

## Workshop on Air Pollution and Health in East Africa

March 29-31, 2023 | Sarova Panafric Hotel – Nairobi, Kenya

### Background

Countries in East Africa experience high levels of air pollution as well as significant health impacts from both outdoor and household air pollution. As such, targeted interventions could play an important role in improving air quality and alleviating the associated public health impacts. As public and governmental interest in the topic is growing, there is also a greater demand for data and evidence on air pollution levels and trends as well as health effects.

This workshop will bring together a broad range of organizations and stakeholders interested in air pollution and health across East Africa, especially in Kenya and Uganda. This includes researchers, healthcare practitioners, professional societies, national and regional non-profit groups, bi- and multi-lateral organizations, federal and local government agencies, ministries, and research institutes.

### Goals

This workshop aims to:

- Review the status of current data and evidence on air quality and associated health effects in the region and its interlinkage to current policy debate and actions.
- Discuss concrete strategies for collaboration and strengthening technical expertise on air pollution and health in East Africa.

Deliberations at the workshop will also feed into HEI's work and engagement in East Africa and contribute to focusing air quality policies and actions on those most beneficial to public health in the region.

### Organizers

The workshop is being organized by the Health Effects Institute in partnership with the [Stockholm Environment Institute – Africa Centre \(SEI Africa\)](#), [World Resources Institute \(WRI Africa\)](#), [Eastern Africa GEO Health Hub \(Kenya\)](#) and [AirQo](#).

### Meeting Platform

The workshop will be held at the Sarova Panafric Hotel. The workshop will be hybrid with opportunities to attend the meeting in-person or virtually. All interested individuals are invited to [register](#) to attend the workshop. The workshop will be conducted in English.



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**DAY I**      *Air pollution and its health effects: context, evidence and research strategies*

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**08:30 AM**      **Registration**

**09:00 AM**      **Welcome**

*Victor Nthusi, Health Effects Institute, USA*

**09:10 AM**      **Opening Remarks**

*Maurice Kawai, Nairobi City County Government, Kenya*

*Philip Osano, Stockholm Environment Institute Africa, Kenya*

**09:40 AM**      **Health effects of air pollution: context, evidence and policy applications**

*[Chair: Nicholas Otienoh Oguge, University of Nairobi, Kenya]*

- **Air Pollution and Health in Africa**  
*Caradee Wright, South Africa Medical Research Council, South Africa*
- **Role of impartial science in effective air quality policymaking**  
*Robert O'Keefe, Health Effects Institute, USA*

**10:20 AM**      **General Discussion**

**10:45 AM**      **Tea/Coffee Break**

**11:15 AM**      **Session I: Air Quality in East Africa**

*[Chairs: Michael Gatari, University of Nairobi (retired) and Eloise Marais, University College London]*

- **Primer: Air quality and health in East Africa – a SoGA perspective**  
*Victor Nthusi, Health Effects Institute, USA*
- **Current air quality landscape in East Africa**  
*George Mwaniki, World Resources Institute Africa, Kenya*
- **Using low-cost sensors for measuring air quality: the experience from AirQo**  
*Deo Okure, AirQo, Uganda*
- **Opportunities for using integrated methods for air quality assessment in Africa**  
*Rebecca Garland, University of Pretoria, South Africa*

**12:45 PM**      **Discussion**

**01:00 PM**      **Lunch**

**02:00 PM      Session II: Group Discussion**

*[Chairs: Jon Samet, Colorado School of Public Health, USA and Kanyiva Muindi, African Population and Health Research Centre, Kenya]*

- What are the most important health-related questions that come up in various conversations?

