Farming for pollinators: Unlocking economic and ecological gains

Science-policy conference | 2 April 2025

SAFEGUARD
Safeguarding European wild pollinators

Institute for European Environmental Policy

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Summary

This conference created a space for a science-policy discussion, to allow agri-food business, farmers, researchers, and DG ENVI to explore the contribution of pollinators beyond pollination. The conference highlighted the economic, environmental, and social benefits of pollinators in agricultural landscapes, offering insights into how farming practices can support both pollinators and stakeholders across the agri-food value chain.

WHO: organized by the Institute for European Environmental Policy (IEEP) as a side event of the Forum for Agriculture 2025 convened by the European Landowners Organization (ELO)

WHEN: 2 April 2025, Hybrid, 9:30-14:00 CET (including coffee breaks and a network lunch)

Number of participants: 67 in-person participants and 64 online participants (92 registered in-person and 122 registered online)

The presentations and recording of the webinar are available here:
The **presentations** are available on the Safeguard website media center (tab 'workshops'). Click here for the **recording of session 1 and session 2**.

Context

In recent years, there has been a significant and alarming decline in pollinating insect populations across Europe, including bees, hoverflies, butterflies, and moths. This phenomenon, often referred to as the "pollinator crisis," has raised serious concerns due to the critical role these insects play in maintaining biodiversity and supporting food production.

In response to this growing crisis, the European Commission launched the EU Pollinators Initiative in 2018, following a call from the European Parliament. One of the primary objectives of this initiative is to enhance understanding of the causes and extent of pollinator decline. To support this goal, the Safeguard project was established under the EU Horizon programme. Running from 2021 through early 2025, the project aims to provide robust scientific data and tools to inform policy, conservation strategies, and public awareness related to pollinator protection.

The Safeguard project is built around seven core objectives, each designed to deepen our understanding of the key elements driving the pollinator crisis. These objectives cover the full spectrum of inquiry—examining the drivers and pressures behind pollinator declines, assessing their current status, evaluating the ecological and economic impacts, and identifying effective responses. Crucially, Safeguard also explores the underlying values that influence how and why society chooses to protect pollinators. By addressing both scientific and societal dimensions, the project contributes to more informed, holistic, and sustainable approaches to pollinator conservation.

Session 1) The economics of pollination – beyond yield increases: scientific presentations

The conference started with two presentations from Safeguard researchers, **Tom Breeze** a Senior Researcher at the University of Reading and **Georgios Kleftodimos** an Associate Professor in Environmental and Agricultural Economics at CIHEAM Montpellier. The scientific presentations followed by a panel discussion. The panel discussion involved **Athanasios Mandis** from De la Tierra, advisor to Innocent Drinks, **Franc Bogovič** a former MEP and apple producer, **Andreas Ziermann** from the Lake Constance Foundation, and **Casey Woodward** CEO of AgriSound.

1.1. Safeguard presentations

Tom Breeze started by highlighted the ongoing decline of pollinators, driven by land use change, agrochemicals, and climate change, and its economic implications. Pollination supports 75% of major crops—especially high-value horticultural and stimulant crops—and contributes an estimated $235–$577 billion annually to global agriculture. However, pollination deficits are increasing, with notable impacts such as reduced apple yields in Europe.

Managed honeybee populations alone cannot meet rising demand, and countries are exploring alternatives like pollination services markets and mechanical solutions. As crops move through value chains, their reliance on pollination grows, yet downstream actors rarely account for pollinator risks in their decisions. The session stressed the need to engage these actors to support resilient, pollinator-friendly food systems.

Georgios Kleftodimos then examined approaches to managing pollinators through habitat restoration and reducing exposure to harmful pressures like agrochemicals. While EU policies—such as agri-environment schemes and habitat protections—support these efforts, adoption by landowners remains limited due to high implementation costs, uncertain economic returns, and delayed benefits. Many farmers see little direct gain from pollination, especially for crops less dependent on it, and other inputs often play a larger role in influencing yields. However, pollinator conservation can provide broader ecosystem benefits, which are often overlooked but may be more meaningful to farmers.

