

INSOP-I/23/Report



**Food and Agriculture
Organization of the
United Nations**



Report of the first annual meeting of the International Network on Soil Pollution (INSOP)

Virtual meeting, 13–15 June 2023

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FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS

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1. Introduction

The first meeting of the International Network on Soil Pollution (INSOP) was organized virtually using the Zoom Video Communications® platform. The meeting lasted two hours per day from 13 to 15 June 2023 (see the agenda in Annex I) and was attended by 190 participants from 92 countries (see the list of participants in Annex II). The meeting was opened by Ronald Vargas, Secretary of the Global Soil Partnership (GSP). He emphasized the significance of creating a global network to address soil pollution, bringing together all stakeholders to work towards reducing soil pollution worldwide. Vargas invited all INSOP members and experts to continue collaborating to strengthen the INSOP community and achieve the network's zero pollution mission across all regions.

2. Report on the work performed by INSOP in 2022–2023

2.1. Recap on the INSOP mission, structure and progress done

Ravi Naidu, INSOP Chair, reminded participants of the INSOP structure, mission and objectives. The INSOP focuses on six main areas of work under which various tasks are being carried out to achieve zero pollution worldwide. The network works on improving knowledge of the entire cycle of soil pollution, from assessment to remediation, and investigating the effect of environmental and human health and the provision of soil ecosystem functions and services. These areas of work are shown in Figure 1.

Figure 1. INSOP areas of work



The network works closely with other GSP networks to achieve its global goal of reducing and eliminating soil pollution. Examples of existing and future collaborations are:

- **[GLOSOLAN](#) (Global Soil Laboratory Network)**: harmonizing SOPs for soil contaminants, creating the list of priority contaminants, and assessing laboratory capacity and equipment.
- **[INSII](#) (International Network of Soil Information Institutions)**: developing the methodology to map soil pollution, including the generation of spatial datasets on the distribution of polluted soils.
- **[NETSOB](#) (International Network on Soil Biodiversity)**: enabling the sustainable use and management of soil biodiversity for the remediation and management of contaminated soils.
- **[INFA](#) (International Network on Fertilizer Analysis)**: producing standard operating practices (SOPs) on fertilizer quality analysis, sustainability, and remediation for phosphate fertilizers.

- **Global Soil Doctors Programme:** providing training on the prevention and mitigation of soil pollution.

Naidu provided updates on the progress of ongoing activities and efforts towards completing them since the network was launched in April 2022. Table 1 shows the continuing network activities.

Table 1. INSOP ongoing and completed activities 2022–2023

Task	Outcome	Status
Finalize Technical Guidelines on soil pollution	Technical Manual on assessing, mapping, monitoring and reporting polluted soils	Ongoing
Review heavy metals Standard Operating Procedures (SOPs) in close cooperation with GLOSOLAN	SOPs for contaminants of major concern	Ongoing
Project development on restoring war-affected soil health	Strengthen capacities of nations to assess and restore war-affected soil health	Ongoing
Project development on soil pollution in Small Island Developing States (SIDS)	Strengthen capacities of SIDS to prevent soil pollution and promote nature-based remediation technologies	Ongoing
Global initiation to assess the distribution of heavy metals in mineral and organic fertilizers in close cooperation with INFA	Advocate for improved regulation and protection of soil from fertilizers pollution	Ongoing
Reducing soil pollution risks in agricultural systems. A case study of cadmium in cocoa beans from Trinidad and Tobago and Ecuador	Conceptual site model development with environmental and human health risks and recommendation practices	Completed

Naidu then showcased INSOP’s involvement in various conferences on soil pollution throughout the year. This participation emphasized the network’s significance in matters related to soil pollution. Table 2 shows the INSOP participation at various soil pollution conferences and events.

Table 2. INSOP participation in 2022–2023

Conference	Title	Date
International Clean-up Conference 2022	INSOP and food security and human health	Sept 2022
International Scientific & Practical Conference on the current state of the soil cover of Ukraine	INSOP and war pollution	Oct 2022
Third International Network on Fertilizer Analysis meeting	INSOP and fertilizers	Oct 2022
Conference on environmental regulation of the quality of phosphate fertilizers	INSOP and fertilizers	Nov 2022
Water & Land remediation conference	Strengthen the relationship with the European soil pollution community	Nov 2022
INSOP-INSII	Promoting INSOP at the INSII annual meeting	Nov 2022
INSOP-GLOSOLAN	Promoting INSOP at the GLOSOLAN 6 th annual meeting and agreeing on the SOPs for next year	Nov 2022
World Soil Day 2022	Addressing on-farm diffuse pollution: Global Soil Partnership Actions Towards Zero Pollution Worldwide	Dec 2022
14 th International HCH and Pesticide Forum	Per- and poly-fluoralkyl substances (PFAS) and the global dimension in soil pollution	Feb 2023

2.2. INSOP technical guidelines on soil pollution assessment, mapping, monitoring and reporting

Sergejus Ustinov, the INSOP coordinator, presented the progress in developing technical guidelines on soil pollution assessment, mapping, monitoring and reporting. These guidelines aimed to guide technicians, stakeholders, and government representatives in the decision-making process to identify and assess polluted soils, map contaminated sites, monitor soil pollution and take the best management decisions. It was also pointed out that while the network was willing to address the guidelines to as large an audience as possible, as the target would be technical people from national and regional government representatives (wanting to implement and establish soil pollution monitoring mechanisms in their country), the guidelines would be written in a comprehensive and scientific format.

Ustinov invited all participants to contribute to developing the guidelines, with participants being involved as reviewers for one of the chapters by completing the survey or contacting the INSOP coordinator (Sergejus.Ustinov@fao.org). Participants were also invited to become one of the authors of the soil pollution reporting chapter.

To be included in the reviewing board, participants were asked to fill out the survey, which can be accessed [here](#).

2.3. War pollution: demining, mapping and assessing military-affected soils of Ukraine

During her presentation, Tiphaine Anne Lucas, FAO Ukraine, discussed the ongoing project addressing soil pollution due to military activities. The presentation showed the case study from the Kharkiv region of Ukraine. Lucas highlighted the potential collaboration between INSOP and FAO Ukraine in assessing and remediating the effects of war on the soil. The current project by the FAO Ukraine focused on the following three aspects:

- 1) soil demining;
- 2) mapping military-affected soils; and
- 3) assessing military-affected soils.

The INSOP steering committee was developing a project to tackle the issue of war pollution in countries impacted by past and present military activities. As FAO Ukraine had already initiated a similar project concentrating on Ukraine, both groups had identified activities to collaborate on.

These activities were:

- compiling a database on standard soil rehabilitation technologies for land recultivation projects to ensure healthy conditions and further sustainable usage of degraded and contaminated agricultural land;
- developing and implementing a remediation strategy in the war-affected pilot regions;
- developing educational material on soil degradation, pollution prevention, and mitigation in war-affected regions as part of the Global Soil Doctors Programme; and
- organizing capacity development workshops for farmers on sustainable soil management practices to prevent and reduce pollution and degradation risks.

2.4. INSOP-INFA collaboration on addressing heavy metals in phosphate fertilizers

The presentation on phosphate fertilizers was delivered by Vinisa Saynes Santillan, the International Network on Fertilizers Analysis (INFA) coordinator. The presentation aimed to raise awareness of how using mineral and organic fertilizers in agricultural soils can lead to pollution. The presence of heavy metals in mineral and organic fertilizers such as cadmium (Cd) and others are of significant concern and a source of soil pollution worldwide. Therefore, the INSOP and INFA agreed to collaborate and work together on the following tasks:

- harmonizing laboratory methods or standard operating procedures (SOPs) to analyse heavy metal content in mineral and organic fertilizers;
- raising awareness on the importance of environmental and health safety of mineral and organic fertilizers and recycled nutrient sources; and
- developing a proposal for the permissible limits of Cd content in fertilizers and threshold values for Cd in agricultural soils at the regional and national levels.

The INSOP-INFA networks and its members have been actively working on developing and harmonizing the SOP for analysing heavy metals in mineral and organic fertilizers. The latest updates and progress are to be shared during the third INSOP-INFA technical meeting in September 2023.

2.5. Project report on reducing soil pollution risks in agricultural systems: A case study from Trinidad and Tobago and Ecuador

Sasha Hart from the Instituto Ekos Brasil (EKOS) and NICOLE Latin America (NICOLE Latam) delivered the presentation on reducing soil pollution risks in agriculture. The project aimed to assess and propose mitigation measures for the presence of Cd in cocoa beans, based on a conceptual site model developed for the Eastern Lowlands of Trinidad and Tobago and in the State of Manabí of Ecuador. The main objective of the project was to contribute to FAO to implement actions of the agenda set for the GSOP18: *Be the solution to soil pollution* by understanding the mechanisms of heavy metals impacting the crop quality in agricultural areas and by proposing measures to minimize, prevent and control soil pollution in agricultural systems.

During the presentation, Hart shared the initial findings by presenting the results from the field studies conducted in the Eastern Lowlands of Trinidad and Tobago. The presentation emphasized the recommendations shown in Figure 2 and the upcoming steps for the project's continuation, shown in Figure 3.

Figure 2. Recommendations and possible solutions in preventing, reducing and controlling cadmium in cocoa beans from the case study of the Eastern Lowlands, Trinidad and Tobago

Recommendations

Possible intervention solutions, from **watershed to soil scale**:

1. Evaluate and manage **surface and groundwater quality**.
2. Geogenic and anthropogenic **air emissions of Cd**.
3. Evaluate impact of **flooding and manage occupation**.
4. Import and application of **fertilisers**.
5. Import and application of **manure**.
6. Decrease **bioavailability of Cd** in the soil by applying **amendments**.
7. Application of **nature-based solutions**.
8. Management of cacao **leaves and wood**.
9. Alternative crops to **replace cacao at specific locations**.
10. **Combine** best management practices for Cd **with related programs**.

