



Food and Agriculture
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ITPS-X/19/Report

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

Rome, Italy, 13-17 May 2019

itps

INTERGOVERNMENTAL TECHNICAL
PANEL ON SOILS

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

Rome, Italy, 13-17 May 2019

FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS

Rome, 2019

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1. Opening of the meeting

The tenth working session of the Intergovernmental Technical Panel on Soils (ITPS) was held at the FAO Headquarters in Rome from 13 to 17 May 2019. Mr Eduardo Mansur (Director of the Land and Water Division, FAO) welcomed ITPS members and observers (the list of participants is attached in Annex I). He highlighted the essential role played by the ITPS in providing science-policy inputs on soils as previously requested by member countries at the GSP Plenary Assembly. Mr Mansur underlined the need for the ITPS to facilitate the collaboration with other non-governmental bodies and to increase the visibility of the GSP/ITPS work through scientific publications highlighting core soil topics.

2. Adoption of the Agenda and election of a Rapporteur

The agenda was adopted with a slight modification to allow Mr David Cooper, Deputy Executive Secretary of the Convention for Biological Diversity (CBD), to present the CBD's activities related to soil biodiversity. Ms Rafla Sahli Epse Attia volunteered to be the rapporteur for this Working Session.

3. Report of the work performed since the 9th working session

Report by Secretariat

Mr Ronald Vargas, Secretary of the GSP, welcomed the participants and provided a brief overview on the progress made since the last session. He highlighted that the International Code of Conduct for the Sustainable Use and Management of Fertilizers was submitted for potential endorsement to the next FAO Conference, 22-29 June 2019. He further emphasized the need to develop a strategy for its implementation at an institutional level and invited the ITPS members to provide the GSP Secretariat with their suggestions. Mr Vargas briefed the participants about the upcoming Global Symposium on Soil Erosion (GSER19) and highlighted that the ITPS will be invited to contribute to the outcome documents. Mr Vargas also referenced the ongoing activities related to the global assessments on soil pollution, soil biodiversity and the mapping activities related to soil salinity, soil erosion and soil organic carbon sequestration potential. Finally, he suggested that the ITPS should publish two publications per year as a way to promote and to highlight the work of the ITPS/GSP.

Report by Chairs of Pillars (including nomination of chairs)

Pillar 1

Mr Gary Pierzynski was nominated as chair of Pillar 1 (See Annex III).

Pillar 2

Ms Megan Balks, reported on the Pillar 2 activities that were performed since the 9th working session of the ITPS. Ms Balks informed the participants about the activities related to the World Soil Day, to SoilLEX, a database that will be integrated with the FAOLEX system to compile national policies on soil, and EduSoil, a learning platform for sustainable soil management. The ITPS members were encouraged to be actively involved in the two projects, by reviewing the relevant documents, and in the case of EduSoil, to potentially volunteer in the development of courses.

Pillar 3

Mr Nsalambi Nkongolo, reported that the GSP secretariat is currently coordinating the establishment of ReSoil, a platform aimed at compiling research on soil on a global scale. ITPS members were invited to seek out information about soil research within their regions.

Pillar 4

Ms Costanza Calzolari, informed members about her participation to the latest meeting of the International Network of Soil Information Institutions (INSII) held on October 25, 2018 at FAO HQ, where the main topic raised involved the three global maps (soil salinity, soil erosion and SOC sequestration potential) and the establishment of GLOSI.

Pillar 5

Ms Lúcia Anjos, briefed ITPS members about the activities of the Global Soil Laboratory Network (GLOSOLAN) and highlighted that the second meeting of the Latin American Network of Soil Laboratories (LATSOLAN) was held in March 2019. Ms Anjos underlined the need to define a clear strategy in regards to soil classification, indicators and soil description.

4. Review of the progress of the main outputs of Pillar 1

Ms Zineb Bazza, GSP Secretariat, reported on the progress on the main outputs of Pillar 1.

