relu

Rural Economy and
Land Use Programme

What is relu?

The UK research councils' Rural Economy and Land Use Programme was launched in 2003 to carry out interdisciplinary research on the multiple challenges facing rural areas. These include:

- Restoring public trust in food chains
- Tackling animal and plant disease in a socially acceptable manner
- Enabling sustainable farming in a globalised market
- Promoting robust rural economies
- Developing land management techniques to deal with climate change
- Managing land and water use for sustainable water catchments

The programme is an unprecedented collaboration between the Economic and Social Research Council (ESRC), the Biotechnology and Biological Sciences Research Council (BBSRC) and the Natural Environment Research Council (NERC). It has a budget of £24 million, with additional funding provided by the Scottish Government and the Department for Environment, Food and Rural Affairs.

What is relu?

How does relu do things differently?

Working across disciplines

relu brings together top natural and social scientists to work on research projects that examine holistically the challenges facing rural areas today. Researchers from over 40 disciplines and more than 50 institutions are involved in the relu programme.

Institutions undertaking relu research:

UK universities and colleges:

Coventry University
Cranfield University
Durham University
Kingston University
Lancaster University
Imperial College, London
Leeds University
Manchester Metropolitan University
Middlesex University
Newcastle University
Open University
Oxford Brookes University
Royal Agricultural College
Stirling University
University of Aberdeen
University of Bristol
University of Cambridge
University of Dundee
University of East Anglia
University of Exeter
University of Glasgow
University of Gloucestershire
University of Hull
University of Kent
University of Leeds
University of Leicester
University of Liverpool
University of London
University of Manchester
University of Nottingham
University of Oxford
University of Reading
University of Sheffield
University of Southampton
University of St Andrews
University of Surrey
University of Sussex
University of Wales, Aberystwyth
University of Wales, Bangor
University of Warwick
University of York

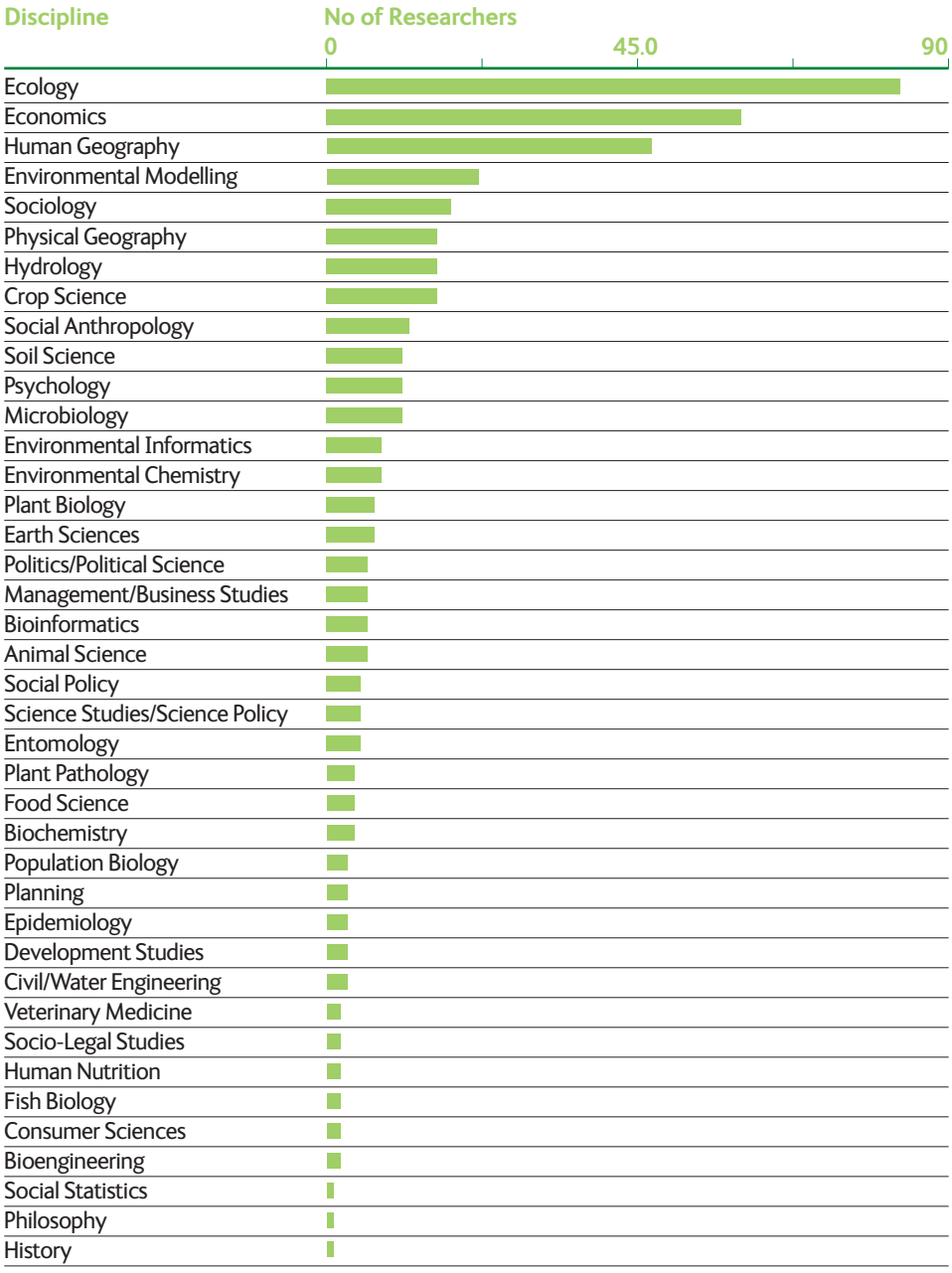
Institutes:

