

1. **Biodiversity – the need for urgent action**

From the world’s great rainforests to small parks and gardens, from the blue whale to microscopic fungi, biodiversity is the extraordinary variety of life on Earth. We humans are part of, and fully dependent on, this web of life: it gives us the food we eat, filters the water we drink, and supplies the air we breathe. Nature is as important for our mental and physical wellbeing as it is for our society’s ability to cope with global change, health threats and disasters. **We need nature in our lives**.

Healthy and resilient societies depend on giving nature the space it needs. The recent COVID-19 pandemic makes the need to protect and restore nature all the more urgent. The pandemic is raising awareness of the links between our own health and the health of ecosystems. It is demonstrating the need for sustainable supply chains and consumption patterns that do not exceed planetary boundaries. This reflects the fact that the risk of emergence and spread of infectious diseases increases as nature is destroyed[[1]](#footnote-2). Protecting and restoring biodiversity and well-functioning ecosystems is therefore key to **boost our resilience and** **prevent the emergence and spread of future diseases**.

**Investing in nature protection and restoration will also be critical for Europe’s economic recovery** **from the COVID-19 crisis**. When restarting the economy, it is crucial to avoid falling back and locking ourselves into damaging old habits. The European Green Deal – the EU’s growth strategy – will be the compass for our recovery, ensuring that the economy serves people and society and gives back to nature more than it takes away.The **business case for biodiversity** is compelling. Industry and companies rely on genes, species, and ecosystem services as critical inputs for production, notably for medicines. Over half of global GDP depends on nature and the services it provides, with three key economic sectors – construction, agriculture, and food and drink – all highly dependent on it[[2]](#footnote-3).

Biodiversity conservation has potential direct economic benefits for many sectors of the economy. For example, conserving marine stocks could increase annual profits of the seafood industry by more than €49 billion, while protecting coastal wetlands could save the insurance industry around €50 billion annually through reducing flood damage losses[[3]](#footnote-4). The overall benefit/cost ratio of an effective global programme for the conservation of remaining wild nature worldwide is estimated to be at least 100 to 1[[4]](#footnote-5). **Natural capital investment**, including restoration of carbon-rich habitats and climate-friendly agriculture, is recognised to be among the five most important fiscal recovery policies, which offer high economic multipliers and positive climate impact[[5]](#footnote-6). It will be important for the EU to tap into this potential to ensure prosperity, sustainability and resilience in the recovery.

Biodiversity is also crucial for safeguarding **EU and global food security.** Biodiversity loss threatens our food systems[[6]](#footnote-7), putting our food security and nutrition at risk. Biodiversity also underpins healthy and nutritious diets and improves rural livelihoods and agricultural productivity[[7]](#footnote-8). For instance, more than 75% of global food crop types rely on animal pollination[[8]](#footnote-9).

Despite this urgent moral, economic and environmental imperative, **nature is in a state of crisis**.The five main direct drivers of biodiversity loss[[9]](#footnote-10) – changes inland and sea use, overexploitation, climate change, pollution, and invasive alien species ­– are making nature disappear quickly. We see the changes in our everyday lives: concrete blocks rising up on green spaces, wilderness disappearing in front of our eyes, and more species being put at risk of extinction than at any point in human history. In the last four decades, global wildlife populations fell by 60% as a result of human activities[[10]](#footnote-11). And almost three quarters of the Earth’s surface have been altered[[11]](#footnote-12), squeezing nature into an ever-smaller corner of the planet.

The biodiversity crisis and the climate crisis are intrinsically linked. Climate change accelerates the destruction of the natural world through droughts, flooding and wildfires, while the loss and unsustainable use of nature are in turn key drivers of climate change. But just as the crises are linked, so are the solutions. **Nature is a vital ally in the fight against climate change**[[12]](#footnote-13). Nature regulates the climate, and nature-based solutions[[13]](#footnote-14), such as protecting and restoring wetlands, peatlands and coastal ecosystems, or sustainably managing marine areas, forests, grasslands and agricultural soils, will be essential for emission reduction and climate adaptation. Planting trees and deploying green infrastructure will help us to cool urban areas and mitigate the impact of natural disasters.

Biodiversity loss and ecosystem collapse are one of the biggest threats facing humanity in the next decade[[14]](#footnote-15). They also threaten the foundations of our economy and the **costs of inaction** are high and are anticipated to increase[[15]](#footnote-16). The world lost an estimated €3.5-18.5 trillion per year in ecosystem services from 1997 to 2011 owing to land-cover change, and an estimated €5.5-10.5 trillion per year from land degradation. Specifically, biodiversity loss results in reduced crop yields and fish catches, increased economic losses from flooding and other disasters, and the loss of potential new sources of medicine[[16]](#footnote-17).

The EU is ready to show ambition to reverse biodiversity loss, lead the world by example and by action, and help agree and adopt a transformative post-2020 global framework at the 15th Conference of the Parties to the Convention on Biological Diversity. This should build on the headline ambition to ensure that by 2050 **all of the world’s ecosystems are restored, resilient, and adequately protected.** The world should commit to the net-gain principle to give nature back more than it takes. As part of this, the world should commit to no human-induced extinction of species, at minimum where avoidable.

This strategy sets out how Europe can help make this happen. As a milestone, it aims to ensure that **Europe's biodiversity will be on the path to recovery by 2030** for the benefit of people, the planet, the climate and our economy, in line with the 2030 Agenda for Sustainable Development and with the objectives of the Paris Agreement on Climate Change. It addresses the five main drivers of biodiversity loss, sets out an enhanced governance framework to fill remaining gaps, ensures the full implementation of EU legislation, and pulls together all existing efforts. This strategy is enterprising and incentivising in spirit and action. It reflects the fact that **protecting and restoring nature will need more than regulation alone**. It will require action by citizens, businesses, social partners and the research and knowledge community, as well as strong partnerships between local, regional, national and European level. This strategy is in line with the ambitions and commitment set out in President von der Leyen’s Political Guidelines and in the European Green Deal.

Adopted in the heart of the COVID-19 pandemic, this strategy will also be a central element of the EU’s recovery plan. It will be crucial to prevent and build resilience to future zoonosis outbreaks and to provide immediate business and investment opportunities for restoring the EU’s economy.

All new initiatives and proposals will be underpinned by the Commission’s better regulation tools. Based on public consultations and on the identification of the environmental, social and economic impacts, impact assessments will contribute to ensuring that all initiatives achieve their objectives in the most effective and least burdensome way and live up to a green oath to “do no harm”.

1. **Protecting and restoring nature in the European Union**

The EU has legal frameworks, strategies and action plans to protect nature and restore habitats and species. But protection has been incomplete, restoration has been small-scale, and the implementation and enforcement of legislation has been insufficient[[17]](#footnote-18).

To put biodiversity on the path to recovery by 2030, we need to step up the protection and restoration of nature. This should be done by improving and **widening our network of protected areas** and by developing an ambitious **EU Nature Restoration Plan**.

* 1. **A coherent network of protected areas**

Biodiversity fares better in protected areas. However, the current network of legally protected areas, including those under strict protection, is not sufficiently large to safeguard biodiversity. Evidence shows that the targets defined under the Convention on Biological Diversity are insufficient to adequately protect and restore nature[[18]](#footnote-19). Global efforts are needed and the EU itself needs to do more and better for nature and build a truly **coherent Trans-European Nature Network**.

