

Appendix 3

Issues arising from SLC’s Interim Report on Regional Land Use Partnerships – Evidence from the Scottish Government Strategic Research Programme 2016-2021.

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Contents

Issues arising from SLC’s Interim Report on Regional Land Use Partnerships.....	1
How to read this document	2
Acknowledgements:.....	2
Summary, Context and Opportunity.....	3
1. What do we know about land use decision-making?	3
2. What do we know about land use policy goals?.....	5
3. Key Contextual Issues (as identified by the contributors)	7
Functions.....	7
4. What do we know about land use planning?	7
5. What do we know about land use funding processes?	9
6. Key issues for further input and evidence:	11
Regional Land Use Frameworks.....	11
7. What do we know about statutory processes?	11
8. What do we know about integration with planning strategies?	12
9. Key issues for further input and evidence:	13
Geography.....	13
10. Key Geographical Issues (as identified by the contributors)	15
Governance Models	16
11. What do we know about representation and remits?	16
12. What do we know about partnerships?	18
13. Key issues for further input and evidence:	19
Advice and Delivery.....	19
14. Key issues for further input and evidence:	21
Engagement	21
15. Key Engagement Issues (identified by the contributors).....	22

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Approach to Establishment.....	22
16. Key issues for further input and evidence:	22
17. Other examples of regional partnerships to learn from	24
References:	25

How to read this document

The document follows the same headings as the Scottish Land Commission Interim Report. The text in bold summarises the main findings from the SLC interim report. The plain text provides the response, drawing on relevant research.

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Summary, Context and Opportunity

Regional Land Use Partnerships are expected to provide a ‘step change’ in land use decision making.

As recognised in the Planning (Scotland) Act 2019, “The purpose of planning is to manage the development and use of land in the long term public interest” ([Scottish Parliament, 2019](#)). [Adams and Watkins \(2016\)](#) set out the case that “Planning helps to create the kinds of places where people want to live, work, relax and invest – often termed ‘shaping places’. Planning is about improving places by helping them to function better economically as well as socially and environmentally. Planning is then about outcomes, not just processes.”

A key sentence in the description of Opportunity is that the Regional Land Use Partnerships should be able to identify and address tensions between local, regional and national priorities for land use. This is likely to have key implications for their authority and governance. This aim is in line with Recommendation 6 (Collaboration rather than conflict – inclusion and empowerment) of the report on by Beveridge et al. (2016) noting “We want to make planning fairer and more inclusive and to establish much more committed and productive partnership working. Our recommendations aim to achieve real and positive culture change and significantly improve public trust in the system. These changes would broaden the appeal and relevance of planning and make better use of existing and emerging community interests.”

It would be useful to summarise for the Regional Land Use Partnerships what ‘step-change’ in land use decision making is required, and the role of planning in enabling its realisation.

1. What do we know about land use decision-making?

The findings from the Regional Land Use Pilot project in Aberdeenshire (Davidson et al., 2015) suggest that many of the concerns of stakeholders related to the ongoing management of land and their uses (e.g. whether access paths were maintained, to what extent high nature value farmland was grazed) rather than actual land use change. As noted below, land use can often be locked-in, and change from one use (e.g. grazing) to another (e.g. trees) is not particularly common. However, although these changes are not currently extensive, the impacts of change can be significant at regional and local levels (e.g. renewable energy).

Much of Scotland’s land, particularly in lowland areas, is managed by farmers. It is well established that farmers’ land management trajectories are path dependent – they are heavily invested in their existing land management practices (financially, but also in terms of skills, labour and ‘social capital’ associated with being a particular type of farmer). Making a ‘step change’ requires a ‘trigger’ - i.e. an event or series of events/experiences that causes them to actively rethink their actions and seek solutions. The forthcoming changes to how agricultural subsidies are allocated could act as a trigger event similar to the change in uptake of renewable energy triggered by incentives last decade. Other triggers include farm succession, low commodity prices and disease outbreaks (Sutherland et al. 2012). However, crises are also known to compound conservatism and inertia, particularly where access to finance is required for change and this is perceived as a risk.

Earlier evidence on Land-Manager decision making that supported the Scottish Land Use Strategy(2011-2016) showed that it is extremely important to understand the objectives that land managers hold for their land, as the same land cover (crops, woodland, grassland) may be used for different outcomes and managed with different intensities (Miller et al., 2009; Sutherland et al, 2011). This was upheld in the Aberdeenshire Regional Land Use Pilot - differences in objectives between neighbouring estates, owned privately or by NGOs, meant that similar rough grazing and

wooded land had divergent long-term objectives for how land would be used in the future (Davidson et al., 2015). These findings (about differences in objectives and responses to policy) have been confirmed by recent Defra research on uptake of diffuse pollution mitigation measures in England (Old et al., forthcoming).

It is important to consider the range of landholders in Scotland, and how engagement might need to be different depending upon their circumstances. Evidence suggests that about 13% of Scotland's agricultural land is held by 'non-commercial farmers' (Sutherland et al., 2019). These non-commercial farmers are frequently disconnected from broader farming systems (e.g. unlikely access advisory services or subsidies). As they do not farm commercially, 'carrots' of subsidy access are less effective, but they are more likely to be supportive of utilising their land to produce environmental goods.

Evidence from the Farmer Intentions Survey (a representative survey of Scottish agricultural land holders conducted in 2018), demonstrates that farmers are finding it difficult to plan for changes associated with Brexit, owing to the associated uncertainties. Where they are planning to make changes, this is most commonly in areas of farm diversification (e.g. renewable energy, tourism), in order to diversify their income sources. For farmers to make long-term decisions, they need to be confident of where their income is coming from. Introducing regional partnerships, which may take time to become operational, could increase that uncertainty further and lead to inertia.

The Farmer Intentions Survey (2018) also demonstrated the value of new entrants to the industry; in particular, that they are typically more innovative and globally engaged than existing farmers and their successors (Hopkins et al, 2020). New entrants bring innovation and entrepreneurialism (Zagata and Sutherland, 2015), as well as skills and networks developed on farms, in education institutions and through off-farm employment (Sutherland, 2015). Furthermore, when men and women enter agriculture together more equal gender relations exist (Shortall et al., 2017). Across Europe and North America, land access is recognised as the key barrier to new entrants to agriculture (Zagata and Sutherland, 2015; Wittman et al., 2017). In Scotland, these challenges are compounded by uncertainties facing land managers regarding future markets and public support following Brexit, as well as the policy context of land reform. An unintended consequence of the land reform movement in Scotland has been a rapid decline in farmland available for rent, in part due to the increased measures of tenant compensation in the 2016 Act and earlier political discourse (Scott-Dempster, 2016; Read-Norrie, 2017; Moody, 2018; Lean, 2020). Many landowners are reportedly choosing to incorporate farming activity within their main land-based business (farming 'in-hand') or through contract farming arrangements, rather than provide farming tenancies, due to the perceived risk of tenant right-to-buy (MacLeod, 2016; Moody, 2018). This has a direct and immediate impact on new entrant land access, as acquiring a farm tenancy is often a key early step on the agricultural ladder (McKee et al., 2018; Carolan, 2018)

In response, the Scottish Land Commission is seeking to encourage landowners and owner-occupier farmers to consider routes to providing land access, including new types of tenancy, joint ventures, and business partnerships, to support new entrants into agriculture (McKee et al., 2018). In 2019, the Scottish Government launched a land matching service, to support new entrants seeking land-based opportunities, and the Crown Estate have provided starter farm units as fixed term tenancies. The [Farming Opportunities for New Entrants 2019 Group](#) (FONE) group and new tenancies enabled by the Forestry Commission for new entrants are further promising examples. There are also good examples from Europe, particularly France, where local authorities are specifically allocating their land for the use of new entrants and supporting new entrants through local procurement (EIP New Entrants AgriFocus Group Final Report, 2016). The RLUP could give opportunities to enable new entrants into the sector.

The specific needs of crofters are also important. Crofting counties frequently have a history of communal management of common lands, and there are examples of community land ownership initiatives in Island areas which could be instructive. In terms of accessing knowledge, crofters tend to rely on neighbours and family members for production advice, seeking out ‘professional’ advisors primarily to complete application forms for subsidies.

Concerning land use decisions on farmland conversion to forestry, the research has showed poor uptake of woodlands by landowners (Nijnik et al, 2010). Land tenure used to be a barrier to afforestation (Warren, 2002), along with economics, management, and administration of land conversion (Towers et al., 2006). Scottish farmers perceive themselves as “stewards of the countryside” and as food producers (Towers et al., 2006). Thus, social, and psychological factors are a cause of farmers’ reluctance to plant trees (Burton 2004).. Moreover, some scholars argue that Scotland has a weakly developed forest culture (Mather *et al.*, 2006). It is likely that “hobby” farmers and those not using land for their primary source of livelihood may exhibit a greater propensity to plant trees (Nijnik et al., 2010).

2. What do we know about land use policy goals?

Regional Land Use Partnerships are expected to enable Scotland to meet climate, environment, economic recovery/inclusive growth targets and support land rights and responsibilities. This requires an effective mix of public and private interests in land.

Given that the Regional Land Use Partnerships will be designed to align several policy objectives, it would be useful to start with an understanding of the policy objectives sought, and how these align with different types of land manager objectives (e.g. using a typology such as that developed in one of the studies that informed development of the Land Use Strategy, Sutherland et al., 2011). From such analysis, potential mismatches in objectives of land managers and policy could be identified. It is probable that public or NGO land management will be more easily aligned with policy goals than private land management. Examples are the recent demonstration projects from SNH, Crown Estate and Forestry Scotland regarding the use of natural capital accounting to help align land management decisions with public policy goals.

It is important not to assume that all land managers agree with existing public policy goals, or their role in delivering them. For example, whilst many farmers do not wish to harm the environment, many remain unconvinced by the need to alter their farming practices and do not relate to the terminology of natural capital (Blackstock et al, 2016, Hussain, forthcoming). Conventional farmers typically see themselves as ‘environmental stewards’, but their priority is to produce agricultural commodities. Despite decoupling agricultural payments from production, intensive agriculture production is still correlated with environmental pressures in Scotland (Matthews et al., 2017) and more widely across the EU (Matthews et al., 2020).

Recent policy narratives about public funding for public goods has reinvigorated a discussion about what public goods are. Findings from a recent H2020 project PROVIDE and the sister project Pegasus highlight divergent understandings on the idea of public goods. Firstly, the economic definition labels public goods as those that were not readily traded or exchanged in markets. Public goods in this sense are characterised by non-rivalry and non-excludability (Ostrom, 2005). Therefore, public goods as labelled on the basis of their intrinsic values. However, an alternative socio-political approach emphasises the public value associated with the goods and services (Novo et al., 2017). Public goods, in this alternative approach, may not refer to non-rivalry and non-exclusion but result from collective choices about what is considered as a collective benefit that merits intervention – (see Dwyer et al., 2015 for rural examples).

There is a growing interest in payments for ecosystem services. However, Waylen and Martin-Ortega (2018) found that within the UK, there was confusion about what this actually meant, and to what extent it involved leveraging private investment, or just using rural development (CAP pillar 2) funding in different ways. Whilst there are successful examples of investment in woodland carbon sequestration via the Woodland Carbon Code, payments for ecosystem services (PES) focus on club or common-pool goods and are not suitable for public goods, as it is not possible to generate a market when goods are non-rivalrous and freely accessible. Often, PES schemes are hard to implement when the mechanisms are uncertain and the benefits are spread across multiple land managers (Vinten et al., 2019).

