Webinar Report

National Implementation Plans: Research Needs and Opportunities in Africa

10 June 2025

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Introduction

This virtual roundtable was hosted by the Green Growth Knowledge Partnership (GGKP) under Component 4 (Knowledge Management and Information Sharing) of the GEF-funded, UNEP-led project "Global Development, Review and Update of National Implementation Plans (NIPs) under the Stockholm Convention on Persistent Organic Pollutants (POPs)" (GEF ID 10785).

NIPs are essential tools for Parties to meet their obligations under the Stockholm Convention and to manage POPs in a strategic and forward-looking way. Although NIP development has important technical components, its impact depends on strong links to the broader national and regional POPs research and technical landscape. In practice, however, NIP processes are often disconnected from available scientific knowledge, research capacity and technical expertise, and many countries lack the analytical infrastructure to identify and monitor POPs effectively.

The roundtable brought together African Parties to the Convention, leading POPs researchers, Stockholm Convention regional centres and advanced laboratories active across the continent. It provided a platform to share national research needs, showcase regional and international technical capacities, and identify collaboration opportunities within Africa and beyond to strengthen science-policy cooperation in NIP development and implementation.

Featured speakers

- Mr. Agustin Harte, Basel, Rotterdam and Stockholm Conventions (BRS) Secretariat, Switzerland
- Dr. Subramanian Sevgan, Principal Scientist, ICIPE, Kenya
- Professor Jana Klánová, SCRC RECETOX, Czechia
- Dr. Gevao Bondi, Analytical POP Expert; former Stockholm Regional Centre, Kuwait, and EPA Sierra Leone
- Mr. Saidy Motladiile, Principal Chemist, National Environmental Laboratory, Botswana
- Professor Borhane Mahjoub, National Institute of Research and Chemical-Physical Analysis Biotechpole Sidi-Thabet, Tunisia
- Dr. Gilbert Kuepouo, Research and Education Centre for Development (CREPD)/IPEN Hub Manager for Francophone Africa, Cameroon
- Professor Jonathan O. Okonkwo, Tswane University, South Africa
- Professor Gan Zhang, Guangzhou Institute of Geochemistry, Chinese Academy of Sciences, China
- Professor Guorui Liu, Zhejiang Normal University/RCEES, China
- Dr. Ovokeroye Abafe, Brunel University of London, United Kingdom of Great Britain and Northern Ireland (UK)
- Professor Jun Huang, Tsinghua University, China
- Moderator: Dr. Roland Weber, POPs and NIP Expert, POPs Environmental Consulting

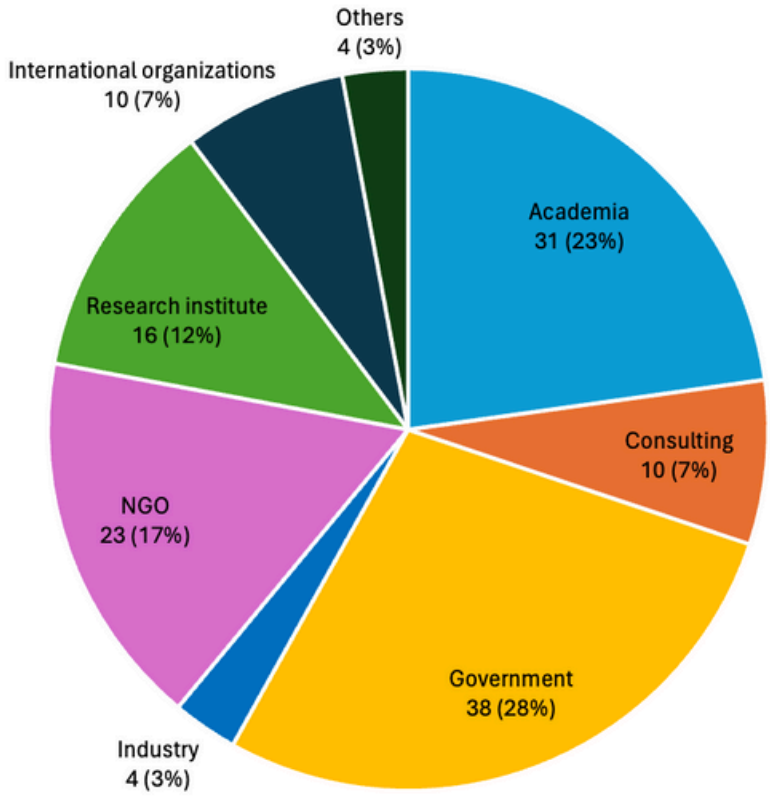
Registration and attendance

Number of registrants: 205 / total attendance: 136
(Approx. 38% female, 61% male, 1% prefer not to mention)

