A VISION FOR RURAL AREAS

MAP Discussion Paper

LONG-TERM VISION FOR RURAL AREAS: CONTRIBUTION FROM 20 SCIENCE-SOCIETY-POLICY PLATFORMS

MAP DISCUSSION PAPER

RURAL SCOTLAND AND RIVER DEE CATCHMENT

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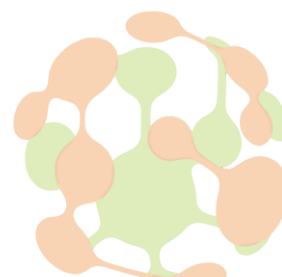
Acronyms

CARES	Community and Renewable Energy Scheme
GW	Gigawatt
LCA	Land Capability for Agriculture
MW	Megawatt
NSA	National Scenic Area
SEFARI	Scottish Environment, Food and Agriculture Research Institutes
SAC	Special Areas of Conservation
SPA	Sparsely Populated Areas
SPAs	Special Protection Areas
SSSIs	Sites of Special Scientific Interest

1. Introduction

This paper presents discussion of the long-term vision for rural areas from the Rural Scotland and River Dee Catchment Multi-Actor Platforms. In SHERPA, these Platforms are defined as "*the forum for two-way exchanges of ideas for co-learning and co-creation of knowledge with actors at European and regional levels*" (Chartier *et al.*, 2019; D1.2). The two Platforms have members with scientific, policy, or civic society responsibilities from across Scotland (Rural Scotland), which is a new forum, and with a more specific geographic focus (River Dee Catchment), associated with the Dee Catchment Partnership.

This Discussion Paper combines the high level messages from interviews with members of the Platforms, focusing on themes facing rural areas in Scotland, opportunities and challenges, the visions for rural Scotland by 2040, and issues to be tackled in achieving those visions.

Background information for the discussion and interviews was provided by the SHERPA Discussion Paper (Feret *et al.*, 2020), and documentation compiled for Scotland. The geography of the definition of 'rural' was guided by the Scottish Government 6 fold urban rural classification (Figure 1a; Scottish Government, 2018a), and that they cover more than land-based industries, and that there are significant interactions between rural and urban Scotland, as well as within rural Scotland. A further sub-section of rural areas is that of sparsely populated areas (Copus and Hopkins, 2018), representing c.48.7% of Scotland with 2.6% of the population, in which rural areas and small towns with a population less than 10,000 can be reached within 30 minutes travel time (Figure 1b).
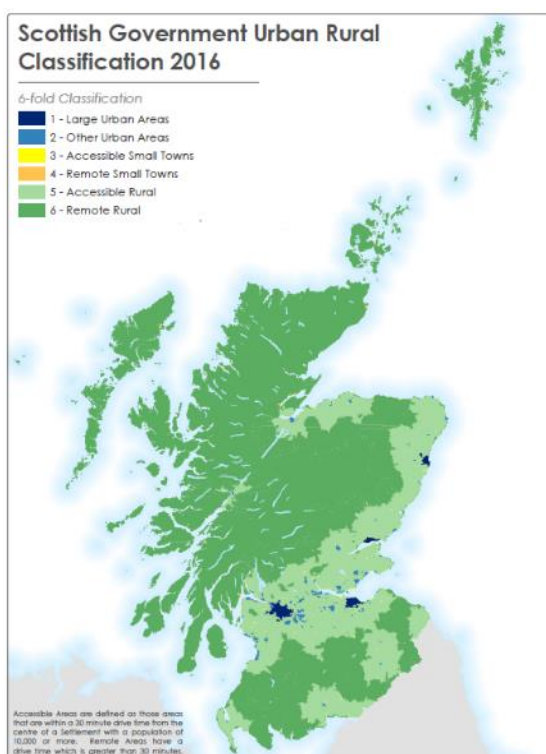

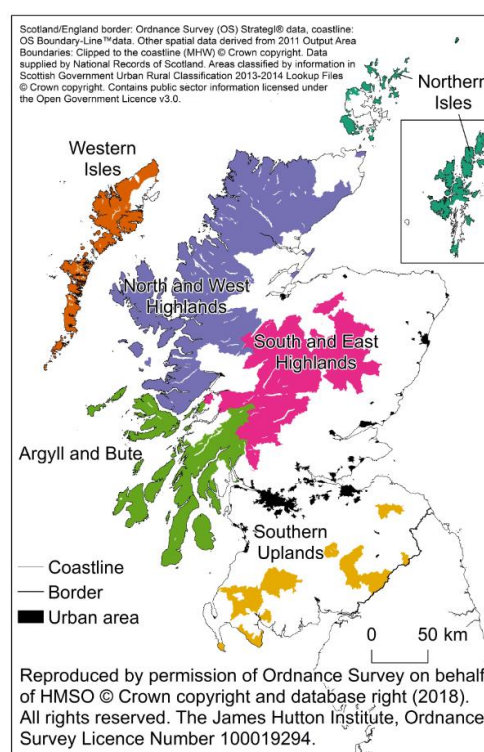**Figure 1(a).** Scottish Government Urban Rural Classification 2016 (Scottish Government, 2018a).

Figure 1(b). Classification of Sparsely Populated Areas (SPAs) (Copus and Hopkins, 2018).

The background data, and work on foresight exercises and scenarios, were in advance of the outbreak of COVID-19 and the political, economic and social actions taken. So, there are uncertainties associated with the 'new baseline', and the pathways of recovery from COVID-19 which will form a significant proportion of the timeline to 2040. For a sustainable future, that pathway is likely to be closely linked with steps towards achieving the United Nations Sustainable Development Goals (SDGs) to 2030.

The document synthesises the high level characteristics of the visions set out by the members of the Multi-Actor Platforms, particular themes, and aspirations which should be set as well as challenges which are likely to need to be tackled. It will be used as a basis for further discussion with the Platforms to reflect on gaps in topics considered, priorities for a vision, and steps that can be taken to achieve that vision for rural areas by 2040.

Keywords: Vision. 2040, rural areas, resilient, vibrant, depopulation, wellbeing

2. Results from desk research

2.1.   Review of key trends

The area of Scotland is approximately 78,000 km², with a population of 5.44 million (2018 estimate, National Records of Scotland, 2019), and Gross Domestic Product (GDP) in 2019 of £180.4 Billion with GDP per capita of £33,200 (Scottish Enterprise, 2019).

Land use and cover

In 1988, 11.2% of Scotland's land area was used for arable production, 17.1% improved pasture or good rough grassland, 14.7% forestry and woodlands, 8.7% heather moorland, 8.4% peatland vegetation, 3% is inland waters, and 3% urban. The remaining area was combinations of these classes, the largest of which was heather moorland and peatland vegetation (15.7%), and poor rough grassland and heather moorland (4.1%) (Macaulay Land Use Research Institute, 1993) (Figure 2).

By 2019, forestry occupied approximately 18.5% of the land area. Scottish Government forestry strategy sets an aim of increasing woodland cover to 21% by 2032, contributing to its policies for mitigating climate change, enhancing biodiversity and provision of multiple public benefits (Scottish Government, 2019a). Amongst other changes are those of the extent of impermeable surfaces (e.g. due to housing, commercial property, transport developments), estimated as increasing at a rate of 14.5km² per annum (2008 to 2014; Centre of Expertise on Climate Change, 2018) (Figure 3). Several of the local authorities dominated by rural areas are amongst those with the highest rates of change (e.g. Dumfries and Galloway, Argyll and Bute, and East Ayrshire).
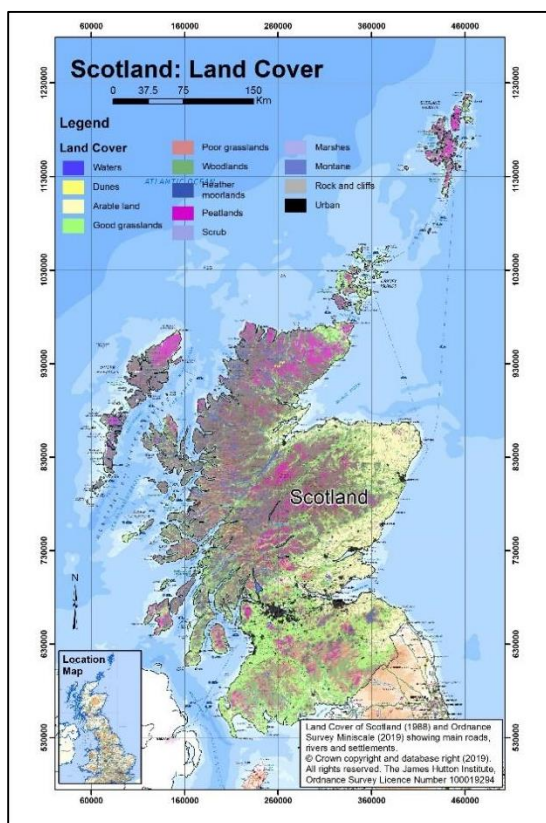

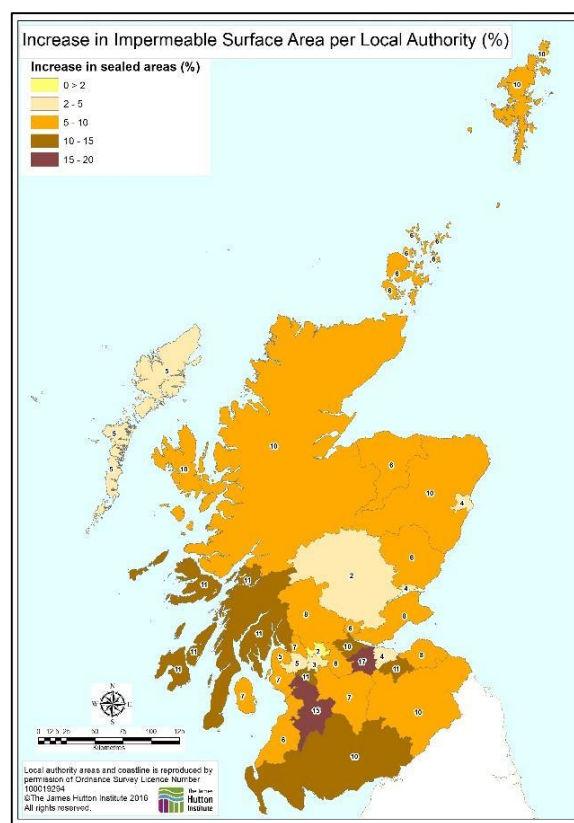**Figure 2.** Land cover of Scotland (1988. Source: James Hutton Institute)

Figure 3. Increase in impermeable surface area per local authority: 2008 to 2015 (%) (Source: Centre of Expertise on Climate Change, Indicator BB13).

Agricultural land

The Land Capability for Agriculture (LCA) classification system ranks land based on potential productivity and cropping flexibility and long term restrictions on agricultural use of land (climate, relief, soil and vegetation). Since publication of the first LCA maps in the 1980s (using climate data of 1958 to 1978), farming technology

and understanding of climate related variability have evolved significantly, as has climate. Figure 4 shows the published Land Capability for Agriculture, and a version modified by climate for 2050, reflecting projections of climate change (UKCP 08) and knowledge of how that may affect the flexibility of agricultural activities (Brown *et al.,* 2011). Prospective changes are increases in the flexibility of cropping in eastern and central Scotland, and areas of southern Scotland.
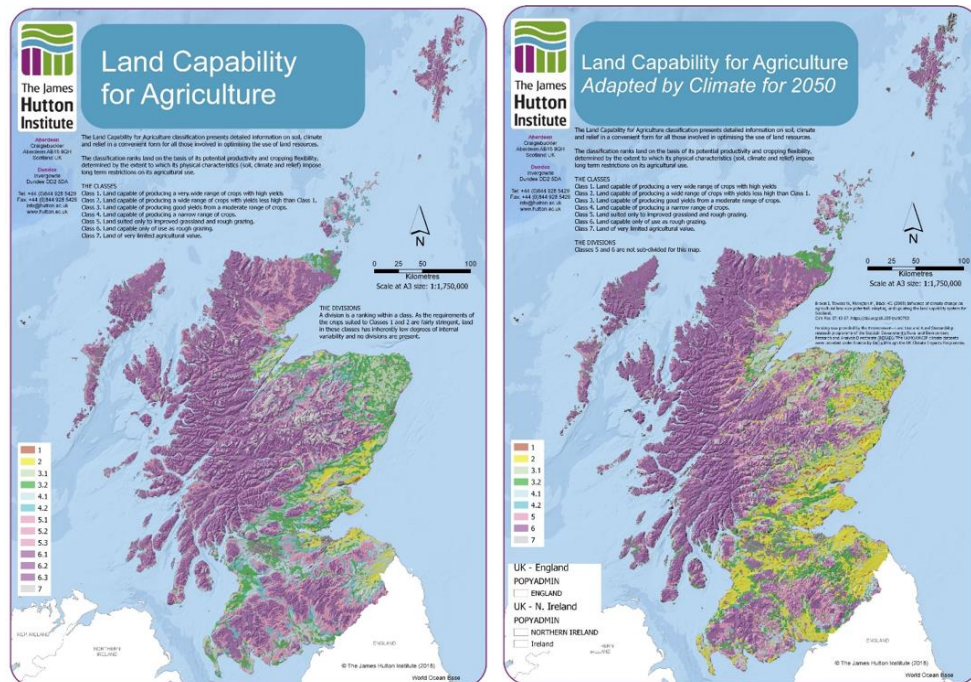

Figure 4(a). Land Capability for Agriculture, as published (Source: James Hutton Institute).

