

ISCC EU 202-1

AGRICULTURAL BIOMASS: ISCC PRINCIPLE 1



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Note: From 1st July 2021, only the version 4.0 of this ISCC document is applicable. This version of the document has been submitted to the European Commission in the framework of the recognition process of ISCC EU under the legal requirements of the Renewable Energy Directive (EU) 2018/2001 (RED II). The recognition of ISCC EU in the framework of the RED II is pending. This ISCC document may be subject to change depending on further legislation and further requirements of the European Commission.

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Summary of Changes

The following is a summary of the main changes to the previous version of the document (formerly ISCC EU System Document 202 v 3.1). The revision of the document is a major review in the framework of the rerecognition of ISCC under the Directive (EU) 2018/2001 (recast) (RED II). Minor amendments, e.g. corrections of phrasings and spelling mistakes, are not listed.

Summary of changes made in 202-1	Chapter
General: All reference to the RED refer to the Renewable Energy Directive (EU) 2018/2001 (recast) (also referred to as RED II)	
<ul style="list-style-type: none"> The ISCC EU System Document 202-1 "Agricultural Biomass: ISCC Principle 1" covers the legal requirements of Articles 29(2), 29(3), 29(4) and 29(5) of the Directive (EU) 2018/2001 of 11 December 2018 on the promotion of the use of energy from renewable sources (recast) (short: RED II) as well as the further requirements on defining the criteria and geographic ranges of highly biodiverse grassland as set by the Commission Regulation (EU) No 1307/2014 of 8 December 2014. From 1st January 2008 onwards, users of the ISCC certification system are not allowed to change the status of areas with high biodiversity or high carbon stock. They include (...) highly biodiverse forests and other wooded land (areas that are species-rich and not degraded, or areas that have been identified as being highly biodiverse by the relevant competent authority); (...) land with high carbon stock (such as, inter alia, wetlands and continuously forested areas or forested areas with 10-30% canopy cover) ISCC Principles 2-6 cover social, ecological and economic requirements. They are divided into 'immediate requirements', 'short-term requirements', 'mid-term requirements' and 'best practice requirements'. A farm or plantation must be compliant with all requirements stated in ISCC Principle 1 and all immediate requirements of ISCC Principles 2-6 when it starts supplying sustainable material. The short-term and mid-term requirements specified in ISCC Principles 2-6 have to be implemented as part of a continuous improvement process over a specified period of 3 years and 5 years respectively. Additionally, farms or plantations can choose to implement the best practice requirements. Further details are stated in ISCC EU System Document 202-2 "Agricultural Biomass – ISCC Principles 2-6". 	1
Amendment: <i>"The sustainability requirements in this document are mandatory under the RED II and valid for all farms or plantations participating in the ISCC system. The ISCC EU System Document 202-1 "Agricultural Biomass: ISCC Principle 1" applies to all kinds of agricultural biomass (main crops and intermediate crops) including short rotation coppice (SRC), which shall be supplied as sustainable under ISCC. Furthermore, the requirements also apply to residues from agriculture, aquaculture, and fisheries (e.g. straw, husks or shells)."</i>	2

Summary of changes made in 202-1	Chapter
<p>Additon: Farms or plantations under this standard are agricultural operations where crops are sustainably cultivated, or where agricultural crop residues from sustainable cultivation occur. A farm or plantation is defined as a distinct legal entity having control regarding the compliance with the ISCC requirements. <i>(Footnote: Defined as ‘an association, corporation, partnership, proprietorship, trust, or individual that has legal standing in the eyes of law. A legal entity has legal capacity to enter into agreements or contracts, assume obligations, incur and pay debts, sue and be sued in its own right, and to be held responsible for its actions.’</i> http://www.businessdictionary.com/definition/legal-entity.html)</p>	3
<p>Additon: “In cases of land use change that took place after January 2008, this must be reported to ISCC and detailed explanation on how compliance with ISCC Principle 1 was verified has to be provided in a separate report. Evidence must be presented in accordance with the relevant requirements laid out in this document.”</p>	Principle 1
<p>Amendment: The requirements of Principle 1 have been aligned to Articles 29(3), 29(4) and 29(5) of the RED II. (...)The following figure shows all classified land categories of the ISCC as well as the RED II and their protection status.</p>	Principle 1
<p>Addition: (2) Highly biodiverse forest and other wooded land “Highly biodiverse forest and other wooded land are areas that are species-rich and not degraded, or areas that have been identified as being highly biodiverse by the relevant competent authority, unless evidence is provided that the production of that raw material did not interfere with those nature protection purposes.</p> <p>Highly biodiverse forest and other wooded land means that:</p> <ul style="list-style-type: none"> (b) Is not degraded, that is to say it is not characterised by long-term loss of biodiversity due to for instance overgrazing, mechanical damage to the vegetation, soil erosion or loss of soil quality; and (c) Is species-rich, that is to say it is: <ul style="list-style-type: none"> a. A habitat of significant importance for critically endangered, endangered or vulnerable species as classified by the International Union for the Conservation of Nature Red List of Threatened Species or other lists with a similar purpose for species or habitats laid down in national legislation or recognised by a competent national authority in the country of origin of the raw material; or b. A habitat of significant importance to endemic or restricted-range species; or c. A habitat of significant importance to intra-species genetic diversity; or d. A habitat of significant importance to globally significant concentrations of migratory species or congregatory species; or e. A regionally or nationally significant or highly threatened or unique ecosystem.” 	Principle 1.1 (2)
<p>Amendment: According to Article 30(4) of the RED II this also includes areas subject to recognition by the European Commission.</p>	Principle 1.1 (4)

Summary of changes made in 202-1	Chapter
<p>Amendment: (5) Highly biodiverse grassland spanning more than one hectare The Commission has adopted on 8 December 2014 the Regulation (EU) No 1307/2014. On 29 January 2015, the Commission sent a letter to recognized voluntary certification systems providing guidance to the voluntary certification systems regarding the implementation of the adopted criteria and geographic ranges of highly biodiverse grassland.</p> <p>Definition grassland “Grassland“ means terrestrial ecosystems dominated by herbaceous or shrub vegetation for at least five years continuously. It includes meadows or pasture that is cropped for hay but excludes land cultivated for other crop production and cropland lying temporarily fallow. It further excludes continuously forested areas as defined in Article 17(4)(b) of the of Directive 2009/28/EC (equivalent to Article 29(4)(b) of Directive (EU) 2018/2001 (REDII)) unless these are agroforestry systems, which include land-use systems where trees are managed together with crops or animal production systems in agricultural settings.(...)</p> <p>Addition: “Non-natural highly biodiverse grassland means grassland that: (...) (d) and has been identified as being highly biodiverse by the relevant competent authority, unless evidence is provided that the harvesting of the raw material is necessary to preserve its status as highly biodiverse grassland.</p> <p>Addition: The following approach must be taken when determining whether land is (or in the case of conversion was) natural highly biodiverse grassland:</p> <ul style="list-style-type: none"> (1) The lead auditor must judge whether an assessment of highly biodiverse grassland is necessary. (2) If an assessment is necessary, it must be conducted by a qualified independent specialist who may be additional to the audit team. The assessment and result must then be reviewed as part of the audit. <p>Amendment: “The status of the land as being “non-natural highly biodiverse grassland” is to be identified as being highly biodiverse by the relevant competent authority, unless evidence is provided that the harvesting of the raw material is necessary to preserve its status as highly biodiverse grassland.”</p>	<p>Principle 1.1 (5)</p>
<p>Addition: The evidence of verification should reflect seasonal changes within a year.</p>	<p>Principle 1.2 (1)</p>
<p>Amendment: (3) Forested areas with 10-30% canopy cover</p> <p>Forested areas with 10-30% canopy cover refer to land spanning more than one hectare with trees higher than five metres and a canopy cover of between 10% and 30%, or trees able to reach these thresholds in situ.</p> <p>(...) Raw material can be obtained from land that had the status of forested areas with 10-30% canopy cover in January 2008 and no longer has this status (...)</p>	<p>Principle 1.2 (3)</p>
<p>Addition: New requirement (RED II): Monitoring of impacts on soil quality and carbon in accordance with the RED II regulation Article 29(2)</p>	<p>Principle 1.4</p>
<p>Addition: In cases where a non-compliant farm or plantation has already supplied biomass to the FGP under which it is certified and this biomass has then been sold as</p>	<p>4</p>

