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Global Soil Partnership Plenary Assembly

Ninth session

Virtual, 08-10 September 2021

**Work of the Intergovernmental Technical Panel on Soils (ITPS)
(GSPPA: IX/2021/3)**

Executive Summary

- This annual progress report of the ITPS complements those submitted to previous sessions of the Plenary Assembly (PA). It provides a succinct overview of the main activities carried out by the Panel and the conclusions reached. This document also provides the revised ITPS work programme for 2021-22 for consideration and endorsement of the PA. In both past and planned work, due attention is paid to highlight important instances of cooperation with other pertinent bodies and initiatives, a major priority for the Panel. The ITPS Chair is also due to make an oral presentation.
- It is recalled that the current members were appointed by the PA at its 6th session in June 2018 for a three-year term. The PA is being requested to extend the mandate by one additional year due to the global context. This will enable the Panel to complete main activities that were slowed down – but not stopped – since the beginning of the COVID-19 pandemic.
- An ITPS member from the European region, Ms Maria Konyushkova decided to withdraw her participation for professional reasons. The European Regional Group in FAO then advised about her replacement by Mr Alexey Sorokin. The ITPS Chair and the Secretariat reviewed his CV and confirmed that he is suitable for performing this role. As per the Rules of Procedure, the Plenary Assembly is requested to formally endorse this replacement.
- It may be noted that the 13th and 14th working sessions of the ITPS took place (virtually) from the 16th to the 18th of November 2020 and from the 11th to the 13th of May 2021, respectively, and that the Panel has continued to operate through virtual channels throughout the year.
- The panel published a position paper on **Soils and COVID-19** in the **SOIL** open-access journal. This paper provides significant guidance on the role of soils during - and especially after - the COVID-19 pandemic.

Suggested actions by the GSP Plenary Assembly

The Plenary Assembly may wish to:

- review and comment, as relevant, on the range of activities undertaken by the ITPS in the last 1212-month period;
- endorse the ITPS work plan 2021-2022 and invite donors and partners to support this work by providing financial and in-kind resources;
- endorse the extension of the present ITPS mandate for one additional year in order to complete main activities that were slowed down – but not stopped – since the beginning of the COVID-19 pandemic;
- confirm the replacement of Ms Maria Konyushkova by Mr Alexey Sorokin during the remaining mandate of the current ITPS; and
- urge countries and partners to encourage their national experts to participate in the different activities led by the ITPS, particularly during the preparation of the second edition of the Status of the World's Soil Resources report.

3.1 Report on main activities and outcomes of the work programme 2020-21

1. During the past year, the Panel carried out a number of tasks as follows:

- Publication of an open-access article entitled: Soil: the great connector of our lives now and beyond COVID-19 in SOIL (doi: 10.5194/soil-6-541-2020).
- Issuance of the Report on the Status of Knowledge on Soil Biodiversity and its Summary for Policy Makers, presented to the 15th Convention on Biological Diversity (CBD) Conference of the Parties (COP). It is the result of joint work with the UN Convention on Biological Diversity (CBD), the Global Soil Biodiversity Initiative (GSBI), and the European Commission (EC).
- Publication of 3 ITPS letters: Towards a definition of soil health, September 2020, issue #1; Soil Organic Carbon and Nitrogen, March 2021, issue #2; Salt-affected soils are a global issue, May 2021, issue #3; preparation of a 4th issue on Soil Spectroscopy (being produced).
- As follow-up to the Global Symposium on Soil Erosion (GSER19), publication of selected contributions to the GSER in two indexed journals: Land Degradation and Development and International Soil and Water Conservation Research,
- Publication of Recarbonisation of Soils (Technical Manual for Soil Organic Carbon Management).
- Preparation of future ITPS letters on Soil Sealing and on Biochar.
- Support to the organisation and celebration of the Global Symposium on Soil Biodiversity (19-22 April 2021) in a virtual form.
- Support to the preparation of the Global Symposium on Salt-Affected Soils (to be held virtually on 27-29 October 2021).
- Support the organization of the first meeting of the International Network of Salt Affected Soils and the preparation of its workplan.

- Support to the development and implementation of RECSOIL as contribution to the Decision 16/COP14 of the United Nations Convention to Combat Desertification (UNCCD).
- Support to the preparation of a report on “Gender and Sustainable Soil Management” using the successful e-consultation organized by the GSP.
- Cooperation with the Scientific and Technical Committee of the 4/1000 initiative regarding work related to soil organic carbon under the GSOC17 outcome document.
- Support the preparation of the Global Assessment of Salt-Affected Soils.
- Support the preparation of the Report of the Global Status of Black Soils.
- Support the publication of the Global Assessment of Soil Pollution Report.
- Review of the Sixth Assessment Report (AR6 WGIII) of the Intergovernmental Panel on Climate Change (IPCC).
- Attendance as observer organization to the 14th Session of the Working Group I and the 54th Session of the IPCC.
- Review of the second edition of The State of the World’s Land and Water Resources for Food and Agriculture (SOLAW, FAO).
- Review of Version 2.0 of the Good Practice Guidance for Sustainable Development Goal (SDG) Indicator 15.3.1 for SPI UNCCD.

