

SPICe Briefing
Pàipear-ullachaidh SPICe

Land Use and Rural Policy: Subject Profile

Anna Brand

This briefing outlines issues and policy developments in relation to land use and rural policy. It outlines the context for Scotland's land use policies and addresses each of Scotland's major land uses in turn, highlighting key legislation and topical issues ahead of Session 6 of the Scotlish Parliament.



Contents

Key points	4
In figures	
Rural affairs	8
Strategic Land Use	10
Fourth National Planning Framework	11
Major land uses in Scotland	13
Agriculture	13
What does the sector look like?	13
Agricultural tenancies	15
Tenancies and the 2016 Land Reform Act	17
Crofting	18
National Development Plan for Crofting	21
Agriculture policy	22
Agriculture policy before Brexit	
Agriculture policy after Brexit: A new policy for Scotland	24
The UK internal market and the EU	27
Trade and agriculture	35
Forestry	39
What does Scottish forestry look like?	
Forest policy and governance	41
Forestry grants	42
Industry standards	42
Timber production	43
Forestry and the environment	44
Forests and people	
Hunting and wildlife management	
Deer management	46
Grouse	49
Hunting with dogs	51
Nature-based Solutions	52
Food policy	54
Land use and the climate and nature crises	57
Key evidence and sources	61
International assessments	61

UK and Scottish reports	62
Rural affairs research	65
Cover Image credit	66
Bibliography	67

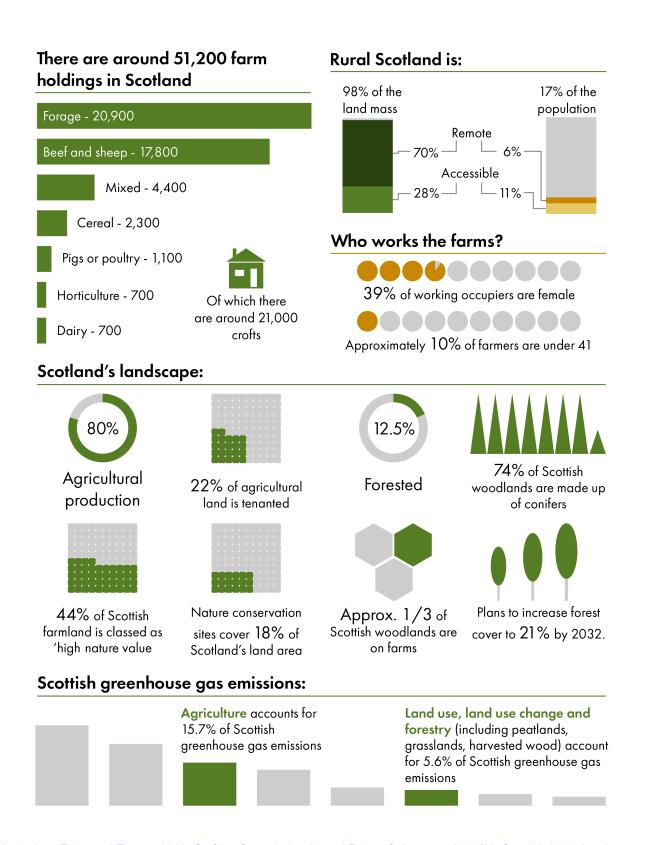
Key points

- 98% of Scotland's land area is classed as rural. As a result, Scotland's land use and rural policies cover a large geographical area.
- 80% of Scotland's land is used for some form of agriculture. Forestry accounts for 12.5% of Scotland's land.
- Rural affairs encompass more than land use policy. Rural employment is diverse, and rural areas are touched by a wide range of policy areas in addition to land use, including fisheries and marine policy, transport and digital connectivity, housing, social security, education, environment and economic development. This briefing focuses on the land use policy elements.
- Land use sectors have been greatly affected by EU Exit. New approaches are being developed to replace previous EU-wide policies, and future changes to policy and regulation are anticipated.
- Future trade agreements and the UK internal market may also affect both policy and practice. New trade agreements may impact land use sectors and the markets and supply chains linked to them. As a result of EU Exit, the UK internal market also plays a role in future policy and regulatory development in these areas.
- Climate change and biodiversity loss are urgent drivers for the development of new land use policies. Food and timber production - at home and abroad - will be (and already is being) affected by climate change and biodiversity loss. The way that land is used and managed has the potential to exacerbate these issues, but can also provide significant solutions.
- Strategic land use planning aims to drive land use and rural policy to deliver national objectives. Overarching national strategies, such as the third land use strategy and the upcoming fourth National Planning Framework, aim to look at land use holistically. Looking at land uses strategically is also being piloted at a regional level, through regional land use partnerships.
- There is cross-over between land use and rural policy and other policy areas, for example, in relation to food policy, spatial planning, environment and climate change, land reform and animal welfare.

In figures

Figure 1 below highlights key statistics in relation to land use and land management, in the context of Scottish rural affairs.

Figure 1: Scottish land use in numbers

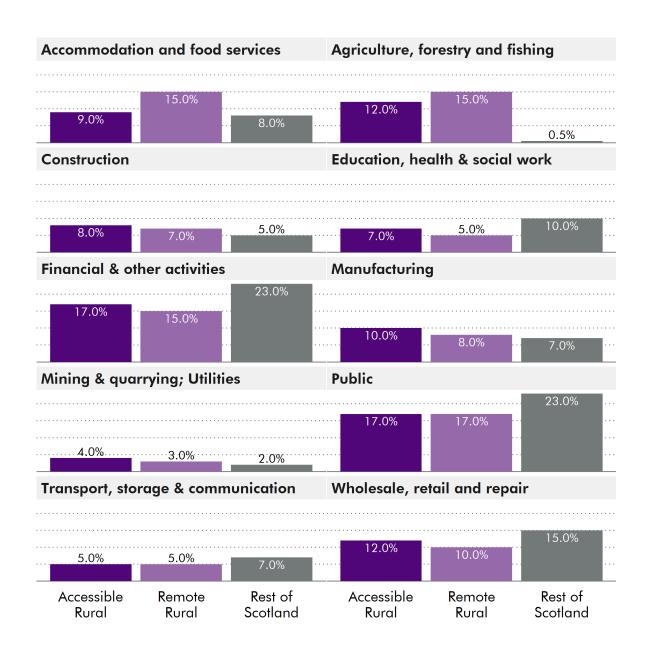


Agriculture Facts and Figures 2019; Crofting Commission Annual Report & Accounts 2019/20; Scottish Agricultural Census June 2020; Forestry Statistics 2020; 2020 Challenge for Scotland's Biodiversity; Climate Change Plan Update 2020; Farm Business Survey 2018-19; Scotland's Forestry Strategy 2019-2029; Climate XChange; Scottish Greenhouse Gas Emissions 2019

*NB: 'Forage' refers to holdings that grow forage crops to feed livestock, such as hay or silage.

Though most people who work in land use activities are based in rural Scotland, land use activities only make up a part of rural employment. In remote rural areas of Scotland, the public sector accounts for the largest proportion of employment, at 17%, closely followed by 'accommodation and food services', 'agriculture, forestry and fishing', and 'financial and other activities' which each account for 15% of employment (see Figure 2).

Figure 2: Employment in rural Scotland



Rural Scotland Key Facts 2021

Rural affairs

Rural affairs encompass more than land use policy. As highlighted in the previous section, rural employment is diverse, and rural areas are touched by a wide range of policy areas in addition to land use, including fisheries and marine policy, transport and digital connectivity, housing, social security, education, environment and economic development.



Image Sharon Ang from Pixabay

However, rural areas face particular challenges and it is recognised that they sometimes require bespoke solutions. As a result, in addition to rural angles on the diverse range of policy areas listed above, the Scottish Government has produced strategies and convened groups to address specifically rural issues. Examples of these include:

- Rural Economy Action Group
- Rural and island housing funds;
- The National Islands Plan;
- Research on rural planning policy to 2050, to inform the development of the fourth National Planning Framework;
- A particular focus on rural communities in commitments to ensure digital connectivity for all of Scotland;
- A skills action plan for rural Scotland

In addition, particular considerations for rural areas are addressed within wider policy documents. For example, in the Scottish Government's first national population strategy,

rural depopulation is raised.

Furthermore, economic development in largely rural parts of Scotland is promoted through two enterprise agencies. Highlands and Islands Enterprise supports economic and community development in the north and west of Scotland, and the South of Scotland Enterprise supports Dumfries and Galloway and the Scotlish Borders.

Strategic Land Use

When 'land use' is discussed, it is often in the context of rural Scotland. However, land use is not only a rural issue as land is required for a wide variety of things, including for housing, transport, and other infrastructure such as renewable energy and public and private buildings. Increasingly, policymakers have looked to a more holistic – or strategic – way of looking at land use in Scotland. This recognises that land is finite, that maximizing the number of benefits that a given piece of land provides may be necessary to deliver public policy objectives for the economy, environment and society, and that, sometimes, looking at a landscape scale is necessary to achieve those goals.

This has been driven in large part by discussions around climate change. The Climate Change (Scotland) Act 2009 introduced a duty on Scottish Ministers to produce a Land Use Strategy every five years. The first strategy was published in 2011, and the first update was published in 2016. The Land Use Strategy that is currently in force was published in March 2021. Following the passage of the Climate Change (Emissions Reductions Targets) (Scotland) Act 2019, Scottish Ministers are now required to report to the Scottish Parliament on progress towards implementing the objectives, proposals and policies of the land use strategy, at the end of each financial year.

Box 1: The duty to produce a Land Use Strategy

Section 57(1), (2), and (3) of the Climate Change (Scotland) Act 2009 state:

- 57 Duty to produce a land use strategy
- (1) The Scottish Ministers must, no later than 31 March 2011, lay a land use strategy before the Scottish Parliament.
- (2) The strategy must, in particular, set out—
- (a)the Scottish Ministers' objectives in relation to sustainable land use;
- (b)their proposals and policies for meeting those objectives; and
- (c)the timescales over which those proposals and policies are expected to take effect.
- (3) The objectives, proposals and policies referred to in subsection (2) must contribute to—
- (a)achievement of the Scottish Ministers' duties under section 1, 2(1) or 3(1)(b) [the net-zero emissions target, interim targets and annual target];
- (b)achievement of the Scottish Ministers' objectives in relation to adaptation to climate change, including those set out in any programme produced by virtue of section 53(2) [requiring Scottish Ministers to set out a climate change adaptation programme]; and
- (c)sustainable development.

In addition, the Scottish Government and civil society organisations have looked to regional approaches to strategic land use. Following two pilots in Aberdeenshire and the

Borders between 2013 and 2015, the Scottish Government included a policy in the 2016 Land Use Strategy to "encourage the establishment of regional land use partnerships". The aim of the partnerships is to bring together local people, land managers and other stakeholders to better integrate land uses and produce regional land use frameworks. The aim of the frameworks is to identify how national, regional and local priorities will be delivered.

In its advice to the Scottish Government on rolling out regional land use partnerships and frameworks, the Scottish Land Commission stated that "We propose Regional Land Use Frameworks should be indicative spatial plans which identify opportunities, choices and priorities for all land use, including forest and woodland strategies, in order to stimulate delivery and be accessible to all within a region".

Following several commitments over the final years of Session 5 (including in the 2019-20 Programme for Government, and the most recent update to the Climate Change Plan in December 2020), the Scottish Government established a further five pilot areas "to test approaches to partnership governance that best suit the local situation and priorities" and inform future decisions on establishing partnerships.

Box 2: Opportunities for Parliamentary scrutiny in Session 6

- The development of regional land use partnerships is a key commitment of the Scottish Climate Change Plan Update.
- Annual reports outlining progress towards the Land Use Strategy's objectives are required under the Climate Change (Emissions Reductions Targets) (Scotland) Act 2019.

Fourth National Planning Framework

The Fourth National Planning Framework (NPF4) is due to be published early in Session 6, following a position statement in November 2020. The National Planning Framework sets out a spatial plan for Scotland and outlines priorities for planning and development.

Given that most development requires some land, there are intersections between land use policy and planning policy. For instance, under the Planning (Scotland) Act 2019, the planning authorities are to produce a 'forestry and woodland strategy' setting out policies and proposals in relation to conservation, protection and expansion of woodlands.

The Scottish Government's position statement ahead of NPF4 made reference to links with strategic land use, noting that:

"NPF4 will need to align with a wide range of policies relating to rural development including our National Islands Plan, Forestry Strategy, the Rural Economy Action Plan and the Land Rights and Responsibilities Statement. There are particular opportunities to link planning more closely to the Land Use Strategy and Regional Land Use Partnerships, to achieve an approach to future development at national, regional and local scales, that more fully supports, and is supported by, wider land use management."

Moreover, there has also been an ambition to consider how planning policy may support vibrant rural communities and address any particular place-based challenges in rural

Scotland.

More information on planning priorities can be found in the Scottish Government's position statement.

Box 3: Opportunities for Parliamentary scrutiny in Session 6:

• The Fourth National Planning Framework is due to be published early on in Session 6.

Major land uses in Scotland

Agriculture

What does the sector look like?

6.2 million hectares of land is farmed in Scotland (approximately 80% of the total land area). Of this area, 86% is classified as Less Favoured Area (LFA) ¹. Land becomes classified as LFA if it is considered to be more difficult to farm because of climate and soil conditions. In terms of agricultural production, LFA areas are mainly used for extensive production of beef cattle and sheep.

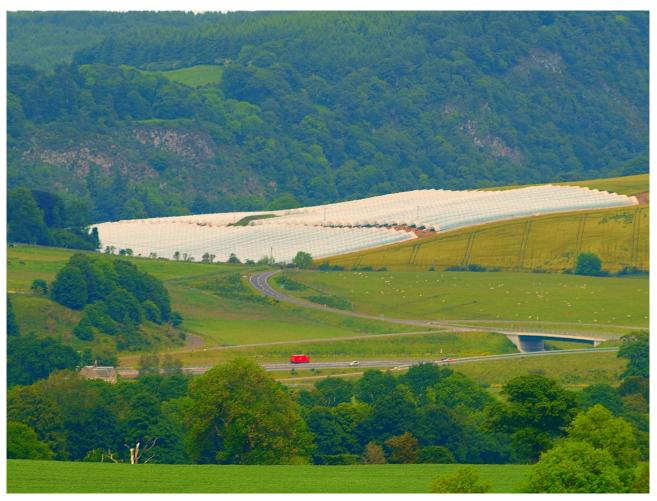
Cereal and crop production and mixed farming is mainly limited to the drier, fertile areas of the East and Northeast of Scotland, with dairy farming on the better quality land in the wetter Southwest.

Cereals (wheat, barley and oats) accounted for 73% of the area of crops grown in 2018 (excluding grass), with 69% of that being barley ¹ - a key ingredient in Scotland's whisky production. Of the remaining crops grown (excluding grass), oilseeds make up 5.7%, potatoes 4.8%, fruit and vegetables 3.7%, and other crops combined make up 12.7%.

In 2018, Scotland had approximately 1.76 million cattle, 6.59 million sheep, 316,000 pigs and 14.5 million poultry. Cattle and sheep tend to be located on LFA holdings, reflecting the large areas of grassland and rough grazing in these areas. In contrast, pigs and poultry tend to be located on non-LFA holdings. ¹

Though potatoes, fruit, and vegetables make up a smaller proportion of the land area used for agriculture, these are nonetheless important sectors for Scotland. Scotland grows 70% of the UK's seed potatoes - the potato tubers that are planted to produce a potato crop - and is responsible for 80% of seed potatoes exported from the UK. ² Soft fruits like raspberries and strawberries are another important crop in Scotland. These are generally grown in polytunnels, and are mainly concentrated in fertile areas in the east of Scotland.