Study on the economic benefits of sustainable soil management for farmers and other land users

Ms Bazza informed ITPS members that the concept note for the upcoming study on the economic benefits of sustainable soil management for farmers and other land users underwent an additional round of reviews by the Pillar 1 working group and the ITPS after being presented during the 6th Plenary Assembly (11-13 June, 2018). The most recent changes to the concept note include the addition of more detailed information about economic aspects linked to SSM and the inclusion of information and methodology contained in the working document on the economics of soil erosion prepared for the Global Symposium on Soil Erosion.

Protocol for the Assessment of Sustainable Soil Management

Ms Bazza reported on the progress regarding the protocol for the assessment of sustainable soil management, which underwent several rounds of review by ITPS members after being presented at the 6th GSP Plenary Assembly. The major six steps for assessing SSM were presented. Ms Bazza highlighted that the protocol was test-ran by Ms Megan Balks and invited ITPS members to further test it within their regions and provide her with examples of its application. After the finalization and the endorsement of the Protocol by the 7th GSP Plenary Assembly, the creation of a database with the best SSM practices is foreseen; for this purpose, WOCAT database could serve as a starting point.

5. Status of the International Code of Conduct for the Sustainable Use and Management of Fertilizers (Fertilizer Code)

Ms Zineb Bazza presented the progress on the International Code of Conduct for the Sustainable Use and Management of Fertilizers or the Fertilizer Code. Ms Bazza provided some background information regarding the scope of the document as well as the process behind its finalization, which has undergone numerous rounds of online consultations since December 2017. The document will be presented at the next FAO conference, 22-29 June 2019 for endorsement. ITPS members were invited to provide suggestions regarding the implementation of the Fertilizer Code at all levels.

6. Intervention by the representative of the Convention of Biological Diversity (CBD)

Mr. David Cooper, Deputy Executive Secretary of the Convention of Biological Diversity (CBD), informed ITPS members about the post-2020 global biodiversity framework and highlighted potential synergies between

GSP/ITPS activities related to soil biodiversity and the CBD. Mr Cooper underlined the need to raise awareness in regards to soil biodiversity, especially in light of the upcoming fifteenth meeting of the Conference of the Parties to the Convention on Biological Diversity (COP-15) in Beijing, October 2020. Mr Edmundo Barrios, GSP secretariat, informed the participants about the meeting that the CBD secretariat is working jointly with the GSP on the Status of Knowledge on Soil Biodiversity Assessment Report. Mr Eduardo Mansur highlighted the link between the upcoming Global Symposium on Soil Biodiversity (GSOBI20) in March 2020, which will be a key event to give insight about the importance and current research gaps in regards to soil biodiversity, which will be subsequently addressed during the COP-15. The ITPS will play a major role in providing the necessary scientific input and assure the linkages in cooperation with the CBD to both agricultural and environmental ministries to develop policies on soil biodiversity and raise awareness about its role in regards to soil fertility and ecosystem services.

7. Towards a Global Assessment of Soil Biodiversity

Mr Edmundo Barrios reported on the advances on the Status of Knowledge on Soil Biodiversity Assessment Report, which was mandated to FAO by the Convention of Biological Diversity (CBD) (refer to <https://www.cbd.int/doc/decisions/cop-14/cop-14-dec-30-en.pdf>) with the intent to publish it before the COP-15 in October 2020. A zero-draft concept note was developed and a tentative outline of the contents and timelines has been defined. Other partners including CBD, the European Commission (EC), and the Global Soil Biodiversity Initiative (GSBI) have been invited to join the Editorial Board and a 1st planning meeting was held. Lastly, a roster of experts to be considered as main chapter authors is being prepared.

The discussion focused on specifying the role of the ITPS in fulfilling the mandate, which was appointed to FAO by the CBD. It was clarified that the FAO considers the ITPS should take the lead in executing this task considering the involvement of other institutions. It was concluded that the ITPS should consolidate the outline of the report and develop strategies to get the necessary input to produce a final report, which will be submitted to the Subsidiary Body on Scientific, Technical, and Technological Advice (SBSTTA) of the CBD by March 2020.

It was also highlighted that the report should provide a baseline for the Global Symposium on Soil Biodiversity. The global assessment on soil biodiversity will play a critical role in determining the main research gaps and discussions, which will lead the sessions during the GSOBI20.

