BeeLife European Beekeeping Coordination

Pesticide Action Network Europe

FOR A SUCCESSFUL NATIONAL RESTORATION PLAN:

Reducing pesticide pressure on biodiversity

Summary

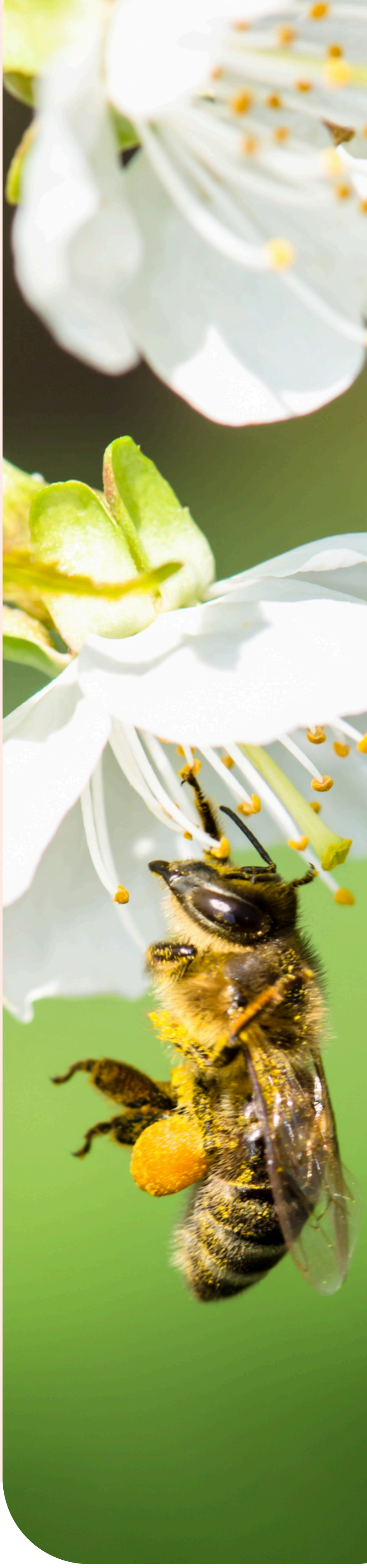
The EU Nature Restoration Regulation establishes a legally binding framework to halt biodiversity loss and restore degraded ecosystems across terrestrial, freshwater, coastal, agricultural, and urban landscapes. Achieving its objectives, however, requires directly addressing one of the principal drivers of ecological decline: the harmful impact of chemical pesticides.

A substantial and growing body of scientific evidence shows that pesticide contamination is pervasive in soils, surface and groundwater, vegetation, air, and even protected areas. This contamination contributes significantly to the decline of insects, pollinators, farmland birds, soil organisms, and aquatic biodiversity. Such impacts cascade across trophic levels, undermining ecosystem functioning, agricultural resilience, and long-term food security.

This policy brief sets out science-based recommendations to integrate robust pesticide-reduction measures into National Restoration Plans under Articles 4, 8, 10, and 11 of the Regulation. It demonstrates that reducing dependency on chemical pesticides, strengthening Integrated Pest Management, expanding organic and agroecological systems, and prohibiting the use of harmful pesticides in sensitive and protected areas are indispensable to restoring ecological integrity.

These measures also deliver substantial co-benefits, including enhanced soil health, improved water quality, pollinator recovery, greater climate resilience, strengthened public health protection, and more secure livelihoods for beekeepers.

Aligning restoration planning with ambitious pesticide-reduction strategies will ensure coherence with existing EU legislation and respond to citizens' expectations, while reinforcing the long-term sustainability, resilience, and socio-economic viability of European food systems. The responsibility now lies with Member States to act decisively.



