联合国粮食及农业组织 | Food and Agriculture Organization of the United Nations | Organisation des Nations Unies pour l'alimentation et l'agriculture | Продовольственная и сельскохозяйственная организация Объединенных Наций | Organización de las Naciones Unidas para la Alimentación y la Agricultura | منظمة الأغذية والزراعة للأمم المتحدة

COMMISSION ON GENETIC RESOURCES FOR FOOD AND AGRICULTURE

Item 9.3 of the Provisional Agenda

Nineteenth Regular Session

Rome, 17–21 July 2023

PROGRESS REPORT ON THE IMPLEMENTATION OF THE INTERNATIONAL INITIATIVE FOR THE CONSERVATION AND SUSTAINABLE USE OF POLLINATORS

TABLE OF CONTENTS

I. INTRODUCTION

1. The International Initiative for the Conservation and Sustainable Use of Pollinators (International Pollinators Initiative) was formally established in 2000 as one of the cross-cutting initiatives within the programme of work on agricultural biodiversity of the Convention on Biological Diversity (CBD) to promote the conservation, restoration and sustainable use of pollinator diversity in agriculture and related ecosystems, including by monitoring pollinator decline, addressing the lack of taxonomic information on pollinators and assessing the economic value of pollination.[1] The main goal of the International Pollinators Initiative is to promote coordinated action worldwide to conserve managed and wild pollinators, and to encourage the development and implementation of sustainable agricultural practices for the conservation of ecosystem services provided by pollinators.

2. At its 14th meeting, the Conference of the Parties (COP) to the CBD adopted the Plan of Action 2018−2030 for the International Pollinator Initiative and invited the Food and Agriculture Organization of the United Nations (FAO) to facilitate its implementation.[2]

3. As in the case of the International Initiative for the Conservation and Sustainable Use of Soil Biodiversity,[3] FAO facilitates the implementation of the International Pollinators Initiative by providing guidance and technical advice to countries and supporting decision-making processes. Owing to the cross-cutting nature of pollinators and pollination, the work of several different units in FAO contributes to the implementation of the International Pollinators Initiative.

4. This information document provides a progress report on the work carried out by FAO to facilitate the implementation of the International Pollinators Initiative's Plan of Action 2018–2030 under CBD Decision 14/6. It provides an update of the main activities undertaken since the 14th meeting of the COP to the CBD and is organized according to the elements of the Plan of Action. An earlier version of the document was provided to the Fifteenth Meeting of the Conference of the Parties to the CBD.[4]

II. ENABLING POLICIES AND STRATEGIES

5. The Commission on Genetic Resources for Food and Agriculture (Commission) considered, at its Eighteenth Regular Session, a study on the *Sustainable use and conservation of invertebrate pollinators*.[5] It noted the need for follow-up actions in response to the findings and recommendations of the study and invited countries, and requested FAO, to ensure that the findings are taken into consideration in their work relevant to pollinators and in the implementation of the International Pollinators Initiative. In this regard, the Commission recommended increased capacity building and training of farmers and other relevant stakeholders in order to promote agricultural practices that favour sustainable pollination management and/or assess how pollinators could be used to foster sustainable production.[6]

6. The Commission also requested FAO to continue its support to the International Pollinators Initiative and collaborate with other pollinator initiatives and networks, such as Promote Pollinators, and encourage increased engagement (see paragraph 8). It also requested FAO to consider the need for, and modalities of, a global pollinator platform to address pollinators and pollination services at the global level to facilitate and coordinate international, regional and national action, promote capacity building, support reference studies at regional and national levels, collect and share information on the conservation and sustainable use of pollinator genetic resources and agree on global scale activities in line with, and in support of, existing activities and initiatives, in particular the International Pollinators

[1] COP5 Decision V/5.
[2] Decision CBD/COP/DEC/14/6.
[3] See CGRFA-18/21/11.3/Inf.2.
[4] CBD/COP/15/INF/24
[5] CGRFA-18/21/11.1/Inf.1.
[6] CGRFA-18/21/Report.

Initiative and any further work on pollinators that the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) may undertake.[7]

7. FAO has been collaborating with Promote Pollinators (previously the Coalition of the Willing on Pollinators), which was established in 2016 and currently has 31 countries as Members.[8] Promote Pollinators is a coalition of countries and observers who mutually support each other in implementing pollinator-related actions and policy measures to conserve pollinators, for example through helping develop and provide guidance on national pollinator strategies or on platforms for sharing and exchanging knowledge and information and raising awareness. FAO has helped Promote Pollinators develop several webinars within their webinar series, including on policies and legislation on the use of pesticides and integrated pest management. FAO will continue to collaborate with, and support, Promote Pollinators by presenting at, or participating in, webinars and/or providing technical guidance to the Promote Pollinators Secretariat.

