SPICe Briefing
Pàipear-ullachaidh SPICe

One land, many functions: exploring 'integrated land use'

Dr Sarah Govan

As a society we ask a lot of the land in Scotland. There are a wide range of national policy ambitions for land use, and many functions that land currently delivers. This briefing considers the multiple demands placed on Scotland's land and the growing focus on integrating land uses. It explores how a selection of Scottish and international reports refer to the idea of integrating land use, and associated challenges and opportunities. The briefing has been prepared by Dr Sarah Govan from ClimateXChange, through an academic fellowship with SPICe.

Contents

Summary

- This briefing explores the idea of integrated land use in Scotland, in particular in the context of the climate and nature emergencies.

- It examines recently published policy reports, plans and strategies to consider how the Scottish Government and other organisations approach delivery of shared land use goals, while still meeting individual objectives.

- The briefing considers the land resource in Scotland, the wide array of related land uses, draws out how these are considered in the documentation examined, and pinpoints key shared policy and other drivers for integration.

- The analysis underpinning the briefing shows that there is an increasing awareness of the idea of integration across different land use functions at a headline level, but there are challenges in how it can be realised in practice.

Cover image credit: Sarah Govan

About the author

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Introduction

Land is a critical natural asset. It is integral to life: it underpins livelihoods and provides much of our food and natural resources. Although often considered in terms of physical geography, the use of land in Scotland is fundamentally about people - those who actively manage this resource and those in whose interests it is managed, both publicly and privately. This includes families and individuals who work and live on the land (both rural and urban) and those who benefit from the resources that are produced, whether directly in the form of food, energy, recreation and so on, or more widely through the ecosystem services that the land provides.

The primary challenge that sets land use apart is that the underlying resource is fixed - literally. There is a finite amount of it, and it cannot be moved. The result is that the land needs to accommodate a wide variety of different needs, and this will vary considerably from place to place. These needs are growing and changing, particularly in light of the climate and biodiversity crises.

Land in Scotland is used in lots of different ways. 98% of Scotland's land area is classed as rural, the majority of which is used for some form of land management, such as agriculture or forestry. However, regardless of the primary use, the land still fulfils multiple functions. An upland farmer might raise livestock and grow crops for food on their land, which may also be providing habitat for wildlife. The soil will underpin agricultural production, and also plays an important role in the carbon cycle, water quality, and other ecosystem services. The same land might also contribute to the local economy as a location for a wind farm or as a place for tourism and recreation.

These multiple roles are described in Scotland's Third Land Use Strategy.

> **Box 1 - Our Land**
>
> "Our land produces much of the food we eat, supports the renewable power we use to heat our homes, and the timber and land to build our houses and communities. It is the basis for the ecosystems that we rely on for the air we breathe and the water we drink. It is a vital part of our natural capital, an asset that underpins our entire economy and in particular the nature-based 'green' economy that will employ more and more people in years to come.
>
> "Our land also supports the habitats and living creatures that make up Scotland's unique and precious biodiversity, and our awe-inspiring landscapes that are recognised and loved by both the people of Scotland and beyond. It is where we go for exercise, recreation, and to connect with our environment and our history."
>
> (Scotland's Third Land Use Strategy 2021-26 [1])

Given the finite nature of land, and the changing demands placed on it as concern for the environment grows, there has been a move towards trying to better 'integrate' land use in policy and in practice. This typically refers to looking at the land holistically, balancing the multiple needs for which land delivers, while avoiding exploiting one aspect of the land to the detriment of delivering other outcomes.

Effective integration of land use requires a good understanding of the land, and

collaboration between people - individuals, communities and institutions - to manage it in a way that supports land-based livelihoods, as well as essential environmental functions. On the one hand, the land produces many necessary resources - for example food and timber (noting that these are in some cases both a human necessity but also a source of income from land). On the other hand, careful management also requires meeting the imperative of tackling climate change and reversing the decline of Scotland's biodiversity, providing spaces for living and recreation, and maintaining important cultural value.

Integration is not a new idea, and a quick look across any part of Scotland's land will show that different uses continue to work alongside each other in a specific location.

Figure 1: Different land uses in one place on the Isle of Arran

The photograph in Figure 1 shows it is possible to see livestock production, forestry, tourism, support for biodiversity and community - in this instance on the Isle of Arran. Reference to a map will show evidence of prehistoric monuments, confirming human habitation for thousands of years.

The author

This briefing considers how land use - and the potential for better integration of different land uses - is discussed in a selection of published reports by government, commissioned groups, and stakeholders. The aim is to highlight the diverse benefits from Scotland's land and the multiple demands placed on land, illustrate what 'integrated land use' is taken to mean, and consider the extent to which there might be a clear shared understanding for delivering this aim.

This project has considered in detail 31 documents which focus on different land uses.

These range from international reports (for example, produced through the UN Intergovernmental Panel on Climate Change (or IPCC)) through to national reports on specific sectoral issues such as the management of wild deer. Selection was based on papers published before 2021 and which had a direct implication for land management. During the research the Scottish Government declared a Climate Emergency, and key developments for both climate and biodiversity policies were underway, both of which have direct implications for the way land is managed in Scotland. These developments have led to a growing emphasis on integration - both of land management policies, and land management itself - which is explored in the documents.

Research has been undertaken in two phases. In the first phase, the initial 31 reports (listed in the Appendix to this briefing) were subject to a detailed text analysis. This analysis drew out some themes around integrated land use which were then explored further in other texts in a second phase. As a result, some documents are referenced in the text which are not listed in the Appendix; likewise, some documents in the Appendix have not been used as illustrative examples in the text.

Land's many functions: Overview of the reports

Reports and strategies are a key tool that organisations use to communicate their understanding of, and position on, key issues. Each report has a specific purpose and tends to focus on one or more key land use functions, for example:

- Growing crops, whether for food (e.g. wheat or raspberries), or a food ingredient for processing (e.g. rapeseed oil or malting barley). This is the key function sought from the land in many agricultural reports, for example *Farming for 1.5* and *A Future Strategy for Scottish Agriculture.*

- Raising livestock (e.g. sheep on rough grazing land or overwintering of cows in large barns). Likewise, other agricultural reports focus on this outcome, e.g. *Suckler Beef Climate Group Report* ; *Hill, Upland and Crofting Group Report.*

- Timber production (e.g. fast growing pine-forests for timber products, or slower growing broadleaved woodland with a longer cycle) and wood products (biomaterials such as cellulose as a fossil-fuel replacement or for cardboard production). This is the central aim of the *Scottish Forestry Strategy.*

- Biodiversity (the complex natural processes that underpin all living things and are integral to any form of land use). The *Scottish Biodiversity Strategy Post-2020: A Statement of Intent* and the developing *Scottish Biodiversity Strategy and Delivery Plan* emphasise the importance of land use in delivering multiple benefits for biodiversity.