Therefore, any 'public goods' from land may need to be addressed by non-market mechanisms. A review by Blackstock et al. (2018) illustrates that some mechanisms (e.g. Conservation Covenants) may allow private land to deliver public goods, even when land changes ownership, but this instrument is not widely taken up in Scotland at present.

There are very different forms of 'private sector' involvement in land use and land management. There are examples of commercial and philanthropic investment in the environment and land in Scotland, with very different long-term objectives. These include the potential to capture the finances disinvested from oil and gas sector into the environmental sector. However, a recent global review (Faruqi and Landsberg, 2017) found that investors wanted large-scale opportunities with relatively certain return-on-investment potential, which can be hard to guarantee in the Scottish context. Instruments such as green bonds require clear purchaser-vendor relationships that deliver both financial returns and environmental improvements, which is challenging and requires scrutiny (Narvaez et al, 2020).

There is an opportunity for RLUPs to connect land use and management to wider issues, such as the agri-food supply system – and to link RLUPs to delivery of Sustainable Development Goal 2 (Zero Hunger). A recent EU wide study (Matthews et al., 2020) suggests that the main achievements for sustainable agriculture require a full agri-food systems approach, now formalised in the EU's Farm to Fork Strategy. In food policy there is discussion of the need for more locally produced food, and for more of this to be affordable. Making more land available for food growing would help to increase local resilience, meet climate targets and support local economies. There could be a role for RLUPs in the strategic planning of land for local food production, and supporting the infrastructure needed to link local food growers with consumers. Work on new entrant farmers emphasises the need for support and regulation of land use and land management if food systems are to become more locally oriented and sustainable. Findings from the study of agro-ecological farming systems in north east Scotland (see Scottish case study H2020 UNISECO project, [Landert et al., 2019](#)) highlight the benefits of short supply chains and significance of retaining local food processing capacity.

Research on policy coherence suggests that there needs to be alignment between policy goals or objectives, policy instruments and the way in which these instruments are implemented (Blackstock et al., 2018). Whilst Scottish Government environmental policies align in terms of their objectives, the real test comes in understanding how instruments interact (Blackstock et al., 2020). As with partnerships (see below), these interactions are often reliant on the efforts of agency officers going beyond their standard procedures to help realise multiple benefits (Blackstock et al, 2020). Therefore, implementing the functions of RLUPs will require the commitment and support of field-officers responsible for implementing the policy instruments that influence land use and land management practices.

3. Key Contextual Issues (as identified by the contributors)

Examples of issues likely to be of relevance to the Regional Land Use Partnerships which to be considered alongside those of direct policy goals are:

- i) Land management often needs to change to meet policy objectives, not necessarily land use (e.g. to agro-ecological farming practices).
- ii) Consideration of the heterogeneous objectives range of landholders, including new entrants, as this affects how to engage with them.
- iii) Land managers often require a trigger to change practices and farmers report uncertainty regarding planning for the future.
- iv) Not all land managers will agree with public policy goals, their role in delivering them, or that their farming practices can contribute towards achieving such goals.
- v) There are different, sometimes conflicting, understandings of concepts such as public goods and payment for ecosystem services.
- vi) The functions of RLUPs will require the commitment and support of field-officers who implement the policy instruments.
- vii) Planning of land use in rural areas should take account of the agri-food supply chain, farming systems and the roles of actors in those systems.

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Functions

RLUPs should empower regional and local engagement, decision-making and action. Their core function is a regional land use framework to set out opportunities and priorities for land use in that region.

Aspects of the context have changed due to the COVID-19 epidemic. Public policies for delivering a Green Recovery (e.g. investment in natural capital) have accelerated the requirements and commitments to transformational change. This is reflected in the [Scottish Government's response](#) (Scottish Government, 2020a) to the report by the [Advisory Group on Economic Recovery](#) (Scottish Government, 2020b), and stress placed on investing in places and communities (e.g. community-led regeneration programmes), and the 'adopt the Deals programme'.

As discussed in the Section on Governance Models, the balance between planning functions, coordination of other functions, and implementation functions is unclear for the Partnerships. The Land Use Strategy for Scotland (2016-21) introduces Regional Land Use Frameworks (RLUFs). It would be useful to clarify the benefits of Regional Land Use Frameworks, and how they can add value to the existing governance and planning landscape. This was a major challenge for the Aberdeenshire Rural Land Use Pilot project (personal opinion). It would be useful to highlight explicitly how RLUPs and RLUFs address aspects of land use and land management not currently addressed by existing institutional arrangements.

4. What do we know about land use planning?

The National Planning Frameworks (1 to 3, with 4 in preparation) are the spatial expression of the Scottish Government Economic Strategy (Scottish Government, 2014a). Scottish Planning Policy "is a statement of Scottish Government policy on how nationally important land use planning matters should be addressed across the country." (Scottish Government, 2014b). National Planning

Framework 3 describes the principal outcomes from planning expected by Scottish Government, and links between the National Planning Framework and Scottish Planning Policy, and the Strategic Development Plans, Local Development Plans, Master Plans, and Community Planning. The Land Use Strategy (Scottish Government 2016) “a policy agenda for all land in Scotland and set out a direction of travel towards a more integrated and strategic approach to land use”. Although not land use planning, the 12 Regional Growth Deals in Scotland provide funds, some of which is targeted at specific geographic areas, either at a high level, or tied to specific places, and the Regional Economic Partnerships which are charged with aligning and leveraging economic opportunities.

The Regional Land Use Partnerships have to establish their role in the institutional and regulatory landscape, together with the 31 local authorities, 4 Strategic Development Authorities and 2 National Parks, and the new Regional Spatial Strategies.

Of the (approximately) 90% of land which is managed privately, a significant proportion is for agriculture and forestry. Private land managers tend to value autonomy and make land use decisions based on a mix of cultural, social and economic objectives, responding to market forces as much as policy mechanisms (Davidson et al., 2015). Due to lock-in of land uses, land use decisions tend to be incremental management choices unless there is a trigger event (see above). Therefore, it may take time for rural land managers to understand and support a strategic regional planning approach to land use.

The Land Reform Review Group estimated that approximately 12% of Scotland’s land areas is under public sector management (Land Reform Review Group, 2014), noting that the proportion had changed little over the preceding 40 years. Of the managers of the remaining 90% of land in private ownership, it is unclear the extent to which they are aware of, understand and support frameworks such as the National Performance Framework. The significance of obtaining such understanding relates to legitimacy and authority, and will require some time to persuade some stakeholders of the added benefit of RLUPs (see for example, the time required to embed the legitimacy and authority of National Park Authorities, Blackstock et al., 2017). Therefore, it may take time for this function of the RLUPs to be understood and accepted by some land managers in rural and urban areas (see also comments under Geography and Governance Model).

The function of the RLUPs is to mediate between national policy objectives and local perspectives. Any land use framework will have to consider trade-offs and therefore conflicts. However, it is unclear how conflict and hard choices will be handled. Trade-offs and conflicts are an inevitable part of decision-making in complex landscapes, especially where divergent perspectives and values are strongly held. Consensus-orientated decision-making can be prescriptive and often tries to reduce this complexity, leading to greater conflict. The RLUPs should aim to accommodate, and cope with, diverse views that are anchored in divergent problem framings rather than try to reconcile plural values that are often irreducible (Eastwood et al 2017; van den Hove, 2006).

The need to build legitimacy and to accommodate opposing perspectives in developing and implementing the framework suggests taking an iterative approach to the regional land use framework. Research on catchment partnerships (Waylen et al, 2020) illustrates a trend away from comprehensive plans towards flexible frameworks that set out objectives and goals but allow the partnerships to respond to funding and other opportunities. Such adaptive governance is recommended when dealing with complex socio-ecological systems, such as regions with multiple land uses. However, the ability to adapt is dependent on learning from experience, requiring both relevant metrics and the ability to interpret and act on these data (Waylen et al., 2019; MacLeod et al., 2020). Recent research on Green Infrastructure provision highlights the need for plans to

consider not just the allocation and purpose of land, but how the benefits from land use will be maintained and sustained over time (Fisher et al., in press).

5. What do we know about land use funding processes?

The RLUPs should have a remit to prioritise and target additional public funding post-CAP for climate, natural capital and rural development.

Evidence from analysis of agri-environment policy instruments (Blackstock et al., 2018), landscape scale collaborative working (MacLeod et al., 2020) and catchment partnerships (Waylen et al., 2020) suggest that it is essential to ensure funding is available to implement actions identified in the RLUF. Otherwise, the energy and engagement required to make plans will falter when plans are developed but not implemented. Therefore, we agree with the need to balance the development of the framework with driving change in how land is used and managed. However, there can be a counter danger that plans become shaped by the available funding mechanisms, creating a tension between local stakeholder preferences and nationally determined policy priorities (Dinnie and Holstead, 2018). Therefore, it is important to develop the mechanisms by which funding can be prioritised and targeted.

It is unclear whether the RLUPs will allocate funding themselves or steer the allocation of funding that is carried out by the existing agency or department of the Government. The RLUPs should consider their role and function – is it to administer public funds on behalf of others, or is it to deliver real change in land use? If both, then how are these functions to be separated or combined?

It is important that lessons are learnt from the Regional Proposal Assessment Committees (RPACS). For example, the RPACS struggled with capacity and in some cases capability to process and rank the submissions for Rural Priorities. It was unclear how they should co-exist with other funding mechanisms such as LEADER (Cook et al., 2009). These experiences, and those with the development of the proposed but not-commissioned Environment Cooperation Action Fund (unpublished data, pers. Comm), illustrate that it takes time to develop and embed capacity to operationalise regional priorities and ensure that the responses from land managers are handled in a systematic and transparent process.

Governance scholars illustrate the tension introduced when governance processes involve allocation of scarce resources. The allocation of resources could make RLUPs extremely relevant to the potential beneficiaries, improving engagement and avoiding criticisms of a talking shop. However, because allocation of funding increases the stakes for stakeholders, it can amplify conflict and intensify debates over representation and mandates (see Section on Governance Model below).

The model chosen for their structure will have a bearing on the financial resources required for the RLUPs themselves, such as having paid administrators and coordinators to operationalise the decisions taken by the tri-partite boards. The data on Catchment partnerships and collaborative landscape working both suggest that it is valuable to have a coordinator who can liaise with land managers and ensure implementation of specific projects or activities; and to have a partnership manager who keeps the partnership functioning and ensures the governance arrangements are implemented effectively and efficiently. This relates to a perennial topic in policy implementation whereby funding is often more available for capital works than maintenance or staff resources, meaning initiatives are hard to sustain beyond the end of a project (Fisher et al, forthcoming).

Funding for coordinators and staff can be competitive and short-term. If the RLUPs have to apply to existing sources for funding, it will mean they compete for the same funding as the local initiatives with which they should be collaborating.

The proposal to use RLUPs to shape and direct post-CAP farming incentives is somewhat at odds with the Scottish Government policy position of ‘stability and simplicity’ for CAP until 2024. As noted in section on Summary, Context and Opportunity: land use decision-making – farmers are concerned about potential changes to the single farm payment and the implications of any Brexit trade deals; and may not welcome additional complexity regarding Pillar II type payments. Furthermore, research has shown that monitoring ‘additionality’ from payments is not straightforward (Pakeman and McKeen, 2019) and payment by results requires specific circumstances that are unlikely to be achieved in many cases (Chaplin et al., 2019). Whilst tailoring funding to regional specific opportunities and constraints is appropriate, and responds to the policy imperative of subsidiarity, consideration should be given to agricultural businesses with holdings in multiple regions? (e.g. in terms of access, transaction costs of learning about the governance processes in each region etc).

