

COLLABORATIVE FRAMEWORKS IN LAND MANAGEMENT:

A Case Study on Integrated Deer Management

Project Newsletter Number 1.



RURAL ECONOMY
AND LAND USE

Introduction

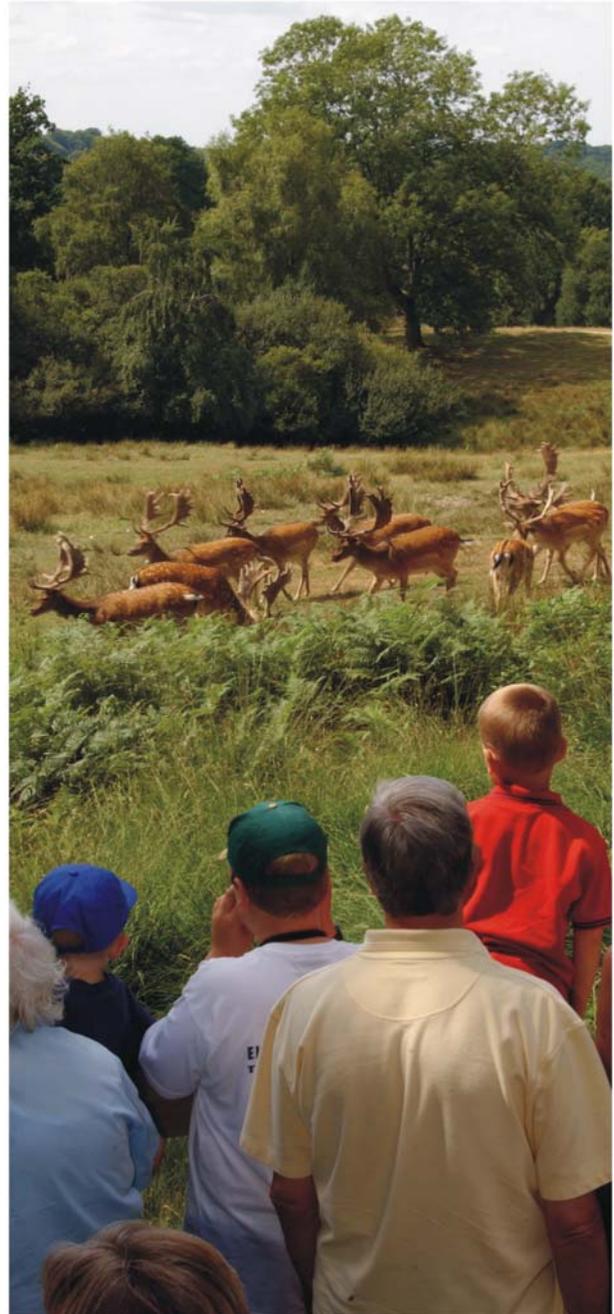
Many rural economies are directly or indirectly reliant on the management and exploitation of natural resources, the management of which is often complicated by the diversity of stakeholders involved. Hence, effective collaboration between stakeholders is potentially a key driver of sustainability in rural economies.

The overall aim of this project is to produce a framework for the development of effective, informed, inclusive, collaborative and sustainable management of rural resources in Britain, using wild deer as a case study.

The research is conducted as part of the Research Councils' Rural Economy and Land Use (RELU) Programme (Project: RES 227-025-0014). RELU is funded jointly by three Science Research Councils, Defra and SEERAD. The Forestry Commission is also supporting this project. Details about RELU can be found at www.relu.ac.uk

