



Discussion Document on a Northern Ireland Climate Change Bill

Stakeholder
Response
Template

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Department of
**Agriculture, Environment
and Rural Affairs**

www.daera-ni.gov.uk



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Please complete the survey online if you can.

<https://consultations.nidirect.gov.uk/daera/climatechangediscussion/>

This would greatly assist us with timely processing of the large volume of responses expected, as staff access to Departmental resources and buildings are impacted during the Covid-19 pandemic.

This will also support our ongoing efforts to reduce the environmental impact of the production of consultation papers.

This template has been created for people who are unable to enter their responses into the online survey. It replicates the questions in the online survey on the ‘Discussion Document on a Northern Ireland Climate Change Bill’, found at:

We recommended that you read the full consultation document before completing your response, whether you choose to use this template or the Citizen Space Hub.

If you wish to use this template for your response, please send it to us:

- **By Email - climatechangediscussion@daera-ni.gov.uk**

PLEASE NOTE: If a large volume of email responses is received, they may take significantly longer to process than online responses.

Or

- **By Post -**

Climate Change Unit
Department of Agriculture, Environment and Rural Affairs
Environmental Policy Division
2nd Floor
Klondyke Building
1 Cromac Avenue
Gasworks Business Park
Belfast BT7 2JA

PLEASE NOTE: Due to the Covid-19 pandemic DAERA staff have limited access to the Klondyke Building in Belfast. Therefore please be aware that postal responses may significantly take longer to process.

Before you submit your responses please read the “Freedom of Information Act 2000 - Confidentiality of Consultation Responses” section below, which gives guidance on the legal position.

Freedom of Information Act 2000 – Confidentiality of Consultations

The Department will publish a summary of responses following completion of the consultation process. Your response, and all other responses to the consultation, may be disclosed on request. The Department can refuse to disclose information only in exceptional circumstances. Before you submit your response, please read the paragraphs below on the confidentiality of consultations and they will give you guidance on the legal position about any information given by you in response to this consultation.

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- the Department should only accept information from third parties in confidence if it is necessary to obtain that information in connection with the exercise of any of the Department's functions and it would not otherwise be provided;
- the Department should not agree to hold information received from third parties 'in confidence' which is not confidential in nature;
- acceptance by the Department of confidentiality provisions must be for good reasons, capable of being justified to the Information Commissioner.

For further information about confidentiality of responses, please contact the Information Commissioner's Office:

Tel: (028) 9027 8757

Email: ni@ico.org.uk

Website: <https://ico.org.uk/>

About You: Questions A-D

First, please tell us a little ‘About You’. Answering these questions will help us to analyse the responses we receive.

Are you based in Northern Ireland?

- Yes – my main home or headquarters is in Northern Ireland
- No – but I regularly visit or do business in Northern Ireland
- No – I have no personal or business connections in Northern Ireland

What is your name?

(This Question is 'Optional' - you do not have to answer if you do not want to.)

Annika Clements and Jennifer Fulton

What is your email address?

(This Question is 'Optional' - you do not have to answer if you do not want to.)

annika.clements@ulsterwildlife.org

Are you representing an organisation, or are these your personal views?

(Required)

- I am representing an organisation
- These are my personal views

If you are giving your personal views, please tell us which age group you belong to:

- Under 18
- 18-29
- 30-39
- 40 – 49
- 50-59
- 60-69
- 70-79
- Over 80

If your response represents the views of an organisation, please tell us the sector type of your organisation:

- Aerospace and defence
- Agriculture, Forestry and Fishing
- Arts, entertainment and recreation
- Business services (including contact centres, consultancies, recruitment services, security services, facilities management etc)
- Charity or NGO (Environmental)
- Charity or NGO (Other)
- Construction
- Creative industries
- Education
- Energy - Electricity, gas, renewables, steam and air conditioning supply
- Financial and insurance activities
- Food & drink processing / manufacturing
- Government Department / Agency - Northern Ireland
- Government Department / Agency - Other
- Health and care services
- Information & communication

- LULUCF (Land Use, Land Use change & Forestry)
- Manufacturing - Furniture, Metal, textiles, stone & wood
- Manufacturing - Chemicals, cement, ceramics, glass & plastics
- Manufacturing - Machinery, equipment, vehicles, electricals and electronics
- Manufacturing - Repair / Installation
- Manufacturing - Other
- Mining and Quarrying
- Professional, scientific and technical activities
- Public Body
- Recycling
- Retail and wholesale
- Tourism & Hospitality
- Transportation and storage
- Water supply, sewerage, waste management and remediation activities
- Other

Question 1: Options

Which of the following high level options do you think is appropriate for Northern Ireland to take forward?

