

ITPS-XIII/20/Report



Food and Agriculture
Organization of the
United Nations



Report of the Thirteenth Working Session of the Intergovernmental Technical Panel on Soils

Virtual Session November 2020

**REPORT OF THE THIRTEENTH WORKING SESSION OF THE
INTERGOVERNMENTAL TECHNICAL PANEL ON SOILS**

Virtual Session November 2020

FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS

Rome, 2020

1. Opening of the meeting.....	4
2. Cooperation with SPI, 4per1000, CIRCASA, others	4
3. World Soil Day 2020	4
4. Presentation of ITPS working groups outcomes	5
Report of the soil organic carbon working group.....	5
Report of the soil pollution working group	6
Report of the soil erosion working group.....	6
Report of the soil biodiversity working group.....	7
Report of the soil salinity working group	8
Report of the soil fertility working group.....	8
Report of the mapping working group	10
Report of the black soils working group.....	10
5. Role of the ITPS in GLOSOLAN activities.....	10
6. Discussion on the 2 nd Edition of the Status of the World’s Soil Resources Report	11
7. Brainstorm on future ITPS Letters.....	11
8. End of the mandate of the third ITPS panel (rules and procedures).....	12
9. Any other business	13
10. Date and venue of the next meeting.....	13
11. Closure of the meeting	13

1. Opening of the meeting

Dr Rosa Poch, ITPS Chair, welcomed all ITPS members and colleagues from the GSP Secretariat to the 13th ITPS working session and thanked everyone for joining this virtual session despite the late or early hour for some members. Once the agenda was approved, a volunteer was asked to act as rapporteur and Dr Lydia Chabala agreed to carry out this task with the support of the GSP Secretariat.

Mr Vargas then welcomed everyone and thanked the ITPS members for their great commitment to the various activities that have taken place over the past months.

2. Cooperation with SPI, 4per1000, CIRCASA, others

Dr Rosa Poch reported on the various collaborative activities of the ITPS with other bodies, including the Science-Policy Interface of the United Nations Convention to Combat Desertification (UNCCD SPI), the 4 per 1000, the Global Soil Biodiversity Initiative (GSBI), the Convention on Biological Diversity (UN CBD), the Intergovernmental Science- Policy Platform on Biodiversity and Ecosystems Services (IPBES), the Intergovernmental Panel on Climate Change (IPCC), the Joint Research Centre of the European Commission (JRC), and the International Union of Soil Science (IUSS). Most of the collaborations were mainly oriented towards the revision of technical documents of common interest such as the Soil Biodiversity report or the technical manual for SOC management. Other cooperation focused on the joint organization of global symposia, celebrations and dissemination activities on the World Soil Day.

For its part, the ITPS has contributed to the revision of the UNCCD SPI Good Practice Guidance for SDG 15.3.1 and assisted in the development of the 4 per 1000 Strategic Plan. The Chair of the ITPS regularly attends meetings of the 4 per 1000 Steering Committee and UNCCD SPI meetings.

Dr Attia Rafla asked whether the different meetings attended by the ITPS Chair proposed methodological approaches and territorial planning tools to establish the 4 per 1000 Strategic Plan, or whether the ITPS could propose technical guidelines focusing on the spatialization of sound natural resource management practices.

3. World Soil Day 2020

Ms Isabelle Verbeke (GSP Secretariat) gave a brief presentation on the World Soil Day (WSD) 2020 campaign and the GSP communication and outreach strategy. She strongly encouraged the ITPS members to register their events on the WSD map and to promote the campaign among their networks. She mentioned that the WSD campaign material is available on the WSD website and on the Trello board and that ITPS members should share and disseminate it in their respective countries and regions. She also presented statistics of the WSD campaigns over the years and encouraged everyone to share and spread the word to broaden the recognition of WSD across the world. Since the first WSD celebration in 2014, the number of events has increased every year (553 events in 100 countries for the 2019 campaign). The [WSD 2019 post campaign report](#) provides a summary of the results achieved. She also presented the two contests organized this year (soil biodiversity photo and video contest and the FAO/IUSS children's book contest). Finally, Ms Verbeke briefed the ITPS of the results of the two soil prizes (Glinka World Soil Prize and King Bhumibol World Soil Day award) which both received outstanding nominations. The winners will be announced during the World Soil Day celebration to be held virtually on 4th December.

