

TRAINING

Early-career training on air pollution and health

12-14 August 2024 | ICIMOD, Kathmandu, Nepal

About the training

The Health Effects Institute (HEI), the International Centre for Integrated Mountain Development (ICIMOD), and the Collaborative for Air Pollution and Health Effects Research—India (CAPHER-India) are organising a training programme on methods and approaches for air pollution and health research at ICIMOD from 12 – 14 August.

The training will cover modules on air pollution monitoring, exposure assessment, epidemiology, health impact assessment, as well as grant and science writing and science communication. This workshop will bring together 21 early career researchers from across South Asia and a group of international and regional experts for a three day in-person training workshop.

Objectives

- Equip participants with knowledge on various approaches for exposure assessment and epidemiological study designs related to air quality.
- Develop participants’ skills in design and conduct of air pollution and health studies.
- Provide training on accessing research funding, drafting proposals, conducting research, and effectively communicating findings to broad audiences.
- Establish a network of early-career researchers across South Asia.

Tentative agenda

Day 1 12 August 2024, Monday		
Time	Programme	Resource person/s
09:00–09:30	Registration and networking	Govinda Shrestha , Senior Programme Associate, ICIMOD
Opening Session		
Facilitator: Deanna Sherpa , Programme Associate, ICIMOD		
09:30–09:40	Welcome remarks	Izabella Koziell , Deputy Director General, ICIMOD
09:40–09:45	Training objectives	Pallavi Pant , Head of Global Health Program, Health Effects Institute (HEI), USA
09:45–10:30	Keynote Lecture: Air pollution and health Why are we here?	Michal Krzyzanowski , Visiting Professor, Imperial College London, UK
10:30–10:45	Icebreaker activity	Debabrat Sukla , Senior Communications Officer, ICIMOD

		Sushmita Kunwar , Communications Officer, ICIMOD
10:45–11:00	Group photo and coffee/tea break	
Session I: Fundamentals of exposure assessment and epidemiology		
<i>Facilitator: Ashmita Shakya, Programme Officer, ICIMOD</i>		
11:00–11:45	Lecture: Approaches towards ambient and household air pollution exposure assessment	Ajay Pillarisetti , Assistant Professor, University of California Berkeley, USA
11:45–13:15	Hands-on-exercise: Measurement of personal exposure <i>Laptops will be required for this activity.</i>	Kalpna Balakrishnan , Professor, Sri Ramachandra Institute of Higher Education and Research, India (<i>virtual</i>)
13:15–14:00	Lunch	
14:00–14:45	Lecture: Introduction to air pollution epidemiology	Jill Baumgartner , Associate Professor and William Dawson Scholar, McGill University, Canada
14:45–15:45	Hands-on exercise: Retrieval and use of satellite data for air quality and health studies <i>Laptops will be required for this activity.</i>	Sagnik Dey , Institute Chair Professor, Indian Institute of Technology Delhi, India, (<i>virtual</i>) Taruna Singh , Research Scholar, Indian Institute of Technology Delhi, India
15:45 – 16:00	Coffee/tea break	
Session II: Poster presentation by the participants		
<i>Facilitator: Abinaya Sekar, Consulting Research Fellow, HEI</i>		
16:00 – 17:00	Poster session	
17:15	End of day 1 - Depart for dinner	

Day 2 13 August 2024, Tuesday		
Time	Programme	Resource person/s
09:30–9:45	Reflection from Day 1	
Session III: Air quality monitoring and designing epidemiology studies		
<i>Facilitator: Debabrat Sukla, Senior Communications Officer, ICIMOD</i>		
09:45–10:15	Lecture: Air quality modelling	Bertrand Bessagnet , Action Area Coordinator, Stimulating Action for Clean Air, ICIMOD
10:15–11:15	Lecture: Key considerations in designing epidemiology studies	Kalpna Balakrishnan , Professor, Sri Ramachandra Institute of Higher Education and Research, India
11:15–11:45	Coffee/tea break	
11:45–12:45	Walk-through: Planning and running an epidemiology study	Om Kurmi , Associate Professor, Coventry University, UK
12:45–13:45	Lunch	
Session IV: Group activity – Designing an epidemiology study		
<i>Facilitators: Kamala Gurung, Gender and Natural Resource Management Specialist, ICIMOD and Abinaya Sekar, Consulting Research Fellow, HEI</i>		
<i>Experts: Jill Baumgartner, Kalpna Balakrishnan, Ajay Pillarisetti, Om Kurmi, Michal Krzyzanowski, Sagnik Dey</i>		
13:45–15:15	Group activity The participants will be split into groups of four, and each group will design an epidemiology study.	