Decisions about the final remits or institutional structures of the Partnerships may preclude some options (e.g. they may not be eligible to lead bids for some sources of funding if they are not legal entities). In developing a strategy for targeting public funding consideration should be given to the public portfolio to which they belong, or are most closely aligned (e.g. Environment, Climate Change and Land Reform; Rural Economy and Connectivity; or Communities and Local Government). That may inform the scope for resources. For example, if achieving certain public policy objectives of aiding a green recovery through investment in natural capital are directed through the Partnerships, then support may be directed to come from, or channelled through, other public organisations such as Scottish Natural Heritage, Highlands and Islands Enterprise, South of Scotland Enterprise or Forest and Land Scotland/Scottish Forestry.

Challenges associated with PES schemes are covered in the Summary, Context and Opportunity section (What do we know about land use policy goals?). Three further issues are raised. Firstly, it is important to understand and identify the beneficiaries of protecting natural capital, in order to use PES or PES like mechanisms to connect both the vendor and purchaser. At present natural capital accounts and valuation tend to consider overall value but struggle to link distribution of benefits to specific land holdings (Atkinson and Ovando, 2020, forthcoming). Secondly, there are concerns that investors might ‘cherry pick’ areas with the greatest potential for economically viable restoration, leaving other geographic areas unsupported (expert opinion). Finally, there are concerns that payment for ecosystem services might be in tension with the principles of environmental governance under consideration by the Scottish Government, particularly the principle of the polluter pays (Mauerhofer et al., 2013). If land has been degraded by previous activity, then some query why the land manager is then paid to restore the land. However, the experience of the Water Environment Fund, whereby public funding is available to respond to in-river legacy structures, illustrates that at times, the current land manager cannot be, or is not being, held accountable for past interventions (Blackstock et al., 2018).

One area for further consideration is the role of private finance in changing, some might argue, distorting land values (e.g. rural migration driving up accessible rural land prices, Lin and Roberts, 2013) that may mitigate against diversification in land ownership. Generally, land values are seen as a barrier to new entrant land access (especially in arable farming areas) in conjunction with the lack of land available on the market and tenancy availability. This is likely to be particularly relevant to peri-urban and accessible rural land often held as land banks for housing development but may also affect other regions. Insights from Europe, such as research on land use committees in France (Perrin and Baysse-Laine, 2020) demonstrates the effect of granting a regional body some ability to

prevent sale of farmland unless it meets the regional objectives. Therefore, regulation, or at least steering of, investment in land would be a useful function of the RLUPs.

6. Key issues for further input and evidence:

- Which functions are core to initial establishment of the Partnerships and which could develop over time?

Within the caveats around top-down planning versus adaptive management, it is important that partnerships can identify the main opportunities for their region. RLUPs should identify conflicts arising from different opportunities and help mediate between different understandings or perceptions of inequitable division of benefits.

Giving RLUPs a role in steering funding opportunities may help embed their purpose more quickly. However, it amplifies the governance challenges and may increase conflict. As the main funding mechanisms (e.g. post-CAP funding) would not begin to pay out until 2024, it may be useful to focus on establishing the roles and remit of the partnerships in practice through generating the framework in 2021, and bring in funding responsibilities in 2023.

A function for the Regional Land Use Partnerships that could emerge is as a focus for advocating the needs and benefits of land use planning. If so, a Public Engagement Strategy for stakeholder and public understanding of both land use planning and the Partnerships would be an important element of early strategic development.

- What are the most significant opportunities for the Partnerships to target relevant public funding streams?

It is important to understand how the functions of the RLUPs will be funded. However, it is unclear whether existing funding streams will be made available. It is possible that RLUPs may divert discretionary funding from local authorities and agencies that is currently supporting Catchment or Biodiversity partnerships.

The interim report suggests that the RLUPs may be able to steer the post-CAP pillar 2 funding towards regional priorities. To achieve the policy outcomes, some argue that the proportion of funding to pillar 2 measure should be increased, whilst others argue for raising the collective bar for agriculture through stronger cross-compliance within the basic farm payment. Other potential sources of funding, e.g. from European Union programmes, will depend upon the positions negotiated post 2020. There may be issues about the longevity of these interventions based on project funding.

If the Partnerships have a role in delivering benefits on-the-ground, then scope for steering applications to relevant public or private sector funds could include funds for peatland restoration, woodland expansion, access to funds not already assigned in Regional Growth Deals, regeneration funds, and those associated with a Green Recovery. The final item may be increasingly significant where businesses have closed due to the economic downturn associated with COVID-19.

Regional Land Use Frameworks

RLUFs are spatial plans that identify opportunities and priorities. They will be refreshed every five years but take a long-term vision with climate and environmental targets to 2030 and 2045.

7. What do we know about statutory processes?

Most policies, even if they are steering strategies rather than specific instruments, have some form of statutory character meaning they are formalised in writing and laid before Parliament. It may be

sufficient to state that RLUFs must have regard to other existing public policies, and other public plans and policies must have regard to the RLUFs (as occurs, for example, for River Basin Management Plans). However, it is important to scrutinise the implementation of such statutes, either through the same process as that required for the Land Use Strategy (i.e. submitted to the Scottish Parliament every 5 years), or periodic evaluation by the National Audit Office.

Depending upon the number of RLUFs/ RLUPs that are created, this may become onerous and/or expensive. However, scrutiny at the regional level, led by local authorities, may lack legitimacy if the same local authority has had a role in generating the RLUFs they are scrutinising.

We are unaware of how a statutory footing could hold to account private and NGO participants involved in implementing RLUFs. One option is to use existing statutory instruments (e.g. cross-compliance for agricultural payments and planning permission/building regulation for infrastructure) to ensure that actions within the RLUF are done to appropriate standards.

More generally, institutional scholars question the efficacy of statutory footing when sanctions are low and the transaction costs of pursuing non-compliance is high. Finally, it is unclear whether the Partnerships will also have some form of statutory footing, potentially through a requirement for the Frameworks themselves?

8. What do we know about integration with planning strategies?

It is unclear what difference there will be between a regional spatial strategy and regional land use framework. As noted under Item 4, the Partnerships will need to establish their role as part of the overall structures of the planning system in Scotland. It will be very important to clarify the relationships between existing planning guidance, strategies and frameworks and the Regional Land Use Frameworks.

The need to connect the Scottish Government Planning portfolio (Communities and Local Government) with the Environment, Climate and Land Reform and the Rural Economy and Tourism portfolios, was at the heart of the original Land Use Strategy. However, the mechanisms for achieving this at national level remain unclear, which is also likely to be true at the regional level.

Issues regarding land use planning, particularly the need to take an adaptive rather than plan-led approach are covered in the Section on Key Contextual Issues (as identified by the contributors)

Examples of issues likely to be of relevance to the Regional Land Use Partnerships which to be considered alongside those of direct policy goals are:

- i) Land management often needs to change to meet policy objectives, not necessarily land use (e.g. to agro-ecological farming practices).
- ii) Consideration of the heterogeneous objectives range of landholders, including new entrants, as this affects how to engage with them.
- iii) Land managers often require a trigger to change practices and farmers report uncertainty regarding planning for the future.
- iv) Not all land managers will agree with public policy goals, their role in delivering them, or that their farming practices can contribute towards achieving such goals.
- v) There are different, sometimes conflicting, understandings of concepts such as public goods and payment for ecosystem services.

vi) The functions of RLUPs will require the commitment and support of field-officers who implement the policy instruments.

vii) Planning of land use in rural areas should take account of the agri-food supply chain, farming systems and the roles of actors in those systems.

Functions. It is important to support the RLUF with an appropriate monitoring and evaluation framework to allow adaptation. Monitoring and evaluation of all aspects, both procedural and outcomes and covering social, economic and environmental aspects, is very important for learning. Repurposing existing monitoring data can be useful but monitoring often focusses on the state of the environment or economy without illustrating the extent to which interventions are having their desired effect (Waylen et al., 2019).

It will be important to consider how to tackle the tension between long term targets and short-term funding and other policy levers. There are different approaches to scenario development, forecasting from the present or backcasting from a desired future, (such as from the net zero greenhouse gas emissions by 2045).

It is also important to identify the mechanisms (public policy, market and voluntary actions) that will permit transitions from the present to the desired future and the institutional actors responsible for these (Waylen et al., 2015). Research on complex socio-ecological systems suggest that slow change variables that are critical to the system function are often underappreciated, poorly monitored and not addressed by policy levers (Delgado et al., 2018). It is unclear to what extent individual RLUPs will address these issues as part of their RLUFs or whether these are issues to be tackled by a national approach to the Land Use Strategy, to be tailored and amended by the RLUPs.

Amongst other questions arising is the relationship between a Regional Land Use Framework and a Regional Land Use Partnership. For example, could a Regional Land Use Framework be established at one level, to which two or more Regional Land Use Partnerships deliver?

9. Key issues for further input and evidence:

- The appropriate statutory basis for Regional Land Use Frameworks

To be significant in the delivery of public policy targets (e.g. climate change, biodiversity), the Regional Land Use Frameworks should have a statutory basis the equivalent of that of the Strategic Development Plans as the “spatial, land use plans which are primarily about place” (Scottish Government, 2013), and the Regional Spatial Strategies. The regional Spatial Strategies envisaged under the new Planning (Scotland) Act 2019 (Scottish Parliament, 2019) will provide a significant new component in the structures, with which the Regional Land Use Frameworks must be compatible.

Regular scrutiny of the frameworks could follow the same process as that for Scotland’s Land Use Strategy (requirement to lay before Parliament every five years and all public bodies to have regard to the RLUFs). However, a timescale of 10 years is probably more appropriate, as for the Regional Strategic Plans.

It is unclear to what extent the Partnerships should be statutory bodies.

- How the relationship with Regional Spatial Strategies can best simplify and integrate land use planning for most effective delivery

The timing of the development of Scotland's Regional Spatial Strategies and the Regional Land Use Frameworks is beneficial to the Scottish Government's commitment to achieving its targets relating to climate change, biodiversity and public participation through using spatial planning.

Early discussion about the new Regional Spatial Strategies places them between the National Planning Framework and Local development plans. There appears to be the potential for 'contested space' in remits and functions. Amongst questions arising include whether the Regional Spatial Strategies have to fit within the Regional Land Use Frameworks, or whether the frameworks provide regional interpretation of the principles of the Land Use Strategy which are translated into spatial strategies, the delivery of which is facilitated by the Partnerships.

Factors that are likely to be the most challenging relate to the definition of geographic areas of responsibility, authority, and any sectorial limitations (e.g. agriculture). Options for simplification include: i) the two systems adopt the same geography, or one is aligned to an aggregation of components of the others; ii) the frameworks and spatial strategies are developed by the same entities (i.e. as per the Planning Act, "planning authority, or two or more such authorities acting jointly, are to prepare and adopt a regional spatial strategy"); iii) alignment of the Regional Land Use Partnerships with the authorities developing the Regional Spatial Strategies.

It is unclear how the RLUPs will overcome more general challenges of increasing transaction costs and integrating numerous policy and planning strategies. See also comments about the need for an adaptive approach rather than a plan-led approach.

- The data required to develop land use frameworks and monitor results (a SEFARI-led group is reviewing key issues).