8. Review of the progress on the implementation of GSOC17 and GSOP18 outcome documents

Progress on the implementation of GSOC17

Ms Rosa Cuevas, GSP secretariat, reported on the progress made so far in regards to the implementation of the “Unlocking the potential of soil organic carbon” outcome document of the Global Symposium on Soil Organic Carbon (GSOC17).

Ms Cuevas informed the ITPS members that a zero-draft version of the Technical Manual on Soil Organic Carbon Management has been submitted to a panel of experts for review. The final version will be launched during World Soil Day 2019. Ms Cuevas invited ITPS members to support the finalization of the technical manual by reviewing the final draft. The outline of the contents of the Technical Guidelines on Soil Organic Carbon Measuring, Mapping, Monitoring and Reporting has been finalized and the first zero-draft is currently being prepared. The GSP secretariat is currently working on an accompanying document to the Global Soil Organic Carbon map (GSOCmap) GSOCmap Interpretation aimed at highlighting its potential use and interpretation. Lastly, an initiative dealing

with the re-carbonization of global soils (RECSOIL) was presented as a tool to implement the Koronivia Joint Work on Agriculture (KJWA).

It was emphasized that there is a clear need to improve the cooperation between environmental and agricultural ministries to assure that countries utilize their national GSOCmap.

Progress on the implementation of GSOP18

Ms Bazza presented, on behalf of Ms Natalia Rodriguez Eugenio, the progress on the implementation of the “Be the solution to soil pollution” outcome document. A questionnaire for the assessment of the global status and regional trends of soil pollution was prepared. Ms Bazza noted that the response rate has been limited and that the deadline for completing the survey has been postponed to 20 May 2019. ITPS members were invited to disseminate this survey. Ms Bazza invited ITPS members to participate in the coming regional workshops to discuss and agree on recommendations and conclusions regarding soil pollution. Lastly, ITPS members were requested to review the final Technical Guidelines for assessing, mapping, monitoring and reporting on soil pollution by the first half of 2020 and to review the Database of Best Available Techniques (BAT) for managing and remediating soil pollution. Ms Bazza invited the ITPS members to submit further remarks and questions directly to Ms Rodriguez Eugenio.

9. Review of the progress of the technical networks: GLOSOLAN and INBS

GLOSOLAN

Ms Lucrezia Caon, GSP Secretariat, reported on the progress of the Global Laboratory Network (GLOSOLAN) providing ITPS members with a brief overview on the main objectives and impacts of GLOSOLAN and proceeded by presenting the progress of the work plan. Ms Caon highlighted the need to improve the engagement of the working groups. The procedure and timeline for the identification, harmonization and validation of Standard Operating Procedures (SOPs) for the analysis of soil properties were highlighted during the discussion. The need to further develop pedotransfer functions for the coming years, which could serve as an opportunity for the ITPS to publish scientific articles, was emphasized. The possibility of including activities revolving around Magnetic resonance imaging (MRI) and other spectroscopy methods were also explored. The validity of providing certificates based solely on the participation to proficiency tests was questioned. Lastly, it was suggested to clearly quantify the amount of soil in grams per sample needed for the proficiency testing, as this may be a limitation when sending samples across national borders.

International Network of Black Soils

Ms Cuevas, on behalf of Mr Yuxin Tong, presented the progress on the activities and the main outputs performed by the International Network of Black Soils (INBS). Ms Cuevas stated that although a consensus on the definition of Black Soils was reached, there is still a necessity to define specific criteria to clearly assess the global extent of Black Soils. In order to stimulate a discussion among ITPS members regarding the definition of black soils Ms Cuevas presented three different maps of Black Soils. ITPS members were invited to support the preparation of the global assessment of black soils, the technical manual on best practices for sustainable management and a policy brief on the importance of Black Soils. Additionally, ITPS members were encouraged to raise awareness about Black Soils through the publication of scientific papers. During the discussion, it was specified that the definition will be further improved during the next workshop of the network in Moldova, October, 2019.

