



Harnessing the social and natural sciences for sustainable rural development

RELU NEWS

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<http://www.relu.ac.uk/>

Contents

- 1 Carbon offsetting could fund regeneration of the peatlands**
- 2 How to implement the Water Framework Directive**
- 3 NERC Strategy could learn from RELU experience**
- 4 Lessons from the past for the future of the uplands**
- 5 Scientists are not the only experts**
- 6 Responsibilities in the food chain: the public gets a taste of RELU in Science Week**
- 7 RELU shows how to build interdisciplinary capacity**
- 8 RELU collaboration with EPSRC project to inform flood risk management**
- 9 RELU people**

1 Carbon offsetting could fund regeneration of the peatlands

The peatlands of England and Wales could store up to 41000 tonnes of carbon per year, if they were in pristine condition, but erosion and damage mean that the peat is actually releasing carbon into the atmosphere at a rate of 381,000 tonnes annually. Vast systems of drainage ditches were dug across the uplands during the 1950s, in an unsuccessful attempt to increase the productivity of the land. Researchers on the RELU project "Sustainable uplands: frameworks for adaptive learning" have identified that if these could be blocked then peat would begin to re-form, and this would be a way of reducing carbon emissions. Defra suggests that the cost of blocking one hectare of peat drains is at least £188. In response the RELU researchers have hit on the idea of working with a carbon offsetting company that would allow consumers to offset their carbon footprint by paying for upland regeneration.

See the project's latest stakeholder newsletter at:

<http://www.relu.ac.uk/research/projectnews/Newsletter%20Winter-Spring%202007-CP-MR3%20HUBACEK.ppt>

2 How to implement the Water Framework Directive

RELU researchers have been commissioned by key stakeholders to extend their investigations into the ways in which rural land use and stocking densities will have to change in order to comply with the European Water Framework Directive (WFD). Defra has commissioned researchers from the RELU project "Modelling the Impacts of the Water Framework Directive" to undertake a new survey of farming practice, focusing on the application of different types of fertilizer, and relating this to diffuse pollution of the water environment. A further extension, recently funded by the Environment Agency under the WaterCost banner will analyse the cost-effectiveness of possible protective measures in order to plan for land use that contributes to the objectives of the WFD.

<http://www.relu.ac.uk/research/projects/SecondCall/Bateman.htm>

3 NERC Strategy could learn from RELU experience

The Natural Environment Research Council (NERC) has issued an ambitious draft strategy for 2007-2012 for consultation, entitled "Next Generation Science for Planet Earth". The Strategy outlines NERC's intention to fund "world-class, multidisciplinary research responding to the critical issue of the 21st century – sustainability of the human-environment system". The RELU Director's Office has responded by welcoming its commitment, in doing so, to working "in a fully integrated way across the scientific community, with partners and stakeholders". The RELU Programme has pioneered such an approach and the response identifies lessons, from the RELU experience, for interdisciplinary working and stakeholder engagement. See the strategy at:

<http://www.nerc.ac.uk/about/consult/strategy/>

and RELU's response at: <http://www.relu.ac.uk/news/Comments.htm>

4 Lessons from the past for the future of the uplands

Althea Davies, at the University of Stirling, is one of three new RELU interdisciplinary Fellows. Her research will focus on the uplands in the Peak District and Sutherland, which are under pressure from agriculture, climate change, conservation, tourism and energy production. Most approaches to understanding how upland environments respond to change rely on short-term information. However, environmental history – drawing on written documents, maps, archaeology, and archives of past environmental change, such as pollen preserved in bogs – provides a long-term perspective on the processes and causes of ecological and

climatic change. Althea's project aims to demonstrate that understanding people-landscape interactions over the past 300-500 years is vital to inform popular values and public decision-making on sustainable management for both the present and the future.

<http://www.relu.ac.uk/research/ID%20Fellowships.htm>

5 Scientists are not the only experts

Scientific activities that were once hidden in laboratories and journals have become more open to public scrutiny through technologies like the internet. This means that scientists, and those who use their work, have to think again about how science should inform democratic decision-making. A RELU project led by Professor Sarah Whatmore of Oxford University is studying flooding as a pressing rural land management problem that is controversial among scientists and the public, especially those directly affected. To explore these environmental 'knowledge controversies', the project develops cutting edge approaches to investigate how environmental science is produced, used and disputed. The project sets out to develop a different way of "doing science" that involves social and natural scientists working closely together, and with local people, in 'Competency Groups'. The team will evaluate this approach and identify lessons for other kinds of controversial areas of science such as nanotechnology and climate science.

