EUROPEAN
COMMISSION

Brussels, 22.6.2022
COM(2022) 304 final

2022/0195 (COD)

Proposal for a

REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

on nature restoration

(Text with EEA relevance)

{SEC(2022) 256 final} - {SWD(2022) 167 final} - {SWD(2022) 168 final}

EXPLANATORY MEMORANDUM

CONTEXT OF THE PROPOSAL

Reasons for and objectives of the proposal

Despite EU and international efforts, biodiversity loss and the degradation of ecosystems continue at an alarming rate, harming people, the economy and the climate. This is widely documented, notably in reports by the Intergovernmental Panel on Climate Change (IPCC)[1] and the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services[2], the Aichi Targets progress report[3], and the Economics of Biodiversity: The Dasgupta Review[4]. Healthy ecosystems provide food and food security, clean water, carbon sinks and protection against natural disasters caused by climate change. They are essential for our long-term survival, well-being, prosperity and security, as they are the basis for Europe's resilience.

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.

The 2022 IPCC report in particular highlighted that the world and Europe have a brief, rapidly closing window to secure a liveable future, as the rise in weather and climate extremes has led to some irreversible impacts as natural and human systems are pushed beyond their ability to adapt. It calls for the implementation of urgent actions for the restoration of degraded ecosystems, to mitigate the impacts of climate change, notably by restoring degraded wetlands and rivers, forest and agricultural ecosystems.

Recent geo-political developments have further underlined the need to safeguard food security and the resilience of food systems. Commodity price increases and concerns about global food security call for the need to address vulnerabilities, such as dependencies on imports, as well as the need to accelerate the transition towards food systems that are sustainable, and resilient[5]. Evidence shows that restoring agro-ecosytems has positive impacts on food productivity in the long-term, and the restoration of nature acts as an insurance policy to ensure the EU's long-term sustainability and resilience.

In the final report of the Conference on the Future of Europe, published on 9 May 2022[6], in their proposals on agriculture, food production, biodiversity and ecosystems, pollution,

---

[1] Intergovernmental Panel on Climate Change (IPCC): Special report on the impacts of global warming of 1.5°C, available at https://www.ipcc.ch/sr15/, and the IPCC Sixth Assessment Report, Climate Change 2022: Impacts, Adaptation and Vulnerability | Climate Change 2022: Impacts, Adaptation and Vulnerability (ipcc.ch)

[2] Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services: 2019 global assessment report on biodiversity and ecosystem services, available at https://doi.org/10.5281/zenodo.5657041.

[3] Convention on Biological Diversity, available at https://www.cbd.int/convention/text/ .

[4] Professor Sir Partha Dasgupta, Final report of the independent review on The Economics of Biodiversity, 2 February 2021, available at https://www.gov.uk/government/publications/final-report-the-economics-of-biodiversity-the-dasgupta-review.

[5] 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.

[6] The Conference on the Future of Europe was held Between April 2021 and May 2022. It was a unique, citizen-led exercise of deliberative democracy at the pan-european level, involving thousands of

citizens asked in particular to 'create, restore, better manage, and extend protected areas – for the conservation of biodiversity'; to 'protect insects, in particular indigenous and pollinating insects, including through protection against invasive species and better enforcement of existing regulation'; as well as to 'set binding national targets across the EU Member States for reforestation of native trees and local flora, taking into account different national situations and specificities'. When it comes to their proposals on information, awareness, dialogue and life-style, citizens asked in particular to 'include food production and biodiversity protection as part of education, including the advantage of unprocessed over processed food, and promoting school gardens, subsidizing urban gardening projects and vertical farming' and to 'consider making biodiversity a mandatory subject in schools and raise awareness for biodiversity through the use of media campaigns and incentivised 'competitions' across the EU'[7].More decisive action is therefore needed to achieve the EU climate and biodiversity objectives for 2030 and for 2050, and to ensure the resilience of food systems.

More decisive action is therefore needed to achieve the EU climate and biodiversity objectives for 2030 and for 2050, and to ensure the resilience of food systems. The European Green Deal[8] commits to protecting and restoring nature. It states that the Commission will identify measures, including legal ones, to help Member States improve and restore damaged and carbon-rich ecosystems to good ecological status. The Green Deal also emphasised that all EU actions and policies should pull together to help the EU achieve a successful and just transition towards a sustainable future.

The EU Biodiversity Strategy for 2030[9] set out targets to further protect nature in the EU. However, it underlined that protection alone would not be enough: to reverse biodiversity loss, greater efforts are needed to bring nature back to good health across the EU, in protected areas and beyond. Therefore, the Commission committed to propose legally binding targets to restore degraded EU ecosystems, in particular those with the most potential to remove and store carbon and to prevent and reduce the impact of natural disasters.

The EU has so far failed to halt the loss of biodiversity. A recent study[10] finalised in the framework of the evaluation of the EU biodiversity strategy up to 2020[11] shows that the EU could not halt the loss of biodiversity between 2011 and 2020. It did not meet the voluntary target to restore at least 15% of degraded ecosystems by 2020 (in line with Aichi Target 15 of

---

European citizens as well as political actors, social partners, civil society representatives and key stakeholders.

[7] *Conference on the Future of Europe – Report on the Final Outcome*, May 2022, Proposal 2 p. 44, and Proposal 6 p. 48.

[8] Communication from the Commission to the European Parliament, the Council, the European, Economic and Social Committee and the Committee of the Regions, The European Green Deal, COM/2019/640 final.

[9] https://ec.europa.eu/environment/strategy/biodiversity-strategy-2030_en#the-business-case-for-biodiversity.

[10] Trinomics B.V. (2021) Support to the evaluation of the EU Biodiversity Strategy to 2020, and follow-up: Final study report (Publications Office of the EU, 2022). For a summary of main relevant findings: see Annex IX of the impact assessment. Commission Report on the evaluation of the EU Biodiversity Strategy to 2020 due in April 2022.

[11] Communication from the Commission to the European Parliament, the Council, the European, Economic and Social Committee and the Committee of the Regions, Our life insurance, our natural capital: an EU biodiversity strategy to 2020, COM/2011/244 final.

the Convention on Biological Diversity[12]). The outlook for biodiversity and ecosystems is bleak and shows that the current approach is not working.

The European Parliament and the Council have also insisted on stepping up efforts to restore ecosystems, as expressed in the Council conclusions of December 2019[13] and a European Parliament resolution in January 2020[14]. The Parliament resolution called on the Commission to 'move away from voluntary commitments and to propose an ambitious and inclusive Strategy that sets legally (and, consequently, enforceable) binding targets for the EU and its Member States'. In its resolution of 9 June 2021[15], the European Parliament strongly welcomed the Commission's commitment to draw up a legislative proposal on nature restoration, including on binding restoration targets.

Restoring ecosystems is also high on the international agenda. The 2050 vision under the Convention on Biological Diversity[16], the United Nations Convention to Combat Desertification (UNCCD)[17], the 2030 Agenda for Sustainable Development (the Sustainable Development Goals)[18] and the UN Decade for Restoration[19] all call for protecting and restoring ecosystems. Restoration will also be necessary for the EU to meet its commitments under the United Nations Framework Convention on Climate Change, and the Paris Agreement[20]. Ecosystems such as peatlands, wetlands, oceans and forests can – if in good condition – remove and store large amounts of carbon dioxide and also contribute significantly to reducing the impact of climate change.

The proposal for a regulation on nature restoration sets out an overarching objective: to contribute to the continuous, long-term and sustained recovery of biodiverse and resilient nature across the EU's land and sea areas by restoring ecosystems and to contribute to achieving Union climate mitigation and climate adaptation objectives and meet its international commitments.

To achieve this objective, the proposal sets multiple binding restoration targets and obligations across a broad range of ecosystems. These measures should cover at least 20% of

---

12 The *Strategic Plan for 2011-2020 of the Convention on Biological Diversity* included 20 'Aichi Biodiversity Targets'. Aichi Target 15 states 'By 2020, ecosystem resilience and the contribution of biodiversity to carbon stocks have been enhanced, through conservation and restoration, including restoration of at least 15 per cent of degraded ecosystems, thereby contributing to climate change mitigation and adaptation and to combating desertification.', available at https://www.cbd.int/sp/targets/rationale/target-15/

13 Preparation of the post-2020 global biodiversity framework Convention on Biological Diversity (CBD) – Council conclusions (15272/19) of 19 December 2019.

14 European Parliament resolution of 16 January 2020 on the 15th meeting of the Conference of Parties (COP15) to the Convention on Biological Diversity (2019/2824(RSP)).

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

16 First draft of the Post-2020 Global Biodiversity Framework, available at https://www.cbd.int/doc/c/914a/eca3/24ad42235033f031badf61b1/wg2020-03-03-en.pdf.

17 United Nations Convention to Combat Desertification in those countries experiencing serious drought and/ or desertification, particularly in Africa (UNCCD), available at https://www.unccd.int/sites/default/files/relevant-links/2017-01/UNCCD_Convention_ENG_0.pdf.

18 United Nations: Resolution adopted by the General Assembly on 25 September 2015 - Transforming our world: the 2030 Agenda for Sustainable Development, available at https://www.un.org/ga/search/view_doc.asp?symbol=A/RES/70/1&Lang=E.

19 Resolution adopted by the General Assembly on 1 March 2019 - United Nations Decade on Ecosystem Restoration (2021–2030), available at https://www.decadeonrestoration.org/about-un-decade.

20 Paris Agreement, available at https://unfccc.int/sites/default/files/english_paris_agreement.pdf.

the EU's land and sea areas by 2030 and all ecosystems in need of restoration by 2050. The proposal is further supported by an implementation framework to translate the objectives into action, by preparing and carrying out national restoration plans.

The proposal aims to enable the EU to act with urgency and to start restoring ecosystems based on binding targets and obligations that can already be measured and monitored. This will ensure that Member States can start restoration work without delay. More ecosystems can be included at later stages by developing joint methods to set further targets by amending the regulation.

The proposal thus paves the way for a broad range of ecosystems in the EU to be restored and maintained by 2050, with measurable results by 2030 and 2040. It enables the EU to contribute to halting biodiversity loss and bringing nature back to good health. It also enables the EU to demonstrate global leadership on protecting nature, in particular at the Conference of the Parties on the Convention on Biological Diversity to be held later in 2022.

- **Consistency with existing policy provisions in the policy area**

The proposal aims to complement existing environmental policy. It is designed to work effectively in synergy with EU environmental law. The proposal will also give impetus to the improved coordination and implementation of these laws.

Specifically, the proposal will complement the:

Birds[21] and Habitats Directives[22] by setting deadlines to meet targets and requiring Member States to restore ecosystems also outside the Natura 2000 network;

the Water Framework Directive[23] by specifying additional restoration requirements for river continuity and to ensure good conditions of floodplains;

the Marine Strategy Framework Directive[24] with specific measures and detailed targets for specific marine habitats needing restoration;

the Invasive Alien Species Regulation[25].

It will also work closely at a detailed level with the common fisheries policy, and will ensure coherence and complementarity where relevant.

The proposal has direct links with and contributes to the New EU forest strategy for 2030[26] with restoration measures that will improve forest biodiversity and resilience, due to specific targets and obligations for forest habitats.

As regards the common agricultural policy, the proposal builds on specific targets for grassland habitats that fall within the scope of Directive 92/43/EEC, and more broadly across

---

[21] 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, pp. 7-25).

[22] Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora (OJ L 206 of 22.7.1992, p. 7).

[23] Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy (OJ L 327, 22.12.2000, pp. 1-73).

[24] Directive 2008/56/EC of the European Parliament and of the Council of 17 June 2008 establishing a framework for community action in the field of marine environmental policy (OJ L 164, 25.6.2008, pp. 19-40).

[25] Regulation (EU) No 1143/2014 of the European Parliament and of the Council of 22 October 2014 on the prevention and management of the introduction and spread of invasive alien species (OJ L 317, 4.11.2014, pp. 35-55).

[26] 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.

EU agro-ecosystems based on evidence of improvement of a set of indicators that enhance biodiversity. The proposal has clear links with the EU soil strategy because many terrestrial ecosystems depend on and interact with the underlying soils. Any other soil-related targets will be integrated into future legislation governing soils.

Furthermore, the proposed objective to reverse pollinator decline will help reach the objectives of the EU pollinator initiative[27]. Targets in the proposal to increase green spaces in urban areas will have a direct bearing on the green infrastructure strategy[28].

Policy measures under other environmental strategies, such as the circular economy action plan for a cleaner and more competitive Europe[29] and the zero pollution action plan for air, water and soil[30], will help relieve pressure on ecosystems by reducing various forms of pollutants. Measures such as the Council Recommendation on learning for the green transition and sustainable development (to be adopted by the Council on 16 June 2022)[31], can contribute to creating the necessary knowledge, skills and attitudes regarding environmental sustainability, including in support of nature restoration.

Consistency with other Union policies

Restoring ecosystems and enhancing biodiversity is a cornerstone of the European Green Deal. Ensuring healthy ecosystems and tackling climate change are intrinsically linked. Global warming has a direct impact on ecosystems with long-lasting or irreversible effects, such as the loss of ecosystems. EU climate policies such as the European Climate Law[32], the proposals included in the Fit for 55 package (in particular the proposal for a Land Use, Land Use Change and Forestry Regulation [33]) emphasise the crucial importance of natural sinks to capture and store carbon. To do this effectively, ecosystems such as wetlands and forests need to be in good condition. Therefore, this regulation can be expected to contribute considerably to climate policies.

Restoring ecosystems to good condition means providing nature-based solutions that help both mitigate climate change and pursue the objectives of the EU strategy on adaptation to

---

27 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.

28 Communication from the Commission to the European Parliament, the Council, the European, Economic and Social Committee and the Committee of the Regions, Green Infrastructure (GI) — Enhancing Europe's Natural Capital, COM/2013/0249 final.

29 Communication from the Commission to the European Parliament, the Council, the European, Economic and Social Committee and the Committee of the Regions, A new Circular Economy Action Plan For a cleaner and more competitive Europe, COM/2020/98 final.

30 Communication from the Commission to the European Parliament, the Council, the European, Economic and Social Committee and the Committee of the Regions, Pathway to a Healthy Planet for All EU Action Plan: 'Towards Zero Pollution for Air, Water and Soil, COM/2021/400 final.

31 Based on Commission Proposal for a Council Recommendation on learning for environmental sustainability COM/2022/11 final.

32 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.

33 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)..

climate change[34]. More biodiverse and healthy ecosystems are more resilient to climate change and are also effective in preventing disasters and reducing their risks. Under the European Climate Law, Member States will adopt and implement national adaptation strategies promoting nature-based solutions and ecosystem-based adaptation. The national restoration plans under this proposal will work closely together with the national adaptation strategies under the European Climate Law, and the EU civil protection legislation[35]. These will be mutually reinforcing.