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Abbreviations

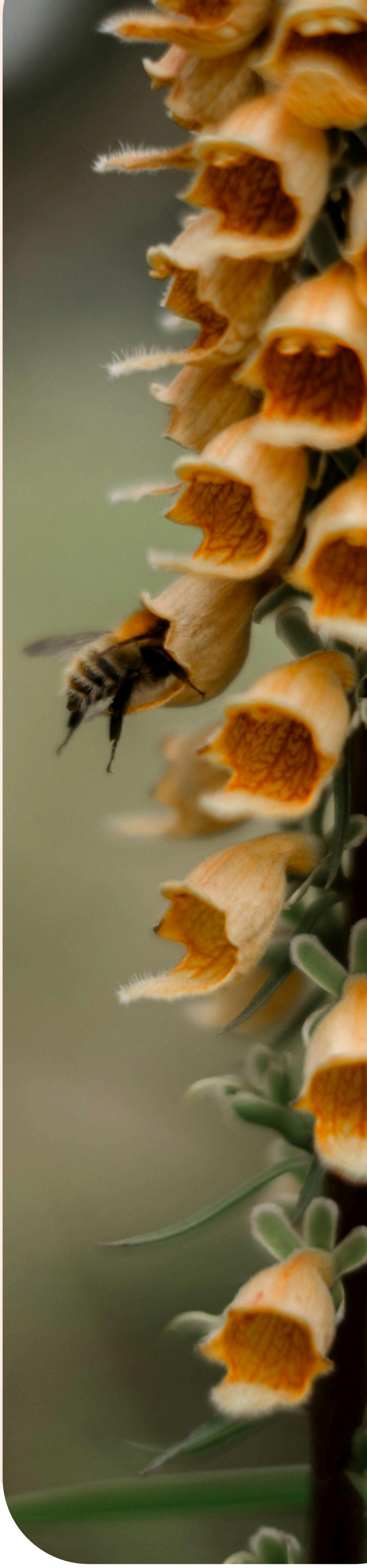
CAP	Common Agricultural Policy
EU	European Union
IPM	Integrated Pest Management
PAN	Pesticide Action Network
PFAS	Poly-Fluor
RPI	Realised Pollinator Index
SDGs	Sustainable Development Goals
SUD	Sustainable Use of Pesticides Directive

Purpose

The present recommendations provide Member States with scientific insight and policy rationale to include pesticide use reduction in the National Restoration Plans, as a key measure to halt biodiversity loss and restore ecosystems. Scientific findings have consistently shown that pesticide use is one of the main drivers of the steep decline of biodiversity. Citizens across Europe have repeatedly called for a reduction in pesticide use, identifying it as one of their foremost concerns in relation to public health and biodiversity loss. The European Citizens' Initiative Save Bees and Farmers, which calls for a transition to phase out synthetic pesticides, was successfully presented to the European Commission in October 2022 after having collected over one million statements of support from EU citizens. Also, during the Conference on the Future of Europe, participants explicitly urged a "drastic reduction of chemical pesticides and fertilisers across all types of farms" and the "development of sustainable agriculture that respects both nature and agricultural workers."

In addition, the present recommendations, advocating for the integration of efficient measures to reduce pesticide use and associated risks into the National Restoration Plans, are fully aligned with the provisions of the Directive on the Sustainable Use of Pesticides (Dir. 2009/128/EC, hereafter "SUD").

Pesticide Action Network (PAN) Europe and BeeLife European Beekeeping Coordination (BeeLife) bring together more than 80 organisations across Europe. Adopting these recommendations would therefore ensure that the perspectives of civil society and citizens are duly reflected, fulfilling the commitment to public participation in National Restoration Plans as stipulated in Articles 14(20) and 15(3)(w) of the EU Nature Restoration Regulation (hereafter "the Regulation"). This network of organisations could also facilitate fostering synergies among Member States, to optimise the implementation of the above-mentioned measures (art. 14(17)).