Progress of the project will be reported to stakeholders and our RELU funders through articles in newsletters, trade and scientific journals, and on our website:

www.macaulay.ac.uk/RELU



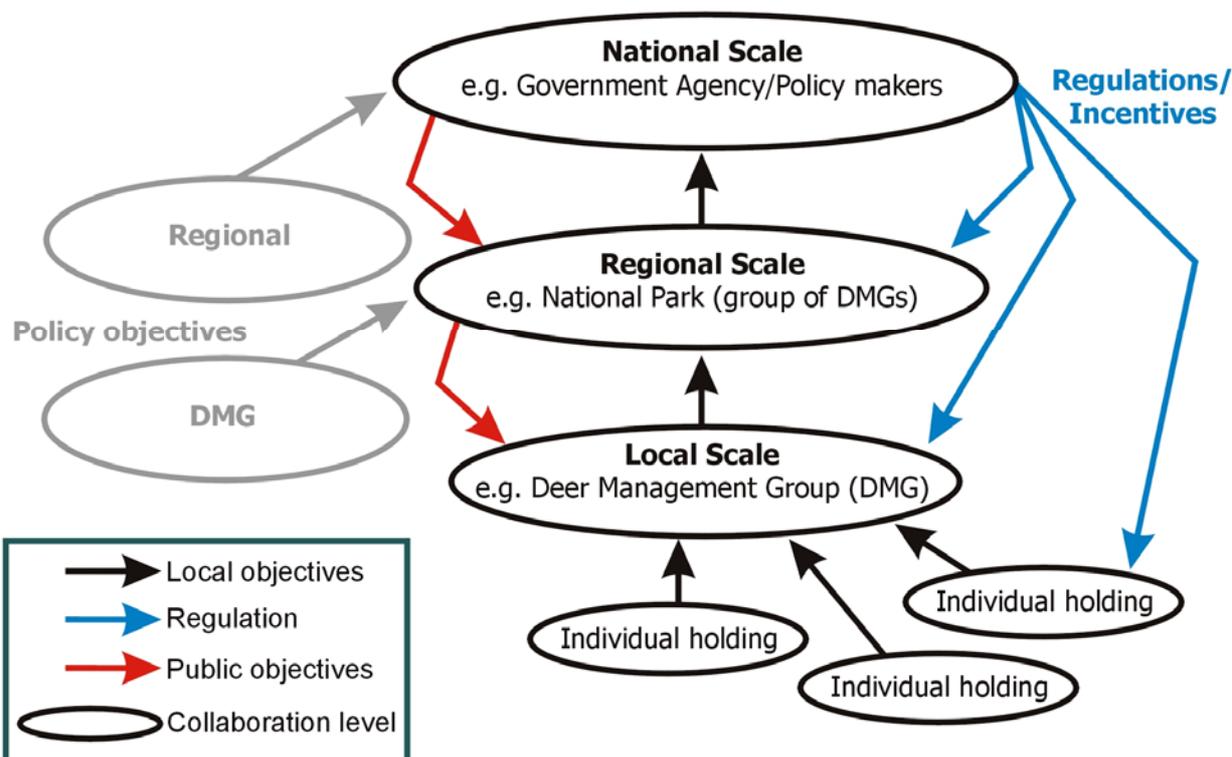
Background

Deer management provides jobs in forestry, on sporting estates and in the meat industry, and tourists are drawn to particular landscapes, which deer help to create, to see the deer themselves. However, in some areas, high numbers of deer are causing overgrazing and damage to sensitive natural habitats, agricultural and forestry crops and suburban gardens. Deer are also increasingly involved in road traffic accidents. Therefore there are many different attitudes to deer and conflicts on how best to manage them.

This project investigates the extent to which people that can and should influence deer management are aware of all the issues involved. We are examining how well people currently involved in deer management work together and how this can be improved so that the costs of managing deer are minimised and the benefits maximised. To achieve this we have formed a team of ecologists, economic and social scientists so that we can use our combined understanding to inform management decisions.

The project has been developed in discussion with deer managers, land owners and regional and national organisations involved in deer management. This highlighted a range of issues considered to limit sustainable deer management. The research aims to consult more widely at National, Regional and Local levels to identify any further issues and provide research-based information to address them (Figure 1).

