

I

(Legislative acts)

REGULATIONS

REGULATION (EU) 2023/839 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

of 19 April 2023

amending Regulation (EU) 2018/841 as regards the scope, simplifying the reporting and compliance rules, and setting out the targets of the Member States for 2030, and Regulation (EU) 2018/1999 as regards improvement in monitoring, reporting, tracking of progress and review

(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 Committee ⁽¹⁾,

Having regard to the opinion of the Committee of the Regions ⁽²⁾,

Acting in accordance with the ordinary legislative procedure ⁽³⁾,

Whereas:

- (1) The Paris Agreement, adopted on 12 December 2015 under the United Nations Framework Convention on Climate Change (UNFCCC) (the 'Paris Agreement'), entered into force on 4 November 2016. The Parties to the Paris Agreement have agreed to hold the increase in the global average temperature well below 2 °C above pre-industrial levels and to pursue efforts to limit the temperature increase to 1,5 °C above pre-industrial levels. That commitment has been reinforced with the adoption under the UNFCCC of the Glasgow Climate Pact on 13 November 2021, in which the Conference of the Parties to the UNFCCC, serving as the meeting of the Parties to the Paris Agreement, recognises that the impacts of climate change will be much lower at a temperature increase of 1,5 °C, compared with 2 °C, and resolves to pursue efforts to limit the temperature increase to 1,5 °C.
- (2) In its 2019 Global Assessment Report on Biodiversity and Ecosystem Services, the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) provided the latest scientific evidence on the ongoing worldwide erosion of biodiversity. The communication of the Commission of 20 May 2020 on an EU Biodiversity Strategy for 2030 – Bringing nature back into our lives (the 'EU Biodiversity Strategy for 2030') steps up the Union's ambition regarding the protection and restoration of biodiversity and well-functioning ecosystems. Forests and healthy soils are extremely important for biodiversity, but also for the purification of air and water, carbon sequestration and storage, and the provision of sustainably sourced long-lived wood products. The nature and function of forests is highly variable across the Union, with certain types of forests being more vulnerable to climate

⁽¹⁾ OJ C 152, 6.4.2022, p. 192.

⁽²⁾ OJ C 301, 5.8.2022, p. 221.

⁽³⁾ Position of the European Parliament of 14 March 2023 (not yet published in the Official Journal) and decision of the Council of 28 March 2023.

change due to direct impacts, such as drought, temperature-induced forest dieback or changes in aridity. Deforestation and forest degradation contribute to the global climate crisis as they increase greenhouse gas emissions, *inter alia* through associated forest fires, thus permanently removing carbon sink capacities, decreasing the climate change resilience of the affected areas and substantially reducing their biodiversity.

Soil organic carbon and carbon pools of deadwood, much of which feed the soil carbon pool, are also of particularly high relevance in a number of reporting categories, for both climate action and biodiversity protection. The communication of the Commission of 16 July 2021 on a new EU Forest Strategy for 2030 (the 'New EU Forest Strategy for 2030') and the communication of the Commission of 17 November 2021 on the EU Soil Strategy for 2030 – Reaping the benefits of healthy soils for people, food, nature and climate (the 'EU Soil Strategy for 2030') both recognised the need to protect and improve the quality of forests and soil ecosystems in the Union, and to encourage reinforced sustainable management practices that can enhance carbon sequestration and strengthen the resilience of forests and soils in light of the climate and biodiversity crises. Peatlands are the largest terrestrial store of organic carbon, and improving peatland management and protection is an important aspect contributing to climate change mitigation, and to the protection of biodiversity and of the soil against erosion.

- (3) The communication of the Commission of 11 December 2019 on the European Green Deal (the 'European Green Deal') provides a starting point for the achievement of the Union's climate-neutrality objective at the latest by 2050 and the aim of achieving negative emissions thereafter laid down in Article 2(1) of Regulation (EU) 2021/1119 of the European Parliament and of the Council ⁽⁴⁾. It combines a comprehensive set of mutually reinforcing measures and initiatives aimed at achieving climate neutrality in the Union by 2050, and sets out a new growth strategy that aims to transform the Union into a fair and prosperous society, with a modern, resource-efficient and competitive economy where economic growth is decoupled from resource use. It also aims to protect, conserve and enhance the Union's natural capital, and protect the health and well-being of citizens from environment-related risks and impacts. At the same time, that transition has gender equality aspects as well as particular impacts on some disadvantaged and vulnerable groups, such as older people, persons with disabilities and persons with a minority racial or ethnic background. It must therefore be ensured that the transition is just and inclusive, leaving no one behind.
- (4) Tackling climate and environmental-related challenges and reaching the objectives of the Paris Agreement are at the core of the European Green Deal. The European Parliament called, in its resolution of 15 January 2020 on the European Green Deal ⁽⁵⁾, for the necessary transition to a climate-neutral society by 2050 at the latest and, in its resolution of 28 November 2019 on the climate and environment emergency, declared a climate and environment emergency ⁽⁶⁾. The necessity and the value of the European Green Deal have only grown in light of the very severe effects of the COVID-19 pandemic on the health and economic well-being of the Union's citizens.
- (5) It is important to ensure that measures taken to meet the objectives of this Regulation are pursued in line with the objective of promoting sustainable development as set out in Article 3 of the Treaty on European Union (TEU), taking into account the UN Sustainable Development Goals, the Paris Agreement and the 'do no significant harm' principle, where relevant, within the meaning of Article 17 of Regulation (EU) 2020/852 of the European Parliament and of the Council ⁽⁷⁾.
- (6) The Union committed to reducing the Union's economy-wide net greenhouse gas emissions by at least 55 % compared to 1990 levels by 2030 in the updated nationally determined contribution submitted to the UNFCCC Secretariat on 17 December 2020.

⁽⁴⁾ Regulation (EU) 2021/1119 of the European Parliament and of the Council of 30 June 2021 establishing the framework for achieving climate neutrality and amending Regulations (EC) No 401/2009 and (EU) 2018/1999 ('European Climate Law') (OJ L 243, 9.7.2021, p. 1).

⁽⁵⁾ OJ C 270, 7.7.2021, p. 2.

⁽⁶⁾ OJ C 232, 16.6.2021, p. 28.

⁽⁷⁾ Regulation (EU) 2020/852 of the European Parliament and of the Council of 18 June 2020 on the establishment of a framework to facilitate sustainable investment, and amending Regulation (EU) 2019/2088 (OJ L 198, 22.6.2020, p. 13).

- (7) Through the adoption of Regulation (EU) 2021/1119, the Union has enshrined the objective of achieving a balance between anthropogenic economy-wide emissions by sources and removals by sinks of greenhouse gases domestically within the Union by 2050 and, as appropriate, of achieving negative emissions thereafter in legislation. That Regulation also establishes a binding Union domestic reduction target for net greenhouse gas emissions (emissions after deduction of removals) of at least 55 % compared to 1990 levels by 2030. All sectors of the economy are expected to contribute to achieving that target, including the land use, land use change and forestry ('LULUCF') sector. In order to ensure that sufficient mitigation efforts are deployed in other sectors up to 2030, the contribution of net removals to the 2030 Union climate target is limited to 225 million tonnes of CO₂ equivalent. In the context of Regulation (EU) 2021/1119, the Commission reaffirmed in a corresponding statement its intention to propose a revision of Regulation (EU) 2018/841 of the European Parliament and of the Council ⁽⁸⁾, in line with the ambition to increase net carbon removals to levels above 300 million tonnes of CO₂ equivalent in the LULUCF sector by 2030.
- (8) In order to contribute to the increased ambition to reduce greenhouse gas net emissions from at least 40 % to at least 55 % compared to 1990 levels, and to ensure that the LULUCF sector makes a sustainable and predictable long-term contribution to the Union climate neutrality objective, binding targets for the increase of net greenhouse gas removals should be set out for each Member State in the LULUCF sector in the period from 2026 to 2030, resulting in a target of 310 millions of tonnes of CO₂ equivalent of net removals for the Union as a whole in 2030. The methodology used to establish the national targets for 2030 should take into account the gap between the Union target and the average greenhouse gas emissions and removals from the years 2016, 2017 and 2018, reported by each Member State in its 2020 submission, and reflect the current mitigation performance of the LULUCF sector, and each Member State's share of the managed land area in the Union, taking into account the capacity of that Member State to improve its performance in the sector via land management practices or changes in land use that benefit the climate and biodiversity. An overachievement by Member States would further contribute to meeting the Union's climate objectives.
- (9) The binding targets for the increased ambition of net greenhouse gas emissions and removals should be determined for each Member State by a linear trajectory. The trajectory should start in 2022 at the average of greenhouse gas emissions reported by that Member State during 2021, 2022 and 2023, and end in 2030 on the target set out for that Member State. In order to ensure the collective achievement of the 2030 Union target while taking into account the interannual variability of the greenhouse gas emissions and removals in the LULUCF sector, it is appropriate to set for each Member State a commitment to achieve a sum of net greenhouse gas emissions and removals for the period from 2026 to 2029 (the 'budget for 2026 to 2029') in addition to the national target for the year 2030.
- (10) The accounting rules set out in Articles 6, 7, 8 and 10 of Regulation (EU) 2018/841 were designed to determine the extent to which mitigation performance in the LULUCF sector could contribute to the 2030 Union target for reduction of greenhouse gas net emissions of 40 %, which did not include the LULUCF sector. In order to simplify the regulatory framework for that sector, the current accounting rules should not apply after 2025, and the compliance with national targets of the Member States should be verified on the basis of reported greenhouse gas emissions and removals. This would provide methodological consistency with Directive 2003/87/EC of the European Parliament and of the Council ⁽⁹⁾, with Regulation (EU) 2018/842 of the European Parliament and of the Council ⁽¹⁰⁾, and with the new target for reduction of greenhouse gas net emissions of at least 55 %, which includes the LULUCF sector.

