Green Gold Label
Standard GGLS5
Forest management criteria

Requirements for the sourcing of
forest biomass under GGL

Standard GGLS5
Forest management criteria

Version 2-6
Valid from 2 March 2026 (Adoption date)

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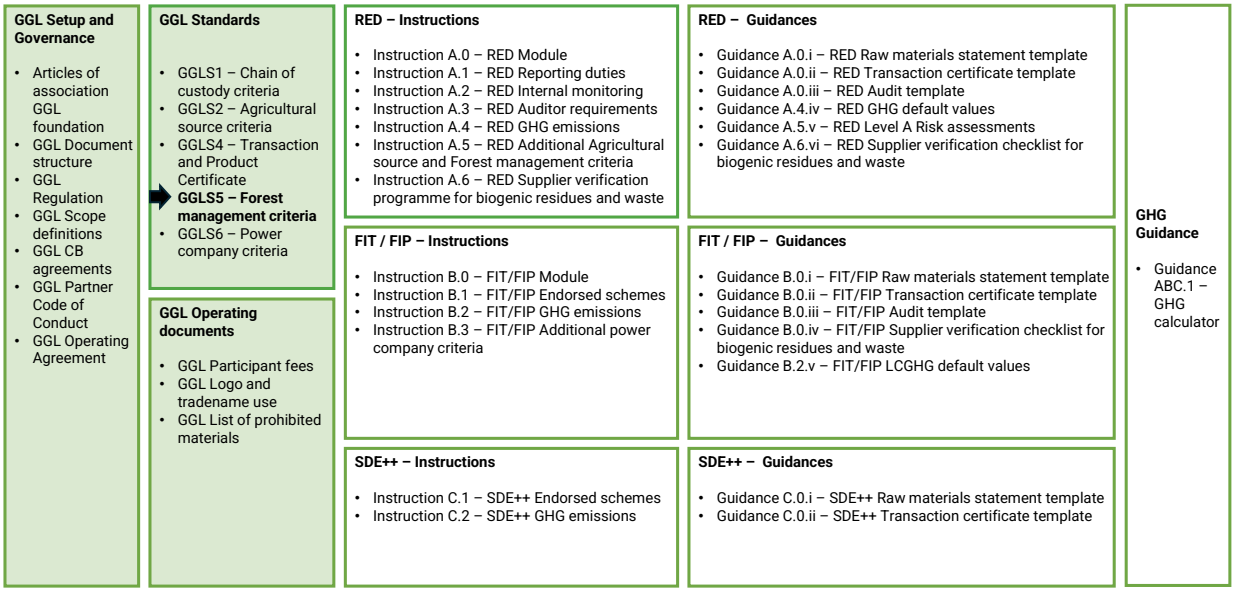
Document navigation

This document is part of the Standards from the Overall documents. It concerns Standard 5 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 the indicative Illustration i below.

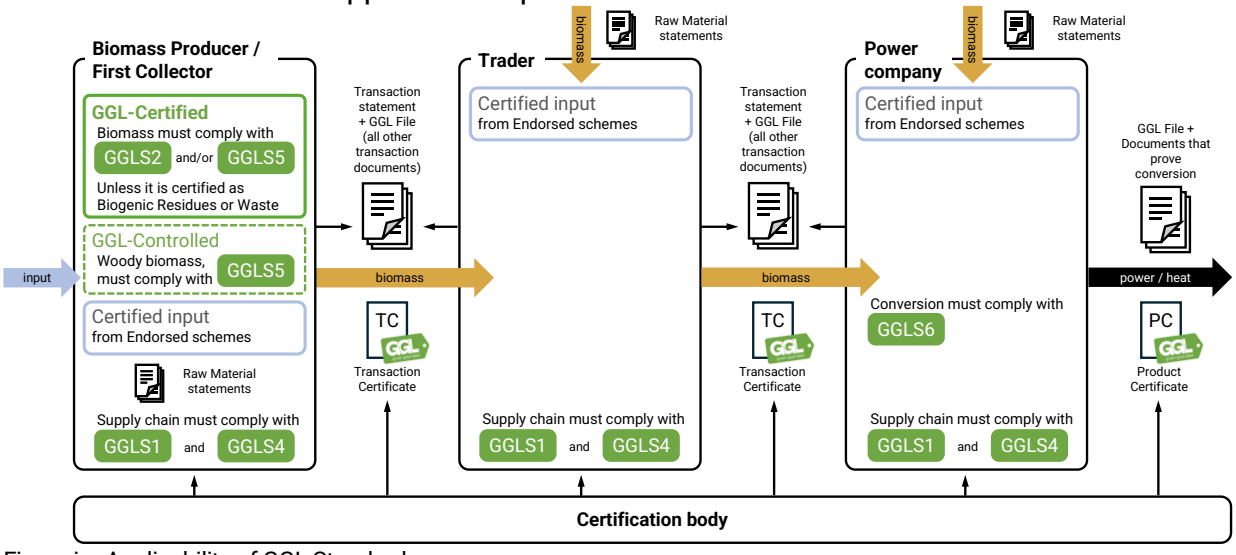


Figure i – Applicability of GGL Standards

Table of contents

Changes and transitioning

This section lists the key changes in this version v2-6 from version ***GGLS5 - Forest Management Criteria - Version 2-4 (June 2019)***:

No.	Change type	Section reference	Details of change
1	Content	N/A	Removed the risk-based approach as the basis for certification under GGL
2	Content	N/A	Low-ILUC risk criteria replaced by LULUCF criteria (RED)
3	Content	Section A	Included allocation logic for GGL Categories of biomass
4	Content	Principle 1	Strengthened requirements related to supporting land tenure for smallholders
5	Content	Principle 7	Strengthened protection of lands with high biodiversity value and included requirements for evidencing
6	Content	Principle 8	Strengthened protection of lands with high carbon stock
7	Text feature	Document navigation	Included document navigation and updated illustration for clarity
8	Text feature	Changes and transitioning	Included the changelog and the transitioning procedure between the previous and the current version
9	Glossary	Glossary	Included glossary
10	Formatting	All	Changed and edited formatting, text and wording for clarity and readability
11	Formatting	All	Converted layout to new templates for GGL Documents

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

Publication date	7 November 2025
Adoption date	For all GGL Modules except the **SDE+ Module:** • 2 March 2026
Effective date	For all GGL Modules except the **SDE+ Module:** • 1 March 2027
End of Transition period	For all GGL Modules except the **SDE+ Module:** • 1 March 2028

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 include an Adoption date in the transitioning section. This date indicates when certification against the GGL Scheme and the specific document becomes possible. Certifications based on previous versions will remain valid until the Effective date of the new document.
Audit	Formal examination and inspection by a GGL-approved Certification Body of an organization's processes and activities to verify compliance in accordance with ISO-19011. In contrast, an audit differs from an internal audit.
Biomass producer	The first participant in the GGL supply chain for woody and agricultural biomass (covering GGL categories 1, 2, 3, and 4) is known as a Biomass Producer. This entity produces raw materials through harvesting or farming activities and is responsible for delivering Raw Materials Statements. Biomass Producers are similar to First Collectors in that they represent the initial participants in the GGL supply chain.
Biomass	Biomass refers to the biodegradable portion of products, waste, and residues derived from biological sources in agriculture, which includes both plant and animal materials. It also encompasses materials from forestry and related industries, such as fisheries and aquaculture. Additionally, biomass includes 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, manufacturing or chemical process, not a waste or residue. A by-product may not be the primary aim of such a process but has significant economic value beyond its use as biomass.
Certification Body / CB	An independent third party evaluates and certifies the certification process. Certification bodies approved by GGL for one or more GGL scopes are listed on the GGL website.
Conversion factor	The ratio of the mass of the output intended for biofuel production to the mass of the raw material entering the process.
Co-product	A useful product produced alongside the main product, not a waste or residue. As such, the co-product shares in the greenhouse gas emissions burden.
Credit system / volume credit system	The volume credit system is a method for tracking the flow of sustainable materials through a supply chain, using a chain of custody approach along with a mass balance system. This system ensures accurate accounting of sustainable materials as they move within the supply chain and allows for the proper allocation of these materials to finished goods based on verifiable bookkeeping. However, GGL does not permit the application of the volume credit system for all types of biomass or for all GGL Scopes. The specific system implemented by GGL to facilitate mass balance management is outlined in ***GGLS1 - Chain of custody criteria***.

Term	Definition
Direct origination / […] originate directly	Biomass in GGL Categories 1, 2, 3, and 4 originates directly from harvesting and farming activities. This means that this biomass is produced at the same time and location as the primary products, such as wood or agricultural goods. In contrast, biomass in GGL Category 5 comes from biogenic residues or waste that are generated when primary products, co- or by-products are separated.
Effective date	New (versions of) GGL documents specify an Effective Date. This is the date after which certification can only be granted according to the GGL Scheme and the specific document that has the Effective Date. Certification based on previous versions of the document is no longer considered valid.
FMU / Forest Management Unit	A well-defined land area that is predominantly (>50%) forested, incorporating planned human intervention within a forest ecosystem to meet specific goals and objectives.
GGL Categories	Biomass is classified into one of five categories recognized by GGL: 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 Instructions and Guidance documents outline how GGL has been approved and recognized as a Certification scheme under various legal and voluntary frameworks (e.g., Renewable Energy Directive (RED) in Europe and FIT/FIP in Japan).
GGL Scope	Each GGL Participant and each Certification Body (CB) is restricted to performing activities under the GGL Scheme based on the specific GGL Scope for which they are recognized. GGL Biomass has a specific GGL Scope. The GGL Scope is a combination of (a) applicable regulatory GGL Modules and (b) the GGL Categories of biomass. Detailed definitions of GGL Scopes can be found in the ***GGL Scope definitions*** document.
GGL-Certified	Biomass that has been certified against all applicable GGL criteria, or against a certification scheme other than GGL, which has been endorsed and approved by the relevant authorities (e.g., EU for RED, METI for FIT/FIP) and holds equivalent status. GGL-Certified biomass meets all criteria for sustainability and legality.
GGL-Controlled	Woody biomass that has been certified against some of the applicable GGL criteria, or against a certification scheme other than GGL that has been endorsed and approved by the relevant authorities (e.g., the EU for RED or METI for FIT/FIP) holding equivalent status. GGL-Controlled biomass can only come from GGL categories 1, 2, or 3 for woody biomass and must meet specific key sustainability criteria. Therefore, the sustainability of GGL-Controlled woody biomass is certified to a lesser extent than that of GGL-Certified woody biomass.
HCV / High conservation value	Natural habitats or landscapes that have significant environmental, social, or cultural importance. These areas include ecosystems, populations of species, or ecological functions that are crucial at local, regional, or global levels.