Agriculture, forestry and fisheries are all sectors that depend on ecosystems in good condition. Agro-ecosystems in good condition provide safe, sustainable, nutritious and affordable food. They make agriculture more resilient to climate change and environmental risks, while also creating jobs (for example in organic farming, rural tourism and recreation). Forest ecosystems in good condition provide many benefits. For instance, they provide timber and food, they capture and store carbon, stabilise the soil, purify air and water, and reduce the impact of natural disasters such as wildfires and pest diseases. Keeping marine ecosystems in good condition helps biodiversity significantly by providing important fish spawning and nursery areas, and healthy food from the seas and oceans. Healthy marine ecosystems also mitigate climate change by reducing the impact of natural disasters along coastlines.

Some of the targets and indicators set in this proposal aim to make action on biodiversity and action on other EU policies work better together. These policies include the new common agricultural policy ('CAP')[36] (with its rules to improve the environment in agriculture as well as funding opportunities that are available under the CAP strategic plans 2023-2027), the farm to fork strategy for a fair, healthy and environmentally-friendly food system[37] and the common fisheries policy. The proposal also links to EU regional policy, which can finance ecosystem restoration through the European Regional Development Fund[38], and also Horizon Europe[39], which supports investment in research and innovation on biodiversity and ecosystems.

The proposal can also help the EU demonstrate global leadership, mobilise the international community and take action to halt the loss of biodiversity worldwide. The Conference of the Parties (COP15) of the Convention on Biological Diversity is expected to conclude a new global biodiversity framework that includes ambitious restoration targets. The EU Biodiversity Strategy for 2030 is a blueprint to make this a reality in the EU and to show EU

---

34 Communication from the 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.

35 Decision No 1313/2013/EU of the European Parliament and of the Council of 17 December 2013 on a Union Civil Protection Mechanism, amended by Decision No 2019/420

36 See CAP strategic plans, available at https://ec.europa.eu/info/food-farming-fisheries/key-policies/common-agricultural-policy/cap-strategic-plans_en.

37 Communication from the Commission to the European Parliament, the Council, the European, Economic and Social Committee and the Committee of the Regions, A Farm to Fork Strategy for a fair, healthy and environmentally-friendly food system, COM/2020/381 final.

38 See European Regional Development Fund, available at https://ec.europa.eu/regional_policy/en/funding/erdf/, and 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, available at https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32021R1058.

39 See Biodiversity research policy, available at https://ec.europa.eu/info/research-and-innovation/research-area/environment/biodiversity/biodiversity-research-policy_en.

commitment at global level. The proposal will send a strong signal to the global community that the EU is taking its commitment seriously and aims to enshrine ecosystem restoration targets in law, and could serve as inspiration for other countries to adopt similar ambitious policies on nature restoration and protection of biodiversity.

2. LEGAL BASIS, SUBSIDIARITY AND PROPORTIONALITY

Legal basis

The legal basis for this proposal is Article 192(1) of the Treaty on the Functioning of the European Union that sets out how Article 191 of the Treaty should be implemented. Article 191 of the Treaty provides the objectives of EU environmental policy:

– preserving, protecting and improving the quality of the environment;

– protecting human health;

– utilising natural resources prudently and rationally;

– promoting measures at international level to deal with regional or worldwide environmental problems, in particular to combat climate change.

Subsidiarity (for non-exclusive competence)

Action at EU level is justified because of the scale and transboundary nature of biodiversity loss and ecosystem degradation, its impact on the public, and the economic risks. EU-wide rules and obligations are necessary to significantly restore biodiversity and ecosystems. The lack of progress in the biodiversity strategy up to 2020 shows that voluntary commitments by the Member States are not enough to achieve the EU's objectives for restoring ecosystems.

Large-scale coordinated action is needed to address biodiversity loss and degradation and to create economies of scale. For example, working at EU level is essential for the recovery of pollinators: it is a problem across the EU and cannot be solved if only a few Member States tackle it. EU action is also necessary given how mobile many terrestrial and marine species are.

Restoring one ecosystem helps other neighbouring or connected ecosystems and their biodiversity, since many species thrive in connected networks of ecosystems on a large geographical scale. EU action is also needed to complement existing legal requirements and help the EU achieve its objectives under other pieces of EU environmental and climate legislation.

Proportionality

The proposal complies with the proportionality principle because it does not go beyond what is necessary for achieving the objective of putting biodiversity in the EU on the path to recovery by 2030.

Setting legally binding targets and obligations for ecosystem restoration at EU level would bring consistency to the action needed across the EU to reach the overall objective. Monitoring and reporting on progress by the Commission will bring further benefits and more effective joint action by the EU and Member States.

In summary, the proposal sets an overarching goal and ecosystem-specific targets and obligations that are in keeping with the scope of the objectives. To ensure the EU reaches these objectives, the proposal lays down implementing measures, assessments and reviews.

Choice of the instrument

A legislative rather than a non-legislative approach is needed to ensure the long-term objective. The objectives of this proposal are best pursued through a regulation to ensure the laws are directly applicable. Member States are required to contribute to the long-term objective by putting in place national restoration plans that set out the restoration measures needed to meet ecosystem-specific targets and obligations. Since a regulation does not need to be turned into national law, it means restoration measures can start sooner on the ground compared to a directive.

A regulation describes the action to be taken by Member States more precisely and in more detail and so would frame the action to be taken by the Member States much more exactly, and hence it would bring more consistency and coherence across the EU. Unlike directives, regulations do not only indicate the goal to be achieved by the Member States but also identify more precisely the legal requirements and ways to achieve that goal.

3. RESULTS OF EX-POST EVALUATIONS, STAKEHOLDER CONSULTATIONS AND IMPACT ASSESSMENTS

Ex-post evaluations/fitness checks of existing legislation

The evaluation of the biodiversity strategy up to 2020 identified voluntary rather than legally binding targets as a reason why ecosystem restoration has failed. The subsequent lack of commitment and political priority are major barriers to allocating funding and resources to restoration work.

In addition, the Birds and Habitats Directives do not set deadlines for maintaining or restoring natural habitats and species to favourable conservation status. The Directives also lack specific requirements to restore ecosystems that lie outside the Natura 2000 network. To address these shortcomings, this proposal makes restoring certain species and habitats mandatory, inside and outside the Natura 2000 network, and with clear deadlines.

On the Marine Strategy Framework Directive, the 2020 report from the Commission on the Directive's first implementation cycle[40] concluded that its broad goal has proven very difficult to achieve. The reasons are the lack of specific measures and the lack of sufficiently fine-grained monitoring of specific habitats or species, coupled with a lack of specific targets. The definition of restoration targets in this regulation will support the objectives of the Marine Strategy Framework Directive and its implementation.

The fitness check of the Water Framework Directive concluded that the difficulties found in its implementation are in part due to the fact the water body condition is affected by diffused pollution coming from surrounding habitats. The Water Framework Directive does not necessarily require Member States to remove barriers that may disrupt the natural connectivity of a river/lake system. However, many terrestrial ecosystems and several habitats and species protected by the Birds and Habitats Directives directly depend on aquatic ecosystems being in almost natural condition. This proposal complements the Water Framework Directive by drawing up restoration targets and other specific requirements for

[40] Review of the status of the marine environment in the European Union towards a clean, healthy and productive oceans and seas, accompanying the Report from the Commission to the European Parliament and the Council on the implementation of the Marine Strategy Framework Directive (Directive 2008/56/EC), SWD (2020) 61 final.

rivers and floodplains. Moreover, this proposal's non-deterioration requirement matches the Directive's existing requirement to take measures to prevent the deterioration of the status of all water bodies.

Stakeholder consultations

In line with the Better Regulation guidelines, this regulation and the accompanying impact assessment have been underpinned by an extensive consultation process. The Commission collected the views of a wide range of stakeholders, in particular representatives of Member States, environmental organisations, research institutes, agriculture and forest associations, and business representatives. Consultations were carried out as part of an open public consultation, in five stakeholder workshops and in meetings with stakeholders and Member States. The different views provided valuable information and insights that helped prepare the impact assessment and the proposal.

Inception impact assessment

The inception impact assessment for the proposed regulation was published on 4 November 2020. Stakeholders and the public were able to give feedback on the initiative until 2 December 2020. There were 132 responses, mainly from NGOs, business associations and organisations, environmental organisations and the public.

Public consultation

The Commission ran an online public consultation between 11 January and 5 April 2021 and received 111 842 replies. The consultation collected views on the main aspects and approach to preparing the Commission's proposal for binding restoration targets. The results show overwhelming support for legally binding restoration targets: 97% in favour of general EU restoration targets across all ecosystems, 96% for targets per ecosystem or habitat. This shows almost full support both for an overaching restoration goal and specific EU targets for ecosystems.

Stakeholder workshops

Five separate workshops were held with representatives of the Member State and the stakeholders from the end of 2020 through to September 2021. Policy options were discussed and views collected on restoration target options and how these targets should be implemented. The workshops considered potential social, economic and wider environmental impacts as well as preliminary findings of the impact assessment support study.

Collection and use of expertise

The proposal is based on the latest scientific evidence. The impact assessment accompanying this proposal is underpinned by a study prepared by a team of external experts. The team of experts worked in close consultation with the Commission throughout the different phases of the study. The Commission also used many other sources of information to prepare this proposal, in particular the results of EU research and innovation projects and recognised international reports (such as those cited in Section 1).

The European Environment Agency and the Joint Research Centre provided specific expertise and were closely involved in developing this legal proposal and its impact assessment. For example, the Agency developed information on restoration needs based on official data reported by Member States under Article 17 of the Habitats Directive.

Impact assessment

The proposal is based on an impact assessment. After having resolved the issues raised in the Regulatory Scrutiny Board's negative opinion issued on 16 July 2021, the impact assessment received a positive opinion (with reservations that were taken into account) on 28 October 2021.

The impact assessment considered the following policy options:

(1) Baseline scenario: this policy option assumes the realistic implementation of policies in the European Green Deal and EU Biodiversity Strategy for 2030 and other relevant existing polices – with the exception of the legally binding restoration targets.

(2) Setting an overarching legally binding target for ecosystem restoration: this option sets a clearly defined overarching legally binding target to restore ecosystems. This target is defined as: by 2050, a percentage of ecosystems in the EU are restored to and maintained in good condition. It also sets legally binding milestones for 2030 and 2040.

(3) Setting legally binding ecosystem-specific targets: this option sets targets and obligations for multiple ecosystems, habitats and groups of species that should be restored by 2030, 2040 and 2050. Targets and obligations are established for each of the EU's main ecosystem types and would be directly applicable at Member State level.

(4) Legally binding ecosystem-specific targets with an overarching objective: this option is a hybrid of the ecosystem-specific targets of option 3 and a variation of option 2, namely an overarching objective 'to contribute to 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, and that the restoration measures together shall cover, by 2030, at least 20 % of the Union's land and sea areas and, by 2050, all ecosystems in need of restoration. This provides an overarching objective that the EU should strive towards, coupled with a set of ecosystem-specific targets and obligations for Member States.

Option 4 was considered to be the best policy option as it is the most effective, efficient and policy coherent option. Having an overarching objective makes the specific targets more achievable, and the risk of not acting at all is the lowest out of all the options. In addition, the option reduces the risks of delaying action across all ecosystem types, by taking as much action possible now, where it is possible. This reduces the risk of postponing action, which would harm the environment, the economy and society.

Therefore, the preferred option allows the EU to act with urgency and start restoring ecosystems based on targets that can already be measured and monitored. In the future, once common methods are developed for assessing the good condition of the EU's ecosystems, additional targets based on these common methods may be set by amending the regulation.

This preferred option for the legal proposal will ensure the EU can reach its objectives of ecosystem restoration in the time proposed and in a cost-efficient manner. The benefits outweigh the costs for each of the main ecosystem types. For example, for inland and coastal wetlands it is estimated that the monetised benefits from carbon storage alone already exceed the estimated costs of ecosystem restoration. If estimates of other ecosystem services are included then the benefit-cost ratio is even higher. Overall, the benefits of restoring Annex I

peatlands, marshlands, forests, heathland and scrub, grasslands, rivers, lakes and alluvial habitats, and coastal wetlands can be estimated as being in the order of EUR 1 860 billion (with costs estimated in the order of EUR 154 billion).

Significant benefits are also estimated for marine and urban ecosystems, forests, agro-ecosystems and for pollinator restoration. For example, the value of crop pollination by insects was estimated of the order of EUR 5 billion per year in the EU. Beyond that, there are many other benefits, including the biological control of pests and the overall improvement of biodiversity.

Based on the assessment of environmental, social and economic impacts it can be deduced that certain stakeholder groups may be initially impacted more than others. The regulation therefore requires that Member States, as part of their national restoration plans, to ensure public participation and define how the needs of local communities and stakeholders will be considered.

Resources sought by Member States to reach their restoration objectives can come from EU sources, national funding and private sources. The impact on Member States' budget will depend on the restoration needs and on the implementation of the associated restoration measures. These costs can be reduced by obtaining funding from EU or private sources. For example, a broad range of EU funds are available for restoration and the Taxonomy Regulation[41] is expected to facilitate greater use of private funds. Resources will also be needed to develop national restoration plans, including consultation phases and monitoring.

On reporting, the proposal minimises the administrative burden by making full use of existing reporting requirements and the potential to digitalise these processes. Furthermore, efficiency and cost reduction can be significantly improved by maximising the use of new technologies such as remote sensing, Copernicus satellite services and products, geographic information systems, in situ sensors and devices, data analysis and processing, and artificial intelligence. These technologies increase the speed, effectiveness and coherence of multiple monitoring and reporting processes.

The proposal deviates slightly from option 4 as some potential targets for soil will be covered at a later stage in separate legislation, as announced in the EU soil strategy.

Regulatory fitness and simplification

In line with the Commission's commitment to better regulation, the proposal has been prepared inclusively, based on transparency and continuous engagement with stakeholders. In line with the 'one in, one out' approach, the administrative impacts have been analysed. The administrative costs will be mainly for the EU and public administrations in Member States. This would include costs for surveying ecosystems, developing national restoration plans, administration and monitoring of ecosystems chosen for restoration, and reporting. In the impact assessment, such administrative costs were estimated to be of the order of EUR 14 billion up to 2050.

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

Fundamental rights

The proposal respects the fundamental rights and in particular observes the principles recognised by the Charter of Fundamental Rights of the European Union. It contributes to the right to a high level of environmental protection and to improving the quality of the environment in line with the principle of sustainable development laid down in Article 37 of the Charter.

4. BUDGETARY IMPLICATIONS

Implementation of the proposal will require human resources in the Commission, as specified in the attached legislative financial statement. The human resource implications for the Commission are expected to be implemented under its existing allocations.

