

#### **MISSION**

Safeguard aims to substantially contribute to reversing the loss of wild pollinators across Europe by expanding current assessments of the status and trends of European wild pollinators including bees, butterflies, flies and other pollinating insects.

#### **PARTNERS**

25 institutions from 15 countries

#### **DURATION**

4.5 years September 2021 – February 2026



#### **OBJECTIVES**

- Re-assessment of the status and trends of European wild pollinators
- **Predict the impacts of drivers and pressures** on European wild pollinators
- Quantify consequences for multiple values including pollination and co-benefits associated with shifts in pollinator communities
- **Quantify the effectiveness of multiple** interventions to benefit pollinators
- Co-develop an integrated assessment framework able to assess and address pollinator declines
- 6 Inform national, European, and global policies by providing relevant and timely evidence
- 7 Increase awareness and knowledge of wild pollinators and their societal values



#### **LAUNCHED**

August 2024

#### **WHAT'S INSIDE?**

- Extensive knowledge library, including papers, policy briefs and stakeholder summaries
- Interactive species distribution map by Safeguard
- Links to relevant pollinator-related initiatives and projects and many more...

#### **UPCOMING**

Buzzing tables, IAF & other maps, data & outputs

Safeguard
Knowledge
Exchange Hub





# EU action on pollinators

Andreas Gumbert European Commission



## Nature Restoration Regulation

- Legally binding target to reverse the pollinator decline
- MS to monitor abundance & diversity of pollinator species
- EC to establish a monitoring method (Delegated Act)
- Science-based and standardised monitoring method
- Assessment based on annual data, representative across MS territories
- Restoration plans by September 2026





#### Revised EU Pollinators Initiative

42 actions across 3 pillars:

- I. Improving knowledge
- II. Tackling causes of pollinator decline
- III. Mobilising society and strategic planning





# I) Improving knowledge

- ➤ EPIC projects: EUR 3 million for training of new bee/hoverfly/butterfly taxonomists
- ➤ Horizon Europe (selection):

BeeGuards & Better-B: competition wild & managed pollinators!

Valor & Butterfly: dependence of society on pollinators

PollinEra & and WildPosh: pesticide risk assessment

RestPoll: restoration of pollinators in agriculture

Coming up: Pollinators and soil health





#### I) Improving knowledge

- >STING report on refined EUPoMS
- **►EMBAL** 2022/23 survey finalised
- **►INSIGNIA** survey 2023 finalised (Final conference)
- ➤ Red List of Hoverflies published



#### Final Conference

#### INSIGNIA

Preparatory Action for monitoring of environmental pollution using honey bees



HIGH-LEVEL SEGMENT
(EUROPEAN PARLIAMENT)

5 December 2024 10:00-12:00

Online attendance only: https://europeanparliament.webex.com/e uropeanparliament/i.php?MTID=m82308 7403d18c1eaf9862abb479435de CONFERENCE

5 December 2024 13:30-18:00

Charlemagne building, Room Lord Jenkins Rue de la Loi 170, 1040 Bruxelles, Belgium

Webstreamin

https://webcast.ec.europa.eu/insigniameeting



#### II) Tackling pollinator decline

- ➤ Publication and implementation of <u>3 Action Plans</u>
- PollHab project: pollinators typical of habitats protected under the Habitats Directive
- Agrowise project: Integrated Pest Management
- Options for Farmland Pollinator Indicator (STING)
- ➤ EU CAP Network: pollinator workshop June 2024





# III) Mobilising society & strategic planning

- **EUBP Working Group on Pollinators**
- > FAO global platform on pollinators
- Youth for Pollinators EUR 4.5 million

Young Citizens Assembly on Pollinators: (Q3 2025 - Q1 2026)

Buzzing Schools (2025-2027)

Small Grants Fund for Youth Action on Pollinators (2025-2026)



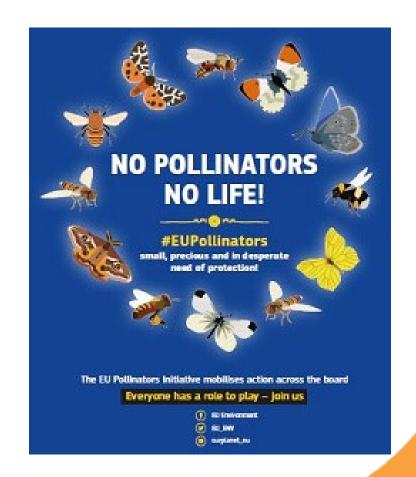


#### Thank you!

#### **#EUPollinators**

Small, precious and in need of protection!