Strawberry polytunnels in Perthshire



"Kinfauns" by B4bees is licensed under CC BY 2.0

Maps showing the distribution of agricultural production across Scotland can be explored on the Scottish Government's website. ³

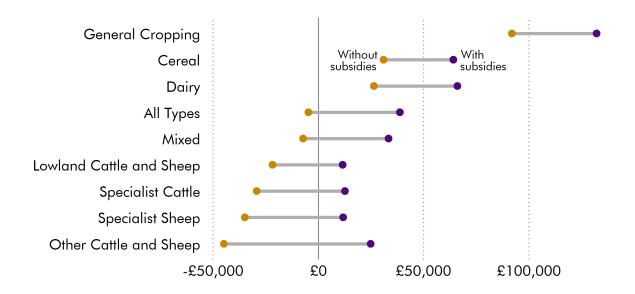
44% of Scotlands farmland was classed as 'high-nature value' - land that is especially valuable for biodiversity - in 2013 ⁴ , and in 2019, 2.1% of Scotland's agricultural land was under organic management ⁵ . 'Organic farming' is an approach to food production which does not use artificial fertilisers, pesticides or genetically modified organisms and follow a common set of practices such as long crop rotations ⁶ . To be certified as organic, agricultural products must be produced to a specific set of standards that are set out in regulation. The SNP set out a manifesto commitment to "double the amount of land used for organic farming - and double the amount of organic produce that comes from Scotland with a focus on more of it being used in public sector food procurement."

In Scotland, agriculture accounted for 0.8% of gross value added (GVA) at basic prices in 2018, with 2.5% of the workforce employed in the sector. ¹ However, the food and drink sector as a whole is larger, accounting for one in five manufacturing jobs. ⁷.

Farm Business Income (FBI) is the headline business-level measure of farm income, or profit. It represents the return to the whole farm business, that is, the total income available to all unpaid labour and their capital invested in the business. Figure 3 shows the overall impact of grants and subsidies on the average income of farm businesses ⁸. For most farm types, as well as for the average farm in Scotland, the average FBI falls below zero

when grants and subsidies are excluded. As a result, Scottish agriculture is heavily dependent on subsidies. Until the UK left the EU, the majority of these subsidies came from the EU in the form of Common Agricultural Policy payments. What might replace these payments is explored in later sections of this briefing.

Figure 3: Farm incomes with and without subsidies



Economic Report on Scottish Agriculture 2020

Agricultural holdings also take many different forms. The majority are owner-occupied farms, but a large proportion are also made up of tenanted farms and both owner-occupied and tenanted crofts. Agricultural tenancies and crofting are explored further in the next sections, followed by a discussion of agriculture policy more generally.

Agricultural tenancies

Tenant farmers are those who rent, rather than own, their farms.

In the late 19th Century over 90% of farms in Scotland were tenanted. In 2020, however, of the total number of agricultural holdings in Scotland, 31% were tenanted. In terms of land area, approximately 22% of agricultural land was rented in 2020, having fallen 5% over the last decade.

The Land Reform Review Group offered three explanations for this trend in their 2014 final report, The Land of Scotland and the Common Good:

- the break-up of large estates post WW1 following recession and the tax regime with tenants converting to owner-occupancy;
- · consolidation of farms into larger units e.g. due to mechanisation; and
- the introduction of security of tenure in the 1940s, which has made landowners reluctant to create new tenancies since that time.

Roughly 60% of rented holdings are crofts – a specific type of land tenure unique to Scotland. This is covered more in the next section. Non-croft tenanted holdings make up the other 40%.

One function of tenancy is as a route into farming for new entrants. In 2009, research prepared for the Tenant Farming Forum explored this, outlining a staged entry into farming for new entrants as they gradually accumulate the necessary capital, experience and skills, with tenancy being a final stage. More recently, the Scottish Land Matching Service - a collaboration between the Scottish Government and farming organisations - has sought to facilitate opportunities for new entrants by matching them with established farmers and to develop collaborations such as partnerships or contracts.

Tenant farms exist where the relationship between landlord and tenant is governed by a specific body of law on "agricultural holdings".

The main piece of legislation in this area is the Agricultural Holdings (Scotland) Act 1991. This has been reviewed and updated in subsequent legislation. The Agricultural Holdings (Scotland) Act 2003:

- Introduced two new forms of fixed term tenancy: Limited Duration Tenancies and Short Limited Duration Tenancies.
- Gave tenants greater rights to diversify.
- Gave tenants a pre-emptive right to buy their farm. To exercise this right, the tenant
 must have registered their interest, and they then have first option if the landlord
 decides to sell. If the landlord and tenant cannot agree the price, an independent
 valuation is carried out. By 2015 only around one-fifth of tenants had registered. The
 requirement to register was removed by the Land Reform (Scotland) Act 2016 ('the
 2016 Act').
- Gave the Scottish Land Court the main role in resolving disputes between landlord and tenant.

In November 2013 the Scottish Government initiated a review of agricultural holdings legislation. The Agricultural Holdings Legislation Review Group published its final report with recommendations on 27 January 2015. Subsequent legislative changes were later made by the 2016 Act (more on this in the next section).

Under agricultural holdings legislation there are now seven possible tenancy arrangements:

- · Leases of less than a year for grazing or mowing.
- Short Limited Duration Tenancies (SLDT) of up to 5 years.
- Limited Duration Tenancies (LDTs) of a minimum term of 10 years.
- Modern Limited Duration Tenancies (MLDTs) have replaced LDTs and like them have a minimum of 10 years (an SLDT can be converted to an MLDT at any time during the lease). MLDTs were introduced by the 2016 Act and replace LDTs which were created by the Agricultural Holdings (Scotland) Act 2003. LDTs originally had a minimum term of 15 years but this was reduced to 10 years in 2011. New LDTs cannot be entered into.

- Repairing tenancies which have a minimum term of 35 years. The idea of these
 tenancies is that the tenant takes more responsibility for equipping the farm than they
 would have under an MLDT in return for a lower rent. Provisions for these tenancies
 were created by the 2016 Act.
- "1991 Act tenancies" or "secure tenancies" entered into under the 1991 Act or preceding legislation, where the tenant's security of tenure is protected by the legislation. A 1991 Act tenancy can be converted to an MLDT.
- Limited partnership tenancies where the landlord or their agent is the limited partner, and the tenant is the general partner. The limited partnership lasts for a minimum term specified in a partnership agreement. At the end of the term specified in the partnership agreement, either the landlord or tenant can bring the partnership to an end, which ends the tenancy.

Tenancies and the 2016 Land Reform Act

The Land Reform (Scotland) Act 2016 included several provisions relevant for tenant farming. As part of provisions for establishing a Scottish Land Commission, the 2016 Act provided for appointing a Tenant Farming Commissioner alongside five land commissioners. The Tenant Farming Commissioner "must exercise the Commissioner's functions with a view to encouraging good relations between landlords and tenants of agricultural holdings".

As set out in Section 24 of the 2016 Act, the Tenant Farming Commissioner's role is to:

- · prepare codes of practice on agricultural holdings
- · promote the codes of practice
- inquire into alleged breaches of the codes of practice
- prepare a report on the operation of agents of landlords and tenants within 12 months of the Act coming into force. This report was submitted to Scottish Ministers in April 2018.
- prepare recommendations for a modern list of improvements to agricultural holdings
- refer for the opinion of the Land Court any question of law relating to agricultural holdings
- collaborate with the Land Commissioners in the exercise of their functions to where they relate to agriculture and agricultural holdings.

In addition, the 2016 Act made several changes to agricultural holdings legislation. In brief, these were:

- The creation of Modern Limited Duration Tenancies and provision to convert 1991 Act tenancies or Limited Duration Tenancies into MLDTs:
- The creation of Repairing Tenancies;
- Removal of the requirement to register for tenant's right to buy:
- Creation of a process enabling a tenant to apply to the Scottish Land Court to order

the sale of their holding where the landlord persistently fails to meet their obligations under certain circumstances:

- simplifying and improving the process for triggering and carrying out a rent review for certain tenancies:
- widening the categories of people to whom a tenant farmer can assign or leave their tenancy upon death;
- providing for tenants to relinquish their tenancy in exchange for compensation, for instance, at retirement, or, in certain situations, to assign their tenancy to a new entrant or person progressing within farming. Regulations providing for this came into force in February 2021;
- providing for an amnesty period whereby certain tenants can serve a notice on their landlord detailing improvements that have been made that they would like compensation for on departure. This was known as the 'Waygo Amnesty' and lasted originally for a three-year period, from 2017-2020, and was extended for six months due to the Covid-19 pandemic; and
- providing a right for tenants to object to certain improvements proposed by the landlord if they are considered unnecessary.

In addition, the 2016 Act created a duty on Scottish ministers to review the legislation on small landholdings. Small landholders are tenants under the Small Landholders Acts 1911-1931. The character of these small landholdings is similar to crofts and the legislation governing them has a shared history with crofting. Once numerous, in 2014 there were an estimated 149 small landholders in Scotland, scattered from Strathspey to Stranraer. Small landholders in the areas where crofting tenure was extended in 2010 can apply to convert their holding into a croft. The Land Reform Review Group recommended that small landholders should have a right to buy their holding, as is the case for crofters and tenant farmers. A legislation review on small landholdings in Scotland was laid before the Scottish Parliament in March 2017, which contained a number of recommendations to explore the issue further.

Crofting

Crofting is part of the overall profile for agriculture described earlier in this briefing, and is covered by Scotland's agricultural policy (outlined further later in this briefing). However, crofting is a unique system of land tenure in Scotland, and therefore has additional policies and separate legislation governing it.

Crofts are small land holdings traditionally in the Highlands and Islands of Scotland, but now also in Argyll and Bute and North Ayrshire (following extension of crofting tenure to these areas in 2010 ⁹). As of 2019/20 there are 21,186 crofts in Scotland, 15,137 are tenanted and 6,049 owned. ¹⁰ Crofters are required to be ordinarily resident on, or within 32km of their croft, not to misuse or neglect the croft, and to cultivate it or put it to some other purposeful use. ¹⁰



"Croft House on Barra - 35mm Film SLR" by Logos: The Art of Photography is licensed under CC BY-NC-SA 2.0

Many crofts are small (the average croft is around 5 hectares ¹¹), and cannot sustain the full time employment of a crofter. Crofting households spend an average of 22 hours per week on croft related activities and receive an average revenue of £13,095 for this work. However, this average reflects a small number of high earners, with over half of crofters earning £5000 or less, and a median revenue from crofting of around £2000. ¹²

Whilst the majority of crofters are male, the number of female crofters doubled between 2014 and 2018 - from 13% to 26%. ¹² This is coherent with other findings from recent work on women in agriculture, which found that women have more proportionate elected representation in crofting organisations than in farming ones, and that women tend to play a larger role in decision-making on crofts. The same work also found that inheritance of a holding by a woman was more common in crofting in comparison with agriculture overall (34% compared to 24%). ¹³

Jobs in tourism, fishing and other jobs in the rural and service sectors are important in providing an off-croft source of employment with which crofters can supplement their income. Crofting land is generally poor quality and mainly consists of rough grazing and permanent grassland with some arable land. Crofting agriculture is based primarily on rearing of store lambs and cattle for sale to lowland farmers for fattening or as breeding stock, though 42% of crofters also grow some crops. The proportion of crofters who also undertake some sort of diversification (e.g. B&B businesses, leisure activities, wood processing) has also grown since 2014. ¹²

Crofting has been protected and regulated by a unique code of law since the end of the nineteenth century. The first crofting legislation, the Crofters Holdings (Scotland) Act 1886, followed the report of the Napier Commission in 1884 and gave crofters security of tenure, together with the right to a fair rent, the value of improvements they had made to the croft, and the right to bequeath the tenancy to a family successor. Crofts were regulated in the

same manner as smallholdings in other parts of Scotland from 1912 until the Crofters (Scotland) Act 1955 restored a unique code of law to crofting.

Crofters were given the right to buy their croft by the Crofting Reform (Scotland) Act 1976, and since then around a third of crofters have become owner occupiers. Crofting law made since 1955 was consolidated in 1993 and the Crofters (Scotland) Act 1993 remains the key piece of legislation. It has since been amended by the Crofting Reform etc. Act 2007, the Crofting Reform (Scotland) Act 2010, and the Crofting (Amendment) (Scotland) Act 2013.

Crofting is regulated by the Crofting Commission, which maintains the Register of Crofts.

However, crofting law and policy remains controversial and some would argue, is in need of substantial revision.

In October 2013 the Crofting Law Sump group was established. The purpose of 'the Sump' was to gather together details of the significant problem areas within existing crofting legislation. Its final report was published in November 2014, and made a number of propositions for reform.

The Scottish Government set up the Crofting Legislation Stakeholder Consultation Group to consider The Sump report. This group reported to the Scottish Government that a Bill should be introduced to resolve all 57 issues identified by the Sump as requiring action. In responding to the Sump report in September 2015, the Minister at the time stated intentions to develop a programme of work, including legislation, to be brought forward in Session 5.

In 2017, the Scottish Government held a consultation on crofting policy and legislative options and priorities for a new crofting bill. An analysis of responses was published in March 2018. In April 2018, then Cabinet Secretary Fergus Ewing announced that the Scottish Government would take a 'two-phased approach' to crofting reform. The first phase was to "focus on delivering changes which carry widespread support...and result in practical everyday improvements to the lives of crofters and/or streamline procedures that crofters are required to follow". ¹⁴ A Bill was planned to do this in Session 5. This would be done alongside a programme of non-legislative reform, to be set out in a National Development Plan for Crofting.

The second phase was planned for the longer-term, aiming to review crofting legislation more fundamentally. This was planned for a future Parliamentary session.

However, in October 2019, the Cabinet Secretary wrote to the Rural Economy and Connectivity Committee, informing it that due to the pressures of preparing for Brexit, work on a new crofting bill would have to be put on hold. ¹⁵ As a result, a crofting bill was not brought forward in Session 5. However, a National Development Plan for Crofting was published at the end of the session.

Box 4: Opportunities for Parliamentary scrutiny in Session 6

The SNP manifesto highlighted an ambition to carry on the crofting reform process, stating an intention to "reform the law and develop crofting to create more active crofts"

The Rural Economy and Connectivity Committee carried out an inquiry into crofting reform in Session 5. In its legacy report, the Committee highlighted

"the commitments given with respect to advancing crofting reform and suggests that the progress of such reform may be a subject that is considered appropriate for ongoing scrutiny during Session 6."

National Development Plan for Crofting

A National Development Plan for Crofting was published on 18 March 2021, shortly before the end of Session 5.

The Plan highlights that crofting presents a "massive opportunity in terms of dealing with the key challenges we face with respect to tackling climate change and combating the loss of biodiversity" ¹⁶ and emphasises a dual aim of keeping crofting at the heart of rural communities, and addressing environmental challenges.

It builds on work done by the Crofting Stakeholder Forum on crofting development, new entrants, common grazings, housing, financial incentives and simplifying crofting legislation, and identifies 78 specific actions from the following categories:

- The **Crofting Commission's role in the development of crofting**; e.g. Expanding the function of the Commission beyond the regulatory to assist in crofting development, and making crofting and the Crofting Commission more accessible;
- Improving the Crofting Register registration process;
- Economic and community development, including actions for Highlands and Islands Enterprise to increase economic opportunities and skills development in crofting areas;
- Skills development, focusing on rural jobs, green jobs and digital skills;
- Local food networks and agri-tourism, developing food and drink sector opportunities for crofting;
- Land, environment and biodiversity, supporting biodiversity and environmental outcomes within crofting, such as through supporting forestry on crofting land;
- Wildlife management schemes to mitigate the impact of sea eagles, deer, and geese;
- Housing, e.g. supporting building or improving croft houses through the Croft House Grant:
- **Signposting** to information about crofting and encouraging information-sharing;
- Farm Advisory Service, ensuring that advice is delivered to crofters;

- Ensuring access to broadband;
- Modernising crofting legislation;
- **Financial investments**, e.g. Develop new schemes to support low-carbon approaches to crofting, and to assist new entrants and business development;
- Changes to the Crofting Agricultural Grants Scheme, and considering other financial incentives; and
- A subsidised Highlands and Islands Veterinary Scheme.

Agriculture policy

Within the rural policy sector, the question of what happens after Brexit dominated Session 5 of the Scottish Parliament. Agriculture, forestry and environmental management have been heavily influenced by EU regulations and EU financial support, in large part through the Common Agricultural Policy (CAP).

Having left the EU, UK nations no longer receive CAP payments from the EU, and are no longer bound by the CAP framework when designing agricultural and land use policies and subsidies. Agriculture is a devolved policy area, it is therefore up to Scotland to design a new policy.

Agriculture policy before Brexit

While a member of the EU, the UK was part of the Common Agricultural Policy. Participation in the CAP provided over £500m for Scottish agriculture, forestry, and environmental interventions per year.

