



SAFEGUARD

Safeguard roadmap for engaging with EU policy priorities and policymakers

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Safeguarding European wild pollinators**



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1. Preface

This report aims to provide an assessment of the current and developing EU policy context for pollinators to identify policy priorities and policy makers that are most critical for wild pollinator conservation and Safeguard objectives. Safeguard aims to substantially contribute to reversing the loss of wild pollinators across Europe through increasing our understanding of the direct and indirect drivers of pollinator declines, environmental, economic and societal impacts and delivering an integrated assessment framework as basis for a portfolio of effective policy and practice solutions.

For the sake of concision and impact, this assessment focuses on policies connected to direct drivers of pollinator loss, but some of the indirect drivers will be assessed as part of Safeguard's outputs.

Building on the present assessment, a roadmap for engaging with the EU policy priorities and policymakers that are both most critical for wild pollinator conservation and most directly related to Safeguard research will be developed.

The EU policy agenda has been extremely dynamic, with the recent development of policies reshaping the current pollinator conservation policy architecture. The Nature Restoration Law, the revision of the Sustainable use of pesticides, or the revision of the Pollinator initiative, to name a few, have brought major developments and opportunities for policy engagement. Therefore, major changes are expected over the next years in reaction to these policy developments and this report provides a snapshot at the time of writing.

Safeguard consortium members are invited to access our shared [policy tracking platform](#) to follow, share, and discuss policy news and developments.

2. Summary

The purpose of this report is to (1) identify key policies and policymakers that are most critical for wild pollinator conservation and Safeguard objectives¹, (2) highlight expected policy developments, and (3) identify key opportunities for engagement.

The report includes an assessment of the current and developing EU policy context under these pollinator-relevant policy areas: the European Pollinators initiative and other national/local pollinator strategies, biodiversity policy, agriculture, forestry and soil policy, pesticide and pollution control policy, urban policy, EU cohesion and regional policy, sustainable consumption, production and financing policy, and research and innovation policy. Under each of these areas, we outline the key policy instruments, and identify their relevance to wild pollinator conservation, and their expected developments within the Safeguard timeline (from 2021 to 2026). Based on this, we identify EU policy priorities which are most critical for wild pollinator conservation. These include the revision and implementation of the new EU Pollinators initiative, the design, implementation and monitoring of the proposed new EU Nature Restoration Law, Member States' pledges to reach the protected area targets of the EU Biodiversity Strategy, the implementation of agricultural policies (namely through the

¹ while Safeguard focuses on wild pollinators, the project recognises the role of managed pollinators in the delivery of sustainable pollination services

implementation of the new Common Agricultural Policy, the Farm to Fork Strategy and the upcoming proposal for a regulation on Sustainable Food Systems), the design and implementation of EU Urban Greening Plans, support to pollinator-friendly investments through EU regional and cohesion funds, improving collaboration and engagement in pollinator friendly land management through EU instruments like Interreg, and the Commission's proposal of a revision of its Regulation on European Environmental Economic Accounts to include natural capital.

We classify EU policy priorities into: those which can be actively informed and by Safeguard research and outputs as they are directly relevant to Safeguard project objectives, and those which we will passively follow (watching brief) as they are not directly relevant to Safeguard project outputs but still relevant to wild pollinator conservation and Safeguard research. To do this, the report aligns Safeguard activities and outputs to the identified EU policy priorities, including the EU Pollinators initiative objectives, and we describe the policy relevance of each Safeguard work package. We will update this analysis in discussion with Safeguard consortium members and advisors as the Safeguard project work develops.

Building on the assessment of key EU policy priorities, the report then identifies key EU stakeholders to engage on those policies Safeguard can actively influence and inform. Initial ideas on how best to engage these stakeholders are also outlined.

Based on (1) the key EU policy priorities and policymakers identified within the current political landscape and (2) Safeguard's planned outputs, a roadmap for engaging with EU policy priorities and policymakers that are both most critical for wild pollinator conservation and most directly related to Safeguard research is developed. The roadmap will serve as a basis to identify key opportunities to ensure the timeliness and policy-relevance of Safeguard outputs and strategic opportunities for engagement where future activities could be planned.

As policy priorities and developments are constantly evolving, this report provides a snapshot at the time of writing. A living version of the policy roadmap can be accessed on the [SAFEGUARD website](#). In addition, a living policy tracking site has been developed to collaboratively follow identified policy areas and expected developments and share and discuss relevant news and developments.

3. List of acronyms and abbreviations

| | |
|-------------|--|
| BDS | Biodiversity Strategy |
| BHD | Birds and Habitats Directives (Nature Directives) |
| CAP | Common Agricultural Policy |
| CF | Cohesion fund |
| CLLD | Community led local development |
| COP | Conference of the Parties |
| CoR | Committee of the Regions |

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| DG AGRI | Directorate-General Agriculture (European Commission) |
| DG ENV | Directorate-General Environment (European Commission) |
| DG SANTE | Directorate-General Health and Food Safety (European Commission) |
| eBMS | European Butterfly Monitoring Scheme |
| EAFRD | European Agricultural Fund for Rural Development |
| EAGF | European Agricultural Guarantee Fund |
| EASIN | European Alien Species Information Network |
| EC | European Commission |
| ECHA | European Chemical Agency |
| EFSA | European Food Safety Authority |
| EPI | European Innovation Partnership |
| EMFAF | European Maritime, Aquaculture and Fisheries Fund |
| ENRD | European Network for Rural Development |
| EPI | EU Pollinators Initiative |
| ERDF | European Regional Development Fund |
| ESF | European Social Fund |
| EU | European Union |
| ES | Ecosystem Services |
| F2F | Farm to Fork Strategy |
| FAO | Food and Agriculture Organisation |
| GI | Green Infrastructure |
| GPP | Green Public Procurement |
| IAS | Invasive Alien Species |
| Interreg | European Territorial cooperation programmes |
| IPM | Integrated Pest Management |
| MS | Member State |
| PoMS | Pollinators Monitoring Scheme |
| NAP | National Action Plan (pesticides) |
| NADEG | EU Expert Group on the Birds and Habitats Directives |

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| NbS | Nature-based Solutions |
| PAF | Prioritised Action Framework |
| PPP | Plant Protection Product |
| PRM | Plant Reproductive Material |
| REACH | Registration, Evaluation, Authorisation and Restriction of Chemicals |
| RDP | Rural Development Programme |
| SAC | Special Area of Conservation (Natura 2000) |
| SCI | Site of Community Importance (Natura 2000) |
| SEEA | System of Environmental Economics Accounting |
| SP | Strategic Plan (CAP) |
| SPA | Special Protection Area (Natura 2000) |
| SUD | Sustainable Use of Pesticides Directive |
| WP | Work Package |
| ZPAP | Zero Pollution Action Plan |

4. Introduction

The purpose of this report is to identify key policies, and their relevance to pollinator conservation, expected developments within the Safeguard timeframe (from 2021 to 2026), and the key opportunities for engagement. This road map will be used as a basis for planning the Safeguard policy engagement activities, in discussion within the consortium and with stakeholders during the first half of 2022 to 2023.

Biodiversity protection, including pollinators and their habitats, is a priority for the European Commission in place from 2019 to 2024, as reflected in its European Green Deal which aims to improve the well-being and health of citizens and future generations by providing a clean and healthy environment, including biodiversity. The new EU Biodiversity Strategy, which sets out the EU's biodiversity policy framework to 2030, includes a goal to reverse the decline of pollinators.

Tackling pollinator decline is a cross-cutting issue which requires actions to be implemented in a wide range of sectors and policies. Developments creating opportunities for engagement are expected under many pollinator-relevant policy areas. The table below categorises each policy development based on its direct relevance to wild pollinator conservation:

Table 1: Key pollinator-relevant EU policy priorities per policy area

| Policy area | Development | Pollinator-relevance |
|--|---|--|
| Biodiversity and ecosystems Policy | Revised EU pollinator initiative (January 2023). | High |
| | EU Nature Restoration Law proposal outlining proposed EU legally binding nature restoration targets. Published 23 June 2022. Proposal for a target to restore pollinator populations including obligation to monitor pollinators and report on indicator. Member States will be expected to draft national nature restoration plans two years after the adoption of the regulation. | High |
| | Convention on Biological Diversity COP 15 where the post-2020 global biodiversity framework was adopted. Took place December 2022. | High |
| | Trans-European Nature Network - protected area targets and ecological connectivity: Member States to submit their pledges under the EU BDS protected area targets and status improvement targets by February 2023. They will be discussed in biogeographical seminars in 2023 and the Commission will assess whether additional efforts are needed. <ul style="list-style-type: none"> Commission to publish criteria and guidance on the adequate management of protected areas, including Natura 2000 sites. Member States to demonstrate progress on designation of new protected areas. Member States to demonstrate significant progress in integrating ecological corridors | High |
| | Species and habitats of EU conservation concern: Next reporting under the EU Habitats Directive in 2026 for the 2019-2025 period including status and trend of habitats of pollinator importance. | Low |
| | EU Biodiversity Strategy mid-term review planned for 2024 | Medium |
| | Funding for biodiversity: EU level PAF implementing act expected in 2021 (delayed). | Low |
| | Invasive alien species: Update of EU IAS of Union concern published August 2022 | Low |
| | Forestry: Definitions and guidelines for closer to nature forestry will be developed by Q2 2022 (delayed, foreseen in 2023) | Medium |
| | Indicators and thresholds or ranges for sustainable forest management starting on a voluntary basis by the end of Q1 2023 (delayed) | Low |
| | Guidance and advice on payment for ecosystem service schemes for forestry by November 2021 (delayed) | Low |
| | Commission will propose a legislation on EU Forest Observation Reporting and Data collection to create a coordinated EU forest monitoring and reporting system in 2023 | Medium |
| | Soil health: Proposal for EU Soil Health Law (expected in summer 2023) | Medium |
| | Natural capital accounting: Commission proposal of a revision of its Regulation on European Environmental Economic Accounts to include a module on natural capital accounting | Medium |
| | Agricultural Policy | Farm to Fork Strategy review in mid-2023 |
| Proposal for a Regulation on Sustainable Food Systems (2023) | | High |
| Adoption of the new CAP legislative package December 2021 | | Medium |

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| | Member States to submit CAP Strategic plans, including eco-schemes, by the end of 2022 | High |
| | Commission evaluation and approval of CAP Strategic Plans in 2022 | High |
| | New CAP implemented from 1st January 2023 | Medium |
| | Annual performance reports of CAP Strategic plans to start in 2024 | Medium |
| | 2025 review of CAP strategic plan implementation. Commission will be able to request follow up action. | High |
| Pesticides / Pollution Policy | First Zero Pollution Monitoring and Outlook report | Medium |
| | Sustainable Use of Pesticides Directive revision – proposal for EU regulation on sustainable use of pesticides (June 2022) | High |
| | EFSA revision of the bee guidance document for pesticide environmental risk assessment (expected April 2023) | High |
| | Revision of the REACH regulation (foreseen Q4 2023) | Low |
| Urban Policy | Commission guidance on EU Urban Greening Plans (October 2022) | High |
| | Cities to publish urban Greening Plans by end of 2022 (delayed) | High |
| Production and Consumption | EU ecolabel developments | Low |
| | Green public procurement: minimum mandatory criteria and target. Commission to support capacity building through guidance, training and sharing good practice. | Low |
| | Business@Biodiversity activity on pollinators | Medium |
| | Revision of EU Honey Directive in early 2022 (delayed) | Low |
| | Revision of EU plant reproductive material legislation (June 2023) | Low |
| Regional Policy | Ensuring pollinator-friendly regional development and cohesion policy through European structural and investment funding | Medium |
| R&I | Full implementation of the INSPIRE Directive | Low |
| | Increasing awareness amongst stakeholders on pollinator friendly farming through EIP-AGRI network | High |
| Awareness and collaboration | Improve collaborations, knowledge exchange and good practice sharing on pollinator protection across EU regions through Interreg programme, the Peer2Peer instruments, and CLLD | Medium |

As the focus of this pollinator-relevant policy context overview is on EU level policies, pollinator-relevant policy developments at the Member State level and at global level and the potential for engaging in these are not included in this table.

5. Assessment of current and developing EU policy context under key areas

5.1. The revised EU Pollinators Initiative

What is the policy?

The [EU Pollinators initiative \(EPI\)](#) is the EU's strategy to address the decline of wild pollinator populations in Europe. The initiative sets the policy priorities and framework for actions by the Commission and partners. The overarching aim of Safeguard is to contribute to this goal, and all of Safeguard's outputs will contribute to the achievement of the revised EU Pollinators Initiative.

From the 2018 Initiative to its revision in 2023

The first EU Pollinators Initiative was launched in June 2018. The European Commission published [a review](#) of progress on implementation of the Initiative in May 2021. concluded that significant progress has been made on most actions and that the initiative remains a valuable tool to address pollinator decline. However, significant challenges were identified including the need to better tackle the loss of pollinator habitats in agricultural land and pesticide impacts. The European Court of Auditors published a [special report 15/2020](#) on the 2018 initiative, concluding that it has sparked lots of promising initiatives but more resources were needed to make an impact. Both reviews highlighted that more EU-level action was needed to tackle pollinator threats which were not covered by the initiative, including climate change and pollutants other than pesticides. For a more in-depth assessment of the progress achieved under the different commitments of the EPI see [Table 1 in the Annex](#).

The Commission launched a consultation phase for the revision of the EU Pollinators Initiative in 2021. [EU Pollinators Week 2021](#), hosted by the European Parliament in September, was an opportunity to promote and debate the new initiative. As announced in the updated EU Biodiversity Strategy to 2030, the Commission carried out a series of consultations with member states through Commission Expert Groups, with experts in consultation workshops, and a [public consultation](#) from March to June 2022. The public consultation collected a total of 7388 contributions ([factual summary report](#)). The nine expert [thematic workshops](#) covered the areas of agriculture, pesticides, invasive alien species, pollution, GMOs, research, and local and regional action. Safeguard submitted a statement to the public consultation and Safeguard experts contributed to the expert workshops.

The revised EU Pollinators Initiative, 'A new deal for pollinators', was adopted on 24 January 2023. The initiative outlines key long-term and short-term objectives aimed at:

1. **Improving knowledge** on pollinator decline, its causes, and consequences.
2. **Improving pollinator conservation and tackling the causes** of pollinator decline (namely land use change, pesticide use and invasive alien species).
3. **Raising awareness** on pollinator decline, engaging society, and promoting collaborations.

For each of these priorities, the strategy sets an objective and a list of cross-cutting actions to be achieved by 2030. The revised initiative showcases stronger commitments to address the

causes of pollinator decline and integrates actions on some of the threats that were not addressed by the 2018 initiative, including climate change, air pollutants and heavy metals.

Key actions that will be developed under the revised initiative are:

- A finalised methodology for an EU pollinator monitoring scheme (EU-PoMS) by 2026
- The systematic collection of data on major threats to pollinators by 2026
- Supporting research and innovation on the state of pollinators, the causes and the consequences of their decline, as well as effective mitigation measures (continuous until 2030)
- Mapping Key Pollinator Areas in the EU, which should become the focus of conservation and restoration efforts by 2025
- Knowledge sharing through the EU Pollinator Information Hive and the Biodiversity Information System for Europe (BISE) (continuous until 2030)
- Capacity building including through investment in taxonomy expertise
- Identifying pollinators typical of habitats protected under the Habitats Directive (continuous until 2030)
- Design and implement a network of ecological corridors for pollinators – “Buzz Lines” (2027, with continuous implementation until 2030)
- Increase support for pollinator-friendly farming under the common agricultural policy (CAP) (continuous until 2030)
- Implementing the guide for pollinator-friendly cities (continuous until 2030)
- Identify most vulnerable zones for pollinators in the context of climate change, and devise and implement targeted mitigation measures (continuous until 2030)

Expected developments

The revised EU Pollinators Initiative was published on January 24, 2023. The European Parliament and the Council are expected to endorse the new actions and to be actively engaged in its implementation, in close cooperation with all relevant stakeholders. The new actions will complement forthcoming National Restoration Plans (under the proposed Nature Restoration Law) where Member States will identify national and regional measures to achieve the proposed legally binding target of reversing the decline of pollinator populations by 2030.

Opportunities for Safeguard to contribute to the EU Pollinators Initiative

All actions in the initiative will be relevant to pollinators, and many directly correspond to Safeguard project research (see section 6 for more details of links). Four areas of action are described further: the web platform, EU red lists, pollinator monitoring, and the species and habitat action plans.

5.1.1. EU Pollinator Information Hive (web platform)

What is it?

The Commission launched this [web platform](#) as an information hub on pollinators in the EU. Its aims are to facilitate information sharing on the decline of pollinators and what is being done across the EU to reverse this decline, including through collaborative stakeholder initiatives.

Next steps

The Commission will work to increase the information available on the platform and to improve its attractiveness and interactive content. All outputs relevant to the revised EU Pollinators Initiative will be available on the platform. The Safeguard consortium has the long-term aim to integrate or link project outputs into this platform.

5.1.2. European Red Lists of pollinator groups

What are they?

The Commission has funded work on European red lists of pollinator groups, work being carried out by expert groups coordinated by IUCN. [The European Red List of hoverflies](#) was published on 11 October 2022. Safeguard researchers contributed substantially to this assessment and are following up with additional work on 143,651 georeferenced data entries. This also provided taxonomic resources for the EU Pollinator Monitoring Scheme (through TAXO-FLY).

Next steps

The Safeguard project is supporting [the European Red List of moths](#) and the revision of the European Red Lists of bees and butterflies. The project team has produced distribution maps of 1,700 species of European bees and worked together with other research groups to map 556 butterfly species (up to March 2023). Work on the moths is ongoing.

5.1.3. Establishing an EU pollinator monitoring scheme (EU PoMS and eBMS)

What is it?

The EU pollinators monitoring scheme (EU-PoMS) is an initiative aiming to harmonise the systematic monitoring of trends and status of pollinator species across the EU. Setting up this monitoring mechanism was a key action of the 2018 EU Pollinators initiative under its commitment to improve knowledge of pollinator decline, its causes, and its consequences. Improved pollinator monitoring is crucial as it provides the data and knowledge needed to support evidence-based decision-making for pollinator protection.

In January 2021, the JRC published a [proposal for an EU-PoMS](#) based on the findings of an expert group. The proposed EU-PoMS consists of:

- A Core Scheme which covers essential pollinator taxa for monitoring in the EU. This includes wild bees, butterflies, hoverflies, and moths, including rare and threatened pollinator species. The Core Scheme can be split into:
 - The 'Minimum Viable Scheme' which only includes taxa which can be feasibly monitored in the short term (bees, butterflies, and hoverflies). The MVS outlines two monitoring modules using standardised methods to provide species abundance, diversity, and occupancy data to be used by professionals and volunteers. At least 2,000-3,000 sites across the EU would be needed for the MVS to detect changes in abundance, with at least 100 sites per MS.
 - Complementary Approaches which include moths and rare and threatened pollinator species. The moth module is included as a complementary approach as although methods to monitor this group are well developed, they still need

standardisation and further field validation. The rare and threatened species modules currently under development and requires a fundamentally different approach to large scale standardised monitoring schemes to be able to capture changes in the status of rare species.

- Optional additional modules which still require substantial further development include:
 - A pollination services module
 - A flower visitation module
 - A wider flying insect biodiversity module

The bee monitoring scheme is expected to supply annual data on bumblebees and selected solitary bees and hoverflies. Surveying will be minimum 4 times a year, preferably fortnightly, standardised and collated and reported annually. The costs have been estimated between €128.5M and €133.3M over the full 10-year lifespan. The proposal gives a summary of the scheme costs for each member state (sites, establishment costs, annual costs).

EU PoMS is complemented by the European Butterfly Monitoring Scheme ([eBMS](#)) citizen science butterfly monitoring schemes and indicators, supplemented by stratified random sampling by professionals in all EU member states. The butterfly count app and guidance are being used to expand volunteer transect monitoring and surveys using a new 15-minute butterfly abundance count protocol.

EU-PoMS also includes a proposal for a pollinator indicator framework. This includes a general EU indicator to assess the status and trends of pollinators, an indicator to measure the impact of the CAP on pollinators and pollination, and a threatened pollinator species indicator to measure progress towards global biodiversity targets.

Next steps

The proposed EU-PoMS is being tested in a series of pilots during 2022 to 2024. As member states are in very different positions regarding their pollinator monitoring capacity and ability to implement the EU-PoMS, substantial capacity building for both citizen science communities and taxonomic resource is underway (e.g. [ORBIT](#) and [Taxo-Fly](#)). Despite capacity gaps, experts judge that it is currently possible for all EU member states to adopt a pilot EU-PoMS within a year. To achieve this, the Commission funds the [SPRING project](#) to support implementation of the EU PoMS and pilot it in all EU member states.

The EU PoMS aim is to achieve:

- Full pilots in all member states by 2023
- Established pollinator monitoring systems in all member states by 2026
- Monitoring able to detect improved population abundance of an increasing range of widespread species from 2026 onwards
- First general indicator available by 2030

Safeguard experts will continue to be closely involved in the development of EU PoMS, contribute to the scientific underpinning of the scheme, support the development of citizen science and taxonomic resources, and promote the full adoption of the methods and results.

5.1.4. EU Pollinator Species Action Plans and Habitat Action Plans

What are the species action plans?

The Commission committed in the EU Pollinators Initiative to develop species action plans for the conservation of threatened EU pollinators species. Species action plans aim to identify and prioritise measures to conserve and restore species status and trends in the EU. They include information on the status, ecology, threats, and identify conservation measures and key actions required to improve species status. They go beyond the legal requirements set out under the EU nature directives and are not legally binding.

The action plans are being developed by IUCN in collaboration with experts in the IUCN species survival commission through an EU-funded project from 2022 to 2024. A shortlist of 15 candidate pollinator species was created and discussed with an expert group in June 2021. Based on this discussion and in consultation with the Commission, [three multi species action plans](#) were prioritised: (1) Canary Islands multi-species action plan, (2) Veteran Trees Specialists action plan, and (3) Teasel bee multi-species action plan.

The three priority action plans were developed in dedicated workshops from November 2021 to end 2022. These brought together conservation experts and practitioners, relevant authorities, civil society organisations and business. Safeguard experts were involved in these workshops and in the review process. The species action plans will be published in March 2023.

