

COMMISSION IMPLEMENTING REGULATION (EU) 2022/2448**of 13 December 2022****on establishing operational guidance on the evidence for demonstrating compliance with the sustainability criteria for forest biomass laid down in Article 29 of Directive (EU) 2018/2001 of the European Parliament and of the Council****(Text with EEA relevance)**

THE EUROPEAN COMMISSION,

Having regard to the Treaty on the Functioning of the European Union,

Having regard to Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources ⁽¹⁾, and in particular Article 29(8) thereof,

Whereas:

- (1) Directive (EU) 2018/2001 lays down new sustainability criteria for forest biomass used for the production of energy, in order for the latter to be accounted against European targets and national contributions, be part of renewable energy obligations stemming from Articles 23 and 25, and to be eligible for public support. Moreover, Directive (EU) 2018/2001 requires Member States to consider the available sustainable supply of biomass and take due account of the principles of the circular economy and of the waste hierarchy established in Directive 2008/98/EC of the European Parliament and of the Council ⁽²⁾ when developing support schemes for renewable energy, in order to avoid unnecessary distortions of raw materials markets.
- (2) In this context, forest biomass used for the production of energy is to be considered sustainable if it fulfils the sustainability criteria laid down in Article 29(6) and (7) of Directive (EU) 2018/2001, which deal respectively with forest harvesting and emissions from land use, land-use change and forestry (LULUCF).
- (3) To ensure coherence between the objectives of Directive (EU) 2018/2001 and the Union's environmental legislation and a robust and harmonised implementation of the new sustainability criteria for forest biomass by Member States and economic operators, Directive (EU) 2018/2001 requires the Commission to adopt implementing acts establishing operational guidance on the evidence for demonstrating compliance with these criteria.
- (4) To minimise the risk of using forest biomass that is not compliant with the sustainable harvesting criteria, economic operators should carry out a risk-based assessment, building on existing sustainable forest management legislation, including monitoring and enforcement systems, in force in the country of origin of the forest biomass. To that end, the harvested forest biomass should be subject to national and sub-national laws and regulations that meet the harvesting criteria laid down in point (a) of Article 29(6) of Directive (EU) 2018/2001. Economic operators should also assess whether there are monitoring and enforcement systems, and whether there is no evidence of significant lack of enforcement of the relevant national or sub-national laws. To that end, economic operators should use legal assessments and reports prepared by the European Commission ⁽³⁾, international or national governmental organisations, including information provided by non-governmental and scientific forest expert organisations. The risk-based assessment should also take account of any relevant on-going infringement procedures launched by the Commission, which are reflected in the publicly available infringements database of the Commission, and consider any relevant infringement rulings of the Court of Justice of the European Union as evidence of lack of enforcement.

⁽¹⁾ OJ L 328, 21.12.2018, p. 82.

⁽²⁾ Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives (OJ L 312, 22.11.2008, p. 3).

⁽³⁾ Such as the project 'REDIIBIO. Technical Assistance for the preparation of the guidance for the implementation of the new bioenergy sustainability criteria set out in the revised Renewable Energy Directive, 2021'.