Term	Definition
Land-related evidence	Evidence of compliance with land-related criteria can be provided in various forms including but not limited to, aerial photographs, satellite images, maps, land register entries, databases, and site surveys. This evidence can demonstrate either "positive" or "negative" compliance. For example, compliance with the criterion regarding "primary forest" could be illustrated by: - An aerial photograph showing that the land is planted (positive evidence), or - A map displaying all the primary forests in the region, indicating that the land falls outside of them (negative evidence).
LULUCF / Land-use, Land-use Change and Forestry	Forest management criteria for the GGL Module for RED, defined in Regulation (EU) 2018/841 on the inclusion of GHG emissions and removals from land use, land use change and forestry in the 2030 climate and energy framework, amending Regulation (EU) No525/2013 and Decision No529/2013/EU. The GGL methodology to demonstrate compliance with these requirements is defined in ***GGL Instruction A.5 - RED - Additional agricultural source and forest management criteria***.
Mass balance	Mass balance is a chain-of-custody approach that enables the net amount of sustainable materials to be tracked 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.
Normative	Normative elements are prescriptive guidelines that must be followed to comply with scheme requirements.
NTFP / Non-timber forest products	Non-Timber Forest Products (NTFPs) are biological materials obtained from forests without the need to harvest the main stem or trunk of trees. NTFPs can include a variety of items such as tree branches, tops, bark, leaves, needles, cones, deadwood, understory vegetation, shrubs, grasses, fruits, seeds, and other plant residues.
Old growth forest	Natural forest ecosystems that have developed over long periods, typically centuries, without significant disturbance or human intervention. These forests exhibit unique ecological features, including large, old trees, multilayered canopies, diverse structures, high levels of biodiversity, and the presence of deadwood.
Participant / GGL Participant	An economic operator that has been certified under the ***GGL Regulation*** Section G, or under another certification scheme endorsed and approved by the relevant authorities (e.g., EU for RED or METI for FIT/FIP), holds equivalent status. This includes forest and agricultural biomass producers, waste and residue producers, first gathering points, collectors, suppliers, traders, processing plants, and conversion plants (end-users).
Peatland	Peatlands, commonly referred to as bogs, mires, or moors, are distinct wetland ecosystems defined by the accumulation of partially decomposed plant material known as peat.
Point of origin	The location where the raw material directly originates, before its classification as GGL Biomass.
Publication date	New (versions of) GGL documents include their Publication date, which indicates when that version is published. Certification against a new version cannot occur until after its Adoption date.

Term	Definition
Raw material	The batch of biomass from a single Point of origin before it is classified as GGL Biomass, for which a single Raw Material Statement is verified and that falls within a single GGL Category of biomass.
RED	EU Renewable Energy Directive (EU) 2018/2001 of the EU Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources (REDII) amended by Directive (EU) Directive 2023/2413 (REDIII), its most recent consolidated version including amendments and corrigenda in its most recent consolidated version as published on https://eur-lex.europa.eu.
Residue	A substance that is not the primary, co- or by-product of a production process. It is not a primary goal of that process, and the process has not been intentionally adjusted to create it.
Site	Site refers to a specific geographical location, including logistical facilities and transmission or distribution infrastructures, characterized by defined boundaries within which products can be mixed.
Transition period	The new versions of the GGL documents specify the end of a Transition Period. This is the time until which (re-)certification decisions made before the Effective Date (based on the previous version of the document) remain valid. During the Transition Period, audits conducted by a Certification Body must be based solely on the valid (new) version of the GGL Scheme documents.
Waste	Any substance or object that the holder discards, intends to discard, or is required to discard. It is not classified as a co- or by-product and does not include substances that have been intentionally altered or contaminated to fit this definition.

