Green Gold Label
Standard GGLS2
Agricultural source criteria

Requirements for the sourcing of
agricultural biomass

Standard GGLS2
Agricultural source criteria

Version 3-0
Valid from 1 January 2026 (Adoption date)

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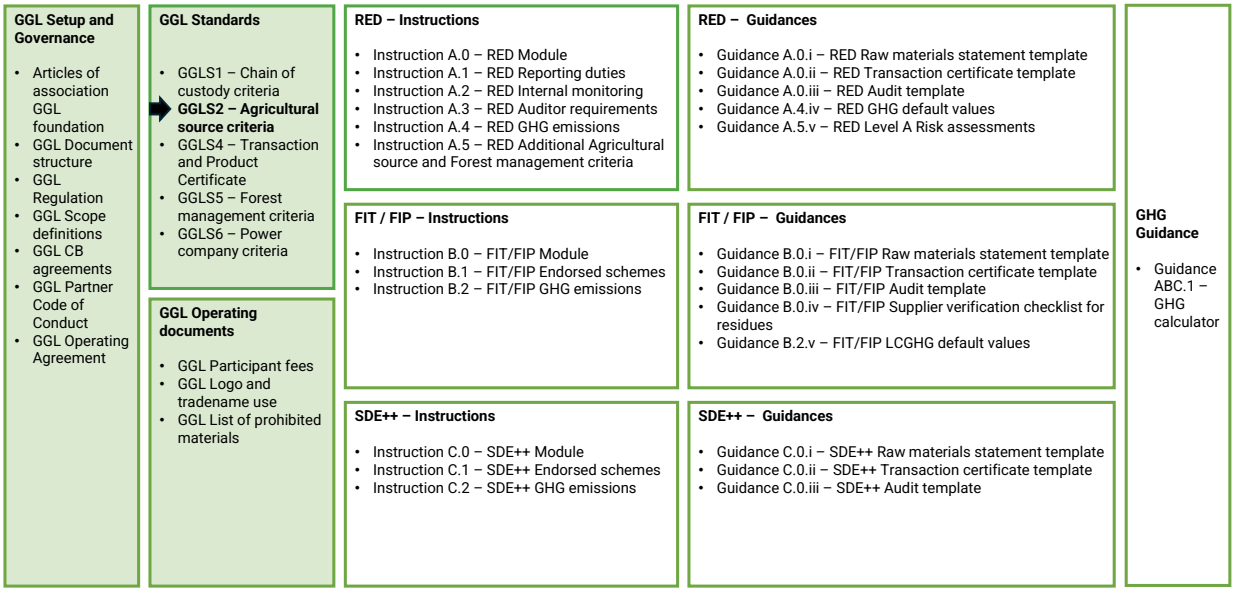
Document navigation

This document is part of the Standards from the Overall documents. It concerns Standard 2 of the GGL scheme and applies to all regulatory frameworks.

The Overall documents comprise the GGL Setup and Governance, GGL Standards and GGL Operating documents. Additionally, the GGL scheme offers Instructions and Guidances for specific regulatory frameworks (RED, FIT/FIP, SDE+/++), which can supersede clauses in the Overall documents. This applies only when explicitly stated in the relevant Instructions and Guidances.

Refer to the ***GGL Document Structure*** (as part of the GGL Setup and Governance documents) for more detailed information on navigating and interpreting GGL documentation.



The GGL standards are applicable as per indicative illustration i below.