Figure 4(b) Land Capability for Agriculture, modified by climate for 2050 (Source: James Hutton Institute; Brown *et al.*, 2011).

Natural heritage

The Scottish Biodiversity Strategy 2020 (Scottish Government, 2013a) notes "investment in the natural assets of Scotland will contribute to sustainable economic growth and support wellbeing and wealth creation." As of 31st March 2017, there were 253 Special Areas of Conservation (SACs), 153 Special Protection Areas (SPAs) and 51 Ramsar sites in Scotland, and at 31st March 2016 1,423 SSSIs, covering a total of 10,220 km^2 (13% of Scotland's land area). Thirteen percent of Scotland is designated by the 40 National Scenic Areas (NSAs). The two National Parks (Cairngorms and Loch Lomond and The Trossachs) cover 12.8% of Scotland. However, designation by itself does not guarantee protection or ensure good, sustainable management of the natural assets. There is evidence of development in such areas which is not consistent with the objectives of their designations.

Scotland's Natural Capital Asset Index provides an integrated estimate of the state of ecosystems. The Index can be used to track changes in state through time, reflecting changes in condition and extent of different types of habitats (Scottish Natural Heritage, 2019). The changes in state, estimated between 2000 and 2018, by type of habitat are shown in Figure 5a, and the changes in each of the ecosystem services in Figure 5b. Overall, Scottish Natural Heritage report natural capital as being in a 'maintaining' state, after significant falls since at least 1950 (from an overall index value estimated to be c. 118 to 102 in 2018). The element of the Index relating to 'aesthetic and entertainment interactions' indicates a downward trend between 2000 and 2013. Of 3,429 surface waters assessed in 2018 by SEPA, 63.5% were in a high or good state, but 16.6% were in a poor or bad state, with 318 currently affected by diffuse pollution and 91 by waste discharge (Miller *et al.*, 2020).
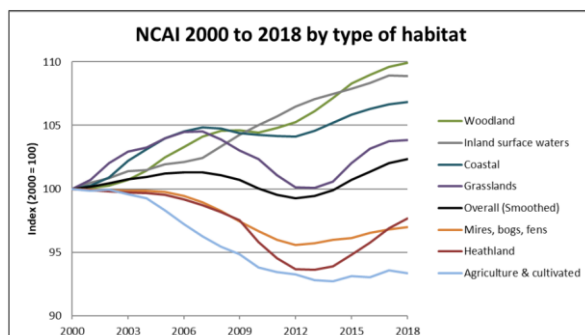
Figure 5(a). Natural Capital Asset Index by type of habitat, 2000 to 2018 (Source: Scottish Natural Heritage, 2019).
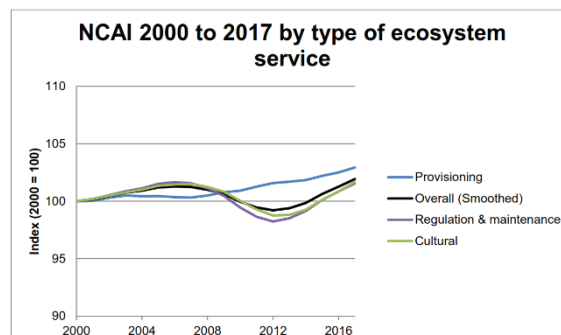

Figure 5(b). Natural Capital Asset Index (NCAI), by type of ecosystem service 2000 to 2017 (Source: Scottish Natural Heritage, 2019).

Population and demographics

Scotland's population in 2018 was estimated to be 5.44 million, and by mid-2043 it is projected to increase by 2.5% to 5.57 million (National Records of Scotland, 2019a) (Figure 6a). The demographic profile of the population by then, compared to 2018, is for more older people and fewer younger people, and a lower number of children than at present (Figure 6b) (National Records of Scotland, 2019a).
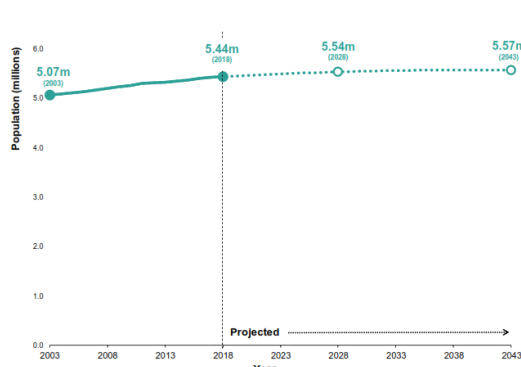
Figure 6(a). Population projection to mid-2043 (Source: National Records of Scotland, 2019a).
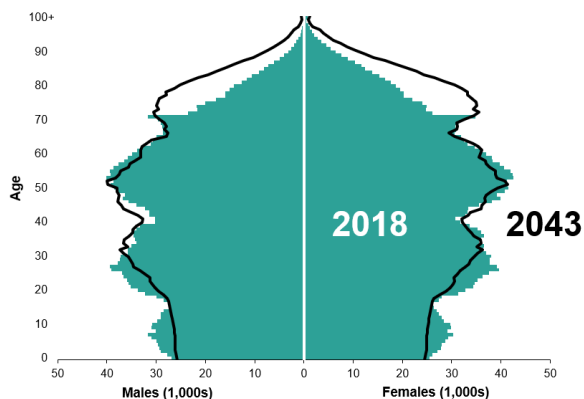
Figure 6(b). Demographic profile of Scotland's population 2018, and projected for 2043 (Source: National Records of Scotland, 2019b).

In 2017, 316,000 people (5.8% of Scotland's population) lived in the 70% of Scotland which is classified as Remote Rural areas, and 603,000 (11.1%) live in the 29.8% of Scotland classified as Accessible rural areas, using the Scottish Government Urban Rural Classification 2016. Within these rural areas, the modal age group is 65 and over (25%), considerably higher than the Rest of Scotland (18%) (Figure 7).

Figure 7. Mid-year population estimates based on data zones (Source: Scottish Government, 2018c).

The birth rate in the remote rural areas is 8 per 1,000 population, and deaths of 11 per 1,000 population, compared to 10 and 11 per 1,000 population respectively in urban Scotland. Overall, there is a net in-migration from remote rural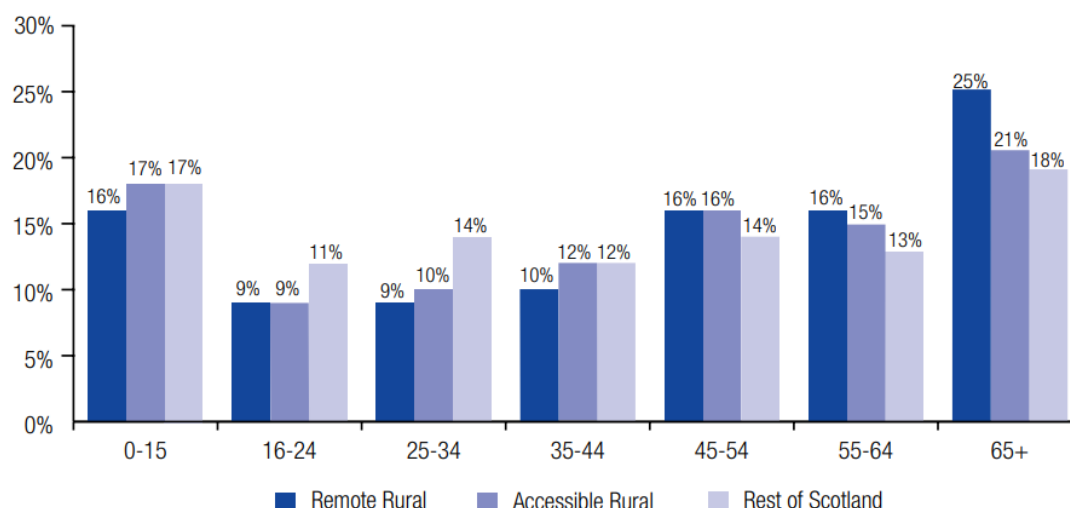 and accessible rural areas of 7,439 (in 2016), compared to a net inflow to urban areas of 16,415. Life expectancy is similar in urban and rural Scotland (79.2 for male and 82.8 for female in Remote rural and 76.6 for male and 80.5 for female in the Rest of Scotland).

Changes in the total population of Sparsely Populated Areas dropped between 1991 and 2011, in contrast to other rural areas ('not in SPA') and urban areas (Figure 8a). Within that population, the proportion which are children has fallen considerably, working age slightly, compared to the increase in those of older ages (Figure 8b).
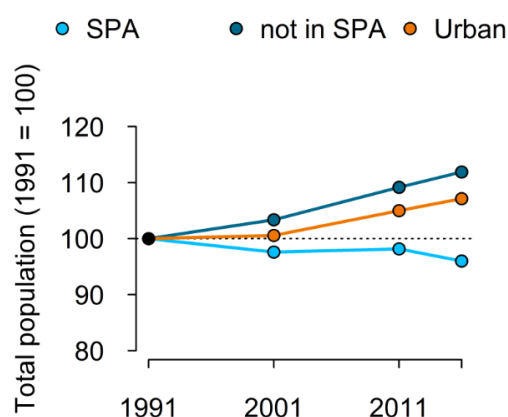

Figure 8(a). Change in the total populations of the SPA, rural areas and small towns outside the Sparsely Populated Areas (SPA) ('not in SPA') and urban areas (1991-2016) (Source: Copus and Hopkins, 2018).
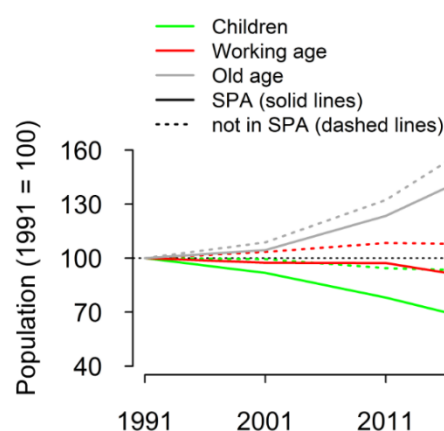
Figure 8(b). Change in the populations of children, people of working age, and older people in the Sparsely Populated Areas (SPA) and in rural areas and small towns outside the Sparsely Populated Areas (1991-2016) (Source: Copus and Hopkins, 2018).

Household composition is broadly similar between rural and urban Scotland, except for those comprising single adults (15% of remote rural Scotland compared to 21% of urban Scotland), single pensioners (17% of remote rural Scotland compared to 14% of urban Scotland), and those of 'older smaller' households (one adult of working age and one pensioner, no children, or two pensionable age and no children) with 21% in remote rural Scotland and 12% in urban Scotland (Scottish Government, 2018c).

In 2010 Crow (2010), from a review of scientific literature between 1999 and 2009, reported "an imbalance in net migration figures for different age groups in all rural areas, with the deficit of 16 to 24 year olds", with more people in that age range leaving rural areas than coming. Reasons identified were desires: i) to pursue

higher education opportunities available elsewhere; ii) for more autonomy / personal freedom; iii) to pursue job opportunities available elsewhere; and iv) to experience an urban lifestyle.

The principal factors which influenced migration differed between families (due to a "lack of affordable housing; the perception that rural areas do not offer a desirable economic and/or social lifestyle; and a lack of accessible shops, schools and services"), economically active population (due to a "lack of high quality jobs; a gap between pay and the local cost of living; a lack of appropriate leisure facilities and opportunities to socialise with peers; and social pressure to leave"), and older people (due to "a lack of suitable accommodation; limited support to stay in one's own home; a lack of local care services; poor availability and accessibility of local shops and services; and feelings of social and geographical isolation").

Island communities

As of 2011 Scotland had 93 inhabited islands, home to 103,702 people (2% of Scotland's population), an increase of 3,963 (4%) since 2001. The population increased on the four largest islands of Lewis and Harris (6%), Mainland Shetland (7%), Mainland Orkney (12%) and Skye (8%), while there was a decrease of 3% in the other islands (National Records of Scotland, 2015). Of those aged 16 to 74, 67% were in employment, up from 63% in 2001.