Ms Verbeke concluded her presentation by providing an update and statistics on the GSP outreach and promotion channels. On the eight soil websites managed by the team, the pages were consulted 1 463 288 views and 670 271 users (from January to August 2020). The soil Twitter page received a total engagement rate of 7.1 on average and 664 retweets. The GSP Facebook page received 672 000 views and an engagement rate of 3.7 percent

on average. The pandemic has had a positive impact on global outreach, with more participants in virtual meetings and webinars, more followers on social media and a growing mailing list.

Dr Lucia Anjos acknowledged the cooperation with IUSS and suggested to have an annual children's book activity for all topics, as these materials are a very useful tool to raise awareness on soil.

4. Presentation of ITPS working groups outcomes

Report of the soil organic carbon working group

SOC Manual presentation

Dr Lucia Anjos presented the item dealing with the preparation of the technical manual "Recarbonizing global soils: a technical manual of recommended soil management practices" (also called "SOC Manual"). In addition to presenting the progresses made in the manual preparation, Dr Anjos elaborated on the selection criteria for the inclusion of case studies in the manual. She indicated that the team aimed to find the best balance between scientific quality and regional balance.

It was decided that a methodological chapter should be included at the beginning of the Manual to clarify the selection aspects, and the fact that practices that lead to a decrease in SOC were not included. The methodological chapter will be drafted by Ms Clara Lefèvre and shared with the SOC working group for comments and improvement.

It was proposed that an update of the SOC Manual should be made after some years (10 years or less) to enable the inclusion of updated information.

The issue of missing authors was also raised, and Dr Ellen Grabber offered to help find an author for "Fertigation". Dr Jamal Khan confirmed that he is in contact with the author of "Slurries" and "Integrated crop-livestock systems" and that the documents will be ready by the end of December 2020. Dr Maria Konyushkova recognized that the publication of this manual will stimulate more contributions from a broader geographic coverage for the next update.

Erratum: it was said during the presentation that practices included in the previous version of the manual had been automatically included in this new version. This is not completely true, as only practices that have a positive impact on soil organic carbon sequestration have been included.

RECSOIL

Ms Rosa Cuevas (GSP Secretariat) started by reminding ITPS that the main recommendation of the GSOC17 was to avoid further losses of SOC and, where feasible, to provide incentives to increase the stock of SOC. With this objective, the RECSOIL initiative was launched in 2018 with the main aim of considering farmers as a key vector of change, capable of implementing and scaling up SSM practices.

Ms Cuevas summarized the progress of the key activities at national and international level regarding the RECSOIL initiative. Mexico is taking action to accelerate project development and access to Green Climate Fund (GCF) resources. She explained that the primary objective of this initiative is to mitigate climate change and strengthen the resilience of agricultural and forestry systems through the recarbonization of soils at the local level. Mexico is committed to reducing its emissions by 22 percent by 2030. Through the support of a Letter of Agreement, Costa Rica has already prepared and completed the technical implementation proposal considering two main activities: Coffee & Pastures, and how RECSOIL will incorporate the Payments for Ecosystem Services. Ms Cuevas explained

that Costa Rica has successfully implemented locally adapted SSM practices that generate carbon sequestration, which have been subject to the Protocol for assessing SSM practices, and provides funding to farmers according to the costs of implementing SSM practices at the farm level. Finally, Costa Rica launched the SOCseq map.

In the case of the implementation of RECSOIL at the international level, the GSP is developing a proposal for a framework for the European Green Deal. The aim of the European Green Deal framework is to incorporate all the key tools related to soil biodiversity, sustainable soil management, and soil pollution and not to focus only on carbon. Ms Cuevas indicated that the main outputs on relation to carbon are climate change mitigation and adaptation strategies that will lead to carbon sequestration through step-by-step activities.

Dr Ellen Graber proposed to implement the RECSOIL initiative in Ghana with Cocoa farmers and volunteered to establish linkages in this regard.

Report of the soil pollution working group

Ms Natalia Rodriguez Eugenio (GSP Secretariat) summarized the progress made in the preparation of the different pollution activities with the support of Dr Ellen Graber. Regarding the Global Soil Pollution Assessment (GASP), it was mentioned that there are still some unfinished chapters and that these will be sent in the coming weeks to the Editorial Board for review. The ITPS was asked to contribute to the revision of the GASP report and the technical guidelines for assessing, mapping, monitoring and reporting soil pollution. The ITPS was also asked to contribute to the development of the conclusions of the GASP report, taking into account that these represent policy actions to be undertaken by the ministries of agriculture and the environment. It was also requested that the ITPS members mainstream soil pollution aspects in any other topics covered by the ITPS.