- Energy production (including hydroelectricity as well as more recent wind farm infrastructure and crops grown for bioenergy). This is addressed in the *Scottish Energy Strategy* and *Land Use Strategy for Scotland.*

- Resources (e.g. stone, sand, gravel and concrete) are all extracted from the land, supporting wider activities while also leaving marks on the land. Whether those resources are drawn from Scotland or imported from elsewhere, they all represent a use of the land. The strategic approach to future land use decision making will be underpinned by key tools including the *Land Use Strategy for Scotland* and the *National Planning Framework.*

- Living in and living on land (whether urban, peri-urban, semi-urban or rural). Land is where the people of Scotland live; where we build communities, make a living, grow up and grow old. Planning for societal change is supported through the *National Planning Framework* and the *National Performance Framework.*

- Transport - all forms of transport require some infrastructure on land - for example, airports need a large single space, whereas roads and railways form linear functioning features in the landscape, and the *National Transport Strategy* and the *National Planning Framework* underpin the decision making processes that will determine change.

- Leisure and recreation, which might include moorland, lochs and woodland for people to spend time in, whether cycling, bird-watching or stalking deer is a form of land use

for which there is varying levels of visibility in the landscape. Official documentation includes the *Scottish Outdoor Access Code* and *NHS Greenspace,* although there is a clear link with other interests, such as deer management.

- Climate change mitigation is a key land use function sought from several documents, including the Scottish Government's *Climate Change Plan Update* and *National Peatland Plan* and one of multiple functions sought from the *Scottish Forestry Strategy* - through long-standing use, such as storing carbon in trees, soil or peatlands.

- Land may be subject to capital investment, where its key function is as a financial asset for an individual, corporation, public or third sector organisation. The Scottish Land Commission has conducted significant research in this area, for example in their Rural Land Markets Insights report.

This list is illustrative but serves to convey the breadth of existing and potential land use functions that might be supported in Scotland - all of which are policy priorities in some way.

The reports, while they often have one or a few functions as their primary objective, also reference a wide variety of land use functions as secondary considerations.

For example, the Suckler Beef Climate Scheme Final Report is focused on the primary function of food production and support for the economy, while also recognising the link to support for ecosystem services and the human community. The report was commissioned to examine how this sector could reduce its greenhouse gas (GHG) emissions, and is thus tied to regulating the climate.

The Scottish Government's Climate Change Plan Update, published in 2020 to update the 2018 Climate Change Plan, serves many more functions, as it covers all sectors of the economy with the primary purpose of reducing greenhouse gas emissions. Reference is made to supporting tourism and the economy, but not specifically to the regulation of soil or water despite the likely co-benefits to these functions through the proposed actions. However, this plan takes a holistic approach to emissions targets and highlights the need for an integrated approach. Land use, agriculture and forestry are key sectors in this plan. The steps required for drafting of all Scottish Government plans and strategies (including business, island and strategic environmental assessments) can help shed light on the potential for integration on the ground, and to explore how trade-offs might be managed.

Borrowing an approach from ecosystem services, the infographic at Figure 2 considers different functions in land use, whether that be producing food or energy, regulating a healthy environment or supporting 'services' For example, the report of the Deer Working Group recognises the link with biodiversity, and the forestry strategy is explicit in the link with energy production and health benefits. It is clear from the infographic that most reports aim to address more than one land use function.

Figure 2: Land's many functions

This image presents analysis to show that different reports – whether topic specific or more general – address a wide range of land use functions. This suggests a good baseline for a more integrated approach to land use.

Land's many functions

Each of the following reports addresses several different land use functions

Grouse Moor Management Group - Report to SG

The Management of Wild Deer in Scotland: Report of the Deer Working Group

Farming for 1.5 – A Transformation Pathway

Advice to Scottish Government on the establishment of regional land use partnerships (SLC)

Climate Change Plan – update

Scottish Climate Change Adaptation Programme 2

2020 Challenge for Scotland's Biodiversity

Environment Strategy for Scotland: vision and outcomes

Scotland's Forestry Strategy 2019-29

Climate Change and Land (IPCC)
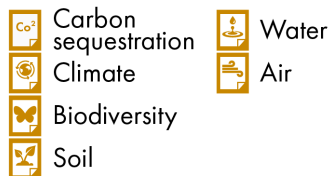
Suckler Beef Climate Scheme: Final Report

Production
- Food
- Drink
- Energy
- Resources
- Habitat
- Ecosystem
- Biodiversity
- Shelter
- Space

Regulation
- Carbon sequestration
- Climate
- Biodiversity
- Soil
- Water
- Air

Support
- Health
- Tourism
- Economy
- Community

Author and SPICe analysis

Given the strategic importance of climate change to integrated land use, it is not surprising that this features strongly as a theme in the documents. It is interesting to note the limited attention given to climate change adaptation, although it is mentioned is some way in most reports, especially in the most recently published.

The analysis has drawn attention to the decision-making processes that can promote the integration of different uses; and the complexity of choices at different levels, including for the land manager, the community, the local authority, and the national government in trying to reach policy outcomes.

Some interesting questions arise around the principles that might support the integration of land use functions in the future:

- Are all functions equal, or should some be given a higher priority based on desired outcomes?

- How can functions be assessed and supported/required (either through commercial market mechanisms or government support through public money for public goods) and how might this work in practice?

- How might such a system of decision-making balance details of known constraints with a flexibility that allows for new and innovative functions to emerge?

- What functions are missing? It is likely that further discussion will identify additional functions that can be grouped and explored in terms of tensions, win-wins and trade-offs.

An 'integrated approach'

The idea of integration in the context of land use is about combining two or more activities in a way that increases the benefits that can be achieved.

During the 20th century, the UK Government took an increasing interest in the land, beginning with the establishment of the Forestry Commission in 1919 and moving gradually towards greater involvement in issues of public recreation, financial support for food production and, latterly, the conservation of nature. Details on the key policy milestones are set out in a report commissioned by The Royal Society and published in 2020 [2] .

The focus historically was primarily on government intervention only where there was a specific public interest, such as food or resource production on the one hand, or to regulate activity, perhaps on the grounds of conservation value or to protect environmental resources (such as water and soil) from contamination. It is only more recently (i.e. in the last 15 years) that cross-cutting tools to look holistically at activities or developments, such as strategic environmental assessment and regulatory impact assessments, have become routine considerations as part of policy development [3] .