Central Science Laboratory
Centre for Ecology and Hydrology
Institute of Food Research
Institute of Grassland and Environmental Research
Institute of Organic Research
Macaulay Land Use Research Institute
Rothamsted Research Institute
Scottish Agricultural College

Other:

British Trust for Ornithology
Forest Research
Game Conservancy Trust
Vrije Universiteit Amsterdam

Disciplines involved in the relu research programme:



Professor Sir Howard Newby, Chair of relu Strategic Advisory Committee

"Issues of rural economy and land use cannot be explored in isolation. Cooperation between the research councils and their distinct scientific communities is imperative if we are to improve our understanding of the health, welfare and sustainability of the countryside. Through the Rural Economy and Land Use Programme we are determined to support researchers in superseding the segmented disciplinary approaches of the past. Thereby, the analysis of social and economic behaviour should be combined with research on the ecology and biology of the natural environment."

Exchanging knowledge by involving stakeholders

relu consults widely among stakeholder organisations in the formulation and development of its research programme and all the projects produce plans for engaging stakeholders in their research.

At programme level:

relu's Strategic Advisory Committee, the Food Chain Forum and the People and Rural Environment Forum bring together key stakeholders from the public, private and voluntary sectors to act as sounding boards on programme and project development and the programme has formulated stakeholder engagement plans with key stakeholders.

relu's stakeholder forums:

The Food Chain Forum:

John Lloyd Jones (Chair)
Countryside Council for Wales
Ian Baker
Advantage West Midlands
Helen Browning
Eastbrook Farm Organic Meat/Soil Association
Dr Judy Buttriss
British Nutrition Foundation
Lord Cameron of Dillington
Dillington Farms
Dr Helen Ferrier
National Farmers' Union
Bill Goldsworthy
Agri-food Partnership
David Gregory
Marks and Spencer
Dr Michelle Harrison
Henley Centre
Brian Harris
BBSRC
Charlotte Lawson
Food from Britain
Chris Lewis
Fields Farm
Dr Tom MacMillan
Food Ethics Council
Professor Terry Marsden
University of Cardiff
Sarah Mukherjee
BBC
Professor Mark Kibblewhite
Cranfield University
Professor Steve Parry
Unilever
Howard Petch
Commission for Rural Communities
Dr Sue Popple
Defra
Dr Bill Vorley
International Institute for Environment & Development
Peter Russell
Scottish Government

People and the Rural Environment Forum:

Professor James Curran (Chair)
Entrading
Dr Mark Avery
RSPB
Ian Brown
Tenant Farmer/Fresh Element/ North East Regional Environment Protection Advisory Committee
Tony Burton
National Trust
Dr Roger Clarke
YHA/Natural England
Dr Tamsin Cooper
Institute for European Environmental Policy
Dr Julian Dennis
Wessex Water/UK Water Industry Research
Chris Lea
Welsh Assembly
Dr Mike Farrimond
UK Water Industry Research
Dr Richard Ferris
Joint Nature Conservation Committee
Tony Hams
Peak District National Park/ Association of National Park Authorities/ Natural England
Dr Emma Hennessey
Defra
Professor David Macdonald
University of Oxford/ Natural England
Arlin Rickard
Association of Rivers Trusts
Susan Steer
Organic farmer/ Royal Institution of Chartered Surveyors
Mark Tinsley
PC Tinsley Ltd
John Varley
Clinton Devon Estates
Tom Warburton
One North East Regional Development Agency
Paul Woodcock
Environment Agency

Helen Browning, organic farmer, Food and Farming Director for the Soil Association and member of relu's Food Chain Forum:

"The relu programme has been ground-breaking in the way that it combines both natural and social science disciplines. Project discussions have been fascinating, and opened up new avenues of thought and enquiry; one day, perhaps all research will be conducted this way."

....and at project level:

Projects are working with a wide range of organisations and social groups, some in an advisory capacity, others as consultees, informants or research partners. At their most radical, projects are sidestepping the conventional researcher/ research subject divide to pursue an approach best described as the joint production of knowledge between researchers and practitioners.

Peak District partners

The project *Sustainable Uplands: Learning to Manage Future Change*, has involved stakeholders closely from its inception. As well as academics from Leeds, Durham, Sheffield and Sussex universities, partners in the project include Moors for the Future, and the Heather Trust, both non governmental organisations concerned with moorland areas. The research project's advisory board also includes academics, land owners and representatives of statutory agencies such as Natural England. Working with these partners the project has already contributed to Defra's consultation on the heather and grass burning code, has been highlighted in "Making Space for Water", a cross-Government initiative taking forward the new strategy on flood and coastal erosion risk management in England, and is working on proposals to establish a scheme that would allow consumers to offset their carbon footprint by paying for upland regeneration. They have established that blocking of ditches dug to try and "improve" the land for agriculture during the 1950s could store carbon equivalent to that emitted by two per cent of car traffic in England and Wales per year. The team is using knowledge created through this research in projects for Premier Waste and Yorkshire Water, and is working with the National Trust and Natural England on their upland futures exercises.

A citizens' jury

Researchers from the Institute of Grassland and Environmental Research and Lancaster and Exeter universities working on the project *Sustainable and Safe Recycling of Livestock Waste*, are using a citizens' jury as one means of involving the public in thinking about the problems they are addressing. A randomly selected group of the public is being asked to consider the impact of livestock farming on water quality, much like a normal court process. They hear evidence from a range of experts, including scientists, livestock farmers and policy makers. The evidence covers issues such as environmental and human health risks from microbial pollution, what actions may be taken to mitigate these risks, what risks might be considered to be "acceptable" and where responsibilities are thought to lie. Witnesses may be cross-examined as in a legal case, and the jury gives their verdict.

"The process is designed to be an accessible way in which the public can scrutinise the evidence base, and come to judgements about what they would like to see happen" said Dr Rob Fish, a researcher on the project who has been involved in setting up the jury.

Photo courtesy of Moors for the Future Partnership

Involving stakeholders from an early stage, puts relu's projects ahead in knowledge transfer and paves the way for genuine knowledge exchange. Two schemes underline how the relu approach differs from conventional knowledge transfer: work shadowing, where academics spend time in settings where their research may be used, and visiting fellowships, which provide an opportunity for staff from interested commercial, public or voluntary organisations to visit research teams.

Work shadowing at the Pesticides Safety Directorate

Work shadowing has proved invaluable for the relu project *The Role of Regulation in Developing Alternatives to Pesticides*. The Pesticides Safety Directorate is the statutory body with responsibility for the regulation of pesticides and it is currently developing its role in relation to bio pesticides. As a key stakeholder for the project, they were an obvious choice as shadowing partner, and there have been two phases of work shadowing for the project team, plus a visiting fellowship involving PSD staff.

"We already had useful contacts with the PSD, but the shadowing provided an opportunity for different kinds of interactions with the organisation," explained Principal Investigator Professor Wyn Grant. "We were able to have access to meetings that wouldn't normally be open to the public or indeed to researchers. That included members of the team attending the Advisory Committee on Pesticides and also pre-application meetings, where companies or individuals discuss the process for their proposal with the PSD.

