

Briefing for the Citizen Participation and Public Petitions Committee on petition [PE1963: Phase in meat production ban by 2040](#)

Brief overview of issues raised by the petition

The petition is “calling on the Scottish Parliament to urge the Scottish Government to phase in a ban on meat production in Scotland between 2030 and 2040, to coincide with anticipated changes to future food production and consumption.” The petition references the environment and animal welfare as reasons for the need to reduce meat production.

- Livestock farming means the raising of animals, in Scotland, most commonly sheep, cattle, pigs or poultry but also sometimes deer, goats or other animals. Livestock farming produces meat, dairy and eggs for domestic consumption, and also for the export market.
- Food and drink (including whisky, fish and shellfish (including farmed salmon), meat, dairy, cereals, fruit and vegetables, and processed food products) [is one of Scotland’s largest industry sectors](#), and taken as a whole, is [Scotland’s largest export sector](#). In 2021, [meat and meat preparations, and dairy accounted for 2.4% of Scotland’s food and drink export total](#).
- Livestock farming occurs on a large area of Scotland’s land. 80% of Scotland’s land is used for agriculture; [most of this agricultural land is used for livestock grazing](#).
- The [total agricultural workforce in Scotland is estimated to be around 67,400](#) people. Moreover, the primary production in agriculture supports employment in other areas further down the supply chain, such as agricultural contractors, auctioneers, abattoirs, butcheries, and food processors.
- [Meat is a part of most people’s diets in Scotland](#). [YouGov’s dietary choices ‘tracker’](#) shows that as of July 2022, 70% of people in the UK are meat eaters; another 16% are ‘flexitarian’ (mostly vegetarian but eating meat sometimes). 2% were vegan (eats only plant-based foods), and 5% vegetarian (eats animal-based products like dairy and eggs, but not meat). Meat-eaters (including occasional ones) therefore make up a large majority of the UK population.

- The [first UK Food Security Report, published in December 2021](#), states that “The UK currently produces about 60% of its domestic food consumption by economic value, part of which is exported. This means just under half of the actual food on plates is produced in the UK, including the majority of grains, meat, dairy, and eggs. This figure would be higher without exports.”
- [Scotland currently produces more beef and sheep than it consumes](#), but less pork. For sheepmeat, for example, Scotland is 220% self-sufficient (in lamb produced from Scottish abattoirs). It is worth noting, however, that this does not mean that no lamb is imported to Scotland, but that Scotland’s production is greater than Scottish demand. In addition, Quality Meat Scotland notes that “Basic estimates of self-sufficiency do not...take into consideration the demand for and supply of different cuts of meat or processed meat products, or the location of specialist further processing and packing sites, which can reflect workforce availability”.

The petitioner references the environment as one reason to phase out meat production. Livestock farming produces a large proportion of Scotland’s agricultural emissions and is a primary use for a large area of Scotland’s land.

- [Agriculture is estimated to account for 18.5% of carbon emissions](#) in Scotland (2020 figures, published in 2022).
- It is estimated that [emissions from Scottish livestock sectors accounts for just under 80% of agricultural emissions](#). Over 95% of the emissions from combined livestock sectors comes from the dairy (22%), beef (55%) and sheep (19%) sectors. This does not include e.g. emissions from producing livestock feed, or emissions associated with land use change for livestock production.¹
- Livestock farming produces emissions in a variety of different ways, and produces a variety of different types of emissions, including methane, ammonia, and nitrogen dioxide.

Climate experts state that dietary shift is a key piece of the puzzle in reducing emissions.

- The [Intergovernmental Panel on Climate Change \(IPCC\) published its special report on Climate Change and Land in 2019](#). The report noted broadly that dietary shifts have important mitigation potential and highlighted the role of plant-based foods, but also of animal-based foods from sustainable systems. The report stated:

¹ Figures taken from Table 15 in [Moxey, A. & Thomson, S. ‘Disaggregating headline Smart Inventory figures for Scottish Agriculture’. SRUC Report, March 2021](#). Research in this report is based on 2018 emissions figures (published in 2020).

