

2 June 2011

Department for Transport  
Zone 1/32, Great Minster House  
76 Marsham Street  
London SW1P 4DR

Dear Sir / Madam

**Re: Consultation on the implementation of the renewable transport elements of the Renewable Energy Directive**

Thank you for the opportunity to comment on the implementation of the transport elements of the Renewable Energy Directive (RED). I write on behalf of the Nuffield Council on Bioethics and my comments are drawn from its recent report *Biofuels: ethical issues*, published in April 2011.<sup>1</sup>

This submission provides an overview of the Council's report and its main conclusions and recommendations. The questions raised within the consultation are then addressed specifically. We also comment on proposed changes which are not consulted on directly.

**Overview of *Biofuels: ethical issues***

*Method*

Despite vigorous debate around biofuels, there has been little systematic ethical analysis of the field to inform current policy discussions around renewable energy, land use and climate change. This led the Council, 18 months ago, to set up an expert working group to consider the ethical issues raised by both current and potential future approaches to biofuels. The group was chaired by Professor Joyce Tait of Edinburgh University and included members with expertise in science, the environment, ethics, law, policy, economics, the commercial sector, energy security, and sustainable and international development. To inform

**Chair**  
Professor Albert Weale FBA

**Deputy Chairman**  
Professor Hugh Perry FMedSci

**Members**  
Professor Steve Brown FMedSci  
Dr Amanda Burls  
Professor Robin Gill  
Professor Sian Harding FAHA FESC  
Professor Ray Hill FMedSci  
Professor Søren Holm  
Dr Rhona Knight FRCGP  
Professor Graeme Laurie FRSE  
Dr Tim Lewens  
Professor Ottoline Leyser CBE FRS  
Professor Anneke Lucassen  
Professor Michael Moran FBA  
Professor Alison Murdoch FRCOG  
Dr Bronwyn Parry  
Professor Nikolas Rose  
Professor Dame Marilyn Strathern DBE FBA  
Professor Joyce Tait CBE FRSE FRSA  
Dr Geoff Watts FMedSci  
Professor Jonathan Wolff

**Director**  
Hugh Whittall

**Assistant Directors**  
Dr Alena Buyx  
Dr Peter Mills  
Katharine Wright

---

<sup>1</sup> Nuffield Council on Bioethics (2011) *Biofuels: ethical issues*, available at: [www.nuffieldbioethics.org/biofuels](http://www.nuffieldbioethics.org/biofuels).

its deliberations, the Working Party held a three-month public consultation, during which 90 contributions were received from a wide range of organisations and individuals. It also held a series of 'fact-finding meetings' with, for example, non-governmental organisations, scientists, industry and policy makers. Full details of the method of working and a summary of the consultation responses can be found in the report.

### *Biofuels: current and new approaches*

Biofuels are one of the few available alternatives to fossil fuels used for transport. Driven by the global challenges of climate change, energy security and economic development, policies such as the RED have led to a rapid expansion in biofuel production around the world over the past decade.

However, current methods of biofuel production – the so-called 'first generation' biofuels – have been associated with serious environmental and social harms. In the US, the rapid increase in ethanol production from corn was blamed for contributing to the increase in the price of corn and other grains. There were also disputes over whether corn-based ethanol produces fewer overall greenhouse gas emissions than fossil fuels. In Brazil, large-scale biofuel production from sugar cane was criticised for contributing to deforestation in rich habitat areas and leading to biodiversity losses. Concerns were also raised about abuses of workers' rights, including contemporary slavery and informal child labour. Biodiesel production in Malaysia using palm oil has also not been without criticism, with evidence of biodiversity losses, including the already endangered orang-utan, and so-called 'land grabs' by producers looking to obtain land for growing biofuel crops.

Both the demand for biofuels created by policy and the emergence of harms with some current biofuel production has prompted research into new approaches to biofuel production, using for example lignocellulosic and algal feedstocks. Research is focussing on biofuels that have the potential to be produced without harm to the environment or local populations; are in minimal competition with food production; need minimal input of resources such as land and water; can be processed efficiently to yield high-quality liquid biofuels; and are deliverable in sufficient quantities. However, while these approaches show considerable promise, commercial-scale production is still some years away.