Summary of changes made in 202-1	Chapter
sustainable, this is considered a severe non-conformity. See ISCC EU System Document 102 "Governance" for further information.	
<p>Amendement: The Commission has adopted on 8 December 2014 the Regulation (EU) No 1307/2014. On 29 January 2015, the Commission sent a letter to recognized voluntary certification systems providing guidance to the voluntary certification systems regarding the implementation of the adopted criteria and geographic ranges of highly biodiverse grassland.</p> <p>Part A: (d) and has been identified as being highly biodiverse by the relevant competent authority, unless evidence is provided that the harvesting of the raw material is necessary to preserve its status as highly biodiverse grassland.</p> <p>Part D: 1) ... No raw material from land which is or was natural highly biodiverse grassland in January 2008 may be used for the production of biofuels, bioliquids and biomass fuels.</p> <p>(...) In case the grassland would not remain grassland in absence of human intervention and the harvesting of the raw material is necessary to preserve the grassland status, no further evidence is necessary to show compliance with Article 29(3)(d) even if the grassland is located in the areas laid down in the above chapter B "Geographic Ranges".</p> <p>(...) If the harvesting of raw material is not necessary to preserve the grassland status or the grassland has been converted e.g. to cropland used for the production of raw material, it has to be established whether the grassland is or was highly biodiverse, by the relevant competent authority.</p> <p>Part D: 2) (...) (4) If grassland is not located in areas referred to in Article 2 of the Commission Regulation (EU) No 1307/2014 / Chapter 3 of this guidance, carry out an assessment of the grassland:</p> <ul style="list-style-type: none"> a. Natural grassland: The grassland maintains or would have maintained the natural species composition and ecological characteristics and processes <p>The following approach must be taken when determining whether land is (or in the case of conversion was) natural highly biodiverse grassland:</p> <ul style="list-style-type: none"> (1) The lead auditor must judge whether an assessment of highly biodiverse grassland is necessary. (2) If an assessment is necessary, it must be conducted by a qualified independent specialist who may be additional to the audit team. The assessment and result must then be reviewed as part of the audit. <ul style="list-style-type: none"> b. Non-natural grassland: The grassland is/ was not degraded and is/was not species-rich and has been identified as being highly biodiverse by the relevant competent authority <p>Part D: 3) (...) In case of determining whether land is (or in the case of conversion was) natural highly biodiverse grassland, the lead auditor must judge whether an assessment of highly biodiverse grassland is necessary. If an assessment is necessary, it must be conducted by a qualified independent specialist who may be additional to the audit team. The assessment and result must then be reviewed as part of the audit.</p>	Annex I

1 Introduction

Biomass used in food, feed, chemical and energy markets should be produced in a sustainable way. This means that the production of biomass should follow best environmental, social and economic practices. Areas, which are biodiverse or rich in carbon, which serve to protect threatened or vulnerable species, or which are of other ecological or cultural importance, need to be protected and should not be degraded or destroyed for biomass production. The objective of the International Sustainability and Carbon Certification (ISCC) certification system is to contribute to the sustainable cultivation, processing and use of different kinds of biomass and their products. Thereby, ISCC contributes to the reduction of environmental impacts, more efficient resource use and an increasing capacity for climate change adaptation and mitigation and climate resilience.

*Sustainable
production of
raw materials*

The ISCC EU System Document 202-1 “Agricultural Biomass: ISCC Principle 1” covers the legal requirements of Articles 29(2), 29(3), 29(4) and 29(5) of the Directive (EU) 2018/2001 of 11 December 2018 on the promotion of the use of energy from renewable sources (recast) (in the following referred to as RED II) as well as the further requirements on defining the criteria and geographic ranges of highly biodiverse grassland as set by the Commission Regulation (EU) No 1307/2014 of 8 December 2014. These requirements are comprised in ISCC Principle 1 specifying areas which are excluded from any kind of biomass production and areas which can only be used for biomass production if their status does not change or if restrictions are followed. From 1st January 2008 onwards, users of the ISCC certification system are not allowed to change the status of areas with high biodiversity or high carbon stock. They include primary forests and other woodland (forests and other wooded land of native species where there is no clearly visible indication of human activity and the ecological processes are not significantly disturbed), highly biodiverse forests and other wooded land (areas that are species-rich and not degraded, or areas that have been identified as being highly biodiverse by the relevant competent authority); areas designated by law or by the relevant competent authority for nature protection purposes or for the protection of rare, threatened or endangered species or ecosystems (recognised by international agreements or included in lists drawn up by intergovernmental organisations or the International Union for the Conservation of Nature); highly biodiverse grassland (both natural and non-natural), land with high carbon stock (such as, inter alia, wetlands and continuously forested areas or forested areas with 10-30% canopy cover) and peatland. Violations of ISCC Principle 1 are critical non-conformities and cannot be subject to corrective measures.

*ISCC
Sustainability
Principle 1*

ISCC Principles 2-6 cover social, ecological and economic requirements. They are divided into ‘immediate requirements’, ‘short-term requirements’, ‘mid-term requirements’ and ‘best practice requirements’. A farm or plantation must be compliant with all requirements stated in ISCC Principle 1 and all immediate requirements of ISCC Principles 2-6 when it starts supplying

*ISCC Principles
2-6*

sustainable material. The short-term and mid-term requirements specified in ISCC Principles 2-6 have to be implemented as part of a continuous improvement process over a specified period of 3 and 5 years respectively. Additionally, farms or plantations can choose to implement the best practice requirements. Further details are stated in ISCC EU System Document 202-2 “Agricultural Biomass – ISCC Principles 2-6”.

Compliance with the ISCC certification system is verified by independent third-party audits. ISCC releases procedures, checklists, and numerous other supporting documents to provide clarification and help for implementation and verification of the principles and criteria.

The ISCC sustainability requirements are globally applicable. If required, additional guidelines to support a consistent application of ISCC in different regions with different crops and technologies can be elaborated.

*Global
applicability*

2 Scope and Normative References

The sustainability requirements in this document are mandatory under the RED II and valid for all farms or plantations participating in the ISCC system. The ISCC EU System Document 202-1 “Agricultural Biomass: ISCC Principle 1” applies to all kinds of agricultural biomass (main crops and intermediate crops) including short rotation coppice (SRC), which shall be supplied as sustainable under ISCC. Furthermore, the requirements also apply to residues from agriculture, aquaculture, and fisheries (e.g. straw, husks or shells).

