

Climate Change (Emissions Reduction Targets) (Scotland) Bill Stage 1 Debate Briefing

Summary

Scottish Environment LINK members welcome the Environment, Climate Change and Land Reform Committee's [Stage 1 report on the Climate Change \(Emissions Reduction Targets\) \(Scotland\) Bill](#).

First and foremost, LINK members welcome the Committee's support of the recent IPCC findings on limiting global temperature rise to 1.5°C and explicit agreement that a net-zero target for all greenhouse gas emissions is necessary to achieving it.

Given the IPCC findings, LINK members support that a target for achieving net zero greenhouse gas emissions by 2045 should be set in legislation. LINK members also support setting the 2030 target at 80% reduction of greenhouse gases. As recognized by the Committee, the 2030 target is of relevance as it will determine whether we see an overshoot to over 1.5 or 2 degrees. This will have detrimental and irreparable consequences for our natural environment, which is a key ally to reducing carbon emissions.

As highlighted in the LINK – WWF Scotland '[Scotland's Nature on Red Alert](#)' report, our natural ecosystems, habitats and species in Scotland are facing increasingly challenging pressures from climate change. This could not only severely hamper their ability to sequester carbon but also their resilience. **Scientific evidence suggests that our natural environment's ability to sequester carbon is expected to peak around 2030 with ecosystem disruption (through for example, drought, disease and floods) leading to a reduction in vegetation production and a decrease in carbon storage. Ultimately this could result in vegetation becoming a net carbon emitter by the end of the 21st century.**

In line with previous evidence, LINK members firmly believe that stronger targets should be accompanied by clear actions to enhance our natural ecosystems, which will enable Scotland to achieve greater greenhouse gas reductions¹.

In this respect, LINK members urge the Scottish Parliament to incorporate the following additional actions:

- **Introduce a duty on Ministers to produce and report on a nitrogen balance sheet by 2020**
- **Support increased targets for agroforestry in Scotland**
- **Strengthen the implementation of the Land Use Strategy**
- **Establish a duty for Ministers to create a National Ecological Network**
- **Introduce measures to recognise the scale and importance of blue carbon stores, and protect and enhance blue carbon habitats**
- **Establish a duty for a "sunset clause" for peat extraction in Scotland**

¹ <http://www.scotlink.org/wp/files/documents/Scottish-Environment-LINK-ECCLR-Stage-1-Evidence-Climate-Bill-Aug2018.pdf>

INTRODUCTION

Scottish Environment LINK is the forum for Scotland's voluntary environment community, with over 35 member bodies representing a broad spectrum of environmental interests with the common goal of contributing to a more environmentally sustainable society.

The Climate Change (Emissions Reduction Targets) (Scotland) Bill (hereafter the “Bill”) is our opportunity to align domestic greenhouse gas emission targets with the ambition of the Paris Agreement. It is widely accepted that this means setting a net zero target for all greenhouse gases as soon as possible as well as ambitious interim targets which will ensure there is no overshoot.

Setting a net zero target is critically important for our natural world, which is already coping with a 1°C change. As highlighted by the IPCC², the climate risk of a temperature rise of 1.5°C versus 2°C is substantial. For example, extremes of heat could be 2-5 times more common in a 2°C warmer world. About half of this impact could be avoided by limiting warming to 1.5°C.

Scotland’s biodiversity is not exempt from this: as the “Scotland’s Nature on Red Alert” report³ illustrates, key habitats and species will suffer meaning that the ecosystem services they provide will be depleted. For example, if our peatlands dry out, they could no longer store as much carbon for us and our rivers could no longer protect us from flooding if rainfall levels rise.

The Bill, as drafted, fails to set a timeframe for achieving net zero greenhouse gas emissions and is a missed opportunity in terms of planning and delivering actions to restore and enhance our vulnerable ecosystems and biodiversity. While the Committee acknowledges the extensive evidence received on biodiversity impacts (pg. 66), no consideration has been given to measures that enhance ecosystem resilience, including protection and enhancement of blue carbon stores, and preservation of carbon stores in peatlands.