Next steps

The revised EU Pollinators Initiative commits the Commission to support the implementation of the plans. Safeguard members will support the implementation of the EU pollinator species action plans and the two EU habitat action plans with relevant research and guidance.

5.1.4.1. [EU Habitat Action Plans](#)

What are the habitat action plans?

The Commission committed to developing and promoting the implementation of EU Action plans for two of the most threatened habitats in the EU in the Action plan for nature, people, and the economy in 2017. Action plans are tools to establish, promote and implement key actions to maintain and restore at favourable conservation status these key habitats in the EU. They describe the status, ecological needs, key threats of habitats and include a Framework for Action which identifies key actions and measures to improve their conservation status in the short and medium terms and who is responsible. The action plans aim to be used by conservation practitioners, experts, and all of those interested in habitat conservation in the EU, from public authorities and NGOs to local communities, and landowners.

The two selected habitats for action plans are dry calcareous grasslands and European dry heaths. Both are listed in Annex I of the EU Habitats Directive. The [EU Action Plan for habitat type 6210 semi-natural dry grasslands and scrubland facies on calcareous substrate \(Festuca-Brometalia\)](#) was published in 2019. The EU Action Plan for the [habitat type 4030](#)

[European dry heaths](#) was published in 2020. Both plans list recommended management actions and other actions to protect and restore the habitats. The plans are not legally binding and rely on shared implementation and cooperation between EU, member states, and local authorities.

Pollinator relevance

The two Annex I habitats for which action plans have been developed are of great importance for pollinators. The Habitat Action Plans describe some typical species and the key conservation and restoration measures that benefit wild pollinators and define some priorities for action.

Opportunities for policy to support pollinator conservation

- There may be an opportunity in the future LIFE programme to fund calls for implementation of the plans, including a focus on wild pollinator conservation.
- The species and habitat action plans could be a topic for a future Natura 2000 biogeographical process networking event.

5.2. Biodiversity Policy

The EU has a well-established biodiversity conservation policy framework, set out in its Biodiversity Strategy. At its core, the EU Birds and Habitats Directives (the Nature Directives) are the main legal instruments for biodiversity protection in Europe. Other policies and instruments help implement the EU's biodiversity commitments to protect and restore nature and address the drivers of its current decline.

5.2.1. EU Biodiversity Strategy to 2030 and global biodiversity framework

What is it?

The EU Biodiversity strategy (BDS) sets the goal to put Europe's biodiversity on a path to recovery by 2030. It was published on 20 May 2020, replacing the previous strategy which ran from 2011 to 2020 and under which, despite some improvements, biodiversity continued to decline in the EU. This new strategy is a key pillar of the EU Green Deal and is also the EU's contribution to the post-2020 global biodiversity framework under the Convention for Biological Diversity. The IPBES report on pollinators and pollination (2019) highlighted the importance of tackling both direct and indirect drivers of pollinator loss to bring about transformative change, which is now considered necessary to reverse biodiversity loss. In the EU, it is important that pollinator conservationists contribute to revising the EU policies and structures that currently drive pollinator loss rather than contributing to recovery.

The EU strategy lists specific commitments and actions in four key areas:

- 1. Creating a coherent network of protected areas and ensuring habitats and species return to favourable conservation status**
- 2. Establishing an EU Nature Restoration Law**

3. **Enabling transformative change:** the EU has committed to setting up a new European governance framework for biodiversity, step up implementation and enforcement of EU environmental legislation, build a whole-society approach to tackling the biodiversity crisis by engaging business, mobilise and incentivise private and public funding for biodiversity, measure and integrate the value of biodiversity into decision-making, and improve biodiversity knowledge, education, and skills.
4. **EU commitment to an ambitious global biodiversity framework**

The full European Commission communication on the Biodiversity Strategy can be found [here](#) (annexes [here](#)). Some of these key commitments are described further in the next section.

Global biodiversity framework: A key milestone for EU Biodiversity Policy is the [agreement](#) on the post-2020 Kunming-Montreal global biodiversity framework under the UN Convention on Biological Diversity reached in December 2022. More discussion on this [here](#). Ensuring an ambitious post-2020 global biodiversity framework was an objective under the EU Biodiversity Strategy, and the EU is expected to implement the biodiversity commitments adopted at the international level. The new global biodiversity framework sets out 4 new global goals for biodiversity by 2030, with 23 targets. Pollinators are explicitly mentioned in the agreed framework in target 11, as part of the objective to enhance pollination's contribution to people through nature-based solutions and/or ecosystem-based approaches. More broadly, direct pressures and threats to pollinators are addressed by various targets in the framework, like target 1 (loss of area of biodiversity importance), target 2 (restoration of ecosystems), target 3 (protected areas), target 4 (actions for threatened species), target 6 (impacts of invasive alien species on biodiversity), target 7 (pollution risks), target 8 (impact of climate change), target 10 (sustainable agriculture), target 12 (quality and connectivity of green urban areas). Targets 15 to 19 address indirect drivers of pollinator loss, including harmful subsidies, unsustainable consumption, harmful policy and administrative measures.

Pollinator relevance of the EU Biodiversity Strategy

Many of the commitments outlined under the EU BDS are directly or indirectly relevant to pollinators. The most important of these is the revision of the EU Pollinator Initiative which creates a new framework of EU action to halt the loss of pollinators. Other relevant commitments include the strengthening of nature protection, the restoration of key pollinator habitats through the EU Nature Restoration Law, reducing pesticide use and risks, and ensuring the CAP strategic plans are in line with BDS objectives. The most [pollinator relevant BDS commitments](#) and the relevant policies under them are outlined in table 2 in the Annex. More broadly, the point on transformative change is also of importance, as it may encourage fruitful discussions on the transformation of governance at the European level, so that indirect drivers of pollinator loss are considered, and so that pollinator concerns are better integrated into other policy portfolios, including agriculture. The EU Biodiversity Strategy will go through a mid-term review in 2024 where progress towards its targets and the need for further action will be assessed.

Pollinators in biodiversity monitoring: The EU Biodiversity Strategy is supported by a monitoring and assessment framework, including the EU pollinator monitoring scheme and other new biodiversity indicators to be established, as well as the already existing butterfly indicators. The cooperation-based biodiversity governance framework aims to support citizen

engagement as one of its key objectives. The pollinator-relevant monitoring framework includes:

- The grassland butterfly index published by EUROSTAT² based on European Butterfly Monitoring (eBMS) data³.
- The [EMBAL survey](#) of biodiversity in agricultural landscapes being piloted in all EU countries. The survey includes a measure of landscape features quality and diversity.
- The [LUCAS survey](#) of land use includes a grassland module since the 2022 survey, following a successful pilot in 2018. The survey includes a measure of flowering plant species richness and density.
- The EU Pollinators Monitoring Scheme will develop pollinator indicators at EU and member state level and will explore options for co-locating sites with EMBAL and/or LUCAS.
- The [Insignia initiative](#) has set up a citizen science protocol for using honeybee hives as bio-samplers for pesticides in the environment.

The EU Pollinators Initiative commits the Commission, with the support of member states and the European Environment Agency, to devise an integrated framework for monitoring pollinator decline, its causes and consequences, and the systematic collection of data on major threats to pollinators through these schemes.

Expected developments relevant to pollinators

In the following, we describe the expected developments under the EU Biodiversity Strategy's specific commitments and actions most relevant for pollinators:

- EU Nature Restoration Law plan and legally binding targets for restoration
- Implementation of the EU nature directives
- EU Green Infrastructure Strategy and the trans-European Nature Network
- Commitments in the policy areas of agriculture, pesticides, pollution, regional, urban, and knowledge.

5.2.2. The EU Nature Restoration Law

What is it?

As announced in the EU Biodiversity Strategy to 2030, the European Commission proposed a set of legally binding targets for nature restoration. These targets are expected to help put Europe's nature on a path to recovery by restoring degraded ecosystems. The targets are expected to meet the objectives to restore ecosystems with the most potential to capture and

² EUROSTAT indicator SDG 15 61. Available at:

https://ec.europa.eu/eurostat/databrowser/view/sdg_15_61/default/table?lang=en

³ eBMS update (2022) eBMS in numbers (1990 - 2020) eBMS v4.1 <https://butterfly-monitoring.net/ebms-data-summary>

store carbon, to prevent and reduce the impact of natural disasters, and to deliver benefits for soil health, pollination, and other ecosystem services.

Pollinator relevance of EU nature restoration law

The proposal for an EU nature restoration law includes legally binding targets to restore habitats of European Community interest, including grasslands, heath and scrub, forests, and wetlands, which are all important pollinator habitats (see the EU Habitats Directive section 2.2.3). There is a dedicated **target to restore pollinator populations (Article 8), which aims at reversing the decline of pollinators by 2030 and achieve an increasing trend for pollinators until satisfactory levels are achieved**. The Commission will adopt implementing acts to establish a standardised method for monitoring pollinator populations and for assessing pollinator population trends. There is also a target to increase the area and quality for nature of urban green spaces, which can be high quality habitats for pollinator species in cities (see the urban section).

Expected developments

The Commission published the proposal for a nature restoration law and legally binding nature restoration targets in June 2022.

The text is currently being debated by the co-legislators, with the aim to adopt the legislation by the end of this year: in Parliament, the file is led by the Committee on the Environment, Public Health and Food Safety (ENVI). The ENVI committee rapporteur's draft report was published in January 2023 and over 2000 amendments have been submitted by MEPs as of February 2023⁴. The debate has revealed a fracture within the Parliament on the desired level of ambition of the law, so the final decision of the Parliament will be followed with attention.

If the law is adopted, member states would be expected to prepare national nature restoration plans at the latest two years after adoption for implementation by 2030.

Opportunities for the policy to contribute to pollinator conservation

The NRL legislation proposal offers several opportunities to raise the profile of wild pollinators in the nature restoration agenda, for example:

- Member states could be asked in their national restoration plans to justify steps taken to reduce pressures on pollinators, such as preventing the loss of (micro)habitats, reducing or banning pesticide use in protected areas, cutting nitrogen and light pollution and other environmental pollution, and preventing and eradicating invasive alien species.
- Conservation measures could be identified and promoted that provide good habitat conditions for invertebrates including wild pollinators, for example by increasing structural diversity, micro-habitats that provide breeding or overwintering sites (such

⁴ European Parliament Legislative Observatory 2022/0195(COD) Nature restoration. Available: [https://oeil.secure.europarl.europa.eu/oeil/popups/ficheprocedure.do?lang=en&reference=2022/0195\(COD\)](https://oeil.secure.europarl.europa.eu/oeil/popups/ficheprocedure.do?lang=en&reference=2022/0195(COD))

as open ground, dead wood, and tree holes), some disturbance dynamics that create open areas, and high flowering plant diversity and abundance.

- Urban greening plans could feature actions to increase pollinator habitat (see urban section).

Safeguard will organise policy engagement activities on these topics in 2023 and 2024 to bring in the research being carried out by the different Safeguard work packages.

5.2.3. The EU Habitats Directive and Natura 2000 network and related BDS targets

What is the policy?

The EU Habitats Directive and Birds Directive (collectively known as the EU Nature Directives) are the main pillars of the EU's nature conservation law. The overall objective of the Habitats Directive is to ensure that a wide range of rare, threatened, or endemic European species and habitat types are protected and maintained, or restored, to a favourable conservation status throughout their natural range in the EU. This includes 231 habitat types (as listed in Annex I) and around 1050 non-bird species (as listed in Annexes II and/or IV or V), known as habitats and species of European Community interest. The Directive, adopted in 1992, commits EU member states to:

- Legally protect sites which must be managed in accordance with the ecological needs of the species and habitats for which they are designated.
- Protect species under Annex IV of the Directive through strict protection rules. These rules apply everywhere in the species' natural range). Derogations can be granted under the conditions laid out in the Directive.
- Monitor the condition of species and habitats and report to the EU, carry out species (re)-introductions, and research to fill knowledge gaps.

Natura 2000 is the EU's network of protected areas designed to safeguard Europe's nature. The network consists of 'special protection areas' (SPA) designated to protect endangered bird species and areas important for migrating birds and 'sites of Community importance' (SCI) and 'Special Areas of Conservation' (SAC) established for protection of habitat types and species listed in the Habitats Directive. It is the largest coordinated protected area network in the world, currently covering more than 1.2 million km², 18% of the EU land area and almost 10% of its marine territory⁵. The network includes over 27,000 sites, which can be viewed using the online [Natura 2000 viewer tool](#). These sites hugely vary in terms of size, management approaches, and protection measures. Most of the land in Natura 2000 is privately owned, and much of it is used for agriculture, forestry, fishing, hunting, recreation, or other activities. The Commission supports member states to implement the EU nature directives through guidance, training, bilateral dialogues, the Natura 2000 wiki web platform, and the EU biogeographical seminars.

⁵ European Commission (2020) Natura 2000 newsletter, Number 49, December 2020

Expected developments - Targets to 2030 for species and habitats

The EU Biodiversity Strategy sets out two quantified goals to strengthen implementation of the EU nature directives:

- To legally protect a minimum of 30% of the EU's land area and to integrate ecological corridors by 2030. A key action under this commitment will be the completion of the Natura 2000 network, but also to integrate other protected areas and green infrastructure into a truly connected trans-European Nature Network.
- To ensure that at least 30% of species and habitats not currently in favourable conservation status are in that category by 2030, or at least show a strong positive trend. The target will be measured at national level, i.e. each member state is to achieve it individually.

The BDS also commits to:

- Member States ensure no deterioration in conservation trends and status of all protected habitats and species by 2030.
- Strictly protect at least a third of the EU's protected areas, including all remaining primary and old growth forest.
- Effectively manage all protected areas, defining clear conservation objectives and measures, and monitoring them appropriately.

The targets will require that by 2030 the quality of national monitoring in all member states has become sufficiently comprehensive to allow for a complete and up-to-date reporting that provides a reliable assessment of status and trend of all relevant species and habitats.

In 2025, Member states will submit their reports on the conservation status of species and habitats of European Community interest in the 2019-2024 reporting period. These reports will be used to measure interim progress on the national targets. The EU will publish its State of Nature report in 2027.

Natura 2000 management effectiveness

The Commission proposed [criteria and guidance](#) on the adequate management of protected areas, including Natura 2000 sites, in 2022. A system to assess the management effectiveness of marine Natura 2000 sites and other EU MPAs has been developed and is being adapted to terrestrial sites⁶. The Commission will also continue to undertake enforcement action and compliance promotion activities including through its bilateral "Nature Dialogues" with member states.

Pollinator relevance of the Natura 2000 network

Many of the habitats protected under the EU Habitats Directive are important for pollinators, so their legal protection and management in the Natura 2000 network is key to improving the status of European pollinators. Only 52 pollinator species are listed as protected species under

⁶ NADEG meeting 1 December 2021 presentation by Vedran Nikolić: Developing a methodology for assessing the management effectiveness of Natura 2000 sites and other PAs: State of play

the EU Habitats Directive, which do not include threatened red listed bee species, but the protection of the habitats indirectly protects the species that are closely associated with these habitats.

Box: Pollinator species in the EU Habitats Directive annexes

The EU Habitats Directive lists 52 Lepidoptera species in one or more of the annexes. These are: Butterflies and moths typical of dry grasslands & scrub, rocky slopes - *Chondrosoma fiduciarium*, *Colias myrmidone*, *Cucullia mixta*, *Lignyoptera fumidaria*, *Maculinea arion*, *Maculinea teleius*, *Melanargia arge*, *Papilio alexanor*, *Papilio hospiton*, *Paracossulus thrips*, *Parnassius apollo* (in lowland), *Phyllometra culminaria*, *Proterebia afra dalmata*, *Pseudophilotes bavius*. Alpine grassland - *Erebia calcaria*, *Erebia christi*, *Erebia sudetica*, *Hesperia comma catena*, *Hyles hippophaes*, *Parnassius apollo*, *Plebicula golgus*. Arctic grass & heath - *Plebejus aquilo*, *Clossiana improba*. Butterflies and moths typical of scrub, forest edges and light xerophilous forests - *Dioszeghyana schmidtii*, *Erannis ankeraria*, *Eriogaster catax*, *Euplagia quadripunctaria* (coppice woodland), *Fabriciana elisa*, *Glyphipterix loricatella*, *Graellsia isabellae*, *Hypodryas maturna*, *Leptidea morsei*, *Lopinga achine*, *Nymphalis vaualbum*, *Parnassius mnemosyne*, *Polyommatus eroides*. Butterflies and moths typical of wet grasslands - *Coenonympha hero*, *Euphydryas aurinia*, *Gortyna borelii lunata*, *Lycaena helle*, *Maculinea nausithous*, *Zerynthia polyxena*. Butterflies and moths typical of wetlands and wet forests - *Apatura metis*, *Arytrura musculus*, *Coenonympha oedippus*, *Erebia medusa polaris*, *Lycaena dispar*, *Proserpinus proserpina*, *Xestia borealis*. Butterflies and moths with poorly known or varied habitats - *Polymixis rufocincta isolata*, *Xestia brunneopicta*, *Xylomoia strix*, *Zerynthia cassandra*.

The Commission produced a [report on Annex I protected habitats important for pollinators](#) and assessed their condition based on member states reports. Grasslands, sclerophyllous scrubs, and temperate heath habitats were identified as the most important habitat groups for pollinating insects. [An online dashboard](#) is available showing the pollinator-importance of these habitats, their conservation status, trends, pressures, and distribution across Europe.

Opportunities for policies to support pollinator conservation

This process offers several opportunities to raise the profile of wild pollinators in member states' setting and planning of species and habitat conservation priorities:

- Member states are encouraged to prioritize species and habitats that have an umbrella effect on biodiversity, i.e. positive impacts on other species or habitats including endemic species or red-listed species or habitats not covered by the EU nature directives. The EU guidance mentions that measures for restoring and improving habitats (in particular grasslands, but also many other Annex I habitats) have significant potential to benefit rare and threatened species of pollinating insects; if properly designed, such measures will contribute to the target for reversing the decline of pollinators.
- In the revised EU Pollinators Initiative, the Commission commits to **identifying pollinators typical of Annex I habitats**. Member states are asked to ensure that the measures implemented for these habitats, in particular under Natura 2000 management plans, take pollinator conservation into account, and to secure adequate funding.

Ideas for actions:

- Information on wild pollinator communities and their conservation status could be included in the prioritization criteria and guidance provided to member states. Safeguard data and research results could be used to provide guidance on identifying

pollinator hotspots, pollinator connectivity needs, and links between pollinator networks and Annex I habitats.

- Butterfly Conservation Europe convened a [workshop](#) in March 2022 that identified possible measures to protect butterflies and the way to include them in the pledge and review process. A similar workshop could be held focusing on the other pollinator groups.

Assessments of protected area management effectiveness will include output/outcome-based criteria, e.g. improvement of status and trends of protected species/habitats, and measures of socio-economic benefits and other values generated by protected areas.

- Management effectiveness assessment could include the value and benefits associated with pollinators and pollination.

5.2.4. EU Green Infrastructure Strategy and trans-European Nature Network

What is it?

The EU Strategy on Green Infrastructure was adopted in May 2013 to promote investments in green infrastructure, ensure connectivity between habitats of European Community interest, and restore ecosystems. Green Infrastructure (GI) is a strategically planned network of natural and semi-natural areas designed and managed to deliver benefits to society through nature-based solutions. Natura 2000 sites form the backbone of this network and are complemented by other spaces such as parks, private gardens, landscape features on farmland, urban green features such as green roofs and walls, and ecological corridors. Green infrastructure is an important tool to integrate nature protection and restoration into spatial planning and territorial development. The review of the strategy in 2019 concluded that green infrastructure needs to be further scaled up in the EU as the strategy did not manage to deliver a truly strategic and coherent deployment of GI at the EU level. The findings of the review fed into the evaluation of the 2020 BDS and the development of the new 2030 BDS.

The EU BDS establishes the commitment to integrate Natura 2000 sites with ecological corridors to create a **trans-European Nature Network** by 2030, to prevent genetic isolation, allow for species migration, and maintain and enhance healthy ecosystems.

The Commission has presented draft **guidance on the creation of ecological corridors** and other natural and semi natural habitats. The Commission published a [guidance](#) in January 2022 for identifying and designating new areas including, but not limited to, legally protected areas in the Natura 2000 network, and set out the format for member states' pledges under the two targets and the process for their review. The Commission has also committed to promote and support **investments** in green infrastructure and cooperation among member states to create ecological corridors. To achieve this, they will build on the [EU guidance on the deployment of strategic EU level green and blue infrastructure](#).

OECMs⁷ – Other Effective Conservation Measures – introduced in 2020 via the Target 11 of the Aichi biodiversity targets under the Convention on Biological Diversity - are an option for member states to expand their protected area network by including geographically defined areas that are not designated protected areas, so long as they are governed and managed in ways that achieve positive and sustained long-term outcomes for the *in situ* conservation of biodiversity. If member states rely on OECMs, they will need to define conservation objectives and conservation measures for these areas and declare them to the Commission.

Pollinator relevance of the policy

The trans-European nature network is an opportunity to support and scale-up the protection and restoration of important pollinator habitats across European ecosystems including on agricultural land and in urban areas. Through promoting the creation of coherent ecological corridors, green infrastructure planning can increase the connectivity of pollinator habitats and create new habitat areas, thereby increase the resilience of pollinator populations to climate change. There is an opportunity to designate new protected areas in hotspots of pollinator diversity that are currently unprotected. The OECM category allows for the protection of areas that are managed for agriculture or infrastructure or other reasons, but that could provide good pollinator habitat if managed appropriately.

The expected developments in the next four years are:

Member States' pledges for the trans-European nature network

Member states are invited to submit their pledges this year (deadline February 2023) and the pledges will be discussed in the framework of the biogeographical process. Member states will need to explain the criteria they have used to select the species and habitats on their list, the measures they intend to put in place to achieve a strong positive trend in their selection, and the measures they intend to put in place to avoid deterioration for all other species and habitats not on their national list. The Commission and EEA will carry out a gap analysis to see how far the EU is from the targets in each biogeographical region. This will be an important discussion point during the 5 biogeographical seminars carried out throughout 2023.

By the end of 2023, member states will need to demonstrate progress in designating new protected areas so that the Commission can assess whether additional efforts are needed. Member states will also have to demonstrate significant progress in integrating ecological corridors into their Natura 2000 network.

