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# 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 SOIL BIODIVERSITY

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## I. INTRODUCTION

1. The International Initiative for the Conservation and Sustainable Use of Soil Biodiversity (known as the International Initiative for Soil Biodiversity) was formally established in 2006<sup>1</sup> as a cross-cutting initiative within the Convention on Biological Diversity's (CBD) programme of work on agricultural biodiversity to increase recognition of the essential services provided by soil biodiversity across all production systems and its relation to land management, including by sharing information, increasing public awareness, promoting education and improving capacity-building.<sup>2</sup>
2. This document provides some background and describes progress made in the implementation of the International Initiative for Soil Biodiversity since the Commission's Eighteenth Regular Session.

## II. FAO ACTIVITIES

3. Sustainable soil management is at the heart of several global agendas and international policy frameworks, and soil biodiversity and the ecosystem services it provides will be key to the success of the UN Decade on Ecosystem Restoration. FAO leads the implementation of the International Initiative for Soil Biodiversity within the framework of the Global Soil Partnership (GSP).
4. At its 14th meeting, the Conference of the Parties (COP) to the CBD invited FAO to collaborate with the CBD Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA) to review the International Initiative for Soil Biodiversity and update its action plan, as well as with the Open-ended Working Group on the Post-2020 Global Biodiversity Framework regarding the inclusion of soil biodiversity in targets and indicators. FAO and the GSP supported the CBD Secretariat in the review of the initiative and in the preparation of a new plan of action and strategies to improve its implementation.<sup>3</sup>
5. The GSP launched the International Network on Soil Biodiversity (NETSOB)<sup>4</sup> on 3 December 2021, within the framework of the official celebration of World Soil Day, as per the recommendation of the Global Symposium on Soil Biodiversity<sup>5</sup> and as GSP's response to the International Initiative for Soil Biodiversity. NETSOB's goal is to promote the sustainable use and conservation of soil biodiversity. The network is currently composed of 978 experts from 100 countries.
6. NETSOB serves the global community by offering standardized soil biodiversity measurements to support better decision-making both in the field and at policy level. NETSOB will accomplish this task by strengthening knowledge about soil biodiversity, contributing to the development of standardized biological indicators, monitoring soil biodiversity status and loss, promoting sustainable management practices that improve soil biodiversity and overall soil health, and fostering investment and cooperation in soil biodiversity research.
7. In 2022, NETSOB commissioned a global survey on current initiatives, objectives, and methods for soil biodiversity assessment in response to the gaps identified in the report on *State of Knowledge of Soil Biodiversity – Status, Challenges and Potentialities*,<sup>6</sup> with the aim of harmonizing soil biodiversity monitoring approaches and learning about existing initiatives. The survey identified knowledge, technical, technological and policy gaps in participating countries and different levels of needs with respect to ensuring adequate monitoring and sustainable use of soil biodiversity. Nearly 2 700 respondents from 131 countries provided information on current monitoring activities. The results of the survey were presented to the scientific community on 14 March 2023 at an FAO-sponsored workshop during the 3rd Global Soil Biodiversity Conference.<sup>7</sup> The results of the survey will be

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<sup>1</sup> CGRFA-14/13/19 and CGRFA-16/17/Inf.23.

<sup>2</sup> UNEP/CBD/COP/DEC/VIII/23.

<sup>3</sup> CBD/COP/DEC/14/30.

<sup>4</sup> <https://www.fao.org/global-soil-partnership/netsob/en/>

<sup>5</sup> FAO, 2021. *Keep soil alive, protect soil biodiversity. Global symposium on soil biodiversity, 19–22 April 2021 – Outcome document*. Rome. <https://www.fao.org/3/cb6005en/cb6005en.pdf>

<sup>6</sup> FAO, ITPS, GSBI, SCBD, and EC. 2020. *State of knowledge of soil biodiversity - Status, challenges and potentialities. Report 2020*. Rome, FAO. <http://www.fao.org/documents/card/en/c/cb1928en/>

<sup>7</sup> <https://gsb2023.org>

published in mid 2023 and will serve as a baseline for responding to CBD COP Decision 15/5 on the Global Biodiversity Monitoring Framework.<sup>8</sup>

8. Under its Decision 15/28 on Biodiversity and Agriculture the COP to the CBD adopted the updated Plan of Action 2020–2030 for the International Initiative for the Conservation and Sustainable Use of Soil Biodiversity<sup>9</sup> (Plan of Action 2020–2030) and invited FAO and the GSP to facilitate its implementation and support the creation of capacities at national and local level to assess and monitor soil biodiversity.<sup>10</sup> It also invited FAO, the GSP and the Intergovernmental Technical Panel on Soils (ITPS), in cooperation with the United Nations Environment Programme, the United Nations Convention to Combat Desertification and the Global Initiative for Soil Biodiversity, to support the implementation of the Kunming-Montreal Global Biodiversity Framework with regard to soil-related targets and actions, including their monitoring and reporting.<sup>11</sup>

9. In response to this decision, FAO and the GSP Secretariat launched the Global Soil Biodiversity Observatory (GLOSOLAN) at the Ministerial Dialogue and Breakfast on Soil Biodiversity at the 15th meeting of the COP to the CBD, within the framework of NETSOB, with the objective of determining methods for assessing and monitoring soil biodiversity, determining best practices for conserving and restoring soil biodiversity, and building the capacities of countries, in particular least developed countries and small island developing states, as well as countries with economies in transition, to promote monitoring and reporting of soil biodiversity. The goal of GLOSOLAN is to provide regular forecasts of the status of soil biodiversity and soil health.

