



The Scottish Parliament  
Pàrlamaid na h-Alba

Scotland's  
**Futures Forum**  
Fòram Alba air Thoiseach

SEFARI   
LEADING IDEAS  
FOR BETTER LIVES

## SCOTLAND 2030 PROGRAMME

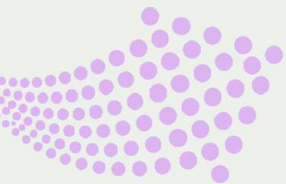
Wednesday 21 June, The Scottish Parliament

# Our Environment



  
**SCOTLAND  
2030** 





## Claudia Beamish MSP, Director of Scotland's Futures Forum

Claudia Beamish MSP welcomed guests to the second debate of the Futures Forum's Scotland 2030 Programme, which explored the likely changes to Scotland's environment and how Scotland might develop a relationship with the environment that contributes to a just and sustainable future.

Ahead of introducing the Forum's main speakers, Claudia Beamish invited Stephanie Smith, a researcher at SRUC, to say a few words about a report she was commissioned to write by **Scotland's Futures Forum** and **SEFARI** (Scottish Environment, Food and Agriculture Research Institutes) on what Scotland's environment might look like in 2030.



## Dr Stephanie Smith, SEFARI (Scottish Environment, Food and Agriculture Research Institutes)

### Dr Stephanie Smith, SEFARI

Having analysed research produced by SEFARI and others, Steph stated that it is probable that in 2030 Scotland will be warmer and wetter, more exposed to extreme weather and flooding, more at risk from invasive species, and more likely to see a redistribution of its native biodiversity.



**Land Use**

*“Earth provides enough to satisfy every man's needs, but not every man's greed.”  
- Mahatma Gandhi*

**79%** of Scotland's land was dedicated to agriculture in 2017. Changes in the support regime for forestry, agriculture and environment are just starting to have visible impacts on land use decisions. Farmers are now more focused on market-orientated production, the delivery of ecosystem services (e.g. soil quality and peatland are more valued by the public for their ability to store carbon and improve flood management) and optimising biodiversity. Pressure on land for increased development continues for example the building of **15,000** new homes annually since 2017.

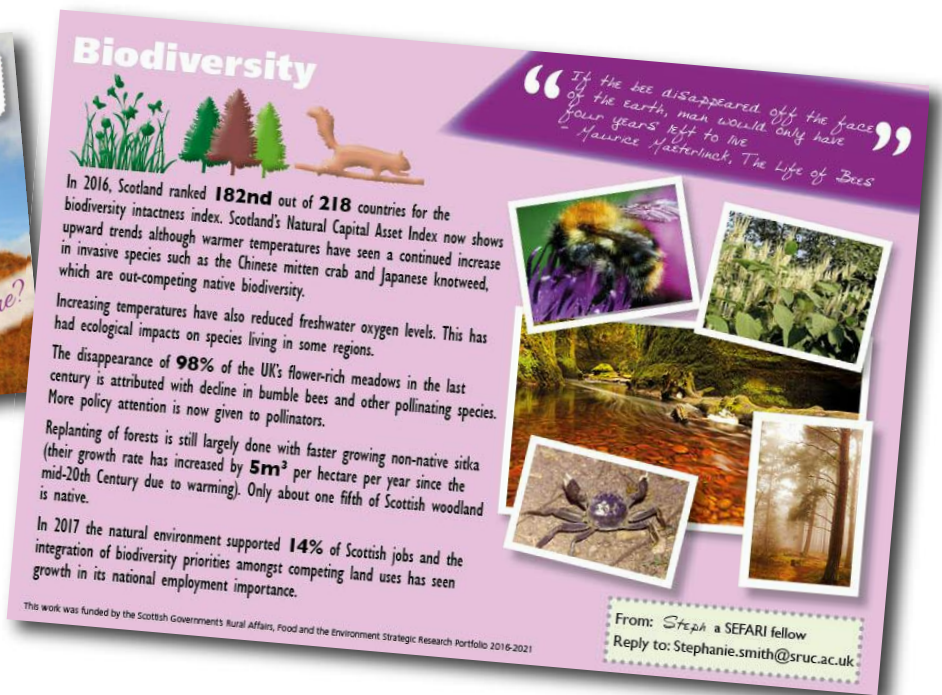
Forests remain important carbon sinks, yet Scotland still has one of the lowest levels of woodland cover in Europe. However, forestry planting did increase following the 2016 Mackinnon report and increased forestry funding throughout the 2020s, and we are now achieving **10,000** additional hectares annually.