⁽⁸⁾ 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).

⁽⁹⁾ Directive 2003/87/EC of the European Parliament and of the Council of 13 October 2003 establishing a system for greenhouse gas emission allowance trading with the Union and amending Council Directive 96/61/EC (OJ L 275, 25.10.2003, p. 32).

⁽¹⁰⁾ Regulation (EU) 2018/842 of the European Parliament and of the Council of 30 May 2018 on binding annual greenhouse gas emission reductions by Member States from 2021 to 2030 contributing to climate action to meet commitments under the Paris Agreement and amending Regulation (EU) No 525/2013 (OJ L 156, 19.6.2018, p. 26).

- (11) On 16 June 2022, the Council adopted a Recommendation on ensuring a fair transition towards climate neutrality ⁽¹⁾, where it highlighted the need for accompanying measures and for paying particular attention to supporting those regions, industries, micro, small and medium-sized enterprises, workers, households and consumers that will face the greatest challenges. That Recommendation encourages Member States to consider a set of measures in the areas of employment and labour market transitions, job creation and entrepreneurship, health and safety at work, public procurement, taxation and social protection systems, essential services and housing, as well as, *inter alia*, with a view to strengthening gender equality, education and training.
- (12) Considering the specificities of the LULUCF sector in each Member State, as well as the fact that Member States need to increase their performance to achieve their national binding targets, a range of flexibilities should remain at the disposal of the Member States, including trading surpluses and the extension of forest-specific flexibilities, while respecting the environmental integrity of the targets.
- (13) Alternative provisions for natural disturbances (abiotics and biotics) such as fires, pest outbreaks, storms and extreme flood events, in order to address uncertainties due to natural processes in the LULUCF sector, should be available in 2032 to Member States that have done their utmost to take account of any Commission opinion addressed to them in the context of corrective action introduced by this amending Regulation, provided that they have exhausted all other flexibilities at their disposal, put in place appropriate measures to reduce the vulnerability of their land to such disturbances and that the 2030 Union target for the LULUCF sector has been achieved.
- (14) Additionally, the diffuse and long-term effects of climate change, as opposed to natural disturbances which are, in essence, more temporary and geographically localised, should be taken into account. This should also make it possible to take into account the legacy effects of past management measures linked to a proportion of organic soils on managed land that is exceptionally high compared to the Union average in a few Member States. The unused amounts of compensation available under Annex VII over the period 2021 to 2030 should be made available for that purpose, based on the submission of evidence to the Commission by the Member States concerned on the basis of the best available scientific knowledge and of objective, measurable and comparable indicators such as the aridity index, within the meaning of the United Nations Convention to combat desertification in those countries experiencing serious drought and/or desertification, particularly in Africa ⁽²⁾, defined as the ratio between mean annual precipitation and mean annual evapotranspiration. The allocation among Member States should be made, in the light of the evidence submitted, on the basis of the ratio between the amount of 50 Mt CO₂ equivalent available and the total amount of compensation requested by those Member States.
- (15) In order to ensure uniform conditions for the implementation of the provisions of Regulation (EU) 2018/841 concerning the setting out of the annual greenhouse gas emissions and removals for each year in the period from 2026 to 2029 established on the basis of a linear trajectory ending in the target for 2030 for Member States, and for adopting detailed rules on the methodology for evidence concerning long-term impacts of climate change that are beyond the control of Member States and concerning the effects of an exceptionally high proportion of organic soils, implementing powers should be conferred on the Commission. Those powers should be exercised in accordance with Regulation (EU) No 182/2011 of the European Parliament and of the Council ⁽³⁾.
- (16) The rules for governance should be set out in a manner promoting early action towards achieving the intermediate Union climate target for 2030 and the economy-wide climate neutrality objective of the Union, following the trajectory for the years 2026 to 2029 introduced by this amending Regulation. The principles laid down in Regulation (EU) 2018/842 should apply *mutatis mutandis*, with a multiplier calculated in the following way: 108 % of the gap between a Member State's budget for 2026 to 2029 and the corresponding net removals reported will be added to the figure reported for 2030 by that Member State. In addition, any deficit accumulated by 2030 by each Member State should be taken into account where the Commission submits proposals concerning the post-2030 period.

⁽¹⁾ Council Recommendation of 16 June 2022 on ensuring a fair transition towards climate neutrality (OJ C 243, 27.6.2022, p. 35).

⁽²⁾ OJ L 83, 19.3.1998, p. 3.

⁽³⁾ Regulation (EU) No 182/2011 of the European Parliament and of the Council of 16 February 2011 laying down the rules and general principles concerning mechanisms for control by Member States of the Commission's exercise of implementing powers (OJ L 55, 28.2.2011, p. 13).

- (17) The Union and the Member States are parties to the United Nations Economic Commission for Europe Convention on access to information, public participation in decision-making and access to justice in environmental matters ⁽¹⁴⁾ (the 'Aarhus Convention'). Public scrutiny and access to justice are essential elements of the democratic values of the Union and tools to safeguard the rule of law.
- (18) In order to allow swift and effective action, where the Commission finds that a Member State is not making sufficient progress towards its 2030 target, taking into account the trajectory, the budget for 2026 to 2029 and the flexibilities under this Regulation, a corrective action mechanism should apply to help that Member State get back on the trajectory towards 2030, by ensuring that additional actions are taken, leading to enhanced net greenhouse gas removals.
- (19) Greenhouse gas inventories will improve with increased use of monitoring technology and better knowledge. For Member States that improve their methodology of calculating the emissions and removals, a concept of methodological adjustment should be introduced. The following issues, for instance, could trigger a methodological adjustment: changes in reporting methodologies, new data or corrections of statistical errors, inclusion of new carbon pools or gases, recalculation of historical estimates based on new scientific evidence, in accordance with the 2006 IPCC Guidelines for National Greenhouse Gas Inventories, inclusion of new reporting elements and improved monitoring of natural disturbances. A methodological adjustment should be applied to the greenhouse gas emission inventory data of that Member State in order to neutralize the effect of the changes in methodology on the assessment of the collective achievement of the 2030 Union target, in order to respect environmental integrity.
- (20) In Europe, National Forest Inventories are used to provide information for forest ecosystem service assessments. The forest inventory monitoring system differs from country to country, as each country has its own forest inventory system with its own methodology. The New EU Forest Strategy for 2030 stressed the need for strategic forest planning in all Member States, based on reliable monitoring and data, transparent governance and coordinated exchange at Union level. To that end, the Commission has announced that it intends to submit a legislative proposal to establish a Union-wide integrated forest monitoring framework.
- (21) In order to amend and supplement non-essential elements of Regulations (EU) 2018/841 and (EU) 2018/1999, 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 supplementing Regulation (EU) 2018/841 in order to lay down the rules for the recording and accurate carrying out of operations in the Union Registry established pursuant to Article 40 of Regulation (EU) 2018/1999 and in respect of amending Part 3 of Annex V to Regulation (EU) 2018/1999 by updating the list of categories in accordance with relevant Union legislation. 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-Making ⁽¹⁵⁾. 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 systematically have access to meetings of Commission expert groups dealing with the preparation of delegated acts.
- (22) The communication of the Commission of 17 September 2020 on Stepping up Europe's 2030 climate ambition outlined different pathways and policy options to reach the Union's increased 2030 climate target. It stressed that reaching climate neutrality will require Union action to be significantly stepped up in all sectors of the economy. Carbon sinks play an essential role in the transition to climate neutrality in the Union, and, in particular, the agriculture, forestry and land use sectors can make an important contribution in that context. Where the Commission carries out an assessment of the operation of Regulation (EU) 2018/841 as part of the review introduced by this amending Regulation, and prepares a report for the European Parliament and for the Council, it should include the current trends and future projections of emissions of greenhouse gases from agriculture, on the one hand, and of emissions and removals of greenhouse gases from cropland, grassland and wetlands, on the other, and explore regulatory options to ensure that they are consistent with the objective of achieving long-term greenhouse gas emission reductions in all sectors of the economy in accordance with the Union's climate-neutrality

⁽¹⁴⁾ OJ L 124, 17.5.2005, p. 4.

⁽¹⁵⁾ OJ L 123, 12.5.2016, p. 1.

objective and the intermediate climate targets. In addition, the Commission should pay specific attention to the effects of the forest age structure, including where those effects are linked to specific wartime or post-war circumstances, in a scientifically robust, reliable and transparent way, and with a view to ensuring the long-term resilience and adaptive capacity of forests.

Taking into account the importance of each sector making a fair contribution and the fact that the transition to climate neutrality requires changes across the entire policy spectrum and a collective effort of all sectors of the economy and society, as highlighted in the European Green Deal, the Commission should submit legislative proposals, where appropriate, setting the post-2030 framework.