Enlarging protected areas is also an economic imperative. Studies on marine systems estimate that every euro invested in marine protected areas would generate a return of at least €3[[19]](#footnote-20). Similarly, the Nature Fitness Check[[20]](#footnote-21) showed that the benefits of Natura 2000 are valued at between €200-300 billion per year. The investment needs of the network are expected to support as many as 500,000 additional jobs[[21]](#footnote-22).

For the good of our environment and our economy, and to support the EU’s recovery from the COVID-19 crisis, we need to protect more nature. In this spirit, **at least 30% of the land and 30% of the sea should be protected in the EU**. This is a minimum of an extra 4% for land and 19% for sea areas as compared to today[[22]](#footnote-23). The target is fully in line with what is being proposed[[23]](#footnote-24) as part of the post-2020 global biodiversity framework (see Section 4).

Within this, there should be specific focus on areas of very high biodiversity value or potential. These are the most vulnerable to climate change and should be granted special care in the form of strict protection[[24]](#footnote-25). Today, only 3% of land and less than 1% of marine areas are strictly protected in the EU. We need to do better to protect these areas. In this spirit, at least one third of protected areas – representing **10% of EU land and 10% of EU sea – should be strictly protected**. This is also in line with the proposed global ambition.

As part of this focus on strict protection, it will be crucial to define, map, monitor and **strictly protect all the EU’s remaining primary and old-growth forests**[[25]](#footnote-26).It will also be important to advocate for the same globally and ensure that EU actions do not result in deforestation in other regions of the world. Primary and old-growth forests are the richest forest ecosystems that remove carbon from the atmosphere, while storing significant carbon stocks. Significant areas of other carbon-rich ecosystems, such as peatlands, grasslands, wetlands, mangroves and seagrass meadows should also be strictly protected, taking into account projected shifts in vegetation zones.

Member States will be responsible for designating the additional protected and strictly protected areas[[26]](#footnote-27). Designations should either help to complete the Natura 2000 network or be under national protection schemes. All protected areas will need to have clearly defined conservation objectives and measures. The Commission, working with Member States and the European Environment Agency, will put forward in 2020 criteria and guidance for identifying and designating additional areas, including a definition of strict protection, as well as for appropriate management planning. In doing so, it will indicate how other effective area-based conservation measures and greening of cities could contribute to the targets.

The targets relate to the EU as a whole and could be broken down according to the EU bio-geographical regions and sea basins or at a more local level. **Every Member State will have to do its fair share of the effort** based on objective ecological criteria, recognising that each country has a different quantity and quality of biodiversity. Particular focus will be placed on protecting and restoring the tropical and sub-tropical marine and terrestrial ecosystems in the EU’s outermost regions given their exceptionally high biodiversity value.

In addition, in order to have a truly coherent and resilient Trans-European Nature Network, it will be important to set up **ecological corridors** to prevent genetic isolation, allow for species migration, and maintain and enhance healthy ecosystems. In this context, investments in green and blue infrastructure[[27]](#footnote-28) and cooperation across borders among Member States should be promoted and supported, including through the European Territorial Cooperation.

The Commission will aim to agree the criteria and guidance for additional designations with Member States by the end of 2021. Member States will then have until the end of 2023 to demonstrate significant progress in legally designating new protected areas and integrating ecological corridors. On this basis, the Commission will assess by 2024 whether the EU is on track to meet its 2030 targets or whether stronger actions, including EU legislation, are needed.

Finally, the **Overseas Countries and Territories** also hostimportant biodiversity hotspots, not governed by EU environmental rules. The Commission encourages relevant Member States to consider promoting equal or equivalent rules in these countries and territories.

**Nature protection: key commitments by 2030**

1. Legally protect a minimum of 30% of the EU’s land area and 30% of the EU’s sea area and integrate ecological corridors, as part of a true Trans-European Nature Network.
2. Strictly protect at least a third of the EU’s protected areas, including all remaining EU primary and old-growth forests.
3. Effectively manage all protected areas, defining clear conservation objectives and measures, and monitoring them appropriately.
   1. **An EU Nature Restoration Plan: restoring ecosystems across land and sea**

Protecting the nature we have will not be enough to bring nature back into our lives. To reverse biodiversity loss, the world needs to be more ambitious on nature restoration. With a **new EU Nature Restoration Plan**, Europe will lead the way.

The plan will help improve the health of existing and new protected areas, and bring diverse and resilient nature back to all landscapes and ecosystems. This means reducing pressures on habitats and species, and ensuring all use of ecosystems is sustainable. It also means supporting the recovery of nature, limiting soil sealing and urban sprawl, and tackling pollution and invasive alien species. The plan will create jobs, reconcile economic activities with nature growth and help ensure the long-term productivity and value of our natural capital.

* + 1. *Strengthening the EU legal framework for nature restoration*

Nature restoration is already partially required from the Member States in existing EU legislation[[28]](#footnote-29). However, **significant implementation and regulatory gaps hinder progress**. For instance, there is no requirement for Member States to have biodiversity restoration plans. There are not always clear or binding targets and timelines and no definition or criteria on restoration or on the sustainable use of ecosystems. There is also no requirement to comprehensively map, monitor or assess ecosystem services, health or restoration efforts. These issues are exacerbated by the gaps in implementation that prevent the existing legislation from achieving its objectives[[29]](#footnote-30). Stronger implementation support and enforcement is required. To ensure that nature restoration across land and sea picks up, increases the EU’s resilience, and contributes to climate change mitigation and adaptation as a key nature-based solution, this strategy puts forward two strands of actions:

* Firstly, and subject to an impact assessment, the Commission will put forward a proposal for legally binding **EU nature restoration targets** in 2021 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. This will identify the conditions in which the targets must be met, as well as the most effective measures to reach them. The impact assessment will also look at the possibility of an EU-wide methodology to map, assess and achieve good condition of ecosystems so they can deliver benefits such as climate regulation, water regulation, soil health, pollination and disaster prevention and protection.
* In that context, the Commission will request and support Member States to raise the level of implementation of existing legislation within clear deadlines. It will in particular request Member States to ensure **no deterioration in conservation trends and status** of all protected habitats and species by 2030[[30]](#footnote-31). In addition, Member States will have to ensure that at least 30% of species and habitats not currently in favourable status are in that category or show a strong positive trend. The Commission and the European Environmental Agency will provide guidance to Member States in 2020 on how to select and prioritise species and habitats.
  + 1. *Bringing nature back to agricultural land*

As guardians of our land, farmers play a vital role in preserving biodiversity. They are among the first to feel the consequences when biodiversity is lost but also among the first to reap the benefits when it is restored. Biodiversity enables them to provide us with **safe, sustainable, nutritious and affordable food** and provides them with the income they need to thrive and develop. European farmers are an essential part of the EU’s future and must continue to be the social and economic hub of many communities across our Union.

At the same time, certain agricultural practices are a key driver of biodiversity decline. This is why it is important to work with farmers to **support and incentivise the transition to fully sustainable practices**. Improving the condition and diversity of agroecosystems will increase the sector’s resilience to climate change, environmental risks and socioeconomic shocks, while creating new jobs, for example in organic farming, rural tourism or recreation.

To support the long-term sustainability of both nature and farming, this strategy will work in tandem with the new **Farm to Fork Strategy** and the **new Common Agricultural Policy (CAP)**, including by promoting eco-schemes and result-based payment schemes. In implementing the Biodiversity and the Farm to Fork Strategies, the Commission will closely monitor progress and improvements in terms of food security and farmers income. The Commission will ensure that the CAP Strategic plans are assessed against robust climate and environmental criteria, and that Member States set explicit national values for the relevant targets set in this strategy, as well as in the Farm to Fork Strategy. These plans should lead to sustainable practices such as precision agriculture, organic farming, agro-ecology, agro-forestry, low-intensive permanent grassland, and stricter animal welfare standards.

