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From:	General Secretariat of the Council
To:	Permanent Representatives Committee
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Subject:	Proposal for a Regulation of the European Parliament and of the Council on nature restoration
	- Guidance for further work

I. INTRODUCTION

1. On 22 of June 2022, the Commission adopted a proposal for a Regulation on Nature Restoration¹, which aims to restore European habitats that are in poor condition, and to bring back nature to all ecosystems, from forest and agricultural land to marine, freshwater and urban ecosystems. Under this proposal, legally binding targets for nature restoration in different ecosystems will apply, complementing existing laws.

¹ 10607/22 + ADD 1.

2. The Economic and Social Committee adopted its opinion on the proposal on 25 January 2023. The Committee of the Regions adopted its opinion on the proposal on 9 February 2023. Discussions in the European Parliament on the proposal are ongoing. MEP César Luena (S&D) has been appointed Rapporteur. The ENVI Committee considered the Rapporteur's draft report at its meeting on 12 January 2023. It plans to adopt its legislative report on 15 June and the vote in Plenary is expected to take place in July. The Presidency works towards reaching a General Approach on the Nature Restoration Regulation at the Environment Council on 20 June 2023.

II. WORK IN THE COUNCIL

3. Since the adoption of the Commission's proposal, the Working Party on the Environment (WPE) has pursued an intensive examination of its provisions under the CZ and SE Presidencies. Two revised compromise Presidency texts have been put forward, reflecting discussions held at 18 WPE meetings and subsequent comments from delegations.
4. The Environment Council held a policy debate on the level of ambition and on the non-deterioration requirement at its meeting on 22 December 2022. The Agri/Fish Council discussed agricultural and forestry aspects of the proposal at its meetings on 21 November 2022 and 20 March 2023, under 'Any other business'² and the Transport, Telecommunications and Energy Council discussed aspects related to renewable energy on 28 March 2023, also under "Any other business"³.
5. On 26 April 2023, the Presidency sought guidance for further work from Coreper.⁴ Discussions in Coreper indicated that the Presidency's compromise proposals for the "stepwise approach" package, for the preparation, content, assessment and review of the NRPs (Chapter III), and for the monitoring and reporting (Chapter IV) were going in the right direction and were largely supported by delegations. Some small adjustments to these provisions are being discussed to fine-tune the Presidency compromise proposals based on comments made at Coreper. Coreper also provided political guidance on the direction to take regarding the non-deterioration requirement in Articles 4 and 5.

² 7401/23.

³ 7670/23.

⁴ 8416/23.

6. Building upon the proposals put forward to Coreper on 26 of April, the Presidency prepared a complete revised Presidency compromise text for discussion at the WPE on 5 and 16 May 2023.⁵ Following those discussions, the Presidency proposes a revised compromise text for Articles 1, 2, 6, 7, 8 and 10 and seeks Coreper's views that these are heading in the right direction. The Presidency is also putting forward revised proposals for Articles 4, 5 and 9 for political guidance from the Committee. In addition, upon request by a few Member States, the Presidency would like to give the opportunity for delegations to express their views in Coreper on the financial aspects of this Regulation.
7. The Presidency's compromise proposals for the issues put forward to Coreper on 24 May 2023 are outlined further down and set out in detail in the Annex to this Note. Please note that the non-deterioration requirement in Articles 4 and 5 will not be addressed at this meeting, as it was discussed at the previous Coreper meeting and discussions are still ongoing at technical level. Changes to the Commission's proposal are marked in **bold underlined** and deletions in ~~striketrough~~.

III. GENERAL PROVISIONS AND GEOGRAPHICAL SCOPE

Overarching aim and application

8. Article 1 sets the overarching objective of the proposal, which is to put in place effective and area-based restoration measures covering, at the very least, 20% of the Union's land and sea by 2030 and all ecosystems in need of restoration by 2050, in order to contribute to the long-term and sustained recovery of biodiversity, achieve the Union's objectives on climate change and meet the Union's international commitments. The Presidency's compromise text adds the aim of achieving land degradation neutrality, as foreseen in the United Nations Convention to Combat Desertification (UNCCD), to which the EU is a Party. The Presidency's compromise text also clarifies that the 20% overall restoration target to 2030 is to be applied to land and sea areas separately and it is to be a combined effort by the Member States.

⁵ 8718/23.

9. The Presidency's compromise text for Article 2, which defines the geographical scope of the Regulation, clarifies its application in relation to the coastal and marine areas.

IV. RESTORATION TARGETS AND OBLIGATIONS

Restoration of terrestrial, coastal, freshwater and marine ecosystems (Articles 4 and 5)

10. Chapter II of the proposal sets the obligations and targets for Member States. Articles 4 and 5, in general, set two main targets for restoration: (1) Member States must put in place restoration measures to improve the condition of the habitats listed in Annex I and II, which are not in a good condition; (2) Member States are required to put into place restoration measures necessary to re-establish the habitat types listed in Annexes I and II of the Proposal, with the aim to reach their favourable reference area.
11. According to the Commission's proposal, in relation to *each* group of habitats listed in Annex I and II, for these two obligations respectively, measures need to be in place by 2030, on at least 30% of the area where the habitats occur, 60% by 2040 and 90% by 2050 and on at least 30% of the additional overall surface needed to reach the total favourable reference area by 2030, 60% by 2040 and 100% by 2050. Habitats in *unknown* condition are considered as not being in good condition.
12. As requested by delegations during the technical examination of the proposal, the Presidency compromise text increases flexibility for Member States to implement these obligations. Regarding the first obligation, which is to improve the condition of the habitats listed in Annex I and II, flexibility is increased by linking the 30% target by 2030 to the *total* area of the habitats type instead of to each habitat group. In addition, for terrestrial habitats, Member States have until 2030 to determine the condition of unknown habitats, instead of having to apply restoration measures as from the entry into force of this regulation if the condition is unknown. The setting of quantitative restoration requirements only applies to areas for which the condition is known.

13. Taking into account the challenging difficulties specific to marine ecosystems, in addition to the flexibilities mentioned above, the Presidency compromise text foresees that, as an exemption from the obligation to improve the condition of habitats listed in Annex II, for *group 7*, Member States may apply a lower percentage, provided that this does not prevent good environmental status as determined pursuant to Directive 2008/86/EC. Only half of the knowledge gaps have to be closed by 2030 but the condition of all habitats also needs to be known by 2040. As for the ecosystems foreseen in Article 4, for marine ecosystems the setting of quantitative restoration requirements only applies to areas for which the condition is known.
14. It is to be noted that further changes to paragraphs 6-8a of Articles 4 and 5 might still be necessary to accommodate ongoing discussions on the non-deterioration requirement.

Ecosystem specific obligations: Urban Ecosystems (Article 6)

15. Chapter II of the proposal also contains ecosystem-specific obligations, notably, for urban ecosystems (Article 6), rivers and floodplains (Article 7), pollinator populations (Article 8), agricultural ecosystems (Article 9) and forest ecosystems (Article 10).
16. On urban ecosystems, Article 6 of the proposal establishes quantitative targets: Member States must ensure that there is an increase in the total *national* area of urban green space, of 3% by 2040 and 5% by 2050, which should include a minimum of 10% tree canopy cover by 2050 and a net gain of green space to be integrated into building and infrastructure developments in *all* cities, towns and suburbs. Article 6 also sets a “no net loss” requirement for urban green space in *all* cities, towns and suburbs. The “no-net loss” requirement is in comparison to the situation in 2021.

17. In order to address the concerns expressed by delegations and taking into consideration that Article 6 is auxiliary to the main aim of the proposal, the Presidency proposes to replace the quantitative targets with an obligation for Member States to achieve an increasing trend until a satisfactory level is reached. The integration of urban green space into buildings and infrastructure becomes a means to increase overall urban green space and not a target in itself. In addition, the Presidency's compromise text applies the "no net loss" requirement to the *total* national area of urban green space and in comparison to the situation at the entry into force of this Regulation. To address the requested flexibility in relation to the geographical scope of the article, the Presidency compromise text gives Member States the option to determine how to map their urban ecosystem's areas (Article 11(2b)).

Ecosystem specific obligations: River Ecosystems (Article 7)

18. Article 7 of the proposal requires Member States to make an inventory of, and remove obsolete barriers, to increase the connectivity of surface water, with the aim to reach a EU-wide objective of restoring at least 25 000 km free-flowing rivers by 2030.
19. The Presidency compromise proposals for this Article aim to clarify its requirements by adding the definition of what is a free-flowing river (in Article 3), identifying that the inventory and the plan for removal concerns *artificial* barriers and that the length of free-flowing rivers to be achieved by the removal of those barriers is to be estimated from the year 2020 (Article 12(2)(e)). The Presidency also proposes to add the obligation for Member States to ensure that the river connectivity restored should be maintained.

Ecosystem specific obligations: Pollinators (Article 8)

20. According to Article 8 on pollinator populations, the proposal requires that Member States reverse their decline by 2030 and achieve thereafter an increasing trend until satisfactory levels are achieved. The Commission will adopt implementing acts to determine the method for monitoring pollinator populations, to be done every 3 years after 2030. Member States welcomed this provision and the only concern expressed related to the interval of monitoring which the Presidency proposes to increase to every 6 years.

Ecosystem specific obligations: Agriculture Ecosystems (Article 9)

21. Article 9 of the proposal sets out an obligation for Member States to put into place restoration measures to enhance biodiversity on agricultural ecosystems. This obligation is in addition to the obligations set out in Article 4. An increasing trend at national level is to be achieved, measured in terms of specific indicators, such as the grassland butterfly index, stock of organic carbon, share of agricultural land with high-diversity landscape features and the farmland bird index. Article 9 specifically introduces the requirement for rewetting drained peatlands in agriculture use, where at least 70% of such areas must be the subject of restoration measures and half of that must be rewetted by 2050. Member States may rewet drained peatlands under other uses to contribute up to 20% of the overall target.

High-diversity landscape features

22. The Presidency proposes an amendment to the description of high-diversity landscape features (HDLF) in Annex IV, with the intention to allow for management of HDLF that are necessary for the preservation of biodiversity. In addition, the Presidency proposes that, where applicable, Member States shall develop a complementary methodology for that indicator in order to monitor the elements under productive agricultural use which are necessary for the preservation of biodiversity.

Rewetting drained peatlands

23. While this provision can highly contribute to climate mitigation and adaption, it also disproportionately affects certain Member States. In order to strike a balance between maintaining the level of ambition of the proposal and account for national circumstances, the Presidency proposes to decrease the targets on areas to be restored by 2040 and by 2050 from 50% to 40% and from 70% to 50%, respectively. Flexibility will also be increased by raising to 40% the share of rewetted drained peatlands under other uses that can contribute to the overall target. In addition, in duly justified cases, concerned Member States may reduce the extent of rewetting of peatland under agricultural use and, when putting in place measures to rewet drained peatlands, Member States may adapt the water level to national and local circumstances.

Ecosystem specific obligations: Forest Ecosystems (Article 10)

24. Regarding Forest Ecosystems, Article 10 of the proposal requires Member States to put in place restoration measures to, again, enhance biodiversity and achieve an increasing trend at national level until satisfactory levels for various specific forest related indicators is reached. This obligation is in addition to the obligations set out in Article 4.
25. Based on concerns expressed by Member States at technical level and with the aim to provide flexibility without compromising a level playing field in the monitoring and reporting obligations, the Presidency proposes to keep standing deadwood, lying deadwood and common forest bird index as mandatory common indicators. From the remaining forest related indicators of the Commission's proposal and the additional two new indicators in the Presidency compromise text, namely *Share of forest dominated by native tree species* and *Tree species diversity*, Member States may choose the three best suited to demonstrate enhancement of biodiversity of forest ecosystems according to national circumstances. In addition, exceptions to the fulfilment of the obligations under this Article are included but restricted to large scale cases of force majeure or unavoidable habitat transformations directly caused by climate change.
26. It is to be noted that the Presidency compromise proposal extends the interval for Member States to report on the area subject to restoration measures referred to in Articles 4 to 10 and the barriers referred to in Article 7 that have been removed, from an annual basis to every three years.

Financial aspects

27. During discussions at technical level, and also at Ministerial level at the Environment Council on 20 December 2022, several delegations expressed concerns over the financial costs of implementing this regulation, notably, for administrative tasks, planning, closing of knowledge gaps, monitoring and, in general, for implementing the restoration measures necessary to meet the objectives of this regulation.

28. On 27 April 2023, the Presidency organised and hosted, in cooperation with the Commission, a Workshop on Financing Nature Restoration where Member States were given a detailed overview of available sources for the financing of restoration measures. In follow up discussions at the WPE on 16 May 2023, several delegations reiterated their concerns on the financial aspects related to the implementation of the regulation and a few delegations asked for the creation of a dedicated fund. The Presidency would like to provide delegations with an opportunity to express their potential concerns at Coreper level, while recalling it is not possible to prejudge the next Multiannual Financial Framework (MFF).

IV. CONCLUSION

29. With a view to reaching an agreement on a General Approach on the Nature Restoration proposal at the Environment Council on 20 June 2023, the Permanent Representatives Committee is invited to:
- Provide political guidance on Articles 4 and 5 and Article 9,
 - Express views on the remaining issues mentioned in this Note.

Proposal for a

REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

on nature restoration

(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 Committee⁶,

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

Acting in accordance with the ordinary legislative procedure,

Whereas:

- (1) It is necessary to lay down rules at Union level on the restoration of ecosystems to ensure the recovery to biodiverse and resilient nature across the Union territory. Restoring ecosystems also contributes to the Union climate change mitigation and climate change adaptation objectives.

⁶ OJ C , , p. .

- (2) The European Green Deal⁷ has set out an ambitious roadmap to transform the Union into a fair and prosperous society, with a modern, resource-efficient and competitive economy, aiming to protect, conserve and enhance the Union's natural capital, and to protect the health and well-being of citizens from environment-related risks and impacts. As part of the European Green Deal, the Commission has adopted an EU Biodiversity Strategy for 2030⁸.
- (3) The Union and its Member States, as parties to the Convention on Biological Diversity, approved by Council Decision 93/626/EEC⁹, are committed to the long-term strategic vision adopted by the Conference of the Parties in 2010 by Decision X/2 Strategic Plan for Biodiversity 2011-2020¹⁰ that, by 2050, biodiversity is to be valued, conserved, restored and wisely used, maintaining ecosystem services, sustaining a healthy planet and delivering benefits essential for all people.

7 Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions, The European Green Deal, 11.12.2019 (COM (2019) 640 final).

8 Communication from the Commission to the European Parliament, the Council the European Economic and Social Committee and the Committee of the Regions, EU Biodiversity Strategy for 2030, Bringing nature back into our lives, 20.5.2020, COM(2020) 380 final.

9 Council Decision 93/626/EEC of 25 October 1993 concerning the conclusion of the Convention on Biological Diversity (OJ L 309, 13.12.1993, p. 1).

10 <https://www.cbd.int/decision/cop/?id=12268>.

- (4) ~~[placeholder for the restoration target of the new Global Biodiversity Framework to be agreed at CBD COP 15]~~ **The Convention on Biological Diversity agreed at COP 15 in December 2022,¹¹ the Global Biodiversity Framework that sets out action-oriented global targets for urgent action over the decade to 2030 to ensure that all areas are under participatory, integrated and biodiversity inclusive spatial planning and/or effective management processes addressing land and sea use change; to bring the loss of areas of high biodiversity importance, including ecosystems of high ecological integrity, close to zero by 2030 while respecting the rights of indigenous peoples and local communities; to ensure that by 2030 at least 30 per cent of areas of degraded terrestrial, inland water, and marine and coastal ecosystems are under effective restoration, in order to enhance biodiversity and ecosystem functions and services, ecological integrity and connectivity; to restore, maintain and enhance nature's contributions to people, including ecosystem functions and services, such as the regulation of air, water and climate, soil health, pollination and reduction of disease risk, as well as protection from natural hazards and disasters, through nature-based solutions and/or ecosystem-based approaches for the benefit of all people and nature. The Global Biodiversity Framework will enable progress towards the achievement of the outcome-oriented goals for 2050.**
- (5) The UN Sustainable Development Goals¹², in particular goals 14.2, 15.1, 15.2 and 15.3, refer to the need to ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands.

11 Kunming-Montreal Global biodiversity framework. Draft decision submitted by the President, CBD/COP/DEC/15/4 19 December 2022.

12 [United Nations Sustainable Development – 17 Goals to Transform Our World.](#)

- (6) The United Nations General Assembly, in a resolution of 1 March 2019¹³, proclaimed 2021–2030 the UN decade on ecosystem restoration, with the aim of supporting and scaling-up efforts to prevent, halt and reverse the degradation of ecosystems worldwide and raise awareness of the importance of ecosystem restoration.
- (7) The EU Biodiversity Strategy for 2030 aims to ensure that Europe’s biodiversity will be put on the path to recovery by 2030 for the benefits of people, the planet, the climate and our economy. It sets out an ambitious EU nature restoration plan with a number of key commitments, including a commitment to put forward a proposal for legally binding EU nature restoration targets to restore degraded ecosystems, in particular those with the most potential to capture and store carbon, and to prevent and reduce the impact of natural disasters.
- (8) In its resolution of 9 June 2021¹⁴, the European Parliament strongly welcomed the commitment to draw up a legislative proposal with binding nature restoration targets, and furthermore considered that in addition to an overall restoration target, ecosystem-, habitat- and species-specific restoration targets should be included, covering forests, grasslands, wetlands, peatlands, pollinators, free-flowing rivers, coastal areas and marine ecosystems.
- (9) In its conclusions of 23 October 2020¹⁵, the Council acknowledged that preventing further decline of the current state of biodiversity and nature will be essential, but not sufficient to bring nature back into our lives. The Council reaffirmed that more ambition on nature restoration is needed as proposed with the new EU Nature Restoration Plan, which includes measures to protect and restore biodiversity beyond protected areas. The Council also stated that it awaited a proposal for legally binding nature restoration targets, subject to an impact assessment.

13 Resolution 73/284 of 1 March 2019 on the United Nations Decade on Ecosystem Restoration (2021–2030).

14 European Parliament resolution of 9 June 2021 on the EU Biodiversity Strategy for 2030: Bringing nature back into our lives (2020/2273(INI)).

15 Council Conclusions on Biodiversity - the need for urgent action, 12210/20.

(10) The EU Biodiversity Strategy for 2030 sets out a commitment to legally protect a minimum of 30 % of the land, including inland waters, and 30 % of the sea in the Union, of which at least one third should be under strict protection, including all remaining primary and old-growth forests. The criteria and guidance for the designation of additional protected areas by Member States¹⁶ (the ‘Criteria and guidance’), developed by the Commission in cooperation with Member States and stakeholders, highlight that if the restored areas comply or are expected to comply, once restoration produces its full effect, with the criteria for protected areas, those restored areas should also contribute towards the Union targets on protected areas. The Criteria and guidance also highlight that protected areas can provide an important contribution to the restoration targets in the EU Biodiversity Strategy for 2030, by creating the conditions for restoration efforts to be successful. This is particularly the case for areas which can recover naturally by stopping or limiting some of the pressures from human activities. Placing such areas, including in the marine environment, under strict protection, will, in some cases, be sufficient to lead to the recovery of the natural values they host. Moreover, it is emphasised in the Criteria and guidance that all Member States are expected to contribute towards reaching the Union targets on protected areas set out in the EU Biodiversity Strategy for 2030, to an extent that is proportionate to the natural values they host and to the potential they have for nature restoration.

16 Commission Staff Working Document Criteria and guidance for protected areas designations (SWD(2022) 23 final).

- (11) The EU Biodiversity Strategy for 2030 sets out a target to ensure that there is no deterioration in conservation trends or in the status of protected habitats and species and that at least 30 % of species and habitats not currently in favourable status will fall into that category or show a strong positive trend towards falling into that category by 2030. The guidance¹⁷ developed by the Commission in cooperation with Member States and stakeholders to support the achievement of these targets highlights that maintenance and restoration efforts are likely to be required for most of those habitats and species, either by halting their current negative trends by 2030 or by maintaining current stable or improving trends, or by preventing the decline of habitats and species with a favourable conservation status. The guidance further emphasises that those restoration efforts primarily need to be planned, implemented and coordinated at national or regional levels and that, in selecting and prioritising the species and habitats to be improved by 2030, synergies with other Union and international targets, in particular environmental or climate policy targets, are to be sought.
- (12) The Commission's State of Nature Report from 2020¹⁸ noted that the Union has not yet managed to stem the decline of protected habitat types and species whose conservation is of concern to the Union. That decline is caused mostly by abandonment of extensive agriculture, intensifying management practices, the modification of hydrological regimes, urbanisation and pollution as well as unsustainable forestry activities and species exploitation. Furthermore, invasive alien species and climate change represent major and growing threats to native Union flora and fauna.

¹⁷ Available at [Circabc \(europa.eu\)](https://circabc.europa.eu) [Reference to be completed]

¹⁸ Report from the Commission to the European Parliament, the Council and the European Economic and Social Committee "The state of nature in the European Union Report on the status and trends in 2013 - 2018 of species and habitat types protected by the Birds and Habitats Directives", COM/2020/635 final.

- (13) It is appropriate to set an overarching objective for ecosystem restoration to foster economic and societal transformation, the creation of high-quality jobs and sustainable growth. Biodiverse ecosystems such as wetland, freshwater, forest as well as agricultural, sparsely vegetated, marine, coastal and urban ecosystems deliver, if in good condition, a range of essential ecosystem services, and the benefits of restoring degraded ecosystems to good condition in all land and sea areas far outweigh the costs of restoration. Those services contribute to a broad range of socio-economic benefits, depending on the economic, social, cultural, regional and local characteristics.
- (14) The United Nations Statistical Commission adopted the System of Environmental Economic Accounting - Ecosystem Accounting (SEEA EA)¹⁹ at its 52nd session in March 2021. SEEA EA constitutes an integrated and comprehensive statistical framework for organising data about habitats and landscapes, measuring the extent, condition and services of ecosystems, tracking changes in ecosystem assets, and linking this information to economic and other human activity.

¹⁹ https://seea.un.org/sites/seea.un.org/files/documents/EA/seea_ea_white_cover_final.pdf.

- (15) Securing biodiverse ecosystems and tackling climate change are intrinsically linked. Nature and nature-based solutions, including natural carbon stocks and sinks, are fundamental for fighting the climate crisis. At the same time, the climate crisis is already a driver of terrestrial and marine ecosystem change, and the Union must prepare for the increasing intensity, frequency and pervasiveness of its effects. The Special Report of the Intergovernmental Panel on Climate Change (IPCC)²⁰ on the impacts of global warming of 1.5°C pointed out that some impacts may be long-lasting or irreversible. The Sixth IPCC Assessment Report²¹ states that restoring ecosystems will be fundamental in helping to combat climate change and also in reducing risks to food security. The Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) in its 2019 Global Assessment Report on Biodiversity and Ecosystem Services²² considered climate change a key driver of change in nature, and it expected its impacts to increase over the coming decades, in some cases surpassing the impact of other drivers of ecosystem change such as changed land and sea use.

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- 20 Intergovernmental Panel on Climate Change (IPCC): Special Report on the impacts of global warming of 1.5°C and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty [Masson-Delmotte, V., P. Zhai, H.-O. Pörtner, D. Roberts, J. Skea, P.R. Shukla, A. Pirani, W. Moufouma-Okia, C. Péan, R. Pidcock, S. Connors, J.B.R. Matthews, Y. Chen, X. Zhou, M.I. Gomis, E. Lonnoy, T. Maycock, M. Tignor, and T. Waterfield (eds.)] <https://www.ipcc.ch/sr15/>
- 21 [Climate Change 2022: Impacts, Adaptation and Vulnerability | Climate Change 2022: Impacts, Adaptation and Vulnerability \(ipcc.ch\)](https://www.ipcc.ch/2022/08/15/summary-for-policymakers-of-the-ipcc-sixth-assessment-report/).
- 22 IPBES (2019): Global assessment report on biodiversity and ecosystem services of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services. E. S. Brondizio, J. Settele, S. Díaz, and H. T. Ngo (editors). IPBES secretariat, Bonn, Germany. 1148 pages. <https://doi.org/10.5281/zenodo.3831673>.

- (16) Regulation (EU) 2021/1119 of the European Parliament and of the Council²³ sets out a binding objective of climate neutrality in the Union by 2050 and negative emissions thereafter, and to prioritise swift and predictable emission reductions and, at the same time, enhance removals by natural sinks. The restoration of ecosystems can make an important contribution to maintaining, managing and enhancing natural sinks and to increasing biodiversity while fighting climate change. Regulation (EU) 2021/1119 also requires relevant Union institutions and the Member States to ensure continuous progress in enhancing adaptive capacity, strengthening resilience and reducing vulnerability to climate change. It also requires that Member States integrate adaptation in all policy areas and promote nature-based solutions²⁴ and ecosystem-based adaptation.
- (17) The Commission's Communication on adaptation to climate change from 2021²⁵ emphasises the need to promote nature-based solutions and recognises that cost-effective adaptation to climate change can be achieved by protecting and restoring wetlands and peatlands as well as coastal and marine ecosystems, by developing urban green spaces and installing green roofs and walls and by promoting and sustainably managing forests and farmland. Having a greater number of biodiverse ecosystems leads to a higher resilience to climate change and provides more effective forms of disaster reduction and prevention.

23 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).

24 Nature-based solutions are solutions that are inspired and supported by nature, that are cost-effective, and that simultaneously provide environmental, social and economic benefits and help build resilience. Such solutions bring more, and more diverse, nature and natural features and processes into cities, landscapes and seascapes, through locally adapted, resource-efficient and systemic interventions. Nature-based solutions must therefore benefit biodiversity and support the delivery of a range of ecosystem services.