Introduction

The Regulation represents a critical intervention to avert ecosystem collapse and limit the escalating impacts of biodiversity loss and climate change. Restoring ecosystems across agricultural land, wetlands, rivers, forests, grasslands, marine and urban environments is a cost-effective investment in protecting biodiversity and ecosystem functions, long-term food security, climate resilience, public health, and societal well-being. **However, achieving the Regulation's restoration targets will be unattainable without a substantial reduction in chemical pesticide use, which constitutes one of the major drivers of biodiversity decline.**

Sampling studies show that pesticide mixtures are widely present in soils, water, vegetation and air, also far beyond agricultural areas[1]. There is a strong scientific consensus that biodiversity decline - particularly among terrestrial insects that form the foundation of food webs - is primarily driven by habitat loss and pollution linked to intensive agricultural practices[2]. Agrochemical pollution has been consistently identified as a major cause of insect decline, including pollinators[3], and of biodiversity degradation in agricultural landscapes[4]. Large-scale meta-analyses show that pesticides have a significant negative impact on species diversity in farmland[5]. These effects extend beyond croplands: dramatic reductions in insect biomass have been documented even in protected areas within agricultural regions[6]. Pesticide drift has been linked to over 50% reductions in diversity of wild plants within 500 m of fields, shrinking resources for pollinators[7].

Pesticides are shown to be detrimental to soil organisms, eroding a large part of global biodiversity[8]. Pesticides are also a leading cause of biodiversity loss in aquatic ecosystems[9] and contribute to declines in bats and amphibians[10].

The cascading effects of insect decline are evident across trophic levels. Long-term EU-wide monitoring shows an overall 25% decline in bird abundance, with farmland birds declining by approximately 60%, reflecting the loss of insect prey. Pesticides and fertilisers are primary drivers for most bird population declines, especially for invertebrate feeders[11]. Comprehensive assessments drawing on thousands of scientific studies confirm a causal link between pesticide use and sustained declines in invertebrate and bird populations[12]. Analysis of pesticide purchase data, validated by comparison with independent data on pesticide residues in surface waters, also shows a negative correlation with the abundance of 84.4% of 64 common bird species in croplands. These results, confirmed through a more integrative pesticide metric, combining quantity, toxicity and degradability of the substances, suggest a widespread negative impact of environmental contamination, extending beyond farmland specialists to common bird species foraging in croplands, with potential cascading effects within and outside these landscapes[13]. Conversely, evidence from pesticide bans - such as the restriction of neonicotinoids in France - demonstrates that reducing harmful pesticide use enables biodiversity recovery, including rebounds in insectivorous bird populations[14].

Similarly, a substantial body of evidence indicates that organic farming increases species richness by approximately 30%. This effect has been consistently documented over the past three decades of research and shows no indication of weakening over time[15]. In parallel, the effective implementation of Integrated Pest Management (IPM) can significantly reduce the negative impacts of pesticides on biodiversity, including pollinators, without compromising yields - and in some cases even enhancing them[16]. Practical experience from farmers across Europe further demonstrates that pesticide use can be substantially reduced without adversely affecting farm profitability[17].

Long-term ecosystem recovery and functional restoration, as required by the Regulation, demand measures that directly address pesticide pressure. Reducing chemical pesticide use is a proven and effective lever to restore biodiversity, rebuild ecological interactions, and protect human health, while strengthening the resilience and sustainability of food systems. If no such measures are taken, projections indicate continued deterioration of biodiversity and ecosystem services. Scientific advisers have concluded that the current EU food system is environmentally, economically, and socially unsustainable[18]. We therefore recommend that National Restoration Plans explicitly integrate pesticide-reduction targets within a broader transition to sustainable agricultural practices as a necessary condition to achieve the objectives of the Regulation, notably under Articles 4, 8, 10 and 11.

Article 4: Restoration of terrestrial, coastal and freshwater ecosystems

The Regulation characterises habitats in "good condition" as being in "a state where the key characteristics of the habitat type, in particular its structure, functions and typical species or typical species composition reflect the high level of ecological integrity, stability and resilience necessary to ensure its long-term maintenance" (art. 3(4)). Achieving this objective of ecological integrity could be feasible in many national contexts, provided that a meaningful reduction in harmful pesticide use is ensured.