A. Introduction

A.1

GGLS5 – Forest management criteria are based on the sustainability requirements in the Netherlands and the sustainability criteria from the RED (EU Renewable Energy Directive). There are different existing, high-quality forest management standards or schemes in place. This standard can be applied independently to raw materials sourced within the scope of a GGL Participant's certificate to verify compliance against the criteria for responsibly managed, sustainable forestry. A verification conducted in accordance with the principles of this standard, with a positive result, will lead to the source being accepted as input under the GGL scheme requirements.

A.2

Material that directly originates from a forest or from natural site or landscaping activities can be GGL Category 1, 2, or 3 biomass when it meets the requirements for its GGL Scope, as defined in ***GGL Scope definitions***. The decision process for allocating input material is shown in Figure ii below.

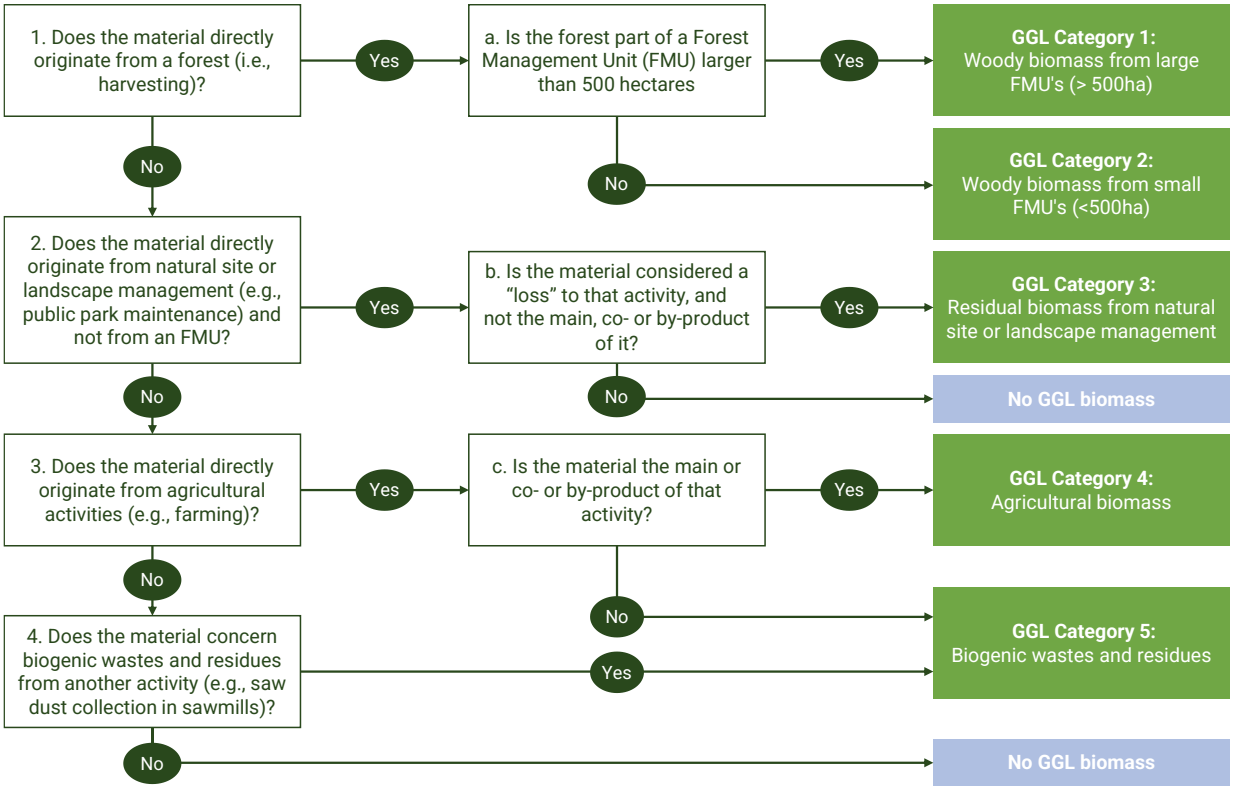


Figure ii – allocation logic for biomass to a GGL Category

A.3

This standard offers 2 options for Biomass producers when sourcing biomass in GGL Categories 1, 2 or 3:

1. Individual verification (option 1); or
2. Verification of groups or regional association (option 2).

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

Verification and auditing requirements for options described under A.3 are as follows:

A.4.1 For option 1 (Individual verification), the Certification Body shall conduct on-site audits at all Forest Management Units (FMUs) included in the scope. In this case, the Biomass producer (as a GGL Participant) is not required to conduct on-site verification at each FMU.

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 on-site verification audits are carried out as stipulated in this Standard as well as Principles 5.12 and 5.13 from ***GGLS1 – Chain of custody criteria*** and Certification Bodies shall conduct on-site audits per ***GGL Regulation*** section including sections E, G and H.

A.5

All GGL Standards are normative unless stated otherwise.