Opportunities for the policy to support pollinator conservation

- **Guidance on wild pollinator conservation and ecological corridor creation:** It is likely that member states environment ministries and nature agencies or nature directors and protected area network managers will welcome guidance or information or maps, for example an analysis of connectivity and climate adaptation needs of endangered pollinator species, approaches and successes in ecological corridor

⁷ According to the definition of the Convention on Biological Diversity (CBD/COP/DEC/14/8 of 13 November 2018), "Other effective area-based conservation measure" means "a geographically defined area other than a Protected Area, which is governed and managed in ways that achieve positive and sustained long-term outcomes for the *in situ* conservation of biodiversity, with associated ecosystem functions and services and where applicable, cultural, spiritual, socio-economic, and other locally relevant values.

creation for pollinators, and ways to integrate privately owned farmland outside protected areas into ecological networks for pollinators.

- **Guidance on how an OECM or an OECM network** dedicated to pollinator conservation could be defined, planned, and managed in the long term to ensure its biodiversity values would also be useful.
- Safeguard could convene an **event as part of the biogeographical process**. The Natura 2000 biogeographical process issues regular calls for proposals for networking events that address issues of transboundary concern related to habitat types and species conservation and management in the Natura 2000 network. Networking events can be proposed, hosted, and organised by a Member State, a Natura 2000 management body, Natura 2000 landowners, a scientific institute or any other organisation involved in the management of Natura 2000. Events must either be linked to the agreed actions listed in the road maps for cooperation for the various biogeographical regions; or events should support Member States in preparing their pledges for the target on protected areas and the target for status improvement and halting deterioration of protected species and habitats were encouraged.

5.2.5. Funding: Prioritised Action Framework (PAF)

What is the policy – how is Natura 2000 funded?

Prioritised Action Frameworks (PAF) are multiannual planning tools outlining the conservation measures needed to implement the Natura 2000 network and its green infrastructure. As set out in article 8 of the Habitats Directive, Member States must send the Commission estimates of funding needs for establishing and maintaining their Natura 2000 network and associated green infrastructure, including EU co-financing and national funding.

While the main responsibility for financing Natura 2000 lies with the member states, Article 8 of the Habitats Directive commits the EU to co-financing necessary conservation measures for Natura 2000. During the 2014-2020 period, the largest amounts of EU funding for Natura 2000 came from the EU fund for the Common Agricultural Policy's rural development pillar (EAFRD), followed by regional development funding (ERDF and INTERREG), the Commission's nature fund LIFE, followed by the marine and fisheries fund (EMFF)⁸. Member states have estimated the costs of implementing the Natura 2000 network over the 2021- 2027 period in Prioritised Action Frameworks (PAFs). The PAFs indicate that annual financing needs for the 26 member states (all except Denmark, as of January 2022) amount to EUR 10.5 billion per year⁹. The EU Council and Parliament have agreed on a biodiversity spending ambition in the EU's 2021-2027 multi-annual financial framework (MFF), of ensuring that at least 7.5% of annual spending in 2024 and 10% in 2026 and 2027 delivers on biodiversity objectives. The EU funds are expected to be contributing around EUR 15 billion to biodiversity

⁸ IEEP and the N2K Group (2022) Financing Natura 2000. EU funding opportunities 2021-2027. Final report under EC Contract ENV/D.3/SER/2019/0016" Service contract for technical and scientific support in relation to the implementation of the Birds and Habitats Directives", Institute for European Environmental Policy EC Contract ENV/D.3/SER/2019/0016

⁹ IEEP and the N2K Group (2022) Financing Natura 2000. As above.

funding by 2026. A guide to the EU funding opportunities for Natura 2000 in 2021-2027 was published in May 2022¹⁰.

Pollinator relevance

The current PAF format includes scope to outline the funding needs for pollinator protection and restoration measures within Natura 2000 and green infrastructure, as a co-benefit of the measures focused directly on the species and habitats of EU Community interest and as complementary actions. Member states were encouraged to include measures targeted at pollinators in their PAFs for the 2021 to 2027 funding period. For example:

- The Netherlands included an outline of measures within its national bee strategy
- Greece included the cost estimation for the definition of an action plan for pollinators
- Wallonia (BE) included the Maya Project (150 000€), which focuses on the recovery of bees through reconstruction of spaces with nectar rich plants
- Finland plans on monitoring the effects of agri-environmental scheme and grassland management for semi-natural grasslands in mainland Finland including EU pollinator monitoring scheme (1m €)
- Latvia plans the development and implementation of new indicators and monitoring methodologies, including for pollinators

Expected developments

The Commission will develop an EU level Prioritised Action Framework aggregating the financial needs outlined in the national PAFs. It was planned to be published in early 2022, but is currently delayed.

Opportunities for policy to support pollinator conservation

Member states are encouraged to regularly update their PAFs, and there may be an opportunity to do this in a coordinated way to include measures more systematically for wild pollinators in the next years.

5.2.6. Funding: LIFE Programme

What is it?

The LIFE Programme is an EU funding instrument dedicated to the environment and climate action. The main objective of the programme is to contribute to implementing, updating, and developing EU climate and environmental policy through co-financing relevant projects. It is managed by DG ENV and DG CLIMA within the European Commission. Since its launch in 1992, LIFE has supported over 5.500 projects. The newest phase of the programme runs from 2021-2027 and its budget was set to €5.4 billion, €3.5 billion of which will be directed towards projects with environmental objectives and the remaining €1.9 billion to projects with climate

¹⁰ European Commission DG ENV (2022) *Financing Natura 2000: EU funding opportunities in 2021-2027*. revised report May 2022, European Commission Directorate-General for Environment, <https://data.europa.eu/doi/10.2779/724345>.

objectives. The LIFE regulation and multi-annual work programme for 2021-2024 allocates €1.8 billion to projects with environmental objectives and around €1 billion to those with climate objectives. €1.1 billion is allocated for the nature and biodiversity subprogramme from 2021-2024 specifically. More information [here](#).

Opportunities for funding for pollinator conservation

The new LIFE 2021-2027 programme has a sub-programme on nature and biodiversity which is relevant to pollinators. A list of LIFE projects relevant for pollinators can be found [here](#). LIFE will fund projects targeted at species identified as threatened on national red lists. The LIFE programme offers targeted calls to support conservation actions particularly relevant to pollinators, for example to support the implementation of the EU Habitat Action Plans and the EU Pollinator Species Action Plans.

Some examples of LIFE projects for pollinators:

- [LIFE BEEadapt](#): a pact for pollinator adaptation to climate change for the design of adaptation measures enhancing connectivity planning at national, regional and local scale.
- [LIFE METAMORPHOSIS](#): focuses on the conservation of 15 butterfly species listed in Annexes II and IV of the EU Habitats Directive. The project carries out best practices in habitat management, and concrete restoration activities directly targeting populations of these species in Central and Eastern Europe.

5.2.7. Invasive Alien Species Regulation

What is it?

The Invasive Alien Species (IAS) Regulation aims to prevent and manage the introduction and spread of IAS in the EU. The regulation entered into force in 2015 to implement the objectives of decreasing the threat of IAS on biodiversity under the EU Biodiversity Strategy and the Convention on Biological Diversity.

The IAS regulation requires member states to establish:

- Measures to prevent the introduction of IAS into the EU
- Measures for the early detection and rapid eradication of IAS
- Measures to manage already established IAS

The legal obligations are tied to a list of IAS of Union concern, which is reviewed and updated at least every 6 years and to be adopted by means of implementing acts. IAS of Union concern are adopted based on a risk assessment that evaluates the need for EU level action on each species. The [third update of the list of IAS of Union concern](#) was published in July 2022.

The Commission published a report reviewing the implementation of the IAS Regulation in October 2021. The report found that the regulation has led to effective measures to prevent the introduction of IAS into the EU. However, some challenges remain including funding and

administrative barriers, and for some member states the lack of implementation of action plans to address priority pathways. More information on IAS can be found on the European Alien Species Information Network (EASIN).

Pollinator relevance of the policy

IAS can be a threat to wild pollinator populations. IAS can negatively impact pollinator populations by modifying their habitats, competing, and hybridising, preying, and transmitting diseases and parasites. IAS can also modify plant-pollinator interactions, with negative impacts on native pollinator populations and wild plant pollination. Global warming is amplifying IAS threat, by encouraging the spreading of IAS (both plants and insects), and this threat needs to be taken into account in conservation plans.

IUCN published a [guidance on pollinators and invasive alien species](#) as part of the EU Pollinators Initiative. The guidance is complemented by technical notes on the management measures relevant to the top five IAS with the potential to negatively impact wild pollinators in the EU. These are:

- Asian Hornet *Vespa velutina*
- Giant Resin Bee *Megachile sculpturalis*
- Ant species *Lasius neglectus* and *Linepithema humile*
- Common Rhododendron *Rhododendron ponticum*
- *Solidago* spp.

The Asian Hornet *Vespa velutina* is an IAS of Union concern under the regulation since 2016 and affected member states have developed various action programmes and measures including citizen participation apps and alert systems. *Solidago* species are already well established in many member states and Common Rhododendron is well established in Ireland and Britain, so neither are likely to be listed at EU level, but more awareness of their threats to pollinators could help mobilise more funding and action to control their abundance and spread. The Giant Resin Bee is the first invasive alien bee species to enter Europe, and is very rapidly spreading and establishing populations in the Iberian peninsular and France¹¹. It is commonly found nesting in bee hotels.

The update to the list of IAS of Union concern in June 2022 added three species of the *Solenopsis* ant (*geminata*, *invicta*, *richteri*) and the electric ant (*Wasmannia auropunctata*). These species pose a threat to pollinators. The *Solenopsis* ants are still absent from Europe but were listed to ensure increased vigilance for their appearance to prevent the anticipated problems should they get established. The electric ant has been established in the area around Malaga in Spain since 2016 and has now invaded France¹². The inclusion of these species will promote the development of surveillance programmes and methods to detect ants

¹¹ <https://www.uab.cat/web/news-detail/the-giant-resin-bee-will-continue-to-spread-across-europe-1345680342044.html?noticiaid=1345872264190>

¹² https://www.europarl.europa.eu/doceo/document/E-9-2022-003547_EN.html

in the more frequent pathways of introduction, which should help to also reduce the risk of invasion by other ant species that could threaten pollinators.

Opportunities for policy to support risk reduction for pollinators

Climate change is amplifying the IAS threat, by encouraging the spreading of IAS (both plants and insects), and this threat needs to be taken into account in conservation plans. **Protected area managers are in need of more information, tools, and resources** to more effectively manage this threat, by preventing the entry of IAS through awareness raising (e.g. codes of conduct) or managing human behaviours, monitoring threats and impacts, as well as controlling or eradicating species that have already invaded.

The EU 2030 BDS announced a target for a 50% reduction in the number of Red List species threatened by invasive alien species. This target will be measured using the European red lists, so the new red lists on pollinator groups will be key contributions to tracking progress in reducing risks to pollinators.

5.3. Agriculture, Forestry, and Soil Policy

Intensive agriculture is one of the biggest threats to pollinators in the EU. Intensive agricultural practices drive the loss of important pollinator habitat and food sources and rely on substances such as pesticides which directly harm pollinating insects. Transitioning to pollinator-friendly farming practices is therefore key to the recovery of pollinators. As such, agricultural policy is directly relevant to halting the decline of pollinators. The Common Agricultural Policy (CAP) supports EU farmers as part of the EU budget to ensure a secure supply of sustainable and affordable food. Alongside the CAP, other policies and instruments help implement the EU's food and forestry system objectives.

5.3.1. The Common Agricultural Policy (CAP)

What is it?

The Common Agricultural Policy (CAP) is the EU's agricultural policy. It is common to all EU Member States and is funded from the EU budget with co-funding from member states or regions for some of the measures. The CAP was introduced in 1962 to support farmers and increase agricultural productivity to ensure food security. The CAP has since gone through many changes, the most recent of which was agreed in June 2021 to be implemented in 2023 to 2027¹³. The CAP takes up the largest share of the EU budget and is also the largest EU funding source for biodiversity conservation on farmland.

The post-2020 CAP has 9 objectives: (1) ensuring fair income to farmers, (2) increasing competitiveness, (3) rebalancing power in the food chain, (4) generating climate action, (5) promoting environmental care, (6) preserving landscapes and biodiversity, (7) supporting generational renewal, (8) upholding vibrant rural areas, (9) protecting food and health quality.

¹³ The 2020 CAP reform package was agreed by the European Commission, Parliament and Council in June 2021 and endorsed by AGRI members and agricultural ministers. The CAP regulations were adopted by the Parliament in November 2021 and by the Council in December 2021. The secondary legislation (delegated acts) which set the legal framework for the new CAP, have been adopted by the Council and the Parliament formally adopted them on 2 December 2021.

The CAP provides support through two main “pillars”:

- **Pillar 1:** direct payments which support farmer income to ensure income stability and market measures to mitigate the effects of situations such as temporary drops in demand or oversupply organised under the Single Common Market (CMO) regulation. This is funded through the European Agricultural Guarantee Fund (EAGF) which delivers around two thirds of the EU CAP budget. To receive this support, farmers must meet a set of mandatory environmental and health requirements (conditionalities). Farmers can receive support for environmentally friendly practices through ecoschemes as defined in CAP strategic plans at national level.
- **Pillar 2:** rural development policy to support rural areas in the EU. It consists of a ‘menu of measures’ which member states have flexibility to programme and target. This is co-funded through the European Agricultural Fund for Rural Development (EAFRD) (representing around 25% of the EU CAP budget) and co-funding from member states or regions.

The most recent CAP reform has led to some key changes to the post-2020 CAP:

- A new delivery model - each member state must programme the funds in one national CAP strategic plan covering both pillars. Member states now have greater flexibility to decide on the ways the CAP should be deployed in their own country, in line with the EU objectives. The Commission is focusing its attention on how the CAP plans perform in respect to the EU objectives.
- Ambition to make the CAP greener: CAP strategic plans must show higher environmental and climate ambition than that of the previous CAP and the Commission expects CAP strategic plans to be in line with the Green Deal targets. However, NGO assessments of the new CAP plans have pointed out failures to deliver on this ambition, notably because of the gaps between stated green ambitions and the budget allocation for green goals¹⁴.
- A common set of indicators which will be monitored through annual performance reports and biannual CAP strategic plan performance reviews.
- Direct payments are linked to stronger conditionality rules.
- Eco-schemes under Pillar 1 have to make up at least 25% of the Pillar 1 budget.
- For Pillar 2, 35% of the budget must be allocated to measures to support climate, biodiversity, environment, and animal welfare.
- 40% of the CAP budget must be spent on climate measures and the CAP should support the goal to spend 10% of the EU budget on biodiversity by 2026.

¹⁴ BirdLife, EEB and NABU (2022) New CAP unpacked.. and unfit. BirdLife International, European Environment Bureau, NABU, Brussels. Scientific viewpoint in: Candel JJL, Lakner S, Pe'er G. Europe's reformed agricultural policy disappoints. *Nature*. 2021 Jul;595(7869):650. doi: 10.1038/d41586-021-02047-y. PMID: 34316050.

Pollinator relevance of the CAP

The CAP is the main policy instrument to support the implementation of environmentally friendly farming practices. CAP measures and funding have great potential to support pollinator conservation on farmland and reduce pressures on pollinators.

An evaluation of the integration of pollinator conservation into the CAP 2014-2020, as announced under the 2018 Pollinators initiative, can be found [here](#). A review of evidence revealed **key management practices that benefit pollinator populations through the creation of habitats on farmland:**

- **Species-rich grasslands:** sow new grassland or manage to allow natural growth of wildflowers, with some shrubs and trees to provide pollinator food and habitat.
- **Arable land:** sow and maintain **pollinator margins** with diverse flowering species, and **maintain fallow overwinter** and some long term fallow areas, minimise herbicide and pesticide use through **integrated pest management (IPM)** or organic farming.
- **Hedges, trees and small wood patches, agroforestry:** cut sparingly to increase flowering and fruiting, maintain features that create pollinator habitats (e.g. deadwood, tree holes, earth banks and stone walls).
- **Permanent crops:** maintain flowering ground cover, minimise pesticide use through **integrated pest management (IPM)** or organic farming, maintain semi-natural vegetation and some patches of bare ground, and grow cover crops and intercrops that include legumes.
- **Heath, scrubland, and forests:** maintain flower-rich species, create forest edge habitat, manage clearings, and track edges to maximise flowering vegetation, maintain landscape features.

Crucially, habitats and flowering resources need to be **provided at the landscape scale** to maximise their effectiveness for pollinator conservation.

The CAP can also fund organic farming, integrated pest management (IPM) and other agroecology farming practices that reduce or eliminate pesticide use.

The CAP **conditionality** rules can be used to protect pollinator habitats in permanent grassland, landscape features, wetlands, and peatlands, to mandate the creation of wide buffer strips along water courses and water bodies, and to require minimum integrated pest management standards.

The CAP can also fund **cooperation** between farmers, and between farmers and other land managers and conservation groups, to plan and coordinate landscape scale actions for pollinators. Ecoschemes and agri-environment schemes can also include an incentive to link up on farm habitats across neighbouring farms and landscapes, creating a network of pollinator habitats. This can be done for example by providing a network bonus payment.

Member states must have a **Farm Advisory Service** that provides farmers with advice on the requirements of the EU nature directives, such as the appropriate management of Annex I grassland habitats. Member states can also choose to offer tailored biodiversity advice to

farmers and require farmers who take part in agri-environment schemes to attend a training course. For example, Croatia and Austria provided **dedicated advice on wild pollinator conservation** in the 2014 to 2020 period.

Expected developments in the CAP

During 2022, the Commission assessed the draft plans against the expected increased environmental and climate ambition, requested revisions or improvements from member states if justified, and then approved the final plans. As of February 2023, all CAP strategic plans have been formally approved by [Implementing Decisions](#), and the funds and measures are implemented as of January 2023.

As of 2024, member states will present annual performance reports and will hold annual review meetings with the Commission. In 2025 the Commission will review the performance of the CAP strategic plans and will be able to request follow up actions if needed. These reviews will include an assessment of the CAP's contribution to the EU commitment to dedicate 7.5% of the 2021-2027 MFF to biodiversity objectives as of 2024 and 10% as of 2026 applies to the CAP funds.

The CAP Network (previously known as the European Network for Rural Development ENRD) is the Commission's support network for member states authorities and experts planning, implementing, and evaluating CAP strategic plans. The network coordinated by DG AGRI publishes information, analysis, guidance, and monitoring information. It organises regular seminars, workshops, and talks on aspects of CAP policy.

As part of the revised Pollinator Initiative, the Commission will continue the development of a pollinator indicator with a view to integrating it into the CAP's performance monitoring and evaluation framework once the EU pollinator monitoring scheme (EU-PoMS) is sufficiently implemented (by 2026).

Opportunities for pollinator conservation in the CAP

A study on what CAP SPs are doing for pollinators might be interesting. CAP strategic planners and implementing agencies could be engaged in policy workshops and targeted with information and communications.

Policy briefs, guidance, information, and workshops could be used to:

- Propose a pollinator focused ecoscheme (with cobenefits). Highlight and explain how ecoschemes can be designed for pollinators, or optimised for pollinator co-benefits if they have another primary objective (e.g. carbon farming).
- Explore how farmers can be incentivised to network their pollinator habitats with neighbours at landscape scale, and how farmers and other land managers (e.g. foresters, protected areas, urban or local authorities) could come together in pollinator conservation networks.
- Suggest ways in which pollinator habitats can be strategically planned and created at the landscape scale to benefit the greatest number of species, or achieve significant increases in abundance, or other aspects.

- Workshop with CAP evaluators. It is unlikely that the pollinators indicator announced in the revised pollinator initiative will be part of CAP framework until the next MFF period, but it is important that evaluators have the tools and knowledge they will need to fund adequate research and monitoring to allow full evaluation of the CAP's impacts in the next CAP.
- Explain the importance of the Council of the European Union in adopting the MFF: how the budget is being allocated to the CAP, distributed between the two pillars and how much can be allocated to pollinator-friendly options under the CAP.

5.3.2. The Farm to Fork Strategy

What is it?

The Farm to Fork Strategy (F2F) is one of the key pillars of the EU Green Deal aiming to accelerate our transition towards food systems which are environmentally sustainable, fair, resilient, and healthy. To achieve this, the strategy sets out regulatory and non-regulatory measures targeting processes and stakeholders along food supply chains and across all levels of governance. These measures are set out in an action plan and divided into 4 main objectives:

1. **Ensuring sustainable food production:** This includes commitments to make the CAP more sustainable, to revise the sustainable use of pesticides directive, to revise the implementing regulations under the plant protection products framework, to revise the farm accountancy data network regulation, to clarify the scope of competition rules in the TFEU, to enhance cooperation of primary producers, to improve transparency, and to develop an EU carbon farming initiative.
2. **Stimulating sustainable food processing, wholesale, retail, hospitality, and food services' practices:** This includes commitments to improve the corporate governance framework, to develop an EU code for responsible business in the food supply chain, to stimulate reformulation of processed food, to set nutrient profiles, to review EU legislation on food contact materials and marketing standards, and to tackle food fraud.
3. **Promoting sustainable food consumption, facilitating the shift towards healthy sustainable diets:** This includes commitments to improve food labelling, and to set criteria for sustainable food procurement.
4. **Reduce food loss and waste:** This includes commitments to propose an EU target for food waste reduction and to revise rules on best before dates.

The full European Commission communication on the Farm to Fork Strategy can be found [here](#).

Pollinator relevance of the Farm to Fork Strategy

The F2F Strategy is the EU's umbrella strategy to make food systems more sustainable. Considering that unsustainable agriculture is one of the biggest drivers behind pollinator decline, **several of the commitments outlined under the EU F2F are directly or indirectly relevant to pollinator protection**, notably because it supports the mainstreaming of

biodiversity and pollinator concerns into the agricultural portfolio at the European level. These are primarily objectives aimed at reversing the loss of biodiversity on farmland and include:

- To ask Member States to address Green Deal targets, including those in the Biodiversity Strategy for 2030, in their CAP Strategic Plans.
- To reduce the overall use and risk of chemical pesticides by 50% and the use of more hazardous pesticides by 50% by 2030
- To revise the Sustainable Use of Pesticides Directive, enhance provisions on integrated pest management (IPM)
- To reduce nutrient losses by at least 50% and to reduce the use of fertilisers by at least 20% by 2030
- To develop with Member States an integrated nutrient management action plan
- To put at least 25% of the EU's agricultural land under organic farming by 2030 and to put forward an Action Plan on organic farming.
- To propose legislation to convert the Farm Accountancy Data Network into the Farm Sustainability Data Network which will collect data on the Farm to Fork and Biodiversity Strategies' targets

Expected developments

The Commission will publish a proposal for a legislative framework for sustainable food systems by the end of 2023 to support the implementation of this strategy. This legislative proposal could become the focus of debates between various agricultural models at the European level, and frame discussions on the next CAP. This proposal may be an opportunity to foster a more ambitious CAP for pollinators, with support for more sustainable agricultural systems.