10. Review and finalization of the technical specifications for mapping soil erosion, soil salinity and soil organic carbon sequestration potential

Mr Yusuf Yigini reported on the progress on the implementation plan of Pillar 4. Mr Yigini informed ITPS members that the GloSIS vision document and the technical specifications for the Tier 1 and Tier 2 databases are being finalized and will be presented during the 7th Plenary Assembly, 5-7 June, 2019. Mr Yigini proceeded by presenting the progress of the main global products that will be established to populate GloSIS with data. ITPS members were informed that the deadlines for the Global Soil Erosion map (GSEmap) and the Global map of SOC sequestration (GSOCseq) were postponed to the end of 2020. The Global Soil Salinity map (GSSmap) is to be launched during World Soil Day 2019. Mr Yigini highlighted the upcoming update of the GSOCmap to version 1.5.0, which is to include more than 30 new national SOC maps. The ITPS members were requested to be involved in drafting future publications linked to the upcoming global products (e.g. scientific articles, cookbooks, policy briefs etc.). Mr Yigini highlighted the need to define a clear target depth for the Global Soil Salinity map. It was also noted that there is no clear scientific consensus on which depth to consider when assessing soil salinity.

Ms Cuevas reported on the progress made on the preparation of a Global Soil Organic Carbon Sequestration potential map (GSOCseq). After two rounds of review by both the ITPS and INSII, several concerns regarding the technical specifications were raised and it was therefore decided to postpone the launch date and to establish a GSP SOC advisory group, composed of top experts on SOC modelling, in order to develop an improved approach. The latest draft was reviewed by the advisory group and will be submitted to INSII for approval. Ms Cuevas informed ITPS members that the main challenge identified by the advisory group is linked with defining realistic and feasible 'recommended land use and management practices'. Ms Cuevas proceeded by presenting the current proposed technical specifications, highlighting that the national carbon sequestration maps will be produced following a bottom-up approach.

11. Towards scientific and science-policy interface papers by ITPS

Mr Ronald Vargas presented a proposal for the ITPS members on increasing the number of scientific publications to improve the visibility of the ITPS within the scientific community. It was agreed that the ITPS should publish one to two scientific articles per year. It was additionally suggested to promote the activities of the ITPS within the local soil scientist society's newsletters.

It was agreed, as a starting point, that the ITPS should be committed to publishing a review article resulting from the main recommendation of the GSER19 and another review article on soil organic carbon by the end of 2019.

12. Report on the collaboration between ITPS and the SPI of UNCCD

Mr German Kust, Science-Policy Interface (SPI) of UNCCD, introduced ITPS members to the SPI, a scientific advisory body of the UNCCD, and presented possible entry points for cooperation. Mr Kust informed the participants of the meeting, which has been required to cooperate with the GSP and the ITPS. Five of the members of the SPI have volunteered to work with the ITPS in regards to the activities linked with achieving the Land Degradation Neutrality (LDN) target and soil organic carbon. The SPI will work jointly with the ITPS on the review of the Technical Manual of Soil Organic Carbon Management and the Guidelines on Soil Organic Carbon measuring, mapping, monitoring and reporting. Mr Kust proceeded by briefing ITPS members about the potential indicators used for reporting on the LDN target. Soil erosion is currently being considered as a potential indicator. Mr Kust highlighted the need for the ITPS and the SPI to cooperate with the Group on Earth Observations (GEO) to develop

protocols to report on the LDN target and to be involved with the activities of the Global Environmental Facility (GEF) in regards to its program on dryland sustainable landscapes.

It was also suggested that the SPI and the ITPS should organize a side event on soils during the COP-14, 2-13 September 2019 in New Delhi, India. Lastly, it was proposed that the ITPS chair should attend the meetings of the SPI of UNCCD to further formalize the cooperation between the two panels

13. Preparation for the Global Symposium on Soil Erosion (GSER19)

Ms Clara Lefevre, GSP secretariat, briefed ITPS members on the structure and expected outcomes of the Global Symposium on Soil Erosion (GSER19) which was held between the 15 and 17 May. More than 500 participants officially registered to the event. Ms Lefevre highlighted that the outcome documents, which will result from the main conclusions from the Symposium, will be presented during the 7th Plenary Assembly, 5-7 June 2019, and invited the ITPS to review the material. Lastly, it was suggested that the ITPS seek out opportunities to publish a scientific article and a synthesis paper based on the main conclusions of the Symposium. Ms Lefevre also provided some additional clarifications regarding practical aspects of the event.

