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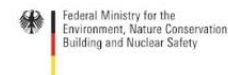
BES-Net Trialogue on Pollinators, Food Security and Rural Development

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BES-Net is hosted by the United Nations Development Programme (UNDP) and implemented through partnerships with the German Ministry for the Environment, Nature Conservation, Building and Nuclear Safety (BMUB), the Norwegian Environment Agency and SwedBio at the Stockholm Resilience Centre.



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Policy options identified by the IPBES Pollination Assessment

Within **Part C** of the **Summary for Policymakers**, which corresponds to key messages **14-23**, there are drivers and response options for reducing risks to pollinators and pollination



The assessment report on
**POLLINATORS,
POLLINATION AND
FOOD PRODUCTION**
SUMMARY FOR POLICYMAKERS



Table SPM. 1

There are **7 broad strategies** (under 3 main ambitions), linked to actions, for responding to risks and opportunities including a range of solutions that draw on indigenous and local knowledge.

These strategies can be adopted in parallel and would be expected to reduce risks associated with pollinator decline



Table SPM. 1

Improving current conditions for pollinators and/or maintaining pollination

- **Manage immediate risks**
- **Utilize immediate opportunities**

Transforming agricultural landscapes

- **Ecologically intensify agriculture through active management of ecosystem services**
- **Strengthen existing diversified farming systems**
- **Invest in ecological infrastructure**

Transforming society's relationship with nature

- **Integrate peoples' diverse knowledge and values into management**
- **Link people and pollinators through collaborative, cross sectoral approaches**



Ambition	Strategy	Examples of responses	Chapter references
Improving current conditions for pollinators and/or maintaining pollination	Manage immediate risks	<ul style="list-style-type: none"> • Create uncultivated patches of vegetation such as field margins with extended flowering periods 	2.2.1.1, 2.2.1.2, 2.2.2.1.1, 2.2.2.1.4, 6.4.1.1.1, 5.2.7.5, 5.2.7.7, 5.3.4
		<ul style="list-style-type: none"> • Manage blooming of mass-flowering crops* 	2.2.2.1.8, 2.2.3, 6.4.1.1.3,
		<ul style="list-style-type: none"> • Change management of grasslands 	2.2.2.2, 2.2.3, 6.4.1.1.7
		<ul style="list-style-type: none"> • Reward farmers for pollinator-friendly practices 	6.4.1.3, 5.3.4
		<ul style="list-style-type: none"> • Inform farmers about pollination requirements 	5.4.2.7, 2.3.1.1, 6.4.1.5
		<ul style="list-style-type: none"> • Raise standards of pesticide and genetically-modified organism (GMO) risk assessment 	2.3.1.2, 2.3.1.3, 6.4.2.1.1, 6.4.2.2.5
		<ul style="list-style-type: none"> • Develop and promote the use of technologies that reduce pesticide drift and agricultural practices that reduce exposure to pesticides 	2.3.1.2, 2.3.1.3, 6.4.2.1.3, 6.4.2.1.2
		<ul style="list-style-type: none"> • Prevent infections and treat diseases of managed pollinators; regulate trade in managed pollinators 	2.4, 6.4.4.1.1.2.2, 6.4.4.1.1.2.3, 6.4.4.2
		<ul style="list-style-type: none"> • Reduce pesticide use (includes Integrated Pest Management, IPM) 	6.4.2.1.4
	Utilize immediate opportunities	<ul style="list-style-type: none"> • Support product certification and livelihood approaches 	5.4.6.1, 6.4.1.3
		<ul style="list-style-type: none"> • Improve managed bee husbandry 	2.4.2, 4.4.1.1, 5.3.5, 6.4.4.1.3
		<ul style="list-style-type: none"> • Develop alternative managed pollinators* 	2.4.2
		<ul style="list-style-type: none"> • Quantify the benefits of managed pollinators 	6.4.1.3, 6.4.4.3
<ul style="list-style-type: none"> • Manage road verges* 		2.2.2.2.1, 6.4.5.1.4, 6.4.5.1.6	
<ul style="list-style-type: none"> • Manage rights of way and vacant land in cities to support pollinators 		2.2.2.3, 6.4.5.1.4, 6.4.5.1.6, 6.4.5.4	

For beekeepers

Examples

- Create uncultivated patches of vegetation such as field margins with extended flowering periods
- Reduce pesticide use (includes Integrated Pest Management, IPM)
- Improve managed bee husbandry
- Support diversified farming systems



- UNEP/CBD/SBSTTA/20/9 (Implications of the IPBES Assessment on Pollinators, Pollination and Food Production for the Work of the Convention).
- **SBSTTA adopted 15 recommendations**
- **COP-13 adopted** decision XIII/15 on the Implications of the IPBES assessment on pollinators, pollination and food production for the work of the Convention, in which the Conference of the Parties **welcomed** the IPBES summary for policymakers of the thematic assessment on pollinators, pollination and food production and **endorsed** its key messages.



