Policy

Scotland's uplands: Policies to restore nature

February 2025

Policy headlines

1. Fully develop and robustly **implement the concept of ecosystems-based landscape-scale planning** through the Land Use Strategy, Regional Land Use Partnerships and Nature Networks at an appropriate scale throughout the uplands. These approaches must be appropriately resourced.

2. Secure a collaborative, landscape-scale, ecosystem-based approach to **deer management**, with greater emphasis on community hunting models, ideally delivered on a voluntary basis but backed-up by new and existing legislation, robustly implemented by NatureScot to enforce deer management where necessary to deliver sustainable levels of deer population, nature restoration and wider benefits.

3. **Reform agricultural support, policy and education provision in line with our Agriculture policy.** For the uplands, this would favour extensive or organic production where it is ecologically appropriate, including mixed farming and low-density cattle/sheep grazing as well as agroforestry and wider delivery of public goods.

4. Reform public policy to set higher targets and more support for **the establishment and management of native and semi-natural woodlands**, as well as low-impact silvicultural systems in commercial plantations.

5. Secure **the cessation of damaging activities, restoration and sustainable management of peatland** throughout the Scottish uplands; this will involve partnership working, and the application of site protection and river catchment laws, all harnessing both public and private finance.

6. Ensure the **sustainable management of grouse moors**, by promoting good practice and through the robust implementation of the Wildlife Management and Muirburn (Scotland) Act 2024.

7. Seek **the natural abundance and distribution of ecologically important species**, by robust enforcement of wildlife law, management of invasive non-native species (INNS) and re-introduction or translocation of keystone species, such as Eurasian beaver and Eurasian lynx.

8. **Ensure the planning, construction and operation of infrastructure** (for energy, transport, etc.) follows the mitigation hierarchy, is consistent with the protection of designated sites and wider nature networks and **is environmentally sustainable.**

9. Climate change policy must ensure **the meeting of emissions reductions targets to reach net zero by 2045**; a key part of this will be the nature restoration and land use policies set out in priorities 1-8 above.

10. **Complementary scientific, educational and cultural actions** are needed to ensure that the state of the environment is well monitored, understood and appreciated; and **additional actions by NGO and public sector landowners** to further improve the management of land and promote good practice.

Context

The Scottish Wildlife Trust's vision is for a network of healthy, resilient ecosystems on land and sea, supporting Scotland's wildlife and people. For our uplands, the Scottish Wildlife Trust wishes to see:

- A network of ecologically healthy and resilient ecosystems which support expanding communities of native species;
- Support which helps secure thriving and diverse local, rural economies based on sustainable management of the stocks of natural capital which provide enhanced benefits for both public and private interests; and
- Recognition and promotion of the real value that healthy upland ecosystems provide to Scotland.

Scotland's uplands are arguably the defining landscape of this country. They are inspiring, iconic and to many people, both nationally and internationally, the essence of wildness. Key habitats in Scotland's uplands are Scots Pine and other native woodlands, tall herb, blanket peatlands, acid grasslands and moorland, and montane scrub and heath; these overlap with semi-natural and/or working farms or forests. These environments support a range of ecologically important and iconic species such as red squirrel, ptarmigan, dotterel and snow bunting golden eagle, pine marten, golden plover, sphagnum mosses, blue sow thistle and sundews.

Despite the perception of wildness, these landscapes are managed and, as discussed below, the evidence shows that these upland ecosystems are often in a poor and sometimes declining state of health. A range of competing pressures combine so that these ecosystems do not realise their full potential for nature or, indeed, fully deliver the goods and services needed by society and the economy, both rurally and more widely. These pressures result in habitats that are fragmented and damaged, while key species decline in number and range. Meanwhile, the environment also suffers from introduced alien species and the past extinction of keystone, native species.

Action is required to tackle the systemic threats to Scotland's degraded uplands and to restore these back to health. Through restoration and the adoption of sustainable land management practices, the state of wildlife and condition of habitats associated with these areas will be improved, and more opportunities will be created for people, allowing a diverse range of communities to thrive. We believe that major shifts in land use, policy and wider societal attitudes are required in order to restore our upland ecosystems and revitalise our rural economies to ensure that the uplands provide sustainable, multiple benefits into the future.

Geographic scope

This policy covers all geographic areas in Scotland which fall into the definition of 'uplands', defined as land above the level of agricultural enclosure[i], which is typically 300 - 400 m above sea level (ASL) but can be lower. Indeed, particularly in the far north and west and in the islands, climatic and geological factors mean that upland habitats are found at or close to sea level.

The UK National Ecosystem Assessment suggests that this area amounts to approximately 44% (34,276 km^2) of Scotland's terrestrial landscapes and is found predominantly north or west of the Highland fault (excluding the Aberdeenshire and Moray Firth coastal lowlands) and in the Southern Uplands.

The wildlife of Scotland's uplands

Scotland's uplands are arguably the defining landscape of this country. They are inspiring, iconic and to many people, both nationally and internationally, the essence of wildness. By broad habitat type, a third of the uplands are bog with the remainder being acidic (rough) grassland, dwarf shrub heath (heather moorland), bracken, fen, marsh and swamp, inland rock and montane habitats, alongside Scots Pine and other native woodlands and overlapping with semi-natural and/or working farms or forests. These environments support a range of ecologically important and