The CAP is governed by an extensive set of regulations, for example around how agricultural support must be financed and run.

Within the UK context, agriculture policy is devolved, and whilst a member of the EU, the Scottish Government therefore designed and implemented a Scottish agriculture policy under the shared EU framework. As a result of the CAP, UK nations had in common with each other, and shared with the EU, the following:

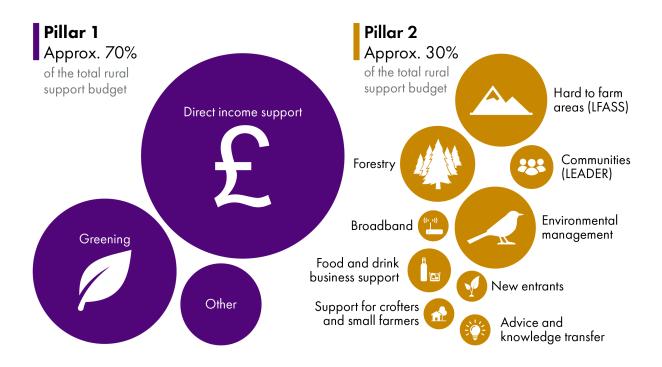
- A common subsidy regime. EU regulations determine the amounts that can be paid
 by member states, the basis for calculating payments, the schemes that must be
 offered to farmers and the schemes that can be offered on a voluntary basis, and so
 on.
- A common arrangement with the World Trade Organisation (WTO) through the Agreement on Agriculture. Domestic support for agriculture (e.g. subsidies) is subject to WTO agreements which aim to ensure balanced trading arrangements between states. Domestic support is divided into three categories: Amber Box (trade distorting payments, e.g. Support linked to production for certain sectors), Blue Box (trade distorting payments that also require farmers to limit production) and Green Box (non-trade-distorting payments, e.g. agri-environment payments). ¹⁷ The EU has agreed maximum levels of support that can be paid out to farmers by EU member states in the Amber Box.

- A common regulatory framework. Much of the regulation governing Scottish agriculture originates from the EU. This includes environmental, animal welfare and food safety standards governed by e.g the Nitrates Directive, Birds and Habitats Directives, General Food Law, Hormones Ban Directive, directives on the protection of farmed animals, regulation on plant protection products (pesticides, herbicides and insecticides), and other regulations on public, animal and plant health. ¹⁸
- A common sanction mechanism in cross-compliance. In order to receive EU payments, farmers and crofters must abide by cross-compliance rules. The rules are a combination of statutory management requirements (e.g. the regulations outlined above) and standards for good agricultural and environmental conditions (e.g. good soil management). Cross-compliance adds an additional mechanism to ensure compliance with common standards; failure to meet these can result in not only legal liability, but loss of support payments.

Funding under the CAP is split into two pillars. Pillar 1 provides income support for agriculture and Pillar 2 provides financial support for rural development, including community projects, environmental management, forestry, and extra support for 'less favoured areas'(LFA), where farming is more challenging due to geography and weather conditions.

Member States design their own support programmes within the constraints of the CAP framework, and submit them to the European Commission for approval. Figure 1 shows the types of support that were available in Scotland under the EU's CAP framework for the 2014-2020 programme. Most of these funding streams continue to be available in the short term. More detail on the Scottish programme and individual schemes is available from the Rural Payments and Inspections Division's website.

Figure 4: Types of support under the two 'pillars' of the EU Common Agricultural Policy in Scotland. The size of the circle is relative to the proportion of the budget allocated to that type of support.



Parliamentary Question S5W-25939, 2019

In the EU, the CAP is designed and run on a seven-year policy and funding cycle. The programme is reviewed and reformed at the end of each multi-annual financial framework. The most recent framework ended in 2020. As a result, the CAP is currently undergoing a reform process, which was due to start from 2021 but was delayed for two years to 2023, with transitional arrangements to carry on current rules and support programmes in the interim period. However, the UK left the CAP framework at the end of the Brexit Implementation Period on 31 December 2020 and is so not participating in the reform process.

Agriculture policy after Brexit: A new policy for Scotland

Post-Brexit, UK nations are no longer required to follow CAP rules nor do they receive CAP support payments from the EU. Payments to UK farmers are now provided by the UK Treasury. Agriculture is a devolved policy area, therefore Scotland can decide on a new policy for Scottish farmers and crofters.

The Scottish Government's approach has centered around a period of 'stability and simplicity' – a transition where existing rules and funding programmes are largely maintained in the short term but simplified where feasible. A consultation held in 2018 set out proposals for this period of little change to 2024 ¹⁹, whilst a new policy is being developed to be rolled out from 2025. Existing schemes can be explored in more detail on the Scottish Government Rural Payments and Inspections Division's website.

During this transition period, the same rules that applied under CAP largely continue to

apply in Scotland, as they have been 'retained' - in essence, copied over - as part of a new category of law called 'retained EU law' . Retained EU law can be thought of as a snapshot of the EU law which was in place in the UK at 11pm on 31 December 2020. That was the time at which EU law ceased to apply in the UK. Retained EU law was created so that there was no gap in the law which applied in the UK immediately prior to and immediately after EU law stopped applying.

Some parts of retained EU law needed to be changed to ensure the law was clear and could work properly in domestic law (by "domestic law" we mean the law in the UK or in a part of the UK). For example, by removing references to the UK being a Member State, removing references to "euros" or replacing a reference to an EU institution with a reference to a UK or Scottish institution. This exercise of changing retained EU law to make sure that it worked properly in domestic law is known as deficiency correction.

Agriculture and related areas such as plant and animal health, animal welfare, food standards and the environment were areas in which a significant deficiency correcting exercise was undertaken. This is because so much of the legislation in these areas stemmed from EU law. This was done both through Scottish Statutory Instruments at a Scottish level, and through UK Statutory Instruments where changes were made on Scotland's behalf by the UK with Scottish Ministers' consent. This comprised a significant area of work for Parliamentary committees in Session 5.

These retained EU laws remain the law in Scotland unless the Scottish Parliament decides to pass a new law to change them. New legislation – the <u>Agriculture (Retained EU Law and Data) (Scotland) Act 2020 (</u>'the 2020 Act')— has provided Scottish Ministers with the power to, by regulation, simplify and improve the operation of the retained CAP rules in Scotland. This power is available to ministers until 2026, at which time it is expected that new arrangements will be in place. <u>The Scottish Government used these powers to, for example, make changes to the 'greening' rules</u>, to shorten the required length of land-management contracts under agri-environment and organic schemes, and to amend the penalties for overclaiming certain subsidies.

Under Section 22 of the 2020 Act, Scottish Ministers must lay a report before the Scottish Parliament on progress towards establishing a new Scottish agricultural policy. The report must include policies and proposals regarding:

- the sustainability of agriculture and resilience to climate change,
- the simplicity of future agricultural schemes,
- the profitability of Scottish agriculture and the agri-food supply chain,
- the support given to innovation and good practice,
- · the inclusion of new entrants, and
- the improvement of productivity in Scottish agriculture

It must also include an outline of any legislation that will be required and a timeline of when this will be introduced, as well as details of any consultation. This report must be laid before Parliament by 31 December 2024.

Calls for longer-term reform of land use policy in Scotland are many and varied. Stakeholders have identified a need for a future land use policy to, e.g. Better consider land uses holistically, as opposed to siloing agriculture, forestry and other sectors 20 ; better support innovation and productivity improvements 21 ; drive down agricultural emissions and ensure support for biodiversity 22 23 ; and better support small units and those in geographically constrained areas 22 .

As a result, many stakeholder proposals have been published since the Brexit referendum (including from the <u>Scottish Wildlife Trust</u>, the <u>National Farmers Union for Scotland</u>, <u>Scottish Environment LINK</u>, and <u>Scottish Land & Estates</u>), in addition to research, and pilots (e.g. <u>trialling an 'outcome-based approach' to delivering environmental benefits from land management</u>). The Scottish Government also convened several groups which made recommendations, including:

- Four Agriculture Champions;
- · A National Council of Rural Advisers;
- · A Farming and Food Production: Future Policy Group; and
- Sectoral groups focused on policy solutions to climate change (on <u>suckler beef</u>, <u>dairy</u>, <u>hill</u>, <u>upland and crofting</u>, <u>pig industry</u>, and <u>arable</u> sectors).

There is not yet any significant clarity on the shape of a new agricultural policy. However, outcomes in several policy areas depend on a new rural policy.

- Climate change: the Scottish Government declared a climate emergency in Session 5; as a result, climate change and the environment have become a key driver for changes to Scottish land use policies. As part of the Scottish Government's most recent update to its climate change plan, it committed to, among other things, scaling up activities such as the 'Agriculture Transformation Programme' and advisory services, to introducing environmental conditions on receiving agricultural payments, and a new rural support policy to deliver "a more productive, sustainable agriculture sector that significantly contributes towards delivering Scotland's climate change, and wider environmental outcomes". In October 2020, the UK Committee on Climate Change recommended that the Scottish Government "set out new recommendations for Scotland's future rural support policy, and make provisions for Ministers to create new policy or reform existing policy. Policy to reduce emissions on farms and increase land-based sequestration should also deliver co-benefits for wider environmental goals." ²⁴ The advice on climate change and agriculture and Scottish Government commitments in relation to agriculture are discussed further in the SPICe briefing on the Climate Change Plan update
- Biodiversity: agriculture and other land uses remain key pressures on biodiversity. At an EU-wide level elements of the CAP are found to have inadequately protected biodiversity and underfunded environmental interventions, but farmers and crofters, and agricultural policies and support are also key to approaches to halt and reverse biodiversity decline. The Scottish Government's statement of intent on the Post-2020 Scottish Biodiversity Strategy states: "We are already working in partnership to develop new rural support measures that result in transition to a sustainable sector that more directly and explicitly supports our climate and environmental ambitions."
- Strategic land use: Many demands are placed on land, resulting in both a <u>national</u> <u>Land Use Strategy (which is currently in its third iteration) and proposals for Regional</u>

<u>Land Use Partnerships</u> aiming to maximise the benefits from land. Mechanisms under a new rural policy will influence how this is achieved.

- Land reform: Recent work by the Scottish Land Commission on <u>scale and</u> <u>concentration of ownership</u> noted that the "fiscal environment surrounding agriculture, forestry, and renewable energy in particular appears to incentivise behaviour that is sometimes contrary to Scotland's land reform objectives" and recommended that relevant fiscal incentives should be reviewed to ensure consistency with the "policy objectives of community empowerment, rural development, and land reform". A SPICe blog provides more information on land reform policy in Scotland since the Parliament was established.
- Food and Drink: Scotland has a target to double the value of its food and drink industry by 2030. Meanwhile, industry has been affected by both Brexit and the Covid-19 pandemic, prompting the publication of an industry recovery plan, which includes discussions of resilience within food production sectors. It also links to Scotland's overall food policy; any future rural policy will be key to Scotland's food policy from farm to fork, and ambitions to become a 'Good Food Nation'.
- Resilience of rural communities: The extent of support for, e.g. new entrants to
 farming and crofting, to crofting communities, and to support women in agriculture
 through a new rural policy can have a wider impact on resilience in rural communities
 and diversity in the agricultural sector. Moreover, policies to support rural sectors
 indirectly, including through advisory services, support for collaboration between land
 managers, and considering the wider supply chain can play a role in resilience.

As noted above, the Common Agricultural Policy is underpinned by an extensive framework of EU regulations. A new law - the Agriculture (Retained EU Law and Data) (Scotland) Act 2020 - was required to give Scottish Ministers the power to deviate from this framework in limited ways. Further legislation is likely to be required to underpin a whole new Scottish agricultural policy. ²⁵

Box 5: Opportunities for Parliamentary scrutiny in Session 6

- New primary legislation to make provision for a post-CAP land use policy.
- The annual report on Scotland's climate change plan will report against commitments to deliver a new agricultural policy which supports emissions reduction.

The UK internal market and the EU

While there are many views on the shape of a future land use policy, several factors may interact with, or constrain, its development.

When the UK was in the EU, each UK nation developed its own agricultural policy within the framework of the EU's Common Agricultural Policy. This ensured a common regulatory baseline on environment, animal welfare and food safety issues. In addition, while there was some variation to account for regional differences, the levels and types of support available to land managers in each nation was broadly similar.

As a result, land managers across the UK - and EU - operated on a level playing field. No farmer had a competitive advantage due to less stringent environmental or animal welfare requirements, nor was anyone able to undercut other land managers in the EU due to excessive subsidy.

However, having left the EU, this framework and common set of rules and baselines is no longer automatically applied. And with policy areas like agriculture, forestry and the environment being devolved, this opens up for the possibility of regulatory and policy divergence between the UK and the EU, but also between the four UK nations.

Scotland, England, Wales and Northern Ireland have been developing new rural policies separately. Scotland's transitional plans are discussed in an earlier section of this briefing. For England, the Agriculture Act 2020 led to the development of new 'Environmental Land Management Schemes' as the basis for its post-CAP policy. The new approach focuses on the principle of 'public money for public goods' – supporting farmers to deliver environmental and animal health and welfare benefits – alongside support to improve productivity, a new approach to regulation, and ultimately phasing out direct income support and existing CAP schemes between 2021 and 2027.

In Wales, a consultation on a new legislative framework for land use proposed the replacement of existing schemes with a new payment scheme on sustainable farming practices, with wider support for supply chain and agri-food development. On 6 July 2021, the Welsh Government announced that it would bring forward a new agriculture bill for Wales "to create a new system of farm support that will maximise the protective power of nature through farming." In Northern Ireland, a consultation on a future agricultural policy was published on 7 July 2021.

What happens across the UK may impact the development of Scotland's rural policy. The UK Internal Market Act 2020, discussed in the following section, may affect Scotland's policy choices. Evolving 'common frameworks' – e.g. on Agricultural Support– coordinating policy approaches across the UK may also influence outcomes. Developments in the EU, in the evolving relationship between the UK and the EU, and in Scotland's relationship with the EU and UK may also have an impact.

A SPICe blog explores the impact of these multiple factors on policymaking in a devolved context using pesticide regulation as an example.

The UK internal market

The UK internal market may have an impact on devolved policy for agriculture and food production.

The Internal Market Act 2020, established rules "to create a coherent approach to market access and support for the UK internal market" 26 .

For goods – such as agricultural products – two **market access principles** are enshrined in the Act:

- The principle of mutual recognition means that "any good that meets regulatory requirements in one part of the UK can be sold in any other part, without having to adhere to the relevant regulatory requirement in that other part" ²⁷;
- the non-discrimination principle establishes "a prohibition on direct or indirect

discrimination based on treating local and incoming goods differently" ²⁷ (with some exceptions specified in the Act, such as animal feed, pesticides and fertilisers)

The principle of an internal market has support from many stakeholders. For example, in September 2020 the National Farmers Union told the Scottish Parliament's Finance and Constitution Committee that

"the UK internal market is vitally important to the interests of not only Scottish agriculture but, I would argue, the Scottish economy as a whole. Therefore, we would always argue that we want a regulatory framework that operates to basic standards across the UK so that there is no competitive advantage or disadvantage in the UK's single market. ²⁸ "

However, questions regarding the impact of the UK Internal Market Act on devolved policy ²⁷, and whether its provisions could contribute to a race to the bottom on regulation have also been raised. In particular, stakeholders have highlighted risks to food production standards (such as environment, animal welfare and food safety). The NFUS also told the Finance and Constitution Committee that:

"We cannot allow those principles to operate in such a way that they allow a race to the bottom by opening up the door to the introduction into the UK market of food that is produced to different standards—whether it is animal health and welfare, environmental or other standards—which is then allowed to move within the UK market across all the devolved Administrations. That is definitely a risk to Scottish agriculture and, equally, the integrity of Scotland's food and drink industry. That industry is built on high standards and provenance, which we need to safeguard very carefully indeed. ²⁸ "

There is therefore a concern that if standards were to be amended or lowered in one part of the UK, the Act could result in pressure in another part of the UK to reduce or amend regulatory standards to avoid subjecting domestic production to different rules; or that rules and standards in one part of the UK could be undermined by the requirement to place goods produced to different standards on the market in that nation (see Box 6). In its analysis of the effects of the Internal Market Act on devolution, the Scottish Government stated that

"While devolved legislatures will technically still be able to legislate as they currently do, laws that they pass will be fundamentally undermined by the Act's market access principles as well as being potentially open to legal challenge under the Act... Being forced to accept goods, services and professional standards regardless of the standards set by devolved legislatures could also have a "chilling effect" on legislation. Potential new policy measures may not even be considered at all given the constraints on devolved powers to set standards across Scotland, and the possible asymmetric competition impacts on Scottish businesses of regulation. Constraining powers could constrain valuable policy innovation of devolved legislatures, with negative implications for the whole of the UK. ²⁷ "

As a result of these concerns, the Scottish Parliament did not grant consent to the Internal Market Bill. The issues and the scrutiny challenges they pose for devolved Parliaments is discussed further in a SPICe blog.