As land use policy has evolved, clear steps have been made to support a more integrated approach. At the heart of the approach in Scotland is the statutory Land Use Strategy.

Scotland's Land Use Strategy

The Climate Change (Scotland) Act 2009 enshrined a duty for the Scottish Government to produce a land use strategy every five years. This places on a statutory footing the importance of land and its role in reducing land management emissions, together with the potential to store carbon in the longer term and supporting climate change adaptation. The duty also places land use within a comprehensive country-wide, integrated approach; all sectors have a part to play.

Scotland's first Land Use Strategy was published in March 2011. The purpose of the strategy is described as:

> " the first stage in a process of change. It provides a focal point for all of us to consider and agree upon what our land can deliver for Scotland ... the great majority of those with an interest in land use see the need to move from a position where plans and decisions are made in isolation to an integrated - and hence more productive - approach to planning for the future uses of land [4] "

The vision and objectives in the current land use strategy (covering 2021-2026) continue to reflect these goals:

"Vision

A Scotland where we fully recognise, understand and value the importance of our land resources, and where our plans and decisions about land use will deliver improved and enduring benefits, enhancing the well being of our nation.

Land Use Objectives

- land based businesses working with nature to contribute more to Scotland's prosperity

- Responsible stewardship of Scotland's natural resources delivering more benefits to Scotland's people

- Urban and rural communities better connected to the land, with more people enjoying the land and positively influencing land use" [1]

Under the first land use strategy (2011-16) a new approach to decision-making was trialled in 'regional land use framework' pilot projects in Aberdeenshire and the Borders [5] . The purpose of the regional land use framework pilots was to:

" test the practicality of preparing regional land use frameworks as a means of guiding 'local' decision making [5] "

The frameworks were intended to be:

" a mechanism which considers existing and future land uses in a collective and integrated way, and to establish a means to prioritise or guide decisions so as to optimise the use of the land, and to resolve competition or conflicts relating to land use change [5] "

Following the pilots, five regional land use partnership projects were announced in 2021. The aim of these projects is to look at land use on the ground at a regional level and explore how to maximise multiple benefits while balancing parallel outcomes. Guidance issued by the Scottish Land Commission expands on this potential [6] :

"We recommend that Regional Land Use Partnerships have a remit to deliver the multiple objectives of the Land Use Strategy and the principles of the Land Rights and Responsibilities Statement through implementation of the Scottish Government's Place Principle. We propose that Partnerships are given specific functions to:

- Engage widely on the land use opportunities, choices and priorities and drive a collaborative approach to land use decision making in the public interest, applying the measures of Scotland's National Performance Framework

- Develop and drive delivery of a Regional Land Use Framework (a spatial plan defined in section 4)

- Prioritise and target delivery of specific public funding streams for delivery of multiple land use objectives identified in the Regional Land Use Framework

- Broker collaboration and delivery, with flexibility to work through different local delivery mechanisms".

The Scottish Government announced in April 2024 that it is their intention to roll out regional land use partnerships across Scotland over the next Parliamentary term.

Integration in sectoral reports

Recently, an 'integrated approach' has become a common theme across reports and plans which map out future land use within specific sectors, particularly in the context of the "twin biodiversity and climate crises".

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For example, the Scottish Government's March 2022 statement on delivering the vision for sustainable and regenerative farming indicates a direction of travel for Scottish land use policy which aims to integrate food production and rural development with these other goals:

> " Farming, crofting and land management will continue to play an important role in maintaining thriving rural and island communities. Land management in Scotland will change as we tackle the twin biodiversity and climate crises which will present challenges and opportunities for farmers and crofters, building on their traditional leadership role in land management and stewardship. In acknowledgement of the reliance that urban Scotland will have on rural communities and businesses to help deliver our climate change targets and net zero ambitions, we will support farmers, crofters and local communities to ensure they can capitalise on the benefits and that there is a Just Transition."
>
> Scottish Government, 2022[7]

The statement goes on to say that:

"Our vision is underpinned by these values and principles. We will:

- ensure that Scotland's people are able to live and work sustainably on our land

- remain committed to supporting active farming and food production with direct payments

- seek to create a diverse, flourishing industry

- integrate enhanced conditionality of at least half of all funding for farming and crofting by 2025

- as part of this conditionality, expect recipients of support to deliver on targeted outcomes for biodiversity gain and low emissions production

- develop policy, regulatory and support mechanisms which deliver emissions reductions in line with our climate targets, and contribute to wider government objectives and priorities, particularly in relation to our net zero ambitions

- design those mechanisms to support outcomes that restore nature, benefit our natural capital and promote the natural economy

- ensure those mechanisms are flexible enough to be adapted in delivery to accommodate emerging evidence, science, technology and tools

- adopt an evidence-based, holistic, whole farm approach, including learning from and applying practice and experience from other nations

- adopt a natural capital and just transition approach to land use change

- where practicable, stay aligned with new *EU* measures and policy developments."

Further examples can be seen in the reports from the Scottish Government's farmer-led climate change groups, which made proposals for emissions reduction from key agricultural sectors. The Dairy Sector Climate Change Group Report refers to the six outcomes for Scottish agriculture set out in the Climate Change Plan Update, noting that

"these outcomes are not sector specific and will involve an integrated approach from the whole industry if we are to deliver." They go on to argue for "commonality of objective and approach" which indicates a need for collaboration between different groups of people (communities, levels of government, business, the voluntary sector and individuals), and a shared vision and goal.

Environmental concerns as drivers for integration are explored further in the following sections. There is broad agreement on the need for integration, but how this might be achieved in practice is less clear.

Drivers for integration: Key policy challenges

Climate change and biodiversity loss are two key policy challenges which will underpin land use choices in Scotland over the coming years and which have already driven a policy shift for more 'integrated' land use. Land reform, though its aims are broader than integrating land use, also underpins this aim, though in a slightly different way.

Land use and climate change

Land is both a source and a sink of greenhouse gases: land use activities can both release and store carbon in soils and vegetation. Moreover, the climate is already changing, and there are related risks to the benefits that the land currently provides [8]. As the UK Climate Change Committee notes, "Unless land is managed more effectively over this transition, its essential functions will not be maintained for future generations."

