

Summary HILUC Phase 1 Webinar Q&A

Below we have provided a brief summary of the main questions asked during the HILUC phase 1 webinar. The full Q&A and more detailed answers can be found in the webinar recording on our website.

General

1. *When will phase 2 be concluded?*

It is expected that phase 2 will be concluded at the beginning of 2023.

2. *Will the datasets and maps be published alongside the report?*

The full datasets will not be published, detailed tables will be published with the methodology in the report. The maps of phase 1 will not be made available now, more information on the phase 2 maps will follow.

3. *Why have you not considered high ILUC risk crops as those that are dedicated to energy rather than the ones that you chose that they are dedicated to food and a little portion to energy?*

The crops in scope are set within the terms of reference for our project and are directly deducted from the Delegated act on ILUC.

4. *This analysis seems to assume that supply and demand of each crop type are independent of each other, to what extent is this a valid assumption? I would have thought that demand would interact to an extent - e.g., wouldn't greater consumption of any oil crop also increase demand for other oil crops?*

Our project focuses on the scope of high ILUC risk fuels review as performed in the Feedstock Expansion report (and thus on the crop expansion into high carbon stock areas, irrespective of supply/demand dynamics for each crop type).

Timeline

1. *What is the time framework that the Commission has specified?*

2008-2019 for phase 1, phase 2 is still ongoing and those results will follow later

2. *Why not look at the most recent data?*

It depends on the data availability of crop data sets and spatial data. For example, for the statistics used in the project, FAOSTAT data is about a year behind with publishing data. This is similar for some of the maps becoming available. So, we focus on the most recent data available, but that is usually a bit behind the current date. For phase 2 we will for sure include 2020 in the timeframe.

3. *Why not only look at the later years, as many restrictions on crop expansion has been put in place in the last years?*

RED threshold for no deforestation in high carbon stock land is set at 2008. The timeframe for phase 1 was set 2008-2019. Timeframe for phase 2 will follow.

Global mapping

1. *How can you be sure deforestation is caused by a specific crop and not related to other causes?*

We ask for the driver in the very high-resolution map - once the driver is cropland we use the underlying best available crop type map, of course depending on the accuracy of MapSPAM and GEOGLAM there is some uncertainty. On our crowdsourcing campaign we asked the participants to check what was the main (predominant) driver of tree loss visible. Each participant produced an answer and we used locations where at least 3 people answered. There were also secondary drivers recorded. We are now working on an improved map that takes this into account plus also additional covariates. More details on the crowdsourcing campaign can be found here: <https://www.nature.com/articles/s41597-022-01227-3>

2. *For estimation of crop expansion area, what are the error-bars on the results and what are the major sources of uncertainty that contribute to this?*

On phase 1 we focused only on a) reproducing previous results and b) improving the data used for obtaining these results. We are now currently focused on determining uncertainties and this will be part of the results in phase two, but so far, the error bars seem to be quite small. We think improved crop maps would definitively help to reduce uncertainties. Additionally, improvement on the drivers' layer would further reduce these.

3. *Soy comes in at 9.5% expansion on high-carbon land. Given the uncertainties in the estimates of different parts of the calculation, what are the error-bars on this figure?*

Please note that in the threshold set of 10%, already a conservative approach was taken. Furthermore, regarding the uncertainty of the mapping, please see the answer above.

4. *Was there any differentiated treatment between corn 1st and 2nd crop in Brazil?*

At this point MapSPAM does not map double cropping. We have corrected for double cropping only the statistical analysis as to not overestimate the land use when there are two crops on the same hectare.

5. *Have you considered the reforestation of degraded and abandoned (agricultural) area?*

The tree cover loss map we use from Global Forest Watch includes both the forest loss and gains.

Local policy and statistical data

1. *If several countries were studied by country when applying the formula, they would not have high ILUC risk. Why not study the formula by country?*

ILUC is a global effect, and the way high ILUC risk feedstocks are determined is also on a global level. It is not within the scope of this project to reflect on how the formula is set up.

2. *Why do you choose USDA instead of national information specially for the main grain producing countries?*

We use FAOSTAT data and supplement with USDA data only on the production volumes for palm oil. We use national information for planted areas for oil palm from Indonesian and Malaysian statistics, as well as for soy and maize areas from Brazilian statistics.