Findings from the Islands Revival project supported by SEFARI Gateway show that the population of data zones of islands has reduced by 1.8% between 2001 and 2017, compared to an increase of 2.5% for the rest of Scotland (Figure 9). Some islands have growing populations, often associated with a town within commuting distance (e.g. Lerwick, Kirkwall, or Stromness), or local economic activity (Sullom Voe oil terminal, Shetland; airport, Benbecula). Tourism and changes to community ownership were also proposed as explanations for growth in Skye and Barra, and Eigg respectively. Further research would be required to prove those links.
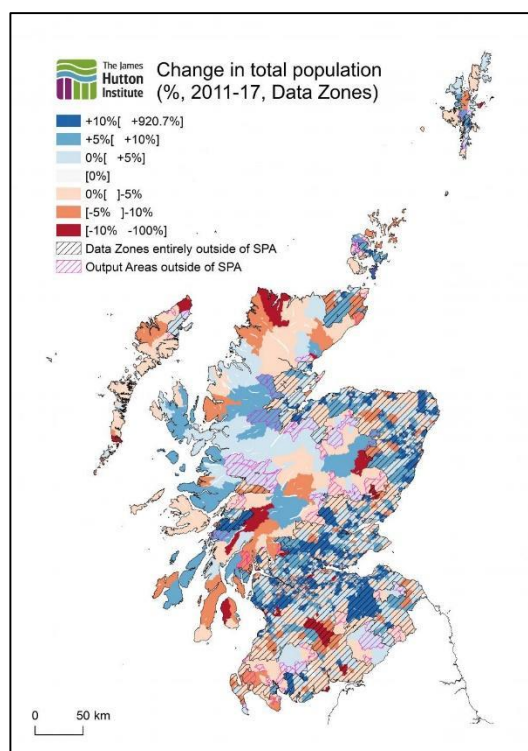
Figure 9. Pattern of population change between 2001 to 2017 in data zones fully or partly within the Sparsely Populated Areas boundary (Source: Islands Revival project supported by SEFARI Gateway).

Economy

Gross Domestic Product in 2018 was £180.4 Billion, with £32.4 Billion exports (excluding oil and gas), and £48.9 Billion to the rest of the United Kingdom. Of international exports, £14.9 Billion (46%) are to EU countries. The top export industries are Food and Drink (£5.9 Billion), of which £4.4 Billion was Scotch whisky (Scottish Government, 2018d), £500 million of farmed salmon, £82 million from beef and lamb. These three example products have raw materials and value chains which are primarily concentrated in rural Scotland.

In 2015, there were approximately 15 million visitors to Scotland, the expenditure by whom was estimated at £4.7 Billion. Tourists reported landscape and scenery as the top reason for visiting Scotland (49%), the character of which is strongly influenced by the uses to which the land is put. That includes the iconic landscapes designated as National Scenic Areas, and the other areas of Scotland which are primarily managed for other uses of which recreation and tourism are co-benefits.

Employment

As of April 2020 employment in Scotland as a whole was 74.3% of the working population (Figure 10a), and unemployment was 4.6% (Figure 10b). The level of unemployment increased from 3.5% in January, reflecting the initial impacts of COVID-19.
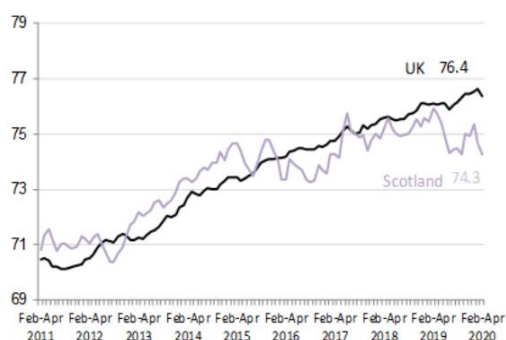

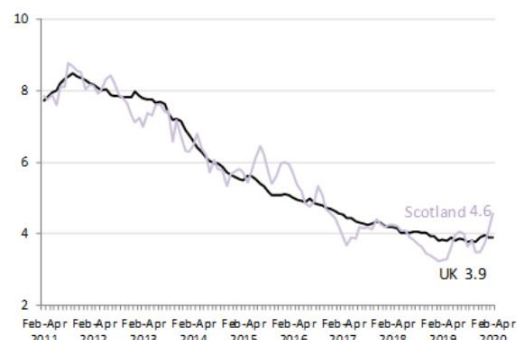**Figure 10(a).** Employment trends in Scotland to April 2020 (Source: Scottish Government 2020a).

Figure 10(b). Unemployment trends in Scotland to April 2020 (Source: Scottish Government 2020a).

Proportionately fewer people in rural Scotland are employed in the public sector than those living in urban areas (50% compared to 61%; Figure 11), with 15% working in agriculture, forestry and fishing in Remote rural areas and 13% in Accessible rural areas, compared to 0.5% in the Rest of Scotland (which is predominantly urban areas) (Scottish Government, 2018c). An equally large proportion of employment in Remote rural areas is in Accommodation and food services, thus closely linked to tourism, which is 15% in Remote rural areas and 8% in Accessible rural areas. Atterton *et al*. (2019) report that in islands and remote rural local authorities, the gender pay gap was almost 20% in 2016, but since then has declined substantially to 4.5% in 2018.

Small and medium sized enterprises (SME) account for approximately 70% of total rural employment, compared with 47% in urban areas of Scotland. Agriculture, forestry and fishing, and accommodation and food services are the largest SME employers. There is a higher level of self-employment in Remote rural areas (24%) compared to Large urban Scotland (10%).
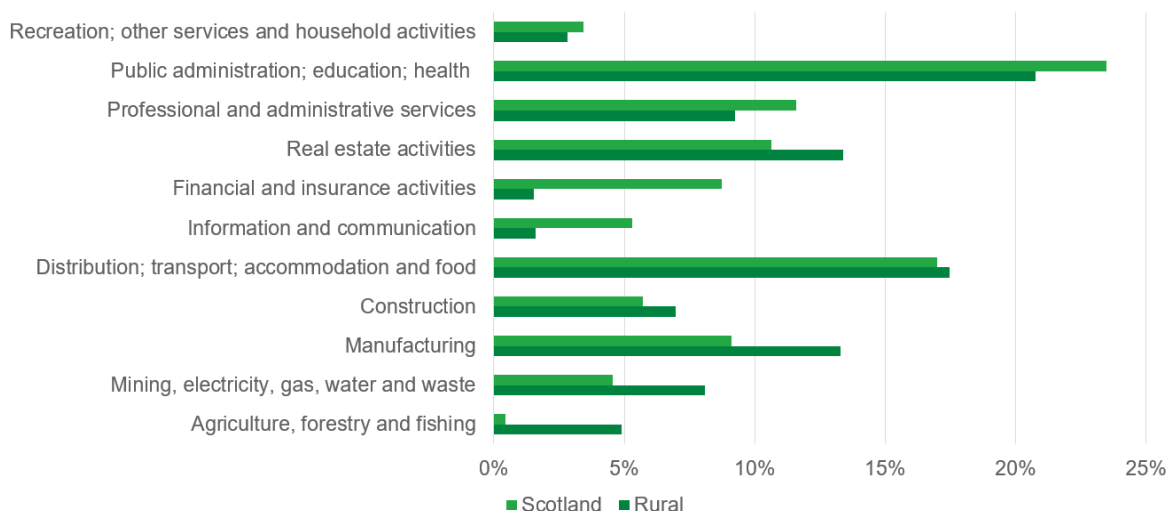

Figure 11. Structure of the rural economy 2018 (Source: Scottish Government Rural and Environmental Science and Analytical Services, and Office of National Statistics).

There are also more people in Rural areas with second jobs (7%) and part time in the main jobs (31%), than in Large urban Scotland (27% and 3% respectively). Notable is the high proportion of homeworker in

Remote rural areas (24%) compared to Large urban Scotland (8%) (Figure 12). That might provide a significant in the emergence of restrictions and new modes of working post COVID-19.
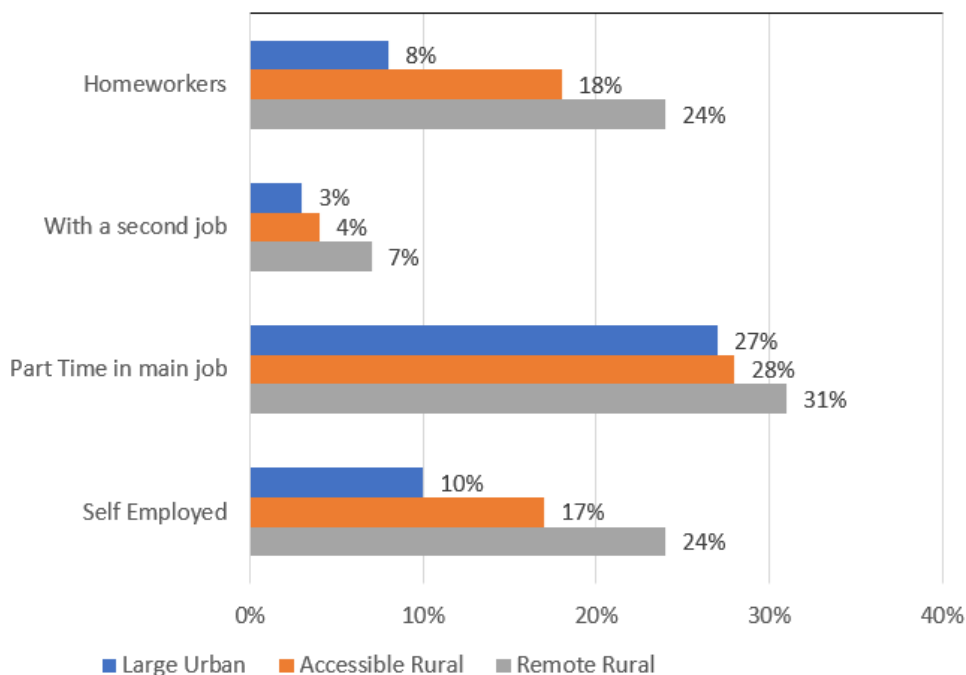
Figure 12. Comparisons of employment circumstances between Remote rural, Accessible rural and Large urban areas of Scotland (Source: Scottish Government Rural and Environmental Science and Analytical Services, and Office of National Statistics).

Social-economic performance

The Scottish Social-economic Performance Index (Copus and Hopkins, 2015) (Figure 13), shows the geographic distribution of the socio-economic performance of rural Scotland. It shows remote rural areas and small towns have (on average) a lower performance than more accessible ones. Although small towns are often assumed to be drivers of the rural economy, the surrounding countryside tends to enjoy a higher socio-economic performance, perhaps due to commuting patterns. Areas characterised by high socio-economic performance are evident surrounding the Central Belt, Aberdeen and Inverness. Areas characterised by poor performance are generally found in the more sparsely populated areas (e.g. Western Isles, Caithness, Sutherland, Rossshire, Argyll, Dumfries and Galloway, and in former coalfield and heavy industrial areas of the Central Belt, Lanarkshire, Ayrshire and Fife. Analysis of the index with respect to the LEADER Programme Local Action Group (LAG) areas showed that the lowest performing LAGs have more than 65% of their population living in data zones which scored 5 or less on the overall index'.
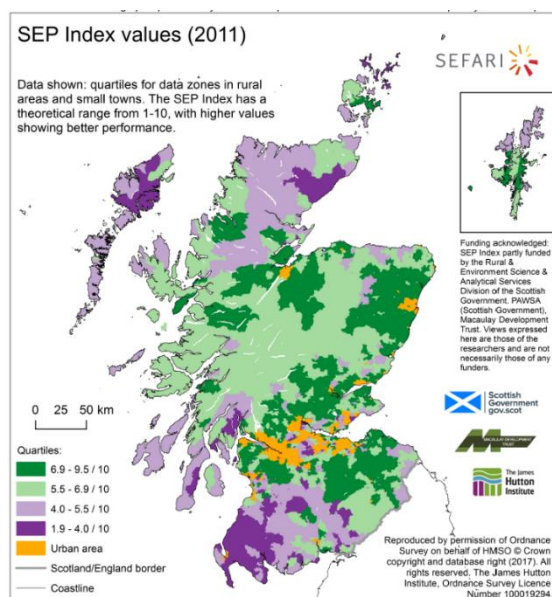
Figure 13. Socio-economic performance of regions of Scotland.

Renewable energy

The Scottish Government target is for 100% of electricity to be generated by renewable sources by 2020, and to cover 50% of Scotland's total energy consumption by renewable energies in 2030. The provision of renewable energy by onshore wind systems developed rapidly, in particular, since the 1990s. By the end of 2019, Scotland had 11.8 GW of installed renewable energy capacity, of which 9.3 GW was onshore wind systems (Figure 14) (UK National Statistics, 2019), up from 2.1 GW in 2009. By 2019, 90% of gross electricity consumption in Scotland was from renewable sources.

Almost all the generation of renewable energy is in rural areas. The setting up of the Scottish Community and Renewable Energy Scheme (CARES), and the Agri-renewables Strategy for Scotland (Scottish Government, 2014a) reflect the importance attached to both community instigated renewable energy schemes, and recognition of the significance of generating renewable energy as a multiple function of agricultural land. Such agri-renewable electricity generation also provides a relatively reliable source of income to the businesses or communities with a financial stakeholding.