- (5) Where there is no evidence of compliance at the national level with one or more of the harvesting criteria laid down in point (a) of Article 29(6) of Directive (EU) 2018/2001, forest biomass should be considered high-risk. In such cases, economic operators should provide more detailed evidence that the harvesting criteria set out in point (b) of Article 29(6) of Directive (EU) 2018/2001 are complied with, through management systems at the sourcing area level. In that respect, it is necessary to establish in more detail the evidence of sustainability which should be provided by economic operators through management systems at forest sourcing area level, when compared to that required under the national and sub-national compliance assessment. That will ensure that the harvesting criteria are effectively met, in particular the criteria on forest regeneration, conservation of protected areas, minimisation of harvesting impacts on soil quality and biodiversity, and on the maintenance or improvement of the forest's long-term production capacity.
- (6) To ensure that biogenic emissions and removals associated with forest biomass harvesting are correctly accounted for, it is necessary that the forest biomass meets the LULUCF criteria at national level. In particular, the country or regional economic integration organisation from which the biomass is sourced should be a party to the Paris Agreement. In addition, the relevant country, or regional economic integration organisation, should have submitted a National Determined Contribution (NDC), in the context of the Paris Agreement, covering emissions and removals from land use, agriculture and forestry, which ensures that changes in carbon stock associated with biomass harvest are accounted towards the country or regional economic integration organisation's commitment to reduce or limit greenhouse gas emissions, as specified in the NDC. Alternatively, it should have national or sub-national legislation, applicable to the area of harvest, to conserve and enhance carbon stocks and sinks. In addition, evidence should be provided that the reported LULUCF-sector emissions do not exceed removals and that forest carbon sinks are maintained or strengthened over a relevant reference period.
- (7) Where compliance with the LULUCF criteria laid down in point (a) of Article 29(7) of Directive (EU) 2018/2001 cannot be demonstrated, it is necessary that economic operators provide additional evidence of the existence of management systems at the sourcing area level, in order to ensure that both forest carbon stocks and sinks levels are maintained, or strengthened, in the long term. Such systems should include, at least, information from forward-looking planning and periodic monitoring of the development of the forest carbon stocks and sinks at the forest sourcing area level.
- (8) In order to ensure a robust verification of the new sustainability criteria on forest biomass, the information provided by economic operators should be transparent, accurate, reliable and protected against fraud, and economic operators should be able to rely on reliable certification rules. Those rules should take into account the role of voluntary national or international certification schemes, recognised by the Commission, pursuant to paragraph 4 of Article 30 of Directive (EU) 2018/2001.
- (9) In order to minimise administrative burden, Member States should facilitate the work of economic operators by making available data, including spatial data and inventories, for planning and monitoring purposes.
- (10) The measures provided for in this Regulation are in accordance with the opinion of the Committee on the Sustainability of Biofuels, Bioliquids and Biomass fuels,

HAS ADOPTED THIS REGULATION:

Article 1

Subject matter and scope

This Regulation lays down operational guidance to be applied by Member States to ensure a robust and harmonised implementation of the risk-based sustainability criteria for the production of biofuels, bioliquids and biomass fuels from forest biomass set out in Article 29(6) and (7) of Directive (EU) 2018/2001.

*Article 2***Definitions**

For the purposes of this Regulation, the following definitions apply:

- ‘harvesting criteria at national or sub-national level’ means the criteria laid down in point (a) of Article 29(6) of Directive (EU) 2018/2001;
- ‘harvesting criteria at sourcing area level’ means the criteria laid down in point (b) of Article 29(6) of Directive (EU) 2018/2001;
- ‘country of harvest’ means the country or territory where the forest biomass raw material was harvested;
- ‘planted forest’ means forest predominantly composed of trees established through planting and/or deliberate seeding provided that the planted or seeded trees are expected to constitute more than fifty percent of the growing stock at maturity; it includes coppice from trees that were originally planted or seeded;
- ‘plantation forest’ means a planted forest that is intensively managed and meets, at planting and stand maturity, all the following criteria: one or two species, even age class, and regular spacing. It includes short rotation plantations for wood, fibre and energy, and excludes forests planted for protection or ecosystem restoration, as well as forests established through planting or seeding which at stand maturity resemble or will resemble naturally regenerating forests;
- ‘stumps and roots’ mean parts of the whole tree volume, excluding the volume of the above-stump woody biomass, considering the height of the stump as that at which the tree would be cut under normal felling practices in the relevant country or region;
- ‘deadwood’ means all non-living woody biomass not contained in the litter, either standing, lying on the ground, or in the soil, including wood lying on the surface, coarse debris, dead roots, and stumps larger than or equal to 10 cm in diameter or any other diameter used by the country concerned;
- ‘long-term production capacity’ means the health of the forest and its ability to continuously and sustainably deliver goods, such as wood of various quality grades, and non-wood-forest products and ecosystem services, including air and water purification, maintenance of wildlife habitat, recreation or cultural capital, over a long period of time, and where applicable, bridging several successive forestry rotations;
- ‘management system’ means information collected on the forest area at the sourcing area level, including in the form of text, maps, tables and graphs, and strategies or management activities planned and implemented to reach the forest resource management or development goals;
- ‘natural disturbances’ has the meaning attributed to it by point (9) of Article 3(1) of Regulation (EU) 2018/841 of the European Parliament and of the Council ⁽⁴⁾;
- ‘net annual increment’ means the annual growth in volume of the stock of living trees available minus the average natural mortality of that stock;
- ‘LULUCF criteria at national level’ means the criteria laid down in point (a) of Article 29(7) of Directive (EU) 2018/2001;
- ‘LULUCF criteria at sourcing area level’ means the criteria laid down in point (b) of Article 29(7) of Directive (EU) 2018/2001;
- ‘carbon stock’ has the meaning attributed to it by point (4) of Article 3(1) of Regulation (EU) 2018/841;
- ‘carbon sink’ has the meaning attributed to it by point (1) of Article 3(1) of Regulation (EU) 2018/841;

⁽⁴⁾ Regulation (EU) 2018/841 of the European Parliament and of the Council of 30 May 2018 on the inclusion of greenhouse gas emissions and removals from land use, land use change and forestry in the 2030 climate and energy framework, and amending Regulation (EU) No 525/2013 and Decision No 529/2013/EU (OJ L 156, 19.6.2018, p. 1).

- ‘first gathering point’ has the meaning attributed to it by Article 2(12) of the Commission Implementing Regulation (EU) 2022/996 ⁽⁵⁾;
- ‘first party auditing’ means a self-declaration by an economic operator supplying to the first gathering point;
- ‘second party auditing’ means the auditing of a supplier by the economic operator managing the first gathering point;
- ‘third party auditing’ means the auditing of an economic operator carried out by a third party that is independent from the organisation subject to the auditing;
- ‘economic operator’ has the meaning attributed to it by Article 2(11) of the Implementing Regulation (EU) 2022/996.

Article 3

Assessment of compliance with the harvesting criteria at national or sub-national level

1. Member States shall require economic operators to provide audited information establishing compliance with the harvesting criteria at national or sub-national level. To that end, economic operators shall carry out a risk-based assessment which provides accurate, up-to-date and verifiable evidence of all the following elements:

- (a) the country of harvest, and, where applicable, the sub-national region where the forest biomass was harvested; and
- (b) that the national or sub-national law applicable to the area of harvest ensures:
 - (i) the legality of harvesting operations, which shall be proven by providing evidence of compliance of harvesting with the applicable legislation in the country of harvest, as set out in point (h) of Article 2 of Regulation (EU) No 995/2010 of the European Parliament and of the Council ⁽⁶⁾;
 - (ii) forest regeneration, which may be proven by providing evidence that the applicable laws require natural or artificial regeneration, or a combination of both, aiming at the establishment of a new forest in the same area and within an appropriate period according to the relevant national legislation;
 - (iii) the effective protection of areas designated by international or national law, or by the relevant competent authority, for nature protection purposes, including in wetlands and peatlands;
 - (iv) that forest harvesting is carried out in a way that minimises negative impacts on soil quality and biodiversity, which may be proven by providing evidence that the applicable law, or relevant forest management rules:
 - (1) requires that primary forests and areas protected under 1(b)(iii) are not degraded to or replaced by plantation forests, which may include, but should not be limited to, safeguarding that the regenerated forest area provides for a locally appropriate and adequate amount of plants and tree species;
 - (2) provides for the protection of soils and of species and habitats including those protected by international or national law. To facilitate the work of economic operators, Member States shall endeavour to provide data on site-specific environmental features; and
 - (3) minimises, where appropriate, the removal of stumps, roots and deadwood;

⁽⁵⁾ Commission Implementing Regulation (EU) 2022/996 of 14 June 2022 on rules to verify sustainability and greenhouse gas emissions saving criteria and low indirect land-use change-risk criteria (OJ L 168, 27.6.2022, p. 1).

