



Global Seminar



Solutions for the ONE WORLD: Monitoring Chemical Pollution under Low-Capacity Settings

Chemical pollution is a global problem with regionally different composition, sources and impacts threatening water resources, human health and ecosystems. While data bases on pollution are rapidly increasing in many high-income regions such as Europe, data on chemical pollution in low- and middle-income countries in Africa, Asia and Central- and South-America are rather scarce. While analytical instrumentation and common monitoring, assessment and mitigation strategies are widely lacking, awareness on pollution problems is increasing globally with dedicated scientists and practitioners ready to address pollution problems in their countries. The current workshop aims to bring international pioneers in chemical monitoring together with a specific focus on the Global South and the establishment of a sustainable network to find solutions to pollution all over the world.

WORKSHOP GOALS:

- 1) Initiative for a global network on monitoring, understanding and minimizing chemical pollution in the ONE WORLD.
- 2) Scientific exchange on chemical pollution, related risks and major drivers in the Global South and on needs, capacities and gaps in monitoring.
- 3) Pilot study to demonstrate the opportunities of monitoring of chemical pollution under low-capacity settings.
- 4) Initiative for a review/policy paper on the status, gaps and urgent needs in the field of monitoring, understanding and minimizing chemical pollution in the ONE WORLD.

In preparation for the meeting, participants are invited to (i) take part in a low-effort pilot study involving water sampling, and (ii) complete a questionnaire about the possibilities for water quality monitoring in their home country, using the following link: <https://forms.gle/npSbzhrrerR2jbd1b7>

Please complete the questionnaire by Wednesday, 03.09.2025.

EVENT INFORMATION

CHECK-IN: Wed, 17.09.2025, 8:30-9:00

END: Fri, 19.09.2025, 15:00

VENUE: Helmholtz-Centre for Environmental Research UFZ
Permoserstr. 15
04318 Leipzig
Germany

REGISTRATION: Registration closed.

ORGANISING TEAM: Prof. Dr. Saeed Albaseer, Prof. Dr. Werner Brack, Dr. Saskia Finckh, Dr. Faith Kandie, Christina Pietruska, Dr. Christian Schmidt, Dr. Naeem Shahid

CONTACTS: werner.brack@ufz.de
christina.pietruska@ufz.de

AGENDA DAY 1 – Wednesday, 17.09.2025

08:30 Check-in: Coffee & Arrival

09:00 Welcome: Introduction to the Aims of the Workshop, including the Agenda | 15 min

SESSION 1: CURRENT STATUS AND CHALLENGES OF CHEMICAL POLLUTION IN COUNTRIES OF THE GLOBAL SOUTH

09:15 The National Surface Water Monitoring Plan and other pollutant monitoring initiatives in Costa Rica | [Silvia Echeverría Sáenz](#)

09:30 Aquatic Chemical Pollution in Sierra Leone: Current Status, Challenges, and Future Prospects | [Ishmail Sheriff](#)

09:45 Status of Organic Micropollutants in Sri Lanka | [Keerthi Guruge](#)

10:00 Discussion | 15 min

10:15 Coffee Break | 30 min

SESSION 2: CHEMICAL AND NUTRIENT POLLUTION IN FRESHWATERS – CASE STUDIES FROM COUNTRIES OF THE GLOBAL SOUTH

10:45 Prevalence of Bisphenol Analogues in surface water and sediment of Chenab River, Pakistan | [Abdul Qadir](#)

11:00 Assessment of industrial pollutants in the water bodies of Chennai | [Indumathi Nambi](#)

11:15 Modeling the Seasonal Dynamics of Nutrient Export to Lake Tana, Upper Blue Nile Basin | [Goraw Goshu](#)

11:30 Discussion | 15 min

11:45 Lunch Break | 60 min

12:45 **POSTER SESSION** | 90 min

SESSION 3: POLLUTION BY INSUFFICIENT WASTEWATER TREATMENT AND INNOVATIVE SOLUTIONS

14:15 Active biomonitoring of PFAS in two areas of Sao Paulo, Brazil marine coast using hemolymph of the amphipod *Parhyale hawaiiensis* | [Gisela Umbuzeiro](#)

14:30 Impact of abattoir effluent on New Calabar River, Port Harcourt, Nigeria | [Chioma Blaise Chikere](#)

14:45 Using Recycled Plastic Waste for the Water Treatment | [Muhammad Umer Shafique](#)

15:00 Discussion | 15 min

15:15 Coffee Break | 30 min

SESSION 4: SCIENCE POLICY ACTIVITIES RELATED TO THE MONITORING AND MANAGEMENT OF CHEMICAL POLLUTION

15:45 Not in the Data, Not on the Agenda: The Hidden Crisis of Water Quality | [Anham Salyani](#)

| | |
|-------|------------------------------------------------------------------------------------------------------------------------|
| 16:00 | Laws and Policies Addressing Chemical Pollution in East Africa: Trends and Challenges Clarice Wambua |
| 16:15 | Water quality monitoring and management in the Nile Basin countries Jean Namugize |
| 16:30 | Discussion 15 min |
| 16:45 | Identification of Topics for the World Café Discussions on the Following Day 15 min |

AGENDA DAY 2 – Thursday, 18.09.2025

| | |
|-----------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 08:30 | Coffee & Arrival |
| 09:00 | Welcome: Recap of Day 1, including World Café Topics 15 min |
| SESSION 5: BEYOND WATER QUALITY ASSESSMENT: POLLUTION MONITORING IN DIFFERENT ENVIRONMENTAL COMPARTMENTS | |
| 09:15 | PFAS Contamination in Underserved Regions: Environmental and Exposure Insights from Ghana and Suriname Arundhati Tewari |
| 09:30 | Silent Streams, Toxic Legacy: Tracing Organochlorine Pesticides (OCPs) and Polychlorinated Biphenyls (PCBs) in Sediment and Fish from Central Ethiopia Alemnew Berhanu Kassegne |
| 09:45 | Field-Based Monitoring of marine Pollutants under low-capacity settings: A Case from the Gulf of Kachchh and Gulf of Khambhat, Western India Jayanthi Ganapathi |
| 10:00 | Discussion 15 min |
| 10:15 | Coffee Break 30 min |
| SESSION 6: BIOMONITORING AND HUMAN HEALTH ASSESSMENT | |
| 10:45 | Contamination and Health Risk Assessment of Elements in Soils from a Gold Mining District, Ghana Lilian Sarpong |
| 11:00 | Air quality biomonitoring in Minas Gerais, Brazil: perspectives from a case study in Brumadinho Maria Clara Starling |
| 11:15 | Developing International Biospecimen Collection for Children's Environmental Health Kyungho Choi |
| 11:30 | Discussion 15 min |
| 11:45 | Lunch Break 60 min |
| 12:45 | KEYNOTE: A South African perspective on the application of effect-based methods (EBM) for water quality and safety Natalie Aneck-Hahn |
| 13:15 | WORLD CAFÉ 120 min (collaborative discussion rounds on preselected topics) |
| 15:15 | KEYNOTE: Environmental Characterization in World's Fastest Growing Regions: Challenges and Opportunities Shane Snyder |

15:45 Coffee Break | 30 min

**SESSION 7: ASSESSING CHEMICAL FOOTPRINTS ON GLOBAL FRESHWATER RESOURCES:
METHODS AND CASES**

16:15 Mapping chemical footprints in Europe | Saskia Finckh

16:30 Hydrological informed monitoring | Christian Schmidt

16:45 Case study Western Kenya | Faith Kandie

17:00 Case study Lahore, Pakistan | Naeem Shahid

17:15 Discussion | 15 min