Scotland has ambitious targets to end its contribution to climate change by 2045. This target will not be met without substantial changes in how land is used. Recognising this, the Climate Change Committee (CCC) has published two detailed reports showing how land-based emissions of greenhouse gases might be reduced, while also supporting biodiversity and producing food and other resources. [8] [9]

Box 2 - The Climate Change Committee's position on land

"The UK's net-zero target will not be met without changes in how we use our land. Those changes must start now. The Committee's previous work has shown it is possible to reduce land-based emissions of greenhouse gases while contributing to other strategic priorities for land such as food production, climate change adaptation and biodiversity.

"Current policy measures will not deliver the required ambition. Incentives for agricultural land use have not seen fundamental change for decades. Throughout the UK there is an urgent need for a new approach: the legislative opportunities for real change are available and should progress immediately." [8]

The Scottish Government's Climate Change Plan [10] set out a central role for Scotland's land and land use sectors, with targets to increase woodland creation and peatland restoration, and plans to reduce emissions from agriculture. The key challenge lies in how climate change can be addressed in the way that land is managed while securing local economies, meeting resource needs for energy and food, and supporting biodiversity.

Land use and biodiversity

Biodiversity - the variety of life on earth - underpins land use and ecosystem services. The UN Convention on Biological Diversity (CBD) recognises that "biological diversity is about more than plants, animals and micro-organisms and their ecosystems - it is about people and our need for food security, medicines, fresh air and water, shelter and a clean and healthy environment in which to live". Like the climate, biodiversity is in a precarious state [11].

The land plays a central role in the exchange of energy, water and aerosols (solid or liquid particles suspended in the air) between the surface of the earth and the atmosphere, and supports all life on earth. How we use land is fundamental to addressing the biodiversity crisis, and this is recognised in the Scottish Government's final draft of the Biodiversity strategy to 2045: Tackling the nature emergency. The Scottish Government's strategy points to a role for agriculture, forestry, planning, and peatland restoration emphasising that support for biodiversity is a key outcome from Scotland's land use.

Moreover, the Scottish Government's Environment Strategy for Scotland is clear that the climate and nature crises are intrinsically linked. This is tied directly into the use of land; the document states "we need to make the best use of our productive land by reducing emissions from agriculture while producing high quality food and protecting nature" [12].

Land use and land reform - a delivery mechanism for integration?

A national conversation on land, how it is used and who benefits has been ongoing for the last twenty years. It has linked the rights and responsibilities of land ownership to the balance between public and private benefits from land. This has resulted in some key developments including the introduction of a right to responsible access and support for community ownership of land through the Land Reform (Scotland) Act 2003. A SPICe spotlight blog captures the key milestones:

> " Key debates in relation to land, people and nature can no longer take place in silos. The role of communities in the climate crisis and achieving net-zero emissions by 2045 is strongly linked to rural and urban land use policy, and ensuring the participation of existing communities in nature conservation and landscape policy is crucial to their growth and existence."

Whilst traditionally the 'rights' of landowners have been most prominent, the climate and biodiversity context has created a new focus on 'responsibility' to deliver public goods and services from land (such as carbon sequestration, healthy ecosystems and to ensure water and soil quality). More broadly, land reform also aims to deliver more for local communities and to give communities and a more diverse range of actors power over which benefits are prioritised from the land. In this context, it is not surprising that an approach to "integrated land use" is increasingly discussed, where land, its uses and the benefits it produces are considered in the round.

The most recent Land Reform (Scotland) Bill, introduced in March 2024, reflects this challenge. Among other things, it proposes changes to agricultural tenancies, which would give tenants greater scope to diversify into other types of land management, such as

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nature restoration. This is one example of policy change which reflects an ongoing move towards less siloed, and more integrated, land use.

Achieving integration - win-wins

Achieving integration means unlocking 'win-wins', or 'synergies'. These can be defined as delivering more than one positive outcome on a given area of land, or maximising the ability for the land to achieve multiple functions. These terms are mentioned in several reports and demonstrate some emerging thinking.

Synergies are the very essence of successful integration. For example, the vision for the farmer-led report on Hill, Upland and Crofting highlights the importance of "integration with other important land uses so that multiple benefits may be generated by forming important synergies with Scottish land management".

Likewise, the UK Climate Change Committee suggests that supporting sustainable productivity growth (growing more food on a smaller area of land, thus freeing up land for other uses) "will be a win-win for farmers and the wider economy" [8] . (Land Use Policies for a Net-Zero UK).

Throughout the documents considered for this report, reference is made to the importance of 'maximising', 'unlocking' and 'exploiting' synergies, often as a general imperative; for example, the second Scottish Climate Change Adaptation Programme anticipates "significant positive effects on climatic factors through drawing together relevant adaptation measures to maximise their impact, capitalise on synergies and address any gaps".

However, there are few examples tied to this terminology that might illustrate practical success on the ground.

In general, the strategic nature of the reports examined here and the step-change in the scale of action that is required makes it difficult to translate high-level ambition to action on the ground. In addition, setting a strategic ambition is very future-focused and rarely are complete examples available to demonstrate impact in advance of concerted action.

Many of the reports illustrate theoretical synergies and case studies of win-wins, but there is a gap between the principles, and the need for decision-making frameworks for the unit, landscape, catchment or regional level.

However, the initial Farming for 1.5 report is one example which is more explicit in mapping out a pathway for delivering integration of food production, climate change and nature restoration. The report states:

" In the medium term, the challenge is to redesign farming as a circular rather than a linear process, optimising rather than maximising yields while restoring natural capital...there are two key messages which run through this report: First, it is possible to reduce emissions from agriculture significantly and restore biodiversity while maintaining production. Second, this will not happen if we keep using the same approaches as we have used in the past. A step change is needed in the way we use knowledge, funding and leadership. The depth and pace of change will require a team approach – not just all farmers but also suppliers, customers, investors, advisors, civil society, researchers and policymakers. For farmers in particular it means rethinking what being a farmer means – moving climate and nature from being on the sidelines of business decisions for many to being part of the core business purpose.""

The report maps out a 'transformation pathway' which sets out how actions build on one another to result in a system of integrated land use where climate and nature is "part of the core business purpose", as set out above. It recommends multi-functional land use, citing agroforestry as an example of support for biodiversity, while storing carbon and contributing to agricultural output. Note that a further and final report was published by the Inquiry since the primary analysis for this briefing was conducted.