Box 6: Genetic techniques used in food production

In January 2021, the UK Government launched a consultation on the regulation of new genetic technologies such as gene editing. Gene editing and new genetic technologies (or 'novel genomic techniques') are generally used to refer to technologies that rearrange genetic material within the same organism, or insert genes into one organism from another organism that it can be crossed with in nature (i.e. inserting the genes of a wild crop variety into a cultivated variety of the same crop). ²⁹ Whilst new genetic technologies can also be used for this purpose, they are often discussed in contrast to older technologies for genetic modification, where genetic material from one organism is inserted into an entirely different organism (such as from an insect to a plant, where those two organisms could not cross naturally).

Discussion has been ongoing at EU-level, as well as in the UK, regarding whether regulations need to be reviewed in light of new genetic technologies such as gene editing. Genetically modified organisms are very strictly regulated in the EU and UK. The Scottish Government prohibits the cultivation of genetically modified crops in Scotland.

Following the launch of the consultation, questions were raised about what any changes at UK level might mean for Scotland as a result of the Internal Market Act – bearing in mind that agriculture is devolved and so any changes made by the UK Government would only directly apply to England.

In response to a portfolio question on the Scottish Government's approach to gene editing in light of the UK Government consultation, then Minister for Rural Affairs and the Natural Environment stated that, whilst the Scottish Government position on gene editing remains to adopt a precautionary approach,

"It is also important to emphasise that the UK Government's decision to consult on changes to the definition of GMO, which would differ to Scotland's approach, is an example of why we believe the United Kingdom Internal Market Act 2020 removes our competency to make decisions on the marketing of products in a devolved area. It is of concern that, although any definition change as outlined in the UK Government's consultation would not, in legal terms, extend to Scotland, the UK Internal Market Act 2020 would force Scotland to accept marketing, sale and free circulation of products in Scotland that did not meet the standards set out in the Scottish regulations. ³⁰ "

Subsidies

As agriculture is a devolved area, Scotland and the other devolved administrations previously administered and spent Common Agricultural Policy funds coming from the EU. Agricultural support payments were subject to extensive rules under EU regulations, and are also covered by international control arrangements under the World Trade Organisation's Agreement on Agriculture (AoA), which sets out rules to prevent trade distortion as a result of agricultural subsidies.

The Internal Market Act reserved control of subsidies (rules to ensure that government support for sectors, institutions or individuals do not afford recipients a competitive

advantage) to the UK Government. While agricultural subsidies already covered by the WTO AoA are not within the scope of provisions on subsidy control in the EU-UK Trade and Cooperation Agreement, a consultation published on 3 February 2021 asked for views on whether agricultural subsidies should also be in scope for new domestic arrangements on subsidy control. The UK Government's proposal was met with some concern that subjecting agricultural subsidies to UK-wide subsidy control rules would limit policy options within a devolved area.

On 30 June 2021, the UK Government published its response to the consultation and introduced a new Subsidy Control Bill in the UK Parliament. In the response, it concluded that

"Agriculture subsidies in scope of the AoA [Agreement on Agriculture] and fisheries subsidies will be included within the new domestic regime, and so all spending on agriculture and fisheries policy will be within scope of the same rules. The UK is no longer bound by the EU common agriculture and fisheries policies. Each of the Devolved Administrations – and the UK Government in England - has the freedom to pursue their own policy choices. Consequentially, inclusion in the domestic subsidy regime balances the need to, on one hand, minimise risk of distortions to UK competition and investment and ensure consistency across sectors with, on the other hand, retaining the flexibility for government to develop the regime appropriately to support domestic policy ambitions. Devolved administrations will continue to be responsible for devolved spending decisions for agriculture and fisheries. As part of this, consideration is being given to whether any specific arrangements should be applied in order to accommodate the needs of UK-wide agriculture and fisheries policy. For example, the government will consider further:"

- whether the threshold to exempt minimal financial assistance subsidies from the subsidy control requirements should be different to that for other subsidies;"
- how guidance to support interpretation of the subsidy principles can meet the needs of agriculture and fisheries; and"
- how we can use streamlined routes, that ensure compliance is even simpler than the process of principle-by-principle, in these sectors. ³¹ "

It is not yet clear what this will mean for agricultural support in Scotland.

Common frameworks

A common framework is an agreed approach between the governments of different parts of the UK to a particular policy, including the implementation and governance of it. The aim is to help to make sure that there is some degree of consistency in policy and practice.

As explained in a previous section, during its membership of the EU, the UK and all of its governments have been required to comply with EU law. This has ensured that in many policy areas, including some that are devolved, a broadly consistent approach has developed across all four nations.

Having left the EU, there is no longer automatic alignment between the four UK nations in these areas by virtue of each nation following EU law. In devolved areas such as agriculture, forestry, and environmental regulation - which were previously heavily

regulated at EU level - each nation may devise its own rules and policies.

As a result, shortly after the Brexit referendum, UK and devolved governments agreed that common frameworks are needed after the UK's exit from the EU to ensure that, in certain policy areas, there is no divergence between the nations of the UK where that would be undesirable (e.g. causing competitive economic advantage/disadvantage).

There are a number of areas in relation to land use where the need for a common framework has been agreed, including:

- · Agricultural support
- Biodiversity Access and Benefit Sharing of Genetic Resources (ABS)
- Flood Risk Management
- · Natural Environment and Biodiversity
- Water Quality
- Water Resources (e.g. provision of sustainable, safe and affordable water supplies for households, businesses, energy production and agriculture)
- Land use (in relation to environmental impact assessments and strategic environmental assessments)
- Forestry
- Air Quality
- Best available Techniques to reduce pollution to air, water and land
- Nutrition Labelling, Composition and Standards
- Fertiliser regulations
- GMO marketing and cultivation
- Organic farming
- Zootech (e.g. rules on breeding)
- · Animal health and welfare
- Chemicals and pesticides
- · Plant health
- · Plant varieties and seeds
- · Food and feed safety and hygiene

All common frameworks do not look alike. Some of the areas listed above are legislative frameworks, where laws underpin common working arrangements. Others are non-legislative, where agreements are based on a memorandum of understanding, concordat, or other governance arrangement. More information on each framework can be found in

the UK Government's most recent Frameworks Analysis.

In its October 2017 communique on common frameworks, the Joint Ministerial Committee (EU Negotiations) (JMC (EN)), the UK-wide forum for discussing matters such as common frameworks, stated that:

"A framework will set out a common UK, or GB, approach and how it will be operated and governed. This may consist of common goals, minimum or maximum standards, harmonisation, limits on action, or mutual recognition, depending on the policy area and the objectives being pursued. Frameworks may be implemented by legislation, by executive action, by memorandums of understanding, or by other means depending on the context in which the framework is intended to operate. ³² "

Whilst the limitations of EU law may not continue to apply to Scotland and the other UK nations, a common framework agreed by the four UK nations may set agreed limitations on policies and regulations.

In some areas, joint working has been established practice for many years. For example, whilst Scottish Ministers retain legal responsibility for approving pesticides for use in Scotland, in practice, the UK Health and Safety Executive manages this process on behalf of all four UK nations, and did so before EU exit.

In other areas, joint working arrangements are being agreed, and may pose constraints on policy development, support arrangements, or regulatory divergence. For example, it is not yet clear what the arrangements will be under the framework on Agricultural Support; details on this framework are yet to be published.

In addition, common frameworks pose a scrutiny challenge. Where frameworks are based in legislation the normal legislative consent processes will apply, which allows the Scottish Parliament to consider the proposals made by the four UK governments. However, there are few established mechanisms for the Scottish Parliament to scrutinise non-legislative joint UK-wide policy that provide for formal consideration and opportunity to amend proposals during their development. This, along with more detail on how common frameworks are being developed, is discussed in greater detail in a SPICe briefing.

The SPICe Post-Brexit Hub also provides answers to a number of frequently asked questions on common frameworks.

Box 7: Opportunities for Parliamentary Scrutiny

 A significant number of UK-wide common frameworks in this area will require Parliamentary scrutiny.

EU-UK relations

The EU-UK Trade and Cooperation Agreement (TCA or 'the Agreement') established a new relationship between the UK and the EU. The agreement was applied provisionally from 1 January 2021 and entered into force on 1 May 2021.

A SPICe blog provides a general outline of key elements of the agreement. The European

Commission has also published a useful set of Frequently Asked Questions.

In relation to trade in agricultural products, key aspects of the agreement include:

- Tariff-free trade in goods. This means that additional fees are not applied to goods arriving in the UK from the EU, or in the EU from the UK. For goods such as Scottish beef and lamb, where the majority is exported to the EU, this was an important development.
- No harmonisation of "sanitary and phytosanitary" rules. This refers to the rules that are in place to protect animal, human and plant health, for example through checks to prevent diseases from being imported along with food products. While there are some common principles in relation to sanitary and phytosanitary rules, and provisions in relation to simplifying import checks, the parties are not committed to maintaining common standards in this regard. This means that additional requirements for trade between the EU and the UK apply. For example, goods exported from the UK to the EU (and vice versa) must be accompanied by paperwork which certifies that the product meets required standards in each respective territory, and goods will be subject to checks on arrival. This has meant that there have been additional obstacles to trade, despite there being no financial tariffs. To export to the EU, food producers in the UK must continue to meet EU standards.
- Agreement to cooperate on issues such as antimicrobial resistance, animal welfare and the creation of sustainable food systems.
- Agricultural subsidies are not included in the agreement on overall subsidy control between the UK and the EU. However, as discussed earlier in this briefing, agricultural subsidies are now considered to be in scope for UK-wide subsidy control regulations.
- No agreement on certain sensitive goods. For example, trade in seed potatoes is heavily regulated due to the risk of importing or exporting pests and diseases which can threaten production. Scottish seed potatoes were often exported to the EU prior to Brexit, and EU seed potatoes were likewise imported into the UK. However, post-Brexit, no agreement was reached to allow seed potatoes to continue to be exported to the EU. The UK had initially granted a six-month extension to allow EU seed potato producers to continue to export to the UK. This extension ended on 30 June 2021 and was not renewed. 33 There is now therefore no seed potato trade between the UK and the EU.
- An agreement on the so-called 'level playing field' on the environment and workers' rights. Whilst the agreement recognises that the right to regulate and set standards remains with each respective party, the level playing field provisions establish that there should be comparable standards of environmental protection (and in other areas such as workers' rights) across the territory of a free trade agreement. Level playing field provisions in the TCA provide that a number of environmental and climate levels of protection cannot be lowered so-called 'non-regression' in a way which impacts trade and investment between the UK and the EU. This 'floor' for environmental protection is relevant to agriculture in terms of the environmental standards required in food production. More information on the level playing field and the environment can be found in the SPICe subject profile on the environment.

'Keeping pace'

Following the UK's departure from the EU there is no longer a requirement to continue to comply with EU law. However, the Scottish Government has indicated that, where appropriate, they would like to see Scots law continue to align with EU law, and committed that there will be no regression in standards ³⁴.

The UK Withdrawal from the European Union (Continuity) (Scotland) Act 2021 confers a power on Scottish Ministers to allow them to make regulations with the effect of continuing to keep Scots law aligned with EU law in some areas of devolved policy - the "keeping pace" power. The Act also sets out that the purpose of use of this power is to contribute towards maintaining and advancing standards in relation to specified matters - including for 'environmental protection', 'animal health and welfare', and 'plant health' among others. These are areas which are directly relevant to agricultural regulation.

Section 6 of the Act requires the Scottish Government to publish a statement setting out their policy on, and how decisions will be made about, the use of the keeping pace power. The Act also requires the Scottish Government to produce an annual report of the use of the keeping pace power, which might also indicate future intentions of plans regarding alignment with EU law.

Agriculture and related areas such as animal welfare, environment and food safety are devolved areas, so in theory, the Scottish Government can continue to align with EU law in future. However, in practice, in the absence of any baseline of standards in the UK linked to EU standards, there have been concerns that regulatory divergence across the UK, other trade agreements, UK internal market considerations, and leaving centralised EU regulatory systems could put pressure on standards in Scotland and inhibit future alignment.

Box 8: Opportunities for Parliamentary Scrutiny

The Scottish Government will publish a policy statement on how it intends to use
its 'keeping pace' power. This is relevant to land use policies in terms of the
development of environmental, animal and plant health standards in Scotland
following EU exit.

Trade and agriculture

On leaving the EU, the UK also left the EU's single market.

When the UK was a member of the EU, agricultural producers had access to frictionless and tariff-free trade with the EU as a result of a shared policy framework for agriculture as well as common rules and standards.

In addition, the UK was covered by trade agreements between the EU and third countries, and did not have bilateral agreements with non-EU countries on its own. Having left the EU, the UK may strike Free Trade Agreements (FTAs) with other countries, but is no longer covered by the arrangements that that country has with the EU.

Food and drink is Scotland's largest export sector (in large part due to whisky exports); with a large proportion traded with the EU 35 . This is particularly important in certain sectors: 81.7% of UK beef exports went to EU countries in 2018; likewise 94.1% of UK

sheep meat exports went to EU countries in 2019. ³⁶ Post-Brexit trade arrangements with the EU and with other countries has therefore been a matter of significant importance for the agriculture sector.

Trade policy is reserved to the UK Government, and there is therefore no formal role for the Scottish Government in trade negotiations with third countries. However, the Scottish Government has sought more formal involvement in these processes, arguing that trade policy impacts on areas of devolved competence. In its most recent vision for trade, the Scottish Government stated:

"Responsibility for the regulation of international trade is reserved to the UK Parliament and Government, but the broad and increasing scope of modern trade agreements means that they often deal with, and merge, a range of reserved and devolved policy areas. International trade profoundly affects devolved policy areas and a wide range of non-devolved issues that affect the day-to-day lives of people in Scotland. The Scottish Government is also responsible for observing and implementing international obligations in devolved areas and these include some of the most contentious areas of trade such as agriculture and food standards. The UK Government should seek our agreement on priorities and the pursuit of its trade policy, as it can dramatically affect devolved policies, such as food standards. In current circumstances, and now that the direction of travel of the UK Government is clear, the Scottish Government's call for a comprehensive, formal role for devolved administrations and legislatures is even more important. This relationship needs good governance in line with our trade principles. ³⁷ "

With the EU, trading arrangements were settled with the ratification of the EU-UK Trade and Cooperation Agreement, which established that there are zero tariffs and zero quotas on the trade of goods between the UK and the EU. This was good news for many Scottish producers, as it meant that Scottish produce would not have tariffs imposed that would make them more expensive, and therefore less competitive, at the point of sale in the EU.

However, the deal did not include an agreement on regulatory alignment on food standards. As a result, non-tariff barriers such as extra paperwork (e.g. Export health certificates and other documentation) have resulted in trade difficulties and reduced trade volumes at the start of 2021. These recovered somewhat in the following months ³⁸, but some UK-wide industry stakeholders estimate that there will continue to be a long-term impact.

Box 9: Opportunities for Scrutiny in Session 6 - RECC legacy report

The Rural Economy and Connectivity Committee took evidence in February 2021 from stakeholders regarding the ongoing impact of new post-Brexit requirements for exports in Scotland's agriculture, fisheries and aquaculture sectors. In the Committee's Session 5 legacy report it concluded:

"The evidence the Committee took from stakeholders indicates that some of the difficulties currently being experienced are likely to continue for the foreseeable future and the Committee's successor/s may wish to consider ongoing work to assess the impact these are having on Scottish exporters and Government action and the provision of Government support to address them."

Moreover, the Committee also noted the "important role for the Scottish Parliament and its Committees in scrutinising the negotiation of international trade agreements, notably as these relate to areas falling within the Committee's remit such as agriculture, fisheries and the wider food and drink sector in Scotland. The Committee suggests that its successor committee/s may wish to consider how best to ensure ongoing and effective scrutiny in these areas during the course of Session 6."

