INFORSE-EUROPE

International Network for Sustainable Energy

INFORSE-Europe's Opinion on Indirect Land Use Change Impacts of Biofuels, Consultation Draft, October 29, 2010

Question 1: Do you consider that the analytical work referred to above, and/or other analytical work in this field, provides a good basis for determining how significant indirect land use change resulting from the production of biofuels is?

The work increases the understanding of land-use change and indirect land-use change, including the many remaining uncertainties in the field. The studies concentrate on economy and emissions of CO_2, thereby missing effects on nature and biodiversity, as well as the effects of poverty and on indigenous people, - some of the concerns raised by NGOs in the debate. They also miss localised effects in developing countries, including the so-called "land-grabbing", where rich companies reserve land for biofuels (and other purposes) are the expense of the local (often poorer) population.

The uncertainties explained in the studies, including the different conclusions reached by different studies, highlight the fact that studies from 2010 need to be complemented with new studies taking new developments and findings into account in the coming years. The effect of this is that policy recommendations made in 2010 would have to be updated regularly.

Specifies observations to the studies in the analytical framework:

- The assumption (in the study "Impacts of the EU biofuel target...") that the vast majority of the 10% renewable energy in transport will be met with biofuel seems valid unless changes are met in the calculation methodology (such as increasing the value of renewable electricity in railways).
- The assumption (in the study "Impacts of the EU biofuel target...") that 70% of biofuel will be 1st generation biofuel in 2020 is uncertain as many projects for 2nd generation biofuel is under development and as the directive support 2nd generation biofuels. Before 2020 this assumption will be closer to reality.
- The assumption (in the study "Impacts of the EU biofuel target..." as well as in other studies) that 2nd generation biofuel will have no land-use change effects is weak, as many 2nd generation biofuel projects plan to use woody material, where they will replace biomass for solid fuel and other wood for the pulp and paper industries. Other 2nd generation biofuel projects will use straw and other bio-materials that have other uses today and that will influence agriculture in other ways.

One of our members would like to add to this that in some countries, including Poland, the estimates show that the best use of straw and forest residues is local use for space heating purposes in rural areas. This maximises the CO_2 emission reduction by avoiding the embedded emissions in fuel processing and transportation. It also brings about other benefits by helping local economies, job creation, increased thermal comfort, and decreasing energy poverty.

As biomass is a limited resource, the use of these materials for 2nd generation biofuels will then conflict with the local use.

On the assumptions that the vast majority of the 10% renewable energy in transport target is met with biofuels and a large part of that with 1st generation biofuels:

- The findings on land-use change seem within realistic ranges; but localised effects in developing countries are not well explained. This is both because the models used aggregates developing countries more than EU, and because localised effects partly are a result of local, political decisions that cannot be modelled in global models.

- Regarding the conclusions on trade, the general findings on large movements of materials from developing countries to EU seems robust, while conclusions on production in EU from imported feed-stock versus import of produced biofuels are less certain. Political decisions will govern where the biofuel production plants will be made. We are deeply concerned with the conclusion of the large import because of the sustainability problems of biofuel production in developing countries as well as their own need for the energy. Logically biomass resources should primarily be used locally and only then any surplus should be traded. Thus it seems un-logical that a developing country that imports fossil fuels should also export biofuel, as far as the biofuels could cover domestic fuel demand.

- The conclusion that most emission from land-use change occur in Brazil and that up to half of that is from deforestations (in the study "Global Trade and Environmental Impact..." by CEPII and IFPRI using the Mirage model) seems likely under the free market assumptions applied. In practice policies to increase or limit international trade to and from different countries can modify this.
- The analysis calculate CO_2 emissions from land-use change, but neither the effects on nature and biodiversity, nor the effects of poverty and on indigenous people, some of the concerns raised by NGOs in the debate.

Question 2: On the basis of the available evidence, do you think that EU action is needed to address indirect land use change?