Looking ahead, EU initiatives like the Nature Restoration Law and pollinator monitoring aim to scale up conservation, though they remain confined to the EU context. At the global level, frameworks such as the Global Biodiversity Framework and the EU Green Deal are pushing for greater private investment and corporate accountability. While green finance is becoming more available, challenges remain around measuring biodiversity, communicating benefits, and creating standards that ensure trust and impact.

1.2. Panel discussion

Moderator: Evelyn Underwood (Head of the Biodiversity Programme at IEEP)

The panel discussion underscored the value of pollinators to agriculture, particularly in the context of global food supply chains. Athanasios, representing Innocent Drinks, emphasized that 86% of their ingredients depend on pollinators, making their business directly vulnerable to pollination deficits and climate-induced yield shocks. This dependency translates into real commercial risk, especially in a market where there is little flexibility to absorb fluctuations in fruit quality or price. Similarly, Casey, from AgriSound, highlighted how pollinator-monitoring devices deployed in the field can help quantify pollinator presence, showing not only improvements in yield and shelf life but also providing concrete data for retailers and farmers.

These devices are often paid for by supply chain actors such as retailers, offering farmers access to data at no cost. Casey echoed this need for data, stressing that growers increasingly require a demonstrable return on investment to adopt pollinator-friendly practices.

Another central theme was the misalignment between sustainability goals and market dynamics. Franc, a long-time apple farmer and former MEP, noted that while farmers are willing to adopt sustainable methods, they are often caught in a system that pushes prices down. He pointed out that although consumers in Europe spend around 12% of their income on food, farmers see only about 3% of that expenditure. Increasing that share even slightly could unlock major funding for sustainable practices.

Policy mechanisms and incentive structures emerged as crucial tools for change. Andreas from the Lake Constance Foundation shared an example of a successful collaboration with REWE, one of Germany's largest retailers. The project involved 540 farmers across the country and included the creation of flower strips, nesting sites, and habitat features to support wild pollinators. Retailers paid for implementation and advice, and the initiative is now integrated into REWE's sustainability efforts. Franc elaborated on the policy landscape in Slovenia, where integrated pest management (IPM) has been in place since before the country joined the EU. These practices have become increasingly embedded in subsidy conditions under the Common Agricultural Policy (CAP), gradually shifting from voluntary to standard requirements. Casey and Athanasios both emphasized the need for regulatory reform to ensure that pollinator-friendly farming becomes a market baseline, rather than an optional premium.

The panel also discussed the role of wild pollinators, which are often overshadowed by the focus on honey bees. Andreas stressed their ecological importance, noting that wild bees are active in lower temperatures and serve as indicators of healthy ecosystems. In one four-year monitoring project in Germany, the number of wild bee species doubled, including 26 threatened species, following habitat and biodiversity interventions. This response came after an audience question raised concerns about balancing the needs of wild and managed bee populations.

Farmer engagement and education were seen as foundational to any long-term solution. Franc shared how, in Slovenia, the strong presence of a national beekeeping association—representing over 11,000 small-scale beekeepers—has helped build awareness and accountability in farming communities. He highlighted initiatives like the "Honey Breakfast," a school-based education program which reaches hundreds of thousands of people annually. A question was raised as to how to involve farmer unions more seriously in the pollinator conversation, pointing out gaps in engagement at the regional level. Panelists agreed that collective action, inclusive dialogue, and clear communication of benefits are critical. Certification systems and advisory services, such as those provided through Global GAP or local schemes, were mentioned as effective tools for spreading awareness and embedding sustainability practices.

Labeling and consumer communication were also discussed at length. Anastasios noted that while regulatory standards and eco-labels can raise awareness, they often fall short of changing consumer behavior at the checkout. Many consumers express concern for bees but hesitate to pay more for certified sustainable products. Casey added that brands currently use

pollinator protection as a market differentiator, but in the long term, such practices must become non-negotiable through regulation.