Figure 3. Project next steps to be taken to minimize soil pollution by heavy metals in the agricultural system

Next steps

In order to further **assess/prevent/minimize soil pollution**, the **continuation of the project** shall include the following steps:

1. **Test** the proposed **solutions - new standardized field data combined with programs** Climate Change, Carbon Seq., Biodiversity, Lab. Meth.
2. **Update the watershed conceptual models based on risk approach.**
3. **Apply** the project to **other pilot test areas in Latin America** and, possibly, **other geographies. Care with differences. Evaluate expanding to other crops and metals (data + adaptation).**
4. **Stimulate knowledge exchange opportunities** between relevant institutions. Results/outcome shall **reach decision makers.**
5. **Develop Action Plans, Road Maps, and guidelines – foster action about **Cd-Cocoa situation (current and future)**.**

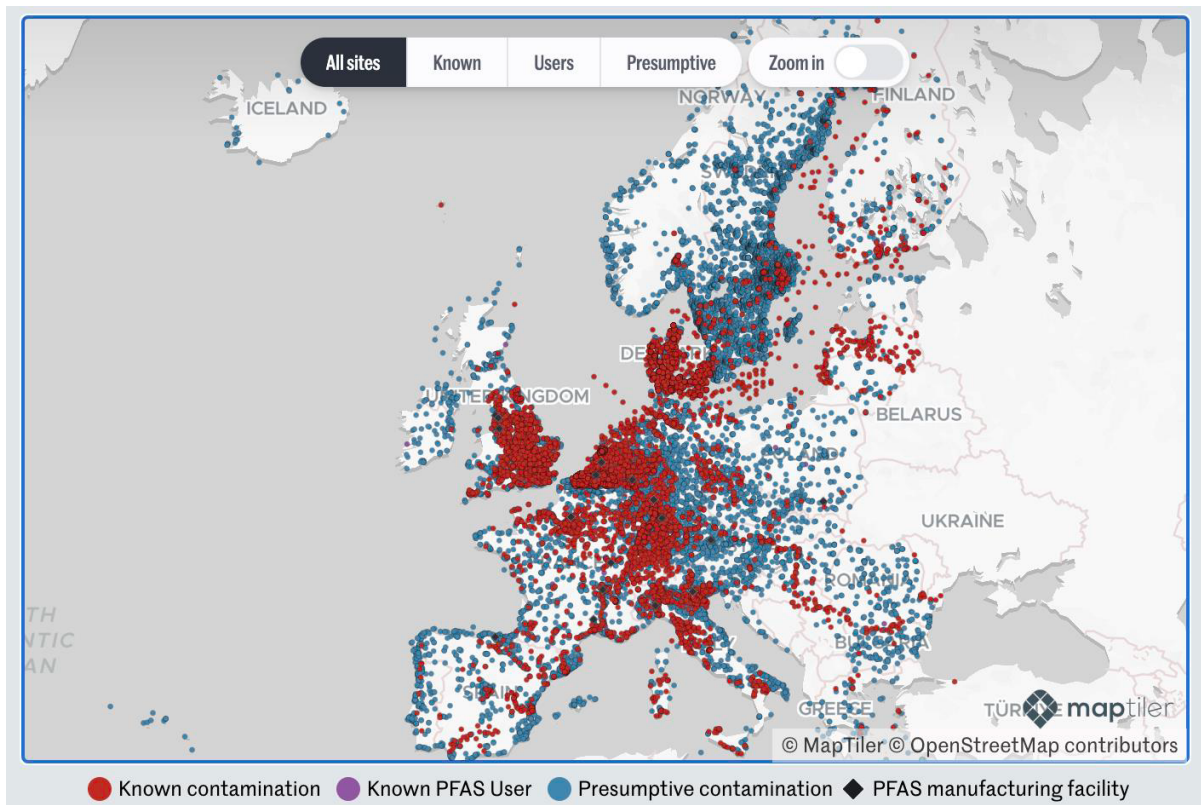
3. INSOP working areas: topics of concern

3.1. Mapping per- and polyfluoroalkyl substances (PFAS) in Europe: The Forever Pollution Project

Stéphane Horel, Le Monde, delivered the presentation on the project conducted by *Le Monde* and its 17 partners in the cross-border investigation of the [Forever Pollution Project](#). Horel explained the objectives and the methodology of how PFAS were mapped in Europe. The journalists gathered 100 datasets and filed dozens of Freedom of Information Act (FOIA) requests to build a first-of-its-kind map of PFAS contamination in Europe. The scientific methodology behind this peer-reviewed journalism experience was borrowed from the [PFAS Project Lab](#) and the [PFAS Sites and Community Resources Map in the United States of America](#).

The map presented in Figure 4 shows PFAS production facilities, some sites where PFAS are used, sites where contamination has been detected and those that are likely to be contaminated (Dagorn *et al.*, 2023; Salvidge and Hosea, 2023).

Figure 4. PFAS map showing the known and presumptive contamination sites across Europe.
Source: The Guardian, 2023.



To summarize, the following information can be extracted from Figure 4:

- **There are over 17 000 sites where PFAS contamination has been detected.** These sites were sampled for PFAS in water, soil or living organisms by scientific teams and environmental agencies between 2003 and 2023. These measures found PFAS at levels equal to or greater than ten nanograms per litre (ng/L).
- **There are 232 PFAS users.** These industrial sites use PFAS to manufacture "high-performance" plastics, paints and varnishes, pesticides, waterproof textiles, other chemicals, etc.
- **There are over 21 000 presumptive contamination sites.** These sites have current or past industrial activity documented as both using and emitting PFAS (Figure 4, blue circles). Military bases, for example, are significant users of Aqueous Film Forming Foam (AFFF), which contains PFAS. The manufacturing of certain plastics called fluoropolymers also requires the use of PFAS. While contamination of these sites is likely, no environmental sampling has been conducted to confirm this.
- **There are over 2 100 hotspots.** The term "hotspot" is used when the concentration of PFAS detected at a site reaches a level that experts consider hazardous for health (100 ng/L) (Cordner *et al.*, 2019). Dozens, and sometimes hundreds of samples can be taken by the authorities around a location identified as the epicentre of contamination. This

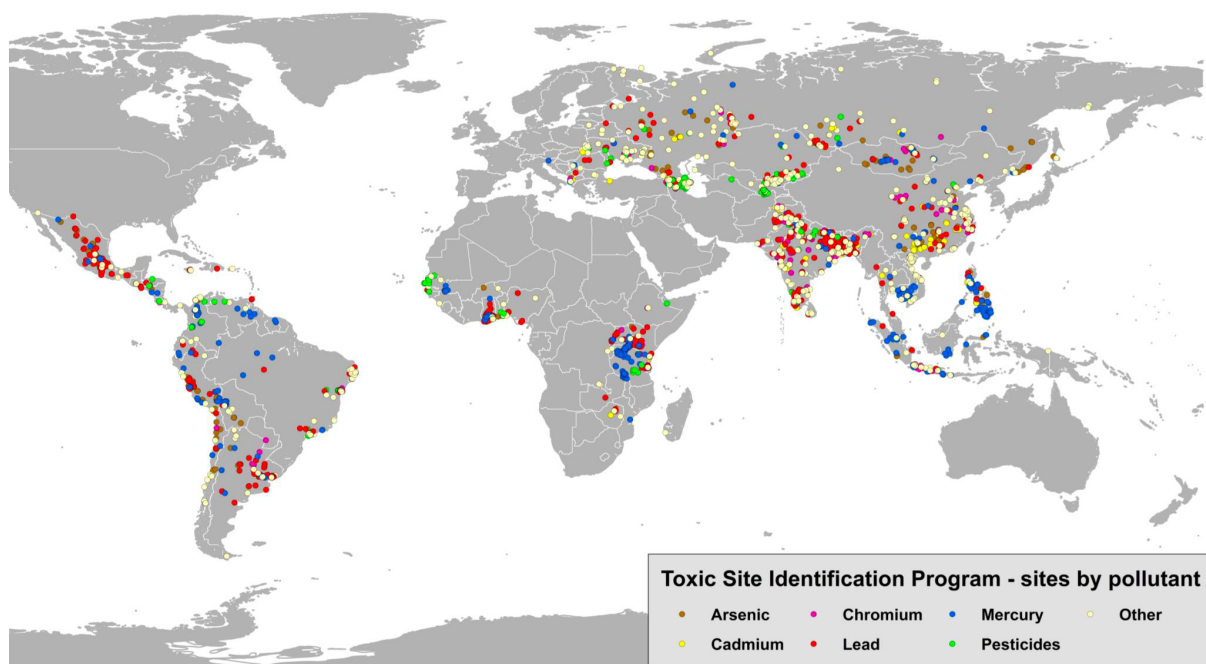
is the case, for example, at the 3 M plant in Zwijndrecht, Belgium, and the Chemours plant in Dordrecht, the Kingdom of the Netherlands. However, this does not make each of these points a hotspot in itself. To reduce the number of possible false positives as much as possible, the journalist team grouped geographically close points into clusters. This calculation led the journalists to estimate the number of hotspots at more than 2 100 throughout Europe (Le Monde, 2023).

The methodology for mapping PFAS can be found in the [Forever Pollution Project Methodology](#) document.

3.2. Pure Earth experience in identifying and monitoring lead and mercury-polluted soils

Gordon Binkhorst, Senior Technical Advisor of Pure Earth, delivered the presentation on the progress made by Pure Earth in identifying and monitoring lead and mercury-polluted soils. Binkhorst presented the Toxic Sites Identification Programme (TSIP), where the scope and objectives were explained. He explained that the TSIP worked to locate and assess contaminated sites in low and middle-income countries and identify the greatest threat to human health. The TSIP projects have included reviews with local governments, NGOs, community groups, businesses and other stakeholders, with their database covering sites with exposures that exceed local or international safety standards and demonstrate a credible pathway of exposure to a local population. As of 2023, Pure Earth had assessed 5 000 sites in 50 countries for lead and mercury soil pollution (Figure 5). Pure Earth's experience and knowledge will be necessary for INSOP in assessing and monitoring lead and mercury-polluted soils in future projects.

Figure 5. Pure Earth's toxic site identification programme shows 5 000 site assessments in 50 countries.



Source: **Pure Earth**. 2023. Toxic Sites Identification Program. Pure Earth. New York, USA. [Cited 2023]. <https://www.contaminatedsites.org>

3.3. Soil pollution remediation in Africa

Isabel Weiersbye from the University of Witwatersrand, South Africa, delivered the presentation focusing on and explaining phytotechnology practises to remediate polluted soils in sub-Saharan Africa with the case study from South Africa. One of the solutions to reduce soil pollution from tailing mines is to use vegetation. Plant-based technologies involve converting hazardous and polluted soils into non-hazardous soils that are safe for humans and the environment. The Wismut uranium ore mine in Germany was used as an example to show how the landscape can be changed using ecological engineering principles of soil capping, impermeable layers, and pattern vegetation, which help to control the hydrology and the flow of water in the region.

In South Africa, plants and microorganisms such as fungi and nitrogen-fixing bacteria are used to exert control over nutrients and contaminant cycling. The aim of using phytotechnologies is to convert mine wastes into a safer resource using specific plants and microorganisms that can slow or prevent the release of contaminants into the soil. However, phytoremediation is a process that takes a long time and involves waiting for trees to grow on polluted sites.

