



**The Indirect Effects of Biofuels:
A Call for Evidence**

Introduction

1. On February 21st 2008, the Secretary of State for Transport, Ruth Kelly, announced that the Government would ask the Renewable Fuels Agency (RFA) to conduct a review into the indirect effects of biofuels production.
2. The terms of reference for the study (attached at Annex A) were published in March. These emphasised that the Government's support for biofuels was on the basis that they could deliver considerable net reductions in greenhouse gas (GHG) emissions compared with fossil fuels. New evidence had emerged about the effect of certain biofuels on greenhouse gas emissions and as a result there were widely diverging views on biofuels sustainability and appropriate targets.
3. As substantial work has already been undertaken about biofuels concerns, the review is narrowly focussed and concentrates upon the new and emerging evidence of the displacements effects of biofuels on land change and arising GHG emissions; and effects upon food insecurity of rising food commodity prices. It would inform UK negotiations in Brussels about biofuel targets to 2020 and would be published at the end of June.

Review Format

4. A review team led by RFA Chair Professor Ed Gallagher has now been formed and has undertaken the initial planning. The review comprises:
 - a call for evidence
 - three technical studies
 - evaluation of the drivers of land use change
 - review of future demand and supply of biofuels to 2020 and their impact upon GHG emissions
 - economic benefits and food insecurity concerns of increasing demand for biofuels
 - expert seminars on key issues – by invitation
 - a stakeholder workshop which will report on the initial findings of the studies

Call for evidence

5. The call for evidence was initiated at Imperial College on March 19 following a lecture by Timothy Searchinger of Princeton University, on the effects of biofuels upon indirect land change and GHG-effects. This paper is now disseminating that call more widely.
6. Evidence offered to the review will be fed into the technical studies. The authors may be invited to participate in the expert seminars.
7. The evidence should take the form of published or unpublished studies and can include emerging findings. We would also be interested to learn about studies which are in progress but for which findings are not yet available. This is

not a public consultation and we are **not** seeking views about different aspects of biofuels policy.

Key Questions

8. The questions on which we are seeking evidence are as follows:
 - i. What are the key drivers of land use change and food insecurity and to what extent will increasing demand for biofuels affect these to 2020? What evidence is available of impacts upon areas of high conservation value and/or carbon stocks?
 - ii. How are GHG-savings of different biofuels affected by displaced agricultural activity and resulting land-use change? How may this be affected in the future by the introduction of advanced technologies, use of marginal land and other improvements in production?
 - iii. What are the relationships between demand for biofuel feedstock, commodity prices, land conversion and food insecurity? How might these be affected in the future by yield improvements and other factors?
 - iv. What economic benefits arise from production of biofuels or feedstock in the South?

How to respond

9. Email responses are much preferred and should be sent to evidence@renewablefuelsagency.org
10. In your covering email, please give:
 - Your name, and full contact details
 - Your organisation and full contact details
 - A list of the evidence you are submitting
 - Whether any evidence you submit should be treated as confidential
 - Whether you are content that your evidence should be used in the biofuels review
 - A declaration that all the evidence is genuine and you have the right to submit it

11. To help us analyse your evidence, it would be helpful if you could indicate which questions your evidence covers and preferably a short summary of the main findings.

The closing date for responses is 10 am on Monday 14th April 2008

12. In line with the policy of openness, at the end of the Call for Evidence period, a summary of responses may be published on the RFA's website.

13. If you do not consent to this, you must clearly request that your response be treated confidentially. Any confidentiality disclaimer generated by your IT system in e-mail responses will not be treated as such a request.

14. You should also be aware that there may be circumstances in which the RFA will be required to communicate information to third parties on request, in order to comply with its obligations under the Freedom of Information Act 2000 and the Environmental Information Regulations.

Annex A – Terms of reference for review of indirect impacts of biofuels

Introduction

Biofuels have the potential to deliver significant environmental benefits, and it is this principle that has underpinned UK Government support for them. Government support mechanisms have been justified in particular on the grounds that biofuels can deliver considerable net reductions in greenhouse gas emissions compared to fossil fuels.

New evidence has emerged in recent months on the net greenhouse gas benefits of certain types of biofuels. There is currently little consensus on much of this new evidence and there are widely diverging views on the sustainability of current and future biofuels targets.

The Government is keen that biofuel targets and support policies should be underpinned by robust scientific evidence. To this end, it commissioned in 2007 a review of work on the environmental sustainability of international biofuels production and use, and this review is due to report shortly.

To complement and build on this work, the Government is inviting the Renewable Fuels Agency to lead a review of the fast-emerging new evidence of displacement effects of biofuels on land-use and impacts upon GHG-savings. This RFA-led review will – alongside the review of work on the environmental sustainability of international biofuels production and use – inform the development of future biofuel policies and targets, including in particular proposed EU targets for future biofuel consumption.

Scope

The RFA-led review will focus on recent evidence on the indirect or "displacement" impacts of biofuel production, both within the EU and internationally, and evaluate, for current and future demand and production scenarios:

- The extent to which the production of biofuel feedstocks leads to land-conversion
- GHG-emissions arising from changes in land-use change and cultivation practices.

It will seek to make an objective, evidence-based assessment of the risks and uncertainty around these impacts and how this can be quantified.

It will seek to put the impacts of biofuels into perspective, by quantifying the extent to which the demand for biofuels – as opposed to other pressures – is

likely to pressure on available land resources in the period to 2020. It will also consider the extent to which these impacts would be reduced if advanced biofuel technologies became commercially viable in the medium term.

It will consider and describe the risk that biofuel policies will affect international food commodity prices in the period to 2020 and indicate the uncertainties attached to that appraisal.

It will make recommendations as to how all of the above should be built into future calculations of the net greenhouse gas impacts of biofuel policies and future biofuel targets. It will also define the requirements of the further modelling and analysis that would be needed to consider a range of policy and demand scenarios, and their wider economic, environmental and social impacts, including for example on food prices.

It will make recommendations, as far as this is possible from the available evidence, on prudent levels and forms of biofuel targets and ways to manage and reduce the risk of displacement effects.

Participants

The UK's Renewable Fuels Agency will lead the work and will seek to draw upon knowledge and expertise globally. The study will be led by Professor Ed Gallagher, Chairman of the RFA, and former Chief Executive of the Environment Agency. The RFA will assemble a small team of experts to undertake the study including individuals with specific knowledge and skills in relevant areas.

Methodology

The study will include the following elements:

- studies examining evidence concerning:
 - Global drivers, pressures and availability of land and the effect of current and future demand and production scenarios for biofuels
 - GHG emissions arising from land-change and cultivation of biofuels and uncertainties in science and methodologies
 - Drivers of rising food commodity prices and effects upon food security
- written stakeholder consultation on these issues, disseminated globally to encourage a wide range of expert respondents
- stakeholder workshops and meetings with experts from the UK, EU and elsewhere to consider land use change effects and the impact on agricultural markets.

The review will as far as possible draw in expertise from other EU Member States and elsewhere. The findings will be peer-reviewed by the Government's Chief Scientific Advisers.

Timetable

An initial report will be provided to Ruth Kelly and Hilary Benn by Friday 27 June including recommendations for further work. This initial report will include the outcomes of the stakeholder consultation, literature review and workshops. A draft report will be provided to Government officials by the end of May which will inform UK negotiations in Brussels.