However, looking across the reports studied suggests different interpretations of what 'integration' might mean. For example, integration is taken to mean:

- an integration of different functions *within* a single business. For example, the Farming for 1.5 report [13] and the farmer-led group reports, such as the Suckler Beef Climate Scheme final report [14] focus on how individual farmers can integrate measures to reduce carbon emissions into their business;

- a more diverse approach to land use that encourages a collaboration *across several* land holdings. For example, the Scottish Land Commission's advice on Regional Land Use Partnerships [6] focuses on the collaborative aspects of integrated land use across larger areas of land;

- the National Planning Framework 4 [15] - Scotland's national spatial strategy - explicitly recognises the importance of an *integrated approach to governance*, drawing their six spatial principles together through a practical application : "We want our future places to work for everyone. Rather than compromise or trade-offs between environmental, social and economic objectives, this is an integrated strategy to bring together cross-cutting priorities and achieve sustainable development.

- an *integrated approach to policy*, looking across traditional policy areas to use land in a more strategic way. For example, the Climate Change Plan Update [10] devotes a chapter to the coordinated approach taken throughout the plan: "what happens in one sector can have a knock-on effect upon another, and so we need to take a holistic, coordinated approach." It goes on to explore the links across land use, nature based solutions and the link to biodiversity, articulating on-going research and innovation that will inform practical action on the ground.

Tensions and trade-offs

While it is certainly important to focus on the potential to maximise benefits, there will

inevitably be tensions and potential for conflict between different functions.

Objectives exist at different scales and translating high-level national strategies into practical actions on the ground is difficult. In particular, it is difficult in policy-making to find a mid-point between the strategic national level which has the ability to see the bigger picture and where the need for integrated land use is clear, and the very detailed and practical - but siloed - guidance for what to do on the ground. As a result, getting clarity on the trade-offs and how these will differ between sectors, geographical areas, and interest groups is challenging. The following sections provide two case studies of how tensions and trade-offs are dealt with in two different land use policy areas: forestry and potential future bioenergy production.

Forestry and land use

The Scottish Forestry Strategy puts integrated land use at the heart of its functions, but tensions might arise in its implementation, particularly where Scottish Ministers may be responsible for potentially competing activities.

Direct reference is made at the outset to integrated land use in the vision for Scottish Forestry (emphasis added):

> " In 2070, Scotland will have more forests and woodlands, <u>sustainably managed and better integrated with other land uses</u>. 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. [16] "

The idea of integration is explored in more detail later in the strategy (emphasis added):

> " Managing forests and woodlands without due consideration of how they interact with surrounding land uses has been a criticism of forestry in the past. In some instances, tensions have arisen due to a lack of understanding about the benefits of creating and managing forests and woodlands, and the opportunities they can provide. As a result, land use and management has sometimes been sub-optimal. The Scottish Government's Land Use Strategy provides the framework to address this issue, <u>supporting better integration between forestry and other land uses to help us get the best from our land, now and in the future</u>. [16] "

This clearly encapsulates the overarching vision, but raises the question of how that integration might be achieved in practice on the ground. Tensions are suggested to be the result of misunderstanding, not of issues arising from potentially competing uses for the same parcel of land. The strategy goes on to consider integrated policy-making:

> " This Strategy complements and supports the delivery of existing Scottish Government policies such as the Land Use Strategy, Biodiversity Strategy Programme and the Land Rights and Responsibilities Statement and Economic Action Plan, the Economic Strategy, Climate Change Adaptation (Annex A). In the development of future relevant policies, the Scottish Government will identify opportunities for supportive actions to aid the delivery of Scottish Ministers' forestry ambitions, and also to identify where forestry can contribute to the aims and objectives of other policies. [16] "

While committing Scottish Forestry to the principles of integrated land use, it is difficult to distinguish between delivery of the primary objectives of Scottish Forestry and those wider

responsibilities of Scottish Ministers that are reflected in parallel policy areas. For example, reference is made to wood fibre and potential new markets:

> " There are also opportunities for new wood fibre markets and value-added products such as cellulosic plastics from biorefineries, placing a greater emphasis on the need to maximise wood fibre recovery from Scotland's forests and woodlands. [16] "

Expansion of woodland cover in Scotland is the ambition, particularly if climate and biodiversity targets are to be be met. However, forestry itself is a multi-functional sector, and any potential new market has implications for the species grown, the amount of space given to this product, and the timing of harvest; a clear challenge lies in trying to balance the amount of carbon that can be sequestered, the biodiversity sustainably secured, while meeting underlying economic imperatives. In this context, what might the limits be to 'maximisation' and how might this be judged against the potential trade-offs to be gained by supporting complementary functions in parallel?

Conversations around forestry have often led to discussions about the 'right tree in the right place for the right purpose', a principle that sits at the heart of Scotland's Forestry Strategy 2019-29. Tensions will inevitably arise around what is considered the 'right tree' or the 'right place'. For example, if the primary aim of the forester is to produce softwood timber for the commercial construction market, then fast growing pines may be the best approach. However, the species mix may be different if the purpose of 'new trees' is to generate a wildlife corridor of native woodland and shrubs, and in turn sustain biodiversity.

Similarly, the clear requirement for an expansion in forest planting (e.g. in the Climate Change Plan Update) conceals the challenging decisions that will deliver a functioning ecosystem alongside optimum rates for carbon sequestration in the context of the right tree in the right place for the right purpose.

A key challenge is to explore the mechanisms for making the decision on what species of tree are planted where in the context of the primary objectives for climate change and biodiversity, as well as wider policy and business objectives.

Bioenergy and land use

Bioenergy (defined as the generation of heat, electricity or transport from material derived from biological sources,) is discussed in several of the reports studied for this briefing, with potential trade-offs highlighted. The Scottish Government recognises it as a cross-cutting issue, "affecting a wide range of sectors including agriculture, forestry, energy, waste, planning and transport." [17]

The IPCC policy summary on land discusses detailed trade-offs in bioenergy production. For example, it suggests that "limiting bioenergy production to marginal lands or abandoned cropland would have negligible impact on biodiversity, food security and potentially co-benefits for land degradation; however the benefits for mitigation could also be smaller" [18] . It must be acknowledged however that this might be a straightforward statement at a strategic level, but may have very significant consequences at a local - place-based - community level.

The potential benefits of increasing bioenergy production as part of a fully renewable energy system are articulated (see the Scottish Government's Climate Change Plan

Update, the Committee on Climate Change's report on land use and net zero, and the IPCC's 2020 report on climate change and land), particularly if tied to the expansion of carbon capture and storage (CCS). However, growing bioenergy crops (and the tension with land for food production) has recognised risks, as the CCC notes, "particularly in relation to planting bioenergy crops that could have negative impacts on biodiversity, soil health, water quality and invasive species" [19]

The complexity of the choices to be made can be seen in this observation in the CCC's Sixth Carbon Budget: "Bioenergy crops used with CCS (Carbon Capture and Storage) deliver higher GHG savings than standing forest alone. However, if the requirement for bioenergy with CCS is low, it would be preferable to grow standing forest than bioenergy crops" [20] . In this case, the trade-offs also have to do with energy demand or market conditions, inasmuch as they have to do with the land uses themselves.