ITPS agreed to continue its support for soil pollution activities.

Report of the soil erosion working group

Dr David Lobb started the presentation and informed members that erosion activities (other than the Global Soil Erosion map) will be postponed to a later date until funding is secured.

Special issues: Lessons learnt and way forward

Dr Megan Balks started the presentation on special issues (SI). The presentation mainly focused on lessons learned and the relevance of continuing with the activity in the future. Dr Rosa Poch highlighted that the discussion was important as it will also affect the forthcoming Symposium on Soil Biodiversity (GSOBI).

With regard to future symposia, it was stressed that the ITPS and the Secretariat should start analysing the information presented during the symposia for the next Status of the World Soil Resources report 2025 (SWSR 2025), and that the findings of the symposia should be incorporated into the outcome report. For this purpose, published papers, such as those published in the SI, would be a good first step. However, it was recognized that publishing SIs would allow members from countries where it is difficult to publish in high-impact journals to publish their work. The team involved in the preparation of this year's SI unanimously agreed that it took too long to get good papers published.

Several proposals were made for the future:

1. Publish the proceedings with abstracts, and after write a synthesis paper published by the GSP/ITPS in a recognized journal to give a conclusion and also to get key information into the wider science literature, which would also support the inclusion of more recent information in the SWSR2025.

2. Provide participants with the opportunities to provide a short abstract or an extended abstract, so that their future publications are not hampered. Another suggestion was to encourage participants to publish in any journal with an acknowledgement of the GSP so that the symposium papers are published without extensive involvement of the ITPS/GSP in the process.

3. Improve the Symposia proceedings by:

- Improving the level/quality of the selected abstracts
- Publish the symposia papers as extended abstracts, which can be cited separately.
- Making possible to access each abstract online

Soil erosion activities and issue of the working groups

Mr Ronald Vargas (GSP Secretariat) explained that the Secretariat will start prioritizing activities and announced that mapping will be the only activity maintained in 2021 on soil erosion, and Mr Christian Omuto will lead it in the Secretariat. However, Mr Vargas stressed that the decision can still be discussed and asked the panel what potential activities linked to soil erosion can be envisaged in 2021.

Dr David Lobb highlighted that due to the high workload and limited time, we should focus only on the outcome document of the Global symposium on soil erosion and the GSERmap. The focus should now be on the SWSR2025. Dr David Lobb stressed that all the ITPS working groups should now turn their attention to the preparation of the SWSR2025, so that each group can start to develop a thematic synthesis.

Mr Ronald Vargas closed the topic by highlighting that two working groups exist on soil erosion, and that they could be proposed to start working on the SWSR2025.

Report of the soil biodiversity working group

Ms Rosa Cuevas, on behalf of Dr Peter de Ruiter, coordinator of the soil biodiversity working group, presented the final version of the Report "State of Knowledge of Soil Biodiversity - Status, challenges and potentialities", including the Summary for Policy Makers (SPM). The GSP, in cooperation with the ITPS, GSBI, CBD and EU-JRC, finalized the Report in the second semester of 2020, which involved more than 300 soil scientists from around the world.

The next steps include the official launch of the report during the World Soil Day celebration on 5 December 2020, as well as the implementation of the recommendations set out in the report's way forward. Some of these recommendations include, for example, developing standard protocols and procedures for assessing soil biodiversity at different scales; improving knowledge of the soil microbiome; strengthening knowledge on the different groups forming soil biodiversity; or setting up a Global Soil Biodiversity Observatory.

Dr Peter de Ruiter acknowledged the Secretariat for its considerable effort to deliver the Report on time despite all the adversities.

Ms Isabelle Verbeke (GSP Secretariat) presented the status of the Global Symposium on Soil Biodiversity to be held from 2-5 February 2021. She explained that the Symposium will take place in a virtual format with several parallel rooms. Participants will be able to select the rooms they wish to attend and change rooms at any time. The draft agenda is online. There are 48 posters and 93 presentations from 50 countries that have confirmed their participation and registration will open soon. The ITPS members were invited to volunteer to moderate the 10 parallel sessions to be held on 3 and 4 February on the three symposium themes: Theme 1, State of knowledge

on soil biodiversity; theme 2, Soil biodiversity in action and theme 3, Soil biodiversity shaping the future of food systems.