8. The Secretariat of the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade is jointly served by the United Nations Environment Programme (UNEP) and FAO. Given its specific expertise, FAO leads on all technical matters related to pesticides and severely hazardous pesticide formulations. It provides targeted technical assistance in response to specific requests from Parties, encourages them to undertake concerted actions towards pesticide risk reduction, including through the use of safer alternatives to pesticides and chemicals listed or considered for listing under the Rotterdam Convention, and facilitates information exchange among Parties. The Rotterdam Convention also promotes sustainable approaches to the management pests and diseases, such as integrated pest management, conservation agriculture, organic agriculture, agroecology and the use of biopesticides and biological pest control.

9. Between mid-2018 and mid-2020, more than 110 Parties to the Rotterdam Convention received technical assistance and capacity-building training.[9] More than 200 notifications of final regulatory actions banning or restricting the use of hazardous chemicals and pesticides at national level were received from Parties. To showcase the technical assistance provided globally and encourage further requests by Parties to improve their legal frameworks, collect data and reduce the risks posed by pesticides to human health and the environment, a science fair was organized during the ninth meeting of the COP of the Rotterdam Convention, which took place in May 2019.[10] At this meeting of the COP, the Rotterdam Convention also added the pesticide phorate to Annex III, making it subject to a structured information exchange (prior informed consent procedure), through which Parties can take informed decisions on future imports of this pesticide and facilitate its environmentally sound use if absolutely necessary. Phorate is an insecticide that is highly toxic to humans and bees.

10. In 2022, the Rotterdam Convention Secretariat published a review[11] that focused on incidents involving the poisoning of birds, fish and honey bees, as described in approximately 80 published studies in English and a small number of reports from other sources. The publication includes a specific chapter on honey bee pesticide poisoning, which analyses key factors contributing to such poisonings. An annex lists the pesticides most frequently identified as having been implicated in the honey bee poisoning incidents in the studies reviewed.

[7] CGRFA-18/21/Report.
[8] https://promotepollinators.org/
[9] FAO. 2019. *Strengthening countries' capacities through global information-sharing*. Rome. http://www.basel.int/Portals/5/download.aspx?d=UNEP-FAO-RC-PUB-GEN-TA-Strengthening-2019.English.PDF
[10] http://www.pic.int/TheConvention/ConferenceoftheParties/Meetings/COP9/Overview/tabid/7528/language/en-US/Default.aspx
[11] FAO. 2022. *Pesticides and environmental incidents: Rotterdam Convention on the prior informed consent procedure for certain hazardous chemicals and pesticides in international trade*. Rome. https://doi.org/10.4060/cb6761en

11. The FAO pest and pesticide management team continues to develop guidelines and best practices in areas relevant to pollinators, such as the use of chemicals in agriculture, and the promotion of biodiverse and ecosystem-based farming systems. In 2019, FAO and the World Health Organization (WHO) published a brochure on highly hazardous pesticides[12] that focuses on neonicotinoids pesticides, which are considered to have long-lasting effects on honey bees and other pollinators.

12. Furthermore, a module on risk assessment for bees has been integrated in the FAO Pesticide Registration Toolkit,[13] which assists in the assessment of local risk[14] and hazard for honey bees,[15] including a hazard assessment-based table with a simple flow chart scheme. The FAO Pesticide Registration Toolkit is a decision-support system for pesticide registrars responsible for reviewing and registering pesticide products. It is intended to serve as a desktop electronic handbook for day-to-day use in the registration of agricultural and public-health pesticides, providing technical advice on procedures that apply to all pesticides undergoing registration and information sources for individual pesticides. So far, 72 countries and 528 registration staff have been trained on the Pesticide Registration Toolkit.