Success will be determined by how a detailed approach is designed :

> " Deciding where bioenergy will be most effectively deployed will depend on which sectors will make the best use of the bioenergy feedstocks that we can grow domestically or import. The use of bioenergy resources in the energy system must also be compatible with a sustainable land use policy and our obligations to ensure a sustainable global transition. [17] "

There are also significant concerns about the wider trade-offs associated with bioenergy crops. Under the umbrella of the UN Convention on Biological Diversity, regular assessments of knowledge on biodiversity and ecosystem services and their interlinkages at the global level are published. The report for 2019 states: "large bioenergy crop or afforested areas are expected to compete with areas set aside for conservation, including restoration, or agriculture" and consequently, such "large-scale land-based mitigation measures may jeopardise the achievement of other Sustainable Development Goals that depend on land resources" [21]

This includes a concern over diversion of land away from the production of food, one that has had a much higher profile since the Russian invasion of Ukraine. The impact on land use of perennial energy crops was examined in 2019, concluding that the availability of land will be limited by a range of factors including the need for land for other uses. [22]

Moreover, not all contributors to the debate take the same view of whether trade-offs in different land uses are appropriate. For example, the Farming for 1.5 Inquiry expressed concerns that the change required by the CCC advice on biomass for energy (along with wider forestry expansion) will have a type and level of land use change that "will have negative implications for agricultural activity, jobs, rural communities and landscapes without addressing biodiversity goals" [13] . They propose a more integrated approach to the use of developing technologies supported by rural infrastructure improvements.

Since the first phase of research for this report was undertaken, the Scottish Government has published a draft policy statement on bioenergy. It explicitly acknowledges the challenges in maximising production from what is a new form of land use:

> " ...we also need to maximise the amount of domestic biomass which can be sustainably produced. This must only be done where it does not negatively impact wider land use needs and requirements, and development of the bioenergy sector must align with and support Scotland's goals for protecting and restoring nature. High quality food production and rural development are also priorities which need careful consideration when assessing impacts of land use change."

Scottish Government, 2024[23]

In this case, the trade-offs, or the risks, are clearly acknowledged and the extent to which domestic production can be "maximised" is within the context of those constraints. Ongoing research is also acknowledged, for example exploring "the potential impacts on biodiversity and ecosystems from planting various types of energy crops." and the consultation specifically seeks responses on examples of integration within agriculture and the wider landscape.

Benefits and beneficiaries

Integrated land use is designed to deliver multiple benefits. This suggests multiple beneficiaries, although specific groups who are intended to benefit are rarely identified in the reports examined here. The Land Use Strategy, the most recent update to the Scottish Government's statutory Climate Change Plan (CCPu) and the Scottish Biodiversity Strategy are examples of initiatives directly designed to deliver cumulative benefits across the Scottish population. All refer to the importance of finding consensus through dialogue and working together as the best ways to deliver benefits to the individual, the community and wider society. For example, a key objective within the third land use strategy is for "responsible stewardship of Scotland's natural resources delivering more benefits to Scotland's people" [1]

The challenge lies in successfully delivering benefits across sectors in a way that identifies and manages consequences and potential conflicts.

Common themes

The reports cover a wide range of issues relating to land use management. Some are concerned with detailed operation on the ground (for example The Management of Wild Deer in Scotland [24]) while others are focused on delivery of ambitions at a UK scale and over a period of decades (for example, the CCC's land use policies [8]). The research for this briefing highlighted the importance of language in explaining the importance of land use and how it can best be managed to address the climate and biodiversity crises.

Different ways are used to describe land, how it is used and how this affects the understanding of what it means for land use to be 'integrated'. For example, in trying to capture the benefits from land, words such as '*function*', '*purpose*', '*use*' and '*service*' are used, with some overlap in what they mean to convey. To capture the more strategic approach, *sustainability* and *sustainable management* also continue to be widely used, with the assumption that land use where multiple benefits are better integrated is seen as being sustainably managed.

Some common themes emerged in the language used that helps to shed light on some key facets and outcomes of integrated land use which are shared across policy documents.

Sustainability

'Sustainable development', 'sustainability' or 'sustainable activities' are terms used across the documents and appear closely linked to the concept of integrated land use. Since first being applied in a global environmental and climate context in the 1980's, the terms have become synonymous with 'good practice', but also imply longevity - ensuring that outcomes and benefits can be *sustained* into the future. Integrated land use, with its aims of optimising and balancing outcomes as discussed in earlier sections of this report, is often seen as a way to achieve this long-term sustainability.

Frequent reference is found in several documents to the concept of sustainability. For example, the Scottish Forestry Strategy (SFS) considers that it has 'sustainable forest management' at its core. Sustainable forest management is a set of internationally recognised principles, which have integration of traditional forestry objectives with other outcomes as a central aim. The SFS states:

> " At the second Ministerial Conference on the Protection of Forests in Europe in 1993, sustainable forest management was defined as: "The stewardship and use of forest lands that maintains biodiversity, productivity, regeneration capacity, vitality and potential to fulfil now and in the future relevant ecological, economic and social functions at local, national and global levels and that does not cause damage to other ecosystems" [16] "

It is clear that integration of outcomes and land use functions are key to the ability to manage forests 'sustainably'. In the SFS, it is explicit that "sustainable forest management" means management that is integrated:

" The Strategy has the principles of sustainable forest management at its core, including an adherence to the principle of 'the right tree, in the right place, for the right purpose'. In addition, by implementing the Strategy, it is vital that we recognise the need for better integration of forestry with other land uses and businesses. This approach will enable forestry in Scotland to continue to deliver an extensive and expanding range of economic, environmental and social benefits, now and in the future."