Participants by country

Country	Attendees	Country	Attendees	Country	Attendees
Cameroon	8	Belgium	2	Benin	1
Sierra Leone	8	Burundi	2	Bosnia and Herzegovina	1
South Africa	8	China	2	Burkina Faso	1
India	7	Côte d'Ivoire	2	Cambodia	1
Kenya	6	Czechia	2	Egypt	1
Nigeria	5	Ethiopia	2	Eswatini	1
Senegal	5	Germany	2	France	1
Albania	4	Guinea	2	Ghana	1
Bolivia	4	Indonesia	2	Guyana	1
Botswana	4	Republic of Korea	2	Italy	1
Brazil	4	Madagascar	2	Liberia	1
United Republic of Tanzania	4	Peru	2	Maldives	1
Armenia	3	Saudi Arabia	2	Montenegro	1
Mauritius	3	Slovakia	2	Morocco	1
Myanmar	3	Tunisia	2	Singapore	1
Switzerland	3	Uganda	2	Thailand	1
United Kingdom of Great Britain and Northern Ireland	3	Bahamas	1	Togo	1
Argentina	2	Belize	1	United States of America	1

Participants by sector



Research needs

During the roundtable, participants shared their perspectives on regional research priorities for POPs through an interactive survey (Mentimeter link), asking: "What are the research needs in your region?"

Participant inputs collected through the survey were anonymized and aggregated for this report; no comments or responses are attributable to any specific country, organization, or individual.

Laboratory capacity and infrastructure

- Shortage of accredited laboratories for POPs detection.
- Limited capacity to analyze POPs in environmental and biological media, and in products, particularly for upcoming inventories under the NIP update project.
- Need for enhanced laboratory capacity to monitor POPs across various matrices, with trained personnel to ensure sustainability.
- Technology inadequacy and lack of fully equipped laboratories.
- Shortage of reference materials and limited knowledge on analytical methods for POPs detection.
- Need for spectroscopic sensors for remote identification of hotspots.
- Better facilities to conduct research and testing are needed.

Networking, collaboration, and capacity building

- Need to strengthen human and institutional capacity for POPs monitoring.
- Networking among laboratories in Africa should be improved.
- Build human capital in the chemical research field.
- Dialogue with the scientific community is essential.
- Training, provision of hands-on research methods and multi-stakeholder processes are needed.

Public awareness and community engagement

- Low levels of consumer awareness about POPs and their health impacts.
- Limited public awareness on chemicals and their impacts on human health and the environment.
- Need to raise public awareness on POPs.
- Need to conduct needs assessments on community knowledge and practices related to chemicals.

Research needs

Research gaps and data deficiencies

- Lack of limits on dioxin/furan emissions is hindering POPs regulation, monitoring, and capacity building.
- Lack of long-term toxicology studies on POPs' effects on human health.
- Few publicly available studies on POPs exposure and health effects.
- Lack of updated and accurate information on unintentionally produced POPs (uPOPs).
- Limited capacity to investigate links between chemical exposure and health outcomes, including chronic diseases and reproductive health issues.
- Lack of capacity to measure the environmental and socioeconomic impacts of POPs.
- Need to research strategies combining biological, cultural and chemical practices for sustainable pest control.
- Need for PCB analysis in gaseous emissions from stationary sources.

Inventory development and data generation

- Strengthening POPs inventories is needed to generate datasets.
- Limited analytical capacity for product-based inventories.

Policy and regulatory gaps

- Lack of regulatory limits for dioxin/furan emissions.
- Lack of regulatory limits of POPs in products (unintentional trace contaminant limits).
- Insufficient enforcement tools to ensure compliance in monitoring and reduction.

Key highlights

The virtual roundtable brought together leading researchers, government experts and Stockholm Convention regional centres from across Africa and beyond.