Farmland birds and insects, particularly pollinators, are key indicators of the health of agroecosystems and are vital for agricultural production and food security. Their alarming decline must be reversed. As set out in the Farm to Fork Strategy, the Commission will take action to reduce by **50% the overall use of – and risk from – chemical pesticides by 2030** and reduce by 50% the use of more hazardous pesticides by 2030. This must be supported by the full implementation of the EU Pollinators initiative[[31]](#footnote-32). By the end of 2020, the Commission will review the initiative and propose additional measures if necessary. To provide space for wild animals, plants, pollinators and natural pest regulators, there is an urgent need to bring back **at least 10% of agricultural area under high-diversity landscape features**. These include, *inter alia*, buffer strips, rotational or non-rotational fallow land, hedges, non-productive trees, terrace walls, and ponds. These help enhance carbon sequestration, prevent soil erosion and depletion, filter air and water, and support climate adaptation. In addition, more biodiversity often helps lead to more agricultural production. Member States will need to translate the 10% EU target to a lower geographical scale to ensure connectivity among habitats, especially through the CAP instruments and CAP Strategic Plans, in line with the Farm to Fork Strategy, and through the implementation of the Habitats Directive. The progress towards the target will be under constant review, and adjustment if needed, to mitigate against undue impact on biodiversity, food security and farmers’ competitiveness.

Agroecology can provide healthy food while maintaining productivity, increase soil fertility and biodiversity, and reduce the footprint of food production. Organic farming in particular holds great potential for farmers and consumers alike. The sector creates jobs and attracts young farmers. Organic farming also provides 10-20 % more jobs per hectare than conventional farms, and creates added value for agricultural products[[32]](#footnote-33). To make the most of this potential, at least **25% of the EU’s agricultural land must be organically farmed by 2030**. In addition to CAP measures, the Commission will put forward an Action Plan on organic farming, helping Member States stimulate both supply and demand of organic products. It will also ensure consumer’s trust through promotion campaigns and green public procurement. In the implementation of the EU-wide agro-ecological targets set out in this strategy and in the Farm to Fork Strategy, the different starting points and differences in progress already made in Member States will be taken into account.

The uptake of agroforestry support measures under rural development should be increased as it has great potential to provide multiple benefits for biodiversity, people and climate.

The decline of **genetic diversity** must also be reversed, including by facilitating the use of traditional varieties of crops and breeds. This would also bring health benefits through more varied and nutritious diets. The Commission is considering the revision of marketing rules for traditional crop varieties in order to contribute to their conservation and sustainable use. The Commission will also take measures to facilitate the registration of seed varieties, including for organic farming, and to ensure easier market access for traditional and locally adapted varieties.

* + 1. *Addressing land take and restoring soil ecosystems*

Soil is one of the most complex of all ecosystems. It is a habitat in its own right, and home to an incredible diversity of organisms that regulate and control key ecosystem services such as soil fertility, nutrient cycling and climate regulation. **Soil is a hugely important non-renewable resource**, vital for human and economic health, as well as the production of food and new medications.

In the EU, the degradation of soil is having considerable environmental and economic consequences. Poor land management, such as deforestation, overgrazing, unsustainable farming and forestry practices, construction activities and land sealing are among the main causes of this situation[[33]](#footnote-34). Despite recent reductions in the pace of soil sealing, fertile soils continue to be lost to land take and urban sprawl[[34]](#footnote-35). When compounded by climate change, the effects of erosion and losses of soil organic carbon are becoming increasingly apparent. Desertification is also a growing threat in the EU[[35]](#footnote-36).

It is therefore essential to step up efforts to **protect soil fertility, reduce soil erosion and increase soil organic matter**. This should be done by adopting sustainable soil management practices, including as part of the CAP. Significant progress is also needed on identifying contaminated soil sites, restoring degraded soils, defining the conditions for their good ecological status, introducing restoration objectives, and improving the monitoring of soil quality.

To address these issues in a comprehensive way and help to fulfil EU and international commitments on land-degradation neutrality, the Commission will update the **EU Soil Thematic Strategy**[[36]](#footnote-37) in 2021. The **Zero Pollution Action Plan** **for Air, Water and Soil** that the Commission will adopt in 2021 will also look at these issues. Soil sealing and rehabilitation of contaminated brownfields will be addressed in the upcoming Strategy for a Sustainable Built Environment. A **mission in the area of soil health and food** under Horizon Europe[[37]](#footnote-38) will aim to develop solutions for restoring soil health and functions.

* + 1. *Increasing the quantity of forests and improving their health and resilience*

Forests are hugely important for biodiversity, climate and water regulation, the provision of food, medicines and materials, carbon sequestration and storage, soil stabilisation and the purification of air and water. They are also a natural home for recreation and learning about nature. Foresters have a key role to play in ensuring sustainable forest management and in restoring and sustaining biodiversity in forests.

In addition to strictly protecting all remaining EU primary and old-growth forests, **the EU must** **increase the quantity, quality and resilience of its forests**, notably against fires, droughts, pests, diseases and other threats likely to increase with climate change. To retain their function for both biodiversity and climate, all forests need to be preserved in good health. More resilient forests can support a more resilient economy. They also play an important role in providing materials, products and services, which are key for the circular bio-economy.

To make this happen, the Commission will propose a dedicated **EU Forest Strategy** in 2021 in line with our wider biodiversity and climate neutrality ambitions. It will include a roadmap for **planting at least 3 billion additional trees in the EU by 2030**, in full respect of ecological principles. This will create substantial job opportunities linked to the collecting and cultivating of seeds, planting seedlings, and ensuring their development. Tree planting is particularly beneficial in cities, while in rural areas it can work well with agroforestry, landscape features and increased carbon sequestration. At the same time, the Commission will continue to work with Member States to ensure that the EU is sufficiently equipped to prevent and respond to major forest fires, which can inflict significant damages on forest biodiversity.

Afforestation, reforestation and tree planting to support biodiversity and ecosystem restoration will be promoted through the CAP Strategic Plans, and the Cohesion Policy funds. The new **European Urban Greening Platform**[[38]](#footnote-39) will also facilitate urban tree planting, including under the LIFE programme.

The share of forest areas covered by management plans should cover all managed public forests and an increased number of private forests, and biodiversity-friendly practices such as closer-to-nature-forestry should continue and be further developed. To support this, the Commission will develop guidelines on biodiversity-friendly afforestation and reforestation and closer-to-nature-forestry practices. This will be done in parallel with the new EU Forest Strategy.

To gain a better picture of the health of European forests, the Commission will work with other data providers to further develop the **Forest Information System for Europe**. This will help produce up-to-date assessments of the condition of European forests and link all EU forest-data web-platforms. This will also be presented as part of the EU Forest Strategy.

* + 1. *Win-win solutions for energy generation*

Decarbonising the energy system is critical for climate neutrality, as well as for the EU’s recovery from the COVID-19 crisis and long-term prosperity. More sustainably sourced renewable energy will be essential to fight climate change and biodiversity loss. The EU will prioritise solutions such as ocean energy, offshore wind, which also allows for fish stock regeneration, solar-panel farms that provide biodiversity-friendly soil cover, and sustainable bioenergy.

To mitigate climate and environmental risks created by the increasing use of certain sources for bioenergy, the revised Renewable Energy Directive[[39]](#footnote-40) includes strengthened sustainability criteria. It also promotes the shift to advanced biofuels based on residues and non-reusable and non-recyclable waste. This approach should continue for all forms of bioenergy. The use ofwhole treesand food and feed crops for energy production – whether produced in the EU or imported – should be minimised.