13. FAO's work on pesticides in support of the International Pollinators Initiative has also continued through larger projects, such as phase three of the EU-funded programme "Capacity building related to Multilateral Environmental Agreements in African, Caribbean and Pacific countries" (ACP MEAs 3).[16] As part of this programme, a global seminar on strengthening regulations to protect pollinators from pesticides was held on 23−24 February 2022.[17] The main objectives of the seminar were to review legislation and pesticide risk-assessment procedures for pollinators and enable dialogue among policymakers and regulators on best practices and pollinator-protection policies as they relate to pesticides. The global seminar was attended by more than 400 participants representing a broad group of stakeholders and countries from all regions of the globe. In preparation of the global pollinator seminar, six regional technical working group meetings took place between September and November 2021 and two studies were finalized and published in close collaboration with the Julius Kuehn Institute.[18]

14. Following the seminar, a policy brief *Protecting pollinators from pesticides: Urgent need for action*, which summarizes priorities for action to reduce pesticide risks to pollinators, was launched on World Bee Day (20 May) 2022. [19]

III. FIELD-LEVEL IMPLEMENTATION

15. In 2020, in collaboration with the Alliance of Bioversity International and the International Center for Tropical Agriculture (CIAT), FAO published a Forestry Working Paper entitled *The pollination services of forests: A review of forest and landscape interventions to enhance their cross sectoral benefits*.[20] As part of this effort, FAO held two global expert workshops in 2019 on

[12] FAO & WHO. 2019. *Detoxifying agriculture and health from highly hazardous pesticides - A call for action*. Rome. www.fao.org/3/ca6847en/ca6847en.pdf
[13] http://www.fao.org/pesticide-registration-toolkit/en/
[14] http://www.fao.org/pesticide-registration-toolkit/registration-tools/assessment-methods/method-detail/en/c/1187116/
[15] http://www.fao.org/pesticide-registration-toolkit/registration-tools/assessment-methods/method-detail/en/c/1187115/
[16] http://www.fao.org/in-action/building-capacity-environmental-agreements/en/
[17] https://www.fao.org/in-action/building-capacity-environmental-agreements/global/pollinator-seminar
[18] FAO. 2022. *Review of existing legislation to protect pollinators from pesticides in selected countries*. Rome. https://doi.org/10.4060/cc0226en and Krahner, A, Alkassab, AT., Jütte, T., Lüken, D.J., Wirtz, I,P. & Pistorius, J. 2022. *Review of approaches to the pesticide regulatory risk assessment for bees and other pollinators*. Braunschweig, Germany, Julius Kuehn Institute. https://www.openagrar.de/receive/openagrar_mods_00077352
[19] FAO. 2022. *Protecting pollinators from pesticides – Urgent need for action*. Rome. https://doi.org/10.4060/cc0170en
[20] Krishnan, S., Wiederkehr Guerra, G., Bertrand, D., Wertz-Kanounnikoff, S. & Kettle, C.J. 2020. *The*

pollinator-friendly forestry practices and conducted additional interviews to gather expert knowledge, identify knowledge gaps and propose ways forward for pollinator-friendly forestry practices.

16. FAO finalized a practical compendium of pollination-enhancing practices entitled *Towards sustainable crop pollination services: Measures at field, farm, and landscape scales*,[21] which was released on World Bee Day 2020.

17. In the context of science and education, FAO collaborates with the Chinese Academy of Agricultural Sciences (CAAS) on the topics of apiculture, beekeeping and pollinators; in 2021, it published an article entitled *The protection of honeybees and other pollinators: one global study.*[22]

18. In collaboration with the Istituto Zooprofilattico Sperimentale del Lazio e della Toscana "M. Aleandri" (IZSLT), Apimondia (the International Federation of Beekeepers' Associations) and CAAS, FAO has developed guidelines on good beekeeping practices,[23] a practical manual for beekeepers on techniques and procedures for sustainable production in rural areas of Africa[24] and guidelines on responsible use of antimicrobials in beekeeping.[25] The guidelines were presented to the International Symposium on biosecurity measures in beekeeping organized by the World Organisation for Animal Health (WOAH) and IZSLT. FAO, WOAH, Apimondia and IZSLT also organized the Second International Symposium on Biosecurity in Beekeeping, which took place in May 2023.

19. FAO collaborated with the BPRACTICES project consortium between 2017 and 2020 to "develop new management practices (Good Beekeeping Practices) adopting new clinical methods, biomechanical and innovative biomolecular techniques respecting the natural behaviour of bees."[26] As part of this collaboration, FAO hosted a roundtable on the economic impact of good beekeeping practices and disseminated project results via the Technologies and Practices for Small Agricultural Producers (TECA) Platform[27] and through the publication *Good beekeeping practices: Practical manual on how to identify and control the main diseases of the honeybee (*Apis mellifera*)*.[28]

20. Two projects at country-level are currently active. The project Integrating Pollinators into Sustainable Forest Management Plans in Azerbaijan (TCP/AZE/3802/C1) aims to align local beekeeper and pollinator conservation needs, enhance forest management for both managed honey bees and wild pollinators, and safeguard the range of benefits flowing from pollinators. The second project, Capacity Building to Increase the Quality and Quantity of Bee Products in Rwanda (TCP/RWA/3802) aims to improve income generation and job creation.