"These meetings gave us a valuable insight into the issues that the PSD has to deal with at this stage and an understanding of the kinds of things people are asking, what the general level of knowledge among applicants is, and where misunderstandings might arise."

In the second phase, a group of staff from PSD visited the research project and Wyn Grant also made a second shadowing visit to build on his first. This time he gave a lecture to a group of PSD staff on the challenges arising from the regulation of bio pesticides, then organised break-out sessions that gave them an opportunity to reflect on the topic and provided some valuable feedback for the project.

Richard Davis, Director of Approvals, Pesticides Safety Directorate said: "The work shadowing and visiting fellowship were of great benefit to the PSD. They provided us with an opportunity to expand people's skills at reasonable cost and also helped in developing the regulatory policy side of our work. Bouncing ideas off someone like Wyn Grant who has a different perspective is refreshing and helped staff to think about issues in a different way."

Wyn Grant added: "The break-out sessions in particular gave us an opportunity to interact with the staff and hear their ideas about how they thought the operation of the regulatory system could be improved.

"They came up with a lot of interesting ideas, which have been very influential in the research process and in the recommendations that have come out of the project. Overall, the whole shadowing experience gave us a better depth of understanding about the challenges that the PSD faces when dealing with applications."

Lisa Moakes, Biopesticides Champion, Pesticides Safety Directorate:

"Our relationship with the relu project has been good from the start and has helped us to think of things from the other side – not only from the producers' point of view but also academia. The lectures Wyn gave on his visit were pitched very well. He gave us a good idea of how someone's PhD work might lead on to developing a product, and how we need to help people bridge that gap. Informal networking with the researchers was also particularly useful – now they have a better idea of where the PSD is coming from on these issues and we would feel quite happy to ring them up and ask for advice."

The research projects:
Restoring public trust in food chains:

Everyone needs to eat to stay alive, but increasingly our expectations of the food we consume are much greater than that. We want it to make us healthy and help us live longer, we expect the way it is produced to keep the countryside attractive, to be safe for the environment and promote a diverse range of plant and animal life, and we assume it should provide a living for those who work in the food industry. The relu food chain projects are intended to investigate some of these issues.

During crises such as BSE, E coli and foot and mouth disease there is often a narrow, technical response to the problem. The *Managing Food Chain Risks* project is incorporating the thinking and values of stakeholders into the scientific modelling of food chain risks, focusing on three contrasting case studies: pesticide residues in fruit crops, campylobacter in chickens and a mock crisis scenario. Producers, non-governmental organisations, regulators, risk managers and members of the public have been involved in defining the problem, discussing their understanding of risk and suggesting how it might be communicated most effectively.

Contact
Professor Richard Shepherd, University of Surrey
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(project completion 2008)

Chemical pesticides have often been blamed for a range of environmental and human health issues. *Overcoming Market and Technical Obstacles to Alternative Pest Management in Arable Systems* is looking at alternatives to the use of insecticides in arable agriculture and the difficulties facing producers in switching over to them. Researchers are exploring two approaches: habitat manipulations, to encourage predators and parasites, and using naturally occurring odours to manipulate predator distribution as model technologies. They aim to improve the way research and development of new products and techniques are carried out to help break the dependence on chemical pesticides.

Contact
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(project completion 2009)

Dairy and beef farmers provide consumers with reliable sources of milk and meat but can we be sure that the animal waste is disposed of safely and without environmental and social risks? This project on *Sustainable and Safe Recycling of Livestock Waste* is investigating current perceptions of farmers, retailers, consumers and local downstream industries, such as tourism and shell fisheries, about pathogen transfers to the food chain.

Changes in management practices could help to address the problem, and a farm-scale risk assessment tool is being developed to assess this. The project is determining the impacts of such changes on farm costs, and the potential costs to other stakeholder groups and the region as a whole.

Contact
Dr David Chadwick, Institute of Grassland and Environmental Research.
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(project completion 2008)

Although chemical pesticides have often attracted controversy, viable biological alternatives have been slow to come onto the market. Is this because the regulatory system makes it too difficult? *The Role of Regulation in Developing Biological Alternatives to Pesticides* is examining the environmental sustainability of insect pathogenic fungi and how the regulatory system could better enable the development and marketing of this and other types of bio pesticide.

