



Low iLUC Feedstock and Low iLUC Verification

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Different ways to deal with indirect land use change (iLUC)

LCFS iLUC values (gCO₂e/MJ)



Corn:	19.8
Sugarcane:	11.8
Corn Stover:	0
Sorghum:	19.4
Soy:	29.1
Canola:	14.5
Corn Oil:	0
UCO, Tallow:	0



iLUC values to be applied

RFS iLUC values (gCO₂e/MJ)

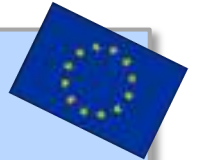


Corn ethanol:	30.3
Switchgrass ethanol:	14.2
Soybean biodiesel:	40.8
Sugarcane ethanol:	3.8



iLUC values to be applied

EU RED II iLUC values (gCO₂e/MJ)



Oil crops:	55
Cereals and other starch-rich oils:	12
Sugars:	13

- No application of values
- High vs low risk iLUC biofuels
- High risk iLUC biofuels must be **phased out until 2030**

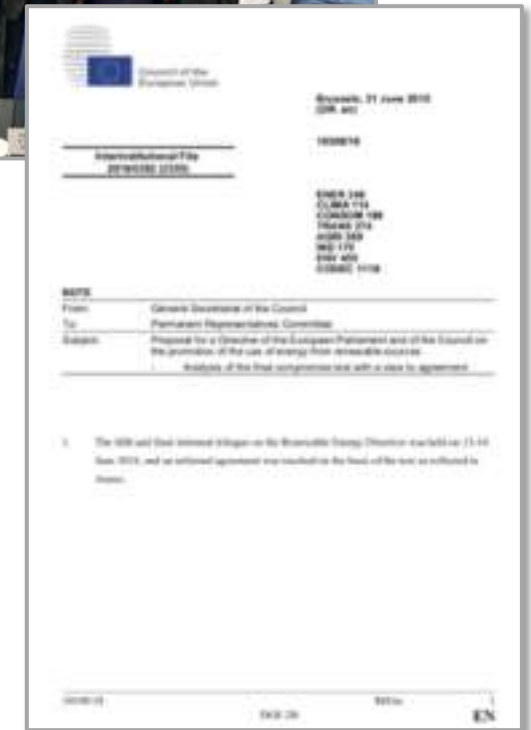


Low risk iLUC biofuels can be further used if certified

Low iLUC risk biofuels are produced from crops being cultivated by avoiding the displacement of biomass for food and feed applications

European Union: RED II

- **High iLUC:** Identification of crops for which a significant expansion of the production area into land with high carbon stocks is observed
- **Low iLUC risk biofuels:** No displacement of biomass for food, feed and fibre (“**additionality**” required)
 - **Waste, residues and forest biomass not classified as low iLUC risk**
- **ISCC** may implement procedures to **certify low iLUC** biomass and biofuels based on forthcoming delegated act



A new draft delegated act for high/low iLUC risk biofuels was just published by the EC and presented at the ISCC Global Conference

European Union: RED II

- National **caps** on **conventional biofuels** (food and feed crops): 2020 consumption levels (+1 pp) in each Member State – max of **7%** share
- National caps on biofuels with **high iLUC-risk**: 2019 consumption levels until 2023, followed by a gradual reduction by 2030 (certified low ILUC-risk biofuels exempted)
- **Article 26.2: Delegated Regulation + Report setting out criteria for:**
 - **identifying** high ILUC-risk feedstock, for which is observed a significant expansion of relevant food and feed crops worldwide
 - **certifying** low ILUC-risk biofuels, i.e. produced from productivity increases or on unused land



DELEGATED REGULATION
High and low Indirect Land-Use Change (iLUC) - risks biofuels, bioliquids and biomass fuels

Feedback still possible until 8 March

About this initiative

Draft act
Feedback period
06.02.2019 - 08.03.2019
FEEDBACK OPEN

UPCOMING
Commission adoption

Topic
Type of act
Expert group

Draft act
FEEDBACK OPEN
Type
Draft delegated regulation
[More about draft acts](#)
Feedback period
06 February 2019 - 08 Mar

