



ISCC CORSIA 202 SUSTAINABILITY REQUIREMENTS

Version 1.1



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Document Title: ISCC CORSIA 202 Sustainability Requirements

Version 1.1

This version becomes valid after approval by ICAO

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Summary of Changes

The following is a summary of all content changes to the previous version of the document. Minor amendments which do not affect the content, e.g. corrections of phrasings, marginal notes, amendments of graphics, etc. are not listed.

Summary of changes made in version 1.1	Chapter
Addition: Differentiations between ISCC CORSIA and ISCC CORSIA PLUS requirements were added where necessary.	1, 2, 3, 4, Annex
<p>Amendment and Addition: <i>“To be considered a CORSIA Eligible Fuel (CEF), SAF has to be produced in compliance with the CORSIA Sustainability Criteria for CORSIA Eligible Fuels.</i></p> <p><i>ISCC offers two options to certify CEF. Certification under ISCC CORSIA ensures that SAF complies with the CORSIA Sustainability Criteria for CORSIA Eligible Fuels. Certification under ISCC CORSIA PLUS ensures that SAF complies with the CORSIA Sustainability Criteria for CORSIA Eligible Fuels and addresses additional sustainability requirements for biomass production. Sustainability requirements under ISCC CORSIA PLUS are divided into the six ISCC CORSIA PLUS Principles.”</i></p>	1
Addition: <i>“Requirements to comply with ISCC CORSIA as well as with ISCC CORSIA PLUS are described in this document. The ISCC CORSIA sustainability requirements as well as the ISCC CORSIA PLUS sustainability requirements (Principles 1-6) are always subject to an audit.”</i>	2
Addition: <i>“The following chapters include the respective ISCC CORSIA and ISCC CORSIA PLUS requirements.”</i>	3
Amendment and Addition: Restructured chapters for ISCC CORSIA and ISCC CORSIA PLUS. New chapter for sustainability requirements under ISCC CORSIA.	3
<p>Addition: <i>“ISCC CORSIA PLUS certification ensures compliance with the CORSIA Sustainability Criteria for CORSIA Eligible Fuels and addresses additional sustainability requirements for biomass production.</i></p> <p><i>ISCC CORSIA PLUS Principle 1 includes the above-mentioned CORSIA criterion regarding high carbon stock land, therefore compliance with Principle 1 implies compliance with this CORSIA criterion. In addition to the CORSIA criterion, Principle 1 specifies further areas from which biomass production is either prohibited or allowed only under certain conditions.”</i></p>	3

1 Introduction

ISCC CORSIA has been developed to certify sustainable aviation fuels (SAF) against the requirements of the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA). To be considered a CORSIA Eligible Fuel (CEF), SAF has to be produced in compliance with the CORSIA Sustainability Criteria for CORSIA Eligible Fuels.

Sustainability of CEF production

ISCC offers two options to certify CEF. Certification under ISCC CORSIA ensures that SAF complies with the CORSIA Sustainability Criteria for CORSIA Eligible Fuels. Certification under ISCC CORSIA PLUS ensures that SAF complies with the CORSIA Sustainability Criteria for CORSIA Eligible Fuels and addresses additional sustainability requirements for biomass production. Sustainability requirements under ISCC CORSIA PLUS are divided into the six ISCC CORSIA PLUS Principles.

Two options to certify CEF

Principle 1 specifies 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); 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 or sparsely forested areas) and peatland.

ISCC CORSIA PLUS Principle 1

Principle 2 promotes the application of good agricultural and forestry practices and entails the respective criteria. It covers the areas of soil, air, water and waste, and sets requirements to prevent the contamination, degradation and depletion of the environment due to agricultural and forestry production.

ISCC CORSIA PLUS Principle 2

Principle 3 defines safe working conditions including health, safety and hygiene policies, training, the use of protective clothing and procedures in case of accidents.

ISCC CORSIA PLUS Principle 3

Social standards are further specified under Principle 4, covering the rights of workers and local communities. Most of the criteria set in Principle 4 are based on the core ILO standards.

ISCC CORSIA PLUS Principle 4

Principle 5 requires that all biomass production shall take place in compliance with applicable regional and national laws and shall follow international treaties.

ISCC CORSIA PLUS Principle 5

Principle 6 describes the minimum requirements of good management practices, which shall be implemented by the audited party.

ISCC CORSIA PLUS Principle 6

The sustainability criteria fall into two categories: Major Musts and Minor Musts. As stated in the Annex “ISCC Requirements at a Glance”, all Major Musts and at least 60% of the Minor Musts must be fulfilled to comply with the ISCC CORSIA PLUS sustainability requirements. The CORSIA sustainability criteria and ISCC CORSIA PLUS Principle 1 requirements are Major Musts. If an audited producer of biomass is not in compliance with the land use related criteria in Principle 1, corrections are not possible. If a producer does not comply with one of the Major Musts of Principle 2-6 and 60% of the Minor Musts, corrective actions have to be implemented within a 40-days timeframe. Further requirements are highlighted in Chapter 4 Infringements of ISCC CORSIA requirements.

Major and Minor Musts within ISCC

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

Third-party audits

The ISCC CORSIA and ISCC CORSIA PLUS sustainability requirements are globally applicable. If required, additional guidelines to support a consistent application 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 valid for all economic operators participating in the ISCC CORSIA and ISCC CORSIA PLUS system. The ISCC CORSIA Document 202 “Sustainability Requirements” applies to all kinds of agricultural, forestry, aquaculture and fisheries raw materials, which shall be sold as ISCC CORSIA or ISCC CORSIA PLUS compliant. Furthermore, the requirements also apply to all agricultural, aquaculture, fisheries and forestry residues (e.g. straw, bagasse, husks, cobs and nut shells).

Raw material applicability

Requirements to comply with ISCC CORSIA as well as with ISCC CORSIA PLUS are described in this document. The ISCC CORSIA sustainability requirements as well as the ISCC CORSIA PLUS sustainability requirements (Principles 1-6) are always subject to an audit.

Sustainability requirements always subject to audit

As a basic principle, all relevant ISCC CORSIA documents are valid for the scope of application for ISCC CORSIA and ISCC CORSIA PLUS. The respective differences are always stated where necessary.

Normative references

3 Requirements for the Production of Biomass

All economic operators that go through an ISCC CORSIA or ISCC CORSIA PLUS audit shall comply with relevant national and regional laws and regulations as long as those laws and regulations do not violate any

Compliance with laws and regulations

requirements of ISCC CORSIA or ISCC CORSIA PLUS. 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 CORSIA or ISCC CORSIA PLUS requirements, it would not be allowed to produce biomass under the ISCC CORSIA or ISCC CORSIA PLUS system on these areas. The audit must always cover the entire land (agricultural land, pasture, forest, any other land) including any owned, leased or rented land. Partial compliance is not sufficient to declare the biomass produced as sustainable. This means, that the area relevant for the certification is not limited to such areas where sustainable material is cultivated. The selection of individual areas of e.g. the farm, which comply with the ISCC CORSIA or ISCC CORSIA PLUS requirements whereas other areas of the farm may not comply with the requirements (“cherry picking”), is not allowed.

A *fuel* is considered as CORSIA eligible, if all applicable CORSIA sustainability criteria are complied with. *Biomass* is considered as sustainable under ISCC CORSIA, if the CORSIA sustainability criteria defined under Theme 2 below are complied with. *Biomass* is considered as sustainable under ISCC CORSIA PLUS, if it is produced on land that complies with the ISCC CORSIA PLUS Principles 1 to 6 described in this document. Areas that are not fully compliant with ISCC CORSIA PLUS Principles 2 to 6 may engage in a continuous improvement process to become fully compliant in a specified time period. This is only possible if compliance with ISCC CORSIA PLUS Principle 1 for the entire land of the farm is ensured, the compliant and non-compliant areas can be clearly separated, and a plan for achieving full compliance of those areas does exist. In this case, the partially compliant areas can be treated as separate organisational units. The following chapters include the respective ISCC CORSIA and ISCC CORSIA PLUS sustainability requirements.

Full compliance with sustainability requirements

ISCC CORSIA Requirements

CORSIA addresses two sustainability themes for the production of CORSIA Eligible Fuels, namely Greenhouse Gases (GHG) and Carbon Stock. These themes are further specified into principles and criteria as described in the following. In order to become ISCC CORSIA certified, full compliance with the CORSIA Sustainability Criteria for CORSIA Eligible Fuels is required.

CORSIA sustainability themes, principles and criteria

Theme 1: Greenhouse Gases (GHG)

ICAO specifies the principle that CORSIA Eligible Fuel should generate lower carbon emissions on a life cycle basis. The following criterion must therefore be complied with:

GHG reduction principle

CORSIA Eligible Fuel shall achieve net greenhouse gas emissions reductions of at least 10% compared to the baseline life cycle emissions values for

Emissions reductions

aviation fuel on a life cycle basis. ISCC CORSIA Document 205 Life Cycle Emissions provides the methodology, rules and guidelines for calculating, reporting and verifying emissions reductions in accordance with CORSIA.

