

## Day 1 Main Conference | 15 November 2023 | Wednesday

### Ambition to Action: Clean air for Health and the Climate

#### AGENDA AT A GLANCE

<b>09:00 – 10:30</b> OPENING REMARKS AND OPENING PLENARY: CALL FOR URGENT ACTION TO ACCELERATE SOLUTIONS TO AIR POLLUTION AND SLCPS					
<b>10:30 – 11:00</b> COFFEE BREAK & NETWORKING					
<b>11:00 – 12:30</b> PLENARY SESSION: SOLUTIONS AT THE NATIONAL LEVEL TO ACHIEVE CLEAN AIR FOR HEALTH AND THE CLIMATE					
<b>12:30 – 14:00</b> LUNCH					
<b>14:00 – 15:30</b> BREAKOUT SESSIONS:					
Track 1 URBAN DEVELOPMENT AND TRANSPORT	Track 2 INDUSTRY AND ENERGY	Track 3 AGRICULTURE, WASTE, HOUSEHOLD ENERGY AND OTHER SOURCES	Track 4 SPOTLIGHT 1	Track 5 REGIONAL COOPERATION FOR CLEAN AIR	Track 6 SPOTLIGHT 2
Pathways to Sustainable Transport in Asia <i>(Clean Air Asia, UEMI, UNEP)</i>	Strengthening Emission Standards for Coal-Fired Power Plants and Polluting Industries <i>(Clean Air Asia)</i>	Pollution Control for MSMEs and Construction Dust <i>(Clean Air Asia)</i>	Breathing Better: Exploring Investment Opportunities for Air Quality <i>(ICIMOD, SCS Global Registry, Clean Air Asia)</i>	Regional Updates on Air Quality and Action <i>(Clean Air Asia, ADB)</i>	Air quality standards in Asia and the Pacific <i>(WHO, ADB)</i>
<b>15:30 – 16:00</b> COFFEE BREAK & NETWORKING					
<b>16:00 – 17:30</b> BREAKOUT SESSIONS:					
Two Decades of Progress in Vehicle Emission Control: Insights and Opportunities for Asia <i>(Tsinghua University, Clean Air Asia)</i>	Data-Driven Decision-Making for Clean Air <i>(Clean Air Asia)</i>	Addressing Open Burning <i>(Thailand Pollution Control Department, GIZ, Asia Disaster Preparedness Center)</i>	Air Pollution, Health and Wellbeing <i>(Clean Air Asia, Ricardo, ADB)</i>	Regional Cooperation for Clean Air and Climate Action <i>(UNESCAP, EANET)</i>	
<b>18:00 – 20:00</b> WELCOME COCKTAILS					

## DAY 1 MAIN CONFERENCE | PLENARY SESSIONS

Main Auditorium

### 09:00 – 10:30 - OPENING PLENARY

#### OPENING REMARKS

- **Bindu Lohani**, *Chairman, Board of Trustees, Clean Air Asia*
- **Bjarne Pedersen**, *Executive Director, Clean Air Asia*
- **Fatima Yasmin**, *Vice President for Sector and Themes, Asian Development Bank*
- **Martina Otto**, *Head of Secretariat, Climate and Clean Air Coalition*

#### OPENING KEYNOTE

Keynote Speech on cities leading the way in raising ambition and accelerating action on clean air

**Mark Watts**, *Executive Director, C40*

Testimony & call for action to prevent the tragedy of air pollution

**Rosamund Adoo-Kissi-Debrah**, *Clean air advocate, BreatheLife Champion and Founder - Ella Roberta Family Foundation (Virtual)*

#### OPENING PANEL DISCUSSION: Urgency of accelerating solutions to air pollution and short-lived climate pollutants (SLCPs)

- Do we have the solutions in the region to fix air pollution? What are needed to bring these solutions to scale? In which areas should we focus on developing solutions?
- How can different sectors contribute to raising ambition and increasing action on clean air to achieve public health and climate goals?

Moderator: **Sharanjit Leyl**, *International Moderator and Former Producer for BBC*

Panelists:

- **Heather Adair-Rohani**, *Acting Head, Air Quality, Energy & Health, World Health Organization (WHO)*
- **Prof. Zhang Shiqiu**, *Professor, Environmental Economics, College of Environmental Sciences and Engineering, Peking University*
- **Tanah Sullivan**, *Group Head, Sustainability, GoTo Group*

### 11:00 -12:30 - PANEL DISCUSSION

#### KEYNOTE PRESENTATION: Integrated approach to air quality and climate solutions

**Martina Otto**, *Climate and Clean Air Coalition*

#### MESSAGE

**Maria Neira**, *Director of Department of Environment, Climate Change and Health, World Health Organization (Virtual)*

#### PANEL DISCUSSION: Solutions at the National Level to Achieve Clean Air for Health and the Climate

Panel discussion on the clean air solutions (i.e., science-based policy, financing, technology, governance, partnerships) implemented successfully at national level; the success factors and barriers; how clean air solutions helped achieve multiple goals (e.g., health, climate change mitigation); and how solutions can be scaled up and accelerated to meet the WHO guidelines.