Moderated by Dr. Roland Weber, discussions focused on identifying research priorities, addressing technical gaps, and exploring opportunities to strengthen the development and implementation of NIPs under the Stockholm Convention. Speakers stressed the urgent need to enhance the monitoring of POPs through regionally tailored research, robust laboratory infrastructure and more integrated science-policy engagement. Key takeaways included calls to establish sustainable national monitoring systems, align technical work with institutional and regulatory mandates, and reinforce regional networks for knowledge and capacity exchange.

In opening remarks, Mr. Agustin Harte (BRS Secretariat) emphasized the central role of science in achieving the Stockholm Convention's goals, particularly under Article 11, which promotes international cooperation on POPs research and monitoring. He stressed the need for decisions grounded in solid scientific data and highlighted the Global Monitoring Plan (GMP) as essential for tracking trends and evaluating effectiveness, especially for newly listed POPs. Participants were encouraged to update NIPs using credible monitoring data and to use the upcoming COP to convey regional research needs and ensure that evidence-based data from the region informs global decision-making.

Dr. Subramanian Sevgan (ICIPE, Stockholm Convention Regional Centre, Kenya) shared ICIPE's experience in promoting bio-based alternatives to POPs, such as botanical insecticides and biological control agents, for both agriculture and vector-borne disease management. He stressed that scientific validation and regulatory collaboration are key to phasing out POPs pesticides and highly hazardous pesticides. He also highlighted ICIPE's state-of-the-art analytical infrastructure, which includes GC-MS, LC-MS/MS, LC- Orbitrap-MS and ICP-MS systems. Fully compliant with Good Laboratory Practice (GLP) and EU residue standards, ICIPE's laboratory supports monitoring under the UNEP GMP, WHO protocols for biomonitoring, and USEPA/EU methods for POPs quantification, positioning the centre as a critical hub for African countries advancing evidence-based NIP implementation. The centre plans to establish further analysis of newly listed industrial POPs and is interested in collaboration (see Q&A below).

Dr. Gevao Bondi (Analytical POP Expert, former Stockholm Regional Centre, Kuwait, and EPA Sierra Leone) presented Sierra Leone's national context, which mirrors many broader regional challenges. Although the country ratified the Convention in 2003 and submitted its NIP in 2007 (updated in 2018), there remains no formal POPs management system. Infrastructure, regulatory enforcement and public awareness, especially among chemical handlers, are all limited. Due to a lack of national expertise and long-term surveillance systems, most of the country's POPs data originates from global programmes such as the GMP, GAPs, and MONET. Dr. Bondi called for regional cooperation, baseline studies in hotspots like the Bormeh-Kingtom dumpsite, where open burning leads to significant UPOPs emissions, and urged greater investment in local capacity to generate and act upon national evidence.

Key highlights

Dr. Bondi also identified critical research priorities: assessing human exposure via food, air, dust and water; analyzing human samples (e.g. blood, milk); monitoring POP residues in staple crops; evaluating risks in landfill communities; and investigating obsolete pesticide stockpiles. He stressed building national laboratory capacity, supporting in-country analysis under UNEP GMP and equipping customs officers to identify imported POPs. Regional cooperation, data sharing and waste management improvements are essential to addressing the POPs burden sustainably across Africa.

Mr. Saidy Motladiile (Principal Chemist, National Environmental Laboratory, Botswana) outlined Botswana's ongoing efforts to strengthen its POPs research and analytical capacity. The country submitted its second NIP in April 2025, which identified key data gaps, particularly in national emission factors, and emphasized the need for localized research on newly listed POPs such as chlorpyrifos and MCCPs. He stressed that sound POPs management depends on gender-responsive, interdisciplinary research linking environmental science, toxicology and policy, underpinned by baseline studies and monitoring data to guide regulation and identify alternatives, especially in agriculture and waste. The National Environmental Laboratory (NEL) in Gaborone, under the Ministry of Environment, has been conducting PCB analysis and, with UNIDO support, is expanding into dioxin and furan monitoring. Initial efforts focus on emissions from burning landfills. He also acknowledged the role of the University of Botswana in supporting national research capacity. Mr. Motladiile underscored the need for continued technical assistance, regional collaboration, and twinning with more advanced laboratories to ensure data quality. Botswana is keen to join regional monitoring nodes and calls for a national science-policy interface to better integrate research into policy and legislation.