To better understand and monitor the potential climate and biodiversity risks, the Commission is assessing the **EU and global biomass supply and demand** and related sustainability[[40]](#footnote-41). As part of its increased ambition to protect and restore forest ecosystems, the Commission will publish the results of this work on the use of forest biomass for energy production by the end of 2020. This will inform the Commission’s policy-making, including the review and revision, where necessary, of the level of ambition of the Renewable Energy Directive, the Emissions Trading Scheme, and the Regulation on land use, land use change and forestry (LULUCF) set for 2021.

In line with the Renewable Energy Directive, the Commission will also develop operational guidance in 2021 on the **new sustainability criteria on forest biomass for energy**[[41]](#footnote-42). It will also review in 2021 the data on biofuels with high indirect land-use change risk and establish a trajectory for their gradual phase out by 2030.

The overall objective is to ensure that EU regulatory framework on bioenergy is in line with the increased ambition set out in the European Green Deal.

* + 1. *Restoring the good environmental status of marine ecosystems*

**Restored and properly protected marine ecosystems** bring substantial health, social and economic benefits to coastal communities and the EU as a whole. The need for stronger action is all the more acute as marine and coastal ecosystem biodiversity loss is severely exacerbated by global warming[[42]](#footnote-43).

Achieving good environmental status of marine ecosystems, including through strictly protected areas, must involve the restoration of carbon-rich ecosystems as well as important fish spawning and nursery areas. Some of today’s sea uses endanger food security, fishers’ livelihoods, and the fishery and seafood sectors. **Marine resources must be harvested sustainably and there must be zero-tolerance for illegal practices**. In this regard, the full implementation of the EU’s Common Fisheries Policy, the Marine Strategy Framework Directive and the Birds and Habitats Directives is essential.

The application of an ecosystem-based management approach under EU legislation[[43]](#footnote-44) will reduce the adverse impacts of fishing, extraction and other human activities, especially on sensitive species and seabed habitats. To support this, **national maritime spatial plans**, which Member States have to deliver in 2021, should aim at covering all maritime sectors and activities, as well as area-based conservation-management measures.[[44]](#footnote-45) The Commission will also propose a **new action plan to conserve fisheries resources and protect marine ecosystems** by 2021. Where necessary, measures will be introduced to limit the use of fishing gear most harmful to biodiversity, including on the seabed. It will also look at how to reconcile the use of bottom-contacting fishing gear with biodiversity goals, given it is now the most damaging activity to the seabed. This must be done in a fair and just way for all. The European Maritime and Fisheries Fund should also support the transition to more selective and less damaging fishing techniques.

Healthy fish stocks are key to the long-term prosperity of fishermen and the health of our oceans and biodiversity. This makes it all the more important to maintain or reduce fishing mortality at or under **Maximum Sustainable Yield levels**. This will help achieve a healthy population age and size distribution for fish stocks.

The **by-catch of species threatened with extinction** must also be eliminated or reduced to a level that allows full recovery. This should also be the case for those in bad conservation status or not in good environmental status. Furthermore, the by-catch of other species[[45]](#footnote-46) must be eliminated or, where this is not possible, minimised so as not to threaten their conservation status. To support this, data collection on by-catch for all sensitive species needs to be stepped up.

In addition, **fisheries-management measures** must be established in all marine protected areas according to clearly defined conservation objectives and on the basis of the best available scientific advice.

* + 1. *Restoring freshwater ecosystems*

The EU’s legal framework on water is ambitious but implementation is lagging behind and enforcement must be stepped up[[46]](#footnote-47). Greater efforts are needed to **restore freshwater ecosystems and the natural functions of rivers** in order to achieve the objectives of the Water Framework Directive. This can be done by removing or adjusting barriers that prevent the passage of migrating fish and improving the flow of water and sediments. To help make this a reality, **at least 25,000 km of rivers will be restored into free-flowing rivers by 2030**[[47]](#footnote-48)through the removal of primarily obsolete barriers and the restoration of floodplains and wetlands. Technical guidance and support to the Member States to identify sites and help mobilise funding will be provided by the Commission in 2021, in consultation with all relevant authorities[[48]](#footnote-49). Member State authorities should review water abstraction and impoundment permits to implement ecological flows in order to achieve good status or potential of all surface waters and good status of all groundwater by 2027 at the latest, as required by the Water Framework Directive[[49]](#footnote-50). To that effect, the Commission will provide technical support to Member States on their measures by 2023.

Overall, large-scale river and floodplain restoration investments[[50]](#footnote-51) can provide a major economic boost for the restoration sector and for local socioeconomic activities such as tourism and recreation. At the same time, these investments can improve water regulation, flood protection, nursery habitats for fish, and the removal of nutrient pollution.

* + 1. *Greening urban and peri-urban areas*

**Green urban spaces**, from parks and gardens to green roofs and urban farms, provide a wide range of benefits for people. They also provide opportunities for businesses and a refuge for nature. They reduce air, water and noise pollution, provide protection from flooding, droughts and heat waves, and maintain a connection between humans and nature[[51]](#footnote-52).

The recent lockdowns due to the COVID-19 pandemic have shown us the **value of green urban spaces for our physical and mental wellbeing**. While protection of some urban green spaces has increased[[52]](#footnote-53), green spaces often lose out in the competition for land as the share of the population living in urban areas continues to rise.

This strategy aims to reverse these trends and stop theloss ofgreen urban ecosystems. The promotion of healthy ecosystems, green infrastructure and **nature-based solutions** should be systematically integrated into urban planning, including in public spaces, infrastructure, and the design of buildings and their surroundings.

To bring nature back to cities and reward community action, the Commission calls on European cities of at least 20,000 inhabitants to develop ambitious **Urban Greening Plans** by the end of 2021. These should include measures to create biodiverse and accessible urban forests, parks and gardens; urban farms; green roofs and walls; tree-lined streets; urban meadows; and urban hedges. They should also help improve connections between green spaces, eliminate the use of pesticides, limit excessive mowing of urban green spaces and other biodiversity harmful practices. Such plans could mobilise policy, regulatory and financial tools.

To facilitate this work, the Commission will in 2021 set up an **EU Urban Greening Platform**, under a new ‘Green City Accord’[[53]](#footnote-54) with cities and mayors. This will be done in close coordination with theEuropean Covenant of Mayors. The Urban Greening Plans will have a central role in choosing the European Green Capital 2023 and European Green Leaf 2022.

The Commission will support Member States and local and regional authorities through technical guidance and help to mobilise funding and capacity building. It will also reflect these objectives in the **European Climate Pact**.

* + 1. *Reducing pollution*

Pollution is a key driver of biodiversity loss and has a harmful impact on our health and environment. While the EU has a solid legal framework in place to reduce pollution, greater efforts are still required. Biodiversity is suffering from the release of nutrients, chemical pesticides, pharmaceuticals, hazardous chemicals, urban and industrial wastewater, and other waste including litter and plastics. All of these pressures must be reduced.

As part of the Commission’s Zero Pollution Ambition for a toxic-free environment, a new EU Chemicals Strategy for Sustainability will be put forward along with a **Zero Pollution Action Plan for Air, Water and Soil**.

