

## Green Gold Label Program

### Introduction & scope

GGLS5 is derived from the SDE+ sustainability requirements as described in the Staatscourant nr. 10750 26 February 2016 (Regeling van de Minister van Economische Zaken van 26 februari, nr. WJZ / 10750 26) and the sustainability criteria from the Renewable Energy Directive (2009/28/EC). GGLS5 has not been developed to replace existing forest management standards or schemes. However this standard can be applied if non-endorsed and non-certified materials are sourced under the scope of a GGL participants certificate in order to verify compliance against the criteria for responsibly managed forests.

GGLS5 also contains additional criteria applicable to wood (fiber) materials sourced with claims from GGL endorsed forest certification schemes to ensure full SDE+ compliance. This standard also includes the optional area risk based approach (RBA) for small forest management units (< 500 ha) as described in the SDE+ sustainability requirements. Requirements for verification against this standard are described in Principle 4 of the GGL chain of custody standard (GGLS1).

### Glossary

See GGL Glossary

### Principles

#### Criteria for sustainable forest management

Principle 1. Relevant international, national, and regional/local legislation and regulations shall be followed.

Criteria:

- 1.1. The forest manager holds the legal right to use the forest.
- 1.2. The forest manager complies with all obligations to pay taxes and royalties.
- 1.3. All applicable anti-corruption legislation is followed. If no anti-corruption legislation exists, the forest manager shall take alternative anti-corruption measures proportionate to the scale and intensity of the management activities and the risk of corruption.

Principle 2. Biodiversity shall be maintained and where possible enhanced.

Criteria:

- 2.1. Sites with a high conservation value – (HCV) or equivalent – and representative areas of forest types that are found in the forest management unit have been identified and are protected, and where possible enhanced.
- 2.2. Measures have been taken to protect endangered plant and animal species and, if applicable, to increase the populations and enhance the habitat of these species.
- 2.3. The conversion of forests within the forest management unit to other forms of land use, including wood plantations, is not permitted unless:- it concerns a small area (the total converted area over the years is no greater than 5% of the area of the forest management unit on benchmark date 1 January 2008); and
  - it clearly leads to long-term advantages for nature conservation; and
  - there is no damage or threat of damage to areas with a high conservation value.
- 2.4. In case of wood plantations, there is a preference for native species, and a relevant percentage ( $\geq 5\%$ ) of the plantation shall be able to revert to natural forest.
- 2.5. The exploitation of non-timber forest products, including products from hunting and fishing, is regulated, monitored and controlled among others to safeguard the maintenance of the biodiversity in the forests.

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

- Criteria
- 3.1. The quality of the soil in the forest management unit shall be maintained and if necessary improved, with special attention to coasts, river banks, erosion sensitive areas and sloping landscapes.
  - 3.2. The water balance and quality of both groundwater and surface water in the forest management unit and downstream (outside the forest management unit) shall be at least maintained and where necessary improved.
  - 3.3. Important ecological cycles present in the forest management unit are preserved, including carbon and nutrient cycles.
  - 3.4. Unnecessary damage to the ecosystem is prevented by applying the most suitable logging (Reduced Impact Logging) and road construction methods and techniques for the local conditions.
  - 3.5. If fires are used to achieve the forest management objectives (such as regeneration of specific tree species), then adequate control measures have been taken.
  - 3.6. Forest management measures are designed to prevent and control diseases and plagues, where these form a threat to natural capital.
  - 3.7. The use of chemicals is only permitted if the ecological processes and the optimal deployment of sustainable alternatives prove insufficient. Pesticides classified as type 1A and 1B by the World Health Organisation and chlorinated hydrocarbons are not permitted.
  - 3.8. The accumulation of inorganic waste and litter is prevented and such waste and litter is collected, stored in the approved areas and disposed of responsibly.

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

- Criteria:
- 4.1. The production capacity of all forest types represented in the forest management unit is maintained.
  - 4.2. The forest management unit is sufficiently protected against all forms of illegal exploitation (timber and non-timber forest products including hunting and fishing), illegal establishment of settlements, illegal land use, illegally initiated fires, and other illegal activities.