There has been increased need for effective wild deer management and there continues to be support for the reintroduction of keystone species such as lynx and wolves as natural predators of wild deer.

This work was funded by the Scottish Government's Rural Affairs, Food and the Environment Strategic Research Portfolio 2016-2021

From: *Steph* a SEFARI fellow  
Reply to: [Stephanie.smith@sruc.ac.uk](mailto:Stephanie.smith@sruc.ac.uk)





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It is probable that in 2030 Scotland will be warmer and wetter, more exposed to extreme weather and flooding

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Steph suggested that three major factors will influence the resilience and functioning of Scotland's environment in 2030:

- the legislation the UK put in place following Brexit;
- how natural capital is valued in economic decisions; and
- human behaviour, particularly our willingness to adopt new technologies and approaches.

In addition to the report, Steph has produced a series of postcards from 2030 which are designed to stimulate debate and discussions on environmental policy. The report and associated postcards from Steph's research are available on the Futures Forum **website**.





## Heidi Hauf, Forum for the Future



Our mindset  
and our view  
of the natural  
world is key to  
the kind of society  
that we will create



Heidi Hauf began by stating that climate change will bring urgent challenges, and that, one way or another, it will transform our society. Taking no action to keep global warming below 1.5°C will be catastrophic for our economy and our society. However, even if we knuckle down to keep within the carbon budget available to us, we still face massive change.

While nature will adapt, Heidi suggested that climate change throws up a range of questions that we need to address. How will humans adapt? What kind of society will we create? What will we value as we deal with change? Will we be willing to shift power from the centre? How will we incentivise decisions that benefit the majority and not the few? How will we enable participatory discussions that will help us challenge the social norms that decide how we live and work?

In Heidi's view, our mindset and our view of the natural world is key to the kind of society that we will create. Using an imaginary scenario, she shared a possible world, 20 years hence, of a society that is starting to live in harmony with itself and with the natural world.

## Scenario of a future society...

The world is in transition to a new economic paradigm, triggered by a shift in people's mindset and a set of metrics that prioritise quality of life and well-being over growth and consumption. Energy, water and resource scarcity is only just being kept at bay. Climate change has affected global agricultural yields. Innovation and biotechnology is bridging the gap but cannot do so indefinitely.

All societies are investing heavily in restorative agriculture and are trying to reduce meat consumption. Carbon emissions are coming down fast due to rising carbon prices. The world is on a trajectory which will see a warming of 2.5°C by 2100. Energy has shifted to a decentralised system, triggered by the falling cost of renewables. There is a massive emphasis on demand side management and micro-generation of energy.

People are relocating from climate-stressed areas to countries with temperate climates. Island communities off Scotland, and elsewhere, are experimenting with circular systems that work within the limits of the community's natural resources.

There's a widely held view that people need meaningful work. Automation works alongside jobs that require human skills, such as critical thinking and collaboration. There is a big focus on life outside of work and job-sharing is common to reduce unemployment. Life is slower paced. There is a premium on creativity and innovation although overwork is common and people over-identify with what they do.

Traditional government institutions, which are mistrusted and considered ineffective, find it hard to keep pace with change. Government exists but it is often left with the harder tasks of dealing with people who have been excluded from sharing systems. Civil society is powerful and has significant influence over policy.

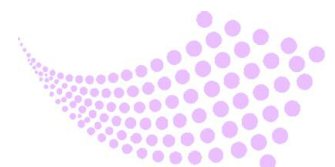
## Four characteristics of a sustainable society

Heidi suggested that parts of that future are already here, but that we need to scale up some aspects of it to achieve a more integrated society. In particular, she highlighted four key differences in that vision compared to where we are today:

- 1** Decentralisation: citizens and civil society (rather than government) have the power, information and agency to bring about the changes that suit their needs.
- 2** Regenerative systems are the norm: processes are developed that put more into natural capital than are taken out so, for example, circular and networked energy systems link to other local services to minimise waste.
- 3** A change in values: time, wellbeing, health and a strong connection with nature are valued over what we own and consume; capitalism has evolved to foster new ways of supporting life on earth and to address inequality.
- 4** The creation of new social constructs: there is a different mindset and a new social narrative – that we are part of, and not separate from nature – which has enabled progress towards a sustainable society.



Heidi concluded that we need to acknowledge that by using the power of myth, we have the ability to create a society that is in harmony with itself and with nature.







## Colin Prior, Landscape Photographer



Is it morally acceptable to trash our environment in the name of economic growth?