*Relevant raw
materials*

This document is valid in addition to the other ISCC EU System Documents. The normative references display the documents of which the contents are linked and have to be considered as common points.

*Normative
references*

3 Requirements for the Production of Biomass

All farms and plantations that go through an ISCC audit shall comply with relevant national and regional laws and regulations as long as those laws and regulations do not violate any requirements of ISCC or the RED II. The stricter rule shall always be followed. If, for example, certain countries have legislation in place that allows for a certain degree of forest clearance for agricultural production which violates ISCC principles, it would not be allowed to produce biomass under the ISCC System on these areas, as this would violate ISCC principles and the requirements of the RED II.

*Stricter rule
apply*

The audit of a farm must always cover the entire land (agricultural land, pasture, forest, any other land) of the farm including any owned, leased or rented land. Farms or plantations under this standard are agricultural operations where crops are sustainably cultivated, or where agricultural crop residues from sustainable cultivation occur. A farm or plantation is defined as

Farm definition

a distinct legal entity¹ having control regarding the compliance with the ISCC requirements.

Biomass produced on land, which is in compliance with ISCC Principle 1 and the requirements of ISCC Principles 2-6 as described above, is considered to be sustainable. Partial compliance (e.g. only fulfilling Principle 1 requirements) is not sufficient to declare the biomass produced as sustainable. Furthermore, the area of the farm relevant for ISCC certification is not limited to such areas where sustainable material is cultivated. The selection of individual areas of the farm, which comply with the ISCC requirements whereas other areas of the farm may not comply with the requirements ("cherry picking"), is not permitted under ISCC.

*No cherry
picking*

Principle 1: Protection of Land with High Biodiversity Value or High Carbon Stock

The objective of ISCC is to protect areas which are biodiverse or rich in carbon, which serve the protection of threatened or vulnerable species, or which have other ecological or cultural importance. Furthermore, high conservation value (HCV) areas shall be protected. In the following sections, important areas which are excluded from any raw material use or which are subject to certain restrictions in obtaining raw material are further defined. The requirements of Principle 1 have been aligned to Articles 29(2), 29(3), 29(4) and 29(5) of the RED II. Further requirements and guidance on defining the criteria and geographic ranges of highly biodiverse grassland have been set by the Commission Regulation (EU) No 1307/2014 of 8 December 2014 and a letter sent on 29 January 2015 by the Commission to recognized voluntary certification systems. If land belongs to more than one of these land categories, all the relevant criteria apply. Eligibility for an exception under one of the criteria would not confer an exception from other criteria that apply.

ISCC Principle 1

The reference for any status determination is January 2008. If land had already been cropland in January 2008, the use of raw material from that land is in line with ISCC. Cropland includes fallow land, i.e. land set to rest for one or several years before being cultivated again.²

*Reference date
January 2008*

In cases of land use change that took place in or after January 2008, this must be reported to ISCC and detailed explanation on how compliance with ISCC Principle 1 was verified has to be provided in a separate report. Evidence must

*Verification of
land use change*

¹ Defined as 'an association, corporation, partnership, proprietorship, trust, or individual that has legal standing in the eyes of law. A legal entity has legal capacity to enter into agreements or contracts, assume obligations, incur and pay debts, sue and be sued in its own right, and to be held responsible for its actions.' <http://www.businessdictionary.com/definition/legal-entity.html>

² According to Commission Regulation (EC) No 1200/2009 fallow land is land included in the crop rotation system, whether worked or not but with no intention to produce a harvest (e.g. bare land bearing no crops at all, land with spontaneous natural growth, which may be used as feed or ploughed in land sown exclusively for the production of green manure (green fallow))

be presented in accordance with the relevant requirements laid out in this document.

The following figure shows all classified land categories of the ISCC as well as the RED II and their protection status.

In the following chapters all relevant criteria for the protection of land with high biodiversity value, high carbon stock and peatland are specified.

IPCC land categories	EU RED II land categories		Criteria	Status change after Jan 2008?	Use of raw material from land?
Cropland	Cropland		Includes annual and perennial cropland. Perennial crops are defined as multi-annual crops, the stem of which is usually not annually harvested such as short rotation coppice and palm oil	Yes	Yes
	Fallow land		Land set at rest for one or several years before being cultivated again	Yes	Yes
Forest land	Primary forests and other wooded land		<ul style="list-style-type: none"> Land of native tree species, No clearly visible indications of human activity and, Ecological processes are not significantly disturbed 	No	No
	Continuously forested areas		<ul style="list-style-type: none"> Span > 1 ha, trees higher five meters and Canopy cover > 30% 	No	Yes, if land has same status
	Forested areas with 10-30% canopy cover		<ul style="list-style-type: none"> Span > 1 ha, trees higher five meters and Canopy cover 10 - 30% 	Yes, if GHG saving fulfilled	Yes, if land has same status
	Highly biodiverse forest and other wooded land		<ul style="list-style-type: none"> Land that is species-rich and Not degraded; or Has been identified as being highly biodiverse by the relevant competent authority 	No	Yes, if production of raw material does not interfere with protection purpose
Grassland	Natural grass-land	Highly biodiverse	<ul style="list-style-type: none"> Span > 1 ha, would remain grassland in the absence of human intervention Maintains the natural species composition and ecological characteristics and processes 	No	No
		Non highly biodiverse	<ul style="list-style-type: none"> Span > 1 ha, would remain grassland in the absence of human intervention Does not maintain the natural species composition and ecological characteristics and processes 	Yes, if GHG saving fulfilled	Yes
	Non-natural grass-land	Highly biodiverse	<ul style="list-style-type: none"> Span > 1 ha, would cease to be grassland in the absence of human intervention; and Is not degraded and species-rich Identified as being highly biodiverse by the relevant competent authority 	No	Yes, if harvesting necessary to preserve status as highly biodiverse
		Non highly biodiverse	<ul style="list-style-type: none"> Span > 1 ha, would cease to be grassland in the absence of human intervention; and Is degraded and not species-rich 	Yes, if GHG saving fulfilled	Yes
Wetland	Wetland		Covered with or saturated by water permanently or for a significant part of the year	No	Yes, if land has same status
	Peatland		<ul style="list-style-type: none"> First 60 cm of soil has organic matter horizon ≥ 30 cm Organic carbon in organic matter fine soil: ≥ 20 mass-% 	No	Yes, if land has same status
Other areas	Designated nature protection areas		<p>Areas designated by law or by the relevant competent authority for nature protection purposes</p> <p>Areas for the protection of rare, threatened or endangered ecosystems or species</p> <ul style="list-style-type: none"> Areas recognised by international agreements or Areas included in lists drawn up by intergovernmental organisations or the International Union for the Conservation of Nature (IUCN) or Areas recognized by the European Commission 	No	Yes, if production of raw material does not interfere with protection purpose

Figure 1: IPCC and RED II land categories, criteria and protection status

1.1 Biomass is not produced on land with a high biodiversity value

Raw material shall not be obtained from land with high biodiversity value, namely land that had one of the following statuses in or after January 2008, whether or not the land continues to have that status:

(1) Primary forests and other wooded land

Primary forests and other wooded land are areas covered with native tree species where there is no clearly visible indication of human activity and the ecological processes are not significantly disturbed.