It is difficult to predict exactly which technologies will successfully emerge. However, the lessons learned from current biofuels must be integral in the development of new ones in order not to repeat the mistakes of the past. Meanwhile, it is clear that established biofuels will continue to play a role while new products emerge, and mechanisms to mitigate their negative effects are imperative.

## *Ethical framework*

By drawing on moral values such as human rights, solidarity, sustainability, stewardship and justice, the Nuffield Council report sets out six ethical principles that policy makers should use to evaluate biofuel technologies and guide policy development:

1. Biofuels development should not be at the expense of people's essential rights (including access to sufficient food and water, health rights, work rights and land entitlements).
2. Biofuels should be environmentally sustainable.
3. Biofuels should contribute to a net reduction of total greenhouse gas emissions and not exacerbate global climate change.
4. Biofuels should develop in accordance with trade principles that are fair and recognise the rights of people to just reward (including labour rights and intellectual property rights).
5. Costs and benefits of biofuels should be distributed in an equitable way.

The Council then considered whether there may be a duty to develop biofuels in the face of global climate change. To address this a sixth Principle is proposed:

6. If the first five Principles are respected and if biofuels can play a crucial role in mitigating dangerous climate change then, depending on certain key considerations, there is a duty to develop such biofuels.

These additional key considerations are: absolute cost; alternative energy sources; opportunity costs; the existing degree of uncertainty; irreversibility; degree of participation; and the overarching notion of proportionate governance.

## *Main conclusions and recommendations*

Testing existing policy against the ethical principles, we conclude that the UK RTFO and the European RED – which effectively set mandatory targets for biofuel production – encourage unethical practices by stimulating rapid expansion of biofuel production without also putting in place appropriate safeguards. We thus recommend:

- **Current UK and European national biofuel targets should be replaced with a more sophisticated target-based strategy that considers the wider consequences of biofuel production.**
- **The strategy should incorporate a comprehensive ethical standard based on our Ethical Principles and should be enforced through a**

**certification scheme. Certification should apply to all biofuels supplied in the UK and Europe that are counted toward biofuel targets.**

- **The EU should provide financial support and advice to countries that might find it difficult to certify biofuels in this way.**
- **Biofuels policies and future sustainability initiatives should not discourage local, small-scale biofuel production, particularly in developing countries that experience fuel poverty.**
- **The ethical standard and associated certification scheme should ideally be applied to all similar technologies and products to guide decision making in a wider policy context.**

We also find that current UK and EU policies include few incentives for the development of new biofuel technologies. Thus, we recommend:

- **Policy makers should incentivise research and development of new biofuels technologies that need less land and other resources, avoid social and environmental harms, and reduce greenhouse gas emissions.**

In the following, specific questions in the DfT consultation are addressed, based on the discussion in the Council's report and its main recommendations (in bold).

### **Sustainability criteria**

#### **Q3. Do you have comments you wish to make regarding how we transposed the RED sustainability criteria?**

Article 17 of the RED requires that, irrespective of whether the raw materials were cultivated inside or outside the territory of the Community, any biofuel counted towards a Member State renewable energy target must meet certain criteria, including:

- delivery of minimum greenhouse gas emission savings;
- use of feedstocks that have not been grown on areas of high biodiversity; and
- use of feedstocks that have not been grown on peatland or areas of high carbon stock.

The UK Government is proposing that biofuel supplied in the UK must be shown by an independent auditor to have met these sustainability criteria in order to count towards the RTFO. The UK Government's proposal is in accord with Principles 2 and 3 of our ethical framework (i.e. that biofuels should be *environmentally sustainable*; and should contribute to a *net reduction of total GHG emissions and not exacerbate climate change*). We welcome this proposal for certification of environmental sustainability as the first step in the right direction; however, we believe that the RED, and as a consequence of this, the RTFO, do not go far enough with regards to the

criteria that biofuel must demonstrably meet in order to count toward a Member State renewable energy target and the RTFO respectively. As detailed above, there is strong evidence of some biofuel production conflicting with people's essential rights, including access to sufficient food and water, health rights, work rights and land entitlements. Research has also revealed that biofuel production has in some instances violated the rights of people to just reward, including labour rights and intellectual property rights. There have also been concerns over whether there is always an equitable distribution of costs and benefits. It is such cases that violate the Ethical Principles 1 (essential rights), 4 (just reward) and 5 (Equitable distribution of costs and benefits) of our ethical framework.

