THE ROYAL SOCIETY

The Royal Society's submission to Defra's Land Use Consultation

April 2025

About the Royal Society

The Royal Society is the national academy of science for the UK. Its Fellows include many of the world's most distinguished scientists working across a broad range of disciplines in academia, industry, charities and the public sector. The Society draws on the expertise of the Fellowship to provide independent and authoritative advice to UK, European and international decision-makers.

The Society's fundamental purpose, reflected in its founding Charters of the 1660s, is to recognise, promote, and support excellence in science and to encourage the development and use of science for the benefit of humanity. Our strategic priorities therefore are to promote excellence in science; to support international collaboration; and to demonstrate the importance of science to everyone.

Introduction

The Royal Society welcomes this opportunity to provide evidence to inform the development of the Land Use Framework for England. This submission is based on both a roundtable discussion with Fellows and other scientists as part of Defra's stakeholder engagement process, and also the Royal Society's 'Multifunctional Landscapes'[1] report which was published in 2023 (Annex 1) and recommended the development of a Land Use Framework to reconcile the competing demands placed on the UK's land.

The Royal Society is highly supportive of the development of a Land Use Framework for England and the ambitions of the government to join up land use decision making in this regard. This consultation response and the comments within it are intended to add value to this very important policy innovation and are not intended as criticism of the fundamental proposition, which is positive and welcomed.

Contents

[1] Multifunctional Landscapes, The Royal Society. 2023. See https://royalsociety.org/news-resources/projects/living-landscapes/multifunctional-land-use/ (accessed 24/04/2025).

Summary of key points from a roundtable discussion convened by the Royal Society on 24 March

Roundtable participants: Andrew Balmford FRS, University of Cambridge; Ian Bateman FBA, University of Exeter; Ian Boyd FRS, University of St Andrews, Sarah Giles, The Royal Society; Charles Godfray FRS, University of Oxford; Jim Hall FREng, University of Oxford; Susan Owens FBA, University of Cambridge; Gavin Parker, University of Reading; Fiona Reynolds FBA, Food, Farming and Countryside Commission; Nathalie Seddon, University of Oxford; Pete Smith FRS, University of Aberdeen.

This part of our consultation response represents the views of those who attended the online roundtable discussion and does not necessarily represent the Royal Society's own policy positions.

Figure 1, below, summarises the key aspects of the discussion. Further detail is presented in the sections below. As per the format of the roundtable discussion, this consultation submission is structured into three sections, the operationalisation of the Framework, the data and analytical requirements of the Framework and the available policy levers.

Annex 1 then provides supplementary information relevant to the consultation from the Royal Society's Multifunctional Landscapes report, which does represent the Royal Society's own policy positions.