Materials will be provided by the SEFARI Think Tank on spatial in support of Regional Land Use Partnerships.

Scotland has extensive coverage of data relating to its natural environment, social and economic contexts, and on change through time. Generally, such data are open for use, many of which are available through portals such as Scotland's Environment Web (<https://www.environment.gov.scot/>), Scotland Natural Asset Register (<http://nar.hutton.ac.uk/>), and the Scottish Government Spatial Data Hub (<https://www.spatialhub.scot/>).

Other digital data of relevance include the modernisation and completeness of Scotland's Land Registry, which can be integrated and represented together with other variables such as climate vulnerability predictions, biodiversity accounting etc. Much of these data encounter uncertainty and are sensitive when overlaying with land ownership information. However, the use of geospatial data for planning can encounter a problem of 'black boxing' where those affected by decisions and advice that stem from complex spatial data and models, have no recourse to engage with the data themselves.

However, we note the importance that should be attached to identifying the data that can inform the effective operation of the Regional Land Use Partnerships. Those data need to be of relevance to the functions finally selected, at the appropriate scale (i.e. suitable for strategic or local planning), contemporary (i.e. up-to-date), and usable (i.e. with the skill levels of the intended users).

The development by the Scottish Government of data infrastructures and resources through its investment in ePlanning, consistent with the recommendations of Beveridge et al. (2016), should be beneficial to the Partnerships (e.g. digital data in planning, Miller et al., 2016).

Geography

The regions could be based on physical (catchments) or administrative boundaries. Planning authorities could be used to determine areas.

The consultation on issues of boundaries will be one of the most significant aspects of the establishment of the Regional Land Use Partnerships.

We welcome the potential for the RLUFs and RLUPs to go beyond the existing four Strategic Development Planning Authorities (SDPAs) that cover the main urban and accessible rural areas in Scotland. We understand there may be 12 or 13 RLUPs covering all of Scotland, including remote rural areas. This will help ensure that the RLUFs cover all relevant land-based issues, not only those relevant to areas with higher population densities, particularly where areas have a long history of deprivation and spatial inequality (Currie et al., 2019). However, it is important that any RLUP can respond in appropriate ways to meet these differing rural needs. Place-based approaches have been endorsed by the OECD in its New Rural Paradigm (OECD, 2006) and Rural Policy 3.0 (2016) as well as the EC which advocates understanding the correct balance of exogenous and endogenous approaches to enable community-focused solutions to develop (Bock, 2016). However, there needs to be wariness on relying too much on local community volunteers in rural communities to deliver solutions (Currie, 2017).

Setting boundaries is a fundamental challenge for socio-ecological systems (Martin-Lopez, 2017). The choice depends on the objectives and how the stakeholders involved in achieving these objectives have been historically connected. For example, those associated with water use tend to organise around catchments, but other land users organise in different ways (e.g. farmer discussion groups in agricultural parishes, deer management groups by groups of estates). It is important to consider arrangements related multiple functions (e.g. land and water, both inland and coastal), and in terms of communities of place. In urban and peri-urban settings the characteristics of places may be different in detail, but still associated with the availability of services, business activities, and historical associations (e.g. town located within a particular local authority).

It may be instructive to consider learning from setting National Park Boundaries, that specifically cut across local authority areas in order to generate collaboration between local authorities around common natural and cultural heritage. Likewise, Scotland identified two River Basin districts for River Basin District Planning, supported by eight area advisory groups. However, the implementation of River Basin Management Partnerships is increasingly using a catchment-based approach, which is smaller than the regions and the river basins, in order to engage the main stakeholders (Novo et al., 2017). The experience of the Aberdeenshire Rural Land Use Pilot (Davidson et al., 2015) was that individual stakeholders at the local level found it hard to engage with the idea of a regional land-use framework. Therefore, the function is more appropriate for institutional stakeholders than individual land managers. Groups functioning at a regional level, such as the North East Scotland Agriculture Advisory Group⁴ may be the most relevant way to represent the interests of different land-based businesses at this scale.

Often these initiatives seek to find the 'right' scale for intervention. It is clear that the Land Use Strategy objectives are to be implemented at the regional scale to allow more subsidiarity and

⁴ <https://www.aberdeenshire.gov.uk/business/support-and-advice/industry-sectors/agriculture-and-rural-development/the-north-east-scotland-agriculture-advisory-group-nesaag/>

flexibility than taking a national approach (Davidson et al., 2015). However, there is also a critique in the policy implementation literature of devolving responsibility without resources or sufficient freedom to act. Whilst planning authorities do have local democratic structures and processes, local authorities and their planning equivalents have been affected by austerity measures (Kirsop-Taylor et al, 2020). Therefore, there may be an issue of capacity for local authorities to support RLUPs and enable this link with local democratic processes. This has been observed in Catchment Management Partnerships, particularly in England, whereby the spread of issues that a planning authority is involved in (transport, housing development, environment, place-based policies, delivery of local services) is inversely related to the capacity of the planning authority staff to attend meetings (Waylen et al., forthcoming).

Lessons from environmental and land governance suggest that instead it is important to consider cross-scale institutions. That is, how the RLUPs will connect national level policies, stakeholders and issues with local communities of place and communities of interest with their multiple and specific issues and priorities. This role in linking national to the local level is implied in the interim report but could be further strengthened and should be explicitly linked to the multiple geographies involved in any RLUP.

It is also important to consider 'polycentricity' or the implications of 12 or 13 RLUPs functioning in parallel. It would be useful to make provisions for annual meetings overseen by a national facilitation team (as with the English Catchment-Based Approach) to enable learning and sharing between the different RLUPs. This is complementary to the need for a national board to ensure oversight and a level playing field (see the Governance Model Section).

10. Key Geographical Issues (as identified by the contributors)

It is important to cover all of Scotland, including the less populated areas.

As noted under items 4 and 9, the Regional Land Use Partnerships need to be compatible with the other entities responsible for planning and land use, at different levels.

Choice of boundaries should be determined by the objectives of the RLUF and the fit with how the main stakeholders understand the spatial organisation of these objectives.

Public Sector organisations may lack capacity due to austerity (followed by Covid-19).

It is important that the RLUPs focus on cross-scale interactions (linking local to national) and sharing insights between RLUPs (linking horizontally).

Very broadly, the 12 areas of the Region Growth Deals Could form the basis of the Regional Land Use Partnerships and the Regional Spatial Strategies, with exceptions being subdivisions of the Islands grouping, a strategy for Fife, and separate strategies for the two National Parks. That could lead to approximately 17 strategies for Scotland.

Governance Models

RLUPs need a governance model that are:

- **Accountable locally, regionally, and nationally**
- **Capable of directing funding**
- **Capable of executive decision-making**
- **Capable of initiating action and delivery**
- **Sufficiently independent of individual sectoral interests**
- **Capable of acting as a Partnership to deliver added value in the public interest.**

The interim report suggests a tripartite partnership board for this reason.

11. What do we know about representation and remits?

The suggestion to use nominated public sector representatives seems appropriate. We assume local and national government includes all of the agencies involved in planning, not only the Key Agencies. It would be useful to have a selection matrix for sectoral experts (communities of interest) and community of place to ensure diversity of representation. It is important to understand the mandates associated with individual representatives (i.e. whether they are representative of a wider group by virtue of sharing the same characteristics but represent only their own opinion, or whether they are formal representatives of an identified group). In the latter case, they may not have a delegated mandate to make decisions on behalf of their members but may need to consult before acting (Blackstock et al., 2014).

It is important to consider different types of representation when balancing deliberation over regional priorities (representation to ensure multiple perspectives and different forms of knowledge) and representation to enable action on the ground (representation to ensure that decisions are supported and resourced) as different skills and backgrounds might be required. The question to be considered is whether the aim for the RLUPS is to involve stakeholders who influencing land use decisions, or those who need to be influenced to make different decisions, or both?

Two dimensions should be included in the representation matrix: diversity in biographical characteristics to improve deliberation (age, gender, time in area etc) and diversity in the aspect they are representing. It is important to consider having views that cover all aspects of ecosystems services from land (and water) not only provisioning services – cultural, supporting and regulating services are extremely important but will often engage very different types of knowledge and experience.

Rather than having a large board of management, many catchment partnerships have a board or group of 5 to 10 organisations that primarily steer the partnership, with working groups dedicated to specific issues which then report to the main board. These working groups are more appropriate to engage with specific expertise and to drive projects forward. This is also the model used by the Scottish Forum on Natural Capital and the National Parks.

Representation to help engage those who need to act or to change their land use or land management may be in tension with the objective for representatives independent of individual sectoral interests. Understanding and addressing conflict resolution within partnerships is essential (Marshall et al., 2010). In the partnership analysis data (Waylen et al., forthcoming) the catchment partnerships valued having an independent chair to help broker relationships and smooth conflict.

It is also unclear how and when the RLUP board tenure will end – limits on terms are recommended to avoid undue patronage and influence, but turnover can destroy social capital and institutional memory.

Contemporary approaches to new environmental governance increasingly highlight the need to involve the private sector. It is important to focus beyond the farm-gate to understand other actors in the land-based value chains as these other actors may have considerable influence on land use decisions. The private sector covers both large multi-national organisations in the value chain (processors, supermarkets) and SMEs (farmers, crofters, foresters). These need different forms of representation. In rural areas, small and medium sized enterprises (SME) account for approximately 70% of total employment, compared with 47% in the urban areas of Scotland. Agriculture, forestry and fishing, and accommodation and food services are the largest SME employers, with a higher

level of self-employment in Remote rural areas (24%) compared to Large urban Scotland (10%) (Scottish Government Rural and Environmental Science and Analytical Services, and Office of National Statistics). However, it can be hard to engage the business sector except through membership organisations (Waylen et al., 2020).

A further question to be addressed is about what powers, if any, the RLUP would have to intervene in land use that goes against the agreed RLUF. In some cases, the land tenure arrangements tend to lock-in decision making patterns. Other questions for consideration are the extent to which the RLUPs will be interested in innovating or changing land tenure in the region to align with the land use targets, and whether they have the remit to act in such a way. This would be the counterweight to making RLUPs go beyond a talking shop through enabling funding to incentivise change, raising the question of whether RLUPs could or should have a remit to prevent some land use decisions.

It is important to consider the power dynamics of the proposed partnerships. Community renewable energy initiatives are an example from which lessons can be learned– particularly that of power imbalances between the landowners, any major private investors, the local communities as well as the governing authority. It will take time to develop the trust needed for new partnerships to work (Walker et al 2010). Lessons can also be learned from successive LEADER programs. Territorial development programmes can further the interests of the locally dominant class, exacerbating inequalities and exclusion. Capacity building is necessary to enable and inform the inclusivity of actions taken (Shucksmith 2000). More recently, the Scottish Government’s Women in Agriculture Taskforce Report (2019) and associated research (Shortall et al 2017) demonstrate the systematic inequalities of women’s participation in the agricultural sector. These are often unrecognised, or not recognised as important to address, at regional levels. A regional approach to land use should seek to ensure that inequalities are actively addressed.

12. What do we know about partnerships?

The RLUPs aim to improve outcomes through collaboration.

We agree that the RLUP tripartite board should be underpinned by an organisation running the partnership. In Section 17, there are options identified that support functions (e.g. giving advice, carrying out interventions) should be separated from reporting and monitoring functions. The support could be provided by the organisation and the scrutiny by the Board. However, the suggestion of separation of roles cuts across the experience of other natural resource partnerships where part of the administrative support to the Board includes reporting on progress (Waylen et al., 2013). These are important issues for consideration when establishing the RLUPs and learning from the pioneers.

