

Scotland's natural economy

Putting rural areas at the forefront of green recovery



Introduction

Scotland is widely regarded as having a significant stock of high-quality natural capital, but the potential of the country's natural economy is not always fully understood and acknowledged. This briefing outlines some key ways in which this potential can be enhanced so as to place Scotland's rural businesses and communities at the forefront of a green recovery from the Covid-19 pandemic.

Key Points

Scotland has a significant stock of natural capital which is defined by NatureScot as *"the habitats and ecosystems that provide social, environmental and economic benefits to humans"*.

Six economic sectors are widely regarded to make up the natural economy: tourism, food and drink, fishing and aquaculture, agriculture, energy (including renewables) and forestry, logging and manufacture of wood. In 2018, the natural economy contributed £29.1 billion Gross Value Added to the Scottish economy and employed 290,000 people.

The natural economy can be considered as consisting of three elements: (i) resources that can be extracted (e.g. through agriculture); (ii) landscapes that can store environmental resources or ecosystem services (e.g. carbon storage); and (iii) activities that benefit from natural resources (e.g. tourism) in order to increase their value.

Various actions can be taken to ensure that the natural economy is a – or better still the – driver of inclusive, sustainable, and just growth in Scotland in future, including:

- Improving knowledge, training and skill levels and encouraging entrepreneurial activity, combined with appropriate business support provision, in new natural economy-related opportunities across rural Scotland.
- Expanding research and education capacity on the natural economy, with stronger partnership working between all stakeholders (including research and education providers, enterprise agencies, Business Gateway, local authorities, and Skills Development Scotland).
- Taking a more positive approach to understanding and strengthening rural economies and communities, leading to a positive narrative, rather than a negative one based on a deficit approach.



- Taking an integrated, holistic and place-based approach to all interventions, including land management, which includes tailored investment in local assets, collaborative working with communities and a recognition of the need to achieve multiple objectives; the Deputy First Minister's additional role as Cabinet Secretary for Covid Recovery – and especially the responsibility for the coordination of delivery and outcomes across portfolios – will be fundamental to achieving this.
- Supporting those communities endowed with significant natural economy assets, but which may be facing a range of persistent challenges (e.g. depopulation, out-migration of young people, limited housing, declining service provision, etc.), to build a more sustainable, inclusive and just future based on those assets.
- 'Re-setting' the tourism industry away from high volume to a more balanced approach with a consideration of the net benefits that can be achieved.
- Working to encourage everyone across rural and urban Scotland to grasp the opportunities of the natural economy to deliver a green recovery. Rural areas can be at the forefront of this new economy focused on wellbeing, inclusivity and equality, and based on highquality natural capital assets.

Defining key terms

What is meant by 'natural capital'?

According to the World Forum on Natural Capital¹, natural capital can be defined as the world's stocks of natural assets which include geology, soil, air, water, and all living things. From this natural capital, humans derive a wide range of services, commonly known as ecosystem services, including food, water, and the plant materials we use for a variety of things, such as fuel and medicines. Added to these are a range of less visible ecosystem services, including climate regulation and natural food defences provided by forests, the carbon stored by peatlands, the pollination of crops by insects, and the mental and physical health benefits of recreation in the natural environment.

NatureScot argues that *"natural capital is a term for the habitats and ecosystems that provide social, environmental and economic benefits to humans"*. Scotland has a wide range of these habitats and ecosystems, each of which makes a contribution to the wellbeing of those who live and work in Scotland². Some of the key components of this natural capital are outlined in Figure 1 at the end of this briefing.



"Natural Capital is a term for the habitats and ecosystems that provide social, environmental and economic benefits to humans"

(NatureScot)

What is the natural economy?

There is no universally accepted definition of the natural economy, however, it is usually regarded as being made up of six economic sub-sectors (building on the Standard Industrial Classification codes), that broadly align to ecosystem services: tourism, food and drink, fishing and aquaculture, agriculture, energy (including renewables) and forestry, logging, and manufacture of wood³. It can be helpful to consider the natural economy as consisting of three elements:

1. Resources that can be 'extracted', for example through mining, energy, agriculture, fishing, food and drink and forestry activities.
2. Landscapes that can 'store' or 'bank' environmental resources, or ecosystem services, such as carbon storage.
3. Activities which can be set up and maintained in order to benefit from natural resources (when they are in 'good condition'), including tourism and recreation businesses, in order to increase their value.

Acknowledging these different but inter-related elements of the natural economy recognises that, while there are elements that can be 'harvested', many activities do not require the 'extraction' of resources in the traditional sense of the word – tourism and recreation being an example. In fact, quite the opposite, these activities depend on the maintenance, or better still the improvement, of these resources.