Theme 2: Carbon Stock

ICAO furthermore specifies the principle that CORSIA Eligible Fuel should not be made from biomass obtained from land with high carbon stock. The following criteria must therefore be complied with:

(1) CORSIA eligible fuel shall not be made from biomass obtained from land converted after 1 January 2008 that was primary forest, wetlands, or peat lands and/or contributes to degradation of the carbon stock in primary forests, wetlands, or peat lands as these lands all have high carbon stocks.

(2) In the event of land use conversion after 1 January 2008, as defined based on IPCC land categories, direct land use change (DLUC) emissions shall be calculated. If DLUC greenhouse gas emissions exceed the default induced land use change (ILUC) value, the DLUC value shall replace the default ILUC value.

Carbon stock principle

No biomass production from high carbon stock lands

Calculations of direct land use change emissions

ISCC CORSIA PLUS Requirements

ISCC CORSIA PLUS certification ensures compliance with the CORSIA Sustainability Criteria for CORSIA Eligible Fuels and addresses additional sustainability requirements for biomass production.

In order to become ISCC CORSIA PLUS certified, compliance with ISCC CORSIA PLUS Principles 1 – 6 as laid out in this document, is required. ISCC CORSIA PLUS Principle 1 includes the above-mentioned CORSIA criterion regarding high carbon stock land, therefore compliance with Principle 1 implies compliance with this CORSIA criterion. In addition to the CORSIA criterion, Principle 1 specifies further areas from which biomass production is either prohibited or allowed only under certain conditions.

If biomass has been obtained in accordance with the requirements and standards under the provisions referred to under the heading 'Environment' in part A and in point 9 of Annex II to Council Regulation (EC) No 73/2009 of 19 January 2009 of the European Union (Cross Compliance (CC) requirements), only ISCC PLUS Principle 1 must be audited. Should laws and review mechanisms comparable to the CC approach exist in other countries, similar recognition regulations can also be implemented for these countries after examination by ISCC.

For Principle 4, a differentiation becomes relevant for the audit, if the respective ILO conventions have been ratified in a country. This applies especially to core ILO standards 29, 105, 138, 182, 87, 98, 110, 100 and 111. For countries that have ratified the respective ILO Conventions, it is assumed

Compliance with CORSIA criteria

Compliance with Principles 1-6

Cross Compliance in the European Community

Ratification of ILO conventions

that the respective social requirements (Principle 4) are fulfilled. However, this is only the case as long as the auditor, based on a risk assessment does not come to a different conclusion. The Annex provides further information on the ISCC criteria, covered through existing CC regulations and/or ILO core standards.

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

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 under ISCC CORSIA PLUS are further defined. 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.

*Principle 1 of
ISCC CORSIA
PLUS
sustainability
requirements*

The reference for any status determination is 1 January 2008. If land had already been cropland in 1 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.

*Reference date
1 January 2008*

In the following chapters all relevant criteria for the protection of land are specified.

1.1 Biomass is not produced on land with 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 1 January 2008, whether or not the land continues to have that status:

*Biomass from
land with high
biodiversity
value*

(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

*Clear visible
indication of
human activity*

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).

(2) 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

(3) 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).

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 specie is not negatively influenced by the raw material production.

(4) 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 unless these are 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.

Definition grassland

“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.

Non-natural highly biodiverse grassland

Raw material shall not be obtained from land that had the status of natural highly biodiverse grassland in or after 1 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 1 January 2008, whether or not the land continues to have this status, unless evidence is provided that the harvesting of the raw material is necessary to preserve its grassland status. 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 that criterion on highly biodiverse grassland has to be provided. When raw material is obtained from non-natural highly biodiverse grassland to preserve its grassland status, 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

1.2 Biomass is not produced on land with high carbon stock

Following the CORSIA sustainability criteria, 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:

Biomass from land with high carbon stock

(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.

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

Ramsar Wetlands

as Waterfowl Habitat, adopted on 2 February 1971 in Ramsar (Ramsar Convention on 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 on 1 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.¹

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. 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.

Development status of a forest

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 on 1 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) Other (sparsely) forested areas

Sparsely forested areas refers 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 sparsely forested areas

Canopy cover

¹ 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.

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 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%.

Raw material can be obtained from land that had the status of sparsely forested area on 1 January 2008 and no longer has this status, if DLUC emissions are calculated and, in case the DLUC emissions exceed the default ILUC value, the DLUC value replaces the default ILUC value in the emissions calculation and reporting. When the methodology laid down in ISCC CORSIA Document 205 “Life Cycle Emissions” (based on ICAO methodology) is applied, the required greenhouse gas savings must still be achieved. 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 shall not be obtained from land that was peatland on 1 January 2008 or thereafter and no longer has this status.

Biomass from peatland

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 on 1 January 2008, or
- > There has been no deeper draining of the soil since 1 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 on 1 January 2008, a subsequent deeper drainage, affecting soil that was not already fully drained, is not allowed. 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.

Principle 2: Environmentally Responsible Production to Protect Soil, Water and Air

Compliance with national and local laws and regulations relevant to soil degradation, soil preservation, soil management, contamination and depletion of water sources, water quality, air emissions and burning practices is required. Good Agricultural Practices shall be applied. Furthermore, compliance with the requirements listed below is necessary.

*Principle 2 of
ISCC CORSIA
PLUS
sustainability
requirements*

2.1 Conservation of natural resources and biodiversity

2.1.1 Environmental impact assessment for certain actions

Environmental impacts of new cultivation areas, new buildings, restructuring rural land holdings, drainage systems and other constructions or systems, for the use of uncultivated land or semi-natural areas for intensive agricultural purposes (including land and soil characteristics, rare and endangered species, potential off-site contaminants, neighbouring human settlements), water management projects (including water pollution and water availability), and intensive livestock installations are assessed in an environmental impact assessment and kept as little as possible.

*Activities for
environmental
impact
assessment*

If any of these activities are carried out, a report must be available to show that environmental aspects have been considered and negative impacts have been kept as little as possible. If applicable, the plan needs to be continuously updated. Direct and indirect effects of a project on the following factors are assessed in an appropriate manner:

*Direct and
indirect effects
on different
factors*

- (a) Human beings, fauna and flora;
- (b) Soil, water, air, climate and the landscape;
- (c) Material assets and the cultural heritage;
- (d) Interaction between the factors referred to in points a, b and c.

2.1.2 Avoidance of damage or deterioration of habitats

If evidence is provided that the production of the raw material does not interfere with the protection purposes, cultivation is only allowed if appropriate management measures are identified and implemented to avoid damage to or deterioration of habitats. Legal requirements related to the protection of species and habitats must be met, any constraints must be followed and damage to or deterioration of habitats or species must be avoided. Illegal or inappropriate hunting, fishing, trapping or collecting activities in these areas are controlled as far as possible and, if necessary, prohibited.

*Protection of
species and
habitats during
cultivation*

Existing ecological corridors and important landscape elements shall be maintained or, if necessary, restored to minimise fragmentation of the protected habitats. This shall take place in accordance with the type of terrain, wildlife and agricultural practices. Around all protected areas (covered in

*Ecological
corridors and
landscape
elements*

Principle 1), set aside land or wildlife corridors, appropriate buffer zones shall be protected, restored or set up.

2.1.3 Natural vegetation areas around springs and natural watercourses are to be maintained or re-established

Natural watercourses can be streams, rivers, canals or other routes, through which constantly or ephemeral/intermittent water flows, regardless of whether they are still unaffected by human intervention or corrected, straightened or otherwise regulated. The producer knows the status of riparian vegetation around springs and natural watercourses. Appropriate riparian buffer zones to protect watercourses and wetlands are set up, maintained and restored, taking into consideration crop planting, the application of fertilisers and plant protection products and harvesting. Where natural vegetation in riparian areas has been removed, there is a plan with a timetable for recovery.

Riparian buffer zones

2.1.4 Cultivation of highly invasive species and genetically modified (GM) varieties

If any species or genetically modified variety is officially prohibited in the country of operation, it shall not be cultivated. The introduction of alien species which are not already established in the country or region, which show a high risk of invasive behaviour in a region are prohibited or shall be in line with existing regulatory frameworks for such an introduction.² If GM varieties are planted, the traceability and labelling of such GM crops shall be ensured, if required, by the buyer or the country of cultivation.

GM and highly invasive species

2.1.5 Restriction on burning

The burning of stubble or other crop residues is only allowed with the permission of a competent authority and if there are no viable alternatives. Burning as part of land clearance is prohibited. When the burning of stubble or other crop residues takes place, it is done in a responsible way (e.g. by considering influencing factors such as wind direction).

Burning as part of land clearance prohibited

2.2 Use of best practices to maintain and improve soil fertility

2.2.1 Improvement of soil fertility

Crops should be grown on suitable soils. In order to ensure the sustainable treatment of soils, good agricultural practices with respect to soil quality, soil contamination and soil erosion are addressed in the soil management. They refer to:

- > The prevention and control of erosion;
- > Maintaining and improving soil nutrient balance;
- > Maintaining and improving soil organic matter;

Continuous improvement of soil management

² For further guidelines see for example GISD database: <http://www.issg.org/database/welcome/>

- > Maintaining and improving soil pH;
- > Maintaining and improving soil structure;
- > Maintaining and improving soil biodiversity;
- > The prevention of salinization.