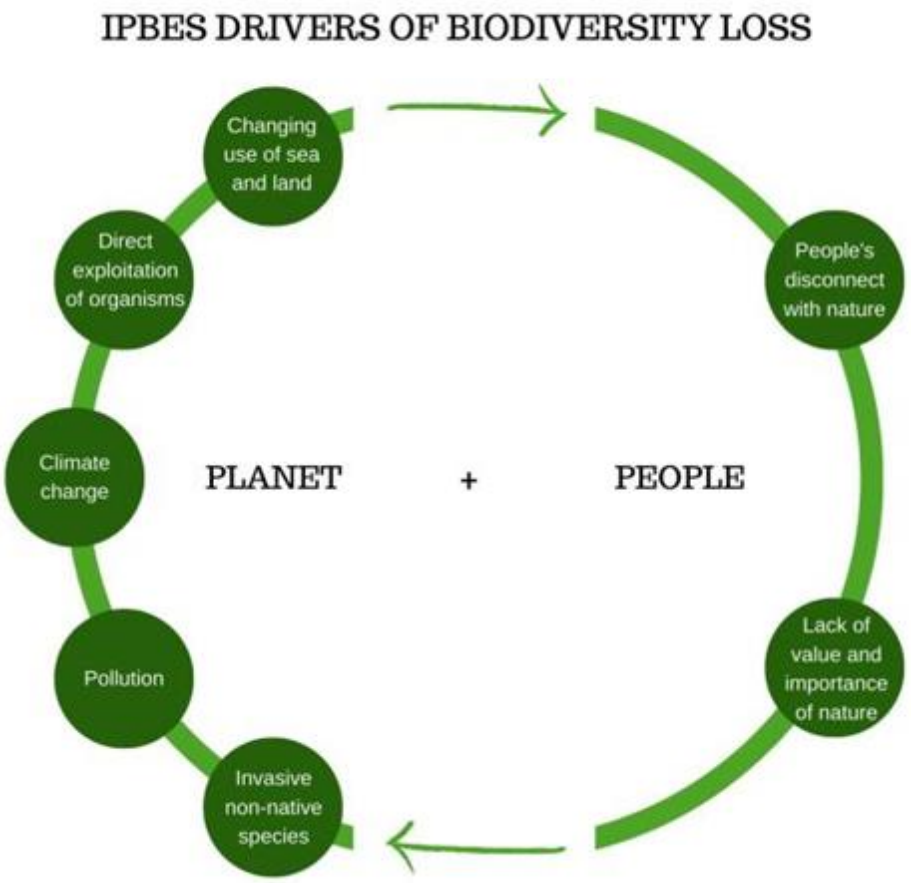
notable species such as red squirrel, golden eagle, pine marten, golden plover, Sphagnum mosses, sundews and others. The large extent and relative inaccessibility of the uplands means that information on upland biodiversity is less comprehensive than for lowland habitats and species.

The Scottish uplands contain some of the largest expanses of semi-natural habitat in the UK, including 90% of all high mountain habitat; but little of this landscape is truly 'wild' in nature, having been shaped by humans over centuries. The influence of surrounding seas, a diverse geology and a variable climate means that Scotland shares a similar ecosystem lineage to neighbouring Nordic countries, but with the addition of particularly diverse bryophyte and lichen assemblages that are important in a European and international context.

The current state and threats to Scotland's uplands

The state of Scotland's uplands was assessed as 'moderate, declining' by the Scottish Government in 2014. This assessment is based on the deterioration in some key broad habitat groups and the fact that many of these broad habitat groups on designated sites remain in unfavourable condition status, despite some recent trends of improvement for some habitats.

The factors affecting Scotland's uplands and their biodiversity are common to ecosystems the world over. The five direct drivers and two indirect drivers of biodiversity loss were first described in 2019 by IPBES (the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services).



Above are the five direct drivers of biodiversity loss: changing use of sea and land, direct exploitation of organisms, climate change, pollution and invasive non-native species (INNS); and the two indirect drivers: people's disconnection with nature, and the resulting lack of value placed on the importance of nature. However, these drivers don't comprehensively capture the impact of historic and present use of the uplands and we have drawn

these out further below. The IPBES drivers are a very useful framing in that they are helping inform international process and decisions around halting biodiversity decline.

In the UK and Scotland, the *State of Nature* reports (2019 and 2023) demonstrate similar pressures on our natural environment. These publications, as well as the Scottish Government's Biodiversity Strategy, confirm that these are the pressures to be tackled if the nature crisis is to be addressed successfully.

These drivers manifest themselves as a number of key systemic threats or pressures on the natural environment of Scotland's uplands, many of which are caused by and/or can be addressed by public policy. The ecological, economic and socio-cultural challenges facing Scotland's uplands may be summarised as follows:

Ecological

- **Fragmentation of semi-natural habitats**, leading to the increased isolation of habitats and species which has led to sub-optimal ecosystem functioning.
- **Landscape simplification** including the compartmentalisation of different land uses into separate silos (forestry, rough grazing, sporting interests), often with sharp transitions between land use blocks.
- **Unsustainably high levels of grazing** by livestock and wild deer, which drives unfavourable condition status of habitats, including the suppression of native woodlands and scrub, and the spread of bracken.
- Damaging impacts resulting from some **intensive grouse moor management** (muirburn, drainage of peatlands and species control), including detrimental impacts on water storage and quality, peatland soil carbon stores, and biodiversity such as raptor and mountain hare populations.
- **Imbalance of keystone species**, notably the absence of some large herbivores and any carnivores to drive natural trophic functions of ecosystems.
- **Drainage of wetlands**, including peatlands, for agricultural improvements and commercial forestry, leading to the loss and severe degradation of habitat and the release of carbon into the atmosphere and watercourses.
- **Atmospheric deposition** of nutrients and acidic compounds across the uplands, leading to enrichment and a subsequent reduction of some nutrient-poor vegetation communities.
- Late 20th century history of **poorly designed monocultural conifer plantations** with an under-representation of native tree species, leading to simplification of habitats.
- **Climate change** resulting in warmer and wetter weather patterns, driving changes in habitats and species altitudinal distribution and population levels.
- **Presence of invasive non-native species** (INNS) such as American mink, self-seeding commercial conifers *Rhododendron ponticum* and Sika deer which are damaging to native biodiversity.

Economic

- **A lack of recognition of the natural capital value** of upland ecosystems, particularly peatlands and woodlands.
- **Poorly targeted public subsidies** which have failed to protect natural capital stocks and the vital ecosystem services they provide for wider society.
- Inappropriately located, designed and managed **forestry plantations and renewable energy installations**, leading to the deterioration of some sites, notably on deep peat.
- Fragile rural economies and incomes, resulting from compartmentalised land use, volatile markets and subsidy-driven unsustainable agricultural and forestry practices.
- **Lack of effective fiscal and policy instruments** to encourage progressive and sustainable land management and deter unsustainable or damaging practices.

