

1. How should a biofuel sustainability system be designed?

The Commission intends to bring forward a proposal for a simple incentive/support system for biofuels. Its objective is to further increase the greenhouse gas benefits of EU biofuel policy and to minimise environmental risks. The system could discourage:

- the conversion of land with high biodiversity value for the purpose of cultivating biofuel feedstocks;
- the use of environmentally harmful systems for biofuel production.

It should avoid any discrimination between domestic production and imports and should not act as a barrier to trade. Its operation should be monitored with a view to making it more sophisticated in future.

A possible way forward

One option for the initial design of the scheme (before it is reviewed and steps are taken to make it more sophisticated) would be as follow:

- a) The legislation would list the “sustainability criteria” to be fulfilled by the biofuels that are used to fulfil the biofuels target. There could be three biofuels criteria (see box 1)
- b) Biofuels that failed to meet one of these criteria would not count towards national biofuels targets. They would not count towards national “biofuel obligations”⁴ They would not be eligible for tax reductions and similar types of financial support.
- c) Member State would be responsible for ensuring that the criteria were respected. The legislation would set out some procedural requirements (for example on reporting, verification and monitoring). The legislation would define types of evidence that Member States would have to accept as evidence that the sustainability criteria were fulfilled (see box 2).

⁴ *Biofuels obligation*: a measure requiring a fuel supplier to incorporate a given proportion of biofuel in the fuel it sells.

BOX 1

POSSIBLE ENVIRONMENTAL SUSTAINABILITY CRITERIA FOR BIOFUELS

Sustainability criterion 1 – achieving a minimum level of greenhouse gas savings
Biofuels used to fulfil the requirements of the legislation should not emit more greenhouse gases in production than they save by avoiding the use of petrol or diesel – or (to give a safety margin) should achieve at least a given amount of greenhouse gas saving (for example 10%). The directive would define ‘default values’ for net greenhouse gas savings from different types of biofuel. These could, for example, be based on the ranges given in the JRC/EUCAR/Concawe “well-to-wheel” study.⁵ They would cover greenhouse gases in general, not just carbon dioxide. Biofuel suppliers could choose to use these default values, or to provide more precise information on the saving from their particular production process.

Sustainability criterion 2 – avoiding major reduction in carbon stocks through land use change
Biofuels used to fulfil the requirements of the directive should not use raw

material from land that was in certain land uses before a certain date (for example, the date of the Commission proposal).⁶ These land uses would be those that are associated with high carbon stocks (for example, wetlands). IPCC guidelines⁷ could be used to identify them. The directive would define the land uses in question.

Sustainability criterion 3 – avoiding major biodiversity loss from land use change
Biofuels used to fulfil the requirements of the directive should not use raw material from land that was in certain land uses before a certain date (for example, the date of the Commission proposal). These land uses would be those that are associated with exceptional biodiversity. The directive would define the land uses in question.

⁵ <http://ies.jrc.cec.eu.int/wtw.html>. The study shows that the main factors influencing biofuels' greenhouse gas balances are the raw material used, the energy source used in the transformation process and (in some cases) the use made of by-products.

⁶ This wording is not meant to rule out different verification systems being used. Examples include:

- "track and trace", under which a certificate accompanies the raw material/biofuel from farm to filling station;
- "book and claim", under which raw material/biofuel producers acquire certificates and fuel sellers have to obtain them, but the certificates are not necessarily transmitted along with the biofuel;
- "mass balance", based on figures for the proportion of material meeting the sustainability criteria that is contained in each load of raw material/biofuel.

⁷ Intergovernmental Panel on Climate Change

BOX 2 POSSIBLE TYPES OF EVIDENCE TO SHOW THAT ENVIRONMENTAL SUSTAINABILITY CRITERIA ARE RESPECTED

1. Some EU Member States and other countries are developing national schemes to measure greenhouse gas impacts. Once accredited for EU use through a comitology process, these would be evidence of greenhouse gas emissions in production (for sustainability criterion 1). The same approach could apply to international schemes that may be developed.

2. There are voluntary, international schemes setting standards for the production of agricultural and forest products. Some include requirements that would prevent land use change of the types described by criteria 2 and/or 3. Once accredited for EU use through a comitology process, these would be evidence that these criteria have been respected.

3. The European Community could negotiate bilateral or multilateral agreements with third countries, confirming that these countries have in place procedures to ensure that the type of land use change described by criteria 2 and/or 3 do not happen. The existence of such an agreement would be evidence that these criteria have been respected.