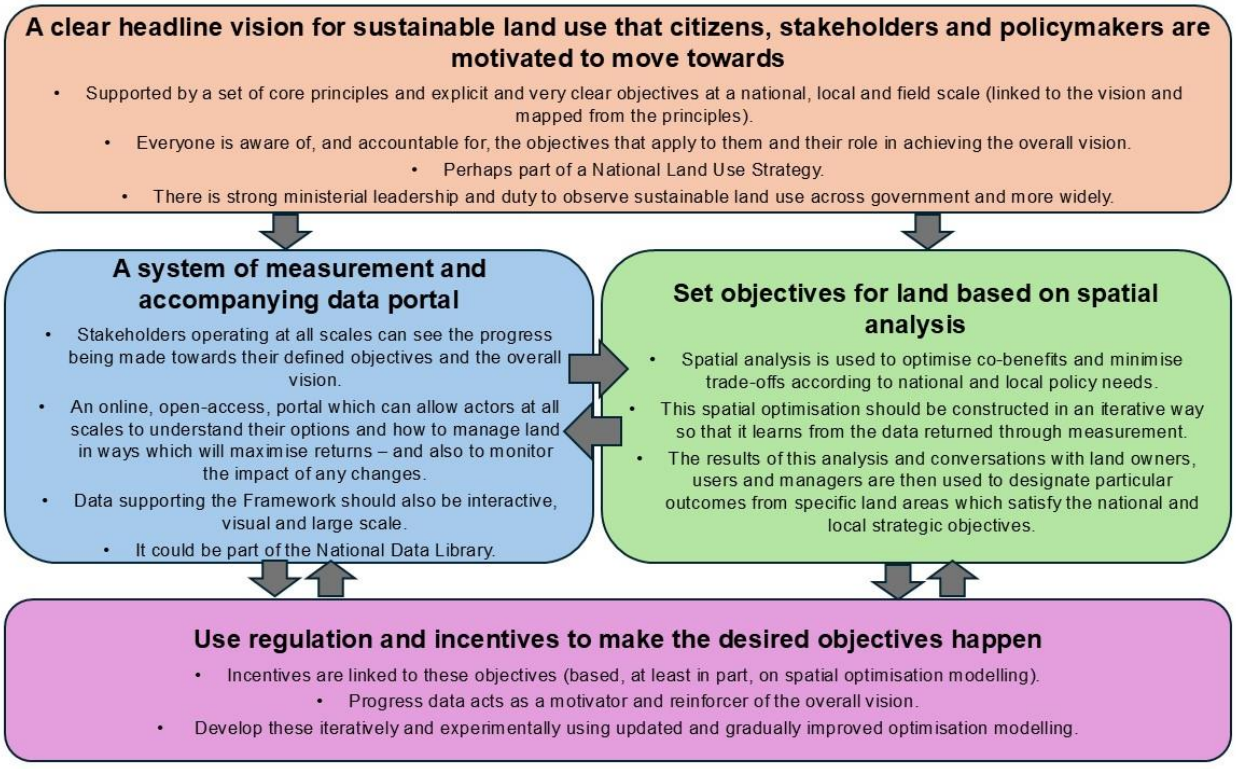

Figure 1 – Summary of the discussion in terms of the core aspects of a Land Use Framework

1. Operationalisation

1.1 Due to multiple land-use related policies currently being developed ad hoc, there is a great danger of incoherence in the policy landscape, creating confusion and multiple objectives.

- There are a number of land-use-related policies currently under development in different government departments. This includes the Industrial Strategy, the National Infrastructure Strategy, the Strategic Spatial Energy Plan and the Spatial Development Strategies that Combined Authorities will be required to produce. This presents an important and rare window

of opportunity to put in place a Framework which genuinely acts to join-up different land-use related policies.
    - The consultation recognises this range of policies and suggests that the Framework will be applied to their development.
    - However, there is an imminent risk that the development of these policies will move faster than the over-arching Land Use Framework and therefore become divergent. It is vital that the Land Use Framework comes first, to avoid setting on course conflicting land-use policies that fail to maximise benefits and result in unintentional trade-offs. Otherwise, the very purpose of the proposed framework will be immediately undermined.
    - As a result of this process, some current policies might be found to be incoherent so the implementation of the Land Use Framework to achieve coherence, may lead to a need to review those policies.
    - Relatedly, a consideration of nature and sustainable land use should be incorporated as an inherent aspect of new infrastructure and bottom-up planning-related policies from the outset[2].
        - This should help to ensure that hard infrastructure decisions do not undermine investment in nature-based solutions – in terms of mitigating future climate and extreme weather-related risks.
- There is already enough data and available evidence to develop a 'good enough' Land Use Framework and there should not be a delay on this basis. An iterative and flexible approach should allow the Framework to respond to new evidence as it becomes available.
- Spatial optimisation modelling suggests that the UK is currently far from being optimal with respect to any of the main objectives for rural land use (food and forestry production, nature, and carbon sequestration). This means that there are many opportunities for changes in a more strategic direction to be beneficial.[3]

1.2. The Government should use the Framework as an opportunity to set a clear, long-term, vision for sustainable land use – and show strong leadership and determination towards this vision.

- A strong vision and leadership from ministers will be vital to bring along all government departments and stakeholders.
- This vision should be clear and explicit, with citizens, stakeholders and policymakers fully aware of their own role and objectives in terms of achieving the ambition.
- A common, open-access, data-sharing platform with an appealing and straightforward user interface will be important to display measured progress against targets – this would aid co-ordination, enhance motivation and reinforce the overall vision.
    - Layered maps may be a useful way of allowing this sort of data visualization[4].
    - These should be available at a range of spatial scales, from individual landowners, local authorities and catchments.
- For many land-use-related objectives, a 2050 timeframe may be too short. For example, for tree planting or nature restoration. There may need to be acceptance that different factors move at different speeds or require longer term consideration.
- Dialogue as part of the Food Farming and Countryside Commission suggests that most farmers want to have a sense of purpose and be part of something bigger – but they need long term consistency and clear sense of direction for business planning purposes.

