

WWF SCOTLAND MEDIA BRIEFING

Rooting for Net Zero: climate and agriculture

Background:

Farmers are often at the frontline of climate change, feeling the effects of extreme and unpredictable weather, but they can also be part of the climate solution. Agriculture is the dominant land use in Scotland and is associated with almost a quarter of greenhouse gas emissions. [1] But our land is also our biggest natural defence against climate change. If we look after them, natural habitats, soils and vegetation have huge capacity to capture and store carbon.

When we look after nature, it can provide climate solutions and Scotland has an abundance of climate rich habitats such as peatlands, woodlands, saltmarsh and seagrass meadows, which, when well-managed, help to soak up carbon and reduce our overall climate emissions. But many of these habitats have been damaged by drainage, conversion and mismanagement making them a carbon source, rather than a carbon sink.

Getting to net zero will be almost impossible without ensuring land can absorb more carbon, and therefore enhancing soil health, expanding and restoring native woodlands, and protecting carbon rich habitats like peatlands, will be essential measures to ensure we can meet our targets. All this will require new policies, a strategic approach to land use, and a revolution in both financial and skills support for farmers and land managers.

What's the issue?

Over 70% of Scotland's land is used for agriculture. [2] With land use identified as a key driver of wildlife declines – and central to all pathways to meet net zero – farmers, crofters and other land managers have an important role to play in nature recovery, reducing greenhouse gas emissions and locking up carbon in the land.

We are already seeing farmers in Scotland at the front line of climate impacts. The extreme weather we experienced in 2018, which saw an unusually prolonged winter, delayed spring, and very hot and dry summer, saw Scotland's agriculture sector affected. Production of winter barley was down 24%. Farmers reported a spike in livestock losses and water supplies running dry. [3] Without action to keep global average temperature rise below 1.5 degrees we will continue to see more extreme and unpredictable weather in Scotland. If we fail to keep to the 1.5 aligned pathway of emissions reductions, scientists predict that Scotland's future climate will mean warmer and wetter winters and hotter drier summers, with greater extremes in both rainfall and heat. By 2080, without significant reductions in global greenhouse gas emissions, Scotland's winters could be 19% wetter and 2.7 degrees warmer. Our summers could be 3 degrees warmer and 18% drier. [4]

WWF Scotland's recent report 'Reaching Net Zero in Scotland: Emissions Reductions in Agriculture'[5] showed that current measures proposed by Scottish Government and farmer-led groups will take us less than halfway towards the emissions reductions we need from agriculture to meet the targets in the Climate Change (Scotland) Act and Climate Change Plan Update. This makes wider system level changes, such as a transition to agroecology, even more important. We would like to see:

- Immediate action to build strong evidence baseline of on-farm emissions, including roll out of carbon audits, nutrient budgeting, soil testing and biodiversity audits

- By the end of 2022, proposals should be finalised for a new rural support system, one which moves away from area-based direct payments to support a transition to agroecology and delivers nature- and climate-friendly farming
- Establish pilot schemes to trial and test this new system between 2021 and 2024
- Upskilling and upscaling of farm advisors to deliver specialist climate and environmental advice, as well as whole farm interventions, and regional advisory hubs linked to the regional land use partnerships and forthcoming frameworks.

What needs to happen at COP26?

COP parties must include land use, agriculture and nature-based solutions in their national climate plans (NDCs) and at COP26 we must see an urgency in delivery of these climate plans, and there must be an embedding of nature and nature-based solutions in the final COP decision text. [5]

Scotland has an opportunity to be a world leader in action on climate and nature, including taking action to transition to agroecological practices and climate and nature friendly farming. While not an official party to the COP, Scotland has a pivotal role to play in demonstrating what is possible and helping create a 'race to the top' on climate, land use and agriculture.

Spokespeople available for interview:

Contact Mandy Carter 07771 818 677 mcarter@wwfscotland.org.uk

- Dr Sheila George, food and environment policy manager, WWF Scotland
- Lang Banks, director, WWF Scotland
- Stephen Cornelius and Martin Sommerkorn, WWF International Climate Scientists
- We can also put you in touch with spokespeople from around the global WWF network

Case studies:

Farming for 1.5 was set up to find consensus in the way for Scottish agriculture to meet the challenge of limiting global warming to 1.5 degrees C.

<https://www.farming1point5.org/>

Lynbreck Croft in the Cairngorms, Highland- a nature-friendly farming pioneer.

<https://www.lynbreckcroft.co.uk/>

NOTES

[1] <https://www.gov.scot/policies/agriculture-and-the-environment/> See also Appendix 1 below for a breakdown of Scotland's emissions by sector.