- (23) The expected anthropogenic changes regarding greenhouse gas emissions and removals in marine and freshwater environments can be significant, and are expected to vary in the future as a result of changes in use through, for instance, planned expansion of offshore energy, potential increase in aquaculture production and the increasing levels of nature protection needed to meet the targets of the EU Biodiversity Strategy for 2030. Currently, those emissions and removals are not included in the standard reporting tables to the UNFCCC. Subsequent to the adoption of the reporting methodology, the Commission should be able to consider reporting on the progress, feasibility of analysis and impact of extending the reporting to marine and freshwater environments based on the latest scientific evidence of those fluxes when carrying out the review introduced by this amending Regulation.
- (24) In order to reach the target of climate neutrality by 2050 and to aim to achieve negative emissions thereafter, it is of the utmost importance that greenhouse gas removals within the Union increase continuously, while ensuring that their permanence is maintained. Technical solutions, such as bioenergy with carbon capture and storage ('BECCS'), as well as nature-based solutions for capturing and storing CO₂ emissions may, where appropriate, be necessary. In particular, individual farmers, land and forest owners or forest managers need to be encouraged to store more carbon on their land and their forests, prioritising ecosystem-based approaches and biodiversity-friendly practices, such as close-to-nature forestry practices, set-aside areas, the restoration of forest carbon stocks, expansion of agroforestry coverage, soil carbon sequestration and restoration of wetlands as well as other innovative solutions. Such incentives enhance climate mitigation and overall emission reduction across sectors in the bio-economy, including through the use of durable harvested wood products, in full respect of ecological principles fostering biodiversity and the circular economy. It should be possible to consider setting up a process for inclusion of sustainable carbon storage products under the scope of Regulation (EU) 2018/841 within the review introduced by this amending Regulation, providing for consistency with other Union environmental objectives, as well as IPCC Guidelines.
- (25) Given the importance of providing financial support to land and forest owners or managers to achieve the targets set out in this amending Regulation, the Commission should, when assessing the draft updates of the latest notified integrated national energy and climate plans under Regulation (EU) 2018/1999, ensure that the financial support, including the relevant share of revenues generated from the auctioning of EU ETS allowances under Directive 2003/87/EC and that are used for LULUCF, is directed to policies and measures that are tailor-made to achieve the budgets and targets of the Member States set out in this amending Regulation. In its assessment, the Commission should pay particular attention to the promotion of ecosystem-based approaches and the need to ensure permanence of additional greenhouse gas removals, taking into account existing legislation.
- (26) The setting of the 2030 Union target is framed by inventory data reported by Member States for the years 2016, 2017 and 2018. The robustness of the submitted inventory reports is of high importance. Therefore, the methodologies applied by Member States should be verified where the net removals have significantly decreased for the years 2016, 2017 and 2018. In accordance with the principle of transparency and to enhance confidence in progress made in reporting, the results of those verifications should be made publicly available. Based on those verifications, the Commission should, where appropriate, make proposals to ensure that the Union remains on track to meet its 310 Mt net removal target.

- (27) With a view to setting out the trajectory for the Member States for the period from 2026 to 2029, the Commission should carry out a comprehensive review to verify the greenhouse gas inventory data for the years 2021, 2022 and 2023. For that purpose, a comprehensive review should be carried out in 2025, in addition to the comprehensive reviews that the Commission is to carry out in 2027 and 2032 in accordance with Article 38 of Regulation (EU) 2018/1999.
- (28) The values for each Member State for tree crown cover in Annex II to Regulation (EU) 2018/841 should be aligned with the values reported to the UNFCCC or foreseeable updates to those values.
- (29) Due to the introduction of reporting-based targets as a result of this amending Regulation, greenhouse gas emissions and removals need to be estimated with a higher level of accuracy. Moreover, the EU Biodiversity Strategy for 2030, the communication of the Commission of 20 May 2020 on a Farm to Fork Strategy for a fair, healthy and environmentally-friendly food system, the New EU Forest Strategy for 2030, the EU Soil Strategy for 2030, the communication of the Commission of 15 December 2021 on Sustainable Carbon Cycles, Directive (EU) 2018/2001 of the European Parliament and of the Council ⁽¹⁶⁾ and the communication of the Commission of 24 February 2021 on Forging a climate-resilient Europe - the new EU Strategy on Adaptation to Climate Change will all require enhanced monitoring of land, thereby helping to protect and enhance the resilience of nature-based carbon removals throughout the Union. The monitoring and reporting of emissions and removals needs to be upgraded, where applicable, using advanced technologies available under Union programmes, such as Copernicus, and digital data collected under the Common Agricultural Policy, applying the twin transition of green and digital innovation.
- (30) Mapping and monitoring provisions, both in field and remote sensing monitoring, should be introduced in order to allow Member States to have geographically explicit information to identify priority areas that have the potential to contribute to climate action. As part of a general improvement of monitoring, reporting and verification, the work should also focus on harmonising and refining databases of activity and emissions factors to improve greenhouse gas inventories.
- (31) Since the objectives of this Regulation, in particular to adjust, in light of Regulation (EU) 2021/1119, the commitments of Member States for the LULUCF sector 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, 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 TEU. 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.
- (32) Regulations (EU) 2018/841 and (EU) 2018/1999 should therefore be amended accordingly,

HAVE ADOPTED THIS REGULATION:

Article 1

Regulation (EU) 2018/841 is amended as follows:

- (1) Article 1 is replaced by the following:

'Article 1

Subject matter

This Regulation sets out rules concerning:

- (a) commitments of Member States for the land use, land use change and forestry ('LULUCF') sector 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 2025;

⁽¹⁶⁾ 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 (OJ L 328, 21.12.2018, p. 82).

- (b) accounting of greenhouse gas emissions and removals from the LULUCF sector and checking the compliance of Member States with the commitments referred to in point (a) for the period from 2021 to 2025;
- (c) a 2030 Union target for net greenhouse gas removals in the LULUCF sector;
- (d) targets for net greenhouse gas removals in the LULUCF sector for Member States for the period from 2026 to 2030.;

(2) Article 2 is replaced by the following:

Article 2

Scope

1. This Regulation applies to emissions and removals of the greenhouse gases listed in Section A of Annex I to this Regulation, reported pursuant to Article 26(4) of Regulation (EU) 2018/1999 of the European Parliament and of the Council (*) and occurring on the territories of Member States in the period from 2021 to 2025 in any of the following land accounting categories:

- (a) land use reported as cropland, grassland, wetlands, settlements or other land, converted to forest land (“afforested land”);
- (b) land use reported as forest land converted to cropland, grassland, wetlands, settlements or other land (“deforested land”);
- (c) land use reported as any of the following (“managed cropland”):
 - (i) cropland remaining cropland;
 - (ii) grassland, wetland, settlement or other land, converted to cropland;
 - (iii) cropland converted to wetland, settlement or other land;
- (d) land use reported as any of the following (“managed grassland”):
 - (i) grassland remaining grassland;
 - (ii) cropland, wetland, settlement or other land, converted to grassland;
 - (iii) grassland converted to wetland, settlement or other land;
- (e) land use reported as forest land remaining forest land (“managed forest land”);
- (f) where a Member State has notified to the Commission its intention to include managed wetland in the scope of its commitments pursuant to Article 4(1) of this Regulation by 31 December 2020, land use reported as one of the following (“managed wetland”):
 - wetland remaining wetland;
 - settlement or other land, converted to wetland;
 - wetland converted to settlement or other land.

2. This Regulation also applies to emissions and removals of the greenhouse gases listed in Section A of Annex I to this Regulation, reported pursuant to Article 26(4) of Regulation (EU) 2018/1999 and occurring on the territories of Member States in the period from 2026 to 2030, in any of the following land reporting categories or sectors:

- (a) forest land;
- (b) cropland;
- (c) grassland;
- (d) wetlands;
- (e) settlements;
- (f) other land;
- (g) harvested wood products;

- (h) other;
- (i) atmospheric deposition;
- (j) nitrogen leaching and run-off.

(*) Regulation (EU) 2018/1999 of the European Parliament and of the Council of 11 December 2018 on the Governance of the Energy Union and Climate Action, amending Regulations (EC) No 663/2009 and (EC) No 715/2009 of the European Parliament and of the Council, Directives 94/22/EC, 98/70/EC, 2009/31/EC, 2009/73/EC, 2010/31/EU, 2012/27/EU and 2013/30/EU of the European Parliament and of the Council, Council Directives 2009/119/EC and (EU) 2015/652 and repealing Regulation (EU) No 525/2013 of the European Parliament and of the Council (OJ L 328, 21.12.2018, p.1).;

(3) Article 3 is amended as follows:

(a) point (9) is replaced by the following:

‘(9) “natural disturbances” means any non-anthropogenic events or circumstances that cause significant emissions in the LULUCF sector, the occurrence of which is beyond the control of the relevant Member State, and the effects of which the Member State is objectively unable to significantly limit, even after their occurrence, on emissions;’;

(b) the following point is added:

‘(11) “climate change” means a change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods.’;

(4) Article 4 is replaced by the following:

Article 4

Commitments and targets

1. For the period from 2021 to 2025, taking into account the flexibilities provided for in Articles 12, 13 and 13a, each Member State shall ensure that greenhouse gas emissions do not exceed greenhouse gas removals, calculated as the sum of total emissions and total removals on its territory in all of the land accounting categories referred to in Article 2(1).