B. GGL Principles for sustainable forest management

Principle 1. The Biomass producer complies with all applicable laws and regulations

1.01 The Biomass producer holds the full legal right to use the forest, with documentation demonstrating legal rights to manage the land as forests and manage and utilise its forest resources (e.g. registrations in the land register, licenses, permits), including associated maps (where applicable), evidenced by the following:

1.01(a) Valid documents proving ownership, lease, or customary use rights are available. If formal documents aren't available (as in many rural areas), the farm/group must show legitimate, uncontested rights recognised by local authorities or communities;

1.01(b) Land is not under dispute or taken from others without consent; and,

1.01(c) Expansion of production areas does not cause land conflicts.

1.02 The Biomass Producer shall implement policies to positively influence land tenure (e.g., usage rights, property rights and transfer rights) of local smallholders with whom they compete and/or cooperate. Policy reviews are carried out periodically.

Note - With this policy, the Biomass Producer helps address the frequent insecurity of smallholders' land tenure, which impacts their ability to invest in long-term agricultural practices and secure their livelihoods.

1.03 The Biomass producer complies with all obligations to pay taxes and royalties, with clear and sufficient evidence that all taxes and royalties related to forest management are paid timely and in full (e.g. statement from tax authorities, auditor's statement, payment receipts).

1.04 All applicable anti-corruption legislation is followed. If no anti-corruption legislation exists, the Biomass producer shall take alternative anti-corruption measures that are proportionate to the scale and intensity of the management activities and the associated risk of corruption.

1.04(a) Alternative anti-corruption measures raise awareness of applicable anti-corruption laws and regulations, as well as establish a system to monitor performance against them.

1.04(b) In countries with a Corruption Perceptions Index[1] lower than 50 and where anti-corruption laws and regulations do not exist or are generally considered ineffective:

- Staff whose roles involve a higher level of risk in ethical business practice (e.g., sales, harvesting, logistics, dealing with local officials) are trained on what to do in the event of an issue arising in their area.
- A transparent and effective system is in place for confidential reporting and addressing unethical business practices without fear of reprisal towards the reporting party.

1 According to the latest edition of the Corruption Perceptions Index as published by Transparency International.

Principle 2. The conservation value of the FMU shall be maintained and, where possible, enhanced

2.01 Sites with a High conservation value (HCV) and representative areas of forest types found in the FMU have been identified, are protected, and, where possible, enhanced.

2.01(a) Documentation demonstrating that the FMU follows a process for identification, protection and monitoring of sites with an HCV, the FMU involves affected and interested stakeholders proactively, and the forest management plan contains at least the following elements:

- Relevant regional scientific information, nationally and/or internationally recognised databases, environmental impact reports and information submitted by stakeholders;
- Evidence of involvement of the local inhabitants or indigenous people as a condition for establishing cultural values;
- Identification of threats and effective measures to protect and/or reinforce HCV sites;
- Programme for monitoring the status of HCV sites and the effectiveness of conservation measures taken.

2.01(b) The sites may contain one or more of the following values:

- Diversity of species: concentrations of biological diversity, including indigenous species and endangered species that are of importance on a global, regional or national level;
- Ecosystems and habitats: rare or endangered ecosystems, habitats or refugia;
- Ecosystem services: basic ecosystem services in critical situations, such as protection of important water sources and control of erosion of vulnerable soils and slopes;
- Ecosystems on landscape level: whole forest landscapes, other big whole ecosystems, or mosaics of ecosystems on landscape level that are of importance on a global, regional or national level as they contain viable populations of most of the natural species in natural patterns of spreading and numbers;
- Cultural values: sites or means of living that are of global or national cultural, archaeological or historical importance and/or of fundamental importance to the traditional culture/beliefs of the local population or indigenous people.

2.01(c) Local communities must be involved in the establishment and evaluation of strategies and actions to maintain and/or enhance HCV sites.

2.02 Threatened and endangered species and their habitats (e.g. nesting and feeding areas) that are present or are likely to be present within the FMU are identified based on "best available information" known to and observed by the FMU, as well as based on what could be learnt from neighbours and other local stakeholders. Measures have been taken to protect threatened and endangered plant and animal species and, if applicable, to increase their populations and enhance their habitats.

2.03 Any parts of the FMU that are scheduled for conversion from natural or semi-

natural forest to plantation or any other kind of non-forest land use have been clearly identified, documented and mapped. The conversion of forests within the FMU to other forms of land use, including wood plantations, is not permitted unless:

a. The conversion concerns a small area, i.e., the total converted area over the years is no greater than 5% of the area of the FMU on benchmark date 1 January 2008;
b. The conversion clearly has long-term advantages for nature conservation, and;
c. There is no damage or threat of damage to areas with an HCV.