(Required)

Option 1:

Northern Ireland Climate Change Bill setting interim emission reduction targets and a long term target of net zero emissions in Northern Ireland by 2050

(long term target does not consider expert climate change advice)

Option 2:

Northern Ireland Climate Change Bill setting interim emission reduction targets and a long term target for Northern Ireland by 2050, the long term target is an equitable contribution to achieving UK-wide Net Zero by 2050

(long term target considers expert climate change advice)

Not sure / No opinion

(Optional) **Please tell us, in a few words, the reason(s) for your choice.**

Reason for Option choice(s)

Ulster Wildlife welcomes the opportunity to comment on options for a Northern Ireland Climate Change Bill: this is a matter of the utmost importance: we must act without delay - time is running out to avert a climate and ecological crisis. Every Government has a moral imperative to act now and quickly to avoid leaving a toxic legacy for our children and our children’s children. We urgently need a tailored approach within Northern Ireland due to the differences in economic structure in order to tackle emissions, as well as promote climate change resilience and adaptation. Furthermore, it is clear that the majority of policy levers that could have a significant impact on our levels of emissions are devolved matters, and we are therefore fully supportive of a Northern Ireland Climate Change Bill.

Ulster Wildlife strongly advocates that the Northern Ireland Climate Change Bill sets a long term target of Net Zero emissions in Northern Ireland by at least 2050. In fact, we consider it is essential to be more ambitious than this, and set a **Net Zero target for 2045**, or even sooner. Furthermore, it is vital that interim targets, with safeguards to prevent backsliding, are included to enable meeting of the longer term target. Whilst we acknowledge that the Net Zero target by 2050 – or better, 2045 - presents challenges, we believe this target is vital to galvanise the necessary action, incentives and investments required to drive transformational change and is the

only option to do this – anything less fails to provide the right message and motivation to tackle the climate crisis.

Following recognition of a Climate Emergency by the Northern Ireland Assembly on 3rd February 2020, a Climate Change Bill needs to be truly ambitious, providing clear, unequivocal moral leadership highlighting the challenges ahead and the commitment and action needed from all sectors of society to meet these challenges. The Climate Change Committee (CCC) within its Sixth Carbon Budget (published December 2020)¹ makes specific reference to the UK needing to have the “**highest possible ambition**” with regard to pathways to achieving Net Zero. This ambition must be properly reflected within a NI Climate Change Bill.

The NI Climate Change Bill must be more ambitious than the statements provided as options in the consultation response template and detailed in the Discussion Document² and use a more suitable target of **Net Zero by 2045**: this presents a truly global outlook, acknowledging the nature of the climate crisis and the role small developed countries should play in dealing with the challenge. This would also be in line with the commitments by the UK government under the United Nations Framework Convention on Climate Change’s 2015 Paris Agreement which aims to keep global warming to well below 2°C. Experts now advise that Net Zero by 2050 is not enough to avoid a climate crisis, as this **only gives a 50% chance** that such action will keep average global warming to 1.5°C or below³. It is crucial we do everything we can to limit global warming to 1.5°C. The Intergovernmental Panel on Climate Change (IPCC) emphasised that 2°C or more of global warming could destroy ecosystems on around 13% of the world's land area, increasing the risk of extinction for many insects, plants and animals – in turn drastically altering the services these provide to society and their role in human health. Holding warming to 1.5 °C would reduce that risk by half.

The urgency to limiting warming to 1.5 °C has been reflected by many committing to Net Zero by 2045 or sooner (e.g. the Climate Change (Emissions Reduction Targets) (Scotland) Act 2019⁴, National Farmers Union ‘Net Zero by 2040’ across England and Wales⁵, and the Northern Ireland Private Members Bill (submitted to NI Assembly on 21st October 2020)⁶). In line with these we believe that the **Northern Ireland Climate Act should set a Net Zero target for 2045 or sooner**. Early action is vital in tackling emissions, and this must be embedded within the Climate Change Bill by setting interim targets. Lord Deben notes in his letter that “*peak temperature change is determined by when emissions of long-lived GHGs reach Net Zero (assuming that short-lived GHG emissions are not rising.)*”⁷. In addition, the DAERA Discussion Document states “*the later cuts are made, the greater they must be to achieve the same long-term goal, and so they will be more*

¹ <https://www.theccc.org.uk/wp-content/uploads/2020/12/The-Sixth-Carbon-Budget-The-UKs-path-to-Net-Zero.pdf>

