Certification of low iLUC-risk Biofuels in the Context of the Delegated Act

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ISCC Regional Stakeholder Dialogue Europe
The RED II introduces the concept of low iLUC risk biofuels and sets further criteria for their certification via a delegated act

**RED II - low iLUC risk biofuels**

- **Low iLUC risk biofuels**: processed from crops which were cultivated/produced by avoiding the displacement of biomass being used for food, feed and fibre applications (additional biomass production; “additional feedstock”)
  - Waste and residue-based material as well as forest biomass can not be classified as feedstocks for low iLUC risk biofuels production

- **The European Commission has set up further criteria** for certification of low iLUC risk biofuels via a **delegated act**

- Recognized voluntary certification scheme can implement procedures to certify low iLUC risk biofuels. ISCC is implementing such procedures
In its delegated act, the Commission has laid down criteria to determine high iLUC risk feedstocks. Palm oil is the only high iLUC risk feedstock.

### Delegated act - high iLUC risk feedstocks

- For the purpose of determining the high iLUC risk feedstock for which a significant expansion of the production area into land with high-carbon stock is observed, the **following cumulative criteria** shall apply:
  
  a) the **average annual expansion of the global production area** of the feedstock since 2008 is **higher than 1%** and affects **more than 100,000 hectares**
  
  b) the share of such expansion into **land with high-carbon stock** is **higher than 10%**

<table>
<thead>
<tr>
<th>Feedstock</th>
<th>Average annual expansion of production area since 2008 (%)</th>
<th>Share of expansion into land referred to in Article 29(4)(b) and (c) of Directive (EU) 2018/2001</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cereals</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wheat</td>
<td>-263.4</td>
<td>1%</td>
</tr>
<tr>
<td>Maize</td>
<td>4027.5</td>
<td>4%</td>
</tr>
<tr>
<td>Sugar crops</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sugar cane</td>
<td>299.8</td>
<td>5%</td>
</tr>
<tr>
<td>Sugar beet</td>
<td>39.1</td>
<td>0.1%</td>
</tr>
<tr>
<td>Oil crops</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rapeseed</td>
<td>361.9</td>
<td>1%</td>
</tr>
<tr>
<td>Palm oil</td>
<td>702.5</td>
<td>45%</td>
</tr>
<tr>
<td>Soybean</td>
<td>3183.5</td>
<td>23%</td>
</tr>
<tr>
<td>Sunflower</td>
<td>1271.3</td>
<td>1%</td>
</tr>
</tbody>
</table>
Until the 31 Dec. 2023, consumption of certified palm shall be frozen to the 2019 level. From 2024, high iLUC risk palm shall be gradually phased out until 2030.

Maximum share of certified biofuels, bioliquids and biomass fuels from food and feed crops*:

- 7% in 2030
- 0% in 2024

* The maximum share should be calculated by each Member State dependent on their 2020 share plus 1% with a maximum of 7%.
Low iLUC risk biofuels must be obtained through the implementation of additionality measures

General criteria for certification of low iLUC risk biofuels, bioliquids and biomass fuels


2. Production from additional feedstock obtained through additionality measures

3. The evidence needs to be duly collected and thoroughly documented by the relevant economic operators

Additionality measures: any improvement of agricultural practices leading, in a sustainable manner, to an increase in yields of food and feed crops on land that is already used for cultivation; and any action that enable the cultivation of food and feed crops on unused land, including abandoned land
Additionality measures must meet some conditions. Example: They could be applied by independent smallholders with an agricultural area of less than 2 ha

**Conditions to the application of the additionality measures**

- Additionality measures must meet at least one of the following conditions:
  
  i. They become *financially attractive* or face no barrier preventing their implementation only because the biofuels, bioliquids and biomass fuels produced from the additional feedstock can be counted towards the targets for renewable energy under Directive 2009/28/EC or Directive (EU) 2018/2001 (*financial additionality criterion*)
  
  ii. They allow for cultivation of food and feed crops on *abandoned land* or severely *degraded land*
  
  iii. They are applied by *smallholders*

- Additionality measures can only be considered if taken no longer than 10 years before the certification of biofuels, bioliquids and biomass fuels as low iLUC fuels

**Definition of smallholders**

- In this context, *smallholders* means farmers who:
  
  • Own an agricultural area smaller than 2 ha
  
  • *Independently* conduct an agricultural activity
  
  • Hold *ownership* over the agricultural area
  
  • Could be *members of a cooperative*, which cannot be owned by a third party
Only for measures applied by non-smallholders on already existing plantation, compliance with the financial additionality criterion must be proved.

<table>
<thead>
<tr>
<th>Additionality measures applied …</th>
<th>Evidences to prove compliance with …</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Financial Additionality Criterion</td>
<td>Sustainability and GHG Saving Criteria</td>
</tr>
<tr>
<td>On abandoned land or severely degraded land</td>
<td>Not required</td>
<td>Required</td>
</tr>
<tr>
<td>By smallholders</td>
<td>Not required</td>
<td>Required</td>
</tr>
<tr>
<td>By others (non-smallholders)</td>
<td>Required</td>
<td>Required</td>
</tr>
</tbody>
</table>

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In synthesis, there are two options to implement additionality measures

Options for the implementation of additionality measures

1. Abandoned land or severely degraded land: expanding cultivation of crops on areas, which were previously not used for cultivation of crops. The expansion and production should be in compliance with the EU sustainability criteria for biofuels

2. Additional feedstock from agriculture: additional amount of a food and feed crop produced in a clearly delineated area through improved agricultural practices and investments into better machinery
Definition of abandoned or severely degraded land