14. Report to the 7th GSP Plenary Assembly

Ms Poch briefed ITPS members about the report on the progress, expected outcomes and workplan 2019-2020 of the ITPS (Annex V), which will be presented during the 7th Plenary Assembly. Ms Poch acknowledged the cooperation of the ITPS with the CBD and informed that she attended the 4 per 1000 Initiative Day in Katowice, Poland, in December 2018. The ITPS is currently serving as a formal observer of the IPCC. Ms Poch informed that the IPCC has requested the ITPS to review the IPCC Sixth Assessment Report, and emphasized that there is a clear lack of content about soils, especially in regards to soil organic carbon and climate change mitigation. Ms Poch proceeded by presenting some suggestions to improve the overall workflow of the ITPS:

- It was proposed that the communication between the ITPS and the GSP Secretariat, especially in regards to the progress on the activities and availability of agendas before meetings should be improved.
- The size of the working groups should be reduced and the communication regarding specific activities should be limited to the members directly involved.
- It was suggested that the review process could be made more efficient with follow-up skype meetings after each round of review.
- Specific functions of the ITPS within other regional soil partnerships should be clarified.

15. Any other business

It was suggested that the GSP secretariat should provide an updated list of the ITPS members involved in each main activity. Regarding the role of the ITPS within the regional soil partnerships, it was stressed that the ITPS should be aware of regional trends and be actively involved and represented in activities such as regional workshops.

16. Date and venue of the next meeting

The 11th Working Session of the ITPS will take place at FAO headquarters, in Rome, November 2019, unless a change is decided by the ITPS chair and GSP Secretariat based on the needs of a session.

17. Closing of the meeting

The meeting was closed by Ms Poch, who thanked ITPS members for their commitment and the GSP Secretariat for their support to the panel. Mr Poch and Mr Vargas wished the ITPS members a productive Global Symposium on Soil Erosion, which took place the following day.

Annex I - List of Participants

ITPS members	Region
Dr Nsalambi Vakanda Nkongolo (Democratic Republic of Congo)	Africa
Dr Matshwene Edwin Moshia III (South Africa)	Africa
Dr Lydia Mumbi Chabala (Zambia)	Africa
Dr Generose Nziguhueba (Burundi)	Africa
Dr Kutaiba M. Hassan (Iraq)	Near East and North Africa
Dr Rafla Sahli Epse Attia (Tunisia)	Near East and North Africa
Dr Adalberto Benavides Mendoza (Mexico)	Latin America and Caribbean
Ms Martha Marina Bolanos Benavides (Colombia)	Latin America and Caribbean
Dr Fernando Garcia Prechac (Uruguay)	Latin America and Caribbean
Dr Lucia Helena Cunha dos 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 Jin Ke (China)	Asia
Dr Jun Murase (Japan)	Asia
Dr Costanza Calzolari (Italy)	Europe
Dr Ellen R. Graber (Israel)	Europe
Dr Peter de Ruiter (The Netherlands)	Europe
Dr Maria Konyushkova (Russia)	Europe
Dr Rosa Poch (Spain)	Europe
Dr Siosuia Halavatau (Tonga)	South West Pacific
Dr Megan Balks (New Zealand)	South West Pacific

Other participants	Affiliation
Mr Ronald Vargas	GSP Secretariat
Mr Eduardo Mansur	GSP Secretariat
Ms Lucrezia Caon	GSP Secretariat
Ms Clara Lefevre	GSP Secretariat
Ms Rosa Cuevas	GSP Secretariat
Mr Yusuf Yigini	GSP Secretariat
Ms Zineb Bazza	GSP Secretariat
Ms Isabel Luotto	GSP Secretariat
Mr Kostiantyn Viatkin	GSP Secretariat
Ms Isabelle Verbeke	GSP Secretariat
Ms Giulia Stanco	GSP Secretariat
Mr Edmundo Barrios	GSP Secretariat
Mr Matteo Sala	GSP Secretariat
Mr German Kust	SPI of UNCCD
Mr David Cooper	CBD