3.4. Soil pollutants, food contamination and health impacts

Wong Ming-hong from the Southern Federal University, the Russian Federation, and the Education University of Hong Kong delivered the presentation titled *Soil Pollutants, food contamination and health impacts*. Wong's presentation focused on the most common soil contaminants that affect human health. These are Persistent Toxic Substances (PTS), which are grouped into:

- Persistent Organic Pollutants (POPs);
- Toxic metals and metalloids; and
- Emerging Chemicals of Concern.

A case study of fluorosis caused by elevated levels of fluoride (F) in the organism over a prolonged period was used. Fluorosis has been found in Sichuan Province in Tibetans due to drinking tea which accumulates F under acidic soil conditions (>pH 5) (Cao, Zhao and Liu, 1995).

Another case study is arsenicosis, which occurs due to excess arsenic (As) found in the human body. Consuming rice contaminated with As and drinking contaminated water are the primary sources of arsenic exposure.

Mercury (Hg) found in fish is another threat to human health, causing Minamata disease. Fish is the most prone to Hg exposure in many countries worldwide. Furthermore, research has shown that mercury can be transmitted from a mother to her child through both breastfeeding and the placenta, affecting the second generation (Ling Hui *et al.*, 2016).

E-waste is another global threat to human health and the environment. In China, e-waste was officially banned: however, in other countries where the import of e-waste is legal, burning and melting electronic boards are hugely destructive to the environment and human health due to the release of heavy metals into the soil, air and water.

A possible solution is to implement chemical management globally. This will help countries manage chemicals throughout their life cycle and reduce harmful effects on human health and the environment. In 2012, UNEP and the GEF published a guideline highlighting the dangers of various toxic chemicals to human health. The guidelines and the full report can be found [here](#).

3.5. Soil and water pollution in the One Health approach

Sasha Koo-Oshima, the Deputy Director of the Land and Water Division, FAO, took the floor to present the objectives and strategy of the One Health approach. The deputy director briefed participants about the FAO Land and Water Division strategy of ensuring that land, soil and water resources are used, conserved and restored for sustainable agrifood systems that support food security, nutrition and human wellbeing. In this regard, a quadripartite collaboration between the FAO, United Nations Environment Programme (UNEP), World Organization for Animal Health (OIE) and World Health Organization (WHO) was adopted.

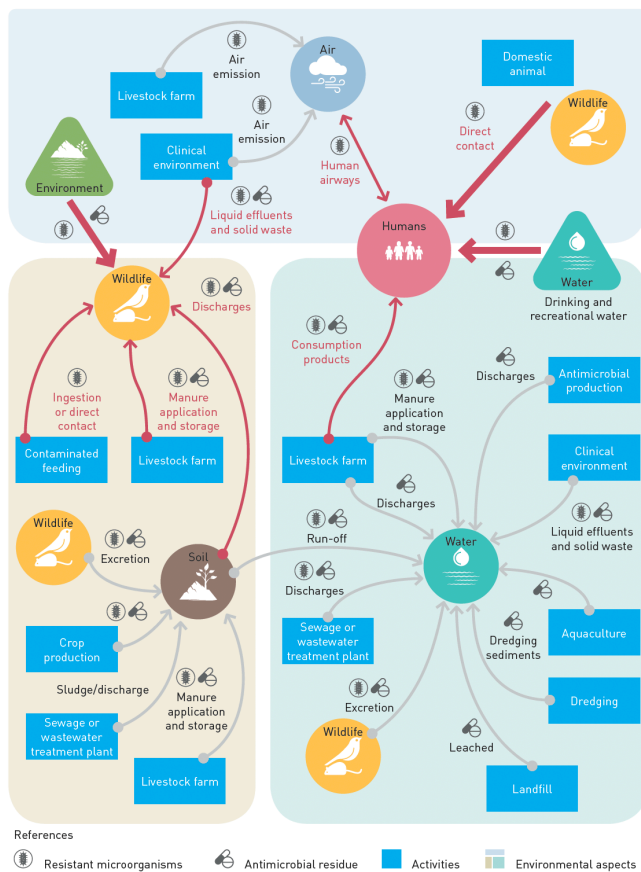
One Health is an integrated, unifying approach that aims to sustainably balance and optimize the health of people, animals and ecosystems. It recognizes that the health of humans, domestic and wild animals, plants, and the wider environment, including ecosystems, are closely linked and interdependent. The approach mobilizes multiple sectors, disciplines and communities at varying levels of society to work together to foster well-being and tackle threats to health and ecosystems while addressing the collective need for clean water, energy and air, safe and nutritious food, taking actions on climate change, and contributing to sustainable development.

The One Health approach aims to raise awareness by improving critical stakeholder understanding of the linkages between agricultural practices, water and soil quality and food safety. It also seeks to build the capacity to enhance innovation and water and soil quality developments. Lastly, it aims to improve global collaboration to facilitate information and data sharing.

So far, soil pollution within the context of One Health is addressed via the antimicrobial resistance (AMR) topic. The AMR threatens human and animal health and welfare, the environment, food and nutrition security and safety, economic development, and societal equity. According to recent estimates, in 2019, 1.27 million deaths were directly attributed to drug-resistant infections globally. By 2050, up to 10 million deaths could occur annually (UNEP, 2023). In addition to antimicrobial use, the spread of AMR in and through the environment is also fueled by inadequate waste management, pollution, and other non-use factors.

The global community increasingly recognizes the natural environment as an essential reservoir of AMR and that measures must be taken to address this risk. Risks posed by other soil contaminants must be considered as well within One Health strategies.

Figure 6. Environmental complexities in transmission and spread of AMR



Source: **UNEP (United Nations Environment Programme)**. 2023. Bracing for Superbugs: Strengthening environmental action in the One Health response to antimicrobial resistance. In: *UNEP*. New York, USA, UN. [Cited 27 June 2023]. <https://www.unep.org/resources/superbugs/environmental-action>

In conclusion, Koo-Oshima explained eleven objectives of the UN for pollution prevention, as seen in Figure 7.

Figure 7. Eleven objectives of the UN common approach on pollution

11 OBJECTIVES OF THE UN COMMON APPROACH ON POLLUTION	
1. Protect and exercise human rights, including the right to a clean, healthy and sustainable environment	6. Transform High impact sectors for pollution-free planet
2. Generate, make available to all, and monitor knowledge, data and information on pollution to enable informed decisions and actions	7. Multi-sectoral, multistakeholder and One Health approach is increasingly, and more systematically used to address pollution
3. Develop and implement legislative, regulatory and policy frameworks, plans and actions addressing pollution at the international, regional, national and local level	8. Identify, promote and implement safer alternatives, innovations and non-pollution and sustainable infrastructure development
4. Prevent and reduce pollution associated with humanitarian action caused by conflict, man-made and natural disasters and emergency response	9. Identify, incentivize and mobilize predictable and sustainable financial resources for pollution-free action
5. Protect vulnerable ecosystems and restore damaged ecosystems from pollution, while adequately managing ecosystems for pollution prevention and reduction	10. Raise worldwide awareness about pollution, its adverse effects, and its prevention while encouraging sustainable consumption and the adoption of sustainable lifestyles and livelihoods
	11. Mainstream pollution prevention and reduction and maximize resource use efficiency in UN system operations and programming: Lead by example

4. INSOP working area objectives and work plan 2023–2025

4.1. Assessment working area

The assessment working area was managed by Ahmad Mahdavi. The moderator highlighted and explained the assessment working area objectives. These included:

- fostering a deeper understanding of soil pollution sources and environmental risks; and
- countries are making informed decisions and actions based on the data and information on soil pollution.

The moderator presented the preliminary activities and their deliverables for discussion. Following an open discussion, it was agreed to endorse the activities listed in Table 3 for the 2023–2025 work plan. To ensure that the work plan would be followed and executed on time, a coleader was appointed due to the significant amount of work and diverse activities involved. Helen Karasali, a Chemical Engineer from the Polytechnic University of Patras, Greece, expressed an interest and agreed to become the coleader of the assessment working area.

Table 3. INSOP assessment working area proposed activities and deliverables

Activity	Deliverable
Finalize and review Technical Guidance on Soil Pollution assessment	Chapter review on soil pollution environmental risk assessment
Develop standard operating procedures (SOPs) for bioavailability of heavy metals	SOPs for soil contaminants
Launch technical workshops addressing pesticides pollution by Highly Hazardous Pesticides and obsolete pesticides focusing on identifying gaps, methodologies used, current legislations and solutions to reduce risks of soil pollution by pesticides	Capacity development tailored workshop on assessing pesticides polluted soils
Organize workshops in SIDS region on soil sampling, risk assessment, monitoring soil pollution and remediation actions	Capacity development tailored workshop for SIDS regions to improve soil pollution awareness and prevention
Soil Doctors Programme farmers training on prevention and mitigation of soil cadmium and pesticide pollution	Farmers awareness on soil cadmium and pesticide pollution educational material development
Initiate the workshop on microplastic	Capacity development tailored workshop on assessing on microplastic

4.2. Mapping working area

The moderator highlighted and explained the mapping working area objectives. These included:

- the global inventorying and monitoring polluted soils; and
- strengthening informed, data-driven decision-making at all levels through public access to information.

The moderator presented the preliminary activities and their deliverables for discussion. Following an open discussion, it was agreed to endorse the activities listed in Table 4 for the 2023–2025 work plan.

Table 4. INSOP mapping working area proposed activities and deliverables

Activity	Deliverable
Review Technical Guidelines on soil pollution mapping methodology	Chapter review on mapping soil pollution
Initiate the discussion and develop the methodology to map soil pollution/contaminants and identify data gaps in close cooperation with INSII	Technical specifications and country guidelines for mapping soil pollution
Capacity building programme for a specific region on soil pollution mapping webinar for specific region/country	National soil pollution maps

Unfortunately, no suitable candidates were found before or during the annual meeting. As a result, it was decided to organize a separate technical meeting that will be held in collaboration with the INSII network later in 2023. The above-mentioned activities will be thoroughly discussed during the upcoming meeting, and a working area leader will be chosen.

4.3. Monitoring working area

The moderator highlighted and explained the monitoring working area objectives. These included:

- helping countries to develop and strengthen the monitoring of point-source and diffuse soil pollution at the national and regional level; and
- providing a boost for specific commitments by governments and the private sector to advance policies that prevent soil pollution.

The moderator presented the preliminary activities and their deliverables for discussion. Following an open discussion, it was agreed to endorse the activities listed in Table 5 for the 2023–2025 work plan.