Figure 1. Schematic representation of the different management scales in the deer sector and the relationships between them.



By selecting case study areas representing deer management across the UK, we will be able to investigate deer management issues:

- across a range of rural and urban landscapes
- for the major deer species in upland (red and roe deer) and lowland agricultural and woodland systems (fallow, roe, muntjac, sika)
- across varying levels of collaboration

The Case studies

We have started working in:

- Poole Basin (Dorset)
- Marches (Herefordshire)
- Loch Lomond & Trossachs National Park
- West Sutherland

The lessons learnt at these sites will be applied and tested at Thames Chase and the Cairngorms National Park later in the project.

Dedicated team members are working in each of the areas. Our approach is to work with individuals and organisations to gain a clear understanding of their aims, objectives, perspectives, strategies and issues in relation to deer. We aim to obtain new information through an innovative mix of surveys, informal and formal meetings, discussions and workshops with stakeholders involved in and affected by deer management.

Approach

We are investigating collaborative methods by developing and applying novel ways of integrating and analysing ecological, economic and social knowledge relevant to deer management across different spatial scales and levels of complexity.

The project aims to identify the influences that determine the opportunities presented by wild deer and the barriers (real and potential) that can prevent the effective use of these at national and local levels.

Specifically, we are:

- investigating when and where collaborative deer management exists, identifying the stakeholders involved and how successful it is
- investigating how stakeholders with diverse interests and objectives work together to manage deer
- finding out where stakeholders gain knowledge about deer presence and management
- identifying and addressing gaps in knowledge that affect the way deer are managed
- identifying the degree to which information is shared, whether this is a barrier and how it can be improved
- developing approaches to improve deer management and opportunities for application to other natural resources

This will provide real information to address issues such as:

- the role of venison markets in encouraging collaboration
- legislative and infrastructure barriers to deer management
- impacts on recognised indicators of biodiversity
- cost of managing deer to achieve public objectives
- impact of localised culling on neighbouring properties
- value of deer for tourism and recreation
- public perceptions of deer and deer management



Work programme

We have developed a programme of work that combines exciting challenges for interdisciplinary research with finding practical solutions relevant to the management of natural resources such as deer.

The involvement of stakeholders to help frame the research problem and identify key issues of concern is an essential part of the project. We will continue to discuss the results of each stage with stakeholders regularly throughout the project to inform decisions about the next stages.



Year 1

- Review of the legislation and wider 'governance' of deer in the UK. Review the responsibilities of government organisations and describe how these work in practice.
- Review stakeholder characteristics. Desktop study to determine the range of stakeholders at National, Regional and Local levels using published information.
- Analysis of National stakeholders through individual meetings with core National stakeholders to clarify goals and perceived relationships.
- Carry out survey of venison processors through National and Regional interviews (see progress update below).
- Analysis of local stakeholders at case study sites through interviews and workshops.
- Meet with venison suppliers.



Year 2

- Carry out a series of focus groups to investigate the role of deer in tourism.
- Hold workshops to investigate consumer preferences for wild venison.
- Carry out ecological surveys of deer impacts, people's perceptions of this and the role of deer in shaping the landscape.
- Model deer population changes and possible economic outputs.
- Survey public attitudes to deer.



Year 3

Methods to resolve issues identified in the first two years will be tested in the case study sites.