25 Communication from the European Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions. Forging a climate-resilient Europe - the new EU Strategy on Adaptation to Climate Change (COM/2021/82 final).

- (18) Union climate policy is being revised in order to follow the pathway proposed in Regulation (EU) 2021/1119 to reduce net emissions by at least 55 % by 2030 compared to 1990. In particular, the proposal for a Regulation of the European Parliament and of the Council amending Regulations (EU) 2018/841 and (EU) 2018/1999²⁶ aims to strengthen the contribution of the land sector to the overall climate ambition for 2030 and aligns the objectives as regards accounting of emissions and removals from the land use, land use change and forestry ('LULUCF') sector with related policy initiatives on biodiversity. That proposal emphasises the need for the protection and enhancement of nature-based carbon removals, for the improvement of the resilience of ecosystems to climate change, for the restoration of degraded land and ecosystems, and for rewetting peatlands. It further aims to improve the monitoring and reporting of greenhouse gas emissions and removals of land subject to protection and restoration. In this context, it is important that ecosystems in all land categories, including forests, grasslands, croplands and wetlands, are in good condition in order to be able to effectively capture and store carbon.
- (19) Geo-political developments have further underlined the need to safeguard the resilience of food systems.²⁷ Evidence shows that restoring agro-ecosystems has positive impacts on food productivity in the long-term, and that the restoration of nature acts as an insurance policy to ensure the EU's long-term sustainability and resilience.

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- 26 Proposal for a Regulation of the European Parliament and of the Council amending Regulations (EU) 2018/841 as regards the scope, simplifying the compliance rules, setting out the targets of the Member States for 2030 and committing to the collective achievement of climate neutrality by 2035 in the land use, forestry and agriculture sector, and (EU) 2018/1999 as regards improvement in monitoring, reporting, tracking of progress and review (COM/2021/554 final).
- 27 Communication from the Commission to the European Parliament, the Council, the European, Economic and Social Committee and the Committee of the Regions, Safeguarding food security and reinforcing the resilience of food systems, COM (2022) 133 final.

- (20) In the final report of the Conference on the Future of Europe, citizens call on the Union to protect and restore biodiversity, the landscape and oceans, eliminate pollution and to foster knowledge, awareness, education, and dialogues on environment, climate change, energy use, and sustainability.²⁸
- (21) The restoration of ecosystems, coupled with efforts to reduce wildlife trade and consumption, will also help prevent and build up resilience to possible future communicable diseases with zoonotic potential, therefore decreasing the risks of outbreaks and pandemics, and contribute to support EU and global efforts to apply the One Health approach, which recognises the intrinsic connection between human health, animal health and healthy resilient nature.
- (22) Soils are an integral part of terrestrial ecosystems. The Commission's 2021 Communication 'EU Soil Strategy for 2030'²⁹ outlines the need to restore degraded soils and enhance soil biodiversity. **The Global Mechanism and the secretariat of the United Nations Convention to Combat Desertification (UNCCD) have established the Land Degradation Neutrality Target Setting Programme to assist countries to achieve land degradation neutrality by 2030.**
- (23) Council Directive 92/43/EEC³⁰ and Directive 2009/147/EC of the European Parliament and of the Council³¹ aim to ensure the long-term protection, conservation and survival of Europe's most valuable and threatened species and habitats as well as the ecosystems of which they are part. Natura 2000, which was established in 1992 and is the largest coordinated network of protected areas in the world, is the key instrument implementing the objectives of those two Directives.

28 *Conference on the Future of Europe – Report on the Final Outcome*, May 2022, Proposal 2 (1, 4, 5) p. 44, Proposal 6 (6) p. 48.

29 Communication from the Commission to the European Parliament, Council, the European Economic and Social Committee and the Committee of the Regions. EU Soil Strategy for 2030 Reaping the benefits of healthy soils for people, food, nature and climate (COM/2021/699 final).

30 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).

31 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).

- (24) A framework and guidance³² already exist to determine good condition of habitat types protected under Directive 92/43/EEC and to determine sufficient quality and quantity of the habitats of species falling within the scope of that Directive. Restoration targets for those habitat types and habitats of species can be set based on that framework and guidance. However, such restoration will not be enough to reverse biodiversity loss and recover all ecosystems. Therefore, additional obligations should be established based on specific indicators in order to enhance biodiversity at the scale of wider ecosystems.
- (25) Building on Directives 92/43/EEC and 2009/147/EC and in order to support the achievement of the objectives set out in those Directives, Member States should put in place restoration measures to ensure the recovery of protected habitats and species, including wild birds, across Union areas, also in areas that fall outside Natura 2000.
- (26) Directive 92/43/EEC aims to maintain and restore, at favourable conservation status, natural habitats and species of wild fauna and flora of Union interest. However, it does not set a deadline for achieving that goal. Similarly, Directive 2009/147/EC does not establish a deadline for the recovery of bird populations in the Union.
- (27) Deadlines should therefore be established for putting in place restoration measures within and beyond Natura 2000 sites, in order to gradually improve the condition of protected habitat types across the Union as well as to re-establish them until the favourable reference area needed to achieve favourable conservation status of those habitat types in the Union is reached. In order to give the necessary flexibility to Member States to put in place large scale restoration efforts, it is appropriate to group habitat types according to the ecosystem to which they belong and set the time-bound and quantified area-based targets for groups of habitat types. This will allow Member States to choose which habitats to restore first within the group.

32 DG Environment. 2017, “Reporting under Article 17 of the Habitats Directive: Explanatory notes and guidelines for the period 2013-2018” and DG Environment 2013, “Interpretation manual of European Union habitats Eur 28”.

- (28) Similar requirements should be set for the habitats of species that fall within the scope of Directive 92/43/EEC and habitats of wild birds that fall within the scope of Directive 2009/147/EC, having special regard to the connectivity needed between both of those habitats in order for the species populations to thrive.
- (29) It is necessary that the restoration measures for habitat types are adequate and suitable to reach good condition and the favourable reference areas as swiftly as possible, with a view to achieving their favourable conservation status. It is important that the restoration measures are those necessary to achieve the time-bound and quantified area-based targets. It is also necessary that the restoration measures for the habitats of the species are adequate and suitable to reach their sufficient quality and quantity as swiftly as possible with a view to achieving the favourable conservation status of the species.
- (30) It is important to ensure that the restoration measures put in place under this Regulation deliver concrete and measurable improvement in the condition of the ecosystems, both at the level of the individual areas subject to restoration and at national and Union levels.
- (31) In order to ensure that the restoration measures are efficient and that their results can be measured over time, it is essential that the areas that are subject to such restoration measures, with a view to improving the condition of habitats that fall within the scope of Annex I to Directive 92/43/EEC, to re-establish those habitats and to improve their connectivity, show a continuous improvement until good condition is reached.
- (32) It is also essential that the areas that are subject to restoration measures with a view to improving the quality and quantity of the habitats of species that fall within the scope of Directive 92/43/EEC, as well as habitats of wild birds falling within the scope of Directive 2009/147/EC, show a continuous improvement to contribute to the achievement of a sufficient quantity and quality of the habitats of such species.

- (33) It is important to ensure a gradual increase of the areas covered by habitat types that fall within the scope of Directive 92/43/EEC that are in good condition across the territory of Member States and of the Union as a whole, until the favourable reference area for each habitat type is reached and at least 90 % at Member State level of that area is in good condition, so as to allow those habitat types in the Union to achieve favourable conservation status.
- (34) It is important to ensure a gradual increase of the quality and quantity of the habitats of species that fall within the scope of Directive 92/43/EEC, as well as habitats of wild birds falling within the scope of Directive 2009/147/EC, across the territory of Member States and ultimately of the Union, until it is sufficient to ensure the long-term survival of those species.
- (35) It is important that the areas covered by habitat types falling within the scope of this Regulation **that are subject to restoration measures** do not deteriorate, **that areas covered by such habitat types in good condition are maintained and that areas covered with such habitat types which are still not subject to restoration measures do not deteriorate to a degree or extent that could jeopardize the long-term maintenance or achievement of good condition, with the objective of not increasing** ~~as compared to the current situation, considering the current restoration needs and the necessity not to further increase the restoration needs in the future.~~ It is, however, appropriate to consider the possibility of force majeure, which may result in the deterioration of areas covered by those habitat types, as well as unavoidable habitat transformations which are directly caused by climate change, or as a result of a plan or project of overriding public interest, for which no less damaging alternative solutions are available, ~~to be determined on a case by case basis,~~ or of a plan or project authorised in accordance with Article 6(4) of Directive 92/43/EEC. **Where an area is transformed from one habitat type to another falling within the scope of this Regulation as a desired result of a restoration measure, the area should not be considered to deteriorate.**

- (36) The EU Biodiversity Strategy for 2030 emphasises the need for stronger action to restore degraded marine ecosystems, including carbon-rich ecosystems and important fish spawning and nursery areas. The Strategy also announces that the Commission is to propose a new action plan to conserve fisheries resources and protect marine ecosystems.
- (37) The marine habitat types listed in Annex I to Directive 92/43/EEC are defined broadly and comprise many ecologically different sub-types with different restoration potential, which makes it difficult for Member States to establish appropriate restoration measures at the level of those habitat types. The marine habitat types should therefore be further specified by using relevant levels of the European nature information system (EUNIS) classification of marine habitats. Member States should establish favourable reference areas for reaching the favourable conservation status of each of those habitat types, in so far as those reference areas are not already addressed in other Union legislation. **The group of marine soft sediment habitat types, corresponding to certain of the broad benthic habitat types specified under Directive 2008/56/EC, are widely represented in marine waters of several Member States. Therefore Member States should be allowed to limit the restoration measures, that are put in place gradually, to a smaller proportion of the area of these habitat types not in good condition, provided that this does not prevent good environmental status, as determined pursuant to Article 9(1) of Directive 2008/56/EC, from being achieved or maintained, taking into account in particular threshold values for descriptors 1 and 6, laid down in accordance with Article 9(3) of that Directive, for the extent of loss of these habitat types, for adverse effects on the condition of these habitat types and for the maximum allowable extent of those adverse effects.**

- (38) Where the protection of coastal and marine habitats requires that fishing or aquaculture activities are regulated, the common fisheries policy applies. Regulation (EU) No 1380/2013 of the European Parliament and of the Council³³ provides, in particular, that the common fisheries policy is to implement the ecosystem-based approach to fisheries management so as to ensure that negative impacts of fishing activities on the marine ecosystem are minimised. That Regulation also provides that that policy is to endeavour to ensure that aquaculture and fisheries activities avoid the degradation of the marine environment.
- (39) In order to achieve the objective of continuous, long-term and sustained recovery of biodiverse and resilient nature, Member States should make full use of the possibilities provided under the common fisheries policy. Within the scope of the exclusive competence of the Union with regard to conservation of marine biological resources, Member States have the possibility to take non-discriminatory measures for the conservation and management of fish stocks and the maintenance or improvement of the conservation status of marine ecosystems within the limit of 12 nautical miles. In addition, Member States that have a direct management interest have the possibility to agree to submit joint recommendations for conservation measures necessary for compliance with obligations under Union law on the environment. Such measures will be assessed and adopted according to the rules and procedures provided for under the common fisheries policy.
- (40) Directive 2008/56/EC requires Member States to cooperate bilaterally and within regional and sub-regional cooperation mechanisms, including through regional sea conventions³⁴, as well as, where fisheries measures are concerned, in the context of the regional groups established under the common fisheries policy.

33 Regulation (EU) No 1380/2013 of the European Parliament and of the Council of 11 December 2013 on the Common Fisheries Policy, amending Council Regulations (EC) No 1954/2003 and (EC) No 1224/2009 and repealing Council Regulations (EC) No 2371/2002 and (EC) No 639/2004 and Council Decision 2004/585/EC (OJ L 354, 28.12.2013, p. 22).

34 The Convention for the Protection of the Marine Environment in the North-East Atlantic of 1992 – the OSPAR Convention (OSPAR), the Convention on the Protection of the Marine Environment in the Baltic Sea Area of 1992 – the Helsinki Convention (HELCOM), the Convention for the Protection of Marine Environment and the Coastal Region of the Mediterranean of 1995 – the Barcelona Convention (UNEP-MAP) and the Convention for the Protection of the Black Sea of 1992 – the Bucharest Convention.

- (41) It is important that restoration measures are also put in place for the habitats of certain marine species, such as sharks and rays, that fall within the scope of the Convention on the Conservation of Migratory Species of Wild Animals, but outside the scope of Directive 92/43/EEC, as they have an important function in the ecosystem.
- (42) To support the restoration and non-deterioration of terrestrial, freshwater, coastal and marine habitats, Member States have the possibility to designate additional areas as ‘protected areas’ or ‘strictly protected areas’, to implement other effective area-based conservation measures, and to promote private land conservation measures.
- (43) Urban ecosystems represent around 22 % of the land surface of the Union, and constitute the area in which a majority of the citizens of the Union live. Urban green spaces include, inter alia, urban forests, parks and gardens, urban farms, tree-lined streets, urban meadows and urban hedges. **As the other ecosystems addressed in this Regulation, urban ecosystems, and provide important habitats for biodiversity, in particular plants, birds and insects, including pollinators. They also provide many other vital ecosystem services, including natural disaster risk reduction and control (e.g. floods, heat island effects), cooling, recreation, water and air filtration, as well as climate change mitigation and adaptation. Increase of urban green space is one important parameter for the increase of the urban ecosystems ability to provide these important services. Increasing green cover in a given urban area slows water run-off (reducing river pollution risk from storm water overflow) and helps keep summer temperatures down, building climate resilience, and provides additional space for nature to thrive. Increasing the level of urban green space will in many cases improve the health of the urban ecosystem. In turn healthy urban ecosystems are essential for supporting the health of other key European ecosystems – connecting natural areas in the surrounding countryside, improving river health away from the city, providing a haven and breeding ground for bird and pollinator species linked to agricultural and forest habitats, as well as providing important habitats for migrating bird, for example.**

- (44) Actions to ensure that **the coverage of** urban green spaces, **especially trees**, will no longer be at risk of being degraded ~~reduced~~ need to be strongly enhanced. In order to ensure that urban green spaces continue to provide the necessary ecosystem services, their loss should be stopped and they should be restored and increased, inter alia by ~~better integrating~~ **integration of** green infrastructure and nature-based solutions ~~into urban planning and by integrating green infrastructure~~, such as green roofs and green walls, in the design of buildings. **Such integration can contribute not only to the area of urban green space but also, if including trees, to the area of urban tree canopy cover.**
- (45) The EU Biodiversity Strategy for 2030 requires greater efforts to restore freshwater ecosystems and the natural functions of rivers. The restoration of freshwater ecosystems should include efforts to restore the natural ~~longitudinal and lateral~~ connectivity of rivers as well as their riparian areas and floodplains, including through the removal of **artificial** barriers with a view to supporting the achievement of favourable conservation status for rivers, lakes and alluvial habitats and species living in those habitats protected by Directives 92/43/EEC and 2009/147/EC, and the achievement of one of the key objectives of the EU Biodiversity Strategy for 2030, namely, the restoration of at least 25 000 km of free-flowing rivers, **assessed against 2020 when the Strategy was communicated.** When removing barriers, Member States should primarily address obsolete barriers, which are those that are no longer needed for renewable energy generation, inland navigation, water supply or other uses.
- (46) In the Union, pollinators have dramatically declined in recent decades, with one in three bee species and butterfly species in decline, and one in ten such species on the verge of extinction. Pollinators are essential for the functioning of terrestrial ecosystems, human wellbeing and food security, by pollinating wild and cultivated plants. Almost EUR 5 000 000 000 of the EU's annual agricultural output is directly attributed to insect pollinators³⁵.

35 Vysna, V., Maes, J., Petersen, J.E., La Notte, A., Vallecillo, S., Aizpurua, N., Ivits, E., Teller, A., Accounting for ecosystems and their services in the European Union (INCA). Final report from phase II of the INCA project aiming to develop a pilot for an integrated system of ecosystem accounts for the EU. Statistical report. Publications office of the European Union, Luxembourg, 2021.

(47) The Commission launched the EU Pollinators Initiative³⁶ on 1 June 2018 in response to calls from the European Parliament and from the Council to address the decline of pollinators. The progress report on the implementation of the initiative³⁷ showed that significant challenges remain in tackling the drivers of pollinator decline, including the use of pesticides. The European Parliament³⁸ and the Council³⁹ called for stronger actions to tackle pollinator decline and for the establishment of a Union-wide monitoring framework for pollinators, and clear objectives and indicators regarding the commitment to reverse the decline of pollinators. The European Court of Auditors has recommended that the Commission set up appropriate governance and monitoring mechanisms for actions to address threats to pollinators⁴⁰. **On 24 January 2023 the Commission presented a revised EU Pollinators Initiative.⁴¹ The revision sets out actions to be taken by the EU and its Member States to reverse the decline of pollinators by 2030.**

36 Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions. EU Pollinators Initiative (COM/2018/395 final).

37 Report from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions. Progress in the implementation of the EU Pollinators Initiative (COM/2021/261 final).

38 European Parliament resolution of 9 June 2021 on the EU Biodiversity Strategy for 2030: Bringing nature back into our lives (2020/2273(INI), available at https://www.europarl.europa.eu/doceo/document/TA-9-2021-0277_EN.pdf.

39 Council Conclusions of 17 December 2020 on European Court of Auditors' Special Report No 15/2020 entitled "Protection of wild pollinators in the EU: Commission initiatives have not borne fruit(14168/20).

40 Special Report 15/2020, https://www.eca.europa.eu/Lists/ECADocuments/SR20_15/SR_Pollinators_EN.pdf.

41 **Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions. Revision of the EU Pollinators Initiative. A new deal for pollinators (COM/2023/35 final).**

- (48) The proposal for a Regulation of the European Parliament and of the Council on the sustainable use of plant protection products *[for adoption on 22 June 2022, include title and number of the adopted act when available]* aims to regulate one of the drivers of pollinator decline by prohibiting the use of pesticides in ecologically sensitive areas, many of which are covered by this Regulation, for example areas sustaining pollinator species which the European Red Lists⁴² classify as being threatened with extinction.
- (49) Sustainable, resilient and biodiverse agricultural ecosystems are needed to provide safe, sustainable, nutritious and affordable food. Biodiversity-rich agricultural ecosystems also increase agriculture's resilience to climate change and environmental risks, while ensuring food safety and security and creating new jobs in rural areas, in particular jobs linked to organic farming as well as rural tourism and recreation. Therefore, the Union needs to improve the biodiversity in its agricultural lands, through a variety of existing practices beneficial to or compatible with the biodiversity enhancement, including extensive agriculture. Extensive agriculture is vital for the maintenance of many species and habitats in biodiversity rich areas. There are many extensive agricultural practices which have multiple and significant benefits on the protection of biodiversity, ecosystem services and landscape features such as precision agriculture, organic farming, agro-ecology, agroforestry and low intensity permanent grassland.
- (50) Restoration measures need to be put in place to enhance the biodiversity of agricultural ecosystems across the Union, including in the areas not covered by habitat types that fall within the scope of Directive 92/43/EEC. In the absence of a common method for assessing the condition of agricultural ecosystems that would allow setting specific restoration targets for agricultural ecosystems, it is appropriate to set a general obligation to improve biodiversity in agricultural ecosystems and measure the fulfilment of that obligation on the basis of existing indicators.

42 [European Redlist - Environment - European Commission \(europa.eu\)](https://european-commission.europa.eu/european-redlist-environment)

- (51) Since farmland birds are well-known and widely recognised key indicators of the health of agricultural ecosystems, it is appropriate to set targets for their recovery. The obligation to achieve such targets would apply to Member States, not to individual farmers. Member States should achieve those targets by putting in place effective restoration measures on farmland, working with and supporting farmers and other stakeholders for their design and implementation on the ground.
- (52) High-diversity landscape features on agricultural land, including buffer strips, rotational or non-rotational fallow land, hedgerows, individual or groups of trees, tree rows, field margins, patches, ditches, streams, small wetlands, terraces, cairns, stonewalls, small ponds and cultural features, provide space for wild plants and animals, including pollinators, prevent soil erosion and depletion, filter air and water, support climate change mitigation and adaptation and agricultural productivity of pollination-dependent crops. Productive trees that are part of arable land agroforestry systems and productive elements in non-productive hedges can also be considered as high biodiversity landscape features provided that they do not receive fertilizers or pesticide treatment and if harvest takes place only at moments where it would not compromise high biodiversity levels. Therefore, a requirement to ensure an increasing trend for the share of agricultural land with high-diversity landscape features should be set out. Such a requirement would enable the Union to achieve one of the other key commitments of the EU Biodiversity Strategy for 2030, namely, to cover at least 10 % of agricultural area with high-diversity landscape features. Increasing trends should also be achieved for other existing indicators, such as the grassland butterfly index and the stock of organic carbon in cropland mineral soils.

(53) The Common Agricultural Policy (CAP) aims to support and strengthen environmental protection, including biodiversity. The policy has among its specific objectives to contribute to halting and reversing biodiversity loss, enhance ecosystem services and preserve habitats and landscapes. The new CAP conditionality standard Nr. 8 on Good Agricultural and Environmental Conditions (GAEC 8)⁴³, requires beneficiaries of area related payments to have at least 4% of arable land at farm level devoted to non-productive areas and features, including land lying fallow and to retain existing landscape features. The 4% share to be attributed to compliance with that GAEC standard can be reduced to 3 % if certain pre-requisites are met⁴⁴. That obligation will contribute to Member States reaching a positive trend in high-diversity landscape features on agricultural land. In addition, under the CAP, Member States have the possibility to set up eco-schemes for agricultural practices carried out by farmers on agricultural areas that may include maintenance and creation of landscape features or non-productive areas. Similarly, in their CAP strategic plans, Member States can also include agri-environment-climate commitments including the enhanced management of landscape features going beyond conditionality GAEC 8 and/or eco-schemes. LIFE nature and biodiversity projects will also help to put Europe's biodiversity on agricultural land on a path to recovery by 2030, by supporting the implementation of Directive 92/43/EEC and Directive 2009/147/EC as well as the EU Biodiversity Strategy for 2030.

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- 43 Regulation (EU) 2021/2115 of the European Parliament and of the Council of 2 December 2021 establishing rules on support for strategic plans to be drawn up by Member States under the common agricultural policy (CAP Strategic Plans) and financed by the European Agricultural Guarantee Fund (EAGF) and by the European Agricultural Fund for Rural Development (EAFRD) and repealing Regulations (EU) No 1305/2013 and (EU) No 1307/2013, OJ L 435, 6.12.2021, p. 1,
- 44 Where a farmer commits to devote at least 7% of his/her arable land to non-productive areas or features, including land lying fallow, under an enhanced eco-scheme or if there is a minimum share of at least 7 % of arable land at farm level that includes also catch crops or nitrogen fixing crops, cultivated without the use of plant protection products.

(54) Restoration and rewetting⁴⁵ of organic soils⁴⁶ in agricultural use (i.e. under grassland and cropland use) constituting drained peatlands help achieve significant biodiversity benefits, an important reduction of green-house gas emissions and other environmental benefits, while at the same time contributing to a diverse agricultural landscape. Member States can choose from a wide range of restoration measures for drained peatlands in agricultural use spanning from converting cropland to permanent grassland and extensification measures accompanied by reduced drainage, to full rewetting with the opportunity of paludicultural use, or the establishment of peat-forming vegetation. The most significant climate benefits are created by restoring and rewetting cropland followed by the restoration of intensive grassland. To allow for a flexible implementation of the restoration target for drained peatlands under agricultural use Member States may count the restoration measures and rewetting of drained peatlands in areas of peat extraction sites as well as, to a certain extent, the restoration and rewetting of drained peatlands under other land uses (for example forest) as contributing to the achievement of the targets for drained peatlands under agricultural use. **Where duly justified, and if rewetting of drained peatland under agricultural use cannot be implemented due to considerable negative impacts on buildings, infrastructure, climate adaptation or other public interests and it is not feasible to rewet peatlands under other land uses, the extent of peatlands to be rewetted may be set lower by the Member States.**

45 Rewetting is the process of changing a drained soil into a wet soil. Chapter 1 of IPCC 2014, 2013 and Supplement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories: Wetlands, Hiraishi, T., Krug, T., Tanabe, K., Srivastava, N., Baasansuren, J., Fukuda, M. and Troxler, T.G. (eds).

46 The term ‘organic soil’ is defined in IPCC 2006, 2006 IPCC Guidelines for National Greenhouse Gas Inventories, Prepared by the National Greenhouse Gas Inventories Programme, Eggleston H.S., Buendia L., Miwa K., Ngara T. and Tanabe K. (eds).

- (55) In order to reap the full biodiversity benefits, restoration and rewetting of areas of drained peatland should extend beyond the areas of wetlands habitat types listed in Annex I of Directive 92/43/EEC that are to be restored and re-established. Data about the extent of organic soils as well as their greenhouse gas emissions and removals are monitored and made available by LULUCF sector reporting in national greenhouse gas inventories by Member States, submitted to the UNFCCC. Restored and rewetted peatlands can continue to be used productively in alternative ways. For example, paludiculture, the practice of farming on wet peatlands, can include cultivation of various types of reeds, certain forms of timber, blueberry and cranberry cultivation, sphagnum farming, and grazing with water buffaloes. Such practices should be based on the principles of sustainable management and aimed at enhancing biodiversity so that they can have a high value both financially and ecologically. Paludiculture can also be beneficial to several species which are endangered in the Union and can also facilitate the connectivity of wetland areas and of associated species populations in the Union. Funding for measures to restore and rewet drained peatlands and to compensate possible losses of income can come from a wide range of sources, including expenditure under the Union budget and Union financing programmes.
- (56) The new EU Forest Strategy for 2030⁴⁷ outlined the need to restore forest biodiversity. Forests and other wooded land cover over 43,5 % of the EU's land space. Forest ecosystems that host rich biodiversity are vulnerable to climate change but are also a natural ally in adapting to and fighting climate change and climate-related risks, including through their carbon-stock and carbon-sink functions, and provide many other vital ecosystem services and benefits, such as the provision of timber and wood, food and other non-wood products, climate regulation, soil stabilisation and erosion control and the purification of air and water.