Definitions

Tree species are defined as native, if they grow within their natural geographical range and under climatic conditions to which they have adapted naturally and without human interference. Thus, primary forests and other wooded land consists of tree species that have not been introduced by humans or that, nevertheless would occur nonetheless in the area, e.g. due to the climatic conditions of the region.

Native tree species

Clear visible indication of human activity could be for instance land management (i.e. wood harvesting, forest clearance, land use change), heavy fragmentation through infrastructural constructions or disturbances to the natural biodiversity (e.g. significant occurrence of non-native plant or animal species). Activities of indigenous people or other humans managing the land in a traditional way do not count as clearly visible indications of human activity if they manage the forest on a subsistence level and their influence on the forested area is minimal (e.g. the collection of wood and non-timber products, the felling of a few trees as well as small-scale forest clearance according to traditional management systems).

Clear visible indication of human activity

(2) Highly biodiverse forest and other wooded land

Highly biodiverse forest and other wooded land are areas that are species-rich and not degraded, or areas that have been identified as being highly biodiverse by the relevant competent authority, unless evidence is provided that the production of that raw material did not interfere with those nature protection purposes.

Species-rich and non-degraded forest

Highly biodiverse forest and other wooded land means that:

- (a) Is not degraded, that is to say it is not characterised by long-term loss of biodiversity due to for instance overgrazing, mechanical damage to the vegetation, soil erosion or loss of soil quality; and
- (b) Is species-rich, that is to say it is:
 - a. A habitat of significant importance for critically endangered, endangered or vulnerable species as classified by the International Union for the Conservation of Nature Red List of Threatened Species or other lists with a similar purpose for species or habitats laid down in national legislation or recognised by a competent national authority in the country of origin of the raw material; or

- b. A habitat of significant importance to endemic or restricted-range species; or
- c. A habitat of significant importance to intra-species genetic diversity; or
- d. A habitat of significant importance to globally significant concentrations of migratory species or congregatory species; or
- e. A regionally or nationally significant or highly threatened or unique ecosystem.

(3) Areas designated by law or by the relevant competent authority for nature protection purposes

It is allowed to grow biomass on areas designated by law or by the relevant competent authority for nature protection purposes if evidence is provided that the production of raw material does/did not interfere with the nature protection purpose in question, that all constraints on growing biomass in that nature protection area are followed and that the status of the area is not negatively influenced by the raw material production.

*Nature
protection sites*

(4) Areas for the protection of rare, threatened or endangered ecosystems or species

Areas for the protection of rare, threatened or endangered ecosystems or species include areas that are recognised by international agreements or included in lists drawn up by intergovernmental organisations or the International Union for the Conservation of Nature (IUCN). According to Article 30(4) of the RED II this also includes areas subject to recognition by the European Commission.

*Other important
areas*

It is allowed to use biomass from areas for the protection of rare, threatened or endangered ecosystems or species if evidence is provided that the production and harvest of raw material does/did not interfere with the protection purposes in question, that all applicable constraints are followed and that the status of the ecosystem or the species is not negatively influenced by the raw material production.

(5) Highly biodiverse grassland spanning more than one hectare

The Commission has adopted on 8 December 2014 the Regulation (EU) No 1307/2014. On 29 January 2015, the Commission sent a letter to recognized voluntary certification systems providing guidance to the voluntary certification systems regarding the implementation of the adopted criteria and geographic ranges of highly biodiverse grassland.

*Protection of
highly biodiverse
grassland*

“Grassland“ means terrestrial ecosystems dominated by herbaceous or shrub vegetation for at least five years continuously. It includes meadows or pasture that is cropped for hay but excludes land cultivated for other crop production and cropland lying temporarily fallow. It further excludes continuously forested areas as defined in Article 17(4)(b) of the of Directive 2009/28/EC (equivalent to Article 29(4)(b) of Directive (EU) 2018/2001 (RED II)) unless these are

*Definition
grassland*

agroforestry systems, which include land-use systems where trees are managed together with crops or animal production systems in agricultural settings. The dominance of herbaceous or shrub vegetation means that their combined ground cover is larger than the canopy cover of trees.

“Natural highly biodiverse grassland” and “non-natural highly biodiverse grassland” are distinguished:

“Natural highly biodiverse grassland” means grassland that:

- (a) Would remain in the absence of human intervention; and
- (b) Maintains the natural species composition and ecological characteristics and processes.

*Natural highly
biodiverse
grassland*

“Human intervention” means managed grazing, mowing, cutting, harvesting or burning.

“Non-natural highly biodiverse grassland means grassland that:

- (a) Would cease to be grassland in the absence of human intervention; and
- (b) Is not degraded, that is to say it is not characterised by long-term loss of biodiversity due to for instance overgrazing, mechanical damage to the vegetation, soil erosion or loss of soil quality; and
- (c) Is species-rich, that is to say it is:
 - a. A habitat of significant importance for critically endangered, endangered or vulnerable species as classified by the International Union for the Conservation of Nature Red List of Threatened Species or other lists with a similar purpose for species or habitats laid down in national legislation or recognised by a competent national authority in the country of origin of the raw material; or
 - b. A habitat of significant importance to endemic or restricted-range species; or
 - c. A habitat of significant importance to intra-species genetic diversity; or
 - d. A habitat of significant importance to globally significant concentrations of migratory species or congregatory species; or
 - e. A regionally or nationally significant or highly threatened or unique ecosystem.
- (d) and has been identified as being highly biodiverse by the relevant competent authority, unless evidence is provided that the harvesting of the raw material is necessary to preserve its status as highly biodiverse grassland.

*Non-natural
highly biodiverse
grassland*

The following geographic ranges of the European Union shall always be regarded as highly biodiverse grassland:

EU geographic ranges of highly biodiverse grassland

- (1) Habitats as listed in Annex I to Council Directive 92/43/EEC³;
- (2) Habitats of significant importance for animal and plant species of Union interest listed in Annexes II and IC to Directive 92/43/EEC;
- (3) Habitats of significant importance for wild bird species listed in Annex I to Directive 2009/147/EC of the European Parliament and of the Council.⁴

Highly biodiverse grassland in the European Union is not limited to the geographic ranges referred to above. Other grassland might fulfil the criteria for highly biodiverse grassland as well.

The following approach must be taken when determining whether land is (or in the case of conversion was) natural highly biodiverse grassland:

- (1) The lead auditor must judge whether an assessment of highly biodiverse grassland is necessary.
- (2) If an assessment is necessary, it must be conducted by a qualified independent specialist who may be additional to the audit team. The assessment and result must then be reviewed as part of the audit.

Raw material shall not be obtained from land that had the status of natural highly biodiverse grassland in or after January 2008, whether or not the land continues to have this status. Raw material shall not be obtained from land that had the status of non-natural highly biodiverse grassland in or after January 2008. The status of the land as being “non-natural highly biodiverse grassland” is to be identified as being highly biodiverse by the relevant competent authority, unless evidence is provided that the harvesting of the raw material is necessary to preserve its status as highly biodiverse grassland. When raw material is obtained from non-natural highly biodiverse grassland to preserve its status as highly biodiverse grassland, the biodiversity status of the grassland shall be at least maintained; a degradation of the biodiversity status of the grassland due to an unsustainable management shall be avoided.