Reducing pesticide use would improve water and soil quality, which are currently heavily contaminated by these substances. Between 2013 and 2023, one or more pesticides were detected above their effect threshold in 19% to 27% of river water bodies. Exceedances of one or more pesticides were also detected in between 11% and 18% of groundwater bodies[19]. This contamination degrades water quality and reduces the supply of clean water for potable use, while also heavily affecting aquatic biodiversity[20].

Monitoring studies of soils in Europe have confirmed that pesticide contamination occurs widely. The 2018 EU LUCAS survey detected pesticide residues in 74.5% of the 3,473 sites investigated; most samples (57.1%) had at least two different pesticide residues, 29.8% had more than five, and 11.1% had more than ten[21].

The Sustainable Use of Pesticides Directive requires Member States to ensure appropriate measures are taken to protect the aquatic environment and drinking water supplies from pesticides. The obligations include giving preference to pesticides not classified as dangerous for the aquatic environment, and establishing pesticide-free buffer and safeguard zones for aquatic organisms and drinking water (Directive (EC) 128/2009, art. 11). Ensuring robust implementation of these requirements is also key to meeting the objectives of the Nature Restoration Regulation.

Reducing pesticide use and encouraging more sustainable agricultural practices is not only essential to reverse biodiversity decline, but also to protect and restore water quality and soil health. This measure directly supports the overarching objective of the Nature Restoration Regulation and its functional and long-term approach.

Article 8: Restoration of urban ecosystems

IIn addition to the critical role that reducing pesticide use plays in achieving the objectives of Articles 10 and 11 (see below), restricting these substances can also deliver direct and significant benefits for other targets of the Regulation, particularly the restoration of urban ecosystems.

The use of pesticides beyond low-risk and biological control measures should be prohibited in urban green spaces, and overall in areas used by the general public or by vulnerable groups. These areas include, for example, public parks and gardens, playgrounds, school grounds, recreational and sports facilities (Directive (EC) 128/2009, art. 12(a)). Such measures would help to reach the objectives of Article 8 by supporting the recovery of pollinator populations in urban environments directly, while simultaneously safeguarding human health - especially that of children and other vulnerable groups.

Several European countries and cities provide compelling evidence of the feasibility and benefits of pesticide-free urban management. Paris has progressively reduced pesticide use since the 1990s and has been entirely pesticide-free for several years. Since 2017, the use of pesticides has been banned in all towns and cities in France, followed by a ban in private gardens in 2019. Similar policies have been implemented nationwide in Denmark, Belgium, the Netherlands, Sweden and Luxembourg. These transitions have resulted in greener, healthier urban spaces that are not overrun by weeds and are increasingly recolonised by pollinators. For example, standardised surveys conducted in Paris after the prohibition of synthetic pesticides documented 118 species of wild bees and 37 species of hoverflies, including several species previously unrecorded in the city, updating pre-existing lists with 32 additional species[22]. These data clearly indicate that ecologically managed green spaces can effectively promote insect biodiversity.

A wide range of effective non-chemical alternatives to pesticides is already available, and the experience of Paris and hundreds of other cities worldwide demonstrates that pesticide-free urban management is both technically feasible and environmentally beneficial.

Article 10: reversing pollinator decline

The scientific literature on pollinator decline is unequivocal in concluding that reducing pesticide use is a prerequisite for reversing current trends[23]. Extensive evidence demonstrates that many pesticides adversely affect pollinators and other beneficial insects both directly - through lethal and sublethal effects that impair reproduction[24], navigation, learning performance, foraging behaviour and physiology[25] - and indirectly, by eliminating essential floral resources[26]. Pesticide exposure also amplifies the effects of other major stressors, including habitat loss, pathogens, and disease, thereby accelerating population declines[27].