47 Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions. New EU Forest Strategy for 2030 (COM/2021/572 final).

(57) Restoration measures need to be put in place to enhance the biodiversity of forest ecosystems across the Union, including in the areas not covered by habitat types falling within the scope of Directive 92/43/EEC. In the absence of a common method for assessing the condition of forest ecosystems that would allow for the setting of specific restoration targets for forest ecosystems, it is appropriate to set a general obligation to improve biodiversity in forest ecosystems and measure the fulfilment of that obligation on the basis of existing core indicators, such as standing and lying deadwood, and the common forest bird index⁴⁸. Depending on type of forest ecosystem, it is also appropriate to measure the fulfilment of the obligation on the basis of a selection of other indicators, such as the share of forests with uneven-aged structure, forest connectivity, ~~the common forest bird index~~⁴⁹, share of forests dominated by native tree species, tree-species diversity and the stock of organic carbon.

48 Common bird index (EU aggregate) - Products Datasets - Eurostat (europa.eu).

(58) Restoration targets and obligations for habitats and species protected under Directives 92/43/EEC and 2009/147/EC, for pollinators and for freshwater, urban, agricultural and forest ecosystems should be complementary and work in synergy, with a view to achieving the overarching objective of restoring ecosystems across the Union's land and sea areas. The restoration measures required to achieve one specific target will in many cases contribute to the achievement of other targets or obligations. Member States should therefore plan restoration measures strategically with a view to maximising their effectiveness in contributing to the recovery of nature across the Union. Restoration measures should also be planned in such manner that they address climate change mitigation and climate change adaptation and the prevention and control of the impact of natural disasters, as well as land degradation. They should aim at optimising the ecological, economic and social functions of ecosystems, including their productivity potential, taking into account their contribution to the sustainable development of the relevant regions and communities. It is important that Member States prepare detailed national restoration plans based on the best available scientific evidence, ~~and~~ **Documented records on historic distribution and area, as well as on the projected changes to environmental conditions due to climate change, should inform judgements on favourable reference area of habitat types. Furthermore, it is important** that the public is given early and effective opportunities to participate in the preparation of the plans. Member States should take account of the specific conditions and needs in their territory, in order for the plans to respond to the relevant pressures, threats and drivers of biodiversity loss, and should cooperate to ensure restoration and connectivity across borders.

(59) To ensure synergies between the different measures that have been, and are to be put in place to protect, conserve and restore nature in the Union, Member States should take into account, when preparing their national restoration plans: the conservation measures established for Natura 2000 sites and the prioritised action frameworks prepared in accordance with Directives 92/43/EEC and 2009/147/EC; measures for achieving good ecological and chemical status of water bodies included in river basin management plans prepared in accordance with Directive 2000/60/EC; marine strategies for achieving good environmental status for all Union marine regions prepared in accordance with Directive 2008/56/EC; national air pollution control programmes prepared under Directive (EU) 2016/2284; national biodiversity strategies and action plans developed in accordance with Article 6 of the Convention on Biological Diversity, as well as conservation measures adopted in accordance with Regulation 1380/2013 and technical measures adopted in accordance with Regulation (EU) 2019/1241 of the European Parliament and of the Council⁵⁰.

50 Regulation (EU) 2019/1241 of the European Parliament and of the Council of 20 June 2019 on the conservation of fisheries resources and the protection of marine ecosystems through technical measures, amending Council Regulations (EC) No 1967/2006, (EC) No 1224/2009 and Regulations (EU) No 1380/2013, (EU) 2016/1139, (EU) 2018/973, (EU) 2019/472 and (EU) 2019/1022 of the European Parliament and of the Council, and repealing Council Regulations (EC) No 894/97, (EC) No 850/98, (EC) No 2549/2000, (EC) No 254/2002, (EC) No 812/2004 and (EC) No 2187/2005 (OJ L 198, 25.7.2019, p. 105).

- (60) In order to ensure coherence between the objectives of this Regulation and Directive (EU) 2018/2001⁵¹, Regulation (EU) 2018/1999⁵² and Directive 98/70/EC of the European Parliament and of the Council as regards the promotion of energy from renewable sources⁵³, in particular, during the preparation of national restoration plans, Member States should take account of the potential for renewable energy projects to make contributions towards meeting nature restoration objectives.
- (61) Considering the importance of addressing consistently the dual challenges of biodiversity loss and climate change, the restoration of biodiversity should take into account the deployment of renewable energy and vice versa. The Communication on REPowerEU: Joint European Action for more affordable, secure and sustainable energy⁵⁴ states that Member States should swiftly map, assess and ensure suitable land and sea areas that are available for renewable energy projects, commensurate with their national energy and climate plans, the contributions towards the revised 2030 renewable energy target and other factors such as the availability of resources, grid infrastructure and the targets of the EU Biodiversity Strategy. The Commission proposal for a Directive of the European Parliament and of the Council amending Directive (EU) 2018/2001 on the promotion of the use of energy from renewable sources, Directive 2010/31/EU on the energy performance of buildings and Directive 2012/27/EU on energy efficiency⁵⁵ and the Commission recommendation on accelerating

51 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).

52 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).

53 Directive 98/70/EC of the European Parliament and of the Council of 13 October 1998 relating to the quality of petrol and diesel fuels and amending Council Directive 93/12/EEC (OJ L 350, 28.12.1998, p. 58).

54 Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions REPowerEU: Joint European Action for more affordable, secure and sustainable energy (COM/2022/108 final).

55 Proposal for a Directive of the European Parliament and of the Council amending Directive (EU) 2018/2001 on the promotion of the use of energy from renewable sources, Directive

permitting for renewable energy projects and facilitating Power Purchase Agreements⁵⁶, both adopted on 18 May 2022, also provide for the identification of renewables go-to areas. Those are specific locations, whether on land or sea, particularly suitable for the installation of plants for the production of energy from renewable sources, other than biomass combustion plants, where the deployment of a specific type of renewable energy is not expected to have significant environmental impacts, in view of the particularities of the selected territory. Member States should give priority to artificial and built surfaces, such as rooftops, transport infrastructure areas, parking areas, waste sites, industrial sites, mines, artificial inland water bodies, lakes or reservoirs, and, where appropriate, urban waste water treatment sites, as well as degraded land not usable for agriculture. In the designation of renewables go-to areas, Member States should avoid protected areas and consider their national nature restoration plans. Member States should coordinate the development of national restoration plans with the designation of the renewables go-to areas. During the preparation of the nature restoration plans, Member States should ensure synergies with the already designated renewables go-to areas and ensure that the functioning of the renewables go-to areas, including the permitting procedures applicable in the renewables go-to areas foreseen by Directive (EU) 2018/2001, remain unchanged.

- (62) In order to ensure synergies with restoration measures that have already been planned or put in place in Member States, the national restoration plans should recognise those restoration measures and take them into account. In light of the urgency signalled by the 2022 IPCC report for taking actions on restoration of degraded ecosystems, Member States should implement those measures in parallel with the preparation of the restoration plans.
- (63) The national restoration plans should also take into account the results of research projects relevant for assessing the condition of ecosystems, identifying and putting in place restoration measures, and monitoring purposes.

2010/31/EU on the energy performance of buildings and Directive 2012/27/EU on energy efficiency, COM/2022/222 final.

56 Commission recommendation on speeding up permit-granting procedures for renewable energy projects and facilitating Power Purchase Agreements, C(2022) 3219 final.

- (64) It is appropriate to take into account the specific situation of the Union's outermost regions, as listed in Article 349 of the Treaty on the Functioning of the European Union (TFEU), which provides for specific measures to support those regions. As envisaged in the EU Biodiversity Strategy for 2030, particular focus should be placed on protecting and restoring the outermost regions' ecosystems, given their exceptionally rich biodiversity value.
- (65) The European Environment Agency (the 'EEA') should support Member States in preparing the national restoration plans, as well as in monitoring progress towards meeting the restoration targets and obligations. The Commission should assess whether the national restoration plans are adequate for achieving those targets and obligations.
- (66) The Commission's State of Nature Report from 2020 has shown that a substantial share of the information reported by Member States in accordance with Article 17 of Council Directive 92/43/EEC⁵⁷ and Article 12 of Directive 2009/147/EC, in particular on the conservation status and trends of the habitats and species they protect, comes from partial surveys or is based only on expert judgment. That Report also showed that the status of several habitat types and species protected under Directive 92/43/EEC is still unknown. Filling in those knowledge gaps and investing in monitoring and surveillance are necessary in order to underpin robust and science-based national restoration plans. In order to increase the timeliness, effectiveness and coherence of various monitoring methods, the monitoring and surveillance should make best possible use of the results of Union-funded research and innovation projects, new technologies, such as in-situ monitoring and remote sensing using space data and services delivered under the Union's Space programme (EGNOS/Galileo and Copernicus). The EU missions 'Restore Our Ocean and Waters', 'Adaptation to Climate Change', and 'A Soil Deal for Europe' will support the implementation of the restoration targets⁵⁸.

57 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).

58 Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions on European Missions COM(2021) 609 final).

(66a) Considering the particular technical and financial challenges associated with mapping and monitoring marine environments, Member States may, as a complement to information reported in accordance with Article 17 of Directive 92/43/EEC and in accordance with Article 17 of Directive 2008/56/EC, use information about pressures and threats or other relevant information as a basis for extrapolation when assessing the condition of marine habitats listed in Annex II. Such an approach may thereby also be used as a basis for planning restoration measures in marine habitats in accordance with this Regulation. The overall assessment of the condition of marine habitats listed in Annex II should be based on the best available knowledge and latest technical and scientific progress.

(67) In order to monitor the progress in implementing the national restoration plans, the restoration measures put in place, the areas subject to restoration measures, and the data on the inventory of barriers to river continuity, a system should be introduced requiring Member States to set up, keep up-to-date and make accessible relevant data on results from such monitoring. The electronic reporting of data to the Commission should make use of EEA's Reportnet system and should aim to keep the administrative burden on all entities as limited as possible. To ensure an appropriate infrastructure for public access, reporting and data-sharing between public authorities, Member States should, where relevant, base the data specifications on those referred to in Directive 2003/4/EC of the European Parliament and of the Council⁵⁹, Directive 2007/2/EC of the European Parliament and of the Council⁶⁰ and Directive (EU) 2019/1024 of the European Parliament and of the Council⁶¹.

59 Directive 2003/4/EC of the European Parliament and of the Council of 28 January 2003 on public access to environmental information and repealing Council Directive 90/313/EEC (OJ L 41, 14.2.2003, p. 26).

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

61 Directive (EU) 2019/1024 of the European Parliament and of the Council of 20 June 2019 on open data and the re-use of public sector information (OJ L 172, 26.6.2019, p. 56).

- (68) In order to ensure an effective implementation of this Regulation, the Commission should support Member States upon request through the Technical Support Instrument⁶², which provides tailor-made technical support to design and implement reforms. The technical support involves, for example, strengthening the administrative capacity, harmonising the legislative frameworks, and sharing relevant best practices.
- (69) The Commission should report on the progress made by Member States towards meeting the restoration targets and obligations of this Regulation on the basis of Union-wide progress reports drawn up by the EEA as well as other analysis and reports made available by Member States in relevant policy areas such as nature, marine and water policy.

62 Regulation (EU) 2021/240 of the European Parliament and of the Council of 10 February 2021 establishing a Technical Support Instrument (*OJ L 57, 18.2.2021, p. 1*).

(70) To ensure the achievement of the targets and obligations set out in this Regulation, it is of utmost importance that adequate private and public investments are made in restoration, Member States should integrate expenditure for biodiversity objectives, including in relation to opportunity and transition costs resulting from the implementation of the national restoration plans, in their national budgets and reflect how Union funding is used. Regarding the Union funding, expenditure under the Union budget and Union financing programmes, such as the Programme for the Environment and Climate Action (LIFE)⁶³, the European Maritime Fisheries and Aquaculture Fund (EMFAF)⁶⁴, the European Agricultural Fund for Rural Development (EAFRD)⁶⁵, the European Agricultural Guarantee Fund (EAGF), the European Regional Development Fund (ERDF), the Cohesion Fund⁶⁶ and the Just Transition Fund⁶⁷, as well as the Union framework programme for research and innovation, Horizon Europe⁶⁸, contributes to biodiversity objectives with the ambition to dedicate 7,5 % in 2024, and 10 % in 2026 and in 2027 of annual spending under the 2021-2027 Multiannual Financial Framework⁶⁹ to biodiversity objectives. The Recovery and Resilience Facility (RRF)⁷⁰ is a

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- 63 Regulation (EU) 2021/783 of the European Parliament and of the Council of 29 April 2021 establishing a Programme for the Environment and Climate Action (LIFE), and repealing Regulation (EU) No 1293/2013 (OJ L 172, 17.5.2021, p. 53).
- 64 Regulation (EU) 2021/1139 of the European Parliament and of the Council of 7 July 2021 establishing the European Maritime, Fisheries and Aquaculture Fund and amending Regulation (EU) 2017/1004 (OJ L 247, 13.7.2021, p. 1).
- 65 Regulation (EU) 2020/2220 of the European Parliament and of the Council of 23 December 2020 laying down certain transitional provisions for support from the European Agricultural Fund for Rural Development (EAFRD) and from the European Agricultural Guarantee Fund (EAGF) in the years 2021 and 2022 and amending Regulations (EU) No 1305/2013, (EU) No 1306/2013 and (EU) No 1307/2013 as regards resources and application in the years 2021 and 2022 and Regulation (EU) No 1308/2013 as regards resources and the distribution of such support in respect of the years 2021 and 2022 (OJ L 437, 28.12.2020, p. 1).
- 66 Regulation (EU) 2021/1058 of the European Parliament and of the Council of 24 June 2021 on the European Regional Development Fund and on the Cohesion Fund (OJ L 231, 30.6.2021, p. 60).
- 67 Regulation (EU) 2021/1056 of the European Parliament and of the Council of 24 June 2021 establishing the Just Transition Fund (OJ L 231 30.06.2021, p. 1).
- 68 Regulation (EU) 2021/695 of the European Parliament and of the Council of 28 April 2021 establishing Horizon Europe – the Framework Programme for Research and Innovation, laying down its rules for participation and dissemination, and repealing Regulations (EU) No 1290/2013 and (EU) No 1291/2013 (OJ L 170, 12.5.2021, p. 1).
- 69 Council Regulation (EU, Euratom) 2020/2093 of 17 December 2020 laying down the multiannual financial framework for the years 2021 to 2027 (OJ L 433I, 22.12.2020, p. 11).

further source of funding for the protection and restoration of biodiversity and ecosystems. With reference to the LIFE Programme, special attention should be given to the appropriate use of the Strategic Nature Projects (SNaPs) as a specific tool that could support the implementation of this Regulation, by way of mainstreaming available financial resources in an effective and efficient way.

- (71) A range of EU, national and private initiatives are available to stimulate private financing, such as the InvestEU Programme⁷¹, which offers opportunities to mobilise public and private finance to support inter alia the enhancement of nature and biodiversity by means of green and blue infrastructure projects, and carbon farming as a green business-model⁷².

(71a) According to settled case law of the Court of Justice, under the principle of sincere cooperation laid down in Article 4(3) of the Treaty on European Union (TEU), it is for the courts of the Member States to ensure judicial protection of a person's rights under Union law. Furthermore, Article 19(1) TEU requires Member States to provide remedies sufficient to ensure effective judicial protection in the fields covered by Union law. The Union and the Member States are parties to the United Nations Economic Commission for Europe (UNECE) Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters ('the Aarhus Convention'). Under the Aarhus Convention Member States should ensure that, in accordance with the relevant national legal system, members of the public concerned have access to justice.

- (72) Member States should promote a fair and cross-society approach in the preparation and implementation of their national restoration plans, by including processes for participation of the public and by considering the needs of local communities and stakeholders.

70 Regulation (EU) 2021/241 of the European Parliament and of the Council of 12 February 2021 establishing the Recovery and Resilience Facility (OJ L 57, 18.2.2021, p. 17).

71 Regulation (EU) 2021/523 of the European Parliament and of the Council of 24 March 2021 establishing the InvestEU Programme and amending Regulation (EU) 2015/1017 (OJ L 107, 26.3.2021, p. 30).

72 Communication from the Commission to the European Parliament And the Council Sustainable Carbon Cycles (COM(2021) 800 final).

- (73) Pursuant to Regulation (EU) 2021/2115 of the European Parliament and of the Council⁷³, CAP Strategic Plans are meant to contribute to the achievement of, and be consistent with, the long-term national targets set out in, or deriving from, the legislative acts listed in Annex XIII to that Regulation. This Regulation on nature restoration should be taken into account when, in accordance with Article 159 of Regulation (EU) 2021/2115, the Commission reviews, by 31 December 2025, the list set out in Annex XIII to that Regulation.
- (74) In line with the commitment in the 8th Environment Action Programme to 2030⁷⁴, Member States should phase out environmentally harmful subsidies at national level, making the best use of market-based instruments and green budgeting tools, including those required to ensure a socially fair transition, and supporting businesses and other stakeholders in developing standardised natural capital accounting practices.

73 Regulation (EU) 2021/2115 of the European Parliament and of the Council (EU) of 2 December 2021 establishing rules on support for strategic plans to be drawn up by Member States under the common agricultural policy (CAP Strategic Plans) and financed by the European Agricultural Guarantee Fund (EAGF) and by the European Agricultural Fund for Rural Development (EAFRD) and repealing Regulations (EU) No 1305/2013 and (EU) No 1307/2013.

74 [Reference to be added when the 8th EAP has been published].

(75) In order to ensure the necessary adaptation of this Regulation, the power to adopt acts in accordance with Article 290 TFEU should be delegated to the Commission in respect of amending Annexes I to VII to adapt the groups of habitats, to **adapt the list of bird species used for**~~update the information on~~ the common farmland bird index, as well as to adapt the list of biodiversity indicators for agricultural ecosystems, the list of biodiversity indicators for forest ecosystems and the lists of marine **habitats and** species ~~to the latest scientific evidence~~ and the examples of restoration measures **to technical and scientific progress, to take into account experience from the application of the Regulation or to ensure consistency with the EUNIS habitat types**. It is of particular importance that the Commission carries out **impact assessments and** 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-Making⁵². 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.

- (76) In order to ensure uniform conditions for the implementation of this Regulation, implementing powers should be conferred on the Commission in order to specify the method for monitoring pollinators, to specify the methods for monitoring the indicators for agricultural ecosystems listed in Annex IV to this Regulation and the indicators for forest ecosystems listed in Annex VI to this Regulation, to **establish** ~~develop a~~ **guiding frameworks** for setting the satisfactory levels **of urban green space, of urban tree canopy cover in urban ecosystems**, of pollinators, of indicators for agricultural ecosystems listed in Annex IV to this Regulation and of indicators for forest ecosystems listed in Annex VI to this Regulation, to set out a uniform format for the national restoration plans, to set out the format, structure and detailed arrangements for reporting data and information electronically to the Commission. Those powers should be exercised in accordance with Regulation (EU) No 182/2011 of the European Parliament and the Council⁷⁵.
- (77) The Commission should carry out an evaluation of this Regulation. Pursuant to paragraph 22 of the Interinstitutional Agreement on Better Law-Making, that evaluation should be based on the criteria of efficiency, effectiveness, relevance, coherence and EU value added and should provide the basis for impact assessments of possible further measures. In addition, the Commission should assess the need to establish additional restoration targets, based on common methods for assessing the condition of ecosystems not covered by Articles 4 and 5, taking into account the most recent scientific evidence.
- (78) Since the objectives of this Regulation cannot be sufficiently achieved by Member States but can rather, by reason of its scale and effects, be better achieved at Union level, the Union may adopt measures, in accordance with the principle of subsidiarity as set out in Article 5 ~~of the Treaty on European Union~~. In accordance with the principle of proportionality, as set out in that Article, this Regulation does not go beyond what is necessary in order to achieve those objectives.

⁷⁵ 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 the Member States of the Commission's exercise of implementing powers (OJ L 55, 28.2.2011, p. 13).

HAVE ADOPTED THIS REGULATION:

CHAPTER I

GENERAL PROVISIONS

Article 1

Subject matter

1. This Regulation lays down rules to contribute to:
 - (a) the continuous, long-term and sustained recovery of biodiverse and resilient nature across the Union's land and sea areas through the restoration of ecosystems;
 - (b) achieving the Union's overarching objectives concerning climate change mitigation, ~~and~~ climate change adaptation **and land degradation neutrality**;
 - (c) meeting the Union's international commitments.
2. This Regulation establishes a framework within which Member States shall put in place, ~~without delay~~, effective and area-based restoration measures ~~which together shall~~ **with the aim to jointly** cover, by 2030, at least 20 % of the Union's land and **20 % of the Union's** sea areas and, by 2050, all ecosystems in need of restoration.

Article 2

Geographical scope

This Regulation applies to ecosystems referred to in Articles 4 to 10:

- (a) in the territory of Member States;

(aa) in the coastal waters, as defined by Directive 2000/60/EC, of Member States, their seabed and their subsoil;

- (b) in waters, the seabed and subsoil on the seaward side of the baseline from which the extent of the territorial waters is measured extending to the outmost reach of the area where a Member State **has or** exercises sovereign rights **or jurisdiction**, in accordance with the 1982 United Nations Convention on the Law of the Sea.

Article 3

Definitions

The following definitions apply:

- (1) ‘ecosystem’ means a dynamic complex of plant, animal, **fungi** and microorganism communities and their non-living environment, interacting as a functional unit, and includes habitat types, habitats of species and species populations;
- (2) ‘habitat of a species’ ~~means an environment defined by specific abiotic and biotic factors, in which the species lives at any stage of its biological cycle~~ **means habitat of a species as defined in point (f) of Article 1 of Directive 92/43/EEC;**

- (3) ‘restoration’ means the process of actively or passively assisting the recovery of an ecosystem towards or to good condition **in order to improve its structure and functions with the aim of conserving or enhancing biodiversity and ecosystem resilience; the restoration of ecosystems for the purposes of this Regulation is done through improving to good condition** of a habitat type, ~~to the highest level of condition attainable and to its~~ **re-establishing to** favourable reference area, **and improving to sufficient quality and quantity** of a habitat of a species ~~to a sufficient quality and quantity in accordance with Article 4, paragraphs 1, 2 and 3 and Article 5, paragraphs 1, 2 and 3, and fulfilling targets and obligations under Articles 6 to 10 including reaching or of species populations to satisfactory levels~~ **of indicators referred to in Articles 8(1), 9(2) and 10(2)** as a means of conserving or enhancing biodiversity and ecosystem resilience;
- (4) ‘good condition’ **of a habitat type** means a state where ~~the~~ **its** key characteristics of an ecosystem, namely **, in particular** its physical, chemical, compositional, structural and functions **and its typical species or typical species composition** ~~at state, and its landscape and seascape characteristics,~~ reflect the high level of ecological integrity, stability and resilience necessary to ensure its long-term maintenance **and thus contribute to reaching or maintaining favourable conservation status according to Article 1, point (e) of Directive 92/43/EEC, where the habitat type concerned is listed in Annex I of that Directive, and, in marine ecosystems, contribute to achieving or maintaining good environmental status according to Article 3(5) of Directive 2008/56/EC;**

- (5) 'favourable reference area' means the total area of a habitat type in a given biogeographical region or marine region at national level that is considered the minimum necessary to ensure the long-term viability of the habitat type and its **typical species or typical species composition**, and all its significant ecological variations in its natural range, and which is composed of the area of the habitat type and, if that area is not sufficient, the area necessary for the re-establishment of the habitat type; **where the habitat type concerned is listed in Annex I of Directive 92/43/EEC, such re-establishment contributes to reaching favourable conservation status according to Article 1, point (e) of that Directive and, in marine ecosystems, such re-establishment contributes to achieving or maintaining good environmental status according to Article 3(5) of Directive 2008/56/EC;**
- (6) 'sufficient quality of habitat' means the quality of a habitat of a species which allows the ecological requirements of a species to be met at any stage of its biological cycle so that it is maintaining itself on a long-term basis as a viable component of its habitat in its natural range, **contributing to reaching or maintaining favourable conservation status of species according to the Article 1, point (i) of Directive 92/43/EEC for species listed in Annex II, IV or V of that Directive and securing populations of wild bird species covered by Directive 2009/147/EC and, in addition, in marine ecosystems, contributing to achieving or maintaining good environmental status according to Article 3(5) of Directive 2008/56/EC;**

- (7) ‘sufficient quantity of habitat’ means the quantity of a habitat of a species which allows the ecological requirements of a species to be met at any stage of its biological cycle so that it is maintaining itself on a long-term basis as a viable component of its habitat in its natural range, **contributing to reaching or maintaining favourable conservation status of species according to the Article 1, point (i) of Directive 92/43/EEC for species listed in Annex II, IV or V of that Directive and securing populations of wild bird species covered by Directive 2009/147/EC and, in addition, in marine ecosystems, contributing to achieving or maintaining good environmental status according to Article 3(5) of Directive 2008/56/EC;**
- (8) ‘pollinator’ means a wild-~~animal~~ **insect** which transports pollen from the anther of a plant to the stigma of a plant, enabling fertilisation and the production of seeds;
- (9) ‘decline of pollinator populations’ means a decrease in abundance or diversity, or both, of pollinators;
- (9a) ‘native tree species’ means a tree species occurring within its natural range (past or present) and dispersal potential (i.e. within the range it occupies naturally or could occupy without direct or indirect introduction or care by humans);**
- (10) ‘local administrative unit’ or ‘LAU’ means a low-level administrative division of a Member State below that of a province, region or state, established in accordance with Article 4 of Regulation (EC) No 1059/2003 of the European Parliament and of the Council⁷⁶;
- (10a) ‘urban centres’ and ‘urban clusters’ means territorial units classified in cities and towns and suburbs using the grid-based typology established in accordance with Article 4b.2 of Regulation (EC) No 1059/2003;**
- (11) ‘cities’ means LAUs where at least 50 % of the population lives in one or more urban centres, measured using the degree of urbanisation established in accordance with Article 4b.3, point (a), of Regulation (EC) No 1059/2003;

⁷⁶ Regulation (EC) No 1059/2003 of the European Parliament and of the Council of 26 May 2003 on the establishment of a common classification of territorial units for statistics (NUTS) (*OJ L 154, 21.6.2003, p. 1*).