Protection of highly biodiverse grassland

Further guidance and requirements on the identification of highly biodiverse grassland are provided in the Annex 1. If a grassland conversion is anticipated or already has taken place, the procedure in this Annex on identifying highly biodiverse grassland needs to be followed.

Guidance on the identification of grassland

³ OJ L 206, 22.7.1992, p.7.

⁴ OJ L 20, 26.1.2010, p.7.

1.2 Biomass is not produced on land with high carbon stock

Raw material shall not be obtained from land with high carbon stock, namely land that had one of the following statuses in January 2008 and no longer has this status:

(1) Wetlands

Wetlands refer to land that is covered with or saturated by water permanently or for a significant part of the year.

*Definitions
wetlands*

Covered with water means that water is visible on the surface as water surface. Saturated by water is a soil that shows also water at the surface, but not as a closed water surface. Areas that are permanently covered by or saturated with water show this state throughout the year. Areas that are covered by or saturated with water during a considerable part of the year are saturated long enough, so that organisms dominate, which are adapted to wet or anaerobic conditions. These conditions can be found in areas of shallow water, shores, low-moor bog, marsh, fen and moor. They apply to natural or artificial wetland areas with water that is static or flowing, fresh, brackish or salt, including areas of marine water, at which the depth of low tide does not exceed six meters. The evidence of verification should reflect seasonal changes within a year.

*Saturation by
water*

The definition of wetlands can include, but is not restricted to the definition laid down in the Convention on Wetlands of International Importance, especially as Waterfowl Habitat, adopted on 2 February 1971 in Ramsar (Ramsar Convention on Wetlands).

*Ramsar
Wetlands*

The provisions of this paragraph shall not apply if, at the time the raw material was obtained, the wetland had the same status as it had in January 2008. Thus, raw material can be obtained from wetlands, as long as the status is not changed or compromised and all applicable constraints are followed.

*Allowed raw
material harvest*

(2) Continuously forested areas

Continuously forested areas refers to land spanning span over more than one hectare with trees higher than five metres and a canopy cover of more than 30%, or trees able to reach those thresholds in situ. This criterion includes forests according to the respective national legal definition but excludes land that is predominantly under agricultural land use.⁵

*Definition
continuously
forested areas*

The canopy cover is the degree of the coverage of an area by tree crowns of a storey. The coverage of a tree equals the size of its crown. The crown size can be estimated or measured. For the determination of the canopy cover of a forest as a percentage the vertical projection of all tree crowns must be used.

*Definition
canopy cover*

The status of forest areas includes all stages of development and age. Thus, it is quite possible for the canopy cover to temporarily fall below 30 %, e.g.

*Development
status of a forest*

⁵ Land under agricultural use in this context refers to tree stands in agricultural production systems, such as fruit tree plantations, oil palm plantations and agroforestry systems when crops are grown under tree cover.

after a tree harvest or a natural hazard (e.g. windfall). Such incidents do, however, not change the status of the area as a forested area as long as reforestation or natural succession is ensured within a justifiable time.

Forested areas are to be judged as an entity, no matter how much lies within the production area. Accordingly, the whole area is the basis for the calculation of the threshold values of 30%. If the total area of the forested area exceeds 1 ha and is stocked with trees higher than 5 metres, the area and each part of it that lies within the production area is termed a forested area. Even if only 0.5 ha of the continuously forested area lie within the production area, these 0.5 ha must be classified as a forested area.

Assessment of a forested area

No conversion of continuously forested areas is allowed, even if this is allowed by national regulation. The provisions of this paragraph shall not apply if, at the time the raw material was obtained, the land had the same status it had in January 2008. Thus, raw material can be obtained from continuously forested areas as long as the status is not changed or compromised and all applicable constraints are followed.

Allowed raw material harvest

(3) Forested areas with 10-30% canopy cover

Forested areas with 10-30% canopy cover refer to land spanning more than one hectare with trees higher than five metres and a canopy cover of between 10% and 30%, or trees able to reach these thresholds in situ.

Definition forested areas with 10-30% canopy cover

The status of forested areas includes all stages of development and age. Thus, it is quite possible for the canopy cover to temporarily fall below 10%, e.g. after a tree harvest or a natural hazard (e.g. windfall). Such incidents do not, however, change the status of the area as forested area as long as reforestation or natural succession is ensured within a justifiable time. Forested areas are to be judged as entity, no matter how much lies within the production area. Accordingly, the whole area is the basis for the calculation of the threshold values of 10% and 30%.

Canopy cover

Raw material can be obtained from land that had the status of forested areas with 10-30% canopy cover in January 2008 and no longer has this status if evidence is provided that the carbon stock of the area before and after conversion is such that, when the methodology laid down in ISCC EU System Document 205 "Greenhouse Gas Emissions" (based on Part C of Annex V of the RED II) is applied, the appropriate threshold for the greenhouse gas saving criterion would still be fulfilled. The provisions of this paragraph shall not apply if, at the time the raw material was obtained, the land had the same status as, it had in January 2008.

Allowed raw material harvest

1.3 Biomass is not produced on peatland

Raw material for biofuels, bioliquids and biomass fuels produced from agricultural biomass shall not be obtained from land that was peatland in January 2008 or thereafter and no longer had this status.

Peatland soils are soils with horizons of organic material (peat substrate) of a cumulative thickness of at least 30 cm at a depth of down to 60 cm. The organic matter contains at least 20 mass percent of organic carbon in the fine soil.

*Definition
peatland*

The obtaining of raw material is only possible if evidence is provided that

- > The soil was completely drained in January 2008, or
- > There has been no deeper draining of the soil since January 2008.

Drainage means a drawdown of the mean annual level due to an increased water loss or a reduced water supply resulting from human activities or constructions within or outside of the area. For peatland that was partially drained in January 2008, a subsequent deeper drainage, affecting soil that was not already fully drained, is not allowed.⁶ It is allowed to use biomass from peatland, if evidence is provided that the cultivation and harvesting of that raw material does/did not involve drainage of previously undrained soil.

*Definition
drainage*

Peat itself is not considered biomass.

1.4 Monitoring of impacts on soil quality and carbon

In accordance with the RED II regulation Article 29(2) the monitoring of impacts on soil quality and carbon must be implemented. Therefore, biofuels, bioliquids and biomass fuels produced from waste and residues derived not from forestry but from agricultural land shall only be used where operators or national authorities have monitoring or management plans in place in order to address the impacts on soil quality and soil carbon.⁷

*Impacts on soil
quality and
carbon*

Soil carbon, in the context of the RED II, can be considered to represent soil organic carbon content, i.e. the amount of carbon stored in the soil. Soil organic carbon is commonly used as an indicator of soil organic matter content. Soil organic matter consists of a range of material from intact tissue of plants and animals to the decomposed mixture of materials known as humus. Organic matter is an important component of soil because it influences inter alia the soil structure, stability, water and nutrient retention, soil biodiversity and plant nutrition. A decline in organic matter is accompanied by a decline in fertility and loss of structure, which together exacerbate overall soil degradation.

*Soil carbon
content*

Soil quality can be defined as ‘the soil’s ability to provide ecosystem and social services through its capacities to perform its functions under changing conditions’⁸ or, similarly, as ‘the capacity of a soil to function within ecosystem

Soil quality

⁶ Please see also Communication from the Commission on the practical implementation of the EU biofuels and bioliquids sustainability scheme and on counting rules for biofuels (2010/C 160/02).