Contact
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(project completion 2007)

Restoring public trust in food chains:

Are farming and the protection of natural habitats mutually exclusive or can they be complementary? In *Examining the Links Between Quality Food Production and Biodiversity Protection*, the project is looking at how grazing-land biodiversity can add value to the production of meat and cheese, and the positive effects this can have for rural economies. The team is examining products such as salt marsh lamb and how we could learn from the way that such specialist products are appreciated and marketed in other national contexts.

Contact
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(project completion 2007)

Is importing food always a bad thing? *Comparative Merits of Consuming Vegetables Produced Locally and Overseas* is researching the advantages and disadvantages of consuming locally produced fruit and vegetables as opposed to fruit and vegetables produced overseas. Social and natural scientists are considering a range of relevant factors: greenhouse gas emissions, local employment, consumer perception of relevant attributes, nutritional quality of produce and community characteristics relating to local food cultures.

Contact
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(project completion 2008)

Healthy eating is the mantra of the moment but are there ways in which we could enhance the nutritional qualities of the food we eat, and what would the effect of that be for the countryside? Researchers on the project *Implications of a Nutrition Driven Food Policy for the Countryside* are investigating whether the type of pasture cattle graze on affects the fats in their meat, whether growing soft fruit and salad crops under new ultra-violet transparent film enhances the levels of anti-oxidants that can reduce cancer and what the consumer demand might be for such products.

Contact
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(project completion 2008)

We are being encouraged to eat more fish as part of a healthy diet, but at the same time popular wild fish stocks are dwindling and aquaculture has begun to explore alternative fish species with amenable farming qualities. The project *Warm Water Fish Production as a Diversification Strategy for UK Farmers* is looking at a novel process for small scale farming of the tropical fish tilapia. This white-fleshed fish has favourable farming characteristics and has potential as a locally-produced, sustainable, fresh fish for UK niche markets, providing a possible diversification opportunity for UK farmers.

Contact
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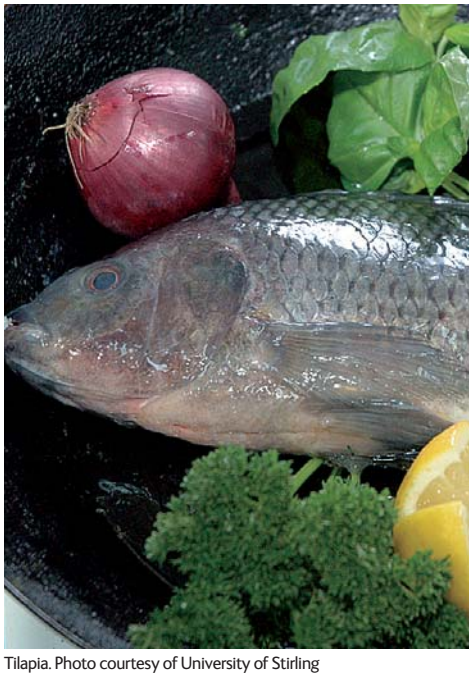
(project completion December 2007)



Tilapia. Photo courtesy of University of Stirling

Tackling animal and plant disease in a socially acceptable manner

Animal and plant diseases have had a high profile over the past few years, from foot and mouth, bird flu and E coli to Dutch elm disease. Now new diseases threaten to move in on the back of climate change. Whether these threaten our food supplies, livelihoods, landscapes, or our health, they cause serious concern. Projects within the relu programme are breaking new ground in looking at these issues from an interdisciplinary perspective, considering not just the technical aspects of disease, but also the social and economic implications and ways of tackling it.

During the 1970s Dutch elm disease ravaged familiar landscapes in the UK. Now a different disease – sudden oak death – could create a similar situation. *Lessons from Dutch Elm Disease in Assessing the Threat from Sudden Oak Death* is exploring how the previous pandemic can help us deal with this more recent threat, how people perceived Dutch elm disease and its effects, and what they think might be done to combat sudden oak death.

Contact
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(project completion 2009)

Many people enjoy spending leisure time outdoors, but with changes in environmental conditions and use of the countryside, some risks, such as tick-borne diseases, could become more acute. *Assessing and Communicating Animal Disease Risks for Countryside Users* is examining the risks, what can be done to reduce them and the kinds of information that people need to keep themselves safe, without being inappropriately alarmed.