Principle 5. The management of the forest shall contribute to the local economy and create employment opportunities.

- Criteria
- 5.1. The management of the forest and local processing of wood and non-timber forest products creates a reasonable amount of employment opportunities for the local population, including indigenous peoples.
  - 5.2. The forest manager shall implement additional activities, helping to develop the local physical infrastructure, social services, and programmes for the local population, including indigenous peoples. All such contributions are made in consultation with the local population.

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

- Criteria:
- 6.1. Forest management system is designed to achieve the objectives of a forest management plan and includes a cycle of inventory and analysis, planning, implementation, monitoring, evaluation and adjustment.
  - 6.2. A forest management plan is drawn up that at least includes:
    - a description of the current condition of the forest management unit;
    - long-term goals, including economic, social and ecological functions;
    - the average annual allowable cut per forest type and, if applicable, the annual allowable harvest of non-timber forest products based on reliable and current data;
    - the budget for the implementation of the forest management plan.
  - 6.3. Essential elements for the management of the forest are indicated on maps.
  - 6.4. The implementation of the forest management (plan) and the ecological and economic effects thereof are periodically monitored on the basis of reliable data.

6.5. Forest management is implemented by professional office and field staff. The staffs' expertise and knowledge is maintained by means of an adequate and regular training programme.

Principle 7      Production of raw biomass shall not lead to the destruction of carbon sinks.

Criteria:      7.1. Biomass is not sourced from permanently drained land that was classified as peat land on or after January 1 2008, unless it can be demonstrated that the production and harvesting of the biomass does not result in water depletion of a previously undrained soil.  
7.2. Biomass is not sourced from land that was converted from a wetland to an alternative, dryer ecosystem after 1 January 2008.  
7.3. Biomass is not sourced from production forests (including wood plantations) that were created by means of conversion of natural or semi-natural forest after 31 December 1997.

Principle 8      The use of biomass may not result in a long-term carbon debt.

Criteria      8.1. The Forest Management unit where the wood is sourced shall be managed with the aim of retaining or increasing carbon stocks in the medium or long term.  
8.2. Biomass is not sourced from stumps unless these stumps had to be removed/harvested for other reasons than wood or biomass production. Evidence must be provided that there is a low risk of stumps being processed.  
8.3. On average less than half of the volume of annual round wood harvest from forests, other than those originating from thinning, is processed as biomass for energy generation.

Principle 9.      Biomass production may not result in Indirect Land Use Change (ILUC)

*Note: Principle 9 is only applicable for biomass sourced from FMU>500 ha (category 1 biomass)*

Criteria      9.1. Biomass sourced from new bioenergy plantation systems that were planted after January 1, 2008 shall have a demonstrably low ILUC risk.

*In the GLOBIOM study<sup>1</sup> (2015) commissioned by the European Commission, it is demonstrated that in case of new biomass energy production systems (with a short rotation time):*

- *Land conversion due to new energy plantations does not lead to displacement of food production (because in particular it takes place on abandoned land and other natural land)*
- *Overall no CO<sub>2</sub> emissions take place, but CO<sub>2</sub> sequestration (i.e. negative ILUC emissions due to large carbon storage in biomass)*