Implementation will also require support from the European Environment Agency for which additional resources will be needed, as outlined in the financial statement.

This proposal includes articles that give details of further work that will be needed to implement the regulation, including an empowerment to adopt delegated or implementing acts (for example, to develop a uniform format for national restoration plans or to revise the annexes).

The financial statement included in this proposal shows the detailed budgetary implications and the human and administrative resources required.

5. OTHER ELEMENTS

Implementation plans and monitoring, evaluation and reporting arrangements

Compliance and enforcement will be monitored through:

– information provided by Member States on their progress in meeting the targets and obligations set out in the proposal;

– implementation of restoration measures set out in Member States' national restoration plans;

– trends in restored areas.

The Commission will draw up progress reports based on the information from Member States as well as other data collected by the Commission (e.g. from Copernicus satellite services).

Application of the regulation will be reviewed by 2035 to ensure that its objectives are being met and it is having the intended impact.

The regulation will be amended when necessary, for example to introduce additional legally binding restoration targets for ecosystems based on new methods to assess the condition of such ecosystems.

Detailed explanation of the specific provisions of the proposal

The overarching objective is described in **Article 1**: to contribute to the continuous, long-term and sustained recovery of biodiverse and resilient nature across the EU's land and sea areas through the restoration of ecosystems. This establishes a framework in which Member States

will put in place restoration measures which together shall cover at least 20% of the EU's land and sea areas by 2030 and all ecosystems in need of restoration by 2050. This builds on the headline ambition set out in the biodiversity strategy that by 2050 all ecosystems are restored, resilient and adequately protected, and that, as a milestone, Europe's biodiversity is on the path to recovery by 2030. It is recognised that restoring nature will significantly contribute to the EU's climate mitigation and adaptation objectives, to prevent and mitigate the impact of natural disasters, and to the EU's international commitments.

The approach used for the framework described in Article 1 is to first build on the habitat types protected under the Habitats Directive for which there are already methods to ascertain good condition. Restoration targets can therefore be set for those habitats on the basis of those methods.

Article 4 sets out restoration targets for terrestrial, coastal and freshwater ecosystems, and **Article 5** sets out restoration targets for marine ecosystems (which includes other marine areas in addition to those covered by the Habitats Directive). Those targets address restoration and re-establishment of areas, as well as the restoration of habitats of species. Restoration goes hand in hand with protection and maintenance, and so an obligation is set out in both Article 4 and 5 to ensure that the condition of ecosystems does not deteriorate before or after restoration.

For habitat types or ecosystems that are not covered by the Habitats Directive, good condition is not yet defined. However, further specific targets and obligations that will require additional restoration measures are laid down in **Articles 6 to 10**.

Article 6 sets targets for ensuring no net loss, and the increase of green urban spaces in cities, towns and suburbs. Providing a minimum level of tree cover and providing green spaces are integrated into new and existing buildings and infrastructure developments contribute to these targets. Green spaces and tree cover are essential elements of urban green infrastructure, and they benefit people living in cities, towns and suburbs in ecological, social and economic ways.

Article 7 sets obligations to remove river barriers. This will contribute to the natural longitudinal and lateral connectivity of rivers and the EU's objective to have 25 000 km of free-flowing rivers. It will also help restore river areas and floodplains.

Article 8 sets the obligation to reverse the decline of pollinators and to achieve an increasing trend of pollinator populations until satisfactory levels are reached. This will be based on a method for monitoring pollinators that will be established.

To improve biodiversity of agro-ecosystems and forest ecosystems, **Articles 9 and 10** set obligations for individual Member States to achieve an increasing trend for a set of indicators that are particularly important for the biodiversity of those ecosystems.

The restoration targets and obligations set out in Articles 6 to 10 complement the targets set out in Article 4 and 5, and they will therefore also have an effect on areas covered by the habitat types protected under the Habitats Directive.

Articles 11 and 12 describe the requirements for Member States' national restoration plans. Restoration measures should be planned strategically so that they are as effective as possible

in contributing to the recovery of nature across the EU and to climate change mitigation and adaptation. It is important that Member States prepare their national restoration plans based on the best and most recent scientific evidence available.

Articles 13, 14 and 15 specify that Member States must submit their national restoration plans to the Commission for assessment and that they will have to respond to the Commission's observations before adopting the plans. A process for review and regular revision of the national restoration plans is also described.

Articles 17 and 18 contains monitoring and reporting requirements.

Article 19 contains provisions to amend the annexes to the regulation.

Articles 20 and 21 set out the conditions for the Commission to adopt delegated and implementing acts.

Article 22 provides for a review of the regulation by 31 December 2035.

Article 23 provides for the entry into force and application of the regulation.

2022/0195 (COD)

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 Committee[42],

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.

(2) The European Green Deal[43] 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 2030[44].

(3) The Union and its Member States, as parties to the Convention on Biological Diversity, approved by Council Decision 93/626/EEC[45], 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 2011-2020[46] that, by 2050, biodiversity is to be valued,

---

42 OJ C , , p. .

43 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).

44 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.

45 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).

46 https://www.cbd.int/decision/cop/?id=12268.

conserved, restored and wisely used, maintaining ecosystem services, sustaining a healthy planet and delivering benefits essential for all people.

(4) [placeholder for the restoration target of the new Global Biodiversity Framework to be agreed at CBD COP 15]

(5) The UN Sustainable Development Goals[47], 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.

(6) The United Nations General Assembly, in a resolution of 1 March 2019[48], 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 2021[49], 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 2020[50], 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.

(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 States[51] (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,

---

47 United Nations Sustainable Development – 17 Goals to Transform Our World.

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

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

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

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

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.

(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 guidance[52] 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 2020[53] 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.

(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.

---

52 Available at Circabc (europa.eu) [Reference to be completed]

53 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.

(14) The United Nations Statistical Commission adopted the System of Environmental Economic Accounting - Ecosystem Accounting (SEEA EA)[54] 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.

(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)[55] 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 Report[56] 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 Services[57] 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.

(16) Regulation (EU) 2021/1119 of the European Parliament and of the Council[58] 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 solutions[59] and ecosystem-based adaptation.

---

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

55 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/

56 Climate Change 2022: Impacts, Adaptation and Vulnerability | Climate Change 2022: Impacts, Adaptation and Vulnerability (ipcc.ch).

57 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.

58 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).

59 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.

(17) The Commission's Communication on adaptation to climate change from 2021[60] 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.

(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) 2018/1999[61] 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.[62] 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.

(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.[63]

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.

60 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).

61 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).

62 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.

63 *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.

(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'[64] outlines the need to restore degraded soils and enhance soil biodiversity.

(23) Council Directive 92/43/EEC[65] and Directive 2009/147/EC of the European Parliament and of the Council[66] 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.

(24) A framework and guidance[67] 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

---

64 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).

65 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).

66 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).

67 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".

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.

(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 do not deteriorate 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.

(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.

(38) Where the protection 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 Council[68] 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

[68] 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).

conventions[69], as well as, where fisheries measures are concerned, in the context of the regional groups established under the common fisheries policy.

(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 urban forests, parks and gardens, urban farms, tree-lined streets, urban meadows and urban hedges, and provide important habitats for biodiversity, in particular plants, birds and insects, including pollinators. They also provide 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.

(44) Actions to ensure that urban green spaces will no longer be at risk of being degraded 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 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.

(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 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. 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

[69] 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.

plants. Almost EUR 5 000 000 000 of the EU's annual agricultural output is directly attributed to insect pollinators[70].

(47) The Commission launched the EU Pollinators Initiative[71] 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 initiative[72] showed that significant challenges remain in tackling the drivers of pollinator decline, including the use of pesticides. The European Parliament[73] and the Council[74] 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 pollinators[75].

(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 Lists[76] 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

---

70 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.

71 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).

72 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).

73 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..

74 Council Conlusions 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).

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

76 European Redlist - Environment - European Commission (europa.eu)

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.

(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 considerd 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)[77], 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 met[78]. That

[77] 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,

[78] 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

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.

(54) Restoration and rewetting[79] of organic soils[80] 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.

(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

---

% of arable land at farm level that includes also catch crops or nitrogen fixing crops, cultivated without the use of plant protection products.

79 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).

80 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).

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 2030[81] 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.

(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 indicators, such as standing and lying deadwood, the share of forests with uneven-aged structure, forest connectivity, the common forest bird index[82], and the stock of organic carbon.

(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. 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 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

---

[81] 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).

[82] Common bird index (EU aggregate) - Products Datasets - Eurostat (europa.eu).

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 Council[83].

(60) In order to ensure coherence between the objectives of this Regulation and Directive (EU) 2018/2001[84], Regulation (EU) 2018/1999[85] and Directive 98/70/EC of the European Parliament and of the Council as regards the promotion of energy from renewable sources[86], 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 energy[87] 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

---

83 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).

84 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).

85 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).

86 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).

87 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).

sources, Directive 2010/31/EU on the energy performance of buildings and Directive 2012/27/EU on energy efficiency[88] and the Commission recommendation on accelerating permitting for renewable energy projects and facilitating Power Purchase Agreements[89], 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.

(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.

---

88 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.

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

(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/EEC[90] 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 targets[91].

(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 Council[92], Directive 2007/2/EC of the European Parliament and of the Council[93] and Directive (EU) 2019/1024 of the European Parliament and of the Council[94].

(68) In order to ensure an effective implementation of this Regulation, the Commission should support Member States upon request through the Technical Support Instrument[95], 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.

---

90 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).

91 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).

92 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).

93 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).

94 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).

95 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).

(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.

(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)[96], the European Maritime Fisheries and Aquaculture Fund (EMFAF)[97], the European Agricultural Fund for Rural Development (EAFRD)[98], the European Agricultural Guarantee Fund (EAGF), the European Regional Development Fund (ERDF), the Cohesion Fund[99] and the Just Transition Fund[100], as well as the Union framework programme for research and innovation, Horizon Europe[101], 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 Framework[102] to biodiversity objectives. The Recovery and Resilience Facility (RRF)[103] is a 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.

---

96 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).

97 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).

98 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).

99 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).

100 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).

101 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).

102 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).

103 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) A range of EU, national and private initiatives are available to stimulate private financing, such as the InvestEU Programme[104], 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-model[105].

(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.

(73) Pursuant to Regulation (EU) 2021/2115 of the European Parliament and of the Council[106], 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 2030[107], 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.

(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 group of habitats, to 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 list of marine species to the latest scientific evidence and the examples of restoration measures. It is of particular importance that the Commission carries out appropriate consultations during its preparatory work, including at expert level, and that those consultations be conducted in accordance with the principles laid down in the Interinstitutional Agreement of 13 April 2016 on Better Law-Making[52]. 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

---

104 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).

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

106 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.

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

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 develop a framework for setting the satisfactory levels 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 Council[108].

(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.

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;

(c) meeting the Union's international commitments.

[108] 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).

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 cover, by 2030, at least 20 % of the Union's land and 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;

(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 exercises sovereign rights, 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, 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;

(3) 'restoration' means the process of actively or passively assisting the recovery of an ecosystem towards or to good condition, of a habitat type to the highest level of condition attainable and to its favourable reference area, of a habitat of a species to a sufficient quality and quantity, or of species populations to satisfactory levels, as a means of conserving or enhancing biodiversity and ecosystem resilience;

(4) 'good condition' means a state where the key characteristics of an ecosystem, namely its physical, chemical, compositional, structural and functional state, and its landscape and seascape characteristics, reflect the high level of ecological integrity, stability and resilience necessary to ensure its long-term maintenance;

(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 species, 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;

(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;

(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;

(8) ‘pollinator’ means a wild animal 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;

(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 Council[109];

(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;

(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;

(13) ‘urban green space’ means all 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 Council[110];

(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.

(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 Council[111].

---

109 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).

110 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).

111 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.

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.

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. 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 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. Areas where the habitat types listed in Annex I are in unknown condition shall be considered as not being in good condition.

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 ensure that areas where the habitat types listed in Annex I occur 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;

   (b) unavoidable habitat transformations which are directly caused by climate change; or

   (c) a project of overriding public interest for which no less damaging alternative solutions are available, to be determined on a case by case basis.

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;

   (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 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.

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. 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 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 shall be based on the best available knowledge and the latest scientific evidence 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, 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. Areas where the habitat types listed in Annex II are in unknown condition shall be considered as not being in good condition.

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 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 ensure that areas where the habitat types listed in Annex II occur 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;

   (b) unavoidable habitat transformations which are directly caused by climate change; or

   (c) a project of overriding public interest for which no less damaging alternative solutions are available, to be determined on a case by case basis.

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;

   (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 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.

Article 6

Restoration of urban ecosystems

1. Member States shall ensure that there is no net loss of urban green space, and of urban tree canopy cover by 2030, compared to 2021, in all cities and in towns and suburbs.

2. Member States shall ensure that there is an increase in the total national area of urban green space 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 Member States shall ensure:

   (a) a minimum of 10 % urban tree canopy cover 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 barriers to longitudinal and lateral connectivity of surface waters and 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 barriers to longitudinal and lateral connectivity of surface waters identified under paragraph 1 of this Article, in accordance with the plan for their removal referred to in Article 12(2), point (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 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.

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 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 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) 50 % of such areas by 2040, of which at least half shall be rewetted;

   (c) 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 20%, to the achievement of the targets referred to in the first subparagraph, points (a), (b) and (c).

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 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.

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 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.

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), through an open and effective process and assessment, based on the latest scientific evidence and, if available, the 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.

5. Member States shall identify synergies with climate change mitigation, climate change adaptation 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 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 ecological and chemical status of water bodies included in river basin management plans prepared in accordance with Directive 2000/60/EC;

(d) 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) conservation measures adopted under the common fisheries policy.

8. Member States 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.

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.

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 to10 based on the preparatory work undertaken in accordance with Article 11 and geographically referenced maps of those areas;

(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;

(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 to ensure that 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 by 2030 and by 2050, and any other measures to re-establish the natural functions of floodplains in accordance with Article 7(3);

(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 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 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 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.

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.

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 its compliance with Article 12, as well as its adequacy for meeting the targets and obligations set out in Articles 4 to 10, 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 their national restoration plan at least once every 10 years, 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.

2. When it becomes apparent 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, Member States shall revise the national restoration plan and include supplementary measures.

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 request the Member State concerned to submit an updated draft national restoration plan with supplementary measures. That updated 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.

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 in 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 indicators of biodiversity in forest ecosystems listed in Annex VI;

(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) 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), (b) 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, the lying deadwood, the share of forests with uneven-aged structure, the forest connectivity and the stock of organic carbon, shall be carried out at least every three years, and, 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.

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 (f), 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 Council[112] 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.

---

[112] 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).

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 a framework for setting the satisfactory levels referred to in Article 11(3).