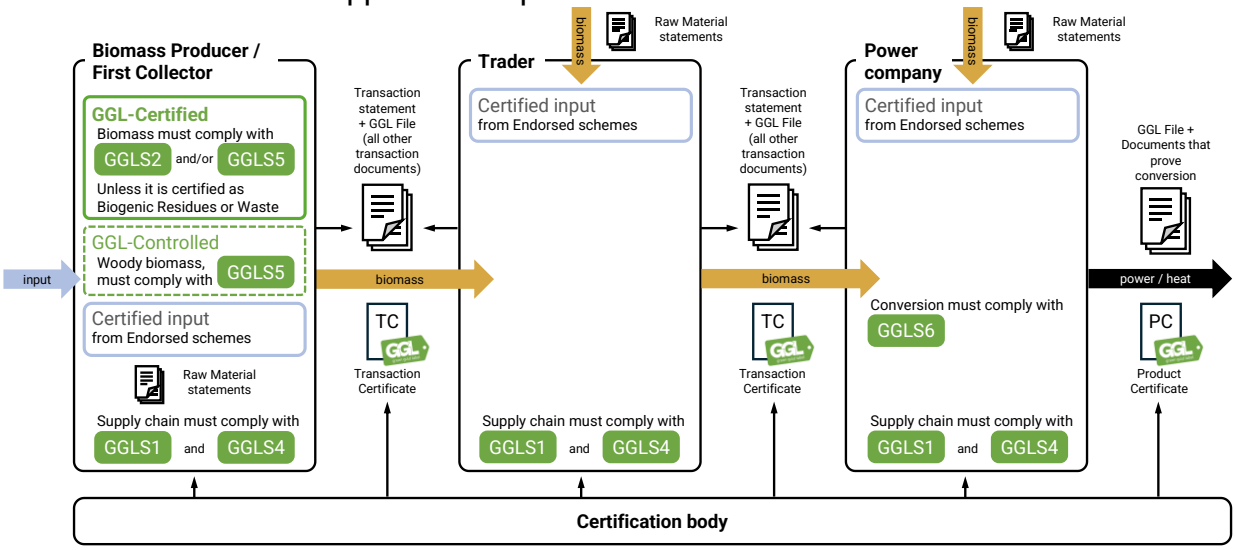


Illustration i – applicability of GGL Standards

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Changes and transitioning

This section lists the key changes in this version from version ***GGLS2 - Agricultural Source Criteria – Version 2-3 (December 2018)***:

No.	Change type	Section reference	Details of change
1	Content	Section A	Included allocation logic to GGL Categories of biomass
2	Content	Principles	Principles regrouped for simplified structure
3	Content	Principles	Removed requirements relating to cross-compliance (no longer applicable)
4	Content	Principle 7	Strengthened requirements relating to lands with high biodiversity value
5	Content	Principle 8	Strengthened requirements relating to lands with high carbon stock
6	Content	Principle 7 and Principle 8	Included requirements for evidencing
7	Content	Section C	Included Group or regional association as basis for GGL certification (similar to process already available for GGL Categories 1, 2 or 3 biomass)
8	Content	Document navigation	Illustration updated for clarity
9	Text feature	Document navigation	Included document navigation
10	Text feature	Changes and transitioning	Included changelog and transitioning procedure between previous and current version
11	Text feature	Glossary	Included glossary
12	Formatting	All	Changed and edited formatting, text and wording for clarity and readability
13	Formatting	All	Converted layout to new templates for GGL Documents

In transitioning to the current version of this document, the following applies to Certification bodies, Participants and Certificates:

Publication date	7 November 2025
Adoption date	This document version applies only for the GGL Scope with **FIT/FIP-Module** as of: • 1 January 2026
Effective date	The previous version of this document becomes ineffective for the GGL Scope with **FIT/FIP-Module** as of: • 2 March 2026
Transition period	Certification decisions prior to Effective date based on the previous version of this document lose their validity for the GGL Scope with **FIT/FIP-Module** as of: • 31 December 2026

To clarify: For GGL Scopes with the **SDE+ Module**, only the previous version of this document can be used and remains effective until further notice.

