



CEPM
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CONFEDERATION EUROPEENNE DE LA PRODUCTION DE MAÏS (C.E.P.M.)

Position paper of CEPM on

INDIRECT LAND USE CHANGE IMPACTS OF BIOFUELS - CONSULTATION

Preliminary comments :

The ILUC impact due to biofuels cannot be established with accuracy.

Existent scientific studies don't allow, for the time being, to fix with enough reliability if and how an ILUC impact can be allocated to biofuels. In practice, ILUC depends on a whole range of effects apart from the (additional) demand from the biofuels sector, e.g. logging, food consumption patterns, change in agriculture productivity, urbanization, agricultural politics, existing regulation against land use changes.

An ILUC factor on biofuel isn't necessarily efficient against global ILUC

Scientific uncertainties on biofuel ILUC impact means that it is impossible to establish a soundful regulation action such as an ILUC factor on biofuels. These uncertainties cannot ensure that this measure will help to prevent ILUC in the world. The choice of a global ILUC would be solely arbitrary.

Reassess the emissions of GHG of the fossil fuel comparator

From a greenhouse gazes speaking point, it is recognized that an ILUC impact of biofuel has to be studied. This potential ILUC impact would then be combined to the value of GHG emissions calculated through LCA analysis.

A similar approach to the ILUC one has to be followed for the fossil fuel comparator, in order to take into account the whole GHG impacts caused by the fossil fuel chain and consumption. Indeed, GHG biofuel emissions are compared to a fossil fuel comparator. This latter must be reassessed to rely on the most recent data and analysis, as it is done with biofuels. Furthermore, the fossil fuel comparator must be chosen as the additional one which production on the world is substituted by the increase in biofuel consumption. It may be, with a good accuracy, a heavy crude, like tar sands, which have a great environmental impact.

ILUC conclusion depends also on regional specificities and political choices

Increased production of grain does translate in extension of cultivated land. At the world level, the cultivated area for wheat and coarse grains has decreased since 30 years but the production is up, due to yield increasing. Benefiting from the best production technologies is crucial for the world to address the food demand and other usages. As for EU, less access to the best agricultural technologies have driven grain production to lag behind the US one. With the help of biotechnologies, corn US yields have increased more than in EU, and they have even overpassed the French corn yields, which was not the case 20 years ago.

ILUC issue must take into account the effects of changing access to production technologies, which could help the EU to produce more on the same land and spare land outside EU. EU is also opening its agricultural market, and this must be taken into account in the ILUC analysis.

ANSWERS

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 studies provided by the EU Commission, and for example the study entitled "The Impact Of Land Use Change On Greenhouse Gas Emissions From Biofuels And Bioliquids" prove that the ILUC impact from biofuel is very variable from one analysis to another. This comes from especially insufficient data availability, poor data quality, and models too inaccurate. Models are always a simplification of the reality and their results cannot be used as if it was the reality. The two "models comparison" made by the JRC show that the great variability comes also with the assumptions that are include in the model. The choices made about byproducts, yield improvements and quantity of land shifted to third countries are among the most important factors of variation in the results.

Ademe has made a preliminary analysis of land use chage impact on french biofuels in the study delivered in april 2010 « [Analyses de Cycle de Vie appliquées aux biocarburants de première génération consommés en France](#) » which confirms the uncertainties dealing with the measurment of ILUC. Furthermore, this impact can be eventually negative or positive, in relation with the choices made in the study.

Il is crucial to make peer reviews of theses studies in order to ensure their plausability. In particular, the relevancy of the relation between an increased production of biofuels and land use change, such as deforestation, has to be cleared.

Question 2

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

The available evidence is not sufficient to make a conclusion accurate enough on the biofuel ILUC effect. EU should promote actions to help controlling land use change in the world. As far as biofuels are concerns, The Renewable Energy Directive (RED) has put up criteria to determine from what kind of land raw material for biofuels can come.

For example, in its report for the United nations published the 31st of october, 2010, Olivier de Schutter, UN special rapporteur on right to food, explained that 20 millions of the 30 millions hectares of agricultural land lost every year in the world were related to urbanization and industrialisation.

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 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

- ***feedstock type?***
- ***geographic location?***
- ***land management?***

Models currently used to estimate an ILUC effect have already limitations regarding worldwide analysis.

When it comes to determine impacts for biofuels along specific raw materials, geographic origins or land management, one needs reliable and accurate data, that do not always exist at this time.