EN EN

Source: Presentation of Giulio Volpi [at 9th ISCC Global Sustainability Conference 2019](#)

Criteria for determining high iLUC-risk feedstock for which is observed a significant expansion into land with high-carbon stock

Draft Delegated Act

- Average annual expansion of the global production area since 2008 is >1% and affects >100,000 hectares;
- The share of such expansion into carbon-rich land is >10%

Worldwide production expansion of food and feed crop

	Average annual expansion of production area since 2008 (kha)	Average annual expansion of production area since 2008 (%)	Share of expansion into land referred to in Article 29(4)(b) and (c) of Directive (EU) 2018/2001	Share of expansion into land referred to in Article 29(4)(a) of Directive (EU) 2018/2001
Cereals				
Wheat	-263,4	-0,1%	1%	-
Maize	4027,5	2,3%	4%	-
Sugar crops				
Sugar cane	299,8	1,2%	5%	-
Sugar beet	39,1	0,9%	1%	-
Oil crops				
Rapeseed	301,9	1,0%	1%	-
Palm oil	702,5	4,0%	45%	18%
Soybean	3183,5	3,0%	8%	-
Sunflower	127,3	0,5%	1%	-

Source: Presentation of Guilio Volpi [at 9th ISCC Conference 2019](#)

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Criteria for certification of low iLUC-risk biofuels

Draft Delegated Act

- a) Compliance with **the EU sustainability criteria** (art 29 REDII)
- b) Produced from additional feedstock directly resulting from measures:
 1. **Increased productivity** on already used land, beyond business as usual increase (e.g. financial attractive due EU biofuel demand); or
 2. Cultivation of crops on areas which were previously not used for cultivation of crops, i.e. **unused land**; or
 3. Production from **smallholders** (means farmers independently conducting an agricultural activity on a holding with an agricultural area of less than [2 – 5] hectares for which they hold ownership or lease rights)
- c) Implementation of **robust auditing** and verification requirements

Source: Presentation of Guilio Volpi [at 9th ISCC Conference 2019](#)



Option 1: Yield increase – Proposal ISCC

Requirements for determining yield increase

- Determination of “**additional biomass**” produced by crops on already cultivated land
- Yield increase must be **achieved via improved land management** (e.g. implementation of at least one improved agricultural practice)
- “Additional biomass” is calculated against a reference **baseline**

“Yield increase from agriculture” can be achieved via improved agricultural practices

Option 1: Yield increase from agriculture

Possible yield increase from improved agricultural practices:

- Choice of different crop varieties (e.g. higher yielding variety)
- Fertilisation (e.g. optimisation of fertilisation, use of better fertiliser)
- Crop protection (e.g. change in pest and disease control)
- Harvest practices
- Weed control
- Soil conservation
- Precision farming
- Etc.