10. Standard operating procedures to assess soil biological indicators are being developed by the Global Soil Laboratory Network (GLOSOLAN),<sup>12</sup> in coordination with and under the guidance of NETSOB. GLOSOLAN will determine the minimum set of soil biological parameters to be analysed and monitored by countries.

11. Under its Decision 15/6 on mechanisms for planning, monitoring, reporting and review, the COP to the CBD tasked FAO with assisting countries to revise or update their national biodiversity strategies and action plans to account for the Plan of Action 2020–2030.

12. At its tenth Plenary Assembly, the GSP adopted its Action Framework 2022–2030,<sup>13</sup> which includes a system of targets and key performance indicators for assessing the impact the GSP's activities have on soil health and society. The Plenary Assembly also mandated ITPS to develop a Global Soil Health Index (GSHI). A multidisciplinary working group has been established to design the set of indicators and metrics for monitoring progress in the implementation of the Action Framework 2022–2030 as well as to design the GSHI.

13. The GSP is implementing RECSOIL, a global soil recarbonization initiative, as a mechanism for scaling up sustainable soil management focused on soil organic carbon sequestration in the agricultural sector. Four pilot projects have been established, in Costa Rica, Ecuador, Mexico and Togo. The initiative has a soil health monitoring system based on the application of indicators specified in the publication *A protocol for measurement, monitoring, reporting and verification of soil organic carbon in agricultural landscapes (GSOC-MRV Protocol)*<sup>14</sup> and the Protocol for the Assessment of Sustainable Soil Management,<sup>15</sup> and annual monitoring through visual soil assessment. Some 120 producers are

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<sup>8</sup> CBD/COP/DEC/15/5.

<sup>9</sup> CBD/COP/DEC/15/28, *Annex*.

<sup>10</sup> CBD COP Decision 15/28, paragraph 7.

<sup>11</sup> CBD COP Decision 15/28, paragraph 8.

<sup>12</sup> <https://www.fao.org/global-soil-partnership/glosolan/en/>

<sup>13</sup> FAO. 2022. *Global Soil Partnership Action Framework 2022-2030. Healthy soils for a healthy life and environment: from promotion to consolidation of sustainable soil management*. Rome.

<https://www.fao.org/global-soil-partnership/about/gsp-action-framework-2022-2030/en/>

<sup>14</sup> FAO. 2020. *A protocol for measurement, monitoring, reporting and verification of soil organic carbon in agricultural landscapes – GSOC-MRV Protocol*. Rome. <http://www.fao.org/documents/card/en/c/cb0509en>.

<sup>15</sup> FAO-ITPS. 2020. *Protocol for the assessment of Sustainable Soil Management*. Rome, FAO. <http://www.fao.org/global-soil-partnership/resources/highlights/detail/en/c/1370578/>

involved in these pilots and will benefit from incentives for the provision of ecosystem services through the improvement of soil health.

14. The Global Soil Doctors programme<sup>16</sup> promotes farmer-to-farmer extension on soils. The programme is under implementation in Bangladesh, Bolivia (Plurinational State of), Burkina Faso, Chile, Colombia, Costa Rica, Kazakhstan, Mexico and Togo. To date, 117 trainers of Soil Doctors and 403 Soil Doctors have been certified. Soil Doctors have trained more than 3 190 farmers in on-site assessment of soil condition and sustainable soil management practices that enable them to remedy soil degradation problems.

15. In April 2022, the GSP launched the International Network on Soil Pollution (INSOP)<sup>17</sup> with the overall aim of stopping soil pollution and achieving the global goal of zero pollution. To this end, INSOP works to improve knowledge of the full cycle of soil pollution, from assessment to remediation, and of the effects of soil pollution on environmental and human health and the provision of soil ecosystem functions and services. INSOP also aims to strengthen technical capacities and legislative frameworks for the prevention of soil pollution and promotes the exchange of experiences and technologies related to the sustainable management and remediation of polluted soils.

16. The use of soil biodiversity for the remediation of polluted soils (bioremediation) and as indicators of contamination are key aspects of INSOP's work, which thus contributes to the implementation of the International Initiative for Soil Biodiversity.

17. The GSP's International Network on Fertilizer Analysis<sup>18</sup> and the ITPS collaborate<sup>19</sup> to improve knowledge and access to biofertilizers, biostimulants and other alternative solutions for crop nutrition as a viable and cost-effective solution to the current global fertilizer crisis and in line with the principles of the International Code of Conduct for the Sustainable Use and Management of Fertilizers.<sup>20</sup>

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<sup>16</sup> <https://www.fao.org/global-soil-partnership/soil-doctors-programme/about-the-programme/en/>

<sup>17</sup> <https://www.fao.org/global-soil-partnership/insop/en/>

<sup>18</sup> <https://www.fao.org/global-soil-partnership/infa/en/>

<sup>19</sup> ITPS. 2023. *Soils, where food begins: How can soils continue to sustain the growing need for food production in the current fertilizer crisis?* Rome. <https://www.fao.org/3/cc4199en/cc4199en.pdf>

<sup>20</sup> FAO. 2019. *The International Code of Conduct for the Sustainable Use and Management of Fertilizers*. Rome. <https://www.fao.org/3/ca5253en/CA5253EN.pdf>