Socio-cultural

- A **lack of an agreed vision** as to what Scotland's uplands are for and little recognition of the many benefits that multifunctional land use systems in the uplands can deliver. The lack of such a vision can hamper developments that could be of potential benefit to communities and the environment in upland areas[i].
- **Wildlife crime**, particularly illegal raptor persecution, which prevents colonisation by key species across suitable habitat in their natural ranges.
- Lack of adoption of ecosystem health indicators and natural capital value in planning policies, which should put both people and place at the heart of the planning and land use change decision-making processes.

The Solutions

The policy solutions presented below seek to address the threats to the uplands and deliver the Scottish Wildlife Trust's vision for a network of healthy, resilient ecosystems on land and sea, supporting Scotland's wildlife and people.

This vision sets out that for the uplands, the Scottish Wildlife Trust wishes to see:

- A network of ecologically healthy and resilient ecosystems which support expanding communities of native species;
- Support which helps secure thriving and diverse local rural economies based on sustainable management of the stocks of natural capital which provide enhanced benefits for both public and private interests; and
- Recognition and promotion of the real value that healthy upland ecosystems provide to Scotland.

To deliver these outcomes, public policy must be reformed so as to address the drivers of biodiversity loss while, at the same time, encouraging nature restoration and supporting rural economies (especially farming, crofting, forestry, deer and game management and tourism) that rely on the natural capital embedded in these ecosystems – as well as ensuring that other essential businesses and services thrive in an environmentally sustainable manner.

The Scottish Government's Biodiversity Strategy has its own wider goals for our biodiversity, of which the uplands play a vital part. These are to:

- *Halt biodiversity loss by 2030, in line with the Leaders' Pledge for Nature; and*
- *By 2045, restore and regenerate biodiversity across our land, freshwater and seas.*

The Scottish Wildlife Trust's **'top ten' policy actions for the uplands**, are necessary to contribute to delivering both the Trust's own vision and the Biodiversity Strategy's goals. These top ten policy changes are listed in the headlines at the front of this document and are discussed in full below. Finally, this paper concludes with an indication of how these proposed solutions address each of the direct and indirect drivers of biodiversity loss discussed above, demonstrating that these solutions represent the public policy measures that must be implemented to remove or address these threats and challenges identified above.

1. Fully develop and robustly implement the concept of ecosystems-based landscape-scale planning through the Land Use Strategy, Regional Land Use Partnerships and Nature Networks at an appropriate scale throughout the uplands. These approaches must be appropriately resourced.

Scotland as a whole is demanding more from our land than ever before, and nowhere is this more keenly felt than the uplands. There are numerous Government policies which can impact land use decisions in the uplands, such as policies related to agriculture, forestry, planning and climate as well as biodiversity itself. To sustainably balance these sometimes overlapping demands and meaningfully engage and involve communities in a just transition we need landscape-scale planning and management addressing all land uses.

In Scotland, the Land Use Strategy should sit at the top of Government's policy hierarchy and coordinate actions and approaches as a "golden thread" through other strategies and approaches. The reality is that the Land Use Strategy is sidelined, has no "teeth" in legislative terms and is given next to no budget. Getting the Land Use Strategy right and effective is key to overall success of the Government's 2030 and 2045 biodiversity targets.

Regional Land Use Partnerships (RLUPs) were intended to give a more bottom-up approach to the Land Use Strategy and more local agency around options to meet climate and nature objectives. They were a commitment in the 2020 Climate Change Plan, and there has subsequently been a commitment to RLUPs in the Climate Change Plan 2018–2032 update.

We see the Land Use Strategy as providing overall top-down coherence, and the RLUPs as providing a route to enabling local input and agency to decision making and nature networks. This would create a route for local priority setting and ensure that ecological coherence and strategic placement of green and blue infrastructure is "baked in" to landscape-scale planning.

If Scotland's uplands are to support a network of healthy, resilient ecosystems, necessary for both nature and to support thriving rural economies, they must be planned and managed. This idea is the basis of the concept of nature networks. As set out in a Scottish Environment LINK briefing:

> "*A Nature Network is a strategic, long-term approach to manage, restore and enhance Scotland's habitats and landscapes. Its approach builds a nature friendly landscape, which is pervious to nature and provides life affirming wildlife and nature encounters to all people. A Nature Network is not a physical network like a path or hedgerow. It does however link the ecological processes that operate throughout the landscape, across managed landscapes and protected areas*".

The concept is supported throughout the Scottish Government's National Planning Framework 4 (NPF4), which indicates that "we will secure positive effects for biodiversity, create and strengthen nature networks and invest in nature-based solutions to benefit natural capital and contribute to net zero". It is also reflected in the Scottish Government's most recent, and current, Biodiversity Strategy which states that "Nature Networks across our landscapes will underpin the resilience and health of species and habitats".

To deliver on these strategic commitments, however, the Scottish Government, NatureScot, Local Authorities and others need to turn these positive intentions into practical action. With regard to the Land Use Strategy, RLUPs and Nature Networks, there is a need to:

- Appropriately resource all three approaches and in particular make sure the Land Use Strategy is used as a "golden thread" to provide coherence to policy making;
- Use the RLUPs and Nature Network process to provide an opportunity for meaningful stakeholder buy-in and engagement on decisions (we see this as the only practical option for meaningfully delivering a just transition on many nature and climate objectives);
- Allow the RLUPs and Nature Network process to help inform and direct elements of land management support so that spatial priorities for biodiversity and climate can be identified from the bottom up to help deliver the top down 2030 and 2045 targets;
- Ensure that the designated site network is both sufficient and in favourable condition by delivering on the government's 30 by 30 commitments. This must include additional or redirected funding and, where necessary, intervention to ensure that all protected areas (especially SACs, SPAs and SSSIs) are in favourable conservation condition;
- Ensure the nature network concept is embedded into all Planning policies and reflected in decision-making, as well as in land use policy. Thus,
    - NPF4 commitments must be translated into action via Local Development Plans and nature networks protected and/or enhanced via development control decisions;

    - The Land Use Strategy and RLUPs, together with reformed agriculture and forestry support (see actions 3 & 4, below), must be used to encourage land management actions that protect and enhance nature networks. These actions should also be co-ordinated with those set out in River Basin Management Plans; and
- These practical measures should be informed by robust data collection, analysis and presentation (e.g. Ecosystem Health Indicators (EHIs) such as freshwater status and Natural Capital Valuations), which will enable the mapping of opportunities, such as where and how wildlife-rich transition zones between designated sites could be encouraged, where natural dynamic processes and successions can happen, and landowners can be financially rewarded for the development of 'self-willed land'.

