

REGULATION (EU) .../...
OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

of ...

**on the inclusion of greenhouse gas emissions and removals from land use,
land use change and forestry into the 2030 climate and energy framework
and amending Regulation (EU) No 525/2013
and Decision No 529/2013/EU**

(Text with EEA relevance)

THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty on the Functioning of the European Union, and in particular Article 192(1) thereof,

Having regard to the proposal from the European Commission,

After transmission of the draft legislative act to the national parliaments,

Having regard to the opinion of the European Economic and Social Committee¹,

Having regard to the opinion of the Committee of the Regions²,

Acting in accordance with the ordinary legislative procedure³,

¹ OJ C 75, 10.3.2017, p. 103..

² OJ C [...], [...], p. [...].

³ **Position of the European Parliament of ... (not yet published in the Official Journal) and decision of the Council of**

Whereas:

- (1) A binding target of at least a 40 % domestic reduction in economy-wide greenhouse gas emissions by 2030 compared to 1990 was endorsed in the European Council *conclusions* of 23-24 October 2014 on the 2030 climate and energy policy framework **and this was reconfirmed in its conclusions of 17-18 March 2016.**
- (2) The European Council conclusions *of 23-24 October 2014 stated* that the target should be delivered collectively by the Union in the most cost-effective manner possible, with the reductions in the **Union emissions trading system ('EU ETS')** laid down in **Directive 2003/87/EC of the European Parliament and of the Council¹** and non-ETS sectors amounting to 43 % and 30 % by 2030 compared to 2005 respectively, with efforts distributed on the basis of relative GDP per capita.
- (3) **This Regulation also** forms part of the implementation of the Union *commitments under the Paris Agreement² adopted under the United Nations Framework Convention on Climate Change ('UNFCCC')* which was ratified on behalf of the Union on 5 October 2016 in accordance with Council Decision (EU) 2016/1841³. **The commitment of the Union** to economy-wide emission reductions *is set out* in the intended nationally determined *contribution submitted in view of the Paris Agreement* by the Union and its Member States to the Secretariat of the UNFCCC on 6 March 2015 . **The Paris Agreement entered into force on 4 November 2016. The Union should continue to decrease its greenhouse gas emissions and enhance removals in line with the Paris Agreement.**

¹ *Directive 2003/87/EC of the European Parliament and of the Council of 13 October 2003 establishing a scheme for greenhouse gas emission allowance trading within the Community and amending Council Directive 96/61/EC (OJ L 275, 25.10.2003, p. 32).*

² *Paris Agreement (OJ L 282, 19.10.2016, p. 4).*

³ *Council Decision (EU) 2016/1841 of 5 October 2016 on the conclusion, on behalf of the European Union, of the Paris Agreement adopted under the United Nations Framework Convention on Climate Change (OJ L 282, 19.10.2016, p. 1).*

- (4) The Paris Agreement, inter alia, sets out a long-term goal in line with the objective to keep the global temperature increase well below 2°C above pre-industrial levels and to pursue efforts to keep it to 1,5°C above pre-industrial levels. ***Forests, agricultural land and wetlands will play a central role in achieving this goal. In the Paris Agreement, the Parties also recognise the fundamental priority of safeguarding food security and ending hunger, in the context of sustainable development and efforts to eradicate poverty, and the particular vulnerabilities of food production systems to the adverse impacts of climate change, thereby fostering climate resilience and low greenhouse gas emissions development, in a manner that does not threaten food production. In order to achieve the objectives of the Paris Agreement, Parties should increase their collective efforts. The Parties should prepare, communicate and maintain successive nationally determined contributions. The Paris Agreement replaces the approach taken under the 1997 Kyoto Protocol, which will not be continued beyond 2020. The Paris Agreement also calls for a balance between anthropogenic emissions by sources and removals by sinks of greenhouse gases in the second half of this century, and invites Parties to take action to conserve and enhance, as appropriate, sinks and reservoirs of greenhouse gases, including forests.***
- (5) ***The land use, land use change and forestry ('LULUCF') sector has the potential to provide long-term climate benefits and thereby to contribute to the achievement of the Union's greenhouse gas emissions reduction target, as well as the long-term climate goals of the Paris Agreement. It also provides bio-materials that can substitute fossil- or carbon-intensive materials and therefore plays an important role in the transition to a low greenhouse-gas-emitting economy. As removals through LULUCF are reversible, they should be treated as a separate pillar in the Union climate policy framework.***

- (6) The European Council of 23-24 October 2014 acknowledged the multiple objectives of the agriculture and land use sector, with their lower mitigation potential as well as the need to ensure coherence between the Union food security and climate change objectives. The European Council invited the Commission to examine the best means of encouraging the sustainable intensification of food production, while optimising the sector's contribution to greenhouse gas mitigation and sequestration, including through afforestation, and to establish policy on how to include LULUCF into the 2030 greenhouse gas mitigation framework as soon as technical conditions allow and in any case before 2020.
- (7) ***Sustainable management practices in the*** LULUCF sector can contribute to climate change mitigation in several ways, in particular by reducing emissions, and maintaining and enhancing sinks and carbon stocks. In order for measures aiming in particular at increasing carbon sequestration to be effective, the long-term stability and adaptability of carbon pools is essential. ***In addition, sustainable management practices can maintain the productivity, regeneration capacity and vitality and thereby promote economic and social development, while reducing the carbon and ecological footprint of the LULUCF sector.***

- (8) *The development of sustainable and innovative practices and technologies, including agro-ecology and agro-forestry, can enhance the role of the LULUCF sector in relation to climate mitigation and adaptation, as well as strengthen the productivity and resilience of the sector. As the LULUCF sector is characterised by long timeframes for returns, long-term strategies are important to enhance research funding for the development of and investments in sustainable and innovative practices and technologies. Investments in preventive actions, such as sustainable management practices, can reduce the risks associated with natural disturbances.*
- (9) *On 20 June 2017, the Council reiterated the full commitment of the Union and its Member States to the 2030 Agenda for Sustainable Development, which aims inter alia at a sustainable management of forests.*
- (10) *Action to reduce deforestation and forest degradation and to promote sustainable forest management in developing countries is important. In this context, in its conclusions of 21 October 2009 and 14 October 2010, the Council recalled the Union's objectives of reducing gross tropical deforestation by at least 50 % by 2020 compared to current levels and to halt global forest cover loss by 2030 at the latest.*

- (11) Decision No 529/2013/EU of the European Parliament and of the Council¹, as a first step, set out accounting rules applicable to emissions and removals from the LULUCF sector and thereby contributed to policy development towards the inclusion of the LULUCF sector in the Union's emission reduction commitment. This Regulation should build on the existing accounting rules, updating and improving them for the period 2021-2030. It should lay down the obligations of Member States in implementing those accounting rules and the obligation to ensure that the overall LULUCF sector *does not generate net emissions and contributes to the aim of enhancing sinks in the long-term*. It should not lay down any accounting or reporting obligations for private parties, *including farmers and foresters*.
- (12) *The LULUCF sector, including agricultural land, has a direct and significant impact on biodiversity and ecosystems services. For this reason, an important objective of policies affecting those sectors is to ensure that there is coherence with the Union's biodiversity strategy objectives. Actions should be taken to implement and support activities in this sector relating to both mitigation and adaptation. Coherence between the Common Agricultural Policy and this Regulation should be ensured. All sectors need to deliver their fair share in order to contribute to reducing greenhouse gas emissions.*