Glossary

Term	Definition
Adoption date	New (versions of) GGL documents state their Adoption date in the transitioning section. This is the date after which certification against the GGL Scheme and the specific document to which the Adoption date applies, is possible. Certification against previous versions remain valid until the Effective date of such document.
Audit report	The audit report lists all results of the audit process in a written form and shall include a summary report as well as all the observations made by the auditor during the audit process.
Biomass producer	The first participant of the GGL supply chain for woody and agricultural biomass (GGL categories 1, 2, 3 and 4) who produces raw material by harvesting or farming activities for which Raw Materials Statements are delivered. Biomass Producers are comparable to First Collectors in the sense these are the first GGL Participants in a GGL supply chain.
Biomass	Biomass means the biodegradable fraction of products, waste and residues from biological origin from agriculture, including vegetal and animal substances, from forestry and related industries, including fisheries and aquaculture, as well as the biodegradable fraction of waste, including industrial and municipal waste of biological origin.
By-product	A by-product is a secondary product derived from a production process, manufacturing process or chemical reaction, not a waste or residue. A by-product might not be the primary aim of such process but has a significant economic value other than its use as biomass.
Certification Body / CB	An independent third party that evaluates and certifies the certification process. Certification Bodies approved by GGL for 1 or more GGL Scopes, are listed on the GGL website.
Credit system / volume credit system	Volume credit system is a chain of custody approach and mass balance system that allows tracking the net amount of sustainable materials as they move through a system or supply chain and ensures an appropriate allocation of these materials to the finished goods based on auditable bookkeeping. GGL does not allow application of the volume credit system for all types of biomass and for all GGL Scopes. The system deployed by GGL to support mass balance administrations is defined in GGLS1 - Chain of Custody criteria.
Direct origination / […] originate directly	Biomass in GGL Categories 1, 2, 3 and 4 originate directly during harvesting and / or farming activities, meaning that such biomass originates on the location and at the time when the primary products (e.g., wood, agricultural products) originate.
Effective date	New (versions of) GGL documents state their Effective date. This is the date after which only certification against the GGL Scheme and the specific document to which the Effective date applies, is effective. Certification against previous versions of such document is no longer valid.
FMU / Forest Management Unit	A well defined and demarcated land area, predominantly (i.e., >50%) covered by forests, with planned human intervention in a forest ecosystem to achieve specific goals and objectives.

Term	Definition
GGL Categories	Biomass from 1 of the 5 categories that GGL recognizes being: 1) Woody biomass from large FMU's (> 500 hectares) 2) Woody biomass from small FMU's (< 500 hectares) 3) Residues from natural site and landscape management 4) Agricultural biomass 5) Biogenic residues and waste
GGL Module	These are the Instructions and Guidance documents based on which GGL has been approved and recognized as a Certification scheme under different legal and voluntary frameworks (e.g., RED in Europe, FIT/FIP in Japan).
GGL-Certified	Biomass that has been certified against all applicable GGL criteria, or against a certification scheme other than GGL which has been endorsed & approved by the relevant authorities (e.g., EU for REDII, METI for FIT/FIP) to holds the equivalent status. GGL-Certified biomass meets all criteria for sustainability and legality.
Land-related evidence	Evidence of compliance with the land-related criteria can be provided in different forms, including but not limited to aerial photographs, satellite images, maps, land register entries/databases and site surveys. This evidence can be "positive" or "negative", for example, compliance with the criterion on "primary forest" could be shown by: - An aerial photograph of the land, showing it to be planted (positive), or - A map of all the primary forests in the region, showing the land to fall outside them (negative)
Normative	Normative elements are those that are prescriptive, that is they are to be followed in order to comply with scheme requirements.
Old growth forest	Old growth forest refers to natural forest ecosystems that have developed over long periods of time (typically centuries) without significant disturbance or human intervention and that exhibit unique ecological features such as large and old trees, multilayered canopies, rich structural diversity, high levels of biodiversity, and the presence of deadwood.
Participant / GGL Participant	Economic operator that has been certified under GGL per ***GGL Regulation*** Section G or against a certification scheme other than GGL which has been endorsed & approved by the relevant authorities (e.g., EU for REDII, METI for FIT/FIP) to hold the equivalent status, such as forest and agricultural biomass producers, waste and residue producers, first gathering points, collectors, suppliers, traders, processing plants and conversion plants (end-users).
Peatland	Peatlands, generally also known as bogs, mires, or moors, are unique wetland ecosystems characterized by the accumulation of partially decomposed plant material - peat.
Point of origin	The location where the raw material is originally generated.
Processing	This relates to activities that change the physical or chemical characteristics of the biomass material. For instance, chipping, drying and pelletisation change the density or heating value of the material, while digestion or pyrolysis change the chemical characteristics.