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pollination services of forests – A review of forest and landscape interventions to enhance their cross-sectoral benefits. Forestry Working Paper; No. 15. Rome, FAO & Biodiversity International; https://doi.org/10.4060/ca9433en

[21] FAO. 2020. *Towards sustainable crop pollination services – Measures at field, farm and landscape scales.* Rome. http://www.fao.org/documents/card/en/c/ca8965en

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[23] FAO. 2020. *Good beekeeping practices: Practical manual on how to identify and control the main diseases of the honeybee (Apis mellifera)*. Rome. http://www.fao.org/documents/card/en/c/ca9182en

[24] FAO, Apimondia, IZSLT. 2021. *Visual manual on good beekeeping practices for small-scale beekeepers in Africa*. TECA – Technologies and practices for small agricultural producers, 2. Rome. http://www.fao.org/documents/card/en/c/cb4576en

[25] https://www.fao.org/documents/card/en/c/cb6918en/

[26] BPRACTICES final report: https://www.izslt.it/bpractices/en/2022/07/21/bpractices-final-report/

[27] https://teca.apps.fao.org/teca/en/categories/Beekeeping

[28] FAO. 2020. *Good beekeeping practices: Practical manual on how to identify and control the main diseases of the honeybee (Apis mellifera).* Rome. https://doi.org/10.4060/ca9182en

IV. CIVIL SOCIETY AND PRIVATE SECTOR ENGAGEMENT

21. The UN General Assembly unanimously proclaimed 20 May as World Bee Day in 2017. Every year since, FAO has co-organized with various partners[29] the celebration of World Bee Day, with World Bee Days 2020, 2021 and 2022 held virtually and World Bee Day 2023 held in hybrid form. Over 120 countries and more than 750 bee-lovers participated in the event on 20 May 2022. The dedicated web page on World Bee Day[30] had over 12 900 visitors and 20 600 page views during the period 18–23 May 2022. Ahead of World Bee Day 2022, multilingual content on the importance of bees, their diversity and how to protect them was shared on social media. During the same period, over 300 posts were shared by FAO channels, receiving around 6 800 mentions and reaching over 57.2 million accounts. Under the theme "Bee engaged in pollinator-friendly agricultural production", World Bee Day 2023 called for global action to support pollinator-friendly agricultural production and highlighted the importance of protecting bees and other pollinators, particularly through evidence-based agricultural production practices.

22. On World Bee Day 2021, FAO Director-General QU Dongyu signed a memorandum of understanding (MOU) with Apimondia. Apimondia is an organization that promotes scientific, technical, ecological, social and economic apicultural development in all countries and the cooperation of beekeepers' associations, scientific bodies and individuals involved in apiculture worldwide.[31] The MOU formalizes cooperation between the two organizations and addresses issues such as the conservation and sustainable use of biodiversity for food and agriculture, antimicrobial resistance and antimicrobial use, broadening pollinator biodiversity, improvement of pesticides regulation and utilization, promotion of sustainable beekeeping practices, including bee health, and the monitoring of managed bee genetic resources.

23. In 2019, FAO participated in the "Dialogue across Indigenous, local and scientific knowledge systems reflecting on the IPBES Assessment on Pollinators, Pollination and Food Production",[32] held in Thailand. The dialogue aimed to bring together a diversity of actors with different knowledge systems to reflect on the outcomes of the IPBES pollination assessment.

24. To support educators and youth leaders in outreach and environmental education, FAO and partners have developed a Youth and United Nations Global Alliance (YUNGA) Challenge Badge on Pollinators, which was released on World Bee Day 2021.[33]

V. MONITORING, RESEARCH AND ASSESSMENT

25. In close collaboration with National Coordinators for the Management of Animal Genetic Resources (NCs-AnGR), a specific task force of the European Regional Focal Point for Animal Genetic Resources and Apimondia, FAO developed and agreed upon data fields for monitoring the diversity of managed honey bees of relevance for food and agriculture. A module for entering bee data was made available to all NCs-AnGR under the password protected section of the Domestic Animal Diversity Information System (DAD-IS).[34] Tools for visualizing these data in various ways have also been developed. As of September 2022, data had been reported by 25 countries on 53 honey bee species or subspecies. Among these 25 countries, 14 provided estimates on the number of colonies for a combined total of 26 species and subspecies, thus providing the basis for monitoring their genetic diversity. Regional aspects of the diversity of managed bees were addressed by broadening the scope of DAD-IS data entry to allow for the provision of information on stingless bees.

