



Supporting Scotland's Land Use Transformations (JHI- C3-1)

End of Year 1 meeting with Scottish Government

Keith Matthews, Online, 29 March 2023



The James
Hutton
Institute

Agenda

Meeting objectives – awareness of activity, where interest then please follow up in Q&A, or chat and with TLs' direct – networks and enduring collaborations.

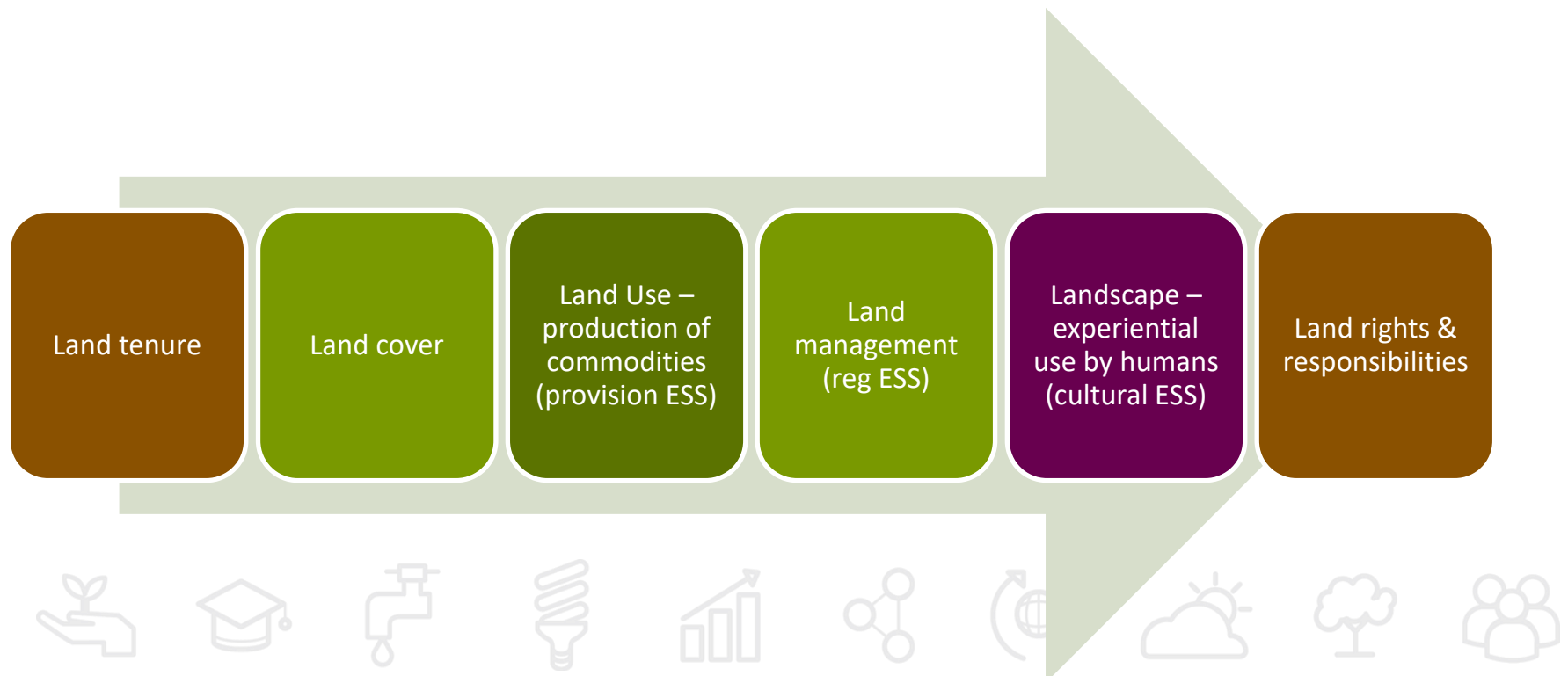
Limits of meeting format – online, efficient and fits with in-office timings – but face-to-face were previously preferred. How to square – is an Edinburgh meeting possible, venue and format?

1. Keith Matthews – **Project Overview** (5+5)
2. Mike Rivington – **Overview of Mitigation and Adaptation** research – Shared Socio-economic Pathways (SSPs), climate and land work (10+10)
3. Alessandro Gimona – **Land use Change Analysis** – and Story Mapping (10+10)
4. Matt Aitkenhead – **Peatland Mapping** – soils and businesses (10+10)
5. Kirsty Blackstock – **Governance Issues** (10+10)
6. Lee Ann Sutherland – **Land Use Narratives** (10+10)
7. Keith Mathews – **Policy-led work**, Quantitative Story Telling, Enhanced Conditionality+ (10+10)
8. Keith Mathews - **Next steps** - follow up project interaction preferences (5)



Land Use Transformation – Scope

- To generate new insights for how land use in Scotland needs to change to meet climate change mitigation, adaptation, and other environmental objectives



Shaping the Research

- Integrative
 - Systems
 - Higher level/broader
- Interdisciplinary
 - Social, natural and computational research
 - Policy relevant
- Transdisciplinary
 - Policy-led
 - Participatory
- Keith Matthews
 - Land systems and policy
- Kirsty Blackstock
 - Land use governance
- Lee-Ann Sutherland
 - Land–manager behaviours
- Alessandro Gimona
 - Ecosystems services
- Mike Rivington
 - Climate, land capability
- Matt Aitkenhead
 - Soil use and management