Table 5. INSOP monitoring working area proposed activities and deliverables

Activity	Deliverable
Review Technical Guidelines on soil pollution monitoring chapter	Chapter review on soil pollution monitoring
Develop indicators and guidelines for assessing the risk/toxicity of soil pollution on human health	Human-health monitoring guidelines. National voluntary indicators developed
Analyze national soil legislation and identify the most common and minimum requirements addressing soil pollution	Policy brief on soil pollution legislation
Help to establish national legislation on soil pollution prevention, control and remediation, including risk assessment approaches	National legislation on soil pollution developed/strengthened
Advocate for the inclusion of contaminants content in fertilizers label information sheet in line with the Fertilizer Code of Conduct	Workshops and guidelines on how to assess the label information sheet

Following the discussion, the moderator conducted a poll to select the leader of the monitoring working area. Prior to the meeting, an announcement was made about the working area lead position, and the list of preselected candidates who were being considered was shared. The shortlisted candidates were Claudia de Lima e Silva and Ayanka Wijayawardena.

During the poll, one hundred and thirty participants voted to choose the leader for the monitoring working area. The results of the poll can be found in Annex II. The voting showed

that 65 percent of participants voted to elect Claudia de Lima e Silva as the leader of the monitoring working area.

4.4. Remediation working area

The moderator highlighted and explained the remediation working area objectives. These included:

- that the use of integrated sustainable management and remediation practices and technologies for polluted soils are widely used with particular emphasis on nature-based solutions (NbS); and
- strengthening technical and technological capacities of sustainable soil management through coordination among existing networks.

The moderator presented the preliminary activities and their deliverables. Following an open discussion, it was agreed to endorse the activities listed in Table 6 for the 2023–2025 work plan.

Table 6. INSOP remediation working area proposed activities and deliverables

Activity	Deliverable
Create the Online database on best available techniques for managing and remedying polluted soils, in consultation with NETSOB	Online database on best available techniques for managing and remedying polluted soils
Develop national capacities and strengthen technology transfer for remediation and sustainable management of polluted soils	Sustainable remediation to treat polluted soils and to enhance soil health and biodiversity applied at national level
Initiate phase II on the implementation of solutions and nature-based remediation techniques on reducing the risks of soil pollution in agricultural systems: A case study from Trinidad and Tobago and Ecuador	Promotion and field implementation of nature based solution practices

Following the discussion, the moderator conducted a poll to select the leader for the remediation working area. Prior to the meeting, the list of preselected candidates being considered was shared. The shortlisted candidates were Fang Wang and Scott D. Warner.

During the poll, one hundred and thirty participants voted to choose the leader of the remediation working area. The results of the poll can be found in Annex II. The voting showed similar results for both candidates, with 51 percent voting for Fang Wang and 49 percent voting for Scott D. Warner. As a result, it was decided to nominate two working area leaders to ensure the remediation activities are executed effectively, with both Fang Wang and Scott D. Warner working together to accomplish this goal.

4.5. Food quality and soil pollution working area

The moderator highlighted and explained the objectives of the food quality and soil pollution working area. These included:

- increasing the safety of food by reducing the presence of soil pollutants in the crops globally; and
- the sound management of soil pollutants throughout their life-cycle to minimize significant adverse effects on human health.

The moderator presented the preliminary activities and their deliverables. Following an open discussion, it was agreed to endorse the activities listed in Table 7 for the 2023–2025 work plan.

Table 7. INSOP food quality and soil pollution working area proposed activities and deliverables

Activity	Deliverable
Liaise and cooperate with countries for gathering health data related to environmental impacts	Up-to-date information on the impacts of soil pollution on human health
Revise the Global Health Observatory indicators and liaise with the WHO to include soil pollution (inorganic and organic) indicators	Soil pollution to be included in the Global Health Observatory
Identify sources of soil pollution in agricultural crops and the risks to human health (Phase II project on reducing the risks of soil pollution in agricultural systems)	Global action plan, road map and guidelines development in reducing the risks of food contamination
Analyse fertiliser quality in order to understand contaminants and nutrients load and risks to soil and human health	Preventing and reducing fertilizer pollution risks

Following the discussion, the moderator opened the floor to introduce the potential leader for the food quality and soil pollution working area. David O'Connor from Tsinghua University, Beijing, was the only shortlisted candidate nominated to lead the working area. After his introduction, participants were asked whether they agreed to appoint the candidate as the leader. All participants agreed with the candidature.

4.6. Soil and water working area

The moderator highlighted and explained the objective of the soil and water working area. This included the strengthening of knowledge of the environmental and associated ecotoxicological risks, environmental fate and behaviour of soil and water pollutants.

The moderator presented the preliminary activities and their deliverables. Following an open discussion, it was agreed to endorse the activities listed in Table 8 for the 2023–2025 work plan.

Table 8. INSOP soil and water pollution working area proposed activities and deliverables

Activity	Deliverable
SOPs for measuring leaching potential of soil pollutants	Globally harmonized SOP protocol for soil pollutants leaching potential
Assessment of soil pollutants prone to leaching and risks they have to groundwater pollution	Report publication and training on leached pollutants and their risks to aquatic health
Identification of indicators relevant to the groundwater assessment affected by soil pollutants	Publication of posters to raise awareness on direct and indirect groundwater pollution indicators
Address and strengthen environmental components of the One Health approach	Preparation of a publication and guidelines that reviews state-of-the-art knowledge of antimicrobial resistance (AMR) to enhance One Health action plan

Unfortunately, no suitable candidates were found before or during the annual meeting. As a result, it was decided to hold a separate technical meeting which will be held in 2023. The above-mentioned activities will be thoroughly discussed during the upcoming meeting, and a working area leader will be chosen.

5. Conclusion

In conclusion, the INSOP work plan for the year 2023–2025 was revised and endorsed. This is reported in Table 3, Table 4, Table 5, Table 6, Table 7 and Table 8 in Section 4.

The INSOP Chair, Ravi Naidu, INSOP Vice-Chair, Deyi Hou, and INSOP coordinator, Sergejus Ustinov, thanked all participants for engaging in a productive and insightful discussion.

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Annex I. Agenda

Moderated by: Natalia Rodriguez Eugenio

Time (CEST)	Tuesday, 13 June 2023	
12:00–12:10	Opening	Ronald Vargas, <i>Global Soil Partnership (GSP) Secretariat, FAO</i>
12:10–12:30	Item 1: Recap on INSOP mission, goals, structure and progress	Ravi Naidu, <i>INSOP Chair</i>
Current activities		
12:30–12:40	Item 2: Report on the assessment working area 1. INSOP Technical Guidelines on Soil Pollution Assessment, Mapping, Monitoring and Reporting	Sergejus Ustinov, <i>FAO GSP</i>
12:40–12:50	Q & A	
12:50–13:05	2. War pollution: demining, mapping and assessing military affected soils of Ukraine	Tiphaine Anne Lucas, <i>FAO Ukraine</i>
13:05–13:15	Q&A	
13:15–13:30	3. Cadmium content in fertilizers and its impacts on soil health	Vinisa Saynes, Santillan, <i>FAO GSP</i>
13:30-13:40	Q&A	
13:40–13:55	4. Reducing soil pollution risks in agricultural systems. A case study from Trinidad and Tobago and Ecuador	Sasha Hart, <i>NICOLE/EKOS</i>
13:55–14:05	Q&A	
14:05–14:10	Closure of the day	

Moderated by: Sergejus Ustinov, FAO GSP

Ravi Naidu, INSOP Chair

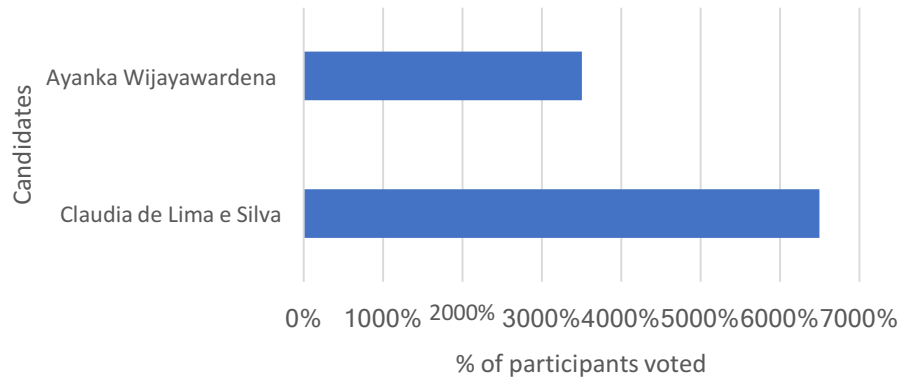
Time (CEST)			Wednesday, 14 June 2023		
12:00–12:05	Welcome and agenda of the day	Sergejus Ustinov, <i>INSOP coordinator, FAO</i>			
Technical speakers					
12:05–12:20	Item 3: Mapping working area theme 1. Mapping per- and polyfluoroalkyl substances (PFAS) in Europe: The forever pollution project	Stéphane Horel, <i>Le Monde</i>			
12:20–12:30	Q & A				
12:30–12:45	Item 4: Monitoring working area theme 1. Pure Earth experience in identifying and monitoring lead and mercury polluted soils	Gordon Binkhorst, <i>Pure Earth</i>			
12:45–12:55	Q&A				
12:55–13:10	Item 5: Remediation working area theme 1. Soil pollution remediation in Africa: challenges and steps to be taken	Isabel Weiersbye, <i>University of the Witwatersrand</i>			
13:10–13:20	Q&A				
13:20–13:35	Item 6: Food quality working area theme 1. Soil Pollutants, Food Contamination and Health Impacts	Wong Ming-hung, <i>Southern Federal University and the Education University of Hong Kong</i>			
13:35–13:45	Q&A				
13:45–14:00	Item 7: Soil and water working area theme 1. Soil and water pollution in the One Health approach	Sasha Koo-Oshima, <i>Land and Water Division, FAO</i>			
14:00–14:10	Q & A				
14:10–14:15	Closure of the day				

Moderated by: Deyi Hou, *INSOP Vice-Chair*

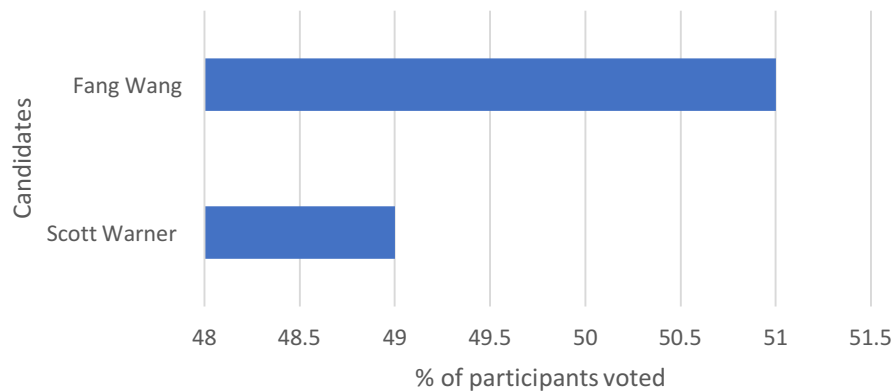
Time (CEST)	Thursday, 15 June 2023	
12:00–12:15	Opening and reflections from day 1 and 2: key take-home messages	Deyi Hou, <i>INSOP Vice-Chair</i>
INSOP working areas (WA)		
12:15–13:00	Item 8: INSOP WA approach 1. Objectives 2. Scope and deliverables 3. Open discussion and agreements 4. Governance: election of the WA chairs	Sergejus Ustinov, <i>INSOP coordinator, FAO</i>
13:00–13:40	Item 9: Open discussion on the INSOP work plan 2023–2024	Ravi Naidu, <i>INSOP Chair</i>
13:40–13:50	Item 10: Endorsement of the INSOP work plan and decisions for the year 2023–2024	Sergejus Ustinov, <i>INSOP coordinator, FAO</i>
13:50–14:00	Wrap up and closure of the meeting	Ravi Naidu, <i>INSOP Chair</i>

Annex II. Voting results

Who is your preferred candidate to lead the monitoring working area?