A soil management plan aimed at sustainable soil management, erosion prevention and erosion control must be documented. Topographical characteristics must also be considered. Annual documentation of applied good agricultural practices with respect to the above-mentioned aspects must be in place. Applying precautionary measures prevents soil degradation. Appropriate management measures include, inter alia, optimum plant spacing, crop rotation and intercropping, landscaping elements or an appropriate type and use of machinery. In order to maintain or improve soil conditions, periodical soil analysis should be conducted, on, for example, soil pH, macro- and micronutrients, heavy metals or other contaminants or soil organic matter.

Good agricultural practices

2.2.2 Avoidance of soil erosion and compaction

Measures and cultivation techniques are used to reduce risk of soil erosion. Maps of fragile soils and topographic characteristics must be available. A management strategy including measures should exist for plantings on slopes above a certain limit (specified in terms of soil, climate and topographical characteristics). A management strategy including identified measures should be in place for other fragile and problematic soils (e.g. sandy, low organic matter soils). Appropriate measures to prevent the risk of soil erosion from wind or water and to maintain the natural soil structure are, inter alia, field tillage practices (minimisation of uncovered soil e.g. between harvest and next sowing), crop rotation and the adaptation of field cultivation techniques (e.g. limitation of mechanized harvesting).

Soil erosion

Measures and cultivation techniques are adapted to reduce the risk of soil compaction. Applied techniques are suitable for the respective processed ground. The soil structure shall be maintained and soil compaction shall be prevented, e.g. by an appropriate use of machinery, an appropriate timing of on-field work and an appropriate tire pressure.

Soil compaction

2.3 Use of best practices in fertiliser application

2.3.1 Fertilisers are used according to nutritional requirements

Fertilisers come from trustworthy sources.

Fertilisers are used according to an input/output balance. A periodic input/output balance of fertiliser application must be conducted. Fertiliser application should be based on this input/output balance and follow professional recommendations, if available. Most efficient fertiliser applications are aspired in order to reduce runoff.

Fertilizer balance

Organic and mineral fertilisers are of high quality and used according to the nutritional requirements of the soil (following the soil organic matter balance). Application manuals, the chemical composition and concentration are considered when applying fertilisers. If organic matter such as empty fruit bunches (EFB) or other remaining plant material is used in the production areas (mulched), the material should be evenly distributed.

Nutritional requirements

2.3.2 Soil contamination through fertilisers is minimised by adapted management

Fertilisers with considerable nitrogen content are only applied on absorptive soils. Fertilisers with a content of more than 1.5% nitrogen in the dry matter must not be applied on flooded, waterlogged or frozen soils.

Application on absorptive soils

While applying fertilisers with considerable nitrogen content, care must be taken not to contaminate the surface and ground water. The producer must demonstrate that he observes a minimum distance of 3 m from riverbanks. He must ensure that there is no run-off of applied fertiliser into surface water bodies and ground water.

Buffer zones

During surface application, weather conditions (e.g. wind speed and direction, temperature) should be examined and taken into account.

Weather conditions

2.3.3 Fertiliser application machinery

The fertiliser application machinery allows accurate fertiliser application. It is kept in good condition and verified periodically to ensure accurate fertiliser application.

Periodic verification

2.3.4 Restrictions on the use of sewage sludge and other organic material

Raw sewage sludge is sludge that is taken untreated from wastewater treatment plants. The use of raw sewage sludge is not allowed. Any raw sewage sludge must undergo treatment before it can be used. The treatment should considerably lower the content of any pollutants such as lead, cadmium, chromium, copper, nickel, mercury, zinc and organic-persistent pollutants. The dewatering of raw sludge is not considered a treatment. Treated sewage sludge may only be applied to soils in a way that it does not adversely affect communities, water or soil quality, the pH of the soil or the nutritional needs of crops.

Pre-treatment of sewage sludge

The impacts of applying organic manure, treated sludge and sludge water and/or industrial waste residues shall be kept to a minimum. Where relevant, this might include an assessment of the pollution of ground and surface water, health risks to workers and surrounding communities and an assessment of heavy metals. Sludge should never be applied directly to the crop after flowering.

Impact assessment

2.3.5 Use of wastes and agricultural residues

Agricultural waste is reduced, reused and/or recycled. Agricultural waste and co-products can be, for example, composted on-farm and used as soil conditioning, sold to alternative markets or used for alternative purposes.

Waste hierarchy

The use of agricultural residues should not jeopardize the function of local uses of the co-products, soil organic matter or soil nutrients balance. Documentation must be available to state that the use of residues does not occur at the expense of the soil nutrient balance, soil organic matter balance or important traditional uses (such as fodder, natural fertiliser, material or local fuel), unless documentation is available to suggest that similar or better alternatives are available and are applied.

Other functions of agricultural residues

2.3.6 Records of fertiliser application

Complete records of all fertiliser applications are available. This includes:

Record-keeping

- (1) The name or reference of the field;
- (2) Exact dates (day/month/year) of the application;
- (3) The trade name, type of fertiliser;
- (4) The amount of the applied product in weight or volume;
- (5) The application machinery type used and the method;
- (6) The name of the operator.

2.3.7 Soil organic matter balance is compiled

A soil organic matter balance is compiled (can be generic) or every six years a soil organic matter analysis takes place. Results are kept for seven years.

Soil organic matter balance

2.4 Restrictions on plant protection products and seeds

2.4.1 Prohibition of chemicals

Chemicals listed in the Stockholm Convention on Persistent Organic Pollutants shall not be applied on any (own and leased) land of the farm/plantation.³ The use of chemicals in plant protection products listed in the WHO 1a and 1b as well as Annex III of the Rotterdam Convention (UNEP's Prior Informed Consent (PIC) Program list) shall be avoided. Alternatives should be taken into consideration where available and a phase-out shall be considered.

Avoidance of hazardous chemicals

2.4.2 Applied plant protection products are registered

All plant protection products applied must be officially registered in the country of use for the target crop or permitted by the appropriate governmental organisation in the country of application where such official registration

Legitimacy of plant protection products

³ <http://chm.pops.int/Convention/ConventionText/tabid/2232/Default.aspx>

scheme exists. Where no official registration scheme exists, reference to the FAO International Code of Conduct on the Distribution and Use of Pesticides is possible.

2.4.3 Local restrictions on the use of plant protection products are followed

It must be documented and ensured that the producers are aware and observing any local restrictions on the use of plant protection products.

Local restrictions

2.4.4 Seed origin is legitimized

All purchased seeds must come from recognised seed producers. Self-bred seeds may be used, provided that appropriate seed production norms are followed and legal requirements regarding intellectual property rights are met. Records shall document the seed and planting material origin (including name, variety, vendor, location, date of application and amount used per area). An informed choice regarding varieties of seed and plant materials as well as grafting material is made. It should take into account, inter alia, yield performance, disease and pest resistance, adaptation to local climatic and geographic conditions, fertilisation and water needs, as well as customers' requirements.

Recognized seed producers or self-bred seed

2.4.5 Invoices for registered plant protection products are kept

Invoices for the registered plant protection products used must be kept for record keeping and available at the time of the external audit.

Record-keeping

2.5 Avoiding plant protection products by integrated pest management

The application of integrated pest management (IPM) helps to minimise typical safety and quality hazards and thereby increase safety and quality of the raw materials. Typical hazards are biological (including infection and cross-contamination), chemical and physical (including foreign matter and cross contamination).

Integrated pest management

2.5.1 Assistance with the implementation of IPM systems has been obtained

The technically responsible person on the farm or plantation must have received formal and documented training and/or the assistance of an external technical IPM consultant with the required technical qualifications is ensured.

Training or advice

2.5.2 Evidence of implementation of at least one activity that falls into the category of "prevention"

The producer must be able to show evidence of implementing at least one activity that includes the adoption of cultivation methods that could reduce the incidence and intensity of pest attacks, thereby reducing the need for intervention. For example, "prevention" measures concern the location of

Reduce incidence or intensity

crops, crop rotation, cropping pattern, seed selection (including seed dressing), crop husbandry and hygiene (including measures to avoid disease cross contamination, such as removing infested or diseased plant material from the field), fertilization, irrigation, habitat management, inter-cropping, harvesting and storage and tillage practices.

2.5.3 Evidence of implementation of at least one activity that falls into the category of “observation and monitoring”

The producer must be able to show evidence of implementing at least one activity that will determine when, and to what extent, pests and their natural enemies are present and, using this information, plan the required pest management techniques. For example, “observation and monitoring” measures concern crop monitoring, decision support systems and area-wide management.

Observe and monitor pests and enemies

2.5.4 Evidence of implementation of at least one activity that falls into the category of “intervention”

The producer must be able to show evidence that in situations where a pest attack adversely affects the economic value of a crop, intervention with specific pest control methods will take place. Wherever possible, non-chemical approaches and measures to avoid crop disease cross-contamination must be considered. Removing infested or diseased plant material from the field and disinfecting pruning and propagation equipment can avoid contamination. For example, “intervention” measures concern cultural and physical control, biological control and chemical control. They include the use of selective pesticides rather than a broad spectrum and varying the type of chemicals.

Pest control measures

2.6 Use of best practices in plant protection product application

2.6.1 Staff dealing with plant protection products must be skilled

Where the plant protection product records show that the technically responsible person making the choice of plant protection products is a qualified adviser, technical competence should be demonstrated by official qualifications or specific training course attendance certificates. Fax correspondence and e-mails from advisors, governments, and other suitable institutions are permissible.