The Commission will review the F2F strategy by mid-2023 to assess progress towards its targets and whether additional action is needed.

5.3.3. EU Forest Strategy and proposed EU Forest Monitoring framework

What is it?

The EU Forest Strategy to 2030 was published in July 2021. It replaces the strategy adopted in 2013, building on its evaluation in 2018. The strategy is one of the flagship initiatives of the EU Green Deal contributing to both biodiversity and climate commitments. It aims to improve the quantity and quality of EU forests by protecting and restoring forest ecosystems, increasing their resilience and adaptation to climate change, ensuring their multifunctionality is preserved, and promoting their sustainable use so they continue to deliver socio-economic benefits. To achieve this, the strategy proposes commitments and actions to be delivered by the Commission, as well as a policy framework to deliver on these. These include measures to:

- Promote sustainable forest bioeconomy for long-lived wood products within sustainable boundaries.

- Ensure sustainable use of wood-based resources for bioenergy
- Promote non-wood forest-based bioeconomy
- Develop skills and empower people for a sustainable forest-based bioeconomy
- Protect the EU's remaining primary and old-growth forests
- Ensure forest restoration and sustainable forest management for forest resilience. The proposed legally binding forest restoration targets under the EU Restoration Plan will contribute to this.
- Re- and afforest biodiverse forests.
- A roadmap for planting at least 3 billion additional trees, as pledged under the 2030 BDS.
- Create financial incentives to improve forest quality and quantity.

To support this, the strategy also includes measures to:

- Enhance forest monitoring, reporting and data collection with the preparation of a proposal for a new EU Framework for forest monitoring and strategic plans
- Develop a strong research and innovation agenda
- Implement a coherent EU forest governance framework
- Enhance implementation of existing EU law and policies on forests

The European Commission's communication on the EU Forest Strategy can be accessed [here](#) and the staff working document on the 3 billion tree planting pledge can be accessed [here](#).

The Commission is promoting forest-related interventions in the 2023-2027 Common Agricultural Policy (CAP), including payment for ecosystem service schemes, carbon farming practices, and increasing support to information sharing on good practice for the design and implementation of forest interventions. Other EU funds are also relevant to the implementation of the forest strategy including Cohesion policy, LIFE, Horizon Europe and Interreg.

The strategy also commits the Commission to:

- publish guidance and advice for payments for ecosystem services schemes
- develop definitions and guidelines for closer to nature forestry (delayed)
- publish a voluntary closer to nature certification scheme (delayed)
- identify additional indicators and thresholds or ranges for sustainable forest management starting on a voluntary basis. (delayed)
- propose a legislation on EU Forest Observation Reporting and Data collection to create a coordinated EU forest monitoring and reporting system where member states will prepare strategic plans for forests.

Expected developments in forest policy

The EU forest strategy has proved controversial, stirring strong reactions from EU Member state authorities, European council delegations, [MEPs in the European parliament](#), the private sectors and [NGOs](#). The Council adopted its [conclusions on the forest strategy](#) in November 2021, giving support to key aspects such as the new regulation on forest observation and reporting. However, they have asked the Commission to further assess other aspects such as the development of EU indicators and thresholds for sustainable forest management and a closer to nature forestry certification scheme. The European parliament adopted their [own initiative report](#) on the strategy in October 2020. In April 2022, the Commission published a Call for Evidence for a new EU legal Framework for Forest Monitoring and Strategic Plans. The Commission plans to adopt the text in June 2023.

The JRC is developing a European forest science partnership to support the development of new indicators¹⁵. Citizen science will receive particular attention through the development of a programme to engage citizens in monitoring forest biodiversity.

In 2025, the Commission will carry out a review of the strategy.

Pollinator relevance of the EU Forest Strategy and forest monitoring

Although the strategy does not mention pollinators, forest ecosystems are important habitats for pollinator groups such as moths and hoverflies, as well as including many smaller areas of open habitats such as heaths and rides, making their protection and restoration key to pollinator protection. Several commitments announced under the strategy are potentially interesting from a pollinator perspective:

- The protection and restoration of forests to reverse biodiversity loss, which directly links to 2030 BDS commitments, should include the safeguarding of forest pollinators.
- The Commission will “develop a toolkit to help Member States to establish life-long programs and advice to foresters and adapt education and training to the challenges and needs of today’s forest needs and realities”. This could include advice and training on how to make forest management more pollinator friendly. This could be implemented through the establishment of a skills partnership under the Pact of Skills as outlined in the strategy.
- Ecological defragmentation of forest habitats: building connections between fragmented forest habitats, particularly through biological corridors or stepping-stones made up of agroforestry, groups of trees, hedgerows or even single trees. A further step could be the planting of insect-pollinated trees which provide more nectar and pollen resources in forests compared to monostands of beech or spruce.

¹⁵ For more information on the commissions research priorities for forests, see the Planning our Future Forests research and innovation agenda.

- Adapted landscape and forest management practices: regulating grazing in forests to minimize competition for floral resources, retaining dead standing and lying wood for nesting, and conducting selective logging, burning, mowing, coppicing, and thinning.
- Innovative policy instruments, which create incentives for pollinators to be nurtured, such as payments for pollination services to land users who adopt landscape management practices that can attract and maintain pollinator populations.
- Awareness raising activities communicating about the importance of forest habitats for providing shelter and food to pollinator populations

The tree planting initiative could add significantly to improving pollinator habitat if it prioritises the planting of native flowering trees and shrubs such as *Acer*, *Aesculus*, *Tilia*, *Salix*, *Crataegus*, *Prunus*, *Cornus*, *Rhamnus*. On the other hand, if poorly planned and directed, it could result in tree planting on important open pollinator habitats such as unmanaged grassland, dunes, or heaths.

5.3.4. EU Soil Strategy and proposed EU Soil Health Law

What is it?

The new [EU Soil Strategy](#) was published in November 2021 and sets the policy framework for soil protection in the EU. The strategy objectives aim to enhance the contribution of soil ecosystems to climate change mitigation and adaptation, circular economy objectives, biodiversity objectives, and healthy water resources. The headline target of the Strategy is to achieve good soil health by 2050. To achieve this, measures are proposed to prevent soil and land degradation and to restore healthy soils. A key measure will be the proposal of a new Soil Health Law in 2023 which will grant soils legal protection to match what is already in place for water and air. In addition, the strategy outlines measures for the restoration of peatlands, enhancement of soil organic carbon, and mainstreaming of soil protection into other policy areas such as the Zero Pollution Action Plan.

Pollinator relevance of policy

Soils are key habitats for some pollinator species at different stages of their life cycle. For example, many bee species dig their nests in the soil and the queens hibernate in the soil, and several pollinator species, such as hoverflies, have larvae that live in the soil. This means that pollinators are part of soil biodiversity, and the EU Soil Strategy commits to step up efforts to map, assess, protect, and restore soil biodiversity.

Many of the actions needed to ensure healthy soils can deliver co-benefits for pollinator conservation. For example, on farmland, landscape features can simultaneously improve soil condition by improving soil organic matter content and reducing erosion while providing additional habitat and food resources for pollinators.

Considering the synergies between soil health, broader ecosystem health, and pollinator conservation, the new EU Soil Health Law proposal could be a significant opportunity for legally binding measures to benefit pollinators.

Expected developments

The proposal of the new EU Soil Health Law is expected in April-June 2023, after which it will go through the EU co-decision process. The call for evidence and the public consultation in 2022 received many responses.

The EU LUCAS soil survey was expanded in 2022 to include surveys of soil biodiversity. More info [here](#). In the 2022 survey, soil genetic analysis is being used to develop a novel soil biodiversity indicator, assess the impact of land management practices on soil communities and associated ecosystem services, and identify genomic functionality.

5.3.5. Legislation on production and marketing of plant reproductive material (PRM)

What is it?

The production and marketing of plant reproductive material (PRM) of agricultural, forest, and ornamental plant species is regulated by a body of EU legislation. The current legislation is composed of 12 Directives that cover two main aspects: the registration of varieties/ material, and the authorisation and certification of individual plant PRM of plant species listed in the Directives. In 2013, the commission reviewed the EU legislation on the marketing of PRM and submitted a proposal to the Council and Parliament to consolidate the current legal framework to make it less complex, rigid, and fragmented. This proposal was rejected by the Parliament on March 2014 and withdrawn by the Commission in 2015. In 2019 the Council requested the Commission to submit a new proposal by the end of 2020.

The Commission published options to update the existing legislation on the production and marketing of plant reproductive material in April 2021 as a [staff working document](#). The revision of the PRM legislation aims to align it to the EU policy aims of the EU Green Deal including the restoration and protection of biodiversity.

Pollinator relevance of plant reproductive material legislation

The EU Biodiversity Strategy includes an action to facilitate the registration of seed varieties and to ensure easier market access for traditional and locally adapted varieties. This can directly support agro-ecological practices which contribute to pollinator conservation and can create an opportunity for marketing of seed mixes which are beneficial to wild pollinators.

The EU Forest Strategy includes a commitment to supplement the revision with measures to promote the production and marketing of forest PRM suitable for future climate by the end of 2022. The revision will aim to support forest habitat conservation by facilitating the introduction of initiatives to conserve genetic diversity and improve climate resilience. This can include forest habitats which are important to some pollinator species.

Expected developments

The [public consultation](#) on the PRM legislation revision closed in July 2021. The Commission will adopt its proposals for the revision of the PRM legislation in early 2023. The proposals will be accompanied by an impact assessment.

Opportunities for policy to support pollinator conservation

The changes create a better opportunity to approve and market seed mixes and planting material that is more suitable for pollinators, to promote more:

- local provenance native species and local marketing of seed collected directly from high quality habitats such as species rich hay meadows
- species mixes that provide resources for pollinators throughout the year and that maintain flowering diversity over multiple years

5.4. Pesticide and Pollution Control Policy

Pesticides are one of the key drivers of pollinator decline. Policies regulating their use are therefore highly relevant to protecting pollinators. The key EU policies and regulations on marketing and use of pesticides are outlined below. There is also increasing evidence that pollution affects pollinator populations, including light pollution, nitrogen pollution, traffic emissions, microplastics, heavy metals, and other chemicals.

The EU authorities dealing with pesticide and chemicals regulation are the Commission (DG SANTE), the European Food Safety Authority (EFSA), and the European Chemical Agency (ECHA).

5.4.1. Zero Pollution Action Plan

What is it?

The Zero Pollution Action Plan (ZPAP) is the EU's strategy to reduce air, water and soil pollution to levels no longer considered harmful to human health and natural ecosystems by 2050. The plan is a key initiative under the EU Green Deal was published on the 12th of May 2021 and it creates a framework to mainstream pollution prevention across relevant EU policies. To achieve this, it sets out a range of targets including:

- Reducing the number of premature deaths cause by air pollution by 55%
- Reducing marine plastic waste by 50% and microplastics released into the environment by 30%
- Reducing nutrient losses and chemical pesticides' use by 50% (in line with the F2F and BDS commitments)
- Reducing the EU ecosystems where air pollution threatens biodiversity by 25%
- Significantly reducing waste generation

Pollinator relevance of Zero Pollution policy

Pollinator habitats and species are threatened by pollution of water, air, and soil. Reducing this threat is key to their protection. Light pollution is of increasing concern, although not directly addressed in the ZPAP. The commission will support research on these pollutants and impacts on biodiversity, including pollinators. Based on these findings, recommendations on pollutants of increasing concern will be included in the Zero Pollution Outlook framework. As part of the expert consultation for the revision of the Pollinator initiative, two workshops were held on the [impact of pollution](#), and the [impact of light pollution](#) on pollinators. From these

workshops, it was concluded that existing knowledge needs to be analysed, combined and assembled in a model that addresses combined effects. On light pollution, a specific action is proposed in the revised pollinator initiative, which encourages member states to mitigate light pollution through national and local strategies.

Expected developments

The first [Zero Pollution Monitoring and Outlook report](#) has been published in December 2022. It identifies existing and potential indicators of pollution impact, and areas where there is not yet sufficient monitoring and data available to inform an indicator, and where more research is needed.

The [Zero Pollution stakeholder platform](#) has been set up by the Commission and the Committee of the Regions to bring together a range of different stakeholders and experts to implement the objectives of the ZPAP. It is meeting regularly and identifies areas of concern and additional pollutants and targets.

5.4.2. Sustainable Use of Pesticides

What is it?

The Sustainable Use of Pesticides Directive (SUD) was adopted in 2009 and aims to reduce the risks and impacts of pesticides on the environment and on humans by promoting integrated pest management practices (IPM) and alternatives to pesticides. The directive outlines a range of measures including training of users and advisors, inspection of equipment, prohibition of aerial spraying, water protection, limiting pesticide use in sensitive areas, and raising awareness. Under the directive, Member States have an obligation to create National Action Plans setting up quantitative objectives, targets, measures, and timetables implement the actions set out in the Directive. National plans are reviewed every 5 years.

Pollinator relevance of the policy

Pesticides are one of the most important threats to pollinators. Therefore, reducing their use, risks and impacts is crucial to pollinator conservation. In accordance with an objective of the EU Pollinators Initiative, the Commission published a [report](#) assessing the integration of pollinator conservation in the national action plans.

In the revised EU Pollinators Initiative, the Commission will promote and enforce IPM, and assess options for improving the existing indicators to measure pesticide use reduction or developing new indicators, to better estimate the trends in the risk of pesticide use for pollinators.

Proposal for regulation and expected developments

The commission proposed a [revision of the directive](#) in June 2022, in the form of proposal for a regulation aiming to enhance Integrated Pest Management provisions and strengthen action to ensure that no chemical pesticides are used in sensitive areas such as protected areas and urban green spaces. In May 2020 the European Commission published the [evaluation roadmap and inception impact assessment for the SUD](#). The [public consultation on the initiative](#) was opened from January until April 2021. The proposal is currently in political

negotiations in the European Parliament and the Council. The Commission DG SANTE is producing an additional impact assessment study in response to a request from the Council.

The Commission has published a [database on integrated pest management](#) (IPM)¹⁶. The database includes some 1 300 examples of practices, techniques & technologies, including the use of crop rotation, monitoring of harmful organisms & examples of non-chemical controls. It also includes 273 'crop-specific guidelines' developed by Member States' national authorities and public bodies.

There is a lack of knowledge of how precision farming using robotics and digital tools or new genomic techniques for crop breeding may impact pollinators, or whether 'pollinating drones' may increasingly be used to replace pollinators¹⁷.

5.4.3. Pesticide risk assessment and authorisation

What is it?

[Regulation \(EC\) No 1107/2009](#)¹⁸ of the European Parliament and of the Council concerning the placing of plant protection products on the market and repealing Council Directives 79/117/EEC and 91/414/EEC (commonly known as the pesticides regulation) was adopted on the 21 October 2009. Plant protection products (PPPs) are pesticides which are applied to protect plants including crops. PPPs contain at least one active substance which targets pests, diseases, or plants.

The approval of pesticides in the EU follows a two-tiered approach. Firstly, the active substance must be approved in the EU common market. The PPP regulation sets the legal framework of criteria for the approval of active substances in pesticides. The risk assessment is done by one or more member state authorities on behalf of the EU, supported by the European Food Safety Authority (EFSA). The decision on approval or denial of approval is taken by the Standing Committee on Plants, Animals, Food and Feed (SCOPE).

Following EU approval, member states are responsible for the assessment and approval of pesticide formulations containing the approved active substance(s). This includes assessment of any co-formulants, safeners, and adjuvants included in the pesticide formulation, and impacts of any mix of active substances in the pesticide formulation or expected mixes occurring in the field because of multiple applications of different pesticides.

Member states can grant derogations for emergency applications of restricted and banned active substances. These must receive approval from the Commission.

Pollinator relevance of the policy

¹⁶ <https://datam.jrc.ec.europa.eu/datam/mashup/IPM/index.html>

¹⁷ Potts, S. G., Neumann, P., Vaissière, B., & Vereecken, N. J. (2018). Robotic bees for crop pollination: Why drones cannot replace biodiversity. *The Science of the total environment*, 642, 665–667. <https://doi.org/10.1016/j.scitotenv.2018.06.114>

¹⁸ Regulation (EC) No 1107/2009 of the European Parliament and of the Council concerning the placing of plant protection products on the market and repealing Council Directives 79/117/EEC and 91/414/EEC

The placement of pesticides on the EU market is extremely relevant to pollinator protection as these substances can potentially harm pollinators. The PPP regulation states that pesticides can only be approved if they have “no unacceptable acute or chronic effects on colony survival and development, taking into account effects on honeybee larvae and honeybee behaviour”. Active substances must therefore undergo a risk assessment proving that they either result in negligible exposure to honeybees or that they do not have an acute or chronic effect on colony survival.

EFSA Bee Guidance Document: In 2013, EFSA published a guidance document for notifiers and authorities on the risk assessment of pesticides and their active substances on honeybees. An opinion was published alongside the document outlining the science behind the risk assessment. However, this guidance was not fully codified in the legal approval process for active substances due to insufficient support from member states. The Commission mandated EFSA to revise the guidance in March 2019, and EFSA is working on the new guidance.

A key aspect of the guidance is the specific protection goal which sets the maximum acceptable reduction in colony size due to pesticide application. The rejected 2013 guidance document recommended a goal of 7%. In June 2021, agriculture ministers agreed on a goal of maximum 10% reduction on honeybee colony size as acceptable. The Bee Guidance included recommendations for risk assessment of hazards to bumblebees and solitary bees. However, it did not provide standardised test protocols or agreed threshold levels of acceptable risk.

Neonics and fipronil: EFSA applied this guidance to the risk assessment of neonicotinoid active substances and the active substance fipronil in 2013 and 2018. This resulted in EU wide restrictions on use of imidacloprid, clothianidin, thiamethoxam, and fipronil on flowering crops from December 2013, because of the evidence of their risk to wild pollinators and honeybees. An EU permanent ban on open field applications of imidacloprid, clothianidin, thiamethoxam took effect for farmers from December 2018. The EU completely withdrew approval for fipronil in September 2017, clothianidin and thiamethoxam in 2019, and thiacloprid and imidacloprid in January 2020. The neonicotinoid acetamiprid was reapproved until January 2033, although some member states have banned acetamiprid-containing pesticides for outdoor use.

Despite the bans and non-approvals of the neonicotinoids, many member states granted emergency authorizations for use of one or more of the neonicotinoid active substances. EFSA was tasked with assessing whether emergency authorisations of neonicotinoid-based pesticides were justified. EFSA found in 2019 that emergency authorisations on maize, oilseed rape, sunflowers, and other crops were unjustified, which resulted in EU decisions to prohibit such authorizations. In November 2021, EFSA assessed the emergency authorisations for use as seed treatments on sugar beet, and [concluded that in all 17 cases these were justified](#) due to the lack of viable alternative prevention methods and the severity of damage caused by the aphid-transmitted diseases controlled by the seed treatments. In January 2023, the European Court of Justice ruled that repeated derogations for use of unapproved

neonicotinoids are not justified¹⁹, and the Commission has announced its intention to ensure member states take a consistent approach to future derogations and withdraw existing derogations for neonicotinoids on sugar beet²⁰.

Despite the bans, neonicotinoid residues are still being found in wildlife and soil in Europe²¹.

More risk assessments for pollinators: Since EFSA's first neonic assessment, the agency has published further risk assessment peer reviews that consider risk to pollinators. In October 2021, the Commission said it intended to restrict the active substance **sulfoxaflor** to permanent greenhouses only, citing an assessment carried out after the substance's approval, which "did not demonstrate absence of risks to bees, in particular bumble bees and solitary bees" when sprayed outdoors. Member states approved the restriction in May 2022. Recently, EFSA assessed **sulphur** as posing critical areas of concern with a high chronic risk for honeybee adults and larvae and high in-field risk for non-target arthropods other than bees for all representative uses²².

Expected developments

EFSA has committed to publish a revision of the Bee Guidance in 2022 (delayed) incorporating the new agreed honeybee protection goal. In addition, EFSA is working towards assessing [multiple stressors on honeybees in environmental risk assessments](#) (through the MUST-B project). The INSIGNIA project is establishing an EU wide network of honeybee 'sentinel' hives equipped with sensors to measure the impacts of multiple stressors, including pesticides.

The Commission and EFSA are working to broaden the scope of the bee guidance risk assessment to include wild bees and other insect pollinators. Discussions were held on fixing a specific protection goal for wild pollinator species. EFSA have issued a call for data on wild pollinators that can be used to support risk assessment, and a web platform – the EU Bee Platform – is being set up to host such data sets and support the risk assessment process.

EFSA and the Commission have issued a contract for a project to advance the environmental risk assessment of non-target arthropods for plant protection products by accounting for the impact on ecosystem services and on the ecological function. Wageningen Environmental Research and Universidade de Coimbra will be carrying out the work from January 2022 to end of 2026. The project is expected to foster data generation and tool development to

¹⁹ European Court of Justice preliminary ruling in Case C-162/21. JUDGMENT OF THE COURT (First Chamber) 19 January 2023 (*). <https://curia.europa.eu/juris/documents.jsf?num=C-162/21>

²⁰ AgraFacts citing Claire Bury, DG SANTE Deputy Director General, in European Parliament on 6 March 2023. AgraFacts No.19-23 08/03/2023 COMMISSION SEEKS COMMON UNDERSTANDING ON NEONICS AFTER ECJ RULING.

²¹ Wintermantel, D, Odoux, J-F, Decourtye, A, Henry, M, Allier, F and Bretagnolle, V (2020) Neonicotinoid-induced mortality risk for bees foraging on oilseed rape nectar persists despite EU moratorium. *Science of the Total Environment* No 704 (20 February 2020), 135400. and Fuentes, E, Gaffard, A, Rodrigues, A, Millet, M, Bretagnolle, V, Moreau, J and Monceau, K (2023) Neonicotinoids: still present in farmland birds despite their ban. *Chemosphere* No 321, 138091. <https://www.sciencedirect.com/science/article/pii/S0045653523003582>

²² EFSA (2023) Peer review of the pesticide risk assessment of the active substance sulfur. <https://www.efsa.europa.eu/en/efsajournal/pub/7805>

advance risk assessment methodologies for insect pollinators other than managed bees, with the objectives to:

- establish a quantitative link between direct effects of pesticides to pollinators other than managed bees and the ecological consequences of these effects;
- investigate interspecies sensitivity to PPPs of the key driver taxa/species;
- characterise the exposure for the taxa/species identified as key drivers.