² https://www.daera-ni.gov.uk/sites/default/files/consultations/daera/Discussion%20Document%20on%20a%20Northern%20Ireland%20Climate%20Change%20Bill%20-%20Full-length%20version_0.pdf

³ <https://www.ipcc.ch/sr15/>

⁴ <https://www.legislation.gov.uk/asp/2019/15/contents/enacted>

⁵ <https://www.nfuonline.com/nfu-online/business/regulation/achieving-net-zero-farmings-2040-goal/>

⁶ <https://www.greenpartyni.org/blogs/green-party-ni/clare-bailey-mla-lays-ground-breaking-climate-change-bill>

⁷ <https://www.theccc.org.uk/publication/letter-lord-deben-climate-change-committee-to-edwin-poots-mla/>

*expensive to implement*⁸. If Northern Ireland was to follow the 82% GHG emissions cut by 2050 option (Option 2), all other sectors could have to work harder as agricultural methane could go unchecked, possibly making up a considerable part of the residual 18%. The CCC Advisory Group on the Costs and benefits of Net Zero (report published in 2019⁹) advocated that one of the key benefits of a Net Zero approach (versus a UK 80% emissions reduction) is *“that is removes uncertainty and the temptation of sectors to lobby for a larger share of the remaining 20% of emissions”*. This is an important viewpoint that further demonstrates the need for an unequivocal Net Zero target.

We acknowledge that the CCC’s scenarios for the UK’s Sixth Carbon Budget do not include one where Northern Ireland could reach Net Zero greenhouse gas emissions by 2050 (or by 2045), however we emphasise that this is not because such a scenario is impossible, and strongly disagree with DAERA’s statement in this consultation that Option 1 (Net Zero target for 2050) - or any Net Zero target sooner than 2050 - *“does not consider expert climate change advice”*: this statement is misleading. The CCC itself, who provide such advice to government, states in the Sixth Carbon Budget report that *“there is no purely technical reason why Net Zero is not possible in Northern Ireland”*¹⁰, and this does not mean that such a target could not be achieved using devolved policy actions. The Sixth Carbon Budget scenarios are designed to be UK wide to achieve a UK-wide Net Zero target. There are a number of limitations due to lack of data/methodology for elements that may be very significant at a Northern Ireland level, for example the accurate measurement of soil carbon in all environments (not only the categories in Land Use, Land Use Change & Forestry Sector), and emissions from degraded peatlands. Locally tailored scenarios that maximise areas of devolved policy intervention can undoubtedly provide a pathway to achieving Net Zero. The CCC acknowledge that around 60% of the policy levers required for climate mitigation are devolved or partially devolved – it is therefore imperative that Northern Ireland makes the best use of such devolved policy areas. Furthermore, as referred to above, we have seen over the past three years new scientific evidence demanding that more radical emissions cuts are needed sooner to limit global warming to 1.5°C¹¹, and it is very possible that the accelerating pace of climate change will demand even more drastic intervention to stem this crisis.

Within the CCC’s advice it is noted that one of the challenges in Northern Ireland meeting a Net Zero target is our pattern of land use and farming, and the current emissions from agriculture. We concur with Ulster Farmers Union’s statement *“agriculture is part of the solutions and our farmers are committed to reducing emissions and doing all they can to reach Net Zero.”* We emphasise the importance of a just transition to climate-friendly farming practices. Farmers and other land managers should be supported in the long term through public money for public goods such as clean water, clean air, thriving biodiversity, protection from environmental hazards, heritage and natural beauty, and reduction of and adaptation to climate change through environmental land management schemes¹².

⁸ https://www.daera-ni.gov.uk/sites/default/files/consultations/daera/Discussion%20Document%20on%20a%20Northern%20Ireland%20Climate%20Change%20Bill%20-%20Full-length%20version_0.pdf

⁹ <https://www.theccc.org.uk/wp-content/uploads/2019/05/Advisory-Group-on-Costs-and-Benefits-of-Net-Zero.pdf>

¹⁰ <https://www.theccc.org.uk/wp-content/uploads/2020/12/The-Sixth-Carbon-Budget-The-UKs-path-to-Net-Zero.pdf> (p 230)

¹¹ [SR15 Full Report Low Res.pdf \(ipcc.ch\)](#)

¹² <https://www.gov.uk/government/publications/the-environmental-land-management-scheme-an-overview/the-environmental-land-management-scheme-public-money-for-public-goods>

Question 2: Criteria for setting Emission Reduction Targets

Do you have any opinions on what would be the most important criteria to be considered when setting, or updating, long term and interim emission reduction targets?