**EU Pollinator Information Hive** 





# SAFEGUARD

Safeguarding European wild pollinators

# The Economics of Pollination – Beyond Yield Increases

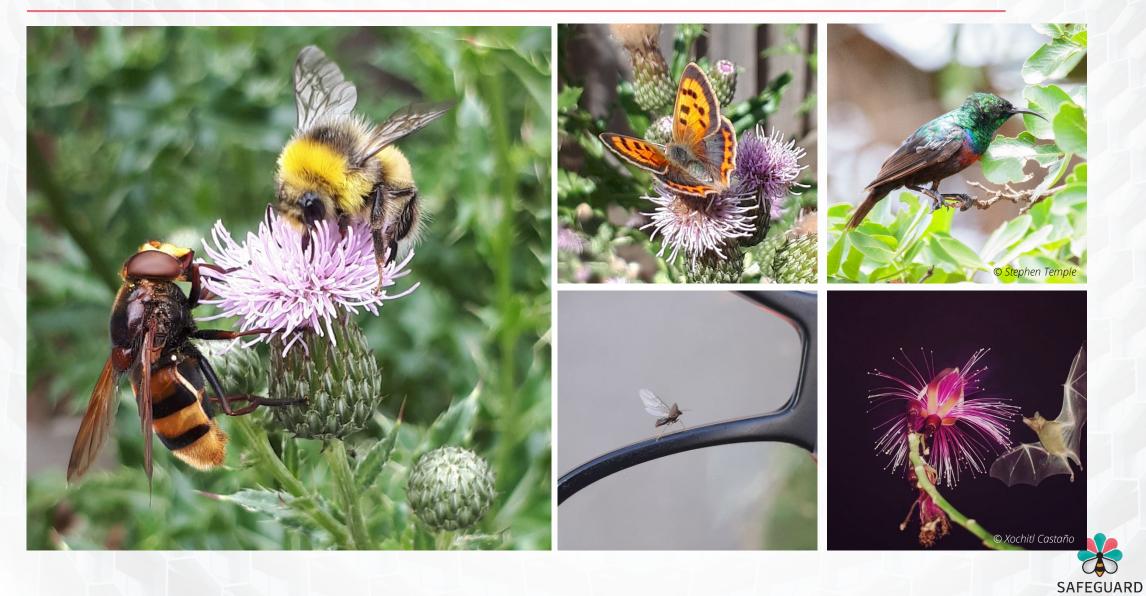
Tom Breeze & Georgios Kleftodimos

ELO Forum 02/04/25 Brussles





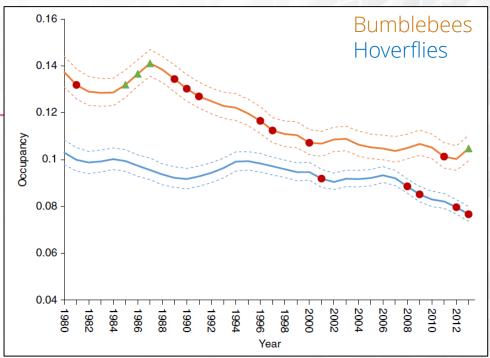
# **Pollinators**





#### **Pollinator Declines**

- Bee and hoverfly species diversity has declined across Europe and North America.
- Evidence indicates that land use change, agrochemical use and climate change are the main drivers.
- Lower diversity means that there is a greater risk of shocks to pollination services.
- Beekeepers are facing growing pressures from disease and rising costs











#### **Crop Pollination**

Pollination affects the economic output of 75% of the world's most common crops, increasing yield, quality and shelf life.