The importance of Scotland's natural economy

According to Biggar Economics (2020), in 2018, the natural economy (as defined above) contributed £29.1 billion Gross Value Added (GVA) to the Scottish economy, equivalent to more than one fifth of Scotland's total GVA. Over 290,000 people were employed in these sectors in 2018. The majority of this GVA is generated by the energy (i.e. oil and gas) sector; if this is removed from the definition the natural economy generated £8.2 billion GVA and supported 223,100 jobs in Scotland in 2018. Nature-related tourism makes a significant contribution with over 87,000 jobs, while agriculture was the largest natural economy sub-sector in the Highlands and Islands and Southern Scotland in 2018.

What needs to be done to strengthen Scotland's natural economy in the future?

As Biggar Economics (2020) note, natural capital accumulation and human wellbeing are closely intertwined. Preserving and enhancing our current and future natural capital assets is vital for growing a wellbeing economy: *"The natural economy has the potential to be a driver of inclusive and sustainable growth for Scotland, increasing the resilience of the Scottish economy."* (Biggar Economics 2020, p.1) So what needs to be done to ensure the natural economy is a – or better still **the** – driver of inclusive and sustainable growth in future?

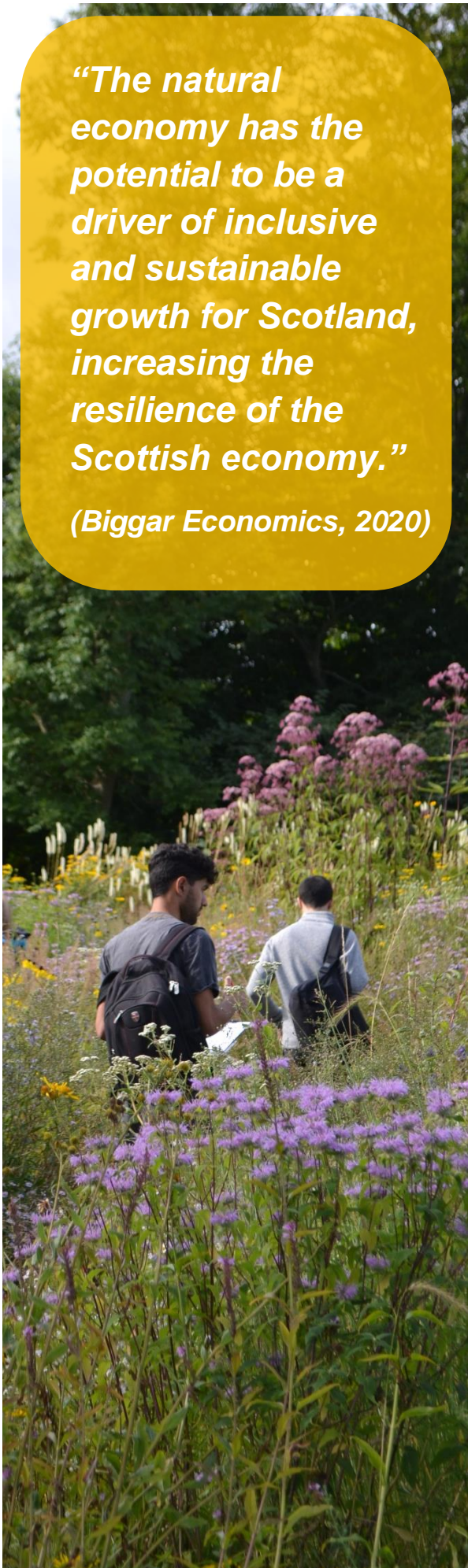


Knowledge and skill levels will be key in determining the pace at which rural areas can capitalise on natural economy-related opportunities. Upskilling, reskilling, new knowledge generation and adoption, and new and creative entrepreneurial activity in the key sectors of the natural economy are required to ensure that the labour force and enterprises can maximise their contribution to sustainable and inclusive growth and enhanced health and wellbeing. Research and education institutions in rural areas, working closely with partner organisations such as Skills Development Scotland, the enterprise agencies and local authorities, have an increasingly vital role to play in providing appropriate training, research and education*.