Yes, it is clearly stated in the report "Indirect land use change from increased biofuel..." page 16:
"…. it (indirect land-use change) is really a critical component of answering the question of whether diverting the photosynthetic capacity of land to biofuels from its present use results in greenhouse gas reductions or not"
In addition to this conclusion, also nature and social issues related to land-use change must be considered Empirical information from specific biofuel project proposals suggest that these can be very large in and around the specific project areas[1].

In some EU countries, including Bulgaria, it is also a land-use issue that there is increasing use of agriculture land for production of biofuels (mostly rape-seed for oil) while the same countries are importing large amount of food and fodder from Latin America, which can be grown locally. It would be logically to promote the production of food and fodder for local use above (1st generation) biofuel production in land-use policies.

[1] Other NGOs have collected evidence from African countries (including Tanzania and Kenya), Latin America, Asia (including Indonesia). If these NGOs have not provided this evidence as separate responses to this consultation, INFORSE-Europe will be happy to provide a collection of this evidence.

Question 3: If action is to be taken, and if it is to have the effect of encouraging greater use of some categories of biofuel and/or less use of other categories of biofuel than would otherwise be the case, it would be necessary to identity these categories of biofuel on the basis of the analytical work. As such, do you think it is possible to draw sufficiently reliable conclusions on whether indirect land use change impacts of biofuels vary according to, feedstock type, and geographical location, land management?

The conclusion that without additional policies a large part of the agricultural production will take place in developing countries and will cause indirect land-use change seems robust.
The conclusion that indirect land-use changes are very likely to be large in Brazil also seems quite robust.
Unfortunately the studies differ widely regarding simple conclusions such as land-area needed for the biofuel production, so it is not possible to evaluate the effect of choosing one crop instead of another or one crop against another.
There is no doubt that countries with good land-management regulation including nature protection is better placed to reduce negative effects of land-use change, a fact that could point at measures to increase production in EU-countries and other well regulated countries. The increase within EU countries should be limited, however, by the need for land for food, fodder, and nature as well as because of better uses of some materials such as wood and straw.

Question 4: Based on your responses to the above questions, what course of action do you think appropriate?

A) Take no action for the time being, while monitoring impacts including trends in certain key parameters and, if appropriate, proposing corrective action at a later date
B) Take action by encouraging greater use of some categories of biofuel
C) Take action by discouraging the use of some categories of biofuel
D) Take some other form of action

We will propose to take action B, C, and D as explained below.

B) Actions to increase 2nd generation biofuels, and to direct it towards using waste materials rather than materials with other uses (such as wood and straw). Measure proposed: Continue research and development programmes with focus on waste-use.

C) Discourage imports of biofuels, based on global effects of biofuel production from specific countries, including indirect land-use change.
Increase the minimum greenhouse gas saving threshold for biofuels from existing installations to be in line with biofuels from new installations.
Impose sustainability requirements linked with nature protection targets (no loss of biodiversity) and of social concerns
Attribute greenhouse gas emissions from indirect land-use change to biofuels in the same country, region, or climate zone.

We also find that no GMO should be used for biofuel production.

D) Change the directive to stop the disfavouring renewable electricity in trains (the bonus for electric cars does not exist for trains presently), and give bonus for electric transport for the fuel it replaces, instead of for the energy-content of the electricity.

In addition we find that the use of biofuels in general should be minimised with policies and measures the reduce transport fuel use including:

- policies to limit transport, for instance with less commuting and with optimisation of freight transport to higher freight costs, including environmental costs
- policies to use public transport and to use freight via rail and sea
- policies to increase the use of electric transport, also on roads
- policies to increase energy efficiency of transport.

Add analysis of environmental and social effects of biofuels including effects of land-use change to the analytical framework.

Regularly review information on environmental and social effects of biofuel, and update policies accordingly.

More information about INFORSE-Europe positions on EU policy at www.inforse.org/europe or contact Gunnar Boye Olesen, ph +45-86227000