Research on partnership working from 2003 onwards in Scotland (Marshall et al., 2010; Waylen et al., 2013; Waylen et al., 2020) suggests that voluntary partnerships tend to exist where collaboration is *expected* to achieve improved outcomes. However, there is limited evidence on whether partnerships actually improve outcomes, partly due to a lack of metrics to enable such an evaluation. Therefore, it is important that from the outset of an RLUP information is collected to support adaptive governance and learning (MacLeod et al., 2020). It is also important that the RLUP undertakes a logic chain analysis (MacLeod, 2016) to be clear about what objectives it wishes to achieve and how these complement those already being addressed by other partnerships or individual organisations, and to ensure the RLUP focusses on gaps and areas requiring further coherence (Blackstock et al., 2018).

The interim report covers some existing partnerships involved in land use, but there are more that could be listed, such as the SEPA Sector Plans, Catchment, Coastal and Biodiversity Partnerships, LEADER groups, Community Planning Partnerships, place-based initiatives (e.g. Tomintoul & Glenlivet

Landscape Partnership), and the National Park partnership plans. Two unresolved issues result from this. Firstly, are there any frameworks or approaches that could be removed or merged. As discussed in items 8 and 9, the governance landscape is complex, and the question should at least be posed as to whether it should be made any more complicated.

Secondly, will there be mechanisms to enable learning from and updating across public-sector led frameworks and approaches? It is likely that the RLUPs will have to integrate with several existing or new institutions such that they spend significant time and resources assessing gaps and duplication, with a consequence of limiting the time available for taking action.

We might question whether the RLUPs are the appropriate vehicle to take action themselves, given their strategic function. There are considerable benefits of defining their role as facilitatory, steering activity in a more coordinated way and ensure funding is channelled where it can be used most effectively. In this way, the Partnerships could fill a role that was occupied by LEADER and could align with parts of a future Rural Development Programme for Scotland. This would also be consistent with the policy gaps identified by Slee et al. (2020) in relation to supporting social innovation, amongst which is support for animation and capacity building in marginalised communities.

We agree that RLUPs should use existing initiatives to deliver action on the ground. However, additional, even if complementary, governance arrangements create transaction costs. It is important to understand there may be local initiatives that are struggling with negative capacities, at least temporarily (Fisher and Mckee, 2017). These organisations may struggle to find the time or energy to engage with RLUPs. They may feel the Partnerships are an additional bureaucratic layer foisted on them, creating additional barriers to access funding and keeping delivering what they do. Therefore, it is important that RLUPs are clear about their function, the additional benefits of having this regional governance process, and how they can enable, not hinder, these place-based delivery initiatives.

Explicit attention to building trust and learning in social networks is essential for successful partnerships and adaptive management across landscapes (Eastwood et al., 2020). This will take time and must be factored into the resourcing of the RLUP. Mandated partnerships (top-down) will require resources and time to build trust, level out power imbalances and obtain buy-in between partners. Independent facilitation, as well transparent and inclusive processes, will be central to success.

13. Key issues for further input and evidence:

- Options for the selection/nomination routes to participation?

Nomination or participation is likely to depend upon the model chosen. Stakeholder analysis techniques should be used to link the selection and nomination to the logic of representation (to influence or be influenced for example) and to actively address power dynamics and inequalities of access and voice (e.g. gender, class, age, ethnicity). However, in more remote areas, there may be less diversity, and it could be appropriate to modify procedures in light of local circumstances.

Options to consider include approaches similar to those of: i) the National Park Authorities, with a mix of appointees by Scottish Government or relevant local authorities, elected members nominated from relevant local authorities, and some people directly elected to the Partnership by local residents; ii) the Community Planning Partnerships, in which elected representatives are from existing local authorities, with representatives of public agencies, civic society and the private sector.

- What governance mechanisms will ensure effective connection between devolved regional decision making and ensuring national targets are achieved?

The Regional Land Use Partnerships are likely to come under the remit of the Scottish Environment, Climate Change and Land Reform Committee, Rural Economy and Connectivity Committee, or the Communities and Local Government Committee. However, their functions are likely to intersect the remits of all three committees. The governance mechanisms will be the same, but the decision over which Committee has principal oversight may inform wider institutional relationships.

A national board to ensure scrutiny and a level playing field for all regions is commended.

A mechanism to share learning between RLUP regional coordinators would also help share good practice in linking local action to national policies and targets.

- How can partnerships empower local action and decision-making within a region?

RLUPs should identify existing local action and decision-making structures and enable them, only acting where such local capacity is missing. It will be important to illustrate to local partnerships, generally comprised of volunteers, the benefits of aligning their delivery with the regional RLUP. Access to funding can be an incentive, but can also skew the focus on local initiatives, generating tension and competition between existing organisations or individuals.

Advice and Delivery

The RLUP will work with collaborative place-based agency teams. This approach has been promoted in various initiatives such as the On the Ground initiative in the early 2000s and then the SEARS approach. Whilst this collaboration in place-based teams is more embedded, it will be important to ensure any lessons have been learnt to date.

As noted in the Materials will be provided by the SEFARI Think Tank on spatial in support of Regional Land Use Partnerships.

Scotland has extensive coverage of data relating to its natural environment, social and economic contexts, and on change through time. Generally, such data are open for use, many of which are available through portals such as Scotland's Environment Web (<https://www.environment.gov.scot/>), Scotland Natural Asset Register (<http://nar.hutton.ac.uk/>), and the Scottish Government Spatial Data Hub (<https://www.spatialhub.scot/>).

Other digital data of relevance include the modernisation and completeness of Scotland's Land Registry, which can be integrated and represented together with other variables such as climate vulnerability predictions, biodiversity accounting etc. Much of these data encounter uncertainty and are sensitive when overlaying with land ownership information. However, the use of geospatial data for planning can encounter a problem of 'black boxing' where those affected by decisions and advice that stem from complex spatial data and models, have no recourse to engage with the data themselves.

However, we note the importance that should be attached to identifying the data that can inform the effective operation of the Regional Land Use Partnerships. Those data need to be of relevance to the functions finally selected, at the appropriate scale (i.e. suitable for strategic or local planning), contemporary (i.e. up-to-date), and usable (i.e. with the skill levels of the intended users).

The development by the Scottish Government of data infrastructures and resources through its investment in ePlanning, consistent with the recommendations of Beveridge et al. (2016), should be beneficial to the Partnerships (e.g. digital data in planning, Miller et al., 2016).

Geography Section, austerity has reduced the capacity and capability of some public sector agencies to engage in collaborative working. It will be important to ensure that existing agencies are agreeable to transferring responsibilities and influence afforded by their regulatory, advisory or funding roles to the partnership rather than competing with the partnership.

Evidence suggests that the trust that farmers place in advisors, established through an ongoing relationship, is more important than whether this advice comes from input suppliers, advisory services or charities (Sutherland et al. 2013). However, there can be different nuances put on advice from different sources (Old et al., forthcoming), which may require brokering.

Currently, the Crown Estate and SAC Consulting are considering how lessons from the trialling of the Natural Capital Protocol (e.g. Ovando-Pol, 2020) could be used to develop more of a natural capital focus within the Farm Advisory Service. Using this learning to reinforce the implementation of the RLUF might be a useful next step.

The provision of free advice (at the point of use) has been linked to increasing uptake of agri-environmental measures. Currently, the process involves considerable transaction costs for farmers - i.e. farmers need to pay an expert to fill in the forms and do not recoup this funding if their application is unsuccessful. This makes them unlikely to continue to participate and marginalises smaller-scale and part-time farms and crofts. Therefore, the RLUF may wish to ensure that their activities are aligned with, and support, any revisions to advisory services involved in Post-CAP arrangements. There are opportunities to incentivise positive land use behaviours beyond providing agri-environmental payments – such as demonstration farms, supporting collective action, provision of advice and grants to encourage social innovation (Govigli et al., 2020).

Social innovation can advance sustainable development, particularly in marginalised rural areas and disadvantaged communities, often struggling with biophysical limits, market imperfections and shortages of public funding (Nijnik et al., 2019). Social innovations can introduce (temporary or long-term) changes affecting communities and the territory where they are initiated (and can have spill-out effects) (Kluvankova et al., in press). An example is a community ownership-based management of local woodlands in Lochcarron, Scotland, which responds to social needs by creating opportunities for local employment, housing, skills enhancement, and cultural heritage (Barlagne et al., 2019; Nijnik et al., 2019).

The interim report recognises that collaboration is needed for landscape scale interventions. Establishment of trust is important between collaborators: not all farmers are considered 'good farmers' by their neighbours, and farmers are reluctant to collaborate with other farmers who they do not see as competent (Sutherland et al. 2013). Formalising cooperation, i.e. by making the tasks and responsibilities clear and monitored by a trusted organisation, can reduce the risks of participation and increase receptivity. Scotland's machinery rings are a good example of this. (Flanigan and Sutherland 2016). Studies of upland and catchment collaboration (MacLeod et al., 2020) also highlight the need to understand social relationships and the importance of having an explicit coordinating organisation or individual to manage and sustain collaboration.

It is essential to engage those responsible for implementing and maintaining new land uses, such as green infrastructure, in the planning process, yet maintenance contractors are rarely engaged in the planning and design process (Fisher et al., in press). Likewise, contractors are often used in farming and forestry operations, yet advice and engagement tend to focus on landowners and tenants, but not these other actors involved in land management. Understanding the social networks involved in the provision of services helps identify potential barriers and drivers, of which advice (e.g. Farm

Advisory Service) and partnerships (e.g. North East Scotland Agriculture Advisory Group), can be very important (Vanni et al., 2019).

14. Key issues for further input and evidence:

- How could advice be delivered in order to stimulate and support most effective collaboration and delivery?

It is important to ensure that coherent and consistent advice is offered, and that advice about the wider RLUF objectives is included in existing public investments in the provision of advice (e.g. Farm Advisory Services and advice provision post-CAP), and the Scottish Government Centres of Expertise and Strategic Research Programme.

Collaboration and peer-to-peer learning is important for landscape scale delivery. It may be possible to adapt the proposed Environmental Coordination Action Fund for post-CAP funding (a similar scheme called Countryside Stewardship Facilitation Fund exists in England).

- How could place-based agency teams work most effectively to support Regional Land Use Partnerships?

There is very little information on how existing place-based agency teams are working so it would be useful to evaluate this and identify areas for improvement.

Engagement

The RLUPs will follow best practice in engaging communities of place and interest, in design, delivery and evaluation to maximise local interest in land use and the public benefits arising from land.

The RLUPs will be engaging with communities of place and interest spatial data from a variety of sources, built on a variety of assumptions and values. During the Rural Land Use Pilot in Aberdeenshire, a tension was noted in the engagement logic running through the Land Use Strategy. On the one hand, engagement was desirable to democratize land use and to engage all types of local people with their local land, as part of the Scottish land reform movement. On the other hand, engagement was desirable as part of a 'better regulation' agenda, to persuade land users and land managers to change their behaviour in order to achieve national climate and environmental objectives (unpublished paper, Byg et al.). The potential tension between local empowerment and ensuring compliance with national policy objectives needs to be considered as part of the wider public engagement strategy as well as within the governance model.