Such implementing acts shall be adopted in accordance with the examination procedure referred to in Article 21(2).

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 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 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 be submitted 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)(l), 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 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 18 of Directive 2008/56/EC. The report shall be provided by June 2032 and subsequent reports shall be provided every three years thereafter.

6. The Commission shall, as from 2029, report to the European Parliament and to the Council every three 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 groups of habitat types.

2. The Commission is empowered to adopt delegated acts in accordance with Article 20 to amend Annex II in order to adapt the list of habitat types and the groups of habitat types.

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.

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.

5. The Commission is empowered to adopt delegated acts in accordance with Article 20 to amend Annex V in order to update the list of species used for the common farmland bird index in the Member States.

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.

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.

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-Making[113].

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.

---

113 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	*For the Council*
The President	*The President*

LEGISLATIVE FINANCIAL STATEMENT

1. FRAMEWORK OF THE PROPOSAL/INITIATIVE

1.1. Title of the proposal/initiative

Proposal for a Regulation of the European Parliament and of the Council on nature restoration.

1.2. Policy area(s) concerned

Policy area: 09 Environment and Climate Action

Activities:

09 02 - Programme for Environment and Climate Action (LIFE)

09 10 – European Environment Agency (EEA)

1.3. The proposal/initiative relates to:

☑ a new action

☐ a new action following a pilot project/preparatory action[114]

☐ the extension of an existing action

☐ a merger or redirection of one or more actions towards another/a new action

1.4. Objective(s)

1.4.1. General objective(s)

The objective of the proposed Regulation is to contribute to 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, habitats and species and to contribute to achieving Union climate mitigation and climate adaptation objectives and to meeting EU international commitments.

Following from the general objective, the specific objective of this proposed Regulation is:

- Restore degraded ecosystems across the EU to good condition by 2050, and put them on the path to recovery by 2030. Once restored, ecosystems should be maintained in good condition.

Following from the specific objective, the operational objectives are:

- To establish legally binding targets to restore and maintain ecosystems to good condition.

- Establish an effective framework to ensure implementation in particular by the obligation for the Member States to assess ecosystems and to set up a National Restoration Plan as well as for reporting and review.

1.4.2. Expected result(s) and impact

Specify the effects which the proposal/initiative should have on the beneficiaries/groups targeted.

[114] As referred to in Article 58(2)(a) or (b) of the Financial Regulation.

Society as a whole benefits from nature restoration through enhanced climate change mitigation and adaptation and disaster risk management. Nature restoration furthermore provides job and income opportunities and has positive effects on citizen's health, enhanced natural and cultural heritage and identity, as well as enhanced quality and security of food and water. A wide range of economic sectors will benefit too, particularly those that are highly dependent on ecosystem services, such as the agri-food, fisheries, forestry, water companies, tourism as well as the financial sector.

Restoration of ecosystems has been shown to be cost-effective (the benefits far outweigh the costs), but requires investment that incurs financial and opportunity costs for managers of land and natural resources, who may be compensated through incentives provided by governments and buyers of ecosystem services. The method and scope of restoration, maintenance and compensation measures chosen by Member States to implement the Regulation will determine more precisely which, how and when stakeholders are affected. The possible short-term costs linked with loss of income that certain population groups such as farmers, forest owners or fishers may incur while they transition to more sustainable practices could be partially or totally covered under EU and other sources funding.

The proposed Regulation also affects public authorities at national, regional and local level, as they would play a role in mapping and assessment of ecosystems and their services, and in planning, funding, implementing and monitoring restoration programmes. Administrative burdens are sought to be minimised by using mechanisms for monitoring and reporting under existing legislation for targets set in step 1 (in particular the Birds and Habitats Directive, Water Framework Directive, and Marine Strategy Framework Directive and the LULUCF Regulation) as well as data already collected directly by the European Environment Agency and the Joint Research Centre e.g. through Copernicus. In step 2, additional targets and baselines will be set for ecosystems for which data and monitoring mechanisms are not yet fully developed. Therefore existing mechanisms will be complemented by the development of a method for assessing the condition of all ecosystems.

1.4.3. Indicators of performance

Specify the indicators for monitoring progress and achievements.

The implementation of the proposal should ensure that ecosystems across the EU are on the path to recovery by 2030 and restored to good condition by 2050.

There are two main indicators foreseen to monitor the implementation:

- Restoration and re-establishment measures/activities put in place by Member States to ensure ecosystem recovery.

- The condition and conservation status of ecosystems at national and/or (biogeographic) regional level and if they show positive trends against the relevant baseline of the ecosystem in question.

The definition of good ecosystem condition and appropriate restoration and re-creation measures vary across ecosystems. For habitats under Annex I of the Habitats Directive, definitions, baselines, targets and monitoring are available. For the other ecosystems, for which data and monitoring mechanisms are not yet fully developed, a process is established in the proposal for developing an EU-wide methodology for

assessing the conditions of these ecosystems, allowing for a later setting of additional specific targets and baselines. However, for several of these ecosystems, such as urban, agricultural and forest land, information on several indicators related to ecosystem condition already exists through Pan-European Monitoring schemes (e.g. under Forest Europe) or are already directly collected by the European Environment Agency or the Commission through e.g. Copernicus. The indicators should be relevant, accepted, credible, easy and robust.

1.5. Grounds for the proposal/initiative

1.5.1. Requirement(s) to be met in the short or long term including a detailed timeline for roll-out of the implementation of the initiative

The European Green Deal underlines the importance of better protecting and restoring nature. The EU Biodiversity Strategy for 2030 sets out the general objective to reverse biodiversity loss so that Europe's biodiversity is on the path to recovery by 2030 and that by 2050 all of the EU's ecosystems are restored, resilient and adequately protected. Both the European Parliament and the European Council have insisted on stepping up efforts to restore ecosystems.

The proposed regulation will be directly applicable from the day of its entry into force.

However, a series of administrative tasks will need to be deployed as soon as possible and some of them starting already in 2022 (i.e. in preparation of the entry into force, before approval by the European Parliament and the Council) and some after entry into force. While some tasks will be one off (creation of IT infrastructure) others will be recurrent for as long as the Regulation applies. In particular:

Starting before the entry into force of the regulation:

a) 2022-2023: The Commission (DG ENV and JRC) in collaboration with the EEA and the Member States, will develop a methodology for assessing the condition of ecosystems for which monitoring and baselines are not yet available, so that additional restoration targets may be set by amending the Regulation. JRC will support DG ENV, through an Administrative Arrangement, to develop appropriate methodology/-ies and baselines.

b) 2022-2024: The Commission will develop guidance on restoration measures and restoration management practices to encourage and enable Member States to start restoration activities early on, including for those ecosystems for which no targets are set yet.

After the entry into force of the regulation:

c) 2024: The Commission will adopt through comitology a uniform format for the National Restoration Plans (including e.g. electronic reporting formats for the river barrier inventory) and a reporting format.

d) 2024 and 2025: The Commission will adopt guidance on the interpretation of Annex II habitat types and on new methodology/(-ies) for assessing the condition of ecosystems (e.g. ecosystems of Outermost Regions not covered by the Habitats Directive), as well as implementing acts on the method for monitoring pollinators (the method will provide a standardised approach for collecting annual data on the abundance and diversity of pollinator species and for assessing pollinator population

trends), and for the methods for monitoring the indicators in agricultural and forest ecosystems.

Member States shall start as soon as possible after the entry into force of the Regulation assessing the ecosystems in terms of areas of the ecosystem in good condition, in degraded condition, that were lost over the last 70 years and areas that would be most suitable for re-establishment of the ecosystem.

e) 2026- 2027: The Commission will receive from the Member States their National Restoration Plans (NRPs), which they shall submit within two years from the entry into force of the Regulation. The NRPs will include e.g. the results of the assessment of the ecosystems, quantified and spatially-explicit area based restoration needs and measures based on the mapping and inventory, transboundary aspects, a timing for the implementation of the restoration measures, costs of implementation and monitoring planned post-restoration and the review mechanism.

f) 2026-2027 (1st round, possible subsequent updates by MSs): DG ENV, with the support of external experts (contract) and the EEA will assess the National Restoration Plans submitted by the Member States.

g) 2026-2027: Procurement (service contract) for an impact assessment (or several) or/and an administrative arrangement with the JRC to establish new targets and corresponding baselines.

Member States will have to report at least every three years (starting five years from the date of entry into force of the Regulation) on the restoration measures put in place and on the results of their monitoring.

h) As of 2030, recurrent three years: EEA shall prepare a Union-wide progress report based on the progress at Member States level towards meeting the targets, based on the restoration measures and the trends in condition reported by Member States under their reporting obligations, as well as the results of the trend in conservation status of habitats and species based on the monitoring data reported by Member States under article 17 of the Habitats Directive and article 12 in the Birds Directive, and information reported under Article 15 of Directive 2000/60/EC, Article 12 of Directive 2009/147/EC, and Article 18 of Directive 2008/56/EC. Based on the EEA Union-wide progress report, the Commission shall report to the Council and the European Parliament every three years on the implementation of this Regulation.

i) 2027 or later: Based on the outcome of the impact assessment(s), the Commission will propose a revision/amendment of the Regulation in order to include the new target(s).

Once the new restoration targets are adopted, the Member States will have to review and adapt their National Restoration Plans accordingly.

j) 2033-2034: DG ENV, with the support of the EEA, will assess the revised National Restoration Plans.

k) 2030-2050 (on a continuous basis): DG ENV, with the support of JRC and EEA, will monitor the implementation of the regulation in EU Member States to ensure that it achieves its intended objectives and that all EU Member States implement EU legislation

l) By 31 December 2035, the Commission will review the implementation of the regulation and submit a report on the review to the European Parliament and to the Council.s

The European Environmental Agency (EEA) will provide support through the following tasks:

Before entry into force of the regulation (2022-2023):

Based on the advancement of discussions between co-legislators, the EEA will start with the following actions:

- Develop formats and information system for National Restoration Plans (including plans for removal of river barriers);

- Develop a format and information system for periodical reporting on the measures implemented and areas restored and re-established and on the condition of ecosystems and the species populations;

- develop an interpretation manual for Annex II habitat types;

- Support in establishing a methodology for monitoring, indicators, and assessing good condition for those ecosystems/habitats/species for which this is not yet available as a basis for setting targets in step 2 (e.g. certain ecosystems of Outermost Regions): This task will be done in cooperation with the JRC and DG ENV;

After entry into force (expected as of 2024):

- 2024-2026: Support for the definition of targets linked to the areas for re-establishment: to support MSs in estimating area to be re-established to achieve Favourable Conservation Status (preparation could already start before entry into force);

- 2024-2050: Data retrieval/handling/quality control and management of electronic reporting systems/requirements. This includes publication of and ensuring access to data (e.g. interactive maps, dashboards, reports).

- As of 2024: Monitoring certain targets e.g. through Copernicus, such as the urban targets on urban green space and tree canopy cover;

- 2024-2050 (on a continuous basis): Publication, visualisation and access to data (reports, dashboards, maps) making wherever possible use of existing information systems (Biodiversity Information System for Europe, Knowledge Centre for Biodiversity Water Information System Europe, Forest Information System for Europe etc.);

- ~2026-2027 (1st round): support in assessing the National Restoration Plans submitted by Member States (together with the Commission and external contractor);

- As of 2030, recurrent every three years: Assessment of progress reports by Member States on the progress made at Member States and Union level towards meeting the targets, based on the restoration measures and the trends in condition reported by Member States under their reporting obligations (using the reporting format developed under the second point of this table), as well as the results of the trend in conservation status of habitats and species based on the monitoring data reported by Member States under article 17 of the Habitats Directive and article 12 of the Birds Directive, and information reported under Article 15 of Directive 2000/60/EC, Article 12 of Directive 2009/147/EC, and Article 18 of Directive 2008/56/EC.

- 2024-2050: Helpdesk for Member States: systematic support to MS on the more technical questions concerning monitoring, reporting, target setting, preparation of the National Restoration Plan.

In several of the above implementation steps, the use of research findings (e.g. from IPBES and from the EU Research and Innovation framework programme) and the use of scientific tools (e.g. modelling, scenarios, expert panel reports) will support and complement the work of the EEA, the JRC and DG ENV.

1.5.2. Added value of Union involvement (it may result from different factors, e.g. coordination gains, legal certainty, greater effectiveness or complementarities). For the purposes of this point 'added value of Union involvement' is the value resulting from Union intervention which is additional to the value that would have been otherwise created by Member States alone.

Reasons for action at European level (ex-ante):

- Biodiversity loss and ecosystem degradation, including pressures on ecosystems, is a large-scale and transboundary challenge and cannot be tackled efficiently at Member State level alone.

Expected generated Union added value (ex-post):

- Coordinated EU-level action is needed at the right scale to achieve significant levels of restoration and to benefit from synergies and efficiency gains. For instance, restoring one ecosystem (and thereby supporting its biodiversity) has positive effects on other neighbouring or connected ecosystems and their biodiversity. Many species thrive better in a connected network of ecosystems.

- EU-level action would create a level playing field, addressing the problem of “free riding”, i.e. some Member States that do not take initiatives to restore ecosystems on their own territories can obtain unfair short-term advantages in relation to those Member States that do take initiative to restore. This can happen typically in cross border regions.

- Taking ambitious, coordinated action on biodiversity and ecosystem restoration at EU level, will give the EU the necessary credibility to ‘lead by example and by action’ at international level.

1.5.3. Lessons learned from similar experiences in the past

Ecosystem restoration efforts have been insufficient so far. Three policy failures were identified:

1. Voluntary targets have been ineffective. The voluntary target of the EU Biodiversity Strategy to 2020 to restore at least 15 % of degraded ecosystems was not met. The evaluation study of this strategy identified, among the reasons for the failure in ecosystem restoration, the voluntary rather than legally binding nature of the targets. The subsequent lack of commitment and political priority for restoration activities was a key barrier, leading to a lack of financing and resources being allocated to restoration. On the other hand, another target of the Biodiversity Strategy to 2020, on invasive alien species, that was made legally binding, with the adoption

of a new regulation, did result in this target being implemented to a large extent and in benefits that would not have been delivered if they would have been voluntary.

2. Shortcomings in existing legislation. The evaluation of the Biodiversity Strategy to 2020 and of some of the main pieces of legislation have revealed implementation problems, reflecting the complexity of the issues at hand. Beyond that, a number of shortcomings remain, since aspects of legislation are not sufficiently specific (Marine Strategy Framework Directive (MSFD)), time-bound (Habitats Directive (HD)) or measurable (MSFD) to achieve restoration objectives.

