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A community approach to catchment management

A Rural Economy and Land Use project investigating new forms of participatory environmental governance.

Loweswater

Policy and Practice Notes

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The Rural Economy and Land Use Programme is a UK-wide research programme carrying out interdisciplinary research on the multiple challenges facing rural areas. It is funded by the Economic and Social Research Council, the Biotechnology and Biological Sciences Research Council and the Natural Environment Research Council, with additional funding from the Scottish Government and the Department for Environment, Food and Rural Affairs.

Involving the public in environmental management is high on the political agenda. This project has explored how such involvement might be achieved in the Loweswater catchment in Cumbria. The research was designed to create and support a new process to enable residents, land owners, institutions and scientists to work together to make decisions that affect the water quality of the lake.

What problems have affected water quality in Loweswater?

From the early 2000s onwards, Loweswater has had an undesirable but not uncommon problem: potentially toxic blue-green algae, nourished by increasing levels of soluble phosphorus in the lake, were seen to 'bloom' regularly.

This very visible pollution was off-putting for visitors to the area, and meant that the water quality was unlikely to meet the demands of the European Water Framework Directive. There was concern that farming might be a cause of the high levels of phosphorus.

This stimulated local action:

— Farmers in the catchment organised themselves to form the Loweswater Improvement Project with the aim of addressing those problems over which they had some control.
— The National Trust, who owned the surrounding land, erected warning signs around the lake.

Scientists became aware, resulting in:

— Increased catchment monitoring.
— A small project on the lake and its inflows, which led to successful applications for funding of septic tank improvements in the catchment.
— A larger Relu-funded project, bringing together social scientists and ecologists with the aim of pooling scientific and stakeholder knowledge about the lake within a 'knowledge collective'.

How did this pooling of knowledge work?

Residents and other stakeholders came together with scientists in a group that they decided should be called "The Loweswater Care Project", with four strong commitments to:

— **Taking a holistic approach**: The group thought about Loweswater, not as an isolated scientific problem, but in its real world context, taking into account the complex interactions between policy, society and the environment.
— **Building from the bottom up**: The group was committed to seeking local rather than externally-devised solutions. This principle was vital in retaining the diversity and commitment of the group.
— **Making knowledge together**: This diverse group was committed to thinking collectively. All contributions and ideas were valued and welcomed, no matter how difficult, controversial or contested they were. Arguments, and sometimes heated debate, were part of the way that the group needed to work together. All facts were open to question and no avenues of inquiry were ever completely closed. The group quickly became inspired and interested in asking more and more questions.
— **Ensuring constant feedback between research, community and stakeholders**: Close engagement between researchers, local residents and other stakeholder organisations, in data collection and in defining research objectives, ensured that the research remained relevant to people's current concerns.

How did this work in practice?

On a practical level:

— Numbers attending meetings (which took place every two or three months over three years) ranged from 25–35 individuals, including between three and six researchers, and two to five agency representatives, the remainder being local residents.
— Evening meetings, scheduled to last around three and half hours, with a buffet served midway, enabled a combination of focused discussion and social networking.
— Lots of time was allocated for discussion with everyone having an equal say.
— The agenda was driven by questions and priorities raised at previous meetings.
— The group proposed its own topics for research, which were undertaken by members of the group (either residents, or residents working with scientists or other novel interdisciplinary partnerships), and funded by small grants from the main Relu project.
— The subjects of research projects were broad-ranging, including the effects on the catchment of tourism, septic tank use and historical and current land and water management. Results from the study on septic tanks, for example, were directly incorporated into a catchment model linking land management to the occurrence of algal blooms in the lake

What benefits are derived from this kind of approach?

The benefits of a bottom-up approach include:

— Fresh, very local insights on to how to approach generic problems.
— A much better understanding of local community views that will make it easier to implement changes. This contrasts with the current position, where policies imposed "from above" are often resented by local people.
— Communities that are engaged, interested and well-informed about policies affecting environmental and social issues in their area.

What messages are there for policy makers?

Institutions are being pressed to engage with local communities to ensure that policies are robust and representative. They may do this using established approaches such as consultation to elicit views as specific policy is developed.

But at the same time communities are beginning to form partnerships to tackle local environment issues. Thus, an alternative, and potentially more effective strategy, is a non-targeted approach in which bottom-up groups interact with policy making institutions and others with professional expertise on a range of locally relevant issues.

In order to support such community-led environmental initiatives, government bodies with responsibility for the environment such as Natural England, Environment Agency, local government, National Park Authorities, and academic institutions need to:

- Adjust the temporal and spatial scales at which decisions are made, in order to take recommendations from community groups into account.
- Take practical actions that build on the local understanding of the problems facing communities, and on any steps that have already been successful (for example, local groups such as the Loweswater Improvement Project).
- Establish supportive conditions for local groups to work with them on environmental problems, e.g. ensure known and trusted local staff are available for meetings, and that practical arrangements meet the groups' needs.
- Consider providing small sums of money for groups to commission or carry out their own research on topics relevant to local environmental issues, thus encouraging continued commitment and engagement.
- Look at ways in which policy initiatives (e.g. Catchment Sensitive Farming) could be modified, to ensure that small places like Loweswater do not slip through the priority-setting 'mesh'.
- Work together on practical approaches for catchment improvement when responsibility lies with more than one government body.
- At the same time, clearly identify organisational roles and accept financial responsibilities.

Further information

This research has been carried out at Lancaster University and the Centre for Ecology and Hydrology, together with the Loweswater Care Project.

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Project Website: http://www.lancs.ac.uk/fass/projects/loweswater/