Contact
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(project completion 2010)

Nobody wants to see animals suffering. As well as concerns about their welfare, we know that sick animals produce less meat and milk, and provide less profit. Animal disease can also seriously affect consumer demand at home and abroad, which has an effect on the economy. *The Governance of Livestock Disease* is considering a range of issues around several different cattle diseases, how policy on one disease affects others and how different organisational levels interact in tackling disease outbreaks.

Contact
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(project completion 2010)

UK crop production is vulnerable to a plethora of pathogens, some of which directly affect crop yields, disrupt the food chain and impact on land use and social infrastructure. Similarly, diseases can have profound effects on the plants in our natural environment. *Assessing the Potential Rural Impact of Plant Disease* is developing an appraisal of the potential impacts of plant diseases on land use and the UK rural economy.

Contact
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(project completion 2010)

E coli is a very serious threat to human health. It can be devastating and sometimes fatal, and children and elderly people are at particular risk, but we still know little about how it is spread in rural environments. Researchers from a wide range of natural and social science disciplines are working on the project *Reducing E coli Risk in Rural Communities* and investigating how we can reduce the risk of people becoming infected.

Contact
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(project completion 2010)

Containment is a controversial issue in animal disease outbreaks. Strategies often come under the spotlight, particularly when human health may be at risk or when animal and farm welfare issues are promoted in the media. A project on *Assessment of Knowledge Sources in Animal Disease Control* is building more integrated strategies of containment by bringing together expertise in public health, sociology, microbiology, epidemiology and veterinary science, environmental science, human geography and medical statistics.

Contact
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(project completion 2010)

Sustainable farming in a globalised market:

As the emphasis moves away from intensive production at any cost and the value we put on environmental goods has grown, land managers are expected to take a wide range of factors into account. Many relu projects have an environmental dimension and open up new perspectives on sustainability.

In *Management Options for Biodiverse Farming* natural and social scientists are looking at the social, economic and political factors underlying farming practice, and the implications for biodiversity when farmers decide to change what they do or how they do it. They are using ecological models to predict how key biodiversity indicators such as weeds and birds will respond to the way the land is managed.

Contact
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(project completion 2009)

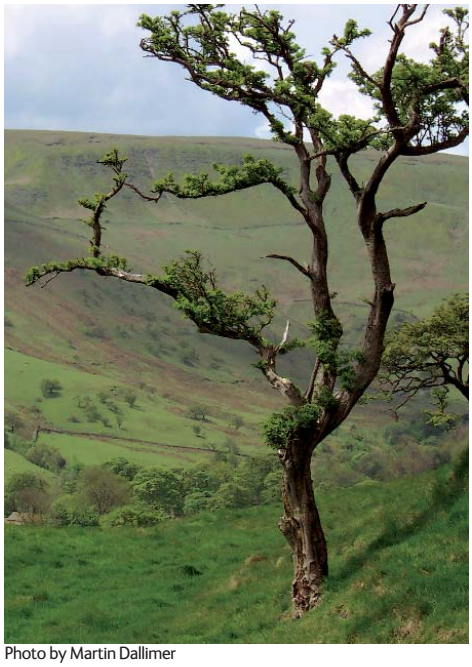

Photo by Martin Dallimer

Moorland ecosystems are particularly fragile. *The Sustainability of Hill Farming* project is investigating how we can manage them in a way that delivers sustainable hill farming communities while also protecting the environment. Taking the Peak District as a case study, the researchers are examining how farmers respond to policy changes and how they can design business plans to cope with such changes most effectively. The team is developing new modelling tools for examining the dynamics of moorland change across whole landscapes, how the actions of one farmer affect those of neighbours and how upland bird species rely on a diversity of habitats across the landscape.

Contact
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A move to organic farming can have significant effects on wildlife, soil and water quality, as well as changing the ways in which food is supplied, the economics of farm business and indeed the attitudes of farmers themselves. *The Effects of Scale in Organic Agriculture* addresses two key questions: firstly, what causes organic farms to be arranged in clusters at local, regional and national scales, rather than be spread more evenly throughout the landscape, and secondly, how the ecological, hydrological, socio-economic and cultural impacts of organic farming may vary due to neighbourhood effects at a variety of scales.

Contact
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Photo by Claire Carvell © 2007

Agri-environment schemes are intended to improve natural habitats but the results are mixed. *Improving the Success of Agri-environment Schemes* is a five year study of how well wildlife habitats are created under such schemes, and whether training for farmers improves the outcomes.