According to Scottish Natural Heritage⁴:

- Around 50 megatonnes of carbon is locked in Scotland’s vegetation
- Our soils contain more than 3,000 mega tonnes of carbon; peatlands hold 53% of that
- Our seas store more than 1,700 megatonnes of inorganic carbon as calcium carbonate

LINK’s recommendations below are based on our firm support for:

- 1) Stronger targets for greenhouse gas emissions in line with Scotland’s commitment to the Paris Agreement and**
- 2) Nature-based solutions that will help us meet ambitious greenhouse gas targets and ensure our natural environment is healthier and more resilient to the challenges of climate change.**

In response to the Stage 1 report, LINK urges the Scottish Parliament to consider the following measures:

1. Legislate for a net zero greenhouse gas emissions target by 2045:

LINK supports the Committee’s observation that a net zero target for all greenhouse gas emissions is necessary in limiting temperature rises to 1.5°C (par. 757) and that this would be consistent with

² IPCC Special Report: Global Warming of 1.5°C <https://www.ipcc.ch/sr15/>

³ http://www.scotlink.org/wp/files/documents/Scotlands_Nature_Red_Alert.pdf

⁴ <https://www.nature.scot/climate-change/taking-action/carbon-management/managing-nature-carbon-capture>

Scotland's commitments through the Paris Agreement (par. 270). In addition, LINK welcomes the Committee's recommendation for clarifying the definition of "net zero". While LINK members welcome the Committee's observation that the "Scottish Government should consider the difference between what is possible and what is acceptable" (par. 299), members strongly recommend that the net zero emissions target year should be by 2045, at the very latest, in line with international evidence.

2. Legislate for an 80% emissions reduction target by 2030:

While LINK members welcome the Committee's recommendation for Scottish Government to review the 2030 target introduced in the Bill in accordance with the findings of the UK Climate Change Committee (par. 483), we support that a target of at least 80% would be consistent with the IPCC's view that "rapid, far-reaching and unprecedented changes in all aspects of society" will be required in the next 12 years. Ambitious interim 2030 emission reduction targets will be a step in that direction and will be consistent with the Committee's recommendation to avoid an overshoot scenario (par.273).

3. Provide clarity on the temperature the targets in the Bill are aiming for (par. 272):

The difference between 1.5°C and 2°C of warming is relevant from a natural environment and biodiversity point of view. As highlighted in the Nature on Red Alert report, climate change could impact Scotland's species and habitats significantly. The climate change risks arising from 1.5°C or 2°C warming scenarios will differ substantially, in terms of severity and irreversibility of impacts. For the Bill to give due regard to climate change impacts on biodiversity, it needs to align to a 1.5°C ambition. The emissions reduction route taken towards interim and 2050 targets will have direct implications on whether temperature rise will be 1.5°C or 2°C, therefore the relationship between temperature rise and targets needs to be made explicit. LINK members also support the Committee's view that an overshoot scenario should be avoided, as irreversible damage to global and local biodiversity will occur with even half a degree of temperature rise⁵. Ambitious emission reduction targets need to be set earlier.

4. Introduce a duty on Ministers to produce and report on a nitrogen balance sheet by 2020:

LINK notes that 'there was widespread support for the reports to include nitrogen balance sheets' (par. 637). Better nitrogen use efficiency reduces nitrous oxide and ammonia emissions, saves farmers money, promotes circular economy business opportunities, and reduces water and air pollution which damages people and nature. The inclusion of nitrogen balance sheets will help the monitoring and recording of nitrogen flows and losses and enable the Government to develop evidence-based policies and targets on nitrogen use.

5. Support increased targets for agroforestry in Scotland:

LINK welcomes the recommendation that the Scottish Government broaden the scope of targets by setting additional targets (par.212) and considers that establishing a target for increasing the area of agroforestry in Scotland should be set within this context. As indicated in previous submissions⁶, LINK recommends that these targets are set by 2020. Tree planting is a key established method for the sequestration of carbon and to meet afforestation targets and climate targets, farmers too will

⁵ IPCC, 2018, Global Warming of 1.5C <http://ipcc.ch/report/sr15/>

⁶ Evidence on Stage 1 of Climate Change (Emissions Reduction Targets) (Scotland) Bill <http://www.scotlink.org/wp/files/documents/Scottish-Environment-LINK-ECCLR-Stage-1-Evidence-Climate-Bill-Aug2018.pdf>

need to plant more trees. When planting the right trees in the right place, agroforestry has the potential to sequester carbon and protect soils, as well as deliver other benefits, such as diversification of farm income, shelter for livestock, and fuelwood.

6. Strengthen the Committee's support for a 'more coordinated approach to land use in Scotland' (par. 207) by improving the implementation of the Land Use Strategy⁶:

LINK shares the Committee's concern that 'the potential benefits of the Land Use Strategy have not been fully realised (par. 207). Despite this having been set out in the 2009 Climate Change Act, the Strategy has not been properly implemented and the benefits arising from better and a more coherent land use policy have not been delivered, including emissions reductions in the agriculture and land use sectors. This is particularly relevant given that the Stage 1 report notes that further action will be needed in terms of actions for the land use sector (par. 207). LINK urges the Scottish Parliament to strengthen Scotland's Land Use Strategy by:

- a) Introducing a Land Use Strategy Action Plan: the plan should include measures and milestones that will inform specific policies and proposals.
- b) Ensure proper monitoring and reporting of the Strategy on an annual basis.
- c) Establishing a duty on Ministers to bring forward Regional Land Use frameworks in all areas of Scotland.