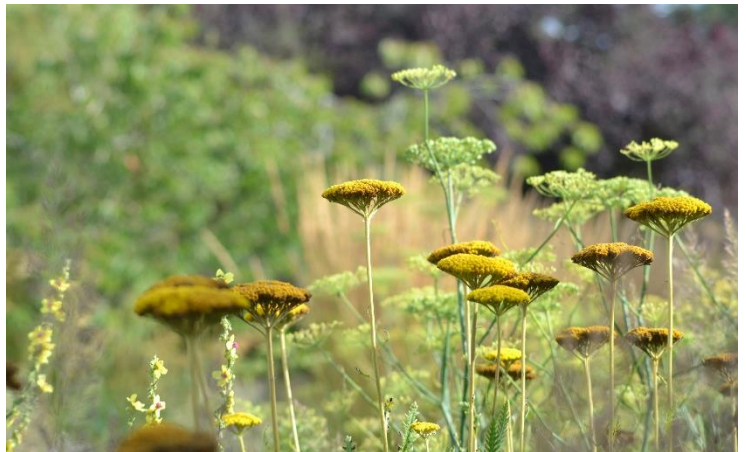
* SRUC is currently on a journey to become Scotland's enterprise university at the heart of the sustainable natural economy. With the natural economy as its focus, the organisation is striving to lead the way in delivering economic, social and environmental benefits for all, in Scotland and beyond: www.sruc.ac.uk

“The natural economy has the potential to be a driver of inclusive and sustainable growth for Scotland, increasing the resilience of the Scottish economy.”

(Biggar Economics, 2020)



Scotland's three enterprise agencies, the Business Gateway service run through its local authorities, and local business support providers, have a key role to play in providing appropriate rural business support and supporting entrepreneurship, innovation and creative business practices, including those which recognise and enhance natural capital. These activities should be informed by the research and evidence base referred to above. For all of these institutions, taking a place-based approach, which includes tailored investment in local assets and holistic partnership working – including local communities – is vital.



Many of the rural communities which are endowed with significant quantities of natural capital are simultaneously experiencing population decline, the out-migration of young people and those of working age, and population ageing, and these trends are projected to continue (and indeed increase in some places) in future. As part of appropriate interventions to stem population loss and support sustainable recovery from the Covid-19 pandemic, it would be worth considering how communities can be encouraged and facilitated to put greater focus on their natural and social (as well as economic) capital. One approach may be to give greater consideration to more mixed-use developments for living and working, including, for example, housing, workshops and business units and hubs, and regenerative woodlands. The provision of affordable, zero-carbon housing for purchase and rent is a long-standing challenge in many rural communities and one that needs to be tackled in order to reverse demographic decline and ensure the future sustainability of rural settlements⁴.

In the short-term a reimagining of the rural economy is needed with a focus on how to maintain or improve the quality and health of the natural economy, and how it can contribute to a green recovery from the pandemic. A key part of this reimagining is a 'reset' of the tourism industry to respond to the challenges and opportunities presented by the Covid-19 pandemic. This is likely to mean a move away from unsustainable volume tourism to a more balanced approach with consideration of the net (not just gross) benefits that can be achieved. This reimagining will require co-ordinated action across a number of new Cabinet Secretary and Ministerial portfolios⁵ which present opportunities for ever more integrated approaches, but also challenges in ensuring no issues fall through the gaps. The Deputy First Minister's additional role as Cabinet Secretary for Covid Recovery – and especially the responsibility for the co-ordination of delivery and outcomes across portfolios – will be fundamental to achieving this⁴.

There is a need to carefully consider the type of support mechanisms that can achieve multiple, holistic and balanced socio-economic and environmental objectives, including the maintenance of active populations, good work and fair incomes, and multiple agricultural, forestry and environmental benefits from land management systems. Integrated land management will be vital going forward and a key question is how best to stimulate and support this change in land manager mentality and practice.

Broader than this though, is the need to inspire everyone across rural and urban Scotland – including policy-makers, research and education providers, businesses and communities – to grasp the opportunities of the natural economy to deliver a future green recovery for which sustainable, inclusive and just enterprise and innovation are at the core. The natural economy should be core to the work of the new Council for Economic Transformation in its role to shape the new ten-year National Strategy for Economic Transformation. As a result, Scotland will be able to move away from the current position where urban centres tend to be seen as the only generators of economic growth, to one where rural areas are at the forefront of an economy more focused on wellbeing, inclusivity and equality, and built on our high-quality natural capital assets.

What makes up Scotland's natural economy?

As mentioned at the start of this briefing, Scotland has a significant stock of the habitats and ecosystems that are described as 'natural capital'. There are different ways of tracking changes and valuing this natural capital. For example, the Natural Capital Asset Index (NCAI) is a composite index which tracks changes in the capacity of Scotland's terrestrial ecosystems to provide benefits to people. While the NCAI does not include monetary values, a set of experimental Natural Capital Accounts by the ONS exploring the contribution of Scotland's natural capital in monetary terms was released in 2019 and updated in 2020.

According to NatureScot there was a deterioration in Scotland's natural capital until the 1990s, particularly in certain habitats, including bogs and peatlands. However, since then, evidence from the NCAI suggests that Scotland's potential to deliver ecosystem services has grown slightly over the past 15 years and now is at its highest level since 2000². Figure 1 describes some of the key characteristics of the natural capital in Scotland's rural areas.