2. The 2030 Union target for net greenhouse gas removals shall be 310 million tonnes of CO₂ equivalent as a sum of the values of the greenhouse gas net emissions and removals by Member States in 2030 set out in column D of Annex IIa, and shall be based on the average of its greenhouse gas inventory data for the years 2016, 2017 and 2018 as submitted in 2020.

3. Each Member State shall ensure that, taking into account the flexibilities provided for in Articles 12 and 13b, the sum of its greenhouse gas emissions and removals on its territory and in all of the land reporting categories referred to in Article 2(2), points (a) to (j), reported for the year 2030 in its greenhouse gas inventory submitted in 2032, compared to the average of its greenhouse gas inventory data for the years 2016, 2017 and 2018 as submitted in 2032, does not exceed the target set out for that Member State in column C of Annex IIa.

4. Each Member State shall ensure that the sum of the differences between the following points for each year in the period from 2026 to 2029 does not exceed the budget for 2026 to 2029:

(a) its greenhouse gas emissions and removals on its territory and in all of the land reporting categories referred to in Article 2(2), points (a) to (j); and

(b) the average value for its greenhouse gas inventory data for the years 2021, 2022 and 2023, as submitted in 2032.

The budget for 2026 to 2029 shall be defined as the sum of the differences for each year in the period from 2026 to 2029 for that Member State between:

- (a) annual greenhouse gas emission and removal limit values for those years, established on the basis of a linear trajectory towards 2030; and
- (b) the average value for its greenhouse gas inventory data for the years 2021, 2022 and 2023, as submitted in 2025.

The linear trajectory of a Member State shall start in 2022 at the average value for greenhouse gas inventory data for the years 2021, 2022 and 2023, and have as its end point for 2030 the value obtained by adding the value set out for that Member State in column C of Annex IIa to the average value for greenhouse gas inventory data for the years 2016, 2017 and 2018.

The budget for 2026 to 2029 shall be defined on the basis of the greenhouse gas inventory data submitted in 2025 and the compliance with this budget shall be assessed on the basis of the greenhouse gas inventory data submitted in 2032.

5. The Commission shall adopt implementing acts setting out the annual limit values based on the linear trajectory for net greenhouse gas removals for each Member State, for each year in the period from 2026 to 2029 in terms of tonnes of CO₂ equivalent. Those national trajectories shall be based on the average greenhouse gas inventory data for the years 2021, 2022 and 2023, reported by each Member State.

Those implementing acts shall be adopted in accordance with the examination procedure referred to in Article 16a of this Regulation. For the purpose of those implementing acts, the Commission shall carry out a comprehensive review of the most recent national inventory data submitted by Member States pursuant to Article 26(4) of Regulation (EU) 2018/1999.

6. When adopting policies to comply with their commitments, targets and budgets as referred to in this Article, Member States shall consider the need to ensure a just and socially fair transition for all. The Commission may issue guidance to support Member States in that regard.;

- (5) in Article 5, paragraph 1 is replaced by the following:

'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 that their accounts and other data provided under this Regulation are accurate, complete, consistent, publicly accessible, comparable and transparent. Member States shall denote emissions by a positive sign (+) and removals by a negative sign (-).';

- (6) in Article 6, paragraphs 1 and 2 are replaced by the following:

'1. Member States shall account for emissions and removals resulting from afforested land and deforested land calculated as the total emissions and total removals for each of the years in the period from 2021 to 2025.

2. By way of derogation from Article 5(3), and no later than 2025, where land use has been converted from cropland, grassland, wetland, settlements or other land to forest land, a Member State may, 30 years after the date of that conversion, change the categorisation of such land from land converted to forest land to forest land remaining forest land, where such change is duly justified based on the IPCC Guidelines.;

- (7) in Article 7, paragraphs 1, 2 and 3 are replaced by the following:

'1. Each Member State shall account for emissions and removals resulting from managed cropland calculated as emissions and removals in the period from 2021 to 2025 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. Each Member State shall account for emissions and removals resulting from managed grassland calculated as emissions and removals in the period from 2021 to 2025 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, each Member State that includes managed wetland in the scope of its commitments shall account for emissions and removals resulting from managed wetland, calculated as emissions and removals in that period 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.;

(8) Article 8 is amended as follows:

(a) paragraph 1 is replaced by the following:

'1. Each Member State shall account for emissions and removals resulting from managed forest land, calculated as emissions and removals in the period from 2021 to 2025 minus the value obtained by multiplying by five the forest reference level of the Member State concerned.;

(b) paragraph 3 is replaced by the following:

'3. Member States shall submit to the Commission their national forestry accounting plans, including a proposed forest reference level, by 31 December 2018 for the period from 2021 to 2025. 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.;

(c) paragraphs 7 to 10 are replaced by the following:

'7. Where necessary based on the technical assessments carried out pursuant to paragraph 6, first subparagraph, and on, where applicable, the technical recommendations issued pursuant to paragraph 6, second subparagraph, Member States shall communicate their revised proposed forest reference levels to the Commission by 31 December 2019 for the period from 2021 to 2025. The Commission shall publish the proposed forest reference levels communicated to it by Member States.

8. Based on the proposed forest reference levels submitted by Member States, on the technical assessment carried out pursuant to paragraph 6 of this Article and, where applicable, on the revised proposed forest reference level submitted under paragraph 7 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.

9. 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 7 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, based on any technical assessment carried out pursuant to paragraph 6 of this Article.

10. The delegated acts referred to in paragraphs 8 and 9 shall be adopted by 31 October 2020 for the period from 2021 to 2025.;

(9) Article 10 is amended as follows:

(a) paragraph 1 is replaced by the following:

'1. At the end of the period from 2021 to 2025, Member States may exclude from their accounts for afforested land and managed forest land greenhouse gas emissions, resulting from natural disturbances, that exceed the average emissions caused by natural disturbances in the period from 2001 to 2020, excluding statistical outliers ("background level"). That background level shall be calculated in accordance with this Article and Annex VI.;

(b) in paragraph 2, point (b), the year '2030' is replaced by '2025';

(10) Articles 11, 12 and 13 are replaced by the following:

'Article 11

Flexibilities and governance

1. A Member State may use:

(a) the general flexibilities set out in Article 12; and

(b) in order to comply with the commitment, target and budget set in accordance with Article 4, the flexibilities set out in Articles 13 and 13b.

Finland may, besides the flexibilities referred to in the first subparagraph, use additional compensation pursuant to Article 13a.

2. If a Member State is not in compliance with the monitoring requirements laid down in Article 26 of Regulation (EU) 2018/1999, the Central Administrator designated under Article 20 of Directive 2003/87/EC (the “Central Administrator”) shall temporarily prohibit that Member State from transferring pursuant to Article 12(2) of this Regulation or using the managed forest land flexibility pursuant to Article 13 of this Regulation. The Commission may also provide additional technical support to that Member State.

Article 12

General flexibilities

1. Where, in the period from 2021 to 2025, total emissions exceed total removals in a Member State, or, in the period from 2026 to 2030, the difference between the sum of the greenhouse gas emissions and removals on the territory of a Member State and the commitment, target or budget set for that Member State in accordance with Article 4 of this Regulation is positive, and that Member State has chosen to use its flexibility, and has requested to delete annual emission allocations under Regulation (EU) 2018/842, the quantity of deleted emission allocations shall be taken into account with respect to the Member State’s compliance with its commitment, target or budget, respectively, set in accordance with Article 4 of this Regulation.

2. To the extent that, in the period from 2021 to 2025, total removals exceed total emissions in a Member State, or, in the period from 2026 to 2030, the difference between the sum of the greenhouse gas emissions and removals on the territory of a Member State and the commitment, target or budget set for that Member State in accordance with Article 4 of this Regulation is negative, and after subtraction of any quantity taken into account under Article 7 of Regulation (EU) 2018/842, that Member State may transfer the remaining quantity of removals to another Member State. The quantity transferred shall be taken into account when assessing the recipient Member State’s compliance with its commitment, target or budget, respectively, set in accordance with Article 4 of this Regulation.

3. In order to avoid double counting, the quantity of net removals taken into account under Article 7 of Regulation (EU) 2018/842 shall be subtracted from that Member State’s quantity available for transfer to another Member State pursuant to paragraph 2 of this Article.

4. Member States should use revenues, or their equivalent in financial value, generated by transfers pursuant to paragraph 2 to tackle climate change in the Union or in third countries. Member States shall inform the Commission of any actions taken pursuant to this paragraph and shall make that information public in an easily accessible form.

5. Any transfer pursuant to paragraph 2 may be the result of a greenhouse gas mitigation project or programme carried out in the selling Member State and remunerated by the receiving Member State, provided that double counting is avoided and traceability is ensured.

Article 13

Managed forest land flexibility

1. Where, in the period from 2021 to 2025, total emissions exceed total removals in the land accounting categories referred to in Article 2(1), accounted for in accordance with this Regulation, in a Member State, that Member State may use the managed forest land flexibility set out in this Article in order to comply with Article 4(1).

2. Where, in the period from 2021 to 2025, the result of the calculation referred to in Article 8(1) is a positive figure, the Member State concerned shall be entitled to compensate emissions corresponding to the result of that calculation, provided that the following conditions are fulfilled:

(a) the Member State has included in its strategy submitted in accordance with Article 15 of Regulation (EU) 2018/1999 ongoing or planned specific measures to ensure the conservation or enhancement, as appropriate, of forest sinks and reservoirs, as well as information on the impact of such measures on relevant environmental objectives, including, *inter alia*, biodiversity protection and adaptation to natural disturbances; and

- (b) total emissions within the Union do not exceed total removals in the land accounting categories referred to in Article 2(1) of this Regulation for the period from 2021 to 2025.