<http://www.relu.ac.uk/research/projects/SecondCall/Whatmore.htm>

6 Responsibilities in the food chain: the public gets a taste of RELU for Science Week

RELU held six very successful events, attracting several hundred people, across the UK, during the Festival of Social Science and National Science and Engineering Week, focusing on themes of food and responsibility. Presentations and case studies from local food groups and from Lesotho and Mali were part of the symposium held in St Asaph by RELU project "Comparing the merits of consuming vegetables produced locally and overseas". "Fish in a barn" was the topic for RELU project "Warm water fish production as a diversification strategy for arable farmers". The team went to livestock auction markets in Stirling and Perth, engaging with stakeholders and discussing the research with potential users. "Involving stakeholders in the management of food chain risks" was the theme for a day of workshops organised by the RELU "Managing food chain risks" project in Norwich. The RELU debates "Power and responsibility – who decides? You decide!" covered motions across consumer choice about food, whether farmers should take full responsibility for livestock diseases and whether the environment would fare better in the hands of scientists.

7 RELU shows how to build interdisciplinary capacity

In its first wave of funding in 2004, RELU sought deliberately to build interdisciplinary research capacity through funding 34 small seed-corn projects. In 2006, with a view to informing other research programmes, an independent review was commissioned, based on a survey of researchers and interviews with stakeholders. The review concluded that: *“seed-corn funding can play very important roles in catalysing interdisciplinarity and the building of interdisciplinary communities with increased capacity to tackle complex problems. ... At a time when society looks to interdisciplinary research to tackle its complex problems, this practical learning thus represents a national resource”*.

See

<http://www.relu.ac.uk/news/RELU%20FINAL%20REPORT%2012%2003%2007LMEAGHER.doc>

for the full report

8 RELU collaboration with EPSRC project to inform flood risk management

Physical, natural and social scientists have been pooling their ideas on better use of floodplains to manage flood risks. The RELU project “Integrated Management of Floodplains”, is re-evaluating flood defence schemes constructed in the 1970s to enhance agriculture. The research team is collaborating closely with the Flood Risk Management Research Consortium (FRMRC), an integrated research programme funded by the Engineering and Physical Sciences Research Council, which is exploring options for storage of flood water within the Trent floodplain. The RELU project’s ecosystems approach to land and water management is proving particularly useful to both projects in analysing the interests of different stakeholder groups.

<http://www.silsoe.cranfield.ac.uk/iwe/expertise/relu.htm>

9 RELU people

i) RELU researcher meets Prime Minister

Kathleen Grady, Research Associate for the RELU project ‘Warm water fish production as a diversification strategy for arable farmers’ has met with Tony and Cherie Blair. She was invited to 10 Downing Street, to attend a reception in recognition of the contribution of young scientists to the future of the UK. The event was timed to coincide with the beginning of this year’s Festival of Social Science/National Science and Engineering Week and Mr Blair commended research that involves collaboration across disciplines.

ii) Natural England recruits RELU advisers

Natural England, the new body to conserve nature and landscape, has set up a Science Advisory Committee which includes RELU project leaders **Gareth Edwards-Jones** and **Bill Sutherland**, and RELU Director **Philip Lowe**.

- iii) **Biologist in the economists' den**
Angela Karp, coordinator of the RELU project "Impacts of increasing land use under energy crops" presented a paper entitled "What are the environmental impacts of alternative energy crop feedstocks beyond CO2 abatement and how might net environmental benefits be realised?" at the Agricultural Economics Society one-day conference in January.
- iv) **RELU researcher debates "What's scientific about social science?"**
Sarah Whatmore, coordinator of the RELU Project "Understanding Environmental Knowledge Controversies" gave a paper in the Academy of Learned Societies for the Social Science session on "What's scientific about social science" at the Royal Society in March.
The project's website is now live at <http://knowledge-controversies.ouce.ox.ac.uk>
- v) **RELU researcher advises on recovery of freshwater pearls**
Louise Bracken, from the RELU project "Angling and the Rural Environment" has been invited to join the Esk Pearl and Salmon Recovery Project, which has been established by the Environment Agency, the North York Moors National Park and Natural England to attempt to reverse the decline in the number of salmon and pearl mussels in the River Esk.
<http://www.relu.ac.uk/research/projects/SecondCall/Oughton.htm>
- vi) **RELU researcher contributes to the UN Millennium Development Goals**
Joe Morris, coordinator of the RELU project "Integrated management of flood plains" is participating in the International Assessment of Agricultural Science and Technology for Development. This three-year collaborative effort is assessing the role of science and technology in relation to meeting the UN Millennium Development Goals, especially reducing hunger and poverty, improving nutrition, health and rural livelihoods, and facilitating social and environmental sustainability.
See <http://www.agassessment.org/> for more information.
- vii) **RELU advises European network on interdisciplinarity**
Assistant Director of RELU **Jeremy Phillipson** spoke to the European Research Area Network (ERA-Net) on Integrated Water

Resource Management about RELU's experience of research across disciplines. The ERA-Net is open to research managers and policy-makers aiming to improve the coherence of integrated water resources management across Europe.