Over the past 3,000 million years, geological processes have created a diverse and dynamic environment in Scotland. Colin Prior suggested that Scotland's landscape has also been shaped by its people and offered his thoughts on three areas where current human interactions are adversely affecting the sustainability of our environment: tourism, the green belt and rewilding.

### Tourism

While the Highlands and Islands have been an attraction to tourists for over 200 years, Colin noted that he had witnessed changes to the landscape in the last 40 years, but particularly over the past five years as a result of increased tourism. Advertising campaigns have successfully increased visitor numbers to Scotland which have stimulated rural economies, brought employment and helped preserve rural services. Colin noted there are also many negatives to this increased tourism including: demand for more hotels and shops; traffic congestion and pollution; higher prices for local housing and goods; and damage to many of Scotland's iconic landscapes as a result of growing footfall. Given all this damage, Colin questioned whether it is morally acceptable to trash our environment in the name of economic growth.







## Green belt

If we are to create a more sustainable environment, Colin suggested we also need to urgently review our green belt policy. He pointed out that while the current policy gives protection and access to open space within and around towns, it also states that a green belt is a strategic planning tool and not there to protect natural or scenic heritage i.e. it does not necessarily protect land lying within the green belt.

Colin used examples of new developments across the central belt to suggest that if the status quo prevails, we will see a continual degradation and contraction of the green belt, and an ongoing loss of biodiversity. While this is all being done in the name of development, he pointed out that unless children have sufficient access to green spaces they will grow up with no empathy for the environment.

## Rewilding

Moving on to the topic of rewilding, Colin noted how centuries of deforestation, burning for agriculture and charcoal, management for grouse, and overgrazing by sheep and deer had greatly impoverished our natural eco-system, with native woodland reduced to just 2% of the land area.

Colin singled out Scotland's high deer population, which has tripled in the last 40 years to meet the demand for hunting, as a particular constraint to improving biodiversity.

In Colin's view, to conserve biodiversity, we need to conserve habitats. While the Scottish Government's draft Climate Plan commits to planting 10,000 extra hectares of trees between now and 2020, extending to 15,000 hectares per year by 2024, Colin believes it is imperative that, as part of this plan, Scotland's iconic woodland is preserved and that large tracts of sitka monoculture are not introduced into areas of wild beauty.

## Vision

Colin concluded with a vision, 100 years hence, of a reforested Scotland, which has, not empty glens with sheep and deer, but a blanket of oak, birch, rowan, ash and Scots pine with all the attendant bird and wildlife. To achieve this vision, Colin suggested, we just need to lend a hand and let nature do the rest.



# Discussion

## Decentralisation

The concept of decentralisation as featured in Heidi's vision generated much discussion. While it was easy to see how local populations would welcome a decentralised society, there were questions about how power could be wrested from big companies and from government, which has a tendency to centralise.

It was suggested that we are already witnessing a shift in values, with a growing mistrust of big companies, which is in itself encouraging greater decentralisation. For example, more citizens are taking power into their own hands and deciding what they are willing to support and invest in. This has been particularly evident in divestment campaigns and initiatives like the Carbon Disclosure Project which provides data on big carbon emitters to inform the choices of investors and consumers. It was suggested that as a consequence of a more active civil society, government, as well as companies, will start to act differently.

It was recognised that while a greater degree of decentralisation would give people a greater sense of identity, some communities were likely to fail and that there could be inequalities between and within communities. In such a society, it was suggested that the role of government would change from being a provider of services to facilitating conversations between devolved communities.

## A new economic paradigm

Without a shift in the existing narrative, it was claimed that big companies would continue to thrive and that economic growth, which is so intimately linked to development, will continue to have an adverse impact on the environment. The proposed Borders National Park was thrown up as another example of tourists being encouraged to an area to boost the local economy at the expense of the environment. It was suggested that there should be a place for natural capital accounting (whereby natural resources are also calculated in monetary terms) in such developments.

Given that nothing changed following the financial crisis, it was argued that we need legislation and/or economic incentives to encourage people and companies to change their behaviour. Others countered that a change in the current economic system will not be enough, but rather a paradigm shift is needed, requiring us to learn to live with less and to learn to live with 'small'.

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live with 'small'. ”





## Achieving an alternative vision

In order to achieve an alternative society, it was suggested that we need to be able to experiment and allow ourselves to fail, and to create the space for difficult conversations, such as how we look after those with no paid employment in a world where automation has led to huge job losses. While the transition to a different kind of society would be difficult, with winners and losers, it was proposed that we need to help people see a different future and to foster small-scale innovations that illustrate different ways to live. Already we are seeing citizens coming together at a local level and through online communities to take collective action against climate change and to share new technologies.

