

Adaptive co-management of the Scottish uplands – the role of social networks

In this research briefing, scientists from the James Hutton Institute report on the findings of their study looking at how land managers adapt their land management practices to changing policy objectives. Here they outline some of the factors which may help facilitate or, conversely, constrain learning and adaptive co-management in the Cairngorms National Park.

What is adaptive co-management?

Adaptive co-management is a process by which decision-making processes and knowledge about a system (ecological, social etc.) are revised in a dynamic, ongoing, and self-organising process of learning-by-doing. It combines the iterative learning of adaptive management with the linkages we often see in cooperative and collaborative management. Learning and reflection is a key element of all adaptive management feedback cycles.



Why is adaptive co-management important?

At an individual level, landowners and managers have always adapted their management practices and approaches in response to their social and political contexts. In recent years however, land use policy in Scotland has placed greater importance on the interests of the public, i.e. on the delivery of public goods and multiple benefits from land.

This drive towards delivering multiple benefits such as greater public engagement and access, woodland expansion, and sustainable deer management at a landscape scale, necessitates increased co-operation and collaboration

between different actors. This is a challenge not only for national park authorities and other governmental actors, but also for land managers whose management objectives may vary or be even in conflict with those of neighbouring estates or higher-level policies.

This change in approach towards working collaboratively across landscapes and a greater emphasis on multiple benefits necessitates a shift towards adaptive co-management and social learning to enable genuine joint decision-making.

Our research

To explore and better understand the circumstances and factors that facilitate learning, collaboration and adaptive co-management across landscapes, we conducted in-depth interviews with 15 land managers or advisers. Where time allowed we also carried out a social network mapping exercise with each land manager, asking them to identify the factors and people that influenced their decision-making. With one exception, we restricted our interviews to land managed in the Cairngorms National Park. The land managers came from a range of estates with different sizes, ownership and governance types.



What facilitates learning and adaptive management?

- Highly supportive, diverse, and well-connected social networks – from being embedded in the local community to direct contact with key policy makers and scientists/advisers. This includes access to diverse consultants and scientists to provide guidance and advice from customer marketing to woodland ecology.
- Land managers who have the autonomy and capacity to take risks and try new things, and who are supported by landowners, trustees or board members in their decisions. Making transformative changes to land management also requires substantial levels of finance and resources.
- New learning opportunities, foreign exchanges, site visits etc. which allow managers to see and experience different ways of doing things from peers that they respect and value.
- Opportunities for people from different social groups and perspectives to mix and socialise out with formal meetings. Personal and bespoke one-to-one relationships between different actors, built over time, allow trust to develop and open opportunities for dialogue and cooperation.
- A key event, catalyst or experience which forces the land manager/owner to assess their own assumptions on their management goals and objectives. Transformative changes are known to sometimes arise from crisis situations.

What constrains learning and adaptive management?

- When desired changes in management or policy are seen to be a threat to one's identity or livelihood, in terms of a loss of income or job. Generally, salaries of estate staff are low and are often compensated with associated benefits like tied housing or tips from wealthy shooting clients. The dependency of staff on these associated benefits for their livelihoods may help to maintain certain management practices and constrain the potential for adaptation and change.
- The lack of viable business opportunities and alternative business models for upland estates, especially within national parks. The financial challenges of running an upland estate, especially one on marginal land, and without other sources of revenue, are great and may limit the ability to deliver multiple goods and benefits. In addition, the reliance of one primary source of income for the estate, if precarious and highly variable between years (e.g. grouse shooting), puts high demands on land managers to intensify production, potentially leading to poor management practices.
- The lack of robust, holistic monitoring data collected using scientific methods and approaches, and ideally co-constructed with land managers.
- A lack of trust between some land managers, NGOs, agencies and the National Park Authority. This is not helped by perceived negative rhetoric and language that can increase mistrust.
- Multiple layers of regulations and designations on areas of land that slow down and substantially constrain options for significant change.
- A sectorial or single-issue approach to land management and monitoring rather than an integrated, systemic one.
- Grant schemes, incentives or taxation that are unsuitable (not fit-for-purpose) for the uplands.

Recommendations

Having access to a diverse, wide-ranging social network facilitates learning and enhances the capacity for land managers to learn and adapt their management practices, as well as having the support (including financial/political support) to implement change on the ground. Explicit attention to learning and reflection should be viewed as a key objective in collaborative management arrangements. Opportunities for learning and socialising between different land managers, National Park and agency staff should be promoted and supported. This could be initiated by using existing social groupings and institutions to foster and build capacity in

communication and the sharing of knowledge and experiences.

A lack of trust between some land managers, National Park and agency staff limits people's social networks and hence opportunities for learning and collaboration across a landscape. Greater efforts to build trust and bridges are needed between the different actors in the National Park, possibly by using independent facilitators or trained mediators. Attention must also be paid to ensure imbalances in power relations between different actors are not perpetuated in decision making forums to enable genuine collaborative decision-making.





Acknowledgements

We would like to thank all the land managers, owners and advisers for sharing their experiences and knowledge of land management and adapting to change.

This work was funded by the Rural and Environmental Science and Analytical Services Division of the Scottish Government.

Suggested citation: 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.

For further information about the project please contact: antonia.eastwood@hutton.ac.uk