⁽⁶⁾ Regulation (EU) No 995/2010 of the European Parliament and of the Council of 20 October 2010 laying down the obligations of operators who place timber and timber products on the market (OJ L 295, 12.11.2010, p. 23).

- (v) that the long-term production capacity of the forest is maintained or increased, which may be proven by providing evidence that the applicable law at national or sub-national level ensures that, based on average annual data, the fellings do not exceed the net increment over an appropriate period according to the relevant national legislation, except in cases where it is temporarily justified due to documented forest pests, storms or other natural disturbances. That may be proven by using:
- (1) national forest inventory reports;
 - (2) providing the evidence referred to in Article 5(ii); or
 - (3) similar inventory reports at sub-national level;
- (c) the existence of systems for ensuring monitoring of implementation and enforcement of the national and sub-national laws referred to in paragraph (b), including information on the following elements: the authorities competent for carrying out monitoring, implementation and enforcement, sanctions for non-compliance, systems for appealing against decisions, and public access to information;
- (d) that there is no significant lack of enforcement of the national and/or sub-national laws and regulations referred to in point (b).

2. With regard to the evidence required by point (d) of paragraph 1, economic operators shall take into account any legal assessments and reports, prepared by national or international governmental organisations, detailing a lack of enforcement of the national or sub-national laws referred to in point (b) of paragraph 1. Any on-going relevant infringement procedure brought by the European Commission against a Member State, on the basis of relevant Union legislation, shall be also taken into account. The existence of a ruling of the Court of Justice against a Member State, for the violation of relevant Union legislation, such as Regulation (EU) No 995/2010, shall be considered evidence of such a lack of enforcement.

3. In order to minimise the administrative burden for economic operators, Member States may establish public databases with up-to-date information on the elements referred to in this Article and shall facilitate access to information, including public spatial data and public inventories, to operators. Member States may provide relevant training to this effect.

4. Economic operators may decide to demonstrate directly compliance with the harvesting criteria at sourcing area level in accordance with Article 4.

Article 4

Assessment of compliance with the harvesting criteria at the forest sourcing area level

Where evidence of compliance with one or several harvesting criteria at national or sub-national level is not available, Member States shall require economic operators to provide audited information that those criteria have been complied with through management systems that are in place and implemented at the level of the sourcing area. To that end, economic operators shall provide accurate, up-to-date, and verifiable evidence of the following elements:

- (a) The spatial boundaries of the sourcing area for which compliance needs to be demonstrated, and on which management systems referred to in point (b) apply, including by means of geographical coordinates or parcels.
- (b) Management systems applicable to the sourcing area ensuring:
 - (i) the legality of harvesting operations, which shall be proven by providing evidence of the compliance of harvesting with the due diligence system defined in Article 6 of Regulation (EU) No 995/2010;