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Promoting robust rural economies

A quarter of low income households are in rural areas and earnings are particularly low in remote parts of the countryside. More robust economies need to be encouraged in order to make rural communities sustainable.

The aim of *Sustainable Uplands: Learning to Manage Future Change* is to combine knowledge from local stakeholders, policy-makers and social and natural scientists to anticipate, monitor and sustainably manage rural change in UK uplands. The result will be a choice of options to address future challenges that could never have been developed by any group alone. Factors driving future change are modelled with computers to develop detailed pictures of possible future social, economic and environmental conditions. Stakeholders and researchers then identify strategies that could help protect and enhance future livelihoods and the environment and evaluate them through computer models, site visits and other participatory methods.

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(project completion 2009)

There are many associated costs and benefits in the management of deer. Deer management creates jobs for stalkers on forestry and sporting estates and people in the meat industry, and deer create particular landscapes that attract tourists. However in some areas, high deer numbers cause damage to sensitive habitats, to crops and gardens and cause road traffic accidents. Therefore there are many different attitudes to deer and conflicts on how best to manage them. *Collaborative Deer Management* is investigating how well people involved in deer management work together and how this can be improved so that the benefits are maximised whilst the costs are minimised.

Contact
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(project completion 2009)


Deer stalking. Photo courtesy of Clinton Devon Estates

***Social and Environmental Inequalities in Rural Areas* is examining patterns of inequality in the distribution of social, economic and environmental goods and services in rural areas.** They are considering how methods for measuring inequality differ within the natural and social sciences and exploring ways to resolve these differences and find a common approach. Having identified inequalities the team will be focusing on their implications, considering whether they can be regarded as unfair, and consulting with local residents about their perceptions of local inequality and injustice.

Contact
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(project completion 2009)

***Angling in the Rural Environment* focuses on the role that angling, as a leisure activity, plays in the economy and the UK countryside.** Angling is seen as important for rural employment, but rivers are under pressure from a whole range of human activities so their ability to sustain flora and fauna may be at risk. This project analyses the complex natural and socio-economic inter-linkages between river, fishing, biodiversity and institutions of governance and practice. The results will be used to inform policy on integrated development of the rural river environment.

Contact
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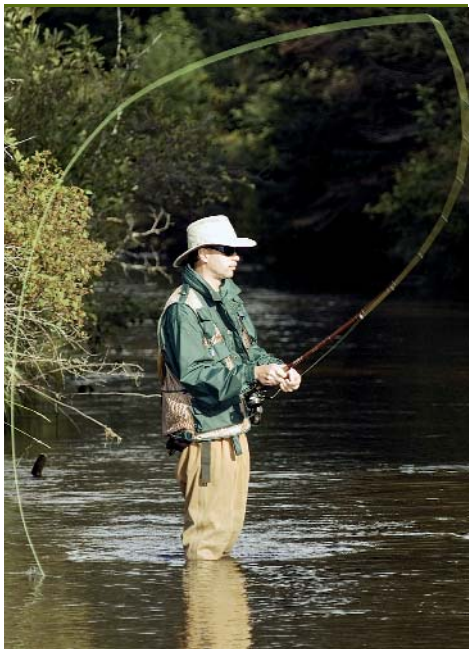
(project completion 2009)



Land management techniques to deal with climate change

Climate change seems likely to influence almost every aspect of our every day lives before very long, and how we use our land is fundamental to addressing the problems.

Future policies are likely to encourage more land use under energy crops: principally willow, grown as short rotation coppice, and miscanthus, a tall, exotic grass. These crops will contribute to the UK's commitment to reduce CO_2 emissions. However, it is not clear how decisions about appropriate areas for growing the crops, based on climate, soil and water, should be balanced against impacts on the landscape, social acceptance, biodiversity and the rural economy. A project on *Impacts of Increasing Land Use Under Energy Crops* integrates social, economic, hydrological and biodiversity studies in an interdisciplinary approach to develop a scientific framework for sustainability appraisal of the medium and long term conversion of land to energy crops.

Contact
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(project completion 2008)

***Energy Production on Farms Through Anaerobic Digestion* is examining the potential for the development of anaerobic digestion on farms, and the contribution that this could make to diversification of agricultural practice by enhanced land use planning for bioenergy production.** The research addresses the policy issues, both within the broader European Community and the UK, to identify the drivers and obstacles that could stimulate or inhibit the development of on-farm digestion as part of a wider strategy for rural development.