Dr Peter de Ruiter mentioned that the ITPS and the GSP Secretariat should determine the best format to publish and give visibility to the abstracts received for the Symposium, either through the publication of a Special Issue in a scientific journal or through an ITPS summary of the main results of the Symposium. Dr de Ruiter also mentioned the possibility of indexing the book of proceedings, which would give participants the possibility to present their contribution to the symposium and cite it correctly.

Report of the soil salinity working group

Dr Maria Konyushkova, lead of the salinity working group, presented the latest information of the work on salt-affected soils. In particular, she gave an update on the Global Symposium on Salt-Affected Soils (GSSAS21), the International Network of Salt-Affected Soils (INSAS), the status of the Global Soil Salinity map (GSSmap) and the global report on salt-affected soils.

Dr Konyushkova highlighted the preparation of the global status of salt-affected soils as the main activity since the last ITPS meeting. The ITPS Salinity Working Group and the GSP Secretariat members working on soil salt-affected soils held a virtual meeting in July, during which the structure of the global report was discussed, approved and responsibilities shared among the group members for the different chapters. Some countries have already submitted their reports, but a follow-up/reminder will have to be sent by the GSP Secretariat to the rest of the countries. The template for the Global Status of Salt-affected Soils was also shared with all ITPS members, as it will most likely become an important component of the upcoming Status of the World's Soil Resources report.

The Global Symposium on Salt-Affected Soils will be held in September 2021 in Tashkent (Uzbekistan). Due to the relevance of the field activities included in the agenda, the co-organizers stressed the importance of holding the symposium in-person. Therefore, in the event that the COVID-19 pandemic prevents the meeting from taking place as planned, the co-organizers of the government of Uzbekistan request to postpone the symposium to 2022 as the symposium includes not only a scientific section, but also a practical session that requires the physical presence of symposium participants. The organization of the symposium is currently suspended until a decision on its modalities and date is taken.

Since its launch in November 2019, the International Network on Salt-Affected Soils (INSAS) has experienced limited growth in terms of registered members and activities. Mr Ronald Vargas clarified that the GSP Secretariat is working on the appointment of a new coordinator of INSAS to continue the network's work plan. The first meeting of INSAS will be held virtually in January/February 2021, with the aim of agreeing on priorities and activities and establishing the governance of the network. The ITPS salinity working group will be consulted on the latter.

Report of the soil fertility working group

Ms Vinisa Saynes Santillán (GSP Secretariat) presented, on behalf of the fertility working group, a synthesis of the activities carried out by soil fertility working group of the GSP Secretariat, composed of Ms Carolina Olivera, Ms Zineb Bazza and Mr Yuxin Tong, in collaboration with the ITPS members Dr Gary Pierzynski and Dr Rafla Attia. The reported activities included the following:

1. *Implementation activities for the International Code of Conduct for the Sustainable Use and Management of Fertilizers.* The general strategy for implementing the Fertilizer Code will include several actions such as the development of a video to present the three main issues related to fertilizer use and management

across world: underuse, overuse and, misuse, and the consequences. The Fertilizer Script Storyboard is currently under development. The video will address key activities to implement the Code, including dissemination and awareness raising of the Fertilizer Code principles; development of national capacities to implement sustainable use and management of fertilizers; promotion of a holistic approach to sustainable soil and nutrient management for ecosystem services and to encourage/advocate fertilizer quality control policies and networks, regulatory systems and supply/distribution chains to ensure the appropriate distribution of fertilizers.

2. Global Symposium of Soil Fertility 2022. The symposium planned for 2022 will address the nutrient imbalance, the status, importance and challenges of soil fertility and the strategies required to maintain/improve soil fertility sustainably. Ms Saynes presented the preliminary goals of the symposia and asked for the support of the ITPS working group to define the symposium topics and agenda.
3. National Survey on Use and Management of Fertilizers. Ms Saynes summarized the main goals of the survey. The survey will aim to collect information at the national level on the use and management of fertilizers. The objective is to better understand the gaps and challenges related to sustainable fertiliser, as well as the current efforts in fertilizer use and management. The survey will be sent to all relevant stakeholders: focal points, webinar participants, farmers associations, fertilizer industry, initiatives, laboratories, soil science societies, and FAO regional and national offices.