Figure 14. Installed renewable energy capacity, Scotland, 2009 to 2019.

2.2.   Review of main challenges and opportunities

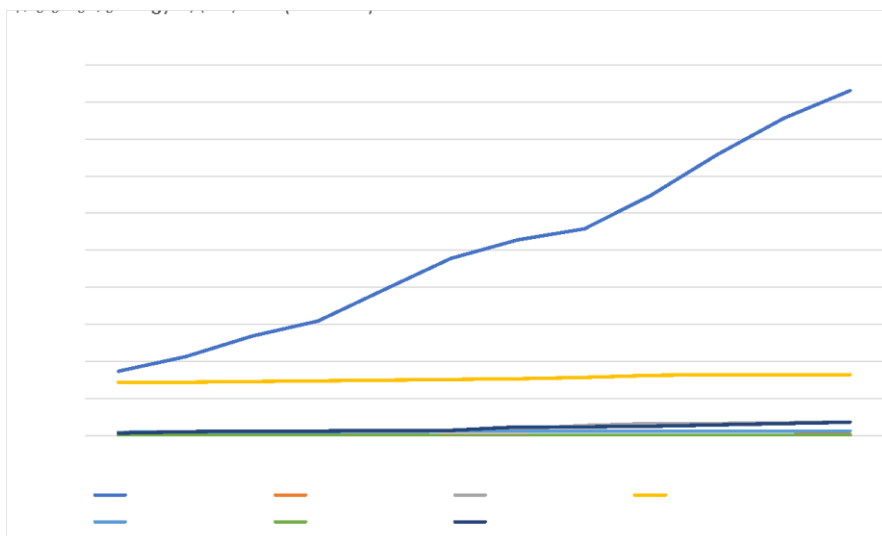The World Economic Forum (2020) published an outlook of risks for the decade 2020 to 2030, discussed under categories of economic, environmental, geopolitical, societal and technological. The top 10 risks identified were: biodiversity loss, climate action failure, water crises, human-made environmental disasters, extreme weather, weapons of mass destruction, natural disasters, food crises, infectious diseases, and cyber-attacks. These risks create challenges for planning responses to their prospective realisation, or addressing their consequences. To varying extents such planning and responses are challenges for public authorities, organisations (public, private, civic society) and citizens.

Currently, the highest profile of these risks is infectious diseases, with the COVID-19 pandemic, but all of the others remain, some of which may be influenced to a greater or lesser degree by current circumstances, such as reduced emissions of greenhouse gasses from transport (Le Quéré, et al., 2020) and greater exposure to cyber-attacks due to more online working from home.

In preparation for the National Planning Framework 4, the Scottish Government commissioned research on Rural Planning Policy to 2050 (Scottish Government, 2020). The methodology comprised an online survey (205 responses from individuals, 62 from organisations in the public, private, charitable and community sectors) and two workshops. At a national level, the 6 main challenges identified were: demographic change, the changing rural economy, liveability of rural areas, climate change and conservation, the administrative, policy and fiscal environment, and the supply of land.

The levels and scales of analysis of risk by the World Economic Forum, and challenges for Scottish Government differ, but with several areas of commonality. It should also be noted that such analyses are based on research, but may be subject to different levels of subjectivity motivating inputs (e.g. nature of respondents to public surveys).

Geographic proximity to markets, resources and services tend to be greater in, or close to, urban areas than rural areas. Markets include agricultural markets (e.g. the need to transport livestock from Western Isles, Shetland and Orkney to Thainstone Mart in North-east Scotland). Services include professional advice (e.g. legal, financial), health (e.g. dentist, doctor), or administrative (e.g. face-to-face contact with public administrations). As more processes and sources of information increasingly go online that 'distance' reduces, but the opportunity for personal contacts may become even lower in rural areas with attendant challenges for quality of engagement. Rural areas also provide markets for produce by local people and farmers, which contributes to the local consumption of food and environmental, economic and social responsibilities. However, there are no guarantees over the quality of delivery of those goods and responsibilities.

Much of rural Scotland experiences the lack of such proximity. That is exacerbated for the section of rural Scotland who are located on islands. The Islands (Scotland) Bill and The National Island's Plan (Scottish Government, 2019) recognises the types of challenges faced by those communities. Their proposals aim to increase population levels; improve and promote sustainable economic development, environmental wellbeing, human health and wellbeing, community empowerment; improve transport services and digital connectivity; reduce fuel poverty, enhance biosecurity, and ensure the effective management of the Scottish Crown Estate.

Surveys of rural businesses in 2018 to 2020 (by SRUC, funded by the Scottish Government Strategic Research Programme) showed: i) to 72% of owners are over 50 years old, and 30% over 60 years old, a similar profile to that of agriculture; ii) 30% of businesses have small annual turnovers (10% less than £25,000 and 20% less than 50,000), and 30% with more than £500,000. In rural businesses, 44% are home based compared to 22% in urban areas, and 34% having family members working full-time in the business, compared to 24% in urban areas. Although 65% of businesses have some link to the land-based sector, but for many it represented a small proportion of the annual turnover, although for 15% the land-based sector represented more than half their annual turnover.

These surveys identified the principal concerns of rural businesses (Figure 15), showing poor digital connectivity as the most significant (45% reporting it a major or minor concern), and followed by difficulty in recruiting staff with appropriate skills (43%).
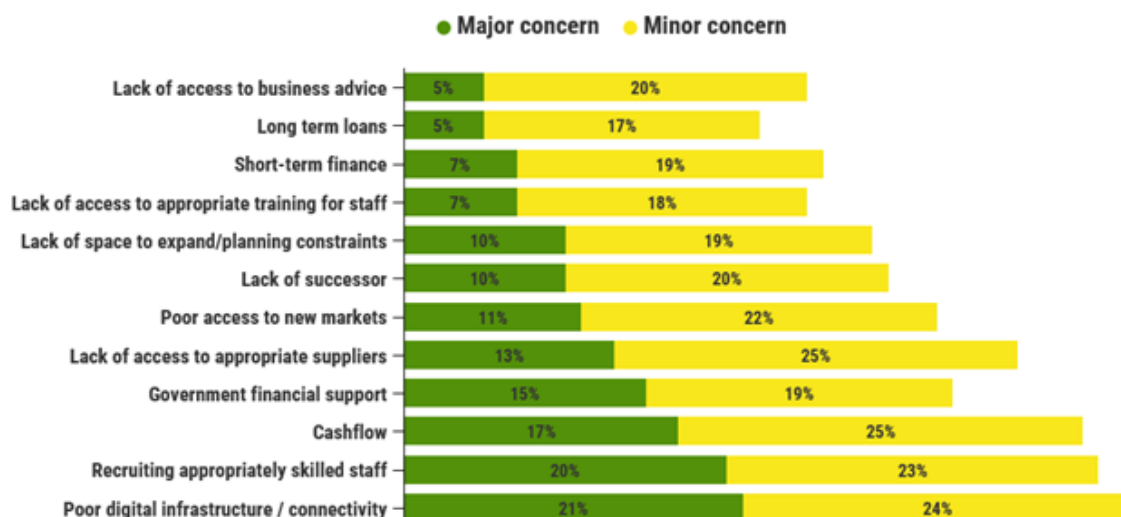
Figure 15. Business constraints of minor and major concern to businesses (Source: Thomson *et al.*, 2019).

Across rural Scotland there are structural challenges of access to services (e.g. medical, administrative), low frequency of public transport and more limited options), and limitations on the types of economic activities. These types of challenges increase the exposure of people in the case study area to risks to their well-being (e.g. mental health), and the sustainability of rural areas as a place to live and work. For example, 91% of residents of Remote rural areas are within a 15 minute drive of a doctor, 59% within a 15 minute drive of a secondary school and 70% within a 15 minute drive of a shopping centre. In each case this compares to 100% of residents in urban Scotland. When the availability of public transport is considered, only 42% of the population of Remote rural areas are within 15 minutes of a doctor, and 30% of a shopping centre. Only 46% of residents in remote rural areas find access to a hospital as an outpatient convenient, access to a dentist is considered convenient by only 53% of residents, and banking services by 55%.

Access to broadband internet from home is approximately 85% of residents across Scotland, for urban and rural areas, although it is significantly poorer in some areas. Amongst other issues identified as being significant challenges facing rural Scotland are fuel poverty with 49% of households being Fuel poor or Extreme fuel poor in Remote rural areas, 31% in Accessible rural areas, and 24% for the combined classes in the Rest of Scotland.

The quality of life in rural Scotland offers opportunities for attracting or retaining its population. Residents in remote rural Scotland rated their neighbourhood as a very good place to live (76% of resident population), compared to 70% in Accessible rural Scotland, and 54% for urban Scotland. They experience fewer neighbourhood problems (e.g. vandalism, rowdy behaviour, litter) with 56% of people in Remote rural areas and 52% in Accessible rural areas reporting no such problems compared to 41% in the Rest of Scotland (Scottish Government, 2018b). With respect to perceptions of safety, residents in Remote rural 91% of residents consider themselves to be very safe, and 8% fairly safe, and 89% and 10% in Accessible rural areas, compared to 80% and 17% respectively in the rest of Scotland.

2.3.   Summary of existing foresight exercises and national planning

Public and private sector orgrnisations conduct foresight or horizon scanning exercises as part of their core functions in strategic planning and management. However, there are no explicit foresight exercises for rural Scotland for the time period to 2040.

At a Scottish level, foresighting type exercises are undertaken by the Scottish Parliament's futures think-tank, Scotland's Futures Forum. Its works on a non-party basis "to promote research and to stimulate debate on the long-term challenges and opportunities that Scotland faces, with the aim of informing Members of the Scottish Parliament and others and enabling them to consider the effects of decisions taken today on Scotland's long-term future." In 2019 it published 'Scotland 2030: A Sustainable Future for Rural Scotland' which addressed the 'challenges and trends, explored the potential futures ahead' by 2030. Reporting highlighted needs to identify precise objectives and "specific mechanisms by which human dimensions and natural dimensions of sustainability can work synergistically to promote biodiversity, the preservation of

natural heritage and human wellbeing"; strengthening young people's involvement in policy making at a local level; the importance of the "confidence, drive and resilience that are necessary to enable people to pursue the development of their communities and places"; need for "a major overhaul of how public money is used in rural areas"; the opportunities offered by innovation; and the need "to rebalance the degree of power at local level in order for true engagement and empowerment to happen."

Although not foresight exercises, the processes for developing strategic spatial plans at national and regional levels, and local development plans, all include characteristics of foresighting, of analysing thinking about the future (UK Government, 2017), and gather intelligence from a range of sources to come to a fuller understanding of the forces shaping the long-term future which should be taken into account in policy formulation, planning and decision making (Coates, 1985). The strategic plans outputs from these processes have significant relevance to rural Scotland.

At a national level, the National Planning Framework 3 (Scottish Government, 2014b) sets out aims for Scotland to be a place which is successful and sustainable, low carbon, natural and resilient, and connected. Many of the elements of that framework connect rural and urban areas, are located within rural areas (e.g. the commercial ports Cairnryan, Peterhead, Stornoway, Scapa Flow and Hunterston), or encompass urban and rural areas (Central Scotland Green Network) (Appendix 4).

The importance of ecosystem services to Scotland, and more widely (e.g. carbon stocks in peatlands) is recognised, is recognised as being heavily focused on rural Scotland (Chapter 4), as is achieving some of the principal means of combating climate change (e.g. 100,000 ha of new woodland by 2025). In the guise of the two National Parks, rural Scotland also provides "exemplars of a partnership approach to increasing sustainable economic growth and providing multiple benefits for residents, visitors and the wider Scottish economy." The aim is of a culture and approach of positive planning and innovation that can "strengthen communities, encourage investment, support tourism, deliver affordable rural housing, and encourage high quality placemaking and visitor experiences."

The four Strategic Development Plans which cover Scotland's largest city-regions (i.e. Aberdeen, Dundee, Edinburgh and Glasgow) set out visions and spatial strategies that represent approximately 32% of the land area of Scotland, most of which is not urban, but is significantly influenced by consideration of the linkages between urban and rural within each area. For example, the Aberdeen City and Shire spatial strategy (Aberdeen City and Shire Strategic Development Authority, 2009) sets out strategic growth areas which "focuses development in places where there are clear opportunities to encourage people to use public transport, which itself can be provided in an efficient way."

Community level exercises have been conducted by Scottish Government and local authorities as part of community planning (e.g. charrett exercises), or locally specific initiatives such as the potential for community woodlands leading to community land buy-outs (e.g. in Lochcarron, Sarkki *et al.*, 2019), and local renewable energy (Haggett *et al.*, 2014). Findings also show the difference in visions between those who live locally and remotely from an area (Wang *et al.*, 2016), and differences within communities (e.g. between those who want a return to the "good days of traditional", and those who want to take advantage of "modern" opportunities.