Professor Borhane Mahjoub (INRAP Biotechpole Sidi-Thabet, Tunisia) highlighted Tunisia's progress and challenges in managing legacy and emerging POPs. He noted that despite the elimination of 1,800 tonnes of banned pesticides and the safe disposal of 1,200 tonnes of PCB-containing equipment, significant issues persist. Tunisia faces high POPs exposure risks due to urbanization, e-waste, open burning and climate conditions. Air sampling in Tunis revealed some of Africa's highest PCB concentrations. While PFOS firefighting foams are being phased out, data on PFAS, SCCPs and BFRs remain limited. Analytical infrastructure is weak; few laboratories can analyze emerging POPs due to a lack of LC-MS/MS, validated methods and trained personnel. Prof. Mahjoub stressed the need for routine monitoring, Regional Centres of Excellence and harmonized protocols. He warned that circular economy initiatives risk recycling POPs without proper screening, especially in plastics and wastewater reuse. Research gaps include health and exposure studies, co-contaminant risks and informal sector practices. He called for stronger science-policy links, PFAS and SCCPs inclusion in NIPs, and academic engagement in awareness-raising and training.

Key highlights

Dr. Gilbert Kuepouo (CREPD/IPEN Hub Manager for Francophone Africa, Cameroon) spoke about the systemic barriers hindering the development of robust POPs inventories across Africa. Most countries remain at Tier II, limited to basic inventories due to chronic underinvestment in analytical infrastructure, financial constraints and a shortage of skilled personnel. The transition to Tier III, which involves in-depth inventories, has been slow, primarily because of the unavailability of critical tools such as GC-MS, XRF analyzers and sector-specific data.

Dr. Kuepouo noted the absence of national product registers, sectoral inventories and implementation of the Globally Harmonized System (GHS) as additional barriers to effective tracking of industrial POPs. To address these gaps, he called for increased involvement of academia, stronger technical training, reliable lab utilities (such as energy and water), massive investment and sustained international partnerships. Drawing on findings from civil society monitoring efforts, Dr. Kuepouo highlighted alarming levels of dioxins and PCBs in eggs near medical waste incinerators in Cameroon and Gabon, exceeding EU food safety thresholds. He also flagged the presence of brominated flame retardants in new plastic consumer products, including children's toys, raising concerns about toxic chemical recycling. He concluded by stressing that transparent supply chains, regional cooperation, and long-term monitoring are essential to protect public health and uphold commitments under the Stockholm Convention.

Professor Jana Klánová (RECETOX, Czechia) shared insights from RECETOX's four-decade journey in environmental health sciences, spanning source identification, exposure monitoring, risk assessment and science-policy engagement. As a Stockholm Convention Regional Centre (since 2008) and a WHO Collaborating Centre (since 2003), RECETOX supports not only Central and Eastern Europe, but also institutions in Africa, Asia and Latin America. She recounted RECETOX's role in establishing Africa's first POPs air monitoring network in 2008 using passive samplers across 15 countries, backed by RECETOX's in-house analytical capabilities. While this initiative generated crucial trend data for substances like PCBs and DDTs, she acknowledged the persistent challenge of sustaining long-term monitoring in Africa due to short project timelines and inconsistent institutional commitment.

To help address this, Prof. Klánová encouraged African partners to engage with long-term European research platforms, including the EIRENE infrastructure and the PARC Horizon Europe project, which focus on harmonized methodologies for environmental and human health monitoring. She also extended an open invitation to RECETOX's international summer schools [1] and training programmes, underscoring the centre's commitment to building global scientific capacity.

[1] RECETOX. 21st RECETOX Summer School 2025. Masaryk University, Brno. Available at: https://www.recetox.muni.cz/en/about-us/news/21st-recetox-summer-school (accessed 4 September 2025); EIRENE Research Infrastructure. EIRENE EU – European Research Infrastructure for Environmental Exposure. Available at: https://eirene.eu/ (accessed 4 September 2025); PARC Initiative. European Partnership for the Assessment of Risks from Chemicals (PARC). Available at: https://www.eu-parc.eu/what-we-do (accessed 4 September 2025).