Scottish farmers and crofters are generally thought to be high-quality and high-cost producers ³⁹, and the average livestock farm in the UK is small compared to farms in other countries. In a scenario where tariffs and quotas are not applied, this means that it may be difficult for Scottish and UK producers to compete with lower-cost, higher-volume producers in other countries. ³⁹ The cost of production may be lower elsewhere if, for example, environmental requirements are lower, or it is common to have larger-scale operations.

Furthermore, concerns for UK food standards as a result of trade deals have been voiced by both producers and consumers. Several consumer surveys have shown high support for maintaining food standards. James Withers, Chief Executive of Scotland Food and Drink told Session 5's Rural Economy and Connectivity Committee in September 2019 that

"It will be important, as we go into wider trade deals, that we do not use them to lower our standards...It is important that we do not take an opportunity to unpick the regulatory framework. To some extent, the industry is never a fan of regulation: people round this table will frequently complain about levels of regulation, but the reality is that regulation underpins our brand. We do not want to gold plate regulation, but we want to maintain our world class standards of food protection. 40 "

In Scotland's food and drink industry growth strategy – Ambition 2030 – high-quality production in terms of environmental and animal welfare standards is seen as key to Scotland's brand ⁴¹.

Likewise, environmental organisations have expressed concerns about the environmental outcomes from lowering or undermining domestic standards ⁴², and the risk of "exporting" environmental impacts abroad has also been raised. A reduction in standards is therefore often seen as counterproductive economically, as well as contrary to plans to address climate and environmental challenges.

The Scottish Government commissioned a study on the impact of Brexit scenarios on agricultural sectors. Whilst this was concluded prior to an agreement being reached with the EU and examined EU-UK trade scenarios in the main, the authors also highlighted the following with regard to FTAs with non-EU countries:

"FTAs with third countries or generous new TRQs [Tariff rate quotas*] will erode output gains: although this study did not specifically model the impact additional FTAs which the UK might agree with other non-EU countries, it is evident that any additional exposure to global competitors whose cost bases are lower and operate to different standards, will exert pressure on Scottish producers. Importantly, it was also assumed that the UK's existing standards (i.e. aligned with the EU's) were still in place. As such, there were still linkages with the EU market. Changed standards as a result of new FTAs would mean greater exposure to world market prices and an erosion of domestic prices, lowering output considerably. This would be most prevalent in beef but likely to have some effects on dairy products as well. Furthermore, if the UK introduces generous new TRQs (i.e. of a quantity greater than the UK's net imports with the EU), then Scottish producers will face greater competition from world markets and domestic output would reduce significantly as a result. ³⁹ "

*Tariff-rate quotas are a fixed volume of a product which can be imported at a lower tariff rate. Once that volume has been imported, any additional imports are charged at a higher tariff rate. The Scottish Farm Advisory Service provides a helpful explainer.

As a result of these concerns, during the passage of both the UK Agriculture Bill and the UK Trade Bill (both now Acts) MPs attempted to amend the legislation to require imported products to conform to UK standards.

These attempts were not successful; however, in response to concerns from farmers, environmental organisations and the public, the UK Government set up a non-statutory Trade and Agriculture Commission in July 2020. It was set up to advise the government on trade policies to ensure that UK agriculture remains competitive, and that environment and animal welfare standards are not undermined. The Commission was initially launched for a six-month period to report on trade and agriculture issues.

However, the Commission was put on a stronger footing in November 2020 in the final stages of passing the Agriculture Act 2020 and the Trade Act 2021. The Agriculture Bill was amended to require the Secretary of State to report to the UK Parliament on "whether, or to what extent" future free trade agreements

"are consistent with the maintenance of UK levels of statutory protection in relation to—

- (a) human, animal or plant life or health,
- (b) animal welfare, and
- (c) the environment."

At the same time, the Trade and Agriculture Commission was given a statutory role in providing advice on free trade agreements to the Secretary of State in the Trade Act. The Secretary of State must seek the advice of the Commission before producing such a report for Parliament under the Agriculture Act.

To date, the UK has struck free trade agreements with several countries, including Japan and Australia. The latter was seen as the first trade agreement which went beyond the

agreement that the UK had been covered by as an EU member state. Provisions for import of agricultural products from Australia were met with concern from both the Scottish Government, and the NFUS due to the possibility that imported food products from Australia could undercut Scottish producers. The discussion around the UK-Australia trade negotiation is covered in greater detail in a SPICe blog post.

Forestry

What does Scottish forestry look like?

The Scottish Forestry Strategy 2019-2029 states that:

"The forestry and timber sector comprises tree nurseries and businesses focused on planting, managing and harvesting forests and woodlands, as well as wood processors producing a range of wood products, including sawn timber, composite boards, paper, pallets, biomass and bark. Businesses range in scale from artisan furniture-makers, family-owned contracting micro-businesses and community-based biomass enterprises, to UK-wide woodland management companies and multi-million pound panel, pulp, paper and sawmills operating internationally. ⁴³ "

Forests make up 19% of Scotland's land area. ⁴⁴ This is just under half of the UK's forests and woodlands, and above the UK average coverage of 13%, but below the average of 42% among EU countries . Scotland has a goal of increasing woodland coverage to 21% by 2032 as part of commitments on climate change. ⁴⁵ To do so, there are commitments to plant 12,000 hectares per year in 2021/22, increasing to 18,000 hectares per year by 2024/25.

There are no strict technical differences between the definition of 'forests' and 'woodlands'. These terms are often used interchangeably. However, the terms 'forestry' and 'forest' are often -but not always - used to refer to commercial tree growing, whilst 'woodland' is often -but again, not always - associated with trees that are managed for recreational or environmental purposes. 'Forests' are also often used to refer to larger tree-covered areas, and 'woodland' to smaller pockets of trees within the landscape. ⁴⁶

Approximately 32% of Scotland's forest area is publicly owned, for example by Forest and Land Scotland (the Scotlish Government agency responsible for managing the national forest estate), and the remainder is privately owned. A more detailed profile of woodland ownership can be found in a 2021 Scottish Government publication.

74% of Scotland's wooded area is made up of conifers, and 26% is made up of broadleaved species. This is compared with 49% and 54% conifers in Wales and Northern Ireland respectively, and 26% conifers in England. 44

In Scotland, 58% of the stocked area of conifers is made up of fast-growing, non-native Sitka spruce. Many of Scotland's forests are for productive use and produce timber.

The area of Scottish native woodland (woodland where over 50% of the canopy is composed of native species such as birch, rowan, hazel, oak, scots pine, juniper, alder, willow, and ash) amounts to 32% of the total woodland area. This is less than the 49% of woodland across the whole of the UK classed as native; in England 62% is made up of

native species, followed by 48% in Wales. The Scottish Government has three targets to be met by 2020, set as part of its biodiversity policies, to:

- create 3,000-5,000 hectares of new native woodland per year;
- increase the amount of native woodland in good condition; and
- restore approximately 10 000 ha of new native woodlands into satisfactory condition in partnership with private woodlands owners through Deer Management Plans.

According to the most recent Scottish Government progress report to Parliament on the 2020 Route Map for Biodiversity (published in 2019 and covering the period 2017-2019), the native woodland creation targets were met in 2017/18 and 2018/19, but while progress is being made when it comes to increasing the amount of native woodland in good condition and restoring 10,000 hectares of native woodlands, it was insufficient to meet the targets by 2020. Some of Scotland's native woodlands are classed as 'ancient' woodlands – woods that have been wooded since at least 1750. They are important because of their rich flora and fauna - and because they have evolved over many centuries, they cannot be recreated if destroyed. ⁴⁷



"Scottish forest" by Jim Hedd is licensed under CC BY-SA 2.0

Woodland on farms has increased by 32% since 2010. Integrating forestry and farming is one of the Scottish Government's commitments as part of the updated Climate Change Plan, aiming to "boost our work on forestry and farming and develop models to increase woodland creation on both tenanted and owner-occupied farms, increasing the scale and scope of agro-forestry".

More forestry statistics can be found in Forest Research's annual publication updated each September.

A 2015 report on the Economic Contribution of Forestry in Scotland found that economic contributions of the sector had increased by 30% between 2008 and 2012/13. Approximately 80% of the economic contribution is attributed to forestry and timber processing, and the remaining 20% to recreation and tourism. In terms of employment, there were over 25,000 full-time equivalent staff working in the sector as of 2015.

Forest policy and governance

Forestry has long been a devolved matter, though its governance has changed in recent years. Until 2018, Forestry Commission Scotland (FCS) was the forestry agency of the Scotlish Government, but was linked to its counterparts in England and Wales. The organisations were all accountable to a single set of Forestry Commissioners. However, following similar legislative changes in Wales in 2013, this changed for Scotland with the passage of the Forestry and Land Management (Scotland) Act 2018 (the 2018 Act). Following the 2018 Act, the powers and duties held by the Commissioners were transferred to Scotlish Ministers (where they relate to Scotland). Two new organisations were established to replace FCS: Forestry and Land Scotland, and Scotlish Forestry. Forest and Land Scotland's role is to manage the Scotlish forest estate; Scotlish Forestry is responsible for forestry policy, regulation and grant payments.

A memorandum of understanding (MoU) between Scotland, Wales and England has divided up shared areas of responsibility. Scotland has responsibility for the UK Forest Standard and the Woodland Carbon Code (more on this below), as well as forestry economics, whilst Wales is responsible for coordinating the programme of forest research, and England is responsible for international forestry policy and certain forestry plant health functions.

Scottish Forestry published a new ten-year Scottish Forestry Strategy in February 2019. The strategy includes a fifty-year vision for Scottish forestry:

"In 2070, Scotland will have more forests and woodlands, sustainably managed and better integrated with other land uses. These will provide a more resilient, adaptable resource, with greater natural capital value, that supports a strong economy, a thriving environment, and healthy and flourishing communities."

It also includes three objectives:

- Increase the contribution of forests and woodlands to Scotland's sustainable and inclusive economic growth;
- Improve the resilience of Scotland's forests and woodlands and increase their contribution to a healthy and high quality environment;
- Increase the use of Scotland's forest and woodland resources to enable more people to improve their health, well-being and life chances;

And six priorities:

- Ensuring forests and woodlands are sustainably managed
- Expanding the area of forests and woodlands, recognising wider land-use objectives

- Improving efficiency and productivity, and developing markets
- Increasing the adaptability and resilience of forests and woodlands
- · Enhancing the environmental benefits provided by forests and woodlands
- Engaging more people, communities and businesses in the creation, management and use of forests and woodlands

In addition, a two-year implementation plan was published in 2020, prior to the Covid-19 pandemic. Whilst the implementation plan is still in force, it is being used alongside a recovery plan for the forestry sector.

Box 10: Opportunities for parliamentary scrutiny in Session 6

Under the Forestry and Land (Scotland) Act 2018, Scottish Ministers have a duty to report to the Scottish Parliament on the delivery of the Scottish Forestry Strategy every three years. The first of these reports is due in 2022.

Forestry grants

Scottish Forestry manages a programme of grants for woodland creation and management. These are part of the Scottish Rural Development Programme, which was part-funded by the EU until 2021. Following the UK's exit from the EU, forestry grants must now be funded entirely from domestic sources. As discussed previously in relation to agriculture, no long-term decisions on the future of rural policies have yet been made for Scotland. In the short-term, funding programmes are largely being carried over, and funding has been provided from the UK Treasury for the remainder of this UK Parliament.

In addition to grants, forestry receives other financial benefits. There is no income and corporation tax on income from timber sales, in the UK, nor capital gains tax on growing timber. In addition, there is 100% business property relief from inheritance tax on commercial woodlands after two years of ownership. ^{43 48} These tax arrangements are reserved to the UK Government.

Industry standards

In light of the role of forestry and forest management in sustainable land use, several industry standards and accreditation schemes have been established.

The most mainstream is the **UK Forestry Standard** (UKFS), which defines requirements and produces guidelines for sustainable forest management developed by the forest agencies of the UK and devolved governments. Forestry grant recipients are expected to adhere to UKFS requirements. The UKFS is reviewed and updated every three years; the next update is due in 2022.

The UKFS is divided into legal forestry requirements – i.e. those set out in law - and good forestry practice requirements. The latter are linked to international commitments and are

required for grant payment. The requirements are complemented by guidelines.

A second standard exists in the form of the **UK Woodland Assurance Standard** (UKWAS). This is a voluntary certification standard, and draws on the UKFS as the basis for best practice and combines with the requirements from two certification schemes; the Forestry Stewardship Council (FSC) and Programme for the Endorsement of Forest Certification (PEFC). UKWAS is independent of government and acts as an audit for the independent certification schemes, paid for by the forest or woodland owner. Promotion of UKWAS certification is one of the actions identified in the 2020-2022 Implementation Plan to deliver the forestry priority on sustainable management. The proportion of Scottish woodlands that are UKWAS certified is also a monitoring indicator for the Implementation Plan.

Finally, the **Woodland Carbon Code** is the quality assurance standard which generates carbon credits for woodland creation.

According to the Woodland Carbon Code:

- "Validation / verification to the code means that woodland carbon projects:"
 - are responsibly and sustainably managed to national standards;"
 - can provide reliable estimates of the amount of carbon that will be sequestered or locked up as a result of the tree planting;"
 - must be publicly registered and independently verified;"
 - meet transparent criteria and standards to ensure that real carbon benefits are delivered. ⁴⁹ "

The Code also plays a role in Scottish climate change plans. As part of forestry commitments, the Scottish Government has committed to

"further develop and promote the Woodland Carbon Code in partnership with the forestry sector, and will work with investors, carbon buyers, landowners and market intermediaries to attract additional investment into woodland creation projects and increase the woodland carbon market by 50% by 2025. 45 "

Timber production

Timber has a large number of uses and the timber industry comprises a variety of enterprises, from wood production and forest management to haulage and timber processing. Scotland's timber output is largely made up of softwood produced from Scotland's conifer plantations – 94% of Scotland's timber production was softwood in 2017



"Logs" by Iain Farrell is licensed under CC BY-ND 2.0

Currently, the UK imports 60% of its timber from overseas. ⁴³ Interest in timber as a building material is growing in response to climate change, due to its potential to replace higher-carbon alternatives.

In the Climate Change Plan Update, the Scottish Government committed to

" increase the use of sustainably sourced wood fibre to reduce emissions by encouraging the construction industry to increase its use of wood products where appropriate. 45 "

Forestry and the environment

Trees absorb carbon dioxide from the atmosphere. Forests are therefore known as 'carbon sinks', meaning that they remove carbon from the atmosphere and store it.

Forestry planting is a major pillar of the Scottish Government climate change strategy, with a target to increase woodland creation to 18,000 hectares per year by 2024/25.

However, forests and woodlands, depending on how they are created and managed, can provide additional benefits and contribute to climate change mitigation in different ways. A recent SPICe briefing - the Multiple Roles of Scottish Woodlands - highlights the complexity of woodland creation and management, with "suitability dependent on a number of social, ecological and economic factors". The location of the planted trees - and what existing habitats and landscapes any new woodlands replace - determines both the climate change mitigation value and the benefit for biodiversity. For example, one study from Stirling University and the James Hutton Institute found that planting trees on heather

moorlands with organic and peaty soils in Scotland did not lead to an increase in net ecosystem carbon stock from 12 to 39 years after planting 50 . The same is also true for how the forest is structured and managed.



Image by Nadia Tighe from Pixabay

Beyond carbon storage, Scottish woodlands also play a role as habitat for a wide variety of species, and in ecosystem services on water supply and regulation and biodiversity. In recognition of this interconnectedness, Scotland's Environment Strategy, published in February 2020, highlights that "the climate and nature crises are intrinsically linked" and that "creating and restoring natural habitats can benefit biodiversity" as well as mitigating climate change.

Environmental challenges such as climate change can also affect forests and woodlands. For example, changes to temperatures, rainfall and weather patterns can affect the prevalence and susceptibility of trees to pests and diseases ⁵¹.

Forests and people

Forests and woodlands are important areas for recreation and attract visitors and tourists. An assessment of the economic importance of Scottish Forestry in 2015 estimated that forest recreation and tourism employs more than 6,000 people in Scotland. Forests and woodlands are the second most-visited type of outdoor space in Scotland. Scotland's People and Nature Survey reported that "around a fifth of visits [to the outdoors] included a forest or woodland destination (19%), equating to an estimated 123.4 million visits over the 11 months from May 2019 to March 2020."