3. Results from interviews with MAP members

Members of the Rural Scotland Multi-Actor Platform were interviewed during June 2020 to identify themes for rural development in rural Scotland, the challenges and opportunities facing rural Scotland, a desirable future for rural Scotland, and the challenges which may be faced in achieving that vision. Their responses are reflected in the following sections of this Discussion Paper.

3.1.   Current themes for rural development in Scotland

Members of the Multi-Actor Platforms reflected on a broad range of issues of relevance to the rural areas of Scotland. Those reflections took account of living and working, family, community, business and environmental aspects of rural areas. The principal themes emerging from the Multi-Actor Platforms, for rural development in Scotland, were as follows, with more detail provided under the heading of challenges and opportunities.

Strategy and Vision

There is a lack of a strategy or vision which is explicitly for the rural areas of Scotland. However, numerous public policies have a direct relevance to the land and people of rural areas, foremost of which is the Land Use Strategy (Scottish Government, 2016). Its three high level objectives are for: "land based businesses working with nature to contribute more to Scotland's prosperity, responsible stewardship of Scotland's natural resources delivering more benefits to Scotland's people, and urban and rural communities better connected to the land, with more people enjoying the land and positively influencing land use".

The expectation is that the 10 key principles for sustainable land use set out in the Strategy will be taken into account when decisions about the future uses of land are being made by public bodies, businesses and individuals. It complements the strategies in planning (e.g. National Planning Framework 3, Scottish Planning Policy), the commitment of Scottish Government to the Place Principle, community empowerment, land reform, climate change, biodiversity, and food and drink (Appendix 5). To these the national Mental Health Strategy can now also be added.

Demographic change

The causes and implications of changes in the number and demographic profile of the rural population need to be understood and tackled, recognising the differences across Scotland. The relationship between rural and urban areas could be reconsidered in terms of the life stages of people. The flows of migration within and between areas could be viewed from a systems perspective which accounts for education and training, well compensated careers in mid-life, and good quality living in later life. Those flows of migration are likely to lead to the infusion of new skills and attitudes to the population living or working in rural areas, or over a longer time period the replacement of skills.

It should be recognised that not all areas may continue to be inhabited. Examples in Scottish history are of areas being left deliberately, most notable of which is the community on St Kilda requesting to be relocated to the mainland in 1930. Prospectively, other areas may become less appealing for inhabitants as a direct consequence of climate change (e.g. coastal flooding and sea-level rise), or a precursor to land use or demographic change.

Rural Development and business

Employment in some rural areas is heavily dependent upon the public sector, principally the local authorities although those have been more restricted in the economic period post-2008/09, characterised by austerity. Of the 345,915 private sector businesses in Scotland, 343,535 are Small and Medium Sized enterprises (SMEs). In rural areas SMEs (and micro-enterprises) provide a disproportionately high level of employment in rural areas. They require support that is tailored to suits their characteristics and needs (e.g. lower thresholds for loans).

In other parts of rural Scotland (broadly categorised as 'accessible rural'), many people sleep and live but do not work in rural areas. This is consistent with some aims of strategic regional planning (e.g. corridors of growth aligned with public transport), but can contribute to a disconnection between people and the rural context within which they reside, and the services required by them and their families (e.g. health, education).

The content, emphasis of purpose, roles and mechanisms of support for agriculture and rural development will change post-Brexit with the evolution of a system to be applied in Scotland. Within the European Union Member States, changes will also take place because of the new EU Multi-Annual Framework (2021 to 2026), and the requirement of the new Common Agricultural Policy (CAP) of Member State CAP Strategies. The future 'Scottish Rural Development Programme', successor to the Scottish Rural Development Programme (2014-2020), is likely to create new opportunities for rural areas, informed by the limitations or weaknesses of the current mechanisms and associated regulations, and greater autonomy for Scottish Government to design and implement its own schemes (subject to relevant international agreements). A new rural development programme should have greater alignment between regulation and incentivisation, and consider schemes that can tackle wider rural issues (e.g. fuel poverty).

Natural and cultural heritage

The natural and cultural heritage of Scotland's rural areas have reputations of global significance. Peatlands occupy more than 20% of the land area of Scotland, and store an estimated 1,600 million tonnes of carbon, the good management and restoration of which is essential for mitigating greenhouse gas emissions. Rivers are renowned for world class fishing (e.g. Dee, Spey, Tweed) and habitats (e.g. Fresh water pearl mussel, *Margaritifera margaritifera*), the management of which has ecological and economic benefits.

The focus of many of these areas is within formal designations, designed to protect, manage or promote their natural or socio-economic assets for future generations. Scotland's two National Parks and the Galloway and Southern Ayrshire Biosphere provide socio-ecological systems for study and learning lessons for improving the wider management of Scotland's land, with scope for consideration of designating more such areas.

However, there are challenges in balancing the demands of different uses of land use (e.g. renewable energy, grouse moors, deer stalking, woodlands, agriculture), some competing for the same space, and others having impacts on the wider context such as landscapes, habitat networks and recreation routes. There is evidence of rising river temperatures (e.g. Gairn burn, a tributary of the River Dee), which could have significant impacts on salmon), and of diffuse pollution into river courses form land management practices. Other pressures of note are threats to pollinators with consequences for biodiversity and food production, and the distribution of micro-plastics into the environment (flora, water).

The cultural heritage of rural areas is reflected in many different dimensions including places names, language, architecture, religions and faiths, building materials and land ownership. Most of the locations historic battlefields are in rural Scotland, some of which are threatened by urban development (e.g. Bannockburn, Culloden), and much of the rural landscape contains sites of international historic significance from Neolithic times onwards. These all face challenges of protection (physical, regulatory) and opportunities for celebration (for local, Scottish and international audiences).

Islands

Islands are a significant contribution to the natural and cultural heritage of Scotland. Overall, their population is broadly stable, but with differences in patterns of migration between smaller and larger islands. The energy sector is significant driver of population and economy in several islands, particularly the oil and gas industry in Shetland and Orkney, and renewable energy test centre in Orkney. Primary industry of farming, fishing and crofting are the principal forms of employment, along with tourism and public services.

Production

Rural areas are the location of much of the raw materials which contribute to significant parts of Scotland's economy. It is the source of much of the agricultural and fisheries products, and water for the food and drink industry which is Scotland's largest export category valued at £5.9 Billion per annum (2019). In 2015, forestry contributed £183 million to the rural economy of Scotland, and £1 Billon Gross Value Added to the Scottish economy.

Production takes place in the context of a global economy, but within frameworks of trade agreements (e.g. World Trade Organisation, European Union Single Market), support mechanisms (e.g. Common Agricultural Policy), and environmental regulations (e.g. European Union Nitrates Directive). Producers expect changes in the implementation of regulatory frameworks in Scotland following Brexit, but the details are unknown at present, and possibly regulatory responses to COVID-19 (e.g. biosecurity).

Climate change

Long term changes in climate are having impacts on rural areas. Impacts on land use reflect public policies for mitigation (e.g. afforestation, onshore renewable energy, peatland restoration), biophysical changes (e.g. temperature and rainfall), and changes in the magnitude and frequency of extreme weather events, such as flooding (e.g. Storm Frank, 2015/16; Addy, 2016), which threaten human life, infrastructure and natural resources.

Social Innovation

Gaps in the provision of services by public and private sectors are being filled by civic society. Examples include renewable energy (e.g. Udny Community Wind Turbine and Udny Community Trust; Earlsburn Windfarm and Fintry Community Trust; Braemar Community Hydro; Huntly Development Trust and windturbine at Greenmyres) community woodlands (see The Community Woodlands Association); and social care. For example, Tagsa Uibhist, on the Isles of Uist and Benbecula, provides "support for carers, people living with dementia, and vulnerable people living in their own homes". Amongst the benefits of this social innovation is reduced stress on carers and their families, enabling them to take regular breaks from responsibilities whilst maintain their role within the community, and providing local transport and domestic services (see, H2020 SIMRA brochure on 'How To Deliver Rural Services?').

Digitalisation

Digital technology is fundamental to most areas of economic and social activity. Technology is driving reductions in requirements for labour (principally primary industry), changes in skills (e.g. precision farming), and means of operation (e.g. logistics using smart planning of the delivery of goods and people). For some industries there are changes in the requirements of capital investment (e.g. forestry), which could favour transient, capital intensive contractors over local, embedded but less efficient contractors.

Education

Strategic planning of the provision of schools is an important component of the development of rural areas. High performing schools contribute to the vitality and vibrancy of communities. Education infrastructure, both physical and human capital, is one part of supporting communities. Such human capital includes ensuring that rural schooling is an attractive proposition to teachers and their families.

The inclusion of rural skills for work in the school curriculum (e.g. Rural Skills National 4) contribute to providing 'home grown' trained contractors, who can develop a business and career within rural areas. However, the education and training curricula have gaps, and limited capacity, to provide the skills and knowledge relevant to some activities in rural areas (e.g. lack of skilled labour for forestry). In some areas of Scotland, there is considerable competition for suitably qualified students, from secondary or tertiary education (e.g. in north-east Scotland to work in energy related industries rather than traditional rural industries).

Mental health and well-being

Estimates of the economic costs of mental ill health, in 2009/10, were £10.74 million, taking account of human costs, output losses and health and social care (Scottish Association for Mental Health, 2011). Research findings (Skerratt *et al.*, 2018) reported evidence of included depression, generalised anxiety disorder, suicidal thoughts and feelings, social anxiety disorder, and self-harming behaviour. Various reasons mean that people in rural areas less are willing to seek assistance (e.g. a lack of anonymity, stigma), with risks associated with social isolation, not fitting with perceptions of traditional farming communities (e.g. LGBT), lack of access to social care, availability of means of harm (e.g. firearms, poisons).

3.2. Challenges and opportunities in the next 20 years

The coming 20 years will be a period of significant transition, from a predominantly fossil fuel based economy to a circular economy with high levels of renewable energy and energy efficiency, creating both challenges and opportunities. High priorities amongst the challenges to be addressed are those of tackling climate change (e.g. planning of renewable energy systems, restoration of peatlands, afforestation), reversing the loss of biodiversity (e.g. national habitat networks, agri-environment schemes), and handling the processes of land reform (e.g. community capabilities), the provision of affordable housing, and increased access to high speed broadband and contemporary mobile networks (e.g. 5G).

Examples of specific challenges and opportunities identified for the next 20 years are:

Demographics, communities and governance

Changes in population and demographic profiles of rural areas pose significant challenges for rural areas, as summarised in Section 2.1. A major challenge is to retain young people in rural areas. Some of the sectors impacted most severely by processes for tackling COVID-19 are those employing younger people (e.g. seasonal employment in tourism). So, the pandemic may accelerate the trend of out-migration of younger people. However, the patterns of change are not uniform across all rural areas of Scotland.

A societal challenge is to ensure recognition that the attitudes and opinions of rural populations are not homogeneous. They may reflect differences between rural areas (e.g. production types, prospects of tourism), and within rural areas (e.g. proximity to railway station, mobile phone reception). Changes in land use and landscape catalyse responses from residents or local working populations which can be opposites. Notable recent or contemporary examples are in relation to renewable energy developments (e.g. windfarms), sports and leisure (e.g. golf courses) and transport (e.g. building new, or upgrading main roads). Disagreements revolve around projected benefits (e.g. employment, environmental), disbenefits (e.g. environmental, social), and issues of equality (e.g. ownership, community or personal rights).

The development of human and social capital in rural areas is key to addressing many of the challenges identified, and for realising the long-term vision. As above, some areas have higher levels of human capital

than others (e.g. expertise of retirees from professional occupations), with recognition in the concept of 'Smart Villages' that no-one or area should be left behind. Some communities feel empowered to lead debates that relate to human and natural resources within their area. However, there can be a need for innovative institutional arrangements for handling contested issues, and independent actors to facilitate or manage processes to enable agreed outcomes to be achieved.

The planned 'Regional Land Use Partnerships' could provide opportunities regarding future governance, and the involvement of communities in developing plans for rural areas. Their roles could be effective in developing strategies and visions at regional or local spatial levels, and territorial coordination of actions. However, their geography, size and governance are yet to be decided and so whether they can deliver on that promise remains uncertain (as of August 2020).

The development and provision of new services could encourage people to remain in rural areas (e.g. leading young people to go to rural areas, instead of migrating away). The responses to COVID-19 by communities and businesses have demonstrated adaptability and imagination in the provision of care (e.g. neighbourhood alerts of people in difficulty; assistance for elderly people), and products (e.g. changing production to hand sanitiser, personal protective equipment). There is an opportunity to learn from the experiences gained in the way communities mobilised in response to crises facing human and animal health (e.g. COVID-19, Foot and Mouth disease, severe flood events). One means of facilitating co-learning from these experiences is to identify opportunities for increasing links between innovators and researchers, similar to the concept of Innovation Actions.