[2] As an example, see the Institute of Chartered Engineers submission to the HM Treasury 10 Year Infrastructure Strategy Working Paper: A Cross-Government Plan for Infrastructure. This outlines a simplified view of how these different aspects and considerations could fit together. See https://www.ice.org.uk/news-views-insights/policy-and-advocacy/policy-insights/ice-response-10-year-infra-strategy-working-paper (accessed 28 March 2025)
[3] Early modelling analysis from Jim Hall's group at Oxford University suggests that we could potentially alter up to 60% of land use in the UK without any obvious implications on public goods delivery or food production.
[4] As an example, see the land use framework visualisation tool developed by Vizzuality as part of the Food Farming and Countryside Commission and Geospatial Commission land use framework pilot. See https://www.vizzuality.com/project/landuse-framework (accessed 28 March 2025)

- A shared vision that is supported by all stakeholders may not be possible due to the large number of diverse interests and values across a large number of sectors. However, with careful consideration and appropriate dialogue, the Land Use Framework should seek to understand and accommodate divergent views and priorities – allowing space for political deliberation, perhaps via a cross-government committee.

1.3. The Land Use Framework, and land use related legislation should be simplified wherever possible.

- Complex policies tend to fail; however, over-simplification could also make the ambition of the Framework redundant. The Government will need to strike a careful balance, simplifying where possible, and as much as possible - whilst also finding ways to take into account, and make decisions in the face of, the inherent complexity.
- There are already many layered processes and legislation that landowners and managers have to understand and navigate The Land Use Framework should not add to this complexity, but rather be used as an opportunity to simplify and streamline the existing policies.
- Simplification could be achieved by having an additional principle related to this.

1.4. The principles underpinning the Land Use Framework must be specific and clearly defined, and work at all scales.

- The 'principles' as they are currently written are somewhat vague and a confusing mix of principles and objectives.
- To address this:
    - It is essential that the Framework (and government) separates principles from objectives (where principles are fundamental truths or beliefs for example 'fair', 'adaptable', 'resilient' or 'simplified' and objectives are outcomes such as food security or environmental sustainability).
    - It will be important to carefully consider and define exactly what is meant by each of the phrases used.
    - Principles should be high level and applicable to land use decision makers at all scales. The Land Use Framework will be operated from the 'field' scale to national scale and needs to be coherent at all these scales.
    - Objectives should be set according to the different scales and also according to different government departments and sectors. With responsibility for each objective(s) clearly defined.
    - Objectives should aim to address - 'what do we need from our land over the very long term?'
    - These objectives should be effective at marrying economic/industrial, environmental and social policy objectives. The policy mechanisms being used to support each will be different and the point of a Framework should be to make these as explicit as possible.
    - Objectives should include meeting the environmental targets set by the Environmental Improvement Plan[5].
    - Multifunctionality is neither a principle nor an objective, but is a version of land use that can help to reconcile multiple objectives by highlighting (and optimising) synergies and identifying (and navigating) trade-offs.
    - The Royal Society's 2023 Multifunctional Landscapes report sets out a set of principles for a land use framework which are presented in Annex 1.
- The principle of 'Responsive by design' will be important to allow an adaptive approach to the Framework's development and the incorporation of new evidence as it becomes available. Related to this, this principle should also build in a plan for failure.
- Co-design is easy to say but harder to implement in practice. Co-design needs to be defined, perhaps as a process of allocation of responsibility for decision making. For example, national

[5] Environmental Improvement Plan 2023. See https://www.gov.uk/government/publications/environmental-improvement-plan (accessed 23/04/2025).

government is responsible for deciding national strategy by setting national-level goals. Individual land manager is responsible for actual tactical interventions on the ground. Co-design when all are working within a common framework which aligns these different and very disparate objectives and activities. It is not about giving everyone a say on everything.

