

September 2021



Food and Agriculture
Organization of the
United Nations



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Global Soil Partnership Plenary Assembly

Ninth session

Virtual, 08-10 September 2021

**Highlights of the GSP work on soil threats and global assessments
(GSPPA: IX/2021/7)**

Executive Summary

- The Global Assessment of Soil Pollution report has been prepared under the Global Soil Partnership (GSP) auspices in response to the request of the United Nations Environment Assembly (UNEA) at its Third session in 2017 and as part of the implementation of the Outcome Document of the Global Symposium on Soil Pollution in 2018. The report was launched on 4th June 2021 to observe World Environment Day.
- The report “State of Knowledge of Soil Biodiversity – Status, challenges and potentialities” was issued on World Soil Day 2020 and has been prepared in response to the Decision XIV/30 of the 14th meeting of the Conference of the Parties (COP) to the Convention on Biological Diversity (CBD) held in Sharm El-Sheikh, Egypt, in November 2018. In effect, in paragraph 23 of this decision, the COP invited FAO, in collaboration with other organizations and subject to the availability of resources, to consider the preparation of a report on the state of knowledge on soil biodiversity covering current status, challenges and potentialities and to make it available for consideration by the Subsidiary Body on Scientific, Technical and Technological Advice at a meeting held prior to the 15th meeting of COP.
- Both major assessments constitute an essential stage of understanding of where we are in terms of soil pollution and soil biodiversity. It should be noted however that there are substantial gaps in terms of data and information, thus the assessments need to rely on the best available knowledge and do not intend to constitute a baseline, but as a “zero” version, hoping that actions will be taken by all to close the wide identified gaps.
- The Global Assessment of Salt –affected soils is under preparation following a country-driven approach and will be launched on World Soil Day 2021.

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- In order to advocate for soil governance and the adoption of normative tools, the GSP Secretariat established the SoILEX online platform collecting all legal instruments at national and regional level that have an impact on soil.
- Considering that 2022 will be dedicated to the issue of soil fertility and Soils for Nutrition, the Intergovernmental Technical Panel on Soils (ITPS) and the GSP Secretariat recommend to perform a global mapping and assessment of the soil nutrient budgets.

Suggested actions by the GSP Plenary Assembly

The Plenary Assembly may wish to:

- express appreciation for the efforts made in performing these important global assessments, prepared with the help of scientists around the world, despite the challenges related to the limited financial resources available and the COVID-19 pandemic;
- support the wide dissemination of the Global Soil Pollution Assessment and Summary report to policy makers, and consider its findings and conclusions as the Global Soil Partnership's action plan on soil pollution;
- support the dissemination and implementation of recommendations in the State of Knowledge of Soil Biodiversity – Status, challenges and potentialities report;
- encourage all countries to contribute to the ongoing Global Assessment of salt-affected soils and the future Global Assessment of soil erosion;
- endorse the global assessment and mapping of soil nutrient budgets as concurrent with the organization of the Global Symposium on Soils for Nutrition and the World Soil Day dedicated to this theme;
- urge countries to implement vigorous actions at national level to address critical issues highlighted in these reports;
- encourage ITPS and the Secretariat to use this opportunity to seek resources and promote actions to fill the gaps identified; and
- invite resource partners to support the implementation of the recommendations from those global assessments.

7.1 Global Assessment of Soil Pollution

1. Under the leadership of the ITPS, the preparation of the Global Assessment of Soil Pollution report was initiated at the beginning of 2019 with the formulation of a questionnaire to be sent to countries. This tool included 93 questions, organized in 12 sections aimed at collecting information about inter alia: administrative level of competence for soil pollution issues; reference values for contaminants; major sources of soil pollution and associated contaminants; soil pollution monitoring systems; inventories and data; monitoring of health and environmental risks; socioeconomic cost of soil pollution; management and remediation practices; case studies; major constraints to tackle soil pollution; and future planned actions.
2. The [questionnaire](#) was distributed through the GSP focal points and made available to other stakeholders through the GSP website and newsletter in March 2019. 107 responses were

received from 77 countries. The majority of respondents were from research institutes or universities (38 responses), followed by representatives of ministries of agriculture (32) and environment (15).

3. The analysis of the responses and the preparation of the report was led by the GSP Secretariat which coordinated a team of 72 authors and 9 lead authors. The report benefited from an analysis of the available literature in scientific publications, official national reports and other sources, supported by the advice of a wide network of multidisciplinary experts who have reviewed the information provided in response to the questionnaire and have completed the missing information based on their experience in the different fields.
4. To ensure that countries had the opportunity to review the information presented in the report before publication, the Regional Soil Partnerships were invited to participate in a peer review process, as part of the Editorial Board, including members of the ITPS, selected outstanding scientists and representatives of FAO, UNEP and WHO. The Editorial Board was composed by 30 experts. Representatives of remediation companies, international networks of soil pollution, such as NICOLE (Network for Contaminated Land in Europe), and NGOs specialized on soil pollution issues have also participated in the peer-review process.
5. The report is organized into 14 chapters covering the major soil contaminants, the main sources of soil pollution, the environmental, health and socioeconomic impacts of soil pollution, the global status and distribution of soil pollution, regional assessments of the soil pollution status and international, regional and national legal frameworks, as well as available techniques for remediation and management of polluted soils.
6. The report includes a number of key messages and conclusions/recommendations that could be used to define the way forward in the prevention, control, and management of soil pollution by international bodies such as the Global Soil Partnership and FAO, UNEP, WHO and other bodies at regional and national level.
7. There is an urgent need to establish a mechanism for inventorying and monitoring soil pollution at the national, regional and global levels to ensure that it does not continue to endanger human health and the environment.
8. The [Global Assessment of Soil Pollution report](#) and the [summary for policy makers](#) were formally released on 4th June 2021 to observe World Environment Day.