3.2 Extension of ITPS members due to COVID-19

2. As recalled above, the current members were appointed by the Plenary Assembly at its 6th session in June 2018 for a three-year term (ending in June 2021). Due to the COVID19 pandemic, some aspects of the work of the ITPS were slowed down. In order to allow for full completion of the agreed work programme, the Plenary Assembly is being requested to support the extension of the current mandate by one additional year, i.e. till the Plenary Assembly 2022.
3. Due to the decision of an ITPS member from the European region, Ms Maria Konyushkova to end her participation for professional reasons, the European Regional Group in FAO advised about her replacement by Mr Alexey Sorokin. The ITPS Chair and the Secretariat reviewed his CV (Annex 1) and confirmed that he is suitable for performing this role. As per the Rules of Procedure, the Plenary Assembly is requested to formally endorse this replacement.

3.3 Work programme for 2021-2022

4. The ITPS work plan until mid-2022 would include the following:
 - Follow-up actions to the Global Symposium on Soil Erosion (GSER19):
 - Advise on the preparation of the concept note for country guidelines and technical specifications for GSERmap;
 - Advise on the preparation of the methodology to evaluate the costs of erosion and benefits of erosion prevention, remediation and mitigation practices, following a

tiered approach, as part of the broader scope of evaluation of sustainable soil management practices; and

- Advise on the preparation of the study on how society could compensate farmers for public benefits (ecosystem services) stemming from the implementation of soil erosion control practices.
- Develop, review and implement the GSOBI21 outcome document.
- Support the elaboration of the Technical Manual for the Sustainable Management of Mountain Soils.
- Lead from a scientific perspective, the organization of the Global Symposium on Salt Affected Soils (GSSAS21).
- Develop, review and implement outcomes of the GSSAS21.
- Lead from a scientific perspective, the organization of the Global Symposium on Soils4Nutrition (2022).
- Guide the preparation of global maps on soil nutrient budgets.
- Support the finalisation of the Technical Manual on assessing, mapping, monitoring and reporting on Soil Pollution.
- Preparation and publication of scientific/technical notes (ITPS letters) on Soil Fertility, Soil Pollution, Soil Biodiversity, Soil Salinity, Soil Sealing.
- Preparation of the 2nd version of the World Soil Resources Report (to be issued in 2025).
- Continued collaboration with international organizations and panels:
 - Science-Policy Interface of the UNCCD:
 - 4/1000 initiative
 - CIRCASA (Coordination of International Research Cooperation on Soil Carbon Sequestration in Agriculture) project.

3.4 Towards the second edition of the Status of the World's Soil Resources report

5. As part of the preparation of the second edition of the Status of the World's Soil Resources report to be published in 2025, an editorial board has been established, with one ITPS member representing each region. Dr Dan Pennock has been appointed as Managing Editor of the report and will receive due support from the GSP Secretariat to allow for an inclusive process towards a fulsome second version, especially in depicting the dynamics of soil threats since the first version published in 2015.

Annex 1**SUMMARY CV**

Name	:	Sorokin, Alexey
Nationality	:	Russian Federation
Place of birth	:	Zelenograd, Moscow
Date of birth	:	26 October 1987
Expertise	:	Soil science
Work address	:	Eurasian Center for Food Security, Lomonosov Moscow State University 12, Leninskiye gory 1, Moscow
Mobile	:	+7 926 676 7333
E-mail address	:	alexey.sorokin@ecfs.msu.ru
Skype	:	alexey.sorokin_3
Google Scholar	:	Scholar page
ResearcherID	:	AAO-1893-2020

Senior researcher, PhD (Soil Science)

Education – Lomonosov Moscow State University, Department of Soil ScienceSS, 2005-2010

Work – Lomonosov Moscow State University, 2013 – till present (full time)

Research fields – databases, geography of soils, soil classification, soil compaction, food security, steppe areas, economics of land degradation, digital soil mapping

Theme of the PhD dissertation – Genesis of soil compaction in the southern steppe zone of European Russia (2016)

Experience in international activity and consultancy:

(1) Food and Agriculture Organization, Global Soil Partnership Secretariat, under the MoU signed between FAO and the Lomonosov Moscow State University, a volunteer (2015)

Responsibilities: 1) Contribute to the activities of the Regional Implementation Plan of the Eurasian Soil Partnership; 2) Assist on the activities related to the celebration of International Year of Soils with a focus on Eurasia; 3) Assist on the preparation of the INSII Conference; 4) Assist on all matters related to the GSP implementation.