Ms Saynes informed the ITPS of the collaboration with the International Network of Fertilizers Analysis. Fertilizer composition is a priority and a topic of interest to several stakeholders and a key point in achieving the sustainable and efficient use of fertilizers. Monitoring the quality of fertilizers is fundamental. For this reason, activities regarding the harmonization of methods and data on soil fertility assessment and fertilizer quality control are essential.

Ms Saynes also informed the ITPS about ongoing GSP projects related to soil fertility:

- 1) Soils 4 Nutrition: Sustainable soil management for nutrition-sensitive agriculture in sub-Saharan Africa and Southeast Asia. This is a three-year project (Dec 2018 – Nov 2021) funded by the Government of Germany;
- 2) Capacity Development on Sustainable Soil Management for Uganda and Rwanda, a two-year project (July 2020 – June 2022) funded by Government of China.

She summarized other activities related to nitrogen management in farming systems, which is a cross-cutting issue of interest to other GSP work areas, such as RECSOIL, the inclusion of nitrogen emissions in the calculations of the GHG emissions of the GSOC-MRV, monitoring tools and approaches to assess the impact of fertilizer use on soil quality and productivity, inclusion of tools in the Global Soil Doctors Programme to measure and recommend nitrogen and micronutrients fertilization (including technology-oriented and nature-based solutions).

Finally, Ms Saynes called on ITPS to help her identify experts to present at the Global Symposium on Soil Fertility.

ITPS members recognized the work done so far to advance the implementation of the Fertilizer Code and expressed interest in supporting the Symposium and other activities. Members also acknowledged the good work done by Ms Saynes and other members of the Secretariat in preparing the draft ITPS Letter on Nitrogen.

Dr Maria Konyushkova agreed to take the lead on finalizing the ITPS Letter on Nitrogen.

Report of the mapping working group

Mr Yusuf Yigini (GSP Secretariat), on behalf of Ms Costanza Calzolari and Ms Lydia Chabala, presented the progress made in the technical development of the GloSIS Spatial Data Infrastructure, the GloSIS node development and the global data products. He explained the short and long term goals of GloSIS, namely GloSIS 1.0 and GloSIS 2.0. He then presented the status of GSOCseq – Global Soil Organic Carbon Sequestration Potential Map-, GSSmap – Global Soil Salinity Map. Regional capacity development trainings started in the last week of October and will continue until the end of the year. The first version of the GSOCseq will be released in the first quarter of 2021.

Mr Yigini explained that in the case of the GSSmap, a harmonized country-driven process and capacity-building programme has been undertaken. The programme included eight regional trainings reaching more than 270 national experts from 117 countries. He reported that data collection had started and to date, more than 30 countries have delivered their national GSSmap layers. He indicated the GSSmap will be released in early 2021.

He also explained that the GSOC map is now at version v.1.6. It was indicated that work on the Global Soil Erosion Map (GSERmap) had been postponed due to a high workload and prioritization of ongoing activities until 2021, when work is expected to resume.

Dr Lucia Anjos pointed out that the difficulties encountered by the selected national experts in preparing the maps within the timeframe are due to the Covid situation and lack of access to powerful IT equipment. Dr Costanza Calzolari congratulated the team for the tremendous amount of work done and stressed that the role of the ITPS should be to provide greater scientific support in the development of the technical specifications for data collection and harmonization and for the production of the global maps, so that they are built on a scientifically sound basis.

Dr Poch closed the session by highlighting the importance of these maps in providing evidence for informed decision-making. Dr David Lobb asked whether the maps will be accompanied by a reliability map and Mr Yigini confirmed that uncertainty maps are also being developed at the national level.

Report of the black soils working group

Dr Lucia Anjos, lead expert of the ITPS Black Soil working group, presented the outputs of the two discussion sessions of the Report of Global Status of the Black Soils (the Black Soil Report) and the Global Black Soil Distribution Map (GBSmap). She informed the meeting about the modification of the structure of the chapter and proposed a new agenda for the drafting of the report. She encouraged ITPS members to support the INBS and the Black Soil Report by recommending experts for the development of the report, supporting the revision of the chapters, and facilitating activities for black soils protection and sustainable soil management.

Mr Yuxin Tong, INBS Coordinator at the GSP Secretariat, thanked the ITPS members for leading the writing of the Black Soil Report, which is the INBS reference publication. Mr Tong encouraged ITPS members to continuously support the Black Soil Report and other INBS activities, such as resource mobilization for black soil monitoring and conservation, to keep the network active. The modified structure of the Black Soils Report and the proposed programme for the report were approved.