¹ *Decision No 529/2013/EU of the European Parliament and of the Council of 21 May 2013 on accounting rules on greenhouse gas emissions and removals resulting from activities relating to land use, land-use change and forestry and on information concerning actions relating to those activities (OJ L 165, 18.6.2013, p. 80).*

- (13) *Wetlands are effective ecosystems for storing carbon. Therefore, protecting and restoring wetlands could reduce greenhouse gas emissions in the LULUCF sector. The IPCC Refinement to the 2006 Guidelines related to wetlands should be considered in this context.*
- (14) *To ensure the contribution of the LULUCF sector to the achievement of the Union's greenhouse gas emission reduction target and to the long-term goal of the Paris Agreement, a robust accounting system is needed.* In order to determine accurate accounts of emissions and removals in accordance with the 2006 Intergovernmental Panel on Climate Change ('IPCC') Guidelines for National Greenhouse Gas Inventories ('IPCC Guidelines'), the annually reported values under Regulation (EU) No 525/2013 *of the European Parliament and of the Council*¹ for land use categories and the conversion between land use categories should be utilised, thereby streamlining the approaches used under the UNFCCC and the Kyoto Protocol. Land that is converted to another land use category should be considered in transition to that category for the default value of 20 years in the IPCC Guidelines. *Member States should derogate from that default value only for afforested land and only in limited circumstances justified under the IPCC Guidelines. Changes in the IPCC Guidelines as adopted by the Conference of the Parties to the UNFCCC or the Conference of the Parties serving as the Meeting of the Parties to the Paris Agreement should be reflected, as appropriate, in reporting requirements under this Regulation.*

¹ *Regulation (EU) No 525/2013 of the European Parliament and of the Council of 21 May 2013 on a mechanism for monitoring and reporting greenhouse gas emissions and for reporting other information at national and Union level relevant to climate change and repealing Decision No 280/2004/EC (OJ L 165, 18.6.2013, p. 13).*

- (15) Emissions and removals from forest land depend on a number of natural circumstances, *dynamic age related forests characteristics*, as well as past and present management practices *that differ substantially between the Member States*. The use of a base year would not make it possible to reflect those factors and resulting cyclical impacts on emissions and removals or their interannual variation. The relevant accounting rules should instead provide for the use of reference levels to exclude the effects of natural and country-specific characteristics. *Forest reference levels should take account of any unbalanced age structure of forest and should not unduly constrain the future forest management intensity, with the aim of maintaining or strengthening long-term carbon sinks. Given the particular historic situation of Croatia, the forest reference level of this Member State could also take into account the occupation of its territory, war time and post war circumstances impacting forest management during the reference period. The relevant accounting rules take account of the principles of sustainable forest management of Forest Europe (Ministerial Conference on the Protection of Forests in Europe).*
- (16) In the absence of the international review under the UNFCCC *or* the Kyoto Protocol, a review procedure should be established to ensure transparency and improve the quality of accounting in this category.

- (17) When the Commission *assesses the* national forestry accounting plans, *including the forest reference levels proposed therein*, it should build on the good practice and experience of the expert reviews under the UNFCCC, including as regards participation of national experts. ***The Commission should ensure that experts from the Member States are involved in the technical assessment of whether the proposed forest reference levels have been determined in accordance with the criteria and requirements set out in this Regulation. The results of the technical assessment should be forwarded to the Standing Committee established by Council Decision 89/367/EEC¹ for information. The Commission should also consult stakeholders and civil society. The national forestry accounting plans should be made public in accordance with the relevant legislation.***
- (18) The internationally agreed IPCC Guidelines state that emissions from the combustion of biomass can be accounted as zero in the energy sector with the condition that these emissions are accounted for in the LULUCF sector. In the *Union*, emissions from biomass combustion are accounted as zero pursuant to Article 38 of *Commission* Regulation (EU) No 601/2012² and the provisions set out in Regulation (EU) No 525/2013, hence consistency with the IPCC Guidelines would only be ensured if these emissions *are reflected* accurately under this Regulation.

¹ *Council Decision 89/367/EEC of 29 May 1989 setting up a Standing Forestry Committee (OJ L 165, 15.6.1989, p. 14).*

² *Commission Regulation (EU) No 601/2012 of 21 June 2012 on the monitoring and reporting of greenhouse gas emissions pursuant to Directive 2003/87/EC of the European Parliament and of the Council (OJ L 181, 12.7.2012, p. 30).*

- (19) The increased sustainable use of harvested wood products can substantially limit emissions *by the substitution effect* and enhance removals of greenhouse gases from the atmosphere. The accounting rules should ensure that Member States accurately *and transparently* reflect in accounts the changes in the harvested wood products pool when they take place, *in order to recognise and incentivise the* enhanced use of harvested wood products with long life cycles. The Commission should provide guidance on methodological issues related to the accounting for harvested wood products.
- (20) Natural disturbances, such as wildfires, insect and disease infestations, extreme weather events and geological disturbances that are beyond the control of, and not materially influenced by, a Member State, may result in greenhouse gas emissions of a temporary nature in the LULUCF sector, or may cause the reversal of previous removals. As reversal can also be the result of management decisions, such as decisions to harvest or plant trees, this Regulation should ensure that human-induced reversals of removals are always accurately reflected in LULUCF accounts. Moreover, this Regulation should provide Member States with a limited possibility to exclude emissions resulting from disturbances that are beyond their control from their LULUCF accounts. However, the manner in which Member States apply those provisions should not lead to undue under-accounting.

- (21) Depending on national preferences, Member States should be able to choose adequate national policies for achieving their commitments in LULUCF, including the possibility of ***balancing*** emissions from one land category ***with*** removals from another land category. They should also be able to cumulate net removals over the period 2021-2030. Trading among Member States should continue as an additional option ***and Member States should be able to use annual emissions allocations established pursuant to Regulation (EU) .../... of the European Parliament and of the Council⁺ for compliance under this Regulation. The use of flexibilities will not compromise the overall ambition level of the Union's greenhouse gas reduction targets.***
- (22) ***Forest land managed in a sustainable way normally generates a sink, contributing to climate mitigation. In the reference period 2000-2009 the reported average sink from managed forest land was 372 million tonnes CO₂ equivalent per year for the Union as a whole. The Member states should ensure the conservation and enhancement, as appropriate, of sinks and reservoirs from forests with the view to achieving the purpose of the Paris Agreement and meeting the ambitious greenhouse gas emissions reduction targets of the Union by 2050.***
- (23) ***Removals from managed forest land are accounted against a forward-looking forest reference level. The projected future sink is based on an extrapolation of forest management practices and intensity from a reference period. A decrease in sink relative to the reference level is accounted as emissions. Specific national circumstances and practices, such as lower harvest intensity than usual or aging forests during the reference period, should be taken into account.***

⁺ ***OJ: Please insert in the text the number of the Regulation contained in document PE-CONS No/YY (2016/0231(COD)) and insert the number, date, title and OJ reference of that Regulation in the footnote.***

¹ ***Regulation (EU) .../... of the European Parliament and of the Council of ... on ... (OJ ...).***