- Not important for cereal crops
- Very important for high-value horticulture, spices and stimulant crops (e.g. coffee)

Levels of pollination are affected by the **behaviour**, **abundance** and **diversity** of pollinator species.

Pollinator diversity is important for **resilience**:

- Crop rotations and new crops
- Sudden shocks to key pollinators
- Long-term protection from climate change







#### **Pollination Deficits**

Globally, an estimated **4.7% of crop production** is lost to inadequate pollination

Pollination deficits are widely observed in European apple orchards, costing growers millions each year.

Many EU countries are starting to create pollination services markets or searching for mechanical replacement

- South-West France → Pollination services market for sunflower production
- North-East Greece → Pollination services market and mechanical replacement for kiwi production
- Gobi desert China → Breeding new bumblebees for Tomato pollination







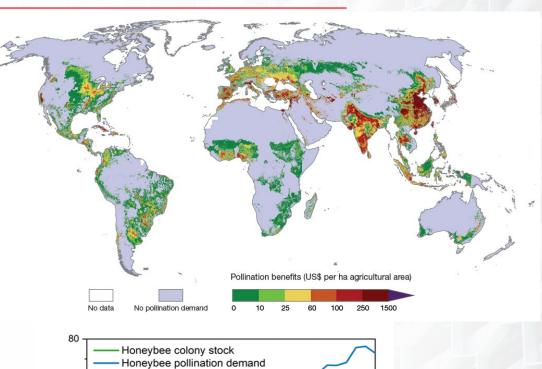
# **Valuing Pollinators**

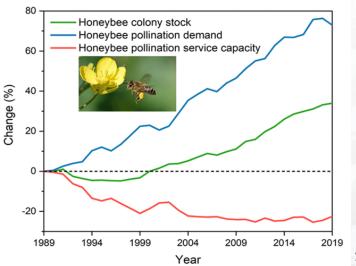
The total global value of crop pollination is estimated at \$235-\$577bn/year

Area of pollinator dependent crops has grown by >70% since 1961

Global populations of managed honeybees are not adequate to supply pollination alone

These values represent the value to **primary** agricultural production only...







Europe imports >€200M of raw pollinated crops annually

- Coffee
- Soya
- Rapeseed
- Cocoa
- Tomatoes

Pollinator losses could significantly increase prices and reduce producer profits around the world.

This can have a significant effect on the availability & affordability of nutritious food.

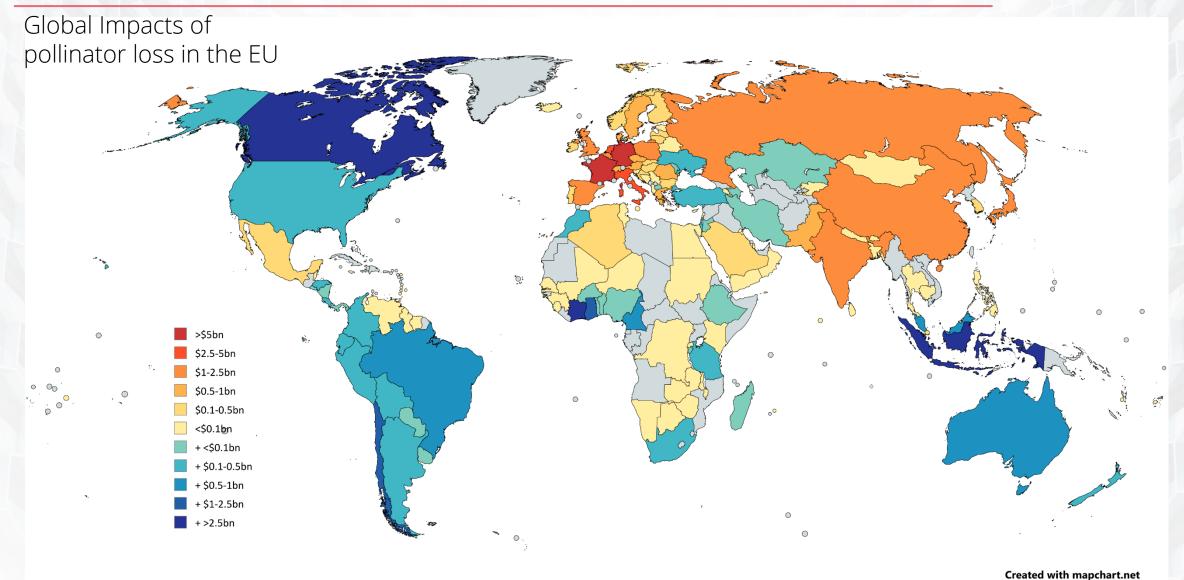
Pollinator shocks are a threat to global food systems