4. In the absence of these types of evidences, it would be for Member States to determine how to verify the fulfilment of the criteria. The directive could lay down minimum requirements for how this should be done. This option is put forward as a starting point for discussion and to give an indication of how a system could work in practice.

General questions

Question 1.1:

Do you think the “possible way forward” described above is feasible?

Yes

Question 1.2:

What do you think the administrative burden of an approach like the “possible way forward” would be? (if possible, please quantify your answer.)

Question 1.3:

Please give your general comments on the “possible way forward”, and on how it could be implemented. Does it give an adequate level of assurance that biofuels will be sustainably produced?

We strongly believe that in order for the “possible way forward” to be effective and to achieve the % blend target desire, the Commission must reinforce and back up as much as possible the legislation and measures approved, as well as bringing forward the date to achieve the targets by 2012 instead of 2020.

If you think the problem should be tackled in a different way, please say how, giving details of the procedures that would be used.

Questions relating to individual criteria in box 1

Question 1.4:

Carbon stock differences between land uses would be taken into account under criterion 2. Should they also be taken into account under criterion 1? If so, what method should be used to determine how the land in question would have been used if it had not been used to produce raw material for biofuels?

We agree with the proposal

Question 1.5:

As described in the “possible way forward”, criterion 3 focusses on land uses associated with exceptional biodiversity. Should the criterion be extended to apply to land that is adjacent to land uses associated with exceptional biodiversity?

If so, why? How could this land be defined?

In our opinion, the first thing to do is to define terms such as “exceptional biodiversity”, “wildlife”, “fauna and flora”, etc. Once this is done, it will be easier to delineate the land and decide which part can be use and for what purpose. If the adjacent cropped land may damage the protected land, it should therefore not be use and left untouched.

Question 1.6:

How could the term “exceptional biodiversity” (in criterion 3) be defined in a way that is scientifically based, transparent and non-discriminatory?

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

The problem

Two of the sustainability criteria in the “possible way forward” in section 1 relate to the direct conversion of land for biofuel production form other uses.

Increased demand for biofuels is also likely to have an indirect effect on land use, leading to an increase in the total amount of land devoted to forestry and crop production. This land use change will be associated with greenhouse gas savings from biofuels use. It will have other environmental effects. These could be positive or negative. The environmental effect of using land that would oterwise have been used of an out-of-town ousing development is different form the effect of using land that would have been a biodieverse habitat. It seems clear these indirect effects cannot be linked to individual consignments of biofuels. But they should still be monitored.

Possible way forward

The legistlation could ask the Commission to report regularly on:

- how land use would have developed if biofuel use had remained constant;
- how land use has in fact developed; and
- the estimated effect on overall land use of increasing biofuels use.

Question 2.1:

Please give your comments on the “possible way forward” described above. If you think the problem should be tackled in a different way, please say how.

We agree with the three questions the legislation could ask.

Question 2.2:

Do you think it is possible to link indirect land use effects to individual consignments of biofuel? If so, please say how.

3. How should the use of second-generation biofuels be encouraged?

The Commission intends to bring forward a proposal to encourage the production and use of second-generation biofuels.

Question 3.1:

How should second-generation biofuels be defined? Should the definition be based on:

- a) The type of raw materials from which biofuels are made (for example, “biofuel from cellulosic material”)?**
- b) The type of technology used to produce the biofuels (for example, “biofuels produced using a production technique that is capable of handling cellulosic material”)?**
- c) Other criteria (please give details)?**

Future biofuels still need huge technological developments and research before being able to produce compared to available biofuels. Therefore, subventions for research and economical aids such as tax exemption are a must in order to make future biofuels more affordable to produce.

Possible way forward

The legislation could require Member States to give an advantage to second-generation biofuels in their support systems.

For example,

- Under national biofuel obligations, second-generation biofuels would count extra (for example, double) – this means that an obligation to achieve a 2% share of first-generation biofuels could be fulfilled, instead, with a 1% share of second-generation.
- The legislation would confirm that second-generation biofuels may receive higher

subsidies that first-generation biofuels (subject to Community state rules and applicable Community tax legislation).

Question 3.2:

Please give your comments on the “possible way forward” described above. If you think the problem should be tackled in a different way, please say how.

Question 3.3:

Should second-generation biofuels only be able to benefit from these advantages if they also achieve level of greenhouse gas savings?

In our opinion, it is very importante not to make a difference between diferent generation biofuels. All biofuels are products necessary in order to achieve the proposals and the targets.