Term	Definition
Publication date	New (versions of) GGL documents state their Publication date. This is the date at which that version is published. Certification against the new version of such document is not possible until after its Adoption date.
RED	EU Renewable Energy Directive (EU) 2018/2001 (REDII) and amended by Directive (EU) Directive 2023/2413 (REDIII), most recent consolidated version (including amendments and corrections) as published on https://eur-lex.europa.eu
Residue	Residue means a substance that is not the end product(s) that a production process directly seeks to produce; it is not a primary aim of the production process and the process has not been deliberately modified to produce it.
Site	Site means a geographical location, logistical facilities, transmission or distribution infrastructures with precise boundaries within which products can be mixed.
Transition period	New (versions of) GGL documents state their Transition period. This is the period within which (re-)certification decisions taken prior to the Effective date against the previous version of the current document, remain valid. Initial audits, renewal audits and surveillance audits by a Certification Body during the Transition period shall only take place against the current version of the GGL Scheme document to which the Transition period applies.
Waste	Waste is a substance or an object which the holder discards or intends or is required to discard, that is not considered a by-product, and excludes substances that have been intentionally modified or contaminated in order to meet this definition.

A. Introduction

A.1

GGLS2 – Agricultural source criteria is based on the United Nations sustainable development program Agenda 21 and the sustainability criteria from the Renewable Energy Directive (2009/28/EC). A verification based on the principles of this standard, with a positive result, will lead to the source being accepted as input under the GGL scheme requirements.

The requirements for verifying products entering GGL supply chains against this standard are described in Principle 5 of ***GGLS1 – Chain of Custody criteria*****.** This standard has a global geographical scope and encompasses the sourcing of biomass at the beginning of the GGL supply chain.

A.2

Material that directly originates from agricultural activities, can be GGL Category 4 biomass when it meets the requirements for its GGL Scope that are defined in ***GGL Scope definitions***. The decision process for allocation of input material is shown below in Figure ii.