(Required)

- Yes I have an Opinion
 Not sure / No Opinion

(Optional)

Please tell us, in a few words:

- your choice(s) of the most important criteria, and
- why you think your choice(s) are the most important.

Interim emissions reduction targets must be consistent with the 2050 – or preferred 2045 - Net Zero objective and to crucially make an adequate early contribution to the target. The benefits of strong, early action considerably outweigh the costs. As outlined in Question 1 above, Lord Deben notes in his letter “*peak temperature change is determined by when emissions of long-lived GHGs reach Net Zero (assuming that short-lived GHG emissions are not rising)*”¹³ and the DAERA Discussion Document itself states that “*the later cuts are made, the greater they must be to achieve the same long-term goal, and so they will be more expensive to implement*”¹⁴.

Setting interim emission reduction targets must make use of the best available latest scientific evidence on emissions and carbon budget setting. This involves using new data and methodologies that ‘plug gaps’ in the current greenhouse gas inventory, for example the role of coastal and marine ecosystems in carbon sequestration and storage, emissions from degraded peatlands, habitat recreation and soil carbon across all habitats and land use categories in Northern Ireland.

Interim targets should again demonstrate strong moral leadership and ambition, and be underpinned by clear action roadmaps across a range of sectors (‘sector specific plans’). Consideration should be given to the approach of the Scottish Climate Change Act¹⁵, which includes safeguards to prevent backsliding – thereby avoiding situations where residual emissions are put off into the next carbon budget potentially causing a cascade of mixed targets. Sector-specific action plans must be enabled through long-term support, especially for those sectors that

¹³ <https://www.theccc.org.uk/publication/letter-lord-deben-climate-change-committee-to-edwin-poots-mla/>

¹⁴ https://www.daera-ni.gov.uk/sites/default/files/consultations/daera/Discussion%20Document%20on%20a%20Northern%20Ireland%20Climate%20Change%20Bill%20-%20Full-length%20version_0.pdf

¹⁵ <https://www.legislation.gov.uk/asp/2019/15/contents/enacted>

may require the most challenging and transformational change, such as land management and farming.

Question 3: Flexibility for updates to Evidence, Science and Understanding

Do you think flexibility should be built in to the Bill, to allow consideration of new emerging evidence and science on climate change (for example on long-lived and short-lived greenhouse gases) when setting emission reduction targets?

(Required)

- Yes
 No
 Not sure / No opinion

(Optional) Please tell us, in a few words, the reason(s) for your choice.

There are a number of evidence gaps noted by the CCC that need to be addressed and are of particular importance at a Northern Ireland level. Such evidence gaps can, and will be, filled as data and methodologies are developed, for example, the soil carbon stocks in different habitats beyond the categories in 'Land use, land use change and forestry' GHG inventory, and the carbon stocks in coastal and marine habitats. Scientific evidence must be strongly policy focussed, addressing how effective management and restoration of habitats and ecosystems for example can help meet emissions targets, as well as supporting adaptation to climate change.

It is expected that there will be future adjustments to the UK greenhouse gas inventory, which will more accurately account for emissions from, for example, peatlands and the global warming potential of methane and other non-CO₂ gases. Funding for a **strategic climate change research programme** in Northern Ireland is essential **in addition to an independent advisory body** to ensure the latest available evidence and science is made available at policy-relevant local scales. Interim emissions targets may require revision if science and evidence suggests the need to make more drastic emissions cuts at earlier stages in order to support the UK and global attempt to stem climate change to manageable levels (1.5°C or below¹⁶). Strong, early action is required and this will need to be reflected in interim targets. However, we urge that the sources of scientific evidence which could form the basis of revised targets be demonstrably robust and made publically available.

Consideration could be given to the Scottish approach by using secondary legislation that can be reviewed and amended on a regular basis, and would limit the vulnerability to any possible future suspension of the Northern Ireland Assembly. Again, as noted in Question 2 above, safeguards should be included to prevent backsliding.

¹⁶ [SR15 Full Report Low Res.pdf \(ipcc.ch\)](#)

Question 4: Duty to set Carbon Budgets

Do you agree that a Northern Ireland Climate Change Bill should include a duty to set limits in 5 yearly carbon budgets on the total amount of greenhouse gases that can be emitted in Northern Ireland, which is consistent with the long term targets and any interim targets set by that Bill?

(Required)

- Yes
- No
- Not sure / No opinion

(Optional)

Please tell us, in a few words, the reason(s) for your choice.