Moderator: **Sharanjit Leyl**, *International Moderator and Former Producer for BBC*

Panelists:

- **Hon. Maria Luwalhati Dorotan Tiuseco**, *Undersecretary, Department of Finance, Philippines*
- **Luckmi Purwandari**, *Director of Air Pollution Prevention, Ministry of Environment and Forestry, Indonesia*
- **Siwaporn Rungsiyanon**, *Director of the Transboundary Air Pollution Subdivision, Air Quality and Noise Management Division, Pollution Control Department, Ministry of Natural Resources and Environment, Thailand (Virtual)*
- **Azamat Temirkulov**, *Director, Climate Finance Center, Kyrgyz Republic*
- **Cai Jun**, *Director, Beijing-Tianjin-Hebei and Surrounding Areas Project Coordination and Supervision Division, Department of Atmospheric Environment Ministry of Ecology and Environment, People's Republic of China*
- **Tserenbat Namsrai**, *CEO, Erdenes Oyu Tolgai LLC, Former Minister of Environment and Tourism and Head of the Government Working Group on Air Pollution Reduction, Mongolia*
- **Dr. Sonu Singh**, *Scientist E, Ministry of Environment, Forest, and Climate Change, India*
- **Engr. Jundy del Socorro**, *Chief, Air Quality Management Section, Philippine Department of Environment and Natural Resources*

## TRACK 1- URBAN DEVELOPMENT AND TRANSPORT

# Pathways to Sustainable Transport in Asia

Day 1 - (14:00 -15:30)

Auditorium 1

### BACKGROUND

With many Asian countries yet to phase out internal combustion engines, many are optimistic about the mitigation potential of improving the efficiency of the transport sector (i.e., energy, economy, and intensity). Interventions such as electrification and implementing fuel quality and vehicle emissions standards, have been indicated by many countries as part of their long-term strategies and nationally determined contributions.

The session covers the progress and experiences towards low to zero-emission vehicles achieved through the implementation of stringent emissions standards and adoption of electric mobility in Asia. The session also discusses the social implications of transport decarbonization and how these efforts can be scaled from city to global levels.

### OBJECTIVE

The session aims to provide an overview of the region's trajectory for sustainable transport and define opportunities on how interventions can be strengthened through policies and standards, planning, and partnerships.

### SESSION ORGANIZERS

Clean Air Asia, Wuppertal Institute (SOLUTIONS+), UN Environment Programme

### PROGRAMME

**OPENING KEYNOTE:** Framing presentation on how sustainability of the transport sector can be further strengthened in the region

**Naressa Saripada**, *Senior Transport Specialist*, Clean Air Asia

### PRESENTATION

- ADB Transport Outlook  
**Satomi Sakaguchi**, *Transport Specialist*, Asian Development Bank
- Health benefits in Asia and policies to reduce on-road vehicle pollution through 2050  
**Lingzhi Jin**, *Senior Researcher*, International Council on Clean Transportation
- Vehicle Inspection and Maintenance  
**Christian Vollmar**, *Sales Manager*, Sales Department International, MAHA Maschinenbau Haldenwang GmbH & CO., KG

### PANEL DISCUSSION

Moderator: **Alvin Mejia**, *Director, Analysis and Impact*, UEMI Secretariat, Urban Electric Mobility Initiative

Panelists:

- **Kong Sophal**, *Deputy Director General*, General Department of Land Transport, Cambodia Ministry of Public Works and Transport
- **Do Phan Anh**, *Deputy Head of Transport Management*, Hanoi Department of Transport

Reactors:

- **Ni Hong**, *Researcher* Vehicle Emission Control Center, Chinese Research Academy of Environmental Sciences
- **Joachim Bergerhoff**, *Team Leader*, Sustainable Mobility in Metropolitan Regions (SMMR) Project, GFA Consulting Group GmbH
- **Jagan Shah**, *Distinguished Fellow*, The Infravision Foundation; *Former Director*, National Institute of Urban Affairs, New Delhi