Key highlights

Professor Jonathan O. Okonkwo (Tshwane University, South Africa) offered valuable insights into the development of POPs research capacity on the African continent. Drawing on decades of work at his institution's environmental chemistry laboratory, he detailed ongoing research on a wide range of contaminants, including DDT, PBDEs, SCCPs, PCNs, PFAS, HBCDs and UV328, with sample matrices spanning human breast milk, water, sediments, plastics and dust. He emphasized that rigorous quality assurance protocols are central to the laboratory's operations, which also serve as a training ground for MSc and PhD students from across Africa. However, sustaining high-quality analytical research remains challenging.

Prof. Okonkwo noted persistent barriers, such as high equipment maintenance costs, limited access to certified reference materials and the loss of trained researchers to opportunities abroad. He advocated for greater investment in strengthening existing African laboratories, promoting their participation in interlaboratory comparison studies, and aligning capacity-building efforts across countries. Reflecting on past collaborations with UNIDO and UNEP, he noted that the Tshwane University laboratory had been recognized as a regional training centre for LDCs in the SADC and COMESA regions and had participated in interlaboratory assessments under the GMP.

Professor Gan Zhang (Guangzhou Institute of Geochemistry at the Chinese Academy of Sciences) presented his team's work on regional (including Africa) air monitoring of POPs using passive samplers. These simple, electricity-free devices are suitable for widespread use both indoors and outdoors. He shared data from monitoring campaigns that track the atmospheric transport of flame retardants and PFAS across Asia, and emphasized the importance of extending such efforts to Africa to fill critical modeling gaps. Gan introduced several collaborative initiatives, including the Maritime Silk Road and the ANSO MORATOXA networks, which aim to generate harmonized datasets on pollutant distribution. These platforms are open to new partners from African countries, and their team is prepared to provide both technical support and training. He encouraged African researchers to consider collaborative publications and research exchanges with Chinese institutions to accelerate knowledge-sharing and local monitoring capacity.

Professor Guorui Liu (Zhejiang Normal University and the Research Centre for Eco- Eco-Environmental Sciences) shared emerging research from his laboratory on the environmental fate of legacy and emerging POPs. His team has conducted long-term monitoring campaigns in both China and the Arctic, profiling pollutants such as dioxins and other unintentional POPs, PHCZs, PBDEs, brominated PAHs and PFAS across different environmental compartments, including air, water, sediment and biota. He highlighted the use of advanced high-resolution mass spectrometry platforms — such as GC-qTOF MS, GC-Orbitrap MS, and FT-ICRMS — for non-targeted and suspect screening of organic contaminants. For known POPs, the laboratory employs isotopic dilution GC/MS protocols aligned with international best practices. Dr. Liu emphasized the value of multimedia environmental models in understanding pollutant degradation, transport and persistence under diverse climatic conditions. He also stressed the need to adapt such models to African contexts and expressed a strong interest in building technical partnerships with African universities, including joint monitoring programmes, capacity-building exchanges, and collaborative data analysis supported by Chinese laboratories.

Key highlights

Dr. Ovokeroye Abafe (Brunel University of London, United Kingdom of Great Britain and Northern Ireland) addressed the evolving landscape of PFAS exposure in Africa. His presentation revealed that despite the absence of officially documented PFAS production on the continent, PFAS-laden products, including aqueous film-forming foams (AFFF), are commercially available, and some variants like compressed air foam systems (CAFS) are manufactured in South Africa. Regulatory responses remain limited and fragmented. While a few countries, including South Africa and Kenya, have taken early steps to regulate or monitor specific PFAS compounds, most others lack the frameworks necessary to address these substances. He highlighted growing concerns over the health implications of PFAS exposure and urged for more coordinated research, monitoring and regulatory action across the continent.

Drawing from over 75 peer-reviewed studies, Dr. Abafe reviewed human exposure pathways, noting that most research has focused on water and wastewater, with limited data on inhalation and dermal contact. He shared findings from the studies on PFAS presence in marine life, dairy milk, infant formula, and drinking water, some of which revealed concentrations exceeding US EPA safety thresholds. Preliminary biomonitoring in South Africa found detectable PFAS levels in breast milk and maternal serum, though generally lower than global medians. He emphasized the urgent need for continent-wide, risk-based exposure assessments, harmonized monitoring systems, and epidemiological research. Dr. Abafe called for integrated action across African institutions, including material flow analysis, stockpile management, and collaboration to strengthen data and policy responses to PFAS pollution.

