



ULSTER FARMERS' UNION RESPONSE

CONSULTATION ON: NORTHERN IRELAND'S 2030 & 2040 EMISSIONS REDUCTION TARGETS AND FIRST THREE CARBON BUDGETS

&

SEEKING VIEWS ON CLIMATE CHANGE COMMITTEE (CCC) ADVICE REPORT: THE PATH TO A NET ZERO NORTHERN IRELAND

OCTOBER 2023

INTRODUCTION

Thank you for the opportunity to respond to the above consultation. The Ulster Farmers' Union (UFU) is the largest farming organisation in Northern Ireland with over 12,000 members. The UFU membership encompasses farmers from all sectors, across all of NI, and from all farm sizes reflecting the diverse nature of the NI agricultural sector.

We trust that you will fully consider the UFU response to this consultation and would be willing to discuss further if further clarification is needed.

BACKGROUND

The importance of the farming industry to Northern Ireland cannot be over-stated and is widely recognised as the backbone of the NI economy. The total gross turnover of the food and drink processing sector in NI was almost £6 billion in 2022 and the agri-food sector supports 113,000 workforce jobs¹.

Agriculture, and the land-based economy, will play a key role in tackling climate change. It is uniquely placed to capture the major GHG, carbon dioxide, from the air and turn it into a wide range of food, fibres and fuels.

Climate Change is the biggest environmental threat facing us globally. It is affecting every farmer across the world with every country facing weather events that are increasingly extreme and frequent. NI agriculture will have to adapt to a changing climate. This will include coping with more frequent severe weather events, adapting to changing weather patterns and dealing with new pests and diseases. This must be recognized and may influence NI's ability to meet targets.

¹ <https://nifda.co.uk/wp-content/uploads/2021/05/Food-for-Thought-EIA-of-the-Food-and-Drink-sector-in-NI.pdf>

Local farmers can and must be part of the climate change solution and with the right policy framework and support, farmers can deal with the climate and food production challenges.

While the UFU supports the need for climate change legislation and the need to reduce emissions, proposals to deliver targets must be fair and credible. NI's farming industry worked through the NI Greenhouse Gas Implementation Partnership to deliver emissions reductions and increased carbon sequestration for over a decade. The UFU is also part of the Agriculture and Land Use Alliance which highlights the important role of UK agriculture and climate-friendly food production in helping the UK to meet its net zero ambitions.

We need to understand our contributions better, which is why the Ulster Farmers' Union is committed to more accurate methods of measuring, reporting, and verifying on-farm net emissions. To support this, the UFU are working towards a whole farm Carbon Survey Programme for every farm in NI, funded by DAERA and facilitated by the industry and the creation of a Sustainability Body for NI.

The UFU has also lobbied for, promoted and supported the roll out of the NI Soil Nutrient Health Scheme: a world-leading scheme that will provide baseline information on above ground biomass, soils and carbon stores on farms across the whole of NI and help farmers reduce emissions from fertilizers.

The international UN Paris Agreement on climate change aimed to limit greenhouse gas (GHG) emissions and keep temperature increases below 2°C, it also recognized the importance of food production. This agreement in Article 2b outlines the need for "Increasing the ability to adapt to the adverse impacts of climate change and foster climate resilience and low greenhouse gas emissions development, in a manner that does not threaten food production."

In line with the Paris Agreement principles, while NI must reduce our impact on the climate, we should not reduce our capacity to produce high quality, affordable food produced to high environmental, animal health and welfare standards and balancing this will be a key challenge in the years ahead. The Paris Agreement recognises the importance of "safeguarding food security and ending hunger, and the particular vulnerabilities of food production systems to the adverse impact of climate change".

Global demand for food is increasing and, according to UN forecasts, the number of mouths to feed will rise to nearly 10 billion by 2050. Agricultural production will need to increase by an estimated 60%, according to the UN Food and Agriculture Organisation, with strong demand projected for commodities such as milk and meat. The UK is only around 60-70% self-sufficient on a calorific basis with regard to meat, milk and eggs from domestic livestock production. There continues to be demand for meat and dairy products, therefore the UK and NI must not achieve their climate change ambitions by exporting production and our greenhouse gas emissions, to other countries (carbon leakage). It makes no sense to import products from countries where emissions are higher, and standards lower in order to meet climate targets.