An important role for the RLUP could be to engage with participatory approaches (Wang et al., 2016, Miller et al., 2020), which are well evidenced to increase participation and create broader satisfaction with policy outcomes (Fast and Rinner, 2018). Participatory mapping approaches, such as those used in the Aberdeenshire Rural Land Use Pilot (Davidson et al., 2015), illustrated how local stakeholders may dispute the outputs of mapping and modelling based on experiential knowledge. In research into catchment partnerships, it seems that the public(s) are engaged in specific projects and activities but are less engaged in the strategic decisions that shape which projects are funded. This is a similar finding in the planning and licencing regime, when the public tend to engage with specific instances, by which time there is limited ability to respond to concerns, rather than engage with the initial strategic plans (Kirk and Blackstock, 2011).

As stated, the RLUPs can build on the wealth of existing knowledge and guidance available, particularly from the planning domain (for example, see the guidance from PAS:

<https://www.pas.org.uk/speed/>). Alternative creative, participatory tools, such as participatory video, can be successfully used to engage non-typical and hard to reach audiences, such as young people (Juárez-Bourke et al., 2019), in decision-making. This can also allow for transformative learning spaces for both participants and decision-makers alike, facilitating adaptive management.

As noted under item 9, the use of spatial data will inform activities of the Regional Land Use Partnerships. Its use in engagement with communities would be consistent with recommendation 43 of Beveridge et al. (2016) “There should be a continuing commitment to early engagement in planning, but practice needs to improve significantly” in which “Planning authorities and developers need to promote innovation which empowers communities to get actively involved in planning their own places. Much smarter use of information technology, including 3D visualisation and social media could support a step change in the transparency of planning decisions.” However, it is important to note that the digital divide persists in some remote rural regions influencing access to online resources (Wilson and Hopkins, 2019).

15. Key Engagement Issues (identified by the contributors)

To build trust in the RLUF, local people need to be engaged in debating the strategic decisions and the data underpinning them.

Any tension between local empowerment and ensuring compliance with national policy objectives needs to be considered as part of the wider public engagement strategy.

Engagement has to be recognised as meaningful, with changes apparent on the ground within credible timescales.

Approach to Establishment

The RLUP should have a solid governance set up from the start but may take a phased approach to what RLUPs achieve and which functions they adopt. There may be early adopters where ‘ready to go’ to collectively learn and feedback to rest, but the final advice will include an implementation plan covering all of Scotland.

We support the ‘early adopters’ approach as throughout the document we recommend processes that develop learning within and between RLUPs. As part of this, we recommend a ‘framework’ approach to RLUPs in which there are clear principles and goals set, but allowing individual RLUPs to design how these principles are implemented in ways appropriate to their region.

Linking ‘early adopters’ approach and ‘using Planning Authorities as the starting unit’ (2.3), then Scotland’s two National Park Authorities are a natural starting point for developing and testing landscape level place-based partnership working.

16. Key issues for further input and evidence:

- What would be the most appropriate effective approach to implementation across Scotland?

The report sets out an expectation that both the development of individual partnerships, and the roll-out of all of the partnerships, will be phased. Both of these reflect pragmatic approaches. However, there are inherent risks which should be identified and inform the plans for establishment.

- i) Roll out of Partnerships, in which a phased approach may be out of sync with the roll out of other strategies (e.g. Regional Spatial Strategies). The timing needs to be compatible between the two.

- ii) Roles of partnerships, in which roles in some areas could be accelerated to accommodate locally significant issues.

Consideration should be given to a framework approach in which common objectives and performance indicators can be set but allowing implementation to be tailored to local circumstances. This would be consistent with the findings and recommendations of the [Christie Commission \(2011\)](#) in its review of the Future Delivery of Public Services.

The Commission recommendations led to the restructuring of community planning across Scotland, with a focus on the delivery of public services. One option for consideration for the Regional Land Use Partnerships is to adopt and modifying the Community Planning partnerships approach, with a focus on delivery on the remit with which they are being charged.

- How could parts of Scotland which have less capacity through existing initiatives be best supported?

Nowhere in Scotland should be disadvantaged or lose out on opportunities due to the timing of rolling out the Partnerships, or the evolution of their roles. The EU [SMART villages](#) plan proposes mechanisms that aid with the development of social and human capital, and access to resources, but without constraining those which can move quicker from doing so.

Areas can be helped through shared learning from other RLUPs, and prioritised access to funding to fill gaps. Gap analysis is an essential function of the RLUPs, tackling gaps in what the RLUF plans to do and the processes and organisations through which these objectives might be achieved.

Learning from early adopters is a valuable approach, so long as it is accompanied by effective communication between Partnerships and means of adapting approaches that are in the process of being formed.

- What resource requirements are considered essential?

As noted under Governance Models, it is essential that the Partnerships are appropriately resourced. The requirements will depend upon the model of implementation. If they are stand-alone, independent entities they will require direct funding, or assistance on access to funding mechanisms to respond to RLUF objectives.

Financial resources are required for the coordination and administrative activities to support the Board's decision making and scrutiny processes, and to help engage and coordinate with 'existing initiatives'.

If they draw on the resources of partner bodies (e.g. partner allocated lead responsibilities for different tasks) then those partners will require allocation of resources, which may be above those already provided.

They also require to be able to access appropriate human capital in terms of skills (e.g. mediation, digital tools, spatial data, planning regulations), or have some available in-house where appropriate. Public Sector organisations may lack capacity due to austerity (followed by Covid-19).

To support collaborative landscape level decision agent involving multiple actors also requires appropriate (e.g. accurate, timely, and accessible) data/information, for example existing landcover datasets may not be suitable for aiding landscape level decision making (Hewitt and Macleod, 2020). Interviews and workshops with regional and national level stakeholders have highlighted the need for improved used of new digital technologies to aid facilitation of decision-making processes, that

provide accessible spatial information about the state of natural capital and potential of land management interventions (Hewitt and Macleod 2017). The rapid digital transformation of the Scottish Planning system and other areas of natural resource management means that human resources are required to ensure appropriate, accessible, and effective adoption of innovations in the application of digital technologies and associated changes in social practices.

As implied in the Governance section above, ensuring that the RLUPs deliver and support local place-based policy often requires an intermediary organisation to facilitate this localism and ensure its equitability, as found in the RELOCAL project (Currie et al., 2019). The Highlands and Islands Enterprise Strengthening Communities Programme or the National Park Authorities' Partnership planning process are other examples of such intermediaries.

17. Other examples of regional partnerships to learn from

The goal of a 'step-change' in Landscape decision making aligns with the goal of the [UKRI Landscape Decisions Programme](#). This is an ongoing research initiative that is funding projects across the research councils to address many of the concerns raised by the SLC. There are a number of funded projects with a geographical focus on Scotland. Contact Adam.Calo@hutton.ac.uk.

The Soil Association Scotland have pioneered procurement of local food in their Food for Life programme which could provide a useful model for encouraging the production of food which is affordable to consumers close to where it is grown.

The Sustainable Food Places (previously Cities) network provides an example of a cross-sectoral partnership (public, private, third, voluntary and research sectors). Sustainable Food Places offers a potential model for multi-sector partnership for regional governance of a policy area that is usually split between several agencies with little/no overall coordination. Starting with a broadly standard model, the partnerships are guided in which areas they want to prioritise according to local issues and capacity. Such partnership working could be a model for the RLUPs, or they could be members of the RLUPs to minimise duplication.

The way in which the Climate Change Fund is delivered and evaluated is currently under discussion, with the Scottish Government planning to create Community Climate Hubs. An opportunity could be created link such Community Climate Hubs and the RLUPs in creating partnerships, rather than create duplicate layers of governance broadly covering similar issues. The detailed organisation of Regional Community Climate Hubs for the monitoring or support of community climate action is still being consulted upon. Dinnie et al. suggested that such hubs should be administrative and reporting and support functions should be separated.

In another conversation a Development Trust has suggested their role should be to provide exemplar meta-projects that inspire and teach other smaller projects.

As noted under items 13 and 15, the Community Planning Partnerships also provide a model which can be used to inform the development of the Regional Land Use Partnerships.

References:

- Adams, D. and Watkins, C. (2016) [The Value of Planning](#). RTPI Research Report No. 5. June 2014. pp.94.
- Atkinson, G., Ovando, P., in progress. Distributional issues in natural capital accounting: An application to land ownership and ecosystem services in Scotland. Paper draft presented at the EAERE 2020 online Conference. Available upon authors request.
- Barlagne, C., Melnykovich, M., Hewitt, R., Kerschbaum, D., Miller, D., Nijnik, M., 2019. Analytical Case Studies (Type A Case Study) Lochcarron Community Development Company – Strathcarron, Scotland, UK (led by HUTTON). Report 5.4j - Social Innovation in Marginalised Rural Areas (H2020 SIMRA), pp. 59. [Internal report]
- Beveridge, C., Biberbach, P. and Hamilton, J. (2016) [Empowering Planning to Deliver Great Places, An independent review of the Scottish Planning System](#). Report to Scottish Government. pp60.
- Blackstock K.L., Waylen K. A., Marshall K. M. and Dunglison J (2014) Hybridity of Representation: Insights from River Basin Management Planning in Scotland, Environment and Planning C: Government and Policy, Volume: 32 issue: 3, page(s): 549-566
- Blackstock, K.L.; Dick, J.; Rajagopalan, D. (2016) What has the concept of natural capital got to do with you?, Natural Capital Final ESCOM Report - Workshop Report, Grant Arms, Grantown-on-Spey, 8 December 2016.
- Blackstock, K.L.; Dinnie, E.; Dilley, R. (2017) [Governing the Cairngorms National Park - revisiting the neglected concept of authority](#), Journal of Rural Studies, 52,12-20.
- Blackstock, K.L.; Juarez-Bourke, A.; Tindale, S.; Maxwell, J.; Waylen, K.A. (2018) O1.4.2biD3: Aligning existing and new delivery mechanisms for multiple environmental benefits., Research Briefing on 'New' Instruments, James Hutton Institute, Aberdeen, 44pp.
- Blackstock, K.L.; Juarez-Bourke, A.; Maxwell, J.; Tindale, S.; Waylen, K.A. (2018) [Aligning policy instruments for biodiversity, soil and water](#), Report, James Hutton Institute, Aberdeen, 24pp.
- Blackstock, K.L.; Novo, P.; Byg, A.; Creaney, R.; Juarez Bourke, A.; Maxwell, J.L.; Tindale, S.J.; Waylen, K.A. (2020) [Policy instruments for environmental public goods: interdependencies and hybridity](#), Land Use Policy. Published online.
- Bock, B., (2016) Rural marginalisation and the role of Social Innovation. Sociologica Ruralis 56:4 p552-573
- Burton R (2004) Establishing "Community Forests" in England: can public forests be provided through private interests? In Fitzharris B, Kearsley J (eds): Glimpses of a Gaian World: Essays on Geography and Senses of Place. Dunedin, University of Otago Press.
- Carolan, M. 2018. Lands changing hands: Experiences of succession and farm (knowledge) acquisition among first-generation, multigenerational, and aspiring farmers. Land Use Policy 79: 179-189.
- Chaplin, S., Robinson, V., LePage, A., Keep, H., LeCocq, J., Ward, D., Hicks, D., and Scholz, E., (2019). Pilot Results-Based Payment Approaches for Agri-environment schemes in arable and upland grassland systems in England. Final Report to the European Commission. Natural England and Yorkshire Dales National Park Authority.
- Cook P (2009) Scotland Rural Development Programme. First Stage Review. https://www.hutton.ac.uk/sites/default/files/files/28_%20SRDP%20first%20review.pdf