⁷ Once additional guidance on soil quality and soil carbon has been made available in the forthcoming Implementing Act on Voluntary Schemes this will be incorporated in this standard accordingly.

⁸ JRC (2010) Agri-environmental soil quality indicator in the European Union. URL: <https://publications.jrc.ec.europa.eu/repository/handle/JRC57594>

and land-use boundaries to sustain biological productivity, maintain environmental quality, and promote plant and animal health⁹.

Where wastes and residues are used from agricultural land, the economic operator shall ensure that the following soil management practices are applied:

- > At least a 5-crop rotation, including at least one legume, where a multispecies cover crop between cash crops counts for one crop
- > Sowing of cover/catch crops/intermediary crops using a locally appropriate species mixture with at least one legume and reducing bare soil to the point of having a living plant coverage index of at least 75% at farm level per year
- > Prevent soil compaction (frequency and timing of field operations should be planned to avoid traffic on wet soil; tillage operation should be avoided or strongly reduced on wet soils; controlled traffic planning can be used)
- > No burning of arable stubble except where authority has granted an exemption for plant health reasons¹⁰

Compliance with the soil management practices above can be proven by two different options:

1. The application of 'essential soil management practices' on all farms where agricultural residues are collected is required in the country of origin of feedstock supply, and that the implementation of these practises is monitored and enforced

OR, if this is not the case in the country of origin:

2. It must be demonstrated that 'essential soil management practices' are in place on the farms from which the agricultural residues are collected.

⁹ Doran, J.W. and Parkin, T.B. (1994) *Defining and Assessing Soil Quality*. In: Doran, J.W., Coleman, D.C., Bezdicek, D.F. and Stewart, B.A., Eds., *Defining Soil Quality for a Sustainable Environment*, Soil Science Society of America Journal, Madison, 3-21. Definitions as used as baselines in recent H2020 projects on soil quality such as iSQAPER and linked published papers.

¹⁰ In the EU, this should be interpreted as Member States granting an exemption in line with GAEC 3 of Annex III of COM(2018)392.

4 Infringements of ISCC Requirements

Farms or plantations violating ISCC Principle 1 are excluded from ISCC certification. If a farm or plantation has received individual certification and violations of Principle 1 are detected, the certificate shall not be issued or must be withdrawn immediately. If the farm or plantation has been audited as part of a group or as part of a First Gathering Point (FGP), it must be excluded as a supplier of sustainable material. Violations of Principle 1 can never be subject to corrective measures.

In cases where a non-compliant farm or plantation has already supplied biomass to the FGP under which it is certified and this biomass has then been sold as sustainable, this is considered a severe non-conformity. See ISCC EU System Document 102 “Governance” for further information.

*Infringement of
Principle 1*

Annex 1 Guidance for Identifying Highly Biodiverse Grassland

The RED II requires that biofuels, bioliquids and biomass fuels are not produced from raw material obtained from grassland that was highly biodiverse in January 2008 or afterwards and requested the Commission to establish criteria and geographic ranges to determine which grassland qualifies as highly biodiverse grassland.

*RED II
requirement*

The Commission has adopted on 8 December 2014 the Regulation (EU) No 1307/2014. On 29 January 2015, the Commission sent a letter to recognized voluntary certification systems providing guidance to the voluntary certification systems regarding the implementation of the adopted criteria and geographic ranges of highly biodiverse grassland.

*Legal
background*

This Annex further specifies the ISCC EU 202-1 requirements on point 1.1. (5) "Biomass is not produced on highly biodiverse grassland spanning more than one hectare".

*ISCC
background*

Globally, large areas of grassland exist which are not highly biodiverse (e.g. certain pastures). If these non highly biodiverse grassland can be identified in the context of scarce agricultural areas, their use for agricultural production can be sustainable and even increase carbon stocks (e.g. with shift to perennial crops). With the adopted criteria and geographic ranges of highly biodiverse grassland, ISCC requires distinguishing those grasslands which were highly biodiverse in January 2008 or afterwards from those which are not.

In the following chapters A - D, criteria and definitions regarding grassland, geographic ranges, and harvesting of raw material as stated in the Commission Regulation and supplemented by information in the Commission letter are provided.

Based on this, approach and process of assessing biodiverse grassland within the ISCC system, methods and tools to be applied, qualifications and requirements for the experts conducting the assessments and conclusions for deliveries from other voluntary schemes into ISCC are described in this Annex.

A Criteria and Definitions

According to the Commission Regulation (EU) No 1307/2014, "grassland" means terrestrial ecosystems dominated by herbaceous or shrub vegetation for at least 5 years continuously. It includes meadows or pasture that is cropped for hay but excludes land cultivated for other crop production and cropland lying temporarily fallow. It further excludes continuously forested areas as defined in Article 17(4)(b) of the of Directive 2009/28/EC (equivalent to Article 29(4)(b) of Directive (EU) 2018/2001 (RED II)) unless these are

*Grassland
definition*

agroforestry systems which include land-use systems where trees are managed together with crops or animal production systems in agricultural settings. The dominance of herbaceous or shrub vegetation means that their combined ground cover is larger than the canopy cover of trees.

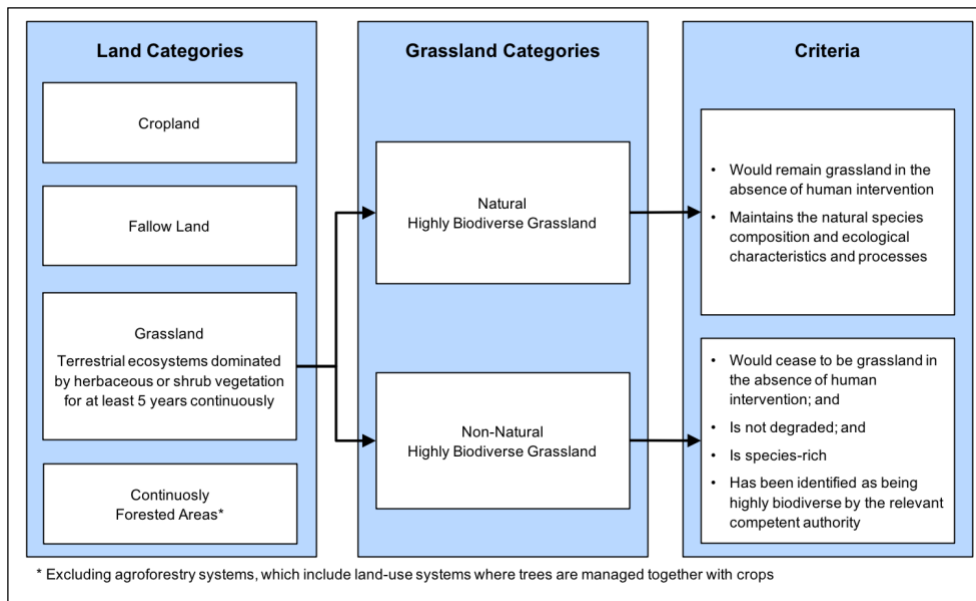


Figure 2: Grassland categories and criteria

“Natural highly biodiverse grassland” and “non natural highly biodiverse grassland” are distinguished:

“Natural highly biodiverse grassland” means grassland that:

- (a) would remain in the absence of human intervention; and
- (b) maintains the natural species composition and ecological characteristics and processes.