The Commission will also promote the goal of zero pollution from nitrogen and phosphorus flows from fertilisers through reducing nutrient losses by at least 50%, while ensuring that there is no deterioration in soil fertility. This will result in the **reduction of use of fertilisers by at least 20%**. This will be achieved by implementing and enforcing the relevant environmental and climate legislation in full, identifying with Member States the nutrient load reductions needed to achieve these goals, applying balanced fertilisation and sustainable nutrient management, and by managing nitrogen and phosphorus better throughout their lifecycle. To this end, the Commission will work with Member States to develop an Integrated Nutrient Management Action Plan in 2022. The Farm to Fork strategy will address the reduction in the use and risk of pesticides and support wider implementation of Integrated Pest Management[[54]](#footnote-55). As part of this, **the environmental risk assessment of pesticides will be strengthened**. The pressure from plastics is notably addressed through the implementation of the European Strategy for Plastics[[55]](#footnote-56) and the new Circular Economy Action Plan[[56]](#footnote-57).

The Commission will develop a **set of indicators for the progressive reduction of pollution**, and will establish baselines to help monitor progress. Pressures from marine litter and underwater noise are being addressed under the Marine Strategy Framework Directive.

* + 1. *Addressing invasive alien species*

Invasive alien species can significantly undermine efforts to protect and restore nature. Besides inflicting major damage to nature and the economy, many invasive alien species also facilitate the outbreak and spread of infectious diseases, posing a threat to humans and wildlife[[57]](#footnote-58). The rate of release of invasive alien species has increased in recent years. Of the 1,872 species now considered threatened in Europe, 354 are under threat from invasive alien species. Without effective control measures, the rate of invasion and the risks it brings to our nature and health will continue to rise.

The implementation of the **EU Invasive Alien Species Regulation**[[58]](#footnote-59) and other relevant legislation and international agreements must also be stepped up**.** This should aim to minimise, and where possible eliminate, the introduction and establishment of alien species in the EU environment. The aim will be to manage established invasive alien species and **decrease the number of Red List species they threaten by 50%**[[59]](#footnote-60).

**EU Nature Restoration Plan: key commitments by 2030**

1. Legally binding EU nature restoration targets to be proposed in 2021, subject to an impact assessment. By 2030, significant areas of degraded and carbon-rich ecosystems are restored; habitats and species show no deterioration in conservation trends and status; and at least 30% reach favourable conservation status or at least show a positive trend.
2. The decline in pollinators is reversed.
3. The risk and use of chemical pesticides is reduced by 50% and the use of more hazardous pesticides is reduced by 50%.
4. At least 10% of agricultural area is under high-diversity landscape features.
5. At least 25% of agricultural land is under organic farming management, and the uptake of agro-ecological practices is significantly increased.
6. Three billion new trees are planted in the EU, in full respect of ecological principles.
7. Significant progress has been made in the remediation of contaminated soil sites.
8. At least 25,000 km of free-flowing rivers are restored.
9. There is a 50% reduction in the number of Red List species threatened by invasive alien species.
10. The losses of nutrients from fertilisers are reduced by 50%, resulting in the reduction ofthe use of fertilisers by at least 20%.
11. Cities with at least 20,000 inhabitants have an ambitious Urban Greening Plan.
12. No chemical pesticides are used in sensitive areas such as EU urban green areas.
13. The negative impacts on sensitive species and habitats, including on the seabed through fishing and extraction activities, are substantially reduced to achieve good environmental status.
14. The by-catch of species is eliminated or reduced to a level that allows species recovery and conservation.
15. **Enabling transformative change**
    1. **A new governance framework**

In the EU, there is currently no comprehensive governance framework to steer the implementation of biodiversity commitments agreed at national, European or international level. To address the gap, the Commission will put in place **a new European biodiversity governance framework**. This will help map obligations and commitments and set out a roadmap to guide their implementation.

As part of this new framework, the Commission will put in place a monitoring and review mechanism. This will include a **clear set of agreed indicators** and will enable regular progress assessment and set out corrective action if necessary. This mechanism will feed the Environmental Implementation Review and contribute to the European Semester.

The new governance framework will ensure co-responsibility and co-ownership by all relevant actors in meeting the EU’s biodiversity commitments. It will support administrative capacity building, transparency, stakeholder dialogue, and participatory governance at different levels.

The Commission will assess the progress and suitability of this approach in 2023, and consider whether a legally binding approach to governance is needed.

* 1. **Stepping up implementation and enforcement of EU environmental legislation**

All environmental legislation relies on proper implementation and enforcement. Over the last 30 years, the EU has put in place a solid legislative framework to protect and restore its natural capital. However, recent evaluations show that although legislation is fit for purpose, implementation on the ground is lagging behind[[60]](#footnote-61). This is having dramatic consequences on biodiversity and comes with a substantial economic cost[[61]](#footnote-62). **The full implementation and enforcement of EU environmental legislation is therefore at the heart of this strategy**,for which political support and financial and human resources will need to be prioritised.

As regards the Birds and Habitats Directives, enforcement will focus on **completing the Natura 2000 network**, the effective management of all sites, species-protection provisions, and species and habitats that show declining trends. The Commission will also ensure that environment-related legislation with an impact on biodiversity[[62]](#footnote-63) is better implemented, enforced and – where necessary – reviewed and revised.

The Commission will strive to **improve compliance assurance**, working closely with Member States and European networks of environmental agencies, inspectors, auditors, police, prosecutors and judges.

In addition, the Commission will support civil society’s role as a compliance watchdog and will engage with Member States to improve access to justice in national courts in environmental matters for individuals and NGOs. It will also broaden standing for NGOs by proposing **a revision of the Aarhus Regulation[[63]](#footnote-64)**.

* 1. **Building on an integrated and whole-of-society approach**
     1. *Business for biodiversity*

In the partnership spirit of this strategy, all parts of the economy and society will have to play their role. Industry and business have an impact on nature, but they also produce the important innovations, partnerships and expertise that can help address biodiversity loss.

To ensure environmental and social interests are fully embedded into business strategies, the Commission will put forward a new initiative in 2021 on **sustainable corporate governance**. This initiative, which may take the form of a legislative proposal, will address human rights and environmental duty of care and due diligence across economic value chains in a proportionate way according to different sizes of entreprises[[64]](#footnote-65). This will help ensure that shareholder and stakeholder interests are fully aligned with the objectives set out in this strategy. In addition, in 2020, the Commission launched a review of the reporting obligations of businesses under the **Non-Financial Reporting Directive**[[65]](#footnote-66), with a view to improving the quality and scope of non-financial disclosures, including on environmental aspects such as biodiversity.

Through its existing platforms[[66]](#footnote-67), the Commission will help to build a **European Business for Biodiversity** movement, taking inspiration from recent initiatives[[67]](#footnote-68) and making this movement an integral part of the European Climate Pact. Particular attention will be paid to measures to incentivise and eliminate barriers for the take-up of nature-based solutions, as these can lead to significant business and employment opportunities in various sectors[[68]](#footnote-69) and are the key to innovation for economic or societal needs that rely on nature.

* + 1. *Investments, pricing and taxation*

Tackling biodiversity loss and restoring ecosystems will require significant public and private investments at national and European level. This will mean making the most of all relevant EU programmes and financing instruments. The Commission will strengthen its **biodiversity proofing framework**[[69]](#footnote-70), *inter alia*by using in an appropriate way the criteria established under the EU taxonomy, to ensure that EU funding supports biodiversity-friendly investments.

To meet the needs of this strategy, including investment priorities for Natura 2000 and green infrastructure, **at least €20 billion a year[[70]](#footnote-71) should be unlocked for spending on nature**. This will require mobilising private and public funding at national and EU level[[71]](#footnote-72), including through a range of different programmes in the next long-term EU budget. Moreover, as nature restoration will make a major contribution to climate objectives, a significant proportion of the 25% of the EU budget dedicated to climate action will be invested on biodiversity and nature-based solutions.