When assessing whether, within the Union, total emissions exceed total removals as referred to in the first subparagraph, point (b), of this paragraph, the Commission shall ensure that double counting is avoided by Member States, in particular in the exercise of the flexibilities set out in Article 12 of this Regulation and Article 7(1) or Article 9(2) of Regulation (EU) 2018/842.

3. The compensation referred to in paragraph 2 may only cover sinks accounted for as emissions against the forest reference level of that Member State and shall, for the period from 2021 to 2025, not exceed 50 % of the maximum amount of compensation for the Member State concerned set out in Annex VII.

4. Member States shall submit evidence to the Commission concerning the impact of natural disturbances calculated pursuant to Annex VI and the measures they plan to adopt to prevent or mitigate similar impacts in the future in order to be eligible for compensation of remaining sinks accounted for as emissions against its forest reference level, up to the amount unused by other Member States of the full amount of compensation for the period from 2021 to 2025 set out in Annex VII. Where the demand for compensation exceeds the amount of unused compensation available, that unused compensation shall be distributed on a pro rata basis among the Member States concerned. The Commission shall make the evidence submitted by the Member States publicly available.;

- (11) the following Articles are inserted:

Article 13a

Additional compensation

1. Finland may compensate up to an additional 5 million tonnes of CO₂ equivalent accounted emissions under the land accounting categories managed forest land, deforested land, managed cropland and managed grassland, in the period from 2021 to 2025, provided that the following conditions are fulfilled:

- (a) Finland included in its strategy submitted in accordance with Article 15 of Regulation (EU) 2018/1999 ongoing or planned specific measures to ensure the conservation or enhancement, as appropriate, of forest sinks and reservoirs;
- (b) total emissions within the Union do not exceed total removals in the land accounting categories referred to in Article 2(1) of this Regulation in the period from 2021 to 2025.

When assessing whether, within the Union, total emissions exceed total removals as referred to in the first subparagraph, point (b), of this paragraph, the Commission shall ensure that double counting is avoided by Member States, in particular in the exercise of the flexibilities set out in Articles 12 and 13 of this Regulation and Article 7(1) or Article 9(2) of Regulation (EU) 2018/842.

2. The additional compensation shall be limited to:

- (a) the amount exceeding the managed forest land flexibility available to Finland in the period from 2021 to 2025 pursuant to Article 13;
- (b) the emissions created by historical change from forest land to any other land use category that occurred no later than 31 December 2017;
- (c) the amount necessary for compliance with Article 4.

3. The additional compensation shall not be subject to transfer pursuant to Article 12 of this Regulation or Article 7 of Regulation (EU) 2018/842.

4. Any unused additional compensation out of the amount of 5 million tonnes of CO₂ equivalent referred to in paragraph 1 shall be cancelled.

5. The Central Administrator shall carry out the operations necessary for the purposes of paragraph 2, point (a), and paragraphs 3 and 4 of this Article in the Union Registry established pursuant to Article 40 of Regulation (EU) 2018/1999 (the "Union Registry").

*Article 13b***Land use mechanism for the period 2026 to 2030**

1. A land use mechanism corresponding to a quantity of up to 178 million tonnes of CO₂ equivalent shall be established in the Union Registry, subject to the fulfilment of the Union target referred to in Article 4(2). The land use mechanism shall be available in addition to the flexibilities provided for in Article 12.

2. Where, in the period from 2026 to 2030, after a Member State has done its utmost to take account of any Commission opinion addressed to it under Article 13d, the difference between the sum of the greenhouse gas emissions and removals on the territory of a Member State and in all of the land reporting categories referred to in Article 2(2), points (a) to (j), and the corresponding target set for that Member State in accordance with Article 4(3) or the budget set for that Member State in accordance with Article 4(4), is positive, accounted and reported in accordance with this Regulation, that Member State may use the mechanism set out in this Article in order to comply with its target set in accordance with Article 4(3) or its budget set in accordance with Article 4(4).

3. Where, in the period from 2026 to 2030, the result of one or both calculations referred to in paragraph 2 is positive, the Member State shall be entitled to use the mechanism set out in this Article to compensate net emissions or net removals, or both, accounted for as emissions against the target set for that Member State in accordance with Article 4(3) or against the budget set for that Member State in accordance with Article 4(4), or both, provided that the following conditions are fulfilled:

- (a) the Member State has included in its updated integrated national energy and climate plan submitted pursuant to Article 14 of Regulation (EU) 2018/1999 ongoing or planned specific measures to ensure the conservation or enhancement, as appropriate, of all land sinks and reservoirs, and to reduce the vulnerability of the land to natural disturbances;
- (b) the Member State has exhausted the flexibility available pursuant to Article 12(1) of this Regulation;
- (c) the difference in the Union between the annual sum of all greenhouse gas emissions and removals on its territory and in all of the land reporting categories referred to in Article 2(2), points (a) to (j), and the Union target of 310 million tonnes of CO₂ equivalent of net removals is negative, in 2030.

When assessing whether, within the Union, the condition as referred to in the first subparagraph, point (c), of this paragraph has been fulfilled, the Commission shall include up to 30 %, but not more than 20 Mt CO₂ equivalent, of the unused surplus to the commitments of Member States under Article 4(1) from the period from 2021 to 2025, provided that one or more Member States submit evidence to the Commission concerning the impact of natural disturbances in accordance with paragraph 5 of this Article. The Commission shall ensure that double counting is avoided by Member States, in particular in the exercise of the flexibilities set out in Article 12 of this Regulation and Article 7(1) of Regulation (EU) 2018/842.

4. The amount of the compensation referred to in paragraph 3 of this Article may, for the period from 2026 to 2030, not exceed 50 % of the maximum amount of compensation for the Member State concerned set out in Annex VII.

5. Member States shall submit evidence to the Commission concerning the impact of natural disturbances calculated pursuant to Annex VI, in order to be eligible for compensation of net emissions or net removals, or both, accounted for as emissions against the targets set for those Member States in accordance with Article 4(3), or against the budget set for those Member States in accordance with Article 4(4), up to the amount unused by other Member States of the full amount of compensation for the period from 2026 to 2030 set out in Annex VII. Where the demand for compensation exceeds the amount of unused compensation available, that unused compensation shall be distributed on a pro rata basis among the Member States concerned.

6. Member States shall be entitled to compensate net emissions or net removals, or both, accounted for as emissions against the targets set for those Member States in accordance with Article 4(3) or against the budget set for those Member States in accordance with Article 4(4), up to the amount unused by other Member States of the full amount of compensation for the period from 2021 to 2030 set out in Annex VII, after taking into account Article 13(4) and paragraph 5 of this Article, provided that those Member States:

- (a) have exhausted the flexibilities available pursuant to Article 12(1), and paragraphs 3 and 5 of this Article; and

- (b) have submitted evidence to the Commission concerning either:
- (i) the long-term impact of climate change resulting in excess emissions or diminishing sinks that are beyond their control; or
 - (ii) the effects of an exceptionally high proportion of organic soils in their managed land area, compared to the Union average, resulting in excess emissions, provided that those effects are attributable to land management practices that occurred before the entry into force of Decision No 529/2013/EU;
- (c) have included in their latest integrated national energy and climate plans submitted pursuant to Article 14 of Regulation (EU) 2018/1999 specific measures to ensure the conservation or enhancement, as appropriate, of all land sinks and reservoirs, and to reduce the vulnerability of land to ecosystem perturbations driven by climate change.

7. The amount of compensation referred to in paragraph 6 shall not exceed 50 million tonnes of CO₂ equivalent for the Union as a whole. Where the demand for compensation exceeds the maximum amount of compensation available, that compensation shall be distributed on a pro rata basis among the Member States concerned.

8. The evidence referred to in paragraph 6, point (b)(i), shall include a quantitative assessment of the effects on net emissions or net removals, in terms of million tonnes of CO₂ equivalent for the affected area, and shall be based on comparable and reliable quantitative indices, on geographically explicit data and on the best scientific evidence available. Those indices and data and that evidence shall be based on observed changes covering at least the period 2001 to 2025, and on scientifically reviewed projections and observations for the period 2026 to 2030. Those indices and data and that evidence shall reflect background medium or long-term changes of climate characteristics relevant for the LULUCF sector, such as aridity, mean temperatures, mean precipitation, frost days, and the duration of meteorological or soil moisture droughts.

9. The evidence referred to in paragraph 6, point (b)(ii), shall include a justification to the effect that the proportion of organic soils on managed land area for the Member State concerned exceeds the Union average proportion for the year 2030. The evidence shall include a quantitative analysis, in million tonnes of CO₂ equivalent, of the reported emissions due to the legacy effects on managed organic soils, based on reviewed observations for the period 2026-2030, comparable and reliable geographically explicit data and on the best scientific evidence available, in particular about similar sites in the Member State concerned. The evidence shall also be accompanied by a description of policy measures currently implemented that minimise the negative impacts of legacy effects on managed organic soils.

10. By 12 May 2024, the Commission shall, by means of implementing acts, set out the structure, format, technical details and process for submission of the evidence referred to in paragraph 6, point (b), of this Article. Those implementing acts shall be adopted in accordance with the examination procedure referred to in Article 16a.