Together with honey bees, wild pollinators are indispensable to both ecosystem resilience and agricultural productivity. In natural ecosystems, reproductive success in natural plant communities is positively correlated with pollinator functional diversity[28]. Importantly, pollinator diversity also enhances pollination services under environmental and climatic perturbations[29]. In agricultural systems, diverse pollinator communities enhance both the quantity and quality of crop yields[30]. Conservation strategies must therefore explicitly include wild pollinator populations in farmland.
These strategies would also deliver direct, tangible benefits to honey bees, with significant positive implications for beekeeping. Reducing exposure to harmful pesticides would improve colony health, survival, and productivity, thereby addressing a major constraint faced by beekeepers, while increasing the EU's honey self-sufficiency. Too often, beekeeping activities are undermined by pesticide-related mortality and sublethal effects that weaken colonies and increase management costs.

Pollinators in non-agricultural landscapes will also benefit from measures reducing pesticide use, as evidence shows that entomofauna in protected areas can be equally contaminated by complex pesticide mixtures[31]. For example, a study conducted in Germany detected residues of 47 commonly used pesticides in insects collected from nature conservation areas, with individual samples containing an average of 16.7 different pesticide compounds[32].

Reversing current trends requires a coordinated set of measures, including the progressive reduction and replacement of harmful pesticides with nature-based alternatives, the promotion of organic farming, increased landscape heterogeneity in agricultural areas, and the proactive prohibition of pesticide use in protected areas - such as Natura 2000 sites - and other ecologically sensitive habitats critical to threatened pollinators, as established by Directive 2009/128/EC (art. 12(b)). Also, in areas surrounding these habitats, pesticide use should be prohibited or strictly limited to natural, low-risk substances, with an effective buffer zone established to ensure untreated or minimally treated adjacent crops.
Successful integration of pollinator protection into farming practices also depends on adequately supporting farmers through targeted financial incentives and specialised training. Farmers should be actively engaged in incorporating pollinator considerations at every stage of their work. To this end, establishing a network of independent pollination advisers to support the adoption of pollinator-friendly practices is essential.

Innovative tools such as the yield-based "realised pollination index" (RPI) could also be integrated into this approach. This tool captures variation in pollination services across landscapes, including the spatial arrangement of semi-natural elements and cultivated fields, and more local effects of pesticide use. By enabling automated, large-scale pollination monitoring, the RPI could provide farmers and policymakers with a practical, evidence-based tool to design biodiversity-friendly agricultural landscapes that deliver ecosystem services efficiently[33].

Article 11: Restoration of agricultural ecosystems

This article of the Regulation directs Member States (point 2) to put in place restoration measures to enhance biodiversity in agricultural ecosystems by achieving an increasing trend on at least two out of the three following indicators: the grassland butterfly index, the stock of organic carbon in cropland mineral soils, and the share of agricultural land with high-diversity landscape features (Annex IV). It also requires Member States to put in place measures to achieve a measured increase in common farmland bird index at national level, based on the species specified in Annex V and indexed in September 2025 at 100 (point 3).

The largest empirical dataset ever assembled in Europe to assess the effects of anthropogenic pressures on avian populations - encompassing 170 common bird species monitored across more than 20,000 sites in 28 European countries - demonstrates a dramatic decline of approximately 60% in farmland bird populations over the past 37 years. The evidence is unequivocal. Among the various anthropogenic drivers examined in this study, agricultural intensification - and specifically the widespread use of synthetic pesticides and fertilisers - emerges as the principal determinant of these declines[34]. The impact is particularly severe for insectivorous species, consistent with the documented depletion of invertebrate prey.

These findings establish a clear causal link between chemical-intensive agricultural practices and biodiversity loss. Consequently, achieving the objectives set out in Article 11 necessitates a substantial and measurable reduction in the use of chemical pesticides. A decisive transition towards environmentally sustainable agricultural systems, coupled with the progressive phase-out of harmful agrochemicals, is indispensable to secure the long-term effectiveness and ecological integrity of restoration measures.