Professor Jun Huang (Tsinghua University, China) shared China's experience in transitioning from PFOS-based to C6-telomer-based firefighting foams, demonstrating responsible implementation of the Stockholm Convention. He outlined existing regulatory thresholds for PFAS in foams across the EU, USA and Australia, noting the need for comprehensive test methods to ensure compliance. He highlighted that analytical methods and instruments are well developed, including: combustion ion chromatography (CIC) for TOF/EOF determination; LC-MS/MS for targeted PFAS; and GC/MS for neutral PFAS like FTOHs. Advanced suspect and non-targeted screening using high-resolution mass spectrometry (HRMS) (e.g., Orbitrap MS, QTOF MS) can improve understanding of unknown PFAS and help close the fluorine mass balance. Prof. Huang encouraged African researchers to co-develop pilot projects and engage in analytical capacity-building, emphasizing that technological innovation must be translated into field-level application to support NIPs under the Stockholm Convention.

Despite the diversity of research topics — from PFAS exposure and air monitoring to advanced modeling and POPs destruction — speakers agreed on the urgent need to strengthen Africa's capacity for monitoring and managing POPs. There was a shared emphasis on regional collaboration, data harmonization, and technical training to ensure that local research informs global policy. Speakers also concluded that scientific innovation must be matched with sustained infrastructure, regulatory alignment and long-term investment in local expertise.

Avenues for collaboration

In the spirit of advancing evidence-based policymaking and strengthening capacities for POPs monitoring and management, this report includes contact details of all roundtable speakers. These researchers and experts bring deep technical knowledge, regional insight and hands-on experience in supporting NIPs. Sharing their contacts aims to foster collaboration, facilitate peer learning, and promote partnerships that connect scientific innovation with practical policy needs across the region.

Name	Affiliation	Contact
Mr. Agustin Harte	Programme Management Officer, BRS Secretariat/UNEP https://www.brsmeas.org/	agustin.harte@un.org
Dr. Roland Weber	POPs and NIP Expert, POPs Environmental Consulting	roland.weber10@web.de
Dr. Gevao Bondi	Analytical POPs expert; former Stockholm regional centre, Kuwait, and EPA Sierra Leone	gevaob@yahoo.com
Dr. Gilbert Kuepouo	CREPD, Cameroon, executive director https://ipen.org/regional-hubs/francophone-africa/coordinator	Kuepouo@yahoo.com
Dr. Ovokeroye Abafe	Brunel University, United Kingdom of Great Britain and Northern Ireland https://www.brunel.ac.uk/study/courses/environmental-sciences-mres	ovokeroye.abafe@brunel.ac.uk
Dr. Subramanian Sevgan	ICIPE Kenya, principal scientist https://www.icipe.org/	ssubramania@icipe.org
Mr. Saidy Motladiie	National Environmental Laboratory, Botswana, principal chemist	saidymotladiile@gmail.com
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Questions and answers

Q1. Will new funds for the NIP update enable Parties to update their NIPs more effectively than their previous versions, and will it also support capacity building for professional development?

Dr. Roland Weber: There are ongoing NIP projects led by UNEP, and they are looking into the countries to be included in the further NIP update projects. Also, the current roundtable meeting is in the frame of the GEF-funded UNEP-led Global NIP Update project (GEF ID 10785). GGKP's involvement as an Executing Agency of Component 4 of this NIP update project provides strong outreach opportunities for capacity building. You may explore other capacity-building events hosted by GGKP, as recordings of all webinars are available on the project website.

Q2. How can countries participate in the RECETOX laboratory training courses?

Dr. Roland Weber: Please refer to the yearly RECETOX Summer School, hosted from 9 to 13 June in 2025, which offered modules on Environmental and Health Risk Assessment of Chemicals in the EU and New Approach Methodologies (NAMs) in chemical risk assessment (https://www.recetox.muni.cz/en/about-us/events-calendar/21st-recetox-summer-school-and-parc-training-2025). For opportunities in 2026, please contact RECETOX.