Finally, the need for better data and research was emphasized. Casey asked how researchers could help make the economic value of pollinators more visible and actionable for farmers. Tom Breeze responded that while there are methods to calculate pollination deficits, data collection is still highly manual and inconsistent. More robust national datasets and partnerships with environmental ministries could facilitate predictive modeling and better field validation using machine learning tools.

Session 2) Farming for pollinators – environmental and policy perspectives: scientific presentations

The second session started with two presentations from Safeguard researchers, **Corina Maurer** from Agroscope in Switzerland and **Andree Cappellari** a researcher at the University of Padua. The scientific presentations followed by a panel discussion. The panel discussion involved **Lorenzo Cimatti** representing Granlatte & Granarolo, **Alicia Clements** from the Birr Castle Bee Estate, **Andreas Gumbert** DG ENV, the EU Commission, and **Pier Luigi Remoli** representing Associazione Giovani Imprenditori Agricoli.

1.3. Safeguard presentations

Corina Maurer presented findings on how various semi-natural habitats support wild bee diversity in agricultural landscapes. The study used species-habitat networks to analyze wild bee communities across five habitat types: extensively and intensively managed meadows, flower strips, hedgerows, and forest edges. Results showed that each habitat type supported distinct bee communities, with their importance shifting over the course of the season. Extensively managed meadows were especially vital for rare, red-listed bee species, while crop-pollinating bees also benefited from flower strips. The key driver across all habitats was flower diversity. The study underscores the importance of conserving a variety of semi-natural habitats to maintain diverse and resilient wild bee communities throughout the agricultural landscape.

In a related study, **Andree Cappellari** emphasized the need for conservation strategies that consider both wild pollinator protection and the broader context of ecosystem services. The study highlighted that semi-natural habitats, particularly calcareous grasslands, support the highest levels of pollinator diversity and abundance while also enhancing multiple ecosystem services. In contrast, cereal crop fields demonstrated low performance in both areas. The research suggests that restoring semi-natural habitats and managing crop field margins can effectively support wild pollinators and deliver multiple environmental benefits. However, localized improvements for pollinators alone were not sufficient to boost a broader range of ecosystem services, pointing to the importance of integrated landscape-level conservation efforts.

1.4. Panel discussion

Moderator: Laure-Lou Tremblay (Policy Analyst at IEEP)

The panel discussion explored the vital role of agriculture in supporting biodiversity and the practical steps needed to recover pollinators. Lorenzo Cimatti from the Granlatte & Granarolo in Italy explained that their biodiversity project emerged after a materiality assessment in 2022 identified biodiversity as a priority. The project, in collaboration with CONAPI, Europe's largest beekeeping cooperative, linked the dairy supply chain with beekeepers. Farmers were encouraged to plant nectar-rich flowers to support pollinators, thereby creating a positive synergy between dairy farming and pollinator conservation. This initiative not only benefits biodiversity but also promotes environmental stewardship and raises awareness among consumers about the importance of sustainable farming practices.

Alicia from Birr Castle Estate in Ireland shared her farm's long-standing commitment to pollinator conservation. Over the past four years, they have expanded their efforts beyond wildflower meadows to include hedgerows, trees, and other habitats crucial for pollinators. By creating a conservation area for native Irish honeybees, Alicia's team has contributed to preserving local pollinators. They've found that native bees nest in places like rotten wood and hedgerows, making it clear that supporting pollinators requires considering the entire landscape. This holistic approach to conservation aligns with national biodiversity goals and serves as an example for others to follow.

Andreas from DG ENVI provided insights into the policy framework supporting pollinator recovery. He explained that the EU's Nature Restoration Regulation requires Member States to develop national restoration plans for pollinators, though each country has the flexibility to decide how to implement and finance these plans. While no new EU funds are specifically dedicated to pollinator recovery, Member States can tap into existing financial instruments, such as the Common Agricultural Policy (CAP), the Recovery and Resilience Facility, and the LIFE programme. Andreas emphasized that while funding for pollinator recovery is crucial, national innovation and planning are key to ensuring effective use of these resources.