### SYNTHESIS & CLOSING

**Naressa Saripada**, *Senior Transport Specialist*, Clean Air Asia

TRACK 2 – INDUSTRY AND ENERGY

## Strengthening Emission Standards for Coal-Fired Power Plants and Polluting Industries (Coal Session Community of Practice)

Day 1 - (14:00 -15:30)

Auditorium 2

### BACKGROUND

Clean Air Asia continues to build the capacity of Asian governments on air quality management and emissions reduction through a Community of Practice (CoP) and the Guidance Framework Towards Clean Air and Clean Energy in Asia. The session aims to facilitate sharing of progress on strengthening and implementing emission standards of key countries in the region. It also aims to foster discussions on country-specific needs for building technical and institutional capacity of governments for the enforcement of emission standards for Coal-Fired Power Plants (CFPs) and other heavy polluting industries. Government policy mechanisms for achieving NDC targets and low-carbon sustainable development will also be discussed, highlighting action points and co-learning opportunities in the region.

### OBJECTIVE

The session aims to highlight the activities, progress, and achievements of key Asian governments in reducing emissions from coal and other heavy industries. Specific next steps in achieving identified goals for emissions reduction will be discussed in a co-learning session. Key areas will be identified for policy guidance and technical assistance, drawing insights from international experience and providing recommendations for the development and enforcement of stringent emission standards. Concrete actions governing the adoption of best practice policies, continuous knowledge base updating, and ensuring effective implementation of standards and pollution reduction measures will be discussed.

### SESSION ORGANIZER

Clean Air Asia

### PROGRAMME

#### OPENING

**Atty. Glynda Bathan-Baterina**, Deputy Executive Director, Clean Air Asia

#### PRESENTATION

- Vietnam's presentation on government's initiatives related to Decision 891/QD-BTNMT  
**Nguyen Thi Nguyet Anh**  
Deputy Director, Northern Center for Environmental Monitoring (NCEM), The Pollution Control Department (PCD), Vietnam
- MOEF's initiatives on air quality management, including efforts to address key emission source sector  
**Damayanti Ratunanda**  
Deputy Director for Complaint and Compliance, Directorate General for Law Enforcement, Ministry of Environment and Forestry, Republic of Indonesia
- Department of Environment and Natural Resources (DENR) priorities and initiatives towards updating emission standards  
**Engr. Jundy Del Socorro**, Air Quality Management Section Chief, Department of Environment and Natural Resources-Environmental Management Bureau, Philippines
- PRC's success in controlling emissions from CFPs and polluting industries  
**Jianzhi Zhao**  
Director of Air Division, Shanghai Bureau of Ecology and Environment, People's Republic of China

#### MODERATED PANEL DISCUSSION

Moderator: **Atty. Glynda Bathan-Baterina**, Deputy Executive Director, Clean Air Asia

Panelists:

**All previous speakers** to be joined by **Dr. Wei Wan**, Clean Air Asia China's Program Director

#### CLOSING

**Atty. Glynda Bathan-Baterina**, Deputy Executive Director, Clean Air Asia

## TRACK 3 - AGRICULTURE, WASTE, HOUSEHOLD ENERGY AND OTHER SOURCES

### Pollution Control for MSMEs and Construction Dust

Day 1 - (14:00 -15:30)

Auditorium 3

#### BACKGROUND

Clean Air Asia actively supports cities and countries in managing air pollution and greenhouse gases. They achieve this by enhancing capacity, disseminating data and knowledge, advocating for effective policies and practices, and raising awareness about the connection between air pollution, climate change, and sustainability.

In collaboration with the Delhi Pollution Control Committee (DPCC) of India, Clean Air Asia focused on identifying air pollution hotspots in Delhi and proposing interventions to combat air pollution in key areas.

Construction activities play a crucial role in urban development, infrastructure improvement, and economic expansion. Despite their significant benefits, construction projects pose a notable drawback in the form of dust pollution. Construction dust, composed of minuscule particles suspended in the air, mainly originates from activities like excavation, demolition, drilling, and material transportation. When these particles are released into the atmosphere, they can have adverse effects on both the environment and human health. To aid construction professionals, Clean Air Asia developed a toolkit called "Advancing Better Air Quality with Clean Construction." This toolkit offers guidance on straightforward dust control measures, best practices, and checklists for site supervisors to implement effective dust mitigation actions.

