

BIOFUELS CONSULTATION

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Question 1.1:

Is the objective of promoting biofuels still valid?

In a broad sense, yes, since petroleum-based fuels pose greater environmental problems, and supply in the future will become increasingly strained and increasingly expensive.

However, a distinction needs to be made between types of biofuel and their sources.

- 1) An EU promotion system that implied large-scale biofuel imports from tropical or sub-tropical zone producers (sugar-cane ethanol/ palm oil for biodiesel) would exchange one form of energy insecurity for another, and encourage rainforest clearance and unsustainable plantation practices;
- 2) First-generation biofuels run up against a problem of land use (see Question 2.1 for details), of food production, and of the risk of continuing or exacerbating unsustainable agricultural practices. Since intensive farming methods currently require substantial fossil fuel inputs, first-generation biofuels do not seem like a cost-effective way to reduce greenhouse gas emissions;
- 3) Second-generation biofuels, based on non-food feedstocks cultivated on marginal land by sustainable methods, and with a better fossil energy balance than first-generation biofuels, show considerable potential for the future.

It follows that promotion of biofuels is a mid- to long-term proposition, and should concentrate on support for second-generation fuels. Imports or food-crop use subsidized by the CAP are not a viable overall solution. The EU should resist pressure from interested

agri-business groups to divert a large funding stream into first-generation biofuels, just as it should resist petroleum industry pressure to go on with fossil fuel use as if there were no problems.

The EU, in its dual concern with reducing GHG emissions and promoting energy security, should first and foremost see future provision of transport fuel as a demand problem rather than a supply problem. This means discouraging road and air transport in favour of railways and waterways, and promoting public transport by light rail or electrified vehicles in urban areas.

It also means taking energy efficiency much more seriously than we have to date. The notion that we can all go on consuming liquid fuels as in the past, because biofuels will phase in and take up the petroleum slack, is a feel-good fallacy that needs to be actively discouraged. Car manufacturers must work rapidly towards decreasing fuel consumption as well as decreasing GHG emissions per unit of fossil energy consumed. Currently, the car industry is not meeting its own targets on these issues. If the EU is to use the tool of **obligation**, this is the first and most vital area in which it should be applied.

The key to lower pollution and greater energy independence is **reduced consumption**.

Question 2.1:

With existing policies and measures, will biofuels achieve a market share of 5.75% in the European Union by the end of 2010? (Please give reasons for your answer)

This target seems attainable only by some combination of the following means :

- major transfers of arable land from food to ethanol/biodiesel;
- a major diversion of food crops (maize, wheat, barley) from animal feed to biofuel production, with a corresponding fall in meat and dairy production;
- large import volumes of either biofuels or animal feed.

According to Eurostat, transport fuel consumption for 2002 in the EU-25 was :

petrol, 5.2×10^6 TJ ; diesel, 6.6×10^6 TJ.

5.75% of these gives:

petrol, 0.3×10^6 TJ ; diesel, 0.38×10^6 TJ

Ethanol : 0.3×10^6 TJ petrol / 22 MJ/l = 13.6×10^9 l

Biodiesel: 0.38×10^6 TJ diesel / 34 MJ/l = 11.2×10^9 l

If **all** the area (statistics, DG Agriculture) currently dedicated to potential ethanol feedstocks were used for ethanol, production could be estimated:

- 10.5×10^9 l of ethanol potential from the current EU-25 cultivated area of sugar beet (2.1×10^6 ha @ 5000 l/ha)
- 19×10^9 l of maize ethanol potential (from 6.5×10^6 ha @ 3100 l/ha)
- 33.5×10^9 l of common wheat ethanol potential (from 13.4×10^6 ha @ 2500 l/ha)
- 23×10^9 l of barley ethanol potential (from 23×10^6 ha @ 1000 l/ha).

If only the **surplus** percentage (in excess of 100% self-sufficiency) of these crops were to be used, the estimates would be:

- 30% sugar beet: 10.5×10^9 l x 30% = 3.15×10^9 l ethanol
- 9% common wheat: 33.5×10^9 l x 9% = 3×10^9 l
- 13% barley: 23×10^9 l x 13% = 3×10^9 l

Surplus production (9×10^9 l ethanol) would not suffice to cover the needed 13.6×10^9 l. Only an extension of the area of ethanol feedstock crops, or a transfer of crops from animal feed to ethanol, would cover needs.

As for biodiesel, the total area of the two principal feedstocks, rapeseed and sunflower seed, would produce an estimated:

- 5×10^9 l from rapeseed (4.5×10^6 ha x 1100 l/ha);
- 2.2×10^9 l from sunflower (2.2×10^6 ha x 1000 l/ha)

Total production (7.2 e9 l) would not suffice to cover the needed 11.2 e9 l.

However, support for local initiatives in favour of farmers using their own rapeseed/sunflower seed to power their tractors and machinery would start to reduce fossil fuel inputs in farming, and should be encouraged. Recycling of used oils and cooking fats should also be actively encouraged, and undertaking it on a large scale should be seriously considered.

Question 5.1

Should the EU continue acting in favour of biofuels after 2010?

If oil prices, as is likely, continue to rise, it will become economical to use biofuels and then EU economic support will be unnecessary. However, the Transport and Energy Directorate should encourage the funding of second-generation biofuel research under the Energy and Agriculture objectives of the EU's scientific research Seventh Framework Programme for 2007-13, and make it a research priority for the rest of the decade of 2010-20.

Even if not actively promoting biofuels, the EU should continue to ensure that the technical regulatory framework for transport fuels does not unfairly favour fossil fuels over biofuels.

Question 5.3

Should EU action include the following measures (which could be pursued without defining a quantified target):

c) continued scope for Member States to support biofuels through tax reductions/exemptions?

Biofuels should be tax-exempt. Fossil fuels should be subjected to increased tax. Exemptions for aircraft fuel should end. Exemptions for agricultural use of fossil diesel too, it being understood that incentives to go over to biodiesel would be offered (above and beyond tax exemption).

Question 6.1

Do you have any comments on the following issues, listed in the biofuels directive for inclusion in the Commission's progress report:

d) the sustainability of crops used for the production of biofuels, particularly land use, degree of intensity of cultivation, crop rotation and use of pesticides?

Organic farming should be much more actively encouraged by the EU.

The use of feedstocks such as maize and sugar beet, currently cultivated by unsustainable methods in respect of soil fertility and erosion, water wastage, soil and water pollution, and threats to biodiversity through excessive use of pesticides, should be discouraged.

The use of feedstock crops as a "back door" for the introduction of GM varieties should be resisted.