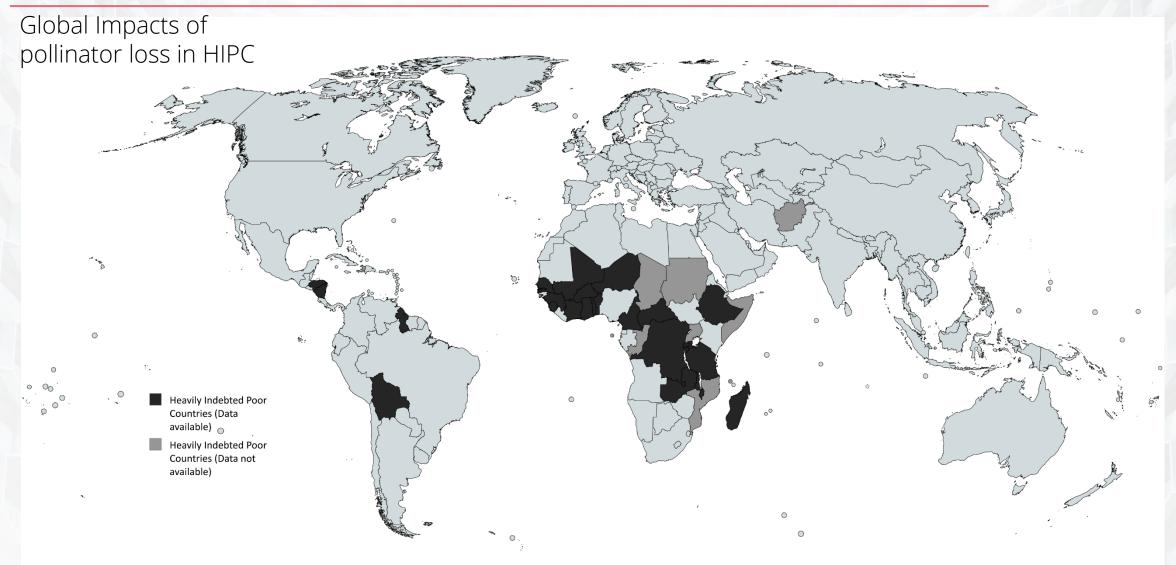




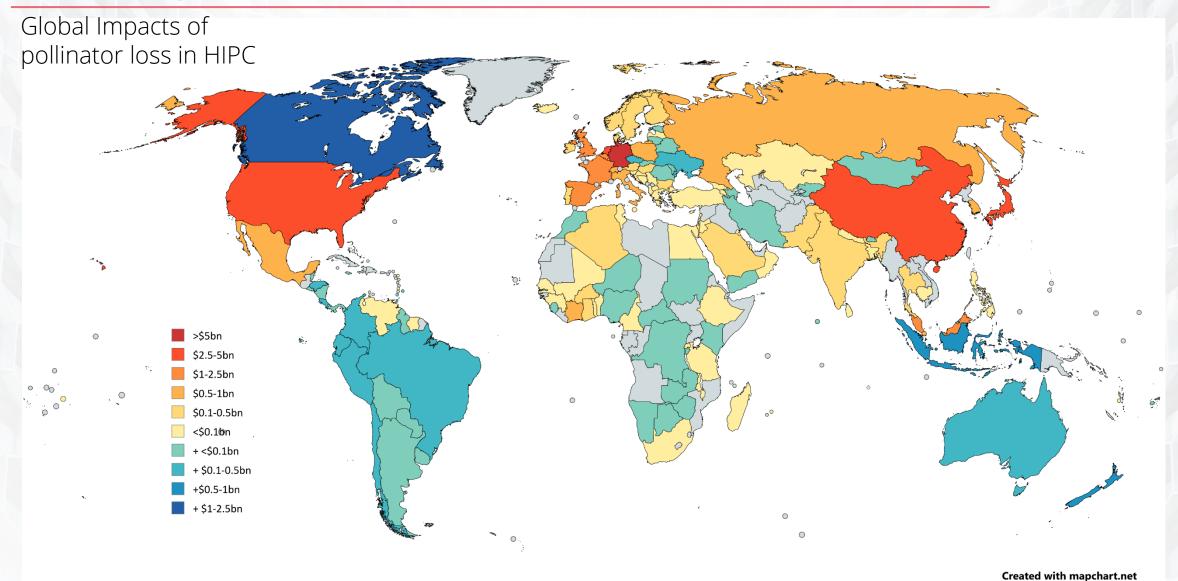








Created with mapchart.net



#### **Valuing Pollinators in Value Chains**

Crops are not just traded but **transformed** into higher value products by value chain actors

The value of pollination will increase along these chains with higher benefits to processors and retailers.

The **risks** these actors face from pollinator losses are not widely considered in their decision making

Different actors will also produce different pressures on pollinators

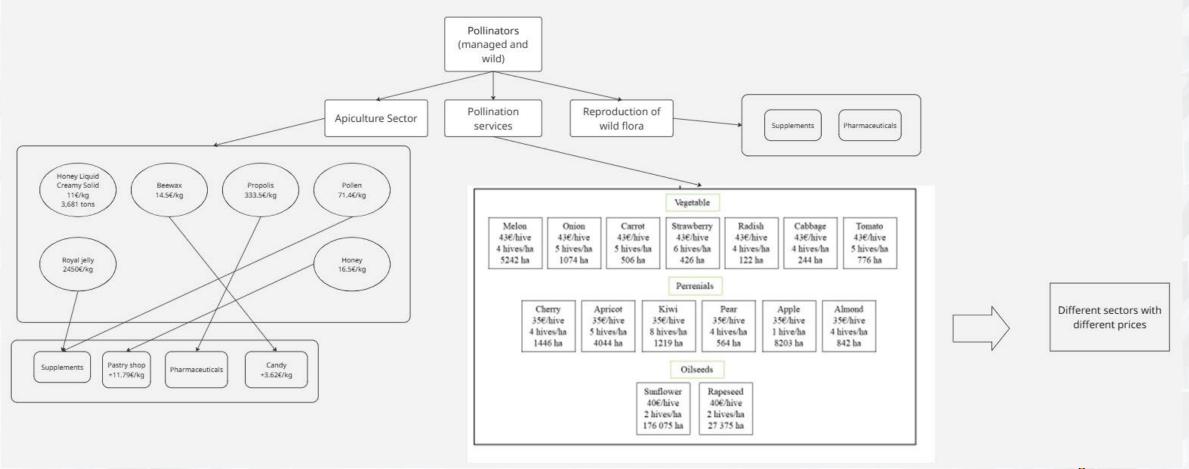
- Directly through production practices
- Indirectly through demand and purchase practices





# **Valuing Pollinators in Value Chains**

[Occitanie Region – France: Value chain]



#### **Managing Pollinators**

 Pollinators can be managed through maintaining or restoring resources and through reducing their exposure to pressures such as agrochemicals.



Alternative farming systems



Targeted habitat interventions



Protected Areas



#### **Managing Pollinators**

The EU has several policies that <u>can</u> support pollinators



Agri-Environment Schemes



Habitat protections



Bee health programmes

• + Eco-Schemes depending on the country: France --> €45.46/ha: ≥7% of farm & ≥4% of arable land in pollinator-friendly features (e.g., hedgerows, flower strips).