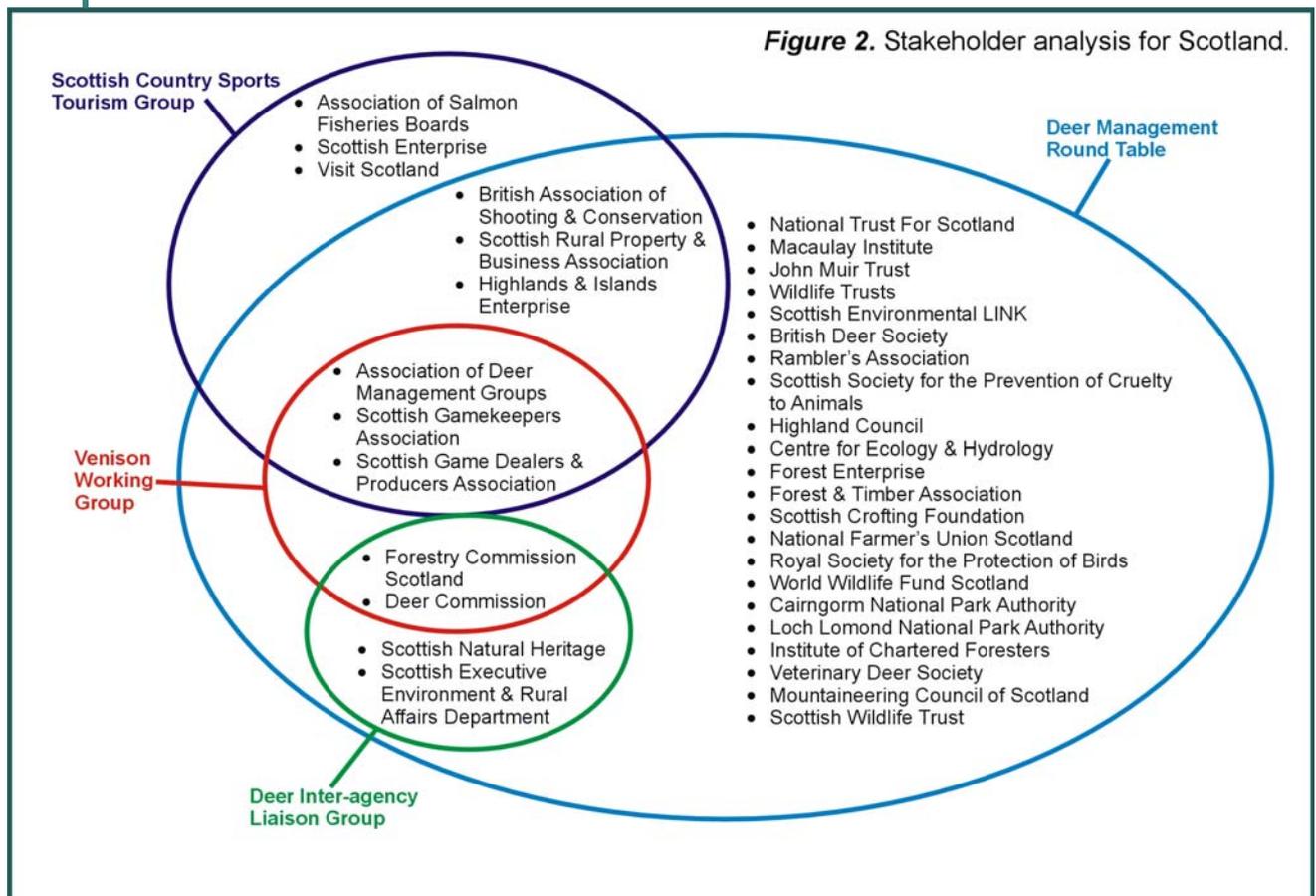
The lessons we learn from investigating deer management will be used to see how well they apply to the management of other natural resources where multiple management objectives exist.

Progress reports

To date much of the focus has been in setting up protocols for stakeholder interviews, confidentiality agreements, data storage, testing and confirming the approaches we will be using for stakeholder analysis. Stakeholders at four case study sites have been contacted to confirm they are happy to be involved with the project. The first stage of the Governance review has been completed but will need amending once the proposed changes to the Game Laws and the Deer Act 1991 are enacted.