The CCC have indicated that NI and UK farmers are efficient meat and dairy producers. Ruminant farming in the UK and Ireland produces much lower emissions than other countries therefore it makes sense for NI to produce red meat and dairy from sustainable livestock farming here as the contribution to global emissions will be much lower than producing this elsewhere. The CCC have recognised carbon leakage as an issue that must be prevented.

It is also recognised that beef production in Western Europe is currently 2.5 times more efficient in managing carbon emissions than the global average. Dairy farming in Northern Ireland has reduced its carbon intensity by 34% between 1990 and 2017 and greenhouse gas emissions from beef in the UK are 52% lower than the global average.

Food security will become increasingly important. COVID-19 and the Ukrainian war clearly outlined how sensitive the food supply chain is to global shocks and the recent CO₂ shortages further demonstrates this vulnerability. The Climate Change Committee's third UK Climate Change Risk Assessment (CCRA3) Evidence Report 2021 outlined that 'climate change is likely to exacerbate disruptive events that impact on global agricultural production and food supply chains, including through droughts, storms and pests and diseases, with increased risks of disruptions associated with multiple production areas.' Considering the increasing risks to the food supply chain and particularly around food imports, removing the ability to locally produce high-quality food is irresponsible. Therefore, this must be a key consideration when developing targets.

Goal 2 within the United Nations Sustainable Development strategy is to 'end hunger, achieve food security and improved nutrition and promote sustainable agriculture'. A balance is needed to deliver sustainable local food production, which is the backbone of rural communities and the NI economy, but also for the environment. While greenhouse gas (GHGs) emissions from farms can be reduced they cannot be eliminated. Cutting livestock numbers and reducing agricultural production in NI would not solve the global challenge of feeding a growing population.

In addition, while there is some scope to increase arable and horticulture farming, most of Northern Ireland is unsuitable for crop and vegetable production. The ability of local ruminant livestock to turn grass and other by-products into high quality nutrient dense protein we can eat must be recognised. In addition to food provision, ruminant livestock also provide wider benefits such as producing wool and leather as alternatives to man-made plastics, help to manage landscapes and biodiversity and provide nutrients through organic manures which contribute to improved soil health.

The Climate Change Act (Northern Ireland) 2022 recognises the principles of just transition and a Just Transition Commission should be established as soon as possible to ensure targets are fair and just. Any just transition should recognise the essential role of farming in underpinning the rural economy and safeguarding the viability of rural communities and delivering food security for the nation. While a Just Transition fund for agriculture has been included in the legislation, there is not detail or budget around this.

There are key barriers to the delivery of Climate Change mitigation policies and targets, and these are outlined in this response however, a key issue is the lack of devolved Government in NI to agree a Climate Action Plan. The budgetary pressures are also a significant issue, and it is unclear how targets can be delivered without the necessary finances in place.

There is a considerable research programme already in place on climate change mitigation and adaptation for agriculture and the land use sector at AFBI and the main Universities. However, it is essential that a programme of climate research continues to evolve in Northern Ireland, specifically for the agricultural sector which plays such an important part in the NI economy. This must include research around mitigation, adaptation and carbon sequestration. The NI Executive must provide support for long-term research and the development of innovative technologies as well as adopting a framework that allows this to be progressed in a timely manner to allow businesses to develop and remain competitive while delivering reductions.

It is also important that in tackling GHG emissions that it does not lead to other environmental trade-offs, exacerbating other environmental issues.

SECTION: 2 NORTHERN IRELAND'S 2030 AND 2040 EMISSIONS REDUCTION TARGETS AND FIRST THREE CARBON BUDGETS

Question 1. Do you agree that DAERA should follow the current advice provided by the CCC and keep the current 2030 emissions reduction target in the Act of an at least 48% reduction in emissions compared to the baseline?

The UFU would support interim targets set at an appropriate interval. The current 2030 emissions reduction target in the Act is in line with the Climate Change Committee's original advice to Minister Poots. While this is extremely challenging, the UFU has supported this pathway for NI.