2. Secure a collaborative, landscape-scale, ecosystem-based approach to deer management, with greater emphasis on community hunting models, ideally delivered on a voluntary basis but backed-up by new and existing legislation, robustly implemented by NatureScot to enforce deer management where necessary to deliver sustainable levels of deer population, nature restoration and wider benefits.

The Scottish Wildlife Trust's Wild Deer Policy, most recently updated in 2024, sets out a clear framework for approaching the management of these species. It reviews the ecological status of our native (red and roe) deer, as well as the extent and presence of non-native species, such as fallow and sika deer. It acknowledges that light grazing by wild deer is generally beneficial to the natural heritage but shows that uncontrolled and excessive grazing by deer is currently one of the most significant threats to the health, natural functioning, and connectivity of ecosystems in Scotland. To address this, the Trust supports the sustainable management of deer for the benefit of wider ecosystem health. Reducing numbers to ecologically sustainable levels also benefits public health and safety by reducing road traffic accidents, and the risk of tick-borne infection in humans.

The Trust's Wild Deer Policy emphasises the need for population monitoring and herbivore impact assessments to gain an accurate picture of Scotland's deer population and localised impacts, to inform deer management decisions. It also highlights the ecological and financial downsides of deer fencing and calls for a move away from the use of public money to fund this method of deer management. Instead, we would like to see a move towards incentives for active deer management through culling, particularly focussed on stimulating the venison market through subsidies.

A sustainable deer management goal can be achieved with a modernised legislative framework, action by deer managers, and support through robust implementation by NatureScot. This has been set out in Scottish Environment LINK's 2020 report, *Managing deer for climate, communities and conservation* and is supported by the Trust. The proposals in the report also formed the basis for LINK's response to the Scottish Government's 2024 consultation on *Managing deer for nature and climate.*

New legislation to update the current framework, based on the 2024 consultation, is now expected to form part of the Natural Environment (Scotland) Bill, introduced to the Scottish Parliament on 19 February 2025. This bill will set out statutory targets alongside the already published Biodiversity Strategy, forming part of the Scottish Government's wider Biodiversity Framework. The Scottish Wildlife Trust supports such an update and, subject to it delivering the proposals set out in the consultation, believes it should be enacted and implemented as soon as possible.

Meanwhile, NatureScot should exercise its existing powers and functions to robustly encourage a more proactive approach by landowners and deer management groups. In the absence of voluntary action, NatureScot should be more rigorous in the application of statutory powers to secure sustainable deer management. The Natural Environment (Scotland) Bill proposes that deer management plans under section 6, and Orders under section 7 and section 8, of the Deer (Scotland) Act 1996 should be available for the purposes of nature restoration. When these

changes are made, these provisions should be applied to support the delivery of nature networks (see policy action 1, above) and woodland regeneration (see action 4, above).

Overall, the above measures, plus support and training for landowners and managers, should seek to encourage a more Nordic-style, community led, hunting approach for wild deer in restored upland woodlands, scrub and associated ecotones.

3. Reform agricultural support, policy and education provision in line with our Agriculture policy. For the uplands, this would favour extensive or organic production where it is ecologically appropriate, including mixed farming and low-density cattle/sheep grazing as well as agroforestry and wider delivery of public goods.

The Scottish Government's Vision for Agriculture, published in 2022, states a bold ambition for the sector to transform and become a global leader in sustainable and regenerative agriculture. Despite the passage of the Agriculture and Rural Communities (Scotland) Act 2024, the Scottish Wildlife Trust questions if reform to deliver the vision is happening quickly enough to meet the Government's own 2030 biodiversity target.

Agriculture is the second largest source of greenhouse gas emissions in Scotland, and with around 70% of Scotland's land classified as agricultural, the sector plays a key role in both halting biodiversity loss and meeting the country's net zero targets. We also know many farmers and crofters want support to help achieve these goals. Yet, at present and particularly in the uplands, policy and payment schemes are not delivering for the Government or for farmers and crofters.

Under the 2024 Act, the Scottish Government is required to publish a Rural Support Plan to set out how future support schemes will operate. Although this is yet to be published, even in draft, the Scottish Government has indicated via its Agricultural Reform Route Map a wish to move to a four-tiered model of support. This proposes that:

- The existing framework of support (i.e., the Common Agricultural Policy) will continue to 2025;
- Future support will be structured around four tiers;
- From 2025, new conditionality on half of all funding will be delivered through the Base Tier;
- From 2026, powers from the new Agriculture Bill will be used to launch the new Enhanced Tier; and
- Elective Tier and Complementary Tier will be introduced from 2027 including incarnations of Agri-Environment and Climate Scheme and the Farm Advisory Service.

Direct Payments will be retained in the Base Tier and Enhanced Tier (Tiers 1 and 2) which will take 70% of the farm budget. A further 11% of the budget will sit with the Less Favoured Area Scheme. Just 5% of funding is allocated to the Agri-Environment and Climate Scheme (Tier 3), which is where the big gains for nature and climate sit, with little remaining for key elements such as agroforestry, collaboration, support and advisory services (Tier 4).

Thus, while the Scottish Government's vision for agriculture includes positive aspects related to climate mitigation and adaptation and to nature restoration, delivery of real change to help farmers and crofters, especially in the uplands, has been – and continues to be – minimal.