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[29] Partners have included the Permanent Mission of Slovenia to the United Nations, the Secretariat of the Convention on Biological Diversity and Apimondia.
[30] https://www.fao.org/world-bee-day/en/
[31] https://www.apimondia.org/
[32] https://swed.bio/news/reflecting-on-the-ipbes-pollination-assessment-in-dialogue-across-knowledge-systems-results-in-food-for-thought-for-policy-makers/
[33] FAO. 2021. *Pollinators Challenge Badge*. YUNGA Learning and Action Series – Challenge badges, issue 12. Rome. http://www.fao.org/documents/card/en/c/cb4803en
[34] https://www.fao.org/dad-is/en/

26. Under the FAO–Apimondia MOU, FAO, in close collaboration with Apimondia, Appalachian State University and IZSLT, launched a global survey (expanding on earlier survey)[35] that sought to obtain information from beekeepers on their awareness and practices in relation to antimicrobial resistance and antimicrobial use.[36] This global survey, which serves as an effective risk identification tool, will be repeated on a regular basis to monitor existing and emerging threats.

27. FAO is working with its partners to increase scientific evidence on the connection between the protection of pollinators and agroecological transformation, agroforestry enhancement and integrated pest management. For instance, agrobiodiversity and pollinators feature prominently in the FAO Tool for Agroecology Performance Evaluation (TAPE) framework,[37] which has been used in over 30 countries and to assesss more than 5 000 farms/households. TAPE was developed by FAO and partners from governments, academia, civil society and producers' organizations[38] to provide a framework of indicators and a database for assessing the performance of agroecological systems. The presence of pollinators and other beneficial animals within the agroecosystems is part of one of ten key criteria used to assess the performance of agroecology.

VI. ACHIEVING MULTIPLE GOALS ACROSS ELEMENTS OF THE PLAN OF ACTION

28. Working with the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) and with funding from the International Climate Initiative – German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU), FAO successfully completed the preparation phase (2021–2023) for the project Regional Action for the Enhanced Protection of Pollinating Insects and Pollination Services in Latin America (Poli-LAC). FAO is now working with GIZ to support implementation of the project, starting in 2023, in particular with regard to Objective 1 (see below). The Poli-LAC project will be the largest effort ever implemented to safeguard pollinators, specifically wild insect pollinators, in Latin America and the Caribbean, and will involve three main objectives that align with each of the four elements of the International Pollinator Initiative:

> **Objective 1** – The development of a regional knowledge management platform on the conservation and sustainable management of insect pollinators to address the needs of key actors (e.g. public, private, civil society, academia) (Elements 1, 3);
>
> **Objective 2** – Support to decision-makers (public and private) in promoting policies and instruments that encourage the conservation and sustainable use of pollinating insects and mobilize financial resources for their implementation (Elements 1, 3); and
>
> **Objective 3** – The implementation of pollinator-friendly practices through monitoring of insect populations in selected landscapes in all four countries (Elements 2, 4).

29. The four targeted pioneer countries for Poli-LAC implementation are Brazil, Costa Rica, Mexico and Peru – although it is foreseen that other countries within the region will also benefit. The project is expected to run from 2023 to 2027.

30. Poli-LAC will not only contribute to the International Pollinators Initiative's Plan of Action (2018–2030) but also contribute to the achievement of the Kunming-Montreal Global Biodiversity Framework, as Targets 10 and 11[39] include measures that would protect pollination itself and ensure areas under agriculture are managed sustainably (e.g. with biodiversity-friendly practices, such as sustainable intensification, agroecological and other innovative approaches).

[35] https://www.fao.org/antimicrobial-resistance/resources/resources-details/en/c/1441898/
[36] https://www.apimondia.org/latest/survey-to-monitor-the-level-of-knowledge-and-awareness-on-good-beekeeping-practices
[37] https://www.fao.org/agroecology/tools-tape/en/
[38] https://www.fao.org/agroecology/tools-tape/partners/en/
[39] CBD/COP/DEC/15/4.

ANNEX 1:

FAO TOOLS AND GUIDANCE DOCUMENTS ON POLLINATORS AND POLLINATION

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