- Regional workshops, policy testing and deliberation will be an important element of operationalising the Framework with regards to public legitimacy. However, the engagement of publics and stakeholders should not be undertaken for purposes of legitimisation of policies and proposals – rather deliberation should provide opportunities to listen and learn about views, values, priorities and constraints, as well as areas of agreement and difference[6].

1.5. The Framework should take into account the 'leakages'[7] related to producing food abroad.

- This could be achieved by having a principle of 'No negative leakages' or 'negative leakages are minimised'.
- It has been estimated that the impact on species extinctions of producing food abroad is 2-3 times worse than producing it here[8]. This is because the regions where it is produced are typically more biodiverse and produce food at lower yields than the UK.
- This is an important consideration – and it may be that the Government can be more ambitious than 'maintaining current levels' with its national food production targets, so that imports don't increase with increasing UK food demand. This could be achieved without damaging the environment and with clear economic benefits to the country.
    - Maintaining food production per capita may be a more appropriate ambition for the Land Use Framework in this regard.
- However, it will be important to ensure that any increases in production are as environmentally sustainable as possible, and the Land Use Framework should have a commitment to restoring nature in the UK as well as seeking to not cause further degradation abroad.
    - Science and innovation is likely to have an important role in sustainably increasing agricultural yields on existing agricultural land. The Royal Society is just beginning a new programme of policy work focused on these innovations and would be pleased to support the UK Government to achieve this. The 'Food Strategy' and '25 Year Farming Roadmap' are likely to be important policy vehicles and should be aligned with the Land Use Framework in this regard.

1.6. Implementation of the Framework, and related policies, will require a clearer and more strategic approach to food security.

- Food security or a resilient food system should be a national strategic objective of the Framework. Food security needs to be precisely defined in terms of the desired outcomes and the tolerable level of risk to those objectives that are required for 'security'. The aim should be to incorporate a risk-based approach to food security as part of the Framework – to aid long term planning and resilience.
- The current Land Use Framework is focused on the supply side in terms of public goods and food production – the lack of mention of demand side measures is a serious omission.
    - Understanding demand-side trends and drivers will be a vital element of land use planning for the future. E.g. waste reduction and dietary shifts.
- The Framework should aim to define and clarify the concept of food security (a definition that is then used across the whole of UK government) - with respect to ambitions to either maintain or increase agricultural productivity – and with respect to demand side drivers and consequences (including food insecurity).

---

[6] Defra Social Science Expert Group's Review of Public Engagement, 2022. See https://www.gov.uk/government/publications/review-of-public-engagement (accessed 24/04/2025).

[7] Meaning the impacts on outcomes of concern (such as biodiversity of GHG emissions) of displacing food (or indeed other) production overseas.

[8] This is based on food products that could be feasibly produced in the UK as opposed to abroad. This figure rises to 10-1 if we consider the importation of food products that cannot be grown here but that are favoured by consumers. These estimates are derived by linking the LIFE extinction surface (Eyres et al. 20205 Phil Trans R Soc B 380 20230327) with food consumption, trade and flow data in a new metric recently adopted by Defra and illustrated in Balmford et al. 2025 Science 387 720-722.

- Productivity[9] should also be carefully defined, with food production balanced against the delivery of other public goods and services.

1.7. The land management decisions made based on the Land Use Framework should aim to embed resilience, to future climate change, geo-political uncertainty and other risks.

- Resilience should be included in the Framework as a key principle. To safeguard land and its essential functionalities for future generations.
- The Framework should include an assessment of the risks, including climate, geopolitical and others, and comment on their likely severity (perhaps taken from, or aligned with, the Cabinet Office Risk Register).
- These risks should be made public, and presented in an accessible format, so that land managers can take business action based on these risks.
- Resilience could be achieved by planning for multiple future scenarios and taking a 'portfolio' approach to land use i.e. hedging future risks by diversifying the types of land use. For example, by diversifying tree planting[10] or nature restoration in terms of species and location. Such an approach minimises the risks of betting on the wrong future.
- Similarly, continued investment in innovation to develop and trial new crop varieties and innovative agricultural production methods will be required as part of a portfolio approach to mitigate future risks to food supply.
    - This will likely require a more mission-focused approach to investment to increase the rate of innovation in food production.
    - Transformational solutions will be required to develop technologies that effectively decouple the land area used for food production from the volume of food produced