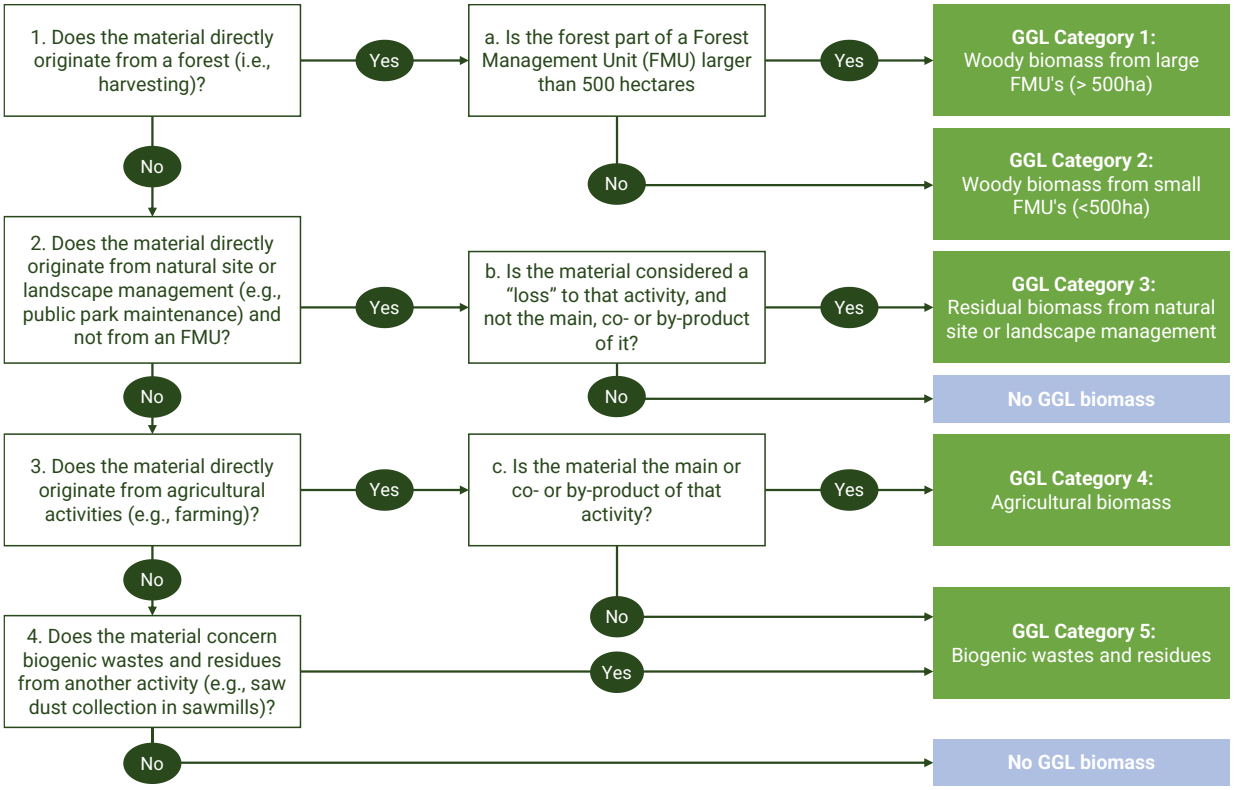

Figure ii – allocation logic for biomass to a GGL Category

A.3

This standard offers 2 options for Biomass producers when sourcing biomass in GGL Category 4:

1. Individual verification
2. Verification of groups or regional associations (detailed under C below)

In all cases, the Biomass producer (as a GGL Participant) is responsible for applying to a Certification Body to include any of the options mentioned above in the scope of its GGL certification.

A.4

The requirements for verification by Participants, as outlined in A.3 under 2) against this standard, are described in Principle 5 of ***GGLS1 – Chain of custody criteria***.

A.4.1 For option 1 (Individual verification), the Certification Body shall conduct onsite audits at all agricultural sites included in the scope. In this case, the Biomass producer (as GGL Participant) is not required to conduct its own onsite verification at each site.

A.4.2 The above requirement (A.4.1) does not apply to option 2 (groups or regional associations), in which case the Biomass producer shall be responsible for ensuring that onsite verification audits are carried out as stipulated in this Standard including requirements in section C.

Note - Requirements from Principles 5.12 and 5.13 from ***GGLS1 – Chain of custody criteria*** apply in full for verification audits A.3 under 2) above.

A.5

All GGL Standards are normative unless stated otherwise.

B. Principles

Principle 1. The agricultural management system is part of an integrated long-term planning program, aimed at development and sustainability

1.01 The Participant makes a long-term commitment to adhere to the principles and criteria for sustainable agriculture, expressed in a written and up-to-date agricultural management plan or other management documents.

1.02 Policy reviews are carried out periodically.

1.03 A policy is implemented to positively influence the tenure and property rights of local smallholders, concerning the minimum size of landholding.

1.04 The management plan addresses the policy for improving production, harvesting, storage, processing, distribution, and marketing of products at local, national, and regional levels.

1.05 Storage and distribution problems that affect food availability are identified and addressed in the management plan.

Principle 2. The agricultural management system is based on land resource planning.