Official qualifications or training

Where the plant protection product records show that the technically responsible person making the choice of plant protection products is the producer, experience must be complemented by technical knowledge that can be demonstrated via technical documentation such as product technical literature or specific training course attendance certificates.

Technical knowledge

2.6.2 The application of plant protection products is carried out appropriately

The competent person should be able to show that important parameters have been taken into consideration before applying plant protection products, e.g. the necessity was stated (following visual inspections, taking into account economic thresholds of pest/disease and weed occurrence, weather forecasts, local knowledge), to apply precautionary measures to protect workers and neighbouring communities and environment. The use of non-chemical solutions instead of chemical pesticides should be favoured.

Precautionary measures and necessity

The applicant/responsible must follow the label instructions. All requirements (protective clothing, storage, handling, maximum amount etc.) have to be followed for the products used. There must be clearly documented procedures which regulate all the re-entry intervals for plant protection products applied to the crops according to the label instructions. Where no re-entry information is available on the label, there are no specific requirements.

Follow label instructions

If plant protection products are applied near populated areas or water bodies, appropriate distances must be kept. If plant protection products are applied aerially, any residents within 500 m of the planned application should be notified in advance. Pesticides classified as WHO1a, 1b or 2 should not be applied aerially within a 500 m distance to any populated areas or water bodies.⁴

Appropriate distances

During plant protection product application, the weather conditions (e.g. wind speed, wind direction, temperature) should be examined and taken into account in order to minimise drift. The applicant/person responsible must be able to show that good agricultural practices during spraying and weather conditions have been considered.

Examination of weather conditions

2.6.3 All application equipment must be calibrated

Documented evidence of up-to-date sheets for all repairs, oil changes and maintenance is available. Application machinery (automatic and non-automatic) must have been verified for correct operation within the last 12 months and be certified or documented either by participation in an official scheme (where it exists) or by having been carried out by a person who can demonstrate their skills.

Verification of application machinery

2.6.4 Plant protection product applications are recorded

Records must be available and complete on:

Record-keeping

- (1) The crop name and/or variety;
- (2) Date, location and trade name of product;
- (3) Justification for application, product amount applied;

⁴ Further information on WHO1a, 1b and 2 classified chemicals can be found in the ISCC excel tool "Classified Chemicals": <http://www.iscc-system.org/en/iscc-system/iscc-plus/add-on-classified-chemicals/>

- (4) Application machinery used and the operator;
- (5) The common name of the pest(s), disease(s) or weed(s) treated.

2.7 Use of best practices in handling and disposing plant protection products

2.7.1 Appropriate facilities for measuring and mixing plant protection products

The storage and filling/mixing facilities for plant protection products are appropriate. They should have measuring equipment and should be equipped with utensils, e.g. buckets or water supply points for the safe and efficient handling of all plant protection products. The graduation of containers and the calibration of scales are continuously verified by the producer to assure the accuracy of mixtures.

Safe and efficient mixing and filling

There should be facilities and procedures available to deal with spillage to avoid contamination of the ground water. The plant protection product storage facilities and all designated fixed filling/mixing areas should be equipped with a container of absorbent inert material such as sand, a floor brush and dustpan and plastic bags, which must be signposted and kept in a fixed location, to be used in case of spillage of a plant protection product.

Avoidance of spillage and contamination

2.7.2 Redundant plant protection products must be disposed of via authorized or approved channels

There must be documented records that indicate that obsolete plant protection products have been disposed of via officially authorized channels. When this is not possible, obsolete plant protection products must be securely maintained and identifiable. They shall be removed and recycled or – if this is not possible – disposed of following internationally recognised best practices, e.g. the FAO guidelines for the management of small quantities of unwanted and obsolete pesticides.⁵

Best practices during disposal

2.7.3 Surplus application mix or tank washings are disposed of in a way that does not contaminate the ground water

It must be ensured and documented that the producer is aware of national or local legislation and that the legislation is observed. When surplus application mix or tank washings are applied on designated fallow land, it can be demonstrated that this is legal practice and all the treatments have been recorded in the same manner and detail as a normal plant protection product application. Surface water contamination must be avoided.

Avoidance of surface water contamination

2.7.4 Avoidance of re-usage of empty plant protection product containers

⁵ Further information and guidance can be found on FAO website for prevention and disposal of obsolete pesticides: <http://www.fao.org/agriculture/crops/obsolete-pesticides/resources0/en/>

There must be evidence that empty plant protection product containers have not been or currently are not being reused for anything other than containing and transporting of the identical product as stated on the original label. The re-usage of empty plant product containers for purposes other than containing and transporting of the identical product must be avoided. If no official disposal system exists and the risk of false re-usage appears, workers and adjacent communities should be educated on the risks of reusing empty containers.

Re-usage of empty containers

2.7.5 Empty plant protection product containers are cleaned prior to disposal

Empty containers are rinsed either via the use of an integrated pressure rinsing device on the application equipment, or at least three times prior to disposal. In cases of rinsing the containers, there are to be clear written instructions available for all workers. The rinsing water is always returned into the application equipment tank, either via the use of a container-handling device or via written procedure for the application equipment operators. Compliance must be ensured with the existing legislation and all relevant national, regional and local regulations regarding the disposal or destruction of empty plant protection product containers.

Rinsing of empty containers

2.7.6 The premises must have adequate provisions for waste disposal

National and regional legislation must be followed when storing and disposing waste. The farm/plantation should have designated areas to store litter and waste which do not create a safety or health hazard.

Designated waste storage areas

Risks of different types of waste are identified, and waste is stored according to risk identification. This especially applies to hazardous waste especially. If applicable, waste burning and disposal should always be done by official, authorised systems. If not available, on-site disposal should follow best practices. The following rules must be applied:

Risk management

If waste is burned on-site, certain requirements must be fulfilled:

Waste burning on-site

- > Burning hazardous waste like solvents, certain plastics or plant protection products on-site is not allowed;
- > PVC (polyvinyl chloride) and certain other plastics that cause harmful fumes such as dioxins should not be burned in on-site incinerators (especially in open fires or low-temperature incinerators);
- > Incinerators and burning sites are in legally permitted locations and fit for purpose.

If disposal takes place on the farm/plantation, certain requirements shall be fulfilled:

Waste disposal on-site

- > Sanitary landfills on the farm/plantation must be designed according to the requirements of national legislation or, where not available, governed by best practice guidelines defined by the management;

- > Litter and other general waste must not be thrown into ditches, stream ways or holes that might flood;
- > Disposals of burned waste must be covered with a suitable layer of soil.

2.7.7 During disposal of empty plant protection product containers exposure to humans and the environment is avoided

The system used to dispose of empty plant protection product containers must ensure that people cannot come into physical contact with the empty containers. The risk of contamination of the environment, watercourses, flora and fauna must be minimised. Where official collection and disposal systems exist, there must be documented records that the producer uses these systems.

Contamination risk during disposal minimised

2.8 Use of best practices storing operating resources

2.8.1 Fertilisers are stored in an appropriate manner

Fertiliser storage reduces the risk of contamination to humans and the environment. All inorganic fertilisers, e.g. powders, granules or liquids are stored in a manner which poses a minimum risk of contamination to the health and safety of humans and the environment. For example stored liquid fertiliser must be surrounded by an impermeable barrier (according to national and local legislation) or in a container of at least 10% larger capacity (if there is no applicable legislation). Consideration should be given to the proximity of water courses and flood risks.

Storage of fertilizers

2.8.2 Inorganic fertilisers are stored in a covered, clean and dry area

The covered area is suitable to protect all inorganic fertilisers, e.g. powders, granules or liquids, from atmospheric influences such as sunlight, frost and rain. Based on risk assessments (fertiliser type, weather conditions, temporary storage), plastic covering could be acceptable. Storage directly on the soil is not allowed.

Storage of inorganic fertilizers

It is possible to store gypsum and lime (calcium carbonate, not calcium oxide or calcium hydroxide) in the field for a limited time before spreading. Inorganic fertilisers, e.g. powders, granules or liquids, must be stored in an area that is free from waste, does not constitute a breeding place for rodents, and where spillage and leakage is cleared away. The storage area for all inorganic fertilisers, e.g. powders, granules or liquids, must be well ventilated and free from rainwater or heavy condensation.

Storage of gypsum and lime

2.8.3 Plant protection products are stored in accordance with local regulations in a secure, appropriate storage facility

The plant protection product storage facilities should comply with all relevant current national, regional and local legislation and regulations. The plant protection product storage facilities are kept secure under lock and key.

Storage of plant protection products

Potential contamination of the ground water must be avoided. Appropriate storage facilities:

- (1) Are structurally sound and robust;
- (2) Have a sealed floor;
- (3) Are built of materials and/or located so as to protect against temperature extremes;
- (4) Are built of materials that are fire resistant (Minimum requirement RF 30, e.g. 30 minutes resistance of fire);
- (5) Have sufficient and constant ventilation of fresh air to avoid a build up of harmful vapours;
- (6) Are located in areas with sufficient illumination both by natural or by artificial lighting, to ensure that all product labels can be read easily on the shelves;
- (7) Are located in a separate space isolated from any other materials.