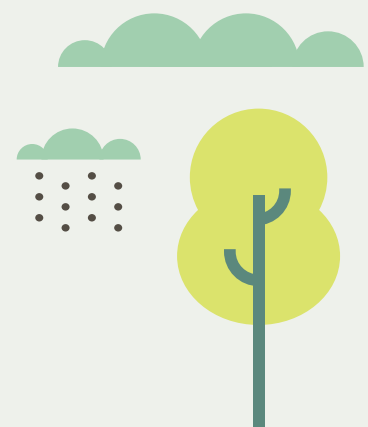
It was pointed out that, in addition to individual action, all government agencies should be using existing research, and funding further research, to explore how we can address the challenges that climate change will throw up.

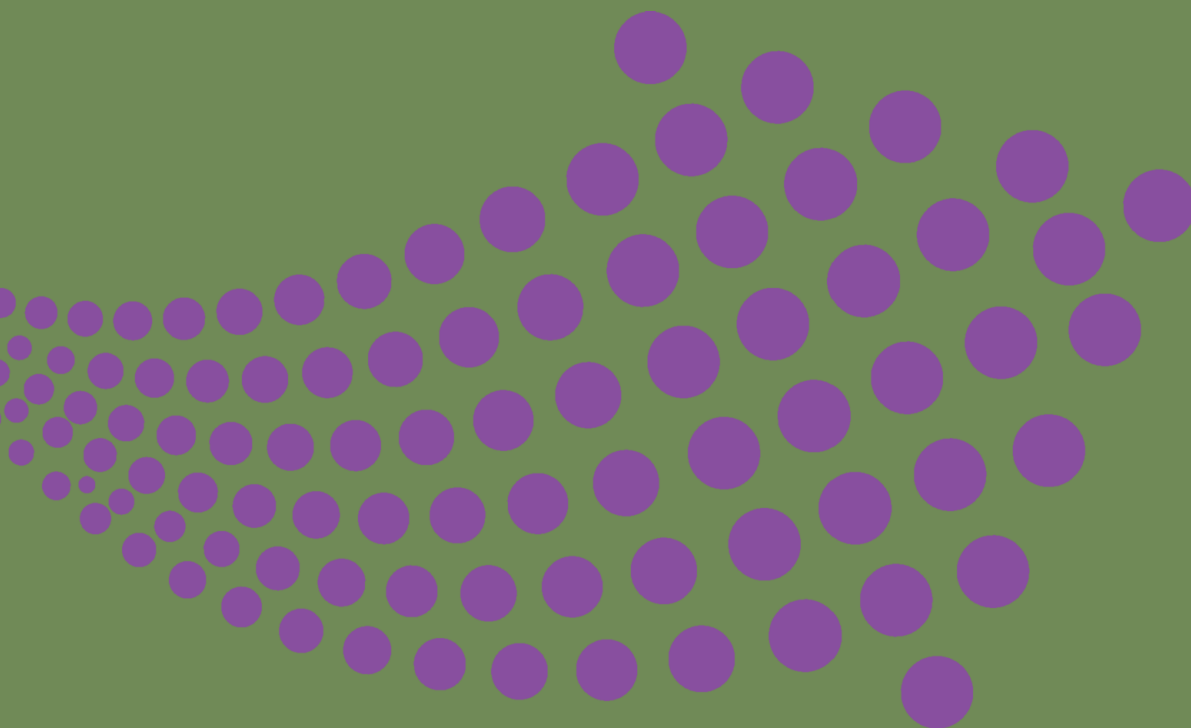
By setting seemingly impossible goals it was claimed that we can achieve incredible things and do what we need to do to build an alternative society. To achieve that we also need to question ourselves and the organisations we work for; we need to ask how we are changing the world and believe that cumulative small actions can lead to big change.

## Next Steps

Claudia Beamish closed the debate by thanking the speakers and the audience for their contributions. The research, presentations and discussion will all feed into the Scotland 2030 Programme and the development of aspirational visions for Scotland's future.

**The next Futures Forum debate will explore Scotland's economy in 2030 and will be held at the Scottish Parliament in the autumn of 2017.**





Website [www.scotlandfutureforum.org](http://www.scotlandfutureforum.org)

Twitter [@ScotFutures](https://twitter.com/ScotFutures)

Email [ScotlandsFuturesForum@parliament.scot](mailto:ScotlandsFuturesForum@parliament.scot)

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