- (12) 'towns and suburbs' means LAUs where less than 50 % of the population lives in an urban centre, but at least 50 % of the population lives in an urban cluster, measured using the degree of urbanisation established in accordance with Article 4b.3, point (a) of Regulation (EC) No 1059/2003;
- (12a) 'peri-urban areas' means areas adjacent to urban centres or urban clusters, including at least all areas within 1 kilometre measured from the outer limits of those urban centres or urban clusters, and located in the same city or the same town and suburb as those urban centres or urban clusters;**
- (13) 'urban green space' means ~~all~~ **the total area of trees, bushes, shrubs, permanent herbaceous vegetation, lichens and mosses, ponds and watercourses** ~~green urban areas; broad-leaved forests; coniferous forests; mixed forests; natural grasslands; moors and heathlands; transitional woodland-shrubs and sparsely vegetated areas~~ as found within cities or towns and suburbs calculated on the basis of data provided by the Copernicus Land Monitoring Service as established by Regulation (EU) 2021/696 of the European Parliament and of the Council⁷⁷, **and, if available for the Member State concerned, other appropriate supplementary data provided by that Member State;**
- (14) 'urban tree canopy cover' means the total area of tree cover within cities and towns and suburbs, calculated on the basis of the Tree Cover Density data provided by the Copernicus Land Monitoring Service as established by Regulation (EU) 2021/696 of the European Parliament and of the Council, **and, if available for the Member State concerned, other appropriate supplementary data provided by that Member State;**
- (14a) 'free flowing river' means a river or a stretch of river whose longitudinal, lateral and vertical connectivity is not hindered by artificial structures forming a barrier and whose natural functions are largely unaffected;**
- (14b) 'rewetting peatland' means the process of changing a drained peat soil towards a wet soil;**

⁷⁷ Regulation (EU) 2021/696 of the European Parliament and of the Council of 28 April 2021 establishing the Union Space Programme and the European Union Agency for the Space Programme and repealing Regulations (EU) No 912/2010, (EU) No 1285/2013 and (EU) No 377/2014 and Decision No 541/2014/EU (OJ L 170, 12.5.2021, p. 69).

- (15) ‘renewables go-to area’ means renewables go-to area as defined in point 9(a) of Article 2 of Directive 2018/2001/EU of the European Parliament and of the Council⁷⁸.

CHAPTER II

RESTORATION TARGETS AND OBLIGATIONS

Article 4

Restoration of terrestrial, coastal and freshwater ecosystems

1. Member States shall put in place the restoration measures that are necessary to improve to good condition areas of habitat types listed in Annex I which are not in good condition. Such measures shall be in place: ~~on at least 30 % of the area of each group of habitat types listed in Annex I that is not in good condition, as quantified in the national restoration plan referred to in Article 12, by 2030, on at least 60 % by 2040, and on at least 90 % by 2050~~
 - (a) **on at least 30 % by 2030 of the total area of all habitat types listed in Annex I that is not in good condition, as quantified in the national restoration plan referred to in Article 12;**
 - (b) **on at least 60 % by 2040 and on at least 90 % by 2050 of the area of each group of habitat types listed in Annex I that is not in good condition, as quantified in the national restoration plan referred to in Article 12.**

⁷⁸ Proposal for a Directive of the European Parliament and of the Council amending Directive (EU) 2018/2001 on the promotion of the use of energy from renewable sources, Directive 2010/31/EU on the energy performance of buildings and Directive 2012/27/EU on energy efficiency, COM(2022)222 final.

2. Member States shall put in place the restoration measures that are necessary to re-establish the habitat types listed in Annex I in areas not covered by those habitat types **with the aim to reach their favourable reference area**. Such measures shall be in place on areas representing at least 30 % of the additional overall surface needed to reach the total favourable reference area of each group of habitat types listed in Annex I, as quantified in the national restoration plan referred to in Article 12, by 2030, at least 60 % of that surface by 2040, and 100 % of that surface by 2050.
3. Member States shall put in place the restoration measures for the terrestrial, coastal and freshwater habitats of the species listed in Annexes II, IV and V to Directive 92/43/EEC and of the terrestrial, coastal and freshwater habitats of wild birds covered by Directive 2009/147/EC that are, **in addition to the restoration measures in accordance with paragraphs 1 and 2 of this Article,** necessary to improve the quality and quantity of those habitats, including by re-establishing them, and to enhance connectivity, until sufficient quality and quantity of those habitats is achieved.
4. The determination of the most suitable areas for restoration measures in accordance with paragraphs 1, 2 and 3 of this Article shall be based on the best available knowledge and the latest scientific evidence of the condition of the habitat types listed in Annex I, measured by the structure and functions which are necessary for their long-term maintenance including their typical species, as referred to in Article 1(e) of Directive 92/43/EEC, and of the quality and quantity of the habitats of the species referred to in paragraph 3 of this Article, **making use of information reported under Article 17 of Directive 92/43/EEC and Article 12 of Directive 2009/147/EC.** ~~Areas where the habitat types listed in Annex I are in unknown condition shall be considered as not being in good condition.~~

4a. Member States shall ensure, by 2030 at the latest, that the condition is known for all areas of habitat types listed in Annex I.

5. The restoration measures referred to in paragraphs 1 and 2 shall consider the need for improved connectivity between the habitat types listed in Annex I and take into account the ecological requirements of the species referred to in paragraph 3 that occur in those habitat types.

6. Member States shall ensure that the areas that are subject to restoration measures in accordance with paragraphs 1, 2 and 3 show a continuous improvement in the condition of the habitat types listed in Annex I until good condition is reached, and a continuous improvement of the quality of the habitats of the species referred to in paragraph 3, until the sufficient quality of those habitats is reached. Member States shall ensure that areas in which good condition has been reached, and in which the sufficient quality of the habitats of the species has been reached, do not deteriorate.
7. Member States shall, **no later than by the date of publication of their national restoration plans in accordance with Article 14(6), put in place necessary measures with the aim to maintain habitat types listed in Annex I in good condition in** ~~ensure that areas where~~ **they** ~~the habitat types listed in Annex I occur~~ **and with the aim to prevent significant deterioration of other areas where the habitat types in Annex I occur, so as not to increase restoration needs under paragraphs 1 and 2** ~~do not deteriorate.~~
8. Outside Natura 2000 sites, the non-fulfilment of the obligations set out in paragraphs 6 ~~and 7~~ is justified if it is caused by:
- (a) force majeure **including natural disasters;**
 - (b) unavoidable habitat transformations which are directly caused by climate change; ~~or~~
 - (c) a **plan or** project of overriding public interest for which no less damaging alternative solutions are available, to be determined on a case by case basis; **or-**
 - (d) **action or inaction from third countries for which the Member State concerned is not responsible.**

8a. Outside Natura 2000 sites, the obligation to put in place necessary measures to prevent deterioration set out in paragraph 7 does not apply to deterioration caused by

- (a) force majeure including natural disasters;**
- (b) unavoidable habitat transformations which are directly caused by climate change;**
- (c) plans or projects of overriding public interest for which no less damaging alternative solutions are available;**
- (d) action or inaction from third countries for which the Member State concerned is not responsible.**

9. For Natura 2000 sites, the non-fulfilment of the obligations set out in paragraphs 6 and 7, is justified if it is caused by:

- (a) force majeure **including natural disasters;**
- (b) unavoidable habitat transformations which are directly caused by climate change; or
- (c) a plan or project authorised in accordance with Article 6(4) of the Directive 92/43/EEC.

10. Member States shall ensure that there is:

- (a) an increase of habitat area in good condition for habitat types listed in Annex I until at least 90 % is in good condition and until the favourable reference area for each habitat type in each biogeographic region of their territory **Member State concerned** is reached;
- (b) an increasing trend towards the sufficient quality and quantity of the terrestrial, coastal and freshwater habitats of the species referred to in Annexes II, IV and V to Directive 92/43/EEC and of the species covered by Directive 2009/147/EC.

Article 5

Restoration of marine ecosystems

1. Member States shall put in place the restoration measures that are necessary to improve to good condition areas of habitat types listed in Annex II which are not in good condition. Such measures shall be in place ~~on at least 30 % of the area of each group of habitat types listed in Annex II that is not in good condition, as quantified in the national restoration plan referred to in Article 12, by 2030, on at least 60 % by 2040, and on at least 90 % by 2050~~
 - (a) on at least 30 % by 2030 of the total area of all habitat types listed in Annex II that is not in good condition, as quantified in the national restoration plan referred to in Article 12;**
 - (b) on at least 60 % by 2040 and on at least 90 % by 2050 of the area of each group of habitat types listed in Annex II that is not in good condition, as quantified in the national restoration plan referred to in Article 12;**
- 1a. By way of derogation from paragraph 1, for group 7 of habitat types listed in Annex II, Member States may apply a lower percentage, identified in accordance with Article 11(2a), with regard to the obligation to put in place restoration measures by 2050 pursuant to paragraph 1, point (b), provided that this does not prevent good environmental status, as determined pursuant to Article 9(1) of Directive 2008/56/EC, from being achieved or maintained.**

If a lower percentage is applied, the obligations pursuant to paragraph 1, points (a) and (b), to put in place restoration measures shall, for group 7 of habitat types listed in Annex II, be one third of that lower percentage by 2030, and two thirds of that lower percentage by 2040.
2. Member States shall put in place the restoration measures that are necessary to re-establish the habitat types listed in Annex II in areas not covered by those habitat types **with the aim to reach their favourable reference area**. Such measures shall be in place on areas representing at least 30 % of the additional overall surface needed to reach the total favourable reference area of each group of habitat types, as quantified in the national restoration plan referred to in Article 12, by 2030, at least 60 % of that surface by 2040, and 100 % of that surface by 2050.

3. Member States shall put in place the restoration measures for the marine habitats of species listed in Annex III and in Annexes II, IV and V to Directive 92/43/EEC and for the marine habitats of wild birds covered under Directive 2009/147/EC, that are, **in addition to the restoration measures put in place in accordance with paragraphs 1 and 2 of this Article**, necessary in order to improve the quality and quantity of those habitats, including by re-establishing them, and to enhance connectivity, until sufficient quality and quantity of those habitats is achieved.
4. The determination of the most suitable areas for restoration measures in accordance with paragraphs 1, 2 and 3 of this Article shall be based on the best available knowledge and the latest **technical and scientific evidence** **progress in determining** of the condition of the habitat types listed in Annex II, ~~measured by the structure and functions which are necessary for their long-term maintenance including their typical species, as referred to in Article 1(e) of Directive 92/43/EEC, and of the quality and quantity of the habitats of the species referred to in paragraph 3 of this Article,~~ **making use of information reported under Article 17 of Directive 92/43/EEC, -Article 12 of Directive 2009/147/EC and Article 178 of Directive 2008/56/EC**. ~~Areas where the habitat types listed in Annex I are in unknown condition shall be considered as not being in good condition.~~
- 4a. Member States shall ensure, by 2030 at the latest, that the condition is known for at least 50% of area habitat types listed in Annex II. The condition of all areas of habitat types listed in Annex II shall be known by 2040.**
5. The restoration measures referred to in paragraphs 1 and 2 shall consider the need for improved **ecological coherence and** connectivity between the habitat types listed in Annex II and take into account the ecological requirements of the species referred to in paragraph 3 that occur in those habitat types.
6. Member States shall ensure that the areas that are subject to restoration measures in accordance with paragraphs 1, 2 and 3 show a continuous improvement in the condition of the habitat types listed in Annex II until good condition is reached, and a continuous improvement of the quality of the habitats of the species referred to in paragraph 3, until the sufficient quality of those habitats is reached. Member States shall ensure that areas in which good condition has been reached, and in which the sufficient quality of the habitats of the species has been reached, do not deteriorate.

7. Member States shall, **no later than by the date of publication of their national restoration plans in accordance with Article 14(6), put in place necessary measures with the aim to maintain habitat types listed in Annex II in good condition in** ~~ensure that areas where they~~ **the habitat types listed in Annex II occur and with the aim to prevent significant deterioration of other areas where the habitat types in Annex II occur, so as not to increase restoration needs under paragraphs 1 and 2** ~~do not deteriorate.~~

8. Outside Natura 2000 sites, the non-fulfilment of the obligations set out in paragraphs 6 and 7 is justified if caused by:

- (a) force majeure **including natural disasters;**
- (b) unavoidable habitat transformations which are directly caused by climate change; ~~or~~
- (c) a **plan or** project of overriding public interest for which no less damaging alternative solutions are available, to be determined on a case by case basis; **or-**
- (d) **action or inaction from third countries for which the Member State concerned is not responsible.**

8a. Outside Natura 2000 sites, the obligation to put in place necessary measures to prevent deterioration set out in paragraph 7 does not apply to deterioration caused by

- (a) force majeure including natural disasters;**
- (b) unavoidable habitat transformations which are directly caused by climate change;**
- (c) plans or projects of overriding public interest, for which no less damaging alternative solutions are available; or**
- (d) action or inaction from third countries for which the Member State concerned is not responsible.**

9. For Natura 2000 sites, the non-fulfilment of the obligation set out in paragraphs 6 and 7, is justified if caused by:

- (a) force majeure **including natural disasters**;
- (b) unavoidable habitat transformations which are directly caused by climate change; or
- (c) a plan or project authorised in accordance with Article 6(4) of the Directive 92/43/EEC.

10. Member States shall ensure that there is:

- (a) an increase of habitat area in good condition for habitat types listed in Annex II until at least 90 % is in good condition and until the favourable reference area for each habitat type in each biogeographic region of their territory **Member State concerned** is reached;
- (b) a positive trend towards the sufficient quality and quantity of the marine habitats of the species listed in Annex III and in Annexes II, IV and V to Directive 92/43/EEC and of the species covered by Directive 2009/147/EC.

10a. By way of derogation from paragraph 10, point (a), for group 7 of habitat types listed in Annex II, a Member State that applies a lower percentage for these habitat types pursuant to paragraph 1a, shall ensure that there is an increase of habitat area in good condition for those habitat types until at least an area equivalent to the lower percentage is in good condition and until the favourable reference area for each habitat type in each biogeographic region of the Member State concerned is reached.

Article 6

Restoration of urban ecosystems

1. Member States shall ensure that there is no net loss **in the total national area** of urban green space, and of urban tree canopy cover **in urban ecosystem areas, determined in accordance with Article 11(2b),** by **31 December 2030**, compared to **[year of entry into force of this Regulation]** 2021, in all cities and in towns and suburbs.
2. Member States shall ensure that there is **achieve thereafter** an increasing trend in the total national area of urban green space, **including through integration of urban green space into buildings and infrastructure, in urban ecosystem areas, determined in accordance with Article 11(2b),** measured every six years after 31 December 2030, until a **satisfactory level identified in accordance with Article 11(3) is reached** in cities and in towns and suburbs of at least 3 % of the total area of cities and of towns and suburbs in 2021, by 2040, and at least 5 % by 2050. In addition
3. Member States shall ensure **achieve, in each urban ecosystem area, determined in accordance with Article 11(2b),** :
 - (a) **an increasing trend** minimum of 40 % urban tree canopy cover, **measured every six years after 31 December 2030, until the satisfactory level identified in accordance with Article 11(3) is reached.** in all cities and in towns and suburbs by 2050; and
 - (b) a net gain of urban green space that is integrated into existing and new buildings and infrastructure developments, including through renovations and renewals, in all cities and in towns and suburbs.

Article 7

Restoration of the natural connectivity of rivers and natural functions of the related floodplains

1. Member States shall make an inventory of **artificial** barriers to longitudinal and lateral connectivity of surface waters and, **taking into account their socio-economic functions,** identify the barriers that need to be removed to contribute to the achievement of the restoration targets set out in Article 4 of this Regulation and of the objective of restoring at least 25 000 km of rivers into free-flowing rivers in the Union by 2030, without prejudice to Directive 2000/60/EC, in particular Articles 4(3), 4(5) and 4(7) thereof, and Regulation 1315/2013, in particular Article 15 thereof.
2. Member States shall remove the **artificial** barriers to longitudinal and lateral connectivity of surface waters ~~identified~~ **based on the inventory** under paragraph 1 of this Article, in accordance with the plan for their removal referred to in Article 12(2), points **(e) and (f)**. When removing barriers, Member States shall primarily address obsolete barriers, which are those that are no longer needed for renewable energy generation, inland navigation, water supply, **flood protection,** or other uses.
3. Member States shall complement the removal of the barriers referred to in paragraph 2, by the measures necessary to improve the natural functions of the related floodplains.
4. **Member States shall ensure that natural connectivity of rivers and natural functions of the related floodplains restored in accordance with paragraphs 2 and 3 are maintained.**

Article 8

Restoration of pollinator populations

1. Member States shall reverse the decline of pollinator populations by 2030 and achieve thereafter an increasing trend of pollinator populations, measured every ~~three~~ **six** years after 2030, until satisfactory levels are achieved, as set out in accordance with Article 11(3).
2. The Commission shall adopt implementing acts to establish a method for monitoring pollinator populations. Those implementing acts shall be adopted in accordance with the examination procedure referred to in Article 21(2).
3. The method referred to in the paragraph 2 shall provide a standardised approach for collecting annual data on the abundance and diversity of pollinator species and for assessing pollinator population trends.

Article 9

Restoration of agricultural ecosystems

1. Member States shall put in place the restoration measures necessary to enhance biodiversity in agricultural ecosystems, in addition to the areas that are subject to restoration measures under Article 4(1), (2) and (3).
2. Member States shall achieve an increasing trend at national level of each of the following indicators in agricultural ecosystems, as further specified in Annex IV, measured in the period from the date of entry into force of this Regulation until 31 December 2030, and every ~~three~~ **six** years thereafter, until the satisfactory levels, identified in accordance with Article 11(3), are reached:
 - (a) grassland butterfly index;
 - (b) stock of organic carbon in cropland mineral soils;
 - (c) share of agricultural land with high-diversity landscape features.

3. Member States shall put in place restoration measures to ensure that the common farmland bird index at national level based on the species specified in Annex V, indexed on ... *[OP please insert the date = the first day of the month following 12 months after the date of entry into force of this Regulation]* = 100, reaches the following levels:
- (a) 110 by 2030, 120 by 2040 and 130 by 2050, for Member States listed in Annex V with historically more depleted populations of farmland birds;
 - (b) 105 by 2030, 110 by 2040 and 115 by 2050, for Member States listed in Annex IV with historically less depleted populations of farmland birds.
4. For organic soils in agricultural use constituting drained peatlands, Member States shall put in place restoration measures. Those measures shall be in place on at least:
- (a) 30 % of such areas by 2030, of which at least a quarter shall be rewetted;
 - (b) ~~40~~50 % of such areas by 2040, of which at least half shall be rewetted;
 - (c) ~~50~~70 % of such areas by 2050, of which at least half shall be rewetted.

Member States may put in place restoration measures, including rewetting, in areas of peat extraction sites and count those areas as contributing to achieving the respective targets referred to in the first subparagraph, points (a), (b) and (c).

In addition, Member States may put in place restoration measures to rewet organic soils that constitute drained peatlands under land uses other than agricultural use and peat extraction and count those rewetted areas as contributing, up to a maximum of ~~40~~20 %, to the achievement of the targets referred to in the first subparagraph, points (a), (b) and (c).

The restoration measures consisting of rewetting peatland, including the water levels to be achieved, shall contribute to reducing greenhouse gas net emissions and increasing biodiversity, while taking national and local circumstances into account.

Where duly justified, the extent of the rewetting of peatland under agricultural use may be reduced to less than required under points (a), (b) and (c) by a Member State if such rewetting is likely to have significant negative impacts on infrastructure, buildings, climate adaptation or other public interests and if rewetting cannot take place on other land than agricultural land. Such reduction shall be determined in accordance with Article 11(4b).

Article 10

Restoration of forest ecosystems

1. Member States shall put in place the restoration measures necessary to enhance biodiversity of forest ecosystems, in addition to the areas that are subject to restoration measures pursuant to Article 4(1), (2) and (3).
2. Member States shall achieve an increasing trend at national level of each of the following indicators in forest ecosystems, as further set out in Annex VI, measured in the period from the date of entry into force of this Regulation until 31 December 2030, and every ~~three~~**six** years thereafter, until the satisfactory levels identified in accordance with Article 11(3) are reached:
 - (a) standing deadwood;
 - (b) lying deadwood;
 - ~~(c) share of forests with uneven-aged structure;~~
 - ~~(d) forest connectivity;~~
 - ~~(e)~~ common forest bird index;
 - ~~(f) stock of organic carbon.~~

2a. Member States shall achieve an increasing trend at national level of three of the following indicators in forest ecosystems, as further set out in Annex VI, chosen on the basis of their ability to demonstrate the enhancement of biodiversity of forest ecosystems within the Member State concerned. The trend shall be measured in the period from the date of entry into force of this Regulation until 31 December 2030, and every six years thereafter, until the satisfactory levels identified in accordance with Article 11(3) are reached:

- (a) share of forests with uneven-aged structure;**
- (b) forest connectivity;**
- (c) stock of organic carbon;**
- (d) share of forests dominated by native tree species;**
- (e) tree species diversity.**

3. The non-fulfilment of the obligations set out in paragraphs 2 and 2a is justified if caused by:

- (a) large-scale force majeure, including natural disasters, in particular unplanned and uncontrolled wildfire; or**
- (b) unavoidable habitat transformations which are directly caused by climate change.**

CHAPTER III
NATIONAL RESTORATION PLANS

Article 11

Preparation of the national restoration plans

1. Member States shall prepare national restoration plans and carry out the preparatory monitoring and research needed to identify the restoration measures that are necessary to meet the targets and obligations set out in Articles 4 to 10, taking into account the latest scientific evidence.
2. Member states shall quantify the area that needs to be restored to reach the restoration targets set out in Articles 4 and 5 taking into account the condition of the habitat types referred to in Articles 4(1), 4(2), 5(1) and 5(2) and the quality and quantity of the habitats of the species referred to in Article 4(3) and Article 5(3) ~~that are present on their territory~~. The quantification shall be based, amongst others, on the following information:
 - (a) for each habitat type:
 - (i) the total habitat area and a map of its current distribution;
 - (ii) the habitat area not in good condition;
 - (iii) the favourable reference area taking into account **records of historical distribution** ~~the documented losses over at least the last 70 years~~ and the projected changes to environmental conditions due to climate change;
 - (iv) the areas most suitable for the re-establishment of habitat types in view of ongoing and projected changes to environmental conditions due to climate change;

- (b) the sufficient quality and quantity of the habitats of the species required for achieving their favourable conservation status, taking into account the areas most suitable for re-establishment of those habitats, and the connectivity needed between habitats in order for the species populations to thrive, as well as ongoing and projected changes to environmental conditions due to climate change.

(ba) For the purpose of quantifying the area of each habitat type that needs to be restored to reach the restoration targets set out in Article 4(1), point (a), and Article 5(1), point (a), the habitat area not in good condition referred to in point (a)(ii) shall only include such areas for which the condition is known.

(bb) For the purpose of quantifying the area of each habitat type that needs to be restored to reach the restoration targets set out in Articles 4(1), point (b), and 5(1), point (b), the habitat area not in good condition referred to in point (a)(ii) shall only include such areas for which the condition is known or is to be known pursuant to Articles 4(4a) and 5(4a).

2a. If a Member State, pursuant to Article 5(1a), applies the derogation from Article 5(1) with regard to group 7 of habitat types listed in Annex II, that Member State shall set the lower percentage to be applied.

2b. Member States shall determine and map urban ecosystem areas as referred to in Article 6 for all their cities and towns and suburbs.

The urban ecosystem area of a city or of a town and suburb shall include:

- (a) the entire city or town and suburb; or**
- (b) parts of the city or of the town and suburb, including at least its urban centres, urban clusters and peri-urban areas.**

Member States may aggregate the urban ecosystem areas of two or more adjacent cities and/or towns and suburbs into one urban ecosystem area common to those cities and/or towns and suburbs.