11. The Commission shall make the evidence submitted by the Member States referred to in paragraph 6, point (b), publicly available, and may request a Member State to submit additional evidence if, after checking the information received from that Member State, it deems that information to be insufficiently justified or disproportionate.

Article 13c

Governance

If, as a result of the comprehensive review carried out in 2032, the Commission finds that, taking into account the flexibilities used pursuant to Articles 12 and 13b, the budget for 2026 to 2029 referred to in Article 4(4) is not complied with, an amount equal to the amount in tonnes of CO₂ equivalent of the excess greenhouse gas net emissions, multiplied by a factor of 1,08, shall be added to the greenhouse gas net emission figure reported by that Member State in 2030, in accordance with the measures adopted pursuant to Article 15.

*Article 13d***Corrective action**

1. If the Commission finds, in its annual assessment under Article 29 of Regulation (EU) 2018/1999, that a Member State is not making sufficient progress towards meeting its target set in accordance with Article 4(3) of this Regulation, taking into account the trajectory and the budget set in accordance with Article 4(4) of this Regulation, as well as the flexibilities under this Regulation, that Member State shall, within three months, submit to the Commission a corrective action plan that includes:

- (a) a detailed explanation of why it is not making sufficient progress;
- (b) an assessment of how Union funding has supported its efforts towards complying with its target and budget and of how it intends to use such funding to make progress towards complying with them;
- (c) additional actions, complementing the integrated national energy and climate plan of that Member State pursuant to Regulation (EU) 2018/1999 or reinforcing its implementation, that it will implement in order to comply with its target set in accordance with Article 4(3) or its budget set in accordance with Article 4(4) through domestic policies and measures and the implementation of Union action, accompanied by a detailed assessment, underpinned by quantitative data, where available, of the envisaged net greenhouse gas removals that would result from those actions;
- (d) a strict timetable for implementing such actions, which enables the assessment of annual progress in implementation.

Where a Member State has established a national climate advisory body, it may seek that body's advice to identify the necessary actions referred to in point (c).

2. In accordance with its annual work programme, the European Environment Agency shall assist the Commission in its work to assess any such corrective action plans.

3. The Commission may issue an opinion regarding the robustness of the corrective action plans submitted in accordance with paragraph 1 and shall in that case do so within four months of receipt of those plans. The Member State concerned shall take utmost account of the Commission's opinion and may revise its corrective action plan accordingly. If the Member State concerned does not address the opinion or a substantial part thereof, that Member State shall provide a justification to the Commission.

4. Each Member State shall make its corrective action plan referred to in paragraph 1 and any justification referred to in paragraph 3 publicly available. The Commission shall make its opinion referred to in paragraph 3 publicly available.;

(12) Article 14 is amended as follows:

- (a) paragraph 1 is replaced by the following:

'1. By 15 March 2027 for the period from 2021 to 2025, and by 15 March 2032 for the period from 2026 to 2030, Member States shall submit to the Commission a compliance report, based on annual datasets, containing the balance of total emissions and total removals for the relevant period on each of the land accounting categories specified in Article 2(1), points (a) to (f), for the period from 2021 to 2025 and in Article 2(2), points (a) to (j), for the period from 2026 to 2030, using the accounting rules laid down in this Regulation.

The compliance report shall include an assessment of:

- (a) the policies and measures regarding possible trade-offs, including at least with other Union environmental objectives and strategies, such as those laid down in the 8th Environment Action Programme set out in Decision (EU) 2022/591 of the European Parliament and of the Council (*), in the EU Biodiversity Strategy for 2030 and in the communication of the Commission of 11 October 2018 on a sustainable Bioeconomy for Europe: Strengthening the connection between economy, society and the environment;

- (b) how Member States have taken into account the “do no significant harm” principle when adopting their policies and measures to comply with their target set in accordance with Article 4(3) or their budget set in accordance with Article 4(4), to the extent relevant;
- (c) the synergies between climate mitigation and adaptation, including policies and measures to reduce the vulnerability of land to natural disturbances and the climate;
- (d) synergies between climate mitigation and biodiversity.

The compliance report shall also contain, where applicable, details on the intention to use the flexibilities referred to in Article 11 and related amounts, or on the use of such flexibilities and related amounts. Member States shall make the compliance reports publicly available in accordance with Article 28 of Regulation (EU) 2018/1999.

(*) Decision (EU) 2022/591 of the European Parliament and of the Council of 6 April 2022 on a General Union Environment Action Programme to 2030 (OJ L 114, 12.4.2022, p. 22).;

- (b) the following paragraphs are inserted:

‘1a. The greenhouse gas emission inventory data submitted by each Member State and validated pursuant to Article 38 of Regulation (EU) 2018/1999 may be subject to a methodological adjustment by the Commission where there has been a change of the methodology used by Member States. However, such methodological adjustments, being for the purpose of the assessment of the compliance with the 2030 Union target, shall not affect the value of the 310 million tonnes of CO₂ equivalent net removals as a sum of the values of the greenhouse gas net removals, in kt of CO₂ equivalent, in 2030 for Member States set out in column D of Annex IIa or the targets in column C of that Annex.

1b. Member States that indicate their intention to use the flexibility referred to in Article 13b(6) shall describe, in dedicated sections of the report, the measures taken to mitigate or reverse the effects mentioned in Article 13b(6), point (b), as well as the observed and expected effects of those measures.

1c. The Commission shall carry out a comprehensive review of the compliance reports, provided under paragraph 1 of this Article, for the purpose of assessing compliance with Article 4.

In parallel to that comprehensive review, the Commission shall assess how the ‘do no significant harm’ principle has been taken into account under paragraph 1, point (b). In that regard, prior to its first assessment, the Commission shall issue guidance on the application of the ‘do no significant harm’ principle for the purpose of this Regulation.’;

- (13) in Article 15, paragraph 1 is replaced by the following:

‘1. The Commission shall adopt delegated acts in accordance with Article 16 to supplement this Regulation in order to lay down the rules for the recording and accurate carrying out of the following operations in the Union Registry:

- (a) recording of the quantity of emissions and removals for each land accounting and reporting category in each Member State;
- (b) the exercise of any methodological adjustment carried out pursuant to Article 14(1a);
- (c) the exercise of the flexibilities referred to in Articles 12, 13, 13a and 13b; and
- (d) assessment of compliance pursuant to Article 13c.’;

(14) the following Article is inserted:

'Article 16a

Committee procedure

1. The Commission shall be assisted by the Climate Change Committee established by Article 44(3) of Regulation (EU) 2018/1999. That committee shall be a committee within the meaning of Regulation (EU) No 182/2011 of the European Parliament and of the Council (*).
2. Where reference is made to this paragraph, Article 5 of Regulation (EU) No 182/2011 shall apply.

(*) Regulation (EU) No 182/2011 of the European Parliament and of the Council of 16 February 2011 laying down the rules and general principles concerning mechanisms for control by Member States of the Commission's exercise of implementing powers (OJ L 55, 28.2.2011, p. 13);

(15) Article 17 is replaced by the following:

'Article 17

Review

1. This Regulation shall be kept under review taking into account, *inter alia*:
 - (a) international developments;
 - (b) efforts undertaken to achieve the long-term objectives of the Paris Agreement; and
 - (c) Union law, including on nature restoration.

On the basis of the findings of the report prepared pursuant to Article 14(3) and the results of the assessment carried out pursuant to Article 13(2), point (b), or on the basis of the verification carried out pursuant to Article 37(4a) of Regulation (EU) 2018/1999, the Commission shall, where appropriate, submit proposals to ensure that the integrity of the Union's overall 2030 greenhouse gas net removal target set in accordance with Article 4(2) of this Regulation and the target's contribution to the goals of the Paris Agreement are respected.

2. The Commission shall submit a report to the European Parliament and to the Council on the operation of this Regulation, no later than six months after the first global stocktake agreed under Article 14 of the Paris Agreement. The report shall be based on the most recent data available as provided by the Member States under Regulation (EU) 2018/1999 and on Article 4(4) of Regulation (EU) 2021/1119 of the European Parliament and of the Council (*). In view of the necessary increase in greenhouse gas emission reductions and removals in the Union and the pursuit of a socially just transition, and with regard to the need for additional Union policies and measures, the report shall include, where relevant, the following:
 - (a) an assessment of the impacts of the flexibilities referred to in Article 11;
 - (b) an assessment of the contribution of this Regulation to the climate neutrality objective and intermediate climate targets set out in Regulation (EU) 2021/1119;
 - (c) an assessment of the contribution of this Regulation to the goals of the Paris Agreement;
 - (d) an assessment of social and labour impacts, including on gender equality and working conditions, in Member States both at national and regional level, which the obligations laid down in this Regulation have in any of the land categories and sectors covered by Article 2;
 - (e) an assessment of progress made at international level on the rules governing Article 6(2) and 6(4) of the Paris Agreement and, where relevant, proposals to amend this Regulation, in particular to avoid double counting and apply corresponding adjustments;

- (f) an assessment of the current trends and future projections regarding emissions and removals of greenhouse gases from cropland, grassland and wetlands and regulatory options to ensure consistency of those trends and projections with the objective of achieving long-term greenhouse gas emission reductions in all sectors of the economy in accordance with the Union's climate-neutrality objective and the Union's intermediate climate targets set out in Regulation (EU) 2021/1119;
- (g) the current trends and future projections regarding emissions of greenhouse gases from the following reporting categories and regulatory options to ensure consistency of those trends and projections with the objective of achieving long-term greenhouse gas emission reductions in all sectors of the economy in accordance with the Union's climate-neutrality objective and the Union's intermediate climate targets set out in Regulation (EU) 2021/1119:
 - (i) enteric fermentation;
 - (ii) manure management;
 - (iii) rice cultivation;
 - (iv) agricultural soils;
 - (v) prescribed burning of savannas;
 - (vi) field burning of agricultural residues;
 - (vii) liming;
 - (viii) urea application;
 - (ix) other carbon-containing fertilizers;
 - (x) other.

