

Sustainable Upland Management for Multiple Benefits

Universities of Leeds, Durham & Sheffield with Moors for the Future



University of Durham



US University of Sussex



Funded by the Rural Economy & Land Use Programme, a joint Research Councils programme co-sponsored by Defra and SEERAD



Introduction

Understanding and responding appropriately to the socio-economic and environmental implications of rural change requires the active participation of many research disciplines and stakeholders. Although interdisciplinary and participatory research is widely advocated and many tools exist, it remains unclear how participatory and biophysical methods can be effectively integrated to provide land managers and policy-makers with the kind of information they need to anticipate, monitor and respond appropriately to rural change. To address this challenge, this Scoping Study developed an adaptive learning process (Figures 1 & 2) to facilitate two-way learning and meaningful interaction between:

- Different stakeholders;
- Social and natural sciences; and
- Stakeholders and researchers.



Figure 5: Lighting a fire using pressurised gas (top) and extinguishing a fire using pressurised water (bottom)

Results

Set in the Peak District National Park, our work suggests new ways to effectively involve all stakeholders in sustainable land management. Our work stresses the need to:

- Clearly define system and project boundaries;
- Incorporate scientific data into participatory tools; and
- Suggests a role for social network analyses to facilitate successful stakeholder engagement (Figures 3 & 4).

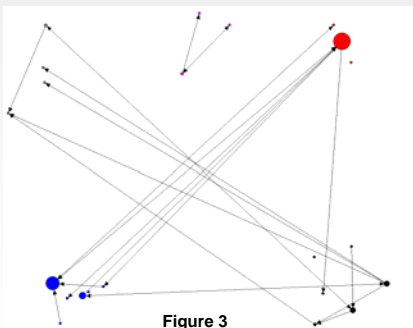


Figure 3

Communication ties between stakeholders who interact on a monthly or more frequent basis (Figure 3) and stakeholders impressions of the extent that others' views on upland management overlap with their own (Figure 4). Coloured dots represent individuals from different stakeholder groups (red = agriculture; black = conservation; blue = grouse; grey = water; pink = recreation). An arrow between two dots indicates an individual who said they communicated with another individual on a monthly or more frequent basis (Fig. 3) or an individual who said their views on upland management overlapped "a lot" with those of another individual (Fig. 4). Two-way arrows indicate that this perception was reciprocated by the other individual. Larger dots represent individuals who communicate most frequently with others in the network (Fig. 3) or whose views overlap most with others (Fig. 4).

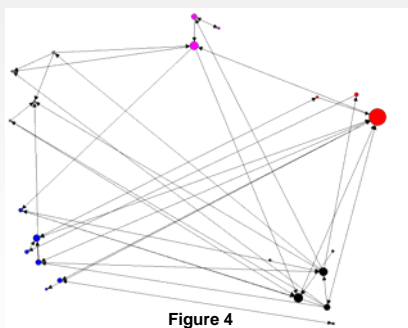


Figure 4

The Approach

By building on local knowledge and experience, we are combining new ideas from local people with cutting edge natural and social science. The result will be a choice of solutions that could never have been developed by either group alone.

The learning process is designed to:

- Develop goals for a sustainable future from multiple stakeholders
- Identify barriers, uncertainties and driving forces of environmental, economic and social change; and
- Identify adaptive responses to rural change scenarios.



Figure 1: Adaptive learning cycle used to integrate participatory and biophysical research methods to facilitate learning between different stakeholders and researchers in the Peak District National Park (showing links to learning theory)

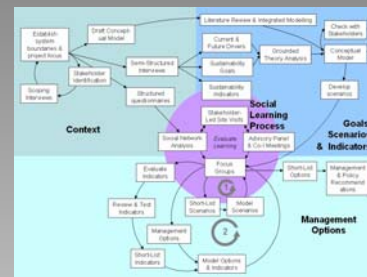


Figure 2: Methodological steps designed to bring stakeholders together to better anticipate, monitor and respond to rural change in the Peak District.

In response to scoping interviews during stakeholder analysis (Figure 2), our case study focussed on heather and grass burning; an issue that many people felt very strongly about, and that incorporated social, economic and environmental aspects of future rural change (Figures 5 & 6). This provided us with an opportunity to respond to DEFRA's consultation on their review of the Heather & Grass Burning Code (available on our website – see below).

The debate over heather burning appears to be highly polarised (Figure 6). However, Figures 3 & 4 show that although several stakeholder groups have little regular contact with each other, the majority of individuals from each group perceive that there is considerable overlap between their views on upland management and the views of those they know from other groups. Figure 3 also shows that there is a danger recreation groups may get marginalised in this dialogue, and their engagement needs to be actively sought. Together, Figures 3 & 4 suggest there are a few key individuals who are both well known and with whom many people feel they share views. By obtaining the involvement of these individuals in the learning process, it may be possible to enhance the efficiency and effectiveness with which goals are achieved.

...at the moment there is a conflict between English Nature and the people who manage fires, that we need to sort out. It's a big thing; it's probably the most important thing.

Conservation stakeholder

I think perhaps the moors are over-burnt and not respected from the point that they are driven too hard...for the purpose of the grouse... Some of the moors down here...are profitable and they are looking for more and more and more...But it becomes like any mono-culture then: if you're driven so single-mindedly by one thing, that tends to knacker nature. That's the problem.

Conservation stakeholder

The heather moorlands...are there because of grouse shooting. Full-stop. Whether we like it or not, grouse shooting is the raison d'être.

Grouse moor stakeholder

It's a bit like me with your house. I'll tell you what I want to see but at the end of the day you own or rent it. You might say "Hold on sunshine it's alright for you to tell me that I should just wait and see, as the owner, but this is my asset. And what's your track record?" ...I think there is a lot of the scientific community who are wanting to impose management prescriptions without being able to show the demonstration. [They] want to paint by numbers. The problem is [they] can't tell you what the numbers are. [They] can't tell you what is going to happen.

Grouse moor stakeholder

Figure 6: Quotes illustrating conflict over managed burning