A range of established agricultural and forestry practices that minimise and/or phase out pesticide use - including high-level integrated pest management, organic, agroecological, and agroforestry systems - can substantially contribute to ecosystem restoration. Scientific evidence and farmers' experience across Europe demonstrate that harmful pesticide use can be markedly reduced, while maintaining yields and farm profitability, through the implementation of Integrated Pest Management (IPM)[35]. By prioritising prevention and soil health, IPM strengthens resilience to pests and to extreme weather events and supports natural pest regulation, pollination, soil fertility, and water quality.

IPM has been mandatory since 2014 under Directive (EC) No 2009/128 (Articles 3 and 14, and Annex III). The Directive prioritises pest management practices that pose the lowest risk to human health and the environment and cause minimal disruption to agro-ecosystems, with a strong emphasis on non-chemical methods and natural pest control mechanisms. The first principle of IPM explicitly prioritises prevention, including crop rotation, the use of cover crops, and the protection and enhancement of beneficial organisms (natural enemies), for example through the deployment of ecological infrastructures (SUD, Annex III).

Despite this legal obligation, IPM remains inadequately implemented across the European Union. Its long-overdue and effective enforcement, in full compliance with Directive (EC) No 128/2009, combined with complementary practices such as diversified crop rotations, reduced or no tillage, low-intensity permanent grasslands, and the ambitious expansion and preservation of high-diversity landscape features, is essential to achieving ecosystem restoration across agricultural landscapes. In addition, Member States should establish independent IPM advisory services, as required under both the Sustainable Use of Pesticides Directive and the Common Agricultural Policy, and ensure that these services are widely accessible to farmers in order to provide tailored support for the phase-out of harmful pesticides. In parallel, Member States should develop crop-specific guidelines that clearly identify and prioritise effective non-chemical alternatives to pesticide use for each crop type, adapted to local pedo-climatic conditions, as required by the Directive.

Promoting environmentally friendly farming systems also directly supports the objective of land degradation neutrality. Soil health and productivity are declining across Europe[36][27], which is partly due to intensive agricultural practices and the loss of below-ground biodiversity associated with pesticide use. Soil degradation affects all EU Member States, with an estimated 60–70% of soils currently in an unhealthy condition and 89% of agricultural soils exhibiting a critical loss of functions[37]. Studies have shown that the majority of soil samples contain mixtures of pesticides[38], and that these substances have detrimental effects on soil biodiversity[39]. Reducing pesticide inputs would help prevent soil contamination and further impoverishment, while supporting soil biodiversity, particularly microorganisms and fauna that are essential for soil structure, nutrient cycling, and carbon storage. These measures would therefore make a significant contribution to achieving land degradation neutrality, as foreseen under the Regulation (Articles 1(b) and 14(9)).

With respect to climate change mitigation, agricultural practices that enhance soil carbon sequestration and phase out harmful pesticides should be actively promoted, especially those characteristic of conservation agriculture, such as reduced or no-tillage, permanent soil cover, and diversified cropping systems through rotation or intercropping. These practices reduce soil erosion, increase carbon storage, support soil biota (including bacteria, fungi, and earthworms), limit pest and disease pressure, increase resilience against extreme weather events, and ultimately improve crop productivity through enhanced soil functioning. Maintaining the use of harmful pesticides undermines the benefits of the above-mentioned practices.

Promoting the widespread adoption of these practices, alongside the minimisation and progressive phase-out of harmful pesticides, would simultaneously enhance carbon sequestration, restore biodiversity, protect water quality, and scale up nature-based solutions. In this context, the Common Agricultural Policy (CAP) should play a pivotal role by providing targeted financial and technical support for nature-friendly farming practices, including payments for ecosystem services and public goods, investment support, insurance schemes, and independent advisory services. Crucially, the CAP should not subsidise pesticide-intensive agriculture: instead, it should redirect subsidies towards practices that are phasing out, or have already phased out, harmful pesticides. Transition payments should be conditional on measurable reductions in pesticide use and toxicity, based on robust science- and performance-based indicators. The CAP performance framework should therefore include the indicators set out in the Regulation (e.g. Farmland Bird Index, Common Bird Index, Grassland Butterfly Index, share of agricultural land with high-diversity landscape features, and pollinator indicators)[40].