The more recent consultation on the proposals for a new Agriculture Bill, Delivering our Vision for Scottish Agriculture, makes frequent reference to "sustainable and regenerative agriculture". The Scottish Government defines 'regenerative agriculture' in the following way:

" a collection of farming practices with a focus on renewing and conserving soils, landscapes and ecosystems. The method supports nature and social justice in rural communities alongside agricultural outputs. […] The goals of regenerative agriculture include: improving animal welfare, increasing climate-resilience of production, capturing carbon in soils and vegetation, enhancing water quality and supply in the landscape as well as supporting thriving biodiversity and ecosystem health. [25] "

It is clear here that the goal of 'sustainable and regenerative agriculture' is to integrate different outcomes into agricultural practice. The consultation linked to above states:

" The new Agriculture Bill will aim to provide Scotland with a framework to support and work with farmers and crofters to meet more of our food needs sustainably and to farm and croft with nature. To ensure that Scotland's people are able to live and work sustainably on our land, this framework will deliver high quality food production, climate mitigation and adaptation, nature protection and restoration, and wider rural development. […]"

It goes on to note that:

"The new Agriculture Bill must therefore provide the legal framework to deliver:

- The Scottish Government's Vision for Agriculture;

- The National Performance Framework outcomes;

- Programme for Government and Bute House draft shared policy programme priorities;

- Emissions and nature restoration targets;

- Building on minimum regulatory standards;

- Just Transition which supports agriculture, land integration and land use change in a way that follows the Just Transition principles;

- Value for money; and

- Broad alignment to EU CAP objectives."

This implies that in order to "meet more of our food needs sustainably", there needs to be integration of land uses, land use outcomes, as well as policies. The Agriculture and Rural Communities (Scotland) Bill was passed on 18 June 2024.

Sustainability is used in majority of reports studied here, with most frequent reference found in the Global Assessment Report on biodiversity and ecosystem services, Climate Ready Scotland and the UK Climate Change Committee's Sixth Carbon Budget.

The references to sustainability imply that the land is managed to serve its multiple integrated functions, suggesting that sustainable land management is effectively the integrated approach to land management that is desired. How that might work in practice is the key challenge that must now be faced. So, sustainable land use and integrated land use can be interpreted as having similarities in principle in the documents studied here.

Resilience

The concept of *Resilience* is discussed in several reports and is a frequently used term in the context of the stability and reliability of land use systems.

Tied closely to sustainability, it is embedded in the sub-heading for the consultation Draft Scottish National Adaptation Plan (2024-2029): Actions today for a climate resilient future. The text refers to policies that make Scotland "more resilient to flooding" and outcome 2 of the Plan envisages "communities creating climate-resilient, healthy and equitable places". The Draft Scottish National Adaptation Plan (2024-2029) makes explicit reference to land use, stating that "as part of strengthening our climate resilience, we need to change the way we use, manage and live on our land. For example, adapting our landscape to the impacts of climate change through nature-based solutions such as afforestation and peatland restoration."

The concept of resilience helps to link sectors and actions to the land use system as a whole, reminding us that integrating different types of land use can bring strengths across a system, but potential risks need to be identified and managed.

For example, Scotland's third land use strategy 2021-26 states that

> " Using and managing land within our settlements well brings many benefits, to health and wellbeing, equality, environmental quality, cultural identity, flood reduction, jobs and housing, as well as climate resilience and biodiversity. [1] "

Resilience is widely described as one benefit of a more integrated approach to land management. For example, the CCC anticipate that the proposed changes in Land Use: Policies for a Net Zero UK [8] "make land more resilient to climate impacts".

Place

Given that land in Scotland is finite and that it cannot be moved or expanded, the idea of 'place' becomes central; each parcel of land is a place. Any decision on the use(s) to which a piece of land is put has an impact on the land itself, but also on the communities around it, whether human, plant or animal.

Reference is made in several documents to the concept of 'the right place' as a key consideration for achieving integrated land use. Land use is generally discussed as a practice 'at scale', whether farming, forestry or energy generation. But each happens in a

'place' and an integrated approach to land use requires specific locations to be considered when deciding what is - or is not - a suitable use of a parcel of land. For example:

- Scotland's Third Land Use Strategy 2021-26 highlights the choice between peatland restoration and tree planting, and that decisions depend on the particular conditions of the site, with the heading 'the right tree, or bog, in the right place'; "it is important to ensure action taken delivers the best carbon savings. For this reason, Scottish Forestry does not plant woodland on soils with over 50cm of peat as these deep peats lock more carbon as peatland habitats than they could as woodlands." [1]

- The Scottish Forestry Strategy links integrated land use directly to place. The strategy notes that it "has the principles of sustainable forest management at its core and recognises the need for better integration of forestry with other land uses and businesses, reinforcing the principle of 'the right tree, in the right place, for the right purpose'.

- The CCC's Sixth Carbon Budget sector summary for agriculture, land use, land use change and forestry makes three references to the 'right tree' in the right place, emphasising the need to take account of soil, climate and other land uses. It makes no reference to the purpose for which that tree might be planted, however.

There is a suggestion here of evolving policy design - expert advisors and decision-makers recognise that an outcome cannot be delivered simply by planting trees or reducing fertiliser inputs. The Scottish Forestry Strategy shows this most clearly - *the right tree in the right place*, is the title for the Forestry Commission Scotland planning advice published in 2010 [26]. The addition of 'for the right purpose' in the revised principles neatly demonstrates a more refined understanding of how multi-functional woodlands might support a more place-based integrated approach to land use.

None of the reports considered here address specific land areas. They may discuss landscape forms or land use types, but some are at a strategic 'outcome-focused' level, while others focus on (sector) specific issues and how they might best be addressed on the ground. For example, the Management of Wild Deer in Scotland report [24] is as much concerned with procedures relating to animal welfare as with the wider principles of deer management; the Suckler Beef Climate Group report deals directly with how to improve the support system for beef calves that is sustainable, has a positive impact on biodiversity and contributes to greenhouse gas emissions reduction.

However, as soon as the recommendations are implemented on the ground, they will impact directly on place and how they are delivered depends on the particulars of that place. Integrated land use is, therefore, going to vary from place to place.

The Just Transition to net zero

The Climate Change Plan Update commits to a "transition to net zero in a way that is just, and that delivers a thriving sustainable economy that works for all of us". A just transition applies to the land use sector as much as any other, and the Scottish Government has committed to "establish a Just Transition Plan for Scotland's land and agriculture and include clear milestones out to 2045."

Although not found in earlier documents, reference to a just transition is made in the

majority of papers published since the establishment of the Just Transition Commission in 2019. Their final report was published in March 2021. Specific reference is made to an integrated approach to land use:

> " With more integrated approaches to land use, the net-zero transition presents opportunities to look afresh at how the potential of Scotland's land can be maximised. The transition will mean more and more is demanded from our land. [27] "

A second Just Transition Commission has since been established to support the production and monitoring of such plans, providing expert advice on their development. Agriculture and land use is one of four sectors that will be addressed in their initial work programme, presenting an opportunity to explore how land use decision-making might take a more integrated approach as Scotland moves towards net-zero, and how it might facilitate a just transition. The draft vision set out in the Scottish Government's discussion paper on delivering a just transition in land use and agriculture includes "Our plans and decisions about land use enable better integration, whilst delivering improved and enduring benefits for nature and climate and enhancing the wellbeing of our nation."