Micro, Small and Medium Enterprises (MSMEs) are crucial to the growth and development both in developing and developed economies. They are a major component of economic growth, a source of employment, and innovation. However, MSMEs often face significant environmental challenges that can hinder their success or even be subsumed by large industries. The air pollution problems from MSMEs are compounded by old technologies, untrained manpower, casual attitude, energy issues, poor housekeeping, low heights of emission releases (mostly less than 10 m), and nonpoint fugitive emissions, which are not tractable and can be very significant

#### OBJECTIVE

This session aims to bring distinct perspectives to reduce pollution from MSMEs and construction activities. The session will comprise of two parts:

Part 1: Construction and Demolition Dust. The session will focus on the perspective of cities, green certification agencies, and construction companies. This co-learning session will discuss:

- a. The role cities can play in reducing pollution from construction activities.
- b. How can green certifications or ratings accelerate the uptake of clean construction practices?

The discussions can help identify opportunities for learning, collaboration, and illustrate strategies that can be applied in Asia. The session is envisioned to provide insights on best practices, success stories, learnings on implementation of clean construction practices, to inform scaling adoption of clean construction across different regions in Asia.

Part 2: MSMEs. This session will focus on the significant issues from the MSME sector as it suffers from sources of fugitive emissions, poor civic amenities, and inadequate road and infrastructure causing indirect emissions in the industrial areas. There is a need to find technical solutions to nonpoint fugitive emissions emanating from MSMEs including better roads fully paved (carpeted beyond shoulders), better drainage facilities, improved power supply, solid waste collection and removal of all encroachments. It also requires skill development, environmental technology resources, decarbonization, preventing waste burning, use of biomass-based fuel, small-scale units and small boilers, and future energy. Financial constraints and the availability of loans are significant issues for MSMEs.

#### SESSION ORGANIZER

Clean Air Asia

#### PROGRAMME

##### OPENING

**Ms. Perna Sharma**, India Program Manager, Clean Air Asia

##### PRESENTATION (Part 1)

- Clean Construction for India: Overview, lessons learned, outcomes of clean construction project in India.

**Tanmay Tathagat**, *Director*, Environmental Design Solutions

##### PRESENTATION (Part 2)

- Air Pollution Challenges of MSMEs: Policy, Technical and Management Solutions

**Dr. Mukesh Sharma**, *Professor*, IIT-Kanpur

##### MODERATED PANEL DISCUSSION (Part 1): "Role of Cities in Construction related Pollution Control"

Moderator: **Dr Archana Walia**, Clean Air Asia

Panelists:

- **Dr. K.S. Jayachandran**, *Member Secretary*, Delhi Pollution Control Committee
- **Dr. A G T Sugathapala**, *Senior Lecturer* in Mechanical Engineering, University of Moratuwa, Sri Lanka
- **Ashu Dehadani**, *Associate Director- Technical*, GBCI, Green Business Certification, Inc. (GBCI)
- **Paul Vallar**, *Environmental Management Specialist II*, Air Quality Management Section, Environmental Management Bureau, Philippines
- **Dr. Mukesh Sharma**, *Professor*, IIT-Kanpur, India
- **Tanmay Tathagat**, *Director*, Environmental Design Solutions

##### MODERATED PANEL DISCUSSION (Part 2): "Micro, Small and Medium Enterprises (MSMEs): Air Pollution Issues and Workable Solutions"

Moderator: **Dr. Archana Walia**, *India Director*, Clean Air Asia

Panelists: **All speakers**

##### CLOSING

**Dr. Archana Walia**, *India Director*, Clean Air Asia

TRACK 4 - SPOTLIGHT

## Breathing Better: Exploring Investment Opportunities for Air Quality

Day 1 - (14:00 -15:30)

Auditorium 4

### BACKGROUND

The session will provide a unique opportunity to delve into the intersection of air quality and climate finance. By understanding the intricate link between these two domains, participants can uncover effective strategies to address air pollution and promote a healthier environment. Through exploring diverse funding mechanisms, success stories, on-ground projects, and expert insights. The session will try to unfold a comprehensive understanding of how climate finance can be harnessed to propel air quality improvement initiatives.

This session will highlight how finance, when strategically aligned with air quality goals, becomes a catalyst for positive change – fostering cleaner air and a more sustainable future for all.

### OBJECTIVE

The session aims to understand climate finance mechanisms for air quality and to highlight the link between climate finance and air quality improvement.