- (ii) that forest regeneration is carried out in a manner that at least maintains the quality and quantity of the harvested forest areas, which may be proven by providing evidence of the establishment of a new forest in the same area within a maximum of 10 years after the harvesting. That may be proven by using forest management plans, operational protocols, environmental impact assessments, and results of relevant compliance audits and inspections;
- (iii) that forest biomass does not originate from areas designated by international or national law or by relevant competent authority for nature protection, including in wetlands and peatlands, unless there is evidence that the harvesting of the raw material does not interfere with the protection objectives of the designated areas. That may be proven by using international and national databases, official maps, forest management plans, operational protocols, harvesting protocols, satellite imaging, environmental impact assessments, and official logging permits including conditions or restrictions ensuring that there is no conflict with the relevant nature protection objectives, and the results of relevant compliance audits and inspections;
- (iv) that forest harvesting is carried out in a way that aims at least at preventing negative impacts on soil quality and biodiversity. This may be proven by providing evidence that the relevant risks associated with the harvesting of forest biomass for energy production have been identified in advance; and that, appropriate mitigation actions have been implemented such as the following:
 - (1) primary forests and areas protected under (b)(iii) are not degraded to or replaced by plantation forests;
 - (2) harvesting of stumps and roots is minimised;
 - (3) no harvesting is carried out on vulnerable soils;
 - (4) harvesting is carried out through logging systems that minimise impacts on soil quality, including soil compaction;
 - (5) harvesting is carried out in a way that minimises impacts on biodiversity features and habitats, including plants and animals protected under international or national legislation;
 - (6) a locally-appropriate quantity and assortments of deadwood is left in the forest; and
 - (7) large clear-cuts are minimised except in cases where it is temporarily justified due to documented forest pests, storms or other natural disturbances.

Those mitigation actions may be proven by using international and national databases, official maps and satellite imaging, forest management plans, operational protocols, and harvesting protocols, results of relevant compliance audits and inspections;

- (v) the harvest maintains or improves the forest's long-term production capacity. This may be proven by providing evidence that the annual fellings do not exceed the net annual increment in the relevant sourcing area on average within the 10-year period prior to the harvesting intervention, unless different amounts are duly justified in order to enhance the future production capacity of the forest; or because of documented forest pests, storms or other natural disturbance. That may be proven by using public or private forest inventory data.

Article 5

Assessment of compliance with the LULUCF criteria at national level

Member States shall require economic operators to provide audited information that confirms compliance with the criteria on land use, land use change and forestry (LULUCF) at national level. To that end, economic operators shall provide accurate, up-to-date, and verifiable evidence that the country or regional economic integration organisation from which the forest biomass originates, is Party to the Paris Agreement and fulfils either of the following two sets of conditions:

- (i) it has submitted a nationally determined contribution (NDC), under the 2015 Paris Agreement on Climate Change following the 21st Conference of the Parties to the United Nations Framework Convention on Climate Change, that meets the following requirements:
 - (a) the NDC includes the agriculture, forestry and land use sectors, either combined as one agriculture, forestry and other land use (AFOLU) sector, or as agriculture and LULUCF sectors separately;
 - (b) the NDC explains how the agriculture, forestry and land use sectors have been considered in the NDC;
 - (c) the NDC counts the emissions and removals from the agriculture, forestry and land use sectors against the country's overall emission reduction target, including emissions associated with harvesting of forest biomass; or
- (ii) there are national or sub-national laws, applicable to the area of harvest, to conserve and enhance carbon stocks and sinks in forests. In addition, evidence shall be provided that the reported LULUCF sector emissions do not exceed removals, which may be proven by providing evidence that reported LULUCF sector emissions do not exceed removals on average over the 10 years preceding the harvesting of the forest biomass and that carbon stocks and sinks are conserved or enhanced between the last two successive 10-year periods preceding the harvesting of forest biomass.

In order to minimise the administrative burden for economic operators, Member States may provide up-to-date information on the elements referred to in this Article to the operators.