3. Lack of a comprehensive approach. Ecosystems are dealt with separately by different pieces of legislation, which has resulted in some challenges in coordinated implementation. The Birds and Habitats Directives (BHDs), WFD and MSFD are generally coherent, but the Fitness Check of the BHDs has nevertheless revealed some challenges in implementation where these Directives interact, for example water bodies whose status depends on their surrounding riparian habitats, and should be dealt with in an integrated way to achieve specific restoration objectives, such as for flood plains.

1.5.4. Compatibility with the Multiannual Financial Framework and possible synergies with other appropriate instruments

The initiative falls under the umbrella of the European Green Deal, the EU's sustainable growth strategy. This includes the objective of ensuring that the EU's biodiversity is on the path to recovery by 2030, and that all EU ecosystems are restored by 2050. It sets binding targets for restoring to good condition degraded ecosystems, habitats and species. It also follows from and contributes to achieving the ambitions set out in the EU Biodiversity Strategy for 2030.

The initiative falls under Heading 3 (Natural Resources and Environment), Title 9 (Environment and Climate Action) of the Multiannual Financial Framework (MFF) 2021-2027. The legislation will help mobilizing funding with a view to meeting the ambition of providing 7.5% of annual spending under the MFF to biodiversity objectives in the year 2024 and 10% of annual spending under the MFF to biodiversity objectives in 2026 and 2027, while considering the existing overlaps between climate and biodiversity goals.

The proposal is complementary to the other measures outlined in the Biodiversity Strategy (BDS) 2030, in particular: 1) Working in partnership with the industry and business to strengthen sustainable corporate governance; 2) developing an EU sustainable finance taxonomy and Renewed Sustainable Finance Strategy to ensure biodiversity-friendly investments; 3) strengthening international cooperation to promote the adoption of similar measures (this falls under chapter 14 – External Action – of the MFF).

The BDS set the target to unlock at least €20 billion per year for spending on nature, including investment priorities for Natura 2000 and green infrastructure, and to establish, under Invest EU, a dedicated natural-capital and circular-economy initiative to mobilise at least €10 billion over the next 10 years. Moreover, the Renewed Sustainable Finance Strategy of July 2021 supports economic activities contributing to reducing greenhouse gas emissions and establishes a framework to ensure that the financial system contributes to mitigating existing and future risks to

biodiversity and better reflect how biodiversity loss affects companies' profitability and long-term prospects

In the period 2021-2027, the supporting expenditure (for implementation by Member States) will be covered by the European Agricultural Guarantee Fund, the European Agricultural Fund for Rural Development, the European Regional and Development Fund, the Cohesion Fund, the Programme for the Environment and Climate Action (LIFE), the Framework Programme for Research and Innovation (Horizon Europe), the European Maritime, Fisheries and Aquaculture Fund, Sustainable Fisheries Partnership Agreements and Regional Fisheries Management Organisations, the European Space Programme, the Connecting Europe Facility, the European Social Fund Plus, InvestEU, the Union Civil Protection Mechanism, and national financing by EU Member States and private funding.

1.5.5. Assessment of the different available financing options, including scope for redeployment

The implementation of the new regulation proposal will entail new tasks and activities for the Commission. This will require human resources, EEA support, procurement resources for external contractors and one or more administrative arrangement with JRC.

In DG ENV, five additional FTEs (4 AD + 1 AST) will be needed to implement the regulation.

The implementation tasks listed in 1.5.1 will substantially increase DG ENV's workload for example on:

- the assessment of the National Restoration Plans and of the additional reporting by Member States (periodic reporting on monitoring and on implementation of restoration measures);

- the development of the various comitology acts and their future amendments;

- the management of the specific new committee created under this legislation (at least 2 meetings per year), as well as expert group meetings;

- the development of various guidance documents and information material necessary to support the Member States in implementing the new regulation.

The additional planning and reporting tasks for Member States and their consequent data flows will require preparation, assessment and follow-up by DG ENV. The implementing acts foreseen in the Regulation as well as the future amendment(s) of the act to establish new restoration targets, will also entail a significant workload in terms of preparation and legislative procedures. For the parts of the (technical) work that will be outsourced to contractors or EEA/JRC, DG ENV will need the resources to coordinate, steer and oversee this work.

The particular political weight and the wide-reaching scope of the new Regulation, touching the area of competence of several other Commission services, will require a lot of preparation and analytical work to manage more interactions — at both political and working level — with other Commission departments, the EEA, with the Council and the European Parliament, with stakeholders and Member State government bodies.

All the above tasks require a sustained high capacity of political judgement, policy knowledge, analytical skills, independence and resilience throughout the long-term

implementation of the legislation, for which permanent AD officials are needed rather than short-term contract agents.

Outsourcing will be used as far as possible, but this also requires oversight. In addition, there are core tasks that involve a high degree of political sensitivity and need to be carried out by the Commission.

JRC:

One or more administrative arrangements with the JRC are foreseen to establish a methodology for monitoring, selecting indicators and assessing good condition for those ecosystems for which this is not yet available and for setting new targets and corresponding baselines in step 2. The estimated budget for this activity is EUR 350 000 per year. This estimate is based on previous administrative arrangements and/or contracts with similar characteristics.

Service contracts:

Several implementation tasks will require external support from consultants, for example:

- the assessment of the National Restoration Plans (to be submitted by MSs by the beginning of 2026[115]);

- the development of guidance on restoration for Member States;

The budget needed for these contracts is estimated at EUR 600 000 per year. In the first years, the focus will be on developing guidance, while in the later years, the focus will be on the National Restoration Plans (2026). This estimate is based on the budget needed for a comparable task under the Water Framework Directive, i.e. the review of the River Basin Management Plans.

For the procurement (service contracts) for one or several impact assessment(s) for the new (step 2) targets, the estimated budget over 3 years is EUR 300 000 per year.

EEA:

The EEA will support the Commission in the preparatory phase (2022-2023, even though additional resources will only be made available as of 2023) as well as during the implementation of the regulation. This entails a substantial workload in a number of new tasks for EEA (see tasks listed in 1.5.1). The estimated number of additional FTEs required in EEA for these tasks is 7 temporary agents (TA) + 5 contract agents (CA). Of these, 1 TA will be at AST level to work on assistant tasks (administrative and financial management and support). In addition, the EEA would require an additional budget for mainly IT infrastructure of EUR 1 433 000 until 2027, ecosystem expertise (EUR 150 000/y until 2027) and an operational budget of EUR 3 406 000 until 2027.

The estimate is based on the capacity and expertise, as well as IT infrastructure needed to perform these tasks. See detailed justification below.

[115] Depending on when the Regulation enters into force, which in turn depends on the adoption date.

In the EEA the following staff profiles will be needed:

1. Area	2. Additional posts	3. Budget	4. Tasks	5. Timeline
Thematic expertise covering the 'ecosystem targets': The aim of these posts would be to provide in-depth thematic expertise across all the 7 'ecosystem types' for which the NRL will have targets (note some experts can cover more 'ecosystem types' and 'some ecosystem types' need more than on expert, e.g. pollinators). These experts would then provide support across a range of the 11 tasks listed in the above table.	5 AD6, with any combination of the following expertise: - Wetland Restoration (incl. Peatlands rewetting, marshlands & coastal wetlands) - Forest Ecosystem Restoration - Agroecosystems and grasslands, incl. Heathland and Scrub, farmland birds - Freshwater Restoration: lakes and alluvial habitats, including river barriers - Marine Ecosystem Restoration incl. Coastal - Urban Ecosystem Restoration - Pollinators	€150 000 budget per year for support on expertise across those ecosystems that would not have a strong representation in the 6 hires or would need additional work e.g., Marine covers a large number of ecosystems that are grouped into one, similarly Forest and Agroecosystems cover 85% of the EU land area.	Key technical expertise needed in major ecosystem types to **lead** on the following tasks under envisioned tasks in Restoration Law: 1. Lead on the design and implementation of the format for the National Restoration Plan for ecosystem types (if resources can be made available pre-implementation) 2. Support the definition of targets linked to the areas for re-establishment, for ecosystem type 3. Lead on the design of the reporting format 6. Support the assessment of National Restoration Plans in key ecosystem type 7. Lead the assessment of progress reports by MS 9. Support the establishment of a method for monitoring, indicators, and assessing good condition for key ecosystem types. 10. Lead on key responses at Helpdesk for Member States In addition these positions will contribute to • Support to increasing the quality of data received under Nature Directives reporting which is currently lacking • Connecting and coordinating to JRC in their task of developing methodologies for measuring progress towards restoration Key technical expertise needed to **support** on the following envisioned tasks in Restoration Law: 7. Support to the assessment of progress reports by MS,	Start 2023 onwards: tasks 1., 2., 3., 9., 10. 2026-2027: task 6. Start 2030 onwards: task7

	1 FGIV technical restoration support		particularly on larger key ecosystems 8. Support in monitoring of urban targets 9. Establishing a method for monitoring, indicators, and assessing good condition 10. supporting HELPDESK for Member States, in addition these thematic technical experts will provide: • Additional support to technical expertise needed in monitoring across ecosystem types • QA/QC of technical data collected	
	1 AST to provide administrative and financial management support.			
Data analytics expertise (databases, GIS, reporting, analysis etc.) to support reporting etc.: The aim of these posts would be to provide the data analytics support needed for the purpose of assessing the quality of progress on the NRL and on the National Restoration Plans. This area of work would cover reporting (data retrieval/handling/quality control), support to Information systems (e.g. viewers, dashboards, interactive maps), support to data analytics incl. GIS. The Data and Information Services (DIS) of the EEA is	1 FG-IV data support for reporting, databases and viewers, data analyses etc.	Start-up costs of reporting framework 600k for building on current IT infrastructure development Maintenance costs per year 200k per year	Leading tasks on designing the public real time data sharing. This would also include the envisioned tasks as above: 4. Support in data retrieval/handling/quality control. This includes Information System support and IT costs for QA/QC 5. Publication and public access to data (e.g. interactive maps, dashboards, reports?) and maintaining data bases 8. Technical Support in monitoring of urban targets. 10. Establishing and maintaining the helpdesk for Member States	Pre-implementation 2022 Maintenance under the Restoration Law
	2 FG-IV GIS statistical experts		Technical expert related to • Spatial mapping of ecosystem types to assess area under restoration • Mapping of river inventories and mapping monitoring data (statistics and interpolation)	

currently overstretched and additional sufficient IT support resources will be critical for the EEA to take up these new tasks.				
Overall coordination and management to report coordination, Eionet, MS coordination The aim of this post would be to lead the overall coordination of the reporting process where the bulk of the work will be done by the post listed above.	1 AD7 management and coordination of the NRP review, capacity building to MS in development, review and implementation of the NRP	Meetings 20k per year Communications	This key expert will be a coordinator function that will help to coordinate the NRP review, capacity building activities to the MS, and implementation of the NRP. It is also envisaged that this person will work on the following tasks: 5. Publication and access to data (e.g. interactive maps, dashboards, reporting) 6. Support in the assessment of the National Restoration Plans 7. Support to the assessment of progress reports by MS 10. Coordinating the helpdesk for Member States	Start of implementation
SUBTOTAL	**1 x AD 7** **5 x AD 6** **1 x AST** **4 x FGIV**	**Service contract (ecosystem expertise): €150k/y** **IT costs:** **600k start up + 200k / year of implementation**		
Additional support for pollinators – monitoring network for pollinators	1 FGIV pollinators/statistical methods		• Connect and coordinating with JRC experts on pollinators	
TOTAL	**1 x AD 7** **5 x AD 6** **1 x AST** **5 x FGIV**			

1.6. Duration and financial impact of the proposal/initiative

☐ limited duration

– ☐ in effect from [DD/MM]YYYY to [DD/MM]YYYY

– ☐ Financial impact from YYYY to YYYY for commitment appropriations and from YYYY to YYYY for payment appropriations.

☑ unlimited duration

– Implementation with a start-up period from 01/01/2022 to 01/01/2024,

– followed by full-scale operation.

1.7. Management mode(s) planned[116]

☑ **Direct management** by the Commission

– ☑ by its departments, including by its staff in the Union delegations;

– ☐ by the executive agencies

☐ **Shared management** with the Member States

☑**Indirect management** by entrusting budget implementation tasks to:

– third countries or the bodies they have designated;

– ☐ international organisations and their agencies (to be specified);

– ☐the EIB and the European Investment Fund;

– ☑ bodies referred to in Articles 70 and 71 of the Financial Regulation;

– ☐ public law bodies;

– ☐ bodies governed by private law with a public service mission to the extent that they are provided with adequate financial guarantees;

– ☐ bodies governed by the private law of a Member State that are entrusted with the implementation of a public-private partnership and that are provided with adequate financial guarantees;

– ☐ persons entrusted with the implementation of specific actions in the CFSP pursuant to Title V of the TEU, and identified in the relevant basic act.

– If more than one management mode is indicated, please provide details in the 'Comments' section.

Comments

[116] Details of management modes and references to the Financial Regulation may be found on the BudgWeb site: https://myintracomm.ec.europa.eu/budgweb/EN/man/budgmanag/Pages/budgmanag.aspx

2. MANAGEMENT MEASURES

2.1. Monitoring and reporting rules

Specify frequency and conditions.

The initiative involves procurement, administrative arrangements, increase of the contribution to the EEA and impact on the COM HR. Standard rules for this type of expenditure apply.

2.2. Management and control system(s)

2.2.1. Justification of the management mode(s), the funding implementation mechanism(s), the payment modalities and the control strategy proposed

N/A – cf. above

2.2.2. Information concerning the risks identified and the internal control system(s) set up to mitigate them

N/A – cf. above

2.2.3. Estimation and justification of the cost-effectiveness of the controls (ratio of "control costs ÷ value of the related funds managed"), and assessment of the expected levels of risk of error (at payment & at closure)

N/A – cf. above

2.3. Measures to prevent fraud and irregularities

Specify existing or envisaged prevention and protection measures, e.g. from the Anti-Fraud Strategy.

N/A – cf. above

3. ESTIMATED FINANCIAL IMPACT OF THE PROPOSAL/INITIATIVE

3.1. Heading(s) of the multiannual financial framework and expenditure budget line(s) affected

- Existing budget lines

In order of multiannual financial framework headings and budget lines.

Heading of multiannual financial framework	Budget line	Type of expenditure	Contribution			
	Number	Diff./Non-diff.[117]	from EFTA countries 118	from candidate countries 119	from third countries	within the meaning of Article 21(2)(b) of the Financial Regulation
3	09 02 01 Nature and biodiversity	Diff.	YES	NO	/NO	NO
3	09 10 02 European Environment Agency	Diff.	YES	YES	NO	NO
7	20 01 02 01 – Remuneration and allowances	Non-diff.	NO	NO	NO	NO
7	20 02 01 01 Contract staff	Non-diff.	NO	NO	NO	NO

- New budget lines requested : n/a

117 Diff. = Differentiated appropriations / Non-diff. = Non-differentiated appropriations.
118 EFTA: European Free Trade Association.
119 Candidate countries and, where applicable, potential candidates from the Western Balkans.