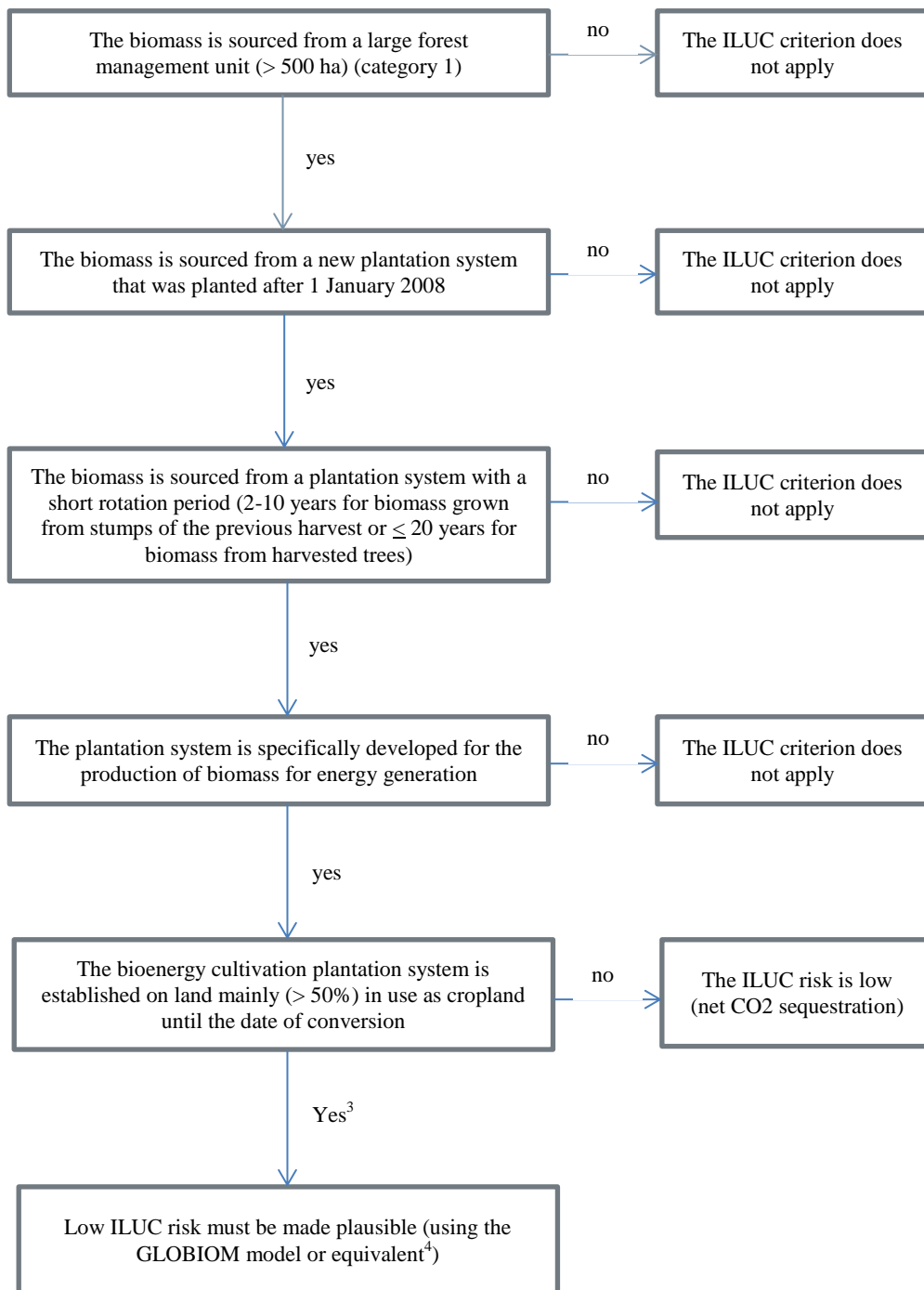
*Even in case new biomass energy production systems are (partly) established on land used as cropland until the date of conversion, overall no CO<sub>2</sub> emissions take place (comparable with the scenario of perennial crops in the GLOBIOM study). The ILUC impact because of the use of (partly) agricultural land, leads to a displacement effect of food / feed production. However, this (emission) effect is more than offset by sequestration carbon in biomass and soil through the energy wood production.*

*The GLOBIOM study is taken as a basis for assessing ILUC risk of biomass as elaborated in the decision tree below.*

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<sup>1</sup> [https://ec.europa.eu/energy/sites/ener/files/documents/Final%20Report\\_GLOBIOM\\_publication.pdf](https://ec.europa.eu/energy/sites/ener/files/documents/Final%20Report_GLOBIOM_publication.pdf)

**Decision tree ILUC criterion**



<sup>3</sup> There is a risk that a possible increase in CO<sub>2</sub>-emissions cannot be fully compensated by carbon sequestration in plantations (net ILUC emission), however this risk is expected to be low.

<sup>4</sup> The GLOBIOM-model builds on the LIBB-method mentioned in the guidance with the criterion.

Principle 10. Forest managed by a group or regional association shall be sufficiently safeguarded for sustainable forest management.