5. Role of the ITPS in GLOSOLAN activities

Dr Ashok Patra and Dr Maria Konyushkova, official representatives of the ITPS in the Global Soil Laboratory Network (GLOSOLAN), informed the ITPS about the work carried out by the network in 2019-2020. Dr Patra informed the meeting that GLOSOLAN has about 600 registered laboratories from all around the world and is growing steadily. The main achievements of GLOSOLAN for the period 2019-2020 were the approval of the

Resolution on the international exchange of soil samples for research purposes under the Global Soil Laboratory Network by the 27th Committee on Agriculture; the launch of the first ever global database on customs control procedure called SIMPLE – Soil IMPort Legislation in June 2020; the provision of soil laboratory equipment to laboratories in 20 countries in Latin America, Africa, Asia, Eurasia and the Near East and North Africa, selected based on their performance in the GLOSOLAN proficiency test in 2019; and the launch of the GLOSOLAN programme on soil spectroscopy in April 2020 and the organization of the first plenary meeting on soil spectroscopy in September 2020. The GLOSOLAN website is being translated into the six UN languages as well as all GLOSOLAN materials.

Dr Patra also informed the ITPS of the successful organization of an international webinar on soil spectroscopy in October 2020. The event was attended by about 900 participants.

With regard to upcoming activities, the 15 harmonized standard operating procedures in 2019-2020 will be published on the GLOSOLAN website before the end of year. GLOSOLAN is working on the establishment of National Soil Laboratory Networks for which the GSP is creating country specific webpages. The launch meeting of the International Network on Fertilizer Analysis (INFA) will be held on Zoom on 8 and 9 December 2020.

6. Discussion on the 2nd Edition of the Status of the World's Soil Resources Report

Dr Poch summarized the information that has been collected over the years that could support the second edition of the Status of the World's Soil Resources (SWSR) report. Mr Vargas mentioned that the report should be a continuation of the previous work using the 2015 report as a baseline and adding the information collected for the different global assessments and maps under preparation. He proposed to have a separate meeting with Dr Lobb and Dr Balks, who had indicated in previous meetings their interest in coordinating this activity. The GSP Secretariat will prepare a draft table of contents to be shared with the rest of the ITPS by the end of this year.

Dr Anjos proposed that black soils be included in the SWSR as a separate item. Dr Garcia shared his experience with the previous report and proposed to include the adoption of VGSSM and other related concepts (conservation agriculture, etc.) in the new version of the SWSR. Dr Konyushkova intervened along similar lines, Dr García mentioned that all GSP partners should be involved and that there is a need to consult the Regional Soil Partnerships to determine regional priorities and include information on how the adoption of sustainable management practices has evolved since 2015.

Dr Lobb expressed concern about the timing of the report and proposed that a specific videoconference be organised in January to share Ronald's proposed TOC with all the ITPS and identify responsible members in each region to take the lead.

It was agreed that Megan and David, together with the Secretariat, will prepare the draft TOC by the end of the year and that the Secretariat will organize a meeting in January with all ITPS to distribute the roles.

7. Brainstorm on future ITPS Letters

Dr Poch presented some themes that could be considered for future ITPS letters and summarize the agreement reached on the letter under development on carbon and nitrogen.

Dr Balks proposed to develop a letter on the results of the GSOBI and other activities currently being carried out by the GSP.

Dr Khan proposed to develop a letter on desertification and migration. Dr Calzolari recognized the importance and relevance of the letters and supported the proposal for a letter on inorganic carbon, soil sealing and land taking, and expressed concern about the fixed periodicity of the letters. Lucia also shared concerns about the periodicity and proposed to have a letter on soil education supporting Dr Balk's proposal. Dr Nziguheba asked about the status of the letter C/N, which was clarified by Dr Poch.

Dr Konyushkova proposed to develop a letter on the Global Soil Information System and to initiate a series of letters on SSM practices, discussing all practices one by one (no-tillage, agro-forestry, etc.), using SWOT analysis. Dr Pierzynski proposed to produce a letter on the impact of the spectroscopic approach to soil analysis at the global level, also supporting Drs Konyushkova and Patra comments. Dr Attia proposed to include a letter explaining the implementation plan of SSM for upscaling at national regional level, addressing barriers to adoption (technically and politically) and including experiences at local, national and regional level.