The Scottish Wildlife Trust has set out how the Base Tier could work harder for riparian zones and wider biodiversity. Future briefings are planned on the Enhanced and Elective Tiers, especially the future of the Agri-Environment and Climate Scheme. The overall principles of all future agricultural support should be to:

- Provide enhanced support for farming systems that protect and enhance biodiversity; this should involve a considerable shift in support from the Base and Enhanced Tiers to the Tier 3 schemes. Such a shift would favour the uplands where the farming and crofting systems, while imperfect, are often already more biodiversity-friendly than the lowland, intensive agriculture systems;

- Incentivise sympathetic, low-impact management regimes, including mixed farming, herb-rich meadows and upland sheep and cattle managed at low stocking densities. Agri-environment payments should be enhanced and targeted to encourage low stocking density grazing on rough grasslands, upland heath and mires (on shallow peat) with sheep/cattle mixes on ecologically appropriate sites, in order to produce more fertile, productive and biologically diverse soils and vegetation cover (including woody species) which in turn support higher invertebrate and bird diversity and reduced bracken cover (see hill farming and heathland);
- Promote at scale cross boundary working between farm managers, particularly in the riparian zone;
- Encourage the development of 'agroforestry' systems that better integrate grazing and forestry land uses and encourage the development of more natural ecotones (transition areas) between different land uses, such as wood pasture habitats;
- Enable farmers and crofters to participate positively in the delivery of nature networks (see policy action 1, above) peatland restoration (see action 5, below) and the management of INNS and reintroduction or translocation of native species (see action 7, below); and
- Finally, successful agricultural policy is not simply about payments – it is also important that education and advisory services are aligned to ensure farmers and crofters are fully aware of the reasons for the transition and its public benefits and the new opportunities offered by the new support schemes and are supported to plan and implement the changes.

These agricultural policy reforms, delivered alongside those for nature networks and deer (see action 1 & 2, above) and forestry and peatland (see actions 4 & 5, below) will contribute to ecologically healthy and resilient landscapes of integrated land uses that can sustain rural communities and employment.

4. Reform public policy to set higher targets and more support for the establishment and management of native and semi-natural woodlands, as well as low-impact silvicultural systems in commercial plantations.

In delivering the Scottish Wildlife Trust's vision of a network of healthy, resilient ecosystems, Scotland's uplands would retain many of its existing 'open' habitats such as peatlands, moorlands and farmlands, albeit in an enhanced condition and interspersed in ecologically appropriate places with agroforestry. However, some of these, within the mantra of "right tree in the right place" would also be replaced by new and expanded native and semi-natural woodlands, as well as low-impact commercial plantations to create a truly sustainable landscape, supporting nature networks and native wildlife. The Trust's approach to forestry and woodlands was set out in its 2008 policy; the principles therein remain valid which are also reflected in Scottish Environment LINK's Woodland expansion principles for Scotland, published in 2020.

These principles and vision described above need to be reflected in public policy for forestry and woodlands, for which the framework is the Forestry and Land Management (Scotland) Act 2018 and Scottish Forestry's Strategy for 2019-2029 The 'headline' vision of this strategy is that "in 2070, Scotland will have more forests and woodlands, sustainably managed and better integrated with other land uses". It claims that it "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". However, as Scottish Environment LINK's response to the draft strategy stressed, the approach to sustainable forest management must be improved to go "beyond maintaining biodiversity as it exists, but [also] to enhance the contribution of our forests and future forests to Scotland".

LINK also observed that the Strategy, as drafted, lacked the vital objective of transitioning towards a more beneficial balance in Scotland's forestry and in particular, that the next 50 years should see "deliberate, mindful transition to a future in which continuous cover native and mixed forests become the predominant form of forestry" as exists in other European countries. This lack of a true 'nature networks' approach to forestry and woodlands, combined with the lack of SMART outcomes, means the strategy needs significant review. This is underlined by the results of the implementation decisions currently being taken – which result in both tree planting not being achieved and considerable disquiet about the outcomes achieved. The latter is well reflected in Alongside this emphasis on

increased planting, the Trust would support a focus on natural regeneration of existing woodlands, for example through deer management support. Naturally regenerated trees have been shown to adapt to locally prevalent environmental conditions, often surviving better than planted trees and resulting in more resilient woodlands.

The Scottish Wildlife Trust supports these calls for a new approach – with a focus on reforming strategy and incentives to set higher targets and more support for the establishment and management of native and semi-natural woodlands, as well as low-impact silvicultural systems in commercial plantations. Both the grants available, and the conditions of those grants through e.g. the UKFS and UKWAS, should be reformed to encourage more new native woodlands, improved management of existing woodlands, and support to allow natural regeneration.

This should be accompanied by improved financial incentives for low-impact silvicultural systems (LISS) in commercial upland plantations. Thus, large upland plantations should be managed through LISS approaches such as Continuous Cover Forestry (CCF) and wood pasture systems. Forestry grants for intensive monoculture/clear-fell must be phased out, due to the ecological impacts associated with this, and grants that encourage LISS approaches, the development of ecotones and successional habitats at forest edges should be made available. In addition, Scottish Forestry should develop new best practice guidelines to promote extensive restructuring of plantations to substantially increase structural diversity, retention of old growth and 'future veteran' trees, and increase the percentage of native broadleaf and coniferous tree species within Scotland's managed forests.

While more woodlands are important part of our vision for the uplands, whether native, semi-natural or commercial, they should not be established at the expense of important open habitats such as peatlands. This means that the land use strategies and robust application of project-level EIAs must ensure that forestry policy actually delivers the "right trees in the right places". Indeed, in addition, there is a strong case for action to remove poorly sited commercial plantations on e.g. peatlands, either proactively or by restoration at the harvest.

Riparian woodland restoration, through tree planting and facilitating natural regeneration through herbivore management, provides an ideal opportunity to maintain woodland connectivity, whilst maintaining open habitats. A healthy riparian zone also provides rivers and streams with shade and buffers against diffuse pollution and sedimentation. As the lead partner in Riverwoods, it is a Trust priority to work towards the creation of a network of thriving riverbank woodlands and healthy river systems across Scotland, including in our uplands.

Finally, our two special woodland types, Scotland's rainforest and our Caledonian pinewoods, should be subject to coordinated policy measures for their protection, management and expansion. This should include ensuring that designated sites are in favourable condition, linking isolated sites through nature networks (see action 1, above), enhanced grants for their management or the planting of new native woods in these areas, and actions to better control of wild deer (see action 2, above) and *Rhododendron ponticum* (see action 7, below).

5. Secure the cessation of damaging activities, restoration and sustainable management of peatland throughout the Scottish uplands; this will involve partnership working, and the application of site protection and river catchment laws, all harnessing both public and private finance.