Ten polices for pollinators

1. Raise pesticide regulatory standards.
2. Promote integrated pest management (IPM).
3. Include indirect and sublethal effects in GM crop risk assessments.
4. Regulate movement of managed pollinators.
5. Develop incentives, such as insurance schemes, to help farmers benefit from ecosystem services instead of agrochemicals.
6. Recognize pollination as an agricultural input in extension services.
7. Support diversified farming systems.
8. Conserve and restore “green infrastructure” (a network of habitats that pollinators can move between) in agricultural and urban landscapes.
9. Develop long-term monitoring of pollinators and pollination.
10. Fund participatory research on improving yields in organic, diversified, and ecologically intensified farming.



A bumblebee (*Bombus terrestris*) collecting pollen from a blueberry flower. Unregulated trade in bumblebees puts them outside their native range.

POLICY FORUM

BIODIVERSITY

Ten policies for pollinators

What governments can do to safeguard pollination services

By Lynn V. Dicks,¹ Blandina Viana,² Ricardo Bommarco,³ Berry Bros,⁴ Maria del Coro Arimondi,⁵ Saul A. Cunningham,⁶ Leonardo Galeotto,⁷ Rosemary Hill,⁸ Ariadna V. Lopes,⁹ Caimen Pires,¹⁰ Hisamoto Yaki,¹¹ Simon G. Potts¹²

Earlier this year, the first global thematic assessment from the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) evaluated the state of knowledge about pollinators and pollination (1, 2). It confirmed evidence of large-scale wild pollinator declines in northwest Europe and North America and identified data shortfalls and an urgent need for monitoring elsewhere in the world. With high-level political commitments to support pollinators in the United States (3), the United Kingdom (4), and France (5); encouragement from the Convention on Biological Diversity's (CBD's) scientific advice

body (6); and the issue on the agenda for next month's Conference of the Parties to the CBD, we see a chance for global-scale policy change. We extend beyond the IPBES report, which we helped to write, and suggest 10 policies that governments should seriously consider to protect pollinators and secure pollination services. Our suggestions are not the only available responses but are those we consider most likely to succeed, because of synergy with international policy objectives and strategies or formulation of international policy creating opportunities for change. We make these suggestions as independent scientists and not on behalf of IPBES.

RISK REDUCTION

Pesticides are the most heavily regulated of the interacting drivers of pollinator declines (7). Risk assessment and use regulation can reduce pesticide hazards at national scales (2), yet such regulation is uneven globally. Many countries do not have national pesti-

and the European Union's (EU's) Sustainable Use of Pesticides Directive (8). IPM combines pest monitoring with a range of pest control methods, such as crop rotation, field margin management, and biological control; pesticides are used as a last resort, only when other strategies are insufficient (1). IPM can decrease pesticide use and reduces risks to nontarget organisms, so it should be linked to pollinator health and pollination.

Genetically modified (GM) crops pose potential risks to pollinators through poorly understood sublethal and indirect effects (1). For example, GM herbicide-tolerant crops lead to increased herbicide use, reducing the availability of flowers in the landscape, but consequences for pollinators are unknown. GM crop risk assessments in most countries do not capture these effects. They evaluate only direct effects of acute exposure to proteins expressed in the GM plants, usually in terms of the dose that kills 50% of adults (LD₅₀), and only for honey bees, not other pollinators. International guidance to improve GM organism risk assessment is being developed under the CBD's Cartagena Protocol on Biosafety (2); this presents an opportunity to encourage inclusion of indirect and sublethal effects on a range of pollinator species.

There are substantial risks from movement of managed pollinators around the world (1). Managed pollinators, including newly domesticated species, offer opportunities to grow businesses and improve pollination services. Commercial bumblebee trade has grown dramatically, leading to invasions of *Bombus terrestris* beyond its native range and increasing the risk of disease transfer to native wild bee populations, potentially including other bee species (3). The issue of invasive species has been highlighted in the UN Sustainable Development Goals and the CBD's Strategic Plan for Biodiversity, which parties to the CBD are implementing in national strategies and action plans. This creates momentum and opportunity for regulators to consider limiting



For more information:



Dicks et al., 2016. Ten polices for pollinators. Science 354 (6315) 975-976

www.ipbes.net

<https://www.ipbes.net/deliverables/3a-pollination>

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THANK YOU.



For further information, please contact:

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