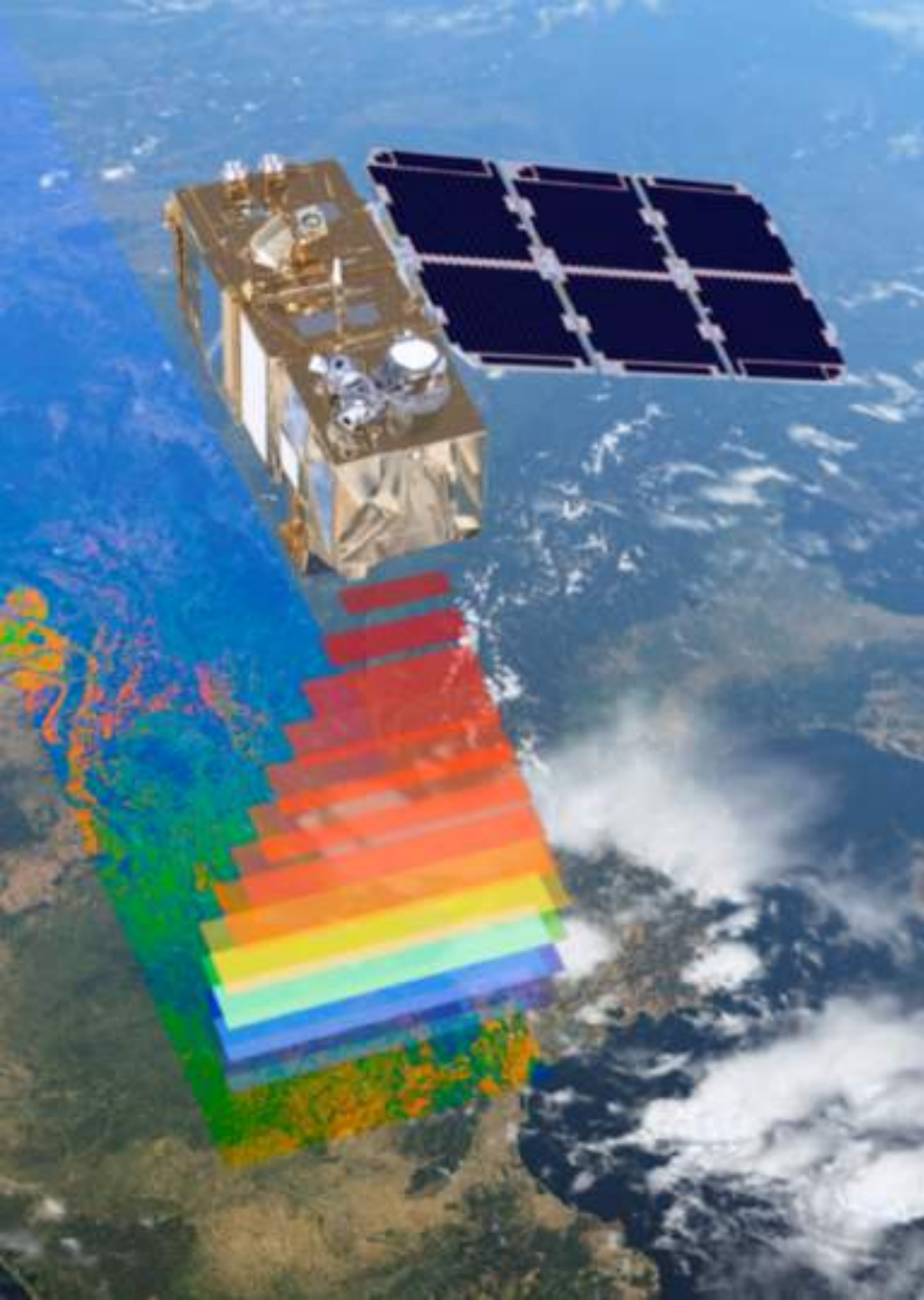
Option 2: Unused land

Definition:

- *“unused land’ means 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”* (Source: Delegated act supplementing Directive (EU) 2018/2001 as regards the determination of high indirect land-use change-risk feedstock)
- This may also apply for **coca crops**

The land must meet requirements:

1. Agricultural production **in compliance with EU sustainability criteria** for biofuels
2. Land can be used for agricultural production in compliance with relevant **legal and regulatory requirements** as well as respecting traditional and/or customary **land use rights**



Verification of biomass production on previously unused land

ISCC proposes a two steps approach:

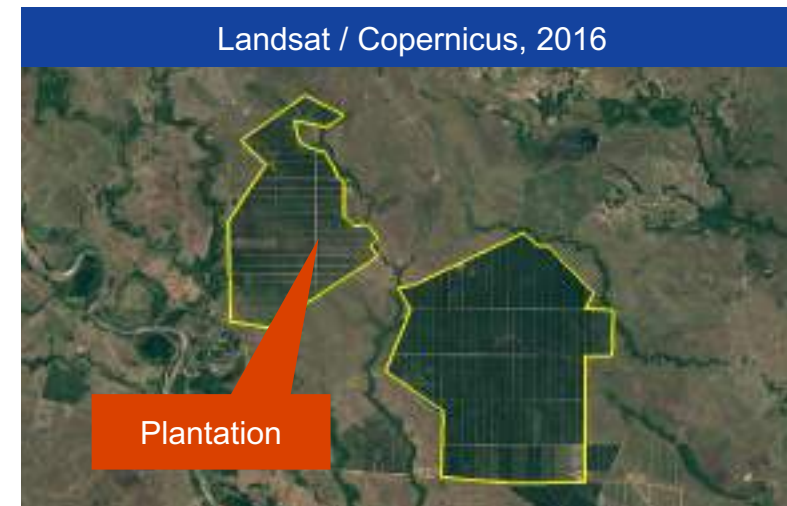
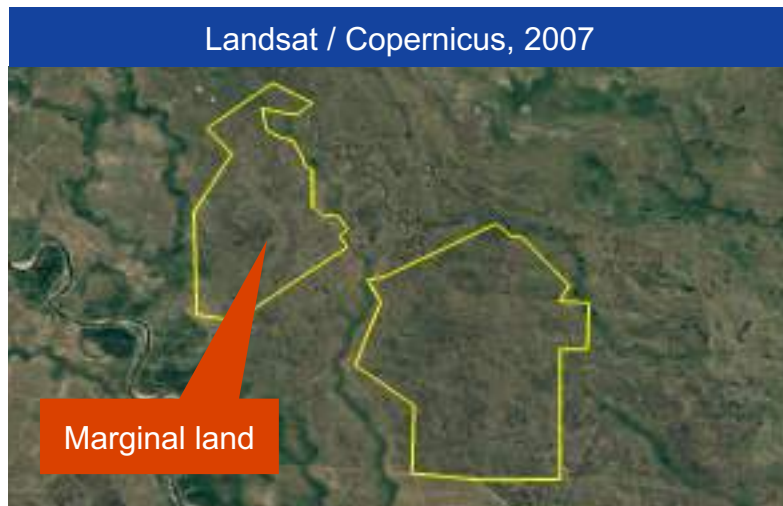
- 1. Land cover and utilization assessment** with GRAS (Global Risk Assessment Services), a tool analysing remote sensing data
 - a) Vegetation profile – Examination through e.g. EVI
 - b) Image interpretation – Satellite and high-resolution images
 - c) Geo-information – Digital geoportals or cadastre systems

- 2. On-site assessment** including verification of low carbon stock and biodiversity value of the land