Rural areas – defined as communities with less than 3,000 population – make up 98% of the land mass of Scotland and account for 17% of Scotland’s population. 70% of this rural landmass is classified as remote (i.e. more than 30 minutes drivetime from a settlement of 10,000 people or more).

Scotland’s rural areas are incredibly varied, from fertile arable land in the East and good lowland grassland for raising livestock in the North East and South West, to the steep slopes, poor soils and challenging climates which are features of many of Scotland’s upland and island areas in the North and West. Figure 1 describes some of the key agricultural and environmental features of Scotland’s rural areas.

The communities in this rural landmass are also very diverse, from accessible areas close to major cities which are experiencing population growth and are home to well-paid commuters, to very remote settlements over an hour from major settlements which have long experienced population and service decline and a predominance of seasonal, low skilled and low paid jobs. However, despite the challenging demographic, social and economic circumstances experienced across many rural areas, Scotland is widely regarded as having some of the most iconic, high quality landscapes in the world, and its natural economy is increasingly being seen as vital to Scotland’s recovery from the Covid-19 pandemic and to meeting its ambitious targets around climate change and net zero (net zero emissions of greenhouse gases by 2045 as set out in the Climate Change Act 2019).

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This is the first in a new series of ‘Policy Spotlights’ to be published by SRUC’s Rural Policy Centre. Further briefings are planned which will explore some of the issues raised here in more detail.

We have a number of briefings on other topics planned for publication in the next few weeks, including on the wellbeing economy and rural Scotland, the future of food policy and food systems, and rural business resilience. For more information on this and future Policy Spotlights, please contact us: rpc@sruc.ac.uk

Figure 1: Key features of Scotland's rural area⁶

Agriculture

Scotland has approx. 6.3 million hectares of farmland but only 9% is used for cropping; 21% is used for grassland and 60% is rough grazing. Over 85% of Scottish farmland is designated as being Less Favoured Area (LFA, compared with only 12% in England, and 78% in Wales) with much of this land really only suitable for grazing of suckler (beef) cows and sheep.

Water

Around 70% of Scotland consists of uplands or land with upland characteristics. Water quality is generally good over much of upland Scotland but managing water quantity – to mitigate flooding downstream – will be a major future requirement from upland land management. Diffuse pollution is an issue in some areas of the lowlands (and a limited number of more remote, upland areas) and SEPA have a range of regional and sectoral approaches to address this.

Woodland and forestry

Around 18% of Scotland is under woodland and forest cover, with approx. 80% (1.1 million ha) consisting of productive conifer plantations and approx. 20% (0.3 million ha) consisting of native woodland. Over half of the latter are considered to be in unsatisfactory condition for biodiversity, particularly from browsing and grazing by deer and livestock. Plantation forestry is now making a major contribution to Scotland's economy, being worth nearly £1 billion per annum and employing over 25,000 people. Annual planting targets in Scotland are being raised on a stepped basis from the current 12,000ha p.a. to 18,000ha p.a. by 2025. This will help meet carbon sequestration targets and maintain timber levels into the future.

Biodiversity

A focus on improving the conservation management of designated sites since 2005 has improved the condition of many habitats more associated with agricultural management within designated areas. Nevertheless, wading bird populations over Scotland as whole are threatened by a combination of changes in habitat condition and increased pressure from predators. In 2020, 83% of features in upland habitats were considered to be in favourable condition. However, a decline in upland birds has been evident across Scotland since 1994, with some species like curlew and black grouse undergoing major population declines.

Peatlands

These cover more than 20% of Scotland's land area and have the potential to be an important carbon and water store as well as being internationally important wetlands. However, over 70% of peatlands in Scotland have been damaged to some degree and are therefore a source of climate-warming greenhouse gases, reduced water quality and diminished delivery of other services. Scotland has a target to restore 250,000 ha of degraded peatlands by 2032.

References

- 1 What is natural capital? (naturalcapitalforum.com)
- 2 Natural Capital Asset Index | NatureScot
- 3 Biggar Economics (2020) [*Scotland's Natural Economy: Sustainable Growth Potential*](#), Report to SRUC.
- 4 Atkins, R., McCracken, D. & Houghton, R. (In Press) [*A new vision for land use in Scotland: six conversations*](#). Scottish Ecological Design Association.
- 5 Cabinet and Ministers – gov.scot (www.gov.scot)
- 6 Thomson, S., McCracken, D. & Atterton, J. (2018) [*The key characteristics of agriculture, the environment and rural communities in Scotland*](#), Rural Policy Centre Policy Briefing.