Appendix: Reports subject to initial text analysis

The following reports were subject to initial text analysis for this report to draw out key themes. Further reports were then analysed with those themes in mind.

Policy doc	Date	Link
Grouse Moor Management Group - Report to Scottish Government	Dec-19	https://www.gov.scot/publications/grouse-moor-management-group-report-scottish-government/pages/3/
The Management of Wild Deer in Scotland: Report of the Deer Working Group	Feb-20	https://www.gov.scot/publications/management-wild-deer-scotland/
Farming for 1.5: A Transformation Pathway (Independent Inquiry on Farming and Climate Change)	Nov-20	https://40a7f11d-664a-4fd7-a550-78ec00356167.filesusr.com/ugd/e828e0_20e4a2135025430aa3613a05100b76dd.pdf
Green Recovery Inquiry Report (Scottish Parliament Environment, Climate Change and Land Reform Committee)	Nov-20	https://bprcdn.parliament.scot/published/ECCLR/2020/11/8/Green-Recovery-Inquiry---Report/ECCLRS0520R12.pdf
Citizen's Jury on Land Management and the Environment (Scottish Parliament)	Jul-19	https://www.parliament.scot/Communityresources/CEUS052019R01.pdf
Scotland's Third Land Use Strategy 2021-2026 Consultation and Draft Strategy (Scottish Government)	Mar-21	https://www.gov.scot/publications/scotlands-third-land-use-strategy-2021-2026-getting-best-land/
Advice to Scottish Government on the establishment of regional land use partnerships (Scottish Land Commission)	Nov-20	https://www.landcommission.gov.scot/news-events/news/regional-land-use-partnerships-to-help-drive-urgent-climate-action
Programme for Government 2020-21 (Scottish Government)	Aug-20	https://www.gov.scot/publications/protecting-scotland-renewing-scotland-governments-programme-scotland-2020-2021/
Update to the Climate Change Plan 2018-2032 (Scottish Government)	Dec-20	https://www.gov.scot/publications/securing-green-recovery-path-net-zero-update-climate-change-plan-20182032/
Climate Ready Scotland: Climate Change Adaptation Programme 2019-2024 (Scottish Government)	Sep-19	https://www.gov.scot/publications/climate-ready-scotland-second-scottish-climate-change-adaptation-programme-2019-2024/
Environment Strategy for Scotland: vision and outcomes (Scottish Government)	Feb-20	https://www.gov.scot/publications/environment-strategy-scotland-vision-outcomes/
Scotland's Forestry Strategy 2019-2029 (Scottish Government)	Feb-19	https://www.gov.scot/publications/scotlands-forestry-strategy-20192029/
Scottish Biodiversity Strategy Post-2020: A Statement of Intent	Dec-20	https://www.gov.scot/publications/scottish-biodiversity-strategy-post-2020-statement-intent/
2020 Challenge for Scotland's Biodiversity (Scottish Government)	2013	https://www.gov.scot/publications/2020-challenge-scotlands-biodiversity-strategy-conservation-enhancement-biodiversity-scotland/
State of Nature Scotland Report (Nature.Scot)	2019	https://www.nature.scot/state-nature-scotland-report-2019
Aichi Biodiversity	2012	https://www.cbd.int/sp/targets/

Targets 2011-20 (Convention on Biodiversity)		
Aichi Targets - Scottish Interim Report (Scottish Natural Heritage)	2017	https://www.nature.scot/aichi-targets-interim-reports-2016-and-2017
Land use: reducing emissions and preparing for climate change (CCC)	2018	https://www.theccc.org.uk/publication/land-use-reducing-emissions-and-preparing-for-climate-change/
Land Use: Policies for a Net Zero UK (CCC)	Jan-20	https://www.theccc.org.uk/publication/land-use-policies-for-a-net-zero-uk/
Reducing Emissions in Scotland: Progress Report to Parliament (CCC)	Oct-20	https://www.theccc.org.uk/publication/reducing-emissions-in-scotland-2020-progress-report-to-parliament/
Climate Change and Land (IPCC)	Aug-19	https://www.ipcc.ch/srccl/
Global Biodiversity Assessment (IPBES)	2019	https://ipbes.net/work-programme
Nitrogen Futures Report (JNCC)	Oct-20	https://data.jncc.gov.uk/data/04f4896c-7391-47c3-ba02-8278925a99c5/JNCC-Report-665-FINAL-WEB.pdf
Caring for Soil is Caring for Life	May-20	https://op.europa.eu/en/web/eu-law-and-publications/publication-detail/-/publication/32d5d312-b689-11ea-bb7a-01aa75ed71a1
Climate Emergency Response Group report	Aug-19	https://www.changeworks.org.uk/sites/default/files/Climate-Emergency-Statement.pdf
Edinburgh Declaration on Global biodiversity framework	Aug-20	https://www.gov.scot/publications/edinburgh-declaration-on-post-2020-biodiversity-framework/
Suckler Beef Climate Scheme: final report	Sep-20	https://www.gov.scot/binaries/content/documents/govscot/publications/independent-report/2021/01/suckler-beef-climate-scheme-final-report-2/documents/suckler-beef-climate-scheme-final-report/suckler-beef-climate-scheme-final-report/govscot%3Adocument/suckler-beef-climate-scheme-final-report.pdf
Hill, Upland and Crofting Group Report	Mar-21	https://www.gov.scot/binaries/content/documents/govscot/publications/independent-report/2021/03/hill-upland-and-crofting-group-initial-findings-report/documents/hill-upland-and-crofting-group-initial-findings-report/hill-upland-and-crofting-group-initial-findings-report/govscot%3Adocument/HUCG%2Breport%2Bon%2Binitial%2Bfindings_March%2B2021.pdf
Women in Agriculture Task Force report	Nov-19	https://www.gov.scot/publications/final-report-women-agriculture-taskforce/
The National Plan for Scotland's Islands	Dec-19	https://www.gov.scot/publications/national-plan-scotlands-islands/
Climate Change Plan 2018-2032 (Scottish Government)	Feb-18	https://www.gov.scot/publications/scottish-governments-climate-change-plan-third-report-proposals-policies-2018/pages/17/

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