The nature of employment and land ownership structures can lead to reticence amongst people to comment about issues such as poor quality land management, poor decision-making, lack of investment, frustrations about a lack of transparency about decisions or influencers, and implications when outcomes have adverse impacts on the environment or people. That reticence can also be amongst advisors, who may be become unwilling to recommend radical changes, reinforcing risk aversion in approaches. More generally, the implications of relationships and structures can inhibition long term planning that affects land and people, locally and further afield. However, the process of land reform has provided significant opportunities for community empowerment and increased capabilities for direct responsibility for planning the uses of natural resources (land and water). Human and social capital have been enhanced, supported by governance and funding structures which are supportive towards taking new initiatives and learning quickly from the experiences gained. A challenge for such new initiatives can be the lack of adequate economic or human capital to be sustained.

Increased interest and willingness of communities in developing new forms of governance and plans that deliver community benefits can be expected to continue to increase. However, investment will be required for the increase in human capital necessary, and a process of preparing for responsibilities to be taken on by new, community focused, institutions (e.g. roles and understanding of mechanisms such as citizens juries, participatory budgeting).

Rural development and business

Key challenges for rural development and business in rural areas relate to human capital, entrepreneurs and people with motivation and social drive, and access to loans, particularly for the relatively small financial values that are relevant to a micro- or small businesses.

Shortening production to consumption supply chains can increase their resilience, and that of rural areas more generally. However, local businesses can face difficulties in entering new or existing supply chains due to product requirements (e.g. for supermarkets), and the services which were understood to be a right are under pressures (e.g. Royal Mail, Post Offices, local banks). There is a need to improve understanding of all links in value chains, their weak points (e.g. biosecurity, financial, transport), and where there may be opportunities for filling gaps through use of local human or natural resources.

Rural areas can benefit from the development and promotion of 'Brand Scotland' for premium products of food and drink, creative space, natural assets (e.g. biodiversity, landscapes, peatlands), and social assets of resourceful and capable communities. Those who live or work in rural areas should be recognised as beneficiaries as well as those who visit, or who recognise the intrinsic values of such assets.

The use of rural Scotland as settings for films, television and books (Aalders and Stanik, 2019), contributes to the international reputation of its landscapes and people. The popularity of some filming locations (e.g. Glen Coe for James Bond *Skyfall*; Fort William to Mallaig railway in Harry Potter films) can create challenges of road congestion, visitor safety, footpath erosion. They offer opportunities for development of the creative

industries, and economic benefits within these industries, and more widely in the rural economy (e.g. accommodation, food and drink sectors).

Rural areas have less vacant and derelict land, more often found in urban areas, reflecting changes in economic uses of land (e.g. mining, manufacturing, retail). However, in rural areas, vacant or derelict land can be highly significant, representing a loss of services or adversely impacting upon the quality of life in rural towns or villages (e.g. closure of a shop in a prominent location).

The enforced conditions during the peak of the COVID-19 pandemic demonstrated that people do not have to be at a previously recognised place of work. Working in a distributed pattern, including homeworking, offers opportunities as well as challenges. Advantages include reduced travel time and costs (economic and environmental), increased flexibility in patterns of work, greater scope for blending professional and family responsibilities. Disadvantages specific to homeworking include reduced face-to-face contact and informal interactions with colleagues and clients, with potential for additional stresses and pressures on mental health, limited access to infrastructure of relevant quality (e.g. computer peripherals, centralised backing-up), and additional demands on home space.

Developing new ideas and taking new opportunities requires funding. Understanding and fulfilling the requirements for raising such funding can be a significant challenge (e.g. LEADER), with some communities benefiting from the availability locally of people with expertise in applying for funds, and writing proposals.

Amongst other issues arising in production is a dependency on migrant workers in some agricultural sectors, notably soft fruits and dairy, which makes them sensitive to restrictions on travel or residency, of which COVID-19 and Brexit are contemporary causes.

The pace of businesses finding customers online has accelerated due to COVID-19. Recovery from COVID-19 could provide an opportunity to fast-track changes in pressures on rural areas, and the prospective impacts and potential transformation. Examples include the potential to revisit existing or near-term agreements (e.g. Regional Growth Deals) with more scope for including bottom-up contributions, and use of new structures and sources of investment of relevance to rural areas (e.g. South of Scotland Enterprise).

Natural and cultural heritage

Scotland's cultural and biophysical landscapes are unique assets on which to capitalise. Rural areas can be part of the solutions for tackling climate change through investment in natural capital (e.g. stewardship of carbon rich soils, peatland, afforestation), as highlighted in the Higgins Report (Towards a Robust, Resilient Wellbeing Economy for Scotland, Scottish Government 2020b). International recognition of the Scottish National Parks and Biosphere and its research community should provide more opportunities for learning about processes that involve communities, businesses and the public sector can deliver effective sustainable development.

The increasing emergence of the concept of, and the benefits of investing in natural capital, offers considerable potential for rural areas. In 2015, "the partial asset value of Scottish natural capital was estimated to be £291 billion" (Office of National Statistics, 2019). The resources of peatland and carbon rich soils could be used in innovative ways to raise finance (VividEconomics, 2018).

The popularity of Scotland's landscapes for tourism and recreation (e.g. North Coast 500) create challenges due to pressures that adversely impact upon their characteristics (e.g. physical impacts on paths, perceptions of reduced remoteness, etc.). However, they provide unique opportunities for attracting residents, visitors and investors, albeit requiring good stewardship and investment. Opportunities should be identified to plan and manage natural resources at a landscape level to be able to take account of the multiple dimensions of natural capital, with development control at a level at which empowers communities. Such opportunities could be linked to the formation of Regional Land Use Partnerships, with new roles for local or regional governance, and new areas of focus (e.g. regional targets for net gain in biodiversity, reductions in greenhouse gas emissions).

Further challenges to be overcome in the management of natural heritage are reconciling tensions between private and public interests, notably reflected in pressures relating to renewable energy developments and intensively managed grouse moors. Werritty *et al.* (2019), in the report to the Scottish Government of the Grouse Moor Management Group, describe the types of conflicts between interests in relation to managed grouse moors. They note the gaps in scientific evidence, and 'the contested nature of much that has been published – most notably the tension between the expert knowledge of scientists versus the local knowledge of gamekeepers and other land managers'. Such disagreements require resolution if effective land

management incentive schemes and regulations of relevance are to be designed, implemented and have the impacts desired.

Other significant elements of the cultural heritage of rural Scotland, which face challenges over the long-term, include language (Gaelic and Scots) and dialects, and traditions linked to faith. They are core to the fabric and character of many rural areas. A vision for 2040 that of inclusivity requires such elements to be protected and develop, alongside which the languages and faiths of those moving into rural areas form part of a mosaic of cultures and evolution of cultural heritage.

Family

Living in rural areas can pose challenges for families. There can be limited opportunities for suitable posts for the career development of both partners (e.g. due to lower number of professional services provided), which also links to the centralisation of public and private sector offices in urban areas, particularly the cities. Good quality, affordable, housing in rural areas is also a limitation, in particular for families. Strategies for a 'green recovery' for COVID-19 could include a major emphasis on the provision of housing, designed to be efficient in the use of energy, waste and well serviced with utilities (e.g. mobile signals, high speed broadband).

Tensions within families create stresses and pressures (e.g. housing if families split). Other causes of family difficulties in rural areas can arise when a farm is inherited by the first born son as a choice by the deceased, which is not modified by the operation of Scots law (Scottish Parliament, 2019). More generally, access may be limited to other members of a family for support, or in times of bereavement and ill health.

Digitalisation

Key challenges to the uptake of digital tools are the extent and quality of connectivity, cost of suitable hardware and software for shared or home use, and training of human capital. Technological developments offer new opportunities to deliver sustainable development. The 'internet of things' and artificial intelligence are leading to new tools for the management of natural heritage (e.g. alerts to extreme flood events, landslides, ice on roads); primary production of agriculture, forestry and aquaculture (e.g. sensors in drones for monitoring environmental and biological characteristics of crops and soils leasing to reductions in agricultural greenhouse gas emissions of 2% to 4%; SEFARI, 2019); and social care (e.g. faster access to remote consultations with medical and health experts, and digital health; World Health Organisation, 2019). As noted above, relatively lower costs of commercial property combined with access to skilled labour and high speed digital connections in certain small towns creates conditions for new centres of employment (e.g. call centres for utility and information technology companies (e.g. Blairgowrie).

Information

The planning of developments, management of resources, applications for funding all require access to information, as per the Aarhus Convention on rights of access to environmental information, public participation, and environmental justice (UNECE, 1998). A considerable amount of information is now provided by public agencies (Scottish Government, its agencies and local authorities, UK Government, and EU and international agencies). However, challenges for the effective use of such data and information are the access to relevant specialist knowledge (e.g. interpretation of soils on a map), expertise and experience (e.g. LEADER funding applications), or facilities (e.g. software licence for use of some digital map data).

However, opportunities are emerging for those living or working in rural areas to contribute to the body of public information, such as citizen science to report environmental problems or flora and fauna (e.g. Saving Scotland's Red Squirrels), exploiting mobile devices. That reflects the model of volunteers providing weather records for many decades. The collection and interpretation of data for rural areas also provides opportunities for collaboration between science and society (e.g. through research programmes and projects, such as those of EU H2020), and engendering interest of communities in local environments through the capture and interpretation of information, and a say in designing actions or responses (e.g. species reintroduction, woodland expansion).

Education and training

Challenges include the provision of secure and attractive prospects for teachers to move to, or remain in rural areas. In some areas the price of housing may be a restriction. In others, issues may relate to career development. For example, in its report the Scottish Government Commission on the Delivery of Rural Education recommended that "local authorities, the Scottish Government, teaching institutions and trade unions should work together to explore innovative solutions to reduce the barriers to teaching in remote areas; and to ensure effective delivery of Continuing Professional Development to teachers in rural schools,

learning from international best practice to reduce teachers' isolation and sustain skills and development." They also note the importance of 'wrap around care', to take account of the longer commuting times to work and school, alongside good quality childcare.

Health and well-being, particularly mental health

Physical remoteness can be exacerbated by perceptions of isolation by rural inhabitants, which can have adverse impacts on mental health and wellbeing. It can also hide evidence of inequalities and deprivation.

Amongst the consequences of strategies of lockdown to combat COVID-19, greater attention has been paid to mental ill health, a positive outcome of which could be a reduction in the stigma it attracts, which in turn can lead to earlier interventions and prevention. However, pressures can be expected on public funds during the emergence from the COVID-19 pandemic. A challenge will be to support a sustainable mental health service which is likely to have to handle increased demand coupled with a decrease in support and capacity. Reductions in capacity would also inhibit treating post-crisis trauma which will come out as soon as the immediate crisis passes.

Transport

Transport systems will have to meet challenges of enabling the mobility of people and goods within rural areas, and between rural and urban areas, whilst also undergoing the transition away from fossil fuels, probably towards electric and hydrogen based systems. The evolution of smart transport systems in urban areas will require an equivalent in rural areas.

The COVID-19 pandemic has triggered changes in the *modus operandi* of numerous businesses, with new services provided which were unlikely to have been envisaged at the beginning of 2020. Transport of goods for domestic customers has become much more important, and popular, reflected in the use of courier services and home service delivery companies such as Amazon and major supermarket chains. In a parallel to the use of a 'Post bus' in rural areas, opportunities could be identified for a 'Tesco bus' or 'Amazon bus', providing 'smart point to point services', the efficiency of which is guided by digital route planning and algorithms calculating minimum additional costs in time, fuel and environmental impact.

Renewable energy

The generation of renewable energy in Scotland is almost entirely from its rural areas, and those immediately offshore. The significant increase in the installed capacity, and proportion of domestic electricity generated from renewable sources, is likely to continue, with more emphasis placed on export markets, and offshore renewables, and the generation of heat from renewable sources. The concept of Smart Grids offers scope for balancing the use of the electricity grid, and improving efficiency in matching supply and demand. Knowledge of residential and commercial uses of energy (timing, amount) should enable smarter and more efficient provision of energy.

Investment in technologies such as wind and solar will provide opportunities for some employment, although principally in the construction phases of developed. Investment in biomass for fuel offers the prospects of multiple benefits available from woodlands (e.g. sequestering carbon, increasing habits and biodiversity, leisure, recreation, and fuel for heat and electricity). For communities and rural businesses, renewable energy is likely to continue to be an option for investment and source of income, although possibly with lower rates of return than in previous years.

3.3. Desirable future of rural areas by 2040

Rural areas comprise communities of place, and members of wider communities of shared interests. The perception of rural areas, by those who live and work in them, those who visit, and those who benefit indirectly (e.g. through the provision of natural resources) will be one of positivity. They will be areas in which there is opportunity, innovation and modernity, whilst respecting and celebrating their traditions and cultural heritage. They will not be considered to be the hinterlands of urban areas.