All plant protection products that are in the store should be kept in their original containers and packaging. In the case of breakage, the new package must contain all the information provided on the original label.

Original packaging

2.8.4 Liquids are not to be stored on shelves above powders

All the plant protection products that are liquid formulations must be stored on shelving which is never above products that are powder or granular formulations.

Storage of liquids and powders

2.8.5 The product inventory must be documented and readily available

A stock inventory, which indicates the contents (type and quantity) of the store, must be available and updated at least every three months. Quantity refers to the number of bags, bottles, etc., and is not to be calculated on milligram or centilitre basis.

Inventory reporting

2.8.6 Mineral oil products are stored in an appropriate manner

Storage facilities are constructed using suitable materials and are consistent with the best available technology and respective laws in order to reduce the risk of contaminating humans and the environment. The type and location of storage prevents spillage, flooding and contamination caused by the stored materials. Contamination or dilution of fuels and fertilisers/plant protection products can be avoided by separating them.

Storage of mineral oil products

2.9 Use of best practices to maintain and improve water quality and quantity

2.9.1 Respect existing water rights and justify the irrigation in the context of social and environmental sustainability

Irrigation with anything other than rainwater is only allowed with a permit from the responsible authority. If ground water is used for irrigation, the producer must hold an irrigation permit (official license). If not available, the user has to assess and evaluate the use and recharge rates of the water source and set up a water use plan to prevent water pollution, minimise and/or optimise the use of water and reduce wastewater.

Irrigation permit

The producer should respect existing water rights, both formal and customary (including those of local communities and indigenous people), and be able to justify irrigation in light of accessibility of water for human consumption. Adverse effects for downstream users must be prevented. If the farm or plantation irrigates or treats water on-site, it must be ensured that the water use is in compliance with applicable regulations and local legislation.

Water availability

2.9.2 Application of good agricultural practices to reduce water usage and to maintain and improve water quality

Good agricultural practices should be implemented with respect to reducing unsustainable water use, the abstraction of unsustainable water sources and to minimising diffuse and localized pollution from chemical residues, fertilisers, soil erosion or other sources to ground and surface water. Irrigation water should only be abstracted in a way that recharge rates compensate water abstraction. To protect the environment, water should be abstracted from a sustainable source. The producer can justify the method of irrigation used in light of water conservation. The timing and amount of irrigation should be tailored to crop requirements to meet planned yield and quality levels under local conditions.

Good agricultural practices in water management

Documentation of water management plans aimed at sustainable water use and the prevention of water pollution shall exist. Annual documentation of applied good agricultural practices shall be compiled with respect to:

Water management plan

- > Efficient water usage during irrigation;
- > Responsible use of organic fertilisers and agro-chemicals;
- > Waste discharge.

Appropriate management measures to improve water quality should be documented. They could include, inter alia, setting up buffer zones around water bodies, an efficient handling of fertilisers including sewage sludge, wastewater treatment, installing efficient irrigation techniques (including rainwater harvesting and drain design) as well as timing the irrigation appropriately to crop requirements. Monitoring which is appropriate to scale demonstrates that applied practices are effective (e.g. by monitoring the

Water management measures

biological oxygen demand (BOD) or heavy metals and other contaminants in order to monitor water quality management measures). Any direct evidence of localized contamination of water bodies (ground or surface waters) is reported to local authorities and, if requested, monitored in collaboration with the authorities.

2.10 Use of best practices in waste and energy management

2.10.1 Waste management includes reduction, reuse and recycling. It reduces wastage and avoids the use of landfills or burning

Best practices must be addressed in the waste management plan. They refer to:

- > The prevention of waste;
- > The prevention of on-site burning of certain waste materials;
- > The prevention of contamination of on-site landfill disposal;
- > The prevention of contamination with respect to the disposal of ash;
- > The prevention of contamination from grey water runoff and disposal.

*Waste
management
practices*

The waste management plan should include the phases (1) risk assessment, (2) target-setting, (3) risk management and (4) monitoring phases.

Phases

Waste reduction, reuse and recycling avoids or reduces wastage and avoids the use of landfills or burning. It should be documented if on-site burning and landfill disposal took place. An assessment of risks to humans (both workers and neighbouring communities) and the environment should be conducted in case burning and disposal took place on the farm/plantation. Appropriate management measures could be, inter alia, the minimization of waste materials, energy recovery or efficient burning sites/incinerators. Record keeping must be in place for produced waste amounts and on-site disposal (including discharge to landfill, drains, sewers, surface water, land or groundwater). If burning takes place, further records on types of waste burned and the type of burning practice (e.g. open fire, low temperature incinerators) should be available. Records of the risk assessment as well as appropriate monitoring and management measures must be kept for at least five years. A comprehensive, current, documented plan that covers wastage reduction, pollution and waste recycling must be available. Air, soil, water, noise and light contamination must be considered.

*Waste
management
measures*

2.10.2 Efforts are made to reduce fossil energy consumption and thus lower greenhouse gas emissions

The total direct use of fuels is recorded over time for all activities and the fuel volume is monitored per hectare or per unit of product. Energy consumption should be as efficient as possible to protect the climate. Fossil fuel reduction and the use of renewable energies, e.g. biofuels, biogas, solar or wind energy,

*Fuel and energy
consumption*

on the farm or plantation are encouraged. If fossil energy such as grid electricity or fossil diesel is replaced with renewable energy, this leads to fossil fuel saving and a reduction in greenhouse gas emissions.

2.10.3 Efforts are made to limit air pollution

Air pollution emissions shall be limited and negative effects on air quality minimised.

Air quality

Principle 3: Safe Working Conditions

Compliance with national and local laws on working conditions is required. The company should be familiar with the relevant legislation and should remain informed about changes in legislation.

Compliance with laws

3.1 Training and competence

3.1.1 Records are kept for training activities and attendees

Staff members responsible for certain tasks within the company should participate in training activities. If applicable, local population or small farms or plantations may participate in training programmes. Training should include the following topics:

Competence of workers to ensure health and safety

- > The Handling of plant protection products and other hazardous chemicals;
- > Waste management;
- > The handling of protective equipment for chemicals, fuels, gas and electricity.

A record is kept for training activities for workers including the topic covered, the trainer, the date and the attendees. Evidence of attendance is required. If useful, it is possible to collaborate with training programmes for the local population.

Record-keeping for training

3.1.2 Certificates of competence are available for dangerous or complex work

All workers handling and/or administering chemicals, disinfectants, plant protection products, biocides or other hazardous substances and all workers operating dangerous or complex equipment as defined in the risk assessment must have certificates of competence, and/or details of other such qualifications. Records must identify workers who carry out such tasks, and show certificates of training or proof of competence.

Qualifications for dangerous works

3.1.3 All workers received adequate health and safety training and have been instructed according to the risk assessment

Workers should be able to demonstrate competency in responsibilities and tasks through visual observation. If at the time of audit there are no activities, there must be evidence of instruction. At least one worker/person responsible with first aid skills should be on the farm/plantation whenever there are cultivation activities taking place (e.g. during harvest, plant protection product application, etc.).

Competence of workers

3.2 Prevention of and handling with accidents

3.2.1 The farm/plantation has a written health, safety and hygiene policy and procedures including issues of risk assessment

The risk assessment should include important health and safety risks, such as the use of agrochemicals, liquid fuels, lubricants, machines, generators, boilers, pumps, power tools, electrical installations, power lines and, where appropriate, measures of food safety (e.g. clean, dry, and if applicable, cooled storage facilities). Within the risk assessment, risks connected with transporting, storage, handling, spillage and disposal shall be considered.

Health and safety risks

The health, safety and hygiene policy must at least include the points identified in the risk assessment. Policy measures could include, inter alia, accident and emergency procedures, hygiene procedures, and dealing with any identified risks in the working situation. The health, safety and hygiene policy shall also include specific health and safety issues for women. The policy must be made clearly understandable for all workers, reviewed and updated when the risk assessment changes.

Risk measures

Regarding all implemented health and safety requirements, a warning system including legally permitted sanctions should exist for workers who do not fulfil the health and safety requirements. Complete and maintained first aid kits and procedures (including records and evaluations of accidents) according to national regulations and recommendations must be available and accessible at all permanent sites and available for transport to the vicinity of the work. First aid medical services must be provided in case of emergencies.

Implementation of measures

3.2.2 Workers are equipped with suitable protective clothing

Workers (including subcontractors) are equipped with suitable protective clothing in accordance with legal requirements and/or label instructions or as authorised by a competent authority. Complete sets of protective clothing for certain work (e.g. handling plant protection products, working with electric equipment) are available and used to ensure compliance with label instructions, legal requirements and requirements as authorised by a competent authority. They are in a good state. Examples of protective clothing are rubber boots, waterproof clothing, protective overalls, rubber gloves and facemasks as well as appropriate respiratory, ear and eye protection devices. They should be used where necessary.

Protection of workers and reduction of accidents

Protective clothing is regularly cleaned after use, according to a schedule adapted to the type of use and degree of soiling. Cleaning of the protective clothing and equipment should be carried out separate from private clothing. Gloves should be washed before removal.