Peatlands are incredibly special habitats, made up of highly adapted plant species and home to a range of rare and important wildlife, including the bog-forming *Sphagnum* mosses, the insect-eating sundews and waders such as golden plover, greenshank and dunlin. In good condition, they also absorb carbon from the atmosphere and lock it up in peat, helping tackle climate change.

Peatland covers 20% of Scotland's land and the majority of the UK's peatlands are in Scotland. However, 80% of Scotland's peatlands are degraded in some way. This affects their ability to capture carbon, provide home for wildlife

and produce clean water. We also have some areas of Scotland's uplands where damaging activities are still occurring for example burning (as discussed below) or extraction for horticulture.

It is therefore welcome that the Scottish Government, NatureScot and others have developed a National Peatland Plan and that the Scottish Government has pledged to invest more than £250 million over 10 years to help deliver peatland restoration activities. This work is coordinated by NatureScot through Peatland ACTION.

Nevertheless, peatland restoration rates remain inadequate – both for nature and to meet climate targets. The Climate Change Committee's (CCC) most recent report suggests that "peatland restoration rates are significantly off track and [that restoration] will need to more than double … by 2026". This will need increased public funding (and action to ensure delivery), but also more support from landowners and managers and private finance, including via the Peatland Code. The IUCN UK Peatland Programme (of which the Trust is a partner) provides invaluable work to promote peatland restoration in the UK and advocates the multiple benefits of peatlands through partnerships, strong science, sound policy and effective practice – and can support governments, agencies, NGOs and private landowners to deliver more, faster and better restoration.

We welcome commitments to end the sale of horticultural sale of peat, however, this has been promised since 2020 and we have yet to see meaningful action. The Scottish Government and other Governments across the UK should move to end horticultural peat sales immediately.

6. Ensure the sustainable management of grouse moors, by promoting good practice and through the robust implementation of the Wildlife Management and Muirburn (Scotland) Act 2024.

Red grouse (*Lagopus lagopus scoticus)*[1] is a medium sized gamebird living on heather-dominated moorland in Britain and Ireland. Such moorland is a widespread, distinctive and ecologically important component of Scotland's uplands. However, it is also a declining and degraded habitat and one that should be more naturally integrated with other habitats, particularly upland woodlands and scrub.

This poor condition is, to a great extent, the result of management for grouse shooting. As well as impacting on the state of the habitat and the wider environment, this management of its habitat for the purposes of enabling sport shooting has ensured that red grouse are typically more abundant in such managed areas than in natural or semi-natural settings.

Grouse shooting and moorland management have begun to receive unprecedented levels of public scrutiny. Various issues have contributed to this often heated debate, including the illegal killing of birds of prey and the culling of mountain hares; the impact of drainage and muirburn on both carbon emissions and water quality; the increased number of 'hill tracks'; the use of lead ammunition; the widespread use of medication on wild birds; and the intensification of all these activities to produce higher yields ('bags').

The environmental consequences (including for carbon, water, and biodiversity) of intensive forms of grouse shooting and the associated land management practices in Scotland have attracted considerable attention in recent years. The spotlight has particularly been on the increasing intensity of management linked to driven grouse shooting in large parts of our uplands and led to the Scottish Government commissioning a report from the independent Grouse Moor Management Group. The recommendations from this report eventually led to the

[1] It is a subspecies of the willow grouse or willow ptarmigan, which has a vast breeding range across more northerly parts of Eurasia and N America. However, the *L. l. scoticus* subspecies is confined Britain and Ireland, is therefore considered (potentially) vulnerable. The birds in Ireland and the Outer Hebrides are considered to be a separate sub-species (*Lagopus lagopus hibernicus*). Furthermore, recent taxonomic research suggests that the red grouse should be elevated to the status of distinct species (once again), making it one of the very few species endemic to Scotland.

passage of the Wildlife Management and Muirburn (Scotland) Act 2024. Meanwhile, the killing of mountain hares, except under licence, was outlawed in Scotland by an update to the 1981 Act passed in 2020; this move was consistent with the Trust's policy on mountain hares.

The 2024 Act introduced a licensing scheme for both grouse shooting and the making of muirburn, each subject to a Code of Practice. The Scottish Wildlife Trust supported these changes and the bill, when considered by the Scottish Parliament – but also emphasised "the need for robust compliance measures to ensure necessary changes are implemented to support the nation's efforts in tackling the climate and nature emergencies".

In early 2025, the Code of Practice for Grouse Moor Management was published, although the licensing scheme for grouse shooting has been operational since August 2024. Although widely supported, in principle, the implementation of the scheme has been subject to some concern and controversy – both in relation to the areas covered and to the extent, if any, of compliance monitoring.

Meanwhile, the provisions relating to the code of practice for muirburn, and the new comprehensive licensing scheme are expected to come into force in the autumn of 2025. Muirburn is the practice of burning vegetation and is mainly associated with managing land for grouse shooting. The impacts of muirburn on nature and climate were reviewed by RSPB Scotland in 2021, and they concluded that licensing should be introduced. This was followed by their 2023 position statement on licensing of muirburn in Scotland. If the 2024 Act provisions are implemented robustly, they could fulfil the objectives set out in the Trust's policy on muirburn (which predates the proposals for the new legislation) and our asks within responses to Government consultations.

Thus, the full and robust implementation of the 2024 Act, alongside support and training for landowners and managers, should seek to deliver a high standard of environmental stewardship, and to monitor and report on their impacts on habitats and water quality. This should result in a transition from intensive, driven grouse moors to a more natural and more accessible (more 'walked up') approach to grouse shooting, within ecologically more diverse habitat mosaics of open heathland, restored peatlands and large areas of recovering scrub and woodland.

7. Seek the natural abundance and distribution of ecologically important species, by robust enforcement of wildlife law, management of invasive non-native species (INNS) and re-introduction or translocation of keystone species, such as Eurasian beaver and Eurasian lynx.