In particular, the 2023-2027 eco-schemes - designed to compensate farmers for additional costs or income foregone - offer a key instrument to support this transition. More broadly, the CAP provides a strategic opportunity to better align agricultural subsidies with the objectives and implementation of National Restoration Plans.

The EU has formally committed to phasing out environmentally harmful subsidies and has acknowledged the need for structural readjustments. In line with the 8th Environment Action Programme, as established by Decision (EU) 2022/591, and with recital 85 of the Regulation, Member States should now take decisive action to rapidly eliminate harmful subsidies in order to safeguard the effectiveness of nature restoration efforts. To ensure coherent and effective implementation, avoid counterproductive incentives, and prevent inefficient use of public funds, Common Agricultural Policy (CAP) subsidies must be fully aligned with the objectives of the Regulation.

These measures should be further reinforced by mandatory record-keeping requirements for farmers and other professional pesticide users. Although the recording of pesticide use has been mandatory under Regulation (EC) No 1107/2009, the obligation to maintain pesticide-use records in electronic form will apply from 2027 onwards[41].

The availability of coherent, digital pesticide-use data will be essential for effective - also spatially explicit - monitoring of pesticide use and associated risks, and for informing targeted policy and management actions at local and regional levels.

Foreseeable socio-economic impacts

Reducing pesticide use and encouraging more sustainable agricultural practices will diminish pressures on habitats and species, preserve biodiversity and avoid environmental and human contamination.

Pesticides can cause well-documented health impacts: increased risks of chronic health conditions[42], including specific cancers[43], neurodegenerative diseases (Alzheimer's, Parkinson's)[44], neurodevelopmental disorders[45], reproductive and fertility impacts[46], and immune or metabolic effects, including on the gut microbiome[47]. Risks may be higher for vulnerable groups such as pregnant women, infants and children, farmers, and residents of intensively farmed areas[48]. In France, for instance, public health expenditures directly linked to pesticide-induced diseases have been estimated to at least 48.5 million euros per year[49].

Adopting more sustainable agricultural practices also helps align economic activity with nature restoration while safeguarding the long-term productivity and value of natural capital. Such practices can generate diversified economic opportunities for rural communities beyond primary agricultural income. Pesticide reduction also represents a critical economic and professional safeguard for the beekeeping sector, as well as for tourism.

Beyond environmental benefits, the transition to eco-friendly agriculture can help address broader socio-economic challenges by integrating the human dimension, notably through improvements in public health and the revitalisation of rural areas.

These benefits must be communicated proactively and convincingly to citizens. Clearly presenting the tangible advantages for public health, the environment, and future generations - alongside robust, science-based awareness campaigns on the risks posed by harmful substances - can build strong public backing for the Regulation and reinforce trust in institutional decision-making.

Other potential impacts, co-benefits and policy coherence

Reducing the use of - and dependency on - chemical pesticides in order to build a more sustainable and healthy food system generates cross-cutting, overarching impacts and co-benefits across several EU legislative instruments and action plans, both within and beyond the scope of the European Green Deal. These include, inter alia:

- The Zero Pollution Action Plan and its specific objective of improving soil quality by reducing nutrient losses and cutting the use of chemical pesticides by 50%.
- The EU Biodiversity Strategy for 2030, which highlights that achieving the targets of reducing pesticide use, reaching at least 25% of agricultural land under organic farming management, and significantly increasing the uptake of agroecological practices by 2030 are key to reversing biodiversity loss.
- The revised EU Pollinators Initiative, and in particular its priority II ("Improving pollinator conservation and tackling the causes of their decline"), which acknowledges that pesticides remain a major driver of pollinator decline and identifies measures to mitigate the impacts of pesticide use on pollinators.
- The Birds and Habitats Directives, which aim to ensure that rare and threatened species are protected from further decline and restored to a favourable conservation status across the EU. In addition to the measures established under the Natura 2000 network of protected areas, these Directives require a strict system of species protection beyond Natura 2000 sites, including safeguards against pollution and habitat deterioration (Article 4(4) of the Birds Directive).
- The EU legal framework for water protection, as established by the Water Framework Directive (2000/60/EC), which aims to ensure the protection and good quality of all waters; the Groundwater Directive (2006/118/EC), and the Environmental Quality Standards Directive (2008/105/EC), Drinking Water Directive (EU 2020/2184), which ensures the provision of safe and potable drinking water across Member States.
- The EU Soil Strategy for 2030, which seeks to protect and restore soils by ensuring their sustainable use, together with the Soil Monitoring Law (Directive (EU) 2025/2360), which entered into force on 16 December 2025. This Directive establishes an EU-wide framework for the assessment and monitoring of soils, with the overarching objective of achieving healthy soils by 2050. The monitoring framework covers key indicators, including soil biodiversity and contamination from pollutants such as pesticides and PFAS. Given the widespread pesticide contamination of soils across the EU and its significant contribution to soil degradation, reducing pesticide use is a central component of implementing the EU Soil Strategy.

- The Carbon Removals and Carbon Farming (CRCF) Regulation (EU/2024/3012), which creates the first EU-wide voluntary framework for certifying carbon removals, carbon farming and carbon storage in products across Europe.
- The Farm to Fork Strategy, which aims to make food systems fair, healthy, and environmentally friendly, and explicitly highlights the urgent need to reduce dependency on chemical pesticides and to promote organic farming.
- The Sustainable Use Directive (2009/128/EC), which aims to achieve a sustainable use of pesticides in the EU, by reducing their risks and impacts on human health and the environment and by promoting the use of IPM and of alternative approaches or techniques, such as non-chemical alternatives to pesticides.
- Regulation (EC) No. 1107/2009, concerning the placing of pesticides on the market, which establishes a high level of protection for human health, biodiversity and ecosystems from the harmful impacts of these substances.

At the global level, reducing the use of chemical pesticides is fully aligned with the objectives of the Kunming-Montreal Global Biodiversity Framework (in particular target 7) and the United Nations Sustainable Development Goals (SDGs), in particular SDG 2 (promoting sustainable agriculture), SDG 13 (addressing climate change and its impacts), and SDG 15 (protecting, restoring, and promoting the sustainable use of terrestrial ecosystems). Implementing these measures will therefore contribute to achieving the global restoration target and the SDGs.

Conclusion

Chemical pesticides jeopardise human health, erode biodiversity, and contaminate ecosystems far beyond the fields where they are applied. Reducing their use is therefore not merely an environmental choice, but an indispensable condition for nature's recovery and for the protection of life-support systems on which our societies depend.

We therefore strongly recommend that National Restoration Plans explicitly incorporate robust measures to reduce pesticide use and enable the transition to sustainable agricultural systems. Such measures would build a resilient and future-proof food system, enhance food safety and nutritional quality, mitigate the ongoing contamination of soils and waters, protect biodiversity, and safeguard human health, while directly advancing the core objective of the Nature Restoration Regulation: long-term, functional ecosystem recovery. These co-benefits should be fully recognised, systematically assessed, and actively supported through ambitious National Restoration Plans and coherent, aligned policy frameworks.

Finally, we urge competent authorities to heed the clear and consistent call of millions of European citizens for a drastic reduction in chemical pesticide use. The Nature Restoration Regulation offers a unique opportunity to drive a much-needed structural change in order to restore nature, protect public health, and secure a toxic-free future for generations to come.

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