Cleaning of protective clothing

Dirty, torn and damaged protective clothing and equipment and expired filter cartridges should be disposed of. Single-use items (e.g. gloves, overalls) have to be disposed of after one use. All the protective clothing and equipment, including replacements filters, should be stored in a well-ventilated area and

Disposal of protective clothing

physically separate from the plant protection products and any other chemicals, to prevent contamination of the clothing and equipment.

3.2.3 Potential hazards are clearly identified

Permanent and legible signs must indicate potential hazards, e.g. waste pits, fuel tanks, workshops, access doors to the plant protection product/fertiliser/any other chemical storage facilities as well as the treated crop. Warning signs must be placed where appropriate.

Warning signs

3.2.4 Accident procedures and equipment are available

An accident procedure must display the basic steps of primary accident care and be accessible by all individuals within ten meters of the plant protection product/chemical storage facilities and designated mixing areas. Procedures and equipment must be available to deal with accidents and chemical spills (including plant protection products, fertilisers and fuels).

*Accident
procedure at
storage*

3.2.5 There are facilities to deal with accidental operator contamination

All plant protection product/chemical storage facilities and all filling/mixing areas present on the farm or plantation must have eye wash capability, a source of clean water no more than 10 meters away, a complete first aid kit and a clear accident procedure with emergency contact telephone numbers or basic steps of primary accident care, all permanently and clearly indicated.

*Eye wash and
first aid kit*

Principle 4: Compliance with Human, Labour and Land Rights

The criteria listed here are based on internationally recognised requirements concerning social aspects (International Labour Organisation, core ILO standards: ILO 29, 105, 138, 182, 87, 98, 100, 111). In addition, compliance with relevant national and local laws is required.

Based on internationally recognised requirements

In addition, compliance with relevant national and local laws is required.

4.1 Rural and social development

4.1.1 A self-declaration on good social practice regarding human rights is available

A self-declaration on good social practice regarding human rights must have been communicated to the workers. The farm/plantation management and the workers' representative must have signed and displayed a self-declaration assuring good social practice and the human rights of all workers. The self-declaration must be in a language appropriate to workers and surrounding communities. This declaration contains a commitment to the ILO core labour standards, respect for a living wage, respect for the social environment, respect for legal land titles, sufficient compensation for communities, commitment to solving social conflicts and fair contract farming arrangements.

Commitment to good social practices

4.1.2 Negative environmental, social, economic and cultural impacts are avoided

All environmental, social, economic and cultural impacts for surrounding areas, communities, users and land-owners are taken into account. Local historical, cultural and spiritual properties and sites are protected. A participatory social impact assessment should be conducted, where all relevant stakeholders including local communities and indigenous people are engaged. The report is publicly available in a language appropriate to surrounding communities. On the basis of that report, an action plan to address identified social impacts and a continued dialogue with surrounding communities is in place. Negative impacts must be avoided or, if this is not possible, minimised, restored and/or compensated. Documents of regular meetings with communities (with two-way communication) and local government with listed risks and/or impacts and evidence of minuted negotiations or resolution processes must be compiled.

Social impact assessment

4.1.3 Biomass production does not impair food security

Biomass production shall not replace stable crops or impair the local food security. In cases whereby local food prices are expected to rise as a direct effect of biomass production, the producer shall set up mitigation measures.

Local food security

4.1.4 Fair and transparent contract farming arrangements are in place

Essential indicators are as follows:

- (1) The contracts are on paper in the appropriate language and co-signed copies are available with both parties. In case of cooperative contract arrangements, all members have a copy;
- (2) Payments for harvest are, in calculated form, made on paper and signed and handed over to contract farmer/plantation manager for his/her own record keeping;
- (3) Provisions governing price-quality parameters are clearly defined in the contract;
- (4) The contract contains clear provisions on exit arrangements, buy-out possibilities, handing over of property deeds (when appropriate), and compensation measures in case of bankruptcy of the mother company when legally required;
- (5) There are minutes of meetings providing evidence of regular discussions or negotiations between parent company and contract farmers' or plantation managers' representatives.

Criteria for contract farming

4.1.5 Farm/plantation residents have access to basic services

All people on the farm/plantation must have access to clean food storage areas, designated dining areas, hand washing facilities, safe drinking water, hygienic toilet and hand-washing facilities. A place to store food and to eat must be available. In addition, hand washing facilities and potable drinking water must be available to workers. Workers who live on the farm/plantation must be provided with access to appropriate cooking facilities and clean and safe accommodation. The living quarters for the workers on farm/plantation must be habitable, have a sound roof, windows and doors, and have the basic services of running water, toilets and drains.

Well-being of employees and families

4.1.6 All children living on the farm/plantation have access to quality primary school education

All children of primary schooling age (according to national legislation) living on the farm or plantation must have access to primary school education, either through provided transport to a public primary school or through adequate on-site schooling.

Education of employees and families

4.1.7 Other forms of social benefits are offered by the employer to workers and their families and/or community

Incentives including incentives for good working performance, bonus payments, support of professional development, family friendliness, medical care/health provisions, and improvement of social surroundings are offered. Workers should be encouraged to take out health insurance by creating awareness and providing information about available insurance policies.

Incentives for workers

Health insurance can include long term compensation in case of disability and payment of medical costs. If appropriate, the employer should make employment opportunities known locally.

4.1.8 Workers and affected communities must be able to make a complaint

A complaint form and/or procedure must be available on the farm/plantation, on which workers and surrounding communities can make a complaint. They shall have been made aware of its existence and complaints or suggestions can be made at any time. Complaints must be dealt with in a timely manner. Complaints and their solutions from the last 24 months must be documented and accessible.

Stakeholder consultation

4.1.9 Mediation is available in case of a social conflict

An independent mediator should be assigned by name and address by the elected person of trust.

Mediation

4.2 Employment conditions

4.2.1 There is no forced labour at the farm or plantation

There must be no use of forced, bonded or involuntary labour as meant in ILO Convention 29 and 105. Workers shall not be forced to hand over their identity cards or passports to the farm or plantation management or any other third party. Retaining the salary of workers, further property or additional grants or illegal or excessive deduction of fees from wages for disciplinary purposes, personal protective equipment, deposits for accommodation or tools is prohibited unless permitted by law.

Forced labour and retaining salary, property

4.2.2 Restrictions related to hazardous activities are followed

The minimum age must comply with all local and national legislation as well as with ILO Convention 138 and 182. No minors are to be employed on the farm or plantation. Documents must include records of workers' dates of birth and documented evidence that the employer is aware of prevailing legislation. Children within the age of compulsory schooling must not be employed during school hours. Young workers (15-18), pregnant workers, disabled workers or workers who suffer from chronic or respiratory diseases must not undertake hazardous work that jeopardizes their health, safety or morals. All forms of slavery or practices similar to slavery, or forced or compulsory labour of children is prohibited. All persons, who have been injured or are ill, must not perform activities that are detrimental to their health and safety or that of other workers.

Children and young, pregnant or disabled workers

4.2.3 There is no discrimination at the farm or plantation

There shall be no indication of discrimination (distinction, exclusion or preference) practiced that denies or impairs equality of opportunity, conditions

Indications of discrimination

or treatment based on individual characteristics and group membership or association. For example, on the basis of: race, caste, nationality, religion, disability, gender etc. A publicly available equal opportunities policy including identification of relevant/affected groups in the local environment must exist.

4.2.4 Employment conditions comply with equality principles

Evidence is available that the farm/plantation provides equality of opportunity and treatment regardless of race, colour, sex, religion, political opinion, nationality, social origin or other distinguishing characteristics.

Equality of opportunities

4.2.5 Workers are treated with dignity and respect

The company shall not engage in or tolerate the use of corporal punishment, mental or physical coercion, verbal or physical abuse or sexual harassment or any kind of intimidation of workers. No harsh or inhumane treatment is permitted.

Punishment or abuse

4.2.6 All workers are to be provided with fair legal contracts

All workers are to be provided with fair legal contracts. Copies of working contracts must be able to be shown to the auditor for every worker indicated in the records. Both the worker as well as the employer must have signed them. Records must be kept for at least 24 months. Where a registration system exists, copies of working contracts must be registered with the labour authority of the country of production.

Signed working contracts

4.2.7 The employment conditions of individual workers comply with legal regulations and/or collective bargaining agreements

Employment conditions shall comply with legal regulations and/or collective bargaining agreements (e.g. on working hours, breaks, rest days, overtime, deductions, sickness, holiday entitlement, paid leave, maternity leave, reasons for dismissal, period of notice, home work etc.). They must be documented and available in the languages understood by workers or explained carefully to them by the manager or supervisor.

Conformity of employment conditions

Records must indicate that regular weekly working hours do not exceed 48 hours. This criterion is not applicable for supervisors or management. Rest breaks/days should also be documented during peak seasons. Every six sequential days of work, workers should receive at least one day off. Overtime shall be voluntary and only occur within a certain time frame (e.g. during harvest or planting). Overtime shall always be compensated at a premium rate. Workers should be informed as much as possible about overtime work in a timely manner.

Working hours

Workers who take maternity leave are entitled to return to their employment subject to the same terms and conditions of prior employment. They must not be subject to any discrimination, loss of seniority or deduction of wages.

Maternity leave

Conditions of employment should follow negotiations with trade unions or similar organisations if they are available.