For this item, it was agreed that Dr Poch would prepare a table with all the proposed topics for the ITPS letters to be presented to the panel to make a joint decision on the prioritization of the different topics.

8. End of the mandate of the third ITPS panel (rules and procedures)

Mr Vargas explained the regulations governing the ITPS. He indicated that ITPS members who have already served two terms cannot be renewed. The official procedure involves the GSP Secretariat calling on countries and regions to nominate new experts to join the ITPS. Current members who wish to continue their service for a second term can contact their governments and express their interest in continuing, but it is a national decision to nominate an expert and it is the FAO Regional Groups who ultimately decide which members are nominated to serve on the ITPS.

Given the current exceptional conditions caused by COVID-19, Mr Vargas also proposed a second course of action which is to request the GSP Plenary Assembly (PA) to exceptionally extend the mandate of the current group of experts for one more year due to the particular situation caused by COVID-19. Eligible ITPS members should indicate to the Chair their willingness to continue serving the ITPS.

In response to the possibility, several members have indicated their agreement to this one-year extension, including Drs Anjos, Lobb, García, Pierzynski, Khresat, Patra, Chabala, Siosiua, and Francke. Dr Garcia added the importance of continued communication and participation from members who are due to leave this year.

Dr Graber raised the issue that the group cannot simply leave and ask for clarification on who makes the final decision. Dr Poch emphasized that a decision cannot be made now because not all ITPS members are present at the meeting.

Dr Ke Jin mentioned that he has other commitments and that he would not be willing to continue for a second term or a one-year extension. In this regard, Dr Chabala asked whether the ITPS provides the option of one person leaving in case the term is extended for the majority. In response, Mr Vargas indicated that if an ITPS member does not accept his/her position, he/she cannot be replaced and the Panel would be short of a member, as is the case with the current ITPS.

In conclusion, it was agreed that the GSP Secretariat will send a survey to all ITPS members to confirm their willingness to continue to serve for one year, providing all the information contained in the discussion held during the meeting. On the basis of the responses, the Secretariat will take appropriate action.

9. Any other business

Dr Balks proposed prioritizing the actions as the workload is already very high.

Dr Lobb asked what the role of the pillars was and whether ITPS should do something about it. Dr Poch and Mr Vargas clarified that the pillars could disappear according to the GSP assessment approved by the PA decision.

Dr Garcia asked that the presentations be shared in advance so that everyone could come to the meeting prepared.

It was mentioned on several occasions that given the virtual format of ITPS meetings and the increasing workload, it is possible to have more frequent meetings but to cover less material at each meeting. This could be one meeting per month or every two months, rather than having two large meetings per year.

10. Date and venue of the next meeting

A virtual meeting will be organized in January to discuss the table of contents of the second edition of the Status of the World Soil Resources and the distribution of roles.

Based on this meeting and the decisions taken there, it will be decided to organize one or more further meetings before the official meeting in April.

Mr Vargas appreciated the smooth running of the virtual meetings and mentioned that this could be the format chosen for future ITPS meetings.

11. Closure of the meeting

Both Dr Poch and Mr Vargas appreciated the good work carried out by the ITPS despite these difficult months and the significant improvement in communication between the ITPS and the GSP Secretariat.