Interim emissions targets set in five yearly cycles are vital to develop and drive the necessary policy interventions and incentives needed to meet the long-term target, and provide five-yearly sector-specific action plans, clearly identifying the role of both local and national government. Five yearly carbon budgets should always avail of the latest evidence and scientific advice that provides 'state of the art' knowledge, giving an opportunity to develop **evidence-based policies**, and ensuring constant monitoring of progress towards the longer-term target. This policy advice should be provided by an independent advisory body, and should take into account not only the latest scientific evidence but also the coordination of both local and national government.

Consideration should be given to including provision for annual action plans to be laid by Ministers, similar to the Scottish process, which shows how the current carbon budget will be met and how these actions contribute to interim and longer-term targets.

Question 5: Public Bodies - Reporting on Adaptation to Climate Change

Should provision for reporting on adaptation measures by ‘major player’ public bodies, be included in a Northern Ireland Climate Change Bill?

Reminder - Definition of 'Climate Change Adaptation':
'Climate Change Adaptation' means taking action to prevent or minimise risks from the effects of unavoidable climate change - like building flood defences to reduce the impact of flooding.

(Required)

Yes (the Bill should provide for reporting by some or all 'major player' public bodies)

No (the Bill should not provide for reporting by any 'major player' public bodies)

Not sure / No opinion

(Optional)

Which 'major player' public bodies do you think SHOULD report on adaptation?

The government should scrutinise and consider the effectiveness of reporting under the Scottish Climate Change Act¹⁷, which requires ‘major players’ to report on adaptation and mitigation. ‘Major players’ should include local authorities, further and higher education institutions, health and social care trusts (including hospitals), government departments and their agencies (e.g. DAERA and NIEA), transport operators including airport operators and harbour authorities, electronic communications, water companies, police and emergency services, Invest NI and the Strategic Investment Board.

There should also be incentives for civil society to mitigate and adapt to climate change, including reporting systems for the private sector.

Ulster Wildlife also supports the approach advocated by Climate NI that reporting on adaptation should include the following three main aspects:

- ‘Adaptation Reporting Power (ARP)’ for ‘Major Player’ Public Bodies
- Improved Adaptation Reporting for Government Departments
- Voluntary Adaptation Reporting for Civil Society

¹⁷ <https://www.legislation.gov.uk/asp/2019/15/contents/enacted>

We believe a NI Climate Change Bill should follow the example in the UK and Scottish Acts, and be able to direct a ‘major player’ to prepare a reports containing any of the following:

1. An assessment of the current and predicted impact of climate change in relation to organisational functions;
2. A statement of the organisation’s proposals and policies for adapting to climate change in the exercise of its functions and the time-scales for introducing those proposals and policies;
3. An assessment of the progress made by the organisation towards implementing the proposals and policies set out in its previous reports.

(Optional)

Why did you specify those (types of) 'major player' public bodies?

We believe ‘major players’ should include public bodies that have large estates and large staff numbers and/or high impact and influence over a range of policy areas and provision of services, and/or large expenditure, and/or audit or regulatory functions. Climate change adaptation should be seen as an organisational priority for such bodies.

Question 6: Public Bodies - Reporting on Mitigation of Climate Change

Should provision for reporting on mitigation measures by ‘major player’ public bodies, be included in a Northern Ireland Climate Change Bill?

Reminder - Definition of 'Climate Change Mitigation':

'Climate Change Mitigation' means taking action to reduce the causes of climate change - such as reducing greenhouse gases being emitted into the atmosphere, or using 'carbon sinks' to store greenhouse gases.

(Required)

- Yes (the Bill should provide for reporting by some or all 'major player' public bodies)
- No (the Bill should not provide for reporting by any 'major player' public bodies)
- Not sure / No opinion

(Optional)

Which 'major player' public bodies do you think SHOULD report on mitigation?

As stated under Question 5 above, we advise that the government considers the approach and the effectiveness of reporting under the Scottish Climate Change Act¹⁸, which requires ‘major players’ to report on adaptation and mitigation. ‘Major players’ should include the same public bodies as those that report on adaptation: local authorities, further and higher education institutions, health and social care trusts (including hospitals), government departments and their agencies (e.g. DAERA and NIEA), transport operators including airport operators and harbour authorities, electronic communications, water companies, Police and emergency services, Invest NI and the Strategic Investment Board.

In addition to public bodies, we believe that there should also be systems of encouragements for civil society to mitigate and adapt to climate change, including optional reporting systems for the private sector.

