

Biofuel issues in the new legislation on the promotion of renewable energy

Public Consultation Exercise, FINAL Energy and Transport Directorate-General, European Commission

Q1. How should a biofuel sustainability system be designed?

1.1 Is the possible way forward described feasible?

The possible way forward describes the implementation of the proposed sustainability criteria for biofuels. Firstly, IUCN believes that the criteria should be strengthened to ensure sustainable and equitable biofuel feedstock production. A broader set of criteria are required, based on an ecosystem approach for natural resource management, as defined under the UN Convention on Biological Diversity: a strategy for integrated management of land, water and natural resources that promotes conservation and sustainable use in an equitable way. Amongst others, this would include water and soil qualities and quantities, and considerations for livelihoods and rural development. IUCN recommends the EC build on the work of its Member States, several of which are developing more advanced criteria that are further being compiled by the Roundtable on Sustainable Biofuels. Secondly, the implementation of the sustainability criteria should be compatible with implementation systems currently being developed by several Member States. This should be harmonised across the EU to ensure consistency in application and markets. The indicators required as evidence for criteria compatibility should also be as harmonised as possible. An important issue to resolve in this case is the compatibility of the calculation of GHG emissions (including GHG emissions from land-use change). A legislative framework for the sustainability criteria should ensure social and ecological sustainability, but not impose trade barriers on producer countries. The involvement of producer countries view in the design of a biofuel sustainability programme is therefore important. IUCN recommends a consultative process with stakeholders from producer countries (such as the RSB) to ensure harmonisation across the EU and producer countries, and to ensure effective criteria implementation.

1.2 Likely administrative burden

Claims of sustainable and equitable biofuel feedstock production would be verified through an independent, third party verification system that is designed to ensure that smallholders can access and benefit from biofuel markets. These issues are being addressed in other sustainability initiatives, such as Forest Steward Council (FSC), Roundtable for Sustainable Palm Oil (RSPO) and the EurepGAP certification scheme for good agriculture practices. The EU can reduce the extra administrative burden in the same way as the Roundtable on Sustainable Biofuels, by adopting policies that build on and complement existing initiatives. EU Member States should assist biofuel feedstock producers to comply with additional sustainability policies.

1.3 Comments on way forward

The proposed sustainability criteria 1 to 3 together with additional criteria on ecological sustainability and social well-being, would sufficiently cover the *direct* effects of biofuel feedstock production. Further criteria are needed to address the potential *indirect* negative effects of biofuel feedstock production including displacement of food crops and increasing feed and food prices. The increasing demand and prices for biofuel feedstock are likely to result in the further expansion of agricultural systems and compete with other agricultural production or forestry for land and natural resources. Even with sustainable biofuel feedstock, the displacement of other agricultural production would cause a net loss of biodiversity and the degradation of ecosystems. This is particularly of concern if a biofuel feedstock development causes the displacement of local food production from good quality land. The EC can start to address the potential displacement problem by setting up an independent group to monitor trends for possible indirect effects (see question 2). Pro-active measures to avoid the risks of displaced agricultural production should be developed in a wide consortium of stakeholders. In addition to regulatory approaches, alternative financing for ecosystem services and payments for avoided deforestation could be used as market mechanisms for internalising costs of displacement. The Commission should provide the enabling legislative framework for such policies.

Sustainability criteria

1.4 Carbon stock differences in land use changes

Sustainability criterion 1 and 2

GHG emission reduction is one of pillars of the EU biofuels policy, thus the EC should strive for a net positive GHG emissions reduction in the policy. Setting a minimum GHG emission reduction compared to the fossil fuel equivalent is realistic and achievable (i.e. 40%). A system of continuous improvement should promote the increase of the GHG savings. A minimum percentage should be made obligatory and greater GHG savings (i.e. 40-80% and > 80%) should be made attractive through market-based mechanisms. Sustainability criteria 2 is also extremely important, as biofuels must not be produced in areas which are particularly effective for carbon storage such as wetlands, peatlands and grassland. Criterion 1 and 2 should be merged in order to take into account carbon stock, both above and below ground, as part of the GHG balance for the full lifecycle. The system for calculating GHG savings developed by JRC/EUCAR/Concawe does not incorporate GHG emissions from land-use change. The Roundtable on Sustainable Biofuels is developing a tool for complete GHG calculations, based on tools currently under development in other EU Member States. A similar calculation tool should be adopted for the EU biofuels policy.