Figure 1a: Participants of the 13th Working Session of the ITPS

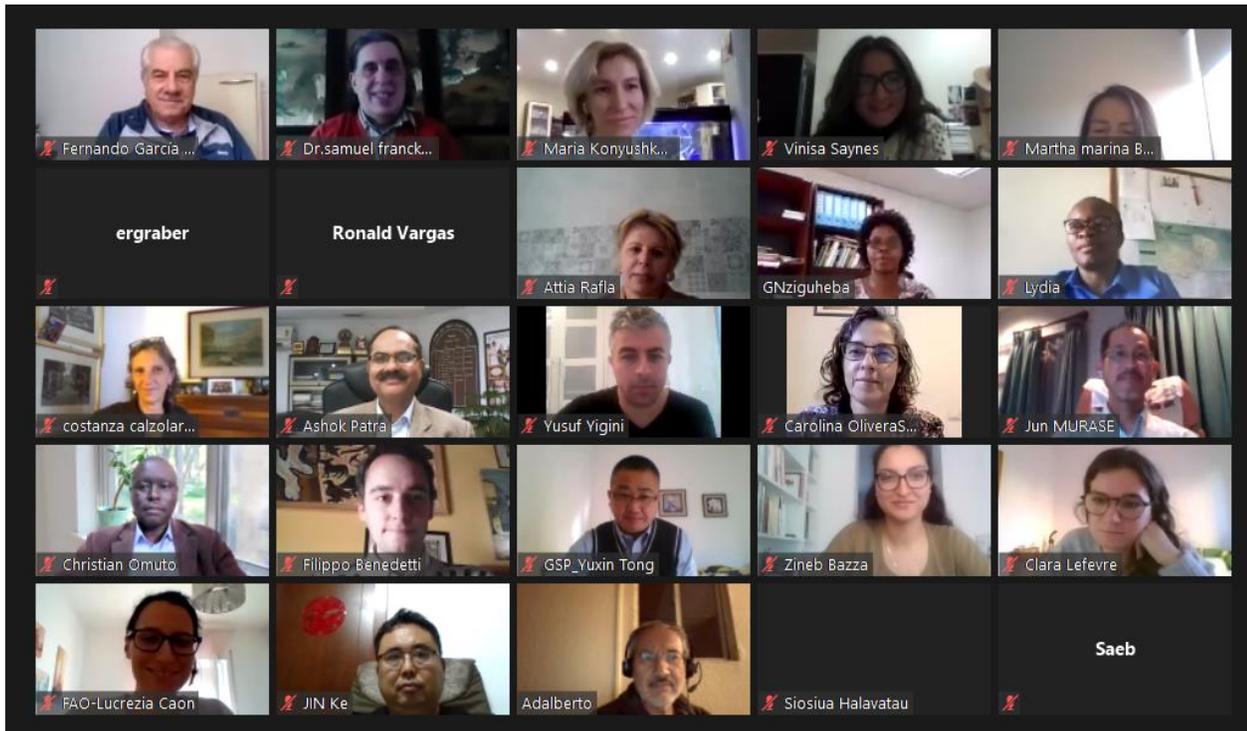


Figure 1b: Participants of the 13th Working session of the ITPS

Annex I - List of Participants

ITPS members	Region
Dr Lydia Mumbi Chabala (Zambia)	Africa
Dr Générose Nziguheba (Burundi)	Africa
Dr Rafla Sahli Epse Attia (Tunisia)	Near East and North Africa
Dr Martha Marina Bolanos Benavides (Colombia)	Latin America and Caribbean
Dr Fernando Garcia Prechac (Uruguay)	Latin America and Caribbean
Dr Adalberto Benavides Mendoza (Mexico)	Latin America and Caribbean
Dr Lucia Anjos (Brazil)	Latin America and Caribbean
Dr Samuel Francke Campana (Chile)	Latin America and Caribbean
Dr David Allen Lobb (Canada)	North America
Dr Gary Pierzynski (USA)	North America
Dr Ashok K. Patra (India)	Asia
Dr Jun Murase (Japan)	Asia
Dr Jin Ke (China)	Asia
Dr Mohammad Jamal Khan (Pakistan)	Asia
Dr Costanza Calzolari (Italy)	Europe
Dr Ellen R. Graber (Israel)	Europe
Dr Peter de Ruitter (The Netherlands)	Europe
Dr Maria Konyushkova (Russia)	Europe
Dr Rosa Poch (Spain)	Europe
Dr Siosua Halavatau (Tonga)	South West Pacific
Dr Megan Balks (New Zealand)	South West Pacific

Other participants	Affiliation
Mr Ronald Vargas	GSP Secretariat
Ms Zineb Bazza	GSP Secretariat
Mr Filippo Benedetti	GSP Secretariat
Ms Lucrezia Caon	GSP Secretariat
Ms Rosa Cuevas Corona	GSP Secretariat
Ms Clara Lefevre	GSP Secretariat
Ms Carolina Olivera Sánchez	GSP Secretariat
Mr Christian Omuto	GSP Secretariat
Ms Natalia Rodriguez Eugenio	GSP Secretariat
Mr Matteo Sala	GSP Secretariat
Ms Vinisa Saynes Santillan	GSP Secretariat
Ms Giulia Stanco	GSP Secretariat
Mr Yuxin Tong	GSP Secretariat
Ms Isabelle Verbeke	GSP Secretariat
Mr Yusuf Yigini	GSP Secretariat