Annex II - ITPS Focal Points

ITPS Focal Point	Activity
Dr Lucia Helena Cunha dos Anjos	Black Soils
Dr Maria Konyushkova	Black Soils
Dr Peter de Ruiter	Soil Biodiversity
Dr Rafla Sahli Epe Attia	Soil Salinity
Dr Matshwene Edwin Moshia III	Soil Erosion
Dr David Allen Lobb	Soil Erosion
Dr Costanza Calzolari	Carbon Sequestration Potential
Dr Ellen R. Graber	Soil Pollution

Annex III - ITPS Working Group chair and members by Pillar of action

Pillar 1	Pillar 2	Pillar 3	Pillar 4	Pillar 5
Sustainable Soil Management	Awareness Raising	Research	Information and Data	Harmonization
Ms. Zineb Bazza (Chair)	Ms. Lucrezia Caon (Chair)	Ms. Natalia Rodriguez Eugenio (Chair)	Mr. Yusuf Yigini (Chair)	Ms. Rosa Cuevas (Chair)
Dr Gary Pierzynski (ITPS Chair)	Dr. Megan Balks (ITPS Chair)	Dr. Nsalambi Vakanda Nkongolo (ITPS Chair)	Dr. Costanza Calzolari (ITPS Chair)	Dr. Lucia Helena Cunha dos Anjos (ITPS Chair)
Dr. Fernando Garcia Prechac	Dr. Fernando Garcia Prechac	Dr. Edmond Hien	Dr. Adalberto Benavides Mendoza	Dr. Jin Ke
Dr. Ashok K. Patra	Dr. Samuel Francke Campana	Dr. Ellen R. Graber	Dr. Rafla Sahli Epse Attia	Dr. Mohammad Jamal Khan
Dr. David Allen Lobb	Dr. Siosiu Halavatau	Dr. David Allen Lobb	Dr. Matshwene Edwin Moshia III	Dr. David Allen Lobb
Dr. Edmond Hien	Dr. Ashok K. Patra	Dr. Ashok K. Patra	Dr. Nsalambi Vakanda Nkongolo	Dr. Edmond Hien
Dr. Generose Nziguhueba	Dr. Costanza Calzolari	Dr. Martha Marina Bolanos Benavides	Dr. Saeb Abdelhaleem Khresat	Dr. Ashok K. Patra
Dr. Lucia Helena Cunha dos Anjos	Dr. Jin Ke	Dr. Costanza Calzolari	Dr. Lucia Helena Cunha dos Anjos	Dr. Kutaiba M. Hassan
Dr. Lydia Mumbi Chabala	Dr. Gary M. Pierzynski	Dr. Rosa Poch	Dr. Peter de Ruitter	Dr. Matshwene Edwin Moshia III
Dr. Martha Marina Bolanos Benavides	Dr. Lydia Mumbi Chabala	Dr. Lydia Mumbi Chabala	Dr. Maria Konyushkova	Dr. Megan Balks

Dr. Megan Balks		Dr. Peter de Ruiter		Dr. Jun Murase
Dr. Peter de Ruiter		Dr. Siosuia Halavatau		
Dr. Rafla Sahli Epse Attia		Dr. Gary M. Pierzynski		
Dr. Samuel Francke Campana				
Dr. Ellen R. Graber				
Dr. Jun Murase				
Dr, Mohammad Jamal Khan				
Dr. Siosuia Halavatau				
Dr. Jin Ke				
Dr. Matshwene Edwin Moshia III				