Under Invest EU, a dedicated natural-capital and circular-economy initiative will be established to mobilise at least €10 billion over the next 10 years, based on public/private blended finance. Nature and biodiversity is also a priority for the European Green Deal Investment Plan. To help unlock the investment needed, the EU must provide long-term certainty for investors and help embed sustainability in the financial system. The EU **sustainable finance taxonomy** will help guide investment towards a green recovery and the deployment of nature-based solutions. In 2021, the Commission will adopt a delegated act under the Taxonomy Regulation[[72]](#footnote-73) to establish a common classification of economic activities that substantially contribute to protecting and restoring biodiversity and ecosystems. This will be further supported by a **Renewed Sustainable Finance Strategy** later this year which will help 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[[73]](#footnote-74).

The Commission will further promote tax systems and pricing that reflect environmental costs, including biodiversity loss. This should encourage changes in national fiscal systems to shift the tax burden from labour to pollution, under-priced resources, and other environmental externalities. The ‘**user pays’ and ‘polluter pays’ principles** have to be applied to prevent and correct environmental degradation.

Public authorities’ purchasing power represents 14% of EU GDP and can serve as a powerful driver of demand for the products and services of companies that invest in or contribute to nature-based solutions. To tap into this potential, when proposing further legislation and guidance on **green public procurement**, the Commission will integrate criteria and monitoring to boost nature-based solutions.

* + 1. *Measuring and integrating the value of nature*

Biodiversity considerations need to be better integrated into public and business decision-making at all levels. Building on existing work[[74]](#footnote-75), the Commission will develop in 2021 methods, criteria and standards to describe the essential features of biodiversity, its services, values, and sustainable use.

These will include **measuring the environmental footprint of products and organisations on the environment**, including through life-cycle approaches and natural capital accounting. In this context, the Commission will support the establishment of an international natural capital accounting initiative.

* + 1. *Improving knowledge, education and skills*

The fight against biodiversity loss must be underpinned by sound science. Investing in research, innovation and knowledge exchange will be key to gathering the best data and developing the best nature-based solutions. Research and innovation can test and develop how to prioritise ‘green’ over ‘grey’ solutions and help the Commission to support investments in nature-based solutions, such as in old-industrialised, low-income or disaster-hit areas.

The new Skills Agenda will play a key role in the transition to a green economy and the fight against biodiversity loss, focusing on training and reskilling of the workforce across a wide range of sectors.

The future Horizon Europe programme will include a **long-term strategic research agenda for biodiversity,** including a science policy mechanism for research-based options for ratcheting up the implementation of biodiversity commitments**,** with increased funding. Horizon Europe’s Missions[[75]](#footnote-76) will significantly contribute to filling knowledge gaps and finding solutions to improve the health of ecosystems and their contribution to human health.

In parallel, the Commission will promote and facilitate partnerships, including a dedicated Biodiversity Partnership, to make the bridge between science, policy and practice and make nature-based solutions a reality on the ground. The Commission will also establish in 2020 **a new Knowledge Centre for Biodiversity** in close cooperation with the European Environment Agency. The Centre will: (i) track and assess progress by the EU and its partners including in relation to implementation of biodiversity related international instruments; (ii) foster cooperation and partnership, including between climate and biodiversity scientists; and (iii) underpin policy development. Moreover, the Commission will increase its support to the Intergovernmental science-policy Platform on Biodiversity and Ecosystem Services.

To help integrate biodiversity and ecosystems into school, higher education and professional training, the Commission will propose a Council Recommendation on encouraging cooperation in **education for environmental sustainability** in 2021. This will provide guidance for schools and teachers on how to cooperate and exchange experiences across Member States on biodiversity teaching. The Commission will also provide support materials and facilitate the exchange of good practices in EU networks of teacher-training programmes.

1. **The European Union for an ambitious global biodiversity agenda**

Biodiversity is a priority of the EU’s external action and an integral part of efforts to meet the United Nations Sustainable Development Goals. It will be mainstreamed throughout bilateral and multilateral engagements, through the EU’s ‘Green Deal diplomacy’, and forthcoming green alliances[[76]](#footnote-77). The Commission will work closely with the European Parliament and Member States to ensure a high level of EU ambition and mobilise all efforts for the good of the world’s biodiversity.

* 1. **Raising the level of ambition and commitment worldwide**

Protecting biodiversity is a global challenge and the next decade will be decisive. Global efforts under the United Nations Convention on Biological Diversity have largely been insufficient. Nature cannot afford any half measures or lack of ambition.

In this spirit, the EU is ready to lead all efforts – working with like-minded partners in **a high-ambition coalition on biodiversity** – to agree an ambitious new global framework for post-2020 at the upcoming 15th Conference of the Parties to the Convention on Biological Diversity.

With this strategy, the Commission proposes ambitious commitments for the EU to bring to the table. The EU should also support governments and stakeholders across the globe to significantly step up their ambition and their action.

The Commission proposes that the EU ensures that the post-2020 global framework includes, at a minimum, the elements outlined below:

* Overarching global goals for biodiversity for 2050, in line with the United Nations 2030 Agenda for Sustainable Development and the vision of ‘living in harmony with nature’. The ambition should be that, **by 2050, all of the world’s ecosystems are restored, resilient, and adequately protected.** The world should commit to the net-gain principle to give nature back more than it takes. The world should commit to no human-induced extinction of species, at minimum where avoidable.
* Ambitious **global 2030 targets in line with EU commitments** in this strategy. These should clearly address the drivers of biodiversity loss and be specific, measurable, actionable, relevant and time-bound.
* A much **stronger implementation, monitoring and review** process. Parties should revise their National Biodiversity Strategies and Action Plans by the end of 2021, or as a minimum, submit national commitments for the most important targets. There should be a **regular review cycle** to look at progress towards the targets, with the ability to ratchet up action if needed. These reviews should be based on an independent, science-based gap-analysis and foresight process, with common headline indicators for all Parties.
* **An enabling framework** to bring the ambition to life, across areas such as finance, capacity, research, innovation and technology.
* **Fair and equitable sharing of the benefits** from the use of genetic resources linked to biodiversity.
* **A principle of equality**. This includes respect for the rights and the full and effective participation of indigenous peoples and local communities. There should be an inclusive approach with participation of all stakeholders, including women, youth, civil society, local authorities, the private sector, academia and scientific institutions.
  1. **Using external action to promote the EU’s ambition**
     1. *International Ocean Governance*

In line with the International Ocean Governance agenda[[77]](#footnote-78), the EU will support the conclusion of an ambitious legally binding agreement on **marine biological diversity of areas beyond national jurisdiction** (BBNJ) by the end of 2020. It must set clear global procedures for identifying, designating and effectively managing ecologically representative marine protected areas in the high seas. It should be ratified and implemented as quickly as possible.

The EU should also use all of its diplomatic leverage and outreach capacities to help broker agreement on the designation of three vast **Marine Protected Areas in the Southern Ocean**[[78]](#footnote-79), two of which were co-proposed by the EU in East Antarctica and in the Weddell Sea. If agreed, this would constitute one of the biggest acts of nature protection in history.

Work will continue with partner countries and regional organisations to put in place measures to protect and sustainably use sensitive maritime ecosystems and species, including in areas beyond national jurisdiction, with a focus on marine biodiversity hotspots. The EU should continue supporting Small Island Developing States and other relevant partner countries to participate in meetings of regional and global organisations and bodies, and to implement relevant international commitments and regulations.