“Diversification in the food system (e.g., implementation of integrated production systems, broad-based genetic resources, and diets) can reduce risks from climate change (medium confidence). Balanced diets, featuring plant-based foods, such as those based on coarse grains, legumes, fruits and vegetables, nuts and seeds, and animal-sourced food produced in resilient, sustainable and low-GHG emission systems, present major opportunities for adaptation and mitigation while generating significant co-benefits in terms of human health (high confidence). By 2050, dietary changes could free several million km² (medium confidence) of land and provide a technical mitigation potential of 0.7 to 8.0 GtCO₂ eq yr⁻¹, relative to business as usual projections (high confidence). Transitions towards low-GHG emission diets may be influenced by local production practices, technical and financial barriers and associated livelihoods and cultural habits (high confidence).”

- In a UK context, the [UK Climate Change Committee \(UKCCC\) produced in-depth advice on land use policies to the UK Government and the devolved administrations in 2020](#). They made a recommendation more explicitly regarding the reduction of meat consumption: to bring forward policies to encourage consumers to shift their diets and reduce beef, lamb and dairy production by 20%. However, as is explored below, this would amount to a 10% reduction in cattle and sheep numbers UK-wide, leaving a continued role for meat production in UK agriculture. They said:

“The 20% per capita reduction in beef, lamb and dairy consumption in our scenario is modest compared with government nutritional guidelines. Government should implement low-cost, low-regret actions to encourage this shift (e.g. the public sector taking a lead in providing plant-based options with all meals).”

Without a corresponding shift in dietary patterns to reduce meat consumption, simply banning meat production in Scotland may have negative consequences.

- A reduction in production without dietary shifts to eat less meat may risk ‘offshoring’ carbon emissions to other countries. This means that while the emissions from production would not be attributed to Scotland, Scottish consumption would still be driving emissions elsewhere in the world.
- [The CCC sets out in its land use policy proposals](#) that it has “constrained [its] modelling to ensure that agriculture remains a strong food producing sector as well as meeting other demands” to avoid the risk of increasing imports and offshoring emissions.
- The CCC’s modelling assumes a 10% reduction in cattle and sheep numbers by 2050 to accommodate a 20% reduction in consumption of “the most carbon-intensive foods”:

“Reducing consumption of the most carbon-intensive foods (i.e. beef, lamb and dairy) by at least 20% per person and reducing food waste by 20% would save 7 MtCO₂e of on-farm emissions by 2050. These measures imply a shift towards current healthy eating guidelines and can drive sufficient release of land to support the necessary changes in tree planting and bioenergy crops. Alongside expected population growth, they imply around a 10% reduction in cattle and sheep numbers by 2050 compared with 2017 levels. This compares with a reduction of around 20% in the past two decades.”

- Though it is difficult to compare the emissions intensity (the greenhouse gases emitted per kilo of product produced) of livestock products around the world, for some meat products, those produced in the UK may have a lower environmental impact than those produced elsewhere. The CCC suggests that the emissions intensity of [UK beef production is thought to be around half the global average](#). Some beef from Scotland may therefore be more favourable to other beef from elsewhere, from an emissions perspective. The CCC also indicates that though there is more limited evidence for lamb, there are suggestions that UK lamb is less emissions intensive than lamb from some EU countries, but more emissions intensive than lamb from New Zealand.

Moreover, livestock can be beneficial for biodiversity, though this is a complex field and is dependent on management practices.

- Grazed farming systems [can provide habitat for some Scottish species](#), such as wading birds.
- [97% of the UK's wildflower meadows – a highly biodiverse habitat - have been lost in the last 75 years](#), due to things such as [changes in agricultural practices](#). Left unmanaged, nutrients build up in the soil, paving the way for more aggressive plant species to take over. [Management to support healthy wildflower meadows includes grazing at appropriate levels](#).
- Machair is a coastal species-rich grassland unique to the north-west of Scotland and Ireland, and is [maintained by traditional crofting practices, including cattle grazing](#).
- According to research carried out by SAC Consulting, [changes in livestock management can come with 'win-wins' for biodiversity and agricultural production](#).
- However, [changes to agricultural practices have also been a contributor to biodiversity loss](#). Changes such as increases in livestock production through improving agricultural land using fertilisers and higher livestock densities [has resulted in reductions in biodiversity](#). Livestock management brings trade-offs for biodiversity depending on practices, and [research is ongoing in this area, for example by the Safari institutes in Scotland](#).

It is more difficult to quantify the impact of livestock farming on animal welfare, but some comparisons with standards around the world are available.