Annex IV - ITPS Working Group members by activity

Salinity Map	Soil Pollution	Soil Organic Carbon	Symposium on Soil Erosion	Soil Biodiversity
GSP lead: Mr. Yusuf Yigini	GSP lead: Ms. Natalia Rodriguez Eugenio	GSP lead: Ms. Rosa Cuevas	GSP lead: Ms. Lucrezia Caon	GSP lead: Mr. Edmundo Barrios
Dr. Rafla Sahli Epse Attia	Dr. Edmond Hien	Dr. Matshwene Edwin Moshia III	Dr. Costanza Calzolari	Dr. Martha Marina Bolanos Benavides
Dr. Mohammad Jamal Khan	Dr. Megan Balks	Dr. Edmond Hien	Dr. David Allen Lobb	Dr. Samuel Francke Campana
Dr. Megan Balks	Dr. Ellen R. Graber	Dr. David Allen Lobb	Dr. Rosa Poch	Dr. Ellen R. Graber
Dr. Kutaiba M. Hassan	Dr. Rafla Sahli Epse Attia	Dr. Costanza Calzolari	Dr. Lucia Helena Cunha dos Anjos	Dr. peter de Ruiter
Dr. Rosa Poch	Dr. Mohammad Jamal Khan	Dr. Rosa Poch	Dr. Lydia Mumbi Chabala	Dr. Jun Murase
Dr. Siosuia Halavatau	Dr. peter de Ruiter	Dr. Fernando Garcia Prechac	Dr. Matshwene Edwin Moshia III	Dr. Generose Nziguhueba
Dr. Samuel Francke Campana	Dr. Samuel Francke Campana	Dr. Peter de Ruiter	Dr. Samuel Francke Campana	Dr. Adalberto Benavides Mendoza
Dr. Lydia Mumbi Chabala	Dr. Jin Ke	Dr. Nsalambi Vakanda Nkongolo	Dr. Rafla Sahli Epse Attia	Dr. Ashok K. Patra
	Dr. Nsalambi Vakanda Nkongolo	Dr. Lucia Helena Cunha dos Anjos	Dr. Mohammad Jamal Khan	
	Dr. Ashok K. Patra		Dr. Megan Balks	

	Dr. Generose Nziguhueba		Dr. Peter de Ruiter	
	Dr. Maria Konyushkova		Dr. Fernando Garcia Prechac	
			Dr. Siosuia Halavatau	
			Dr. Edmond Hien	

Annex V - ITPS Workplan 2019-2020

ITPS Workplan 2019-2020				
Pillar 1: Sustainable Soil Management	Activities	Due date	Contact person	Events (if relevant)
Implementation of the International Code of Conduct for the Sustainable Use and Management of Fertilizers	Provide ideas for the implementation of the Fertilizer Code.	15 August 2019	Zineb Bazza	
	Disseminate the Fertilizer Code (government, colleagues at research institutions etc.)	Continuing	Zineb Bazza	
	Write a scientific article about the Fertilizer Code (content of the document/ process or both)	June 2020	Zineb Bazza	
Study on the economic benefits of sustainable soil management	Provide (by email) names/ contacts for the establishment of a working group for the study	1 September 2019	Zineb Bazza	
Protocol for the assessment of sustainable soil management	Review final version of the protocol after close of online consultation (review of indicators by member countries)	Fall 2019 – exact date TBD	Zineb Bazza	
Database on sustainable soil management practices	Provide information and contact of local or regional sustainable soil management practices/ case studies (using the protocol)	December 2019	Zineb Bazza	

Soil Biodiversity	State of Biodiversity publication, contribute as part of the editorial board	Continuing, until March 2020	Monica Kobayashi	Global Symposium on Soil Biodiversity (GSOBI20), March 2020
Technical manual on soil organic carbon management	Review of the document, provide comments and suggestions	31 October 2019	Rosa Cuevas	
	Preparation of an article about RECSOIL	31 December 2019	Rosa Cuevas	
Establishment of the International Network of Salt-Affected Soils	Review of the concept note on the International Network of Salt-Affected Soils	30 September 2019	Zineb Bazza	Global Symposium on Soil Salinity (October 2020 in Tashkent, Uzbekistan)
Soil Pollution	Review the Global assessment of soil pollution report	March 2020	Natalia Rodriguez	
	Writing a scientific article on the findings of the Global Symposium on Soil Pollution (GSOP18)	March 2020	Natalia Rodriguez	
Pillar 2: Awareness raising	Activities	Due date	Contact person	Events (if relevant)
SoiLEX, a database that will be integrated with the FAOLEX system to compile national policies on soil	Review the database on soil-related legal instruments and contribute to its dissemination	October 2019	Natalia Rodriguez	
EduSoil, a learning platform for sustainable soil management	Review course material to be uploaded to the platform	TBD	Natalia Rodriguez	
Regional policy briefs	Review content	As needed	Regional Soil Partnership coordinators: http://www.fao.org/global-soil-partnership/regional-partnerships/en/	
World Soil Day communication campaign	Share contacts; provide inputs (if any); trigger action, spread the word; participate in the celebrations; contribute to its	September-December 2019	Isabelle Verbeke	World Soil Day 2019