- Currie, M., (2017) "Implications for rural areas of the Christie Commission's report on the future delivery of public services". Produced as part of the Scottish Government's Strategic Research Programme 2016-2021. Available online at https://www.sruc.ac.uk/downloads/download/1338/implications_for_rural_areas_of_the_christie_commission_s_report_on_the_future_delivery_of_public_services
- Currie, M.; Pinker, A.; Copus, A., (2019) [Case study report: Strengthening communities on the Isle of Lewis in the Western Isles, United Kingdom.](#), RELOCAL Project Web-page.
- Davidson, J.1; Birnie, I.1,3; Irvine, R. J.2; Gimona, A.2; Blackstock, K.2; Baggio, A.2; Byg, A.2; Donnelly, D.2; Somevi, J.1; Aalders, I.2; Dunn, S.2 and Sample, J.2. (2015) [Aberdeenshire Land Use Strategy Pilot Final Report](#). Un-published, prepared on behalf of the Project Board of the Aberdeenshire Land Use Strategy Pilot.
- Delgado-Serrano, M., Oteros-Rozas, E., Ruiz-Mallén, I. *et al.* Influence of community-based natural resource management strategies in the resilience of social-ecological systems. *Reg Environ Change* **18**, 581–592 (2018). <https://doi.org/10.1007/s10113-017-1223-4>
- Dinnie, E., Holstead, K.L., 2018. The influence of public funding on community-based sustainability projects in Scotland. *Environmental Innovation and Societal Transitions* 29, 25-33.
- Dwyer J., Short C., Berriet-Sollicec M., Gael-Lataste F., Pham H., Affleck M., Courtney P., and Depres C (2015) Public Goods and Ecosystem Services from Agriculture and Forestry –towards a holistic approach: review of theories and concepts. D1.1 H2020 PEGASUS, <http://eprints.glos.ac.uk/3198/1/Public%20goods%20and%20ecosystem%20services%20FINAL.pdf>
- Eastwood, A. Fischer, A. & A. Byg (2017): The challenges of participatory and systemic environmental management: from aspiration to implementation, *Journal of Environmental Planning and Management*. <http://dx.doi.org/10.1080/09640568.2016.1249787>
- Eastwood, A., Fischer, A., Hague, A. and Brown, K. (2019) Adaptive co-management of the Scottish uplands – the role of social networks. Research Briefing. James Hutton Institute. UK. <https://www.hutton.ac.uk/sites/default/files/files/research/srp2016-21/Research%20Brief%20-%20Adaptive%20co-management%20of%20the%20Scottish%20uplands%20Final.pdf>
- EIP-AGRI Focus Group (2016) New entrants into farming: lessons to foster innovation and entrepreneurship. Final Report. https://ec.europa.eu/eip/agriculture/sites/agri-eip/files/eip-agri_fg_new_entrants_final_report_2016_en.pdf
- Faruqi, S. and F. Landsberg (2017). Attracting private investment to landscape restoration: a roadmap, World Resources Institute.
- Fast, V., Rinner, C., 2018. Toward a participatory VGI methodology: crowdsourcing information on regional food assets. *International Journal of Geographical Information Science* 32, 2209-2224.
- Fisher D., Blackstock K.L. and Irvine K (in press) "It's on the 'nice to have' pile": Potential principles to improve the implementation of socially inclusive Green Infrastructure, *Ambio*.
- Fischer, A.; McKee, A. (2017) [A question of capacities? Community resilience and empowerment between assets, abilities and relationships.](#), *Journal of Rural Studies*, 54, 187-197.
- Flanigan S and Sutherland L-A. (2016) Buying Access to Social Capital? From Collaboration to Service Provision in an Agricultural Co-operative. *Sociologia Ruralis* 56: 471-490.

Govigli, V.M.; Alkhaled, S.; Arnesen, Tor.; Barlagne, C.; Bjerck, M.; Burlando, C.; Melnykovich, M.; Rodriguez Frenandez-Blanco, C.; Sfeir, P.; Gorriz Mifsud, E. (2020) [Testing a framework to co-construct social innovation actions. Insights from seven marginalized rural areas.](#), *Sustainability*, 12, Article No. 1441.

Hewitt, R.J. & Macleod, C.J.A. (2017). What do users really need? Participatory development of decision support tools for environmental management based on outcomes. *Environments*, 4(4), 88, <https://doi.org/10.3390/environments4040088>.

Hewitt, R.J. & Macleod, C.J.A. (2020). Assessment of land cover change in Scotland's National Parks and their surrounding areas. The James Hutton Institute.

Hopkins, J.; Sutherland, L-A.; Calo, A.; Barlagne, C.; Wardell-Johnson, D.; Barnes, A.; Thomson, S.; McMillan, J.; Spencer, M. (2020) [New entrants: their potential contribution to farming in Scotland by 2023.](#), Farmer Intentions Survey Briefing Note, March 2020, 8pp.

Hussain J (forthcoming) Using the Natural Capital Protocol to increase sustainability of land-based businesses in Scotland. MSc. Thesis. University of Edinburgh

Juárez-Bourke, A., Eastwood, A., Hague, A., Herrett, S. 2019. [Participatory Video for Monitoring and Evaluation](#): young people's experiences of greenspace in Cumbernauld. Supplementary Report accompanying the Participatory Videos. The James Hutton Institute, Aberdeen, UK.

Kirk, E. A., & Blackstock, K. L. (2011). Enhanced decision making: balancing public participation against 'Better Regulation' in British environmental permitting regimes. *Journal of Environmental Law*, 23(1), 97-116. <https://doi.org/10.1093/jel/eqq024>

Kirsop-Taylor N, Russel D, Winter M (2020). The Contours of State Retreat from Collaborative Environmental Governance under Austerity. *Sustainability*, 12(7), 2761-2761

Klůvanková, T., Nijnik, M., Spacek, M., Sarkki, S., Lukesch, R., Perlik, M., Melnykovich, M., Valero, D., Brnkalakova, S. (in press). Social innovation for sustainability transformation and its diverging development paths in marginalised rural areas. *Sociologia Ruralis*

Landert, J., Pfeifer, C., Carolus, J., Albanito, F., Muller, A., Baumgart, L., Blockeel, J., Schwarz, G., Weissshaidinger, R., Bartel-Kratochvil, R., Hollaus, A., Hrabalová, A., Helin J., Aakkula, J., Svets, K., Guisepeili, E., Fleury, P., Vincent, A., Smyrniotopoulou, A., Vlahos, G., Iordanidis, Y., Szilágyi, A., Podmaniczky, L., Balázs, K., Galioto, F., Longhitano, D., Rossignolo, L., Povellato, A., Zilāns, A., Jegelevičius, G., Frățilă, M., Iragui Yoldi, U., Astrain Massa, C., Bienzobas Adrian, J., Resare Sahlin, K., Rööös, E., Frick, R., Bircher, R., Aalders, I., Irvine, K.N., Kyle, C., Miller, D., Sanders, J. and Smith P. (2019a). [Report on Environmental, Economic and Social Performance of Current AEFS, and Comparison to Conventional Baseline.](#) Understanding and Improving the Sustainability of Agro-ecological Farming Systems in the EU (UNISECO), Report to the European Union, pp. 235.

Land Reform Review Group (2014) The Land of Scotland and the Common Good. Report of the Land Reform Review Group. <https://www.gov.scot/publications/land-reform-review-group-final-report-land-scotland-common-good/>

Lean, H. 2020. Agricultural Tenancy Legislation and Public Policy Considerations in Scotland. Chapter 13. In: Combe, M. M., Glass, J. and Tindley, A. (Eds.) *Land Reform in Scotland: History, Law and Policy*. Edinburgh University Press, Scotland. Pp. 311-325.

Liu, N & Roberts, DJ 2013, 'Counter urbanisation, planning and house prices: An analysis of the Aberdeen Housing Market Area, 1984 – 2010', *Town Planning Review*, vol. 84, no. 1, pp. 81-105.

MacLeod, C. 2016. The Land Reform (Scotland) Act 2016. Available online: <https://calummacleodblog.wordpress.com/2016/03/23/the-land-reform-scotland-act-2016/> Accessed: 2.3.19; last updated: 23.03.2016.

Macleod et al. 2020. Recommendations for landscape-level adaptive management for ecological, economic, and social outcomes: findings from five case studies. The James Hutton Institute. Report, 20 pages.

Macleod, C.J.A. (2016). How can logic modelling improve the planning, monitoring and evaluation of policy measures and wider interventions for multiple benefits? [Final Report](#) to Scottish Government. 29 pages.

Marshall, K., Blackstock, K.L., Dunglinson, J., 2010. A contextual framework for understanding good practice in integrated catchment management. *Journal of Environmental Planning and Management* 53, 63-89.

Martín-López, B., Palomo, I., García-Llorente, M., Iniesta-Arandia, I., Castro, A.J., García Del Amo, D., Gómez-Baggethun, E., Montes, C., 2017. Delineating boundaries of social-ecological systems for landscape planning: A comprehensive spatial approach. *Land Use Policy* 66, 90-104.

Mather A, Hill G, Nijnik M (2006) Post-productivism and rural land use: cul de sac or challenge for theorization? *Journal of Rural Studies* №22, pp 441-455.

Matthews, K.B.; Miller, D.G.; Wardell-Johnson, D. (2017) [CAP greening review - Final revisions, Parts 1-4; Summary.](#) Four Part Report and Summary, Scottish Government Webpages, 251pp.

Matthews K.B, Blackstock K.L., Waylen K.A., Juarez-Bourke A., Miller, D.G., Wardell-Johnson, D.H., Rivington, M., Hague, A., Fisher, D., Renner, A., Cadillo-Benalcazar, J., Schyns, J., Giampietro, M. (2020) Report on EU sustainability goals: insights from Quantitative Story Telling and the WEFE nexus. MAGIC (H2020–GA 689669) Project Deliverable 5.1, 31st July 2020, 136 pages. Narvaez, R., Sindt, J., Jones, C., Lissner, T. (2020) "[Report on Quality Check of Green Bonds Assessment](#)", MAGIC (H2020–GA 689669) Project Deliverable 6.6, July 2020.

Mauerhofer, V., K. Hubacek, and A. Coleby. 2013. From polluter pays to provider gets: distribution of rights and costs under payments for ecosystem services. *Ecology and Society* 18(4): 41. <http://dx.doi.org/10.5751/ES-06025-180441>

McKee, A.J.; Sutherland, L.; Hopkins, J.; Flanigan, S.; Rickett, A. 2018. Increasing the availability of farmland for new entrants to agriculture in Scotland. Final Report to the Scottish Land Commission, 76pp.

Miller, D., Schwarz, G., Sutherland, L-A., Morrice, J., Aspinall, R., Barnes, A., Blackstock, K., Buchan, K., Donnelly, D., Hawes, K., McCrum, G., McKenzie, B., Matthews, K., Miller, Dave, Renwick, A., Smith, M., Squire, G. and Toma, L. 2009. [Changing Land Use in Rural Scotland - Drivers and Decision-Making: Rural Land Use Study Project 1 \(Report\)](#). Scottish Government, 2009. pp156.

Miller, D., Morrice, J., McKeen, M., Donaldson-Selby, G., Wang, C. and Munoz-Rojas, J. 2016. [Use of digital and 3D technology in planning: research report](#). Final Report for Scottish Government. pp109

Miller, D.R., Ode Sang, A., Brown, I., Munoz-Rojas, J., Wang, C. and Donaldson-Selby, G. (2020) Landscape modelling and stakeholder engagement: Participatory approaches and landscape

visualisation. In: Sang, N. (ed.). *Modelling Nature-Based Solutions Integrating Computational and Participatory Scenario Modelling for Environmental Management and Planning*. Cambridge University Press, Chapter 1, pp19-55.