We urge the UK Government, in recognition of the wider real and significant harms that some biofuel production can create, particularly if it is scaled up to meet national targets, to go further than the RED. **We urge the UK Government to ensure that in order for a biofuel to count toward the RTFO, it must also demonstrably meet social sustainability criteria in accord with Principles 1, 4 and 5 of our ethical framework.** I.e. that biofuel has:

- not been produced at the expense of people's essential rights, including access to sufficient food and water, health rights, work rights and land entitlements;
- been developed in accordance with trade principles that are fair and recognise the right of the people to just reward, including labour rights and intellectual property rights; and
- there has been equitable distribution of the costs and benefits of biofuels.

**We recommend that social sustainability criteria have the same mandatory status that environmental criteria already have in the RED, and that they be enforced through a certification scheme, similar in breadth to the voluntary scheme developed by the Roundtable on Sustainable Biofuels. The establishment of appropriate audit trails should be supported by the EU and subsequently by Member States.**

**We further recommend that, instead of schemes being developed by each Member State of the European Community, a unified certification scheme should be developed and implemented across Member States. Financial support and advice should be provided to countries that might find it difficult to implement certification.** We encourage the UK Government to take the lead in developing a unified certification scheme with other Member States of the European Community, and in coordinating finance and expertise across Europe to support countries that might struggle to implement certification.

**Q7: Do you agree our proposed approach for requiring information on the "appropriate and relevant" information?**

In article 18(3), the RED requires that suppliers provide verified "appropriate and relevant information" on:

- measures taken for soil, water and air protection;

- the restoration of degraded land;
- the avoidance of excessive water consumption in areas where water is scarce; and
- measures taken to take into account a range of social issues (NB: this includes the impact on social sustainability, including the availability of food stuffs at affordable prices, in particular for people living in developing countries, land rights and labour rights issues).

The RED does not impose any minimum requirements related to these issues. Also, it does not require the information to be verified before the Member State counts the biofuel towards its renewable energy obligation. Therefore, the UK Government is proposing that the verification of this particular sustainability information is not linked to the issuing of an RTFC. Rather, suppliers would be required to provide a verified report regarding the information by the “cut-off” date. The UK Government also proposes that failure to provide a verified report of this information would leave the supplier liable to a civil penalty of up to the lesser of £50,000 or 10 percent turnover.

#### *Regarding the social sustainability information*

We welcome the general direction that the RED has taken and that the RTFO proposes to take in requiring information on a range of social issues. As outlined above, there is convincing evidence of some biofuel production harming people’s essential rights, and their right to just reward, including labour and intellectual property rights. There is also evidence of inequitable distribution of costs and benefits.

However, the RED and therefore the RTFO proposal do not go far enough. In the report, **we recommend that policy makers at the European Commission level and in Member States replace current Renewable Energy Directive and national biofuels targets with an alternative, proportionate, target-based strategy that is in accord with our Ethical Principles and that drives change in a more nuanced, flexible and responsive way (6.46)**. These Ethical Principles include: Principle 1 (essential rights); Principle 2 (environmental sustainability); Principle 3 (GHG savings); Principle 4 (just reward) and Principle 5 (equitable distribution of costs and benefits). **We urge the UK Government to amend the RTFO such that it is in accord with *all* the Ethical Principals – not just those relating to environmental sustainability (see answer to Q3)**. In practice, this would mean that the RTFO should require that biofuel supplied in the UK must be shown by an independent auditor to be compliant with social sustainability (as well as environmental sustainability) criteria before an RTFC is awarded. As outlined in our response to Q3, we recommend that this be enforced through a certification scheme.

#### *Regarding wider environmental sustainability*

In terms of environmental sustainability, we also welcome the general direction that the RED has taken and that the RTFO proposes to take in requiring information on a range of environmental issues. However, again neither instrument goes far enough.

The UK Government has already proposed that the provision of RTFCs be dependent on demonstrable compliance with environmental sustainability criteria regarding GHG emission savings; biodiversity and high carbon stock. We urge the UK Government to go further in its understanding of “environmental sustainability”. **We urge the UK Government to ensure that provision of RTFCs is also dependent on demonstrable compliance with all appropriate environmental sustainability criteria, where choice of criteria is informed by evidence.** Thus, these criteria might also include the first three criteria of article 18(3) of the RED (soil, water and air protection; restoration of degraded land; and the avoidance of excessive water consumption in areas where water is scarce).