[2] <https://www.rspb.org.uk/our-work/state-of-nature-report/>

[3] WWF Scotland report: Impact of Extreme Weather on Scottish Farmers 2018

<https://www.wwf.org.uk/updates/new-report-severe-weather-cost-scottish-farmers-ps161m-2018>

[4] [Adaptation Scotland: Climate trends and projections](#)

[5] [Ricardo GHG mitigation WWF Scotland 17Oct21.pdf](#)

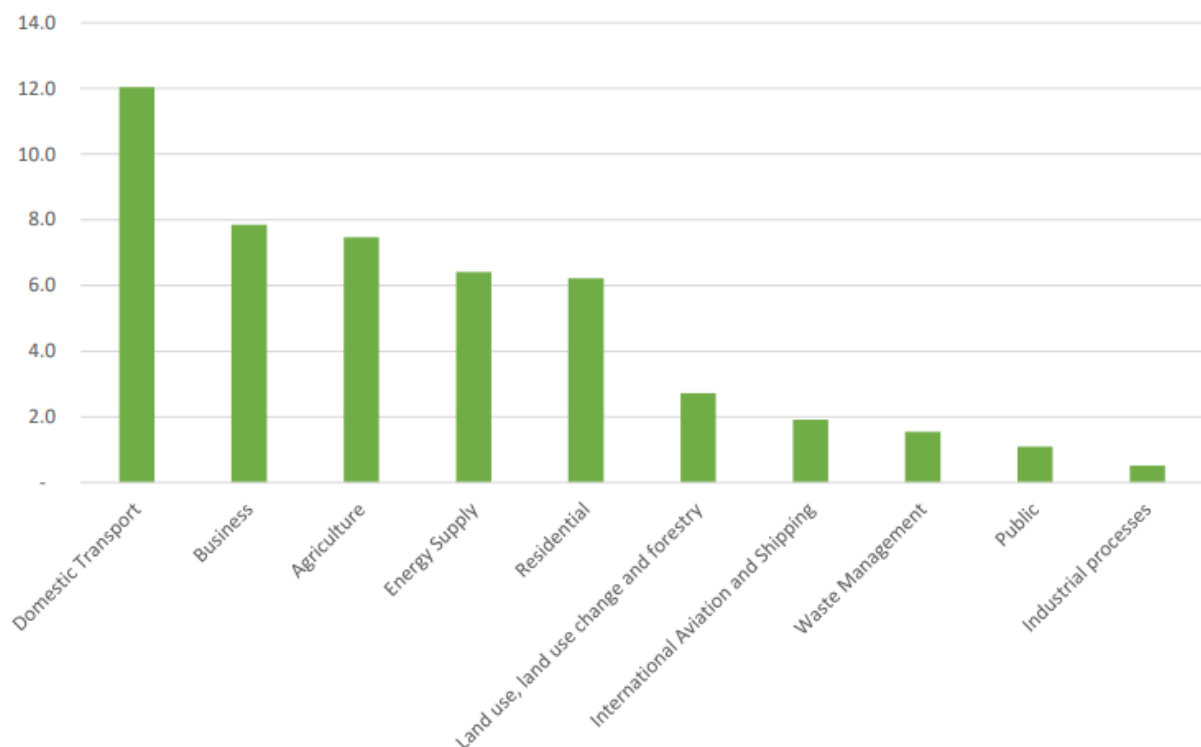
[6] Read more in WWF International's COP26 Manifesto:

https://www.wwf.org.uk/sites/default/files/2021-05/WWF_COP26%20Manifesto.pdf

Appendix 1:

Sources of greenhouse gas emissions in Scotland, 2019 [Scottish Greenhouse Gas Emissions 2019 \(www.gov.scot\)](https://www.gov.scot/publications/scottish-greenhouse-gas-emissions-2019/pages/12.aspx) (p12) Agriculture was the third largest source of GHG emissions in 2019, at 7.5MtCO₂e. Agricultural emissions come from livestock, agricultural soils (excluding carbon stock changes which are included in the LULUCF sector), stationary combustion sources and off-road machinery. (p10)

Chart B1. Sources of Scottish Greenhouse Gas Emissions, 2019. Values in MtCO₂e



Appendix 2: Agriculture saw a reduction of 1.1MtCO₂e, 11.7% between 1990 and 2019, with much of this change occurring pre-2008. Unlike a number of other sectors, emissions from agriculture have not fallen significantly over the past 12 years. [Reducing emissions in Scotland – 2020 Progress Report to Parliament - Climate Change Committee \(theccc.org.uk\)](https://www.theccc.org.uk/publications/reducing-emissions-in-scotland-2020-progress-report-to-parliament/). The Climate Change Plan update sets a target for agriculture to reduce emissions by 32% between 2019 and 2032, a significant step change in action.