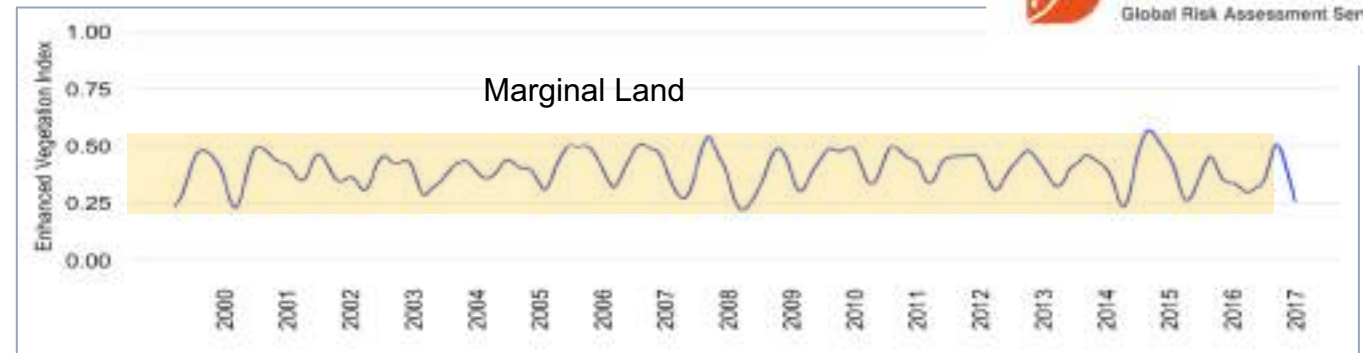
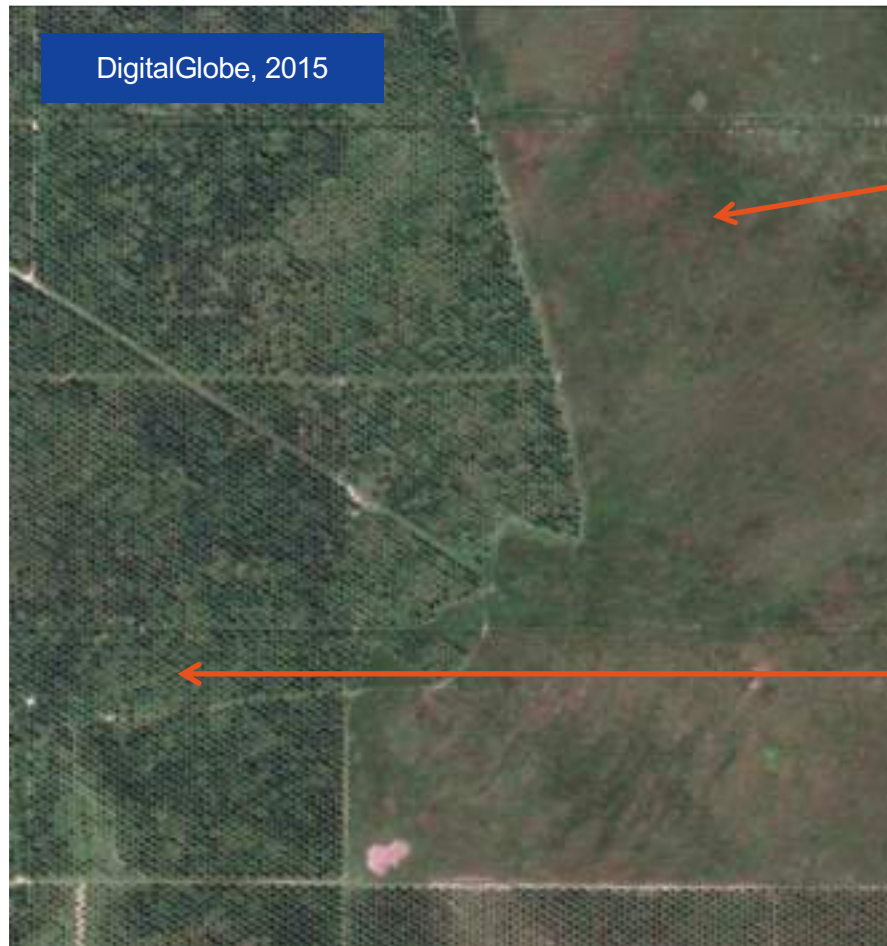
Cultivation of crops on areas which were previously not used for cultivation of crops (unused land)

Certification issues

- ISCC is able to prove the history of land use with **remote sensing technology** (land cover and utilization assessments, image interpretation, EVI time series approach, digital geo-portals, cadastre systems; on site assessments)
- Approach **covers annual and perennial** crops
- For new cultivation areas, compliance with **sustainability criteria** for biofuels is done within the regular audits
- Criteria need to be set by the EC for determining unused land