3.2. Estimated financial impact of the proposal on appropriations

3.2.1. Summary of estimated impact on operational appropriations

– ☐ The proposal/initiative does not require the use of operational appropriations

– ☑ The proposal/initiative requires the use of operational appropriations, as explained below:

EUR million (to three decimal places)

Heading of multiannual financial framework	3	Heading 3: Natural resources and environment

DG: ENV			Year **2022**	Year **2023**	Year **2024**	Year **2025**	Year **2026**	Year **2027**	**TOTAL**
• Operational appropriations									
09 02 01 Nature and biodiversity	Commitments	(1a)	0,950	0,950	0,950	1,250	1,250	1,250	**6,600**
	Payments	(2a)	0,950	0,950	0,950	1,250	1,250	1,250	**6,600**
Budget line	Commitments	(1b)							
	Payments	(2b)							
Appropriations of an administrative nature financed from the envelope of specific programmes[120]									
Budget line		(3)							
TOTAL appropriations for DG ENV	Commitments	=1a+1b +3	0,950	0,950	0,950	1,250	1,250	1,250	**6,600**
	Payments	=2a+2b +3	0,950	0,950	0,950	1,250	1,250	1,250	**6,600**

120 Technical and/or administrative assistance and expenditure in support of the implementation of EU programmes and/or actions (former 'BA' lines), indirect research, direct research.

The amount reported above will be needed to support various implementation tasks related to the legislative provisions that will be carried out by DG ENV and JRC.

The procured activities include a general support contract for the implementation of the NRL and an impact assessment support contracts for setting new restoration targets.

In addition, administrative arrangement(s) with JRC have been included in this category, in particular for establishing a method for monitoring, indicators, and assessing good condition for restoration targets for which this does not yet exist, as well as for the preparation and support in setting up the monitoring system for certain targets.

	All costs except HR and Administrative	(EUR million (to three decimal places))						
Tasks	**Resources**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**TOTAL**
General support for implementing the NRL (for assessing NRPs, for developing guidance to MSs…)	Service contract/ External experts	0,600	0,600	0,600	0,600	0,600	0,600	**3,600**
Establishing a methodology for monitoring, indicators, and assessing good condition. Preparation and support in monitoring for certain restoration targets.	Administrative arrangement between ENV - JRC	0,350	0,350	0,350	0,350	0,350	0,350	**2,100**
Impact assessment of new restoration targets	Impact assessment support contract(s)				0,300	0,300	0,300	**0,900**
TOTAL:		**0,950**	**0,950**	**0,950**	**1,250**	**1,250**	**1,250**	**6,600**

EUR million (to three decimal places)

Heading of multiannual financial framework				3	Natural Resources and Environment				
EEA				**2023**	**2024**	**2025**	**2026**	**2027**	**TOTAL**
Title 1: Staff expenditure	Commitments	(1)		1,023	2,086	2,128	2,170	2,214	**9,621**
	Payments	(2)		1,023	2,086	2,128	2,170	2,214	**9,621**
Title 2: Infrastructure, administrative expenditure	Commitments	(1a)		0,275	0,281	0,287	0,292	0,298	**1,433**
	Payments	(2a)		0,275	0,281	0,287	0,292	0,298	**1,433**
Title 3: Operational expenditure	Commitments	(3a)		1,004	0,587	0,596	0,605	0,614	**3,406**
	Payments	(3b)		1,004	0,587	0,596	0,605	0,614	**3,406**
TOTAL appropriations for the EEA	Commitments	=1 + 1a + 3a		2,302	2,954	3,011	3,067	3,126	**14,460**
	Payments	=2 + 2a +3b		2,302	2,954	3,011	3,067	3,126	**14,460**

Notes on EEA expenditure:

Title 1 The cost per FTE is calculated:

– for temporary agents (AD/AST) at the average staff cost of EUR 157 000/y for multiplied by 1,342 (co-efficient for the cost of living in Copenhagen);

– for contract agents at the average staff cost of EUR 85 000/y x 1,342.

– with an annual 2% inflation rate applied as of 2024.

– in the first year (2023) the staff costs is counted only for a half year following the assumption that not all staff will be hired already in January 2023.

Title 2: This title includes utilities, rental, and services, and end-user IT and communication needs e.g. laptops, software licences, telephony, hosting. Costs are adjusted by 2% inflation rate p.a.

The Title 3 costs comprise:

– IT costs needed for QA & QC of data collected from Member States (EUR 600k for the initial development and structure of the IT system, 200k annual maintenance). The EEA will try to use external IT experts (intra or extra-muros, so that further efficiencies can be achieved). Please note that these costs are additional to the Title 2 IT costs that are related to the existing databases and IT systems of the EEA.

– Annual update of NRL specific information system for their hosting and mainly for presentation of data and other communcation applications (EUR 200k).

– Support contracts for ecosystem expertise (service contracts, studies): EUR 150 000 per year.

– Development and production of 9 indicators, plus 1 composite indicator (60 pages): EUR 15 000 per year

– Communication activities: publication of one main report per year (digital, not paper): EUR 15 000 per year

– Eionet meetings 1 physical per year EUR 20 000

The required increase of the EU contribution to EEA will be compensated by a corresponding reduction in the envelope of the LIFE programme (budget line 09.0201 - *Nature & Biodiversity*).

EUR (millions)

			2022	**2023**	**2024**	**2025**	**2026**	**2027**	**TOTAL**
• TOTAL operational appropriations	Commitments	(4)							
	Payments	(5)							
• TOTAL appropriations of an administrative nature financed from the envelope for specific programmes		(6)							
TOTAL appropriations under HEADING 3 (ENV + EEA) of the multiannual financial framework	Commitments	=4+ 6	**0,950**	**3,252**	**3,904**	**4,261**	**4,317**	**4,376**	**21,060**
	Payments	=5+ 6	**0,950**	**3,252**	**3,904**	**4,261**	**4,317**	**4,376**	**21,060**

• TOTAL operational appropriations (all operational headings)	Commitments	(4)							
	Payments	(5)							
TOTAL appropriations of an administrative nature financed from the envelope for specific programmes (all operational headings)		(6)							

TOTAL appropriations under HEADINGS 1 to 6 (ENV + EEA) of the multiannual financial framework (Reference amount)	Commitments	=4+ 6	**0,950**	**3,252**	**3,904**	**4,261**	**4,317**	**4,376**	**21,060**
	Payments	=5+ 6	**0,950**	**3,252**	**3,904**	**4,261**	**4,317**	**4,376**	**21,060**

Heading of multiannual financial framework	7	'Administrative expenditure'

This section should be filled in using the 'budget data of an administrative nature' to be firstly introduced in the Annex to the Legislative Financial Statement (Annex V to the internal rules), which is uploaded to DECIDE for interservice consultation purposes.

EUR million (to three decimal places)

			Year **2022**	Year **2023**	Year **2024**	Year **2025**	Year **2026**	Year **2027**	Enter as many years as necessary to show the duration of the impact (see point 1.6)			**TOTAL**
DG: ENV												
• Human resources				0,785	0,85	0,785	0,785	0,785				**3,925**
• Other administrative expenditure[121]				0,114	0,114	0,114	0,114	0,114				**0,570**
TOTAL DG ENV	Appropriations			0,899	0,899	0,899	0,899	0,899				**4,495**

The cost per FTE (AD/AST) is calculated at EUR 157 000/y. The other administrtaive expenditure accounts for Committee and expert group meetings, missions and other costs associated with this personnel.

TOTAL appropriations under HEADING 7 of the multiannual financial framework	(Total commitments = Total payments)		0,899	0,899	0,899	0,899	0,899			**4,495**

[121] The administrative appropriations required will be met by the appropriations which are already assigned to management of the action and/or which have been redeployed, together if necessary with any additional allocation which may be granted to the managing DG under the annual allocation procedure and in the light of existing budgetary constraints.

EUR million (to three decimal places)

		Year 2022	Year 2023	Year **2024**	Year **2025**	Year **2026**	Year **2027**	**TOTAL**
TOTAL appropriations under HEADINGS 1 to 7 of the multiannual financial framework	Commitments	0,950	4,151	4,803	5,160	5,216	5,275	**25,555**
	Payments	0,950	4,151	4,803	5,160	5,216	5,275	**25,555**

3.2.2. Estimated output funded with operational appropriations

Commitment appropriations in EUR million (to three decimal places)

Indicate objectives and outputs ⇩			Year **N**		Year **N+1**		Year **N+2**		Year **N+3**		Enter as many years as necessary to show the duration of the impact (see point 1.6)						**TOTAL**	
	OUTPUTS																	
	Type [122]	Average cost	No	Cost	No	Cost	No	Cost	No	Cost	No	Cost	No	Cost	No	Cost	Total No	Total cost
SPECIFIC OBJECTIVE No 1 [123] …																		
- Output																		
- Output																		
- Output																		
Subtotal for specific objective No 1																		

[122] Outputs are products and services to be supplied (e.g.: number of student exchanges financed, number of km of roads built, etc.).

[123] As described in point 1.4.2. 'Specific objective(s)…'

SPECIFIC OBJECTIVE No 2 ...																		
- Output																		
Subtotal for specific objective No 2																		
TOTALS																		

3.2.3. Summary of estimated impact on human ressources

In the EEA

– ☐ The proposal/initiative does not require the use of appropriations of an administrative nature

– ☑ The proposal/initiative requires the use of appropriations of an administrative nature, as explained below:

Staff requirements in EEA (EUR million (to three decimal places))

	2022	2023	2024	2025	2026	2027	TOTAL
Temporary agents (AD Grades)		0,632	1,289	1,315	1,342	1,368	5,947
Temporary agents (AST grades)		0,105	0,215	0,219	0,224	0,228	0,991
Contract staff		0,285	0,582	0,593	0,605	0,617	2,683
Seconded National Experts							
TOTAL		**1,023**	**2,086**	**2,128**	**2,170**	**2,214**	**9,621**

The cost per FTE is calculated:

– for temporary agents (AD/AST) at the average staff cost of EUR 157 000/y for multiplied by 1,342 (co-efficient for the cost of living in Copenhagen);

– for contract agents at the average staff cost of EUR 85 000/y x 1,342.

– in the first year (2023) the staff costs are counted only for a half year following the assumption that not all staff will be hired already in January 2023

Staff requirements in EEA (in FTE)

	2022	2023	2024	2025	2026	2027	TOTAL

Temporary agents (1 AD7 + 5 AD6 Grades)		6	6	6	6	6	
Temporary agents (AST grade)		1	1	1	1	1	
Contract staff (3 GF-4 grade and 1 GF-3 grade)		5	5	5	5	5	
Seconded National Experts							
TOTAL		12	12	12	12	12	

In the Commission

– ☐ The proposal/initiative does not require the use of human resources.

– ☒ The proposal/initiative requires the use of human resources, as explained below:

Estimate to be expressed in full time equivalent units

	Year **2022**	Year **2023**	Year **2024**	Year **2025**	Year **2026**	Year **2027**	Enter as many years as necessary to show the duration of the impact (see point 1.6)		
• Establishment plan posts (officials and temporary staff)									
20 01 02 01 (Headquarters and Commission's Representation Offices)	65,0	65,0	65,0	65,0	65,0	65,0			
20 01 02 03 (Delegations)									
01 01 01 01 (Indirect research)									
01 01 01 11 (Direct research)									
• External staff (in Full Time Equivalent unit: FTE)[124]									
20 02 01 (AC, END, INT from the 'global envelope')									
20 02 03 (AC, AL, END, INT and JPD in the delegations)									
XX 01 xx **yy zz** [125] - at Headquarters									
XX 01 xx **yy zz** [125] - in Delegations									
01 01 01 02 (AC, END, INT - Indirect research)									
01 01 01 12 (AC, END, INT - Direct research)									
TOTAL	65,0	65,0	65,0	65,0	65,0	65,0			

The human resources required will be met by staff from the DG who are already assigned to management of the action and/or have been redeployed within the DG, together if necessary with any additional allocation which may be granted to the managing DG under the annual allocation procedure and in the light of budgetary constraints.

Description of tasks to be carried out:

Officials and temporary staff	For DG ENV, 4 additional AD posts are needed for the general implementation of the Regulation, and for ensuring continuity for the preparation, drafting and approval procedures of secondary legislation according to the deadlines proposed in the Regulation, The 1 AST is additionally needed to support the general implementation of the legislation.
External staff	N/A

[124] AC= Contract Staff; AL = Local Staff; END= Seconded National Expert; INT = agency staff; JPD= Junior Professionals in Delegations.

[125] Sub-ceiling for external staff covered by operational appropriations (former 'BA' lines).

Compatibility with the current multiannual financial framework

The proposal/initiative:

– ☒ can be fully financed through redeployment within the relevant heading of the Multiannual Financial Framework (MFF).

The additional tasks the Commission has to assume, require an additional needs for resources as regards the amount of the Union's contribution and the establishment plan posts of the European Environmental Agency. These will be financed by the budget line 09.0201 – LIFE Nature & Biodiversity. The costs foreseen under the budget line 09 02 01 will be borne by the LIFE programme and will be planned under the annual management plan exercises of DG ENV. The human resources required shall be preferably met by an additional allocation under the annual allocation procedure of human resources.

– ☐ requires use of the unallocated margin under the relevant heading of the MFF and/or use of the special instruments as defined in the MFF Regulation.

Explain what is required, specifying the headings and budget lines concerned, the corresponding amounts, and the instruments proposed to be used.

– ☐ requires a revision of the MFF.

Explain what is required, specifying the headings and budget lines concerned and the corresponding amounts.

Third-party contributions

The proposal/initiative:

– ☒ does not provide for co-financing by third parties

– ☐ provides for the co-financing by third parties estimated below:

Appropriations in EUR million (to three decimal places)

	Year **N**[126]	Year **N+1**	Year **N+2**	Year **N+3**	Enter as many years as necessary to show the duration of the impact (see point 1.6)			Total
Specify the co-financing body								
TOTAL appropriations co-financed								

126 Year N is the year in which implementation of the proposal/initiative starts. Please replace "N" by the expected first year of implementation (for instance: 2021). The same for the following years.

3.3. Estimated impact on revenue

– ☒ The proposal/initiative has no financial impact on revenue.

– ☐ The proposal/initiative has the following financial impact:

☐ on own resources

☐ on other revenue

please indicate, if the revenue is assigned to expenditure lines ☐

EUR million (to three decimal places)

Budget revenue line:	Appropriations available for the current financial year	Impact of the proposal/initiative[127]						
		Year **N**	Year **N+1**	Year **N+2**	Year **N+3**	Enter as many years as necessary to show the duration of the impact (see point 1.6)		
Article …….								