7. Establish a duty for Ministers to create a National Ecological Network:

A National Ecological Network, identified as a key deliverable for [Scotland's 2020 Biodiversity Route Map](#), is a policy mechanism which would help protect and restore Scotland's nature, so that it continues to provide the life support systems we all depend on, particularly in terms of our health, wellbeing and economic prosperity. A National Ecological Network will help identify priority areas for action on habitat restoration, creation and protection by building on existing work by Scottish Natural Heritage, academia and Scottish environmental organisations. Through the restoration and improvement of these habitats, carbon sequestration and storage would be enhanced, helping us meet international and national climate and biodiversity targets.

8. Introduce measures to recognise the scale and importance of blue carbon stores, and protect and enhance blue carbon habitats:

LINK members support protecting and enhancing blue carbon habitats. The main two stressors on marine ecosystems are climate change and fishing. Habitats that sequester and store carbon⁷ (known as blue carbon habitats⁸) are found throughout Scottish seas. Not enough is being done through the "wider seas measures" pillar of the Scottish Government's nature conservation strategy to restore and enhance marine biodiversity⁹, including blue carbon habitats, a concern compounded by the depleted condition of seabed habitats and declining populations of many marine species, including seabirds, common seals and sharks, skates and rays¹⁰. More can be done within the Bill by recognising these blue carbon stores. The Bill provides an excellent opportunity to strengthen the "wider seas" pillar of the nature conservation strategy, increase resilience of seabed habitats and

⁷ <https://www.nature.scot/snh-commissioned-report-761-assessment-carbon-budgets-and-potential-blue-carbon-stores-scotland>

⁸ Scottish National Heritage (2017) Assessment of Blue Carbon Resources in Scotland's Inshore Marine Protected Area Network- Blue Carbon Habitats include: seagrass meadows, kelp forests, coldwater coral reefs and maerl beds, and potential carbon stores such as horse mussel beds. Most of blue carbon is stored in relatively stable seabed sediments, accumulated over many years. However, some carbon sequestering habitats such as maerl and flame shell beds, which are recognized Priority Marine Features, are sensitive to physical disturbance, and can release carbon back into the atmosphere when damaged or destroyed.

⁹ International Commitments include: The Convention on Biological Diversity (CBD); the World Summit on Sustainable Development (WSSD); the OSPAR convention; the European Marine Strategy Framework Directive (MSFD)

¹⁰ Scotland's Marine Atlas: <http://77.68.107.10/MarineAtlas-Complete.pdf>

increase the climate change mitigation potential of our seas by requiring targets for the protection and enhancement of our depleted blue carbon habitats.

Decline of blue carbon habitats also has negative emissions implications, where they can switch from being a net sink of carbon to net source¹¹. Through the Climate Change Plan, the Bill could put in place policies aimed at protection and enhancement for blue carbon habitats and thereby enhance carbon sequestration and reduce potential of negative emissions. The Plan should draw from existing policies in the National Marine Plan and propose policies for Regional Marine plans that aim to reduce human pressures on carbon sinks.

9. Establish a duty for a “sunset clause” for peat extraction in Scotland:

Despite widespread recognition of their importance as carbon stores, some peatlands are still under threat from commercial exploitation for horticultural peat. Some sites have historic planning consents in place, in some instances from decades ago, which could allow peat extraction to start at any time. There is also uncertainty as to how many of these historic consents and what the scale of threat to peatland carbon stores is. Clearly it is not desirable for peatlands to continue to be damaged in this way. A “sunset clause” would set a time limit by which point existing planning consents to extract peat would have to be activated or the consents will permanently expire. This would provide a clearer picture to Government as to which peatlands are under threat and require further targeted action for restoration and protection.

This LINK Parliamentary Briefing is supported by the following member organisations;

- Association for the Protection of Rural Scotland
- Badenoch & Strathspey Conservation Group
- Bumblebee Conservation Trust
- Froglife
- Marine Conservation Society
- Nourish Scotland
- Ramblers Scotland
- RSPB Scotland
- Scottish Badgers
- Scottish Wild Land Group
- Scottish Wildlife Trust
- Whale and Dolphin Conservation
- Woodland Trust Scotland

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www.scotlink.org

www.fightforscotlandsnature.scot

www.savescottishseas.org

¹¹ Mcleod, E. *et al* (2011) A blueprint for blue carbon: toward an improved understanding of the role of vegetated coastal habitats in sequestering CO₂, *Frontiers in Ecology and the Environment*