Criteria

10.1. A group or regional association is managed and supervised by an independent legal entity (the group manager).

10.2. A group or regional association shall comply with the requirements for sustainable forest management (principles: 1 – 4 & 6). In addition, every member of a group or regional association shall comply with the requirements of this standard, insofar as they are applicable to the activities of the member in question.

10.3. The group manager shall carry out internal audits annually at each group member.

10.4. The internal audit reports shall cover all applicable requirements from the GGL standards.

10.5. The group manager shall have a documented quality management system ensuring that all relevant requirements are met.

10.6. The group manager shall have a contract or consent form in which the group member acknowledges the GGL requirements and agrees to the general obligations and responsibilities for participation in the group, including solving all identified non-conformities by both the certifying body and the group manager.

10.7. The group manager shall suspend the group member and inform the Certification Body if not all requirements are met within the given timeframe.

10.8. The group manager shall provide to the group member all necessary documents in meeting the GGL requirements.

Principle 11. Basic labour rights of forest workers are safeguarded.

Criteria

11.1. Freedom of Association and the right to collective bargaining are respected for the forest workers.

11.2. The biomass is not produced using any compulsory labour.

11.3. The biomass is not produced using any child labour.

11.4. The biomass is not produced using labour which is discriminated against in respect of employment or occupation.

Principle 12. Health and safety of the forest workers shall be protected

Criteria

12.1. The health and safety of forest workers shall be protected through risk identification, safety programs mitigating risks, training and personal protection equipment.

Principle 13. Wood originating from forests and plantations in which genetically modified trees are utilised shall not be used.

Criteria

13.1. Genetically modified trees are not used.

Principle 14: Soil quality shall be maintained and where possible improved.

*Note: Principle 14 is only applicable for category 3 and 4 biomass (see GGLS1 Criterion 5.6)*

Criteria

14.1. Best practices are applied for the maintenance or improvement of the soil and soil quality in relation to production or the management objectives as these have been included in a management plan.

14.2. The production and conversion of biomass based on agricultural residual products and residual products from areas of natural habitat are founded on best practices for the conservation or improvement of the soil and soil quality. The use of residual products should not conflict with other local functions related to soil conservation.

### Appendix A. Area risk based approach

This Annex describes the risk-based approach to sustainable forest management (SFM) at a regional level.

As noted in GGLS1 the sustainability of woody biomass from areas smaller than 500 hectares may until 2022 be temporarily determined by a risk assessment on a regional level. With this procedure the risks of non-compliance with the SFM criteria of GGLS5 is determined at a regional level, and shall be mitigated to 'low risk' for all forest management criteria of GGLS5.

This appendix describes the risk-based approach methodology. How risk assessment on area level shall be assessed and mitigating measures shall be evaluated. The participant shall provide all documents and information necessary for evaluation by the Certification Body in order to determine that all requirements in this annex are met.

#### **General**

- A1) The raw materials may only be counted as GGL certified raw materials under this exemption rule until 2022 and only after the risk assessment, on the area where the material a small ( $\leq 500$  ha) forest is where the raw material is sourced, was approved off during a GGL audit.
- A2) The participant determines the area or areas where the FMU's with a forest area size of  $\leq 500$  ha are located. The borders shall be clearly mapped.
- A3) The participant shall keep registrations of the origin of the raw material / biomass in order to ensure that raw material / biomass covered by the RBA originates from FMU  $<500$  ha.
- A4) When applying the RBA for small FMUs, the participant shall keep an administration in which the FMUs are registered from which biomass is sourced and showing that they each cover less than 500 ha in size.
- A5) The participant shall demonstrate that its supply base is fully covered by the RBA and that the RBA was carried out in a manner as indicated in this annex.
- A6) The RBA shall cover all principles and criteria from this standard (principles 1 – 14).
- A7) The following steps shall be covered in the RBA:
- a. Determination of the region;
  - b. Gathering of information in relation to the requirements in this standard;
  - c. Risk assessment;
  - d. Establishment and regular monitoring of measures to prevent the sourcing of raw materials / biomass with specified risk;
  - e. Regular monitoring of the risk assessment and mitigation measures.