2.04 In the case of wood plantations, there is a preference for native species, and a relevant percentage of the plantation shall be enabled to revert to natural forest at a later stage. Specifically:

a. The selection of species for planting is based on their overall suitability for the site and their appropriateness to the management objectives, which is demonstrated through documented trials;
b. Any choice to use exotic species and genotypes must be clearly justified and justifications shall be documented, and;
c. Representative samples of existing natural ecosystems, covering at least 5% of the FMU's area, are managed to retain or restore them to their natural state, based on the identification of key biological areas and consultation of stakeholders, local government and scientific authorities.

2.05 The exploitation of non-timber forest products (NTFP), including products from hunting and fishing, is regulated, monitored, and controlled, among other things, to safeguard biodiversity in forests. The FMU identifies and complies with all applicable legal requirements for the management and/or collection of NTFP, including the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).

Principle 3. The quality, health and vitality of the FMU shall be maintained and, where possible, enhanced.

3.01 The quality of the soil in the FMU must be maintained and, if necessary, improved, with special attention to coasts, riverbanks, erosion-sensitive areas, and sloping landscapes.

3.01(a) Specific measures have been taken to maintain and, if necessary, improve the soil within the FMU in terms of structure, fertility and biological activity. At a minimum, site preparation and harvesting methods within the FMU must have been designed to minimise soil compaction and maximise on-site nutrient retention.

3.01(b) All forestry operations within the FMU with potential negative environmental impacts on watershed protection (e.g., coasts, riverbanks) and on areas susceptible to erosion and slopes are accompanied by appropriate control systems and procedures. Control systems are based on national or regional best practices for erosion and sediment control, and best practices for minimization of forest damage during harvesting, road construction, and other mechanical disturbances under specific weather conditions (e.g., using all-weather harvesting instead of dry-weather harvesting).

3.02 The water balance and quality of both groundwater and surface water in the FMU

and downstream (outside the FMU) shall be at least maintained and, where necessary, improved.

3.02(a) Forest operations within the FMU should not negatively impact the local hydrology of natural water courses, water bodies, riparian zones, and their connections.

3.02(b) All forestry operations within the FMU with a potential negative environmental impact shall be accompanied by appropriate control systems and procedures regarding protection of water resources both within and downstream from the FMU, based on national and regional best practices.

3.03 Important ecological cycles present in the FMU are preserved, including carbon and nutrient cycles.

3.03(a) Site preparation and harvesting methods have been designed to minimise soil compaction and maximise on-site nutrient retention.

3.03(b) There is land-related evidence that specific measures have been taken to ensure that sensitive areas are sufficiently protected from erosion or fire.

3.04 Unnecessary damage to the ecosystem is prevented by applying the most suitable logging methods (e.g., Reduced Impact Logging (RIL)) and road-construction techniques tailored to local conditions.

3.04(a) There is land-related evidence that the most suitable logging and road construction methods and techniques are used in the FMU to prevent unnecessary damage to ecosystems. This may include the use of RIL techniques, adapted to the site-specific characteristics within the FMU.

3.04(b) Harvest planning and operations are carried out in accordance with national or subnational (e.g., State) best practices and guidelines.

3.05 When fires are used to achieve forest management objectives (e.g., regeneration of specific tree species), adequate control measures must be taken, including at least fire control and safety precautions.

3.06 Forest management measures are designed to prevent and control diseases and pests that threaten natural capital.

3.06(a) The Biomass producer has identified and documented the pests and diseases that are present, that potentially threaten the natural stock within the FMU.

3.06(b) Where applicable, the Biomass producer has procedures in place to prevent and control the identified pests and diseases (e.g., through Integrated Pest Management (IPM)).

3.07 The use of chemicals is permitted only to combat pests and diseases if ecological processes and the optimal deployment of sustainable alternatives prove insufficient. Pesticides classified as type 1a (Extremely hazardous) and 1b (Highly hazardous) by the World Health Organisation (WHO)[2] , and chlorinated hydrocarbons are not permitted for use or storage by the Biomass producer. Where chemicals are used, the Biomass producer shall ensure that at least:

- An up-to-date list of the chemicals used in the FMU, including their specifications and quantities, is maintained.
- All staff and contractors involved in the use of pesticides have received training in handling, application and storage procedures.
- Safe transport, storage, handling, application and emergency procedures

[2] WHO Recommended Classification of Pesticides by Hazard, 2019 (or its future replacement by WHO)

have been implemented.

3.08 The accumulation of inorganic waste and litter is prevented, and such waste and litter are collected, stored in the approved areas and disposed of responsibly. Regarding inorganic waste and litter, the Biomass producer ensures that at least:

- A documented system is in place for collecting and safely storing inorganic waste and litter, and for transporting them for disposal.
- No land-related evidence shows that the FMU's waste products are disposed of other than at the listed sites, or outside environmentally appropriate and safe methods, or in violation of applicable legal requirements.
- All staff and contractors involved in the use of chemicals, fuel, and oil have received training and materials for controlling and cleaning up accidental spills of these substances.