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(project completion 2010)

Miscanthus grass. Photo produced by Andrew Riche, Centre for Bioenergy and Climate Change, © Rothamsted Research Ltd

Managing land and water use for sustainable water catchments

The management of water catchments has become a key issue in the wake of serious flooding events. The implementation of the European Water Framework Directive also poses major challenges for integrating the management of land and water.

***Testing a Community Approach to Catchment Management* investigates a specific catchment – Loweswater in the Lake District – and looks at how scientists, institutional stakeholders, farmers and residents can share expertise and work together positively for the benefit of their environment.** They are considering questions such as whether the current "carrot and stick" initiatives are the best option to ensure that landowners look after the environment, and whether involving local people more in decision making and using their local knowledge and expertise would be a viable approach.

Contact
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(project completion 2010)

Scientists, and those who use their work, are having to think again about how science should inform democratic decision-making and the role of public engagement in this process. Taking the example of flood risk management, the *Understanding Environmental Knowledge Controversies* project examines how and why the scientific practice of hydrological modelling becomes subject to scientific dispute and public controversy, and with what consequences for public policy. With hydrological models now capable of connecting local flood events to land management practices at catchment scale, the project is developing 'competency groups' as a new method for bringing the knowledge of local people with experience of flooding to bear on the modelling of flood risk.

Contact
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(project completion 2010)

Reductions in water pollution have so far mainly been achieved through regulation and investment in waste water treatment, but the underlying water quality problem in much of the UK remains diffuse pollution derived from current and past land use plus atmospheric deposition. Best management practices and buffers that protect water courses and recharge zones can achieve much, but ultimately changes in land use may be needed in the worst affected areas. *Catchment Management for Protection of Water Resources* looks at the means, the governance needs, and the costs and benefits of alternative approaches, drawing on an analysis of international experience and investigation of two UK case study catchments.

Contact
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(project completion 2010)

***Modelling the Impacts of the Water Framework Directive* brings together hydrology, economics and other disciplines to examine both the physical impacts of the EU Water Framework Directive upon rivers and how the changes in land use needed to achieve a reduction in pollutants in water are likely to impact upon already fragile farming communities.** The project also applies a variety of innovative techniques to attempt to value the likely benefits of improving outdoor water quality.

Contact
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(project completion 2010)

Recent flood events in Britain have heightened interest in exploring solutions that can join up multiple objectives such as managing flood risk, water resource management, enhanced biodiversity, enjoyment of the countryside, and support to rural livelihoods. The project *Integrated Management of Floodplains* is addressing these issues and re-examining a selection of agricultural flood defence schemes, previously studied by the research team in the 1980s, to identify and explain changes in land and water management that have occurred over the last 40 years.

Contact
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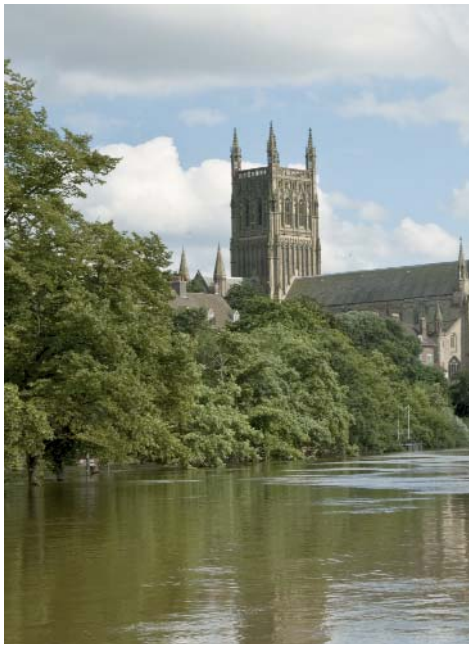
(project completion 2008)



Lessons for the future

relu is designed to bring together scientists from a range of disciplines to investigate the major challenges faced by rural areas and to draw out evidence and recommendations for the future. The research is producing useful science at every stage, from early stakeholder involvement, to the final results. As well as scientific papers published in academic journals, there are two major strands of reporting: via the relu conferences and in the policy and practice note series. Both aim to draw out key findings that can inform policymakers and practitioners in thinking about the future of the countryside in the UK, and to make linkages and common ground across projects.

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