2. Data and analytical requirements

2.1. Spatial optimisation modelling should be used to inform multifunctional land use decision making.

- The consultation repeatedly refers to a spatial approach to land-use decision making. Targets and incentives for land-use change can and should be set based on spatial examination of trade-offs and co-benefits, which can be explored through optimisation modelling.
- As stated in the Royal Society's Multifunctional Landscapes report, we recognise that such analysis will not be the only input into land use decision making. However spatial scientific analysis, based on the concept of multifunctionality, can helpfully guide land managers and policymakers in terms of deciding what to do where.
- Alongside using such data to inform national policy - this data and analysis should also be available to local authorities, as well as landowners and managers, in an open and accessible way - as decision support tools. This would encourage and enable them to make the best decisions at a field-scale.
- Spatial decision-making support tools will rely on the availability of fine-scale and up to date spatial data – this will be important across the range of land-uses and functions that the Framework will consider.
- Fine scale data on agricultural productivity is mostly not yet publicly available, yet farmers and land managers do have some of this.
- Finding ways to integrate this agricultural productivity data with other datasets will be of vital importance to identify options for multifunctionality within a landscape – and therefore facilitate the strategic spatial planning that the Framework hopes to deliver.

[9] The Royal Society's Multifunctional Landscapes report refers to productivity as 'sustainable productivity' and applies this not only in its traditional sense to food, timber and other marketable goods but also to the full spectrum of public goods that can be delivered from the land. See page 17. https://royalsociety.org/-/media/policy/projects/living-landscapes/DES7483_Multifunctional-landscapes_policy-report-WEB.pdf (accessed 28 March 2025).
[10] Cho et al. Resilient tree-planting strategies for carbon dioxide removal under compounding climate and economic uncertainties. Proceedings of the National Academy of Science. 2025. https://doi.org/10.1073/pnas.2320961122

- Agricultural productivity measures should take into account both short term and long-term productivity i.e. taking into account long term sustainability in terms of soil health, biodiversity etc.
- The UK has some of the greatest data resources by density and resolution of any country in the world and this data can be used to inform system level decision making related to land use change.
    - Due to the inherent connectivity of natural systems, changes in one area can result in changes to other parts of the system that are not always intuitive. The Land Use Framework has the opportunity to put in place the data infrastructure required to understand these interactions in detail and therefore make strategic, informed and optimal decisions – ensuring value for money.
- A good example of the effective use of spatial modelling and analysis to support decision making, and openly accessible spatial data, is the National Flood Risk Assessment[11] led by the Environment Agency.

2.2. It is likely that new, broad, biodiversity metrics and measurements will be required for long-term monitoring on multifunctional land, to assess the delivery of ecosystem functions or services.

- The metrics used to measure and monitor biodiversity and changes to biodiversity over time should be carefully considered. For most multifunctional land, a pragmatic, enduring and broader approach to traditional biodiversity monitoring will be likely be required to inform the Framework.
- However, for some areas of land that are managed for a specific biodiversity function e.g. Nature Reserves or SSRI's – a different and more detailed set of metrics may apply.
- This may involve the development of new monitoring or data collection activities. Existing data is often focused on species richness, which is not a good measure of how viable or resilient populations are in the longer term. Data on relative population densities, while more challenging to collect, is much more informative.
- This may also include the use of proxy measures – which should be regularly ground-truthed to functional biodiversity metrics.
- Species abundance data and data on ecosystem functionality is required to monitor positive or negative changes to population and ecosystem health, and the delivery of ecosystem functions in the long-term (see Figure 1, below).
- Transparent and accessible biodiversity metrics and indicators will also act as an important motivator towards related objectives; not only in terms of the functions or services that nature provides, but they would also appeal to many people's sense of duty or obligation to protect nature due to its intrinsic value.

2.3. The National Data Library provides a good opportunity to effectively join-up the data required to implement a multifunctional land use framework.

- Open-access, large-scale and cross-departmental and cross-sector data will be required to inform strategic, multifunctional land use decision making. This is exactly the type of infrastructure and capability challenge that the National Data Library should look to address.
    - A single, accessible data system such as this will be very important to ensure cohesion between different objectives across different scales and owned by different government departments. This will ensure that relevant land use data and outcomes are recorded, analysed and presented in one place.