Stakeholder Analysis

The national stakeholder interviews took place throughout Scotland and England during September 2006. Representatives from thirteen organisations, including government agencies, welfare groups and professional associations, were interviewed. Questions covered the organisations' main priorities relating to deer, their relationships with and understanding of others in the "deer management world" and the possibilities for resolving some of the potential pitfalls of collaboration. We are building a picture of the key players and their interactions, and some of the factors underpinning the problems of collaboration are being identified. These include: conflicting land management objectives, the polarisation of different interest groups and achieving a balance between public and private interests.



Analysis of the gaps and overlaps of stakeholder interests has been carried out using multivariate techniques and Venn diagrams of the key umbrella groups (Figure 2). This shows that 75% of stakeholder organisations (in Scotland) included in the analysis are part of at least one umbrella group, indicating a high level of formal collaboration. However, the effectiveness of these collaborations has yet to be investigated; this will be informed in part by the National interviews. Further interviews with Local stakeholders in case study areas will be the next key stage in the stakeholder analysis process.

Venison processors' survey

This survey will examine the role of venison in the UK within the overall context of collaborative wild deer management. We will consider the potential for collaboration amongst carcass producers from the perspective of the venison processor, rather than considering the venison industry from a marketing perspective. By considering the venison supply chain and perceived inefficiencies and weaknesses as seen by the processor, we aim to define the barriers to effective collaboration in the production of wild venison.

The Project team

We are a team of enthusiastic environmental, economic and social scientists from universities and research institutes across Britain. We have a broad range of experience in research and practical environmental management, particularly deer management.

Macaulay Institute: Justin Irvine Stefano Fiorini	Forest Research, Brenda Mayle, Liz O'Brien Robin Gill, Norman Dandy Helen Armstrong
University of York: Piran White Jim Smart	DICE University of Kent: Douglas MacMillan Sharon Phillip
University of St Andrews: Rehema White	University of Edinburgh: Steve Yearley
Centre for Ecology & Hydrology:	René van der Wal,

Contact details can be found at www.macaulay.ac.uk/RELU and the individual university and institute web sites.

We would like to thank everyone who has been involved with and supported the project so far, particularly in the case study areas where we have had an extremely welcoming and helpful response from stakeholders. We look forward to this continuing and productive dialogue throughout the project.

We would welcome your comments on this newsletter. Please forward them to **Brenda Mayle, Ecology Division, Alice Holt Lodge, Wrecclesham, Farnham, Surrey GU10 4LH; brenda.mayle@forestry.gsi.gov.uk**



Literature database survey

We are developing a database of literature relevant to deer management and would like to know if this would be useful for individuals and groups interested in deer management. We would appreciate it if you would complete the following questionnaire and return it to:

**Stefano Fiorini, Socio-Economic Group, Macaulay Institute,
Craigiebuckler, Aberdeen, AB15 8QH s.fiorini@macaulay.ac.uk**

Why are you interested in deer?

Are you a member of an association/ group with an interest in deer?

No Yes

Which?

If yes, how is your group/association involved in deer related issues?

What is your current source of literature related to deer and its management?

Would you like access to an electronic literature database? Yes No

Do you have access to Microsoft Access software? Yes No

Do you have access to Microsoft Excel? Yes No

Do you have access to other kinds of database software? Yes No

If yes, please specify

What database(s) on deer literature do you currently use?

Please complete the table below ranking the possible database attributes/content you would like to see in a literature database:

Are there any other attributes you would like included?

	Not at all useful	Not useful	Neutral	Quite useful	Very useful
Comprehensive literature on deer in the UK					
Practical deer management information					
Information on methods to improve collaborative management					
Literature on deer – habitat interactions					
Literature on interactions between different deer species					
Literature on interactions between deer and other wildlife or deer and livestock					
Grey literature (e.g. government reports, technical reports, thesis, etc.)					
Academic literature (journal articles etc.)					
Other literature e.g. trade journals (specify):					
Details on source or location where literature is currently held					
Brief reviews on specific reports/articles					

We would like to thank you for completing this survey and will report on progress in future newsletters.