5.4.4. EU REACH Legislation

What is it?

Regulation EC 1907/2006 on the Registration, Evaluation, Authorisation and Restriction of Chemicals (known as the REACH legislation) regulates the production and use of chemical substances in the EU. Adopted in 2006, it aims to minimise the risks of chemicals on human health and the environment through the collection of information on the properties of substances and their hazard. The regulation created a single system for all chemicals and transferred the burden of proof on the safety of chemicals from public authorities to the private sector. A [second review](#) of the regulation was published in March 2018.

Pollinator relevance

The dangerous substances regulated by REACH can potentially harm pollinator habitats and can be directly toxic to pollinator species.

Expected developments

The new Chemicals Strategy for Sustainability published in October 2020 announced a revision of the REACH regulation. The Commission is to present the proposal for the REACH revision in 2023 according to its work programme.

Opportunities for policy to support pollinator conservation

- Develop policy briefings on the risks of pesticides to pollinators in combination with other drivers
- Workshop with EFSA to present relevant Safeguard outputs and identify outstanding research gaps

5.5. Urban Policy

Urban ecosystems pose different environmental constraints on plant and animal communities than natural ecosystems, and this in turn might affect pollinators and their ecological interactions. Anthropogenic land use change is likely the main driver of terrestrial biodiversity decline, including that of insects. One such change, urbanisation, has been identified as a threat to global biodiversity, including pollinator biodiversity. However, appropriately managed cities could enhance the conservation of pollinators and thereby act as hotspots for pollination services. Green spaces in urban and peri-urban can be important habitats for pollinators providing them with food resources and foraging and nesting sites. EU urban policy which sets out the framework for the planning, design, support, and management of these sites can therefore be a key instrument for wild pollinator protection. Although urban policy and spatial planning is mostly a member state competency, the EU has relevant policies that set the context and framework for local action for urban pollinator communities.

As detailed in the [Commission guidance for pollinator friendly cities](#), the following urban processes products and services are relevant for pollinators (not exhaustive):

- Declare commitment to becoming a pollinator-friendly city. Make a formal commitment to international, European, or national agreements and declarations and translate it into local ambitions and programmes.
- Channel and tap financial and human resources for pollinator-friendly measures
- Integrate pollinator concerns into existing policies and policy instruments and foster collaboration with other sectors and secure commitments
- Restore, create and connect pollinator habitats: improve the condition of soil, create nesting and hibernating habitats for wild pollinators, adjust mowing practices, prevent and manage the use of chemical pesticides, control invasive alien species, grow a pollinator-friendly, native seed mix
- Raise awareness through community engagement and environmental education
- Monitor urban pollinators

5.5.1. Urban greening plans and platform

What is it?

As announced in the EU BDS 2030, cities with over 20,000 inhabitants are expected to develop Urban Greening Plans. These should outline the city strategy to protect and restore biodiversity and mitigate climate change. They are expected to include measures to create new urban green spaces such as urban forests, public green spaces, gardens, urban farms, and green infrastructure (e.g., green roofs and walls), and to improve the management of existing green spaces for biodiversity such as eliminating pesticide use and regulating mowing. In addition, they should outline the policy, regulatory and financial framework needed to deliver these measures.

To help local authorities with drafting these plans, the Commission set up an EU Urban Greening Platform under a new [Green City Accord](#). This accord has been signed by European mayors committed to making cities cleaner and healthier.

Pollinator relevance of urban greening

Urban greening plans will set cities' strategies to support biodiversity, including pollinators. In addition, they will be an important vehicle to deliver on other relevant EU BDS commitments such as "eliminating chemical pesticides in sensitive areas such as EU urban green areas". Urban greening plans will need to pay a particular attention to pollinator monitoring to assess the state and trend of pollinators in the municipality, which will be critical for the implementation of conservation activities and adequate planning.

Expected developments

The Commission released in October 2022 the [Urban Greening Platform](#) which hosts a comprehensive guiding document, an extensive toolkit as well as many more crucial resources for the development and implementation of urban greening plans. Drawing from the knowledge and innovations derived from many EU funded projects on nature-based solutions, the EC guidance materials lay out a co-creative, step-by-step process to develop impactful urban greening plans. The toolkit includes tools ranging from EU level data to citizen-led initiatives: the CLEVER Cities Guidance on co-creating nature-based solutions, the Copernicus land monitoring service Urban Atlas, the Singapore City Biodiversity Index, and the Connecting Nature Reflexive Monitoring Guidebook. Each tool includes an overview, 'how to use', and 'alternatives'.

Cities with over 20,000 inhabitants were expected to publish their urban greening plans by the end of 2022, but this will be delayed.

Opportunities for policy to support pollinator conservation

- City managers can integrate pollinator conservation into their urban greening plans by mapping key pollinator habitats in their city, setting pollinator conservation objectives, changing public green space management to be more pollinator-friendly, engaging businesses and citizens with gardens to take up pollinator-friendly management and planting. Cities are looking for guidance and capacity building on strategic urban planning for pollinators and pollinator monitoring in cities.
- Opportunity to contribute to the toolkit that is provided to cities on the Commission's Urban greening platform for developing their urban greening plans.

5.6. Sustainable production and consumption policy and sustainable finance

Production and consumption patterns can have important impacts on pollinator habitats and pollinator populations by directly or indirectly contributing to the drivers of their decline.

Financing decisions by public authorities and private businesses can have important impacts on pollinator conservation.

Key policy areas include: the EU Eco label and green public procurement standards and guidance, the actions of the EU Business@Biodiversity platform, business biodiversity footprinting and natural capital accounting, and sustainable finance.

5.6.1. EU Eco label

What is it?

The EU Ecolabel is a voluntary ecolabel scheme awarded to products and services which meet high environmental standards. It was established in 1992 through Regulation EC No 66/2010. The environmental requirements set by the Ecolabel are developed and reviewed every 3-5 years by experts, industries, consumer organisations and NGOs.

Pollinator relevance of ecolabel

The EU Ecolabel can be used as a tool to reduce the impact of production and consumption choices on pollinators by informing consumers on products that affect pollinators, and incentivising producers to consider their impact on pollinators along their whole supply-chain. For example, the Ecolabel can inform consumers on the impact of gardening products on pollinators or can ensure soil used for gardening products does not harm pollinator habitats.

The 2018 EU pollinators initiative committed to explore the application of the ecolabel to products that support pollinator conservation (e.g. wildflower seed mixes, potted plants, and other relevant gardening products). The Commission has started to revise the EU Ecolabel criteria for growing media, soil improvers and mulch and has stated it will ensure these consider pollinator conservation.

Expected developments

According to the strategic EU ecolabel work plan 2020-2024, the growing media, soil improver and mulch criteria will expire at the end of June 2022. Revisions started in 2020, and there has been a vote on new criteria in February 2022. Future product groups still under consideration, such as criteria for label use by food retail stores, might also be relevant.

5.6.2. Green Public Procurement standards

What is it?

The EU has several directives which regulate public procurement in the EU. Their core principles are transparency, equal treatment, open competition, and sound procedural management. Public procurement is important to sustainable production and consumption as Europe's public authorities are major consumers, spending around of 14% of GDP on purchasing goods and services. The European Commission published [a public procurement strategy](#) in 2017 with 6 strategic priorities including to ensure the wider uptake of green procurement. The EU circular economy action plan published in 2019, a key pillar of the EU Green Deal, commits the Commission to make sustainable production the norm in the EU and empower consumers and public buyers.

Ensuring that public procurement is green is called [Green Public Procurement \(GPP\)](#). GPP is a voluntary instrument which aims to increase the demand for sustainable products through public procurement. The Commission and some member states have developed guidance and GPP criteria to support this. The GPP criteria are developed to facilitate the inclusion of

green requirements in public tender documents. The basic concept of GPP relies on having clear, verifiable, justifiable, and ambitious environmental criteria for products and services, based on a life-cycle approach and scientific evidence base. The GPP approach is to propose two types of criteria for each sector covered:

- The core criteria are those suitable for use by any contracting authority across the Member States and address the key environmental impacts. They are designed to be used with minimum additional verification effort or cost increases.
- The comprehensive criteria are for those who wish to purchase the best environmental products available on the market. These may require additional verification effort or a slight increase in cost compared to other products with the same functionality.

For GPP, the Commission has proposed minimum mandatory criteria and targets in sectoral legislation as well as supporting capacity building through guidance, training and sharing good practice.

Pollinator relevance of green public procurement

GPP can be a key tool to promote the pollinator-friendly production of products and services which impact pollinators.

- The EU GPP criteria for food, catering services and vending machines published in 2019 establishes voluntary criteria to reduce the environmental impacts during product life cycle. The EU GPP approach the most relevant for pollinators concerns the criteria on organic food products.
- The EU GPP criteria for public space maintenance published in 2017 sets requirements on the purchase of native ornamental plants and gardening practices to enhance biodiversity.

Green Public Procurement on road lighting and traffic signals

Problem: Light pollution can have a big influence on pollinators' mating behaviour, ease of predation, ease of predator evasion, nesting and foraging behaviours. A growing body of evidence in the academic literature is leading to the conclusions that night time light can seriously disrupt the nocturnal behaviour of many species. One recently published article (Knop et al., 2017) highlighted the disruption that Artificial Light At Night (ALAN) creates for pollinators (both nocturnal and diurnal) and subsequently on plant reproductive success. Insects that are attracted by lights can be subjected to different effects, which Eisenbeis (2006) described as the "fixated or capture effect", the "crash barrier effect", and the "vacuum cleaner effect". Moths in particular are subject to the fixated effect", flying towards lights and remaining there all night, losing opportunities for feeding and reproduction.

The EU GPP road lighting approach (revised December 2018²³) proposes that public authorities in their procurement contracts:

- *Require that all luminaires have 0.0% upward light output ratio and, at comprehensive level, to ensure that 97% of all light falls within a downward angle of 75.5° to the vertical for the reduction of obtrusive light and glare.*

²³ https://ec.europa.eu/environment/gpp/pdf/toolkit/181210_EU_GPP_criteria_road_lighting.pdf

- *Encourage obligatory dimming in areas of concern and to set limits on the proportion of blue light (G-index) in lamp/luminaire output.*

Other best practice recommendations from the scientific evidence say:

- Avoid light in the most sensitive areas through careful planning and where possible, the possibility for interconnected light exclusion zones. If avoidance is not possible, adopt variable lighting regimes and maintain a heterogeneity in lighting (site specific switching off/dimming during periods of low human activity, use of movement sensor technology), a reduction in the intensity and spectrum of light (use of filters, using lights with a narrow spectrum of light), changing the light type (Gaston et al, 2012 and Stone et al, 2015).

At the member state level:

- The Cyprus Environmental Department in cooperation with the Cyprus Energy Office introduced the Cyprus Green Public Procurement Awards (CY GPP AWARDS) to promote native plants that support pollinators in gardening products and services.
- Austria - Vienna: the strategic GPP scheme [ÖkoKauf Wien](#) is binding for all departments of the Vienna City Administration since 2003. Dedicated working groups in cooperation with city departments and services develop and regularly update a list of eco-criteria applicable to procurement procedures for product groups including construction, food, cleaning, textile, furniture. Food purchases must include at least 30% organic.
- The [Article L583-1 of the French Environment Code \(2010\)](#) specifies reasons for preventing, suppressing or limiting the emission of artificial light, including if they are susceptible to present dangers or cause excessive disturbance to people, fauna, flora or ecosystems. Technical requirements may be imposed on the operator or user of certain light installations. The [Order of 27 December 2018 on the prevention, reduction and limitation of light pollution](#) regulates the operating hours of lighting on the facades of non-residential buildings as well as on offices and shop windows installed there and imposes technical modalities on the operating hours depending on the site typology. The order also includes a control mechanism to ensure the conformity of light installations.

Expected developments

- Under the Farm to Fork Strategy, the Commission has committed to increase the sustainability of institutional catering through minimum mandatory procurement criteria.
- A revised version of the EU Green Public Procurement criteria for office buildings was expected to be published in 2022, but the document is still under revision.
- Research project [Clever Cities - regenerating cities with nature based solutions 2018-2023](#)

5.6.3. EU Business @ Biodiversity Platform

What is it?

The [EU business @ Biodiversity Platform](#) is a partnership developed by the European Commission and launched in 2007. It aims to promote the integration of natural capital and biodiversity in business practices. The platform engages and cooperates with companies and business associations from a range of sectors including agriculture, food supply, forestry, non-energy extractive industry, finance, and tourism. The platform runs a range of activities to support the development of methods, criteria, and standards to account for biodiversity in business decision making, and to foster the integration of biodiversity into business decision-making. In addition, through its 'Pioneers' workstream, the platform facilitates dialogue and cooperation between leading businesses to share best practice and experience in mainstreaming biodiversity.

Pollinator relevance of business for biodiversity actions

The EU 2018 pollinators initiative aimed to provide guidance and promote business engagement with pollinator protection, particularly in the agri-food sector. The EU Pollinator information Hive includes a series of [sector specific guidance documents](#) outlining actions businesses can take to protect pollinators.

The Commission committed to promote good practices and solutions through the Business @ Biodiversity Platform (and the European Business Award for the Environment). In 2019, the platform invited partners and members to [share examples](#) of business action to support pollinator protection.

The LIFE food and biodiversity [project](#) "Biodiversity in Standards and Labels for the Food Industry" aimed to integrate insect protection into procurement strategies and guidelines in the food sector.

Expected developments

The platform continues addressing pollinator decline through its regular activities:

- Annual European Business and Nature Summit
- The EU B@B Platform's webinar series on Nature Positive
- finance and biodiversity webinars

5.6.4. Natural Capital Accounting and biodiversity footprinting

What is it?

The EU BDS to 2030 identified natural capital accounting as a key tool to integrate biodiversity into public and private decision making. [Natural capital accounting](#) is a framework used to measure stocks and flows of natural capital and to integrate its value into international, regional, and national accounting and reporting systems. This aims to ensure changes in the condition of ecosystems and their services are systematically assessed and valued to support decision-making and complement traditional national economic accounts. By integrating

biodiversity and ecosystem services into accounting systems, these can be considered in macro-economic and sectoral policies.

In 2021 the UN adopted a statistical framework for natural capital accounting titled the System of Environmental Economics Accounting (SEEA). In the EU, the [INCA project](#) is developing an integrated natural capital accounting system consistent with the UN SEEA. The 2021 INCA report introduces NCA, and presents ecosystem extent, ecosystem condition, and ecosystem service accounts for all EU member states.

Pollinator-relevance of natural capital accounting and biodiversity footprinting

Crop pollination is one of the ecosystem services accounts developed under INCA. This [EU crop pollination account](#) has supported the implementation of the EU 2018 pollinator initiative by quantifying the economic contribution of pollinators and their impact on agricultural productivity.

Expected developments

The Commission is expected to propose a revision of its Regulation on European Environmental Economic Accounts to include a module on natural capital accounting consistent with the UN SEEA framework. Eurostat published in June 2021 a [report](#) summarising the results of phase 2 of the INCA project, which aims at delivering an integrated system of ecosystem accounts for the EU. The report shows practical examples of possible uses of ecosystem services accounts and existing policy applications.

Opportunities for policies to support pollinator conservation

- Synergies with the Horizon project [CircHive](#), to which IEEP is already taking active part in. CicHive aims to “help businesses and the public sector make more informed decisions that protect ecosystems, enhance biodiversity and unlock new opportunities for society and businesses.” This project offers great potential for introducing the subject of pollinator conservation and create synergies with Safeguard.

5.7. EU regional and cohesion policy

What is it?

EU regional policy supports regions through the Cohesion Fund (CF), the European Regional Development Fund (ERDF), and the European Social Fund (ESF+). Each programme must focus on the five EU priority objectives. The second priority objective for the ERDF, ESF+, and Cohesion Fund²⁴ includes a reference to funding of nature, biodiversity, and green infrastructure:

PO 2: a greener, low-carbon transitioning towards a net zero carbon economy and resilient Europe by promoting clean and fair energy transition, green and blue investment, the circular economy, climate change mitigation and adaptation, risk prevention and management, and sustainable urban mobility by:

²⁴ Article 5(1) of Regulation (EU) 2021/1060

...

(vii) enhancing protection and preservation of nature, biodiversity and green infrastructure, including in urban areas, and reducing all forms of pollution.

The funds must be programmed in operational programmes at national or regional level, in accordance with the partnership agreement agreed between the member state and the Commission. The funds are expected to contribute to the EU's biodiversity spending ambition to spend at least 7.6% of the EU budget on biodiversity by 2024 and 10% by 2026.

In addition, the Recovery and Resilience Facility is providing funding to mitigate the economic and social impact of the coronavirus pandemic and make European economies and societies more sustainable, resilient, and better prepared for the challenges and opportunities of the green and digital transitions²⁵. Member states have planned their funding objectives in national recovery and resilience plans, approved by the Commission in 2021 for spending up to 2026.

Pollinator relevance of EU regional and cohesion policy

Regions are key stakeholders in pollinator protection. The EU regional and cohesion funds are a potentially significant source of EU funding for habitat restoration and actions to plan and build green infrastructure, including action for pollinators.

The EU Cohesion policy provides support for actions to protect pollinators. Examples of this are highlighted on the [EU Pollinator Information Hive](#).

The ERDF fund provides support for actions to protect pollinators particularly through European Territorial cooperation (interreg). Interreg and its pollinator relevance is outlined under the raising awareness, engagement, and cooperation through policy area.

The ESF can also provide support for actions to protect pollinators, for example through supporting nature based mental health or physical health activities, volunteer programmes for nature restoration, and job creation in areas associated with pollination and pollinator rich spaces.

Expected developments

The Commission reviewed and approved member states' and regions' operational programmes for the EU funds in early 2022. The approved partnership agreements can be found [here](#).

- The partnership agreement with France worth €18.4 billion was [approved](#) in June 2022. As part of the second strategic objective of the agreement, €442 million will be mobilised for actions in favour of biodiversity measures. In particular, the programme mentions actions for the reconversion of brownfields and for the reinforcing of green infrastructure and ecologic continuity, which could be strategic for pollinators.

²⁵ More information available at https://ec.europa.eu/info/business-economy-euro/recovery-coronavirus/recovery-and-resilience-facility_en

5.7.1. Funding: Territorial Cooperation (Interreg) programmes

What is it?

The EU Regional Development Policy includes a dedicated funding programme for European territorial cooperation (Interreg). The Interreg programme aims to support cooperation across EU regions by funding projects to tackle common challenges. These include projects under three different types of programmes: cross-border cooperation programmes, transnational cooperation programmes and interregional programmes.

Pollinator relevance of Interreg funding

Supporting cooperation amongst EU regions is key to ensuring coherent action on pollinators at all levels and across all regions in the EU. Interreg-funded projects aiming to protect pollinators were featured in an EU Pollinators Initiative conference in February 2020 and highlighted on [the EU Pollinator Information Hive](#).

Expected developments

The Interreg Europe programme for interregional cooperation in 2021-2027 was finalised in September 2021 and was adopted in July 2022.

Two instruments supported by these funds are particularly relevant to knowledge exchange and capacity building from the transnational to the local level and are described further below:

- the TAIEX instrument and the PEER2PEER learning platform (funded and coordinated by Interreg Europe)
- Community-led Local Development groups

5.8. National and local pollinator strategy development

National and local level strategies and actions are key for pollinator protection. Local action can create the most context relevant and effective solutions for pollinators and some key policy areas, such as urban policy, mostly fall under the competencies of national and local authorities. One of the key actions national governments and local authorities can take for pollinator conservation is the development of national and local pollinator conservation strategies. In the same way that the EPI sets an EU wide framework for pollinator conservation, these plans can create a strategy for pollinator conservation at the national and local level.

The development and implementation of national and local pollinator strategies will be another key process to follow and potentially engage with under Safeguard. Several EU (and non-EU) Member States have developed a pollinator strategy including Ireland, Spain, Luxembourg, Germany, The Netherlands, France, Czechia, Belgium, Finland, Switzerland and the UK.

Opportunities and expected developments

Spatial planning for pollinators – see Green Infrastructure section.

Possibilities for supporting development of national pollinator strategies:

- **Cyprus** - Currently Cyprus does not have a pollinator strategy, while the national biodiversity strategy does not address pollinators specifically. Systematic pollinator monitoring efforts on the island begun in 2015, as part of a MSc project. A study on the wild bees of Cyprus was carried out in 2019 and aimed at providing the first comprehensive checklist of the bees of Cyprus, including all past information on authors' reports for each species, enriched with lists of new records and species collected by the authors of the current study.
- **Portugal** – a group of experts are starting to develop a Portuguese pollinators initiative in collaboration with Promote Pollinators and together with its IPBES National Contact Point, and the National Institute for Nature and Forest Conservation. Portugal was selected to participate in the Promote Pollinators Theory of Change workshop for the development of a National Pollinator Strategy in July 2022. There has been great receptivity for this topic and hopes for the development of structured concertation soon.
- **Hungary** – a mapping and assessment of ecosystems and services was undertaken in a national project in 2016-2022. This issued in the publication of an ecosystem map of the country in 2019, including an assessment of pollinators. The country is still in the development phase of its biodiversity strategy to 2030, which should include a dedicated target on pollinators.
- **Estonia** – Estonia does not currently have any national or regional strategies specifically targeted at pollinators or their habitats. The University of Tartu is a member of the Promote Pollinators network and leading development of a national pollinator strategy²⁶. Estonia has recently published national red lists of pollinator groups.

²⁶ <https://promotepollinators.org/project/estonia/>

Besides butterfly monitoring and targeted monitoring of bumblebees on sample farms in connection with agri-environment measures, there are plans to revive the abandoned national bumblebee monitoring programme.

5.9. Research and innovation policy

Increasing our knowledge on pollinators is crucial to their protection. This is reflected in the EU Pollinators Initiative where increasing knowledge is one of its three key pillars.

5.9.1. Horizon Europe – EU Framework Programme for Research and innovation

What is it?