Community-run or -owned woodlands are also an important type of woodland for people.

There are over 200 community woodlands groups in Scotland who own or manage woodlands of various sizes for the purpose of recreation, supporting nature, economic or commercial reasons, renewable energy, or social inclusion. ⁵²

Hunting and wildlife management

Use of land for hunting is common in Scotland, targeting for example deer, grouse, pheasant or fox. In addition, hunting for certain protected species can take place under license. Hunting occurs both as a commercial event, such as on a sporting estate, or to control population numbers where these are considered problematic.

Deer management

There are four species of wild deer established in Scotland: two native species, roe deer and red deer; and two introduced species, sika and fallow deer.

Overall deer numbers have increased substantially over the last 50 years ⁵³, and in the absence of natural predators it is considered that deer numbers need to be managed to protect other public interests. Deer can cause extensive damage and conflict with land-management interests by overgrazing and trampling vulnerable habitats and preventing young trees from growing. Deer management raises issues in relation to animal welfare, biodiversity and climate change.

It is difficult to accurately determine deer populations. An estimate of 750,000 deer from all four species has been frequently cited, though, more recently, it has been suggested that the overall population is approaching one million deer (this is compared to 1.8 million cattle, and 6.6 million sheep). Red deer make up the largest group $\frac{53}{2}$.



"File:Red deer stag.jpg" by Mehmet Karatay is licensed under CC BY-SA 3.0

However, whilst national estimates are considered valuable, experts recommend focusing on the impacts of deer at different scales, rather than absolute numbers 53 .

Most wild deer populations are subject to some degree of management. This takes two forms, hunting or "stalking" by shooting, or fencing, either to keep deer in or out. Male deer are prized as sporting quarry, and their stalking is often let out commercially. Deer fencing is used widely to protect forestry, woodland, farm and croft land and other vulnerable habitats.

Under the Deer (Scotland) Act 1996, NatureScot (formerly Scottish Natural Heritage) is responsible for securing the conservation and sustainable management of deer in Scotland. The 1996 Act also sets close seasons (a period in each year during which no person can kill deer) for male and female deer of each species. Where deer are impacting on agriculture, forestry, the natural heritage or other public interests, Section 7 of the Act provides a mechanism for NatureScot to negotiate a (voluntary) control agreement with landowners, which would aim to reduce the impact of deer. Section 8 of the Act also provides backstop powers for NatureScot to implement a (compulsory) control scheme, including for NatureScot to carry out deer control, and recover costs. Section 8 powers have never been used.

Deer Management Groups have been formed over several decades to coordinate deer management between neighbouring landowners, initially covering the open hill range of red deer, but increasingly extending their geographic coverage to include lowland areas where all four deer species can be found. Since the 1960s, these groups have formed voluntarily, encouraged by the deer authority of the time, and since 1992, they have been represented collectively by the Association of Deer Management Groups. The purpose of the groups is to collaborate across a local area, and they are encouraged to produce deer

management plans.

Changes to deer management policy and legislation have been made in successive stages over the past few decades, with the aim of securing sustainable deer management which limits deer impacts:

- Changes to governance arrangements took place in the 1990s and 2000s, which ultimately resulted in NatureScot assuming responsibility for deer management in 2010.
- Part 3 of the Wildlife and Natural Environment (Scotland) Act 2011 made amendments
 to the 1996 Act. It required NatureScot to draw up a code of conduct on sustainable
 deer management, and provides powers for NatureScot to introduce a competence
 test for deer hunters by regulation, if the voluntary approach to securing this does not
 work.
- A Code of Practice on Deer Management was published in 2012.
- A revised deer strategy, Scotland's Wild Deer: A National Approach, was published in April 2015, following a review of the previous 2008 strategy.
- The Land Reform (Scotland) Act 2016 made further changes, including removing the
 exemption from non-domestic rates for shooting estates, requiring NatureScot to
 review the Code of Practice on Deer Management by 2019, and providing NatureScot
 with a power to require a deer management plan to be produced if certain conditions
 are met.

Despite these changes, the slow pace of progress towards achieving sustainable deer management has been criticized by successive Parliamentary committees.

In the autumn of 2013 the Rural Affairs, Climate Change and Environment (RACCE) Committee held a short inquiry into deer management in Scotland. The Committee found that of the 40 deer management groups then in existence, 16 had deer management plans, and a further 12 were developing plans. The Committee thought that progress towards all groups having effective and environmentally responsible plans had been too slow and called for all deer management groups to have such plans in place by the end of 2016. The Committee said that it would monitor progress against this, and that if a voluntary approach failed, would return to consider what further action might be necessary. The Government agreed with the Committee's finding that progress in adopting deer management plans across the board had been too slow.

As a result, NatureScot was required to carry out a review of the effectiveness of deer management in Scotland. Deer Management in Scotland: Report to the Scotlish Government from NatureScot was published in October 2016. A series of reviews of Deer Management Groups were also carried out in 2014, 2016 and 2019.

A further inquiry by the Environment, Climate Change and Land Reform Committee (the successor to the RACCE Committee) in 2017 assessed the findings of NatureScot's 2016 report. Expressing continuing concerns about the adequacy of existing deer management, the Committee concluded their inquiry by recommending that an independent working group be set up.

As a result, the Deer Working Group was established by the Scottish Government in 2017. It was asked to review the existing arrangements for the management of wild deer in

Scotland, and to make recommendations for changes to ensure their sustainable management. A comprehensive final report, The Management of wild deer in Scotland: Deer Working Group report was published in 2020. The report includes extensive recommendations including for legal changes to the Deer (Scotland) Act 1996 and for the Act to be ultimately replaced with a new Deer (Scotland) Act, changes to the circumstances in which deer can be killed lawfully, for the links between deer management and the attainment of other public objectives such as for forestry and climate change to be recognised more fully, and for updated guidance.

In response to recommendations, the Scottish Government said in March 2021 that "now is the time to step-up our deer management work", stating:

"The twin climate and biodiversity crises require a much greater urgency to our efforts to ensure sustainable deer management and we must recognise that more can and must be done to better realise our ambitious targets on vital issues such as forestry regeneration, woodland creation, peatland restoration and habitat improvement."

The Government accepted most of the recommendations in the report, with the caveat that many are detailed and will require further careful consideration or consultation. As part of its response, the Government committed to bring forward proposals to modernise the Deer (Scotland) Act in the next parliamentary term.

BOX 11: Opportunities for Parliamentary scrutiny in Session 6

It is expected that the Scottish Government will introduce legislation during Session 6 in response to recommendations of the Deer Working Group. The SNP manifesto stated a commitment to "implement the recommendations of the Deer Working Group and modernise deer management legislation."

Grouse

Managing grouse moors for 'driven grouse shooting' is also a common form of land use and management in Scotland. Driven grouse shooting is the practice of using 'beaters' – people on foot – to flush the birds from the ground to be shot by a line of hunters. This type of land management has also been the subject of a major review during Session 5.

High numbers of grouse are maintained on grouse moors in order for large numbers of birds to be available for the shoots. Management involves muirburn (burning heather), feeding the birds medicated grit to control disease, and predator control 54 .



Image by dpexcel from Pixabay

Driven grouse shooting has been a controversial topic for many years, the debate on the one hand emphasising the contribution to the rural economy, and on the other, the environmental impact of grouse moor management practices and reported links to illegal killing of birds of prey to prevent these from predating grouse.

A 2017 NatureScot (formerly Scottish Natural Heritage) report recorded that 40 out of 131 satellite-tagged young golden eagles had disappeared in suspicious circumstances, mostly on or near grouse moors. In response to this report, the Scottish Government set up an independent group to:

"examine the environmental impact of grouse moor management practices such as muirburn, the use of medicated grit and mountain hare culls and advise on the option of licensing grouse shooting businesses. In doing so it will look at what can be done to balance the Government's commitment to tackling wildlife crime with grouse moor management practices, so that this form of management continues to contribute to our rural economy, while being sustainable and compliant with the law."

As part of the review, research on the Socioeconomic and Biodiversity Impacts of Driven Grouse Shooting in Scotland was commissioned from the SEFARI institutes.

The Grouse Moor Management review group delivered their report to the Scottish Government in December 2019. The report made a number of recommendations.

In response, the Scottish Government announced in November 2020 that licensing for grouse moors would be introduced in Session 6. Licenses could then be withdrawn if strong evidence of illegal activity or breached codes of practice are found. In addition, the Scottish Government announced that it would introduce license requirements for muirburn and significantly restrict burning on peatlands.

Box 12: Opportunities for Parliamentary scrutiny in Session 6

It is anticipated that primary legislation to license grouse moors and regulate muirburn will be brought forward in Session 6 as per commitments made at the end of Session 5. The SNP manifesto stated a commitment to "implementing the licensing of driven grouse shooting."

Hunting with dogs

The Parliament legislated on the hunting of wild mammals with dogs in the Protection of Wild Mammals (Scotland) Act 2002.

The Act includes a number of exceptions which continues to allow the use of a dog or dogs to flush wild mammals from cover in order for them to be shot, for the purpose of preventing attacks on livestock, ground-nesting birds, timber, game-birds, fowl, or crops, to protect human health, prevent the spread of disease, for pest control or animal welfare purposes. The exception provides a defence if the dog(s) then go on to hunt and kill the wild mammal. This exception has allowed mounted foxhunts to continue in Scotland for the purposes listed above.

In response to concerns that the exceptions in the law were allowing fox hunting practices to continue unchanged and an overall concern that the legislation was not functioning as intended, a review of the 2002 Act was carried out by Lord Bonomy in 2016. The remit of the review was to "ascertain whether it is providing a sufficient level of protection for wild mammals, while at the same time allowing effective and humane control of animals, such as foxes, where necessary". The **Report of the Review of the Protection of Wild Mammals (Scotland) Act 2002** was published in November 2016.

The review concluded that "there are aspects and features of the legislation which complicate unduly the detection, investigation and prosecution of alleged offences; secondly, that there is a basis for suspecting that there may be occasions when hunting, which does not fall within one of the exceptions, does take place and that the grounds for that suspicion should be addressed." As a result, it made a number of recommendations for change.

As a result of the review, the Scottish Government concluded that a number of changes would be made, and new legislation would be brought forward to limit the number of dogs that can be used to find or flush a fox to two, bringing Scotland into line with the rules in England and Wales. However, progress on this legislation was halted on 1 April 2020 as a result of the Covid-19 pandemic.

Box 13: Opportunities for Parliamentary scrutiny in Session 6

Ahead of the start of Session 6, the SNP included a commitment to address fox hunting legislation in its election manifesto.

Nature-based Solutions

Nature-based solutions use natural processes to address major challenges that society faces in a way that also benefits nature. Most commonly, they are discussed in relation to nature-based solutions to climate change and biodiversity loss, for example, where restoration of habitats contributes to carbon storage or climate change adaptation, whilst supporting biodiversity.

As the weight of evidence and need for concern around climate change and biodiversity loss have become clearer, land uses have diversified to include:

- Land use for carbon storage to mitigate climate change, for example in peatlands, coastal habitats and forests;
- · Land use for climate change adaptation, for example for flood prevention; and
- · Land use to support biodiversity, such as habitat creation.

All of these land uses can - and often do - overlap with each other, and with other land uses such as agriculture and commercial forestry.

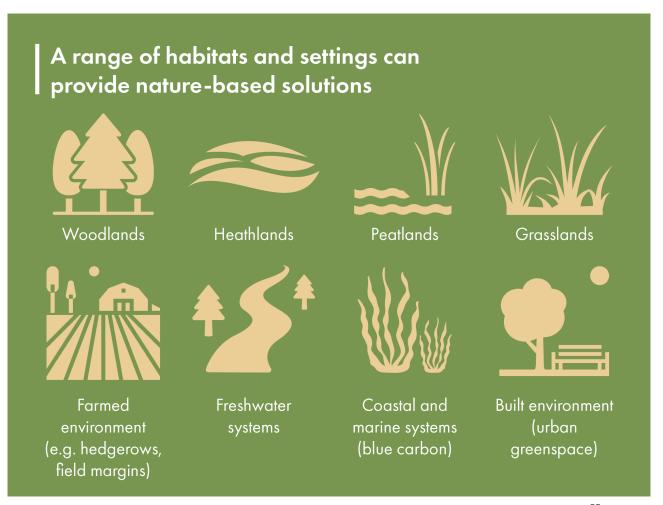
In Scotland, the nature-based solutions that are most often discussed are:

- forestry, including both planting new forests and managing existing ones to ensure long-term carbon storage; and
- peatland restoration, where management restores degraded peatlands which emit greenhouse cases into the atmosphere, to healthy peatlands which can absorb and store greenhouse gases.

Nature-based solutions can also take other forms, such as restoring coastal habitats such as saltmarsh, good soil management on agricultural land, planting hedgerows and creating wildlife habitat on farmland, planting trees in urban environments, managing freshwater environments to support carbon storage, climate change adaptation, and biodiversity. ⁵⁵

More information on nature-based solutions can be found in the environment subject profile.

Figure 5: Habitats that can provide nature-based solutions



Nature-based solutions to climate change in the UK, Report from the British Ecological Society. Stafford, 2021⁵⁵

Food policy

Food policy encompasses a broad range of issues related to food, from primary production (e.g. farming, crofting and fishing); processing, supply chains, marketing and distribution; trade; food safety and regulation; financial and geographical access to food, food poverty and social security; diets and health; food waste; and cumulative impacts, for example on the environment. Most, but not all, of these areas are devolved to Scotland.

In terms of food production, food and drink is Scotland's largest export sector (in large part due to whisky exports) and is the subject of a number of industry strategies.

Ambition 2030, the food and drink industry's growth strategy, was published in 2018. It outlines an aim to double the value of food exports and turnover within farming, fishing and food and drink by 2030.

Some food and drink sectors were heavily impacted by the Covid-19 pandemic and the end of the Brexit transition period. As has been discussed in earlier sections of this briefing, trade-related issues as a result of Brexit, as well as rapid changes to food consumption patterns during the pandemic restrictions resulted in a changed context. As a result, food and drink industry partners published a recovery plan in November 2020, to build on Ambition 2030 in the context of recovery from these challenges.

BOX 14: Who regulates food in Scotland?

Food Standards Scotland was set up in 2015 under the Food (Scotland) Act 2015 and is the public sector food body for Scotland. It has three main responsibilities:

- To protect the public from risks to health which may arise in connection with the consumption of food
- To improve the extent to which members of the public have diets which are conducive to good health
- · To protect the other interests of consumers in relation to food

Local authorities also have a role as 'food authorities' in the enforcement of food and feed law, for example, enforcing food hygiene standards in cafes, pubs and restaurants. Local authorities also have a role in the import and export of food produce, for example, issuing export health certificates. Food Standards Scotland monitors the performance and promotes best practice of the food authorities as part of their general functions.

In addition, policies related to food are regulated from many different angles. For example, primary production, such as agriculture and fisheries, each have separate extensive regulatory frameworks which are regulated by separate Scottish Government departments. Likewise, access to food and food poverty are addressed through social security policies, and waste and environmental impacts from food production regulated by the Scottish Environment Protection Agency (SEPA).

Efforts were made during previous sessions to create a more holistic and cross-cutting food policy, encompassing the food system from farm to fork and beyond.

Scotland's most recent national food and drink policy – Becoming a Good Food Nation – was produced in 2014.

The document recognised both Scotland's food production successes, as well as the paradox of Scotland's "uneasy relationship with food" when it comes to inequality and health, and the impact of food production on the environment.

As part of the strategy, a non-statutory Scottish Food Commission was established in 2015. In 2017, it recommended that new framework legislation should be brought forward to join up food-related issues across policy areas. The group recommended that it should include statutory duties on public bodies, measures to tackle food poverty, an independent statutory body on food, and measures to improve healthy eating.

At the start of Session 5, the Scottish Government announced intentions to consult on a cross-cutting Good Food Nation Bill. Later the same year, a Short-Life Working Group on food poverty recommended that a right to food should be enshrined in Scots law. In its response, the Scottish Government stated intentions to explore this through the Good Food Nation Bill. A consultation on the Bill was published in late 2018. It did not propose to enshrine the right to food as part of this bill, but rather for it to be considered as part of wider work to incorporate human rights.