The EU will apply **zero tolerance towards illegal, unreported and unregulated fishing** and will combat overfishing, including through WTO negotiations on a **global agreement to ban harmful fisheries subsidies**.

In international negotiations, the EU should advocate that marine minerals in the international seabed areacannot be exploited before the **effects of deep-sea mining** on the marine environment, biodiversity and human activities have been sufficiently researched, the risks are understood and the technologies and operational practices are able to demonstrate no serious harm to the environment, in line with the precautionary principle[[79]](#footnote-80) and taking into account the call of the European Parliament[[80]](#footnote-81). In parallel, the EU will continue to fund research on the impact of deep-sea mining activities and on environmentally-friendly technologies. The EU should also advocate for more transparency in international bodies such as the International Seabed Authority.

* + 1. *Trade policy*

**Trade policy will actively support and be part of the ecological transition**. In this spirit, the Commission will ensure full implementation and enforcement of the biodiversity provisions in all trade agreements, including through the EU Chief Trade Enforcement Officer. The Commission will better assess the impact of trade agreements on biodiversity, with follow-up action to strengthen the biodiversity provisions of existing and new agreements if relevant. The Commission will also present in 2021 a legislative proposal and other measures to avoid or minimise the placing of products associated with deforestation or forest degradationon the EU market[[81]](#footnote-82), and to promote forest-friendly imports and value chains. The Commission will take a number of steps to **crack down on** **illegal wildlife trade**. This trade contributes to the depletion or extinction of entire species, is the world’s fourth most lucrative black market and is thought to be one of the causes behind the emergence of zoonotic diseases. It is a human, economic and environmental duty to dismantle it.

With this in mind, the Commission will revise the EU Action Plan against Wildlife Trafficking in 2021 and propose a further **tightening of the rules on EU ivory trade** later this year. It will explore a possible revision of the Environmental Crime Directive, including by looking at expanding its scope and introducing specific provisions for types and levels of criminal sanctions. It will consider strengthening the coordinating and investigative capacities of the European Anti-Fraud Office (OLAF) to work with Member States and non-EU countries to prevent illicit trade and the entry of illicit products into the Single Market.

The Commission will continue to engage with partner countries to ensure a smooth and fair transition, mobilising in particular Aid for Trade to ensure that partners reap the benefits of biodiversity-friendly trade.

* + 1. *International cooperation, neighbourhood policy and resource mobilisation*

Delivering an ambitious post-2020 global biodiversity framework will require greater cooperation with partners, increased support and financing and phasing out of subsidies harmful to biodiversity. In the last decade, the EU and its Member States collectively upheld their commitment to **double financial flows to developing countries for biodiversity**[[82]](#footnote-83). The EU is ready to continue working with its partners and further increase its support post-2020. This will be part of its work on biodiversity conservation, restoration, sustainable use and mainstreaming in all development and partnership policies. In addition, by integrating policy coherence for sustainable development in all its policies, the EU will reduce the pressure on biodiversity worldwide. In all of its international cooperation, the EU should promote sustainable agricultural and fisheries practices and actions to protect and restore the world’s forests. Particular attention will also be paid to sustainable water resource management, the restoration of degraded land, and the protection and restoration of biodiverse areas with high ecosystem services and climate mitigation potential. A better protection of natural ecosystems, coupled with efforts to reduce wildlife trade and consumption, will also help prevent and build up resilience to possible future diseases and pandemics. The EU will enhance its support to global efforts to apply the **One Health** **approach**[[83]](#footnote-84), which recognises the intrinsic connection between human health, animal health and healthy resilient nature.

The EU will step up support to partner countries across the world to achieve the new global targets, fight environmental crime, and tackle the drivers of biodiversity loss. In Africa, the EU will launch the **NaturAfrica** initiative to protect wildlife and key ecosystems while offering opportunities in green sectors for local populations. Similar projects will be developed in other regions. The EU will also support the Western Balkans and EU Neighbourhood countries in their efforts to protect biodiversity.

In all of its work, the EU will strengthen the links between **biodiversity protection and human rights**, gender, health, education, conflict sensitivity, the rights-based approach, land tenure and the role of indigenous peoples and local communities.

As part of its global efforts, the EU will promote biodiversity coalitions with partners and civil society around the world. For example, in March 2020, the Commission launched the **Global Biodiversity Coalition** of national parks, aquariums, botanic gardens, zoos, natural history and sciencemuseums to help raise awareness around the world on the need to protect and nurture biodiversity. The Commission will consider launching or joining other High Ambition Coalitions to help develop the post-2020 framework.

1. **Conclusion**

Protecting and restoring biodiversity is the only way to preserve the quality and continuity of human life on Earth. The commitments proposed in this strategy pave the way for ambitious and necessary changes – changes that will ensure the wellbeing and economic prosperity of present and future generations in a healthy environment. The implementation of these commitments will take into account the diversity of challenges across sectors, regions and Member States, recognise the need to ensure social justice, fairness and inclusiveness in line with the European Pillar of Social Rights, and will require a sense of responsibility and strong joint efforts from the EU, its Member States, stakeholders and citizens.

The Commission invites the European Parliament and the Council to endorse this strategy ahead of the 15th Conference of the Parties to the Convention on Biological Diversity. To ensure full political ownership of this strategy, the Commission will suggest a standing progress point at the Council and at the European Parliament. It will review the strategy by 2024 to assess progress and whether further action is needed to meet its objectives.