Horizon Europe is the EU funding programme for research and innovation. It aims to strengthen collaboration and the impact of research to support the implementation of EU policies. The [Horizon Europe research framework programme](#) runs from 2021 to 2027, replacing Horizon 2020. It has a budget of €95.5 billion. The programme supports European partnerships with EU, national authorities, and private sector actors to support the implementation of the research programme. One of these programmes is the food, bioeconomy, natural resources, agriculture, and environment partnership.

Pollinator relevance

Horizon Europe funding supports pollinator research needs in Cluster 6: Food, Bioeconomy, Natural Resources, Agriculture and Environment. The first Work programme proposal 2021/2022 includes pollinator-relevant topics. The new Europe Partnership on Biodiversity will also fund pollinator conservation research and practise, for example, through monitoring schemes.

Safeguard is funded by the final Horizon 2020 call awarded at the end of 2020.

Expected developments

The new European Partnership on biodiversity, [Biodiversa+](#), was launched in November 2021. It was jointly developed by the BiodivERsA funding network and the European Commission (DG Research & Innovation and DG Environment). The objective of the partnership to provide an overarching platform connecting national, local, and European research and innovation programmes and combining in-cash and in-kind resources in support of the EU's 2030 biodiversity recovery goal. It will co-develop multidisciplinary research and innovation programmes with stakeholders, set up a European network of harmonised observatories for biodiversity monitoring, and implement a broad range of activities to increase the relevance, impact and visibility of EU research and innovation in tackling the biodiversity crisis in line with the [EU Biodiversity Strategy for 2030](#).

Opportunities for pollinator conservation

Safeguard could engage with other Horizon funded pollinator projects, including:

- [BEE-MOVE](#): Pollination ecology: how do bees move across the landscape and fashion plant reproduction? (2021-2026) - Centre National de la Recherche Scientifique CNRS

- [DrivenByPollinators](#): Driven by mutualists: how declines in pollinators impact plant communities and ecosystem functioning (2019-2024) - Lunds Universitet
- [FLAXMATE](#): Biodiversity drivers in Mediterranean-Type Ecosystems: Pollination and the evolution of mating phenotypes in yellow flaxes (*Linum* spp.) (2021-2024) - Universidad de Sevilla
- [Happybee](#): Insect pollinators along gradients in differently structured landscapes: importance of the edge effect and small- vs. large-scale agriculture (2022-2023) – Okologiai Kutatokozept
- [EcoStack](#): Stacking of ecosystem services: mechanisms and interactions for optimal crop protection, pollination enhancement, and productivity (2018-2024) - Universita degli Studi di Napoli Federico II
- [Showcase](#): Showcasing synergies between agriculture, biodiversity and Ecosystem services to help farmers capitalising on native biodiversity
- [PROBAE](#): Protect butterflies across Europe through climate refugia (2022-2024) - Universite de Lausanne
- [URBAN GreenUP](#): New Strategy for Re-Naturing Cities through Nature-Based Solutions (2017-2023) - Fundacion Cartif
- [Poshbee](#): Pan-European assessment, monitoring, and mitigation of stressors on the health of bees (2018-2023) - Royal Holloway and Bedford New College
- RestPoll: Restoring Pollinator habitats across European agricultural landscapes based on multi-actor participatory approaches

Horizon Europe includes a wide range of upcoming calls including topics such as the wider societal value of pollinators, pollinator friendly farming, pesticides and wild pollinators, in addition to several wider biodiversity related calls that could also include pollinators

5.9.2. Access to Environmental Information Directive

What is it?

The [Access to Environmental Information Directive \(2003/4/EC\)](#) was adopted in 2003 and guarantees the right of access to environmental information to the EU public. The Directive aims to ensure that environmental information is available and distributed. Member States must ensure public authorities make any environmental information they hold available to the public upon request.

Pollinator relevance

Making pollinator information and data accessible is crucial to improving our knowledge on pollinator decline, its causes, and thereby how to address them. This is recognised under action 3 of the 2018 EU Pollinators initiative which aims to facilitate knowledge sharing and access to data, and specifically under action 3B which states that “Member States should make relevant spatial data such as land-use data available in the public domain based on the

requirements under INSPIRE and Access to Environmental Information Directive to allow integrated spatial analysis”.

Expected developments

No developments are expected under this directive during the SAFEGUARD project lifetime.

5.9.3. INSPIRE directive

What is it?

The Inspire Directive (2007/2/EC) was adopted in 2007 to establish an infrastructure for spatial information in the EU to support environmental policies and activities. The Directive sets mandatory common implementing rules in a range of areas to ensure spatial data is compatible across Member States.

Pollinator relevance

The 2018 EU Pollinators initiative aims to facilitate knowledge sharing and access to data, and specifically under action 3B stated that “Member States should make relevant spatial data such as land-use data available in the public domain based on the requirements under INSPIRE and Access to Environmental Information Directive to allow integrated spatial analysis”.

Expected developments

Since its coming into force in 2007, the Directive has been implemented in various stages. The last milestone is on the 10/12/2021 when the directive should be fully implemented and all invocable spatial data services need to be in line with the obligations under the directive.

5.9.4. EIP-AGRI

What is it?

The agricultural European Innovation Partnership (EIP-AGRI) was launched in 2012 to promote competitive and sustainable farming and forestry. To achieve this, it supports bottom-up collaborative innovations on environmentally friendly agriculture. It fosters collaborations amongst relevant stakeholders including farmers, advisors, NGOs, researchers, and businesses. These multi-stakeholder groups work together on projects combining their different knowledge to form Operational groups, multi actor projects and Thematic networks. Together, these form an EU wide EIP network which is run by the European Commission (DG AGRI) with support from the EIP-AGRI Service point. Operational groups are funded under the rural development programmes of the CAP.

Pollinator relevance of EIP-AGRI

Supporting innovative solutions to environmental issues in agricultural management is key to pollinator conservation. The 2018 EU Pollinators initiative highlights this under action 2 which aims to support research and innovation, and more specifically under action 2B which aims to increase awareness amongst stakeholders of the benefits of pollinator-friendly farmland management through the EIP-AGRI network. Several operational groups of the EIP-AGRI

specifically tackle the decline of pollinators. The EU Pollinators Information Hive lists [EIP-AGRI projects relevant for wild pollinators](#).

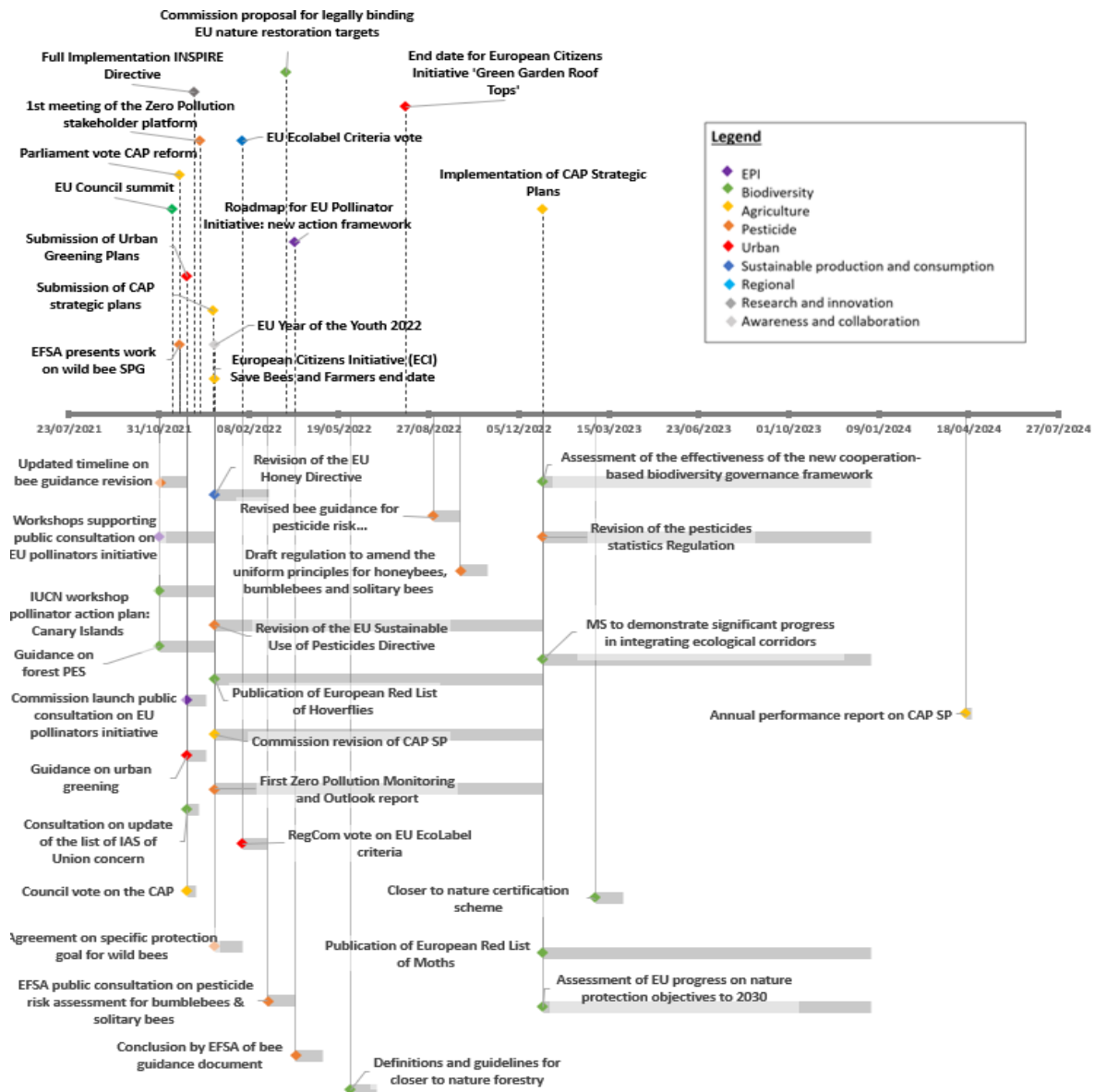
The latest news and developments on EIP-AGRI projects, focus groups, events and publications can be found on the [EIP-AGRI website](#).

Opportunities and expected developments

- Drive consortia to apply for upcoming Horizon Europe calls related to pollinators
- Proposed one or more EIP-AGRI Practise summaries, or even proposed new operational groups relating to pollinators

5.10. Summary of the current and developing EU policy context for pollinators

Figure 1. Timeline of the current and developing EU policy context for pollinators during SAFEGUARD



In summary, many pollinators relevant policy milestones and developments are expected from now until the finalisation of the SAFEGUARD project. The expected timeline for these developments is illustrated in the figure above (NB the figure was last updated in late 2021). These developments create important opportunities for engagement and will therefore be carefully considered and actively followed to ensure the timeliness, policy-relevance, and effective distribution and communication of SAFEGUARD outputs. Based on the evaluation of the EU policy context, we identified key EU policy priorities that are most critical to wild pollinators as described in the next section.

6. Aligning Safeguard activities and outputs to EU policy priorities and the EU Pollinators initiative objectives

This section is an exploration of how Safeguard's objectives, planned research, and outputs fit within this context, focusing on the research work packages WP1 to WP5. It will be further developed in discussion with Safeguard consortium members and Stakeholder Advisory Board. We make a distinction between two categories of key EU policy priorities for Safeguard:

- **Actively influence and inform:** These are policy priorities which are both critical to wild pollinators and directly relevant to Safeguard project objectives. These create an opportunity to use Safeguard research outputs to actively influence and inform policy.
- **Watching brief:** These are policy priorities which are critical to wild pollinators but not directly relevant to Safeguard policy objectives.

6.1. Aligning Safeguard objectives

6.1.1. Safeguard headline objectives

Safeguard aims to substantially contribute to reversing the loss of wild pollinators across Europe by increasing our knowledge on the drivers, impacts, and solutions of pollinator decline. This headline objective is closely aligned to the EU PI's aim to address the decline of wild pollinators in the EU.

Safeguard influenced the revision through participation in the thematic consultation workshops organised by the Commission and through submission of a statement to the public consultation. The Safeguard consortium was updated on the changes and new actions proposed in the revision and how these relate to the project in the 2023 AGM in Sofia.

*Therefore, Safeguard had an opportunity to **actively influence and inform the EU Pollinators Initiative**, and the new initiative will be used as a red thread for policy engagement activities.*

To achieve its headline objective, the Safeguard project is structured into 8 closely linked work packages (WPs). The key policy priorities and developments most closely linked to each WP and, where relevant, key EPI objectives it links to are outlined below:

6.1.2. WP 1: re-assessing the status and trends of European pollinators

WP1 is mobilising EU experts and data to:

1. perform a re-assessment of the European bee and butterfly Red Lists,
2. compile and make available distributional and key trait data for bees, butterflies, moths, and hoverflies.

This will allow Safeguard to assess the magnitude, scale and extent of status and trends in pollinator distributions, diversity, abundance, communities, and plant-pollinator networks. Analyses of species traits and phylogenies will identify the underlying mechanisms of pollinator declines.

Project tasks will:

- Compile Europe wide data sets on pollinator distributions
- Compile Europe wide data sets on pollinator traits and build phylogenetic trees
- Compile Europe wide data sets on population trends at different spatial scales
- Identify the relationship between habitats, diversity, and conservation of European pollinators
- Map European pollinator species interactions and community assembly
- Make all data sets publicly available
- Develop national red lists of bees and butterflies in six data deficient member states (Portugal, Spain, France, Greece, Hungary, and Cyprus)

Potential policy relevance:

- Open database on distributional information on European pollinators at national and continental level will help map key pollinator areas in the EU (an action in the EU Pollinators Initiative). This will support MS with their planning and mapping of protected area expansion and corridors (EUBDS). And it will support the roll out of the EU pollinator monitoring scheme. The data will be available by September 2023.
- The information on pollinator declines synthesised in the red lists will inform the design and implementation of national pollinator protection strategies in these Member States. National red lists are a key knowledge basis for a national pollinator strategy and will help unlock EU funding sources for pollinator projects (for example, they can be the basis for a LIFE project application for pollinator conservation). The red lists will all be published by early 2025.
- The datasets on traits and phylogeny will help better understand mechanisms underlying pollinator trends and can inform pesticide risk assessment of ecotoxicity to wild pollinator species.
- The assessment of relationships between habitat use, diversity and conservation status of European pollinators will help rank and assess the importance of Annex I habitat types for pollinators in Natura 2000 and in other areas. This information will also be used to understand the needs of pollinators at the habitat level which can help 1) inform and influence the pledges member states are expected to submit in 2023 to meet the protected area commitments of the EU biodiversity strategy; 2) inform the implementation of the EU Green infrastructure strategy and the creation of ecological corridors promised under the BDS.
- A better understanding of the habitat needs of pollinators and their trends can help inform and influence the planning and assessment of member states nature restoration plans to ensure restoration delivers for pollinators.

WP1 summary table:

| Safeguard task | Lead org | Potential policy relevance | Ready by |
|----------------|----------|--|-----------|
| WP1 T1.1 | UMONS | Open database on distributional information on European pollinators will enable European Red Lists (EPI). Help map key pollinator areas in EU (EPI). Support MS with mapping protected area expansion & corridors (buzzing lines) (EUBDS & EPI). | Sept 2023 |
| WP1 T1.2 | UNSP MF | Open database on pollinators individual-based traits and phylogenies will support increase in taxonomic expertise and support mapping of pollinator networks. Increased taxonomic expertise will support capacity building, training of monitors, roll out of monitoring schemes (EPI). Support to mapping and modelling of pollinator vulnerable zones in context of climate change (EPI & EUBDS). Inform pesticide risk assessment of ecotoxicity (PPP). | Sept 2023 |
| WP1 T1.3 | CSIC | Report on pollinator population trends across scales will support MS pollinator strategies, pollinator monitoring, planning, and mapping of pollinator interventions (EPI and CAP). Support national nature restoration planning (EUBDS). | May 2024 |
| WP1 T1.4 | UNIPD | Report on habitat importance for EU pollinators will support planning and evaluation of agricultural interventions, Natura 2000 management and planning, urban greening planning, national nature restoration planning (CAP, urban greening, Natura 2000, EUBDS). Implementation of species and habitat action plans (EPI). | May 2024 |
| WP1 T1.5 | CSIC | Report on plant-pollinator keystone structures describing community robustness will support national nature restoration planning, ecological corridor and protected area mapping (EUBDS & EPI). Implementation of species and habitat action plans (EPI). | Sept 2024 |
| WP1 T1.6 | IUCN | National red lists will inform national strategies. Threats assessments will inform national and EU scale IAF/DPSIR assessments (EPI). Unlock funding. Context for national monitoring (CAP and EPI). | Feb 2025 |

6.1.3. WP 2: Pressures on wild pollinators and their biotic interaction

WP2 is analysing the effects of multiple and interacting pressures across on pollinator assemblages and communities, functional networks, and plant reproduction across scales. WP2 research provides a basis for policy relevant outputs in WP3 and WP4 and the creation of the Integrated Assessment Framework in WP5. The WP has established a European site network and sample data across sites to test the suitability of different risk indicators (pollinator genetic diversity, population sizes, richness, trait variation, interaction network structure). The research will disentangle effects of landscape composition and configuration on pollinator diversity and interaction networks in protected area and Natura 2000 habitats and derive generalizable risk indicators for population declines, reduced adaptive capacities, delayed and secondary extinctions.

WP2 will also:

- Test new recording methods
- Assess the impacts of traffic on pollinators (collision, light pollution, particle pollution, noise pollution)
- Assess how plant diversity and landscape structure change competition between honeybees and wild pollinators.

The synthesis and systemic assessment of pollinator decline and characterisation of quantitative indicators will help inform pollinator-relevant policies and decision-making by identifying current and future risks, priority areas, and functional groups which should be addressed to protect pollinators. The impacts assessed will include climate, land cover (including protected area, forest, agricultural land), land use intensity (including agricultural intensity and pesticide use), atmospheric nitrogen deposition, and vegetation. This information will help inform policies in a variety of policy areas.

Potential policy relevance:

- Help inform the designation of new protected areas to achieve the protected areas and status improvement BDS goal and help inform member states' national restoration plans.
- Help the design of guidance on adequate management in protected sites.
- The assessment of multiple pressures at the landscape level will inform the creation of ecological corridors and collaborative land management.
- knowledge on the impacts of farmland management practices and land use change on pollinators will help inform pollinator-friendly agricultural policy. This could help actively inform the CAP strategic plan evaluation and implementation process.
- The evaluation of the impacts of nitrogen deposition on pollinators can inform the achievement of the EU goal to reduce nutrient losses and their impacts.
- Information on the impacts of traffic pollution on pollinators can help inform urban strategies for road verge management and green spaces management, in the context of Urban Greening Plans and other urban and regional policies.
- Information on how to assess and avoid competition between domesticated honeybees on wild pollinators will be useful to protected area managers, urban green space managers, and apiculture policy design (e.g. steering support for beekeeping through the Common Agricultural Policy and national apiculture programmes).

WP2 summary table:

| Safeguard task | Lead org | Potential policy relevance | Ready by |
|----------------|----------|---|-----------|
| WP2 T2.1 | | Assess the impacts of multiple and interacting pressures on pollinator assemblages and communities across scales. May | Sept 2024 |

| | | | |
|----------|------------------------|--|-----------|
| | | help informed decision making in the management of hot/cold spots for threatened pollinators (EPI). | |
| WP2 T2.2 | WBF | Synthesis report on the impacts of multiple pressures on plant-pollinator networks and functional consequences on pollination and plant reproduction. Could help decision making in the mitigation of honeybee/wild pollinators competition. | Sep 2024 |
| WP2 T2.3 | UWUE | Report on pressures and suitability of different indicators of pollinator declines in Natura 2000 habitats in European field site network. Useful for Natura 2000 management; species protection targets; protected area expansion targets (EUBDS). | Mar 2025 |
| WP2 T2.4 | UWUE | Report on the impact of plant diversity and landscape composition and configuration on competition for floral resources between wild and managed pollinators. Will inform conservation and policy about regionally targeted thresholds for honeybee colony densities and mitigation strategies through enhanced floral resource quantity, diversity, and continuity. | Mar 2025 |
| WP2 T2.5 | UFZ | Report on the impact of landscape composition and configuration on pollinator movement and plant reproduction. Inform policy about functional consequences of pollinator declines. | Mar 2025 |
| WP2 T2.6 | RHUL UREAD INRAE | Report on underresearched pressures and mechanism impacting pollinators and plant reproduction. Pathogen spillover between honeybees and wild bees. Impacts of traffic. Nitrogen deposition. Develop recommendations to minimise potential negative impacts of spillover. | Mar 2025 |
| WP2 T2.7 | UFZ | Pan-European maps of current and future risks for pollinator assemblages and landscape-level impacts on community assembly processes under global change. Will support national nature restoration planning, mapping of ecological corridors and protected area expansion (EUBDS & EPI). | Sept 2025 |
| WP2 T2.8 | CSIC | Model and pan-European maps of emerging plant-pollinator network structure and consequences for pollination services under global change. Risk assessment tool for decision makers. | Sept 2025 |

6.1.4. WP 3: Assessing the environmental, socio-cultural and economic values and impacts of pollination services and pollinator-targeted interventions

WP3 is valuing the benefits of pollinators and the services they provide by considering co-benefits of interventions, the socio-cultural value of pollinators and their habitats, and their contribution to value chains, employment, and human health. The quantification of the benefits of pollinators will support pollinator-friendly policies by facilitating the integration of pollinator considerations into both public and private decision-making. In addition, recognising the co-benefits of pollinator protection more broadly can increase awareness and engagement from

key stakeholders including businesses and citizens. This information can also be used to support a stronger mainstreaming of pollinator protection across policy areas. For example, it can create a rationale to support pollinator specific provisions in the CAP, EU urban greening plans, and the EU nature restoration targets.

The package will create opportunities to influence food policy by quantifying the impacts of pollinator declines on food systems. This could inform and influence the proposal for a legislative framework for sustainable food systems.

The WP will map and project pollinator natural capital across Europe. This can directly influence and inform the Commission's proposal of a revision of its Regulation on European Environmental Economic Accounts to include a module on natural capital accounting.