## **Double reward**

In line with the RED, the UK Government proposes to allow any biofuel that is produced wholly from wastes, residues, non-food cellulosic material, and lignocellulosic material to ‘count twice’: i.e. two RTFCs would be awarded per litre of renewable fuel or kilogram of renewable gas. Where the biofuel is made partially from such materials, the reward will reflect this.

**We welcome the proposal for double reward but on the condition that evidence is provided first through certification, that biofuel production was in accord with our Ethical Principles and therefore compliant with environmental and social sustainability criteria, before even the first RTFC is awarded.**

We also welcome the proposal for double reward as it will incentivise the research and development of new biofuel technologies which typically make use of such feedstocks and endeavour to avoid the environmental and social harms associated with some of the first generation biofuels, and to produce significant net GHG savings. Indeed, in the report **we call on policy makers to incentivise research and development of new biofuel technologies that need less land and other resources, avoid social and environmental harms, and reduce greenhouse gas emissions (6.20).**

## **Scope of the RTFO**

**Q12: Do you agree with our proposal to pursue Option B to expand the scope of the RTFO to include fuels intended for use in NRMM but to revise the obligation levels?**

We welcome any proposal which, like Option B, widens the scope of biofuels that are obligated but as long as the biofuel is shown by an independent auditor to be compliant with the aforementioned environmental and social sustainability criteria. We see the broadening of the scope as an important measure for enabling a ‘level playing field’ within the biofuel industry, which would prevent displacement/leakage of unsustainable practices, and inequitable burden of responsibility. Indeed, **we also encourage the UK Government to consider extending the scope of the RTFO to other end uses of biofuel when they emerge (e.g. aviation), and to require that biofuel used satisfies our Ethical Principles.**

We also welcome the concomitant proposal contained in Option B – on the basis of sustainability concerns – not to increase the absolute levels of biofuels, and therefore to revise the obligation levels. However, in Principle 6 of the ethical framework, we recommend that if the first five principles are respected and if biofuels can play a crucial role in mitigating climate change then, depending on certain key considerations, there is a duty to develop such biofuels. **Therefore, we recommend that in the future the UK Government review its decision not to increase the absolute level of biofuel required under the obligation in light of any new information that arises.**

**Q26: Do you have any evidence/comments to make regarding the benefits of allowing non-biodegradable feedstocks to count towards meeting the RTFO targets?**

We are unable to comment on the technical merits of counting non-biodegradable feedstocks toward the RTFO. However, we welcome the shift in thinking that the primary criteria for whether a fuel should be rewarded under the RTFO should be its renewability and sustainability, in our environmental and social understanding of the latter. We also welcome any biofuel being used to discharge the obligation as long as it is first shown to be compliant with environmental and social sustainability criteria.

Additionally, we welcome any move which incentivises – even indirectly as the case is here – the research and development of new biofuel technologies which aim to avoid the social and environmental harms associated with first generation biofuels. Such new approaches could make use of these feedstocks.

#### **Proposed administrative changes**

**Q28: Do you agree with our proposal to end the recycling of the buy-out fund? If not, please can you explain why?**

**We recommend that policy makers and other stakeholders use the Ethical Principles as a benchmark when evaluating not only biofuels technology, but also policy development (4.26).** This is in recognition that biofuel production does not exist – and has not existed – in isolation to policy; rather, biofuel systems exist comprising the biofuel production pathway, the policies that led (directly and indirectly) to the establishment of the pathway, and the ethical implications of these policies.

The UK Government proposes to end the recycling of the buy-out fund on the basis that this will improve the ability of the buy-out fund to relieve pressure in food markets when prices are high. **We urge the UK Government to use the Ethical Principles to evaluate the policy proposal before proceeding and to make sure that appropriate safeguards are in place to ensure that such redistribution functions effectively.**



## Enforcement and civil penalties

**Q32: Do you have any comments on our proposed changes [i.e. that the information supplied to demonstrate compliance with environmental sustainability is 'accurate' as opposed to 'accurate to the best of the supplier's knowledge and belief' as is present]?**

Under this proposal, suppliers could be liable to a civil penalty if they provide information that is inaccurate. They would no longer be able to rely on the defence that it was accurate to the best of their knowledge.