2.01 Continuous monitoring and data collection of the utilization of natural resources and living conditions are used for land resource planning (whether conducted individually or on a regional scale). At least the following data are collected regularly:

- Climatological developments,
- water and soil quality,
- land use,
- vegetation cover and distribution,
- animal species and diversity,
- utilization of wild plants and diversity,
- use of different production systems and their yields, costs and prices, and
- social and cultural considerations affecting agriculture and adjacent land use.

2.02 Participation in the initiation and maintenance of land resource planning at the district and village levels, assisted by management and conservation groups.

Principle 3. The agricultural management is aimed at land conservation and rehabilitation

3.01 Land degradation is surveyed systematically and regularly.

3.02 Land and conservation areas at risk are identified, and the policy and management measures are formulated.

3.03 The general planning, management, and utilization of land resources, along with the preservation of soil fertility, are defined and implemented.

Principle 4. The agricultural management aims to ensure the supply and quality of freshwater for sustainable food production and sustainable rural development

4.01 The efficiency and productivity of agricultural water use have to increase over time for better utilization of limited water resources.

4.02 A data collection and monitoring system is in place and covers at least:

- Irrigation performance,
- Biological, physical and chemical water quality

4.03 Sewage and waste from farms and human settlements, along with manure produced by intensive livestock breeding, are disposed of properly to minimize adverse impacts on freshwater supply and availability.

4.04 Measures have to be taken to minimize soil run-off and sedimentation.

4.05 Irrigation has to be planned as part of a long-term program.

4.06 Long-term strategies and implementation programs have to be developed for water use under scarce conditions.

4.07 Wastewater re-use has to be part of the agricultural management system.

Principle 5. The agricultural management system has implemented integrated pest management and control

5.01 Pest management and control are integrated into the management system.

5.02 The use of banned pesticides is prohibited.

5.03 The use of restricted pesticides is controlled, and the administration is kept up to date. Stock of restricted pesticides is kept in a separate and locked storage.

5.04 Biological control agents, organic pesticides, and traditional knowledge and skills relating to alternative non-chemical pest control have to be identified and implemented in the agricultural management system.

Principle 6. The agricultural management system has implemented sustainable plant nutrition

6.01 The management plan is based on an integrated plant nutrition approach intended to enhance agricultural efficiency and contribute to increased food and feed production.

6.02 The availability of fertilizers and other plant nutrient resources are optimized.

Principle 7. Raw materials shall not be sourced from land that has, or has recently had, a high biodiversity value

7.01 Land-related evidence shall demonstrate that raw materials comply with this standard.

7.02 The raw material is not produced on land that has held one of the following statuses in or after January 2008, regardless of whether the land still holds that status:

7.02(a) Primary forest and other wooded land, namely forest and other wooded land containing native tree species without a clearly visible indication of human activity, where the ecological processes are not significantly disturbed;

7.02(b) Old-growth forest, as defined in the country where it is located;

7.02(c) Highly biodiverse forest and other wooded land that is rich in species, not

degraded, and identified as being highly biodiverse by the relevant competent authority, unless land-related evidence is provided that the production of that raw material did not interfere with those nature protection purposes.

7.03 Areas designated by law or the relevant competent authority with the purpose of nature conservation. In addition, areas recognized by international agreements or included in lists drawn up by intergovernmental organizations or the International Union for the Conservation of Nature, are subject to their recognition in accordance with the second subparagraph of Article 30(4) of the revised Directive (EU) 2018/2001 for the protection of rare, threatened or endangered ecosystems or species. The cultivation of biomass in the aforementioned areas is permitted on the condition that land-related evidence is provided to demonstrate that the production did not interfere with those nature conservation purposes.

7.04 The raw material is not sourced from highly biodiverse grasslands that had one of the following statuses in or after January 2008, irrespective of whether the land still holds that status or not:

a) Natural grassland, namely grassland that would remain grassland in the absence of human intervention and which maintains the natural species composition and ecological characteristics and processes.
b) Non-natural grassland, namely grassland that would cease to be grassland in the absence of human intervention and which is rich in species-and not degraded, unless there is land-related evidence indicating that harvesting of raw materials is necessary to preserve its grassland status.