Finally, the WP will identify barriers and motivations for the adoption of pollinator friendly land management. This can help inform awareness and collaboration objectives in the EPI and ensure the effectiveness of the implementation of pollinator-relevant actions under the CAP and EU urban greening plans.

| Safeguard task | Lead org | Potential policy relevance | Ready by |
|----------------|---------------|--|-----------|
| WP3 T3.1 | INRAE / UREAD | A handbook of the current knowledge on and approaches to valuing pollination . Tool for capacity building or awareness raising session with stakeholders (EPI and CAP/urban greening / cross cutting). | Sept 2022 |
| WP3 T3.2 | SLU UREAD | Identification and assessment of key environmental co-benefits from pollinator-friendly land management decisions. Relevant for discussions on CAP and Natura 2000. | Sept 2023 |
| WP3 T3.3 | UNIPD | Report on the potential trade-offs/synergies between pollinator conservation and co-benefits across natural, agricultural, and urban landscapes. Relevant for city planners (urban greening), land managers and agri-env planners (CAP), Natura 2000 managers (EUBDS). | Sept 2024 |
| WP3 T3.4 | INRAE | Worldviews and values on pollinators and their decline held by agents of change across Europe. Relevant for discussions on sustainable food systems legislation (SFS). | Sept 2023 |
| WP3 T3.5 | UREAD | Method for assessing the economic costs and benefits of management practices on pollinator natural capital. Contribution to natural capital accounting (EPI & EUB&B). | Sept 2024 |
| WP3 T3.6 | UREAD | Toolkit of methods to quantify the economic and health impacts of pollination service losses on European food systems – focus on apples and coffee. Relevant for discussions on sustainable food systems legislation (SFS). | Sept 2024 |
| WP3 T3.7 | SLU | Strategies to overcome the factors that keep pollinator-unfriendly practices in place. Relevant for awareness raising / communications to sectors – agriculture, cities, landowners. | Mar 2025 |

6.1.5. WP 4: Effective responses to counteract wild pollinator decline

WP4 is investigating approaches to test and quantify the effectiveness of pollinator protection interventions and opportunities and risks for pollinators from biodiversity conservation and restoration actions in agricultural, urban, and protected areas.

WP4 will:

- Measure impacts on pollinator genetic diversity of long-term interventions: agricultural areas (negative control) and nature reserves (positive control)
- Assess impacts on pollinator abundance and species richness of interventions in agricultural areas, Natura 2000 areas and public spaces
- Sample and analyse data from citizen science initiatives
- Develop result-based payments for pollinators to enhance effectiveness
- Assess the impacts of biodiversity offsets on pollinators
- Map habitat networks
- Develop methods to analyse effects of multiple interventions on pollinators
- Assess the effectiveness of multiple interventions for pollinators at the landscape-scale

The evaluation of the impact of biodiversity conservation strategies on pollinators will be crucial to inform work under the BDS to define effective protected area management, designate new protected areas, and the design and implementation of the EU Nature Restoration Plan.

Methods for analysing the effects of multiple interventions at the landscape level could be key to inform pollinator-friendly management on agricultural land, thus informing the design and implementation of CAP Strategic Plans, on urban areas, thus informing the design and implementation of urban greening plans, and on protected land, thus informing the designation and management of protected areas and green infrastructure.

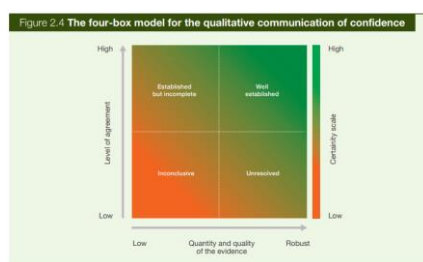
The assessment of payment by results schemes, offsetting, and citizen science as tools for pollinator conservation can also influence key policy developments. Work on payment by results schemes to subsidise farmers to achieve biodiversity results could influence the design of CAP strategic plans. Work on offsetting will help inform the implementation the Habitats Directive which includes compensation of non-mitigated damage of development projects authorised on Natura 2000 sites due to overriding public interest. The promotion of citizen science can also contribute to the awareness raising and engagement goals of the European Pollinators Initiative.

Finally, the WP will also design landscape-scale mitigation strategies for landscapes managed by multiple actors. These can help inform the design of cohesive and effective regional, national, and local pollinator strategies. They can also support multi-stakeholder collaborations which can be promoted through Interreg collaborations, CLLD local action groups, and the Peer2Peer network.

| Safeguard task | Lead org | Potential policy relevance | Ready by |
|----------------|----------|--|---|
| WP4 T4.1 | WBF | Report on the effects of interventions on genetic diversity and functional traits. Will help in the development of a decision support tool for decision makers. | Mar 2025 |
| WP4 T4.2 | OK | Recommendations on how to implement effective interventions to enhance pollinators in Natura 2000 areas and in public space. Interesting messages about the challenges of persuading green space managers to change practices. Technical booklet in Hungarian available. | Mar 2024 (technical booklet in HU available now) |
| WP4 T4.3 | UNIPD | Report on potential spill-over of benefits for pollinators from private urban areas to the wider landscape. Padua study sampling city from margin to centre. Interesting findings for city planners on urban greening / urban habitats, and on using citizen science to change garden management. Citizen science tools available – questionnaire, app, OPTIMOW survey. | Mar 2025 (some info available now) |
| WP4 T4.4 | UBB | Guidance on how to apply payment by results as an approach to enhance effectiveness of pollinator promoting subsidies. Will help to improve existing policies. | Mar 2024 |
| WP4 T4.5 | WU | Report outlining opportunities and risks of biodiversity offsetting for pollinator conservation – IT and NL. IT – offsets are young forest replanted after cutting compared to forest remnants with rel young trees but some deadwood. NL is grassland offsets compared to grasslands in nature reserves. Relevant to habitat managers, Natura 2000 site managers – lessons learned about using contractors, objectives and quality of management. Impacts on species specialists vs abundance of more common species. | Mar 2024 (preliminary results available now) |
| WP4 T4.6 | UNIPD | Report on the effectiveness of intervention strategies targeting complementary habitats needed by pollinators to complete their lifecycle. Comparison of findings in landscapes in IT, HU. Messages about pollinator abundance and movements at small scale in agricultural arable-dominated landscapes with & after flowering crops. | Mar 2025 |
| WP4 T4.7 | WU | Report on methods to upscale effects of multiple interventions at the landscape level. Focus on habitat types rather than interventions. Work not yet started. | Mar 2024 |
| WP4 T4.8 | WU | Recommendations on optimal implementation of collaborative approaches implementing multiple measures at the landscape-level. Comparison of NL, CH landscapes. Messages about impacts of habitat interventions in HNV landscapes – what works what does not work, how to extensify. CH case includes co-design of interventions. | Mar 2025 (draft results available now) |

6.1.6. WP 5: Integrative Assessment Framework (IAF) socio-ecological concepts, tools, and solutions

WP5 will develop an integrated assessment framework (IAF) to understand holistically current and future pollinator risks and how to address them at different scales. The framework will combine the knowledge generated by the other parts of the Safeguard project. The IAF will use the IPBES four box confidence terms to rank confidence of evidence:



Note: Confidence increases towards the top-right corner as suggested by the increasing strength of shading. 'Well-established' can be further subdivided into 'very well established' and 'virtually certain'.

The framework will include a set of decision-making tools tailored to relevant stakeholders to support policy and decision making across a range of sectors including conservation, industries, urban planning, regional administration and development, agriculture, and beekeeping. The framework will therefore be highly relevant to inform and influence decision-making in a range of policy areas. It is therefore crucial that the framework is effectively planned and disseminated to ensure it achieves its full potential to inform and influence policy.

As the IAF is still in the conceptualisation phase and will build on work from other WPs, a more comprehensive assessment of the key policy windows of opportunity and policy stakeholders for this package will be an ongoing task and dialogue. Part of the work under the policy work package WP6 will contribute directly to the IAF by developing tools and guidance to policy makers to assess the impacts of policies on pollinators.

| Safeguard task | Lead org | Potential policy relevance | Ready by |
|----------------|---------------------|--|---------------------------------|
| WP5 T5.1 | INRAE / ULUND | Conceptual framework of IAF for urban greening planning and intensive agriculture decision making. | Sept 2023 |
| WP5 T5.2 | ULUND | Tools and models for decision support. Map based tool of pollinator presence/absence and current and future extinction risk in EU (using Shiny R). | Sept 2024 (2 papers in prep) |
| WP5 T5.3 | ULUND / INRAE / JRC | Case studies of IAF implemented in different governance/policy settings. Tree-based decision support tools. Online map-based tools. | Dec 2024 |
| WP5 T5.4 | RHUL | Report on Horizon Scanning, identifying emerging risks and opportunities for European wild pollinators. | Mar 2025 |
| WP5 T5.5 | UFZ | SAFEGUARD Pollinators IAF – Assessment and Decision Toolkit. | Sept 2025 |

| | | | |
|----------|------|---|----------|
| WP6 T6.2 | IEEP | IAF toolkit modules to assess impacts of policies on pollinators. | Mar 2025 |
|----------|------|---|----------|

7. Safeguard policy engagement ideas and relevant EU policy priorities

The Safeguard consortium decided at the first AGM in 2022 in Sevilla to focus the policy activities on three sectors and collected some initial ideas for actions in each policy sector. Some modifications and additional ideas have been added because of discussions at the AGM 2023 in Sofia, making links to completed and upcoming Safeguard research.

URBAN GREENING:

Aim of policy engagement: Inform the design and implementation of EU Urban Greening Plans to ensure they deliver for pollinators and inform the implementation of the proposed EU restoration target for urban areas.

Planned actions and ideas:

| Timing | Policy engagement action and target audience | Lead org | Safeguard research |
|--------|---|------------------------|--|
| 2022 | Policy workshop with city representatives. On 8 December 2022, Safeguard (IEEP, IUCN) together with Eurocities and ICLEI organised a workshop targeted at city managers to help them integrate pollinator conservation into their urban greening plans, with expert inputs from UMONS and INRAE. The topics of strategic urban planning for pollinators and pollinator monitoring in cities were discussed. The workshop helped conceptualise the IAF. | IEEP, IUCN with INRAE | WP5 T5.1 |
| 2023 | Produce a monitoring & assessment guide for cities to implement pollinator monitoring and use pollinator monitoring and indicators to assess the impacts of their urban greening plan. This will contribute to the urban greening toolkit that the Commission is providing to cities on the Commission's Urban greening platform and provide a tool for the IAF. | IEEP with ULUND | WP5 T5.1 WP5 T5.3 WP4 T4.2 WP4 T4.3 |
| 2023 | Possibility to follow-up with a second in person or online policy event with Eurocities and/or Promote Pollinators targeted at the same audience of cities, probably during the EP Pollinators Week. | IEEP (IUCN could help) | WP5 T5.1 WP5 T5.3 |
| 2024 | Policy brief targeted at city policy makers - possible topics: <ul style="list-style-type: none"> – how to implement effective interventions to enhance pollinators in public spaces – spill-over of benefits for pollinators from private urban areas to the wider landscape | IUCN | WP4 T4.2 WP4 T4.3 |

NATURE CONSERVATION: Expert input and support for trans-European nature network, Natura 2000 management, nature restoration planning, and associated targets:

Aim of policy engagement: Contribute pollinator information to help plan and monitor pledge and review process for achieving the protected area and status improvement targets, and/or implementation of legally binding nature restoration targets. Safeguard could:

- provide criteria for identification and quality control of new protected areas and OECMs. Provision of information to national governments and regions: characteristic species lists, lists of endangered pollinator species, evidence of success of restoration measures for pollinators.
- provide criteria for creation of new green corridors and implementation of the EU green infrastructure initiative.
- Guidance on how to restore Annex I habitats for pollinator populations.
- Guidance on how to do carbon farming with benefits for pollinators – agroforestry, soil carbon restoration, trees on farmland, paludiculture or peatland restoration.
- define pollinator specific criteria for assessing effective management in Natura 2000 sites. Protected area management effectiveness may include an assessment of ecosystem services and benefits provided by protected areas. Tools and techniques to assess the values and benefits provided by wild pollinators would be useful for this.

Planned actions and ideas:

| Timing | Policy engagement action | Lead org | Safeguard research |
|-----------|--|----------------|--|
| 2023 | Collaborative research and policy communication between Safeguard and NaturaConnect Horizon projects (2023) – to map pollinator hotspots and conservation priorities onto models and maps of Trans-European Nature Network and communicate opportunities and priorities for designation of new areas, strict protection of existing areas, and creating ecological corridors for wild pollinators. | IEEP | WP1 T1.1 WP1 T1.2 |
| 2023/2024 | Policy briefs focused on the Nature Restoration Law and its implementation | IUCN | WP2 T2.2 |
| 2025 | Workshop targeted at nature conservation policy-makers focused on the Nature Restoration Law implementation. | IEEP with IUCN | WP2 T2.3 WP2 T2.5 WP2 T2.7 WP2 T2.8 WP4 T4.6 |

AGRICULTURE AND FOOD: Inputs, workshops, and policy briefs aimed at design and implementation of agriculture related policies (CAP, Sustainable Food Systems)

Planned actions and ideas:

| Timing | Policy engagement action | Lead org | Safeguard research |
|-----------------|---|-----------------|--|
| 2023 | Buzzing table on how to value pollinators and pollination (using handbook) – with landowners | ELO with IUCN | WP3 T3.1 |
| 12/2023 | Buzzing table on sustainable food systems – targeted at food stakeholders. Exploring world views, values, economic and health impacts of pollinator loss. | IUCN with UREAD | WP3 T3.4 WP3 T3.6 |
| 9/2023 – 5/2024 | Design eco scheme(s) for pollinators and publish in policy brief . | IEEP with ELO | WP2 |
| 9/2023 – 5/2024 | Develop tools to evaluate the impact of CAP strategic plans on pollinators. To be used in workshop and as tool for IAF. | IEEP | WP3 T3.3 |
| 5/2024 | Policy workshop with CAP evaluators: aim is to coach evaluators on available methods and approaches to evaluate impacts of CAP measures. | IEEP with ELO | WP1 WP2 WP4 |
| 2024 | Policy briefs targeted at agricultural stakeholders - possible topics: <ul style="list-style-type: none"> – mapping risks for pollinators on farmland under global change – how landscape-level pressures on farmland affect pollinator communities – how will global change affect pollination services – world views, values, economic and health impacts of pollinator loss – results-based payment schemes for pollinators | IUCN | WP2 T2.7 WP2 T2.8 WP3 T3.4 WP3 T3.6 WP4 T4.4 |
| 2025 | Policy event to present results from Safeguard to policy-makers focusing on the future CAP | IUCN | WP2 T2.7 WP2 T2.8 WP3 T3.4 WP3 T3.6 WP4 T4.4 |

In addition, Safeguard will provide inputs to the EU Pollinators Initiative through the following actions:

- Input to EU Pollinators Initiative expert consultation workshops December 2021 and in 2022, submission to public consultation (2022). COMPLETED.
- Safeguard publications published on EU Pollinator Information Hive (WP7).
- Support implementation of EU habitat and species action plans with information and expert inputs where relevant.

- Engagement in **EU Pollinators Week** with event or roundtable every year from 2022 to 2025. These events will highlight how Safeguard research is delivering on the objectives and actions of the EU Pollinators Initiative.
- Support or information for scientists and stakeholders wanting to develop **national pollinator strategy for Portugal** (2023 and 2024). This will deliver on the EU Pollinators Initiative in Portugal. A buzzing table event might be appropriate, depending on needs.
- **Project end events** in 2025 will feature Safeguard research results to different audiences, accompanied by **policy briefs**:
 - European Landowners Organisation Forum for Agriculture March 2025 will feature a dedicated session on Safeguard / pollinator conservation. This event will address a broad audience of agriculture stakeholders. It will highlight Safeguard research findings on land management and agricultural interventions.
 - Event targeted at EU policymakers and Brussels EU policy audience in EU Green Week June 2025 and EU Pollinators Week September 2025. These event will highlight how Safeguard research has delivered on the objectives and actions of the EU Pollinators Initiative.
 - Further opportunities for events in 2025 will be developed.

Policy watching brief:

IEEP will set up and carry out policy tracking of policy developments that affect pollinators, and post regular news items for Safeguard researchers, highlighting relevant policy developments. If additional policy engagement opportunities turn up, the WP6 team will assess resources and decide on whether to take action. The policy priorities described above will be tracked and the following policy areas will also be part of the watching brief:

- EU biodiversity monitoring, indicators, species and habitat protection targets and action plans
- EU biodiversity funding
- Invasive alien species policy
- EU forest strategy and policy
- EU soil strategy and policy
- Zero pollution action plan and sustainable production and consumption policies that address pollution
- EU pesticides policy
- EU regional and cohesion policy

8. Identifying who to engage in Safeguard policy activities and how

WP6 took part in the Safeguard [stakeholder mapping exercise](#) to identify target audiences to disseminate results. Stakeholders were mapped according to a particular role and grouped by their corresponding sector. The mapping exercise identified 452 stakeholders that were rated by interest and influence by the participants of the exercise (47) according to each SAFEGUARD task. The IUCN was named for all tasks and consistently scored highly in terms of interest and influence.

Several governmental bodies were listed as key stakeholders, these ranged from specific regional government offices, national government agencies and intergovernmental organisations such as the United Nations, IPBES, FAO and Interreg. These stakeholders were mostly identified as having both adopter and advocate roles across all tasks.

The EU was also recognised as an important group of stakeholders across all tasks for the Safeguard project. 24 EU agencies, bodies and institutions were identified but just three were given the highest scores of interest and influence; the EC, DG Env & the EU Pollinators Initiative. Again, these organisations were noted as having roles as both adopter and advocates rather than one or the other.

The mapping exercise has identified a long list of diverse stakeholders for three specific WPs. Participants have identified organisations to approach and include in workshops on developing accurate assessments of the status of European pollinators.

9. Next steps for engaging with the EU policy priorities and policymakers

The Safeguard policy engagement roadmap developed in this report aims to provide the first building block towards a more comprehensive policy engagement strategy which will be developed with inputs from other work packages and consortium members and advisers. This report aims to provide an accessible overview of the relevant EU policy landscape to allow for a shared vision on key EU policy priorities amongst Safeguard members. In addition, the report will serve as a tool to kickstart discussions on ensuring policy relevance and timeliness of Safeguard findings and outputs with individual WP leads and team members. The policy engagement work of WP6 will be an ongoing, flexible, and reiterative process which will happen in close collaboration with all relevant Safeguard members.

10. Annex

Table 1. Assessment of the progress achieved under the different commitments of the EPI and mapping against Policy areas.

| EPI Priority | EPI Action | EPI Sub-action | Policy area | Key Policies | Deadline | Progress (based on EC review) |
|--|-----------------------------------|---|-------------------------|--------------------|-------------------------|--|
| Improving knowledge of pollinator decline, its causes and its consequences | Support monitoring and assessment | 1A) The Commission will devise and test an EU-wide pollinator monitoring scheme to ensure the provision of good quality data for assessing the status and trends of pollinator species in the EU and developing a pollinator indicator. A technical expert group will be set up to support this work. | Research and innovation | Horizon Europe | First milestone Q4 2018 | June 2019 commission mandated a group of pollinator experts to develop a proposal for field-based EU pollinator monitoring scheme. EC consulted MS environmental and agricultural authorities. Expert proposal published 2021. EC working with MS to operationalise proposal and build capacity to implement scheme. |
| | | 1B) The Commission will start work on a European Red List of hoverflies. | Biodiversity | | Q1 2019 | December 2018 EC began work of European red List of hoverflies. Finalised October 2022. Work on red list of moths started April 2021. |
| | | 1C) The Commission will develop a list of habitats important for pollinators and assess their condition based on reporting provided by Member States under the Habitats Directive and other available data. | Biodiversity | Habitats Directive | First milestone Q1 2019 | June 2020 the EEA/TBD published report on importance on annex 1 habitat types for pollinators. Allowed assessment of conservation status of protected pollinator habitats based on reporting under habitats directive article 17. |
| | | 1D) The Commission will launch a pilot project on monitoring the presence of pesticides in the environment through honeybee products (for example pollen) to assess the feasibility of using this innovative approach to inform about the exposure of pollinators to pesticides. | Pesticides | | Q4 2018 | EC piloting field-based monitoring scheme for biodiversity in agricultural systems (EMBAL) and preparing LUCAS grassland module as part of 2022 LUCAS survey. EC piloting scheme using honeybees for monitoring pesticides (INSIGNIA). Will be fully implemented in 2022 supported by Parliament. |

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| | | 1E) The Commission will apply the ‘mapping and assessing ecosystems and their services’ framework to pollinators, including the development of natural capital accounts on pollinators and pollination, to assess in an integrated way the decline of pollinators, its impacts on society and the economy, and to derive adequate policy responses. | Sustainable Production and consumption | Biodiversity Strategy | Q2 2019 | October 2020 Commission published EU wide ecosystem assessment. Included pollination services assessment. EC developed a pollination account showing the economic value to crop production. |
| Support research and innovation | | 2A) The Commission will continue to promote and support research and innovation on pollinators and the causes and consequences of their decline under Horizon 2020 – the EU Framework Programme for Research and Innovation 2014-2020. | Research and innovation | Horizon 2020 | Continuous | EC continued support to research on pollinators through Horizon 2020. included a dedicated topic on pollinators in the Horizon 2020 work programme for 2018-2020. Research started September 2021 on mitigating causes and consequences of pollinator decline. Under BiodivERSA framework, pollinator relevant projects on interactions between pollinator threats, ecosystem services etc. Individual grants and fellowships under European research council and Marie Curie actions. |
| | | 2B) In the framework of exchanges via the EIP-AGRI network (European Innovation Partnership for Agricultural Productivity and Sustainability), the Commission will raise awareness of stakeholders on the opportunities in recognising pollinator needs and the pollination service they provide. | Agriculture | EIP-AGRI network | Continuous | EKLIPSE framework to feed pollinator knowledge into decision making. EIP AGRI network supported bottom up innovation of pollinator friendly farmland management |
| | | 2C) The Commission will consider how to further promote research and innovation to address the decline of pollinators in implementing the Horizon Europe programme – the EU Framework Programme for Research and Innovation post-2020. | Agriculture | Horizon Europe | Continuous | Horizon Europe’s first strategic plan and proposal for first work programme (2021/2022) aim to support tools for research on pollinators, capacity building and transition towards pollinator friendly management. European Partnership on biodiversity aims to support monitoring schemes for biodiversity. |
| Facilitate knowledge | | 3A) The Commission will launch an online platform on pollinators to serve as a central data and information hub. | Raising awareness, engagement, cooperation | | First milestone Q1 2019 | May 2020 EC launched EU pollinator information hive. |