**SESSION ORGANIZERS** ICIMOD, Clean Air Asia, SCS Global Registry

### PROGRAMME

#### OPENING

**Bhupesh Adhikary**, International Centre for Integrated Mountain Development (ICIMOD)

#### PRESENTATION

- Accessing suitable climate finance mechanisms for air quality initiatives  
**Anouj Mehta**, Asian Development Bank (Virtual)
- Voluntary Carbon Markets (VCM), corporate carbon neutrality and carbon offsets  
**Dana Pillai**, SCS Global Registry

#### CASE STUDIES

- Climate finance and its significance in tackling global environmental challenges  
**Sandeep Chaudhary**, VNV Advisory Services
- Scaling up cleaner brick production through the VCM  
**Bidya B Pradhan**, International Centre for Integrated Mountain Development (ICIMOD)

#### MODERATED PANEL DISCUSSION

Moderator: **Precious Benjamin**, *Sustainable Cities Lead*, Clean Air Asia

Panelists:

**Martina Otto**, *Head of Secretariat*, Climate and Clean Air Coalition

**Indah Wibinastiti**, *General Manager*, Association of Indonesia Municipalities (APEKSI), Indonesia

**J S Kamyotra**, *Ex Member Secretary*, Central Pollution Control Board, India

#### CLOSING

**Precious Benjamin**, Clean Air Asia

## TRACK 5 - REGIONAL COOPERATION FOR CLEAN AIR

# Regional Updates on Air Quality and Action

Day 1 - (14:00 -15:30)

Multi-Function Hall 3

### BACKGROUND

In this session, regional updates on air quality and action will be presented and discussed, providing an avenue for policymakers, academia, private sector and other stakeholders, to learn and apply various approaches to address air pollution.

A global overview of the latest status and updates on air pollution and air quality management will be provided. This co-learning session will discuss key findings of the *Clean Air Asia 2023 Asia Air Quality Management Status and Trends Report*, together with important developments in air pollution actions in Europe and America. The discussions aim to identify opportunities for learning and collaboration, and strategies applicable to Asia and other parts of the world, considering local context and national commitments.

### OBJECTIVE

The session is envisioned to provide insights on how air quality data is used to inform air quality management policies across different regions, highlighting key lessons learned and recommendations for Asia.

### SESSION ORGANIZER

Clean Air Asia

### PROGRAMME

#### WELCOME

**Enrique Mikhael Cosep**, *Senior Researcher*, Clean Air Asia

#### OPENING

**Bjarne Pedersen**, *Executive Director*, Clean Air Asia

#### PRESENTATION

- Asia Status and Trends Report  
**Everlyn Tamayo-Araneta**, *Air Quality and Climate Change Science Lead*, Clean Air Asia
- Air Quality Management Updates in Europe  
**Dr. Leonor Tarrason**, *Research Director for Environmental Solutions*, Norwegian Institute for Air Research
- Air Quality Management and Policy Development in the US  
**Kayla McCauley**, *Physical Scientist, Office of Air Quality Planning & Standards*, US Environmental Protection Agency (Virtual\*)

#### MODERATED PANEL DISCUSSION

Moderator: **Dr. Kim Oanh**, *Emeritus Professor*, Asian Institute of Technology

Panelists: **All previous speakers**

#### CLOSING

**Dr. Kim Oanh**, *Emeritus Professor*, Asian Institute of Technology

TRACK 6 – SPOTLIGHT 2

## Air Quality Standards in Asia and the Pacific

Day 1 - (14:00 –15:30)

Learning Resource Center 1

### BACKGROUND

Air pollution is a global environmental challenge that poses significant risks to population health, ecosystems and the overall societal well-being and equity. Despite the efforts in advancing air quality management, globally, each year estimated 7 million people die prematurely due to combined effects of ambient and household air pollution. WHO estimates that almost all of the global population (99%) breathe air that exceeds WHO guideline limits, with low- and middle-income countries suffering from the highest exposures.

WHO Air Quality Guidelines (AQG) 2021 edition provides updated health-based recommended levels for long- and short- term exposure to key air pollutants and interim targets to incrementally improve air quality. Most national ambient air quality standards are not legally aligned with WHO AQG recommended levels. Countries could gain tremendous health and economic benefits if the AQG levels for PM2.5 concentrations were achieved.

### OBJECTIVE

The session aims to support global, regional and national actions to address and prevent the health impacts of air pollution. The specific objectives are to: · inform about WHO activities on air quality and health at global and regional level, including the adoption of the WHO Air Quality Guidelines (AQG) · Introduce the data from the forthcoming new publication Ambition of the WHO Global Air Quality Guidelines-A Western Pacific Regional Overview and parliamentarian briefs for taking actions to strengthen the national legislative and regulatory framework and enforcement capacities.

### SESSION ORGANIZERS

WHO Asia-Pacific Centre for Environment and Health in the Western Pacific Region in collaboration with the Public Health, Social and Environmental Determinants of Health Department of WHO headquarters.