Note – Any future adjustments made by the European Commission to the definition of highly biodiverse grasslands will apply to this standard.

7.05 The raw material is not produced on heathland or land that held such status in or after January 2008. Heathland is defined by poor, acid soil dominated by ling (Calluna) or heaths (Erica).

Principle 8. Raw materials shall not be obtained from land that has, or has recently had, a high carbon stock

8.01 Biomass is not sourced from lands that had one of the following statuses in January 2008 and no longer holds that status:

c) Wetlands, namely land that is covered with or saturated by water permanently or for a significant part of the year. Land-related verification evidence should reflect seasonal changes.
d) Continuously forested areas, namely land spanning more than one hectare with trees higher than five metres and with a canopy cover of more than 30%, or trees able to reach those thresholds in situ. This definition includes areas identified as such by respective national legal definitions, but excludes land that is predominantly under agricultural land use. In this context, agricultural land use refers to tree stands in agricultural production systems, such as fruit tree plantations, oil palm plantations and agroforestry systems where crops are cultivated under tree cover.

8.02 Forested areas with 10-30% canopy cover for the applicability of Principle 8.01, refer to land spanning more than one hectare with trees higher than five metres and a canopy cover of between 10% and 30%, or trees able to reach these thresholds in situ.

8.03 The provisions of Principle 8.01 shall not apply if, at the time the raw material was obtained, the land retained the same status as it did in January 2008.

8.04 Raw material shall not be sourced from land that was peatland, namely land largely consisting of peat or peat bogs on 1 January 2008, unless it can be demonstrated by providing land-related evidence that the production and harvesting of that raw material do not involve the drainage of previously undrained soil.

Principle 9. Soil quality shall be maintained and where possible improved

9.01 Best practices are implemented to maintain and improve soil quality following production or management objectives, which have been incorporated in a management plan. This implies that:

9.01(a) The Biomass producer receiving the material shall demonstrate that the original supply unit has a policy or plan in place for maintaining (and where possible, improving) soil quality, based on local best practices. If relevant, this plan shall include at least:

- key objectives of soil management;
- measures to prevent erosion;
- maintenance of the soil nutrient balance (nitrogen, phosphorus, potassium);
- maintenance of soil organic matter and soil fertility, structure and salinity.

9.01(b) Each Participant shall retain relevant information (e.g. reports from the Point of Origin, audit reports, monitoring data) to demonstrate that the plan or policy has been implemented.

C. Group or regional association

C.1 Introduction

This section covers the requirements that apply when a Biomass producer (GGL Participant) wishes to include a group or regional association of multiple agricultural sites in its supply base. All requirements from this section shall be fulfilled in addition to other applicable requirements.

C.2 Group manager is an independent legal entity or person

C.2.1 A group or regional association is led and supervised by an independent legal entity or by a person acting as that legal entity (hereafter referred to as the Group manager).

C.2.2 The group manager shall be responsible for ensuring compliance with all applicable GGL requirements for both the entire group and individual group members.

C.2.3 The entity shall fulfill all statutory requirements, such as registrations and the payment of taxes.

C.2.4 The division of responsibility between the entity and the group members regarding sustainable forest management and all requirements of this standard has been clearly documented in writing.

C.3 All supply sites in a group or regional association shall comply with the criteria set forth in this standard

C.3.1 A group or regional association, along with all agricultural supply sites that are part of it, shall comply with the sustainable agriculture requirements of this standard ***GGLS2 – Agricultural source criteria***.

C.3.2 The group or regional association shall have procedures in place to ensure that each member of the group or regional association complies with the requirements of this standard. Depending on the size and geographical complexity of the group, these may include procedures such as:

- the organisational structure;
- the responsibilities of the group manager and the members with corresponding activities;
- rules regarding membership of the group;
- rules regarding suspending or revoking membership of the group;
- complaints procedures for group members and stakeholders;
- procedures for implementing corrective measures following an internal request or one from the Certification body, including deadlines and consequences for non-compliance with the measures.