[11] National assessment of flood and coastal erosion risk in England 2024 https://www.gov.uk/government/publications/national-assessment-of-flood-and-coastal-erosion-risk-in-england-2024/national-assessment-of-flood-and-coastal-erosion-risk-in-england-2024

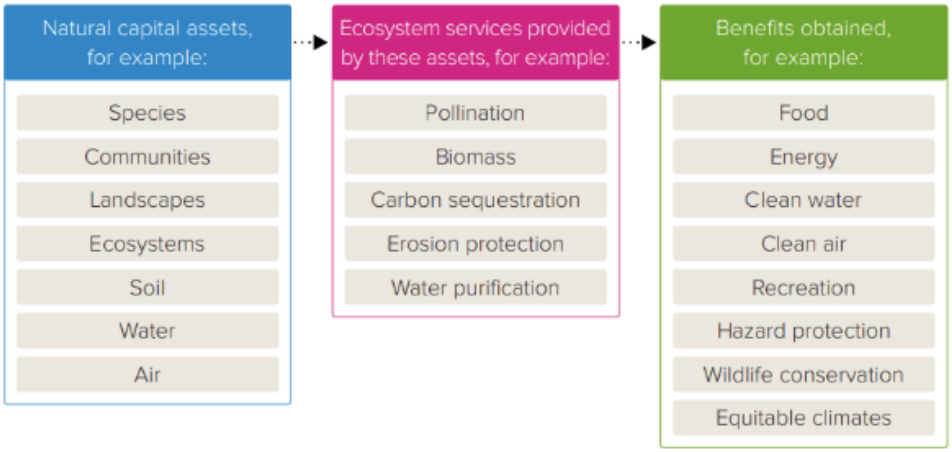

Figure 1: Flow of natural capital assets, ecosystem services and the benefits that can be obtained[12].

3. Policy Levers

3.1 Incentivisation

- Seek to understand of how farmers and land managers have historically responded to changes in land use policy – in terms of what has been effective and what has not[13]. Incorporate these learnings into the development of the Framework incentives.
- Incentives should be spatially targeted to reflect spatial variation and the national, regional and local objectives – this should help to redistribute and target funding for food, nature, carbon capture and other public benefits to the land areas where they can deliver the most benefit.
    - Direct income support (as required to reduce rural poverty) should be provided separately.
- As described in detail above, a clear vision and easy-access, visual, data portals will aid land manager motivation towards a set of nationally or locally determined objectives.

3.2 Regulation

- There is currently very little mention of regulation within the consultation document, yet this is likely to be an important aspect of enforcing the Framework and guiding stakeholders towards delivering its' objectives. Clarity on regulatory aspects of the Framework is required, especially with regard to enforcing environmental protection.

[12] Soil Structure and its benefits. The Royal Society. 2020. See https://royalsociety.org/news-resources/projects/soil-structure-and-its-benefits/ (accessed 28 March 2025)
[13] Related to this, as part of evidence gathering to inform the Multifunctional Landscapes report the Royal Society commissioned researchers from the University of Reading to explore the history of land use decision making. See https://royalsociety.org/news-resources/publications/2020/commissioned-report-history-uk-land-use-decision-making/ (accessed 28 March 2025).

Annex 1: Selected findings from the Royal Society's Multifunctional Landscapes report (2023)

This annex details some of the most relevant content from the Royal Society's 2023 Multifunctional Landscapes report – focusing mostly on the points that have not already been presented in the previous section.

2.1. Land Use Framework principles

Within the Multifunctional Landscapes report the Royal Society outlined a set of principles (or features) that could be used to underpin a national land use framework. These are:

- Supported by robust data and analytics
- Built on trust and transparency
- Enable policy coherence
- Maximise returns on public investment
- Allow space for political deliberation
- Facilitate decision making at appropriate spatial scales
- Integrate housing and infrastructure with wider land use decisions
- Has ability to evolve and improve
- In place for the long term
- Help crowd-in private investment
- Should be sufficiently influential to make a difference
- Mesh with other land use frameworks within the UK
- Engage with different publics

A schematic diagram detailing how these aspects fit together is presented in the Figure 4, below.