1.5 and 1.6 “Exceptional biodiversity” term and use

Sustainability criterion 3

The term “exceptional biodiversity” does not currently have a standard definition in the conservation world. IUCN recommends the use of existing tools and definitions to identify such areas. For example, World Heritage Sites under the World Heritage Convention take into account areas of “outstanding cultural or natural importance”. The IUCN Protected Area categories detail a range of management options from the strictly protected to Category V, for example, which allows “a sustainable flow of natural products and services to meet community needs”. The sustainability criteria developed by the Netherlands uses a “stepwise approach” that is based on a priority list for biofuel feedstock developments. On a first level, developments must respect International Conventions (such as CBD and CITES). On a second level, biofuel developments cannot take place in Protected Areas and High Conservation Value Areas (HCVA), such as the EU’s Natura 2000 (areas already recognised by the EU as being of Community Interest for their high biodiversity value).

When a biofuels development does take place, conservation practices should be adopted in such as areas set aside for biodiversity, biological corridors and appropriate buffer zones, as described under the UNESCO Man and Biosphere reserves programme.

The approach is compatible with other agricultural and forest sustainability criteria developed or under current development, for example the Forest Steward Council, the Roundtable for Sustainable Palm Oil and the Roundtable for Responsible Soy. The HCVA approach is also multi-stakeholder and can be used at various levels (local, regional and national) and can address social and cultural issues in addition to environmental and biodiversity criteria.

Finally, any EU policies or legislation in this area should be developed in line with the recommendations of the European Commission’s Biodiversity Communication Action Plan (2006), which includes a series of targets in relation to climate change mitigation and adaptation measures, and use of biomass. This includes the use of environmental impact assessments which take into account impacts on High Nature Value farmland and forests.

Q2. How should overall effects on land use be monitored?

IUCN supports the idea that direct and indirect effects from biofuel feedstock production should be monitored. In addition to land use changes associated with specific biofuel feedstock production, the indirect effect of displacing other agricultural production to marginal areas should also be monitored. Other indirect effects include price fluctuations of agricultural commodities and related impacts on biofuel, food and feed markets. An independent multi-stakeholder group should be commissioned by the EC to monitor land-use changes (i.e. through remote sensing based on satellite images and ground truthing) and analyse trends and price developments for various commodity markets. This group should report to the Commission and also advise the Commission and/or Member States on how to minimise the indirect effects of biofuel feedstock production. For example, based on scientific data and monitoring, the independent monitoring group could inform key decisions of Member States as where to/where not to source feedstock based on sustainability performance.

Q3. How should the use of 2nd generation biofuels be encouraged?

'2nd generation' biofuels are expected to achieve up to 90% GHG emission reduction compared to fossil fuel equivalents. Hence a policy for GHG emission reduction would stimulate the development of new technologies, including enzymatic hydrolysis amongst others, required for the full development and commercialisation of 2nd generation biofuels. Market mechanisms could further promote the development of new technologies achieving more than the required minimum GHG emission reduction (i.e. 40- 80%) or superior GHG emission reduction (>80%). Thus IUCN recommends maintaining the mandatory volume mix of biofuels in transport fuels for '2nd generation' biofuels at the level of '1st generation biofuels of 2%'. IUCN believes that stimulus for the development of '2nd generation' biofuels should be linked directly to targets to reduce GHG emissions. The Commission should not promote one technology over the other. The sustainability of 2nd generation feedstock production, including full GHG balance calculation, should also be taken into account. For example, feedstock for 2nd generation biofuels can take the form of agricultural waste and residues, which are normally left on site have a role in the nutrient-, water- and carbon balance.

Q4. What further action is needed to make it possible to achieve a 10% biofuel share?

The proposed 10% biofuels target encourages investment in the bioenergy industry though it is important to avoid a situation where the focus is solely on meeting the biofuel target, regardless of a biofuel's GHG savings or other more effective strategies. IUCN therefore believes that specific **targets to reduce GHG emissions** for transport would be more appropriate. Sustainable and efficient biofuel production that contributes to GHG emission reductions would then complement other strategies, including increasing energy efficiencies, to achieve GHG reductions.