



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 Sunday, 14.09.2025.

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

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

MEETING LINK: <https://ufz-de.zoom-x.de/j/62521779564?pwd=DVZQ9E3cOaa7tJUMlhiojZVsoyzi2g.1>

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 OF CHEMICAL POLLUTION IN COUNTRIES OF THE GLOBAL SOUTH Chair: Werner Brack	
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 Chair: Christian Schmidt	
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 Chair: Faith Kandie	
14:15	Active biomonitoring of PFAS in two areas of Sao Paulo, Brazil marine coast using hemolymph of the amphipod <i>Parhyale hawaiiensis</i> 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 Chair: Saskia Finckh	
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 Kenya: 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
17:00	Break 60 min
18:00	City tour and dinner (Auerbach's Keller)
END OF DAY 1	

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 Chair: Naeem Shahid	
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 Chair: Arundhati Tewari	
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	WORLD CAFÉ 120 min (collaborative discussion rounds on preselected topics)
14:45	KEYNOTE: A South African perspective on the application of effect-based methods (EBM) for water quality and safety Natalie Aneck-Hahn
15:15	Coffee Break 30 min
SESSION 7: ASSESSING CHEMICAL FOOTPRINTS ON GLOBAL FRESHWATER RESOURCES: METHODS AND CASES Chair: Saeed Albaseer	
15:45	Mapping chemical footprints in Europe Saskia Finckh
16:00	Hydrological informed monitoring Christian Schmidt
16:15	Case study Western Kenya Faith Kandie
16:30	Case study Lahore, Pakistan Naeem Shahid
16:45	Discussion 15 min
17:00	Lab Tour (optional) 90 min
18:30	Break 60 min
19:30	Dinner (Ratskeller Leipzig)
END OF DAY 2	

AGENDA DAY 3 – Friday, 19.09.2025

08:30	Coffee & Arrival
09:00	PILOT STUDY: Goals, sampling, methods and next steps 60 min Isaac Tanui, Faith Kandie, Martin Krauss
10:00	DISCUSSION: Future campaigns, network perspectives, funding and visions 90 min
11:30	EXCURSION*: Hiking trip to the Leipziger Auwald (from Schkeuditz to Domholzschanke, where we will have lunch)
15:00	Return to the city center
END OF THE EVENT	

***NOTE EXCURSION:** We will explore the wild nature in the Leipzig floodplain “jungle” on a short hike of about 2 hours. We recommend bringing hiking shoes, long robust trousers and long-sleeved tops to protect against scratching plants and mosquitos. Depending on the weather (please check the forecast), you may also need need waterproof clothing to protect against the rain.