	promotion by sharing campaign material and information within national/regional networks.			
Pillar 3: Research	Activities	Due date	Contact person	Events (if relevant)
Soil research and development platform	Develop the questionnaire for soil R&D centres and programmes to be included in the Soil R&D platform	Before end of 2019	Natalia Rodriguez	
	Develop the criteria for soil R&D centres and programmes to be included in the Soil R&D platform	Before end of 2019	Natalia Rodriguez	
Global Symposium on Soil Biodiversity	Review the concept note and thematic areas	30 July 2019	Monica Kobayashi	Global Symposium on Soil Biodiversity (GSOBI 2020), March 2020
Global Symposium on Soil Salinity	Review the concept note and thematic areas	30 December 2019	Ronald Vargas	Global Symposium on Soil Salinity, October 2020
Global Symposium on Soil Fertility	Prepare a concept note for the symposium	January 2020	Zineb Bazza	Global Symposium on Soil Fertility (2021)
Soil Atlas of Asia	ITPS members from Asia, Near East and Eurasia to contribute to the atlas (document, pictures, data etc.)	As needed	Lucrezia Caon	
Pillar 4: Information and data	Activities	Due date	Contact person	Events (if relevant)
GLoSIS: Global Soil Information System/ Provide Tools (software, guideline)	Review of the GSOCmap interpretation document	August 2019	Yusuf Yigini	
	Review of the GSOCmap v1.5.0 updated technical report	August 2019	Yusuf Yigini	
	Review of the technical specifications of the soil salinity map (GSSmap)	August 2019	Yusuf Yigini	

	Review of the technical manual for soil salinity mapping	October 2019	Yusuf Yigini	
	Review and clearance of the GSSmap	May 2020	Yusuf Yigini	
	Writing a scientific article about the GSSmap	May-June 2020	Yusuf Yigini	
	Review of the technical specifications for country-driven SOC sequestration potential map (GSOCseq map)	October 2019	Rosa Cuevas	
	Assistance in defining regional input data for GSOCseq map	2020 as needed	Yusuf Yigini	
	Review and clearance of the 1st phase (top-down) of the global soil erosion maps (GSERmaps)	November 2019	Yusuf Yigini	
	Writing a scientific article about the phase-1 GSERmaps	December 2019	Yusuf Yigini	
	Reviewing the policy brief on phase-1 GSERmaps	January 2020	Yusuf Yigini	
	Review of the technical specifications of the country-driven phase-2 GSERmap	October 2020	Yusuf Yigini	
	Review and clearance of the 2nd phase (country-driven) of the global soil erosion map (GSERmap)	December 2020	Yusuf Yigini	

	Reviewing Soil organic Carbon Monitoring Guidelines (first Draft) Reviewing GloSIS vision document	September 2019	Yusuf Yigini	
	Reviewing technical specifications for the Tier 1 and Tier 2 soil profile databases (GloSIS)	2020 as needed	Yusuf Yigini	
Pillar 5: Harmonization	Activities	Due date	Contact person	Events (if relevant)
The Global Soil Laboratory Network (GLOSOLAN)	Revision of key documents as needed	Continuing	Lucrezia Caon	
General	To define a clear strategy in regards to soil classification, indicators and soil description. Harmonization of methodologies.	Continuing	Rainer Baritz	