The vision should be for high quality life experiences in relation to health and wellbeing, economic prospects, societal cohesion, and environment, not only to reverse depopulation. Characteristics of rural areas will be their resilience; growing and increasingly balanced population profile; outward looking in nature; inclusivity towards inhabitants, migrants, and visitors; high standards of education and educational infrastructure; good physical and mental health and well-being, with nutritious diets; digital connected both internally and

externally, enabling efficient marketing of produce, and accessible to family and the wider community; and with confidence and capabilities of governance in public, private, and civic society.

The pathway to 2040 will have seen significant contributions towards local delivery of Sustainable Development Goals such as addressing rural poverty, large scale switch to renewable energy and electric vehicles, reversal of the loss of biodiversity, and lifestyles that are consistent with the sustainable use of resources (e.g. a low carbon lifestyle with net zero greenhouse gas emissions). That pathway will include many small steps, the short and medium-term outcomes of which will not be apparent over 1, 3 or 5 years. Negative impacts of those outcomes may prevent the realisation of the vision, or change its route and intermediate destinations.

In achieving a vision for rural area, questions arise for communities at local and Scottish levels, for which there may not be a shared opinion. Amongst those are:

i) Does an economy always have to grow or is a different model required for sustainability, with a greater focus on a stable economy, a more desirable state to achieve?

ii) What are the characteristics of a sustainable future, such as the geography of target customers for rural areas (e.g. emerging middle class in China)?

In developing a vision for rural areas for 2040, responses to such questions are required to enable coordinated and aligned efforts for its realisation. Examples of aspects of the future envisaged by 2040 are:

Communities and governance

Rural areas will be places for everyone irrespective of race, gender, physical and mental abilities. They will be characterised by their attitudes towards and delivery of sustainability, with evidence of a sense of confident and capable communities, vibrant social economies and civic society initiatives. There will be a strong focus on innovation (social, technological), and capabilities for innovation (e.g. FabLabs), building on natura land cultural assets. Investment will be targeted at tackling inequalities, redressing gender pay gaps, and those which may be associated with minorities. Governance structures will be emerging and evolving that enable effective and fair decision-making (reflecting decisions made relating to Brexit, Scottish independence, and regional and local autonomy) for the achievement of beneficial social, economic and environmental impacts.

Rural development and business

Economic benefits will be experienced by rural areas through the re-location of public sector offices (with commitments to the long-term nature of such arrangements), higher grade and higher paid jobs. This is part of a process of redistributing decision-making and administrative responsibilities away from the main cities and urban areas, and a rebalancing of authority and responsibility that empowers local communities.

Social and business environment is encouraging the development of human capital, identifying entrepreneurs and people with motivation and social drive, and is active in succession planning. Financial products will have been designed that are suitable for rural businesses (e.g. minimum threshold of loans for the of the new Scottish National Investment Bank), taken up, invested, and have delivered on the ideas and plans.

Procurement regulations will have enabled an increase in the level of local supplies (e.g. food, fabric) to public services through increasing the levels of demand. Improving the potential for local provision of goods and services has been one component of investment in public health and wellbeing (e.g. nutritious diets), with the added benefit of strengthening local supply chains.

Attitudes of banks and financial services will be understanding of the issues facing rural businesses. Bank incentives and regulations will make it attractive for commercial banks to lend to rural businesses (e.g. cooperatives), overcoming some of the difficulties they face in structuring collateral. So, access is available to relevant forms of advice, financial structures, and physical infrastructure will reflect understanding of the needs of start-ups, micro and small businesses, and communities, recognising that for such groups small sums of financial support can make a significant difference. Significantly more smallscale flexible space for production, and incubator units for start-ups, will be available across rural Scotland.

Changes in human capital will be contributing towards rural areas being characterised by creativity and the creative industries. The evolving human capital in creative skills (e.g. design, arts, computer games) will have helped to retain younger people, attracting emigrants back, and inward migration.

Natural and cultural heritage

By 2040, an integrated, landscape level and ecosystem based approach to the planning, management and governance of Scotland's landscapes will be widespread across Scotland. The approach will recognise the significance of all the components that contribute to their character and quality, integrating those of the cultural and natural environment, tangible and intangible (Miller *et al.*, 2020).

As of 2040, Scotland will be on track to achieve its targets of net-zero emissions of all greenhouse gases by 2045. Contributions to achieving this target will have been through the effective design and implementation of spatial land use strategies and investment in natural capital. Actions in delivering this target will have included a programme of restoring degraded peatlands, and the expansion of woodlands in places where their contribution to net carbon sequestration can be most effective, and new ways of integrating woodlands into Scottish land uses (e.g. increase in development of agro-forestry). Those woodlands will contribute to effective ecological networks, functionally and structurally, improving the resilience of natural heritage to pressures of change (e.g. land use, climate change, human behaviour), and reversed the loss of biodiversity.

Education

By 2040, high quality training and education will be available in and from rural areas, contributing to the development of capabilities and confidence of rural communities. The curriculum for education will have become more holistic and systems based, broadening thinking of pupils, and the skills learnt be relevant to the challenges of the second half of the 21st century.

One potential consequence of increasing the capability for innovation in rural areas will be for them to be able to take a lead in some of the types of jobs of the future, the purpose or technical requirements of which are not yet known. In situations where a local community cannot support its own school, institutional infrastructure will enable small groups of pupils to gather for remote learning, with classroom assistants assigned to each group. Such gatherings will be a hybrid of virtual and physical gathering.

Disconnects between land-based industries and local populations is leading to gaps in understanding of systems of management of land, and sea, and thus some of the stresses they face. So, an important element of developing rural areas will be the expansion of rural issues included in different parts of the school curriculum (e.g. social sciences, sciences, literacy, health and nutrition). This will have aligned with an aim of the Scottish Land Use Strategy of reconnecting people with the land.

Health and well-being

By 2040, there will be parity of treatment and removal of stigma associated with both mental and physical health. Achieving that vision will have been the business of everyone through the creation of supportive environments as well as the provision of services, on an equal basis.

There will have been a change in the approach to delivering social care in rural areas, through a mix of public services and social innovation, reflecting increased community confidence and capabilities. Such delivery will be hands on, augmented by digital methods (video consultations), learning from lessons gained during responses to COVID-19. The availability of training relating to caring, including that which leads to formal qualifications, will have increased the level of skilled employment, and delivering to local needs with the potential for improving social fabric and community cohesion.

A local focus on community mental health and wellbeing will have benefited communities economically (e.g. reduced loss of economic time through mental ill health), and increased community resilience to traumas such as those caused by natural disasters (e.g. flood events). Good quality training on prevention and tackling mental health will have been provided in workplaces, and public, private and civic society centres.

Transport

The infrastructure and quality of transport will be one which works for everyone regardless of age and mobility, be demand led and flexible, and affordable. Timetables of different types and networks of public transport in rural areas will link up for all types of uses (e.g. leisure, commuting, access to services, education). Forms of governance of transport will be suited or tailored to local circumstances, with community transport part of the mix of resources and services (e.g. car sharing, electric vehicle hubs), consistent with increased empowerment of communities.

4. Conclusion and next steps

The process of developing this Discussion Paper was the first activity of the Rural Scotland and River Dee Catchment Multi-Actor Platforms. The engagement (to August 2020) comprised online video or telephone calls. This may remain the mechanism for the planned workshop. In due course, some such engagement will be in face-to-face meetings, or blended to enable participation whilst seeking to gain benefits from associated informal interactions.

By 2040, the vision for rural areas will as an attractive destination to live, work and visit, internationally recognised for the characteristics of their economic, social and environmental sustainability. They will be economically and socially vibrant, creative and innovative; natural capital (e.g. soil, water, landscape) that is well stewarded for local and global benefit; efficient production of energy, food and fibre; equalities of opportunity for its population, and inward migrants; access to, and provision of international standard training and education, utilities (digital infrastructure, water, energy and waste), and health and social care; and confident and capable communities.

There is a need for confidence in planning (spatially, economically) over the longer term, rather than following short-term market movements. Challenges to be tackled in achieving the vision for rural areas are: to overcome a loss of people of working age and younger people; tackling weak utilities and infrastructure, particularly digital connectivity and aging roads (e.g. rural bridges); improving access to land for new entrants to farming and communities; local processing of produce; tackling inequalities in human health and well-being, access to services; and deciding on the uses to which land should be put.

Tackling uncertainty is one of the most significant challenges in realising a vision for rural areas by 2040. Strategies are required that are stable in addressing long term issues (e.g. climate change, biodiversity loss, economic and social inequalities), whilst being flexible in enabling responses to crises (e.g. economic, extreme weather events, disease affecting humans or animals). The COVID-19 pandemic creates significant unknowns across all topics. It changes the 'starting point' of the pathway to 2040 in terms of economic circumstances (e.g. national debt) and societal mindsets (e.g. public attitudes to risk). Emerging from the pandemic could mean that rural areas start the pathway to 2040 with greater challenges (e.g. fewer businesses) and new opportunities (e.g. new businesses and supply chains).

Other significant causes of uncertainty relate to processes post-Brexit, such as: the availability of labour in some rural sectors (e.g. tourism, agriculture); access to markets and tariffs on goods; regulatory issues (e.g. environmental); and whether responsibility for certain regulations or payments are with the UK or Scottish Governments (e.g. future policies on agriculture and fisheries). Similar issues arise under a scenario of Scottish independence added to which are fiscal issues such as borrowing and taxation policies. In prospective 'game changers' such as Brexit and Scottish independence issues of the nature, processes and timescales of transition periods require consideration as part of understanding pathways of prospective change.

A reminder from the Platforms was of risks of repeat consultations on closely related topics, the effect of which can be to raise expectations which may not be followed through or achievable. Such a risk may be greater when a consultation is at a continental level.

A further observation was that:

> "*If we value rurality, we need to offer opportunities to educate and grow children, shop and socialise in the local area, not devolve to local towns.*"

A next step is the development of an online survey for capturing opinions from a wider set of contributors. The survey is scheduled to run through autumn 2020. The findings will inform further discussions for reporting in the final Position Paper to be completed by November 2020.

Acknowledgements

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Annex 2. Survey Questionnaire

SHERPA Vision for Rural Areas 2040

INTERFACES LINKING SCIENCE, SOCIETY AND DECISION-MAKERS TO SHAPE FUTURE RURAL POLICIES

(The link to the survey is: http://hutton.qualtrics.com/jfe/form/SV_3DerCC4IvpgnXO5)

Q2.1 **Introduction**

The European Union funded H2020 SHERPA project (website: rural-interfaces.eu) aims to gather knowledge that contributes to the formulation of recommendations for future policies relevant to European rural areas, by use of a science-society-policy interface. The project's current work is to contribute to the discussion of the European Union Long-Term Vision for Rural Areas to 2040. We would welcome your opinions on the challenges, opportunities and vision for rural areas of Scotland to 2040.

This survey has been developed from an initial discussion with stakeholders with roles in policy, business, civic society and research. It contains 12 questions, mainly of a multiple choice format, plus opportunities for you to enter your own choices and ideas.

Survey   The estimated time for completion of the survey is 15 minutes. Your participation in this research study is voluntary. You may choose not to participate. If you decide to participate in this research survey, you may withdraw at any time. This survey does not require you to include your name or any other information that will identify you. We will ask you for some demographic details, namely your professional background, to help us produce summary statistics but these will not be used in any attempt to reveal your identity.

Please be assured that all of the answers you provide will be strictly confidential, and your views will not be reported in any way that could identify you. All data collected will be stored securely in password protected electronic format. Responses will be analysed by a research team at the James Hutton Institute, and discussed in aggregate with a stakeholder group.

Please note that this survey includes some free text questions. If you choose to share in any of your free text responses any information that may identify you directly or indirectly, this information will be processed in line with data protection legislation and all reasonable steps will be taken to ensure confidentiality and your anonymity in any reports/publications. More information about how the James Hutton Institute processes personal data can be found in its privacy notice, available at www.hutton.ac.uk/terms.

Thank you in advance for taking the time to complete the survey. We value your opinions and appreciate the time it takes. If you would like further information about the SHERPA project, or this survey, please email david.miller@hutton.ac.uk

Please click here if you agree to take part in this survey.

○ I would like to take part in this survey

Q1 From the options below, which one describes your background best? Please choose only one option.

○ Public sector, UK level organisation

○ Public sector, Scottish level organisation

○ Public sector, regional or local authority organisation

○ NGO or civil society

○ Private sector / business

○ Research

○ Private individual

○ Other _____

Q2 Considering the rural areas of Scotland, how important do you consider each of the issues listed below?