Who is your preferred candidate to lead the Remediation working area?



Annex III. List of participants

First name	Last name	Country	I am a member of
Ahmad	Mahdavi	Islamic Republic of Iran	INSOP
Sergejus	Ustinov	Ireland	INSOP
Abdullah Al	Mahmud	Saudi Arabia	None of the above
Denis	Frolov	Russia	INSOP
Konstantine	Bziava	Georgia	INSOP
G.K.	Dinesh	India	INSOP
Babar	Hussain	Pakistan	INSOP
Fei	Jin	United Kingdom	INSOP
Paola	Mattarelli	Italy	None of the above
Joanna	Wragg	United Kingdom	None of the above
Rolf Gaël	Mabicka Obame	Gabon	INSOP
Ankitkumar	Chauhan	India	INSOP
Harriet	Nakasi	Uganda	INSOP
Abdelmonim	Elkanit	Morocco	INSOP
Mohammed	Yimam	Ethiopia	None of the above
Muhammad Saleem	Chang	Pakistan	INSOP
Benjamin	Afful	Ghana	INSOP
Amparo	Cortés	Spain	GSP member/partner but not INSOP member yet
Bayan	Athamneh	United Arab Emirates	INSOP
Bella	Anis	Malaysia	INSOP
Théophile Olivier	Bosse	Cameroon	None of the above
Elie	Nsimba Ngembo	Democratic Republic of the Congo	INSOP
Carlo	Jacomini	Italy	INSOP
Sunjay	Sunjay	India	None of the above
Dmytro	Semenov	Ukraine	INSOP
Ibby	Kakulu	Nigeria	INSOP
Kalaiselvi	Periasamy	India	INSOP
Chaosheng	Zhang	Ireland	INSOP
Geetha	P.N.	India	INSOP

Ourania	Tzoraki	Greece	None of the above
Parameswari	Ettiyagounder	India	INSOP
Marija	Romic	Croatia	INSOP
Muhammad Talha	Baig	Pakistan	INSOP
Agnieszka	Klimkowicz-Pawlas	Poland	INSOP
Ankita	Saha	India	INSOP
Maria Angelica	Garcia Alvaro	Spain	INSOP
Hristina	Poposka	North Macedonia	INSOP
Dalel	Melki	Tunisia	None of the above
Dominic	Young	United Kingdom	INSOP
Yimin	Sang	China	INSOP
Chuck Chuan	Ng	Malaysia	INSOP
Michele Laure	Pekam	Cameroon	INSOP
Ty	Desouza	Tanzania	None of the above
Dan	Tsang	China, Hong Kong SAR	INSOP
Frank	Wesonga	Kenya	INSOP
Carlos Alberto	Robles Sangregorio	Colombia	INSOP
Lydia	Chabala	Zambia	INSOP
Tapan	Adhya	India	INSOP
Neil-Yohan	Musadji	Gabon	INSOP
Erika	Santos	Portugal	INSOP
Getinet	Assabu	Ethiopia	None of the above
Pedro	Mondaca	Chile	INSOP
Talal	Darwish	Lebanon	INSOP
Ahmed	Afifi	Egypt	INSOP
Shatrohan	Lal	India	INSOP
Cesar Augusto	Altamirano Bustillos	Bolivia	INSOP
Cristina	Ovando	Bolivia	None of the above
Anabela	Cachada	Portugal	INSOP
Vesna	Dragicevic	Serbia	INSOP
Surajo M.	Usaini Rimi	Nigeria	GSP member/partner but not INSOP member yet
Gaius	Eudoxie	Trinidad and Tobago	INSOP
Peng	Li	United States of America	INSOP
Ian	Swanson	-	None of the above

Giovana Paulina	Parra Gallardo	Ecuador	None of the above
Martin	Solis	México	INSOP
Anani	Ogou	Togo	INSOP
Asghar	Khan	Pakistan	INSOP
Luther	Muteeri	Zimbabwe	INSOP
Lauriane Archange	Tchinda Ninla	Cameroon	INSOP
Daniel	Primanto	Indonesia	None of the above
Ethel Luján	Mediza Madera	Uruguay	INSOP
Ramakgwale	Mampholo	South Africa	INSOP
Narayan	Solanke	India	INSOP
Donato	Visconti	Italy	INSOP
Suleiman	Usman	Nigeria	INSOP
Dieudonné	Kakessa	Benin	GSP member/partner but not INSOP member yet
Rosalina	Gonzalez	Colombia	INSOP
Gabrielle	de Souza	Trinidad and Tobago	INSOP
Ivonne	Aránguiz	Chile	INSOP
Huili	Liu	China	None of the above
Cho Mar	Htwe	Myanmar	GSP member/partner but not INSOP member yet
Lucia	Buvé	Belgium	None of the above
Humberto	Aponte	Chile	INSOP
Arif	Md	United Kingdom	None of the above
Silvia	Aguero Aguiar	Peru	GSP member/partner but not INSOP member yet
Okore	Ikokwu Kalu	Nigeria	INSOP
Souhail	Awad	Lebanon	INSOP
Carla Nicole	Torre De La Cruz	Peru	INSOP
Arjun	Singh	India	INSOP
Pavlos	Tyrologou	Belgium	INSOP
Alonso	Bustos	Colombia	INSOP
Sarah	Haines	United Kingdom	None of the above
Jacob	Lisuma	Tanzania	INSOP

Hussam	Hag Husein	Germany	INSOP
Enang	Roger Kogge	Cameroon	INSOP
Bedanga	Bordoloi	Kuwait	INSOP
Yuriy	Dmytruk	Ukraine	GSP member/partner but not INSOP member yet
Carlos	Saavedra	Bolivia	GSP member/partner but not INSOP member yet
Yanju	Liu	Australia	INSOP
Shabnam	Bahreman	Australia	None of the above
Taqi	Raza	United States of America	INSOP
Anthony	Umeh	Australia	INSOP
Dr.	Amanullah	Pakistan	INSOP
Xunfeng	Chen	China	INSOP
David	O'Connor	United Kingdom	INSOP
Ramah	Ahmed	Libya	None of the above
Kai	Kang	China	INSOP
Isabel	Campos	Portugal	INSOP
Joana	Ribeiro	Portugal	INSOP
Beatriz Amanda	Watts	Germany	INSOP
Bakari Marcel	Ouattara	Burkina Faso	GSP member/partner but not INSOP member yet
Adélia	Varela	Portugal	INSOP
Ming Hung	Wong	Russian Federation	None of the above
Pia	Kotschik	Germany	None of the above
Bobby	Añora	Philippines	None of the above
Mark	Maboeta	South Africa	None of the above
Zuzanna	Sledz	Norway	None of the above
Paola	Grenni	Italy	None of the above
Bettina	Hitzfeld	Switzerland	GSP member/partner but not INSOP member yet

Felipe	Yunta	Italy	None of the above
Judith	Ehigie	Germany	None of the above
Michelle	Sims	Australia	INSOP
Kate	Schofield	United Kingdom	INSOP
Sabine	Apitz	United Kingdom	None of the above
Ian	Oliver	United Kingdom	GSP member/partner but not INSOP member yet
Joshua	Walter	Germany	None of the above
Ana	Cione	Brazil	None of the above
Micha	Wehrli	Switzerland	None of the above
Ezinne	Osuji	United States of America	GSP member/partner but not INSOP member yet
Lyne	Sabourin	Canada	None of the above
Xiyue	Jia	China	INSOP
Olga	Pantos	New Zealand	None of the above
Shafar Jefri	Mokhatar	Malaysia	INSOP
Samuel	Tetsopgang	Cameroon	INSOP
Justin	Renaud	Canada	None of the above
Oğuz Can	Turgay	Türkiye	INSOP
Ali	Mawof	Canada	None of the above
Salih	Demirkaya	Türkiye	GSP member/partner but not INSOP member yet
Maria Jesus	Gutierrez Gines	New Zealand	None of the above
Mazharul	Islam	Bangladesh	INSOP
Julia	Jasonsmith	Australia	None of the above
Özge	Şahin	Türkiye	INSOP
Mathieu	Renaud	Switzerland	None of the above

Gilda	Dell'Ambrogio	Switzerland	None of the above
Iustina	Boaja	Romania	INSOP
Claudia	de Lima e Silva	The Kingdom of the Netherlands	INSOP
Ilona	van der Kroef	The Kingdom of the Netherlands	None of the above
Bonnie	Brooks	United States of America	None of the above
Nabeel	Bani Hani	Jordan	INSOP
Nadia	Sheppard	United States of America	None of the above
Liuwei	Wang	China	INSOP
Pingfan	Zhou	China	None of the above
Šárka	Poláková	Czechia	INSOP
Wiebke Mareile	Heinze	Sweden	None of the above
Liting	Hao	China	None of the above
Janice	Li	China	None of the above
Hao	Meng	China	None of the above
Zhan	Sun	China	None of the above
Hui	Wu Congyang	China	None of the above
Tao	Feng	China	None of the above
Zhaoyang	Liu	China	None of the above
Meng	Xiao	China	None of the above
Lifeng	Cao	China	INSOP
Jin	Liu	China	INSOP
Zong Yang	Liu	China	None of the above
Wei	Liao	China	INSOP
Xiuxiu	Ruan	China	None of the above
英	姜	China	None of the above
Yabo	Liang	China	None of the above
Charley C.	Wang	China/United States of America	INSOP