- (24) *Member States should therefore be granted some flexibility to temporarily increase their harvest intensity in accordance with sustainable forest management practices consistent with the objective set out in the Paris Agreement provided that within the Union total emissions do not exceed removals in the overall LULUCF sector. Under this flexibility, all Member States should be granted a basic amount calculated on the basis of a compensation factor expressed as a percentage of their reported sink in the years from 2000 to 2009 to compensate for its accounted emissions from managed forest land. It should be ensured that Member States could only be compensated up to the level where their forest will no longer generate a sink.*
- (25) *More forested and in particular smaller forested Member States are more dependent on managed forest land to balance emissions in other accounting categories and will therefore be affected to a higher degree and will have a limited potential to increase their forest coverage. The percentage should be increased on the basis of forest coverage and land area so that Member States with a very small land area and very high forest coverage compared to the Union average would be granted the highest percentage of their sink for the reference period.*

- (26) *In its conclusions of 9 March 2012, the Council acknowledged the particularities of richly forested countries. These particularities concern especially the limited possibilities to balance emissions with removals. As the most richly forested Member State and taken into accounts its particular geographical conditions, Finland faces particular difficulties in this respect. Therefore, Finland should be granted a limited additional compensation.*
- (27) *To monitor the progress of Member States towards meeting their commitment under this Regulation and to ensure the transparency, accuracy, consistency, completeness and comparability of information on emissions and removals, Member States should provide the Commission with the relevant greenhouse gas inventory data.* In order to ensure efficient, transparent and cost-effective reporting and verification of greenhouse gas emissions and removals and of other information necessary to assess compliance with Member States' commitments, reporting requirements should be included in Regulation (EU) No 525/2013, and compliance checks under this Regulation should take *those reports into account. If a Member State intends to apply the flexibility regarding managed forest land, it should include in the compliance report the amount of compensation that it intends to use.*
- (28) *Regulation (EU) No 525/2013 should be amended accordingly.*

- (29) *Decision No 529/2013/EU should continue to apply to the accounting and reporting obligations for the accounting period from 1 January 2013 to 31 December 2020. For the accounting periods from 1 January 2021, this Regulation should apply.*
- (30) *Decision No 529/2013/EU should be amended accordingly.*
- (31) The European Environment Agency should assist the Commission, as appropriate in accordance with its annual work programme, with the system of annual reporting of greenhouse gas emissions and removals, the assessment of information on policies and measures and national projections, the evaluation of planned additional policies and measures, and the compliance checks carried out by the Commission under this Regulation.
- (32) To facilitate data collection and methodology improvement, land use should be inventoried and reported using geographical tracking of each land area, corresponding to national and *Union* data collection systems. The best use *should* be made of existing Union and Member State programmes and surveys including the Land Use Cover Area frame Survey ('LUCAS'), the European Earth observation programme Copernicus *and the European satellite navigation system Galileo* for data collection. Data management, including sharing for the reporting reuse and dissemination, should conform to Directive 2007/2/EC of the European Parliament and of the Council¹.

¹ *Directive 2007/2/EC of the European Parliament and of the Council of 14 March 2007 establishing an Infrastructure for Spatial Information in the European Community (INSPIRE) (OJ L 108, 25.4.2007, p. 1).*

(33) In order to provide for the appropriate accounting of transactions under this Regulation, including the use of flexibilities and tracking compliance, *as well as to promote enhanced use of wood products with long life cycles*, the power to adopt acts in accordance with Article 290 of the Treaty on the Functioning of the European Union should be delegated to the Commission in respect of technical adaptation of definitions, *including the minimum values for the definition of forests*, lists of greenhouse gases and carbon pools, the *addition of new categories of harvested wood products, laying down the forest reference levels of Member States for the periods from 2021 to 2025 and 2026 to 2030, respectively*, the accounting of transactions and the revision of methodology *on the basis of the most recent IPCC guidelines* and information requirements *regarding natural disturbances*. The necessary provisions *related to accounting of transactions* should be contained in a single instrument combining the accounting provisions pursuant to Directive 2003/87/EC, Regulation (EU) No 525/2013, Regulation (EU) .../...⁺ and this Regulation. It is of particular importance that the Commission carry out appropriate consultations during its preparatory work, including at expert level, *and that those consultations be* conducted in accordance with the principles laid down in the Interinstitutional Agreement *of 13 April 2016* on Better Law-Making¹. In particular, to ensure equal participation in the preparation of delegated acts, the European Parliament and *the* Council receive all documents at the same time as Member States' experts, and their experts have systematic access to meetings of Commission expert groups dealing with the preparation of delegated acts.

⁺ *OJ: Please insert in the text the number of the Regulation contained in document PE-CONS No/YY (2016/0231(COD)).*

¹ *OJ L 123, 12.5.2016, p. 1.*

- (34) *As part of its regular reporting under Regulation (EU) No 525/2013, the Commission should also assess the outcome of the 2018 Facilitative Dialogue.* This Regulation should be reviewed *in 2024* and every five years thereafter in order to assess its overall functioning. *The review should be informed by the results of the 2018 Facilitative Dialogue and the Global Stocktake under the Paris Agreement. The framework for the period after 2030 should be in line with the long-term objectives and the commitments made under the Paris Agreement.*
- (35) Since the objectives of this Regulation, *in particular to set out Member States' commitments on LULUCF in order to meet the greenhouse gas emission reduction target of the Union for the period from 2021 to 2030*, cannot be sufficiently achieved by the Member States but can rather, by reason of its scale and effects be better achieved at Union level, the Union may adopt measures, in accordance with the principle of subsidiarity as set out in Article 5 of the Treaty of the European Union. In accordance with the principle of proportionality, as set out in that Article, this Regulation does not go beyond what is necessary in order to achieve those objectives,

HAVE ADOPTED THIS REGULATION:

Article 1

Subject matter

This Regulation sets out Member States' commitments on land use, land use change and forestry ('LULUCF') that ***contribute to achieving the objectives of the Paris Agreement and*** meeting the greenhouse gas emission reduction ***target*** of the Union for the period from 2021 to 2030, as well as the rules for the accounting of emissions and removals from LULUCF and checking the compliance of Member States with these commitments.

Article 2

Scope

1. This Regulation applies to emissions and removals of the greenhouse gases listed in ***Section A of*** Annex I , as reported pursuant to Article 7 of Regulation (EU) No 525/2013 occurring in any of the following land accounting categories on the territories of Member States during the period from 2021 to 2030:
 - (a) afforested land: land use reported as cropland, grassland, wetlands, settlements, and other land converted to forest land;
 - (b) deforested land: land use reported as forest land converted to cropland, grassland, wetlands, settlements, and other land;

- (c) managed cropland: land use reported as cropland remaining cropland and grassland, wetland, settlement, other land converted to cropland and cropland converted to wetland, settlement and other land;
- (d) managed grassland: land use reported as grassland remaining grassland and cropland, wetland, settlement, other land converted to grassland and grassland converted to wetland, settlement and other land;
- (e) managed forest land: land use reported as forest land remaining forest land;
- (f) *as of 2026, managed wetland: land use reported as wetland remaining wetland, and settlement, other land converted to wetland and wetland converted to settlement and other land.*

2. ***During the period from 2021 to 2025, a Member State may include emissions and removals of the greenhouse gases listed in Section A of Annex I as reported pursuant to Article 7 of Regulation (EU) No 525/2013 occurring in the land accounting category managed wetland (land use reported as wetland remaining wetland, and settlement, other land converted to wetland and wetland converted to settlement and other land) on its territory, in the scope of its commitment pursuant to Article 4 of this Regulation. This Regulation also applies to such emissions and removals included by a Member State.***