- [World Animal Protection has created the Animal Protection Index](#), which compares countries' animal welfare laws and standards. While the UK scores a 'B' overall (no countries are 'A'-rated), its farm animal protections score a 'D'. This is comparable to some countries such as France and Italy, lower than others, such as New Zealand ('C'), Denmark ('C') and Sweden ('B'), and higher than some, such as the USA ('E'), Australia ('E'), China ('G') and Argentina ('F'). It is worth noting that this refers to animal protection laws rather than farming practices, and in terms of the meat consumed at an individual level, the animal welfare impact is likely to be variable depending on how it is produced.
- [RSPCA has also set out a comparison between the legal standards in Australia compared with the UK](#) (both compared with the standards required to be certified as 'RSPCA assured'). The comparison suggests that the UK's standards are favourable to Australia's.

Meat production is a large segment of Scotland's agricultural sector and employs a number of people. Phasing out meat production may therefore have consequences for employment in rural areas.

- As noted above, agriculture and related sectors employ a large number of people.
- Though the public sector is the largest employer in both remote and accessible rural areas, employment in agriculture is also particularly important. [Scottish Government figures suggest that 'agriculture, forestry and fishing' account for](#) 12% of employment in accessible rural areas, and 15% in remote rural areas. These sectors account for only 0.5% of employment in the rest of Scotland. The NFUS suggest that [agriculture alone represents 8% of the rural workforce](#).
- From an agricultural perspective, [60% of Scotland's land is rough grazing and common grazing](#), which may be difficult to shift to other forms of agricultural production such as growing grains or vegetables.

There may be barriers to phasing out meat production in Scotland as a result of post-EU-exit legislation.

- The [UK Internal Market Act 2020](#) enshrined a set of 'market access principles' in UK legislation. The principle of 'mutual recognition' provides that products that can be lawfully placed on the market in one part of the UK may also be lawfully placed on the market in any other part of the UK.

- As a result, phasing out meat production in Scotland would not prevent meat products being sold in Scotland if they were lawfully being sold in another part of the UK.

The petitioner suggests that phasing out meat production would “coincide with anticipated changes to future food production and consumption”.

- As noted above, meat remains a part of most people’s diets in Scotland. However, meat consumption has reduced. [A study in the journal *The Lancet* found that, in Britain](#), average meat consumption per capita per day decreased from 103.7g to 86.3g per day. Red meat consumption decreased by 13.7g, processed meat consumption decreased by 7g, but white meat consumption increased by 3.2g.

Stakeholders have different views on livestock production and dietary change.

- The National Farmers’ Union of Scotland (NFUS) champions a continued role for meat in Scottish diets. The organisation encourages consumers to think about local and seasonal food: [“greater thought about what we are eating and where it comes from”](#), and along with other farming sector stakeholders like Quality Meat Scotland, [highlights the role of high-quality meat as part of a balanced diet](#), and the relative emissions intensities of meat and dairy products in different parts of the world, as noted above.
- Some environmental organisations, such as Soil Association Scotland, also see a role for livestock production as part of [‘agroecological’ farming systems](#), and with other organisations, such as [the food charity Sustain](#), [support a move towards eating ‘less and better’ meat](#).
- Some organisations, such as the Vegan Society, [advocate for a fully plant-based food system](#). Animal welfare organisations, such as [Compassion in World Farming](#) and the [SSPCA advocates for good conditions](#) for farmed animals.
- There is action among agricultural stakeholders to come up with and implement ways to reduce emissions from animal agriculture. In Scotland, [five farmer-led climate change groups produced recommendations](#) for changes to each sector to reduce emissions. A [Scottish Government analysis has suggested](#) that, if applied to the fullest extent, the measures in the reports could provide around 40% of the necessary reductions. ‘Farming for 1.5 degrees’, a partnership between farming and environmental stakeholders and academics produced [a report setting out a pathway to 2045 for agriculture](#).
- The [Scottish Government’s Climate Change Plan Update](#) sets out a plan for a 24% reduction in overall emissions from the agriculture category by 2032.

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The purpose of this briefing is to provide a brief overview of issues raised by the petition. SPICe research specialists are not able to discuss the content of petition briefings with petitioners or other members of the public. However, if you have any comments on any petition briefing you can email us at spice@parliament.scot

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