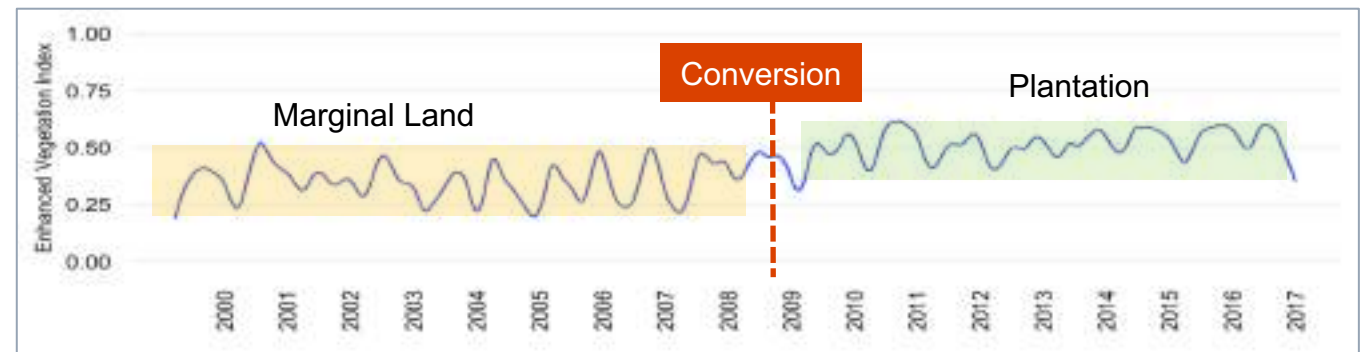


High resolution satellite imagery and EVI time series are used to map the land history. The GRAS tool is used



Claim: Document field survey proved the land currently unused land in Colombia

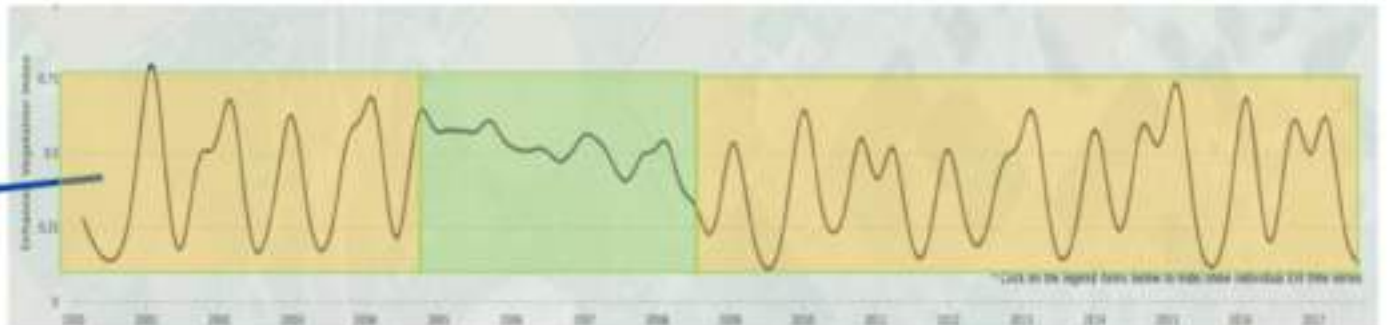
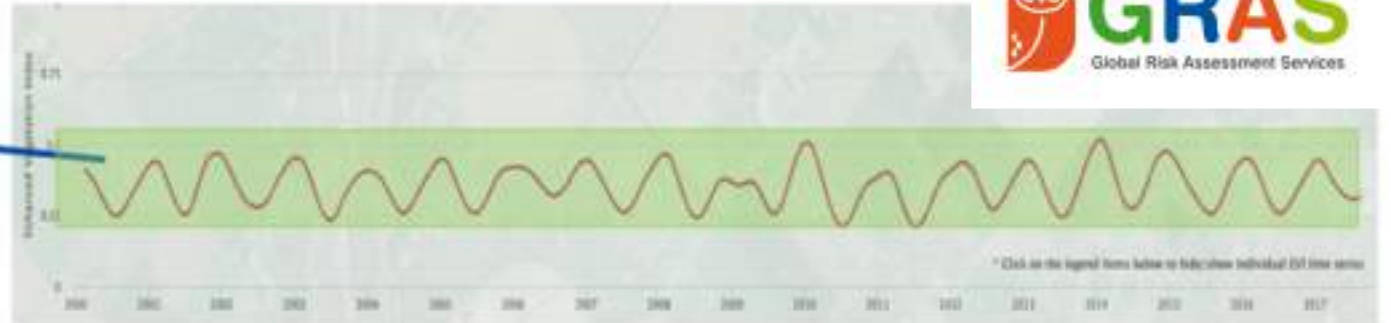
Fact: The status of the unused land hasn't changed since the year 2000



Claim: Unused land was converted to plantation in 2008

Fact: Land was similar to the unused land reference area, then converted to plantation