### PROGRAMME

#### OPENING REMARKS:

**Dr. Akeem Ali**, *Head of the Asia-Pacific Center for Environment and Health in the Western Pacific Region Department, World Health Organization*

#### PRESENTATION

- WHO work to improve air quality and health  
**Dr Heather Adair-Rohani**, Head, Air quality unit, WHO Headquarter
- National Air Quality Standards: A Western Pacific Regional Overview  
**Dr. Enkhtsetseg Shinee**, Coordinator, Air quality energy and health, WHO ACE

#### Moderated Q & A discussion: actions to bridge the gaps identified

**Dr. Akeem Ali**, *Head of the Asia-Pacific Center for Environment and Health in the Western Pacific Region Department, World Health Organization*

#### BRIEF FOR PARLIAMENTARIANS: AIR POLLUTION

**Dr. Akeem Ali**, *Head of the Asia-Pacific Center for Environment and Health in the Western Pacific Region Department, World Health Organization*

#### SUMMARY AND CLOSING

**Dr. Akeem Ali**, *Head of the Asia-Pacific Center for Environment and Health in the Western Pacific Region Department, World Health Organization*



## TRACK 1- URBAN DEVELOPMENT AND TRANSPORT

# Two Decades of Progress in Vehicle Emission Control: Insights and Opportunities for Asia

Day 1 - (16:00 -17:30)

Auditorium 1

### BACKGROUND

PRC's automobile market has experienced 30 years of high-speed expansion, epitomizing the PRC's economic miracle. Rapid motorization has brought a variety of benefits in industry development, societal advancement, travel convenience, as well as big challenges in air quality, energy security, climate change and human health.

Over the last 20 years, PRC has phased in a succession of mobile source emissions control measures and developed a "Vehicle-Fuel-Road" integrated framework. For the time being, China VI standards for new vehicles and fuel quality have been fully implemented, a real-world emission regulation system incorporating multiple advanced techniques has been initially established, transportation structure & transport energy structure adjustment has been commenced and PRC has become the largest market for the promotion of electric vehicles. Because of these efforts, PRC has made impressive strides in reducing emissions from mobile sources. Megacities in PRC, in particular, have served as a pioneer in promoting these efforts.

We believe that PRC's and particularly the megacities' experiences with mobile source emission control can be helpful for other Asian countries that have pressing needs and ambitions to develop green transportation for clean air and decarbonization. This session will present the retrospectives on PRC's transportation emission control and city experiences, as well as discussions about leapfrogging and opportunities for reducing mobile source emissions in Asian countries.

### OBJECTIVE

The session aims to introduce PRC's progress and experiences over the course of its 20-year journey toward controlling mobile source emissions and key drivers for emission reduction, as well as joint discussions on opportunities for Asian countries towards green transportation. The session will discuss the following:

- PRC's 20-year efforts in vehicle emission control
- City experience from Beijing, Chengdu, Shenzhen and Shanghai
- Leapfrogging and opportunities for Asian Countries

### SESSION ORGANIZERS

Tsinghua University  
Clean Air Asia

### PROGRAMME

**MODERATOR:** **Le Yin**, Senior Program Officer, Energy Foundation China

**PRESENTATION:** *Motor Vehicle Pollution Control in PRC - How it All Began*

**Michael P. Walsh**, Board Member Emeritus, International Council on Clean Transportation

### PITCH DECK- City Experience

- Beijing: Remote OBD monitoring for heavy-duty diesel vehicles  
**Ye Wu**, Professor, School of Environment, Tsinghua University
- Shanghai: Public Transport Development  
**Cheng Huang**, Director, Shanghai Environmental Monitoring Center
- Chengdu: Big data intelligent transportation system for precise emission control  
**Qinwen Tan**, Director, Chengdu Academy of Environmental Sciences
- Shenzhen: A pioneer city promoting new energy vehicles;  
**Shaojun Zhang**, Associate Professor, School of Environment, Tsinghua University

**PANEL DISCUSSION:** *"Prospectives of leapfrogging and opportunities for Asian countries in mobile source emissions control"*

Moderator: **Lu Fu**, China Director, Clean Air Asia

Panelists:

- **Michael P. Walsh**, Board Member Emeritus, International Council on Clean Transportation
- **Ye Wu**, Professor, Tsinghua University
- **Ittipol Pawarmart**, Head of Automotive Emission Laboratory, Air Quality and Noise Management Division, Pollution Control Department, Thailand's Ministry of Natural Resources and Environment
- **Myron Alcanzare**, Senior Transport Researcher, Clean Air Asia

### LAUNCH CEREMONY AND CLOSING

Comments by **Michael P. Walsh** and **Ye Wu**

## TRACK 2 – INDUSTRY AND ENERGY

# Data-Driven Decision-Making for Clean Air

Day 1 - (16:00 -17:30)

Auditorium 2

### BACKGROUND

Air pollution can negatively affect human health and contribute to climate change. An understanding of sources contributing to air pollution is therefore essential to developing an effective long-term air quality management strategy and mitigation policies at the city, national, and regional levels.