3. Member States shall set, by 2030 at the latest, satisfactory levels for each of the indicators referred to in Articles 8(1), 9(2), ~~and 10(2)~~, **for each of the chosen indicators in Article 10(2a) and for urban green space referred to in Article 6(2) and for urban tree canopy cover referred to in Article 6(3)**, through an open and effective process and assessment, based on the latest scientific evidence ~~and, if available, the **guiding** framework referred to in Article 17(9a)~~ **and, if available, the guiding framework referred to in Article 17(9)**.
4. Member States shall identify and map the agricultural and forest areas in need of restoration, in particular the areas that, due to intensification or other management factors, are in need of enhanced connectivity and landscape diversity.
- 4a. Member States shall, where applicable, within one year from the entry into force of this Regulation, develop a methodology to complement the methodology referred to in Annex IV, in order to monitor elements under productive agricultural use [necessary for the preservation of biodiversity and in compliance with rules as set under the CAP strategic plans] referred to in the description of high diversity landscape features in that Annex. The Commission shall provide guidance on the framework for developing such methodology within one month from the entry into force of this Regulation.**
- 4b. Member States shall, where applicable, determine the reduction of the extent of rewetting peatland as referred to in Article 9(4), fifth subparagraph.**
5. Member States shall identify synergies with climate change mitigation, climate change adaptation, **land degradation neutrality** and disaster prevention and prioritise restoration measures accordingly. Member States shall also take into account:
- (a) their integrated national energy and climate plan referred to in Article 3 of Regulation (EU) 2018/1999;
 - (b) their long-term strategy referred to in Article 15 of Regulation (EU) 2018/1999;
 - (c) the Union binding target for 2030 set out in Article 3 of Directive 2018/2001/EU of the European Parliament and of the Council.

6. Member States shall coordinate the development of national restoration plans with the designation of the renewables go-to areas. During the preparation of the nature restoration plans, Member States shall ensure synergies with the already designated renewables go-to areas and ensure that the functioning of the renewables go-to areas, including the permitting procedures applicable in the renewables go-to areas foreseen by Directive (EU) 2018/2001 remain unchanged.
7. When preparing their national restoration plans, Member States shall **in particular** take the following into account:
- (a) the conservation measures established for Natura 2000 sites in accordance with Directive 92/43/EEC;
 - (b) prioritised action frameworks prepared in accordance with Directive 92/43/EEC;
 - (c) measures for achieving good **quantitative,** ecological and chemical status of water bodies included in **programmes of measures and** river basin management plans prepared in accordance with Directive 2000/60/EC **and flood risk management plans established in accordance with Directive 2007/60/EC;**
 - (d) **where applicable,** marine strategies for achieving good environmental status for all Union marine regions prepared in accordance with Directive 2008/56/EC;
 - (e) national air pollution control programmes prepared under Directive (EU) 2016/2284;
 - (f) national biodiversity strategies and action plans developed in accordance with Article 6 of the Convention on Biological Diversity;
 - (g) **where applicable,** conservation **and management** measures adopted under the common fisheries policy;
 - (h) CAP strategic plans drawn up in accordance with Regulation (EU) 2021/2115.**

8. Member States ~~may shall~~, when preparing the national restoration plans, make use of the different examples of restoration measures listed in Annex VII, depending on specific national and local conditions, and the latest scientific evidence.
9. Member States shall, when preparing the national restoration plans, aim at optimising the ecological, economic and social functions of ecosystems as well as their contribution to the sustainable development of the relevant regions and communities.
10. Member States shall, where possible, foster synergies with the national restoration plans of other Member States, in particular for ecosystems that span across borders or where Members States share a marine region or subregion within the meaning of Directive 2008/56/EC.
- 10a. Member States may, where practical and appropriate, for the purpose of establishing and implementing national restoration plans, in relation to the restoration and re-establishment of marine ecosystems, use existing regional institutional cooperation structures.**
- 10b. Where Member States identify an issue which is likely to prevent the fulfilment of the obligations to restore and re-establish marine ecosystems and which requires measures for which they are not competent, they shall, individually or jointly, address, where concerned, Member States, the Commission or international organisations, with a description of the identified issues and possible measures, with a view to their consideration and possible adoption.**
11. Member States shall ensure that the preparation of the restoration plan is open, inclusive and effective and that the public is given early and effective opportunities to participate in its elaboration. Consultations shall comply with the requirements set out in ~~Articles 4 to 10 of~~ Directive 2001/42/EC.

Article 12

Content of the national restoration plans

1. The national restoration plan shall cover the period up to 2050, with intermediate deadlines corresponding to the targets and obligations set out in Articles 4 to 10.

1a. By way of derogation from paragraph 1, the national restoration plan to be submitted in accordance with Articles 13 and 14(6) may, with regard to the period beyond June 2032, and until reviewed in accordance with Article 15(1), be limited to a strategic overview of:

(a) the elements referred to in paragraph 2, and;

(b) the contents referred to in paragraphs 3 and 3a.

The revised national restoration plan resulting from the review to be carried out before July 2032 in accordance with Article 15(1) may, with regard to the period beyond June 2042, and until revised before July 2042 in accordance with Article 15(1), be limited to a strategic overview of those elements and contents.

2. Member States shall include the following elements in their national restoration plan, using the uniform format established in accordance with paragraph 4 of this Article:
 - (a) the quantification of the areas to be restored to reach the restoration targets set out in Articles 4 to 10 based on the preparatory work undertaken in accordance with Article 11 and **indicative geographically referenced maps of those potential areas to be restored.**
 - (b) a description of the restoration measures planned, or put in place, for achieving the targets and obligations set out in Articles 4 to 10 and a specification regarding which of those restoration measures are planned, or put in place, within the Natura 2000 network established in accordance with Directive 92/43/EEC;

(ba) a dedicated section setting out the measures for achieving the obligations in Articles 4(4a) and 5(4a);

- (c) an indication of the measures to ensure that the areas covered by the habitat types listed in Annexes I and II do not deteriorate in the areas in which good condition has been reached and that the habitats of the species referred to in Articles 4(3) and 5(3) do not deteriorate in the areas in which the sufficient quality of the habitats of the species has been reached, in accordance with Articles 4(6) and 5(6);
- (d) an indication of the measures **with an aim to maintain habitat types listed in Annexes I and II in good condition in areas where they occur and with an aim to ensure that prevent significant deterioration of other** the areas covered by habitat types listed in Annexes I and II ~~do not deteriorate~~, in accordance with Article 4(7) and Article 5(7);
- (e) the inventory of barriers and the barriers identified for removal in accordance with Article 7(1), the plan for their removal in accordance with Article 7(2) and ~~an estimate~~ of the length of free-flowing rivers to be achieved by the removal of those barriers **estimated from 2020 to** ~~by 2030 and by 2050~~, and any other measures to re-establish the natural functions of floodplains in accordance with Article 7(3);
- (ea) a justification, where applicable, for rewetting peatland on a lower proportion than as set out in Article 9(4), first subparagraph, points (a)–(c);**
- (eb) an account of the indicators for forest ecosystems chosen according to article 10(2a), and their suitability to demonstrate the enhancement of biodiversity in forest ecosystems within the Member State concerned;**
- (f) the timing for putting in place the restoration measures in accordance with Articles 4 to 10;
- (g) a dedicated section setting out tailored restoration measures in their outermost regions, as applicable;
- (h) the monitoring of the areas subject to restoration in accordance with Articles 4 and 5, the process for assessing the effectiveness of the restoration measures put in place in accordance with Articles 4 to 10 and for revising those measures where needed to ensure that the targets and obligations set out in Articles 4 to 10 are met;

- (i) an indication of the provisions for ensuring the continuous, long-term and sustained effects of the restoration measures referred to in Articles 4 to 10;
- (j) the estimated co-benefits for climate change mitigation **and land degradation neutrality** associated with the restoration measures over time, as well as wider socio-economic benefits of those measures;
- (k) a dedicated section setting out how the national restoration plan considers:
 - (i) the relevance of climate change scenarios for the planning of the type and location of restoration measures;
 - (ii) the potential of restoration measures to minimise climate change impacts on nature, to prevent **or mitigate the effects of** natural disasters and to support adaptation;
 - (iii) synergies with national adaptation strategies or plans and national disaster risk assessment reports;
 - (iv) an overview of the interplay between the measures included in the national restoration plan and the national energy and climate plan;
- (l) the estimated financing needs for the implementation of the restoration measures, which shall include the description of the support to stakeholders affected by restoration measures or other new obligations arising from this Regulation, and the means of intended financing, public or private, including (co-) financing with Union funding instruments;
- (m) an indication of the subsidies which negatively affect the achievement of the targets and the fulfilment of the obligations set out in this Regulation;
- (n) a summary of the process for preparing and establishing the national restoration plan, including information on public participation and of how the needs of local communities and stakeholders have been considered;

- (o) a dedicated section indicating how observations from the Commission on the draft national restoration plan referred to in Article 14(4) have been taken into account in accordance with Article 14(5). If the Member State concerned does not address an observation from the Commission or a substantial part thereof, that Member State shall provide its reasons.
3. The national restoration plans shall, where applicable, include the conservation **and management** measures that a Member State intends to adopt under the common fisheries policy, including conservation measures in joint recommendations that a Member State intends to initiate in accordance with the procedure set out in Regulation (EU) No 1380/2013, and any relevant information on those measures.
- 3a. The national restoration plans shall include an overview of the interplay between the measures included in the national restoration plan and the national strategic plan under the common agricultural policy.**
4. The Commission shall adopt implementing acts to establish a uniform format for the national restoration plans. Those implementing acts shall be adopted in accordance with the examination procedure referred to in Article 21(2). The Commission shall be assisted by the European Environmental Agency (EEA) when drawing up the uniform format. **By [date = the first day of the month following 3 months after the date of entry into force of this Regulation], the Commission shall submit the draft implementing acts to the committee referred to in Article 21(1).**

Article 13

Submission of the draft national restoration plan

Member States shall submit a draft of the national restoration plan referred to in Articles 11 and 12 to the Commission by... *[OP please insert the date = the first day of the month following 24 months after the date of entry into force of this Regulation].*

Article 14

Assessment of the national restoration plans

1. The Commission shall assess the draft national restoration plans within six months of the date of receipt. When carrying out that assessment, the Commission shall act in close cooperation with the Member State concerned.
2. When assessing the draft national restoration plan, the Commission shall evaluate
 - (a)** its compliance with Article 12;
 - (b)** ~~as well as~~ its adequacy for meeting the targets and obligations set out in Articles 4 to 10;
 - (c)** **its contribution to** ~~as well as~~ the Union's overarching objectives referred to in Article 1, the specific objectives referred to in Article 7(1) to restore at least 25 000 km of rivers into free-flowing rivers in the Union by 2030 and the 2030 objective of covering at least 10% of the Union's agricultural area with high-diversity landscape features.
3. For the purpose of the assessment of the draft national restoration plans, the Commission shall be assisted by experts or the EEA.
4. The Commission may address observations to Member States within six months of the date of receipt of the draft national restoration plan.
5. Member States shall take ~~due~~ account of any observations from the Commission in its final national restoration plan.
6. Member States shall finalise, publish and submit to the Commission the national restoration plan within six months from the date of receipt of observations from the Commission.

Article 15

Review of the national restoration plans

1. Member States shall review **and revise** their national restoration plan **and include supplementary measures before July 2032 and before July 2042.** At least once every 10 years **thereafter, Member States shall review their national restoration plan and, if necessary, revise it and include supplementary measures.** **The reviews shall be carried out** in accordance with Articles 11 and 12, taking into account progress made in the implementation of the plans, the best available scientific evidence as well as available knowledge of changes or expected changes in environmental conditions due to climate change. **In the reviews to be carried out before July 2032 and before July 2042, Member States shall take into account knowledge on the condition of habitat types listed in Annexes I and II gained in accordance with the obligations in Articles 4(4a) and 5(4a). Member States shall publish and communicate to the Commission their revised national restoration plan.**
2. ~~When it becomes apparent~~ **Where monitoring in accordance with Article 17 indicates** that the measures set out in the national restoration plan will not be sufficient to comply with the targets and obligations set out in Articles 4 to 10, ~~based on the monitoring in accordance with Article 17,~~ **the** Member States shall **review** the national restoration plan, **and if necessary revise it** and include supplementary measures. **Member States shall publish and communicate to the Commission the revised national restoration plan.**

3. Based on the information referred to in Article 18(1) and (2) and the assessment referred to in Article 18(4) and (5), if the Commission considers that the progress made by a Member State is insufficient to comply with the targets and obligations set out in Articles 4 to 10, the Commission may, **after consultation with the Member State concerned**, request the Member State ~~concerned~~ to submit an **revised** draft national restoration plan with supplementary measures. That **revised** national restoration plan with supplementary measures shall be published and submitted within six months from the date of receipt of the request from the Commission. **On request by the Member State concerned and where duly justified, the Commission may extend that deadline with an additional six months.**

Article 16

Access to justice

- ~~1. Member States shall ensure that members of the public, in accordance with national law, that have a sufficient interest or that maintain the impairment of a right, have access to a review procedure before a court of law, or an independent and impartial body established by law, to challenge the substantive or procedural legality of the national restoration plans and any failures to act of the competent authorities, regardless of the role members of the public have played during the process for preparing and establishing the national restoration plan.~~
- ~~2. Member States shall determine what constitutes a sufficient interest and impairment of a right, consistently with the objective of providing the public with wide access to justice. For the purposes of paragraph 1, any non-governmental organisation promoting environmental protection and meeting any requirements under national law shall be deemed to have rights capable of being impaired and their interest shall be deemed sufficient.~~
- ~~3. Review procedures referred to in paragraph 1 shall be fair, equitable, timely and free of charge or not prohibitively expensive, and shall provide adequate and effective remedies, including injunctive relief where necessary.~~
- ~~4. Member States shall ensure that practical information is made available to the public on access to the administrative and judicial review procedures referred to in this Article.~~

CHAPTER IV

MONITORING AND REPORTING

Article 17

Monitoring

1. Member States shall monitor the following:
 - (a) the condition and trend in condition of the habitat types and the quality and the trend in quality of the habitats of the species referred to in Articles 4 and 5 in the areas subject to restoration measures on the basis of the monitoring referred to in Article 12(2), point (h);
 - (b) the area of urban green space and tree canopy cover within urban ecosystem areas determined in accordance with 11(2b) ~~cities and towns and suburbs~~, as referred to in Article 6;
 - (c) the indicators of biodiversity in agricultural ecosystems listed in Annex IV;
 - (d) the populations of the common farmland bird species listed in Annex V;
 - (e) the three indicators of biodiversity in forest ecosystems listed in ~~Annex VI~~ Article 10(2);
 - (ea) three of the indicators of biodiversity in forest ecosystems listed in Article 10(2a), chosen by the Member State;
 - (f) the abundance and diversity of pollinator species, according to the method established in accordance with Article 8(2);
 - (g) the area and condition of the areas covered by the habitat types listed in Annexes I and II, ~~across their territory~~;
 - (h) the area and the quality of the habitat of the species referred to in Article 4(3), and Article 5(3), ~~across their territory~~.

2. The monitoring in accordance with paragraph 1, point (a), shall start as soon as the restoration measures are put in place.
3. The monitoring in accordance with paragraph 1, points (b), (c), (d), (e) **and (ea)** shall start on *[OP please insert the date of entry into force of this Regulation]*.
4. The monitoring in accordance with paragraph 1, point (f), of this Article shall start one year after the entry into force of the implementing act referred to in Article 8(2).
5. The monitoring in accordance with paragraph 1, points (a) **and**, (b) **shall be carried out at least every six years. The monitoring in accordance with that paragraph, point** ~~and (c), of this Article~~, concerning the stock of organic carbon in cropland mineral soils and the share of agricultural land with high-diversity landscape features, and (e) concerning the standing deadwood **and**, the lying deadwood, **and, where applicable**, the share of forests with uneven-aged structure, the forest connectivity, **the share of forest dominated by native tree species, the tree species diversity** and the stock of organic carbon, shall be carried out at least every ~~three~~ **six** years, ~~and, or, where necessary to evaluate the achievement of increasing trends to 2030, with a shorter interval where possible, every year~~. The monitoring in accordance with that paragraph, point (c) concerning the grassland butterfly index, that paragraph, points (d) and (e) concerning the common forest bird index, and that paragraph, point (f) concerning pollinator species shall be carried out every year. The monitoring in accordance with that paragraph, points (g) and (h), shall be carried out at least every six years and shall be coordinated with the reporting cycle under Article 17 of Directive 92/43/EEC **and the initial assessment under Article 17 of Directive 56/2008/EC.**
6. Member States shall ensure that the indicators for agricultural ecosystems referred to in Article 9(2), point (b), and the indicators for forest ecosystems referred to in Article 10 (2), points (a), (b), ~~and~~ **10(2a), point (c)**, of this Regulation, are monitored in a manner consistent with the monitoring required under Regulations (EU) 2018/841 and (EU) 2018/1999.

7. Member States shall make public the data generated by the monitoring carried out under this Article, in accordance with Directive 2007/2/EC of the European Parliament and of the Council⁷⁹ and in accordance with the monitoring frequencies set out in paragraph 5.
8. Member State monitoring systems shall operate on the basis of electronic databases and geographic information systems, and shall maximise the access and use of data and services from remote sensing technologies, earth observation (Copernicus services), in-situ sensors and devices, or citizen science data, leveraging the opportunities offered by artificial intelligence, advanced data analysis and processing.
9. The Commission may adopt implementing acts to:
- (a) specify the methods for monitoring the indicators for agricultural ecosystems listed in Annex IV;
 - (b) specify the methods for monitoring the indicators for forest ecosystems listed in Annex VI;
 - (c) ~~develop~~ **establish** a **guiding** framework for setting the satisfactory levels referred to in Article 11(3) **10(2) and 10(2a)**.

9a. By 2028, the Commission shall adopt implementing acts to establish a guiding framework for setting the satisfactory levels referred to in Articles 6(2), 6(3), 8(1) and 9(2).

9b. Such ~~implementing~~ acts **pursuant to paragraphs (9) and (9a)** shall be adopted in accordance with the examination procedure referred to in Article 21(2).

⁷⁹ Directive 2007/2/EC of the European Parliament and of the Council of 14 March 2007 establishing an Infrastructure for Spatial Information in the European Community (INSPIRE) (OJ L 108, 25.4.2007, p. 1).

Article 18

Reporting

1. Member States shall electronically report to the Commission the area subject to restoration measures referred to in Articles 4 to 10 and the barriers referred to in Article 7 that have been removed, ~~on an annual basis~~ **at least every three years** starting from *[OP please insert the date = the date of entry into force of this Regulation]*.
2. Member States shall electronically report the following data and information to the Commission, assisted by the EEA, at least every ~~three~~ **six** years:
 - (a) the progress in implementing the national restoration plan, in putting in place the restoration measures and progress in achieving the targets and obligations set out in Articles 4 to 10;
 - (b) the results of the monitoring carried out in accordance with Article 17. The reporting of the results of the monitoring carried out in accordance with Article 17(1)(g) and (h) ~~should~~ **shall** be submitted, **and** ~~including in the form of~~ geographically referenced maps;
 - (c) the location and extent of the areas subject to restoration measures referred to in Article 4, Article 5, and Article 9(4), including a geographically referenced map of those areas;
 - (d) the updated inventory of barriers referred to in Article 7(1);
 - (e) information on the progress accomplished towards meeting financing needs, in accordance with Article 12(2)(1), including a review of actual investment against initial investment assumptions.

The first reports shall be submitted in June 2031, covering the period up to 2030.

3. The Commission shall adopt implementing acts to establish the format, structure and detailed arrangements for the presentation of the information referred to in paragraphs 1 and 2 of this Article. Those implementing acts shall be adopted in accordance with the examination procedure referred to in Article 21(2). The Commission shall be assisted by the EEA when drawing up the format, structure and detailed arrangements for the electronic reporting.
4. The EEA shall **every three years** provide to the Commission ~~an annual~~ technical overview of the progress towards the achievement of the targets and obligations set out in this Regulation, on the basis of the data made available by Member States in accordance with paragraph 1 of this Article and Article 17(7).
5. The EEA shall provide to the Commission a Union-wide technical report on the progress towards the achievement of the targets and obligations set out in this Regulation on the basis of the data made available by Member States in accordance with paragraphs 1, 2 and 3 of this Article. It may also use information reported under Article 17 of Directive 92/43/EEC, Article 15 of Directive 2000/60/EC, Article 12 of Directive 2009/147/EC, and Article ~~17~~⁸ of Directive 2008/56/EC. The report shall be provided by June 2032 and subsequent reports shall be provided every ~~three~~^{six} years thereafter.
6. The Commission shall, as from **[four years after the date of entry into force of this Regulation]**²⁰²⁹, report to the European Parliament and to the Council every ~~three~~^{six} years on the implementation of this Regulation.
7. Member States shall ensure that the information referred to in paragraphs 1 and 2 is adequate and up-to-date and that it is available to the public in accordance with Directives 2003/4/EC of the European Parliament and of the Council, Directive 2007/2/EC and (EU) 2019/1024 of the Parliament and of the Council.

CHAPTER V

DELEGATED POWERS AND COMMITTEE PROCEDURE

Article 19

Amendment of Annexes

1. The Commission is empowered to adopt delegated acts in accordance with Article 20 to amend Annex I in order to adapt **the way the groups of habitat types are grouped to technical and scientific progress and to take into account the experience gained from the application of this Regulation.**
2. The Commission is empowered to adopt delegated acts in accordance with Article 20 to amend Annex II in order to adapt:
 - (a) - the list of habitat types **to ensure consistency with updates to the typology to the European nature information system (EUNIS) habitat classification,** and;
 - (b) **the way the groups of habitat types are grouped to technical and scientific progress and to take into account the experience gained from the application of this Regulation.**
3. The Commission is empowered to adopt delegated acts in accordance with Article 20 to amend Annex III in order to adapt the list of marine species referred to in Article 5 ~~in accordance with the latest scientific evidence~~ **to technical and scientific progress.**
4. The Commission is empowered to adopt delegated acts in accordance with Article 20 to amend Annex IV, in order to adapt the description, unit and methodology of indicators for agricultural ecosystems ~~in accordance with the latest scientific evidence~~ **to technical and scientific progress.**
5. The Commission is empowered to adopt delegated acts in accordance with Article 20 to amend Annex V in order to ~~update~~ **adapt** the list of species used for the common farmland bird index in the Member States **to technical and scientific progress.**

6. The Commission is empowered to adopt delegated acts in accordance with Article 20 to amend Annex VI in order to adapt the description, unit and methodology of indicators for forest ecosystems ~~in accordance with the latest scientific evidence~~ **to technical and scientific progress**.
7. The Commission is empowered to adopt delegated acts in accordance with Article 20 to amend Annex VII in order to adapt the list of examples of restoration measures **to technical and scientific progress and to take into account the experience gained from the application of this Regulation**.

Article 20

Exercise of the delegation

1. The power to adopt delegated acts is conferred on the Commission subject to the conditions laid down in this Article.
2. The power to adopt delegated acts referred to in Article 19 shall be conferred on the Commission for a period of 5 years from *[OP please insert the date of entry into force of this Regulation]*. The Commission shall draw up a report in respect of the delegation of power not later than nine months before the end of the five-year period. The delegation of power shall be tacitly extended for periods of an identical duration unless the European Parliament or the Council opposes such extension not later than three months before the end of each period.
3. The delegation of power referred to in Article 19 may be revoked at any time by the European Parliament or by the Council. A decision to revoke shall put an end to the delegation of the power specified in that decision. It shall take effect the day following the publication of the decision in the Official Journal of the European Union or at a later date specified therein. It shall not affect the validity of any delegated acts already in force.

4. Before adopting a delegated act, the Commission shall consult experts designated by each Member State in accordance with the principles laid down in the Interinstitutional Agreement of 13 April 2016 on Better Law-Making⁸⁰.
5. As soon as it adopts a delegated act, the Commission shall notify it simultaneously to the European Parliament and to the Council.
6. A delegated act adopted pursuant to Article 19 shall enter into force only if no objection has been expressed either by the European Parliament or by the Council within a period of 2 months of notification of that act to the European Parliament and to the Council or if, before the expiry of that period, the European Parliament and the Council have both informed the Commission that they will not object. That period shall be extended by two months at the initiative of the European Parliament or of the Council.

Article 21

Committee procedure

1. The Commission shall be assisted by a committee. That committee shall be a committee within the meaning of Regulation (EU) No 182/2011.
2. Where reference is made to this paragraph, Article 5 of Regulation (EU) No 182/2011 shall apply.

⁸⁰ Interinstitutional Agreement between the European Parliament, the Council of the European Union and the European Commission on Better Law-Making (OJ L 123, 12.5.2016, p. 1).

CHAPTER VI

FINAL PROVISIONS

Article 22

Review

1. The Commission shall evaluate the application of this Regulation by 31 December 2035.
2. The Commission shall present a report on the main findings of the evaluation to the European Parliament, the Council, the European Economic and Social Committee, and the Committee of Regions. Where the Commission finds it appropriate, the report shall be accompanied by a legislative proposal for amendment of relevant provisions of this Regulation, taking into account the need to establish additional restoration targets, based on common methods for assessing the condition of ecosystems not covered by Articles 4 and 5, and the most recent scientific evidence.

Article 23

Entry into force

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

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

Done at Brussels,

For the European Parliament
The President

For the Council
The President

ANNEX I

TERRESTRIAL, COASTAL AND FRESHWATER ECOSYSTEMS – HABITAT TYPES AND
GROUPS OF HABITAT TYPES REFERRED TO IN ARTICLE 4(1) AND 4(2)

The list below includes all terrestrial, coastal and freshwater habitat types listed in Annex I of Directive 92/43/EEC referred to in Article 4(1) and 4(2), as well as six groups of those habitat types, namely 1) Wetlands (coastal and inland), 2) Grasslands and other pastoral habitats, 3) River, lake, alluvial and riparian habitats, 4) Forests, 5) Steppe, heath and scrub habitats and 6) Rocky and dune habitats.