¹⁸ <https://www.legislation.gov.uk/asp/2019/15/contents/enacted>

(Optional)

Why did you specify those (types of) 'major player' public bodies?

As with Question 5, we believe 'major players' should include public bodies that have large estates and large staff numbers and/or high impact and influence over a range of policy areas and provision of services, and/or large expenditure, and/or audit or regulatory functions. Climate change mitigation and their contribution to meeting five-yearly carbon budgets/emissions targets via sector-specific action plans should be seen as an organisational priority for such bodies.

Question 7: Independent Northern Ireland Advisory Body on Climate Change

In addition to continuing to avail of the expertise of the UK Climate Change Committee, should we also include provision in the Bill, for an independent Northern Ireland advisory body on climate change?

(Required)

- Yes
- No
- Not sure / No opinion

(Optional)

Please tell us, in a few words, the reason(s) for your choice.

Of the recommended actions in the Sixth Carbon Budget to achieve a UK Net Zero emissions by 2050, nearly 60% of these in Northern Ireland are in sectors where key powers are partially or mostly devolved. Due to Northern Ireland’s economic structure a **local, devolved and independent advisory body** in Northern Ireland would complement the information provided by the CCC and ensure scenarios are developed using local data, knowledge and expertise that ensure we can meet a Net Zero target by 2045.

The scale and complexity of meeting a Net Zero target by 2045 in Northern Ireland requires a truly multi-disciplinary, collaborative approach- across both government, private sectors, Non-Governmental Organisations and by individuals. It also requires our government to work closely with other jurisdictions. A NI independent advisory body must work closely with the UK CCC and the Ireland Climate Change Advisory Council to enable joined-up decision making and address border specific issues.

To support the NI independent advisory body, NI must have a **robust climate research programme**, addressing both mitigation and adaptation, providing the necessary evidence base upon which to base policy decisions and to integrate such research across sectors.

Question 8: Other comments on Issues in this Discussion Document

Do you have any other comments - in respect of the issues raised in this discussion document?

(Required)

- Yes
- No
- Not sure / No opinion

(Optional)

If you chose 'Yes' please tell us, in a few words, the reasons for your view(s).

We would reiterate that a Climate Change Bill must be ambitious and provide moral leadership. It is technically possible to meet a Net Zero emissions target by 2045 and policy interventions and incentives are vital to do this, through development of evidence-based sector-specific action plans, long-term funding and support for transformative change, and the development and application of five yearly sector-specific carbon budgets.

Fully utilising Nature-based Solutions (see Question 9) - including 'climate-friendly farming' - presents a notable opportunity to meet emissions targets.

For each comment you make, please tell us which issue it relates to.

Question 1 options: Net Zero target – should include options for earlier targets such as 2045, not only 2050 (Option 1), in order to provide adequate action to safeguard our future and that of our children. Removal of the statement in Question 1 Option 1 “does not consider expert climate change advice”, which is misleading, with the CCC itself stating that “there is no purely technical reason why Net Zero is not possible in Northern Ireland”.

Embedding Nature-based Solutions to climate change throughout policy especially within the planning system – beyond what is included in 'natural based carbon sequestration initiatives' in the Discussion Document.

Question 9: Any issues not adequately covered

Are there any important issues you feel have not been adequately covered at this early discussion stage?

(Required)

- Yes
 No
 Not sure / No opinion

(Optional)

If you chose 'Yes' please tell us, in a few words, the reasons for your view(s).

It is crucial that within a Northern Ireland Climate Change Bill the role that nature can play in mitigating and adapting to climate change, to meet ambitious emissions reduction targets and to foster resilience to the impacts of climate change, is recognised, understood and advocated. Furthermore, there should be recognition of the co-benefits natural solutions to climate change offer in terms of promoting biodiversity, human wellbeing and ecosystem services such as improvement of water quality, all of which are intrinsically linked to the climate emergency. We welcome that 'natural based carbon sequestration initiatives' have been described in the Discussion Document¹⁹, but believe these can go further towards addressing emissions targets:

Nature-based solutions

The CCC has identified the substantial role nature can play in meeting the Net Zero targets, and crucially an “*opportunity to define a better land strategy that responds fully to the challenge of climate change*”²⁰. The roles habitats can play in mitigating and adapting to climate change are known as ‘natural solutions to climate change’, or ‘Nature-based Solutions (NbS)’. NbS represent a huge opportunity to address the climate change challenge, both in terms of reducing greenhouse gas net emissions and in promoting resilience and adaptation. The CCC recommended that a new land use policy “*should promote transformational land uses, rewarding landowners for public goods*”, benefiting and protecting existing habitats and creating new ones. Furthermore, there are notable co-benefits of NbS which promote wider ecosystem services (e.g. clean water, flood risk reduction) and enhance biodiversity which helps us achieve government agreed targets (e.g. such as the Aichi Targets of the Convention on Biological Diversity (CBD)²¹).