Understanding of air pollution sources includes effective use of tools, methodologies, technology, and the data generated to design, support mitigation measures and accelerate clean air action.

### OBJECTIVE

This session will provide participants with the knowledge and appreciation of the current programs, methodologies, technology, and tools which can be adapted and utilized to harness data on emissions and air pollution sources which are essential to developing effective and sustainable solutions and mitigation policies.

### SESSION ORGANIZER

Clean Air Asia

### PROGRAMME

#### OPENING

**Young Sunwoo**, International Union of Air Pollution Prevention and Environmental Protection Associations (IUAPPA)

#### PRESENTATION

- 2030 Asian Transport Outlook: The Road Ahead for Carbon Emissions and Air Quality  
**Mel Eden**, Asian Transport Outlook (ATO)
- Aligning Visions: Shaping a Global Tracker for Sustainable Mobility  
**Kathleen Dematera**, Urban Electric Mobility Initiative (UEMI)
- The Air Pollution Knowledge Assessments (APnA) City Program: Open Data Sources and Applications  
**Sarath Guttikunda**, *Founder/Director*, Urban Emissions
- Advanced Source Apportionment and Aerosol Oxidation Potential: New Strategies for Improved Air Quality and Public Health  
**Jay Slowik**, Paul Scherrer Institute (Sino-Swiss project)
- Clean Air Catalyst: Data-to-Impact Approach to Accelerate Clean Air Action in Jakarta  
**Fadhil Firdaus**, World Resources Institute
- Democratizing Air Quality Data in Indonesia for Better Health  
**Piotr Jakubowski**, Nafas Indonesia

#### CLOSING

**Young Sunwoo**, IUAPPA

## TRACK 3 - AGRICULTURE, WASTE, HOUSEHOLD ENERGY AND OTHER SOURCES

# Addressing Open Burning

Day 1 - (16:00 -17:30)

Auditorium 3

### BACKGROUND

The burning of residues and other wastes from agricultural lands and processes leads to pollutant emissions that contribute to air pollution and climate change. Seasonal crop residue burning is identified as a major contributor of air pollution in different parts of Asia. Ambient PM<sub>2.5</sub> exposure due to crop residue burning is specifically associated with a three-fold greater risk of acute respiratory infection. Open burning of biomass contributes about 37% of total global black carbon including burning of forest, savannah and agricultural residue.

While various measures have been undertaken by countries across Asia to address agricultural open burning, stakeholders continue to innovate with solutions that are effective, scalable, and sustainable. This session will provide an update on the extent and impacts of open burning in Asia, and the efforts and solutions being made on the ground.

### OBJECTIVE

This session aims to provide an overview of the extent and impact of open burning across Asia and the Pacific and the response of governments. Case studies addressing agricultural waste burning will be showcased and solutions that are scalable and sustainable will be discussed by regional experts.

### SESSION ORGANIZERS

Thailand Pollution Control Department, GIZ, Asian Disaster Preparedness Center (APCD)

### PROGRAMME

#### WELCOME AND INTRODUCTION

**Ekachai Lojanaphiwat**, GIZ

**OPENING:** Overview on the state of transboundary haze pollution in SEA

**Dr. Supat Wangwongwatana**, Faculty of Public Health, Thammasat University

#### PRESENTATIONS

- Using forecasting data to improve access to air quality information and agricultural open burning hotspots  
**Aekkapol Aekakkararungroj**, APCD
- Response of governments such as the sub-regional cooperation among countries in the Mekong Region  
**Dr. Sirirat Yensong**, Pollution Control Department, Thailand (Virtual)
- Solutions and challenges to agricultural open burning  
**Dr. Supat Wangwongwatana**, Faculty of Public Health, Thammasat University

#### Q & A

- Case studies of technology applications and/or solutions on agriculture sector  
**Tobias Breunig**, GIZ
- Takachar's Scalable Solution; Turning biomass waste into carbon-negative bioproducts  
**Vidyut Mohan**, Co-founder, Takachar
- Transforming Asia's Largest Waste into a Clean Air & Climate Solution  
**Craig Jamieson**, Director & Founder, Straw Innovations Ltd