That report shall take into account, where relevant, the effects of the forest age structure, including where those effects are linked to specific wartime or post-war circumstances, in a scientifically robust, reliable and transparent way, and with a view to ensuring the long-term resilience and adaptive capacity of forests.

That report may also, subsequent to the adoption of an appropriate science-based reporting methodology and based on progress in reporting and the latest scientific information available, assess the feasibility of analysis and the impact of reporting greenhouse gas emissions and removals from additional sectors, such as the marine and freshwater environments, as well as relevant regulatory options.

Following the report and taking into account the importance of each sector making a fair contribution to the Union's climate-neutrality objective and the Union's intermediary climate targets pursuant to Regulation (EU) 2021/1119, the Commission shall, where appropriate, submit legislative proposals. In particular, those proposals may set out Union and Member State targets for greenhouse gas emissions and removals, taking due account of any deficit accumulated by 2030 by each Member State.

The European Scientific Advisory Board on Climate Change established under Article 10a of Regulation (EC) No 401/2009 of the European Parliament and of the Council (**) (the "Advisory Board") may, on its own initiative, provide scientific advice or issue reports on Union measures, climate targets, annual emissions and removals levels and flexibilities under this Regulation. The Commission shall consider the relevant advice and reports of the Advisory Board, in particular as regards future measures aiming at further emission reductions and removal increases in the sub-sectors covered by this Regulation.

3. Within 12 months of the entry into force of a legislative act concerning a Union regulatory framework for the certification of carbon removals, the Commission shall submit a report to the European Parliament and to the Council on the possible benefits and trade-offs of the inclusion in the scope of this Regulation of sustainably sourced long-lived carbon storage products that have a net-positive carbon sequestration effect. The report shall assess how to consider direct and indirect emissions and removals of greenhouse gases related to those products, such as those resulting from land use change and consequent risks of leakage of related emissions, as well as possible benefits and trade-offs with other Union environmental objectives, in particular biodiversity objectives. Where appropriate, the

report may consider a process for inclusion of sustainable carbon storage products in the scope of this Regulation, in a manner consistent with other Union environmental objectives, as well as 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. The Commission's report may be accompanied, where appropriate, by a legislative proposal to amend this Regulation accordingly.

(*) Regulation (EU) 2021/1119 of the European Parliament and of the Council of 30 June 2021 establishing the framework for achieving climate neutrality and amending Regulations (EC) No 401/2009 and (EU) 2018/1999 ("European Climate Law") (OJ L 243, 9.7.2021, p. 1).

(**) Regulation (EC) No 401/2009 of the European Parliament and of the Council of 23 April 2009 on the European Environment Agency and the European Environment Information and Observation Network (OJ L 126, 21.5.2009, p. 13).;

- (16) Annex I is amended in accordance with Annex I to this amending Regulation;
- (17) Annex II is amended in accordance with Annex II to this amending Regulation;
- (18) in Annex III, the entry for the United Kingdom is deleted;
- (19) the text set out in Annex III to this amending Regulation is inserted as Annex IIa;
- (20) in Annex IV, Section C, the entry for the United Kingdom is deleted;
- (21) Annex VI is amended in accordance with Annex IV to this amending Regulation;
- (22) in Annex VII, the entry for the United Kingdom is deleted.

Article 2

Regulation (EU) 2018/1999 is amended as follows:

- (1) in Article 2, the following points are added:

'(63) "geographic information system" means a computer system capable of capturing, storing, analysing, and displaying geographically referenced information;

(64) "geo-spatial application" means an electronic application form that includes an IT application based on a geographic information system that allows beneficiaries to spatially declare the agricultural parcels of the holding and non-agricultural areas claimed for payment.;

- (2) in Article 4, point (a)(1)(ii) is replaced by the following:

'(ii) the Member State's commitments and national targets for net greenhouse gas removals pursuant to Article 4(1) and (2) of Regulation (EU) 2018/841.;

- (3) in Article 9(2), the following point is added:

'(e) consistency of relevant financing measures, including the relevant share of revenues generated from the auctioning of EU ETS allowances under Directive 2003/87/EC that are used for land use, land-use change and forestry, Union support and the use of Union funds such as instruments of the Common Agricultural Policy, policies and measures, with regard to the achievement of the commitments, targets and budgets of the Member States set in accordance with Article 4 of Regulation (EU) 2018/841.;

- (4) in Article 26(6), the following point is added:

'(c) amend Part 3 of Annex V to update the list of categories in accordance with relevant Union legislation.;

(5) in Article 37, the following paragraph is inserted:

‘4a. Where the Commission finds during the initial check carried out pursuant to paragraph 4 of this Article a difference between the annual average of net removals in the years specified in Article 4(2) of Regulation (EU) 2018/841 reported by any Member State in the 2020 and 2023 or subsequent submission of the greenhouse gas inventory that is greater than 500 kt CO₂ equivalent, the Commission shall verify:

- (a) the transparency, accuracy, consistency, comparability and completeness of information submitted; and
- (b) that LULUCF reporting is carried out in a manner which is consistent with UNFCCC guidance documentation or Union rules.

The Commission shall make the results of that verification publicly available.’;

(6) Article 38 is amended as follows:

(a) the following paragraph is inserted:

‘1a. In 2025, the Commission shall carry out a comprehensive review of the national inventory data submitted by Member States pursuant to Article 26(4) of this Regulation, in order to determine the annual targets of net greenhouse gas emissions reduction of the Member States pursuant to Article 4(3) of Regulation (EU) 2018/841 and in order to determine the annual emission allocations of the Member States pursuant to Article 4(3) of Regulation (EU) 2018/842.’;

(b) in paragraph 2, the introductory wording is replaced by the following:

‘The comprehensive review referred to in paragraphs 1 and 1a shall include.’;

(c) paragraph 4 is replaced by the following:

‘4. Upon completion of the comprehensive review carried out pursuant to paragraph 1 of this Article, the Commission shall, by means of implementing acts, determine the total sum of emissions for the relevant years arising from the corrected inventory data for each Member State, split between emission data relevant for Article 9 of Regulation (EU) 2018/842 and emission data referred to in Part 1, point (c), of Annex V to this Regulation, and determine the total sum of emissions and removals relevant for Article 4 of Regulation (EU) 2018/841.’;

(7) Annex V is amended in accordance with Annex V to this amending Regulation.

Article 3

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 Strasbourg, 19 April 2023.

For the European Parliament
The President
R. METSOLA

For the Council
The President
J. ROSWALL

ANNEX I

In Annex I to Regulation (EU) 2018/841, Section B is replaced by the following:

B. Carbon pools as referred to in Article 5(4):

- (a) living biomass;
- (b) litter ⁽¹⁾;
- (c) deadwood¹;
- (d) dead organic matter ⁽²⁾;
- (e) mineral soils;
- (f) organic soils;
- (g) harvested wood products in the land accounting categories of afforested land and managed forest land.'

⁽¹⁾ Applies to Afforested Land and Managed Forest Land only

⁽²⁾ Applies to Deforested Land, Managed Cropland, Managed Grassland and Managed Wetlands only.

ANNEX II

Annex II to Regulation (EU) 2018/841 is amended as follows:

(1) the entries for Spain, Slovenia and Finland are replaced by the following:

Member State	Area (ha)	Tree crown cover (%)	Tree height (m)
Spain	1,0	20 From the greenhouse gas inventory submission in 2028 onwards: 10	3
Slovenia	0,25	10	5
Finland	0,25	10	5'

(2) the entry for the United Kingdom is deleted.

