Scottish Government's perspectives and future priorities for upland management

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Upland Management and Biodiversity –
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Introduction

Good morning. Thank you for your kind welcome. I'm delighted to be a part of this knowledge exchange event, and I hope that I can add the Scottish Government's perspective on this important subject.

I know that Professor Simon Thirgood should have been addressing this event today, and I am sorry to hear of his tragic death during the summer. He was a highly respected ecologist who was deeply committed to conservation issues both at home and abroad.

I understand that Simon had a great love of Ethiopia's Bale Mountains and a substantial amount of money has already been raised in his memory to support a project he set up.

This project will create scholarships to allow children living in the Bale Mountains to attend school and provide them with opportunities to influence their environment in a positive way for generations to come. I'm sure you'll agree that this is a very worthy cause and a fitting legacy for Simon.

Research partners

We are very fortunate in Scotland to have such an excellent environmental research base. Within the Macaulay Institute, the Scottish Agricultural College, Scottish Crop Research Institute and many of our universities we have some of the best researchers in the UK, and indeed in Europe.

And one of the great things going for us in Scotland is that we have excellent links between these researchers, policy makers, practitioners and the funding bodies. I know that Scottish Natural Heritage, whose facilities we are enjoying today, work especially hard to ensure strong connections between what they do and the excellent work of their research partners.

Uplands

One of the key areas of research which all of those organisations are involved in, is the one we're all here today to discuss - the uplands.

55% of Scotland's land area can be classified as upland, and contains a rich and unique biodiversity. We have globally important expanses of blanket bog, heather-clad moorland and moss-dominated mountain summit ridges. The mosaics of these habitats simply do not occur anywhere else in the world.

We experience a wide range of climatic influences giving rise to a remarkable diversity of plants including some of the richest moss and fern communities in Europe and unique alpine and arctic species.

Many of our iconic bird species – such as golden eagle and red grouse – are also strongly associated with upland habitats and breed at higher densities here than anywhere else.

I could go on, but there are too many unique aspects of Scotland's nature to list. I'll just emphasise that we should not lose sight of the global importance of what we have in Scotland – an outstanding richness and diversity of nature.

Our uplands aren't just important for biodiversity, though – they're also hugely important to Scotland's economy, for recreation, agriculture, forestry, water management and to mitigate the effects of climate change.

Ecosystems Approach

By taking an ecosystem view of the uplands, we are starting to analyse and better understand the ecosystem services that they provide. All Ecosystems provide goods and services that contribute to human well-being, and Scotland's uplands are important for delivering all four categories of ecosystem services:

By direct provisioning – for example the uplands supply 70% of Scotland's fresh water.

By helping to regulate our environment – for example at least 50% of the soil carbon in Britain is stored in Scotland's uplands.

By supporting other human production activity – providing natural woodlands, agricultural land and grazing.

And by supporting cultural and recreational activity – our mountains are world famous, bringing walkers and climbers from all over the world.

With all these benefits come many challenges. In our uplands some habitats and natural resources are under pressure from current and historic management activities, some of which could increase the overall sensitivity of the uplands to climate change and carbon loss.

We need to ensure that land is managed in a way that secures soil carbon stocks and protects the other goods, services and functions that the uplands deliver.

Earlier in the month, I opened the Rural Land Use Summit, which built on the Rural Land Use Study. As I'm sure many of you are aware, this study involved the most comprehensive review of the wide range of benefits provided by

Scotland's rural land and the future challenges generated by climate change, population movement and meeting food, energy and fuel needs.

During the summit, we discussed the findings of the main research topics, identifying the pressures likely to face Scotland in the short and longer-term, including the key importance of climate change.

We discussed the need for a deeper understanding of carbon emissions in the agricultural sector and the help which is being offered through initiatives like Farming for a Better Climate - helping Scottish farmers adapt to climate change and take positive steps towards reducing emissions in their businesses.

We also looked at the increasing involvement of communities in rural land use decisions and the importance of information, training and skills in ensuring rural Scotland is equipped to meet new challenges.

The Rural Land Use Study and Summit will help provide a springboard for further policy, including the Land Use Strategy, which we are currently developing.

Evidence base

Over the last 10 years we've seen a decline of around 18% in the number of grazing sheep, and 9% in the number of cattle, particularly affecting the uplands, with implications for local economies, communities and the environment.
In order to arrest this trend, the Scottish Government has put in place a number of measures.

In June, I announced the immediate increase of LFASS payments for 2009 for the fragile and very fragile land categories.

In the medium term, we will look specifically at the role Land Management Options can play in supporting grazing in the hills. We will look at the possibility of creating new LMOs, for instance to target areas requiring grazing to maintain ecological condition.

I also announced that we would initiate an inquiry into the Single Farm Payment Scheme, chaired by Brian Pack. We have received over 100 submissions following our call for evidence, and the interim report will be available by Christmas.

This inquiry will give us recommendations on how almost £400m of funding each year might best be distributed in the future, for example between regions of Scotland or perhaps between land types – or a combination of both.

In protected areas such as SPAs, SACs and SSSIs we can do more to help habitats and wildlife. SRDP and other measures are being targeted on these sites to help meet our target of having 95% of notified features in favourable condition, but so far less than three fifths of upland features are meeting this target.

Clearly we have a huge task here, but this is a long-term problem that requires long-term solutions involving complex partnerships between land-owners, tenants and public bodies, building on the research base developed by bodies such as the Macaulay Institute.