Question 2. Do you agree that DAERA should follow the current advice provided by the CCC and set a 2040 emissions reduction target of an at least 77% reduction in emissions compared to the baseline?

No

The UK Government is advised by the internationally renowned Climate Change Committee (CCC). The CCC advice is clear that not all parts of the UK are required to get to net zero emissions for the UK to meet its 2050 net zero target which is in line with the Paris agreement. Advice to NI outlined that an 82% reduction target (later upgraded to 83% reduction) reflects a fair contribution to the overall UK Net Zero 2050 target. All other regions within the UK are following CCC advice and have set targets in line with that advice. The balanced pathway is already extremely ambitious and a significant challenge for NI and for the agri-food sector.

The Climate Change Act (NI) 2022 target of net zero by 2050 has been consistently opposed by the agri-food sector in Northern Ireland including the UFU. Key issues include:

- Impact on agri-food sector,
- Impact on rural communities
- Economics
- Risk of carbon leakage
- Cost to wider economy / NI budget
- A reduction in UK food security

The majority of NI politicians chose to ignore the CCC advice and have imposed a more stringent 2050 target for carbon dioxide. However, CCC information to date shows that it is almost impossible to achieve this and they have struggled to find a credible and affordable pathway to achieve this ambition.

The 2040 target set out in the consultation goes significantly beyond the 69% carbon dioxide reduction advised by the CCC as part of the balanced pathway and therefore we cannot support it. The UFU believes this should be set at a rate that is consistent with the CCC balanced pathway and can be reviewed and updated in time as science and technology evolve.

The Climate Change Act (Northern Ireland) 2022 section (3) states “The Northern Ireland Departments must ensure that the net Northern Ireland emissions account for the year 2040 is in line with the target for the year 2050.” However, it does not specify which target given that there is a net emissions target set out for carbon dioxide and methane emissions by 2050.

Within the Act in section 1 (3) there is a duty to ensure that ‘the net Northern Ireland emissions account for methane for the year 2050 to be more than 46% lower than the baseline for methane.’ There is limited reference to this requirement within the consultation document. The consultation does not confirm if this 2040 target is in line with meeting the 2050 methane target as is required by the Act.

Question 3: Do you agree that DAERA should follow the current advice provided by the CCC and set the first carbon budget at a level that has a 33% average annual reduction in emissions compared to the baseline?

The first carbon budget is in line with the 2030 target and the balanced pathway and therefore can be supported by UFU. However, it will still be a significant challenge for Northern Ireland to meet this. The absence of the NI Assembly will result in delays to the introduction of plans and policies to help deliver this first carbon budget along with finalizing a suitable financial budget. There is no specific budget set aside to help deliver climate change policies and with the current budgetary challenges within NI it remains unclear as to how new policies and plans will be funded. A Just Transition Fund for agriculture has been agreed in principle but no financial commitments have been made. Any allocations to this fund must be in addition

to the farm support payments that are ring-fenced for agriculture and linked to agricultural policy and this must not be used as a substitute for the Just Transition for Agriculture Fund.

Question 4. Second Carbon Budget (2028-2032): Do you agree that DAERA should follow the current advice provided by the CCC and set the second carbon budget at a level that has a 48% average annual reduction in emissions compared to the baseline?

As outlined above, any targets that move away from the CCC balanced pathway are unacceptable to the UFU.

It is also concerning that as outlined above, the methane reduction target is again not mentioned in this section.

Question 5. Third Carbon Budget (2033-2037): Do you agree that DAERA should follow the current advice provided by the CCC and set the third carbon budget at a level that has a 62% average annual reduction in emissions compared to the baseline?

As outlined above, any targets that move away from the CCC balanced pathway are unacceptable to the UFU and again there is no mention of methane targets within this section.

Question 6. CCC advice: Do you agree that DAERA should follow any updated advice and recommendations from the CCC (as a result of the publication of the Northern Ireland 2021 Greenhouse Gas Inventory) when setting the first three carbon budgets?

The publication of the Northern Ireland 2021 Greenhouse Gas Inventory will result in more realistic figures for NI than 2020. The policies in place during the COVID-19 pandemic will have skewed the 2020 figures in some sectors and it is important to take this into account. Any advice should be made public. However, if there are significant changes to the CCC existing advice, DAERA should consider the need for further consultation.