We endorse any measure which serves to enforce full compliance with the sustainability criteria relating to GHG emission savings, biodiversity and high carbon stock land. However, **we urge the UK Government to also require demonstrable compliance with social sustainability criteria, and therefore that the information provided in this regard should also be 'accurate' at threat otherwise of a civil penalty.**

### **Removing the duty of the RTFO Administrator of report to Parliament**

The UK Government proposes to remove this duty based on the reasoning that: i) the duty was originally intended so that Parliament could scrutinise the work of the RFA as an independent arms length body; and ii) the Secretary of State will assume the role of RTFO administrator and is already directly accountable to Parliament. Under this proposal therefore, Government would only report to the European Commission on a biennial basis – as required in the RED, article 22 – and this report would replace the annual RTFO report that has been produced by the RTFO administrator.

It is arguable that the only purpose/use of the original duty was to enable Parliament to scrutinise the work of an independent arms length body. Given that a report on the performance of obligated suppliers was also produced each year, for example demonstrating their compliance with a voluntary sustainability certification scheme, it could be argued that the duty was of value in monitoring suppliers.

In our report, **we recommend that policy makers at the European Commission level and in Member States replace current Renewable Energy Directive and national biofuels targets with an alternative, proportionate, target-based strategy that is in accord with our Ethical Principles and that drives change in a more nuanced, flexible and responsive way (6.46).** We have already advocated in this submission how the RTFO should be brought in accord with the Ethical Principles. Here, **we urge the UK Government to implement biofuel policy in such a way that is flexible and able to be responsive, for example, to emerging adverse situations (e.g. failure of the food crops).** We are concerned whether biennial reporting to European Commission – or indeed annual reporting to Parliament – would satisfy this requirement. We urge the UK Government to implement appropriate measures that enable a biofuel policy to be responsive.

## Other comments

The consultation does not address two further important issues. We would like to raise the UK Government's attention to these through the following comments and recommendations.

### *Changes to the RTFO schedule*

At present the UK Government is not proposing to make any changes to the biofuel supply trajectory set out in the RTFO, given that it is awaiting new research regarding: a) the best deployment of biofuels across the transport sector; and b) current targets for renewable energy.

We recognise the reasoning for no changes being made to the RTFO schedule now. The changes we advocate, however, are to the nature of the RTFO: **we recommend that the UK Government replace the current RTFO with a more sophisticated target-based strategy that fully accounts for the wider consequences of biofuel production, and drives change in a more nuanced, flexible and responsive way.** We make an analogous recommendation to the European Commission, and we urge the UK Government to lead in its amendment of its national biofuel policy.


### *Application of Ethical Principles to other sectors*

We have suggested that a comprehensive ethical standard should be applied to biofuels production through certification. However, several elements of the standard and the associated certification scheme should ideally be applied to all similar products and not just biofuels. There is no reason why our ethical framework and its Principles should apply to just one sector of agricultural and technological activity. Indeed, there is a risk that in putting barriers (i.e. ethical conditions) in the way of biofuels development, this could inhibit their development, while the Principles we have developed continue to be violated in other agricultural, energy generation or trade practices. **We therefore propose that our Ethical Principles be used as a model or benchmark in all comparable technologies and products.** This implies a very ambitious and challenging prospect for those devising and implementing the necessary policy instruments. However, we should attempt to go as far as possible along the way to meeting relevant standards in the context of global climate change. **We urge the UK Government, in establishing its comprehensive (i.e. social and environmental) sustainability certification for biofuel to be counted toward the RTFO, to initiate and lead these wider discussions between relevant sectors.**

Please do not hesitate to contact me if you would like to discuss any of these points further. Full details of the Council's report and recommendations are available through the Council's website at:

<http://www.nuffieldbioethics.org/biofuels-0>.

Yours sincerely

A handwritten signature in black ink that reads "Hugh Whittall". The signature is written in a cursive style with a large initial 'H' and a long, sweeping underline.

**Hugh Whittall**

Director, Nuffield Council on Bioethics

Email: [hwhittall@nuffieldbioethics.org](mailto:hwhittall@nuffieldbioethics.org)

Tel: 020 7681 9619