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

The problem

The proposed target for biofuels is a 10% share, by energy content, in 2020. The easiest way to get biofuels into the market is by blending them directly with ordinary fuel and using them in low blends in ordinary vehicles. The most widely available biofuels today are ethanol (replacing petrol) and biodiesel (replacing diesel) – although other petrol and diesel replacers exist. The fuel quality directive (directive 98/70/EC) limits the direct blending of ethanol in petrol to 5% by volume. This equates to 3.4% by energy content. The diesel standard (EN590) limits the direct blending of biodiesel in diesel to 5% by volume. This equates to 4.4% by energy content. If the 10% (energy content) target is to be met mainly by direct blending of ethanol and biodiesel, these limits will need to be changed. They will also need to be changed if the existing 5.75% (energy content) target for 2010 is to be met mainly by direct blending of these fuels.

The current situation

As a first step, the Commission has proposed amending the fuel quality directive to increase the maximum blending of ethanol in petro. To 10% by volume (6.8% by energy content). This proposal is under consideration by the Concil and the European Parliament. The Commission has given the European Committee on Standardisation (CEN) a mandate to amend the diesel standard to allow a 10% biodiesel by volume (8.8% by energy content). This process may take a long time – perhaps 4 years – and may not lead to widespread availability of fuel containing 10% biodiesel.

Question 4.1:

Should the legislation include measures to ensure that diesel containing 10% biodiesel (by volume) can be replaced on the market, and is in fact placed on the market?

We strongly believe that the diesel blending needs to contain minimum 10% biodiesel

8 The term “biodiesel” in this section refers to the fuel also known as FAME (Fatty Acid Methyl Ester).

Other options for solving the problem

Even if the changes described in the last section come to fruition, they will not be enough for the 10% target to be met – if it is to be met mainly by direct blending of ethanol and biodiesel. The target could be met through other means than the direct blending of ethanol and biodiesel:

1. More ethanol can be added to petrol in the form of the fuel additive ETBE. However, limits on ETBE blending in the fuel quality directive mean that even with maximum use of ETBE, the 10% target will not be reached.
2. Ethanol and biodiesel can be used in high blends – 85% or 95% ethanol, 100% biodiesel, for example – outside the scope of the fuel quality directive and the diesel standard. However, unlike low blends, these fuels need specialised vehicles and distribution systems.
3. Other biofuels that can be used are biomethane (made from biogas), methanol (made from biomass-based synthesis gas) and dimethyl ether (DME). However, these fuels also need specialised vehicles and distribution systems.
4. New types of biofuels or ways of using them could avoid the blending constraints in the fuel quality directive and the diesel standard. An example is the second-generation biofuel “BLT” (“Biomass-to-liquid” or Fischer-Tropsch diesel). However, it is not certain when or if these fuels and technologies will come onto the market on a wide scale.

Question 4.2:

Should the legislation include measures to encourage the use of ethanol and biodiesel in high blends? If so, what?

It is primordial that the EN 590 and EN 228 have to be changed and adapted to the actual situation. There is no way car producers and petrol distributor will act in favor and take decision to promote biofuels without a proper modification of the directives and EU laws. Without these changes it will be impossible to accurately promote biofuels in the EU and therefore increase its uses.

Question 4.3:

Should the legislation include measures to encourage the use of biomethane, methanol and DME in transport? If so, what?

Possible way forward

If none of these methods can be relied on to ensure that the target will be met, it will be necessary to allow a further increase in the share of ethanol that can be blended in ordinary petrol – up to 20%, for example – and perhaps also to allow a further increase in the share of biodiesel that can be blended in ordinary diesel – up to 15%, for example. For manufacturers to take these requirements into account in designing the vehicles that will be on the roads in 2020, a decision should be made soon.

Question 4.5:

Should the legislation ask the Commission to review, by a given date, whether it is possible to be confident that the 10% target can be achieved through:

a) Rules that allow 10% blending by volume of ethanol in ordinary petrol, plus

b) Rules that allow 10% blending by volume of biodiesel in ordinary diesel , plus

c) The four options listed under ‘other options for solving the problem’; If so, what should the date be?

In our opinion a 10% blends need to be approved by 2008 and the 15% blend by 2015, in order to be effective and operational by 2020.

If the review were to conclude that the target is unlikely to be met, what action should the Commission take?

If the target is unlikely to be met, strong penalty should be made to respective State Members, oil companies and car manufacturers.

Question 4.6:

More generally, what role should taxation play in the promotion of biofuels (considering different situations such as low blends, high blends and second-generation biofuels)?

Taxation has a very important role in the promotion of biofuels. Additionally, it is elemental that high blends be at every customers reach and frequently implemented in the distribution sector.