For assigned revenue, specify the budget expenditure line(s) affected.

[…]

Other remarks (e.g. method/formula used for calculating the impact on revenue or any other information).

[…]

[127] As regards traditional own resources (customs duties, sugar levies), the amounts indicated must be net amounts, i.e. gross amounts after deduction of 20 % for collection costs.

EUROPEAN
COMMISSION

Brussels, 22.6.2022
COM(2022) 304 final

ANNEXES 1 to 7

ANNEXES

to the

proposal for a Regulation of the European Parliament and of the Council

on nature restoration

{SEC(2022) 256 final} - {SWD(2022) 167 final} - {SWD(2022) 168 final}

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
140	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 (*Spartinion maritimae*)
1330	Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*)
1340	Inland salt meadows
1410	Mediterranean salt meadows (*Juncetalia maritimi*)
1420	Mediterranean and thermo-Atlantic halophilous scrubs (*Sarcocornetea fruticosi*)
1530	Pannonic salt steppes and salt marshes
1650	Boreal Baltic narrow inlets

Wet heaths and peat grassland	
4010	Northern Atlantic wet heaths with *Erica tetralix*
4020	Temperate Atlantic wet heaths with *Erica ciliaris* and *Erica tetralix*
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 *Rhynchosporion*
7160	Fennoscandian mineral-rich springs and springfens
7210	Calcareous fens with *Cladium mariscus* and species of the *Caricion davallianae*
7220	Petrifying springs with tufa formation (*Cratoneurion*)
7230	Alkaline fens
7240	Alpine pioneer formations of the *Caricion bicoloris-atrofuscae*
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 *Erica vagans*
4090	Endemic oro-Mediterranean heaths with gorse
5130	*Juniperus communis* formations on heaths or calcareous grasslands
8240	Limestone pavements
Grasslands	
6110	Rupicolous calcareous or basophilic grasslands of the *Alysso-Sedion albi*
6120	Xeric sand calcareous grasslands
6130	Calaminarian grasslands of the *Violetalia calaminariae*
6140	Siliceous Pyrenean *Festuca eskia* grasslands
6150	Siliceous alpine and boreal grasslands
6160	Oro-Iberian *Festuca indigesta* grasslands
6170	Alpine and subalpine calcareous grasslands

6180	Macaronesian mesophile grasslands
6190	Rupicolous pannonic grasslands *(Stipo-Festucetalia pallentis*)
6210	Semi-natural dry grasslands and scrubland facies on calcareous substrates *(Festuco-Brometalia)*
6220	Pseudo-steppe with grasses and annuals of the *Thero-Brachypodietea*
6230	Species-rich *Nardus* 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 *(Scorzoneratalia villosae)*
62B0	Serpentinophilous grassland of Cyprus
62C0	Ponto-Sarmatic steppes
62D0	Oro-Moesian acidophilous grasslands
6410	*Molinia* meadows on calcareous, peaty or clayey-silt-laden soils *(Molinion caeruleae)*
6420	Mediterranean tall humid grasslands of the *Molinio-Holoschoenion*
6510	Lowland hay meadows (*Alopecurus pratensis, Sanguisorba officinalis*)
6520	Mountain hay meadows
Dehesas and wooded meadows	
6310	Dehesas with evergreen *Quercus 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 (*Littorelletalia uniflorae*)
3120	Oligotrophic waters containing very few minerals generally on sandy soils of the West Mediterranean, with *Isoetes* spp.
3130	Oligotrophic to mesotrophic standing waters with vegetation of the *Littorelletea uniflorae* and/or of the *Isoëto-Nanojuncetea*
3140	Hard oligo-mesotrophic waters with benthic vegetation of *Chara* spp.
3150	Natural eutrophic lakes with *Magnopotamion* or *Hydrocharition* — 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 *Myricaria germanica*
3240	Alpine rivers and their ligneous vegetation with *Salix elaeagnos*
3250	Constantly flowing Mediterranean rivers with *Glaucium flavum*
3260	Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation

3270	Rivers with muddy banks with *Chenopodion rubri* p.p. and *Bidention* p.p. vegetation
3280	Constantly flowing Mediterranean rivers with *Paspalo-Agrostidion* species and hanging curtains of *Salix* and *Populus alba*
3290	Intermittently flowing Mediterranean rivers of the *Paspalo-Agrostidion*
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 *Cnidion dubii*
6450	Northern boreal alluvial meadows
6540	Sub-Mediterranean grasslands of the *Molinio-Hordeion secalini*
Alluvial/Riparian forests	
9160	Sub-Atlantic and medio-European oak or oak-hornbeam forests of the *Carpinion betuli*
91E0	Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion*, *Alnion incanae*, *Salicion albae*)
91F0	Riparian mixed forests of *Quercus robur*, *Ulmus laevis* and *Ulmus minor*, *Fraxinus excelsior* or *Fraxinus angustifolia*, along the great rivers (*Ulmenion minoris*)
92A0	Salix alba and *Populus alba* galleries
92B0	Riparian formations on intermittent Mediterranean water courses with *Rhododendron ponticum*, *Salix* and others
92C0	Platanus orientalis and Liquidambar orientalis woods (*Platanion orientalis*)
92D0	Southern riparian galleries and thickets (*Nerio-Tamaricetea* and *Securinegion tinctoriae*)
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 (*Quercus*, *Tilia*, *Acer*, *Fraxinus* or *Ulmus*) rich in epiphytes
9030	Natural forests of primary succession stages of landupheaval coast
9040	Nordic subalpine/subarctic forests with *Betula pubescens* ssp. *czerepanovii*
9050	Fennoscandian herb-rich forests with *Picea abies*
9060	Coniferous forests on, or connected to, glaciofluvial eskers
Temperate forests	
9110	*Luzulo-Fagetum* beech forests
9120	Atlantic acidophilous beech forests with *Ilex* and sometimes also *Taxus* in the shrublayer (*Quercion robori-petraeae* or *Ilici-Fagenion*)
9130	*Asperulo-Fagetum* beech forests
9140	Medio-European subalpine beech woods with *Acer* and *Rumex arifolius*
9150	Medio-European limestone beech forests of the *Cephalanthero-Fagion*
9170	*Galio-Carpinetum* oak-hornbeam forests
9180	*Tilio-Acerion* forests of slopes, screes and ravines
9190	Old acidophilous oak woods with *Quercus robur* on sandy plains

91A0	Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles
91B0	Thermophilous *Fraxinus angustifolia* woods
91G0	Pannonic woods with *Quercus petraea* and *Carpinus betulus*
91H0	Pannonian woods with *Quercus pubescens*
91I0	Euro-Siberian steppic woods with *Quercus* spp.
91J0	*Taxus baccata* woods of the British Isles
91K0	Illyrian *Fagus sylvatica* forests (*Aremonio-Fagion*)
91L0	Illyrian oak-hornbeam forests (*Erythronio-Carpinion*)
91M0	Pannonian-Balkanic turkey oak –sessile oak forests
91P0	Holy Cross fir forest (*Abietetum polonicum*)
91Q0	Western Carpathian calcicolous Pinus sylvestris forests
91R0	Dinaric dolomite Scots pine forests (*Genisto januensis-Pinetum*)
91S0	Western Pontic beech forests
91T0	Central European lichen Scots pine forests
91U0	Sarmatic steppe pine forest
91V0	Dacian Beech forests (*Symphyto-Fagion*)
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	Apeninne beech forests with *Taxus* and *Ilex*
9220	Apennine beech forests with *Abies alba* and beech forests with *Abies nebrodensis*

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

9570	*Tetraclinis articulata* forests
9580	Mediterranean *Taxus baccata* woods
9590	Cedrus brevifolia forests (*Cedrosetum brevifoliae*)
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 (*Pegano-Salsoletea*)
1510	Mediterranean salt steppes (*Limonietalia*)
1520	Iberian gypsum vegetation (*Gypsophiletalia*)
Temperate heath and scrub	
4050	Endemic macaronesian heaths
4060	Alpine and Boreal heaths
4070	Bushes with *Pinus mugo* and *Rhododendron* hirsutum (Mugo-Rhododendretum hirsuti)
4080	Sub-Arctic *Salix* spp. scrub
40A0	Subcontinental peri-Pannonic scrub
40B0	Rhodope *Potentilla fruticosa* thickets

40C0	Ponto-Sarmatic deciduous thickets
Sclerophyllous scrub (matorral)	
5110	Stable xerothermophilous formations with *Buxus sempervirens* on rock slopes (*Berberidion* p.p.)
5120	Mountain *Cytisus purgans* formations
5140	*Cistus palhinhae* formations on maritime wet heaths
5220	Arborescent matorral with *Zyziphus*
5230	Arborescent matorral with *Laurus nobilis*
5310	Laurus nobilis thickets
5320	Low formations of *Euphorbia* close to cliffs
5330	Thermo-Mediterranean and pre-desert scrub
5410	West Mediterranean clifftop phryganas (*Astragalo-Plantaginetum subulatae*)
5420	*Sarcopoterium spinosum* phryganas
5430	Endemic phryganas of the *Euphorbio-Verbascion*

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 *Limonium* 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 *Ammophila arenaria* (‘white dunes’)
2130	Fixed coastal dunes with herbaceous vegetation (“grey dunes’)
2140	Decalcified fixed dunes with *Empetrum nigrum*
2150	Atlantic decalcified fixed dunes (*Calluno-Ulicetea*)
2160	Dunes with *Hippophaë rhamnoides*
2170	Dunes with *Salix repens* ssp. argentea (*Salicion arenariae*)
2180	Wooded dunes of the Atlantic, Continental and Boreal region
2190	Humid dune slacks
2210	Crucianellion maritimae fixed beach dunes
2220	Dunes with *Euphorbia terracina*
2230	*Malcolmietalia* dune grasslands
2240	*Brachypodietalia* dune grasslands with annuals
2250	Coastal dunes with *Juniperus* spp.
2260	*Cisto-Lavenduletalia* dune sclerophyllous scrubs
2270	Wooded dunes with *Pinus pinea* and/or *Pinus pinaster*
2310	Dry sand heaths with *Calluna* and *Genista*
2320	Dry sand heaths with *Calluna* and *Empetrum nigrum*
2330	Inland dunes with open *Corynephorus* and *Agrostis* grasslands
2340	Pannonic inland dunes
91N0	Pannonic inland sand dune thicket (*Junipero-Populetum albae*)

Rocky habitats	
8110	Siliceous scree of the montane to snow levels (*Androsacetalia alpinae* and *Galeopsietalia ladani*)
8120	Calcareous and calcshist screes of the montane to alpine levels (*Thlaspietea rotundifolii*)
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 *Sedo-Scleranthion* or of the *Sedo albi-Veronicion dillenii*
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 2021[1].

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
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

[1] EUNIS marine habitat classification 2022. European Environment Agency.

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 *Posidonia oceanica*	1120
MB2521	Ecomorphosis of striped *Posidonia oceanica* meadows	1120; 1130; 1160
MB2522	Ecomorphosis of "barrier-reef" *Posidonia oceanica* meadows	1120; 1130; 1160
MB2523	Facies of dead "mattes" of *Posidonia oceanica* without much epiflora	1120; 1130; 1160
MB2524	Association with *Caulerpa prolifera* on *Posidonia* beds	1120; 1130; 1160
MB5521	Association with *Cymodocea nodosa* on well sorted fine sands	1110; 1130; 1160
MB5534	Association with *Cymodocea nodosa* on superficial muddy sands in sheltered waters	1110; 1130; 1160
MB5535	Association with *Zostera noltei* on superficial muddy sands in sheltered waters	1110; 1130; 1160
MB5541	Association with *Ruppia cirrhosa* and/or *Ruppia maritima* on sand	1110; 1130; 1160
MB5544	Association with *Zostera noltei* in euryhaline and eurythermal environment on sand	1110; 1130; 1160

MB5545	Association with *Zostera marina* 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	Fucales and other algae on Black Sea sheltered upper infralittoral rock, well illuminated	1170; 1160
Mediterranean Sea		
MA1548	Association with *Fucus virsoides*	1160; 1170
MB1512	Association with *Cystoseira tamariscifolia* and *Saccorhiza polyschides*	1170; 1160
MB1513	Association with *Cystoseira amentacea* (var. *amentacea*, var. *stricta*, var. *spicata*)	1170; 1160
MB151F	Association with *Cystoseira brachycarpa*	1170; 1160
MB151G	Association with *Cystoseira crinita*	1170; 1160
MB151H	Association with *Cystoseira crinitophylla*	1170; 1160
MB151J	Association with *Cystoseira sauvageauana*	1170; 1160
MB151K	Association with *Cystoseira spinosa*	1170; 1160
MB151L	Association with *Sargassum vulgare*	1170; 1160
MB151M	Association with *Dictyopteris polypodioides*	1170; 1160
MB151W	Association with *Cystoseira compressa*	1170; 1160
MB1524	Association with *Cystoseira barbata*	1170; 1160
MC1511	Association with *Cystoseira zosteroides*	1170; 1160
MC1512	Association with *Cystoseira usneoides*	1170; 1160
MC1513	Association with *Cystoseira dubia*	1170; 1160
MC1514	Association with *Cystoseira corniculata*	1170; 1160
MC1515	Association with *Sargassum* spp.	1170; 1160
MC1518	Association with *Laminaria ochroleuca*	1170; 1160
MC3517	Association with *Laminaria rodriguezii* on detritic beds	1160

3. GROUP 3: SHELLFISH BEDS

EUNIS code	EUNIS habitat type name	Related Annex I (Habitats Directive) codes
Atlantic		
MA122	*Mytilus edulis* 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 *Mytilus galloprovincialis* in waters enriched in organic matter	1160; 1170
MB1514	Facies with *Mytilus galloprovincialis*	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 *Lithothamnion corallioides* and *Phymatolithon calcareum*) on Mediterranean coarse sands and gravel	1110; 1160
MC3521	Association with rhodolithes on coastal detritic bottoms	1110
MC3523	Association with maerl (*Lithothamnion corallioides* and *Phymatholithon calcareum*) 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 *Cladocora caespitosa*	1170; 1160
MB151Q	Facies with *Astroides calycularis*	1170; 1160
MB151α	Facies and association of coralligenous biocenosis (in enclave)	1170; 1160
MC1519	Facies with *Eunicella cavolini*	1170; 1160
MC151A	Facies with *Eunicella singularis*	1170; 1160
MC151B	Facies with *Paramuricea clavata*	1170; 1160
MC151E	Facies with *Leptogorgia sarmentosa*	1170; 1160
MC151F	Facies with *Anthipatella subpinnata* and sparse red algae	1170; 1160
MC151G	Facies with massive sponges and sparse red algae	1170; 1160