Question 7. Impact assessments Can you provide any information (relating to the potential financial, economic, social, rural and equality impacts) which will help inform the completion of the relevant impact assessments on the proposed carbon budgets?

The consultation in section 2.2.3 outlines the requirements of Section 26 of the CC Act which requires DAERA to take account of specific factors when setting carbon budgets. While DAERA outline that the CCC advice report takes into account some of these factors such as 'requirements around law and policy, scientific knowledge and technology relevant to climate change as well as other factors relating to, for example energy and agricultural policy'.

DAERA also set out the various impact assessments that are required however, none of these are available as part of the consultation process and therefore it is unhelpful when commenting on the targets that these high-level impact assessments have not been shared.

Section 26 also requires DAERA to consider a number of other issues that have not been explained within the consultation document including:

- The economic circumstances with specific detail in section 26 1(e) (i-iv)
- Fiscal circumstances, in particular the likely impact of the budget on taxation, public spending and borrowing.
- The likely impact of the budget on public health
- Environmental considerations, in particular the impact on biodiversity
- The impact on current international reporting practice
- The special economic and social role of agriculture, including the distinct characteristics of biogenic methane.
- The risk of substantial and unreasonable carbon leakage.

It is not clear whether any of these factors have been considered by the CCC in their advice; their report would suggest that much of the above has not been considered. Therefore, DAERA must set out their position on the above matters and ensure that they are fully complying with the Climate Change Act by taking all the factors listed in section 26 into account and have full transparency around these. These should have been referred to within the consultation document.

While DAERA have outlined the standard impact assessments that policy makers are required to complete, these will not cover all the requirements within the Act and therefore additional reports must be provided to Stakeholders to show that Section 26 has been fulfilled. It is not acceptable to ignore the full list of impacts. In particular the UFU would like to see more reference to biogenic methane.

For some time, agricultural organisations from across Europe, UK and New Zealand (including the UFU) have been calling for the Intergovernmental Panel on Climate Change (IPCC) to consider short lived pollutants and recognise this aspect within the international inventory. GWP100, the current metric that is used to measure emissions by the IPCC and the CCC, does not recognise the significant differences between short-lived gases, such as methane, and long-lived gases, such as carbon dioxide. GWP* has been developed by climate scientists at the University of Oxford and is much more accurate in calculating the warming impact of the different greenhouse gases in both the short and long term. The UFU considers it vitally important that the best scientific information and tools available are being used to inform and build trust in the decisions that global and domestic policy makers are taking. This includes emission reduction targets. The development of GWP* is a clear indication of how the science is continuing to develop therefore it is vital, that given the requirement of the CC Act (NI) 2022 to recognise the distinct characteristics of biogenic methane, that DAERA sets out its position on the use of GWP* and the impact using that methodology would have.

The UFU would draw DAERA's attention to the previously published KPMG Report on the Climate Change Bill Impact Assessment² that was commissioned by agri-food stakeholders in

² http://content17.com/media/99/images/full/Climate-Bill-Impact-Assessment-Final-Report_1.pdf

2021 which outlines the potential impact of extreme climate change targets on the agri-food sector and impact cuts in livestock numbers can have.

The UFU in conjunction with other agri-food stakeholders will provide further economic information which will consider the views of the CCC and will be useful to DAERA. We are not in a position to provide this by the 11th October 2023 consultation deadline but will forward to the Department as soon as it becomes available.

There are other studies and assessments available from other regions that will be of assistance to DAERA and will help inform the requirements of Section 26. For example, there is useful information in a report from New Zealand: 'Socio-economic impacts of large-scale afforestation on rural communities in the Wairoa District'³ which demonstrates that the switch from beef and sheep farming to forestry in a rural area has a negative impact on the wider rural economy of that area.

3.4 YOUR VIEW: QUESTIONS ON CCC ADVICE REPORT: THE PATH TO A NET ZERO NORTHERN IRELAND

Question 8. Stretch Ambition Scenario to reach 93% reduction by 2050: Do you think that the Northern Ireland Executive should follow the advice provided by the CCC and choose the Stretch Ambition Scenario? Yes No - please provide your reasons and any suggested alternative.