A Good Food Nation Bill was committed to in the 2019-20 Programme for Government; however due to the COVID-19 pandemic, the Bill was postponed on 1 April 2020. Instead, in August 2020, the Cabinet Secretary stated that a statement of policy on food:

"will incorporate the experience gained in response to the Covid-19 pandemic, ongoing work under the umbrella of the Good Food Nation policy and, more widely, work such as the EU Farm to Fork Strategy and the UK Government's National Food Strategy. The intention is that this work will be led by the Ministerial Working Group on Food to ensure that the cross cutting approach that is needed to take forward key aspects of national policy is in place."

Box 15: Opportunities for parliamentary scrutiny in Session 6

The Cabinet Secretary reiterated that work was underway in January 2021, but this was not published before the end of Session 5. In addition, the National Taskforce for Human Rights Leadership has recommended incorporation of ICESCR, which includes the right to food, as part of a new statutory framework for human rights in Scotland.

Moreover, in its 2021 election manifesto, the SNP committed to establishing a new Scottish Food Agency "to promote food, drink and horticulture, attract investment, help increase processing capacity and improve supply chains and infrastructure".

In the Rural Economy and Connectivity Committee's Session 5 legacy report the Committee noted that its

"recent scrutiny of the Climate Change Plan update has highlighted the continued importance of an integrated approach to food policy and the important role of a Good Food Nation Bill in providing a framework for such an approach. In this context, the Committee draws the attention of its successor/s to ongoing commitments from the Scottish Government to applying the principles of a Good Food Nation and suggests it / they may wish to factor ongoing scrutiny of food policy, including the potential introduction of a Statement of Policy on Food and a Good Food Nation Bill, into its / their work programme for Session 6."

Land use and the climate and nature crises

Session 5 saw through new Scottish climate change legislation - the Climate Change (Emissions Reduction Targets) (Scotland) Act 2019 - as well as a new update to the Scottish Government's statutory Climate Change Plan (the 'CCPu'). Both developments have impacted the future of agriculture and agricultural policy.

In addition, successive national and international reports in recent years have emphasised the severity of the situation facing the climate and nature, with implications for agriculture and land use.

Climate change has been recognised as a threat for many years, and has been the subject of coordinated global policy and legally-binding international targets since the 1990s.

Scotland has had its own statutory (legally-binding) climate change targets since 2009. This legislation was updated in 2019 to reflect developments in international commitments. As a result of the Climate Change (Emissions Reduction Targets) (Scotland) Act 2019, the Scottish Government has a duty to reduce national greenhouse gas emissions to 'net-zero' (that is, where absorption of greenhouse gases from activities in Scotland equals or exceeds Scottish greenhouse gas emissions) by 2045. It also has a duty to reduce emissions by 75% compared to a 1990 baseline by 2030.

The Scottish Government's policies and actions on climate change are set out in its climate change plans. The most recent full plan was published in 2018, but it was updated in December 2020 to reflect new climate change targets and the need for a 'green recovery' following the Covid-19 pandemic.

Agriculture, forestry and other land uses play a major role in Scotland's climate change plans, with commitments to, among other things:

- Increase the area of woodland in Scotland to 21% and increase the area of new forests planted to 18,000 hectares per year to 2024/5
- Provide funding to enable at least 20,000 hectares of peatland restoration per year.
- Develop a new rural support policy "to enable, encourage and where appropriate, require the shift to low carbon, sustainable farming through emissions reduction, sustainable food production, improving biodiversity, planting biomass crops and appropriate land use change developed in line with just transition principles"
- Develop new schemes to support low carbon, sustainable farming
- Introduce environmental conditions on receiving rural suppose payments
- Enhance advisory services and undertake knowledge transfer initiatives
- Carry out research, consult and work with stakeholders on solutions in a number of other areas.

Climate Change is governed at an international level by the UN Framework Convention on

Climate Change (UNFCCC) which hosts an annual Conference of the Parties (COP) to assess progress and determine next steps. At COP21 in Paris in 2015, a target to limit global warming to 'well below 2 degrees Celsius' and aiming for 1.5 degrees Celsius, was set. The next COP - COP26 - is due to be held in Glasgow in November 2021. A useful infographic on COP26 and how the intergovernmental climate change process works has been published by the Energy & Climate Intelligence Unit, and a SPICe briefing is also available with more detail on the conference and its intended outcomes.

Alongside the climate crisis, it is also recognised that the world is in a **biodiversity crisis** (sometimes also referred to as the nature crisis). Climate change is one of a number of drivers for global biodiversity decline, which has seen high levels of extinctions, loss of habitats and ecosystems, and reductions in ecosystem functions which humans rely on. A useful infographic is available from the World Resources Institute, which outlines the difference between 1.5 and 2 degrees warming for nature and for people, with greater impacts on crop yields, fisheries, sea-level rise and species loss at greater degrees of global warming. This has led to both challenges together being commonly referred to as 'twin crises'.

Figure 6: Key pressures on nature in Scotland



Pressures on nature identified in the State of Nature Scotland 2019 report. Walton, 2019⁵⁶

Moreover, the drivers for both of these global environmental challenges are interlinked. Both climate change and biodiversity loss is driven by land use change, overexploitation of natural resources, and pollution, among other things. 57 58

Biodiversity is also governed at an international level by a UN process: the UN Convention on Biological Diversity (CBD). This convention also hosts an annual Conference of the Parties (COP), and determines global biodiversity targets on a 10-year cycle. The 2010-2020 Aichi Targets were due to be updated in 2020, but the COP process was delayed due to the Covid-19 pandemic. COP15 is now due to be held in Kunming, China, in October 2021, though it has been reported that there may be further delays.

Scotland does not have statutory domestic targets for biodiversity, but it does have a Biodiversity Strategy, which is also due to be updated alongside the international targets.

The Scottish Government published a Statement of Intent on Scottish biodiversity policy post-2020, which highlighted the links to land use and land use policy:

"We are already working in partnership to develop new rural support measures that result in transition to a sustainable sector that more directly and explicitly supports our climate and environmental ambitions. Scotland's farmers and food producers will play a key role in reversing ecological decline and climate change. ⁵⁹ "

Beyond Scotland, there are plans to set out for a legally-binding English target to halt species decline, and calls for a global target to protect 30% of land, freshwater and oceans for biodiversity by 2030.

Therefore, as a result of the clear evidence base around the climate and ecological crises, these have become major drivers for policy change within land use-sectors.

Box 16: Opportunities for Parliamentary scrutiny in Session 6- ECCLR legacy report

- An annual report on the Climate Change Plan is required to be laid before Parliament each year. The reports outline progress against climate-related objectives, including within the land use sectors. The most recent report was published in May 2021.
- The next full Climate Change Plan. In June 2021, the publication of Scotland's 2019 emissions statistics showed that emissions targets had been missed by 4.5%. In response, Cabinet Secretary Michael Matheson committed to "urgently develop a catch-up report on the missed 2019 target and aim to publish it in six months at the very latest. Looking further ahead into the session, [...] the next full climate change plan [will] be brought forward as soon as possible. That approach reflects the urgency that the climate emergency demands." More information on Scotland's climate change plans can be found in the SPICe climate change subject profile.
- A new biodiversity policy is due to be published within 12 months of new global biodiversity targets being agreed at COP15 and is likely to address land use.

In addition, the Environment, Climate Change and Land Reform Committee highlighted in their legacy report for Session 5 that

"Successor committees may wish to work to identify the key interventions needed to mainstream nature recovery in Scotland, including opportunities to address climate change and biodiversity loss as twin crises.

"Key opportunities for further work and influence may include:

- "Considering of how any global biodiversity agreement should be translated into biodiversity targets and action in Scotland;
- "Scrutinising the third Land Use Strategy and consider its alignment with other key strategies such as the updated Climate Change Plan, future rural policies and NPF4;
- "Monitoring the implementation of the Land Use Strategy through the Scottish Government's annual reports to Parliament and assess the extent to which more integrated land use is visible in practice;
- "Considering how to engage across Parliament on nature recovery e.g. integrating issues in scrutiny of planning, infrastructure and financing policies;
- "Engaging with the Government, Scottish Land Commission and other stakeholders on the development of Regional Land Use Partnerships;
- "Monitoring implementation of recommendations of the Werritty review, in particular exploring the most appropriate model for grouse moor licensing;
- "Monitoring implementation of the recommendations of the Deer Working Group report;

- "Monitoring achievement of targets for nature-based solutions, and;
- "Scrutinising the coherence of Government policy on peatlands across commitments on peatland restoration and peatland protection."

Key evidence and sources

The way land is used and managed, and changes in land use, can either contribute to, or mitigate, climate change. As a result, agriculture, forestry, and other land uses and management techniques are often discussed as drivers of climate change and biodiversity loss, and hold solutions to mitigate these challenges. However, land uses are also impacted by both climate change and biodiversity loss. In addition, food and other natural resources are of course essential for human survival and wellbeing; as a result, producing them sustainably is key to addressing both challenges.

Several high-profile assessments have been published in recent years, detailing the evidence surrounding both climate change and biodiversity loss. These are covered in brief here, highlighting their relevance for agriculture and land use.

International assessments

The IPBES Report

IPBES stands for the Intergovernmental Science-Policy Platform for Biodiversity and Ecosystem Services. This intergovernmental collaboration of scientists and experts published their Global Assessment Report on Biodiversity and Ecosystem Services in May 2019. The report found unprecedented declines in nature, with land use change, such as for agricultural expansion or for forestry, being the largest driver globally. Other identified direct drivers are overexploitation of natural resources, climate change, pollution and invasive non-native species. The report also highlights that "harmful economic incentives...are often associated with land-/ sea-use change and overexploitation of natural resources, as well as inefficient production and waste management." ⁶⁰ It concluded that

" "global goals for conserving and sustainably using nature and achieving sustainability cannot be met by current trajectories, and goals for 2030 and beyond may only be achieved through transformative changes across economic, social, political and technological factors." ⁶¹ "

The IPCC's reports

IPCC stands for the Intergovernmental Panel on Climate Change. It is the United Nations body for assessing the science related to climate change. The IPCC Special Report on Climate Change and Land was published in January 2020, and outlined the links between climate change and land use, and explored the implications of different socio-economic pathways on climate change mitigation, adaptation and land use. ⁶² Among a number of conclusions, the report highlights that:

""Climate change creates additional stresses on land, exacerbating existing risks to livelihoods, biodiversity, human and ecosystem health, infrastructure, and food systems (high confidence). Increasing impacts on land are projected under all future GHG emission scenarios (high confidence).""

and

"The level of risk posed by climate change depends both on the level of warming and on how population, consumption, production, technological development, and land management patterns evolve (high confidence). Pathways with higher demand for food, feed, and water, more resourceintensive consumption and production, and more limited technological improvements in agriculture yields result in higher risks from water scarcity in drylands, land degradation, and food insecurity (high confidence).""

Some of these effects have begun to be seen across the world. In Scotland, a report commissioned by WWF Scotland estimated that Scottish farmers and crofters incurred losses of £160m as a result of extreme weather in 2017/18 (heavy snow in the winter/spring and a very hot summer). ⁶³

UK and Scottish reports

Reports at the UK and Scottish levels have emphasised similar issues at home.

UK Committee on Climate Change

Land Use: Policies for a Net-Zero UK

The UK Committee on Climate Change (CCC) published a special report on land use and climate change in January 2020. The report sets out the contribution required from the land use sectors to achieve the UK's net-zero targets.

The report concludes that current policies are not delivering the required changes, though there are opportunities to implement new policy frameworks that support a transition to low-carbon farming. The report stresses that farmers and land managers must be financially supported to address the private costs required to deliver necessary public benefits.

The report identifies five key actions, all of which have implications for agriculture. These are:

- Low-carbon farming practices, the report cites controlled release fertilisers, improving livestock health and slurry acidification as examples
- Afforestation and agro-forestry. The report notes that "planting trees on agricultural land, while maintaining their primary use ("agroforestry"), could deliver a further 6 MtCO₂e savings by 2050" 1
- Peatlands. The report notes that "restoring at least 50% of upland peat and 25% of lowland peat would reduce peatland emissions by 5 MtCO₂e by 2050, while allowing food production to continue on the most productive land" ¹
- Bioenergy crops. Expanding growth of energy crops would deliver emissions savings

from the growth of the crop as well as from the harvested biomass, but only when used with carbon capture and storage. However the CCC also note the potential risks of bioenergy crops, for example negative impacts on biodiversity due to monocultures

• Reducing consumption of the most carbon-intensive foods (i.e. beef, lamb and dairy) the report notes that a reduction of "at least 20% per person and reducing food waste by 20% would save 7 MtCO₂e of on-farm emissions by 2050". The report goes on to state that "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"

The CCC also publishes an annual progress report to the Scottish Parliament. In October 2020, the CCC stated that there has been "no meaningful progress on tackling agricultural emissions in Scotland", and agriculture is an "area of concern". ²⁴

They note that both existing policy and funding is insufficient to bring about transformational change. The CCC particularly stressed the absence of policies to deliver emissions reductions for agriculture in Scotland, and that "the Scottish Government has not yet included climate mitigation and adaptation as key 'public goods' to be paid for as part of Scotland's overhaul of agriculture and land policy". The Climate Change Plan update published in December 2020 does partly address this, and explicitly states that climate change mitigation is one of the objectives of a new land use policy.

As a result, one of the overall strategic climate change priorities for Scotland is to "Develop a new rural support scheme that builds towards Scotland's climate goals".

State of Nature reports

Assessments on the 'state of nature' in the UK as a whole and in the devolved administrations are produced every three years. The most recent State of Nature report was published in 2019 and the Scotland report highlighted that "There has been no let-up in the net loss of nature in Scotland."

Whilst the report highlights improvements in some areas, such as reduced freshwater pollution – which is often linked to agriculture – and the increasing adoption of wildlife-friendly farming techniques, it also notes that land use and land use changes are among the main drivers of change for biodiversity.

Emissions Statistics for Scotland

Every year, the Scottish Government is required to publish emissions statistics for Scotland. These are Scotland's 'source emissions', that is, emissions that are produced and emitted in Scotland. They do not include emissions that result from goods and services consumed in Scotland but which originate from abroad.

Scottish emissions statistics are usually published in June and refer to emissions from two years prior. In other words, the most recent update, published in June 2021 are for greenhouse gases emitted up to 2019.

The 2021 update shows that agriculture is the third-largest emitting sector in Scotland after

transport and business (e.g. industrial and commercial) emissions, responsible for 15.7% of Scotland's greenhouse gas emissions.

The so-called "land use, land use change and forestry" sector encompasses emissions from other land uses such as forestry, peatlands and wetlands, and grasslands, and emissions that result from land use change (i.e. deforestation or planting forests, conversion of grassland to cropland and so on). This sector is responsible for 5.6% of Scottish greenhouse gas emissions, the fifth largest emitter. This sector's net emissions includes both sequestration (where land and land use results in greenhouse gases being *removed* from the atmosphere), for example from forestry and from healthy peatlands, and emissions, for example from degraded peatlands, where carbon is being lost from those habitats.

Stakeholder reports

As noted above, land uses are both *drivers* of these environmental impacts, as well as *key solutions*. There have been several reports in recent years which address the role of land use in climate change and biodiversity loss, and propose ways in which this impact can be reduced. A sample of these include:

- A 'transformation pathway' for agriculture produced by the Farming for 1.5°C Inquiry –
 a collaboration between academics, food producers and farming organisations and
 environmental organisations.
- A series of sector-based climate change reports produced by stakeholder panels in different agricultural sectors. A collection of final and interim reports were published at the end of Session 5, in March 2021.
- A report from the Organic Policy, Business and Research Consultancy, commissioned by WWF Scotland, investigating whether, how and at what cost agricultural GHG emissions in Scotland could be reduced by 35% by 2045.

Rural affairs research

Scotland has a number of bodies and institutions which have a focus on rural affairs and land-based research.

The Scottish Government's Rural & Environment Science and Analytical Services (RESAS) division commission and carry out research to inform policy development. Their research is carried out according to a strategy published every five years. The most recent strategy covering 2022-2027 was published in March 2021.