3. *The Forest Code in Brazil has different percentages of deforestation, why do you not consider these?*

Our methodology follows the RED criteria and thresholds.

4. *Do you compare your estimate with MAPBiomass data for Brazil?*

We did not use this in phase 1, but we will look into MAPBiomass and see if it is suitable as comparison material for phase 2 of the HILUC project.

5. *When calculating land areas do you adjust down to account for co-product feeds?*

No, when calculating land areas, we do not take allocation to by-products into account. The allocation to by-products is only applied in the productivity factors.

GHG calculation and crop expansion

1. *Why do you apply GHG expansion to a particular crop since that must be divided between all the crops planted along the years?*

Please note the GHG values per crop is not used in the determination of high ILUC risks feedstocks. The GHG results are further not used per crop, but only the weighted average of all crops is used as to compare with the value presented in the Feedstock expansion report. For several crops (e.g., palm and sugar cane) there is also no difference in which crop is planted over the full period.

2. *How are you considering the differences between annual crops and perennial crops?*

In the GHG calculation the yield per year is taken into account to divide the GHG emissions to a per hectare basis. Furthermore, for perennial crops any C stored in living biomass in the 'after' situation is taken into account in the estimation of GHG values.

Productivity factor

1. *Are productivity factors calculated as global averages or at the national level? Why was this decision taken?*

Productivity factors are calculated as a global average, but please note that in the calculation of the production factors the yields of the top 10 producing countries were considered, not of all countries in the world. This makes the productivity factor already quite specific for main countries of production rather than global average.

2. *As most of the crops are not only used for biofuel production, but they are also used as food. How are the food production and co-product feed production captured in the productivity factor?*

By-products are considered in the allocation factor used in the calculation of the productivity factor. These allocation factors are the same ones as used for the GHG calculations which form the basis of the default values in the RED, and thus come from the Well-to-Wheel studies as performed by JRC.

Mapping of hotspot regions

1. *You said you ignore the smaller islands in SE Asia. Is this because they are not producing much palm, or because they are less connected to the EU market? If the former, what threshold do you consider? If the latter, how do you assess the market penetration? Will you be including smaller islands like Papua New Guinea?*

The market penetration is not assessed. Smaller islands like Papua New Guinea have very little effect on the global expansion of palm into high carbon stock area. Due to resource availability, we focussed on the major regions, it was not feasible to include smaller islands.

2. *What time delay has been taken into account between clearance and planting. This mainly refers to South America, where pasture precedes planting by soy, with a delay of usually 1-3yrs, or also more. How do you differentiate natural pasture lands such as those in Cerrado?*

1-3 years is commonly accepted. However, if deforestation happened before the cut-off in 2008 it is not considered. If deforestation happened after 2008 it is included, regardless of the period between the deforestation and cultivation of soy. Regarding natural pastures: we use the Global Forest Watch data which is specified by tree cover (>1.5m and more than 10% tree cover). The trees in Cerrado (and other pastures) are considered, the area where there is no tree cover falls beyond the scope of this study.

Other

Regarding the following questions:

1. *For the different crops at the regional level, is it possible to predict in what direction the GHG emissions per ha may shift in response to climate change? (For example, are emissions from Indonesian peatland likely to increase or decrease due to climatic factors?)*
2. *Do you expect the value for soy to increase and actually go beyond the 10% threshold? Perhaps inclusion of one more year would get you there*

It is not in the scope of the HILUC study to make projections, thus we cannot make accurate assumptions on possible future developments.

Regarding the following questions:

1. Would the EU be open to further refine the high-ILUC commodity definition and consider regional differences? For example, product from those regions with observed high conversion of hcs (high carbon stock) is considered high-ILUC. Product from those regions with observed low/zero conversion of hcs is considered low-ILUC.
2. If the high ILUC status of a biofuel feedstock changes in e.g., 2025, will the feedstock continue to be phased out from then on until 2030? And what are the plans for updating this analysis beyond 2020?
3. Are you going to propose an annual study in the future and national considerations to the EU in the future?

These questions are beyond the scope of our study, and more suited for the European Commission so will pass those questions along to the EC.