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| | | 3B) Member States should make relevant spatial data, such as land-use data, available in the public domain based on the requirements under the INSPIRE and Access to Environmental Information Directives to allow integrated spatial analysis. | Research and innovation | INSPIRE, Access to Environmental information Directive | First milestone Q2 2019 | EC and EEA are working on options to integrate information on pollinator monitoring schemes into BISE. EC working with MS to address exchange of sharing access to and use of spatial data available in the CAPs IACS. In 2019 EC launched pilot to test INSPIRE directive data sharing provision and how it can implement data sharing across EU policy domains including IACS. |
| Tackling the causes of pollinator decline | Conserve endangered pollinator species and habitats | 4A) The Commission will further develop action plans for the most threatened pollinator species and habitats listed in the Habitats Directive, and will support Member States and stakeholders in implementing them, including through the LIFE Programme. | Biodiversity | Habitats Directive, LIFE | First milestone Q2 2019 | Through action plan for nature, people and the economy EC improved implementation of habitats directive. EC developed EU habitat action plans for semi natural dry grasslands and European dry heaths: both important to pollinators. July 2020 EC launched tender to develop 3 species action plans to conserve most threatened EU pollinators. LIFE programme pollinator support strengthened in 2018. June 2020 EC organised webinar on increasing LIFE support to invertebrate conservation. Study published of 20 LIFE projects on invertebrates. In LIFE work programme 2021-2024, commission will increase EU co funding rate for threatened red list species promoting actions for pollinators not covered by habitats directive. |
| | | 4B) The Commission will, in cooperation with Member States, identify conservation measures and management approaches to optimize benefits for endangered pollinators and their habitats, including in the frame of the Natura 2000 biogeographic process and through a dedicated workshop. | Biodiversity | Habitats Directive, Natura 2000 | First milestone Q2 2019 | EC and MS in 2019 and 2018 supported knowledge exchange on pollinator-friendly management through Natura 2000 biogeographical process. November 2019 EC organised workshop on management for pollinator conservation in N2K sites. |
| | | 4C) Member States should address priority measures for important pollinator habitats in the prioritised action frameworks for the management of Natura 2000 sites and green infrastructure as well as species protection. | Biodiversity | Habitats Directive, Natura 2000, PAFs | Q3 2019 | EC called on MS to ensure requirements to protect wild pollinators are included in PAFs, started assessing PAFs in 2018 to give comments on integrating pollinators, will continue this work in 2021 for the rest of PAFs. |

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| Improve pollinator habitats on and around farmland | 5A) The Commission will assess existing experience on the use of pollinator-relevant measures under the common agricultural policy 2014-2020. Based on this, it will develop guidance for managing authorities and farmers, providing technical advice on how to increase the effectiveness of measures, and actively promote it in the common agricultural policy post 2020. | Agriculture | CAP | First milestone Q4 2018 | November 2020 EC published study to assess potential of the CAP 2014-2020 to protect wild pollinators. Based on this EC created guidelines to increase effectiveness of CAP measures for pollinators. |
| | 5B) Member States should encourage the uptake of pollinator-relevant measures in rural development programmes for 2014-2020, including through training and awareness-raising for farmers and other relevant stakeholders. | Agriculture | CAP, RDP | Continuous | EC launched study in 2019 on actions for pollinators in all MS including as part of CAP. |
| | 5C) The Commission will promote the integration of pollinator considerations in the implementation of the post-2020 common agricultural policy, and will include a pollinator indicator in the performance and monitoring framework once finalized and operational. | Agriculture | CAP | Continuous | EC organised conference in February 2020 to share results from studies and discuss how to integrate pollinator conservation into CAP SP 2021-2027. EC proposal for future CAP includes instruments that can be used to improve pollinator conservation - enhanced conditionality, eco schemes, obligatory higher environmental ambition. EC recommendations to MS for their CAP SP included specific objectives for biodiversity. EC will assess whether proposed interventions in CAP SP contribute to specific needs identified. EC working on CAP pollinator indicator. Finalisation depends in implementation of pollinator monitoring scheme. |
| Improve pollinator habitats in urban areas and the wider | 6A) The Commission will collect best practices and develop guidance for local authorities on how to create a favourable environment for pollinators, and will include pollinators in the criteria for the European Green Capital and Green Leaf awards. | Urban | | Q2 2019 | January 2020 EC published guidelines for pollinator friendly cities. October 2020 commission produced action plan on sustainable use of land and NbS as part of EU urban agenda including actions to support pollinators. These will be boosted through NDS green city accord initiative and urban greening plans. EC integrated pollinator relevant criteria into application forms and guidance of the European green capital and green leaf awards. EC developed approach for mapping pollinator friendliness of urban areas (EnRoute). |

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| Reduce the impacts of pesticide use on pollinators | 6B) The Commission will increase the awareness of cohesion policy managing authorities and stakeholders on pollinator conservation and related funding opportunities in the 2014-2020 period and post-2020. | Urban, Regional | Cohesion policy | First milestone Q4 2018 | February 2020 EC and CoR organised stakeholder conference increasing awareness of EU cohesion policy funding opportunities for pollinator conservation. Highlighted projects funded by Interreg programmes (and soe by ERDF, CF, ESF). |
| | 6C) Through guidance on EU-level green infrastructure and on the integration of ecosystems and their services into decision making, the Commission will promote landscape-level actions that maintain and restore pollinator habitats, and their integration into spatial planning and other relevant decision-making processes. | Urban, Biodiversity | Biodiversity strategy, Green infrastructure strategy | First milestone Q4 2018 | EC promoted landscape level action through guidance on EU level green infrastructures and integrating ES into decision making |
| | 7A) The Commission will encourage Member States to include specific targets and measures for pollinator conservation in their revised national action plans under Directive 2009/128/EC to reduce the risks and impacts of pesticide use on pollinators, and will assess the situation in a second report on the Directive's implementation | Pesticides | SUD | First milestone Q2 2019 | 2018 EC and MS discussed integration of pollinator conservation into MS national action plans under SUD. Progress report had no focus on pollinators but EC published study on integration of measures for pollinators in SUD NAPs published November 2020. As announced in BDS and F2F, EC will revise SUD to enhance provisions on IPM and promote use of alternatives. |
| | 7B) The Commission will adopt an implementation plan for the EFSA Guidance Document on the risk assessment of plant protection products on bees (<i>Apis mellifera</i> , <i>Bombus</i> spp. and solitary bees) in order to enhance the risk assessment of pesticides on pollinators. | Pesticides | Placing of pesticides in the market | Q4 2018 | EC worked towards ensuring pollinators are considered in PPP authorisation required by EU Legislation on placing of the market of PPPs. EC worked with MS to ensure endorsement and implementation of 2013 guidance document adopted by EFSA for assessing risk of PPP on bees. EC implemented parts of document with sufficient support in 2018 (risk to honeybees). In July 2019 a qualified majority of MS agreed to draft EC regulation amending principles for authorising PPPs needed for this but in October 2019 EP objected to draft regulation claiming it should implement additional provisions of the guidance doc, so EC could not proceed. Therefore currently, 2002 guidance remains in place. March 2019 EC mandated EFSA to review guidance document. Review ongoing and will conclude 2021, EC will seek endorsement after. ECA report gave recommendations to EC to improve bee risk assessment. |

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| | | 7C) The Commission will adopt legal measures for the prohibition of all outdoor uses of the three neonicotinoid pesticides already subject to specific restrictions since 2013 (imidacloprid, thiamethoxam and clothianidin). | Pesticides | Placing of pesticides in the market | Q2 2018 | 29 May 2018 EC adopted regulations amending conditions for neonicotinoids imidacloprid, clothianidin, and thiamethoxam to ban outdoor uses. Approval of these expired 21 January 2019, 30 April 2019 and 1 December 2020 respectively. ECA and EPA called on EC to ensure emergency authorisations are fully justified. EC mandated EFSA in 2018 to verify emergency authorisations and took action to prevent unjustified ones in 2020. October 2020 EC sent second mandate to EFSA to assess by 2021. EC will take further action. Notifications of emergency authorisations are published in EU pesticide database. |
| | Reduce the impacts of Invasive alien species on pollinators | 8A) The Commission will provide technical guidance to Member States on how to prevent and manage invasive alien species harmful to pollinators within the scope of Regulation (EU) 1143/2014. | Biodiversity | IAS Regulation | Q3 2019 | January 2020 EC published guidance on managing IAS to protect wild pollinators. 2019 EC developed guidelines on IAS native to part of the EU which addressed managed honeybee and bumblebee subspecies. LIFE projects have included restoration of habitats following IAS and raising awareness. |
| | | 8B) The Commission will develop guidance to promote the use of native plant species and pollinators in the public and private sector. | Sustainable Production and consumption | | Q3 2019 | EC recommended use of native plants and pollinators in guidance for pollinator conservation. |
| Raising awareness, engaging society-at-large and promoting collaboration | Encourage the business sector and citizens to act | 9A) The Commission will provide guidance and incentivise businesses to contribute to the conservation of pollinators, in particular in the agri-food sector. It will also continue to promote good practices and innovative business models beneficial to pollinators through the EU Business @ Biodiversity Platform and the European Business Award for the Environment, and will provide funding opportunities through the Natural Capital Financing Facility. | Sustainable Production and consumption, Agriculture, Biodiversity Strategy | | First milestone Q2 2019 | August 2019 EC through EU B@B platform examined business activities on pollinator conservation and contracted guidance for 11 sectors: agriculture, agri food and beverage, forestry, horticulture, apiculture, retail, landscape architecture, building, mining, energy, tourism. EC encouraging businesses to integrate pollinators into decision making including through supporting pollinator friendly carbon farming. |

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| | 9B) The Commission will explore the possibility of applying the EU ecolabel to products that support pollinator conservation, such as wildflower seed mixes, potted plants for pollinators and other relevant gardening products, in line with the conclusions and recommendations of the fitness check concluded in 2017. | Sustainable Production and consumption | Eco label | Q3 2019 | EC started revising EU ecolabel criteria for growing media soil improvers and mulch so that they consider wild pollinators. LIFE food and biodiversity project studied insect protection in food standards and labels and produced guide. |
| | 9C) The Commission will develop and disseminate educational material on pollinators. It will also develop guidance on how citizens can get involved in conservation of pollinators and citizen science on pollinators. Such engagement activities for the preservation of pollinators may be conducted in the context of the European Solidarity Corps, which supports young people to volunteer in projects that benefit communities and the environment around Europe. In addition, national apiculture programmes could complement these efforts through training to broaden public and professional understanding on the importance of wild pollinators. | Raising awareness, engagement, cooperation | European Solidarity corps | Continuous | EC encouraged public campaigns, communication activities, educational activities and guidance on pollinator. July 2020 EC published report on best practice for citizen science. EC fostered launch of European butterfly monitoring scheme through ABLE. Citizen science will be key in PoMS and scheme of monitoring pesticides through honeybees. Through STING, EC is increasing engagement in 2021. Solidarity corps supports young people in projects including pollinator conservation e.g. Wild Bee Pollinator Conservation, Solidarity Bees. Erasmus + funded projects to raise awareness on pollinators. |
| Promote pollinator strategies and collaboration at all levels | 10A) The Commission will develop common templates and tools to facilitate the development of pollinator strategies at national, regional and local level, building on existing best practice | EPI | | Q3 2019 | Commission produced templates for national and local strategies and encourages their creation. |
| | 10B) The Commission will identify opportunities for improving collaboration among all relevant actors through existing platforms and promote further collaboration through EU-level mechanisms, including under the EU Framework Programme for Research and Innovation 2014-2020, the European Territorial Cooperation (Interreg) programmes, Community-Led Local Development, TAIEX-EIR and TAIEX-REGIO, Peer2Peer instruments. | Raising awareness, engagement, cooperation | Horizon Europe, Interreg, TAIEX-EIR, TAIEX-REGIO, Peer2Peer | First milestone Q1 2019 | Using EIP AGRI, Interreg, EU urban agenda, commission facilitated collaborations. Interreg especially helpful. EC also facilitates connections between national, local and subnational governments. Local operational groups for pollinator friendly farm management created through EIP AGRI. |

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| | 10C) The Commission will promote the integration of pollinator conservation considerations and measures into EU supported policies, plans and programmes in developing and neighbouring countries, in line with the objectives of the International Pollinators Initiative | Global | | Continuous | EC supported objectives of EPI and 2018-2030 action plan for the second international pollinator initiative. Supported EU FAO project facilitating implementation of agreements in Africa, Caribbean and Pacific. Global seminars organised. |
| | The EU will join the Coalition of the Willing on Pollinators and foster effective international action on pollinators. | Global | | Q4 2018 | November 2018 EU joined coalition of the willing on pollinators during COP 14. Pushing for stronger ambition on pollinator conservation through post 2020 biodiversity agenda negotiations. |

Table 2. Biodiversity Strategy commitments with pollinator-relevance mapped against policy areas.

| Biodiversity Strategy Commitment | Description | Pollinator relevance | Policy area | Relevance |
|---|---|----------------------|-------------------------|---|
| Legally protect a minimum of 30% of the EU's land area, integrate ecological corridors as part of a true Trans-European Nature Network, and strictly protect at least a third of the EU's protected areas, including all remaining EU primary and old growth forest | Commission is working with MS to agree on the creation, monitoring and reporting of additional protected areas and ecological corridors, both within and beyond Natura 2000. Progress towards achieving this target will be evaluated in 2023. | High | Biodiversity | The protection of key pollinator habitats is included under this target. The creation of ecological corridors is also key to pollinators as it creates additional habitat and increases their integrity and resilience. |
| Effectively manage all protected areas, defining clear conservation objectives and measures, and monitoring them appropriately | Criteria and guidance for adequate management will be created in 2021. | Medium | Biodiversity | The effective management of pollinator habitats is important to ensuring their survival. |
| Legally binding EU nature restoration targets to be proposed so that by 2030, 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. | The Commission will propose legally binding targets on the 14 th of December 2020. Guidance to map, monitor and select priorities for restoration will be developed. | High | Biodiversity | The proposed legally binding restoration targets will include dedicated targets for restoring pollinator populations as well as targets to restore important habitats for pollinators. |
| The decline in pollinators is reversed | The Commission will revise the EU Pollinators initiative (EPI) in 2022. A roadmap is expected at the end of 2021. | High | All | The EPI sets out EU level objectives and actions to halt the decline in pollinator populations. |
| The risk and use of chemical pesticides is reduced by 50% and the use of more hazardous pesticides is reduced by 50% by 2030 | This target, also included in the Farm to Fork strategy, will be achieved through the sustainable use of pesticides directive (SUD) and the CAP Strategic Plans. Progress will be monitored annually. The SUD will be revised in 2022 to enhance its integrated pest management provisions. Measures will also be taken to ensure CAP SP are in line with Biodiversity strategy targets so that these are supported through the CAP. The environmental risk assessment of pesticides will also be strengthened. | High | Agriculture, Pesticides | Pesticides are an important threat to pollinators. Decreasing their use will therefore address a key cause of pollinator decline. |

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| At least 10% of agricultural area is under high-diversity landscape features. | Measures to achieve this will be implemented through Habitats Directive and CAP instruments including enhanced conditionality, voluntary commitments from farmers under Pillar 1 eco-schemes, and Pillar 2 measures. These should be defined in CAP SP. Progress towards this target will be constantly reviewed. | High | Agriculture | Agricultural habitats are important to many pollinators. |
| At least 25% of agricultural land is under organic farming management, and the uptake of agro-ecological practices is significantly increased. | An Action plan for organic farming 2021-2026 was adopted on the 2nd of March 2021. CAP measures will also be key in achieving this e.g. rural development support measures for agro-ecological practices. | Medium | Agriculture | Organic farming and agro-ecological practices can create pollinator habitat on farmland and reduce pressures such as pesticide use. |
| There is a 50% reduction in the number of Red List species threatened by invasive alien species | The implementation of the EU Invasive alien species regulation and other relevant legislation and agreements will be stepped up to, wherever possible, eliminate the establishment of IAS and manage those that are established. A report on the implementation of the IAS Regulation was published in October 2021. A public consultation is expected in early December 2021 and the next update of the list of IAS of Union concern by the end of 2021. | High | Biodiversity | Pollinators on the Red List are threatened by IAS which can directly compete with them for resources, introduce diseases, and degrade their habitats. |
| The losses of nutrients from fertilisers are reduced by 50%, resulting in the reduction of the use of fertilisers by at least 20%. | Will be achieved by an increased implementation and enforcement of current legislation and additional measures in the Zero Pollution Action Plan (ZPAP) and the integrated nutrient management action plan (INMAP). The ZPAP was adopted in May 2021 and the INMAP will be presented in 2022. | Medium | Agriculture | Pollution from nutrient loss can lead to the degradation of important pollinator habitats. |
| Increasing the quantity of forests and improving their health and resilience | The new EU forest strategy was adopted by the commission in July 2021. | High | Biodiversity | Forests are a key habitat for some wild pollinator populations. |

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| Cities with at least 20,000 inhabitants have an ambitious Urban Greening Plan. | Technical guidance and assistance will be produced by the end of 2021 on urban greening for Member States, local and regional authorities, including for the development of Urban Greening Plans within the framework of the Green City Accord. The EC will work with REGIO to ensure cohesion policy funding is accessible. An urban greening Platform was set up in 2021 to provide a coherent entity for cities to access information and support in setting up their Urban greening Plan. Urban greening plans should be in place by the end of 2021. They should include measures and incentives to create biodiverse and accessible urban forests, parks and gardens; urban farms; green roofs and walls; tree-lined streets; urban meadows; and urban hedges. This should include improving connectivity, eliminating pesticide use, and limiting mowing and other biodiversity harmful practices. | High | Urban, Regional | Urban areas can be important habitats for pollinators. Greening measures can help create additional feeding, breeding and hibernating resources and spaces for pollinators. |
| No chemical pesticides are used in sensitive areas such as EU urban green areas. | Urban greening plans expected to be submitted by the end of 2021 should include measures to eliminate the use of pesticides. | High | Urban | The use of pesticides in public green spaces is a key driver of pollinator decline in urban areas. |
| Assess the effectiveness of the new cooperation-based biodiversity governance framework, and the need for an enhanced, legally-binding or other, approach to biodiversity governance | A new cooperation based biodiversity governance framework is being established through a common Implementation Framework setting out a roadmap to meeting commitments and a strengthened monitoring framework with indicators and a mechanism for regular review. The framework will ensure co-responsibility and co-ownership by relevant stakeholders and will be supported by the Knowledge Centre for Biodiversity. The effectiveness of this framework will be assessed in 2023 and the need for an enhanced, legally-binding approach will be assessed. | Low | EPI | A strengthened biodiversity governance framework will enhance the implementation of targets directly and indirectly relevant to pollinator conservation. Some of the indicators used in the monitoring framework could be relevant to pollinator-related targets. |
| New sustainable corporate governance initiative addressing environmental duty of care and mandatory due diligence across economic value chains | Framework to be put in place to require operators that place a commodity or a product on the EU market to exercise due diligence to ascertain that these are not associated with supply chains with negative impacts. The Parliament adopted a legislative report in March 2021 and the Commission proposal due in summer 2021 has been delayed to late 2021. In addition, in April 2021 the commission adopted a proposal for an enhanced Non-Financial Reporting Directive which includes biodiversity. | Low | Sustainable Production and Consumption | Products placed on the EU market can have negative impacts on pollinator populations and habitats along their value chain. Increasing requirements for due diligence could mitigate these. |
| Help to build an EU Business for Biodiversity movement | Through reinforcing the EU B@B platform as a network of business networks focusing on work streams on Natural Capital and Biodiversity measurement for businesses, connecting pioneering companies and mainstreaming. It also aims to increase investment for nature-based solutions. | Medium | Sustainable Production and Consumption | Businesses can have important positive or negative impacts on pollinators and their populations through their activities. By accounting for these impacts and mainstreaming their consideration in business |

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| | | | | making, businesses can contribute to pollinator conservation. |
| Renewed Sustainable Finance Strategy | The EU sustainable finance taxonomy will help guide green investment including to nature-based solutions and biodiversity-friendly practices. In 2021, the Commission will adopt a delegated act under the Taxonomy Regulation to establish a common classification of economic activities that substantially contribute to protecting and restoring biodiversity and ecosystems. This will be part of the Renewed Sustainable Finance Strategy expected in 2021 which is expected to apply from October 2022. | Medium | Sustainable Production and Consumption | |
| Promote an international natural capital accounting initiative | The biodiversity strategy aims to support methods, criteria and standards to better integrate biodiversity considerations into public and business decision-making including through better developing natural capital accounting methods with INCA and the work of the Business and Biodiversity Platform. In addition, the Commission is fostering networks of corporates cooperating on natural capital to align internationally management accounting principles for natural capital and biodiversity e.g. through the ALIGN project which kicked off in march 2021. | Medium | Sustainable Production and Consumption | Natural capital accounting measures stocks and flows of natural capital so they can be integrated into decision-making. This can include pollinators, their habitats, and pollination as an ecosystem service. |
| Establish a new Knowledge Centre for Biodiversity | The KCBC was launched in October 2020 and is hosted by the Joint Research Centre (JRC), and co-led by DG ENV. It is developed in close cooperation with the European Environment Agency. It is a one-stop shop for key information about biodiversity and the impact of related policies. | Medium | Research and innovation | The KCBC can be an important platform to support the generation and sharing of knowledge relevant to pollinator conservation. |
| Proposal for a Council Recommendation on encouraging cooperation in education for environmental sustainability, including biodiversity education | The Commission will provide guidance for schools, higher education institutions and teachers on how to cooperate and exchange experiences across Member States on environmental sustainability education. | Medium | Raising awareness and collaboration | Increasing education around biodiversity and pollinators is key to ensuring actions to conserve them are adopted, accepted, supported, and sustained across society. |
| Broker an agreement for an ambitious post-2020 biodiversity framework at the 15th Conference of the Parties to the Convention on Biological Diversity (CBD COP15) | The second part of the CBD's COP15 will take place in April/May 2022. During the meeting, the post-2020 global biodiversity framework will be discussed and adopted. The Commission aims to ensure this is an ambitious agreement. | High | Global | Several of the proposed post-2020 biodiversity framework targets are directly or indirectly relevant to pollinator conservation. |