	<ul style="list-style-type: none"> - Define the research question - Identify data of interest - Assemble a project team <p><i>Participants will be divided into five groups of four participants each. Two groups will be asked to work on ambient air pollution (PM_{2.5}, NO₂ or O₃) and three groups will be asked to work on household air pollution. Each group will also identify a relevant health outcome of interest.</i></p>	
15:15–15:45	Visit of the ICIMOD air quality monitoring station	Ravi Sahu , Air Quality Specialist, ICIMOD Suresh Pokhrel , Senior Associate-Aerosol Measurement Research, ICIMOD Dikra Prasad Bajgai , Air Pollution Measurement Associate, ICIMOD
15:45–16:45	Continue group activity <i>Coffee/tea will be available; each group will be asked to present their study in 5 minutes/5 slides.</i>	
16:45	End of day 2	
	Free evening <i>Options for local sightseeing will be provided to the group.</i>	

Day 3 14 August 2024, Wednesday		
Time	Programme	Resource person/s
Reflection from Day 1 & Day 2		
Session V: Research funding on air pollution and health		
<i>Facilitator: Pallavi Pant, Head of Global Health Program, Health Effects Institute (HEI), USA</i>		
09:30–09:45	Reflection from Day 1 & Day 2	
09:45–10:00	The research funding landscape	Pallavi Pant , Head of Global Health Program, Health Effects Institute (HEI), USA
10:00–11:00	Panel discussion: Writing effective research grant proposals	<i>Moderator: Sagnik Dey, Institute Chair Professor, Indian Institute of Technology Delhi, India</i> Ajay Pillarisetti , Assistant Professor, University of California Berkeley, USA Jill Baumgartner , Associate Professor and William Dawson Scholar, McGill University, Canada Om Kurmi , Associate Professor, Coventry University, UK Megnath Dhimal , Senior Scientist, Nepal Health Research Council, Nepal
11:00–11:30	Coffee/tea break	
Session VI: Science communication		
<i>Facilitator: Debabrat Sukla, Senior Communications Officer, ICIMOD</i>		
11:30–12:30	Hands on exercise: Communicating science to various audiences	Pallavi Pant , Head of Global Health Program, Health Effects Institute (HEI), USA Debabrat Sukla , Senior Communications Officer, ICIMOD
12:30–13:00	Introduction to CAPHER-India network	Sagnik Dey , Indian Institute of Technology Delhi, India
13:00–14:00	Lunch	
Session VII: Tools and methods for air pollution and health impact assessment		
<i>Facilitator: Abinaya Sekar, Consulting Research Fellow, HEI</i>		
14:00–15:00	Lecture: Introduction to health impact assessment	Michal Krzyzanowski , Visiting Professor, Imperial College London, UK
15:00–15:15	Coffee/tea break	

15:15–16:30	Hands-on training: Using AirQ+ to estimate health impacts of air pollution <i>Laptops will be required for this activity.</i>	Michal Krzyzanowski , Visiting Professor, Imperial College London, UK
16:30–17:00	Concluding remarks and certificate distribution	Bertrand Bessagnet , Action Area Coordinator, Stimulating Action for Clean Air, ICIMOD Pallavi Pant , Head of Global Health Program, Health Effects Institute (HEI), USA Distribution by Arun Bhakta Shrestha , Strategic Group Lead, Reducing Climate & Environmental Risks, ICIMOD
17:00	End of training	