Moody, J. 2018. Encouraging Farming Lettings in Scotland for the 21st Century – A Discussion Paper for the Scottish Land Commission.

Nijnik M, Slee B, Pajot G, Xu Y, Miller D, Bebbington J (2010). Forestry and Climate Change: a Socio-Economic Perspective. Report to Forestry Commission Scotland

Nijnik, M., Secco, L., Miller, D., Melnykovich, M., 2019a. Can social innovation make a difference to forest-dependent communities? *Forest Policy and Economics*, 100, 207-213

Novo P, Martin-Ortega J and Okhuma M (2017) Behaviours in relation to diffuse pollution: the relation between awareness and uptake of measures. [Final Report](#).

Novo P, Slee B, Byg A, Creaney R and Faccioli M (2017) Conceptual paper on the ‘unpacked’ notion of public goods. D2.2 H2020 PROVIDE. http://www.provide-project.eu/documents/2016/10/d2-2_conceptual-paper-on-the-unpacked-notion-of-public-goods.pdf

OECD (2006) *New Rural Paradigm* OECD Publications: Paris. Available online at <http://www.oecd.org/gov/regional-policy/thenewruralparadigmpoliciesandgovernance.htm>

OECD (2016a) *OECD Regional Outlook 2016, Productive Regions for Inclusive Societies* OECD Publications, Paris. Available online at: <http://www.oecd.org/publications/oecd-regional-outlook-2016-9789264260245-en.htm>

Old G., Hutchins M., Miller J., Bowes M., Redhead J., Trill E., Blackstock K. and Kuhfuss L., (forthcoming, accepted for publication) Evaluation of knowledge gained from the National Demonstration Test Catchments. Final Report for Defra. 145 pages.

Ostrom E (2005) *Understanding Institutional Diversity*. Princeton University Press, USA.

Ovando-Pol P (forthcoming in 2020) Application of the Natural Capital Protocol at Glensaugh Farm. 79 pages.

Pakeman, R.J.; McKeen, M. (2019) [Within country targeting of agri-environment funding: a test of different methods.](#), *Global Ecology and Conservation*, 17, Article No. e00574.

Perrin, C., Baysse-Lainé, A. Governing the coexistence of agricultural models: French cities allocating farmlands to support agroecology and short food chains on urban fringes. *Rev Agric Food Environ Stud* (2020). <https://doi.org/10.1007/s41130-020-00105-z>

Read-Norrie, S. 2017. Agricultural Tenancies: Making Room for Generation Y – Will Only the Land Endure? *Aberdeen Student Law Review* 7: 27-55.

Scottish Government (2019) *Women in Agriculture: Progressive Scottish Farming*. [Final Report](#) of the Women in Agriculture Taskforce. 36 pages.

Scottish Parliament (2019) *Planning (Scotland) Act 2019*. <https://www.legislation.gov.uk/asp/2019/13/contents/enacted>

Scott-Dempster, R. 2016. Land Reform and Farm Tenancies. *The Scotsman*. 27th May 2016. Available online: <https://www.scotsman.com/news/robert-scott-dempster-land-reform-and-farm-tenancies-1-4140060> [Accessed 17.1.18]

- Scottish Government (2020a) [Economic Recovery Implementation Plan: Scottish Government response to the Advisory Group on Economic Recovery](#). Scottish Government, pp71.
- Scottish Government (2020b) [Towards a Robust, Resilient Wellbeing Economy for Scotland](#), Report of the Advisory Group on Economic Recovery, Scottish Government, pp77.
- Scottish Government (2014a) [Ambition, Opportunity, Place: Scotland's Third National Planning Framework](#). Scottish Government. pp92.
- Scottish Government (2014b) [Scottish Planning Policy](#). Scottish Government. pp.81.
- Scottish Government (2016) Getting the Best from our Land: A [Land Use Strategy for Scotland 2016-2021](#). Scottish Government. pp.42.
- Shortall, S.; Sutherland, L-A.; McKee, A.; Hopkins, J. 2017. *Women in farming and the agriculture sector*. Final Report for the Environment and Forestry Directorate, Rural and Environment Science and Analytical Services (RESAS) Division, Scottish Government, 9 June 2017, 184pp.
- Shucksmith M. (2000) Endogenous development, social capital and social inclusion: Perspectives from LEADER in the UK. *Sociologia Ruralis* 40: 208-218.
- Slee, B., Miller, D., Weiß, G., Ludvig, A., Zivojinovic, I. and Lukesch, R. 2020. [Practice Guide 1: Social Innovation for Policy Target Groups, Deliverable D6.3](#), Social Innovation in Marginalised Rural Areas. Report to the European Commission. pp. 26.
- Sutherland L-A. 2015. EIP-Agri Focus Group New entrants into farming: lessons to foster innovation and entrepreneurship. Discussion paper. In: Innovation E-AAa (ed). https://ec.europa.eu/eip/agriculture/sites/agrieip/files/fg14_new_entrants_starting_paper_2015_en-v2.pdf.
- Sutherland L-A, Barlagne C and Barnes AP. (2019) Beyond 'Hobby Farming': towards a typology of non-commercial farming. *Agriculture and Human Values* 36: 475-493.
- Sutherland L-A, Burton RJF, Ingram J, et al. (2012) Triggering change: Towards a conceptualisation of major change processes in farm decision-making. *Journal of Environmental Management* 104: 142-151.
- Sutherland L-A, Mills J, Ingram J, et al. (2013) Considering the source: Commercialisation and trust in agri-environmental information and advisory services in England. *Journal of Environmental Management* 118: 96-105.
- Sutherland, L.-A., Barnes, A., McCrum, G., Blackstock, K., Toma, L., 2011. Towards a cross-sectoral analysis of land use decision-making in Scotland. *Landscape and Urban Planning* 100, 1-10.
- Towers W, Scharwz G, Burton R, Ray D, Sing L, Birnie R (2006) Possible Opportunities for Future Forest Development in Scotland. A Scoping Study report to Forestry Commission.
- van den Hove, S. (2006) Between Consensus and Compromise: Acknowledging the Negotiation Dimension in Participatory Approaches. *Land Use Policy* 23 (1): 10–17
- Vanni, F., Gava, O., Povellato, A., Guisepelli, E., Fleury, P., Vincent, A., Prazan, J., Schwarz, G., Bartel-Kratochvil, R., Hollaus, A., Weissheidinger, R., Frick, R., Hrabalová, A., Carolus, J., Iragui Yoldi, U., Elía Hurtado, S., Pyysiäinen, J., Aakkula, J., Helin, J., Rikkinen, P., Smyrniotopoulou, A., Vlahos, G., Balázs, K., Szilágyi, A., Jegelevičius, G., Mikšyte, E., Zilans, A., Veidemane, K., Frățilă, M., Rööös, E., Resare Sahlin, K., Miller, D., Kyle, C., Irvine, K. and Aalders, I. (2019). [Governance Networks Supporting Agro-](#)

[Ecological Farming Systems \(AEFS\)](#). Understanding and Improving the Sustainability of Agro-ecological Farming Systems in the EU (UNISECO), Report submitted to the European Commission, pp.65.

Vinten, A.J.A., Kuhfuss, L., Shortall, O., Stockan, J., Ibiyemi, A., Pohle, I., Gabriel, M., Gunn, I., & May, L. 2019. Water for all: towards an integrated approach to wetland conservation and flood risk reduction in a lowland catchment in Scotland. *Journal of Environmental Management*, 246:881-896.

Walker G, Devine-Wright P, Hunter S, et al. (2010) Trust and community: Exploring the meanings, contexts and dynamics of community renewable energy. *Energy Policy* 38: 2655-2663.

Wang, C., Miller, D.R., Brown, I., Jiang, Y. and Castellazzi, M. (2016) [Visualisation techniques to support public interpretation of future climate change and land use choices: a case study from N-E Scotland](#). *International Journal of Digital Earth*, 9, 586-605.

Warren C (2002) *Managing Scotland's Environment*. Edinburgh University Press, Edinburgh.

Waylen, K.A.; Martin Ortega, J. (2018) [Surveying views on Payments for Ecosystem Services: implications for environmental management and research](#)., *Ecosystem Services*, 29, 23-30

Waylen, K.A.; Blackstock, K.L.; van Hulst, F.; Damian, C.; Horváth, F.; Johnson, R.K.; Kanka, R.; Külvik, M.; Macleod, C.J.A.; Meissner, K.; Oprina-Pavelescu, M.M.; Pino, J.; Primmer, E.; Rîsnoveanu, G.; Satalová, B.; Silander, J.; Spulerová, J.; Suskevics, M.; van Uytvanck, J. (2019) [Policy-driven monitoring and evaluation: does it support adaptive management of socio-ecological systems?](#), *Science of the Total Environment*, 662, 373-384.

Waylen, K.A.; Marshall, K.; Juarez-Bourke, A.; Blackstock, K.L. (2020) [Exploring the delivery of multiple benefits by catchment partnerships in the UK: Interim results](#)., Report by the James Hutton Institute corresponding to Deliverable 3 within the project formed by Research Deliverable 1.2.4 Objective 1.2 and Deliverable 6 within Research Deliverable 1.4.2bi.

Waylen, K.A.; Marshall, K.; Blackstock, K.L. (2019) [Reviewing current understanding on catchment partnerships](#)., Project Report by the James Hutton Institute.

Waylen, K.A.; Marshall, K.; Juarez-Bourke, A.; Blackstock, K.L. (in progress) Exploring the delivery of multiple benefits by catchment partnerships in the UK: Final Results, Report by the James Hutton Institute corresponding to Deliverable 3 within the project formed by Research Deliverable 1.2.4 Objective 1.2 and Deliverable 6 within Research Deliverable 1.4.2bi.

Waylen, K.A.; Martin-Ortega, J.; Blackstock, K.L.; Brown, I.; Uribe, B.E.A.; Hernandez, S.B.; Bertoni, M.B.; Bustos, M.L.; Bayer, A.X.C.; Semerena, R.I.E.; Quijano, M.A.F.; Ferrelli, F.; Fidalgo, G.L.; Lopez, I.H.; Cisneros, M.A.H.; London, S.; Maya Velez, D.L.; Ocampo-Diaz, N.; Ortiz-Guerrero, C.E.; Pascale, J.C.; Perillo, G.M.E.; Piccolo, M.C.; Pinzon Martinez, L.N.; Rojas, M.L.; Scordo, F.; Vitale, V.; Zilio, M.I. (2015) [Can scenario-planning support community based natural resource management? Experiences from three countries in Latin America](#). *Ecology and Society*, 20, Article No.28.

Waylen, K.A.; Blackstock, K.L.; Holstead, K. 2013. [Exploring experiences of the Ecosystem Approach](#). 36 page report.

Wilson, R.; Hopkins, J. (2019) [The changing shape of Scotland's digital divide](#)., *European Countryside*, 11, 563-583.

Wittman, H., Dennis, J. and Pritchard, H. 2017. Beyond the market? New agrarianism and cooperative farmland access in North America. *Journal of Rural Studies* 53: 303-316.

Zagata, L. and Sutherland, L-A. 2015. Deconstructing the 'young farmer problem in Europe'. Towards a research agenda. *Journal of Rural Studies* 38: 39-51.