment and consistency with this reformulated NCO.

This would enable the Council to give informed advice on the reasonable bounds of a just and equitable national share of the GCB, as well as whether to plan for (temporary) overshoot of this share (with consequent inter-generational commitment to carbon dioxide *removal* from atmosphere). These are the *essential* parameters to allow the setting of any coherent, near-term (15-year) temporal carbon budget programme. Conversely, absent such revision of the Bill, the recommendations of the Council on the carbon budget programme would remain essentially ungrounded. The advisory task being ostensibly delegated to the Council would be at best arbitrary, and at worst utterly ineffective.

Executing the Rolling Carbon Budget Programme

The motivation for a carbon budget programme in climate action governance is, precisely, to ensure that these fixed-term budgets ultimately “add up” to alignment with a just and equitable national claim on the finite, “forever”, global carbon budget. The first requirement for this is that governments are bound, in a meaningful way, to take actions that are credibly aligned with compliance with each component, fixed-term budget. The draft Bill appears to rely primarily on the development of “sectoral decarbonisation target ranges” to give effect to this. Specifically, section 4(2)(b)(i) requires that the rolling 10-year Climate Action Plan set out a roadmap of “sector specific actions that, in the opinion of the Government, should be pursued to remain within the carbon budget and decarbonisation target range”; section 6B(13) requires Ministers to “have regard to” the carbon budget in effect at any given time; and 6C(7) requires them to “take account of” the currently approved decarbonisation target ranges. I leave it to others to comment on whether this language adequately captures the appropriate force and priority of climate action on Ministers and the Government as a whole. I will simply comment that the draft Bill does not set out any clear relationship between the setting of sectoral decarbonisation ranges and the overarching carbon budgets. One assumes that the intention of the Bill is that they should be mutually consistent: but this is not stated in any explicit way. I recommend that the Committee consider how this omission might be best addressed.

In my view, it would be preferable to simply remove the current concept of “decarbonisation target ranges” (whose definition is, at best, obscure) and replace it with *sectoral allocations of the overall carbon budget* in effect in any given period — subject, of course, to the arithmetic constraint that these allocations must sum to no more than the budget. This would be simpler, clearer, and much easier for all stakeholders (specifically including ordinary citizens) to understand.

Separately from this, there remains the possibility that even with full, good faith, action, the cumulative emissions outcome may be either lower or higher than the approved budget in any given 5-year period, yielding a budget surplus or deficit respectively. *The perceived priority of compliance with the fixed-term budgets, and the ultimate effectiveness of the carbon budget approach as a whole, therefore relies critically on how such temporal surpluses and deficits are handled.* **In simple terms, the implacable arithmetic of the finite “forever” budget constraint is that deficits, in particular, *must carry forward*.**

The draft Bill ostensibly addresses this in section 6D(4) (surplus) and 6D(5) (deficit). 6D(4) allows unconstrained carry forward of surpluses to the immediately succeeding budget period. However 6D(5) has the effect of limiting the formal carry forward of deficits to at most 1% of the “total budget” (presumably referring to the period where the deficit arose). Prima facie this severely undermines the cumulative discipline of the carbon budget framework by tacitly discarding or “forgiving” deficits. I assume that is not the intended effect. The provision appears to have been modelled on that of the UK Climate Act, section 17(1); but the UK Act contains key complementary provisions in section 19(1): in the event of a budget deficit this requires the Secretary of State to “... lay before Parliament a report setting out proposals and policies to compensate in future periods for the excess emissions”. Unfortunately, there is no corresponding provision in the draft Irish Bill.

I recommend that the Committee consider adding a requirement comparable to that of the UK Act, but made more explicit: namely that deficits must *automatically carry forward* (without Ministerial or Government discretion), and trigger an obligation to carry out an immediate corresponding review of the adequacy of the rolling Climate Action Plan.

Some “cushioning” of this carry-forward effect might be considered by allowing it to be applied not just to the immediately following 5-year budget period, but on a pro rata basis to the next two following budget periods (10 years in total, being the full period of the Climate Action Plan).

Other Matters

In addition to the critical issues above, I suggest that the Committee give further consideration to whether the following matters should be explicitly addressed in the Bill:

- The treatment of greenhouse gases other than carbon dioxide in the carbon budget framework. There has been much discussion of the treatment of methane in particular, due to its quite different atmospheric lifetime and role in warming compared to carbon dioxide and nitrous oxide. It has been suggested that methane might be treated via a mitigation target separate from the general “carbon budget”, as has been recently done in New Zealand. I support the argument that the current method of accounting for methane effects, relative to carbon dioxide, is not well-suited to direct incorporation within a single carbon budget: **however, I would argue explicitly against the New Zealand approach of a separate, top down, methane target.** This risks obscuring the most effective combination of mitigation actions across all greenhouse gases. Instead, *for strictly national, cumulative carbon budget purposes*, consideration should be given to applying the recently developed methodology known as GWP* for aggregating (at least) carbon dioxide, nitrous oxide and methane into a single, unified “GHG budget” framework. In any case, it would be premature to formalise any of this on a statutory basis: **the treatment of non-CO₂ gases in carbon budgets should be explicitly referred for advice from the Council, as part of the preparation of the initial carbon budget programme.**

- The treatment of emissions from so-called “bunker fuels” for international aviation and shipping is not addressed explicitly in the draft Bill. **I recommend that the Bill make explicit that such emissions must be included in the national carbon budget framework.**
- Fixed-term carbon budgets offer a potentially useful climate governance framework: but given the severity of the unfolding climate crisis, such a framework can conceivably be effective only in a context of pervasive societal understanding and support for what will now require significantly disruptive policy actions. **I recommend that the Committee consider adding to the Bill explicit provision for a permanent, large scale, programme of citizen participation in the formulation and execution of climate action.**

Conclusion

I apologise to the Committee for the length of this submission: but the issues at hand are complex, the stakes for all of society could not be higher, and so the most careful possible consideration is genuinely necessary.

The commitment of the Government to much strengthened climate action legislation is greatly to be welcomed. The draft Bill introduces a number of very important new governance mechanisms to support this. Chief of these are the proposed adoption of a new, overarching, National Climate Objective, and the governance of climate mitigation through a rolling 5-year carbon budget programme. The current formulation of both of these is significantly flawed: but if those flaws can be adequately addressed, then this legislation would make climate governance in Ireland an exemplar for all nations committed to just and effective climate action. I commend the Committee for its ongoing scrutiny of the Bill, and remain ready to support the Committee in any further way that may be requested.