



Workshop for Economists and Ecologists:

Forging interdisciplinary links to inform public policy

A case study in sustainable agriculture

Charles Darwin House, London
8th May 2012, 10:00 to 16:15

Briefing note to be read by all participants

Introduction

Amid concerns over food security (to feed a projected global population of 9 billion by 2050), volatility in food commodity prices and global climate change, how should the UK be developing and positioning its agricultural sector? As demand for production rises, advice urging the sustainable management of natural resources and of the environmental goods and services that flow from them, can be easily overlooked. Environmental goods and services, whilst recognised as essential for food production, carry little market value; and their sustainable management at a time of 'food crisis' may be seen as a burdensome cost to be dealt with at a later date by a wealthier generation.

The need to balance food production and the sustainable management of natural resources was one of the challenges explored by the Foresight Report on the Future of Food and Farming (2011). Among its twelve recommended priority areas, the following are of particular relevance to UK agriculture: (i) an assumption that little new land will become available for agricultural production, leading to, (ii) a need to promote sustainable intensification in agriculture if food production is to increase, coupled with, (iii) the need to promote and/or incentivise the adoption of

best agricultural practice by producers and, (iv) to include environmental protection within the economics of food production.

Delivering these four priority areas across UK agriculture is not a simple challenge and raises questions about our expectations and requirements from farmers today and in the future:

- What does sustainable agriculture mean within a UK context?
- Should farmers be paid for producing environmental goods and services?
- If so, are the current payment mechanisms robust enough to withstand the opportunities offered by the global commodities market?
- What are the implications of a shift to sustainable agriculture for UK food prices, food supply and the competitiveness of UK food producers?

UK agriculture operates within a global market and must comply with European Parliament and Council regulations for the Common Agriculture Policy (CAP). Recent proposals for the future CAP (2013-2020) have set out a number of measures to improve the sustainability of agriculture across the EU,

including a new 'green' payment for maintaining permanent pasture, diversifying crop regimes on arable land and maintaining at least 7% of farmland as an 'ecological focus area' via the provision of hedges, trees, fallow land, buffer strips for example (European Commission, 2011a). The issue for policy-

Workshop focus and format

The workshop will provide an opportunity for ecologists and economists to discuss some of the issues outlined above, and to identify those they consider critical to the development of a sustainable agricultural and food industry in the UK. The workshop aim is to specify and agree the fundamental questions which need to be addressed in order to help policy-makers implement policies, tools, training and knowledge transfer activities which deliver sustainable agriculture throughout the UK.

All workshop participants are asked to address the following questions:

- What actions should ecologists and economists be jointly urging Government to undertake to incentivise farmers to maintain the potentially competing aims of environmental protection and increased production?
- What evidence should we be providing to demonstrate that such actions will work in practice?

To initiate the discussion we have invited Prof. Ian Bateman (University of East Anglia) and Prof. William Sutherland (University of Cambridge), to set out their discipline's preferred approach to implementing the sustainable agriculture agenda in the UK and to encourage its uptake by producers and/or other actors (*e.g.* wholesalers, retailers, consumers) within the food industry.

Workshop preparation for identifying fundamental questions

In considering the challenge of incentivising the uptake and implementation of sustainable agriculture, we quickly encounter a number of knowledge gaps and differences of opinion.

makers and all those engaged with agriculture is whether these CAP proposals are the best way to meet the recommendations and priority areas set out in the Foresight Report on the Future of Food and Farming (2011) and to incentivise farmers to set sustainability at the heart of their production practice.

We have also invited Professor Charles Godfray (University of Oxford), Professor Tim Benton (University of Leeds), Dr. Salvatore Di Falco (London School of Economics) and Dr. Paul Morling (RSPB) to set out the key points that they consider critical for supporting sustainable agriculture in the UK, and to respond to our key speakers. The discussion will then be opened out to all participants, who will be asked to prioritise the questions which ecologists and economists should be tackling in order to support the development and implementation of sustainable agriculture policy throughout the UK, and to outline actions to address these questions.

The workshop will therefore include:

- two keynote presentations on incentivising sustainable agriculture within the UK;
- a panel discussion to identify the fundamental questions which ecologists and economists need to address in order to promote and support the uptake of sustainable agriculture by policy-makers and food producers;
- participant discussion to refine and prioritise the fundamental questions;
- break-out groups to outline proposals for tackling priority questions;
- a final vote by all participants to prioritise these proposals.

Some of these gaps and differences are expressed in the following questions:

1. What do you understand by the term 'sustainable agriculture' when considered

in the context of UK agriculture and at what geographical scale should we be assessing the sustainability of agriculture?

2. What is the nature of the stock of natural capital which is managed or used by agriculture? What environmental goods and services should agriculture be providing and who uses or benefits from the production of these goods and services?
3. What ecological and economic factors constrain the provision of environmental goods and services from farmed land? What information is needed to establish the flow of environmental goods and services from the natural capital managed or used by agriculture? What functions or frameworks are available for monitoring and measuring these flows?
4. Given that resources (economic and human capital) for supporting agriculture are limited, which environmental goods and services should we be focusing on and what level of provision is acceptable? Should we treat the production of food and environmental goods in the UK as a trade-off?
5. Which mechanisms and tools are the most appropriate for incentivising the production of environmental goods from agriculture and how should we evaluate these. How might these tools operate within the constraints of the CAP?
6. Who should be responsible for the provision of environmental goods: the

producer, the purchaser or the consumer? How can we create a market for environmental goods within the food industry and who will contribute to the demand curve for environmental goods?

These questions are put forward as a framework of issues which might need to be considered to inform the process of incentivising farmers (and/or the wider food retail and consumer industry) to prioritise sustainability within agriculture and food production. The questions are not a definitive list and are set out to help stimulate debate and to identify:

- Areas where further evidence on the role/benefits/importance of the provision of environmental goods from agricultural land, is needed;
- Areas where ecologists and economists might benefit from working together more closely;
- Issues which need to be considered in order to design effective policy tools for enhancing the provision of environmental goods from agricultural land.

In preparing for the workshop, all participants are asked to identify and prioritise the issues which they believe to be critical to promoting sustainable agriculture in the UK. In addition, how would you address these issues if resources were made available to you, and how might a policy-maker make use of the evidence arising from your proposals, bearing in mind that any proposed actions would need to comply with EU CAP regulations?

Workshop organising group

- Sarah Gardner (GardnerLoboAssociates)
- Rosie Hails (Natural Capital Initiative, Centre for Ecology and Hydrology)
- Sue Hartley (York Environmental Sustainability Institute)
- Ece Ozdemiroglu (eftec Economics for the Environment Consultancy and UK Network of Environmental Economists)
- Bruce Howard (Natural Capital Initiative)
- Daija Angeli (Natural Capital Initiative)

References and bibliography

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- No. 1 The CAP in perspective: from market intervention to policy innovation
- No. 2 The future of CAP direct payments
- No. 3 The future of CAP market measures
- No. 4 The future of rural development policy

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