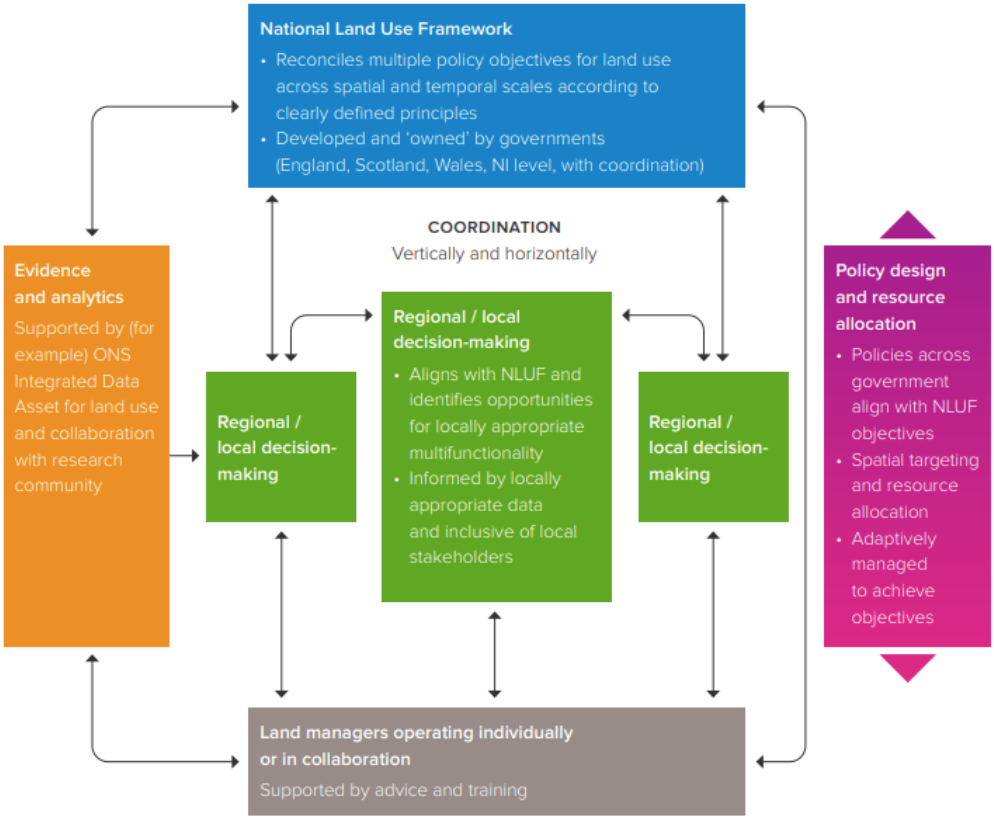

Figure 4 – A theoretical schematic of how a national land use framework could operate to inform land use decisions at multiple scales.

2.2. Data Infrastructure

An obvious omission within the current principles is that they do not explicitly mention that the framework should be underpinned by robust data and analytics, and related infrastructure – though this is implied. To reiterate, data infrastructure will be vital to support the implementation and spatial prioritisation requirements of the Framework. Our 'Multifunctional Landscapes' report calls for a 'high quality common evidence platform to underpin effective land use decisions' The Land Use Framework will require the integration of many different types of data, from different sources and at different spatial scales – meaning that a strategic national approach to land-based information with clear standards and protocols will be required through the creation of a common evidence platform. The importance of, and challenges associated with the development of such infrastructure should not be underestimated. Such infrastructure will be essential both to empower decision makers with a consistent set of science-based inputs from which to negotiate land use decisions – and to monitor progress over time towards agreed policy objectives,

A commitment to robust and accessible spatial data and a user-friendly, easy-access data platform should therefore be explicit and committed aspects of the Land Use Framework. This may either be achieved by including a principle relating to this, or with an explicit commitment under the new Data Library or similar cross-departmental initiative such as the ONS Integrated Data Service. However, this should not be piecemeal and should be a new and genuinely cross-governmental initiative, with clear ownership and responsibilities towards its maintenance and evolution.

A data platform such as this will also be a vital component of facilitating movement towards a shared high-level vision – which the Framework should also aim to facilitate.