Northern Ireland has an opportunity now to embrace these solutions – one clear example is that we have the largest proportion of our land area defined as peatlands compared to any other part of the

¹⁹ https://www.daera-ni.gov.uk/sites/default/files/consultations/daera/Discussion%20Document%20on%20a%20Northern%20Ireland%20Climate%20Change%20Bill%20-%20Full-length%20version_0.pdf

²⁰ <https://www.theccc.org.uk/wp-content/uploads/2020/12/The-Sixth-Carbon-Budget-The-UKs-path-to-Net-Zero.pdf>

²¹ <https://www.cbd.int/sp/targets/>

UK (12%), which currently emits rather than sequesters carbon due to their degraded state. With suitable management and careful restoration, peatlands will have an important contribution to reducing emissions.

Here we outline key nature-based solutions that the new Northern Ireland Climate Change Bill could incentivise in order to achieve Net Zero by 2045:

1. Climate-friendly farming

We recognise that livestock farming plays a significant role in the challenge facing NI in meeting Net Zero by 2045, and that greenhouse gas emissions from agriculture in NI represented 27% of the total NI emissions in 2018, compared to representing only 10% of the UK total. There's a need for innovation in land use strategies to enable a long term approach to tackling climate change. This will be focused on farmers: climate - resilient farming practices can substantially reduce net emissions and promote carbon capture and sequestration. This will enable farmers to act as carbon custodians and managers, for example through planting trees and hedgerows, recreating habitats, improving soil health and promoting peatland conservation and restoration.

We call on the government to provide a roadmap for action and long-term support to reduce agricultural emissions by incentivising climate-friendly farming.

2. Peatland restoration

It is encouraging that the role of peatlands in both carbon storage and sequestration has been recognised in the Climate Change Bill Discussion Document.²² Given that 12% of NI's land area is peatland and 86% of this is in a degraded state, there is great potential to improve and actively promote the role peatlands can play in reducing net emissions and also in benefitting climate change resilience, e.g. through flood risk mitigation and improve water quality. Due to their current degraded state, most of our peatlands are currently net emitters of greenhouse gases.

By tackling peatland degradation through sustainable management and active restoration, via government incentives and a robust Peatlands Strategy with clear restoration targets and funding, significant progress to reducing greenhouse emissions could be made within the coming decades.

3. Forests and woodland

The latest greenhouse gas emissions figures show that land use change continues to contribute to greenhouse gas emissions rather than sequester carbon. The CCC latest recommendation in the Sixth Carbon Budget includes planting of 300,000 hectares of mixed woodland by 2035 across Scotland, Wales and Northern Ireland, accelerating to 850,000 hectares by 2050. We recognise and applaud schemes such as the Forests for Our Future programme that will plant 9000 hectares by 2030, and would like to see a more ambitious target for 2045. Furthermore, it is crucial that new woodland creation is in appropriate locations and scale, with a network approach used to maximise climate and biodiversity benefits, utilising appropriate species.

4. Blue carbon

The role of coastal and marine habitats is not yet included in the greenhouse gas inventory, however it is known that these habitats play a vital role in carbon sequestration and capture. A hectare of saltmarsh, for example, can capture two tonnes of carbon a year and lock it into sediments for centuries. Saltmarsh carbon burial rate is about four times faster than the carbon captured by sitka spruce trees, and globally the rate of carbon sequestration on coastal wetlands is greater than in all forests combined, despite forests covering much larger areas. It is increasingly clear that a range of

²² https://www.daera-ni.gov.uk/sites/default/files/consultations/daera/Discussion%20Document%20on%20a%20Northern%20Ireland%20Climate%20Change%20Bill%20-%20Full-length%20version_0.pdf

coastal and marine habitats – for example seagrass meadows, saltmarsh, shellfish reefs, kelp beds and muddy sediments – are crucial in storing carbon and as such, a strategy is needed to protect and restore these habitats.

5. A network approach

Nature-based solutions to climate change offer enormous potential to help Northern Ireland meet a suitably ambitious Net Zero target for 2045. To harness such solutions effectively and efficiently, a network approach is crucial. A ‘Nature Recovery Network’²³ would go beyond managing climate sensitive habitats in protected sites alone and help protect the key habitats (including peatlands, woodlands, coastal habitats) that can mitigate climate change. This approach also provides corridors for wildlife to respond to a changing climate, manage flood risk, improve soil conditions, produce clean water and clean air, and enhance human wellbeing by allowing people to enjoy and connect with nature.