This question suggests that the CCC has recommended that NI follow the Stretch Ambition scenario however the CCC makes it clear in their report to DAERA that have provided advice on the targets, but it will be up to the NI Assembly to decide on the most suitable pathways.

The UFU is opposed to the Stretch Ambition Scenario as it goes beyond the CCC balanced pathway.

Question 9 (a). The Speculative DACCS Option to reach Net Zero by 2050: Do you think that the Northern Ireland Executive should choose the Speculative Direct Air Capture with CCS (DACCS) option to reach Net Zero? Yes No - please provide your reasons and any suggested alternative.

³ https://beeflambnz.com/sites/default/files/Wairoa%20Afforestation_FINAL.pdf

While the Speculative DACCS Option is the only option to reach Net Zero it requires NI to move significantly beyond the CCC Balanced Pathway and therefore cannot be supported by UFU. The Speculative DACCS option is referred to as 'radical'. While this pathway meets the legislative target, the CCC have outlined "we are not necessarily recommending them (the speculative pathways) without further consideration of achievability, cost and social implications." The CCC has repeatedly outlined their concerns around the achievability of net zero by 2050 in NI.

Concerningly, this pathway relies on carbon capture and transport to store carbon elsewhere which will need agreement from another region at a cost of at least £180/tCO₂ with the need to have an almost immediate start to development.

In voting for the net zero by 2050 target, the majority of MLAs may have forced Northern Ireland to go down this route against the expert advice of the CCC who have cast doubts on the feasibility of this option. There are extreme budgetary pressures in NI and it is estimated that this option could cost £466 million annually to deliver. The CCC highlight that this pathway could lead to 'distorting actions' in NI.

The level of ambition could also result in serious impacts on the agri-food sector in addition to the significant costs. Given that NI went beyond the CCC advice it is unlikely that HM Treasury will provide the additional resources required to meet net zero by 2050 target in NI.

Question 9 (b). The Speculative Agriculture Option Do you think that the Northern Ireland Executive should choose the Speculative Agriculture option? Yes No - please provide your reasons and any suggested alternative

The Speculative Agriculture Option requires NI to move significantly beyond the CCC Balanced Pathway and therefore cannot be supported by UFU. It also fails to meet the methane target that is set within the legislation and therefore is not compatible with the Climate Change Act (Northern Ireland) 2022.

The CCC highlighted in their March 2023 advice report that moving towards the 'speculative agriculture' pathway would require livestock numbers to approximately halve by 2050 which would involve a reduction in methane of 56%. This goes beyond the 46% permitted in legislation and therefore is not compliant and raises significant concerns. The UFU is opposed to the forced reduction of livestock in NI.

As outlined previously, cutting livestock numbers will have a detrimental impact on the agri-food sector, rural communities and the wider economy. There is also the possibility of carbon leakage. Therefore the UFU believes that in addition to failing to comply with the methane target, this pathway also could contravene other parts of the CC Act (NI) including Just Transition, carbon leakage and does not take account of the various requirements within Section 26.

Question 9 (c). Other Speculative Options: Do you think that the Northern Ireland Executive should consider other speculative options such as (1) enhanced rock weathering and (2) addition of biochar to agricultural land? Yes No - please provide your reasons and any suggested alternative.

There is not enough information within the consultation to provide comment on this aspect. As outlined above, the UFU can only support the balance pathway for NI as set out by the CCC. Science and technology is still evolving and it is important that new developments in the future are considered by the CCC and their balanced pathway updated to reflect these.

Question 10. Agriculture Sector Contribution to Net Zero: Do you think that the Northern Ireland Executive should diverge from the CCC sector advice to deliver the required outcomes for the first carbon budget period and that these can be achieved through the actions outlined in the Agriculture sector summary?

Yes No - please provide your reasons.