7.2 Global Assessment of Soil Biodiversity

9. The State of Knowledge of Soil Biodiversity Report is the result of the work of more than 300 soil scientists and experts on soil biodiversity from all regions of the world, and it presents the best available knowledge on soil biota and their ecosystem functions and services. The report is a contribution to a decision of the 14th Conference of the Parties (COP) to CBD, which invited FAO to prepare a report on the state of knowledge on soil biodiversity.
10. The report is organized into seven chapters. Chapter 2 summarizes the current information on the different classes of soil organisms and the state of current knowledge and future challenges for each class are summarized. Chapter 3 examines the contributions of soil biodiversity to ecosystem services and functions. Chapter 4 examines the recent evidence on the threats to soil biodiversity and the direction of change. Chapter 5 explores the opportunities offered by the management of soil biodiversity to address significant societal issues such as environmental

remediation of polluted soils and sediments, plant production, and food quality. Chapter 6 summarizes the results of the survey undertaken by FAO Members. Chapter 7 presents the conclusions addressing the status, challenges and potentialities of soil biodiversity. It also proposes a way forward with concrete actions to unlock the potential of soil biodiversity.

11. The report includes a number of key messages, conclusions, recommendations and the way forward that could be used to mainstreaming soil biodiversity in all sectors. The way forward aims to the prevention and minimization of soil biodiversity loss and the contribution to the know-how on monitoring, measuring, assessing and sustainably managing soil biodiversity at all levels.
12. The [State of Knowledge of Soil Biodiversity Report](#) and the [summary for policy makers](#) were formally launched during the 2020 World Soil Day celebration.

7.3 Global Assessment of Salt-Affected Soils

13. The Global Status of Salt-Affected Soils report (GSAS report) will be complementary to the Global Map of Salt-Affected Soils (GSSmap) and will include country chapters and chapters with regional overviews (according to UN regions).
14. The national experts who were in charge of preparing the national maps of salt-affected soils were invited to reflect the following aspects in the report: i) to acknowledge all individuals and organisations participating in the preparation of the national GSS map; ii) to describe the process behind the scenes: what sort of data and of which quality were used, what is the coverage of data, etc.; iii) to give a general description on the status and management of salt-affected soils in the country; iv) to describe the bottlenecks revealed during the preparation of the GSSmap and the ways to overcome them in the future.
15. The ITPS experts from the relevant regions are the lead authors/editors of the regional chapters of this report which are based on the country contributions and published literature.
16. The GSAS report is scheduled to be released during the World Soil Day 2021.

7.4 Global Assessment of Soil Erosion

17. The preparation of the Global Soil Erosion map following a country-driven approach and its associated Global Assessment were postponed to 2022 given the heavy workload at the ITPS and the GSP Secretariat. Hence, the outcome document “Stop soil erosion, save our future” will be more fully implemented from 2022 onwards.

7.5 Status of Soil Governance (SoiLEX)

18. One of the priorities of the GSP for the period 2020/2021 was to improve soil governance at all levels, from the development of specific soil protection, conservation and restoration policies, through their implementation, and public awareness and participation in sustainable soil management.
19. The first step was to carry out a stocktaking exercise of all legal instruments at national and regional levels that have an impact on soil, which has been compiled and issued on the [SoiLEX online platform](#), available at the FAO Soils Portal.

20. The SoiLEX platform is a living database that facilitates the search for national soil legal instruments, the understanding of legal areas relevant to soil management and protection, as well as the exchange of experiences in soil governance between countries and regions.
21. To mark the launch of the SoiLEX platform, FAO organized a webinar on soil governance on 13 January 2021. The webinar included a high-level opening, presentations on how to improve soil governance, the launch of the SoiLEX platform and a question and answer session with all panellists.
22. The webinar brought together 824 participants from more than 160 countries and was a milestone in the promotion of soil governance around the world. The discussion generated considerable interest in the implementation of legal instruments related to soil protection and soil management in different countries.
23. Following the webinar, a soil legislation-working group of multidisciplinary experts was created to contribute to the continuous updating of the SoiLEX platform and to the national and regional comparative analysis of legal frameworks on soil protection and sustainable management in order to identify good practices that can be replicated in other countries.
24. The working group will also contribute to support countries, in coordination with the FAO Legal Office, in the formulation and strengthening of legal frameworks for soil protection and sustainable soil management in line with the Voluntary Guidelines for Sustainable Soil Management and the Revised World Soil Charter.