3. Where a Member State *intends to include* managed wetland in accordance with *paragraph 2*, it shall notify the Commission thereof by 31 December 2020.
4. *If necessary in light of experience gained with the use of the IPCC Refinement to the 2006 Guidelines, the Commission may make proposals to postpone the mandatory accounting for managed wetland for an additional period of five years.*

Article 3

Definitions

1. For the purposes of this Regulation, the following definitions shall apply:
 - (1) ‘sink’ means any process, activity or mechanism that removes a greenhouse gas, an aerosol, or a precursor to a greenhouse gas from the atmosphere;
 - (2) ‘source’ means any process, activity or mechanism that releases a greenhouse gas, an aerosol or a precursor to a greenhouse gas into the atmosphere;
 - (3) ‘carbon stock’ means the mass of carbon stored in a carbon pool;
 - (4) ‘carbon pool’ means the whole or part of a biogeochemical feature or system within the territory of a Member State within which carbon, any precursor to a greenhouse gas containing carbon or any greenhouse gas containing carbon is stored;

- (5) ‘harvested wood product’ means any product of wood harvesting that has left a site where wood is harvested;
- (6) ‘forest’ means an area of land defined by the minimum values for area size, tree crown cover or an equivalent stocking level, and potential tree height at maturity at the place of growth of the trees *as specified for each Member State in Annex II*. It includes areas with trees, including groups of growing young natural trees, or plantations that have yet to reach the minimum values for tree crown cover or equivalent stocking level or minimum tree height *as specified in Annex II*, including any area that normally forms part of the forest area but on which there are temporarily no trees as a result of human intervention, such as harvesting, or as a result of natural causes, but which area can be expected to revert to forest;
- (7) ‘forest reference level’ means *an estimate of the average annual net emissions or removals resulting from managed forest land within the territory of the Member State in the periods from 2021 to 2025 and from 2026 to 2030 based on the criteria set out in this Regulation; the forest reference level is expressed in tonnes of CO₂ equivalent per year*;
- (8) ‘half-life value’ means *the number of years it takes for the quantity of carbon stored in a harvested wood products category to decrease to one half of its initial value*;

- (9) ‘natural disturbances’ mean any non-anthropogenic events or circumstances that cause significant emissions in forests and the occurrence of which are beyond the control of the relevant Member State, provided the Member State is objectively unable to significantly limit the effect of the events or circumstances, even after their occurrence, on emissions;
- (10) ‘instantaneous oxidation’ means an accounting method that assumes that the release into the atmosphere of the entire quantity of carbon stored in harvested wood products occurs at the time of harvest.

2. The Commission *is* empowered to adopt delegated acts in accordance with Article 16, *to amend or delete* the definitions *contained in paragraph 1 of this Article, or add new definitions therein, in order to adapt* paragraph 1 *of this Article* to scientific developments or technical progress and to ensure consistency between those definitions and any changes to relevant definitions in the IPCC Guidelines for National Greenhouse Gas Inventories ('IPCC Guidelines') *as adopted by the Conference of the Parties to the UNFCCC or the Conference of the Parties serving as the Meeting of the Parties to the Paris Agreement.*

Article 4
Commitments

For the period from 2021 to 2025 and from 2026 to 2030, taking into account the flexibilities provided for in *Articles 12 and 13*, each Member State shall ensure that emissions do not exceed removals, calculated as the sum of total emissions and removals on their territory in the land accounting categories referred to in Article 2 combined, as accounted in accordance with this Regulation.

Article 5
General accounting rules

1. Each Member State shall prepare and maintain accounts that accurately reflect the emissions and removals resulting from the land accounting categories referred to in Article 2. Member States shall ensure the accuracy, completeness, consistency, comparability and transparency of their accounts and of other data provided under this Regulation. Member States shall denote emissions by a positive sign (+) and removals by a negative sign (-).
2. Member States shall prevent any double counting of emissions or removals, in particular by *ensuring that* emissions *and* removals *are not accounted under* more than one land accounting category .

3. Member States shall transition forest land, cropland, grassland, wetland, settlements and other land from the category of such land converted to another type of land to the category of such land remaining the same type of land after 20 years from the date of conversion.
4. Member States shall include in their accounts for each land accounting category any change in the carbon stock of the carbon pools listed in **Section B of Annex I** . Member States may choose not to include in their accounts changes in carbon stocks for carbon pools where the carbon pool is not a source, except for above-ground biomass, **dead wood** and harvested wood products on managed forest land.
5. Member States shall maintain a complete and accurate record of all data used in preparing their accounts.
6. The Commission *is* empowered to adopt delegated acts in accordance with Article 16 to amend Annex I in order to reflect changes in the IPCC Guidelines ***as adopted by the Conference of the Parties to the UNFCCC or the Conference of the Parties serving as the Meeting of the Parties to the Paris Agreement.***

Article 6

Accounting for afforested land and deforested land

1. Member States shall account for emissions and removals resulting from afforested land and deforested land, as the total emissions and removals for each of the years in the periods from 2021 to 2025 and from 2026 to 2030.
2. By derogation from the requirement to apply the default value established in Article 5(3), a Member State may transition cropland, grassland, wetland, settlements and other land from the category of such land converted to forest land to the category of forest land remaining forest land after 30 years from the date of conversion, *if duly justified based on the IPCC Guidelines*.
3. In calculations for emissions and removals on afforested land and deforested land, each Member State shall determine the forest area using the *parameters* specified in Annex II.

Article 7

Accounting for managed cropland, managed grassland and managed wetland

1. Member States shall account for emissions and removals resulting from managed cropland calculated as emissions and removals in the periods from 2021 to 2025 and from 2026 to 2030 minus the value obtained by multiplying by five the Member State's average annual emissions and removals resulting from managed cropland in its base period *from 2005 to 2009*.

2. Member States shall account for emissions and removals resulting from managed grassland calculated as emissions and removals in the periods from 2021 to 2025 and from 2026 to 2030 minus the value obtained by multiplying by five the Member State's average annual emissions and removals resulting from managed grassland in its base period ***from 2005 to 2009***.
3. ***During the period from 2021 to 2025, Member States that include managed wetland in accordance with Article 2, and during the period from 2026 to 2030, all Member States shall account for emissions and removals resulting from managed wetland, calculated as emissions and removals in the respective periods minus the value obtained by multiplying by five the Member State's average annual emissions and removals resulting from managed wetland in its base period from 2005 to 2009.***
4. ***During the period from 2021 to 2025, Member States that have not chosen to include managed wetland in the scope of their commitments in accordance with Article 2 shall nevertheless report the emissions and removals from land use reported as wetland remaining wetland, and settlement, other land converted to wetland and wetland converted to settlement and other land to the Commission.***