Option 1: Abandoned land or severely degraded land

Definitions:

- **Abandoned land**: unused land, which was used in the past for the **cultivation of food and feed** crops but where the cultivation of food and feed crops was **stopped due to biophysical or socioeconomic constraints**
  
  - **Unused land**: areas which, for a consecutive period of at least 5 years before the start of cultivation of the feedstock used for the production of biofuels, bioliquids and biomass fuels, were neither used for the **cultivation of food and feed** crops, other energy crops nor any substantial amount of **fodder for grazing animals**

- **Severely degraded land**: land that, for a significant **period of time**, has either been significantly **salinated** or **presented significantly low organic matter content** and has been severely eroded
Certification requirements:

- The land has to be in compliance with the sustainability criteria set out in Article 29 of Directive (EU) 2018/2001
- The land is in compliance with the definition of abandoned land and severely degraded land as provided in the delegated act
- The measures taken on the abandoned land to re-start cultivation have not been taken later than 10 years before the low iLUC certification of the land

GRAS can support the verification of abandoned land and sustainability criteria
Example of the examination of the vegetation profile and image interpretation of an area

Option 1: Abandoned land or severely degraded land

- The vegetation profile and image interpretation provides information on:
  - Actual and previous use of the land
  - Potentially “abandoned land”

- Example:
  - This land was detected through the heatmap as potentially abandoned since 2009
  - If the abandoned status is confirmed on-site and the sustainability criteria are verified, measures to re-start cultivation in 2019 could lead to the production of low iLUC feedstocks
During ISCC audit, evidences have to be provided to confirm the abandoned status

Option 1: Abandoned land or severely degraded land

Several evidences has to be provided to the auditor during the ISCC audit:

1. Potentially abandoned status of the land before the restart of cultivation
   - GRAS detailed analysis

2. Biophysical and socioeconomical constraints, for which food and feed production was stopped
   - On-site assessment of independent experts
   - Documentation (e.g. soil analysis)

3. Compliance with sustainability criteria
   - On-site verification (e.g. biodiversity check)
   - Documentation (e.g. land rights)
Alternatively, low iLUC biofuels can be achieved through additional feedstocks from agriculture

**Option 2: Additional feedstock from agriculture**

- **Additional feedstock** means the additional amount of a food and feed crop produced in a clearly delineated area that is the *direct result of applying an additionality measure*

- **Additionality measures** means any *improvement of agricultural practices* leading, in a sustainable manner, to an *increase in yields* of food and feed crops on land that is already used for cultivation

- The additional feedstock must be calculated compared to a *dynamic yield baseline*
Additional feedstock from agriculture can be achieved via implementing GAP measures

Option 2: Additional feedstock from agriculture

Possible additional feedstock from agriculture measures within the palm oil sector:

- Fertilisation (e.g. optimisation of fertilisation, use of better fertiliser)
- Crop protection (e.g. change in pest and disease control)
- Re-planting (e.g. palm variety with higher yields)
- Harvest practices
- Weed control
- Soil conservation
- Precision farming
- Etc.
The determination of a dynamic yield baseline for palm oil is necessary for the calculation of the additional feedstock

Option 2: Additional feedstock from agriculture

- The baseline is intended as the average yield from the area where additionality measures have been applied over the 3-year period preceding the year of application of the measure.

- The following factors must be considered:
  - The average yield increase observed for that feedstock over the previous 10 years.
  - The yield curve over the life time.

- Two examples of measures are discussed in the following:
  - Fertilization
  - Re-planting
A smallholder with less than 2 ha can sell low iLUC risk FFBs after certification for a measure applied less than 10 years before certification.

Option 2: Additional feedstock from agriculture

Dynamic yield baseline plantation A and low iLUC palm after the application of fertilization

- **Example fertilization:**
  - A smallholder with less than 2 ha obtains low iLUC certification.
  - The smallholder applied an additionality measure 8 years before certification and provides evidences of it during low iLUC certification audit.
  - The smallholder provides the average yield for the three years previous to the additionality measure application.
  - The smallholder can sell the additional FFBs achieved through the application of the measure under the low iLUC risk biofuel category.
Re-planting: A plantation with **more** than 2 ha gets certified and provides evidences for compliance with the financial additionality criterion

**Option 2: Additional feedstock from agriculture**

Dynamic yield baseline plantation B and yield curve after re-planting

- **Example replanting:**
  - A plantation with more than 2 ha gets certified regarding low iLUC risks and starts **re-planting** as an additionality measure.
  - The dynamic yield baseline was adjusted on the **3 years yield** before re-planting.
  - To prove compliance with the financial additionality criterion, the plantation provides evidence of a price premium for the low iLUC risk FFBs.
  - The plantation sells the additional FFBs achieved through re-planting as **low iLUC risks FFBs**.

* Based on smallholder home grown seeds with a high percentage of dura
** State of the art re-planting with high yield seeds
GRAS mobile apps can facilitate the entire process

1. **Smallholder App**
   a) Map smallholder field outlines, collect basic smallholder data and other data if required
   b) Upload data to database
   c) Check automatically the field outlines against deforestation and protected areas

2. **Tracking App**
   a) Trace back raw materials to smallholder level
   b) Identify the amount of delivered raw material per smallholder
   c) Monitor and analyze volumes of raw materials

3. **Smallholder Dashboard**
   a) Easy-to-use user interface to manage and access data
   b) Access information on collected polygons and environmental analysis
   c) Efficient reporting and monitoring system

- Enables full traceability and no-go area checks of all smallholder deliveries; does not require certification