Marcela	Cáceres Wenzel	Brazil	None of the above
Caide	Huang	China	None of the above
Kewei	Li	China	None of the above
Shizhong	Yue	China	None of the above
Qing Guo	Song	China	INSOP
Li	Qian	China	None of the above
Sheng	Huang	China	None of the above
Ping	He	China	None of the above
Chengqian	Wang	China	None of the above
Bo	Zhang	China	None of the above
Orlando	Idarraga	Colombia	None of the above
Job	Fugice	United States of America	None of the above
Dessy Dwi	Septian	Indonesia	INSOP
Merick	Rugengah	Tanzania	INSOP
Nopmanee	Suvannang	Thailand	GSP member/partner but not INSOP member yet
Isaboke	Job	Kenya	INSOP
LAura	Casas	Colombia	INSOP
Neil	Coyne	United Kingdom	INSOP
Yunfan	Li	China	None of the above
Nilson	Guimaraes	Brazil	None of the above
Nuriangel	Casanova Hernández	Venezuela	None of the above
Kaixuan	Zhu	China	None of the above
Tatev	Jhangiryan	Armenia	INSOP
女士	孙	China	INSOP
Magdeline	Vlasimsky	Italy	GSP member/partner but not INSOP member yet

Jacob	Parnell	United States of America	GSP member/partner but not INSOP member yet
Filippo	Benedetti	-	GSP member/partner but not INSOP member yet
Mengyang	Zhou	China	None of the above
Isabelle	Verbeke	Italy	None of the above
Laili	Purnamasari	Indonesia	GSP member/partner but not INSOP member yet
Li	Ming	China	None of the above
James	Kamau	Kenya	None of the above
Subhadeep	Debnath	India	None of the above
Cilmi	Samatar	Somalia	None of the above
Khalfan	Mtua	Tanzania	None of the above
Muhammad Rizwan	Ali	Pakistan	None of the above
Sabire	Hacıömeroğlu	Türkiye	None of the above
Dirie Abdi	Mohamed	Somalia	INSOP
Laiba	Farid	Pakistan	None of the above
Alfonso	Rodriguez	United States of America/Colombia	GSP member/partner but not INSOP member yet
Julito, Jr	Ranido	Philippines	None of the above
Phongsakon	Tantarawongsa	Thailand	None of the above
Rikko Jeremy	Pedroza	Philippines	GSP member/partner but not INSOP member yet
Ariuntsetseg	Dugar	Mongolia	None of the above
Abdul Qadeer	Wahla	Pakistan	None of the above

Hammad	.	Pakistan	INSOP
Maria Charmel	Binatao	Philippines	None of the above
Edwin	Grisales	Colombia	None of the above
Abdus	Salam	Pakistan	None of the above
Fatma	Béjaoui	Tunisia	None of the above
Deepthee	MR	India	None of the above
Stefanos	Stefanou	Greece	None of the above
Isam Hani	Hameed	Iraq	INSOP
Shabir	Pechuho	Pakistan	None of the above
Rahina	Kausar	Pakistan	None of the above
Sunil	Manandhar	Nepal	INSOP
Gina	Rixi	Peru	None of the above
Precious	Adefemi	Nigeria	None of the above
Hayri	Dağlı	Türkiye	None of the above
Atta Ullah	Khan	Pakistan	None of the above
Sindor	Pardaev	Malaysia	INSOP
Dilfuza	Kholmatova	Uzbekistan	INSOP
Md. Anisur	Rahman	Bangladesh	None of the above
Prashant Raj	Giri	Nepal	None of the above
Mohamed	Elaissi	Morocco	INSOP
Subhabrata	Panda	India	None of the above
Mailing	Ramirez	Chile	None of the above
Dennis	Audu	Nigeria	None of the above
Amit	Kumar	Bangladesh	None of the above
Asma	Belouanas	Algeria	GSP member/partner but not INSOP member yet
Florjana	Cela	Albania	None of the above

Sharhabil Musa	Yahaya	Nigeria	None of the above
Bahar	Sevilir	Türkiye	None of the above
Dhaval	Pandya	India	GSP member/partner but not INSOP member yet
Kabila	Mulongo	South Africa	None of the above
Pravesh	Kumar	India	GSP member/partner but not INSOP member yet
Kbn	Rayana	India	INSOP
Suos	Piseth	Cambodia	None of the above
Salif	Toure	Mali	None of the above
Inga	Morozova	Latvia	None of the above
Abderrahmen	Akkacha	Algeria	None of the above
Faraoun	Fatiha	Algeria	None of the above
Berk	Sohtorik	Türkiye	None of the above
Sanna	Halaili	Algeria	None of the above
Bekhit	Nadia	Algeria	None of the above
Vinisa	Saynes Santillán	Mexico	GSP member/partner but not INSOP member yet
Irene	Heuser	Germany	None of the above
Babacar	Kane	Senegal	INSOP
Salima	Benouadah	Algeria	None of the above
Sivalingam	Somasundram	Malaysia	None of the above
Andrès Felipe	Silva Carvajal	Colombia	None of the above
Ni	Tint	Myanmar	GSP member/partner but not INSOP member yet

Ninh	Hoang	Viet Nam	None of the above
Urmila	Bohora	Nepal	None of the above
Woranuch	Emmanoch	Thailand	None of the above
Mohammed	AbuShariah	South Africa	None of the above
Muhammad	Rehan	United States of America	None of the above
Harish	Kumar	India	None of the above
Lenie Joy	Aputan	Philippines	None of the above
Niyati	Kalangutkar	India	None of the above
Humberto	Gonzalez Rodríguez	Mexico	None of the above
Bharat Kumar	Allam	India	None of the above
Prudence	Mhlophe	United Kingdom	None of the above
Mohammad Rafi	Salihzada	Afghanistan	INSOP
Naresh	Kumar	The Kingdom of the Netherlands	None of the above
Abrham	Mulu	Ethiopia	None of the above
Sibusisiwe	Dumakude	South Africa	None of the above
Grace	Enojada	Philippines	None of the above
Jose Matias	Peñas Castejon	Spain	INSOP
Christine Cel	Lalusin	Philippines	None of the above
Darius	Ahebwanukama	Uganda	GSP member/partner but not INSOP member yet
Firat	Alabay	Türkiye	None of the above
Rabia Betül	Gürel	Türkiye	None of the above
Wilsac	Ndungu	Kenya	None of the above
Ali	Madi	Libya	GSP member/partner but not INSOP member yet

Hameedullah	Ahmadzai	Afghanistan	GSP member/partner but not INSOP member yet
Kunlayakorn	Prongjunthuek	Thailand	None of the above
Samuel	Ojo	Nigeria	None of the above
Sande	Andrew	Uganda	None of the above
Birkha	Tamang	Bhutan	GSP member/partner but not INSOP member yet
Umar	Rahman	Pakistan	INSOP
Neeraj Kumar	Prajapati	India	GSP member/partner but not INSOP member yet
Ali	Moursy	Egypt	None of the above
Rakesh	Kumar Godara	India	None of the above
Gordon	Binkhorst	United States of America	None of the above
Nwangwu	Chibueze	Nigeria	None of the above
Cristine	De Chavez	Philippines	None of the above
Remelyn	Huelba	Philippines	None of the above
Vilas	Patil	India	None of the above
Marnellie	Pini	Philippines	None of the above
Aldio Shem Hanniel	Quides	Philippines	None of the above
Florinda	Espiritu-Katigbak	Philippines	None of the above
Genlei Rose	Cosico	Philippines	None of the above
Diederik	Jacques	Belgium	None of the above
Suleiman	Bello	Nigeria	None of the above
Saliha	Zerdoum	Algeria	None of the above

Ayesha	Malik	Pakistan	None of the above
Nick	Dogillo	Philippines	None of the above
Santiago	Torres	Ecuador	None of the above
Surajit	Mondal	India	None of the above
Onkar	Singh	India	GSP member/partner but not INSOP member yet
Stéphane	Horel	France	None of the above
Grace Glend	Gabisay	Philippines	INSOP
Muhammad Bilal	Khan	Pakistan	None of the above
Muhammad	Ehsan	Pakistan	None of the above
Rizwana	Kausar	Pakistan	None of the above
Zia	Chishti	Pakistan	None of the above
Muhammad	Nadeem	Pakistan	None of the above
Muhammad	Abdullah	Pakistan	None of the above
Ali	Afzal	Pakistan	None of the above
Adrien	Mestrot	Switzerland	INSOP
Fariha	Amin	Pakistan	None of the above
Zeeshan	Aslam	Pakistan	None of the above
Muhammad Mazhar	Iqbal	Pakistan	None of the above
Tayyaba	Naz	Pakistan	None of the above
Aqsa	Rashid	Pakistan	None of the above
Muhammad	Qasim	Pakistan	None of the above
Sasha	Hart	Brazil (Mexico)	INSOP
Haddy	Ngum	Gambia	None of the above
Pavlos	Tyrologou	Belgium	INSOP
Anna	Huang	The Kingdom of the Netherlands	None of the above

Teklit	Ambaye	Italy	None of the above
Magnus	Engwall	Sweden	None of the above
Gokberk	Kara	Türkiye	None of the above
Vadim	Pellinen	Russian Federation	None of the above
Baldwin	Pine	Philippines	None of the above
Sasha	Koo-oshima	Italy	None of the above
Himani	Chand	Nepal	INSOP
Agripino III	Castaños	Philippines	GSP member/partner but not INSOP member yet
Noman	Ahmad	Pakistan	INSOP
Gobinath	Rajendran	India	None of the above
Recca Mae	Capina	Philippines	None of the above
Saglara	Mandzhieva	Russian Federation	INSOP
Chetan	Keswani	Russian Federation	GSP member/partner but not INSOP member yet
Tatiana	Minkina	Russian Federation	None of the above
Sudhir	Shende	Russian Federation	None of the above
Pallavi	Saxena	Russian Federation	INSOP
Dariia	Skriabina	Germany	None of the above
Marina	Burachevskaya	Russian Federation	None of the above
Mikhail	Kirichkov	Russian Federation	None of the above
David	Low	Australia	None of the above
Seyyede Khamsa	Asbaghian	Islamic Republic of Iran	None of the above
Anuj	Ranjan	Russian Federation	None of the above
Tamara	Dudnikova	Russian Federation	None of the above
Azamat	Yershbulov	Kazakhstan	GSP member/partner

			but not INSOP member yet
Rizza Josefina	Doguiles	Philippines	None of the above
Riyaz	Sameem	Australia	None of the above
Vishaw	Vikas	India	INSOP
Karim	Shahbazi	Islamic Republic of Iran	INSOP
Deyi	Hou	China	INSOP
Ekaterina	Filimonrnko	Russian Federation	None of the above
Marjetka	Suhadolc	Slovenia	None of the above
Guillaume	Treuil	France	None of the above
Cynthia	Nnabuike	Nigeria	None of the above
Dharmendranaik	E	India	None of the above
Shiksha	Khanal	Nepal	None of the above
Mahwish	Kanwal	Pakistan	None of the above
Abid	Subhani	Pakistan	None of the above
Shaukat Ali	Shah	Pakistan	None of the above
Naseem	Akhtar	Pakistan	None of the above
Omar	Rady	Egypt	None of the above
Mostafa	Marzi	Islamic Republic of Iran	INSOP
Pingfan	Zhou	China	None of the above
Cecilia Rocío	Juárez Rosete	Mexico	None of the above
Saba	Iqbal	Pakistan	None of the above
Félix	Kouelo Alladassi	Benin	None of the above
Ehsan	Ullah	Pakistan	None of the above
Houda	Lamane	Morocco	None of the above
Bayarjargal	Batsukh	Mongolia	None of the above