Article 8

Accounting for managed forest land

1. Member States shall account for emissions and removals resulting from managed forest land, calculated as emissions and removals in the periods from 2021 to 2025 and from 2026 to 2030 minus the value obtained by multiplying by five **the** forest reference level **of the Member State concerned**.
2. Where the result of the calculation referred to in paragraph 1 is negative in relation to **a Member State** forest reference level, **the** Member State **concerned** shall include in its managed forest land accounts total net removals of no more than the equivalent of 3,5 % of the **emissions of that** Member State in its base year or period as specified in Annex III, multiplied by five. **Net removals resulting from the carbon pools of harvested wood products, except the category paper as referred to in point (a) of Article 9(1), and dead wood of managed forest land shall not be subject to this limitation.**
3. Member States shall determine **their** forest reference level based on the criteria set out in **Section A of Annex IV. For Croatia, the forest reference level may also take into account, in addition to the criteria set out in Section A of Annex IV, the occupation of its territory, war time and post war circumstances impacting forest management during the reference period. Member States** shall submit to the Commission a national forestry accounting plan, including a **proposed** forest reference level, by 31 December 2018 for the period from 2021 to 2025 and by 30 June 2023 for the period **from 2026 to 2030**. The national forestry accounting plan shall contain all the elements listed in **Section B of Annex IV and shall be made public, including via the internet.**

4. *The forest reference level shall be based on the continuation of sustainable forest management practice , as documented between 2000-2009 with regard to dynamic age related forests characteristics in national forests, using the best available data.*

Forest reference levels as determined in accordance with the first subparagraph shall take account of the future impact of dynamic age related characteristics of forests in order not to unduly constrain the forest management intensity as core element of sustainable forest management practice, with the aim of maintaining or strengthening long-term carbon sinks.

Member States shall demonstrate consistency between the methods and data used to *determine* the *proposed* forest reference level in the national forestry accounting plan and those used in the reporting for managed forest land.

5. The Commission, *in consultation with experts appointed by the Member States, shall undertake a technical assessment of* the national forestry accounting plans *submitted by Member States in accordance with paragraph 3 of this Article with a view to assessing* the extent to which the proposed forest reference levels have been determined in accordance with the principles and requirements set out in paragraphs 3 and 4 of this Article, *as well as Article 5(1). The Commission shall also consult stakeholders and civil society. The Commission shall publish a summary of the work carried out, including the views expressed by the experts appointed by the Member States, and the conclusions thereof.*

The Commission shall, where necessary, issue technical recommendations to the Member States reflecting the conclusions of the technical assessment to facilitate the technical revision of the proposed forest reference levels. The Commission shall publish the technical recommendations.

- 6. Where necessary based on the technical assessments and, where applicable, the technical recommendations, Member States shall communicate their revised proposed forest reference levels to the Commission by 31 December 2019 for the period from 2021 to 2025 and by 30 June 2024 for the period from 2026 to 2030. The Commission shall publish the proposed forest reference levels communicated by Member States.*
- 7. Based on the proposed forest reference levels submitted by Member States, the technical assessment carried out pursuant to paragraph 5 of this Article and, where applicable, the revised proposed forest reference level submitted under paragraph 6 of this Article, the Commission shall adopt delegated acts in accordance with Article 16 amending Annex IV with a view to laying down the forest reference levels to be applied by the Member States for the period from 2021 to 2025 and for the period from 2026 to 2030.*

8. *If a Member State does not submit its forest reference level to the Commission by the dates specified in paragraph 3 of this Article and, where applicable, paragraph 6 of this Article, the Commission shall adopt delegated acts in accordance with Article 16 amending Annex IV with a view to laying down the forest reference level to be applied by that Member State for the period from 2021 to 2025 and for the period from 2026 to 2030, based on any technical assessment carried out pursuant to paragraph 5 of this Article.*
9. *The delegated acts referred to in paragraph 7 and 8 shall be adopted by 31 October 2020 for the period from 2021 to 2025 and by 30 April 2025 for the period from 2026 to 2030.*
10. *In order to ensure consistency as referred to in the third subparagraph of paragraph 4 of this Article Member States shall, where necessary, submit to the Commission technical corrections not requiring amendments to the delegated acts adopted pursuant to the previous paragraphs at the latest by the dates referred to in Article 14(1).*

Article 9

Accounting for harvested wood products

- I. In accounts pursuant to Articles 6(1) and 8(1) relating to harvested wood products, Member States shall reflect emissions and removals resulting from changes in the pool of harvested wood products falling within the following categories using the first order decay function, the methodologies and the default half-life values specified in Annex V:

- (a) paper;
- (b) wood panels;
- (c) sawn wood.

2. *The Commission shall adopt delegated acts in accordance with Article 16 in order to amend paragraph 1 of this Article and Annex V by adding new categories of harvested wood products that have a carbon sequestration effect, based on IPCC Guidelines as adopted by the Conference of the Parties to the UNFCCC or the Conference of the Parties serving as the Meeting of the Parties to the Paris Agreement, and ensuring environmental integrity.*
3. *Member States may specify the wood based material products, including bark, within the existing and new categories referred to in paragraphs 1 and 2, respectively, based on IPCC Guidelines as adopted by the Conference of the Parties to the UNFCCC or the Conference of the Parties serving as the Meeting of the Parties to the Paris Agreement, and provided that the available data is transparent and verifiable.*

Article 10

Accounting for natural disturbances

1. At the end of the periods from 2021 to 2025 and from 2026 to 2030, Member States may exclude from their accounts for afforested land and managed forest land greenhouse gas emissions resulting from natural disturbances exceeding the average emissions caused by natural disturbances in the period 2001-2020, excluding statistical outliers ('background level') calculated in accordance with this Article and Annex VI.
2. Where a Member State applies paragraph 1, it shall:
 - (a) submit to the Commission information on the background level for each land accounting category determined in paragraph 1 and on the data and methodologies used in accordance with Annex VI; *and*
 - (b) exclude from accounting until 2030 all subsequent removals on the land affected by natural disturbances.
3. The Commission *is* empowered to adopt delegated acts in accordance with Article 16 to *amend Annex VI in order to* revise the methodology and information requirements in *that* Annex to reflect changes in the IPCC Guidelines *as adopted by the Conference of the Parties to the UNFCCC or the Conference of the Parties serving as the Meeting of the Parties to the Paris Agreement.*

Article 11

Flexibilities

1. *A Member State may use:*
 - (a) *the general flexibilities set out in Article 12; and*
 - (b) *the managed forest land flexibility set out in Article 13 in order to comply with the commitment in Article 4.*
2. *If a Member State is not in compliance with the monitoring requirements laid down in point (da) of Article 7(1) of Regulation (EU) No 525/2013, the Central Administrator designated under Article 20 of Directive 2003/87/EC ('the Central Administrator') shall temporarily prohibit that Member State from transferring or banking pursuant to Article 12(2) and (3) or use the flexibility pursuant to Article 13.*

Article 12

General flexibilities

1. Where total emissions exceed removals in a Member State, and that Member State has *chosen to use its flexibility and has requested to delete* annual emission allocations under Regulation (EU) .../...⁺, this quantity shall be taken into account for the Member State's compliance with its commitment pursuant to Article 4 *of this Regulation*.

⁺ *OJ: Please insert in the text the number of the Regulation contained in document PE-CONS No/YY (2016/0231(COD)).*

2. To the extent that total removals exceed emissions in a Member State and after subtraction of any quantity taken into account under Article 7 of Regulation (EU) .../...⁺, that Member State may transfer the remaining quantity to another Member State. The transferred quantity shall be taken into account when assessing the receiving Member State's compliance with its commitment pursuant to Article 4 *of this Regulation*.
3. To the extent that total removals exceed emissions in a Member State in the period from 2021 to 2025, and after subtraction of any quantity taken into account under Article 7 of Regulation (EU) .../...⁺ or transferred to another Member State pursuant to paragraph 2 *of this Article*, that Member State may bank the remaining quantity to the period *from 2026 to 2030*.
4. In order to avoid double counting, the quantity of net removals taken into account under Article 7 of Regulation (EU) .../...⁺ shall be subtracted from that Member State's quantity available for transfer to another Member State or banking pursuant to paragraphs 2 *and 3 of this Article*.