*Natural highly
biodiverse
grassland*

“Human intervention” means managed grazing, mowing, cutting, harvesting or burning.

“Non-natural highly biodiverse grassland means grassland that:

- (b) would cease to be grassland in the absence of human intervention; and
- (c) is not degraded, that is to say it is not characterised by long-term loss of biodiversity due to for instance overgrazing, mechanical damage to the vegetation, soil erosion or loss of soil quality; and
- (d) is species-rich, that is to say it is:
 - a. a habitat of significant importance for critically endangered, endangered or vulnerable species as classified by the International Union for the Conservation of Nature Red List of Threatened Species or other lists with a similar purpose for species or habitats laid down in national legislation or recognised by a competent national authority in the country of origin of the raw material; or

*Non-natural
highly biodiverse
grassland*

- b. a habitat of significant importance to endemic or restricted-range species; or
 - c. a habitat of significant importance to intra-species genetic diversity; or
 - d. a habitat of significant importance to globally significant concentrations of migratory species or congregatory species; or
 - e. a regionally or nationally significant or highly threatened or unique ecosystem,
- (e) and has been identified as being highly biodiverse by the relevant competent authority, unless evidence is provided that the harvesting of the raw material is necessary to preserve its status as highly biodiverse grassland.

B Geographic Ranges

Grasslands in the following geographic ranges of the European Union shall always be regarded as highly biodiverse grassland:

- (1) Habitats as listed in Annex I to Council Directive 92/43/EEC¹¹;
- (2) Habitats of significant importance for animal and plant species of Union interest listed in Annexes II and IC to Directive 92/43/EEC;
- (3) Habitats of significant importance for wild bird species listed in Annex I to Directive 2009/147/EC of the European Parliament and of the Council.¹²

Highly biodiverse grassland in the European Union is not limited to the geographic ranges referred to above. Other grassland might fulfil the criteria for highly biodiverse grassland as well.

According to the Commission Regulation, comprehensive information on geographic ranges of highly biodiverse grasslands is not available at international level. Therefore, the Commission Regulation provides geographic ranges only for those highly biodiverse grassland for which information is already available.

C Harvesting of Raw Material

Where evidence is provided that the harvesting of the raw material is necessary to preserve the grassland status, no further evidence to show compliance with Article 29(3)(d)(ii) of the RED II has to be provided.

¹¹ OJ L 206, 22.7.1992, p.7.

¹² OJ L 20, 26.1.2010, p.7.

D Implementation of the Regulation within ISCC

1) General approach

Auditors conducting certifications in the ISCC system have to conduct their work based on the following general approach:

*Identifying highly
biodiverse
grassland*

- > Highly biodiverse grasslands differ among climatic zones and may include, inter alia, heaths, pastures, meadows, savannahs, steppes, scrublands, tundras and prairies. These areas develop distinct characteristics for instance with regard to the degree of tree cover and the intensity of grazing and mowing. Therefore, a broad definition of grassland has to be applied within ISCC.
- > The combined ground cover of herbaceous or shrub vegetation can be assessed by using satellite images, aerial photographs or other appropriate measures.
- > Assessments of natural species composition, ecological characteristics and processes as well as species-richness can be done by doing field surveys supported by using databases covering biodiversity of the actual area or reference areas.
- > Different methods exist to analyse biodiversity in the respective areas and should be used as required to demonstrate that the grassland was not highly biodiverse.
- > Degraded grassland is considered as being impoverished in terms of biodiversity.
- > For all land, which according to the definition was grassland in January 2008 or has become grassland in the meantime it needs to be established whether the grassland would remain or cease to be grassland in the absence of human intervention.
- > If grassland has already been converted to arable land it is not possible to assess the characteristics of the land itself. In particular if the conversion took place before the Commission Regulation was adopted other relevant sources of information can be used e.g. information on the typical properties of grassland in the area or other reliable information concerning the characteristics of the land. In such cases taking a precautionary approach would be appropriate.
- > If no sufficient evidence can be provided that the grassland was / is not highly biodiverse, it must be assumed that the grassland was / is highly biodiverse.

Natural highly biodiverse grassland

In case the grassland would remain grassland or would have remained grassland (if it was converted) in absence of human intervention and the land is located in the areas referred to in the chapter B "Geographic Ranges" of

*Geographic
Ranges*

this Annex the land has to be considered to be or have been natural highly biodiverse grassland.

If such land is located outside these areas it needs to be assessed whether the grassland maintains or would have maintained the natural species composition and ecological characteristics and processes. If this is the case the land has to be considered to be or to have been natural highly biodiverse grassland.

Definition natural highly biodiverse grassland

No raw material from land which is or was natural highly biodiverse grassland in January 2008 may be used for the production of biofuels, bioliquids and biomass fuels.

Non-natural highly biodiverse grassland

In case the grassland would not remain grassland in absence of human intervention and the harvesting of the raw material is necessary to preserve the grassland status, no further evidence is necessary to show compliance with Article 29(3)(d) even if the grassland is located in the areas laid down in the above chapter B “Geographic Ranges”.

Evidence for raw material harvested from grassland

If the harvesting of raw material is not necessary to preserve the grassland status or the grassland has been converted e.g. to cropland used for the production of raw material, it has to be established whether the grassland is or was highly biodiverse, by the relevant competent authority.

Definition non-natural highly biodiverse grassland

2) Process

The following figure shows the general approach to be applied in the process of assessing compliance with the grassland requirements.

Decision process

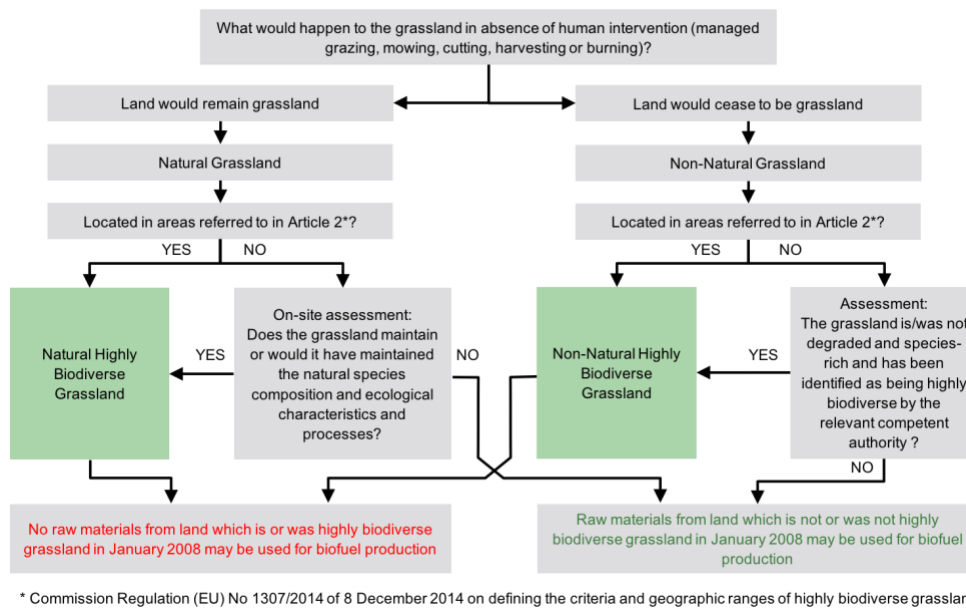


Figure 3: Approach to be applied

Based on the approach laid down, the working steps to be applied in the audit process are as follows:

- (1) Definition of the relevant grassland areas (geographical data/polygons of the grassland areas)
- (2) Analyse whether the grassland would remain/would have remained grassland in the absence of human interventions such as managed grazing, mowing, cutting, harvesting or burning
- (3) If grassland is located within the EU, verify if the land is located in areas referred to in Article 2 of the Commission Regulation (EU) No 1307/2014 / Chapter B of this guidance

Consider that other grassland might fulfil the criteria for highly biodiverse grassland as well

- (4) If grassland is not located in areas referred to in Article 2 of the Commission Regulation (EU) No 1307/2014 / Chapter 3 of this guidance, carry out an assessment of the grassland:
 - a. Natural grassland: The grassland maintains or would have maintained the natural species composition and ecological characteristics and processes

The following approach must be taken when determining whether land is (or in the case of conversion was) natural highly biodiverse grassland:

Steps to identify highly biodiverse grassland

- (1) The lead auditor must judge whether an assessment of highly biodiverse grassland is necessary.
 - (2) If an assessment is necessary, it must be conducted by a qualified independent specialist who may be additional to the audit team. The assessment and result must then be reviewed as part of the audit.
- b. Non-natural grassland: The grassland is/ was not degraded and is/was not species-rich and has been identified as being highly biodiverse by the relevant competent authority.

Assessments should be based on assessing information from appropriate databases and/or the application of assessment tools. Consultation of local stakeholders may also be required.

- (5) If the grassland has already been converted to arable land, the assessment must cover information on the typical properties and characteristics of grassland in the area or other reliable information concerning the characteristics of the land. If required, conduct consultations with local stakeholders.

Appropriate sources to use in the working steps include but are not limited to: international lists of threatened species, national legislation regarding wildlife protection, government and local authorities responsible for protected areas and species, relevant NGOs, universities and other research institutions.

*Information
sources*

Different databases contain information about geographic ranges of highly biodiverse grassland. For the EU, the Commission Regulation (EU) No 1307/2014 refers to Council Directive 92/43/EEC and Directive 2009/147/EC of the European Parliament and of the Council.¹³ The Natura 2000 database (<http://natura2000.eea.europa.eu>) provides this information for the EU member countries. For countries outside the EU, auditors and experts may use global databases (e.g. WDPA, IBAT), regional databases (e.g. CDDA) or country-specific databases (e.g. for Brazil Mapas MMA, Environmental Zoning; for Argentina SIFAP; for Indonesia Indonesia Critical Areas). Evidence supporting the biodiversity status of the area should include (historical) remote sensing imagery of the areas, including satellite or aerial photographs, land use maps or vegetation maps.

*Databases as
information
sources*

If the grassland has already been converted, it is the responsibility of the company or operator commissioning the assessment to provide sufficient evidence that the grassland did not qualify as highly biodiverse at the time of conversion. Evidence supporting the biodiversity status of the area should include (historical) remote sensing imagery of the areas, including satellite or aerial photographs, land use maps or vegetation maps. High-resolution historic satellite or aerial photographs may be used to compare a site under assessment with reference areas in the region to provide an indicator if the land could be considered as highly biodiverse or not.

*Assessment
after conversion*

¹³ OJ L 20, 26.1.2010, p.7.

If no sufficient evidence can be provided to demonstrate that the grassland was not highly biodiverse at the time of its conversion, it must be assumed that the grassland was highly biodiverse (precautionary approach).

Assessment of biodiversity

Different methods exist to assess biodiversity. Biodiversity is the variety and variability of animals, plants and micro-organisms at the genetic, species and ecosystem levels, necessary to sustain key functions of the ecosystem, its structure and processes. Structural, compositional, and functional criteria are to be assessed as components of biodiversity.

Assessments may be carried out with the support of one the following methods / information sources:

Assessment natural highly biodiverse grassland

- > High Conservation Value Areas (HCVA): HCVA's are natural habitats, which are of outstanding significance or critical importance due to their high environmental, socioeconomic, biodiversity or landscape values. The tool was developed for managing critical values in production landscapes (developed by FSC / Proforest).
- > Key Biodiversity Areas (KBA): KBAs incorporate information from the IUCN Red List of Threatened Species, BirdLife International's Important Bird Areas, Plantlife International's Important Plant Areas, IUCN's Important Sites for Freshwater Biodiversity, and sites identified by the Alliance for Zero Extinction (developed by IUCN, BirdLife, Plantlife)
- > Rapid Assessment (RA): This tool is based on assessments done by expert teams on critically important sites. Biodiversity with respect to species richness and abundance, and threatened and endemic species is analysed. In addition, habitat biodiversity, quality and structure, water quality and flow etc. is considered (developed by Conservation International).
- > High Nature Value Assessment (HNVA): This comprises those types of farming activity and farmland that can be expected to support high levels of biodiversity or species and habitats of conservation concern (developed by the Institute for European Environmental Policy).
- > Responsible Cultivation Area: Methodology to identify concrete areas and/or production models that can be used for environmentally and socially responsible energy production minimising unwanted direct and indirect effects (developed by WWF and Ecofys).

3) Technical Knowledge

Verifying compliance with the criterion of highly biodiverse grassland partially requires technical knowledge that goes beyond the competences that can be expected from the auditors verifying the claims made by the market operators.

Qualification of external experts

In case of determining whether land is (or in the case of conversion was) natural highly biodiverse grassland, the lead auditor must judge whether an assessment of highly biodiverse grassland is necessary. If an assessment is

necessary, it must be conducted by a qualified independent specialist who may be additional to the audit team. The assessment and result must then be reviewed as part of the audit.

Assessing whether grassland maintains the natural species composition and ecological characteristics and processes and whether grassland is species-rich can only be done by experts that have acquired a specific qualification for this purpose. These experts must be external, independent of the activity being audited and free from conflicts of interest (free from commercial, financial or other pressures that might affect their judgment). The expert shall be independent from the company or operator commissioning the biodiversity assessment.

The required qualifications of the expert should entail:

- > Successfully completed tertiary education with a focus on biology and/or biodiversity;
- > A specific qualification for the purpose of assessing the biodiversity of an area, e.g. for assessing whether grassland is species-rich and whether grassland maintains the natural species composition and ecological characteristics and processes;
- > Knowledge about the practical application of biodiversity assessment tools;
- > Knowledge of relevant regional and local conditions;
- > Practical experience with geographic information systems (GIS) and remote sensing tools

The role of the expert would be to establish case by case whether a specific piece of land is, or in case of conversion, was highly biodiverse grassland. Such an assessment does not need to be done annually. Often, it is sufficient that it is done once, e.g. if a piece of grassland is converted into arable land to grow agricultural raw materials.

Role of expert

In contrast, the role of an independent auditor is to establish whether an assessment was necessary, whether they came to the conclusion claimed by the operator and whether the expert that conducted the assessment fulfilled all requirements.

Role of auditor

4) Deliveries from Other EU Recognized Voluntary Schemes into ISCC

With the Commission Regulation regarding biodiverse grassland being in place, it has to be ensured that raw material from voluntary schemes delivered into ISCC comply with the above requirements. Therefore, ISCC may come to the conclusion after further assessments that deliveries from certain schemes may no longer be acceptable as they violate RED II criteria.