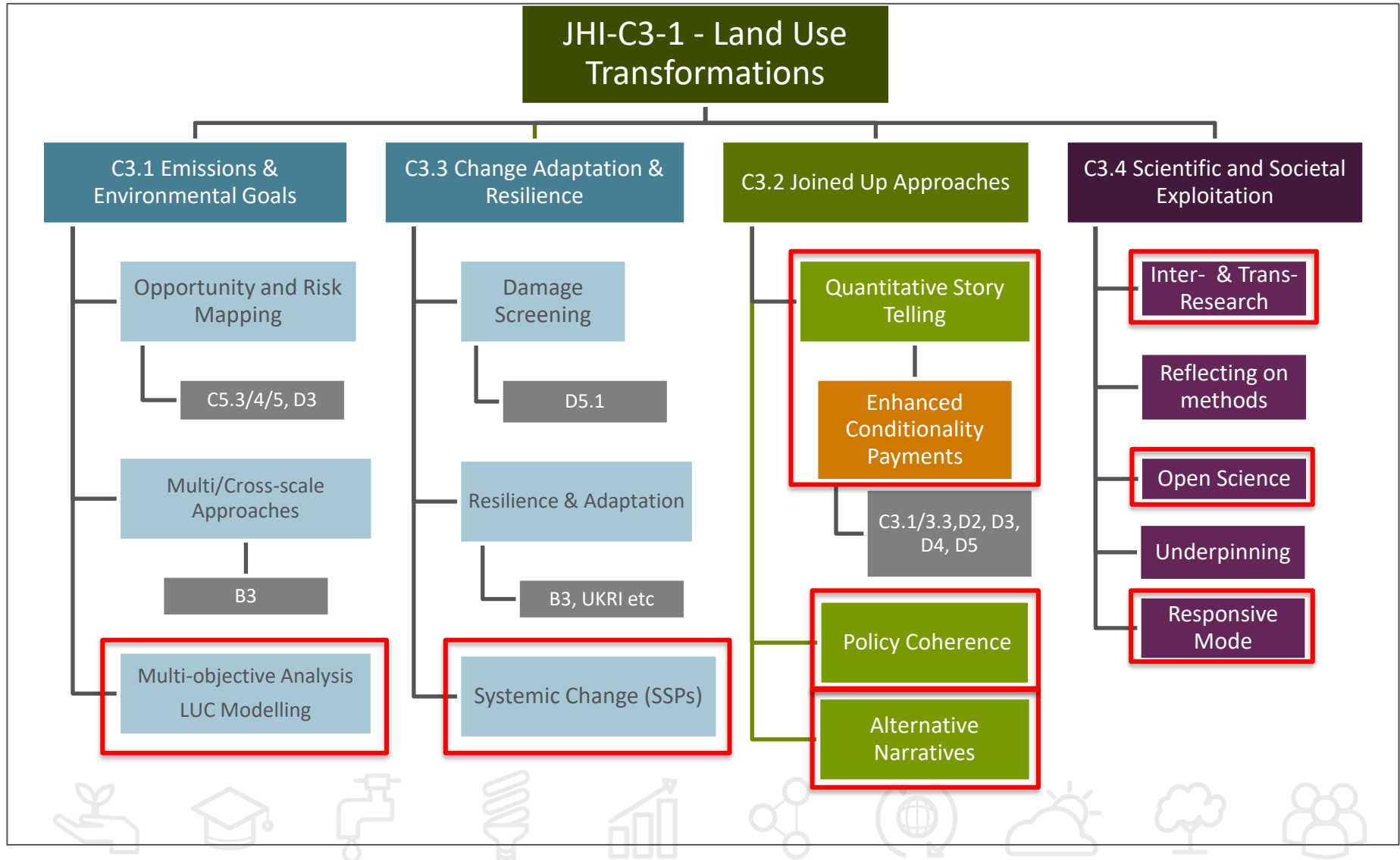


Research Questions (RQs)

- **RQ1: how land use will need to change to reduce greenhouse gas emissions to mitigate climate change, while also achieving other environmental goals.**
- **RQ2 asks if by joining up approaches to managing land it is possible to make more effective use of land in delivering the range of public and private goods.**
- **RQ3 highlights the need to better understand how land use might respond to climate change, how the resilience of systems can be enhanced and the degree to which there will be the need to adapt to climate change that is already entrained or the indirect consequences of changes elsewhere.**



Projects, WPs and Activities



Contact – Keith Matthews, The James Hutton Institute, Aberdeen, AB15 8QH,
Tel - +44 (0)1224 395271, Email – keith.matthews@hutton.ac.uk

Previous related analyses are also available from the Hutton Land Systems Research Team website -
<https://ics.hutton.ac.uk/research/land-systems-research-team/>

The sets of slides and maps generated in Agriculture Policy analysis from 2010 onwards are available from -
<https://ics.hutton.ac.uk/research/land-systems-research-team/cap-analysis/>

For woodland expansion analysis see - [online mapping](#) and [paper](#).

[Story Map for Land Use Transformations](#) - land use change modelling.

Further research in the RESAS Strategic Research Programme 2022-27, in the [Land Use Transformations](#) (C3-JHI-1) and [Land Reform](#) (E3-JHI-1) projects.

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