⁺ ***OJ: Please insert in the text the number of the Regulation contained in document PE-CONS No/YY (2016/0231(COD)).***

Article 13

Managed forest land flexibility

- 1. Where total emissions exceed removals in the land accounting categories referred to in Article 2 accounted in accordance with this Regulation in a Member State, that Member State may use the managed forest land flexibility in order to comply with Article 4.*
- 2. Where the result of the calculation referred to in Article 8(1) is positive, the Member State concerned is entitled to compensate these emissions provided that:*
 - (a) the Member State in its Long-term low emission strategy submitted in accordance with Article 4 of Regulation (EU) No 525/2013 has included ongoing or envisaged concrete measures to ensure the conservation or enhancement, as appropriate, of sinks and reservoirs from forests; and*
 - (b) within the Union total emissions do not exceed removals in the land accounting categories referred to in Article 2 for the period for which the Member State intends to use the compensation. When assessing whether within the Union total emissions exceed removals, the Commission shall ensure that double counting is avoided, in particular in the exercise of the flexibilities between this Regulation and Regulation (EU) .../...⁺.*

⁺ *OJ: Please insert in the text the number of the Regulation contained in document PE-CONS No/YY (2016/0231(COD)).*

3. ***The following shall apply for the amount of compensation:***
 - (a) ***the Member State concerned may only compensate for sink accounted as emissions against their forest reference level; and***
 - (b) ***only up to the maximum amount of compensation for that Member State set out in Annex VII for the period from 2021 to 2030.***
4. ***Finland may compensate up to 10 million tons of CO₂ equivalent emissions provided that the conditions listed in points (a) and (b) of paragraph 2 are met.***

Article 14

Compliance check

1. ***By 15 March 2027 and by 15 March 2032, Member States shall submit to the Commission a compliance report containing the following:***
 - (a) ***the balance of total emissions and removals for the period from 2021 to 2025 and from 2026 to 2030, respectively, on each of the land accounting categories specified in Article 2, using the accounting rules laid down in this Regulation; and***
 - (b) ***where applicable, details on the intention to use or on the use of the flexibilities and related amounts.***

2. The Commission shall carry out a comprehensive review of the compliance reports for the purpose of assessing compliance with Article 4.
3. ***The Commission shall report in 2027, for the period from 2021 to 2025, and in 2032, for the period 2026 to 2030, on the Union's total emissions and removals of greenhouse gases for each of the land accounting categories referred to in Article 2 calculated as the total reported emissions and removals for the period minus the value obtained by multiplying by five the Union's average annual reported emissions and removals in the period from 2000 to 2009.***
4. The European Environment Agency shall assist the Commission in the implementation of the monitoring and compliance framework under this Article, in accordance with its annual work programme.

Article 15

Registry

1. The Commission shall ***adopt delegated acts in accordance with Article 16 of this Regulation to supplement this Regulation in order to lay down the rules for the recording of*** the quantity of emissions and removals for each land accounting category in each Member State and ensure the accurate accounting in the exercise of the flexibilities pursuant to Article 12 ***and 13 of this Regulation through*** the Union Registry established pursuant to Article 10 of Regulation (EU) No 525/2013.

2. The Central Administrator shall conduct an automated check on each transaction under this Regulation and, where necessary, block transactions to ensure *that* there are no irregularities.
3. *The information referred to in paragraphs 1 and 2* shall be accessible to the public.

Article 16

Exercise of delegation

1. The power to adopt delegated acts is conferred on the Commission subject to the conditions laid down in this Article.
2. The power to adopt delegated acts referred to in *Articles 3(2), 5(6), 8(7), 8(8), 9(2), 10(3)* and *15(I)* shall be conferred on the Commission for *a* period of *five years* from ... [date of entry into force *of this Regulation*]. *The Commission shall draw up a report in respect of the delegation of power not later than nine months before the end of the five-year period. The delegation of power shall be tacitly extended for periods of an identical duration, unless the European Parliament or the Council opposes such extension not later than three months before the end of each period.*

3. The delegation of powers referred to in *Articles 3(2), 5(6), 8(7), 8(8), 9(2), 10(3) and 15(1)* may be revoked at any time by the European Parliament or by the Council. A decision *to revoke* shall put an end to the delegation of the power specified in that decision. It shall take effect the day following the publication of the decision in the *Official Journal of the European Union* or at a later date specified therein. It shall not affect the validity of any delegated acts already in force.
4. Before the adoption of a delegated act, the Commission shall consult experts designated by each Member State in accordance with the principles laid down in the Interinstitutional Agreement *of 13 April 2016* on Better Law-Making .
5. As soon as it adopts a delegated act, the Commission shall notify it simultaneously to the European Parliament and to the Council.
6. A delegated act adopted pursuant to *Articles 3(2), 5(6), 8(7), 8(8), 9(2), 10(3) and 15(1)* shall enter into force only if no objection has been expressed either by the European Parliament or *by* the Council within a period of two months of notification of that act to the European Parliament and the Council or if, before the expiry of that period, the European Parliament and the Council have both informed the Commission that they will not object. That period shall be extended by two months at the initiative of the European Parliament or *of* the Council.

Article 17

Review

1. ***The provisions of this Regulation shall be kept under review taking into account inter alia international developments and efforts undertaken to achieve the long-term objectives of the Paris Agreement.***

On the basis of the findings of the report submitted pursuant to Article 14(3) and the results of the assessment carried out pursuant to point (b) of Article 13(2), the Commission shall, as appropriate, make proposals to ensure the integrity of the Union's overall 2030 greenhouse gas emission reduction target and its contribution to the goals of the Paris Agreement.

2. The Commission shall report to the European Parliament and to the Council ***within six months following each global stocktake agreed under Article 14 of the Paris Agreement*** on the operation of this Regulation, ***including, where relevant, an assessment on the impacts of the flexibilities set out in Article 11, as well as on the contribution of this Regulation to the Union's overall 2030 greenhouse gas emission reduction target and its contribution to the goals of the Paris Agreement, in particular with regard to the need for additional Union policies and measures, including a post-2030 framework, in view of the necessary increase in greenhouse gas emissions reductions and removals in the Union, and shall*** make proposals if appropriate.

Article 18

Amendments to Regulation (EU) No 525/2013

Regulation (EU) No 525/2013 is hereby amended as follows:

(1) Article 7(1) is amended as follows:

(a) the following point is inserted:

"(da) *as of* 2023, their emissions and removals covered by Article 2 of Regulation (EU) .../... of the European Parliament and of the Council** in accordance with the methodologies specified in Annex IIIa to this Regulation;

* **Regulation (EU) .../... of the European Parliament and of the Council of ... on the inclusion of greenhouse gas emissions and removals from land use, land use change and forestry into the 2030 climate and energy framework and amending Regulation (EU) No 525/2013 and Decision No 529/2013/EU (OJ ...)."**

⁺ ***OJ: Please insert in the text the number and in the footnote the number, date and OJ reference of this amending Regulation.***

(b) the following subparagraph is added:

"A Member State may request derogation from point (da) *of the first subparagraph* to apply a different methodology than specified in Annex IIIa if the methodology improvement required could not be achieved in time for the improvement to be taken into account in the greenhouse gas inventories of the period from 2021 to 2030, or the cost of the methodology improvement would be disproportionately high compared to the benefits of applying such methodology to improve accounting for emissions and removals due to the low significance of the emissions and removals from the carbon pools concerned. Member States wishing to benefit from the derogation shall submit a reasoned request to the Commission by 31 December 2020, indicating the timeline by when the methodology improvement could be implemented and/or the alternative methodology proposed, and an assessment of the potential impacts on the accuracy of accounting. The Commission may request additional information to be submitted within a reasonable time period specified. Where the Commission considers that the request is justified, it shall grant the derogation. If the request is rejected, the Commission shall give reasons for its decision."

