WWF

BRIEFING PAPER

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Indirect land use change

WWF welcomes the Commission's legislative proposal on indirect land use change[1], which is aiming to steer the strategy on renewable energy in transport to a more sustainable pathway in the medium to long-term time horizon. The Commission's proposal shifts away from first generation food crop-based biofuels by limiting their contribution towards the 10% transport target and gives priority to non-food feedstocks and advanced technologies. It provides incentives for investments in the near future in more promising technologies. Improved guidance on sustainability of waste and residues use is crucial. Furthermore, the introduction of mandatory emissions accounting from indirect land use change is absent – this is true for all sources.

[1] DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL amending Directive 98/70/EC relating to the quality of petrol and diesel fuels and amending Directive 2009/28/EC on the promotion of the use of energy from renewable sources

WWF, as well as several social and environmental groups, have expressed concerns about the indirect impacts caused by the production of land- and food crop-based biofuels. Biofuels causing indirect effects are undermining the integrity of the EU's climate target for 2020. The likely impacts of some land-based biofuels on greenhouse gas emissions, biodiversity and on food security[2] are negatively impacting both people and our natural capital, and urgently require effective policies.

A CAP ON FOOD CROP-BASED BIOFUELS

EC proposal

The limitation of food crop-based biofuels (oil crops, sugars, cereals and other crops rich in starch) to 5% of the 10% transport target in the Renewable Energy Directive. This approximates the current level of production. Furthermore, it includes a commitment stating that post-2020 biofuels produced from food crops will no longer receive public financial support.

WWF's view

The current proposal is not solving the problem of indirect land use change entirely, as the expansion of ligno-cellulosic feedstocks could take place on productive land, but it limits possible competition between energy and food through the Renewable Energy Directive. WWF sees it as a potential and effective short-term measure, as this responds also to social risks related to biofuel production not covered under the sustainability criteria.

WWF Recommendation:

For WWF it is crucial that policy sticks to the limit of 5% at the highest, as EU policies should not contribute to any further unsustainable expansion of biofuels. Furthermore, the current proposal should be amended to incorporate the limit into the implementation of the Fuel Quality Directive. This would ensure that the use of food-based biofuels will not exceed the 5% limit set under the RES Directive.

[2] See Laborde (2011), "Domestic Policies in a Globalized World: What You Do is What I Get. Consequences of biofuel mandates for global price stability." www.foodsecurityportal.org/sites/default/files/A_brief_overview_of_Foodsecurity_and_Biofuels_1.pdf for a discussion of these issues.

INDIRECT LAND USE CHANGE EMISSIONS

EC proposal

Emissions from indirect land use change need to be reported to the Commission by companies and Member States. ILUC emissions are not included in the carbon accounting methodology as mandatory and therefore remain largely unreported.

WWF's view

Consequently, the "reporting only" requirement leads to a weaker market push for better biofuels. Accurate carbon accounting, including the indirect emissions caused by land-based biofuels from the different feedstocks, is important in order to show the real impacts of biofuels use in comparison to fossil fuels. WWF advocates the introduction of ILUC factors in the Renewable Energy Directive and the Fuel Quality Directive to have consistent accounting under both Directives. ILUC accounting helps to distinguish between good and less good biofuels leading to higher greenhouse gas savings through the contribution of biofuels. An assessment of indirect effects and an accounting framework for emissions from indirect land use change is needed. It should account for all feedstocks and sources used to produce biofuels, even ligno-cellulosic feedstocks residues and waste products. By excluding ILUC factors as a mandatory measure to implement the directive, the Commission has failed to steer the market towards the most sustainable feedstocks under the 5% cap, as well as being unsuccessful for expansion of lingo-cellulosic feedstock on land. The reporting requirements free Member States and companies from being held responsible for taking into account the full impacts of the feedstocks.