Alicia further elaborated on how EU policies are being translated into practical outcomes on the ground in Ireland. Her farm benefits from the new Agri-Climate Rural Environment Scheme (ACRES), which rewards farmers based on the biodiversity content of their land. This system encourages farmers to adopt sustainable practices that directly benefit pollinators and the broader environment. Alicia shared an interesting finding from their farm: meadows that received some grazing were more biodiverse than those left ungrazed, highlighting the importance of balancing different land management practices to optimize biodiversity.

The discussion also touched on the challenges faced by young farmers, with Pier Luigi Reoli from the Association of Young Farmers in Italy offering a perspective from the next generation. Many young people are drawn to farming due to a passion for sustainability and eco-friendly practices, along with a strong desire to reconnect with tradition and rural life. However, challenges like the high cost of land, limited access to credit, and the risks posed by extreme weather events make it difficult for young farmers to succeed. Despite these obstacles, young farmers are finding innovative ways to integrate sustainability with traditional practices, producing high-quality local food products.

When it comes to funding, Andreas pointed out the significant gap in the financial resources needed to restore nature across the EU, with estimates showing a €48 billion annual shortfall for biodiversity restoration. He emphasized the importance of improving synergies between different funding instruments and encouraging private sector involvement through mechanisms like nature credits, which could create new opportunities for investment in biodiversity. Alicia also raised concerns about the risk of "greenwashing" in private sector initiatives, stressing the need for credible and transparent systems before engaging with these programs.

Lastly, the panel also tackled the issue of bureaucracy in eco-schemes, with many farmers reporting that complex administrative processes hinder participation. Andreas acknowledged this challenge and discussed efforts to simplify procedures, especially in preparation for the new CAP post-2027. However, he stressed that simplification should not come at the cost of environmental effectiveness. Alicia highlighted the role of technology in reducing the administrative burden, noting that Ireland's National Biodiversity Data Centre and other digital tools have made it easier for farmers to track and report biodiversity on their land.

References

Maurer, C., Sutter, L., Martínez-Núñez, C., Pellissier, L., & Albrecht, M. (2022). Different types of semi-natural habitat are required to sustain diverse wild bee communities across agricultural landscapes. Journal of Applied Ecology, 59(10), 2604-2615.

Cappellari, A., Ortis, G., Mei, M., Paniccia, D., Carrossa, E., Eccheli, C., ... & Marini, L. (2023). Does pollinator conservation promote environmental co-benefits?. *Agriculture, Ecosystems & Environment*, *356*, 108615.

Annex

Time	Session	Speakers
9:30-9:45	Policy context Introduction to the first session	Andreas Gumbert, EU Pollinators Initiative Officer, DG ENV, EU Commission Evelyn Underwood, Institute for European Environmental Policy
9:45-10:20	The economics of pollination – beyond yield increases: scientific presentations	Scientific presentations from Tom Breeze (University of Reading), Georgios Kleftodimos (Mediterranean Agronomic Institute of Montpellier)
10:20-11:00	The economics of pollination – beyond yield increases: panel discussion	Athanasios Mandis (De la Tierra, advisor to Innocent Drinks) Frank Bogovič (former MEP and apple producer) Andreas Ziermann (Lake Constance Foundation) Casey Woodward (Agrisound)
11:30-11:40	Introduction to the second session and presentation of speakers	Laure-Lou Tremblay, Institute for European Environmental Policy
11:45-12:20	Farming for pollinators – environmental and policy perspectives: scientific presentations	Corina Maurer (Agroscope, Switzerland) Andree Cappellari (University of Padua)
12:20-12:45	Farming for pollinators – environmental and policy perspectives: panel discussion	Lorenzo Cimatti (Granlatte & Granarolo) Alicia Clements (Birr Castle Bee Project) Andreas Gumbert (DG ENV, EU Commission) Pier Luigi Remoli (Associazione Giovani Imprenditori Agricoli - AGIA)
12:45-13:00	Final conclusions	
13:00-14:00	Networking Lunch	