(2) In **point (c) of** Article 13(1) , the following point is added:

"(ix) **as of** 2023, information on national policies and measures implemented towards meeting their obligations under Regulation (EU) .../...⁺ and information on planned additional national policies and measures envisaged with a view to limiting greenhouse gas emissions or enhancing sinks beyond their commitments under that Regulation;"

(3) In Article 14(1), the following point is inserted:

"(bb) **as of** 2023, total greenhouse gas projections and separate estimates for the projected greenhouse gas emissions and removals covered by Regulation (EU) .../...⁺ ".

(4) The following Annex IIIa is inserted:

"Annex IIIa

Methodologies for monitoring and reporting referred to in **point (da) of** Article 7(1)

Approach 3: Geographically-explicit land-use conversion data **in accordance with the 2006 IPCC Guidelines for National Greenhouse Gas Inventories**.

⁺ **OJ: Please insert in the text the number of this amending Regulation.**

Tier 1 methodology in accordance with the 2006 IPCC guidelines for National Greenhouse Gas Inventories.

For emissions and removals for a carbon pool that accounts for at least 25-30 % of emissions or removals in a source or sink category which is prioritised within a Member State's national inventory system because its estimate has a significant influence on a country's total inventory of greenhouse gases in terms of the absolute level of emissions and removals, the trend in emissions and removals, or the uncertainty in emissions and removals in the land-use categories, at least Tier 2 methodology in accordance with the 2006 IPCC *Guidelines* for National Greenhouse Gas Inventories.

Member States are encouraged to apply Tier 3 methodology , in accordance with the 2006 IPCC *Guidelines* for National Greenhouse Gas Inventories."

Article 19

Amendment to Decision (EU) No 529/2013

In Decision No 529/2013/EU, the first subparagraph of Article 3(2) and Article 6(4) are deleted.

Article 20

Entry into force

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 ...,

For the European Parliament

The President

For the Council

The President

ANNEX I

GREENHOUSE GASES AND CARBON POOLS

A. Greenhouse gases pursuant to Article 2:

- (a) carbon dioxide (CO₂);
- (b) methane (CH₄);
- (c) nitrous oxide (N₂O)

expressed in terms of tonnes of CO₂ equivalent determined pursuant to Regulation (EU) No 525/2013.

B. Carbon pools pursuant to Article 5(4):

- (a) above-ground biomass;
- (b) below-ground biomass;
- (c) litter;
- (d) dead wood;
- (e) soil organic carbon;
- (f) for afforested land and managed forest land: harvested wood products.

ANNEX II

MINIMUM VALUES FOR AREA SIZE, TREE CROWN COVER AND TREE HEIGHT

Minimum values for area size, tree crown cover and tree height			
Member State	Area (ha)	Tree crown cover (%)	Tree height (m)
Belgium	0,5	20	5
Bulgaria	0,1	10	5
Croatia	0,1	10	2
Czech Republic	0,05	30	2
Denmark	0,5	10	5
Germany	0,1	10	5
Estonia	0,5	30	2
Ireland	0,1	20	5
Greece	0,3	25	2
Spain	1,0	20	3
France	0,5	10	5
Italy	0,5	10	5
Cyprus	0,3	10	5
Latvia	0,1	20	5
Lithuania	0,1	30	5
Luxembourg	0,5	10	5
Hungary	0,5	30	5
Malta	1,0	30	5
Netherlands	0,5	20	5
Austria	0,05	30	2
Poland	0,1	10	2

Portugal	1,0	10	5
Romania	0,25	10	5
Slovenia	0,25	30	2
Slovakia	0,3	20	5
Finland	0,5	10	5
Sweden	0,5	10	5
United Kingdom	0,1	20	2

ANNEX III

BASE YEARS FOR THE PURPOSES OF CALCULATING THE CAP PURSUANT TO
ARTICLE 8(2)

Member State	Base Year
Belgium	1990
Bulgaria	1988
Croatia	1990
Czech Republic	1990
Denmark	1990
Germany	1990
Estonia	1990
Ireland	1990
Greece	1990
Spain	1990
France	1990
Italy	1990
Cyprus	1990
Latvia	1990
Lithuania	1990
Luxembourg	1990
Hungary	1985-87
Malta	1990
Netherlands	1990
Austria	1990
Poland	1988
Portugal	1990
Romania	1989
Slovenia	1986
Slovakia	1990
Finland	1990
Sweden	1990
United Kingdom	1990

ANNEX IV

**NATIONAL FORESTRY ACCOUNTING PLAN CONTAINING
A MEMBER STATE'S FOREST REFERENCE LEVEL**

A. Criteria *and guidance* for determining forest reference levels

Member State forest reference levels shall be determined in accordance with the following criteria:

- (a) reference levels shall be consistent with the goal of achieving a balance between anthropogenic emissions by sources and removals by sinks of greenhouse gases in the second half of this century, *including enhancing the potential removals by aging forest stocks, which may otherwise show progressively declining sink*;
- (b) reference levels shall ensure that the mere presence of carbon stocks is excluded from accounting;
- (c) reference levels should ensure a robust and credible accounting, to guarantee that emissions and removals resulting from biomass use are properly accounted for;
- (d) reference levels shall include the carbon pool of harvested wood products, providing a comparison between assuming instantaneous oxidation and applying the first-order decay function and half-life values;

- (e) *a constant ratio between solid and energy use of forest biomass as documented in the period from 2000 to 2009 shall be assumed;*
- (f) reference levels should *be consistent with* the objective of contributing to the conservation of biodiversity and the sustainable use of natural resources, as set out in the EU forest strategy, Member States' national forest policies, and the EU biodiversity strategy;
- (g) reference levels shall be consistent with the national projections of anthropogenic greenhouse gas emissions by sources and removals by sinks reported under Regulation (EU) No 525/2013;
- (h) reference levels shall be consistent with greenhouse gas inventories and relevant historical data and shall be based on transparent, complete, consistent, comparable and accurate information. In particular, the model used to construct the reference level shall be able to reproduce historical data from the national greenhouse gas inventory.

B. Elements of the national forestry accounting plan

The national forestry accounting plan submitted pursuant to Article 8 shall contain the following elements:

- (a) a general description of the construction of the reference level and a description on how the criteria in this Regulation were taken into account;
- (b) identification of the carbon pools and greenhouse gases which have been included in the reference level, reasons for omitting a carbon pool from the reference level construction, and demonstration of the consistency between the pools included in the reference level;
- (c) a description of approaches, methods and models, including quantitative information, used in the construction of the reference level, consistent with the most recently submitted national inventory report and documentary information on *sustainable* forest management *practices* and intensity *and adopted national policies*;
- (d) information on how harvesting rates are expected to develop under different policy scenarios;

- (e) a description of how each of the following elements were considered in the construction of the reference level:
- (1) area under forest management;
 - (2) emissions and removals from forests and harvested wood products as shown in greenhouse gas inventories and relevant historical data;
 - (3) forest characteristics, including *dynamic age related forests characteristics*, increments, rotation length and other information on forest management activities under ‘business as usual’;
 - (4) historical and future harvesting rates disaggregated between energy and non-energy uses.