Question 4

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

Question 4 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

As it is not possible to quantify accurately a biofuel ILUC impact, whether it is positive or negative, EU should not apply any kind of ILUC factor to the biofuels.

It is necessary to improve our knowledge in this field of research to establish reliable data on ILUC effect.

Question 4 B

Take action by encouraging greater use of some categories of biofuel

The RED directive already encourages some biofuels supposed to emit less GHG than others. In its art 21§2 of the RED, the energy content of biofuels coming for example from wastes and residues is counted twice when used to fulfil the RED targets for renewable energy consumption in the transport sector. As far as renewable electricity is concerned, it counts for 2,5 fold the energy brought. With that kind of calculation, the level of renewable energy in transport and GHG reduction could virtual up to 50%.

Encouraging some categories of biofuel or renewable energies is a policy that should be reassessed regularly, in particular for residues, including an ILUC analysis. Thus, this reassessment could concern biofuels producing coproducts with a high protein content, which can limit the impact of land use when they substitute to equivalent products coming from regions with high land use changes.

Question 4 C

Take action by discouraging the use of some categories of biofuel

Please say which biofuels and why, as well as what sort of measure should be taken, for example:

- ***increasing the minimum greenhouse gas saving threshold for biofuels***
- ***imposing additional sustainability requirements on certain categories of biofuel (these could, for example, require the use of practices that can help mitigate indirect land use change impacts)***
- ***attributing a quantity of greenhouse gas emissions from indirect land use change to all biofuels that use land***

Due to the uncertainties regarding the ILUC calculation for biofuels, discourage the use of specific biofuels would be arbitrary because it is not based on reliable scientific evidence. Thus, a [study](#) of the Purdue university published in July 2010 has estimated, for the us bioethanol from corn, that the emissions of GHG due to land use change was more than half less than the figure California State had fixed earlier in its regulation, even if the model used to assess this number was the same for Purdue and California.

The LCA french study on biofuels has stated that new studies are needed before concluding on an ILUC impact allocated to biofuel, impact that can be positive or negative.

In september 2010, a [study](#) from the University of Michigan proved that, by increasing the productivity of the american agricultural system, it would be possible to highly increase the US bioethanol production without land use change and to have enough production for food, feed, and export outlets.

Thus, it appears that allocate a global ILUC factor on biofuels that use land would be arbitrary because it would not take into account the ability of the agricultural system to find solutions to increase its production while respecting environment challenges.

But improve the knowledge about the regional aspects of biofuel production is a key point, in order to better take into account regional particularities whatever they are, technical, economical or related to agricultural politics. For example, the sugar reform in the EU freed huge quantities of land for other usage than food sugar, for example bioethanol. Increasing competition from third countries maize importations give a strategic point to alternative outlets such as non food usage and biofuels. In that case, no ILUC should be allocated to these biofuels because there has been no change in the EU land use.

Encouraging or discouraging some categories of biofuels is a key point that has to be assessed not only regarding the ILUC impact, the emissions determined through LCA analysis, but also regarding other benefits such as those brought by the byproducts used for feed.

Biofuels that will be used in the EU are already subject to increasing thresholds on GHG emissions in comparison to fossil fuels, with a minimum of 35% for the time being and no less than 60% from 2018. That shows the high level of expectancy that is already asked for these biofuels. Furthermore, this takes into account the direct land use change.

Question 4 D

Take some other form of action

Worldwide Land use change is a global issue whose level comes from a whole range of effects. The ability to manage it will depend a lot with the implementation or existing of land use change regulations. In the EU, land use regulation is already implemented, in particular with the CAP.

Regulation can be a tool to prevent too much carbon leakage due to transfer of production outside the EU. EU should then promote specific commitment from third countries to the fulfilment of regulations on land use change, for example, following the art 18§5 of the RED directive. On the contrary, no land use regulation could open the door to the application of an ILUC factor.

To get an efficient design, the environmental EU policy must take into account the effective impact of its actions compared to the world issues, and to policies that the EU cannot act upon. Thus, the US bioethanol production is 10 fold higher than the one of the EU and for Brazil, it's 5 fold higher. And, for example, Brazil is considering increasing its production from 23 billion liters in 2008 to 64 billion liters in 2017. This is 4 fold more than the global increase of the EU bioethanol consumption expected between 2010 and 2020.