Figure 3.10. Emissions from agriculture and LULUCF in Scotland (1990-2018)

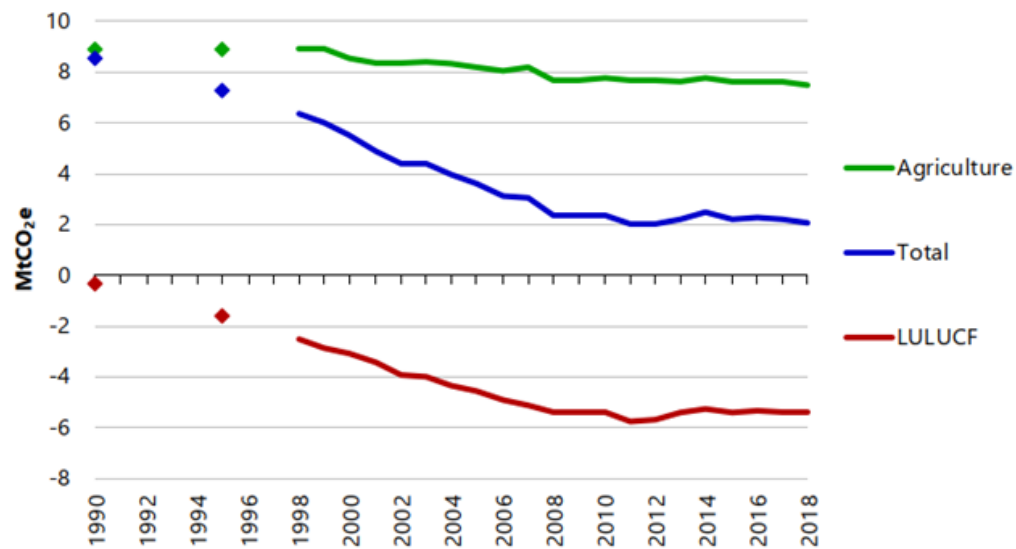
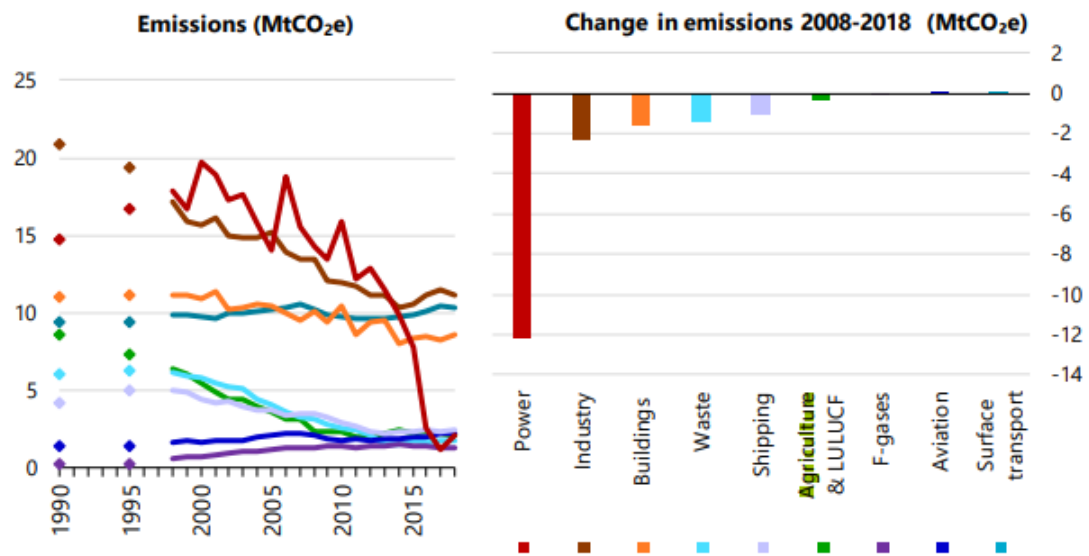


Figure 2.3. Greenhouse gas emissions by sector in Scotland (1990-2018)



Source: NAEI (2020) *Greenhouse Gas Inventories for England, Scotland, Wales & Northern Ireland: 1990-2019*.

Notes: No emissions data are available for Scotland for 1991-1994 or 1996-1997. Does not reflect forthcoming revisions to peatland emissions or global warming potentials (see Box 2.1).