MC1522	Facies with *Corallium rubrum*	8330; 1170
MC1523	Facies with *Leptopsammia pruvoti*	8330; 1170
MC251	Coralligenous platforms	1170
MC6514	Facies of sticky muds with *Alcyonium palmatum* and *Parastichopus regalis* 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 *Alcyonium palmatum* and *Parastichopus regalis* on lower circalittoral mud	
ME1511	Mediterranean upper bathyal *Lophelia pertusa* reefs	1170
ME1512	Mediterranean upper bathyal *Madrepora oculata* reefs	1170
ME1513	Mediterranean upper bathyal *Madrepora oculata* and *Lophelia pertusa* reefs	1170
ME6514	Mediterranean upper bathyal facies of with *Pheronema carpenteri*	
MF1511	Mediterranean lower bathyal *Lophelia pertusa* reefs	1170
MF1512	Mediterranean lower bathyal *Madrepora oculata* reefs	1170
MF1513	Mediterranean lower bathyal *Madrepora oculata* and *Lophelia pertusa* reefs	1170
MF6511	Mediterranean lower bathyal facies of sandy muds with *Thenea muricata*	
MF6513	Mediterranean lower bathyal facies of compact muds with *Isidella elongata*	

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	**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. **Unit**: Index. **Methodology:** as developed and used by Butterfly Conservation Europe, Van Swaay, C.A.M, *Assessing Butterflies in Europe - Butterfly Indicators 1990-2018,* Technical report, Butterfly Conservation Europe, 2020.
Stock of organic carbon in cropland mineral soils	**Description**: This indicator describes the stock of organic carbon in cropland mineral soils at a depth of 0 to 30 cm. **Unit**: tonnes of organic carbon/ha. **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., *LUCAS Soil 2022,* JRC technical report, Publications Office of the European Union, 2021.
Share of agricultural land with high-diversity landscape features	**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 external disturbances as possible to provide safe habitats for various taxa, and therefore need to comply with the following conditions: a) they cannot be under productive agricultural use (including grazing or fodder production), and b) they should not receive fertilizer or pesticide treatment. 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. **Unit:** Percent (share of Utilised Agricultural Area). **Methodology:** as developed under indicator I.21, Annex I of Regulation 2021/2115, as based on LUCAS for landscape elements, Ballin M. et al., *Redesign sample for Land Use/Cover Area frame Survey (LUCAS)*, Eurostat 2018, and for land laying fallow, *Farm Structure,*

	Reference Metadata in Single Integrated Metadata Structure, online publication, Eurostat.

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
Acrocephalus palustris
Alauda arvensis
Anthus spinoletta
Anthus trivialis
Carduelis cannabina
Carduelis carduelis
Emberiza citrinella
Falco tinnunculus
Jynx torquilla
Lanius collurio
Lullula arborea
Miliaria calandra
Oenanthe oenanthe
Passer montanus
Perdix perdix

Saxicola rubetra
Saxicola torquatus
Serinus citrinella
Serinus serinus
Streptopelia turtur
Sturnus vulgaris
Sylvia communis
Turdus pilaris
Vanellus vanellus

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

Bulgaria
Alauda arvensis
Carduelis carduelis
Carduelis cannabina
Coturnix coturnix
Corvus frugilegus
Emberiza hortulana
Emberiza melanocephala
Falco tinnunculus
Galerida cristata
Hirundo rustica
Lanius collurio
Miliaria calandra
Motacilla flava

Perdix perdix
Passer montanus
Sylvia communis
Streptopelia turtur
Sturnus vulgaris
Upupa epops

Croatia
Alauda arvensis
Anthus campestris
Anthus trivialis
Carduelis cannabina
Carduelis carduelis
Coturnix coturnix
Emberiza cirlus
Emberiza citrinella
Emberiza melanocephala
Falco tinnunculus
Galerida cristata
Jynx torquilla
Lanius collurio
Lanius senator
Lullula arborea
Luscinia megarhynchos
Miliaria calandra
Motacilla flava
Oenanthe hispanica
Oriolus oriolus
Passer montanus
Pica pica
Saxicola rubetra
Saxicola torquatus
Streptopelia turtur
Sylvia communis
Upupa epops
Vanellus vanellus

Cyprus
Alectoris chukar
Athene noctua
Carduelis carduelis
Cisticola juncidis
Clamator glandarius
Columba palumbus
Coracias garrulus

Corvus corone cornix
Coturnix coturnix
Emberiza calandra
Emberiza melanocephala
Falco tinnunculus
Francolinus francolinus
Galerida cristata
Hirundo rustica
Chloris chloris
Iduna pallida
Linaria cannabina
Oenanthe cypriaca
Parus major
Passer hispaniolensis
Pica pica
Streptopelia turtur
Sylvia conspicillata
Sylvia melanocephala

Czechia
Alauda arvensis
Anthus pratensis
Carduelis cannabina
Ciconia ciconia
Corvus frugilegus
Emberiza citrinella
Falco tinnunculus
Hirundo rustica
Lanius collurio
Miliaria calandra
Motacilla flava
Passer montanus
Perdix perdix
Saxicola rubetra
Saxicola torquatus
Serinus serinus
Streptopelia turtur
Sturnus vulgaris
Sylvia communis
Vanellus vanellus

Denmark

Alauda arvensis
Anthus pratensis
Carduelis cannabina
Carduelis carduelis
Corvus corone
Corvus frugilegus
Emberiza citrinella
Falco tinnunculus
Gallinago gallinago
Hirundo rustica
Lanius collurio
Miliaria calandra
Motacilla alba
Motacilla flava
Oenanthe oenanthe
Passer montanus
Perdix perdix
Saxicola rubetra
Sylvia communis
Sylvia curruca
Turdus pilaris
Vanellus vanellus

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

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

Finland
Alauda arvensis
Anthus pratensis
Corvus monedula
Crex crex
Delichon urbica
Emberiza hortulana
Hirundo rustica
Numenius arquata
Passer montanus
Saxicola rubertra
Sturnus vulgaris
Sylvia communis
Turdus pilaris
Vanellus vanellus

France
Alauda arvensis
Alectoris rufa
Anthus campestris
Anthus pratensis
Buteo buteo
Carduelis cannabina
Corvus frugilegus

Coturnix coturnix
Emberiza cirlus
Emberiza citrinella
Emberiza hortulana
Falco tinnunculus
Galerida cristata
Lanius collurio
Lullula arborea
Melanocorypha calandra
Motacilla flava
Oenanthe oenanthe
Perdix perdix
Saxicola torquatus
Saxicola rubetra
Sylvia communis
Upupa epops
Vanellus vanellus

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

Greece
Alauda arvensis
Apus apus
Athene noctua
Calandrella brachydactyla
Carduelis cannabina
Carduelis carduelis
Carduelis chloris
Ciconia ciconia
Corvus corone
Corvus monedula
Delichon urbicum
Emberiza cirlus
Emberiza hortulana
Emberiza melanocephala

Falco naumanni
Falco tinnunculus
Galerida cristata
Hirundo daurica
Hirundo rustica
Lanius collurio
Lanius minor
Lanius senator
Lullula arborea
Luscinia megarhynchos
Melanocorypha calandra
Miliaria calandra
Motacilla flava
Oenanthe hispanica
Oenanthe oenanthe
Passer domesticus
Passer hispaniolensis
Passer montanus
Pica pica
Saxicola rubetra
Saxicola torquatus
Streptopelia decaocto
Streptopelia turtur
Sturnus vulgaris
Sylvia melanocephala
Upupa epops

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

Ireland
Carduelis cannabina
Carduelis carduelis
Columba oenas
Columba palumbus
Corvus cornix
Corvus frugilegus
Corvus monedula
Emberiza citrinella
Falco tinnunculus
Fringilla coelebs
Hirundo rustica
Chloris chloris
Motacilla alba
Passer domesticus
Phasianus colchicus
Pica pica
Saxicola torquatus
Sturnus vulgaris

Italy
Alauda arvensis
Anthus campestris
Calandrella brachydactyla
Carduelis carduelis
Carduelis chloris
Corvus cornix
Emberiza calandra
Emberiza hortulana
Falco tinnunculus
Galerida cristata
Hirundo rustica
Jynx torquilla
Lanius collurio
Luscinia megarhynchos
Melanocorypha calandra
Motacilla alba
Motacilla flava
Oriolus oriolus
Passer domesticus italiae
Passer hispaniolensis
Passer montanus
Pica pica
Saxicola torquatus
Serinus serinus

Streptopelia turtur
Sturnus unicolor
Sturnus vulgaris
Upupa epops

Latvia
Acrocephalus palustris
Alauda arvensis
Anthus pratensis
Carduelis carduelis
Carpodacus erythrinus
Ciconia ciconia
Crex crex
Emberiza citrinella
Lanius collurio
Locustella naevia
Motacilla flava
Passer montanus
Saxicola rubetra
Sturnus vulgaris
Sylvia communis
Vanellus vanellus

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

Luxembourg
Alauda arvensis
Carduelis cannabina
Emberiza citrinella
Lanius collurio

Passer montanus
Saxicola torquatus
Sylvia communis

Malta
Calandrella brachydactyla
Linaria cannabina
Cettia cetti
Cisticola juncidis
Coturnix coturnix
Emberiza calandra
Lanius senator
Monticola solitarius
Passer hispaniolensis
Passer montanus
Serinus serinus
Streptopelia decaocto
Streptopelia turtur
Sturnus vulgaris
Sylvia conspicillata
Sylvia melanocephala

Netherlands
Alauda arvensis
Anthus pratensis
Athene noctua
Calidris pugnax
Carduelis carduelis
Corvus frugilegus
Coturnix coturnix
Emberiza citrinella
Falco tinnunculus
Gallinago gallinago
Haematopus ostralegus
Hippolais icterina
Hirundo rustica
Limosa limosa
Miliaria calandra
Motacilla fl ava
Numenius arquata
Passer montanus
Perdix perdix

Saxicola torquatus
Spatula clypeata
Streptopelia turtur
Sturnus vulgaris
Sylvia communis
Tringa totanus
Turdus viscivorus
Vanellus vanellus

Poland
Alauda arvensis
Anthus pratensis
Carduelis cannabina
Ciconia ciconia
Emberiza citrinella
Emberiza hortulana
Falco tinnunculus
Galerida cristata
Hirundo rustica
Lanius collurio
Limosa limosa
Miliaria calandra
Motacilla flava
Passer montanus
Saxicola torquatus
Saxicola rubetra
Serinus serinus
Streptopelia turtur
Sturnus vulgaris
Sylvia communis
Upupa epops
Vanellus vanellus

Portugal
Athene noctua
Bubulcus ibis
Carduelis carduelis
Chloris chloris
Ciconia ciconia
Cisticola juncidis
Coturnix coturnix

Delichon urbicum
Emberiza cirlus
Falco tinnunculus
Galerida cristata
Hirundo rustica
Lanius meridionalis
Linaria cannabina
Merops apiaster
Miliaria calandra
Milvus migrans
Passer domesticus
Pica pica
Saxicola torquatus
Serinus serinus
Sturnus unicolor
Upupa epops

Romania
Alauda arvensis
Anthus campestris
Calandrella brachydactyla
Ciconia ciconia
Corvus frugilegus
Emberiza calandra
Emberiza citrinella
Emberiza hortulana
Emberiza melanocephala
Falco tinnunculus
Galerida cristata
Hirundo rustica
Lanius collurio
Lanius minor
Linaria cannabina
Melanocorypha calandra
Motacilla flava
Passer montanus
Perdix perdix
Saxicola rubetra
Saxicola torquatus
Streptopelia turtur
Sturnus vulgaris
Sylvia communis
Upupa epops

Vanellus vanellus

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

Slovenia
Acrocephalus palustris
Alauda arvensis
Anthus trivialis
Carduelis cannabina
Carduelis carduelis
Columba oenas
Columba palumbus
Emberiza calandra
Emberiza cirlus
Emberiza citrinella
Falco tinnunculus
Galerida cristata
Hirundo rustica
Jynx torquilla
Lanius collurio
Lullula arborea
Luscinia megarhynchos
Motacilla flava
Passer montanus

Phoenicurus phoenicurus
Picus viridis
Saxicola rubetra
Saxicola torquatus
Serinus serinus
Streptopelia turtur
Sturnus vulgaris
Sylvia communis
Upupa epops
Vanellus vanellus

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

Sweden
Alauda arvensis
Anthus pratensis
Carduelis cannabina
Corvus frugilegus
Emberiza citrinella
Emberiza hortulana

Falco tinnunculus
Hirundo rustica
Lanius collurio
Motacilla fl ava
Passer montanus
Saxicola rubetra
Sturnus vulgaris
Sylvia communis
Vanellus vanellus

ANNEX VI

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

Indicator	Description, unit, and methodology for determining and monitoring the indicator
Standing deadwood	**Description**: This indicator shows the amount of non-living standing woody biomass in forest and other wooded land. **Unit**: m^3/ha. **Methodology:** as developed and used by FOREST EUROPE, *State of Europe's Forests 2020,* FOREST EUROPE 2020, and in the description of national forest inventories in *Tomppo E. et al.,* National Forest Inventories, *Pathways for Common Reporting,* 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.
Lying deadwood	**Description**: This indicator shows the amount of non-living woody biomass lying on the ground in forest and other wooded land. **Unit**: m^3/ha. **Methodology:** as developed and used by FOREST EUROPE, *State of Europe's Forests 2020,* FOREST EUROPE 2020, and in the description of national forest inventories in *Tomppo E. et al.,* National Forest Inventories, *Pathways for Common Reporting,* 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.
Share of forests with uneven-aged structure	**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. **Unit:** Percent of FAWS with uneven-aged structure. **Methodology:** as developed and used by FOREST EUROPE, *State of Europe's Forests 2020,* FOREST EUROPE 2020, and in the description of national forest inventories in *Tomppo E. et al.,* National Forest Inventories, *Pathways for Common Reporting,* Springer, 2010.
Forest connectivity	**Description:** Forest connectivity is the degree of compactness of forest covered areas. It is defined in the range of 0 to 100. **Unit:** Index. **Methodology:** as developed by FAO, Vogt P., et al., *FAO – State of the World's Forests: Forest Fragmentation*, JRC Technical Report, Publications Office of the European Union, Luxembourg, 2019.

Common forest birds index	**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. **Unit:** Index. **Methodology:** Brlík et al. *Long-term and large-scale multispecies dataset tracking population changes of common European breeding birds*, Sci Data 8, 21. 2021.
Stock of organic carbon	**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. **Unit**: tonnes organic carbon/ha. **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., *LUCAS Soil 2022,* JRC technical report, Publications Office of the European Union, 2021.

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 and age, enable natural regeneration and succession of tree species.

(12) Enhance forest diversity by creating 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).

(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.

(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.

(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.