Q3. Can we continue the egg studies in our countries, and is there any way to secure the funding for such relevant research?

Dr. Roland Weber: For effective guidance on egg monitoring related to POPs, I recommend approaching Dr. Jindřich Petrlík from the International Pollutant Elimination Network (IPEN), who has ongoing egg monitoring activities with Arnika/IPEN colleagues in regions including Africa, through their contributions to IPEN's global egg monitoring studies. (https://www.researchgate.net/profile/Jindrich-Petrlik; see also review Petrlík et al. (2022) https://doi.org/10.1016/j.emcon.2022.05.001)

Q4. How does the GMP project select countries in Africa to enroll in the programme?

Dr. Roland Weber: The Global Monitoring Plan (GMP) typically continues with the countries already participating. However, if you are a government representative, we can provide you with contact details to inquire whether it's possible to include your country or explore ways to link your country to GMP-related activities. Several laboratories are participating in this round table, including institutions from the Czech Republic/RECETOX, ICIPE in Kenya, Brunel University in the UK, and South Africa. Additionally, dioxin laboratories are being established in the SADEC region (Botswana, Tanzania and Eswatini), Chinese and European research institutions, and your country could potentially be connected to these networks in the future to receive analytical support.

Q5. Have you already established some of the analysis of the industrial POPs in the laboratory at ICIPE?

Dr. Subramanian Sevgan: This is an area where we are looking at extending our work and collaboration. We have not been looking into the industrial POPs yet. But with the current instrumentation and the human resources we have, analysis should be possible with good collaboration and training.

Resources

The concept note and video recording in English, Spanish, Russian and French of the webinar are available on the Global NIP Update platform:
https://www.greenpolicyplatform.org/webinar/national-implementation-plans-research-needs-and-opportunities-africa

Spanish | French | Russian

Regional Roundtable: National Implementation Plans. POPs research needs and opportunities in Asia

- https://www.greenpolicyplatform.org/webinar/national-implementation-plans-research-needs-and-opportunities-asia

National Implementation Plans under the Stockholm Convention

- https://www.pops.int/Implementation/NationalImplementationPlans/Overview/tabid/565/Default.aspx

The Global Monitoring Plan under the Stockholm Convention

- https://www.pops.int/Implementation/GlobalMonitoringPlan/Overview/tabid/83/Default.aspx

UNEP POPs GMP project

- https://www.unep.org/topics/chemicals-and-pollution-action/pollution-and-health/persistent-organic-pollutants-pops/pops
- https://www.unep.org/topics/pollution-and-health/persistent-organic-pollutants-pops/global-monitoring-persistent-organic

African Food Safety Network

- https://www.africanfoodsafetynetwork.org/

Resources

Research publications of the speakers

- **Mr. Agustin Harte (BRS/UNEP, Switzerland)**
  - https://www.researchgate.net/profile/Agustin-Harte
- **Dr. Roland Weber (POPs Environmental Consulting, Germany)**
  - https://www.researchgate.net/profile/Roland-Weber-2/research
- **Professor Jana Klánová (RECETOX, Czechia)**
  - https://www.researchgate.net/profile/Jana-Klanova
- **Dr. Gevao Bondi (Analytical POPs Expert, Sierra Leone)**
  - https://www.researchgate.net/profile/Bondi-Gevao
- **Dr. Gilbert Kuepouo (CREPD, Cameroon)**
  - https://www.researchgate.net/profile/Gilbert-Kuepouo
- **Dr. Ovokeroye Abafe (Brunel University, United Kingdom of Great Britain and Northern Ireland)**
  - https://www.researchgate.net/profile/Ovokeroye-Abafe
- **Dr. Subramanian Sevgan (ICIPE, Kenya)**
  - https://www.researchgate.net/profile/Sevgan-Subramanian
- **Mr. Saidy Motladiie (National Environmental Laboratory, Botswana)**
  - https://www.researchgate.net/profile/Saidy-Motladiile
- **Professor Jonathan O. Okonkwo (Tswane University, South Africa)**
  - https://www.researchgate.net/profile/Okechukwu-Okonkwo
- **Professor Borhane Mahjoub (INRAP Biotechpole Sidi-Thabet, Tunisia)**
  - https://scholar.google.com/citations?user=hPIXj8EAAAAJ&hl=fr
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