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41. Article 29 of the EU Renewable Energy Directive 2018/2001. [↑](#footnote-ref-42)
42. See for example Intergovernmental Panel on Climate Change (2019), [Special Report on the Ocean and the Cryosphere in a Changing Climate](https://www.ipcc.ch/srocc/). [↑](#footnote-ref-43)
43. The Common Fisheries Policy, the [Marine Strategy Framework Directive](https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32008L0056) (2008/56/EC) and the [Maritime Spatial Planning Directive](https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32014L0089) (2014/89/EU). [↑](#footnote-ref-44)
44. The Commission will report on the implementation of the Maritime Spatial Planning Directive by March 2022 at the latest, including the application of ecosystem-based management. [↑](#footnote-ref-45)
45. Protected by international and EU law. [↑](#footnote-ref-46)
46. [Fitness Check of the EU Water Legislation](https://ec.europa.eu/environment/water/fitness_check_of_the_eu_water_legislation/documents/Water%20Fitness%20Check%20-%20SWD(2019)439%20-%20web.pdf) (SWD(2019) 439); [Evaluation of the Urban Waste Water Treatment Directive](https://ec.europa.eu/environment/water/water-urbanwaste/pdf/UWWTD%20Evaluation%20SWD%20448-701%20web.pdf) (SWD(2019) 700). [↑](#footnote-ref-47)
47. The target of 25,000 km is based on the Commission’s assessment of what is achievable in the EU by 2030. [↑](#footnote-ref-48)
48. The guidelines will take a wide range of issues into account, including hydropower generation, flood management, water supply, agriculture and navigability. [↑](#footnote-ref-49)
49. These measures should be planned in the 3rd River Basin Management Plans to be adopted by Member States in 2021, under the Water Framework Directive. [↑](#footnote-ref-50)
50. [Fitness Check of the EU Water Legislation](https://ec.europa.eu/environment/water/fitness_check_of_the_eu_water_legislation/documents/Water%20Fitness%20Check%20-%20SWD(2019)439%20-%20web.pdf) (SWD(2019) 439). [↑](#footnote-ref-51)
51. [EnRoute project](https://oppla.eu/groups/enroute/publications-and-deliverables). [↑](#footnote-ref-52)
52. There are 11,000 Natura 2000 sites within, or partly within, cities, representing 15% of the total area of the Natura 2000 network. [↑](#footnote-ref-53)
53. [The Green City Accord](http://www.eurocities.eu/eurocities/calendar/events_list/CITIES-Forum-2020-Working-corner-The-EU-Green-City-Accord-Cities-becoming-leaders-for-the-environment-WSPO-BL4E22). [↑](#footnote-ref-54)
54. [Sustainable Use of Pesticides Directive](https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:02009L0128-20091125) (2009/128/EC). [↑](#footnote-ref-55)
55. [European Strategy for Plastics in a Circular Economy](http://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1516265440535&uri=COM:2018:28:FIN) (COM(2018) 28). [↑](#footnote-ref-56)
56. [A new Circular Economy Action Plan for a cleaner and more competitive Europe](https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:52020DC0098&from=ES) (COM(2020) 98). [↑](#footnote-ref-57)
57. See for example: Hulme P. (2014). [Invasive species challenge the global response to emerging diseases](https://www.sciencedirect.com/science/article/pii/S1471492214000543), *Trends in parasitology (2014) Vol. 30, Issue 6*; Duscher et al. (2017). [↑](#footnote-ref-58)
58. [Regulation (EU) 1143/2014 on invasive alien species](https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1417443504720&uri=CELEX:32014R1143). [↑](#footnote-ref-59)
59. [Red List of the International Union for the Conservation of Nature](http://www.iucnredlist.org) (IUCN). [↑](#footnote-ref-60)
60. See 2015 [State of Nature in the EU report](http://ec.europa.eu/environment/nature/pdf/state_of_nature_en.pdf) (COM (2015)219). [↑](#footnote-ref-61)
61. [The costs of non-implementation are estimated at EUR 50 billion per year.](http://ec.europa.eu/environment/enveco/economics_policy/pdf/report_sept2011.pdf) [↑](#footnote-ref-62)
62. Such as the Directives on [Environmental Impact Assessment](https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32014L0052) (2014/52/EU), on [Strategic Environmental Assessment](https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32001L0042) (2001/42/EC), on [Environmental Liability](https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32004L0035) (2004/35/CE) and on [Environmental Crime](https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32008L0099) (2008/99/EC). [↑](#footnote-ref-63)
63. <https://ec.europa.eu/environment/aarhus/> [↑](#footnote-ref-64)
64. [Study on due diligence requirements through the supply chain – Final Report](https://ec.europa.eu/info/business-economy-euro/doing-business-eu/company-law-and-corporate-governance_en#studies). [↑](#footnote-ref-65)
65. [Directive 2014/95/EU amending Directive 2013/34/EU as regards disclosure of non-financial and diversity information by certain large undertakings](https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32014L0095). [↑](#footnote-ref-66)
66. Such as the [EU Business @ Biodiversity Platform](https://ec.europa.eu/environment/biodiversity/business/index_en.htm) (B@B). [↑](#footnote-ref-67)
67. See for example [Business for Nature](https://www.businessfornature.org) or [One Planet Business for Biodiversity](https://op2b.org/). [↑](#footnote-ref-68)
68. BenDor et al. (2015), [Estimating the Size and Impact of the Ecological Restoration Economy](https://www.researchgate.net/publication/278792900_Estimating_the_Size_and_Impact_of_the_Ecological_Restoration_Economy). [↑](#footnote-ref-69)
69. See [Common framework and guidance documents for biodiversity proofing of the EU budget](https://ec.europa.eu/environment/nature/biodiversity/comm2006/proofing.htm). [↑](#footnote-ref-70)
70. The cost estimate is based on the 2018 [Impact Assessment of the LIFE Regulation](https://ec.europa.eu/commission/sites/beta-political/files/budget-may2018-life-swd_en.pdf) (SWD(2018) 292), a [Study on the costs of implementing the Target 2 of the EU Biodiversity Strategy to 2020](https://ieep.eu/uploads/articles/attachments/e597a01d-e34e-4a2e-84ec-68be1222c5fd/Financing_Target_2_Final_Report_without_Annexes_-_FINAL_APPROVED.pdf?v=63664509816) and data submitted by 16 Member States under Article 8(1) of the Habitats Directive. The Commission will update the estimate, notably based on Member States’ Prioritised Action Frameworks under the Habitats Directive. [↑](#footnote-ref-71)
71. Including the Common Agricultural Policy, Cohesion Policy funds, Horizon Europe, the European Maritime and Fisheries Fund, LIFE and external action funds. [↑](#footnote-ref-72)
72. See [EU taxonomy for sustainable activities](https://ec.europa.eu/info/publications/sustainable-finance-teg-taxonomy_en). [↑](#footnote-ref-73)
73. World Wildlife Fund (2019), [The Nature of Risk – A Framework for Understanding Nature-Related Risk to Business](https://c402277.ssl.cf1.rackcdn.com/publications/1255/files/original/WWF_Nature_of_Risk.FINAL2.pdf?1568216828). [↑](#footnote-ref-74)
74. [SWD(2019) 305](https://ec.europa.eu/environment/nature/ecosystems/pdf/SWD_2019_305_F1_STAFF_WORKING_PAPER_EN_V2_P1_1042629.PDF). [↑](#footnote-ref-75)
75. Missions on [adaptation to climate change including societal transformation](https://ec.europa.eu/info/horizon-europe-next-research-and-innovation-framework-programme/mission-area-adaptation-climate-change-including-societal-transformation_en), on [healthy oceans, seas coastal and inland waters](https://ec.europa.eu/info/horizon-europe-next-research-and-innovation-framework-programme/mission-area-healthy-oceans-seas-coastal-and-inland-waters_en), on [climate-neutral and smart cities](https://ec.europa.eu/info/horizon-europe-next-research-and-innovation-framework-programme/mission-area-climate-neutral-and-smart-cities_en), and on [soil health and food](https://ec.europa.eu/info/horizon-europe-next-research-and-innovation-framework-programme/mission-area-soil-health-and-food_en). [↑](#footnote-ref-76)
76. Green alliances focus on cooperation with African and other partners to implement the European Green Deal. [↑](#footnote-ref-77)
77. [International ocean governance agenda: an agenda for the future](https://ec.europa.eu/maritimeaffairs/sites/maritimeaffairs/files/join-2016-49_en.pdf) (JOIN(2016) 49). [↑](#footnote-ref-78)
78. In the framework of the [Commission for the Conservation of Antarctic Marine Living Resources](https://www.ccamlr.org/en). [↑](#footnote-ref-79)
79. Under Article 191.2 TFEU, the Union policy on the environment shall aim at a high level of protection and shall be based on the precautionary principle. [↑](#footnote-ref-80)
80. [European Parliament Resolution on international ocean governance](https://www.europarl.europa.eu/doceo/document/TA-8-2018-0004_EN.html) (2017/2055(INI)). [↑](#footnote-ref-81)
81. In line with the Commission Communication on [Stepping up EU Action to Protect and Restore the World’s Forests](https://ec.europa.eu/info/sites/info/files/communication-eu-action-protect-restore-forests_en.pdf) (COM(2019) 352). [↑](#footnote-ref-82)
82. Including international financing where biodiversity is the principal objective and where it is a significant secondary objective, in line with [CBD COP11 Decision XI/4](https://www.cbd.int/decision/cop/?id=13165) and EU and Member States financial reports submitted to the Convention on Biological Diversity in 2015 and 2018. [↑](#footnote-ref-83)
83. <https://www.who.int/features/qa/one-health/en/> [↑](#footnote-ref-84)