WWF Recommendation:

The ILUC Directive should include a provision to include the accounting of indirect carbon emissions under both Directives. The ILUC factors need to qualify the food-based biofuels under the 5% limit as well as biofuels coming from any land being used under one either of the Directives. WWF recommends implementing ILUC factors after 2017, when most of the

investments are paid back, covering about 95% in the biodiesel sector[3]. Mitigation of ILUC could be shown through the application of the "Low Indirect Impact Biofuels"[4] methodology.

WASTE AND RESIDUES

EC proposal

Quadruple accounting towards the renewable Energy Directive for biofuels from municipal solid waste, aquatic material, agricultural aquaculture, fisheries, and forestry residues, and renewable fuels of non-biological origin.

WWF's view

WWF supports the increased use of waste and residues for biofuels, and supports incentives provided for the use of these pathways. This is a resource-efficient approach, enabling the economic use of otherwise unused material. However, the Commission needs to work on a definition of waste and residues and should provide concrete lists of suitable sources. Residues and waste streams are of very diverse origin and the large-scale use and extraction of them could lead to negative impacts on our ecosystems together with increased carbon emissions, e.g. from use of slowly decomposing forest residues, or over-extraction of straw. Therefore, the Commission needs to address possible risks and severe impacts by defining and setting sustainability limits in this early stage of use for the biofuels sector.

The deployment of advanced biofuels technologies needs to be supported –but with sufficient and early care. A "roadmap" document looking into the key questions related to the technology as well as the feedstocks and their sustainability impacts and limits related to large scale use, should be carried out and published in this early stage.

WWF Recommendation:

WWF proposes a common definition of suitable wastes and residues for the use of biofuels and the quadruple accounting. A revision of the concrete list of waste and residues streams mentioned in the annex of the proposal should be produced, aiming at minimizing indirect effects and potential sustainability limits. Companies should deliver an ex-ante evaluation of environmental impacts and indirect effects of large-scale projects in order to avoid problems of acceptance. An "EU roadmap" document looking into the key questions related to technologies as well as feedstocks and their sustainability impacts and limits[5] related to large scale-use, should be carried out and published in this early stage.

[3] Ecofys 2012: Assessing grandfathering options under an EU ILUC policy

[4] Ecofys 2011: Responsible Cultivation Areas Identification and certification of feedstock production with a low risk of indirect effects http://www.ecofys.com/en/publication/ensuring-biofuels-with-a-low-risk-of-indirect-impacts/

LIGNO-CELLULOSIC MATERIALS

EC proposal

Double accounting of the energy content towards the Renewables Directive of other waste, non-food ligno-cellulosic and ligno-cellulosic materials (e.g. short rotation coppice) from non-residues.

WWF's view

The use of ligno-cellulosic material is promising given its emissions reduction potential. Advanced technologies are the key to make use of ligno-cellulosic materials and for that reason WWF generally supports the proposal to help these industries by giving them incentives to build up in the near future. However, ligno-cellulosic feedstocks take up land. The proposal should acknowledge the potential and the risk of ligno-cellulosic feedstocks to indirect effects such as needs for additional land, loss of carbon storage of forest soils and competition of wood based biomass between energy and other sectors, as well as impacts on food as they might be produced on agricultural land. This will in particular be the case when the processing industry has scaled up. Under the current proposal, the situation may arise that biofuels produced from energy crops will be put on agricultural land displacing food production without accounting for the ILUC emissions.

WWF Recommendation:

Sustainability aspects of the ligno-cellulosic feedstocks need to be explored and addressed on a feedstock basis in order to anticipate negative effects and to avoid over-use. An ILUC factor for ligno-cellulosic material should be introduced by 2017 as well as for all biofuels. Mitigation of ILUC could be shown through the application of "Low Indirect Impact Biofuels" methodology and it should be applied for the production of ligno-cellulosic feedstocks.

[5] WWF Briefing paper 2012: Smart use of residues. Exploring the factors affecting the sustainable extraction rate of agricultural residues for advanced biofuels

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