Pay slips document the conformity of payment with at least legal regulations and/or collective bargaining agreements. Wages and overtime payment documented in the pay slips must be in line with legal regulations (minimum wages) and/or collective bargaining agreements (if applicable). If payment is calculated per unit, workers (on average) shall be able to gain the legal minimum wage within regular working hours.

Pay slips

4.2.8 A living wage is paid which meets at least legal or industry minimum standards

The company's pay slips demonstrate that living wages meet at least legal or industry minimum standards and are sufficient to meet the basic needs of workers and to provide some discretionary income. Gross wages are paid at least monthly to workers.

Payment

4.2.9 An elected worker or a workers' council represents the interests of the workers

There is at least one worker or a workers' council elected freely and democratically who represent the interests of the workers to the management. Documentation is available to demonstrate that a clearly identified, named person of trust and/or a workers' council representing the interests of the workers to the management is elected by all workers and recognised by the management. This person shall be able to communicate complaints to the management.

Representation of workers

4.2.10 Labour organisations and collective bargaining are allowed for negotiating working conditions

All workers are free to establish and join labour organisations of their own choice or organise themselves to perform collective bargaining. Workers must have the right to organise and negotiate their working conditions. There should be evidence (workers' interviews with self-selected/anonymous workers) that the employer supports the establishment or at least does not block the effective functioning of worker committees in which the workers elect representatives. There is evidence of acceptance of collective bargaining agreements. Trade union members are guaranteed the opportunity to fulfil their tasks at least outside of regular working hours. Workers exercising this right should not be discriminated against or suffer repercussions. The employment conditions regarding freedom of association and collective bargaining are in accordance with all national and local legislation and ILO Conventions 87 and 98.

Labour organisations

4.2.11 There is a person responsible for workers' health, safety and good social practice

The responsible person and the elected person of trust demonstrate awareness and/or access to national regulations and/or collective bargaining agreements concerning: gross and minimum wages, working hours, union membership, anti-discrimination, child labour, labour contracts, holiday and

Competence of representation

maternity leave, medical care and pension/gratuity, and regular two-way communication.

4.2.12 The management communicates openly with workers

The management must hold regular two-way communication meetings with their workers where issues affecting the business or which are related to worker health, safety and welfare can be openly discussed. At least two meetings a year are to be held between management and workers. Matters related to the business and workers' health, safety or welfare should be discussed without fear, intimidation or retribution. Records from such meetings should be kept and the concerns of the workers recorded. The elected person of trust should assign an independent mediator by name and address.

Continuous communication with workers

4.2.13 Records on all workers and employees are available

Records should clearly demonstrate an accurate overview of all workers and employees (including seasonal workers and subcontracted workers) working on the farm/plantation. The records must indicate full names, a job description, date of birth, date of entry, wage and the period of employment. Records must be accessible for the last 24 months.

Record-keeping of employees

4.2.14 Working times and overtime are documented

There is a time recording system that makes daily working time and overtime on a daily basis transparent for all workers and employers. Working times of all workers during the last 24 months are to be documented.

Record-keeping of working times

Principle 5: Compliance with Laws and International Treaties

5.1 Legitimacy of land use

The producer should be able to prove that the land is being used legitimately and that traditional land rights have been secured. Documents must show legal ownership or lease, history of land tenure and the actual legal use of the land. The producer must identify and respect existing land rights (see Principle 1). The rights of indigenous people must be respected.

Ownership of land

5.2 Compliance with applicable laws and treaties

There is awareness of, and compliance with, all applicable regional and national laws and ratified international treaties. The producer should be able to demonstrate awareness of his responsibilities according to the applicable laws. Applicable laws should be complied with. They apply to:

Legitimacy and legal commitment

- (1) Nationally and internationally protected areas as referred to in Principle 1
- (2) Environmental impact assessment
- (3) Soil conservation and management, soil fertility (relating to, for example, the application of fertilisers, manure and plant protection products, the contamination and the accumulation of hazardous substances in soils)
- (4) The handling of fertilisers and plant protection products
- (5) Water conservation and management (relating to, for example, abstraction, use and discharge of irrigation water, protection of water bodies)
- (6) Energy use and related emissions
- (7) Reusal, recycling and disposal of hazardous and non-hazardous waste
- (8) Health and safety of workers
- (9) Rights of permanent and temporary workers (e.g. overtime work, paid holiday-, sick- and parental leave)
- (10) Rights of local communities and indigenous groups.

The company should be familiar with the relevant legislation and should remain informed about changes to legislation.

Principle 6: Good Management Practices and Continuous Improvement

6.1 Economic stability

6.1.1 Basic economic documentations

Records shall be kept with respect to yields, costs, income and profitability of the farm or plantation.

Record-keeping

6.1.2 Business plan

Farms or plantations shall develop and implement a business plan that reflects a commitment to long-term economic viability. It includes plans and activities to support the long-term economic viability of the farm or plantation. It shall take into account social and environmental principles, e.g. the sustainable optimisation of yield and input efficiency. Market requirements as well as risk mitigation strategies (e.g. of drought, price fluctuations) can also be included.

Social well-being through economic sustainability

A business plan is applicable to a single farm or plantation or to a group of farms/plantations. Small-scale farmers in lower income countries should at least be able to explain verbally how their activities contribute to the long-term economic viability of their farm/plantation.

Business plan

6.1.3 Good relationship with customers

Best timing for crop deliveries should be discussed with customers to ensure good prices and to maintain quality.

Customer relationship

6.2 Management

6.2.1 Establishment of a recording system for each unit of production

A recording system should be established for each unit of production. These records must be kept systematically and up-to-date, and should be available for at least five years. Current records must provide a history of biomass production of all production areas.

Record-keeping

6.2.2 Commitment of continuous improvement for each unit of production

The management regularly monitors and reviews all activities and takes actions to continuously improve the management with respect to an environmental, social and economic sustainable development. Continuous improvement can include (but is not limited to) a reduction of plant protection product application, a more efficient fertiliser management, waste reductions, energy consumption and greenhouse gas emissions, social impacts and yield performance.

Improvement in activities

6.2.3 Records are kept for the description of the areas in use

The documentation system for the fields of the farms or plantations must comply with the following minimal requirements:

Documentation system

- (1) The description of the whole agricultural area is carried out along a list of parameters to be assessed:
 - a. Lot number;
 - b. Lot size;
 - c. Type of crop.
- (2) Each lot (as part of the whole agricultural area) is to be depicted as traverse in geographic coordinates with a precision of 20 metres for each measuring point.
 - a. The depiction of simple lot shapes can easily be realised with the help of satellite images;
 - b. For very complex shapes, the real lot can be approximated by a polygon. The measuring points on each end of the lines framing the polygon then have to meet the required precision of 20 metres;
 - c. A small number of measuring points may suffice for the approximation through a polygon as long as the lot size on the map does not deviate from the specification in (1) by more than 10%;
 - d. If suitable maps or tables specifying the requested information do not exist, it is permitted to identify lots with the help of tools such as Google Earth. The measuring points can be set manually in the image as place marks and the tool for documentation shall deliver the results (geo-coordinates) for these place marks;
 - e. Reports should be made on all implemented management measures as well as records and verification documents on fulfilled criteria, where such reporting is required.

6.2.4 Subcontractors must fully comply with the ISCC CORSIA PLUS sustainability requirements

Relevant subcontractors are enterprises that work on behalf of the producer (e.g. seeding, fertilizing, pest control, harvesting).

In case of the engagement of subcontractors they must comply fully with the ISCC CORSIA PLUS sustainability requirements and provide the respective documentation and information. Relevant subcontractors must be regarded in the audit. The producer must provide evidence of respective contracts with the subcontractor ensuring that the auditor has access to relevant information. The producer must also accept that ISCC approved certifiers are allowed to verify the assessments through an on-site audit where there is doubt.

Full compliance of subcontractors

The producer is responsible for observance of the control points applicable to the tasks performed by the subcontractor by checking and signing the assessment of the subcontractor for each task and season contracted.

4 Infringements of ISCC CORSIA and ISCC CORSIA PLUS Requirements

Economic operators violating the CORSIA Sustainability Criteria or ISCC CORSIA PLUS Principle 1 are excluded from ISCC CORSIA and ISCC CORSIA PLUS certification. If an economic operator has received individual certification and violations of the CORSIA Sustainability Criteria for CORSIA Eligible Fuels or ISCC CORSIA PLUS Principle 1 are detected, the certificate shall not be issued or must be withdrawn immediately. If the economic operator 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 the CORSIA Sustainability Criteria and ISCC CORSIA PLUS Principle 1 can never be subject to corrective measures.

Infringements of CORSIA sustainability criteria and Principle 1

The economic operator has to comply with all criteria of the CORSIA Sustainability Criteria. For a certification under ISCC CORSIA PLUS, Principle 1, all Major Musts of ISCC CORSIA PLUS Principles 2 to 6 and at least 60% of all Minor Musts must be complied with. The farmer/plantation manager has to address all relevant non-conformities which have been detected during an audit or sample. The auditor must set up corrective measures for the identified non-conformities, which have to be implemented by the farm/plantation in principal within a 40-day timeframe. The farm/plantation cannot be positively certified or audited, if the auditor does not come to a positive conclusion regarding the implementation of corrective measures. If the farm or plantation does not meet the requirements, they cannot be accepted as group members or as suppliers of sustainable material. If the auditor cannot verify the implementation of corrective measures within 40 days, the audit must be repeated until the farm or plantation completes a successful audit to demonstrate compliance with ISCC CORSIA PLUS requirements. In case this is not possible, the farm or plantation shall be excluded from the group.