#### **Determination of regions**

A8) The participant shall identify one or more homogeneous areas (regions) to source raw materials / biomass from. Areas can be determined both on a geographical scale (e.g. states, counties, province) and on a functional scale (forest type, ownership, scope of management, type/quality of forest). The requirements from this standard play a key role in determining the homogeneity of a region.

A9) The boundaries of a region shall be clearly identified on maps and in other relevant documentation. Boundaries may be described as a reference to the existing administrative or environmental divisions whilst functional scale can refer to characteristics that determine the functional scale, e.g. plantations vs. natural forests.

#### **Gathering of information**

## **GGLS5 - Forest Management Criteria**

A10) The participant shall gather information on the identified areas that are relevant for a risk analysis with respect to the requirements from this standard.

A11) The gathering of relevant documentation such as laws and regulations, government statistics, NGO reports, expert studies and maps is part of the information gathering step. The participant assesses the relevance and reliability of the information using objective criteria such as date of publication, reliability and independence of the source (academic institutions, international agencies, NGOs and government bodies), methodology etc.

### **Consultation of stakeholders and experts**

A12) The participant shall consult relevant stakeholders as part of the RBA.

A13) As part of the information gathering exercise, the participant shall document and implement effective procedures for consultation on the principles and criteria from this standard with stakeholders in specific regions. The procedures shall at least include:

- a) Responsibilities for stakeholder consultation;
- b) Description of the various stages in the consultation process;
- c) Identification of the stakeholders to be involved;
- d) A proactive approach of stakeholders, who must be given sufficient time to respond (at least one month);
- e) Consultation of qualified and independent experts where specialised knowledge is required.

A14) The participant shall keep the reports and the contributions and comments from stakeholders and experts, including reactions and measures taken in response.

A15) The biomass producer shall make the results of the risk-based method (risk assessment and mitigating measures taken) publicly available as part of the stakeholder consultation.

### **Risk assessment**

#### **Risk assessment methods**

A16) The participant shall conduct a risk analysis for each identified region (criteria A7, step a), based on information gathered (criteria A7, step b).

A17) The risk of non-compliance shall be assessed for each principle and criteria from this standard, using adequate risk analysis methods. When requirements from this standard are not suitable for a risk assessment at the regional level (e.g. indicators can only be used at an FMU level), other means of verification are allowed, provided that this is properly substantiated by the participant for the assessment by the Certification Body.

A18) Using a list of the qualifications of the persons involved, the participant shall demonstrate that the persons performing the risk analyses are qualified (through training and experience) to perform risk analyses tailored to the complexity of the processes and information being assessed, and the country or region under assessment. A peer review by experts can provide additional assurance as to the quality of the risk assessment.

#### **Assessment of risks**

A19) The risk of non-compliance for each criterion from this standard is expressed as 'specified risk' or 'low risk', based on the analysed information and application of the requirements set out in this protocol. For each criteria, the rationale for risk designation shall be provided in relation to the information used.

A20) A 'low risk' is identified when there are clear indications that the chance of non-compliance with the relevant sustainability criteria in combination with the consequences is small and the risk assessment has yielded no information that leads to a 'specified risk' designation.

A21) A 'specified risk' is identified when there is not enough information for the risk assessment to establish whether the risk is low or when the mitigating measures are not sufficiently effective in reducing the chance that identified risks materialise or in reducing the consequences of such risks. In case of doubts a precautionary approach shall be applied.

### **Risk mitigation and measures**

A22) For a region with criteria designated as 'specified risk', mitigating measures must be defined in order to reduce the risk level to 'low risk'.

A23) Mitigation measures can comprise additional information gathering (e.g. through on-site verification by the participant), reduction of the region size by excluding risk areas, or other appropriate measures (involvement of experts).

A24) In the event that the risk of non-compliance for one or more criteria from this standard remains a 'specified risk', then raw material / biomass from that region cannot be classified as eligible input under the GGL standards.

### **Regular monitoring of the risk assessment**

A25) The participant shall conduct a review of the risk assessment and the mitigating measures at least once per year and in the event of relevant developments in the region sustainable biomass is sourced from and/or relevant changes in the information gathered for a particular region or criterion.