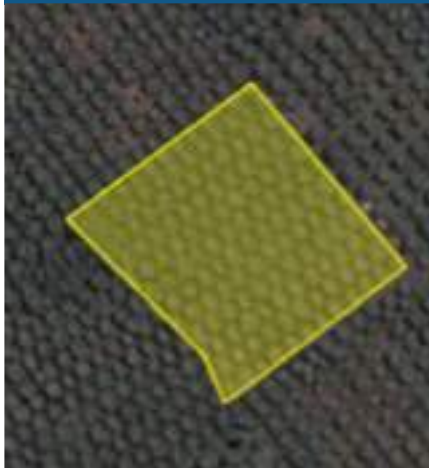
Verification of former status as unused land is possible with GRAS



- Use of vegetation profile and image interpretation to detect the actual status of vegetation
- Find out about historical information on land use and LUC
- This is relevant to determine if ISCC compliant unused land was changed to potential low iLUC cropland

Meo and ISCC provide solutions for smallholder management to allow efficient data collection, automated sustainability checks and yield assessment

Map the field outlines of all smallholders



Easy collection of basic smallholder data and pictures

Basic data

smallholder NIK (mandatory)

 1234567

 Name

 Street

 City, Place

Automated sustainability check of field outlines



Trace back sustainable produced FFBs to ISHs



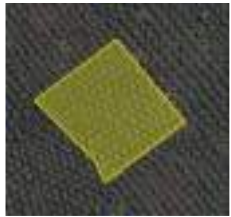
Historical harvest analysis and yield projections



Therefore, different tools have been developed for an efficient smallholder management and monitoring

Smallholder App

Collect and access basic ISH data, pictures and polygons



Tracking App

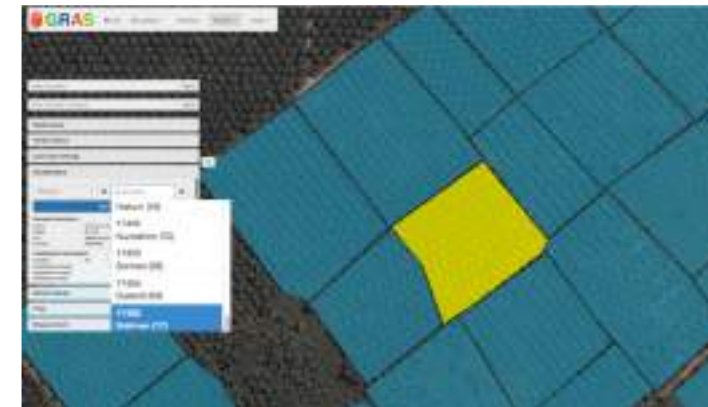
Track FFBs delivery from ISH to the palm oil mill



Data transfer

Database and User Interface

- Database to store and access the collected data
- Manage and monitor your suppliers within an interactive user interface
- Conduct analysis of historical harvests
- Conduct more precise yield projections/estimations
- Upload and download collected data



ISCC has developed the ISCC Smallholder Academy to support smallholder certification



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Smallholder Academy

[ISCC Deforestation-Free Certification](#)

[Online Training for Independent Smallholders Certification](#)

[ISCC Landscape Approach](#)

[SNV/WUR Better Management Training Programme](#)

Smallholder Academy



Registrations for the Online Training for Independent Smallholders Certification are open. The training provides in-depth information on the certification process for all interested parties.

[Click here for further information and registration](#)

www.iscc-system.org

The ISCC online training for smallholder certification has been established



Smallholder Academy · Online Training for Independent Smallholders Certification

ISCC Online Training for Independent Smallholders Certification



Next steps

- The delegated act **is subject to further changes and currently open for feedback** from any interested party in a public consultation **until 8 March 2019**
- If you have comments it is recommended to provide **those as soon as possible to the EC** (the earlier the better)!
- EC has after the deadline about **5 working days to “redraft” the proposal** based on the consultation but is not obliged to taken any of the ideas received on board
- Amended draft will be provided to **European Member States and Parliament** (cannot amend but reject)
- Rejection will lead to new round by EC and drawing Board
- EC may issue **further guidance on iLUC verification and implementation**
- **ISCC to implement** meaningful solutions



Many thanks for your attention!

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