The research is carried out by six main research providers: James Hutton Institute, Scotland's Rural College, Moredun Research Institute, Royal Botanic Garden Edinburgh, Biomathematics and Statistics Scotland and Rowett Institute.

These institutes operate individually but also collectively as 'SEFARI' – the Scottish Environment, Food and Agriculture Research Institutes - and have a joint knowledge exchange centre, the SEFARI Gateway.

The RESAS research programme draws on expertise from other research institutes, and the main research providers also carry out research beyond the Scottish Government strategic programme.

Cover Image credit

Cover image: Image by Greg Montani from Pixabay

Bibliography

- Scottish Government. (2019, June 11). Agriculture Facts and Figures 2019. Retrieved from https://www.gov.scot/publications/agriculture-facts-figures-2019/ [accessed 18 May 2021]
- Scottish Government. (2019, October 16). Seed potato Brexit concerns. Retrieved from https://www.gov.scot/news/seed-potato-brexit-concerns/ [accessed 1 June 2021]
- Scottish Government. (2017, June 20). Agriculture Maps. Retrieved from https://www.gov.scot/publications/agriculture-maps/ [accessed 19 May 2021]
- 4 Climate XChange. (2013). NA9 Proportion of farmland (Utilised Agricultural Area) under High Nature Value farming systems. Retrieved from https://www.climatexchange.org.uk/research/indicators-and-trends/indicators/na9-proportion-of-farmland-utilised-agricultural-area-under-high-nature-value-farming-systems/ [accessed 18 August 2021]
- Scottish Government. (2019, July 5). Review of the environmental and socio-economic barriers and benefits to organic agriculture in Scotland. Retrieved from https://www.gov.scot/publications/review-environmental-socio-economic-barriers-benefits-organic-agriculture-scotland/ [accessed 18 August 2021]
- Scottish Organic Producers' Association. (2021). Organic Farming is about working with nature rather than against. Retrieved from http://www.sopa.org.uk/about_organics/organic_farming [accessed 18 August 2021]
- Scottish Government. (2021). Food and Drink. Retrieved from https://www.gov.scot/policies/ food-and-drink/ [accessed 19 May 2021]
- Scottish Government. (2020, August 25). Scottish agriculture tables economic report: 2020 edition. Retrieved from https://www.gov.scot/publications/economic-report-on-scottish-agriculture-tables-2020-edition/ [accessed 18 May 2021]
- 9 Scottish Parliament. (2010, August 6). Crofting Reform (Scotland) Act 2010. Retrieved from https://www.legislation.gov.uk/asp/2010/14/contents [accessed 15 April 2021]
- 10 Crofting Commission. (2020). 2019/20. Retrieved from https://www.crofting.scotland.gov.uk/ userfiles/file/annual_report_and_accounts/LOW-RES-4398-CC-Annual-Report-2019-20-STATS.pdf [accessed 15 April 2021]
- 11 Crofting Commission. (2021). Crofting. Retrieved from https://www.crofting.scotland.gov.uk/crofting [accessed 15 April 2021]
- Scottish Government. (2018, December 18). Economic conditions of crofting 2015-18: survey. Retrieved from https://www.gov.scot/publications/survey-economic-conditions-crofting-2015-2018/ [accessed 13 May 2021]
- Scottish Government . (2017, June 23). Women in farming and the agriculture sector: research report. Retrieved from https://www.gov.scot/publications/women-farming-agriculture-sector/ [accessed 13 May 2021]

- Scottish Government. (2018, April 12). Crofting update. Retrieved from https://blogs.gov.scot/rural-environment/2018/04/12/crofting-update/ [accessed 18 May 2021]
- Scottish Parliament Rural Economy and Connectivity Committee. (2019, October 11). Letter from the Cabinet Secretary to the Rural Economy and Connectivity Committee. Retrieved from https://archive2021.parliament.scot/S5_Rural/RECC_20191011_Cab_Sec_RE_-_Crofting_Bill.pdf [accessed 18 May 2021]
- Scottish Government. (2021, March 18). A National Development Plan for Crofting. Retrieved from https://www.gov.scot/publications/national-development-plan-crofting/ [accessed 18 May 2021]
- 17 The World Trade Organisation. (2021). Domestic support in agriculture: The boxes. Retrieved from https://www.wto.org/english/tratop_e/agric_e/agboxes_e.htm [accessed 2 June 2021]
- European Commission. (2021). Cross-compliance. Retrieved from https://ec.europa.eu/info/food-farming-fisheries/key-policies/common-agricultural-policy/income-support/cross-compliance_en [accessed 2 June 2021]
- 19 Scottish Government. (2018, June 20). Stability and simplicity: proposals for a rural funding transition period. Retrieved from https://www.gov.scot/publications/stability-simplicity-proposals-rural-funding-transition-period/ [accessed 1 June 2021]
- Scottish Land & Estates. (2019, September). #Route2050. Retrieved from https://www.scottishlandandestates.co.uk/route2050 [accessed 1 June 2021]
- National Farmers Union for Scotland. (2018, March). STEPS TO CHANGE: A New Agricultural Policy For Scotland. Retrieved from https://www.nfus.org.uk/userfiles/images/ Policy/Brexit/STEPS%20FOR%20CHANGE%20March%202018%20-%20for%20email.pdf [accessed 1 June 2021]
- Scottish Crofting Federation . (2021, March 18). Proposals for parties' manifestos: What SCF wants to see in manifestos for the 2021 election. Retrieved from https://www.crofting.org/wp-content/uploads/2021/03/Proposals-for-parties-manifestos.pdf [accessed 1 June 2021]
- Scottish Environment LINK. (2020, August). 'Renewing Scotland's Rural Areas' Revisited How to transition from the CAP to a new regime of rural support. Retrieved from https://www.scotlink.org/wp-content/uploads/2020/08/Renewing-Scotlands-Rural-Areas-revisited.pdf [accessed 1 June 2021]
- UK Committee on Climate Change. (2020, October 7). Reducing emissions in Scotland 2020 Progress Report to Parliament. Retrieved from https://www.theccc.org.uk/publication/ reducing-emissions-in-scotland-2020-progress-report-to-parliament/ [accessed 20 May 2021]
- Scottish Parliament. (2019, November 20). Official Report: 20 November 2019. Retrieved from http://www.parliament.scot/parliamentarybusiness/report.aspx?r=12386 [accessed 2 June 2021]

- UK Government. (2020). United Kingdom Internal Market Act 2020 Explanatory Notes. Retrieved from https://www.legislation.gov.uk/ukpga/2020/27/notes/division/3/index.htm [accessed 14 August 2021]
- 27 Scottish Government. (2021, March 8). After Brexit: The UK Internal Market Act and devolution. Retrieved from https://www.gov.scot/publications/brexit-uk-internal-market-actdevolution/documents/ [accessed 14 August 2021]
- Scottish Parliament Finance and Constitution Committee. (2020, September 2). Official Report: Finance and Constitution Committee. Retrieved from http://archive2021.parliament.scot/parliamentarybusiness/report.aspx?r=12797 [accessed 14 August 2021]
- European Commission. (2021). Questions and Answers: Study on New Genomic Techniques. Retrieved from https://ec.europa.eu/food/plants/genetically-modifiedorganisms/new-techniques-biotechnology/ec-study-new-genomic-1_en [accessed 17 August 2021]
- Scottish Parliament. (2021, January 21). Official Report: Meeting of the Parliament 21 January 2021. Retrieved from http://archive2021.parliament.scot/parliamentarybusiness/report.aspx?r=13068 [accessed 14 August 2021]
- UK Government. (2021, June 30). Government response to the consultation on subsidy control. Retrieved from https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/998078/subsidy-control-government-response.pdf [accessed 14 August 2021]
- Joint Ministerial Committee (EU Negotiations). (2017, October 16). JOINT MINISTERIAL COMMITTEE (EU NEGOTIATIONS) COMMUNIQUE 16 October 2017. Retrieved from https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/652285/Joint_Ministerial_Committee_communique.pdf [accessed 2 June 2021]
- National Farmers Union Scotland. (2021, July 6). NFU Scotland Welcomes Defra Decision to Halt EU Seed Potato Imports. Retrieved from https://www.nfus.org.uk/news/news/nfuscotland-welcomes-defra-decision-to-halt-eu-seed-potato-imports [accessed 17 August 2021]
- 34 Scottish Government . (2020). Continuity Bill: Equality Impact Assessment. Retrieved from https://www.gov.scot/publications/continuity-bill-equality-impact-assessment/
- Scottish Government. (2020, January 29). Export statistics Scotland: 2018. Retrieved from https://www.gov.scot/publications/export-stats-scotland-2018/ [accessed 2 June 2021]
- Quality Meat Scotland. (2020). The Scottish Red Meat Industry Profile. Retrieved from https://www.qmscotland.co.uk/sites/default/files/ qms5274_rmip_report_2020_a4_40pp_web1.pdf [accessed 2 June 2021]
- 37 Scottish Government. (2021, January 26). Trade: our vision. Retrieved from https://www.gov.scot/publications/scottish-government-vision-trade/ [accessed 2 June 2021]

- Office for National Statistics. (2021, May 12). UK trade: March 2021. Retrieved from https://www.ons.gov.uk/economy/nationalaccounts/balanceofpayments/bulletins/uktrade/march2021 [accessed 3 June 2021]
- 39 Scottish Government. (2020, December 18). Brexit agricultural sectors: analysis of impacts. Retrieved from https://www.gov.scot/publications/analysis-brexit-scenario-impactsscottish-agricultural-sectors/ [accessed 3 June 2021]
- Scottish Parliament . (2019, September 18). Official Report: Rural Economy and Connectivity Committee 18 September 2019. Retrieved from http://archive2021.parliament.scot/parliamentarybusiness/report.aspx?r=12265 [accessed 3 June 2021]
- Scotland Food and Drink. (2018, October 20). Ambition 2030: Industry Strategy for Growth. Retrieved from https://scotlandfoodanddrink.blob.core.windows.net//media/1465/ambition-2030.pdf [accessed 3 June 2021]
- Future British Standards Coalition . (2020, November 27). Safeguarding standards. Retrieved from https://www.sustainweb.org/resources/files/reports/Future%20British%20Standards%20Coalition%20-%20Safeguarding%20Standards.pdf [accessed 3 June 2021]
- 43 Scotland's Forestry Strategy 2019–2029. (n.d.) Retrieved from https://www.gov.scot/publications/scotlands-forestry-strategy-20192029/pages/4/ [accessed 14 August 2021]
- Forest Research. (2020, September 24). Forestry Statistics 2020. Retrieved from https://www.forestresearch.gov.uk/documents/7806/CompleteFS2020.pdf [accessed 20 May 2021]
- Scottish Government. (2020, December 16). Securing a green recovery on a path to net zero: climate change plan 2018–2032 update. Retrieved from https://www.gov.scot/publications/securing-green-recovery-path-net-zero-update-climate-change-plan-20182032/[accessed 20 May 2021]
- Scotlands Environment Web. (2019, March 6). Woodland and forests. Retrieved from https://www.environment.gov.scot/our-environment/habitats-and-species/woodland-and-forests/ [accessed 17 August 2021]
- 47 NatureScot. (2021). A guide to understanding the Scottish Ancient Woodland Inventory (AWI). Retrieved from https://www.nature.scot/guide-understanding-scottish-ancientwoodland-inventory-awi [accessed 15 August 2021]
- 48 Confor. (2021). Commercial forestry taxation. Retrieved from https://www.confor.org.uk/resources/publications/commercial-forestry-taxation/ [accessed 15 August 2021]
- Woodland Carbon Code. (2021). The Basics. Retrieved from https://woodlandcarboncode.org.uk/about/the-basics [accessed 15 August 2021]
- Friggens, N.L., Hester, A.J., Mitchell, R.J., Parker, T.C., Subke, J.A., & Wookey, P.A. (2020). Tree planting in organic soils does not result in net carbon sequestration on decadal timescales. *Global Change Biology*, 26(9), 5178-5188. doi: https://doi.org/10.1111/gcb.15229

- Forest Research. (2016, March). The influence of climate change on forest insect pests in Britain. Retrieved from https://www.forestresearch.gov.uk/documents/6975/FCRN021.pdf [accessed 15 2021]
- 52 Community Woodlands Association. (2021). Community Woodlands Association. Retrieved from https://www.communitywoods.org/ [accessed 15 August 2021]
- Deer Working Group. (2020, February 5). The management of wild deer in Scotland: Deer Working Group report. Retrieved from https://www.gov.scot/publications/management-wilddeer-scotland/ [accessed 15 August 2021]
- Grouse Moor Management Group . (2019, December 19). Grouse Moor Management Group: report. Retrieved from https://www.gov.scot/publications/grouse-moor-management-group-report-scottish-government/ [accessed 15 August 2021]
- Stafford, R., Chamberlain, B., Clavey, L., Gillingham, P., McKain, S., Morecroft, M., ... Watts, O. (2021). NATURE-BASED SOLUTIONS FOR CLIMATE CHANGE IN THE UK. Retrieved from https://www.britishecologicalsociety.org//wp-content/uploads/2021/05/NbS-Report-Final-Designed.pdf [accessed 15 August 2021]
- Walton, P., Eaton, M., Stanbury, A., Hayhow, D., Brand, A., Brooks, S., ... Wormald, K. (2019). The State of Nature Scotland 2019. *The State of Nature partnership*.
- IPBES. (2021). Models of drivers of biodiversity and ecosystem change. Retrieved from https://ipbes.net/models-drivers-biodiversity-ecosystemchange#:~:text=Examples%20of%20direct%20drivers%20of,and%20exploitation%2C%20a nd%20invasive%20species. [accessed 20 May 2021]
- IPCC. (2014). : Drivers, Trends and Mitigation. In: Climate Change 2014: Mitigation of Climate Change. Contribution of Working Group III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change. Retrieved from https://www.ipcc.ch/site/assets/uploads/2018/02/ipcc wg3 ar5 chapter5.pdf [accessed 20 May 2021]
- Scottish Government. (2020). Scottish Biodiversity Strategy Post-2020: A Statement of Intent. Retrieved from https://www.gov.scot/binaries/content/documents/govscot/publications/strategy-plan/2020/12/scottish-biodiversity-strategy-post-2020-statement-intent2/documents/scottish-biodiversity-strategy-post-2020-statement-intent/govscot%3Adocument/scottish-biodiversity-strategy-post-2020-statement-intent.pdf [accessed 15 August 2021]
- 60 IPBES. (2019). The global assessment report on Biodiversity and Ecosystem Services: Summary for Policymakers. Retrieved from https://ipbes.net/sites/default/files/2020-02/ipbes_global_assessment_report_summary_for_policymakers_en.pdf [accessed 20 May 2021]
- 61 IPBES. (2019, May 7). Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) Media Release . Retrieved from https://ipbes.net/news/Media-Release-Global-Assessment [accessed 20 May 2021]
- 62 IPCC. (2020, January). Special Report on Climate Change and Land: Summary for Policymakers. Retrieved from https://www.ipcc.ch/site/assets/uploads/sites/4/2020/02/ SPM_Updated-Jan20.pdf [accessed 20 May 2021]

- Ecosulis and Farmlytics. (2019, February 25). The Economic Impact of Extreme Weather on Scottish Agriculture. Retrieved from wwf.org.uk/sites/default/files/2021-04/ Impact%20of%20extreme%20weather%20on%20Scottish%20Farmers%202018%20FINAL.pdf [accessed 20 May 2021]
- UK Committee on Climate Change. (2020, January 23). Land use: Policies for a Net Zero UK. Retrieved from https://www.theccc.org.uk/publication/land-use-policies-for-a-net-zero-uk/ [accessed 20 May 2021]

Scottish Parliament Information Centre (SPICe) Briefings are compiled for the benefit of the Members of the Parliament and their personal staff. Authors are available to discuss the contents of these papers with MSPs and their staff who should contact Anna Brand on telephone number 85379 or Anna.Brand@Parliament.scot.

Members of the public or external organisations may comment on this briefing by emailing us at SPICe@parliament.scot. However, researchers are unable to enter into personal discussion in relation to SPICe Briefing Papers. If you have any general questions about the work of the Parliament you can email the Parliament's Public Information Service at sp.info@parliament.scot. Every effort is made to ensure that the information contained in SPICe briefings is correct at the time of publication. Readers should be aware however that briefings are not necessarily updated or otherwise amended to reflect subsequent changes.