Article 6

Assessment of compliance with the LULUCF criteria at the forest sourcing area level

Where evidence of compliance with the LULUCF criteria at national level is not available, Member States shall require economic operators to provide audited information confirming the existence and implementation of management systems at the level of the forest sourcing area, to ensure that carbon stocks and sinks levels in the forest are maintained or strengthened over the long-term. To that end, economic operators shall provide accurate, up-to-date and verifiable evidence in accordance with the following requirements:

- (a) identify the spatial boundaries of the sourcing area for which compliance needs to be demonstrated, for instance by means of geographical coordinates, plots or parcels, including stands and tracts of land, and identify the relevant forest carbon pools, including aboveground biomass, belowground biomass, litter, deadwood and soil organic carbon;
- (b) calculate the average forest carbon stocks and sinks over a historical reference period with the purpose of establishing a benchmark for the comparison of maintenance or strengthening of forest carbon stocks and sinks of a sourcing area. Economic operators shall use the reference period of 2000-2009, or another period of similar length and as close as possible to 2000-2009, to facilitate the use of forest inventory data or to mitigate the impacts of natural disturbances or other extreme events. The economic operators shall duly justify the choice of their reference period. The economic operator shall estimate reference values for all relevant carbon pools individually identified pursuant to point (a);
- (c) describe the scenario of the expected forest management practices in a sourcing area for a projected long-term period covering at least 30 years after the harvesting event from which biomass is sourced. That scenario shall be constructed on the basis of the forest management practices in a sourcing area documented for the historical reference period, or on existing forest management plans or other verifiable evidence;
- (d) estimate the average carbon stocks and sinks of the sourcing area over the projected long-term period, covering at least 30 years depending on the forest growth rate, after the harvesting of the forest biomass. In order to ensure comparability with the historical reference period, those estimates shall use the same carbon pools, data and methods referred to in points (a) and (b). Where economic operators are not able to quantify one or more of the pools identified pursuant to point (a), they shall provide due justification;

- (e) compare the average carbon stock and sinks in the relevant forest sourcing area of the projected long-term period with the forest carbon stocks and sinks of the historical reference period. If the average forest carbon stocks and sinks of the projected long-term period are equal to or higher than the average forest carbon stocks and sinks of the historical reference period, the forest biomass is in compliance with the LULUCF criteria at the forest sourcing area level. Economic operators shall put in place adequate monitoring and verification systems of the actual development of carbon stock and sinks in demonstrated compliance with the requirements set out in this Article.

Article 7

Auditing and verification

1. Member States shall take measures to ensure that economic operators:
 - (a) submit reliable information substantiating their sustainability claims, demonstrating that the requirements set out in Articles 3 to 6 have been duly fulfilled, and make available, on request, the detailed data that were used to compile that information. If other evidence is provided to demonstrate compliance with the harvesting and LULUCF criteria, such evidence shall meet a high standard of reliability and verifiability;
 - (b) use the mass balance system referred to in paragraph 1 of Article 30 of Directive (EU) 2018/2001;
 - (c) arrange for an adequate standard of independent third-party auditing of the information submitted, except for compliance at national and sub-national level with the harvesting and LULUCF criteria, for which a first-party or second-party auditing may be provided for up to the first gathering point of the forest biomass;
 - (d) ensure an adequate level of transparency taking into account the need for public scrutiny of the auditing approach;
 - (e) provide evidence that relevant audits are regularly conducted, including through periodic inspections where relevant.
2. Member States shall take measures to ensure that the auditing referred to in point (c) of the first paragraph evaluates the frequency and methodology of sampling and the robustness of data, and verifies that the information submitted by economic operators is accurate, reliable and protected against fraud.
3. Economic operators may make use of national schemes or international voluntary schemes recognised by the Commission pursuant to Article 30(4) of Directive (EU) 2018/2001 to demonstrate compliance with the criteria set out in Articles 3 to 6 of this Regulation.
4. Group auditing may be performed under the conditions laid down in Article 12 of the Implementing Regulation (EU) 2022/996 to help alleviate the administrative burden in particular on small economic operators.

Article 8

Entry into force and application

This Regulation shall enter into force on the twentieth day following that of its publication in the *Official Journal of the European Union*.

This Regulation shall be binding in its entirety and directly applicable in all Member States.

Done at Brussels, 13 December 2022.

For the Commission
The President
Ursula VON DER LEYEN