

## ***Answer to Consultation on ILUC***

From Svebio – Swedish Bioenergy Association

Svebio organises the Swedish bioenergy industry and has around 300 companies as members, both working with solid biofuels and liquid biofuels. Bioenergy today accounts for 32 percent of the final energy use in Sweden. We estimate that more than 25 000 people are engaged in the bioenergy supply chain in Sweden.

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<b>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?</b>
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No, we do not think the analytical work presented provides the necessary basis for regulation of ILUC. As the Literature review presented by the Commission in July 2010 rightly points out there are a number of major uncertainties in the research presented so far. We would particularly like to stress the following points:

*Crop yields and yield response.* As pointed out in the literary review the yield response to increased demand created by biofuels is critical to the result of the studies. If the response to higher prices leads to a faster growth of production than the demand there will be no need for extra land and consequently no negative ILUC-effect. With different assumptions of yield response the results can vary greatly. It is especially disturbing that only one of the many studies has made assumptions about changes in cropping intensity, and none has considered faster technological development.

*Availability of land* for increased agricultural production without using carbon-rich forests and grasslands. We feel this issue has not been studied in depth. We know there is abundant unused farmland in Europe, particularly in central and east Europe. Within the European Union the area of abandoned farmland has been estimated to 16 million hectares (Ag2020 project, EEA). The Aglink-Cosimo study shows that the EU arable area in the baseline alternative will further decrease by 8.6 percent between 2008 and 2020, or with another 13 million hectares. The amount of abandoned, and poorly used arable land in the CIS countries and other non-EU countries (Russia, Ukraine, Belarus, Moldova, Croatia, Serbia, etc) is very large, and probably in total areas larger than for the EU countries. Much of this land is also very fertile, particularly in Ukraine.

It is surprising that the studies of ILUC seldom show high use of these land resources in East Europe, as these can be mobilised with very low carbon emissions.

*Handling of co-products* in the models. The different studies tackle this issue in remarkably diverging manners. As pointed out in the literary review the impact on land use change (reductions) can vary between 8 and 64 percent depending on the model, as there is significant divergence between the studies concerning the treatment of co-products. For the analysis of European wheat ethanol the utilisation of the by-product is a major factor.

*Converted land.* The different studies use very different assumptions for converted land, what kind of land is converted, and what yield levels these lands will give.

In summary, the analysis is based on complex modelling using numerous assumptions and estimations that can vary greatly between different researchers and studies. The end results therefore also vary within a very wide range. As an example there are studies showing that the ILUC factor for sugar cane ethanol is relatively small (8 g CO<sub>2</sub>/MJ), and other stating that it is prohibitive (69 g CO<sub>2</sub>/MJ). Both of these numbers cannot be true.

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

No, we do not think that action is needed to address indirect land use change for the time being. It is, in fact, not adviceable to base legislation on such uncertain grounds. This for several reasons:

- The producers affected by a regulation, e.g. a certain ILUC factor in g CO<sub>2</sub>/MJ, would have no way to avoid such a regulation by improving their production activities. By definition, the indirect effects are not under the control of the producers. The producers can only take responsibility for their direct actions and their direct effects, as they are regulated by the Renewable energy directive.
- The result of an ILUC factor will not steer towards better biofuel production. Rather, the ILUC factor will be a general penalty on all biofuel production and make biofuels less competitive in relation to fossil fuels.
- It is very questionable to base judicially binding regulation only on theoretical modelling, especially when the results of the modelling is so inconclusive and varies so much between different studies.
- The introduction of an ILUC factor on biofuels imported to EU will be seen as a trade barrier and consequently be reported to WTO.
- An ILUC-factor will not address the problem, and is therefore ineffective. Only measures directly addressing negative land use change can do so.

As producers and suppliers, we are willing to take responsibility for our products and our production processes, as well as for the feed-stocks that we use. This is already regulated in the Renewable Energy Directive.

But we cannot take responsibility for factors and conditions that are outside of our control, perhaps in other countries, or even on other continents.

**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 identify 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:**

No, the results from different studies are diverging also concerning different production paths. It has often been said that "second generation" biofuels should be favoured, as they have little or no effect on land use change. This may be true, but if certain other "first generation" production paths also have negligible ILUC effects these should be able to compete freely on

the market, as they probably in the short and medium term have lower production costs than second generation biofuels. There is no reason to "punish" first generations fuels only based on theoretical ILUC calculations. Direct land use is of course relevant, and is handled in the sustainability criteria in RED.

**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.*

Please say how the monitoring should be done and what these parameters should be.

We believe alternative A is appropriate. Indirect land use effects do exist, as they do also for other types of land use (for food, feed, fiber, recreation, urban development, etc), as well as for fossil fuels, and they have to be analysed and monitored.

Focus should be on land use and land use change in leading production countries and production areas. The analysis of the development should be done in cooperation with the governments in the concerned countries, and engaging research institutions in these countries. Funds should also be allocated to research on how to develop strategies for sustainable production and how to protect carbon-rich and biodiverse lands. Bilateral agreements with countries exporting to EU could be a way to ensure that appropriate action is taken.

The protection of natural forests and grasslands is best done by political action in the concerned countries, including land management and planning, zoning, and support for natural conservation. We note that Brazil, as an example, has successfully moved in this direction. This is of big importance, as many ILUC model results show big land use change impacts in Brazil, based on historic data.

The market players can support these efforts by adopting certifications schemes to ensure that the direct land use effects are minimized, and EU has already tackled the direct land use effects by adopting sustainability criteria for biofuels. Development of globally agreed criteria is needed, and work is under way by ISO, by GBEP, Global Bioenergy Partnership, and by WBA, World Bioenergy Association.

The analyses of indirect land use change presented by the Commission clearly show the big importance of higher yields to ease the pressure on new land. This stresses the importance of investing more in agriculture to increase productivity, by better breeds, fertilization, crop rotation, multiple crops, research, etc. Equally important is to fight poverty and direct more developmental aid towards the agricultural sector.