Principle 4. The production capacity of wood products and other relevant non-timber forest products (NTFPs) shall be maintained to safeguard the future of the forests

4.01 The production capacity of all forest types represented in the FMU is maintained and monitored by the Biomass producer. This includes at least:

- A clear methodology to determine the Annual Allowable Cut (AAC) or harvest per forest type.
- The allowable harvest level is based on conservative, well-documented, and most current estimates of growth and yield to avoid jeopardising the forest's productive potential in the medium to long term.
- Clear, accurate and up-to-date records of harvest volumes for all commercial timber species, and of the commercial harvest of any NTFP.

4.02 The FMU is sufficiently protected against all forms of illegal exploitation of timber and NTFP, illegal settlement establishment, illegal land use, illegally initiated fires, and other illegal activities. The boundaries of the FMU have been clearly marked and mapped, and concrete measures are taken to prevent illegal harvesting, including products of hunting and fishing, settlement, illegal land-use, illegal fires and any other unauthorised activities within the FMU. Appropriate measures are being taken when illegal activities are detected.

Principle 5. Wood originating from forests and plantations in which genetically modified trees are utilised shall not be used

5.01 Genetically modified trees shall not be used.

Principle 6. Sustainable forest management shall be achieved through a management system

6.01 The forest management system is designed to achieve the objectives of a forest management plan and covers the inventory, analysis, planning, implementation, monitoring, evaluation and adjustment cycle.

6.01(a) Depending on the scale and intensity of the forest management, the FMU has a management plan and/or supporting documents in place. This forest management plan shall include the long-term management objectives and a

description of the inventory, planning, monitoring and evaluation cycle. An Environmental Impact Assessment (EIA) is part of the planning.

6.01(b) When national or sub-national legislation, as well as monitoring and enforcement systems, do not cover the following topics, the forest management system shall at least ensure:

- the legality of harvesting operations, and;
- forest regeneration of harvested areas, and;
- that harvesting does not take place in areas designated by international or national law or by the relevant competent authority for nature protection purposes, including in wetlands, grassland, heathland and peatlands, unless land-related evidence is provided that the harvesting of that raw material does not interfere with those nature protection purposes.
- that harvesting:
  - Maintains soil quality and biodiversity, in line with sustainable forest management principles;
  - Avoids harvesting of stumps and roots, degradation or conversion of primary and old growth forests (as defined in the country where the forest is located) into plantation forests, and harvesting on vulnerable soils
  - Complies with maximum thresholds (as defined in the country where the forest is located) for large clear-cuts and for deadwood extraction; and,
  - Use logging systems that minimise any adverse impact on soil quality, including soil compaction, and on biodiversity features and habitats;
- that harvesting maintains or improves the long-term production capacity of the forest.

6.02 A forest management plan is drawn up that at least includes:

- a description of the current condition of the forest management unit, including maps with areas that are protected (e.g., based on cultural or ecological values);
- the budget planning for the implementation of the forest management plan;
- the long-term management objectives for the FMU, including economic and social functions, as well as ecological aspects (species, ecosystems, functions), based on at least the following information:
  - a description of the inventory and analysis, planning, implementation, monitoring, evaluation and review cycle;
  - a description of the current state of the FMU;
  - the average Annual Allowable Cut (AAC) per forest type and, if applicable, the annual allowable harvest of NTFPs based on reliable and current data;
  - the average annual harvest permitted per forest type and, if applicable, the annual exploitation of NTFPs permissible, calculated based on reliable and up-to-date data.

6.03 Appropriate maps of the forest resource base, indicating protected areas and other essential elements for forest management, planned management and land ownership are in place. Before the commencement of harvesting and road construction, clear and accessible maps shall be made available that describe the forest resource base and the boundaries of the FMU, including sites with special

ecological, archaeological, or cultural values, sites reserved for wildlife, and sites where harvesting takes place.

6.04 The implementation of the forest management plan is monitored periodically, and its ecological effects are evaluated using reliable data. Clearly documented, consistent procedures for collecting monitoring data are replicable over time, allowing comparison and assessment of change.
The frequency, intensity, and expense of the monitoring activities are defined and appropriate to the scale, intensity, and risks of the forest operations, as well as to the relative complexity and fragility of the resources under management.
Monitoring shall at least include the following information to facilitate evaluation:

- data collected during surveys before and after harvesting, and the generic inventories to identify and describe key changes in forest flora over time;
- data on the presence of key fauna species within the FMU, sufficiently so to allow identification and description of significant changes in the population over time;
- data aimed at demonstrating the conservation of high protection values and representative sites of forest types within the FMU.

6.05 A professional office and field staff implement forest management. The staff's expertise and knowledge are maintained through an adequate and regular training programme.

6.05(a) Competence/training requirements for all employees are identified, and (periodic) training is provided when necessary, to ensure employees are sufficiently qualified and trained to perform their tasks.

6.05(b) Appropriate employee qualifications are available.