**FIRST ORDER DECAY FUNCTION AND DEFAULT HALF-LIFE VALUES
FOR HARVESTED WOOD PRODUCTS**

Methodological issues

- If it is not possible to differentiate between harvested wood products on afforested land and on managed forest land, a Member State may choose to account for harvested wood products assuming that all emissions and removals occurred on managed forest land.
- Harvested wood products in solid waste disposal sites and harvested wood products that were harvested for energy purposes shall be accounted for on the basis of instantaneous oxidation.
- Imported harvested wood products, irrespective of their origin, are not accounted for by the importing Member State ('production approach').
- For exported harvested wood products, country-specific data refers to country-specific half-life values and harvested wood products usage in the importing country.

- Country-specific half-life values for harvested wood products placed on the market in the Union should not deviate from those used by the importing Member State.
- Member States may, for information purposes only, provide in their submission data on the share of wood used for energy purposes that was imported from outside the Union, and the countries of origin for such wood.

Member States may use country-specific methodologies and half-life values instead of the methodologies and default half-life values specified in this Annex, provided that those methodologies and values are determined on the basis of transparent and verifiable data and that the methods used are at least as detailed and accurate as those specified in this Annex.

First order decay function *as described in latest IPCC Guidance*, starting with $i = 1900$ and continuing to present year.

Default half-life values:

Half-life value means the number of years it takes for the quantity of carbon stored in a harvested wood products category to decrease to one half of its initial value. Default half-life values (HL):

- (a) 2 years for paper
- (b) 25 years for wood panels
- (c) 35 years for sawn wood.

Member States may supplement those categories with information on bark, provided that the available data is transparent and verifiable. Member States may also use country-specific sub-categories of any of those categories.

ANNEX VI

CALCULATION OF BACKGROUND LEVELS FOR NATURAL DISTURBANCES

1. For the calculation of the background level, the following information shall be provided:
 - (a) historic levels of emissions caused by natural disturbances;
 - (b) the type(s) of natural disturbance included in the estimation;
 - (c) total annual emissions estimations for those natural disturbance types for the period 2001-2020, listed by land accounting categories;
 - (d) demonstration of the time series consistency in all relevant parameters, including minimum area, emission estimation methodologies, coverages of pools and gases.
2. The background level is calculated as the average of the 2001-2020 time series excluding all years where abnormal levels of emissions were recorded, i.e. excluding all statistical outliers. The identification of statistical outliers shall happen as follows:
 - (a) calculate the arithmetic average value and the standard deviation of the full time series 2001-2020;

- (b) exclude from the time series all years where the annual emissions are outside twice the standard deviation around the average;
 - (c) calculate again the arithmetic average value and the standard deviation of the time series 2001-2020 minus the years excluded in *point* (b);
 - (d) repeat *points* (b) and (c) until no outliers can be identified.
3. After calculating the background level pursuant to point 2 of this Annex, if emissions in a particular year in the periods from 2021 to 2025 and from 2026 to 2030 exceed the background level plus a margin, the amount of emissions exceeding the background level may be excluded in accordance with Article 10. The margin shall be equal to a probability level of 95 %.
4. The following emissions cannot be excluded:
- (a) emissions resulting from harvesting and salvage logging activities that took place on those lands following the occurrence of the natural disturbances;
 - (b) emissions resulting from prescribed burning that took place on those lands in that particular year of the period from 2021 to 2025 or from 2026 to 2030;

- (c) emissions on lands that were subject to deforestation following the occurrence of natural disturbances.

5. Information requirements pursuant to Article 10(2) include the following:

- (a) identification of all land areas affected by natural disturbances in that particular year, including their geographical location, the period and types of natural disturbances;
- (b) evidence that no deforestation has occurred during the rest of the period from 2021 to 2025 or from 2026 to 2030 on lands that were affected by natural disturbances and in respect of which emissions were excluded from accounting;
- (c) description of verifiable methods and criteria to be used to identify deforestation on those lands in the subsequent years of the period from 2021 to 2025 or from 2026 to 2030;
- (d) where feasible, description of measures the Member State undertook to prevent or limit the impact of those natural disturbances;
- (e) where feasible, description of measures the Member State undertook to rehabilitate the lands affected by those natural disturbances.

ANNEX VII

**MAXIMUM AMOUNT OF COMPENSATION AVAILABLE UNDER THE MANAGED
FOREST LAND FLEXIBILITY REFERRED TO IN POINT (A) OF ARTICLE 13(3)**

<i>Member State</i>	<i>Reported average forest sink 2000-2009 in million tonnes CO₂ equivalent per year</i>	<i>Compensation limit expressed in million tonnes of CO₂ equivalent for the period 2021-2030</i>
<i>Austria</i>	<i>-5,34</i>	<i>-17,1</i>
<i>Belgium</i>	<i>-3,61</i>	<i>-2,2</i>
<i>Bulgaria</i>	<i>-9,31</i>	<i>-5,6</i>
<i>Czech Republic</i>	<i>-5,14</i>	<i>-3,1</i>
<i>Cyprus</i>	<i>-0,15</i>	<i>-0,03</i>
<i>Germany</i>	<i>-45,94</i>	<i>-27,6</i>
<i>Denmark</i>	<i>-0,56</i>	<i>-0,1</i>
<i>Estonia</i>	<i>-3,07</i>	<i>-9,8</i>
<i>Greece</i>	<i>-1,75</i>	<i>-1,0</i>
<i>Spain</i>	<i>-26,51</i>	<i>-15,9</i>
<i>Finland</i>	<i>-36,79</i>	<i>-44,1</i>
<i>France</i>	<i>-51,23</i>	<i>-61,5</i>
<i>Croatia</i>	<i>-8,04</i>	<i>-9,6</i>
<i>Hungary</i>	<i>-1,58</i>	<i>-0,9</i>
<i>Ireland</i>	<i>-0,85</i>	<i>-0,2</i>
<i>Italy</i>	<i>-24,17</i>	<i>-14,5</i>
<i>Lithuania</i>	<i>-5,71</i>	<i>-3,4</i>
<i>Luxembourg</i>	<i>-0,49</i>	<i>-0,3</i>
<i>Latvia</i>	<i>-8,01</i>	<i>-25,6</i>
<i>Malta</i>	<i>0,00</i>	<i>0,0</i>
<i>Netherlands</i>	<i>-1,72</i>	<i>-0,3</i>
<i>Poland</i>	<i>-37,50</i>	<i>-22,5</i>
<i>Portugal</i>	<i>-5,13</i>	<i>-6,2</i>
<i>Romania</i>	<i>-22,34</i>	<i>-13,4</i>
<i>Sweden</i>	<i>-39,55</i>	<i>-47,5</i>
<i>Slovakia</i>	<i>-5,42</i>	<i>-6,5</i>
<i>Slovenia</i>	<i>-5,38</i>	<i>-17,2</i>
<i>United Kingdom</i>	<i>-16,37</i>	<i>-3,3</i>