1. GROUP 1: Wetlands (coastal & inland)

Habitat type code as referred to in Annex I of Council Directive 92/43/EEC	Habitat type name as referred to in Annex I of Council Directive 92/43/EEC
Coastal and salt habitats	
1130	Estuaries
1140	Mudflats and sandflats not covered by seawater at low tide
1150	Coastal lagoons
1310	Salicornia and other annuals colonizing mud and sand
1320	Spartina swards (<i>Spartinion maritimae</i>)
1330	Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>)
1340	Inland salt meadows
1410	Mediterranean salt meadows (<i>Juncetalia maritimi</i>)

1420	Mediterranean and thermo-Atlantic halophilous scrubs (<i>Sarcocornetea fruticosi</i>)
1530	Pannonic salt steppes and salt marshes
1650	Boreal Baltic narrow inlets
Wet heaths and peat grassland	
4010	Northern Atlantic wet heaths with <i>Erica tetralix</i>
4020	Temperate Atlantic wet heaths with <i>Erica ciliaris</i> and <i>Erica tetralix</i>
6460	Peat grasslands of Troodos
Mires, bogs and fens	
7110	Active raised bogs
7120	Degraded raised bogs still capable of natural regeneration
7130	Blanket bogs
7140	Transition mires and quaking bogs
7150	Depressions on peat substrates of the <i>Rhynchosporion</i>
7160	Fennoscandian mineral-rich springs and springfens
7210	Calcareous fens with <i>Cladium mariscus</i> and species of the <i>Caricion davallianae</i>
7220	Petrifying springs with tufa formation (<i>Cratoneurion</i>)
7230	Alkaline fens
7240	Alpine pioneer formations of the <i>Caricion bicoloris-atrofuscae</i>
7310	Aapa mires
7320	Palsa mires

Wet forests	
9080	Fennoscandian deciduous swamp woods
91D0	Bog woodland

2. GROUP 2: Grasslands and other pastoral habitats

Habitat type code as referred to in Annex I of Council Directive 92/43/EEC	Habitat type name as referred to in Annex I of Council Directive 92/43/EEC
Costal and dune habitats	
1630	Boreal Baltic coastal meadows
21A0	Machairs
Heath and scrub habitats	
4030	European dry heaths
4040	Dry Atlantic coastal heaths with <i>Erica vagans</i>
4090	Endemic oro-Mediterranean heaths with gorse
5130	<i>Juniperus communis</i> formations on heaths or calcareous grasslands
8240	Limestone pavements
Grasslands	
6110	Rupicolous calcareous or basophilic grasslands of the <i>Alysso-Sedion albi</i>
6120	Xeric sand calcareous grasslands
6130	Calaminarian grasslands of the <i>Violetalia calaminariae</i>
6140	Siliceous Pyrenean <i>Festuca eskia</i> grasslands
6150	Siliceous alpine and boreal grasslands
6160	Oro-Iberian <i>Festuca indigesta</i> grasslands
6170	Alpine and subalpine calcareous grasslands
6180	Macaronesian mesophile grasslands

6190	Rupicolous pannonic grasslands (<i>Stipo-Festucetalia pallentis</i>)
6210	Semi-natural dry grasslands and scrubland facies on calcareous substrates (<i>Festuco-Brometalia</i>)
6220	Pseudo-steppe with grasses and annuals of the <i>Thero-Brachypodietea</i>
6230	Species-rich <i>Nardus</i> grasslands, on silicious substrates in mountain areas (and submountain areas in Continental Europe)
6240	Sub-Pannonic steppic grasslands
6250	Pannonic loess steppic grasslands
6260	Pannonic sand steppes
6270	Fennoscandian lowland species-rich dry to mesic grasslands
6280	Nordic alvar and precambrian calcareous flatrocks
62A0	Eastern sub-Mediterranean dry grasslands (<i>Scorzoneratalia villosae</i>)
62B0	Serpentinophilous grassland of Cyprus
62C0	Ponto-Sarmatic steppes
62D0	Oro-Moesian acidophilous grasslands
6410	<i>Molinia</i> meadows on calcareous, peaty or clayey-silt-laden soils (<i>Molinion caeruleae</i>)
6420	Mediterranean tall humid grasslands of the <i>Molinio-Holoschoenion</i>
6510	Lowland hay meadows (<i>Alopecurus pratensis</i> , <i>Sanguisorba officinalis</i>)
6520	Mountain hay meadows

Dehesas and wooded meadows	
6310	Dehesas with evergreen <i>Quercus</i> spp.
6530	Fennoscandian wooded meadows
9070	Fennoscandian wooded pastures

3. GROUP 3: River, lake, alluvial and riparian habitats

Habitat type code as referred to in Annex I of Council Directive 92/43/EEC	Habitat type name as referred to in Annex I of Council Directive 92/43/EEC
Rivers and lakes	
3110	Oligotrophic waters containing very few minerals of sandy plains (<i>Littorelletalia uniflorae</i>)
3120	Oligotrophic waters containing very few minerals generally on sandy soils of the West Mediterranean, with <i>Isoetes</i> spp.
3130	Oligotrophic to mesotrophic standing waters with vegetation of the <i>Littorelletea uniflorae</i> and/or of the <i>Isoëto-Nanojuncetea</i>
3140	Hard oligo-mesotrophic waters with benthic vegetation of <i>Chara</i> spp.
3150	Natural eutrophic lakes with <i>Magnopotamion</i> or <i>Hydrocharition</i> — type vegetation
3160	Natural dystrophic lakes and ponds
3170	Mediterranean temporary ponds
3180	Turloughs
3190	Lakes of gypsum karst
31A0	Transylvanian hot-spring lotus beds
3210	Fennoscandian natural rivers
3220	Alpine rivers and the herbaceous vegetation along their banks
3230	Alpine rivers and their ligneous vegetation with <i>Myricaria germanica</i>
3240	Alpine rivers and their ligneous vegetation with <i>Salix elaeagnos</i>

3250	Constantly flowing Mediterranean rivers with <i>Glaucium flavum</i>
3260	Water courses of plain to montane levels with the <i>Ranunculion fluitantis</i> and <i>Callitricho-Batrachion</i> vegetation
3270	Rivers with muddy banks with <i>Chenopodion rubri</i> p.p. and <i>Bidenton</i> p.p. vegetation
3280	Constantly flowing Mediterranean rivers with <i>Paspalo-Agrostidion</i> species and hanging curtains of <i>Salix</i> and <i>Populus alba</i>
3290	Intermittently flowing Mediterranean rivers of the <i>Paspalo-Agrostidion</i>
32A0	Tufa cascades of karstic rivers of the Dinaric Alps
Alluvial meadows	
6430	Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels
6440	Alluvial meadows of river valleys of the <i>Cnidion dubii</i>
6450	Northern boreal alluvial meadows
6540	Sub-Mediterranean grasslands of the <i>Molinio-Hordeion secalini</i>
Alluvial/Riparian forests	
9160	Sub-Atlantic and medio-European oak or oak-hornbeam forests of the <i>Carpinion betuli</i>
91E0	Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i> , <i>Alnion incanae</i> , <i>Salicion albae</i>)
91F0	Riparian mixed forests of <i>Quercus robur</i> , <i>Ulmus laevis</i> and <i>Ulmus minor</i> , <i>Fraxinus excelsior</i> or <i>Fraxinus angustifolia</i> , along the great rivers (<i>Ulmenion minoris</i>)
92A0	<i>Salix alba</i> and <i>Populus alba</i> galleries
92B0	Riparian formations on intermittent Mediterranean water courses with <i>Rhododendron ponticum</i> , <i>Salix</i> and others
92C0	<i>Platanus orientalis</i> and <i>Liquidambar orientalis</i> woods (<i>Platanion orientalis</i>)
92D0	Southern riparian galleries and thickets (<i>Nerio-Tamaricetea</i> and <i>Securinegion tinctoriae</i>)
9370	Palm groves of Phoenix

4. GROUP 4: Forests

Habitat type code as referred to in Annex I of Council Directive 92/43/EEC	Habitat type name as referred to in Annex I of Council Directive 92/43/EEC
Boreal forests	
9010	Western Taïga
9020	Fennoscandian hemiboreal natural old broad-leaved deciduous forests (<i>Quercus</i> , <i>Tilia</i> , <i>Acer</i> , <i>Fraxinus</i> or <i>Ulmus</i>) rich in epiphytes
9030	Natural forests of primary succession stages of landupheaval coast
9040	Nordic subalpine/subarctic forests with <i>Betula pubescens</i> ssp. <i>czerepanovii</i>
9050	Fennoscandian herb-rich forests with <i>Picea abies</i>
9060	Coniferous forests on, or connected to, glaciofluvial eskers
Temperate forests	
9110	<i>Luzulo-Fagetum</i> beech forests
9120	Atlantic acidophilous beech forests with <i>Ilex</i> and sometimes also <i>Taxus</i> in the shrublayer (<i>Quercion robori-petraeae</i> or <i>Ilici-Fagenion</i>)
9130	<i>Asperulo-Fagetum</i> beech forests
9140	Medio-European subalpine beech woods with <i>Acer</i> and <i>Rumex arifolius</i>
9150	Medio-European limestone beech forests of the <i>Cephalanthero-Fagion</i>
9170	<i>Galio-Carpinetum</i> oak-hornbeam forests
9180	<i>Tilio-Acerion</i> forests of slopes, screes and ravines
9190	Old acidophilous oak woods with <i>Quercus robur</i> on sandy plains
91A0	Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles
91B0	Thermophilous <i>Fraxinus angustifolia</i> woods
91G0	Pannonic woods with <i>Quercus petraea</i> and <i>Carpinus betulus</i>
91H0	Pannonian woods with <i>Quercus pubescens</i>

91I0	Euro-Siberian steppic woods with <i>Quercus</i> spp.
91J0	<i>Taxus baccata</i> woods of the British Isles
91K0	Illyrian <i>Fagus sylvatica</i> forests (<i>Aremonio-Fagion</i>)
91L0	Illyrian oak-hornbeam forests (<i>Erythronio-Carpinion</i>)
91M0	Pannonian-Balkan turkey oak –sessile oak forests
91P0	Holy Cross fir forest (<i>Abietetum polonicum</i>)
91Q0	Western Carpathian calcicolous <i>Pinus sylvestris</i> forests
91R0	Dinaric dolomite Scots pine forests (<i>Genisto januensis-Pinetum</i>)
91S0	Western Pontic beech forests
91T0	Central European lichen Scots pine forests
91U0	Sarmatic steppe pine forest
91V0	Dacian Beech forests (<i>Symphyto-Fagion</i>)
91W0	Moesian beech forests
91X0	Dobrogean beech forests
91Y0	Dacian oak & hornbeam forests
91Z0	Moesian silver lime woods
91AA	Eastern white oak woods
91BA	Moesian silver fir forests
91CA	Rhodopide and Balkan Range Scots pine forests

Mediterranean and Macaronesian forests	
9210	Apennine beech forests with <i>Taxus</i> and <i>Ilex</i>
9220	Apennine beech forests with <i>Abies alba</i> and beech forests with <i>Abies nebrodensis</i>
9230	Galicio-Portuguese oak woods with <i>Quercus robur</i> and <i>Quercus pyrenaica</i>
9240	<i>Quercus faginea</i> and <i>Quercus canariensis</i> Iberian woods
9250	<i>Quercus trojana</i> woods
9260	<i>Castanea sativa</i> woods
9270	Hellenic beech forests with <i>Abies borisii-regis</i>
9280	<i>Quercus frainetto</i> woods
9290	Cupressus forests (<i>Acero-Cupression</i>)
9310	Aegean <i>Quercus brachyphylla</i> woods
9320	<i>Olea</i> and <i>Ceratonia</i> forests
9330	<i>Quercus suber</i> forests
9340	<i>Quercus ilex</i> and <i>Quercus rotundifolia</i> forests
9350	<i>Quercus macrolepis</i> forests
9360	Macaronesian laurel forests (<i>Laurus</i> , <i>Ocotea</i>)
9380	Forests of <i>Ilex aquifolium</i>
9390	Scrub and low forest vegetation with <i>Quercus alnifolia</i>
93A0	Woodlands with <i>Quercus infectoria</i> (<i>Anagyro foetidae-Quercetum infectoriae</i>)
Mountainous coniferous forests	
9410	Acidophilous <i>Picea</i> forests of the montane to alpine levels (<i>Vaccinio-Piceetea</i>)
9420	Alpine <i>Larix decidua</i> and/or <i>Pinus cembra</i> forests
9430	Subalpine and montane <i>Pinus uncinata</i> forests
9510	Southern Apennine <i>Abies alba</i> forests
9520	<i>Abies pinsapo</i> forests

9530	(Sub-) Mediterranean pine forests with endemic black pines
9540	Mediterranean pine forests with endemic Mesogean pines
9550	Canarian endemic pine forests
9560	Endemic forests with <i>Juniperus</i> spp.
9570	<i>Tetraclinis articulata</i> forests
9580	Mediterranean <i>Taxus baccata</i> woods
9590	<i>Cedrus brevifolia</i> forests (<i>Cedrosetum brevifoliae</i>)
95A0	High oro-Mediterranean pine forests

5. GROUP 5: Steppe, heath and scrub habitats

Habitat type code as referred to in Annex I of Council Directive 92/43/EEC	Habitat type name as referred to in Annex I of Council Directive 92/43/EEC
Salt and gypsum steppes	
1430	Halo-nitrophilous scrubs (<i>Pegano-Salsoletea</i>)
1510	Mediterranean salt steppes (<i>Limonietalia</i>)
1520	Iberian gypsum vegetation (<i>Gypsophiletalia</i>)
Temperate heath and scrub	
4050	Endemic macaronesian heaths
4060	Alpine and Boreal heaths
4070	Bushes with <i>Pinus mugo</i> and <i>Rhododendron hirsutum</i> (Mugo-Rhododendretum hirsuti)
4080	Sub-Arctic <i>Salix</i> spp. scrub
40A0	Subcontinental peri-Pannonic scrub
40B0	Rhodope <i>Potentilla fruticosa</i> thickets
40C0	Ponto-Sarmatic deciduous thickets

Sclerophyllous scrub (matorral)	
5110	Stable xerothermophilous formations with <i>Buxus sempervirens</i> on rock slopes (<i>Berberidion</i> p.p.)
5120	Mountain <i>Cytisus purgans</i> formations
5140	<i>Cistus palhinhae</i> formations on maritime wet heaths
5220	Arborescent matorral with <i>Zyziphus</i>
5230	Arborescent matorral with <i>Laurus nobilis</i>
5310	<i>Laurus nobilis</i> thickets
5320	Low formations of <i>Euphorbia</i> close to cliffs
5330	Thermo-Mediterranean and pre-desert scrub
5410	West Mediterranean clifftop phrygas (<i>Astragalo-Plantaginetum subulatae</i>)
5420	<i>Sarcopoterium spinosum</i> phrygas
5430	Endemic phrygas of the <i>Euphorbio-Verbascion</i>

6. GROUP 6: Rocky and dune habitats

Habitat type code as referred to in Annex I of Council Directive 92/43/EEC	Habitat type name as referred to in Annex I of Council Directive 92/43/EEC
Sea cliffs, beaches, and islets	
1210	Annual vegetation of drift lines
1220	Perennial vegetation of stony banks
1230	Vegetated sea cliffs of the Atlantic and Baltic Coasts
1240	Vegetated sea cliffs of the Mediterranean coasts with endemic <i>Limonium</i> spp.
1250	Vegetated sea cliffs with endemic flora of the Macaronesian coasts
1610	Baltic esker islands with sandy, rocky and shingle beach vegetation and sublittoral vegetation

1620	Boreal Baltic islets and small islands
1640	Boreal Baltic sandy beaches with perennial vegetation
Coastal and inland dunes	
2110	Embryonic shifting dunes
2120	Shifting dunes along the shoreline with <i>Ammophila arenaria</i> ('white dunes')
2130	Fixed coastal dunes with herbaceous vegetation ("grey dunes")
2140	Decalcified fixed dunes with <i>Empetrum nigrum</i>
2150	Atlantic decalcified fixed dunes (<i>Calluno-Ulicetea</i>)
2160	Dunes with <i>Hippophaë rhamnoides</i>
2170	Dunes with <i>Salix repens</i> ssp. <i>argentea</i> (<i>Salicion arenariae</i>)
2180	Wooded dunes of the Atlantic, Continental and Boreal region
2190	Humid dune slacks
2210	Crucianellion maritimae fixed beach dunes
2220	Dunes with <i>Euphorbia terracina</i>
2230	<i>Malcolmietalia</i> dune grasslands
2240	<i>Brachypodietalia</i> dune grasslands with annuals
2250	Coastal dunes with <i>Juniperus</i> spp.
2260	<i>Cisto-Lavenduletalia</i> dune sclerophyllous scrubs
2270	Wooded dunes with <i>Pinus pinea</i> and/or <i>Pinus pinaster</i>
2310	Dry sand heaths with <i>Calluna</i> and <i>Genista</i>
2320	Dry sand heaths with <i>Calluna</i> and <i>Empetrum nigrum</i>
2330	Inland dunes with open <i>Corynephorus</i> and <i>Agrostis</i> grasslands
2340	Pannonic inland dunes
91N0	Pannonic inland sand dune thicket (<i>Junipero-Populetum albae</i>)
Rocky habitats	

8110	Siliceous scree of the montane to snow levels (<i>Androsacetalia alpinae</i> and <i>Galeopsietalia ladani</i>)
8120	Calcareous and calchist screes of the montane to alpine levels (<i>Thlaspietea rotundifolii</i>)
8130	Western Mediterranean and thermophilous scree
8140	Eastern Mediterranean screes
8150	Medio-European upland siliceous screes
8160	Medio-European calcareous scree of hill and montane levels
8210	Calcareous rocky slopes with chasmophytic vegetation
8220	Siliceous rocky slopes with chasmophytic vegetation
8230	Siliceous rock with pioneer vegetation of the <i>Sedo-Scleranthion</i> or of the <i>Sedo albi-Veronicion dillenii</i>
8310	Caves not open to the public
8320	Fields of lava and natural excavations
8340	Permanent glaciers

ANNEX II
MARINE ECOSYSTEMS – HABITAT TYPES AND GROUPS OF HABITAT TYPES
REFERRED TO IN ARTICLE 5(1) AND 5(2)

The list below includes the marine habitat types referred to in Article 5(1) and 5(2), as well as seven groups of those habitat types, namely 1) Seagrass beds, 2) Macroalgal forests, 3) Shellfish beds, 4) Maerl beds, 5) Sponge, coral and coralligenous beds, 6) Vents and seeps and 7) Soft sediments (above 1000 meters of depth). The relation with the habitat types listed in Annex I of Directive 92/43/EEC is also presented.

The classification of marine habitat types used, differentiated by marine biogeographical regions, is made according to the European nature information system (EUNIS), as revised for the marine habitats typology in 2022 by the European Environment Agency (EEA). The information on the related habitats listed in Annex I of Council Directive 92/43/EEC is based on the crosswalk published by the EEA in 2021⁸¹.

1. Group 1: Seagrass beds

EUNIS code	EUNIS habitat type name	Related habitat type code as referred to in Annex I of Council Directive 92/43/EEC
Atlantic		
MA522	Seagrass beds on Atlantic littoral sand	1140; 1160
MA623	Seagrass beds on Atlantic littoral mud	1140; 1160
MB522	Seagrass beds on Atlantic infralittoral sand	1110; 1150; 1160

⁸¹ [EUNIS marine habitat classification 2022. European Environment Agency.](#)

Baltic Sea		
MA332	Baltic hydrolittoral coarse sediment characterised by submerged vegetation	1130; 1160; 1610; 1620
MA432	Baltic hydrolittoral mixed sediment characterised by submerged vegetation	1130; 1140; 1160; 1610
MA532	Baltic hydrolittoral sand characterised by submerged rooted plants	1130; 1140; 1160; 1610
MA632	Baltic hydrolittoral mud dominated by submerged rooted plants	1130; 1140; 1160; 1650
MB332	Baltic infralittoral coarse sediment characterised by submerged rooted plants	1110; 1160
MB432	Baltic infralittoral mixed sediment characterised by submerged rooted plants	1110; 1160; 1650
MB532	Baltic infralittoral sand characterised by submerged rooted plants	1110; 1130; 1150; 1160
MB632	Baltic infralittoral mud sediment characterised by submerged rooted plants	1130; 1150; 1160; 1650
Black Sea		
MB546	Seagrass and rhizomatous algal meadows in Black Sea freshwater influenced infralittoral muddy sands	1110; 1130; 1160
MB547	Black Sea seagrass meadows on moderately exposed upper infralittoral clean sands	1110; 1160
MB548	Black Sea seagrass meadows on lower infralittoral sands	1110; 1160
Mediterranean Sea		
MB252	Biocenosis of <i>Posidonia oceanica</i>	1120
MB2521	Ecomorphosis of striped <i>Posidonia oceanica</i> meadows	1120; 1130; 1160
MB2522	Ecomorphosis of "barrier-reef" <i>Posidonia oceanica</i> meadows	1120; 1130; 1160
MB2523	Facies of dead "mattes" of <i>Posidonia oceanica</i> without much epiflora	1120; 1130; 1160
MB2524	Association with <i>Caulerpa prolifera</i> on <i>Posidonia</i> beds	1120; 1130; 1160

MB5521	Association with <i>Cymodocea nodosa</i> on well sorted fine sands	1110; 1130; 1160
MB5534	Association with <i>Cymodocea nodosa</i> on superficial muddy sands in sheltered waters	1110; 1130; 1160
MB5535	Association with <i>Zostera noltei</i> on superficial muddy sands in sheltered waters	1110; 1130; 1160
MB5541	Association with <i>Ruppia cirrhosa</i> and/or <i>Ruppia maritima</i> on sand	1110; 1130; 1160
MB5544	Association with <i>Zostera noltei</i> in euryhaline and eurythermal environment on sand	1110; 1130; 1160
MB5545	Association with <i>Zostera marina</i> in euryhaline and eurythermal environment	1110; 1130; 1160

2. Group 2: Macroalgal forests

EUNIS code	EUNIS habitat type name	Related Annex I (Habitats Directive) codes
Atlantic		
MA123	Seaweed communities on full salinity Atlantic littoral rock	1160; 1170; 1130
MA125	Fucoids on variable salinity Atlantic littoral rock	1170; 1130
MB121	Kelp and seaweed communities on Atlantic infralittoral rock	1170; 1160
MB123	Kelp and seaweed communities on sediment-affected or disturbed Atlantic infralittoral rock	1170; 1160
MB124	Kelp communities on variable salinity Atlantic infralittoral rock	1170; 1130; 1160
MB321	Kelp and seaweed communities on Atlantic infralittoral coarse sediment	1160
MB521	Kelp and seaweed communities on Atlantic infralittoral sand	1160
MB621	Vegetated communities on Atlantic infralittoral mud	1160

Baltic Sea		
MA131	Baltic hydrolittoral rock and boulders characterised by perennial algae	1160; 1170; 1130; 1610; 1620
MB131	Perennial algae on Baltic infralittoral rock and boulders	1170; 1160
MB232	Baltic infralittoral bottoms characterised by shell gravel	1160; 1110
MB333	Baltic infralittoral coarse sediment characterised by perennial algae	1110; 1160
MB433	Baltic infralittoral mixed sediment characterised by perennial algae	1110; 1130; 1160; 1170
Black Sea		
MB144	Mytilid-dominated Black Sea exposed upper infralittoral rock with fucales	1170; 1160
MB149	Mytilid-dominated Black Sea moderately exposed upper infralittoral rock with fucales	1170; 1160
MB14A	Fucles and other algae on Black Sea sheltered upper infralittoral rock, well illuminated	1170; 1160
Mediterranean Sea		
MA1548	Association with <i>Fucus virsoides</i>	1160; 1170
MB1512	Association with <i>Cystoseira tamariscifolia</i> and <i>Saccorhiza polyschides</i>	1170; 1160
MB1513	Association with <i>Cystoseira amentacea</i> (var. <i>amentacea</i> , var. <i>stricta</i> , var. <i>spicata</i>)	1170; 1160
MB151F	Association with <i>Cystoseira brachycarpa</i>	1170; 1160
MB151G	Association with <i>Cystoseira crinita</i>	1170; 1160
MB151H	Association with <i>Cystoseira crinitophylla</i>	1170; 1160
MB151J	Association with <i>Cystoseira sauvageauana</i>	1170; 1160
MB151K	Association with <i>Cystoseira spinosa</i>	1170; 1160
MB151L	Association with <i>Sargassum vulgare</i>	1170; 1160
MB151M	Association with <i>Dictyopteris polypodioides</i>	1170; 1160
MB151W	Association with <i>Cystoseira compressa</i>	1170; 1160

MB1524	Association with <i>Cystoseira barbata</i>	1170; 1160
MC1511	Association with <i>Cystoseira zosteroides</i>	1170; 1160
MC1512	Association with <i>Cystoseira usneoides</i>	1170; 1160
MC1513	Association with <i>Cystoseira dubia</i>	1170; 1160
MC1514	Association with <i>Cystoseira corniculata</i>	1170; 1160
MC1515	Association with <i>Sargassum</i> spp.	1170; 1160
MC1518	Association with <i>Laminaria ochroleuca</i>	1170; 1160
MC3517	Association with <i>Laminaria rodriguezii</i> on detritic beds	1160