C.3.3 The group manager shall maintain a documented quality management system to ensure that all relevant requirements are met. This shall include procedures, training and competence development for the staff, including both the group

manager and group members.

C.3.4 The status of the agricultural supply sites in the relevant region shall be outlined in a management plan or a similar document.

C.3.5 The functioning of the group in relation to this standard shall be managed by the group manager, who ensures compliance with all applicable GGL requirements. The group manager shall maintain and always have available for third-party verification, at least the following information for each member of the group:

- Name of the site;
- Status of the member as a legal entity (e.g., cooperative, limited liability company, private individual);
- Description of the (forest) area within the group, including the precise location in latitude and longitude coordinates;
- Size of the area included;
- Date of joining and/or leaving the group;
- Date and status of the most recent internal audit conducted (including any follow-up of non-conformities).

C.3.6 The group manager shall conduct annual internal audits of a sample of the group members. The formula for determining the sample shall be:

$Y = \sqrt{X}$ (i.e., square root of X)

Where
X = Total number of group members
Y = Minimum sample size for auditing - rounded to the upper whole number

The selected group members shall be determined based on scale, risk, forest type, and results from previous internal audits. Internal audits conducted by the group manager shall replace the need for a Certification body to verify each individual supply site that has been audited, and will not require their verification every 12 months for continued or repeated deliveries.

Note - This internal audit supersedes the requirements of ***GGLS1 – Chain of custody criteria***, specifically Principles 5.12 and 5.13.

C.3.7 The internal audit reports shall be documented clearly and systematically, and cover all applicable requirements from the GGL standards. Verifiers adapted to local conditions shall receive training and development in sustainable forest management principles from the group manager, and their names and qualifications shall be included in the internal audit reports.

C.3.8 The group manager shall have a written contract or consent form in which each group member acknowledges the GGL requirements and agrees to the general obligations and responsibilities for participation in the group, including resolving all identified non-conformities. This document is signed by both the Certification body and the group manager.

C.3.9 The group manager shall suspend the group member and inform its Certification body accordingly when not all requirements are fulfilled within the given timeframe. Materials originating from a suspended group member shall not be accepted as GGL-Certified biomass, and adequate measures shall be taken to mitigate any risk of mixing.

C.3.10 The group manager shall provide each group member with all necessary documents to meet the GGL requirements.

C.3.11 A chain of custody system is in place for the biomass, covering the entire chain from the group member to the group manager. The system connects the original source to the material used in the biomass within a traceable system that ensures mass balance. Each step in the chain of custody system bears direct responsibility and has a quality management system in place that ensures compliance with the requirements of the chain of custody system.

C.3.12 Each group member in the chain of custody keeps all necessary documentation to demonstrate compliance with the applicable sustainability requirements for a minimum of five years.

C.3.13 Each group member in the chain of custody records the quantities and the required sustainability information for all incoming or outgoing consignments under this standard.

C.3.14 Each group member in the chain of custody has relevant data available to enable the group manager to determine and calculate the correct GHG emissions information, as applicable under the GGL Module under which the biomass is traded.

Note - GHG emission values shall be calculated and listed in units according to the applicable GGL Module. For clarity: REDII/III requires calculations according to ***Instruction A.4 – RED GHG Emissions***.

C.3.15 If a group member in the chain of custody wishes to mix consignments with differing sustainability characteristics, a mass balance is utilized that meets the requirements of the Volume credit system in ***GGLS1 – Chain of custody criteria***. In those cases, the following also applies:

C.3.15.1 The method may be applied up to the level of a specific location;

C.3.15.2 The organisation defines a period of up to one year, during which incoming and outgoing consignments are measured and reports the results;

C.3.15.3 The sustainability characteristics of mixed biomass output can be traced back to the characteristics and quantities of the individual incoming consignments, considering the applicable conversion factors.