The CCC advice outlines that a significant reduction in livestock numbers is needed to meet 2030 and beyond targets. The UFU is opposed to forced livestock cuts and therefore cannot accept this policy advice from the CCC. The assumption they have made is that demand for meat and dairy products will decline within the UK which will justify the livestock cuts (22% dairy, 17% beef and 18% sheep, pigs and poultry) however there is no evidence of this changing demand. Only 48% of NI agri-food output is exported to GB therefore any policies on changing GB diets will have limited impact on the production of NI foods and therefore NI agriculture. There are no signals within the main UK political parties on developing policies around dietary changes therefore the resultant impact of livestock cuts is carbon leakage whereby other countries would displace NI product in the GB market with no net benefit to global emissions. This is something that the CCC have warned against. It is also recognised that beef production in Western Europe is currently 2.5 times more efficient in managing carbon emissions than the global average. Dairy farming in Northern Ireland has reduced its carbon intensity by 34% between 1990 and 2017 and greenhouse gas emissions from beef in the UK are 52% lower than the global average. Therefore, it makes sense to source from farms in NI rather than be imported from abroad. Section 26 and 36 highlight the need to take account of carbon leakage yet there is no discussion of this aspect within the consultation document.

DAERA have outlined an alternative pathway based on policies and proposals within the Future Agricultural Policy Programme supported by ADAS modelling. They can demonstrate that this alternative pathway can meet the same reductions target as required by the CCC and therefore it is right that this divergence should be supported. The agriculture sector is one of the few sectors that have policies well developed and modelled on carbon reductions and a timetable to start delivery.

However, the policies identified by DAERA will still be a significant challenge for the agri-food sector and farmers will need properly supported both financially and through knowledge transfer and other support mechanisms to enable them to deliver. The UFU acknowledges that on-farm improvements and carbon reductions will result in a reduction in the number of less productive animals on farm. The UFU have real concerns around some of the DAERA policies e.g. the use of protected urea and have outlined our views on this in our response to the Ammonia Strategy consultation.⁴

DAERA have indicated the Ruminants Genetics Programme and Soil Nutrient Health Scheme as key policies that can help deliver GHG reductions and the UFU are supportive of both.

It is clear science and technological advances will continue to develop further solutions for the agricultural sector over the coming years to reduce GHGs. This will better inform the targets for agriculture going forward. It is vital that research and development continue to be supported in this area. There must also be clear long term funding allocation to research projects which are focused on mitigation measures and carbon sequestration to ensure the best available local information and data is being used.

We have some concerns that there is no indication within the consultation document of the compatibility of the agriculture options with the LULUCF options. These need to be collectively modelled going forward.

A Just Transition Fund for Agriculture is a requirement within the CC (NI) Act but no financial commitments have yet been made. Any allocations to this fund must be in addition to the farm support payments that are ring-fenced for agriculture and linked to agricultural policy, and this must not be used as a substitute for the Just Transition for Agriculture Fund.

As outlined in the sections above, the CAP and Sectoral Plans for agriculture must 'give due regard to the special economic and social role of agriculture, including the distinct characteristics of biogenic methane' therefore DAERA must also model GWP* figures alongside GWP100 and any other suitable metrics.

Question 11. LULUCF Sector Contribution to Net Zero: Do you think that the Northern Ireland Executive should follow the LULUCF sector advice provided by the CCC? Yes No - please provide your reasons and any suggested alternative.

The agriculture and forestry sectors are unique in their ability to remove greenhouse gas (GHG) emissions from the atmosphere. The agricultural and forestry sectors are the only sectors which can do this; NI will not deliver against target without the support of the agricultural and forestry sectors. It is therefore essential that the right policies and support are in place for farmers and rural communities.

⁴ https://www.ufuni.org/site/wp-content/uploads/2023/03/23_02_21_draft_Ammonia_Strategy_consultatoin_UFU_response_final.pdf

Agriculture gets no recognition for the carbon it sequesters in the national inventories and is measured solely on gross emissions. Sequestration of carbon is allocated to the Land Use Land Use Change and Forestry (LULUCF) part of the inventory and therefore is used to offset the whole of society's emissions. On farm carbon sequestration is a key element in climate change policy and farmers must be recognised for their sequestration role. It is the UFU view that agriculture must be measured on net emissions by Government to give a fair reflection of climate action (carbon produced – carbon sequestered = net agricultural emissions).