	Extremely important	Very important	Moderately important	Slightly important	Not at all important
Population and demographic change	○	○	○	○	○
Digital transformation	○	○	○	○	○
Transport infrastructure	○	○	○	○	○
Education and training provision	○	○	○	○	○
Health and social services	○	○	○	○	○
Health and well-being	○	○	○	○	○
Climate change	○	○	○	○	○
Natural environment	○	○	○	○	○
Cultural heritage	○	○	○	○	○
Primary production (e.g. agriculture, forestry, fisheries)	○	○	○	○	○
Energy production regardless of source	○	○	○	○	○
Rural development	○	○	○	○	○
Employment and businesses	○	○	○	○	○
Innovation (e.g. social, technical, business, administrative)	○	○	○	○	○
Other (please specify)	○	○	○	○	○

Q3 Please provide up to 5 keywords or phrases that best describe living and/or working in rural Scotland at present

○ Keyword/ phrase 1 _____

○ Keyword/ phrase 2 _____

○ Keyword/ phrase 3 _____

○ Keyword/ phrase 4 _____

○ Keyword/ phrase 5 _____

Q4.1 Rural areas are resilient to acute shocks (e.g. COVID-19 pandemic, extreme weather events)

○ Strongly agree

○ Somewhat agree

○ Neither agree nor disagree

○ Somewhat disagree

○ Strongly disagree

Q4.2 What types of actions need to be taken to make rural areas better prepared for acute shocks?
_____
_____
_____
_____

Q5.1 Rural areas are resilient to long-term change (e.g. demographic change, climate change)

○ Strongly agree

○ Somewhat agree

○ Neither agree nor disagree

○ Somewhat disagree

○ Strongly disagree

Q6.4 What types of actions need to be taken to make rural areas better prepared for long-term change?
_____
_____
_____
_____

Q6 How important do you think the following challenges are going to be for rural areas in Scotland?

	Extremely important	Very important	Moderately important	Slightly important	Not at all important
A loss of people of working age living in rural areas	○	○	○	○	○
Changes in the balance of population in rural areas (e.g. fewer younger people, more older people)	○	○	○	○	○
Tackling weak utilities (e.g. broadband, mobile signal, water, waste)	○	○	○	○	○
Tackling weak transport infrastructure (e.g. roads, bridges, rail system)	○	○	○	○	○
Access to public transport	○	○	○	○	○
Provision of high quality education and training	○	○	○	○	○
Provision of health and social services	○	○	○	○	○
Mental health and well-being of people living or working in rural areas	○	○	○	○	○
Availability of land (e.g. new entrants to farming, communities to manage)	○	○	○	○	○
Pressures on quality of natural environments (e.g. landscape, water quality, vegetation, soil)	○	○	○	○	○
Local processing of energy, food, drink and fibre	○	○	○	○	○
Locally available support for small and micro-businesses	○	○	○	○	○
Availability of information or data about rural areas	○	○	○	○	○
Governance structures (e.g. national / local government, land use planning	○	○	○	○	○
Click to write Statement 15	○	○	○	○	○

Q7 How important do you think the following opportunities are going to be for rural areas in Scotland?

	Extremely important	Very important	Moderately important	Slightly important	Not at all important
Investment in natural environment (e.g. landscape, peatlands, woodlands, soils)	○	○	○	○	○
New governance structures (e.g. national / local government, land use planning)	○	○	○	○	○
Community empowerment	○	○	○	○	○
Redesign of mechanisms for supporting rural development and agriculture (e.g. new Rural Development Programme)	○	○	○	○	○
Increased proportion of work being done at home	○	○	○	○	○
New digital technologies	○	○	○	○	○
More social, technical, business or administrative innovation	○	○	○	○	○
Make the most of Scottish culture, heritage and traditions	○	○	○	○	○
We are working together better (e.g. communities, land managers, public authorities, business, researchers)	○	○	○	○	○
Increased availability of information or data about rural areas	○	○	○	○	○
Click to write Statement 11	○	○	○	○	○

Q8 What is your vision for rural areas by 2040? (Please write a short description below)

_____

Q9 Below are a list of statements about what Scottish rural areas could be like in 2040. Please indicate the extent to which you agree or disagree with the following statements of what Scotland's rural areas could be.

In 2040, Scotland's rural areas will ...

	Strongly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Strongly disagree
Be attractive places to live, work and visit	○	○	○	○	○
Be internationally recognised for their sustainability (economic, social and environmental)	○	○	○	○	○
Be economically and socially vibrant, creative and innovative	○	○	○	○	○
Have natural environments that are well stewarded for local and global benefit	○	○	○	○	○
Be places for the production of energy, food, drink and fibre	○	○	○	○	○
Be places with equal opportunities for all people	○	○	○	○	○
Offer high quality education and training	○	○	○	○	○
Provide high quality health and social care	○	○	○	○	○
Have access to high quality utilities (e.g. broadband, mobile signal, water, waste)	○	○	○	○	○
Be characterised by confident and capable communities	○	○	○	○	○
Be places with net zero greenhouse gas emissions	○	○	○	○	○
Click to write Statement 12	○	○	○	○	○

Q10 Is there any other comment you wish to add in relation to rural areas of Scotland?

_____

Annex 3. National Public Policies of Particular Relevance to Rural Scotland

Regulations at an EU level are implemented into UK or Scottish law by the relevant Parliament depending upon which responsibilities are powers retained to the UK Government and Parliament, and which are devolved to the Scottish Government and Parliament. Government departments or public agencies are responsible for designing or implementing regulations, and monitoring their impact.

The strategies and actions of all public bodies are expected to align with delivery of the Economic Strategy. Public bodies with remits of most relevance to the management of natural resources in rural area are: Scottish Natural heritage – biodiversity, and farming and natural heritage (www.nature.scot); Scottish Environmental protection Agency (SEPA) – regulator for waters, soils, air quality and pollution control (www.sepa.org.uk); and Scottish Forestry (https://forestry.gov.scot/).

Examples of relevant policy areas, regulations or laws, and association public bodies are:
i) The Scotland Food & Drink Strategy, and the Good Food Nation policy (www.gov.scot/policies/food-and-drink/good-food-nation/) are high priorities of public policy in relation to economic development. Scotland Food and Drink is an organisation set-up to facilitate and enable government and industry to work side-by-side. (www.foodanddrink.scot/).

ii) The Land Reform (Scotland) Act 2016 includes a right for secure tenants under the Agricultural Holdings (Scotland) Act 1991 to offer to relinquish their tenancy to the landlord in return for payment of a capital sum. The Scottish Land Commission was set up in April 2017 to support change on the ground and making recommendations to Scottish Ministers, where appropriate, for legislative and policy change across its priority areas of work (https://landcommission.gov.scot/).

iii) The Scottish Land Use Strategy (2016 to 2021) originates from a requirement in the Climate Change (Scotland) Act. It sets out a long term vision for land use in Scotland, three overall objectives relating to the economy, environment and communities, and a set of 12 principles for land use, including 'Where land is highly suitable for a primary use (for example food production, flood management, water catchment management and carbon storage) this value should be recognised in decision making.' (https://www2.gov.scot/landusestrategy).

vi) The Scottish Rural Development Programme (SRDP) 2014-2020, delivers Pillar 2 of the EU Common Agricultural Policy (CAP). Other specific measures of relevance are under the Agri Climate Environment Scheme (£355million)(www.ruralpayments.org/publicsite/futures/news-events/new-funding-round-for-agri-environmental-climate-scheme--aecs-/) and Farm Woodland Grant Scheme – supporting woodland establishment on farmland.

vii) Scottish Forestry Strategy 2019-2029 sets out the objectives and priorities relating to woodlands I Scotland. The vision is that by 2070 Scotland will have more forests and woodlands, sustainably managed and better integrated with other land uses. Its objectives are to increase the contribution of forests and woodlands to Scotland's sustainable and inclusive economic growth, improve the resilience of Scotland's forests and woodlands and increase their contribution to a healthy and high quality environment, and increase the use of Scotland's forest and woodland resources to enable more people to improve their health, well-being and life chances.

viii) National Planning Framework 3, is the spatial planning strategy the aims of which are that Scotland be a place which is successful and sustainable, low carbon, natural and resilient, and connected. It is designed to provide a flexible framework for sustainable growth and development which reflects the varied assets of many distinctive places. National Planning Framework 4 is in the early stage of the process of updating.

ix) The Scottish Biodiversity Strategy 2020 sets out aims to: a) protect and restore biodiversity on land and in our seas, and to support healthier ecosystems; b) connect people with the natural world, for their health and wellbeing and to involve them more in decisions about their environment; c) maximise the benefits for Scotland of a diverse natural environment and the services it provides, contributing to sustainable economic growth. It enables alignment with achieving the United Nations Convention on Biological Diversity (2010) Aichi Targets (2010) and the European Union Biodiversity Strategy for 2020 (2011).

x) Mental Health Strategy 2017-2027 sets out the ambition to "prevent and treat mental health problems with the same commitment, passion and drive as we do with physical health problems." It sets out objectives and actions for the: Prevention and early intervention; Access to treatment, and joined up accessible services; The physical wellbeing of people with mental health problems; Rights, information use, and planning.

Annex 4. National Planning Framework 3

The National Planning Framework is the "spatial expression of the Government Economic Strategy, and of our plans for development and investment in infrastructure." It indicates the locations or areas of "national developments and other strategically important development opportunities in Scotland" including where there are "opportunities for growth and regeneration, investment in the low carbon economy, environmental enhancement and improved connections across the country" (Scottish Government, 2014). Figure App 1 illustrates strategic level priorities for achieving the aims of a 'natural, resilient place', of the Central Scotland Green Network, and scenic corridors, and an aim to promote active travel (national cycling and walking network); and, a 'connected place', highlighting key sites (e.g. ports), commercial sites, and the national digital fibre network, many of which are in rural areas.

Figure App 1 (a). Indications of Scotland as a 'natural, resilient place' in the National Planning Framework 3. (Source: Scottish Government, 2014).
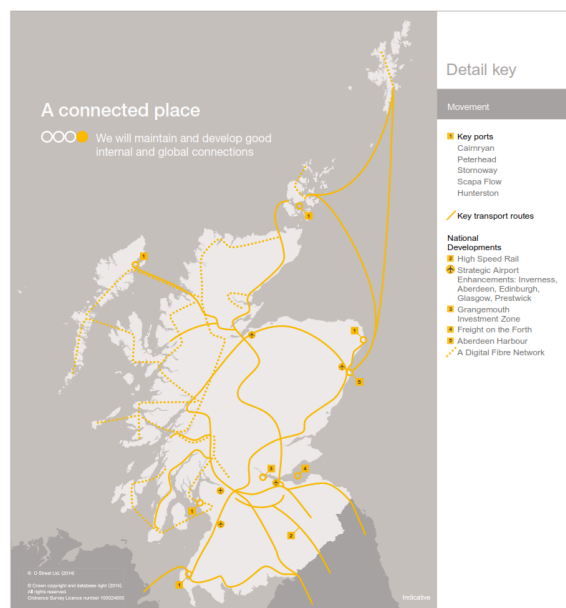
Figure App 1 (b). Indications of Scotland as a 'connected place' in the National Planning Framework 3. (Source: Scottish Government, 2014).

Annex 5. Policy Context for the Scottish Land Use Strategy

Land Use Strategy Policy Context

SG Purpose	To focus government and public services on creating a more successful country, with opportunities for all to flourish, through increasing sustainable economic growth								
SG National Outcomes	The Land Use Strategy contributes primarily to the following National Performance Framework outcomes: • We live in a Scotland that is the most attractive place for doing business in Europe. • We reduce the local and global environmental impact of our consumption and production. • We live in well-designed sustainable places where we are able to access the amenities and services we need. • We value and enjoy our built and natural environment and protect it and enhance it for future generations. • We have strong, resilient and supportive communities where people take responsibility for their own actions and how they affect others.								
SG National Plans, Policies and Strategies	**Scotland's Economic Strategy 2015**								
	*Land Rights and Responsibilities Statement	Scottish Climate Change Adaptation Programme	Low Carbon Scotland: The Second Report on Proposals and Policies	**Land Use Strategy**	National Planning Framework 3 & Scottish Planning Policy	Regeneration Strategy		Scotland's National Marine Plan	The Historic Environment Strategy for Scotland
Sectoral Plans, Policies and Strategies	The Future of Scottish Agriculture	River Basin Management Plans	Scotland Rural Development Programme, including LEADER	*Strategic Vision for the Uplands	Scotland's National Food & Drink Policy	Flood Risk Management Plan for Scotland 2016	2020 Challenge for Scotland's Biodiversity	National Peatland Plan	Scottish Forestry Strategy	*Pollinators Strategy
LUS Vision	A Scotland where we fully recognise, understand and value the importance of our land resources, and where our plans and decision about land use deliver improved and enduring benefits, enhancing the wellbeing of our nation								
LUS Objectives	Land based businesses working with nature to contribute more to Scotland's prosperity			Responsible stewardship of Scotland's natural resources delivering more benefits to Scotland's people		Urban and rural communities better connected to the land, with more people enjoying the land and positively influencing land use			
LUS Principles for Sustainable Land Use	10 Principles that reflect government policies on the priorities which should inform land use choices across Scotland								

*Policies shaded in light blue are either proposed or under development

Source: Scottish Government, 2016. Getting the best from our land: A Land Use Strategy for Scotland 2016 – 2021, Scottish Government. pp9