6.05(c) Safeguards and verification procedures are in place to ensure that contractors are qualified for the activities they conduct within the FMU.

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

7.01 Land-related evidence shall be provided that raw materials are compliant with this standard

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

- Primary forest and other wooded land, namely natural forest and other wooded land containing native tree species without a clearly visible indication of human activity and where the ecological processes are not significantly disturbed.
- Old growth forest, as defined in the country where the forest is located.
- Highly biodiverse forest and other wooded land, which is species-rich and not degraded, and has been 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 When raw material originates from wood plantations converted from natural forests, it shall be demonstrated whether this conversion occurred before 31 December 1997. When raw material originates from wood plantations where conversion of natural forests has taken place after 31 December 1997, it shall be

demonstrated that:

a. Either the forest manager who harvested the biomass was not directly nor indirectly responsible for the conversion;
b. Or the conversion took place in natural forests that, at the time of conversion, were in a degraded state or of which the soil had degraded verifiably with land-related evidence, and where the conversion was carried out in an ecologically and economically justifiable manner.

7.04 The raw material is not produced on a highly biodiverse grassland that had one of the following statuses after 1 January 2008, whether or not the land still has that status:

- 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.
- Non-natural grassland, namely grassland that would cease to be grassland in the absence of human intervention and which is species-rich and not degraded, unless land-related evidence is provided that the harvesting of the raw materials is necessary to preserve its grassland status.

7.05 The raw material is not produced on heathland or land that had such status after 1 January 2008. Heathlands are land with poor acid soil, dominated by ling (Calluna) or heaths (Erica).

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

8.01 Biomass is not sourced from lands that had one of the following statuses on 1 January 2008 and that no longer have that status:

- Wetlands, namely land that is covered with or saturated by water permanently or for a significant part of the year. Land-related evidence for verification should reflect seasonal changes.
- Continuously forested areas, namely land spanning more than one hectare with trees higher than five meters and with a canopy cover of more than 30%, or trees able to reach those thresholds in situ. This definition includes areas defined as such under the respective national legal definitions, but excludes land predominantly used for agriculture.
- Forested areas with 10-30% canopy cover refer to land spanning more than one hectare with trees taller than 5 meters and canopy cover between 10% and 30%, or trees able to reach these thresholds in situ.

8.02 The provisions of 8.01 shall not apply if, at the time the raw material was obtained, the land had the same status as it had on 1 January 2008.

8.03 Raw material shall not be obtained from land that was peatland, namely land consisting largely 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 does involve drainage of previously undrained soil.

Principle 9. The use of biomass does not result in long-term carbon debt

9.01 The FMU is managed to retain or increase carbon stocks in the medium- to long-

term. The Biomass producer shall provide clear and sufficient land-related evidence that the harvesting rates and methods ensure that carbon stocks, in terms of tree stands or other carbon proxies, are maintained or increased in the medium or long term.

9.02 Biomass is not sourced from stumps unless these stumps had to be removed/harvested for reasons other than wood or biomass production.

9.02(a) The Biomass producer shall:

- Register all wood or biomass received from stumps;
- Demonstrate that the risk of accepting or accidentally accepting unregistered wood or biomass from trunks received from its suppliers can be considered low.

9.02(b) In the event stumps are removed and used for biomass, the Biomass producer shall demonstrate that these stumps had to be removed from the site for other reasons than wood or biomass production (e.g. road construction).

9.03 On a yearly average, less than half the volume of the annual round wood harvest from forests is processed as biomass for energy production.

9.03(a) The Biomass producer shall have verifiable and relevant information available showing that less than 50% of the annual harvested round wood (excluding thinning) in its sourcing region is used for the production of biomass. Relevant information includes any government or NGO report, local economic statistics, or similar information reflecting the allocation of biomass from the region.

9.03(b) In the absence of regional biomass allocation information as indicated in 9.03(a), there shall be clear and sufficient land-related evidence (e.g. total harvested and supplied wood and volumes supplied to pellet mills) that less than 50% of annual harvested round wood (except thinning wood) is converted to biomass for energy production.

9.03(c) Round wood from production forests with a rotation period of 40 years or less is exempt from Principle 9.03.

Principle 10. Basic labour rights of forest workers are safeguarded

10.01 All Biomass producers' employees have the freedom of association and the right to collective bargaining, which are respected for all forest workers.

10.02 Wages paid shall meet or exceed minimum forest industry standards or other recognised wage agreements.

10.03 Principles and rights at work as defined in the ILO Declaration on Fundamental Principles and Rights at Work (1998) are maintained and complied with.

Principle 11. The health and safety of the forest workers shall be protected

11.01 The health and safety of forest workers shall be protected through risk identification, safety programs, risk mitigation, training, and the use of personal protective equipment.

11.02 The recommendations from the ILO revised Code of Practice on Safety and Health in Forestry Work (adopted May 2024) shall be followed.