Infringements of Principles 2 - 6

If, during an audit of a group or a sample of plantations one or more farms or plantations do not meet the requirements, the samples will have to be doubled. For example, if 10 farms (square root out of 100 farms which belong to one group of farmers) have been spot-checked and if one or more farms do not meet the requirements, the audit sample must be doubled to 20 farms. The farms or plantations which have already been audited cannot be counted for the new sample.

Sample sizing in case of non-compliances

Annex ISCC CORSIA and ISCC CORSIA PLUS Requirements at a Glance

Criterion number	Criterion	Major Must	Minor Must
ISCC CORSIA Requirements			
Theme 1: Greenhouse Gas Emissions			
1.1	CORSIA eligible fuel should generate lower carbon emissions on a life cycle basis ⁶	X	
Theme 2: Carbon Stock			
2.1	CORSIA eligible fuel should not be made from biomass obtained from land with high carbon stock	X	
2.1.1	CORSIA eligible fuel shall not be made from biomass obtained from land converted after 1 January 2008 that was primary forest, wetlands, or peat lands and/or contributes to degradation of the carbon stock in primary forests, wetlands, or peat lands as these lands all have high carbon stocks.	X	
2.1.2	In the event of land use conversion after 1 January 2008, as defined based on IPCC land categories, direct land use change (DLUC) emissions shall be calculated. If DLUC greenhouse gas emissions exceed the default induced land use change (ILUC) value, the DLUC value shall replace the default ILUC value.	X	
ISCC CORSIA PLUS Requirements			
Principle 1: Commitment to protection of land with high biodiversity value or high carbon stock as well as HCV areas.			
1.1	Biomass is not produced on land with high biodiversity value	X	
1.2	Biomass is not produced on land with high carbon stock	X	
1.3	Biomass is not produced on peatland	X	
Principle 2: Commitment to an environmentally responsible production to protect soil, water and air			
2.1 Conservation of natural resources and biodiversity			
2.1.1	Environmental impact assessment for certain actions	X	
2.1.2	Avoidance of damage or deterioration of habitats		X
2.1.3	Natural vegetation areas around springs and natural watercourses are to be maintained or re-established		X
2.1.4	Cultivation of highly invasive species and genetically modified varieties shall be prevented	X	
2.1.5	Restriction on burning	X	
2.2 Use of best practices to maintain and improve soil fertility			
2.2.1	Improvement of soil fertility		X
2.2.2	Avoidance of soil erosion and compaction	X	
2.3 Use of best practices in fertiliser application			
2.3.1	Fertilisers are used according to nutritional requirements	X	

⁶ The respective methodology to prove compliance with this requirement is further laid out in document ISCC CORSIA 205 Life Cycle Emissions

Criterion number	Criterion	Major Must	Minor Must
2.3.2	Soil contamination through fertilisers is minimised by adapted management	X	
2.3.3	Fertiliser application machinery	X	
2.3.4	Restrictions on the use of sewage sludge and other organic material	X	
2.3.5	Use of wastes and agricultural residues	X	
2.3.6	Records of fertiliser application	X	
2.3.7	Soil organic matter balance is compiled	X	
2.4 Restrictions on plant protection products and seeds			
2.4.1	Prohibition of chemicals	X	
2.4.2	Applied plant protection products are registered	X	
2.4.3	Local restrictions on the use of plant protection products are followed	X	
2.4.4	Seed origin is legitimized	X	
2.5 Avoiding plant protection products by integrated pest management			
2.5.1	Assistance with the implementation of IPM systems has been obtained		X
2.5.2	The producer can show evidence of implementation of at least one activity that falls into the category of "prevention"		X
2.5.3	The producer can show evidence of implementation of at least one activity that falls into the category of "observation and monitoring"		X
2.5.4	The producer can show evidence of implementation of at least one activity that falls into the category of "intervention"		X
2.6 Use of best practices in plant protection product application			
2.6.1	Staff dealing with plant protection products must be skilled	X	
2.6.2	The application of plant protection products is carried out appropriately	X	
2.6.3	All application equipment is calibrated	X	
2.6.4	Plant protection product applications are recorded	X	
2.7 Use of best practices in handling and disposing plant protection products			
2.7.1	Appropriate facilities for measuring and mixing plant protection products	X	
2.7.2	Redundant plant protection products must be disposed of via authorized or approved channels		X
2.7.3	Surplus application mix or tank washings are disposed of in a way that does not contaminate the ground water	X	
2.7.4	Avoidance of re-usage of empty plant protection product containers		X
2.7.5	Empty plant protection product containers are cleaned prior to disposal	X	
2.7.6	The premises must have adequate provisions for waste disposal		X
2.7.7	During disposal of empty plant protection product containers exposure to humans and the environment is avoided		X
2.8 Use of best practices in storing operating resources			
2.8.1	Fertilisers are stored in an appropriate manner	X	
2.8.2	Inorganic fertilisers are stored in a covered, clean and dry area		X
2.8.3	Plant protection products are stored in accordance with local regulations in a secure, appropriate storage facility	X	
2.8.4	Liquids are not to be stored on shelves above powders		X

Criterion number	Criterion	Major Must	Minor Must
2.8.5	The product inventory must be documented and readily available		X
2.8.6	Mineral oil products are stored in an appropriate manner	X	
2.9 Use of best practices to maintain and improve water quality and quantity			
2.9.1	Respect existing water rights and justify the irrigation in the context of social and environmental sustainability	X	
2.9.2	Application of good agricultural practices to reduce water usage and to maintain and improve water quality		X
2.10 Use of best practices in waste and energy management			
2.10.1	Waste management includes reduction, reuse and recycling. It reduces wastage and avoids the use of landfills or burning		X
2.10.2	Efforts are made to reduce fossil energy consumption and thus lower greenhouse gas emissions		X
2.10.3	Efforts are made to limit air pollution		X
Principle 3: Safe working conditions			
3.1 Training and competence			
3.1.1	Records kept for training activities and attendees		X
3.1.2	Certificates of competence are available for dangerous or complex work	X	
3.1.3	All workers received adequate health and safety training and they are instructed according to the risk assessment		X
3.2 Prevention of and handling with accidents			
3.2.1	The farm/plantation has a health, safety and hygiene policy and procedures including issues of the risk assessment		X
3.2.2	Workers are equipped with suitable protective clothing	X	
3.2.3	Potential hazards are clearly identified by warning signs		X
3.2.4	Accident procedures and equipment are available	X	
3.2.5	There are facilities to deal with accidental operator contamination		X
Principle 4: Compliance with Human, Labour and Land Rights and Responsible Community Relations			
4.1 Rural and social development			
4.1.1	A self-declaration on good social practice regarding human rights is available		X
4.1.2	Negative environmental, social, economic and cultural impacts are avoided		X
4.1.3	Biomass production does not impair food security		X
4.1.4	Fair and transparent contract farming arrangements are in place		X
4.1.5	Farm/plantation residents have access to basic services	X	
4.1.6	All children living on the farm/plantation have access to quality primary school education	X	
4.1.7	Other forms of social benefits are offered by the employer to workers and their families and/or community		X
4.1.8	Workers and affected communities must be able to make a complaint		X
4.1.9	Mediation is available in case of a social conflict		X
4.2 Employment conditions			

Criterion number	Criterion	Major Must	Minor Must
4.2.1	There is no forced labour at the farm or plantation	X	
4.2.2	Restrictions related to hazardous activities are followed	X	
4.2.3	There is no discrimination at the farm or plantation	X	
4.2.4	Employment conditions comply with equality principles	X	
4.2.5	Workers are treated with dignity and respect		X
4.2.6	All workers are to be provided with fair legal contracts		X
4.2.7	The employment conditions of individual workers comply with legal regulations and/or collective bargaining agreements		X
4.2.8	A living wage is paid which meets at least legal or industry minimum standards	X	
4.2.9	There is at least one worker or a workers' council elected freely and democratically who represent the interests of the staff to the management		X
4.2.10	Labour organisations and collective bargaining are allowed for negotiating working conditions	X	
4.2.11	There is a person responsible for workers' health, safety and good social practice		X
4.2.12	The management communicates openly with workers		X
4.2.13	Records on all workers and employees are available		X
4.2.14	Working times and overtime are documented		X
Principle 5: Compliance with Laws and International Treaties			
5.1	Legitimacy of land use	X	
5.2	Compliance with applicable laws and treaties	X	
Principle 6: Good Management Practices and Commitment to Continuous Improvement			
6.1 Economic stability			
6.1.1	Basic economic documentations	X	
6.1.2	Business plan		X
6.1.3	Good relationship with customer		X
6.2 Management			
6.1.1	Establishment of a recording system for each unit of production	X	
6.1.2	Commitment of continuous improvement for each unit of production		X
6.1.3	Records are kept for the description of the areas in use	X	
6.1.4	Subcontractors must fully comply with the ISCC sustainability requirements	X	