THE UK GOVERNMENT'S RESPONSE TO THE EXECUTIVE SECRETARY, CONVENTION ON BIOLOGICAL DIVERSITY

Ref.: SCBD/STTM/JM/DCO/76500

NOTIFICATION No. 2011-121 BIOFUELS AND BIODIVERSITY

The Secretariat of the Convention on Biological Diversity (CBD) has – pursuant to CBD Decision X/37 on Biofuels and Biodiversity – invited Parties to submit

1. ***experiences and results from assessments of the impacts of biofuels production and use on biodiversity that affect related socioeconomic conditions***;

2. ***to develop national inventories so as to identify areas of high biodiversity value, critical ecosystems and areas important to indigenous and local communities and assess and identify areas [...] and ecosystems that could be used in or exempted from the production of biofuels***;

3. ***to elaborate supportive measures to promote the positive and minimize or avoid the negative impacts of the production and use of biofuels on biodiversity;***

4. ***to address impacts of the production and use of biofuels on biodiversity and the services it provides [...] by developing and implementing land-use and water policies and other relevant policies and/or strategies in particular by addressing direct and indirect land use and water use changes affecting [...] areas of high value for biodiversity and areas of cultural, religious and heritage interest and indigenous and local communities***

In response to Notification No**.** 2011-121, the UK wishes to report the following:

Address impacts of the production and use of biofuels on biodiversity [...] in particular direct and indirect land use changes

Biofuels policy in the UK is governed by the EU's Renewable Energy Directive (RED).[1] The Directive contains a set of sustainability criteria (Article 17) which aim to avoid impacts on important biodiversity and ecosystems as well as areas of high carbon stock that can be affected by biofuel production and use. The sustainability criteria cover in particular primary and biodiverse forests, peatlands, wetlands, highly biodiverse grasslands and protected areas. Domestic and imported biofuels must comply with the sustainability criteria in order to count towards the EU's 10% renewable transport fuel target. The Directive will be transposed into UK law by December 2011 through amendments to the UK's Renewable Transport Fuels Obligation[2].

As part of the preparations for the new controls, the UK commissioned a short study into a model proposed by the Institute for European Environmental Policy[3] to implement the

[1] http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:140:0016:0062:en:PDF

[2] http://www.legislation.gov.uk/uksi/2007/3072/contents/made

[3] http://www.ieep.eu/

sustainability criteria relating to highly biodiverse grasslands. A copy of the study's report is available at: http://randd.defra.gov.uk/Document.aspx?Document=WC1005_9796_FRP.doc

The UK has also prepared draft guidance on the types and sources of information that suppliers might use to show any biofuel sourced from the UK has been cultivated in a manner that is consistent with the Directive's sustainability criteria. This is subject to public consultation.

Indirect land use change

On the issue of indirect land use change (ILUC), the UK has published a report on a framework developed by the UNEP- World Conservation Monitoring Centre (WCMC) for measuring the ILUC impacts on biodiversity. The report is available at: http://jncc.defra.gov.uk/page-5924.

The UK is also seeking tenders for research into the impacts of low carbon energy technologies on biodiversity. This research will also identify the gaps in our knowledge of those impacts and propose how they might be tackled. It will also aim to develop a method for incorporating biodiversity into an interactive tool that has been created to examine options, trade-offs and consequences of different energy mixes that might be used to meet the UK's target of reducing greenhouse gases by 80% by 2050. The research will also test the practicality of the above mentioned UNEP- WCMC framework for measuring ILUC impacts on biodiversity; and assess the effectiveness and optimal mix of ILUC mitigation measures. The research will report in the autumn of 2012.

UK's Bioenergy Strategy

Furthermore the UK Government is currently developing a strategy on how bio-energy can meet energy and climate change goals in a sustainable way. The strategy will set out the Government's ambition for bio-energy across heat, electricity and transport fuels to 2020 and 2050, in order to provide a clear framework for deployment. The strategy will cover the following broad issues: the amount of sustainable biomass which is available to the UK; how best to use limited bio-energy resources between heat, electricity and transport; and the impact of bio-energy demand on other sectors which use the same materials such as food and construction.

In developing the strategy, the Government has sought the views of experts in the field of bio-energy and the environment and considered how different options to safeguard biodiversity and eco-system services could be implemented and what effect they would have on the supply and price of bio-energy. The strategy will be published at the end of 2011.

Assessments of the impacts of UK biomass and biofuels consumption on biodiversity

The UK – as many developed countries – is increasingly drawing on the services of overseas ecosystems to support its own economic growth. The UK Government is conducting research into the overseas impacts of its consumption of biomass (and other commodities) and developing techniques to monitor such impacts in time and space. This research includes the impacts of the use of imported biofuels and the use of biomass for power and energy production.

The results of some of this research are reported in the UK National Ecosystem Assessment[4] and complementary reports[5]. The links between the UK economy and associated impacts on overseas ecosystems are complex. In the case of agricultural and managed forest systems, the pressures applied to overseas ecosystems can be measured in terms of land and water required to produce the biomass (including biofuels) imported into the UK[6]. These measurements help to identify those global pressure points where UK consumption may have significant potential for creating negative impacts on overseas ecosystems, alerting government to the need for further analysis and the development of suitable policy responses.

The results of this work to date can be summarised as follows:

Current impacts:

- An overseas land area of at least 14 million hectares is required to produce the 52 million tonnes of biomass imported annually into the UK, including food, forest products and biofuels;
- Approximately 10 million hectares are required to supply imported foodstuffs for human or animal consumption;
- Forest products (timber, paper, pulp) account for an overseas land use demand of approximately 3 million hectares;
- In 2008, 90% of the biofuel used in the UK was reported as coming from overseas feedstocks (currently 80% is imported) requiring an estimated 1.4 million hectares of non-UK land for its production[7]. The most widely reported feedstocks are currently soya based biodiesel from Argentina and sugarcane ethanol from Brazil. The pressures arising from UK biofuels consumption are currently being felt in grassland and temperate forest biomes in these regions rather than tropical forest systems of South-East Asia.

[4] UK Dependence on Non-UK Ecosystem Services http://uknea.unep-wcmc.org/Resources/tabid/82/Default.aspx
[5] Joint Nature Conservation Committee - http://jncc.defra.gov.uk/default.aspx?page=4213
[6] The global impacts of biomass consumption in the United Kingdom - http://jncc.defra.gov.uk/page-4353
[7] The global biodiversity impacts of UK biofuels consumption. http://jncc.defra.gov.uk/pdf/Biofuelsfootprint%20(2).pdf

Future impacts

- The overseas land required to supply the UK with imported biomass could double from the current 14 million hectares to 28 million hectares by 2030 driven by the demand for food, biofuels and biomass for heat and power;
- By 2020, if current consumption patterns persist, additional demand for imported biofuels could create an additional land use requirement of between 4 and 8 million hectares;
- The implementation of new national bioenergy policies will dramatically increase demand for imported biomass for use in power and heat generation. This will have serious implications for the UK's overseas footprint potentially creating an additional demand for up to 7 million hectares of overseas land to supply this energy sector;
- The nature and location of future impacts will depend on fuel types used and feedstocks. This usage will be influenced by policies on greenhouse gas reductions required from biofuels and biomass for energy, and the imposition of sustainability criteria including those related to indirect land use impacts.