#### PANEL DISCUSSION

Moderator: **Ekachai Lojanaphiwat**, GIZ

Panelists:

**Dr. Supat Wangwongwatana**, Thammasat University

**Aekkapol Aekakkararungroj**, APCD

**Tobias Breunig**, GIZ

**Vidyut Mohan**, Takachar

**Craig Jamieson**, Straw Innovations Ltd

TRACK 4 - SPOTLIGHT  
**Air Pollution, Health and Wellbeing**

Day 1 - (16:00 -17:30)

Auditorium 4

#### BACKGROUND

This event will bring together national policy makers, regulatory authorities, public health specialists, NGOs, and ADB project officers to discuss the health effects of air pollution. We will consider the updated WHO Air Quality Guidelines 2021, and how national governments and city authorities should use these guidelines to set their own targets and navigate towards improving air quality and public health and wellbeing.

We will look at the current understanding of the effects of air pollution on health, and methods for quantifying the health impacts of exposure to air pollution and monetizing the benefits that result from improving air quality. Lessons learned on the challenges and solutions related to health improvement through better air quality will be highlighted.

#### SESSION ORGANIZERS

Clean Air Asia, Ricardo, ADB

#### PROGRAMME

##### OPENING

**Dr. Vasoontara S. Yiengprugsawan**, Senior Universal Health Coverage Specialist, Asian Development Bank

##### OVERVIEW

**Dr Mark Broomfield**, Ricardo

##### PRESENTATION

- WHO report on Air Quality Standards in Western Pacific region countries  
**Dr. Akeem Ali**, World Health Organization
- Setting the scene: How air pollution affects health  
**Dr. Pallavi Pant**, *Global Health Program*, Health Effects Institute
- Case study: Health and social impacts of air pollution on women and children in Kyrgyzstan  
**Prof. Jay Turner**, *Vice Dean for Education and Head, Division of Engineering Education and Professor of Energy, Environmental & Chemical Engineering*, James McKelvey School of Engineering

##### MODERATED PANEL DISCUSSION

Moderator: **Dr Mark Broomfield**, Ricardo

Panelists: **All previous speakers**, joined by 1 additional panelist (ADB Gender Team representative)\*

##### AUDIENCE FEEDBACK

Moderator: **Dr Mark Broomfield**, Ricardo

##### CLOSING

**Dr. Vasoontara S. Yiengprugsawan**, Senior Universal Health Coverage Specialist, Asian Development Bank/**Dr. Mark Broomfield**, Ricardo\*

TRACK 5 – REGIONAL COOPERATION FOR CLEAN AIR

## Regional Cooperation for Clean Air and Climate Action

Day 1 - (16:00 – 17:30)

Multi-Function Hall 3

### BACKGROUND

To achieve meaningful reductions in air pollution throughout the region, a shared co-benefits approach to cooperation is needed. Countries must actively engage both internally and collectively to manage to ensure that the airsheds of the future safeguard the right to a healthy environment.

### OBJECTIVE

This Session will describe existing cooperative mechanisms to implement activities, with particular focus on identifying concrete areas for regional collaboration which can be implemented in the next 2-3 years. Emphasis will be placed on initiatives and funding opportunities. The Session will also discuss reflections and lessons learned from existing regional platforms and intergovernmental bodies on air pollution.

### SESSION ORGANIZERS

EANET, UNESCAP

### PROGRAMME

#### OPENING

**Bert Fabian**, United Nations Environment Programme (UNEP)

#### PRESENTATION

- Regional Action Programme on Air Pollution: Activities and opportunities for collaboration  
**Matthew Perkins**, United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP) (Virtually)
- Global Clean Air Flagship and opportunities for collaboration with Asian countries and linkages to climate action  
**Martina Otto**, *Head of Secretariat*, Climate and Clean Air Coalition (CCAC), UNEP

#### MODERATED PANEL DISCUSSION

Moderator: **Bert Fabian**, UNEP

Panelists:

- **Eloise Scotford** *Professor of Environmental Law*, University College London (Virtually)
- **J.S. Kamyotra**, former CPCB, India
- **Patrick Bueker**, GIZ
- **Azka Ghaida**, World Resources Institute
- *Head of Secretariat*, Climate and Clean Air Coalition (CCAC), UNEP

Reactions from **Matthew Perkins**, UNESCAP and **Martina Otto**, CCAC

#### CLOSING

**Bert Fabian**, UNEP