Most species will return to their natural abundance and range as a result of the wider nature restoration policies (set out above) that are focused on designated sites, nature networks and land management. However, some public policy interventions, directly focussed on species, are also necessary; these fall into three areas:

- The prevention of wildlife crime by robust enforcement action;
- The prevention, ideally, of INNS establishment and the management/elimination of already-established INNS; and
- The reintroduction and/or translocation of keystone species that have previously been extirpated.

Wildlife crime is described by the Scottish Government as "the illegal theft or harming of animals, plants and habitats, either in rural or urban areas". It encompasses both the very evident, illegal and harmful activities such as badger baiting, raptor persecution and egg collecting. Also, the not so obvious such as inappropriate disposal of chemicals, fly tipping and introduction of invasive non-native species - all of which can destroy species' habitats and damage ecosystem health and ultimately Scotland's stock of natural capital. It can also include the irresponsible disturbance of wildlife by dogs.

These activities are all unlawful and are, indeed, mostly criminal offences. Yet, they still continue to take place – and the Scottish Government, NatureScot, the police, Crown Office and others have a number of programmes and

initiatives that seek to improve the detection and prosecution of wildlife crime, and thus its deterrence. The introduction of grouse moor licensing (see action 6, above) is the latest legislative approach to deter the persecution of birds of prey.

The Scottish Wildlife Trust would like to see these measures more robustly pursued by the relevant authorities, including:

- Increased and long-term funding for the National Wildlife Crime Unit, Police Scotland Wildlife Crime Officers and COPFS 'environmental fiscals';
- Tougher sentencing for wildlife crime to send a strong message to potential offenders; and
- Wider publication and dissemination of the requirements regarding the protection of wildlife in legislation.

Invasive non-native species are a significant and increasing threat to biodiversity in both Scotland and the UK and have been identified by the IPBES as one of the top five direct drivers of global biodiversity loss. INNS affect our native biodiversity through competition, predation, herbivory, genetic pollution, the introduction of novel pathogens or parasites and the physical alteration or destruction of habitats. Section 14 *et seq* of the Wildlife and Countryside Act 1981, as amended for Scotland (notably by the Wildlife and Natural Environment (Scotland) Act 2011), provides a generally very sensible legislative framework (albeit that there remain improvements that might be made, especially in relation to non-native gamebirds, the spread of non-native conifers from forestry plantations and the provisions for access to undertake INNS control).

The Scottish Government is currently developing an action plan for INNS, based on the jointly agreed GB Invasive Non-native Species Strategy. There is also a Non-Native Species Code of Practice which provides guidance for individuals, businesses and public bodies.

The Scottish Wildlife Trust would like to see greater efforts accorded to the prevention of INNS establishment (research has shown that once established, INNS are extremely difficult to control and almost impossible to eradicate unless measures are taken immediately when they become established) as well as the robust enforcement of legislation and greater efforts to promote and apply the Code of Practice. The Trust's Non-Native Invasive Species Policy was last updated in 2012, and the policy remains valid. The Trust is also fully aligned with the proposed strategy for tackling INNS set out in Scottish Environment LINK's 2024 report, *INNS in Scotland: A plan for effective action* and believes that this report should form the basis for the Government's INNS action plan. In relation to the uplands, the management/removal of a number of INNS will be crucial and more effort and resources must be directed towards the removal of *Rhododendron ponticum* (especially in Scotland's rainforest), American mink and Sika deer. Robust mapping and monitoring of INNS, at a landscape scale, would be a key step in implementing these policies and inform strategic management.

As well as the management/removal of harmful INNS, there is also a strong case and legislative drive for the licensed reintroduction or translocation of specific keystone species to the uplands. The Trust's policy on such species reintroductions or translocations recommends that they should follow Scottish Government and IUCN guidelines, assessing fully all ecological, economic and social benefits and costs. Subject to this approach, the priorities for Scotland's uplands should be:

- To manage and encourage the further spread of the Eurasian beaver (leading to re-establishment throughout native upland forest below 500m); and
- To develop and implement a trial Eurasian lynx reintroduction project in the Highlands and conduct research into the feasibility of other potential reintroductions in the longer term.

8. Ensure the planning, construction and operation of infrastructure (for energy, transport, etc.) follows the mitigation hierarchy, is consistent with the protection of designated sites and wider nature networks and is environmentally sustainable.

The Scottish Wildlife Trust's vision for the uplands, based on a network of ecologically healthy and resilient ecosystems, is not one without people. Indeed, this healthy natural environment is necessary as natural capital to secure thriving and diverse local, rural economies and communities, many of whom will work in the sustainable agriculture, forestry and deer/game management sectors described above. These communities will also, rightly, need housing, transport, and energy; they will also be engaged in business that generate goods and services for export, notably renewable energy.

These varied development needs are subject to planning. It is therefore vital that planning decisions and wider system reflect the positive intentions set out in the Scottish Government's NPF4 that development is managed consistent with the delivery of nature networks, and a healthy natural environment. Thus, these intentions of NPF4 must be reflected in Local Development Plans, and in individual development control decisions. This will mean the application of a mitigation hierarchy for such decisions, including:

- The robust implementation of EIAs, the Habitats Regulations and the Nature Conservation (Scotland) Act 2004 to protect designated sites, including, if necessary, appropriate compensation measures;
- Significant protection accorded to the wider nature networks, especially key habitats such as (restored) peatlands and Scotland's rainforest;
- Significant new developments should be subject to new statutory guidelines on mitigation to ensure they are environmentally sustainable and contribute towards the wider ecological coherence of the surrounding landscape and nature network. This might include compulsory Habitat Management Plans for some significant developments; and
- The use of nature networks opportunity mapping to highlight the best places to site any "positive effects for biodiversity" compliance works.

9. Climate change policy must ensure the meeting of emissions reductions targets to reach net zero by 2045; a key part of this will be the nature restoration and land use policies set out in priorities 1-8 above.

The twin crises of climate change and biodiversity are inextricably linked. Climate change is one of the key drivers of biodiversity loss (see above), while the loss or damage of natural habitats reduces carbon sequestration, and new land uses and damaged habitats are greater emitters of greenhouse gases. Therefore, to address the climate crisis it is also necessary to address biodiversity loss – and nature restoration is a key tool in reducing emissions.

