

DEFINING LOW AND HIGH INDIRECT LAND-USE CHANGE BIOFUELS IN EUROPEAN UNION POLICY

POLICY CONTEXT

The European Union's (EU) recast Renewable Energy Directive to 2030 (RED II) includes a 14% target for renewable energy used in transport. This directive includes provisions to limit the contribution of biofuel feedstocks that cause indirect land-use change (ILUC), which occurs when the increased demand for feedstocks leads to agricultural expansion and the conversion of natural lands. The contribution of biofuels produced from "high indirect land-use change" feedstocks towards this target is limited to 2019 consumption levels in each EU Member State, phasing down to zero by 2030. Biofuels certified as being produced from "low indirect land-use change" feedstocks are exempt from this limitation. The European Commission is required to set criteria for classifying both "low ILUC" and "high ILUC" biofuels in 2019.

The RED II defines "high ILUC" biofuels as those produced from feedstocks for which a significant expansion onto high carbon stock land is observed. "Low ILUC" biofuels are defined as those produced from feedstocks that avoid displacement of food and feed crops through improved agricultural practices or through cultivation of areas not previously used for crop production.

The study "Analysis of high and low indirect land-use change definitions in European Union renewable fuel policy" analyzes these definitions and reviews available evidence and data that may be used to classify high and low ILUC biofuels in the EU.

KEY FINDINGS

There is strong evidence that palm oil meets the definition of high ILUC biofuels in the RED II. There is also some evidence that soy is associated with significant expansion onto high carbon stock land and could thus potentially be classified as a high ILUC feedstock.

- » Studies which use satellite data show that 40-53% of oil palm expansion in Indonesia and Malaysia has occurred on land with high carbon stocks, including forest, wetlands, and shrubland (see Table). These rates of high carbon stock land conversion are likely to continue through 2030.
- » The expansion of soy in South America occurs heavily (up to 23% in some areas) on savannah. Direct conversion of Amazon rainforest to soy has fallen in recent years due to the soy moratorium, but some studies show soy indirectly causes the expansion of pasture onto rainforest.

If the Commission adopts a simple interpretation of low ILUC criteria, a significant amount of palm oil (assuming palm oil is classified as a high ILUC feedstock) could be exempt from the cap and phase down of high ILUC biofuels. The criteria in the RED II, that low ILUC biofuels "avoid displacement of food and feed crops through improved agricultural practices or through cultivation of areas not previously used for crop production," do not necessarily reduce displacement and ILUC impacts of biofuel feedstocks.

- » Up to 5 million tonnes of palm oil (more than the amount currently used in EU biofuel) will be produced in 2030 on low carbon stock land in Indonesia and Malaysia that was not previously used for agriculture to meet baseline demand for food, feed, and oleochemicals. This amount could qualify as low ILUC based on the RED II definition, but diverting it from other uses will still indirectly cause further palm expansion onto high carbon stock land.
- » Around 3 million tonnes of palm oil could be produced annually in 2030 from increased yields due to business-as-usual improved agricultural practices since 2020, without any additional improvements due to the RED II. Again, even though this amount of feedstock could be defined as low ILUC in the RED II, diverting it from other uses will cause ILUC.
- » A simple interpretation of the low ILUC criteria in the RED II could allow a doubling of the amount of palm oil used in EU biofuel compared to current consumption levels without reducing ILUC impacts.

Specific, substantive criteria are needed to ensure that only feedstock that is truly additional to a business-as-usual case can be certified as low ILUC. The Clean Development Mechanism, an internationally-recognized program certifying greenhouse gas reductions in developing countries, has strong additionality criteria that can serve as an example for the EU. Without strong guardrails, the low and high ILUC provisions in the RED II are not likely to reduce ILUC impacts at all.

Table: share of oil palm expansion on major land types from 1990-2015 in Indonesia and Malaysia.

	Indonesia	Malaysia
Forest	26%	42%
Other wetlands	14%	0%
Shrubland and savannah	13%	1%
Bareland	7	23%
Agriculture and timber	38%	35%
Other	2%	0%

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