

Opening Statement by Bill Callanan, Chief Inspector, Department of Agriculture, Food and the Marine (DAFM)

Introduction

Thank you, Chairman, and thank you for the opportunity to address the Committee to inform your discussions on the Sectoral Emission Ceilings.

The 51% reduction in greenhouse gas emissions on an economy wide basis by 2030 is extremely ambitious and will transform every aspect of Irish society. Notwithstanding, I reemphasise the point I made when I last appeared in front of this Committee in January which is that the agriculture and land use sectors will be required to play their part in meeting Ireland's climate ambition.

The policy approach is structured around three pillars:

- Firstly, we must continue to reduce emissions, using the best science and best agricultural practices;
- Secondly, we must continue to sequester carbon and increase our avoidance of emissions through increased afforestation and better land management practices; and
- Thirdly, we must make a contribution to sustainable energy and displacement of fossil fuels and energy intensive materials.

Mitigation

The Climate Action Plan 2021 sets the target of a 22-30% reduction in agricultural greenhouse gas emissions by 2030. This means that agriculture emissions need to reduce to between 16 to 18 million tonnes of carbon dioxide equivalent (Mt CO₂ eq.) in 2030 – an absolute reduction of between 5 to 7 Mt CO₂ eq.

The 2021 Plan identifies a series of core and further measures that can deliver a landing point at the upper end of the range assigned of 16-18 Mt CO₂ eq. whilst remaining within the context of a broadly stable herd i.e., a herd of approximately 7 million animals.

The set of “core” measures will introduce significant change to the approach to farming across our 140,000 family farms. It prioritises early action within the first 5-year carbon budget on reducing nitrous oxide emissions in agriculture which are mainly associated with the use of chemical nitrogen fertiliser. A national fertiliser register of compliance, requiring primary legislation, will be developed and reductions in chemical nitrogen allowances under the Nitrates Regulations will help achieve our objectives as will support such as training and advisory services to underpin this transition.

Progress on methane is more challenging but expected to accelerate within the second 5-year carbon budget as methane reducing feed additives become commercially available. Even a 3% reduction in methane emissions from the Irish livestock herd over the decade would ensure no additional global warming arises from this farming activity. Yet, the EPA has confirmed methane emissions may need to reduce by up to 30% to even reach the 18 Mt CO₂ eq. This is very much at the upper end of international ambition and will make Ireland a leader in this space: we are signatories to the Global Methane Pledge through which the EU has committed to cutting emissions from agriculture (biogenic methane) by 10% and cutting methane emissions from non-agricultural sources (such as landfills and some forms of energy production) by 50%. Our national commitments now far exceed this.

In terms of exploring further measures through diversification, the Department continues to advance this agenda through research and stakeholder engagement. By way of example, a Joint Research Mechanism with New Zealand was recently announced. In addition, Minister McConalogue established the Food Vision Dairy 2030 group in February with the objective of stabilising and then reducing emissions from the Dairy sector and which recently submitted its interim report and a similar group for beef and sheep met for the first time in recent weeks.

Nonetheless, these measures will only take the sector so far- it will never achieve zero emissions status because as long as we produce food, fuel or fibre, emissions will result. This complexity is reflected in the Climate Act which refers explicitly to the social and economic role that Irish Agriculture plays in society.

[Landuse, Landuse Change and Forestry \(LULUCF\)](#)

Our soils act as both sinks and sources of carbon and it is imperative that we reduce the amount of CO₂ emitted from our soils as we move towards climate neutrality by 2050. The Climate Action Plan 2021 commits to:

- Reducing the management intensity of up to 80,000 ha of organic soils by 2030;
- Better management of 450,000 ha of mineral grasslands;
- Increasing our cover crops and straw incorporation as carbon storing measures; and
- Increasing our afforestation rates to enhance our carbon sinks.

Notwithstanding the increases in the gaps to target as a result of the 2022 LULUCF inventory refinement, these actions are extremely challenging to implement as those on the agriculture side: in terms of reduced management intensity of organic soils, this is an entirely new area of work with much uncertainty and complexity, which Ireland has no choice but to pioneer an approach to. Similarly, we need to address the downward trend in afforestation, and grasp the opportunities that our existing forests provide in producing timber and wood products to contribute to a green economy and increase the use of wood in the built environment.

The Department has commenced a programme of work to fill the existing knowledge and data gaps and to understand the potential contributions towards our climate ambition from land-use improvements and set in train the development of a land-use plan, based on these findings. The Department is also developing a new forest strategy and a forestry programme which will be grounded in the principles of the right tree, in the right place for the right reasons, including the right management.

Sustainable Energy

Lastly, the sector provides a positive and important contribution towards the decarbonisation of the energy system through:

- Applying the energy efficiency principle first and reducing energy use at farm level;
- Deploying renewable energy technology at farm level for self-consumption but also a contribution to renewable energy generation through export of electricity to the grid; and
- Providing forest biomass and agriculture feedstocks to the generation of renewable energy, such as biomass for heat, agriculture feedstocks for production of biogas and biomethane from Anaerobic Digestion.

Through these actions, the agriculture and land use sector is in effect contributing a total of 3.4 Mt CO₂ eq to the decarbonisation of the energy system which is often overlooked.

Conclusion

The targets as set out in the 2021 Plan are ambitious. For the agriculture and land use sector, delivery will be extremely challenging. From a technical point of view, within a stable herd scenario, there is a limit to achievability and higher ambition would require changes in animal numbers

In particular, there are significant challenges around the reduction of methane within our pasture-based livestock production system and we welcome the fact that the second 5-year carbon budget is aligned with the current technology constraints in this regard.

As identified in Food Vision 2030, there is a critical need to consider the three pillars of social, economic and environmental sustainability as we move forward.

I am happy to answer any questions that you may have.