2.3. Lessons from international and historic examples

Lessons from international and historic examples help to give an indicator of the previous drivers of changes in land use. These lessons could very valuably inform the development of the Land Use Framework for England – especially with regards to developing effective regulation and incentives, and balancing these with other economic and socioeconomic drivers.

Related to this, the Royal Society commissioned research from the University of Reading as part of its Multifunctional Landscapes work and the full report is available online[14]. Below is a short summary of the key lessons from international examples.

Japan

Key lessons from Japan related to ownership structures, and the intentional and unintentional outcomes for sustainable development derived from more fragmented land ownership. Ownership fragmentation post-1949 created around 6 million land-owning farmers and led to widespread landscape change. The postwar legacy fostered strong local community ties and institutional arrangements to manage common-pool resources which then aided social sustainability. However, they have not delivered strong environmental sustainability.

New Zealand

New Zealand has close ties to the UK. The country's Planning System was largely modelled on UK legislation but placed emphasis on Matters of National Importance (MNIs), including protection of high-value agricultural land, preserving heritage, and maintaining coasts, lakes and rivers. As a result, subsidies were withdrawn under neoliberal (market-led) reforms. This could give insight to a post-Brexit scenario for the UK. In addition, the Resource Management Act (RMA) (1991) sought to bring all aspects of environmental planning, including land, air, coastal and water-related resources, within a single framework. However, critics (from environmental organisations, business interests and Maori advocates) argued that it failed to compromise between environmentalism and neoliberalism. Some suggested that environmental goals could be more effectively achieved by a stronger spatial focus

[14] History of Land Use Decision Making. The Royal Society and the University of Reading. 2020. See https://royalsociety.org/news-resources/publications/2020/commissioned-report-history-uk-land-use-decision-making/ (accessed 24/04/2025)

with better integration at the local level. Others emphasised greater investment in capacity and training within the planning system.

Sweden

Similar to the UK, around 85% of Sweden's population live in towns and cities. The Swedish approach could be of interest to policymakers in the UK given its attention to developing multifunctional countryside. The Swedes have recently put this principle into their national food strategy, with attention to all links in the food value chain.

Denmark

Not included in the Multifunctional Landscapes report – but more recently Demark has begun a 'green transition' within their agricultural sector. Their approach aims to balance productivity with environmental sustainability and therefore may also be of interest[15].

2.4. Spatial optimisation and metrics

- 'Multifunctional Landscapes' outlines in detail how spatial and economic modelling may help to support and optimise land use decision making. This is in terms of maximising co-benefits and minimising trade-offs - termed 'multifunctional landscape analysis'.
- Increasing pressures on land use make it imperative to improve productivity (where productivity is defined in the broadest sense, to include all land-based products and services).
- Systematic, spatial land use analysis which aims to measure the value of alternative options to deliver an agreed objective, or set of objectives – can greatly improve land use decisions at multiple scales. It also allows a more subjective view, especially when different stakeholders may not value different outputs equally.
- It is and will continue to be challenging to find a metric that can be used to assess all of the different products and services provided by the land. Economic models that assign a monetary value to ecosystem services may be one approach, as is utilising different metrics for food production, biodiversity and greenhouse gas emissions etc – but understanding their correlation and interactions (positive or negative) in detail.
- Biodiversity measurement is likely to be particularly challenging (see discussion on this from the roundtable).

2.5. Skills requirements to support land use change

- As the consultation rightly recognises, the land use changes required to deliver multifunctionality will not be insubstantial.
- To support this, infrastructure will be required to provide skills, training and advice for land managers, to enable them to adapt their businesses and thrive on delivering multiple outputs from their land.
- Skills shortages are already a limiting factor in the delivery of environmental projects and the transition to sustainable agricultural practices.
- Alongside skills development, innovation diffusion and technology transfer will be key to increasing the productivity of land, in the broadest sense. Government should aim to support enterprising land managers and new entrants.
- Existing sources of advice will not be sufficient to meet the needs of multifunctional land use, especially how to balance and optimise different land use related outputs. Therefore innovative models of advice from trusted private and public sources, and from farmer-farmer knowledge sharing should be explored.

[15] New Danish Government strategies to support the green transition. See https://investindk.com/insights/new-danish-government-strategies-support-the-green-transition (accessed 24/04/2025)