In addition to more accurate accounting methods, more accurate measurement of carbon sequestration is needed in Northern Ireland and an accurate baseline established. The UK Greenhouse Gas Inventory 1990-2020 Annual Report for Submission under the Framework Convention on Climate Change reports that the uncertainty in reporting the various LULUCF sub-sectors ranges from 15-165%

It is clear that our knowledge of above ground biomass in Northern Ireland is poor. The forestry inventory only recognises larger forestry plots failing to take into account smaller blocks of woodland throughout NI, particularly on farms. There are also assumptions for NI in relation to the number of native trees (80%) v conifers (20%) which results in more conservative sequestration values.

There is also ongoing debate around the amount of carbon in our soils. The amount of carbon stored in above ground biomass is minor compared to that in soils. There is still debate within the scientific community about the ability of soils to sequester carbon in the long term. AFBI Hillsborough 50 year+ trials indicate that soil carbon continues to accumulate under well managed soils under grassland long-term.

It has been reported in the Republic of Ireland ⁵that Teagasc has identified that estimates of emissions from drained peatlands are significantly overstated, due to an overestimation of the amount of drained peat grassland in the country. The published paper outlines that scenarios based on updated drainage status result in emission savings of up to 60% indicating how important it is to improve the accuracy of the inventory and baselines before plans and policies are determined and implemented.

The Soil Nutrient Health Scheme will provide more information through the LiDAR surveys on above ground biomass and more accurate soil carbon estimates. It is vital that this information is used to update the inventory.

The information and knowledge around the LULUCF sector is less advanced than in the agriculture sector. All the above outlines how it is vital that the LULUCF inventory is improved, and this must be prioritized in the short term, so we properly understand the NI LULUCF baselines.

The CCC has outlined its views on how the LULUCF requirements should be delivered. It is important to highlight that this is unlikely to be achievable within the First Carbon Budget.

⁵ <https://www.sciencedirect.com/science/article/pii/S0301479723011799?dgcid=author>

Afforestation has failed to hit targets in recent years largely due to the various barriers there are to forestry in Northern Ireland and the unattractive economics. There is a reluctance by farmers to plant large areas of trees on farmland. Forestry will devalue agricultural land and the incentives or timber market are not currently attractive enough to persuade farmers to convert. Planting trees leads to the 'generational change' of the farmland and therefore this is a significant decision for any farmer to take. Other barriers include access to nursery stock, tree diseases, permanency, risks and liabilities and a lack of skills and capacity within the forestry sector. There are also concerns around the tax implications of tree planting.

Forestry requires long term funding and there is a lack of trust in Government on their long-term commitments given the debacle of the RHI in NI.

It is also important to recognise the wider impact of forestry conversion on communities and rural areas. We are seeing evidence of external investors purchasing land in large parts of GB already, damaging fragile rural communities as financial benefits are moved away from the local area. The impacts of afforestation of farms are further highlighted in a New Zealand paper: 'Socio-economic impacts of large-scale afforestation on rural communities in the Wairoa District'. The wider impacts must be fully considered. The UFU has always been clear that any policies to support forestry must be funded from outside of the agricultural budget with long term commitments.

Forestry must work alongside agriculture. Farmers are best placed to manage land for a range of economic and environmental outcomes. It is clear that some measures under LULUCF are easier than others e.g. hedges, small areas of woodland integrated on farms and possibly agro-forestry could be more acceptable than large blocks of tree planting for many farmers. The policy should focus on 'the right tree in the right place for the right reason' in order to be successful.

Peatland restoration has the potential to work alongside agriculture. The UFU has set out our position on this aspect in our response to the DAERA draft Peatland Strategy. It is clear that the targets for restoration outlined by the CCC are hugely ambitious and it is unlikely that there is the capacity to deliver this ambition in NI in the First Carbon Budget period. It is essential that in delivering peatland restoration there is a partnership approach taken involving relevant stakeholders including farmers and landowners.

There will be multiple and increasing pressures on land use in Northern Ireland going forward. Land is a finite resource, and it is vital that the NI Assembly ensures that damaging impacts for farming and rural communities are minimised. As outlined throughout this response finding the right balance between food production and climate action is essential.