Paola	Fiore	Italy	None of the above
Jose Noel	Alvarez	Philippines	None of the above
Josh	Bowman	United States of America	None of the above
Aown	Abbas	Pakistan	None of the above
Dalia	Mubarak	Egypt	None of the above
Brayson	Laizer	Tanzania	None of the above
Diana	Vieira	Italy	None of the above
Muhammad	Shafqat	Pakistan	None of the above
Tiphaine	Lucas	France	INSOP
Muhammad	Yunas	Pakistan	None of the above
Pierrette J.	Cazeau	United States of America	GSP member/partner but not INSOP member yet
Kris	Van Looy	Belgium	INSOP
Muhammad	Riaz	Pakistan	INSOP
Nelson	Mbawala	Tanzania	INSOP
Beatrice	Olivastri	Canada	None of the above
Jacob	Jose	India	INSOP
Abiodun	Aderibigbe	Nigeria	INSOP
Rakita	Ole Ntutu	Kenya	INSOP
Emmanuel	Njadvara	Nigeria	INSOP
Sherlyn	Tipayno	Philippines	INSOP
Ibrahim	Sidibe	Mali	INSOP
jitendra	Kumar	India	INSOP
Maja	Manojlovic	Serbia	GSP member/partner but not INSOP member yet
Pradip	Dey	India	INSOP
Idir	El Konty	Morocco	None of the above
Titus	Thomba	Botswana	INSOP
Veronica	Migo	Philippines	None of the above
Alassane	Koussoube	Burkina Faso	GSP member/partner

			but not INSOP member yet
Calvin	Centino	Philippines	None of the above
María	Morel	Uruguay	INSOP
Partha Pratim	Chakravorty	India	INSOP
Chukwuka	Ogbonna	Nigeria	None of the above
Prudhvi	Kandada	India	None of the above
Camilo	Quintero	Brazil	None of the above
Carlos	Garbisu	Spain	INSOP
Bassirou	Hassane	Niger	GSP member/partner but not INSOP member yet
Osama	Abu-Libda	Jordan	INSOP
Irena	Atanassova	Bulgaria	GSP member/partner but not INSOP member yet
Martha	Wepner-Banko	Austria	INSOP
Juan C.	Sanchez-Hernandez	Spain	INSOP
Hugh	Rodrigues	United States of America	None of the above
Svetlana	Gorokhova	Russian Federation	INSOP
Jess	Blair	South Africa	None of the above
Esra	Güneri	Türkiye	GSP member/partner but not INSOP member yet
Satish	Karande	India	INSOP
Fitria	Yuniarti	Indonesia	None of the above
Hashir	Najeed	Pakistan	None of the above
Dimitrios	Karpouzas	Greece	INSOP
Bertha Cecilia	Garcia Cienfuegos	Peru	INSOP
Izuchukwu	Ezukanma	United States of America	None of the above
Xiaopu	Wang	China	INSOP
Mahmoud	Aminu	Nigeria	None of the above
Hassan	Abdilaahi	Somalia	GSP member/partner

			but not INSOP member yet
Yvonne Adaobi	Onmonya	Nigeria	INSOP
Ijaz	Ahmad	Pakistan	INSOP
Mohammed Elnour	Ahmed	Saudi Arabia	None of the above
Karl	Wyant	United States of America	None of the above
Vitalii	Lebed	Ukraine	GSP member/partner but not INSOP member yet
Asit	Mandal	India	None of the above
Tarik	Zerrak	Morocco	GSP member/partner but not INSOP member yet
Lenin	Medina-Orozco	Mexico	GSP member/partner but not INSOP member yet
Osman	Ayala	Colombia	GSP member/partner but not INSOP member yet
Alex	Musyoki	Kenya	None of the above
Govind	Kumar	India	None of the above
Sohaib	Saleem	Pakistan	None of the above
Richard	Uchrin	Hungary	None of the above
Iddrisu	Seidu	Ghana	None of the above
USHA	Mina	India	GSP member/partner but not INSOP member yet
Farzana	M.N.	India	None of the above
Neelam	Jain	India	INSOP
David	Saka	Ghana	None of the above
Heloisa	Dickinson	United Kingdom	GSP member/partner

			but not INSOP member yet
Jesmary	Rosas	Venezuela	None of the above
kareem	Longwe	Malawi	INSOP
Onyinye	Ezeifeka	Bulgaria	GSP member/partner but not INSOP member yet
Ludmila	Vorotyntseva	Ukraine	INSOP
Reda	Shahin	Egypt	None of the above
Shakirah	Namuli	Uganda	INSOP
Mohammed	Alsanad	Saudi Arabia	INSOP
Lakshmaiah	Janumala	India	GSP member/partner but not INSOP member yet
Fadoua	Elhaddad	Spain	GSP member/partner but not INSOP member yet
Habib	Lamourou	Tunisia	None of the above
Pramel Kumar	Gupta	India	INSOP
Abdul Sattar J.	Zaben	Iraq	INSOP
Ali Raza	Bhatt	Pakistan	None of the above
Getu	Debela	Ethiopia	INSOP
Senthilvalavan	P.	India	INSOP
Maiella	Rangel	Venezuela	None of the above
Knowledge	Mushonga	South Africa	GSP member/partner but not INSOP member yet
Ilias	Miah	Bangladesh	GSP member/partner but not INSOP member yet
Bich Thao	Nguyen	Israel	GSP member/partner but not INSOP member yet
Aishah Ramadan Mohammed	Binadam	Libya	None of the above
Ashutosh	Raj	India	INSOP

Isimemen	Osemwegie	Germany	GSP member/partner but not INSOP member yet
Gerardo	Ojeda	Colombia	INSOP
Bernd	Bussian	Germany	INSOP
Juan Pablo	Ibarra Morales	Mexico	None of the above
Joseph	Adeleke	Nigeria	None of the above
Régia	Estevam Alves	Brazil	GSP member/partner but not INSOP member yet
Penelope	Wensley	Australia	GSP member/partner but not INSOP member yet
Sara	Di Lonardo	Italy	None of the above
Bernard	Okafor	Nigeria	INSOP
Harvey	Obiyo	Japan	None of the above
Carlos	Galo	Honduras	INSOP
Edson	Kagohara	Brazil	None of the above
Khalida	Derradji	Algeria	GSP member/partner but not INSOP member yet
Muhammad	Oyereyi	Nigeria	None of the above
Gina	Nilo	Philippines	GSP member/partner but not INSOP member yet
Dulamsuren	Ganbat	Mongolia	None of the above
Valentina	Samokhvalova	Ukraine	GSP member/partner but not INSOP member yet
Maribel	Jalalon	Philippines	GSP member/partner but not INSOP member yet
Karen	Bautista	Philippines	GSP member/partner

			but not INSOP member yet
Fitsumbirhan	Tewelde	Ethiopia	None of the above
Sereyroith	Tum	Japan	None of the above
Thembinkosi	Mbedzi	Zimbabwe	INSOP
Ricardo	Kern	Brazil	None of the above
Shuntaro	Aotake	Japan	None of the above
Ana María	Palomo González	Guatemala	None of the above
Durga	Parajuli	Japan	None of the above
Jeyanny	Vijayanathan	Malaysia	INSOP
Xiaoming	Wan	China	None of the above
Carleen	Calimpon	Philippines	INSOP
Steve	Booton	Australia	GSP member/partner but not INSOP member yet
Jalal Uddin	Shoaib	Bangladesh	GSP member/partner but not INSOP member yet
Alok	Pandey	India	None of the above
Joromana	Phiri	Zambia	None of the above
Ying	Cheng	Australia	None of the above
Bhabananda	Biswas	Australia	None of the above
Shiveshwar Pratap	Singh	India	INSOP
Vivek	M.S.	India	INSOP
Ardiman	Kelihu	Indonesia	None of the above
Ali	Ahmad	Pakistan	None of the above
Ehsan	Kahneh	Islamic Republic of Iran	INSOP
Yuji	Kawamura	Japan	None of the above
Mostafa	Sherbiny	Egypt	INSOP
Mary Claire Alyssa	Pras	Philippines	None of the above

Ekaterina	Arbuzova	Russian Federation	None of the above
Chandahas	Sahu	India	None of the above
Muhammad Salman	Zahid	China	GSP member/partner but not INSOP member yet
Priyanka	Sarangi	India	INSOP
Allappa	Patil	India	GSP member/partner but not INSOP member yet
Imtiaz Ahmad	Warraich	Pakistan	None of the above
Ashish Kumar	Mishra	India	None of the above
Megharaj	Mallavarapu	Australia	None of the above
Mohammad Mahmudur	Rahman	Australia	None of the above
Ayobami	Fatolu	Nigeria	None of the above
Scott	Warner	United States of America/Australia	INSOP
Jeya	Lakshmi	India	None of the above
Uduakobong	Edet	Nigeria	None of the above
Maruti N.	Malawadi	India	None of the above
Washington	Mutatu	Zimbabwe	INSOP
Monongoaha	Pelei	Lesotho	INSOP
N.R.	Salimath	India	None of the above
P.M.	Patil	India	None of the above
Federico	Sinche	United States of America	None of the above
Fang	Wang	China	INSOP
Ourania	Tzoraki	Greece	INSOP
Dikshya	Poudel	Nepal	None of the above
Sharon	Awino	Kenya	GSP member/partner but not INSOP member yet
Mohammad Iqbal	Bhat	India	INSOP

Sima	Mammadova	Azerbaijan	None of the above
Kedar	Devkota	Nepal	INSOP
Rattaket	Choeyklin	Thailand	INSOP
Ranjana	Jeed	India	None of the above
Cheptoris	Lawrence	Uganda	None of the above
Shivunath	L.	India	None of the above
Ayanka	Wijayawardena	Australia	INSOP
Pravesh	Kumar	India	GSP member/partner but not INSOP member yet
Pradeep	Mohapatra	India	GSP member/partner but not INSOP member yet
Jegan	Sekar	India	INSOP
Henry Tamba	Nyuma	Liberia	INSOP
Sara	Martínez Montero	Germany	None of the above
mohamed	Hachicha	Tunisia	INSOP
Jose	Franco	Portugal	None of the above
Adedayo	Oyedele	Nigeria	INSOP
Abba	Sani	Nigeria	None of the above
Christelle	Kabika Munanga	Cameroon	None of the above
Saif	Alameri	United Arab Emirates	None of the above
Abdelmonim	Elkanit	Morocco	INSOP
Simona	Di Gregorio	Italy	INSOP
Marcelo	Martins	Brazil	None of the above
Leonid	Perelomov	Russian Federation	None of the above
Hammad	.	Pakistan	INSOP
Mohamed Egueh	Walieh	Djibouti	INSOP
Jitrera	Buates	China, Hong Kong SAR	None of the above
Sara	Ma	Bahrain	None of the above
Luchun	Duan	Australia	None of the above