3. Group 3: Shellfish beds

EUNIS code	EUNIS habitat type name	Related Annex I (Habitats Directive) codes
Atlantic		
MA122	<i>Mytilus edulis</i> and/or barnacle communities on wave-exposed Atlantic littoral rock	1160; 1170
MA124	Mussel and/or barnacle communities with seaweeds on Atlantic littoral rock	1160; 1170
MA227	Bivalve reefs in the Atlantic littoral zone	1170; 1140
MB222	Bivalve reefs in the Atlantic infralittoral zone	1170; 1130; 1160
MC223	Bivalve reefs in the Atlantic circalittoral zone	1170
Baltic Sea		
MB231	Baltic infralittoral bottoms dominated by epibenthic bivalves	1170; 1160
MC231	Baltic circalittoral bottoms dominated by epibenthic bivalves	1170; 1160; 1110
MD231	Baltic offshore circalittoral biogenic bottoms characterised by epibenthic bivalves	1170
MD232	Baltic offshore circalittoral shell gravel bottoms characterised by bivalves	1170
MD431	Baltic offshore circalittoral mixed bottoms characterised by macroscopic epibenthic biotic structures	

MD531	Baltic offshore circalittoral sand characterised by macroscopic epibenthic biotic structures	
MD631	Baltic offshore circalittoral mud characterised by epibenthic bivalves	
Black Sea		
MB141	Invertebrate-dominated Black Sea lower infralittoral rock	1170
MB143	Mytilid-dominated Black Sea exposed upper infralittoral rock with foliose algae (no Fucales)	1170; 1160
MB148	Mytilid-dominated Black Sea moderately exposed upper infralittoral rock with foliose algae (other than Fucales)	1170; 1160
MB242	Mussel beds in the Black Sea infralittoral zone	1170; 1130; 1160
MB243	Oyster reefs on Black Sea lower infralittoral rock	1170
MB642	Black Sea infralittoral terrigenous muds	1160
MC141	Invertebrate-dominated Black Sea circalittoral rock	1170
MC241	Mussel beds on Black Sea circalittoral terrigenous muds	1170
MC645	Black Sea lower circalittoral mud	
Mediterranean Sea		
MA1544	Facies with <i>Mytilus galloprovincialis</i> in waters enriched in organic matter	1160; 1170
MB1514	Facies with <i>Mytilus galloprovincialis</i>	1170; 1160

4. Group 4: Maerl beds

EUNIS code	EUNIS habitat type name	Related Annex I (Habitats Directive) codes
Atlantic		
MB322	Maerl beds on Atlantic infralittoral coarse sediment	1110; 1160
MB421	Maerl beds on Atlantic infralittoral mixed sediment	1110; 1160
MB622	Maerl beds on Atlantic infralittoral muddy sediment	1110; 1160
Mediterranean Sea		
MB3511	Association with rhodolithes in coarse sands and fine gravels mixed by waves	1110; 1160
MB3521	Association with rhodolithes in coarse sands and fine gravels under the influence of bottom currents	1110; 1160
MB3522	Association with maerl (= Association with <i>Lithothamnion corallioides</i> and <i>Phymatolithon calcareum</i>) on Mediterranean coarse sands and gravel	1110; 1160
MC3521	Association with rhodolithes on coastal detritic bottoms	1110
MC3523	Association with maerl (<i>Lithothamnion corallioides</i> and <i>Phymatolithon calcareum</i>) on coastal dendritic bottoms	1110

5. Group 5: Sponge, coral and coralligenous beds

EUNIS code	EUNIS habitat type name	Related Annex I (Habitats Directive) codes
Atlantic		
MC121	Faunal turf communities on Atlantic circalittoral rock	1170
MC124	Faunal communities on variable salinity Atlantic circalittoral rock	1170; 1130
MC126	Communities of Atlantic circalittoral caves and overhangs	8330; 1170
MC222	Cold water coral reefs in the Atlantic circalittoral zone	1170
MD121	Sponge communities on Atlantic offshore circalittoral rock	1170

MD221	Cold water coral reefs in the Atlantic offshore circalittoral zone	1170
ME122	Sponge communities on Atlantic upper bathyal rock	1170
ME123	Mixed cold water coral communities on Atlantic upper bathyal rock	1170
ME221	Atlantic upper bathyal cold water coral reef	1170
ME322	Mixed cold water coral community on Atlantic upper bathyal coarse sediment	
ME324	Sponge aggregation on Atlantic upper bathyal coarse sediment	
ME422	Sponge aggregation on Atlantic upper bathyal mixed sediment	
ME623	Sponge aggregation on Atlantic upper bathyal mud	
ME624	Erect coral field on Atlantic upper bathyal mud	
MF121	Mixed cold water coral community on Atlantic lower bathyal rock	1170
MF221	Atlantic lower bathyal cold water coral reef	1170
MF321	Mixed cold water coral community on Atlantic lower bathyal coarse sediment	
MF622	Sponge aggregation on Atlantic lower bathyal mud	
MF623	Erect coral field on Atlantic lower bathyal mud	
Baltic Sea		
MB138	Baltic infralittoral rock and boulders characterized by epibenthic sponges	1170; 1160
MB43A	Baltic infralittoral mixed sediment characterized by epibenthic sponges (Porifera)	1160; 1170
MC133	Baltic circalittoral rock and boulders characterized by epibenthic cnidarians	1170; 1160
MC136	Baltic circalittoral rock and boulders characterized by epibenthic sponges	1170; 1160
MC433	Baltic circalittoral mixed sediment characterized by epibenthic cnidarians	1160; 1170

MC436	Baltic circalittoral mixed sediment characterized by epibenthic sponges	1160
Black Sea		
MD24	Black Sea offshore circalittoral biogenic habitats	1170
ME14	Black Sea upper bathyal rock	1170
ME24	Black Sea upper bathyal biogenic habitat	1170
MF14	Black Sea lower bathyal rock	1170
Mediterranean Sea		
MB151E	Facies with <i>Cladocora caespitosa</i>	1170; 1160
MB151Q	Facies with <i>Astroides calycularis</i>	1170; 1160
MB151 α	Facies and association of coralligenous biocenosis (in enclave)	1170; 1160
MC1519	Facies with <i>Eunicella cavolini</i>	1170; 1160
MC151A	Facies with <i>Eunicella singularis</i>	1170; 1160
MC151B	Facies with <i>Paramuricea clavata</i>	1170; 1160
MC151E	Facies with <i>Leptogorgia sarmentosa</i>	1170; 1160
MC151F	Facies with <i>Anthipatella subpinnata</i> and sparse red algae	1170; 1160
MC151G	Facies with massive sponges and sparse red algae	1170; 1160
MC1522	Facies with <i>Corallium rubrum</i>	8330; 1170
MC1523	Facies with <i>Leptopsammia pruvoti</i>	8330; 1170
MC251	Coralligenous platforms	1170
MC6514	Facies of sticky muds with <i>Alcyonium palmatum</i> and <i>Parastichopus regalis</i> on circalittoral mud	1160
MD151	Biocenosis of Mediterranean shelf-edge rock	1170
MD25	Mediterranean offshore circalittoral biogenic habitats	1170
MD6512	Facies of sticky muds with <i>Alcyonium palmatum</i> and <i>Parastichopus regalis</i> on lower circalittoral mud	
ME1511	Mediterranean upper bathyal <i>Lophelia pertusa</i> reefs	1170

ME1512	Mediterranean upper bathyal <i>Madrepora oculata</i> reefs	1170
ME1513	Mediterranean upper bathyal <i>Madrepora oculata</i> and <i>Lophelia pertusa</i> reefs	1170
ME6514	Mediterranean upper bathyal facies of with <i>Pheronema carpenteri</i>	
MF1511	Mediterranean lower bathyal <i>Lophelia pertusa</i> reefs	1170
MF1512	Mediterranean lower bathyal <i>Madrepora oculata</i> reefs	1170
MF1513	Mediterranean lower bathyal <i>Madrepora oculata</i> and <i>Lophelia pertusa</i> reefs	1170
MF6511	Mediterranean lower bathyal facies of sandy muds with <i>Thenia muricata</i>	
MF6513	Mediterranean lower bathyal facies of compact muds with <i>Isidella elongata</i>	

6. Group 6: Vents and seeps

EUNIS code	EUNIS habitat type name	Related Annex I (Habitats Directive) codes
Atlantic		
MB128	Vents and seeps in Atlantic infralittoral rock	1170; 1160; 1180
MB627	Vents and seeps in Atlantic infralittoral mud	1130; 1160
MC127	Vents and seeps in Atlantic circalittoral rock	1170; 1180
MC622	Vents and seeps in Atlantic circalittoral mud	1160
MD122	Vents and seeps on Atlantic offshore circalittoral rock	1170
MD622	Vents and seeps in Atlantic offshore circalittoral mud	

7. Group 7: Soft sediments (above 1000 meters of depth)

EUNIS code	EUNIS habitat type name	Related Annex I (Habitats Directive) codes
Atlantic		
MA32	Atlantic littoral coarse sediment	1130; 1160

MA42	Atlantic littoral mixed sediment	1130; 1140; 1160
MA52	Atlantic littoral sand	1130; 1140; 1160
MA62	Atlantic littoral mud	1130; 1140; 1160
MB32	Atlantic infralittoral coarse sediment	1110; 1130; 1160
MB42	Atlantic infralittoral mixed sediment	1110; 1130; 1150; 1160
MB52	Atlantic infralittoral sand	1110; 1130; 1150; 1160
MB62	Atlantic infralittoral mud	1110; 1130; 1160
MC32	Atlantic circalittoral coarse sediment	1110; 1160
MC42	Atlantic circalittoral mixed sediment	1110; 1160
MC52	Atlantic circalittoral sand	1110; 1160
MC62	Atlantic circalittoral mud	1160
MD32	Atlantic offshore circalittoral coarse sediment	
MD42	Atlantic offshore circalittoral mixed sediment	
MD52	Atlantic offshore circalittoral sand	
MD62	Atlantic offshore circalittoral mud	
ME32	Atlantic upper bathyal coarse sediment	
ME42	Atlantic upper bathyal mixed sediment	
ME52	Atlantic upper bathyal sand	
ME62	Atlantic upper bathyal mud	
MF32	Atlantic lower bathyal coarse sediment	
MF42	Atlantic lower bathyal mixed sediment	
MF52	Atlantic lower bathyal sand	
MF62	Atlantic lower bathyal mud	
Baltic Sea		
MA33	Baltic hydrolittoral coarse sediment	1130; 1160; 1610; 1620

MA43	Baltic hydrolittoral mixed sediment	1130; 1140; 1160; 1610
MA53	Baltic hydrolittoral sand	1130; 1140; 1160; 1610
MA63	Baltic hydrolittoral mud	1130; 1140; 1160; 1650
MB33	Baltic infralittoral coarse sediment	1110; 1150; 1160
MB43	Baltic infralittoral mixed sediment	1110; 1130; 1150; 1160; 1170; 1650
MB53	Baltic infralittoral sand	1110; 1130; 1150; 1160
MB63	Baltic infralittoral mud	1130; 1150; 1160; 1650
MC33	Baltic circalittoral coarse sediment	1110; 1160
MC43	Baltic circalittoral mixed sediment	1160; 1170
MC53	Baltic circalittoral sand	1110; 1160
MC63	Baltic circalittoral mud	1160; 1650
MD33	Baltic offshore circalittoral coarse sediment	
MD43	Baltic offshore circalittoral mixed sediment	
MD53	Baltic offshore circalittoral sand	
MD63	Baltic offshore circalittoral mud	
Black Sea		
MA34	Black Sea littoral coarse sediment	1160
MA44	Black Sea littoral mixed sediment	1130; 1140; 1160
MA54	Black Sea littoral sand	1130; 1140; 1160
MA64	Black Sea littoral mud	1130; 1140; 1160
MB34	Black Sea infralittoral coarse sediment	1110; 1160
MB44	Black Sea infralittoral mixed sediment	1110; 1170
MB54	Black Sea infralittoral sand	1110; 1130; 1160

MB64	Black Sea infralittoral mud	1130; 1160
MC34	Black Sea circalittoral coarse sediment	1160
MC44	Black Sea circalittoral mixed sediment	
MC54	Black Sea circalittoral sand	1160
MC64	Black Sea circalittoral mud	1130; 1160
MD34	Black Sea offshore circalittoral coarse sediment	
MD44	Black Sea offshore circalittoral mixed sediment	
MD54	Black Sea offshore circalittoral sand	
MD64	Black Sea offshore circalittoral mud	
Mediterranean Sea		
MA35	Mediterranean littoral coarse sediment	1160; 1130
MA45	Mediterranean littoral mixed sediment	1140; 1160
MA55	Mediterranean littoral sand	1130; 1140; 1160
MA65	Mediterranean littoral mud	1130; 1140; 1150; 1160
MB35	Mediterranean infralittoral coarse sediment	1110; 1160
MB45	Mediterranean infralittoral mixed sediment	
MB55	Mediterranean infralittoral sand	1110; 1130; 1150; 1160
MB65	Mediterranean infralittoral mud	1130; 1150
MC35	Mediterranean circalittoral coarse sediment	1110; 1160
MC45	Mediterranean circalittoral mixed sediment	
MC55	Mediterranean circalittoral sand	1110; 1160
MC65	Mediterranean circalittoral mud	1130; 1160
MD35	Mediterranean offshore circalittoral coarse sediment	
MD45	Mediterranean offshore circalittoral mixed sediment	
MD55	Mediterranean offshore circalittoral sand	

MD65	Mediterranean offshore circalittoral mud	
ME35	Mediterranean upper bathyal coarse sediment	
ME45	Mediterranean upper bathyal mixed sediment	
ME55	Mediterranean upper bathyal sand	
ME65	Mediterranean upper bathyal mud	
MF35	Mediterranean lower bathyal coarse sediment	
MF45	Mediterranean lower bathyal mixed sediment	
MF55	Mediterranean lower bathyal sand	
MF65	Mediterranean lower bathyal mud	

ANNEX III

MARINE SPECIES REFERRED TO IN ARTICLE 5(3)

- (1) ~~narrow sawfish (*Anoxypristis cuspidata*);~~
- (2) dwarf sawfish (*Pristis clavata*);
- (3) smalltooth sawfish (*Pristis pectinata*);
- (4) largetooth sawfish (*Pristis pristis*);
- (5) ~~green sawfish (*Pristis zijsron*);~~
- (6) basking shark (*Cetorhinus maximus*) and white shark (*Carcharodon carcharias*);
- (7) smooth lantern shark (*Etmopterus pusillus*);
- (8) reef manta ray (*Manta alfredi*);
- (9) giant manta ray (*Manta birostris*);
- (10) devil fish (*Mobula mobular*);
- (11) lesser Guinean devil ray (*Mobula rochebrunei*);
- (12) spinetail mobula (*Mobula japanica*);
- (13) smoothtail mobula (*Mobula thurstoni*);
- (14) longhorned mobula (*Mobula eregoodootenkee*);
- (15) ~~Munk's devil ray (*Mobula munkiana*);~~
- (16) Chilean devil ray (*Mobula tarapacana*);
- (17) shortfin devil ray (*Mobula kuhlii*);
- (18) lesser devil ray (*Mobula hypostoma*);
- (19) Norwegian skate (*Raja (Dipturus) nidarosiensis*);
- (20) white skate (*Raja alba*);
- (21) guitarfishes (*Rhinobatidae*);
- (22) angel shark (*Squatina squatina*);
- (23) salmon (*Salmo salar*);
- (24) sea trout (*Salmo trutta*);
- (25) houting (*Coregonus oxyrhynchus*).

ANNEX IV

LIST OF BIODIVERSITY INDICATORS FOR AGRICULTURAL ECOSYSTEMS REFERRED TO IN ARTICLE 9(2)

Indicator	Description, units, and methodology for determining and monitoring the indicator
Grassland butterfly index	<p>Description: This indicator is composed of species considered to be characteristic of European grasslands and which occur in a large part of Europe, covered by the majority of the Butterfly Monitoring Schemes. It is based on the geometric mean of species trends.</p> <p>Unit: Index.</p> <p>Methodology: as developed and used by Butterfly Conservation Europe, Van Swaay, C.A.M, <i>Assessing Butterflies in Europe - Butterfly Indicators 1990-2018</i>, Technical report, Butterfly Conservation Europe, 2020.</p>
Stock of organic carbon in cropland mineral soils	<p>Description: This indicator describes the stock of organic carbon in cropland mineral soils at a depth of 0 to 30 cm.</p> <p>Unit: tonnes of organic carbon/ha.</p> <p>Methodology: as set out in Annex V of Regulation 2018/1999 in accordance to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories, and as supported by the Land Use and Coverage Area frame Survey (LUCAS) Soil, Jones A. et al., <i>LUCAS Soil 2022</i>, JRC technical report, Publications Office of the European Union, 2021.</p>
Share of agricultural land with high-diversity landscape features	<p>Description: High-diversity landscape features are elements of permanent natural or semi-natural vegetation present in an agricultural context which provide ecosystem services and support for biodiversity. In order to do so, landscape features need to be subject to as little negative external disturbances as possible to provide safe habitats for various taxa, and therefore need to comply with the following conditions:</p> <p>a) they cannot be under productive agricultural use (including grazing or fodder production), <u>unless such use is necessary for the preservation of biodiversity and is in compliance with rules as set under the CAP strategic plans</u>, and</p>

	<p>b) they should not receive fertilizer or pesticide treatment.</p> <p>Land lying fallow can be considered as high diversity landscape features if it complies with criteria (a) and (b) above. Productive trees part of arable land agroforestry systems and productive elements in non-productive hedges can also be considered as high diversity landscape features, if they comply with criterion (b) above, and if harvests take place only at moments where it would not compromise high biodiversity levels.</p> <p>Unit: Percent (share of Utilised Agricultural Area).</p> <p>Methodology: as developed under indicator I.21, Annex I of Regulation 2021/2115, as based on LUCAS for landscape elements, Ballin M. et al., <i>Redesign sample for Land Use/Cover Area frame Survey (LUCAS)</i>, Eurostat 2018, and for land laying fallow, <i>Farm Structure, Reference Metadata in Single Integrated Metadata Structure</i>, online publication, Eurostat, <u>and, where applicable, for elements under productive agricultural use [necessary for the preservation of biodiversity and in compliance with rules as set under the CAP strategic plans], as developed by Member States in accordance with Article 11(4a).</u></p>
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ANNEX V

COMMON FARMLAND BIRD INDEX AT NATIONAL LEVEL

Description

The Farmland Bird Index (FBI) summarises population trends of common and widespread birds of farmland and is intended as a proxy to assess the biodiversity status of agricultural ecosystems in Europe. The national FBI is a composite, multispecies index that measures the rate of change in the relative abundance of farmland bird species across selected survey sites at national level. The index is based on specially selected species that are dependent on farmland habitats for feeding and or nesting. National common farmland bird indices are based on species sets that are relevant to each Member State. The index is calculated with reference to a base year when the index value is typically set at 100. Trend values express the overall population change in the population size of the constituent farmland birds over a period of years.

Methodology: Brlík et al. (2021): Long-term and large-scale multispecies dataset tracking population changes of common European breeding birds. Sci Data 8, 21.

<https://doi.org/10.1038/s41597-021-00804-2>

“Member States with historically more depleted populations of farmland birds” means Member States where half or more species contributing to the national common farmland bird index have a negative long-term population trend. In Member States, where information on long-term population trends is not available for some species, information on the European status of species is used.

These Member States are:

Czechia

Denmark

Estonia

Finland

France

Germany

Hungary

Italy

Luxembourg

Netherlands

Spain

“Member States with historically less depleted populations of farmland birds” means Member States where less than half of species contributing to the national common farmland bird index have a negative long-term population trend. In Member States, where information on long-term population trends is not available for some species, information on the European status of species is used.

These Member States are:

Austria

Belgium

Bulgaria

Croatia

Cyprus

Greece

Ireland

Latvia

Lithuania

Malta

Poland

Portugal

Romania

Slovakia

Slovenia

Sweden

List of species used for the common farmland bird index in the Member States

Austria
<i>Acrocephalus palustris</i>
<i>Alauda arvensis</i>
<i>Anthus spinoletta</i>
<i>Anthus trivialis</i>
<i>Carduelis cannabina</i>
<i>Carduelis carduelis</i>
<i>Emberiza citrinella</i>
<i>Falco tinnunculus</i>
<i>Jynx torquilla</i>
<i>Lanius collurio</i>
<i>Lullula arborea</i>
<i>Miliaria calandra</i>
<i>Oenanthe oenanthe</i>
<i>Passer montanus</i>
<i>Perdix perdix</i>
<i>Saxicola rubetra</i>
<i>Saxicola torquatus</i>
<i>Serinus citrinella</i>
<i>Serinus serinus</i>
<i>Streptopelia turtur</i>
<i>Sturnus vulgaris</i>
<i>Sylvia communis</i>
<i>Turdus pilaris</i>
<i>Vanellus vanellus</i>

Belgium - Flanders	Belgium - Wallonia
<i>Alauda arvensis</i>	<i>Alauda arvensis</i>
<i>Anthus pratensis</i>	<i>Anthus pratensis</i>
<i>Emberiza citrinella</i>	<i>Carduelis cannabina</i>
<i>Falco tinnunculus</i>	<i>Corvus frugilegus</i>
<i>Haematopus ostralegus</i>	<i>Emberiza citrinella</i>
<i>Hippolais icterina</i>	<i>Falco tinnunculus</i>
<i>Hirundo rustica</i>	<i>Hirundo rustica</i>
<i>Limosa limosa</i>	<i>Lanius collurio</i>
<i>Linaria cannabina</i>	<i>Miliaria calandra</i>
<i>Motacilla alba</i>	<i>Motacilla flava</i>
<i>Motacilla flava</i>	<i>Passer montanus</i>
<i>Numenius arquata</i>	<i>Perdix perdix</i>
<i>Passer montanus</i>	<i>Saxicola torquatus</i>
<i>Perdix perdix</i>	<i>Streptopelia turtur</i>
<i>Phoenicurus ochruros</i>	<i>Sturnus vulgaris</i>
<i>Saxicola torquatus</i>	<i>Sylvia communis</i>
<i>Sylvia communis</i>	<i>Vanellus vanellus</i>
<i>Vanellus vanellus</i>	

Bulgaria
<i>Alauda arvensis</i>
<i>Carduelis carduelis</i>
<i>Carduelis cannabina</i>
<i>Coturnix coturnix</i>
<i>Corvus frugilegus</i>
<i>Emberiza hortulana</i>

<i>Emberiza melanocephala</i>
<i>Falco tinnunculus</i>
<i>Galerida cristata</i>
<i>Hirundo rustica</i>
<i>Lanius collurio</i>
<i>Miliaria calandra</i>
<i>Motacilla flava</i>
<i>Perdix perdix</i>
<i>Passer montanus</i>
<i>Sylvia communis</i>
<i>Streptopelia turtur</i>
<i>Sturnus vulgaris</i>
<i>Upupa epops</i>

PUBLIC

Croatia
<i>Alauda arvensis</i>
<i>Anthus campestris</i>
<i>Anthus trivialis</i>
<i>Carduelis cannabina</i>
<i>Carduelis carduelis</i>
<i>Coturnix coturnix</i>
<i>Emberiza cirrus</i>
<i>Emberiza citrinella</i>
<i>Emberiza melanocephala</i>
<i>Falco tinnunculus</i>
<i>Galerida cristata</i>
<i>Jynx torquilla</i>

<i>Lanius collurio</i>
<i>Lanius senator</i>
<i>Lullula arborea</i>
<i>Luscinia megarhynchos</i>
<i>Miliaria calandra</i>
<i>Motacilla flava</i>
<i>Oenanthe hispanica</i>
<i>Oriolus oriolus</i>
<i>Passer montanus</i>
<i>Pica pica</i>
<i>Saxicola rubetra</i>
<i>Saxicola torquatus</i>
<i>Streptopelia turtur</i>
<i>Sylvia communis</i>
<i>Upupa epops</i>
<i>Vanellus vanellus</i>

Cyprus
<i>Alectoris chukar</i>
<i>Athene noctua</i>
<i>Carduelis carduelis</i>
<i>Cisticola juncidis</i>
<i>Clamator glandarius</i>
<i>Columba palumbus</i>
<i>Coracias garrulus</i>
<i>Corvus corone cornix</i>
<i>Coturnix coturnix</i>

PUBLIC

<i>Emberiza calandra</i>
<i>Emberiza melanocephala</i>
<i>Falco tinnunculus</i>
<i>Fringilla monticola</i>
<i>Galerida cristata</i>
<i>Hirundo rustica</i>
<i>Chloris chloris</i>
<i>Iduna pallida</i>
<i>Linaria cannabina</i>
<i>Oenanthe cypriaca</i>
<i>Parus major</i>
<i>Passer hispaniolensis</i>
<i>Pica pica</i>
<i>Streptopelia turtur</i>
<i>Sylvia conspicillata</i>
<i>Sylvia melanocephala</i>

Czechia
<i>Alauda arvensis</i>
<i>Anthus pratensis</i>
<i>Carduelis cannabina</i>
<i>Ciconia ciconia</i>
<i>Corvus frugilegus</i>
<i>Emberiza citrinella</i>
<i>Falco tinnunculus</i>
<i>Hirundo rustica</i>
<i>Lanius collurio</i>

PUBLIC

<i>Miliaria calandra</i>
<i>Motacilla flava</i>
<i>Passer montanus</i>
<i>Perdix perdix</i>
<i>Saxicola rubetra</i>
<i>Saxicola torquatus</i>
<i>Serinus serinus</i>
<i>Streptopelia turtur</i>
<i>Sturnus vulgaris</i>
<i>Sylvia communis</i>
<i>Vanellus vanellus</i>