The role of NbS in climate change adaptation

Ulster Wildlife supports five key recommendations on how to ensure that NbS deliver multiple benefits, including climate change adaptation²⁴:

1. NbS for climate change adaptation should be integrated with other policy areas, to unlock synergies and avoid adverse effects.
2. Policy support should explicitly recognize the need for a landscape approach involving a diverse portfolio of NbS across different habitats.
3. NbS should be carefully designed and implemented through a bottom-up and participatory approach involving multiple stakeholders.
4. NbS should be planned to deliver measurable benefits for biodiversity through enhancing the health, diversity and connectivity of ecosystems and their habitats and species.
5. Adaptation policy should set well-defined time-bound objectives and build capacity to effectively monitor NbS outcomes over the long term.

The table below illustrates the range of co-benefits provided by habitats that should be managed as part of the NbS approach. Climate change will have many impacts on biodiversity and this should be recognised by all government departments enabling NbS to become embedded across policy areas. We have an opportunity to make much greater use of ecosystem services to help adapt to a changing climate, as illustrated for example in NI Water’s 2021-2046 strategy.

²³ <https://www.wildlifetrusts.org/nature-recovery-network>

²⁴ https://www.naturebasedsolutionsinitiative.org/wp-content/uploads/2020/12/NbSinUKPolicy_Dec2020.pdf

Protection, restoration, creation or sustainable management of:	Inland flooding and erosion	Coastal flooding and erosion	Heatwaves	Water scarcity	Air quality	Livelihoods	Cultural value	GHG reduction	Biodiversity
Natural or semi-natural woodlands	x		x	x	x		x	x	x
Shrubland and hedgerows	x		x		x		x	x	x
Agroforestry ^a	x		x		x	x	x	x	x
Wood pasture and parkland with scattered mature trees	x		x	x	x	x	x	x	x
Natural or semi-natural grasslands	x			x		x	x	x	x
Heathland and montane	x			x			x	x	x
Peat bogs	x			x			x	x ^e	x
Wetlands	x		x	x		x	x	x ^e	x
Freshwater	x		x	x		x	x		x
Saltmarshes		x				x	x	x	x
Seagrass		x				x	x	x	x
Beaches, dunes and sea cliffs		x				x	x	x	x
Coral reefs ^b		x				x	x		x
Mangroves ^b		x	x			x	x	x	x
Sustainable agriculture	x		x	x	x	x	x	x	x
Urban green infrastructure ^d	x		x	x	x	x	x	x	x

- (a) Agroforestry includes silvo-pasture (trees on pasture) and silvo-arable (trees amongst crops).
- (b) Mangroves and coral reefs are applicable to overseas territories and for international policy, although cold water corals are also found in UK seas.
- (c) Sustainable agriculture options include addition of organic matter to soil, use of cover crops, minimum tillage (to preserve soil health), use of buffer strips to intercept runoff from fields, and species-rich arable field margins to support pollinators.
- (d) Urban green infrastructure includes created wetlands, parks, street trees, green walls and roofs, allotments, community orchards and sustainable drainage systems²⁵.
- (e) Wetlands and peat can store vast amounts of carbon in soil and sediments, but can also emit carbon dioxide or methane if degraded, turning from a carbon sink to a source.

Behaviour change

We fully recognise the role individual behaviours must play in achieving a Net Zero target, and this should be emphasised in the Climate Change Bill – encouraging, motivating and enabling long term behaviour change, for example in how we consume goods, travel, heat our homes, reducing food waste and high carbon footprint food consumption.

For each comment you make, please tell us which issue it relates to.

- 1) **Nature-based Solutions** (natural solutions to climate change) beyond what is included in ‘natural based carbon sequestration initiatives’ in the Discussion Document.
- 2) **Behaviour change**, which is not discussed in detail the Discussion Document, but is recognised as crucial in meeting emissions targets by the CCC²⁶.

²⁵ <https://www.theccc.org.uk/publication/adaptation-actions-in-the-natural-environment-and-cities-what-works/>

²⁶ <https://www.theccc.org.uk/wp-content/uploads/2020/12/The-Sixth-Carbon-Budget-The-UKs-path-to-Net-Zero.pdf>



Thank you for sharing your views in this Discussion Exercise.

Please ensure that we receive your response before the Consultation period closes.