ANNEX III

'ANNEX IIa

The Union target (column D), the average greenhouse gas inventory data for the years 2016, 2017 and 2018 (column B) and the national targets of the Member States (column C) referred to in Article 4(3) to be achieved in 2030

A	B	C	D
Member State	The average greenhouse gas inventory data for the years 2016, 2017 and 2018 (kt of CO ₂ equivalent), 2020 submission	Member State targets, 2030 (kt of CO ₂ equivalent)	Value of the greenhouse gas net removals (kt of CO ₂ equivalent) in 2030, 2020 submission (Columns B+C)
Belgium	- 1 032	- 320	- 1 352
Bulgaria	- 8 554	- 1 163	- 9 718
Czech Republic	- 401	- 827	- 1 228
Denmark	5 779	- 441	5 338
Germany	- 27 089	- 3 751	- 30 840
Estonia	- 2 112	- 434	- 2 545
Ireland	4 354	- 626	3 728
Greece	- 3 219	- 1 154	- 4 373
Spain	- 38 326	- 5 309	- 43 635
France	- 27 353	- 6 693	- 34 046
Croatia	- 4 933	- 593	- 5 527
Italy	- 32 599	- 3 158	- 35 758
Cyprus	- 289	- 63	- 352
Latvia	- 6	- 639	- 644
Lithuania	- 3 972	- 661	- 4 633
Luxembourg	- 376	- 27	- 403
Hungary	- 4 791	- 934	- 5 724
Malta	4	- 2	2
Netherlands	4 958	- 435	4 523
Austria	- 4 771	- 879	- 5 650
Poland	- 34 820	- 3 278	- 38 098
Portugal	- 390	- 968	- 1 358
Romania	- 23 285	- 2 380	- 25 665
Slovenia	67	- 212	- 146
Slovakia	- 6 317	- 504	- 6 821
Finland	- 14 865	- 2 889	- 17 754
Sweden	- 43 366	- 3 955	- 47 321
EU-27/Union	- 267 704	- 42 296	- 310 000'

ANNEX IV

Annex VI to Regulation (EU) 2018/841 is amended as follows:

(a) in point 1, point (c) is replaced by the following:

'(c) total annual emissions estimations for those natural disturbance types for the period from 2001 to 2020, listed by land accounting categories in the period from 2021 to 2025 and land reporting categories in the period from 2026 to 2030;';

(b) point 3 is replaced by the following:

'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 for land accounting categories afforested land and managed forest land as set out in Article 2(1) 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 %.';

(c) point 4 is replaced by the following:

'4. The following emissions shall not be excluded in the application of Article 10:

(a) emissions resulting from harvesting and salvage logging activities that took place on land following the occurrence of natural disturbances;

(b) emissions resulting from prescribed burning that took place on land in any year of the period from 2021 to 2025;

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

(d) point 5 is amended as follows:

(i) point (a) is deleted;

(ii) points (b) and (c) are replaced by the following:

'(b) evidence that no deforestation has occurred during the rest of the period from 2021 to 2025 on lands that were affected by natural disturbances and in respect of which emissions were excluded from accounting;

(c) a 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;';

(iii) points (d) and (e) are deleted;

(e) the following point is added:

'6. Information requirements pursuant to Article 10(2) and Articles 13 and 13b 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) where feasible, a description of measures the Member State undertook to prevent or limit the impact of those natural disturbances;

(c) where feasible, a description of measures the Member State undertook to rehabilitate the lands affected by those natural disturbances.'.

ANNEX V

In Annex V to Regulation (EU) 2018/1999, Part 3 is replaced by the following:

Part 3**Methodologies for monitoring and reporting in the LULUCF sector**

For monitoring and reporting in the LULUCF sector, Member States shall use geographically explicit land-use conversion data in accordance with the 2006 IPCC Guidelines for national GHG inventories. The Commission shall provide adequate support and assistance to the Member States in order to ensure consistency and transparency of the data collected. Member States are encouraged to explore synergies and opportunities to consolidate reporting with other relevant policy areas and strive towards greenhouse gas inventories which allow for interoperability with relevant electronic databases and geographic information systems, including:

- (a) a system for the monitoring of land use units with high-carbon stock land, as defined in Article 29(4) of Directive (EU) 2018/2001;
- (b) a system for the monitoring of land use units subject to protection, defined as land covered by one or more of the following categories:
 - land with a high biodiversity value as defined in Article 29(3) of Directive (EU) 2018/2001;
 - sites of Community importance adopted and special areas of conservation designated in accordance with Article 4 of Council Directive 92/43/EEC (*) and land units outside of those which are subject to protection and conservation measures under Article 6(1) and (2) of that Directive in order to meet site conservation objectives;
 - breeding sites and resting places of the species listed in Annex IV to Directive 92/43/EEC which are subject to protection measures under Article 12 of that Directive;
 - the natural habitats listed in Annex I to Directive 92/43/EEC and the habitats of species listed in Annex II to Directive 92/43/EEC which are found outside sites of Community importance or special areas of conservation and which contribute to those habitats and species reaching favourable conservation status under Article 2 of that Directive or which can be made subject to preventive and remedial measures under Directive 2004/35/EC of the European Parliament and of the Council (**);
 - special protection areas classified under Article 4 of Directive 2009/147/EC of the European Parliament and of the Council (***) and the land units outside of those areas which are subject to protection and conservation measures under Article 4 of Directive 2009/147/EC and Article 6(2) of Directive 92/43/EEC in order to meet site conservation objectives;
 - land units which are subject to measures for the preservation of birds reported as not being in secure status under Article 12 of Directive 2009/147/EC in order to fulfil the requirement under Article 4(4), second sentence, of that Directive to strive to avoid pollution or deterioration of habitats or fulfil the requirement under Article 3 of that Directive to preserve and maintain a sufficient diversity and area of habitats for bird species;
 - any other habitats which the Member State designates for equivalent purposes to those laid down in Directives 92/43/EEC and 2009/147/EC;
 - land units subject to measures required to protect and ensure the non-deterioration of the ecological status of those bodies of surface water referred to in Article 4(1), point (a)(iii), of Directive 2000/60/EC of the European Parliament and of the Council (****);
 - natural flood plains or areas for the retention of flood water protected by Member States in relation to flood risk management under Directive 2007/60/EC of the European Parliament and of the Council (*****);
 - the protected areas designated by Member States in order to achieve the protected areas targets;

- (c) a system for the monitoring of land use units that are the subject of restoration, defined as land covered by one or more of the following categories:
- sites of Community importance, special areas of conservation and special protection areas as described in point (b), together with the land units outside of those which have been identified as in need of restoration or compensatory measures aimed at meeting site conservation objectives;
 - the habitats of wild bird species referred to in Article 4(2) of Directive 2009/147/EC or listed in Annex I thereto, which are found outside of special protection areas and which have been identified as in need of restoration measures for the purposes of Directive 2009/147/EC;
 - the natural habitats listed in Annex I to Directive 92/43/EEC and the habitats of species listed in Annex II thereto outside sites of Community importance or special areas of conservation, and identified as in need of restoration measures for the purposes of the achievement of favourable conservation status under Directive 92/43/EEC, or identified as in need of remedial measures for the purposes of Article 6 of Directive 2004/35/EC;
 - areas identified as being in need of restoration or that are subject to measures for ensuring their non-deterioration under a nature restoration plan applicable in a Member State;
 - land units subject to measures required to restore to good ecological status the bodies of surface water referred to in Article 4(1), point (a)(iii), of Directive 2000/60/EC, or measures required to restore such bodies to high ecological status where required by law;
 - land units subject to measures for the recreation and restoration of wetland areas, as referred to in Part B, point (vii), of Annex VI to Directive 2000/60/EC;
 - areas in need of ecosystem restoration so as to achieve good ecosystem condition in accordance with Regulation (EU) 2020/852 of the European Parliament of the Council (*****);
- (d) a system for the monitoring of the following land use units with high climate risk:
- areas subject to compensation under paragraphs 5 and 6 of Article 13b of Regulation (EU) 2018/841;
 - areas referred to in Article 5(1) of Directive 2007/60/EC;
 - areas identified in the Member States' national adaptation strategy with high natural and man-made risks, subject to climate-related disaster risk reduction actions;
- (e) a system for the monitoring of soil carbon stocks, using, *inter alia*, annual land use/cover area frame statistical survey (LUCAS) datasets.

The greenhouse gas inventory shall enable the exchange and integration of data between the electronic databases and the geographic information systems, in order to facilitate their comparability and public accessibility.

For the period 2021-2025, Member States shall use at least Tier 1 methodologies in accordance with the 2006 IPCC guidelines for national GHG inventories, except for a carbon pool that accounts for at least 25 % 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 GHGs 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, in which case, at least Tier 2 methodologies in accordance with the 2006 IPCC guidelines for national GHG inventories shall be used.

From the greenhouse gas inventory submission in 2028 onwards, Member States shall use at least Tier 2 methodologies in accordance with the 2006 IPCC guidelines for national GHG inventories, whereas Member States shall, as early as possible and from the greenhouse gas inventory submission in 2030 onwards, at the latest, for all carbon pool emission and removal estimates falling in areas of high carbon stock land use units referred to in point (a), areas of land use units under protection or under restoration referred to in points (b) and (c), and areas of land use units under high future climate risks referred to in point (d), apply Tier 3 methodologies, in accordance with the 2006 IPCC guidelines for national GHG inventories.

Notwithstanding the previous subparagraph, where the area under any individual category listed in points (a) to (d) represents less than 1 % of the area of managed land reported by the Member State, Member States shall use at least Tier 2 methodologies in accordance with the 2006 IPCC guidelines for national GHG inventories.

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- (*) Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora (OJ L 206, 22.7.1992, p. 7).
 - (**) Directive 2004/35/EC of the European Parliament and of the Council of 21 April 2004 on environmental liability with regard to the prevention and remedying of environmental damage (OJ L 143, 30.4.2004, p. 56).
 - (***) Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds (OJ L 20, 26.1.2010, p. 7).
 - (****) Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy (OJ L 327, 22.12.2000, p. 1).
 - (*****) Directive 2007/60/EC of the European Parliament and of the Council of 23 October 2007 on the assessment and management of flood risks (OJ L 288, 6.11.2007, p. 27).
 - (*****) Regulation (EU) 2020/852 of the European Parliament of the Council of 18 June 2020 on the establishment of a framework to facilitate sustainable investment, and amending Regulation (EU) 2019/2088 (OJ L 198, 22.6.2020, p. 13).'
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