Maya	Benkova	Bulgaria	None of the above
Talal	Darwish	Lebanon	INSOP
Robabeh	Latif	Islamic Republic of Iran	None of the above
Vishnu	Rajput	Russian Federation	None of the above
Moleshane	Mamaile	South Africa	GSP member/partner but not INSOP member yet
Luca	Montanarella	European Union	GSP member/partner but not INSOP member yet
Florjana	Cela	Albania	None of the above
Zibo	Xu	China	None of the above
xiaoguo	geng	China	None of the above
Shlomo	Kramer	Israel	GSP member/partner but not INSOP member yet
Bofei	Li	Kingdom of the Netherlands	None of the above
Rosemarie	Umagat	Philippines	None of the above
Thomas	Jacob	India	INSOP
Maria	Gertsen	Russian Federation	None of the above
Tatiana	Bauer	Russian Federation	None of the above
Mary Claire Alyssa	Pras	Philippines	None of the above
Veronika	Boldyreva	Russian Federation	INSOP
Giregon	Olupot	Uganda	GSP member/partner but not INSOP member yet
Mulugeta	Aytenew	Ethiopia	None of the above
Ahsan	Maqbool	Spain	INSOP
Jin	Tanaka	Japan	INSOP
Pedro	Rios Guayasamin	Ecuador	GSP member/partner

			but not INSOP member yet
Ronald	Vargas	Italy	None of the above
Joseph	Hefler	Hungary	GSP member/partner but not INSOP member yet
Laura	Zantis	The Kingdom of the Netherlands	None of the above
Serghei	Corcimaru	Republic of Moldova	GSP member/partner but not INSOP member yet
Olusegun	Yerokun	Zambia	None of the above
Frans	Joseph	South Africa	None of the above
Samina	Siddiqui	Pakistan	None of the above
Jamie Ann	Tumulva	Philippines	GSP member/partner but not INSOP member yet
Wei	Wei	China	None of the above
Dirie	Mohamed	Somalia	INSOP
Hrishikesh	Khare	India	None of the above
Dante	Margate	Philippines	GSP member/partner but not INSOP member yet
Shree Prasad	Vista	Nepal	INSOP
Shirley	Buduan	Philippines	GSP member/partner but not INSOP member yet
Sergio	Malinconico	Italy	INSOP
Tarik	Zerrak	Morocco	None of the above
Omar	Rirash	Somalia	GSP member/partner but not INSOP member yet
Suhail	Bashir	United Arab Emirates	None of the above

Elena	Khayrulina	Russian Federation	None of the above
Huan	Tao	China	INSOP
Aurora	Manalang	Philippines	GSP member/partner but not INSOP member yet
Bhakthanakatte Chandrappa	Dhananjaya	India	None of the above
Davorka	Hackenberger	Croatia	None of the above
Lakshmi	Gopakumar	India	INSOP
Corina	Carranca	Portugal	GSP member/partner but not INSOP member yet
Galyna	Iutynska	Ukraine	None of the above
Richard	Abi Chahla	Lebanon	None of the above
Chidozie	Ernest	Nigeria	INSOP
Xiaoying	Liu	The Kingdom of the Netherlands	INSOP
Carlos	Ortiz	Spain	INSOP
Mags	Riordan	Ireland	None of the above
Luciana	Ferreira	Brazil	INSOP
Isabel	Weiersbye	South Africa	INSOP
Marco	Falconi	Italy	None of the above
Yomba	Mara	Guinea	INSOP
Henry	Nguerekongbo Gaziamodo	Central African Republic	GSP member/partner but not INSOP member yet
Guy	Mathurin	Barbados	INSOP
Ishrat	Sanchary	Bangladesh	None of the above
Fe	de Leon	Canada	None of the above
Oludare	Agboola	Nigeria	INSOP
Meg	Sears	Canada	None of the above
Mulima	Mato	Nigeria	INSOP
Sérgio	Antunes	Romania	None of the above

Nicholas	Mbusiro	Canada	None of the above
Lazarous	Kamoso	Zambia	GSP member/partner but not INSOP member yet
Bikash	Laskar	India	None of the above
Prachi	Patel	India	None of the above
Plamen	Ivanov	Bulgaria	None of the above
Rosa	Soria	United States of America	None of the above
Fabio	Taioli	Brazil	None of the above
Fuat	Kaya	Türkiye	GSP member/partner but not INSOP member yet
Manoochehr	Farboodi	Islamic Republic of Iran	INSOP
Astride Carole	Djeuani	Cameroon	None of the above
Viktor	Zhukovskyy	Ukraine	INSOP
Kenneth	Carroll	United States of America	INSOP
Jose M.	Martinez Paz	Spain	None of the above
Neus	Bonet-Garcia	Portugal	None of the above
Maximillian	Aguiar	United States of America	None of the above
Rumaisa	Javeed	India	None of the above
Luis	Rodriguez Lado	Spain	GSP member/partner but not INSOP member yet
Karolina	Pettit	United Kingdom	None of the above
Marharyta	Vasnietsova	Ukraine	None of the above
Suhayl	Dholkawala	Portugal	None of the above
Wen	Zhang	China	None of the above

Moussa Tady	Diallo	Guinea	GSP member/partner but not INSOP member yet
Xin	Xu	China	GSP member/partner but not INSOP member yet
Renming	Wu	China	None of the above
Wenjing	Zong	China	INSOP
Md	Nuruzzaman	Australia	GSP member/partner but not INSOP member yet
Prakash Singh	Dhami	Nepal	None of the above
Rajat	Upraity	India	None of the above
Md Abdul	Halim	Australia	None of the above
Joël Jordan	Dzokou	Cameroon	None of the above
Primitivo	Nieto Ascanio	Colombia	GSP member/partner but not INSOP member yet
Ajay Kumar	Mishra	India	GSP member/partner but not INSOP member yet
Luma	Hamdi	Jordan	None of the above
Anithadevi	Kenday Sivaram	Australia	None of the above
Abdelkerim Abbas	Mahamat	Chad	None of the above
Amir	Ali	Pakistan	None of the above
Massinissa	Aloui	Algeria	None of the above
Bharani	Alalgrisamy	India	INSOP
Random	Person	The Kingdom of the Netherlands	None of the above
Smita	Mohanty	India	None of the above
Dennis	Mutua	Kenya	None of the above

Sonu	Sharma	India	None of the above
Omar	Elhassan	Italy	None of the above
Maria	Tsiafouli	Greece	GSP member/partner but not INSOP member yet
Olayiwola	Agoro	Nigeria	None of the above
Scott	Warner	United States of America/Australia	INSOP
Jane	Gicheha	Kenya	INSOP
Joan	Centelles	Spain	None of the above
Umar	Rahman	Pakistan	INSOP
Rocío	Barros	Spain	INSOP
Jacqueline	Rojales	Philippines	GSP member/partner but not INSOP member yet
Oksana	Sakal	Ukraine	None of the above
Luc	Adetona	Benin	GSP member/partner but not INSOP member yet
Giovanni	Garau	Italy	INSOP
Samuel	Eziuzor	Canada	INSOP
Kakha	Nadiradze	Georgia	INSOP
Cecilia	Flocco	Germany	None of the above
Thomas	Koenen		INSOP
José Omar	Arzabe Maure	Bolivia	INSOP
Shafiq Ur Rehman	Memon	Italy	INSOP
Haibo	Zhang	China	INSOP
Ari	Rachman	Indonesia	None of the above
Xiaofan	Yang	China	INSOP
Juan	Liu	China	INSOP
Hualong	Hong	China	None of the above
Guohui	Luo	China	None of the above
Zhenli	Guo	China	None of the above

Peipei	Pan	China	None of the above
Izabela	Serafim	Brazil	None of the above
Mukhtar	Ahmed	Pakistan	GSP member/partner but not INSOP member yet
Rashmi	Nanda	India	None of the above
Kabishanga	Emmanuel Ruguuza Shaka	Uganda	None of the above
Waldir	Gallo	Brazil	INSOP
Lussu	B.M.	Tanzania	None of the above
Jose	Perez Perez	Paraguay	None of the above
Dereba	Muleta	Ethiopia	None of the above
Mezbaul	Bahar	Australia	None of the above
Sandra	Ungerson	Canada	None of the above
Qianying	Xiang	China	None of the above
Marisa Phiromtan	De Bels	Thailand	None of the above
Qianying	Xiang	China	None of the above
玉豪	付	China	None of the above
Leilei	Xiang	China	None of the above
Haizhen	Wang	China	None of the above
Leilei	Xiang	China	None of the above
Nitin	Namdeo	India	None of the above
Nicholas	Bernardini	Australia	None of the above
Sandra	Ungerson	Canada	None of the above
Wenxiang	He	China	None of the above
Zeyou	Chen	China	None of the above

Ezra Mae	Gamboa	Philippines	GSP member/partner but not INSOP member yet
Ling	Zhu	China	None of the above
Wanting	Ling	China	INSOP
Ziyue	Wang	China	None of the above
Yuming	Wen	Singapore	INSOP
Fayuan	Wang	China	INSOP
Joy	Qu	China	None of the above
Anita	Jain	India	None of the above
Yu	Wang	China	INSOP
Baogang	Zhang	China	None of the above
Zhi	Mei	Finland	INSOP
Haixiu	Zhang	China	None of the above
Zhaoyang	Liu	China	None of the above
Chamila	Samarasinghe	Australia	INSOP
Xiaolei	Sun	Germany	None of the above
Girish	Choppala	Australia	None of the above
Zhenhua	Zhao	China	INSOP
Abdulmudallab	Sani	Nigeria	None of the above
Min	Xu	China	INSOP
Abigail	Samwini	China	INSOP
Sohaib	Hassan	Pakistan	None of the above
Ronggui	Tang	China	INSOP
Han	Zhang	China	None of the above
Moritz	Nabel	Germany	None of the above
Ziquan	Wang	China	None of the above
Weisheng	Bu	China	None of the above
Qi	You	China	None of the above

Afolasade	Aderibigbe	Nigeria	GSP member/partner but not INSOP member yet
Beshama	Shah Nawaz	Pakistan	None of the above