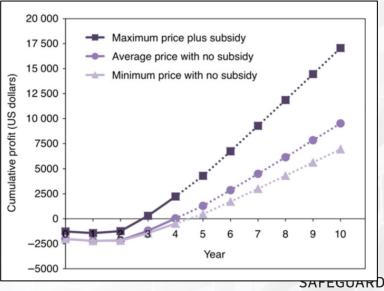


# **Costs of Managing Pollinators**

- Implementing these measures has many possible costs for land owners
  - Direct costs from undertaking new activities
  - Opportunity costs from removing land or accepting lower yields
  - Transactional costs from changing land use practices
- The economic benefits to farmers are uncertain
  - Many farmers do not benefit from pollination
  - Many crops only benefit to a modest extent
  - Inputs for many crops may have a stronger influence on yield
  - It may take years to see a return on investment

Despite years of evidence, uptake is limited

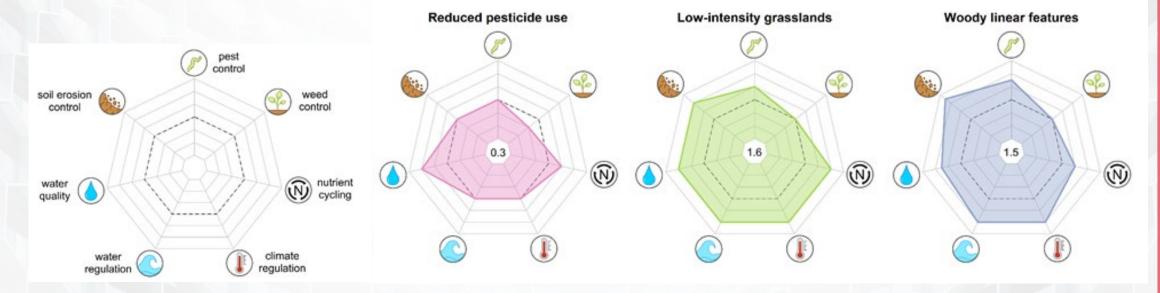




## **Moving Forward**

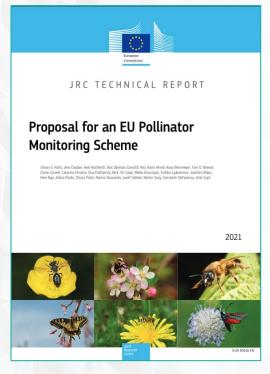
- Pollinator conservation can have significant co-benefits to other ecosystem services
- Many of these are not well studied or communicated but matter more to farmers





#### **Moving Forward**

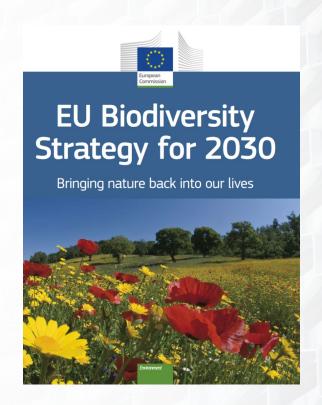
Nature Restoration Regulation



Pollinator Monitoring



Targets for pollinator conservation



Improving & reestablishing habitats

This is only within the EU – not the whole food system



# **Moving Forward**

- The Global Biodiversity Framework and EU Green Deal want to increase private investment and accountability around biodiversity impacts.
- Significant amounts of Green Finance are now available for companies to invest in nature.
- For many companies, investing in pollinator conservation should be cost-effective but...
  - Biodiversity is hard to measure and explain
  - Costs are obvious, but benefits are unclear
  - There are few standards to ensure trust and effectiveness







#### **Upcoming Research**

- Developing business facing metrics to support mainstreaming pollinators into business risks
- Develop methods for companies to estimate the economic benefits of pollinators to their businesses
- Identify pathways, barriers and opportunities to engage value chain actors to support pollinator conservation.
- Develop new business models incorporating restoration measures and market channels
- Explore new market tools like ecolables and certification standards that can provide trust and transparency







#### **Questions to you**

1) How can we capture the value of pollinators in a way that is useful to food businesses and other value chain actors?

2) How can we use this type of economic valuation to build links between land owners and other value chain actors?

3) What can public institutions like the EU do to better communicate and mainstream these values?



#### Thanks for your attention



# SAFEGUARD