(2) Center for Development Research, University of Bonn, Germany, the training workshop on Economics of Land Degradation (ELD), researcher (2014)

(3) *Eurasian Soil Partnership* (2013 – till now), the technical and scientific work in its secretariat

Responsibilities: Developing of the manuals, textbooks, regional reports in collaboration with partners from the Eurasian region Center for Development

(4) *Purdue University, USA, visiting scholar* (2012)

Responsibilities: Analysis of large database, correlation of international and domestic classifications

Research activity – participation in the projects supported by the Russian Scientific Foundation (RSF) and Federal Target Program (FCPIR)

2019-2020 (FCPIR, No 075-15-2019-1868), Enhancing integrated soil management technologies for increased crop production in Uganda (participant)

2018-2020 (FCPIR, 075-15-2019-1452), Management of atmospheric carbon sequestration in arable soils of Russia (participant)

2017-2019 (RSF, No 17-17-01293), Multilevel regional pedogeographic models for sustainable soil management (participant)

2014-2016 (RSF, No 14-38-00023), Control of land degradation in the Eurasian region (participant)

Teaching experience – courses at the department of Soil Science at MSU (Russia): Digital soil mapping (practicals), Economic of land degradation (lectures and practicals), field-trip Soil and landscapes of European part of Russia (management and practicals)

The regions of expeditions: southern Russia, Eurasian region

Languages: Russian (mother tongue), English (fluent)

Computer skills: experienced user of standard programs (MS Word, MS Office, MS Power Point, Photoshop), and GIS (QGIS, MapInfo), primary skills in R.

The most relevant publications:

Alexey Sorokin, Phillip Owens, Vince Láng, Zhuo-Dong Jiang, Erika Michéli, Pavel Krasilnikov, “Black soils” in the Russian Soil Classification system, the US Soil Taxonomy and the WRB: Quantitative correlation and implications for pedodiversity assessment, *CATENA*, Volume 196, 2021, 104824, ISSN 0341-8162, <https://doi.org/10.1016/j.catena.2020.104824>.

M.I. Gerasimova, I.A. Golovleva, M.V. Konyushkova, **A.S. Sorokin**, P.V. Krasilnikov, Assessment of soil diversity using soil maps with different scales in Eastern Fennoscandia, Russia, *Geoderma Regional*, Volume 21, 2020, e00274, ISSN 2352-0094, <https://doi.org/10.1016/j.geodrs.2020.e00274>.

P. V. Krasilnikov, M. I. Gerasimova, D. L. Golovanov, Yu. A. Golovleva, M. V. Konyushkova, V. A. Sidorova & **A. S. Sorokin**, Soil Cover Diversity and Its Spatial Organization at Different Map Scales. *Eurasian Soil Sci.* 53, 1013–1020 (2020). <https://doi.org/10.1134/S1064229320080098>

P. V. Krasilnikov, M. I. Gerasimova, D. L. Golovanov, M. V. Konyushkova, V. A. Sidorova & **A.S. Sorokin**, Pedodiversity and Its Significance in the Context of Modern Soil Geography. *Eurasian Soil Sci.* 51, 1–13 (2018). <https://doi.org/10.1134/S1064229318010118>

P. Krasilnikov, **A. Sorokin**, O. Golozubov, and O. Bezuglova. Managing chernozems for advancing sdgs. In *Soil and Sustainable Development Goals* (Eds. R.Lal, R. Horn & T. Kosaki), *GeoEcology Essays*, pages 175–188. Catena-Schweizerbart Stuttgart, 2018.

P. Krasilnikov, **A. Sorokin**, A. Mirzabaev, O. Makarov, A. Stokov, and S. Kiselev. Economics of land degradation to estimate capital value of soil in eurasia. In *Global Soil Security, Progress in Soil Science*, pages 237–246. Springer International Publishing Switzerland, 2017. https://doi.org/10.1007/978-3-319-43394-3_21

Sorokin, A.S., Abrosimov, K.N., Lebedeva, M.P. et al. Composition and structure of aggregates from compacted soil horizons in the southern steppe zone of European Russia. *Eurasian Soil Sci.* 49, 326–337 (2016). <https://doi.org/10.1134/S1064229316030108>

A. Sorokin, A. Bryzzhev, A. Stokov, A. Mirzabaev, T. Johnson, and S. Kiselev. Chapter 18. The economics of land degradation in Russia. In *Economics of Land Degradation and Improvement - A*

Global Assessment for Sustainable Development, pages 541–576. Springer International Publishing AG, The Netherlands, 2015. <https://doi.org/10.1007/978-3-319-19168-3>

Sorokin, A.S., Kust, G.S. Compaction of chernozems on the right bank of the Kuban River. Eurasian Soil Sc. 48, 63–71 (2015). <https://doi.org/10.1134/S1064229315010160>