In spite of initial scepticism, we have had excellent uptake of SRDP options to enhance the condition of upland sites, for instance by tackling localised overgrazing problems; and SNH and the Deer Commission for Scotland are working closely together to identify further solutions.

Climate Change

But there are wider challenges in the uplands than just on those protected sites. One of the biggest threats of our age is climate change.

On 24 June 2009, the Scottish Parliament, with the strong backing of civil society in Scotland, unanimously passed the industrialised world's most ambitious climate change legislation.

We hope that the example of Scotland taking strong action on climate change can be used to influence the international community to be bold in their

consideration of mitigation measures when they meet in Copenhagen next month.

The key features of Scotland's climate change framework are of international interest:

- the Climate Change (Scotland) Act 2009 which sets targets of 42% cuts in emissions by 2020 and 80% cuts by 2050;

- the Climate Change Delivery Plan which is being developed into a detailed Report on Proposals and Policies for publication next summer;

- annual reports on the Carbon Assessment of government spending;

- a strategic approach to climate change Adaptation Framework;

- statutory duties on public bodies on mitigation and adaptation; and

- a statutory Public Engagement Strategy.

We believe that the move to a low carbon economy is a major economic opportunity for Scotland and we are pressing ahead with our 10 energy pledges to capitalise on our huge potential in Renewables:

- onshore wind;

- offshore wind;

- wave and tidal - through the Scottish European Green Energy Centre and the Saltire Prize, as well as:

- taking a leading role in Carbon Capture and Storage; and

- a close involvement with the development of energy grids – all of which makes Scotland of strategic importance in EU energy terms.

On the 14th of December, the Scottish Government will run an event in Copenhagen to present the Scottish model to the international community. Our objective is to persuade developed countries, particularly the EU, to adopt the highest possible emissions reductions targets at Copenhagen.

Climate Change will have a major impact on the Scottish uplands - from threatening the habitats of montane species, to increased frequency of wildfires from drier summers, from increased flooding in winter, to the arrival in Scotland of new pests and diseases.

To single out one area within the Climate Change Act, the sustainable use of soil is essential to achieving the emissions targets we will be pushing for in Copenhagen. The amount of carbon tied up in our peatlands is equivalent to several decades' worth of carbon dioxide production in the UK as a whole.

Given that prime areas for capturing renewable energy from wind are often situated on our peatlands, it is all the more important that we consider the carbon payback time of wind farm developments.

The Scottish Government has been working with researchers, agencies and developers to agree a clear and transparent method for determining carbon payback time.

Soils and Flood Risk

In Scotland we have a strong track record in soil protection. Research shows our soils are generally in good shape. However, there is no room for complacency. Pressures on soils need to be taken seriously in order to prevent soil degradation. The most significant of those pressures are climate change and loss of soil organic matter.

There are uncertainties as to how exactly the future climate will impact on Scotland's upland soils.

But there is a risk that other threats like erosion, compaction and loss of biodiversity could be exacerbated through warmer, wetter winters and hotter, drier summers. We need to prepare for these future challenges and enhance the soil's capacity to adapt to pressures under a changing climate.

Earlier on this year the Scottish Soil Framework was launched. The Framework aims to promote the sustainable management and protection of soils - consistent with the economic, social and environmental needs of Scotland.

The implementation of the Scottish Soil Framework will be an important step towards achieving the National Outcome on Natural Resource Protection which complements initiatives like the Climate Change Delivery Plan and will contribute towards achieving our stringent climate targets as well as Biodiversity targets.

But we must not forget that well-managed upland soils also play an important role in sustainable flood management as well as maintaining good water quality.

To help us to adapt to climate change we must find more sustainable ways to tackle the increased risk of flooding from rivers and the sea.

We have introduced new flooding legislation, which encourages taking a more natural approach to managing flood. By this we mean addressing the sources and pathways of flooding across catchments and not just the impacts downstream.

It is therefore particularly important that we consider opportunities in upland areas to store water and reduce the rate of run-off into water courses.

We also believe that by working with our environment to manage flood risk we can seek to deliver multiple benefits for society, the environment and the economy.

Importantly we recognise that we must work closely with land owners and managers and rural communities to deliver this more natural approach.

2010 – Year of Biodiversity

The Scottish Biodiversity Strategy – "It's In Your Hands" sets out a 25 year vision and framework for action for Scotland's biodiversity.

This strategy provides the foundation for Scotland's contribution to the UK obligations under the International Convention on Biological Diversity and places a statutory duty on public bodies to conserve biodiversity under the Nature Conservation (Scotland) Act 2004.

2010 is the International Year of Biodiversity, which kicks off for Scotland in the New Year, with a launch at the Royal Botanic Gardens in Edinburgh.

It is an opportunity for every one of us to recognise the importance of biodiversity for all life on Earth, not just for its own intrinsic worth, but its importance for human well-being and in relation to the ecological services it provides.

This coincides with the target set in 2002 in Johannesburg for biodiversity, and in the coming year, we will be setting new targets for the future.

Conclusion

Looking ahead, I would not be surprised if in less than 10 years we are managing our daily budgets in terms of not just pounds, or possibly even Euros, but also in carbon units.

In the uplands – in the soils, in the mantle of plant life, and at the hands of people who manage and enjoy these areas, rests the destiny of our uplands and, I would argue the country as a whole.

In conclusion, my challenge is for you, the researchers, the advisers, the managers, the teachers, the industrialists – and everyone else – to find ways of keeping Scotland at the forefront of sustainable environmental management both in the uplands and throughout Scotland.