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Consultation on biofuel issues

Regarding the specific questions the Commission has put forward for consultation, we have the following comments:

1.1: Yes, this could be a feasible process.

1.2: This needs further assessment.

1.3: As a starting point, this could be acceptable. The suggested process (listed a, b, c) seems a feasible structure for practical implementation. However, the possible criteria listed in box 1 are not sufficient to give an adequate level of assurance of sustainability. Other environmental effects than net greenhouse gas savings should be included in the underlying well-to-wheel life cycle assessment (LCA), e.g. resource use like water and pesticides. Instead of solely setting a minimum level of greenhouse gas reduction, incentives could be tied to the level of CO_2 reduction that can be documented in a LCA perspective. In all events, the minimum level of greenhouse gas savings should be significantly higher than the suggestion in criterion 1 - we would suggest a minimum greenhouse gas savings of 25-30% for the biofuel itself (i.e. a 5% biofuel blend should achieve at least 5% x 25-30% reduction). The main purpose of a larger share of biofuels is to reduce greenhouse gas emissions. Accepting biofuels that are no better than, or only very slightly better than, fossil fuels, will not lead to any significant reduction in greenhouse gas emissions from transport.

Regarding the suggested criterion 3 on biodiversity, this also seems insufficient as an adequate assurance level. Both the choice of exceptional biodiversity as cut-off point, as well as the rather general definition of type of land use associated with such exceptional biodiversity, seem rather too weak to ensure adequate protection of biodiversity. We instead propose: "These land uses would be those that increase pressure on biodiversity (species or nature types) that are classified as threatened or of special ecological importance on international, national or regional scale". Also, the heading for criterion 3 should be expanded to also include the production phase. We would like to suggest "avoiding major loss of biodiversity and ecosystem services". The elements to be taken into account would then be:
- land-use (incl. habitat conversion and fragmentation, identification of areas suitable for production of biofuels)
- the potential for an area/ecosystem for producing ecosystem services (e.g. water balance)
- preventing the spread of invasive alien species and GMOs.

The term "sustainability" includes both environmental and ethical aspects. We would therefore also like to propose adding a fourth criterion relating to socioeconomic impacts relating to issues such as land tenure, local and indigenous communities and workers' rights.

See further details below in answer to questions 1.4 - 1.6.

1.4: It is important to avoid land use that could release carbon stocks from other compartments of an ecosystem (for example, intensive harvesting of forests could release considerable amounts of carbon from the forest floor).
Carbon stock differences between land uses would appear to be very different for various biofuels, where e.g. grasslands (http://www.sciencemag.org/cgi/content/abstract/314/5805/1598) and palm oil grown on peatlands (http://www.wetlands.org/news.aspx?id=804eddfb-4492-4749-85a9-5db67c2f1bb8) are examples at opposite extremes with regard to first-generation biofuels. Accordingly, carbon stock differences between land uses should be included in a LCA of net CO_2 reductions for the biofuel, as also discussed in 1.3.

1.5: The ecosystem approach related to the Convention on Biological Diversity (CBD) should be used (Principle 3: Ecosystem managers should consider the effects (actual or potential) of their activities on adjacent or other ecosystems). To the extent that land adjacent to land uses associated with exceptional (or other systematically and scientifically ranked) biodiversity forms part of important ecosystem functions or ecosystem services not covered by the protected area or other status awarded to land uses associated with exceptional biodiversity, they should be included.

1.6: See also 1.3 – where we propose "These land uses would be those that increase pressure on biodiversity (species or nature types) that are classified as threatened or of special ecological importance on international, national or regional scale", instead of "exceptional biodiversity". The precise definition of this criterion is in any case a complex issue. A working definition could be based on the loss, fragmentation and degradation of natural and semi-natural habitats in forests, grasslands, wetlands and peatlands.

Practically speaking, this criterion refers to existing and potential protected areas. Degree of endemism/biodiversity/chance of succeeding in conservation, given likely scenarios for climate change /importance of ecosystem services associated with the land use, are some other possible definitional criteria. Relevant decisions under the CBD should form the starting point for any work on definition (http://www.cbd.int/ecosystem/default.shtml).

2.1: The variables appear to be relevant and important. However, methodological problems are to be expected in practical implementation, including how to establish baselines.

2.2: Such a link would be helpful in providing a comprehensive LCA of the various biofuels. We have, however, no specific advice on how this could be achieved.

3.1: The main purpose of encouraging development and use of second-generation biofuels should be: larger net greenhouse gas savings, use of waste or marginal raw materials, better/less resource use and less pressure on land and biodiversity. The definition of second-generation biofuels in this context should reflect this main purpose. Use of LCA which includes a broader range of environmental effects and resource use, as well as net greenhouse gas savings ("well to wheel") should provide a basis for definition of the types of second-generation biofuels that should be promoted.

3.2: Extra counting and preferential subsidy status might be a feasible and practical way to handle this. Any preferential treatment should be firmly linked to documented reductions in

net CO_2 emissions (LCA). We would, however, also recommend a focus on encouraging the development of technology for producing commercial grade second-generation biofuels, as well as promoting the use of such biofuels. At present there is not production of second-generation biofuels at volumes or prices for ready wide-spread use. R&D support could therefore be a very useful addition to other incentives. Norway is interested in efforts to stimulate and cooperate on R&D related to the development of second-generation biofuels.

3.3: See 3.1 above. Net greenhouse gas savings should be the most important criterion for support of second-generation biofuels. We recommend a net savings level of at least 30-50% as a minimum criterion for support of such biofuels. Instead of solely setting a minimum level of greenhouse gas reduction, preferential treatment of second-generation biofuels could be tied to the level of CO_2 reduction that can be documented in a LCA perspective.

4.1 - 4.6: No comment.