Denmark
<i>Alauda arvensis</i>
<i>Anthus pratensis</i>
<i>Carduelis cannabina</i>
<i>Carduelis carduelis</i>
<i>Corvus corone</i>
<i>Corvus frugilegus</i>
<i>Emberiza citrinella</i>
<i>Falco tinnunculus</i>
<i>Gallinago gallinago</i>
<i>Hirundo rustica</i>
<i>Lanius collurio</i>
<i>Miliaria calandra</i>
<i>Motacilla alba</i>
<i>Motacilla flava</i>

PUBLIC

<i>Oenanthe oenanthe</i>
<i>Passer montanus</i>
<i>Perdix perdix</i>
<i>Saxicola rubetra</i>
<i>Sylvia communis</i>
<i>Sylvia curruca</i>
<i>Turdus pilaris</i>
<i>Vanellus vanellus</i>



Estonia
<i>Alauda arvensis</i>
<i>Anthus pratensis</i>
<i>Corvus frugilegus</i>
<i>Emberiza citrinella</i>
<i>Hirundo rustica</i>
<i>Lanius collurio</i>
<i>Linaria cannabina</i>
<i>Motacilla flava</i>
<i>Passer montanus</i>
<i>Saxicola rubetra</i>
<i>Streptopelia turtur</i>
<i>Sturnus vulgaris</i>
<i>Sylvia communis</i>
<i>Vanellus vanellus</i>
<i>Alauda arvensis</i>
<i>Anthus pratensis</i>
<i>Corvus frugilegus</i>
<i>Emberiza citrinella</i>
<i>Hirundo rustica</i>
<i>Lanius collurio</i>
<i>Linaria cannabina</i>
<i>Motacilla flava</i>
<i>Passer montanus</i>
<i>Saxicola rubetra</i>
<i>Streptopelia turtur</i>

PUBLIC

<i>Sturnus vulgaris</i>
<i>Sylvia communis</i>
<i>Vanellus vanellus</i>
<i>Alauda arvensis</i>
<i>Anthus pratensis</i>
<i>Corvus frugilegus</i>
<i>Emberiza citrinella</i>
<i>Hirundo rustica</i>
<i>Lanius collurio</i>
<i>Linaria cannabina</i>
<i>Motacilla flava</i>
<i>Passer montanus</i>
<i>Saxicola rubetra</i>
<i>Streptopelia turtur</i>

PUBLIC

Finland
<i>Alauda arvensis</i>
<i>Anthus pratensis</i>
<i>Corvus monedula</i>
<i>Crex crex</i>
<i>Delichon urbica</i>
<i>Emberiza hortulana</i>
<i>Hirundo rustica</i>
<i>Numenius arquata</i>
<i>Passer montanus</i>
<i>Saxicola rubetra</i>
<i>Sturnus vulgaris</i>

<i>Sylvia communis</i>
<i>Turdus pilaris</i>
<i>Vanellus vanellus</i>

France
<i>Alauda arvensis</i>
<i>Alectoris rufa</i>
<i>Anthus campestris</i>
<i>Anthus pratensis</i>
<i>Buteo buteo</i>
<i>Carduelis cannabina</i>
<i>Corvus frugilegus</i>
<i>Coturnix coturnix</i>
<i>Emberiza cirrus</i>
<i>Emberiza citrinella</i>
<i>Emberiza hortulana</i>
<i>Falco tinnunculus</i>
<i>Galerida cristata</i>
<i>Lanius collurio</i>
<i>Lullula arborea</i>
<i>Melanocorypha calandra</i>
<i>Motacilla flava</i>
<i>Oenanthe oenanthe</i>
<i>Perdix perdix</i>
<i>Saxicola torquatus</i>
<i>Saxicola rubetra</i>
<i>Sylvia communis</i>



<i>Upupa epops</i>
<i>Vanellus vanellus</i>

Germany
<i>Alauda arvensis</i>
<i>Athene noctua</i>
<i>Emberiza citrinella</i>
<i>Lanius collurio</i>
<i>Limosa limosa</i>
<i>Lullula arborea</i>
<i>Miliaria calandra</i>
<i>Milvus milvus</i>
<i>Saxicola rubetra</i>
<i>Vanellus vanellus</i>

Greece
<i>Alauda arvensis</i>
<i>Apus apus</i>
<i>Athene noctua</i>
<i>Calandrella brachydactyla</i>
<i>Carduelis cannabina</i>
<i>Carduelis carduelis</i>
<i>Carduelis chloris</i>
<i>Ciconia ciconia</i>
<i>Corvus corone</i>
<i>Corvus monedula</i>
<i>Delichon urbicum</i>

PUBLIC

<i>Emberiza cirrus</i>
<i>Emberiza hortulana</i>
<i>Emberiza melanocephala</i>
<i>Falco naumanni</i>
<i>Falco tinnunculus</i>
<i>Galerida cristata</i>
<i>Hirundo daurica</i>
<i>Hirundo rustica</i>
<i>Lanius collurio</i>
<i>Lanius minor</i>
<i>Lanius senator</i>
<i>Lullula arborea</i>
<i>Luscinia megarhynchos</i>
<i>Melanocorypha calandra</i>
<i>Miliaria calandra</i>
<i>Motacilla flava</i>
<i>Oenanthe hispanica</i>
<i>Oenanthe oenanthe</i>
<i>Passer domesticus</i>
<i>Passer hispaniolensis</i>
<i>Passer montanus</i>
<i>Pica pica</i>
<i>Saxicola rubetra</i>
<i>Saxicola torquatus</i>
<i>Streptopelia decaocto</i>
<i>Streptopelia turtur</i>
<i>Sturnus vulgaris</i>

PUBLIC

<i>Sylvia melanocephala</i>
<i>Upupa epops</i>

Hungary
<i>Alauda arvensis</i>
<i>Anthus campestris</i>
<i>Coturnix coturnix</i>
<i>Emberiza calandra</i>
<i>Falco tinnunculus</i>
<i>Galerida cristata</i>
<i>Lanius collurio</i>
<i>Lanius minor</i>
<i>Locustella naevia</i>
<i>Merops apiaster</i>
<i>Motacilla flava</i>
<i>Perdix perdix</i>
<i>Sturnus vulgaris</i>
<i>Sylvia communis</i>
<i>Sylvia nisoria</i>
<i>Vanellus vanellus</i>

Ireland
<i>Carduelis cannabina</i>
<i>Carduelis carduelis</i>
<i>Columba oenas</i>
<i>Columba palumbus</i>
<i>Corvus cornix</i>

PUBLIC

<i>Corvus frugilegus</i>
<i>Corvus monedula</i>
<i>Emberiza citrinella</i>
<i>Falco tinnunculus</i>
<i>Fringilla coelebs</i>
<i>Hirundo rustica</i>
<i>Chloris chloris</i>
<i>Motacilla alba</i>
<i>Passer domesticus</i>
<i>Phasianus colchicus</i>
<i>Pica pica</i>
<i>Saxicola torquatus</i>
<i>Sturnus vulgaris</i>
Italy
<i>Alauda arvensis</i>
<i>Anthus campestris</i>
<i>Calandrella brachydactyla</i>
<i>Carduelis carduelis</i>
<i>Carduelis chloris</i>
<i>Corvus cornix</i>
<i>Emberiza calandra</i>
<i>Emberiza hortulana</i>
<i>Falco tinnunculus</i>
<i>Galerida cristata</i>
<i>Hirundo rustica</i>
<i>Jynx torquilla</i>
<i>Lanius collurio</i>

PUBLIC

<i>Luscinia megarhynchos</i>
<i>Melanocorypha calandra</i>
<i>Motacilla alba</i>
<i>Motacilla flava</i>
<i>Oriolus oriolus</i>
<i>Passer domesticus italiae</i>
<i>Passer hispaniolensis</i>
<i>Passer montanus</i>
<i>Pica pica</i>
<i>Saxicola torquatus</i>
<i>Serinus serinus</i>
<i>Streptopelia turtur</i>
<i>Sturnus unicolor</i>
<i>Sturnus vulgaris</i>
<i>Upupa epops</i>

Latvia
<i>Acrocephalus palustris</i>
<i>Alauda arvensis</i>
<i>Anthus pratensis</i>
<i>Carduelis carduelis</i>
<i>Carpodacus erythrinus</i>
<i>Ciconia ciconia</i>
<i>Crex crex</i>
<i>Emberiza citrinella</i>
<i>Lanius collurio</i>
<i>Locustella naevia</i>

PUBLIC

<i>Motacilla flava</i>
<i>Passer montanus</i>
<i>Saxicola rubetra</i>
<i>Sturnus vulgaris</i>
<i>Sylvia communis</i>
<i>Vanellus vanellus</i>





Lithuania
<i>Alauda arvensis</i>
<i>Anthus pratensis</i>
<i>Carduelis carduelis</i>
<i>Ciconia ciconia</i>
<i>Crex crex</i>
<i>Emberiza citrinella</i>
<i>Hirundo rustica</i>
<i>Lanius collurio</i>
<i>Motacilla flava</i>
<i>Passer montanus</i>
<i>Saxicola rubetra</i>
<i>Sturnus vulgaris</i>
<i>Sylvia communis</i>
<i>Vanellus vanellus</i>

Luxembourg
<i>Alauda arvensis</i>
<i>Carduelis cannabina</i>
<i>Emberiza citrinella</i>
<i>Lanius collurio</i>
<i>Passer montanus</i>
<i>Saxicola torquatus</i>
<i>Sylvia communis</i>
Malta
<i>Calandrella brachydactyla</i>

<i>Linaria cannabina</i>
<i>Cettia cetti</i>
<i>Cisticola juncidis</i>
<i>Coturnix coturnix</i>
<i>Emberiza calandra</i>
<i>Lanius senator</i>
<i>Monticola solitarius</i>
<i>Passer hispaniolensis</i>
<i>Passer montanus</i>
<i>Serinus serinus</i>
<i>Streptopelia decaocto</i>
<i>Streptopelia turtur</i>
<i>Sturnus vulgaris</i>
<i>Sylvia conspicillata</i>
<i>Sylvia melanocephala</i>

Netherlands
<i>Alauda arvensis</i>
<i>Anthus pratensis</i>
<i>Athene noctua</i>
<i>Calidris pugnax</i>
<i>Carduelis carduelis</i>
<i>Corvus frugilegus</i>
<i>Coturnix coturnix</i>
<i>Emberiza citrinella</i>
<i>Falco tinnunculus</i>
<i>Gallinago gallinago</i>

PUBLIC

<i>Haematopus ostralegus</i>
<i>Hippolais icterina</i>
<i>Hirundo rustica</i>
<i>Limosa limosa</i>
<i>Miliaria calandra</i>
<i>Motacilla flava</i>
<i>Numenius arquata</i>
<i>Passer montanus</i>
<i>Perdix perdix</i>
<i>Saxicola torquatus</i>
<i>Spatula clypeata</i>
<i>Streptopelia turtur</i>
<i>Sturnus vulgaris</i>
<i>Sylvia communis</i>
<i>Tringa totanus</i>
<i>Turdus viscivorus</i>
<i>Vanellus vanellus</i>

PUBLIC

Poland
<i>Alauda arvensis</i>
<i>Anthus pratensis</i>
<i>Carduelis cannabina</i>
<i>Ciconia ciconia</i>
<i>Emberiza citrinella</i>
<i>Emberiza hortulana</i>
<i>Falco tinnunculus</i>
<i>Galerida cristata</i>

<i>Hirundo rustica</i>
<i>Lanius collurio</i>
<i>Limosa limosa</i>
<i>Miliaria calandra</i>
<i>Motacilla flava</i>
<i>Passer montanus</i>
<i>Saxicola torquatus</i>
<i>Saxicola rubetra</i>
<i>Serinus serinus</i>
<i>Streptopelia turtur</i>
<i>Sturnus vulgaris</i>
<i>Sylvia communis</i>
<i>Upupa epops</i>
<i>Vanellus vanellus</i>

PUBLIC

Portugal
<i>Athene noctua</i>
<i>Bubulcus ibis</i>
<i>Carduelis carduelis</i>
<i>Chloris chloris</i>
<i>Ciconia ciconia</i>
<i>Cisticola juncidis</i>
<i>Coturnix coturnix</i>
<i>Delichon urbicum</i>
<i>Emberiza cirrus</i>
<i>Falco tinnunculus</i>
<i>Galerida cristata</i>

<i>Hirundo rustica</i>
<i>Lanius meridionalis</i>
<i>Linaria cannabina</i>
<i>Merops apiaster</i>
<i>Miliaria calandra</i>
<i>Milvus migrans</i>
<i>Passer domesticus</i>
<i>Pica pica</i>
<i>Saxicola torquatus</i>
<i>Serinus serinus</i>
<i>Sturnus unicolor</i>
<i>Upupa epops</i>

PUBLIC

Romania
<i>Alauda arvensis</i>
<i>Anthus campestris</i>
<i>Calandrella brachydactyla</i>
<i>Ciconia ciconia</i>
<i>Corvus frugilegus</i>
<i>Emberiza calandra</i>
<i>Emberiza citrinella</i>
<i>Emberiza hortulana</i>
<i>Emberiza melanocephala</i>
<i>Falco tinnunculus</i>
<i>Galerida cristata</i>
<i>Hirundo rustica</i>
<i>Lanius collurio</i>

<i>Lanius minor</i>
<i>Linaria cannabina</i>
<i>Melanocorypha calandra</i>
<i>Motacilla flava</i>
<i>Passer montanus</i>
<i>Perdix perdix</i>
<i>Saxicola rubetra</i>
<i>Saxicola torquatus</i>
<i>Streptopelia turtur</i>
<i>Sturnus vulgaris</i>
<i>Sylvia communis</i>
<i>Upupa epops</i>
<i>Vanellus vanellus</i>

PUBLIC

Slovakia
<i>Alauda arvensis</i>
<i>Carduelis cannabina</i>
<i>Carduelis carduelis</i>
<i>Emberiza calandra</i>
<i>Emberiza citrinella</i>
<i>Falco tinnunculus</i>
<i>Hirundo rustica</i>
<i>Chloris chloris</i>
<i>Lanius collurio</i>
<i>Locustella naevia</i>
<i>Motacilla flava</i>
<i>Passer montanus</i>
<i>Saxicola rubetra</i>
<i>Saxicola torquatus</i>
<i>Serinus serinus</i>
<i>Streptopelia turtur</i>
<i>Sturnus vulgaris</i>
<i>Sylvia communis</i>
<i>Sylvia nisoria</i>
<i>Vanellus vanellus</i>

PUBLIC



Slovenia
<i>Acrocephalus palustris</i>
<i>Alauda arvensis</i>
<i>Anthus trivialis</i>
<i>Carduelis cannabina</i>
<i>Carduelis carduelis</i>
<i>Columba oenas</i>
<i>Columba palumbus</i>
<i>Emberiza calandra</i>
<i>Emberiza cirrus</i>
<i>Emberiza citrinella</i>
<i>Falco tinnunculus</i>
<i>Galerida cristata</i>
<i>Hirundo rustica</i>
<i>Jynx torquilla</i>
<i>Lanius collurio</i>
<i>Lullula arborea</i>
<i>Luscinia megarhynchos</i>
<i>Motacilla flava</i>
<i>Passer montanus</i>
<i>Phoenicurus phoenicurus</i>
<i>Picus viridis</i>
<i>Saxicola rubetra</i>
<i>Saxicola torquatus</i>
<i>Serinus serinus</i>
<i>Streptopelia turtur</i>

<i>Sturnus vulgaris</i>
<i>Sylvia communis</i>
<i>Upupa epops</i>
<i>Vanellus vanellus</i>

Spain
<i>Alauda arvensis</i>
<i>Alectoris rufa</i>
<i>Athene noctua</i>
<i>Calandrella brachydactyla</i>
<i>Carduelis carduelis</i>
<i>Cisticola juncidis</i>
<i>Corvus monedula</i>
<i>Coturnix coturnix</i>
<i>Emberiza calandra</i>
<i>Falco tinnunculus</i>
<i>Galerida cristata</i>
<i>Hirundo rustica</i>
<i>Linaria cannabina</i>
<i>Melanocorypha calandra</i>
<i>Merops apiaster</i>
<i>Oenanthe hispanica</i>
<i>Passer domesticus</i>
<i>Passer montanus</i>
<i>Pica pica</i>
<i>Pterocles orientalis</i>
<i>Streptopelia turtur</i>

PUBLIC

<i>Sturnus unicolor</i>
<i>Tetrax tetrax</i>
<i>Upupa epops</i>

Sweden
<i>Alauda arvensis</i>
<i>Anthus pratensis</i>
<i>Carduelis cannabina</i>
<i>Corvus frugilegus</i>
<i>Emberiza citrinella</i>
<i>Emberiza hortulana</i>
<i>Falco tinnunculus</i>
<i>Hirundo rustica</i>
<i>Lanius collurio</i>
<i>Motacilla flava</i>
<i>Passer montanus</i>
<i>Saxicola rubetra</i>
<i>Sturnus vulgaris</i>
<i>Sylvia communis</i>
<i>Vanellus vanellus</i>

PUBLIC

ANNEX VI

LIST OF BIODIVERSITY INDICATORS FOR FOREST ECOSYSTEMS REFERRED TO IN ARTICLE 10(2) AND 10(2a)

Indicator	Description, unit, and methodology for determining and monitoring the indicator
Standing deadwood	<p>Description: This indicator shows the amount of non-living standing woody biomass in forest and other wooded land.</p> <p>Unit: m³/ha.</p> <p>Methodology: as developed and used by FOREST EUROPE, <i>State of Europe's Forests 2020</i>, FOREST EUROPE 2020, and in the description of national forest inventories in <i>Tomppo E. et al.</i>, National Forest Inventories, <i>Pathways for Common Reporting</i>, Springer, 2010, and taking into account the methodology as set out in Annex V of Regulation 2018/1999 in accordance with the 2006 IPCC Guidelines for National Greenhouse Gas Inventories.</p>
Lying deadwood	<p>Description: This indicator shows the amount of non-living woody biomass lying on the ground in forest and other wooded land.</p> <p>Unit: m³/ha.</p> <p>Methodology: as developed and used by FOREST EUROPE, <i>State of Europe's Forests 2020</i>, FOREST EUROPE 2020, and in the description of national forest inventories in <i>Tomppo E. et al.</i>, National Forest Inventories, <i>Pathways for Common Reporting</i>, Springer, 2010, and taking into account the methodology as set out in Annex V of Regulation 2018/1999 in accordance with the 2006 IPCC Guidelines for National Greenhouse Gas Inventories.</p>

Share of forests with uneven-aged structure	<p>Description: This indicator refers to the share of forests available for wood supply (FAWS) with uneven-aged structure in forests as compared to even-aged structure in forests.</p> <p>Unit: Percent of FAWS with uneven-aged structure.</p> <p>Methodology: as developed and used by FOREST EUROPE, <i>State of Europe's Forests 2020</i>, FOREST EUROPE 2020, and in the description of national forest inventories in <i>Tomppo E. et al., National Forest Inventories, Pathways for Common Reporting</i>, Springer, 2010.</p>
Forest connectivity	<p>Description: Forest connectivity is the degree of compactness of forest covered areas. It is defined in the range of 0 to 100.</p> <p>Unit: Index.</p> <p>Methodology: as developed by FAO, Vogt P., et al., <i>FAO – State of the World's Forests: Forest Fragmentation</i>, JRC Technical Report, Publications Office of the European Union, Luxembourg, 2019.</p>
Common forest birds index	<p>Description: The forest bird indicator describes trends in the abundance of common forest birds across their European ranges over time. It is a composite index created from observational data of bird species characteristic for forest habitats in Europe. The index is based on a specific list of species in each Member State.</p> <p>Unit: Index.</p> <p>Methodology: Brlík et al. <i>Long-term and large-scale multispecies dataset tracking population changes of common European breeding birds</i>, Sci Data 8, 21. 2021.</p>

Stock of organic carbon	<p>Description: This indicator describes the stock of organic carbon in the litter and in the mineral soil at a depth of 0 to 30 cm in forest ecosystems.</p> <p>Unit: tonnes organic carbon/ha.</p> <p>Methodology: as set out in Annex V of Regulation 2018/1999 in accordance to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories, and as supported by the Land Use and Coverage Area frame Survey (LUCAS) Soil, Jones A. et al., <i>LUCAS Soil 2022</i>, JRC technical report, Publications Office of the European Union, 2021.</p>
<u>Share of forest dominated by native tree species</u>	<p>Description: <u>Share of forest and other wooded land dominated by (>50% coverage) native tree species</u></p> <p>Unit: %</p> <p>Methodology: <u>as developed and used by FOREST EUROPE, <i>State of Europe's Forests 2020</i>, FOREST EUROPE 2020, and in the description of national forest inventories in Tomppo E. et al., <i>National Forest Inventories, Pathways for Common Reporting</i>, Springer, 2010.</u></p>
<u>Tree species diversity</u>	<p>Description: <u>This indicator describes the mean number of tree species occurring in forest areas</u></p> <p>Unit: <u>Index</u></p> <p>Methodology: <u>Based on FOREST EUROPE, <i>State of Europe's Forests 2020</i>, FOREST EUROPE 2020, and in the description of national forest inventories in Tomppo E. et al., <i>National Forest Inventories, Pathways for Common Reporting</i>, Springer, 2010.</u></p>

ANNEX VII

LIST OF EXAMPLES OF RESTORATION MEASURES REFERRED TO IN

ARTICLE 11(8)

- (1) Restore wetlands, by rewetting drained peatlands, removing peatland drainage structures or de-poldering and discontinuing peat excavation.
 - (2) Improve hydrological conditions by increasing quantity, quality and dynamics of surface waters and groundwater levels for natural and semi-natural ecosystems.
 - (3) Remove unwanted scrub encroachment or non-native plantations on grasslands, wetlands, forests and sparsely vegetated land.
 - (4) Apply paludiculture.
 - (5) Re-establish the meandering of rivers and reconnect artificially cut meanders or oxbow lakes.
 - (6) Remove longitudinal and lateral barriers (such as dikes and dams), give more space to river dynamics and restore free-flowing river stretches.
 - (7) Re-naturalise river beds and lakes and lowland watercourses by e.g. removing artificial bed fixation, optimising substrate composition, improving or developing habitat cover.
 - (8) Restore natural sedimentation processes.
 - (9) Establish riparian buffers, e.g. riparian forests, buffer strips, meadows or pastures.
 - (10) Increase ecological features in forests, such as large, old and dying trees (habitat trees) and amounts of lying and standing deadwood.
 - (11) Work towards a diversified forest structure in terms of ~~vegetation~~ **e.g. species composition** and age, enable natural regeneration and succession of tree species.
- (11a) Assist migration of provenances and species where it may be needed due to climate change.**

- (12) Enhance forest diversity by ~~creating~~ **restoring** mosaics of non-forest habitats such as open patches of grassland or heathland, ponds or rocky areas.
- (13) Make use of “close-to-nature” or “continuous cover” forestry approaches; introduce native tree species.
- (14) Enhance the development of old-growth native forests and mature stands (e.g. by abandonment of harvesting **or by active management which favours development of autoregulatory functions and appropriate resilience**).
- (15) Introduce high-diversity landscape features in arable land and intensively used grassland, such as buffer strips, field margins with native flowers, hedgerows, trees, small forests, terrace walls, ponds, habitat corridors and stepping stones, etc.
- (16) Increase the agricultural area subject to agro-ecological management approaches such as organic agriculture or agro-forestry, multicropping and crop rotation, integrated pest and nutrient management.
- (17) Reduce grazing intensity or mowing regimes on grasslands where relevant and re-establish extensive grazing with domestic livestock and extensive mowing regimes where they were abandoned.
- (18) Stop or reduce the use of chemical pesticides as well as chemical and animal manure fertilizers.
- (19) Stop ploughing grassland and introducing seeds of productive grasses.
- (20) Remove plantations on former dynamic inland dune systems to re-enable natural wind dynamics in favour of open habitats.
- (21) Improve connectivity across habitats to enable the development of populations of species, and to allow for sufficient individual or genetic exchange as well as for species’ migration and adaptation to climate change.
- (22) Allow ecosystems to develop their own natural dynamics for example by abandoning harvesting and promoting naturalness, wilderness.
- (23) Remove and control invasive alien species, and prevent or minimize new introductions.

- (24) Minimise negative impacts of fishing activities on the marine ecosystem, for example by using gear with less impact on seabed.
- (25) Restore important fish spawning and nursery areas.
- (26) Provide structures or substrates to encourage the return of marine life, for example coral/oyster/boulder reefs.
- (27) Restore seagrass meadows and kelp forests by actively stabilising the sea bottom, reducing and, where possible, eliminating pressures or by active propagation and planting.
- (27a) Restore or improve the state of characteristic native species population vital to the ecology of marine habitats by conducting passive or active restoration measures, e.g. introducing juveniles.**
- (28) Reduce various forms of marine pollution, such as nutrient loading, noise pollution and plastic waste.
- (29) Increase urban green spaces with ecological features, such as parks, trees and woodland patches ~~with native species~~, green roofs, wildflower grasslands, gardens, city horticulture, tree-lined streets, urban meadows and hedges, ponds and watercourses, **taking into consideration inter alia species diversity, native species, local conditions and resilience to climate change.**
- (30) Stop, reduce or remediate pollution from pharmaceuticals, hazardous chemicals, urban and industrial wastewater, and other waste including litter and plastics as well as light in all ecosystems.
- (31) Convert brownfield sites, former industrial areas and quarries into natural sites.
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