Thus, the Scottish Government's priority of "tackling the climate emergency" though the proper implementation of the Climate Change (Scotland) Act 2009, as amended, and especially through the new Climate Change Plan (due in 2025) must, as well as focusing on emissions reduction, be carried out in a nature-friendly manner. Moreover, if well-implemented, all the measures set out above, for agriculture, forestry, peatlands, grouse moors, and for nature restoration in the uplands, can and will contribute to emissions reductions and should be included in the Climate Change Plan.

In addition, addressing the full range of greenhouse gas emissions, including methane, nitrous oxide and others (from transport, agriculture and damaged peatlands) will improve air quality for people and reduce the damaging impacts of e.g. nitrogen deposition on upland habitats.

10. Complementary scientific, educational and cultural actions are needed to ensure that the state of the environment is well monitored, understood and appreciated; and additional actions by NGO and public sector landowners to further improve the management of land and promote good practice.

These public policy measures should be supported by complementary scientific, educational and cultural actions to ensure that the state of the environment is well monitored, understood and appreciated.

Actions to deliver improved scientific understanding and monitoring – both essential to determine the necessary policy actions and to assess their effectiveness (and, where appropriate, amend/improve them) – might include:

- Recognise the need for and improve funding streams for baseline data collection and long-term monitoring;
- Robust data collection, analysis and presentation;
- Strong digital infrastructure to ensure data are accessible (e.g. Better Biodiversity Data project, National Biodiversity Network Atlas);
- Collaboration with academic institutions to answer key questions/test best management practices;
- Better adoption of evidence to decision tools (e.g. Conservation Evidence Evidence-to-Decision tool) to inform management actions; and
- Expand data collection and engage local communities through Citizen Science initiatives.

This should further be complemented by additional actions by NGOs and public sector landowners to further improve the management of land and promote good practice. The Trust has three wildlife reserves that contain significant proportions of upland habitats, with the three largest upland reserves (Ben Mor Coigach, Rahoy Hills and Largiebaan) covering a joint area of over 9,000 ha. On these sites and elsewhere, the Trust is involved in such work both directly and in partnership with others, as are other NGOs, including RSPB, NTS, JMT, Woodland Trust and Plantlife. These NGOs often collaborate both bilaterally and through networks to share best practice and mutual learning. Public sector land managers include NatureScot, Forest and Land Scotland, Scottish Water and local authorities; while many of these public bodies have important non-conservation objectives to their land management, they are all subject to the statutory biodiversity duty and other public sector duties that mean that their practices should be environmentally sustainable and contribute to delivery of the goals described above.

This ownership and management of land by NGOs has demonstrable socioeconomic benefits which, as well as being positive in itself, can help demonstrate and win support for sustainable land management practices and the policy actions set out above.

Land management by NGOs and the public sector should, however, also include going beyond the new requirements/incentives provided by public policy. Such land management projects by NGOs and the public sector are an opportunity to:

- Contribute directly to nature restoration as well as sustainable economic activity;
- Trial and develop new management practices;
- Demonstrate best practice and promote this to others;
- Establish and promote positive partnerships with local communities, between NGOs and the public sector, and/or with the private sector (such as on the Isle of Eigg or Cairngorms Connect).

The solutions and the drivers of biodiversity loss

The table below sets out how the 'top ten' public policy solutions set out in this policy briefing would combine, if well-implemented, to address the five direct and two indirect drivers of biodiversity loss described above.

The drivers of biodiversity loss	Solutions
Direct	
• Changing use of sea and land	1-8
• Direct exploitation of organisms	2, 6, 7
• Climate change	9
• Pollution	1-8
• Invasive non-native species	7

Indirect	
• People's disconnect with nature	10 (alongside appropriate implementation of 1-9)
• Lack of value placed on the importance of nature	

Scottish Wildlife Trust priorities for action

The Scottish Wildlife Trust will seek to promote the principles and actions outlined in this paper in the following ways:

- By advocating the policy priorities and recommendations outlined above to the Scottish and UK Governments, parliamentarians and political parties, statutory agencies, the business and land management sectors, and other key stakeholders.
- By delivering, to the best of our ability, against our advocacy priorities outlined above on our own reserves whilst acknowledging that our reserves do not exist as islands and the delivery of many of these priorities are only possible in collaboration with others and with appropriate levels of resource.
- By identifying opportunities for projects and operational practices on our upland wildlife reserves which demonstrate best practice in relation to the promotion and delivery of the policy recommendations and actions outlined above. Examples could include landscape-scale ecological restoration projects at our reserves at Largiebaan, Ben Mor Coigach and Rahoy Hills.
- Through the delivery of the Trust's Living Landscapes project in Coigach and Assynt. This project aims to work with partners and the wider community to restore the health of the whole upland ecosystem by improving and reconnecting habitats to deliver multiple benefits and encouraging sustainable rural development.

Related policies

For other related polices and positions, please search the policy section of our website; those with particular relevance to the uplands, include:

- Economics of ecosystem goods and services
- Energy and nature conservation
- Forestry and woodland
- Integrated catchment management
- Land Stewardship
- Lynx reintroduction
- Mountain hare
- Muirburn
- Non-native invasive species
- Pesticides
- Planning system
- Pine marten
- Reintroduction of Eurasian beaver to Scotland
- Species reintroductions
- Sustainable agriculture
- Sustainable food
- Wildcat
- Wild deer
- Wildlife Management
- Beaver conservation and conflict

- River restoration for nature and climate resilience
- Biodiversity
- Common Agricultural Policy
- Deer Management – April 2017
- Nature Networks Briefing Document
- Sustainable-Forestry – November 2017
- Wildlife crime

References

Ratcliffe, D.A. & Thompson, D.B.A. (1988) The British uplands: their ecological character and international significance. In: Ecological Change in the Uplands (M B Usher and DBA Thompson, eds), pp 9-36. Blackwell Scientific Publications, Oxford.

For other references, please see the links throughout the policy document.

Lloyd Austin
February 2025

[i] Ratcliffe, D.A. & Thompson, D.B.A. (1988) The British uplands: their ecological character and international significance. In: Ecological Change in the Uplands (M B Usher and DBA Thompson, eds), pp 9-36. Blackwell Scientific Publications, Oxford.