**02:30 PM**      *Small group discussion*

**03:45 PM**      **Tea/Coffee break**

**04:15 PM**      Regroup, presentations and discussion

**04:50 PM**      Summary of discussion  
*Jon Samet and Kanyiva Muindi*

**05:00 PM**      Health Break

**06:00 PM**      **Networking Dinner**

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**DAY 2**      *Advancing the science-policy interface for air quality management*

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**08:30 AM**      **Breakfast/Networking**  
**09:00 AM**      **Welcome/Recap of Day 1**

*Victor Nthusi, Health Effects Institute, USA*

**09:05 AM**      **Keynote Address**  
Nexus between air pollution, energy and development  
*Alice Kaudia, Climate and Clean Air Coalition Senior Africa Advisor, Kenya*

**09:30 AM**      **Session III. Setting National Air Quality Policies**  
*[Chairs: Andriannah Mbandi, UN Climate Change High-Level Champions and Gerphas Opondo, Environmental Compliance Institute, Kenya]*

- Air Quality Policymaking in East Africa  
*Selelah Okoth, National Environment Management Authority, Kenya*  
*Waiswa Ayazika, National Environment Management Authority, Uganda*
- The science-policy interface: case studies from around the world
  - Data-driven policymaking to address household air pollution  
*KP Asante, Kintampo Health Research Centre, Ghana*
  - Applications of satellite data for air quality action and research in India  
*Kalpana Balakrishnan, Sri Ramachandra Institute of Higher Education and Research, India*

**11:00 AM**      **Tea/Coffee Break**

**11:30 AM**      Panel Discussion: **Application of health evidence in policymaking**  
*[Moderator: Pallavi Pant, Health Effects Institute, USA]*

*Kiros Berhane, Columbia University, USA*  
*Alex Ndyabakira, Kampala Capital City Authority, Uganda*  
*Anne Kendagor, Ministry of Health, Kenya [to be confirmed]*  
*Jane Akumu, UN Environment Programme, Kenya*  
*Gabriel Okello, Africa Centre for Clean Air*

**12:30 PM**      Q&A  
**01:00 PM**      Lunch

**02:00 PM      Session IV: From Evidence to Policy – The Roadmap for Action on Air Pollution in East Africa**

*[Chairs: Pallavi Pant and Victor Nthusi, Health Effects Institute, USA]*

Collaborative research and capacity strengthening on air pollution and health: The Eastern Africa GEOHealth Hub Experience

*Belay Simane, Addis Ababa University, Ethiopia*

Addressing energy and household air pollution for better public health: The CLEAN-Air (Africa) Project

*James Mwitari, Kenya Medical Research Institute, Kenya*

**Open Discussion**

**03:45 PM      Tea/Coffee Break**

**04:15 PM      Reflections/Next Steps**

**04:45 PM      Vote of thanks**

**05:00 PM      Meeting Adjourns**

# Half-Day Training Session on Health Impact Assessment of Air Pollution

## About the training

Quantifying the public health impacts of exposure to air pollution is a critical input for policy decisions related to air quality. This session will provide an opportunity for researchers, professionals and/or policymakers to get an overview of principles of health impact assessments including how to conduct such studies and interpret results. The training is designed to introduce key concepts related to the types of data required for an assessment, burden of disease, etc. Using case studies from East African cities, the training will also demonstrate how an assessment might be conducted and used for policy analysis.

## Goals

- Introduce key concepts related to health impact assessment of air pollution
- Equip the participants with skills necessary to efficiently make use of available air quality data for conducting health impact assessments
  - Note that we will not have the opportunity at this training for participants to conduct their own analyses.
- Gather feedback for future training needs in the region

## Agenda

<b>09:00 AM</b>	Breakfast/Networking
<b>09:30 AM</b>	Welcome
<b>09:40 AM</b>	<i>Lecture: Overview of health impact assessment</i> <i>Jon Samet, Colorado School of Public Health, USA</i> <ul style="list-style-type: none"><li>• What is a health impact assessment?</li><li>• What data are needed – air quality/health? What are the uncertainties associated with using different data?</li><li>• Using air quality data – monitoring data vs modelled estimates</li><li>• What types of results do we get? What do the results mean (and not mean)?</li></ul>
<b>10:15 AM</b>	<b>Q&amp;A</b>
<b>10:30 AM</b>	<i>Application of health impact assessment tools in Addis Ababa, Ethiopia and Nairobi, Kenya</i> <i>TBD, Eastern Africa GEOHealth Hub</i>
<b>11:15 AM</b>	Tea/Coffee Break
<b>11:45 AM</b>	Q&A and Discussion
<b>01:00 PM</b>	Wrap Up and Next Steps
	Lunch