

**FIFTH ASIA PACIFIC CLEAN AIR PARTNERSHIP (APCAP)
JOINT FORUM**
20-21 March 2025 | Yokohama, Japan

SESSION CONCEPT NOTE

Session 2. Plenary Discussion: Invest in Clean Air Now

Part 1: Air Pollution in Asia and the Pacific: Science-based Solutions – Achievement, Remaining Challenges and Future Perspective

20 March 2025 | 10.00 – 11.00

Venue: Pacifico Yokohama (Meeting Room: 315)

BACKGROUND

The **Asia Pacific region continues to face significant air pollution challenges**, with high levels of PM_{2.5} and other pollutants affecting human health, ecosystems, and economic productivity.¹ Pollution, including air pollution, is part of the triple planetary crises that are driving further damage to the environment and to people's health.

Cost-effective solutions to address air pollution exist and have been identified to address the major sources of air pollution. While the contribution of each source may vary depending on location, fossil fuel emissions from coal burning for power and heat, transport, industrial furnaces, brick kilns, agriculture, domestic solid fuel heating, and the unregulated burning of waste are considered the main sources of air pollution. In Asia Pacific, the report *Air Pollution in Asia Pacific: Science Based Solutions* by the United Nations Environment Programme (UNEP)'s Asia Pacific Clean Air Partnership (APCAP) and Climate and Clean Air Coalition (CCAC) have identified 25 policy and technological solutions to address the five key sectors contributing to air pollution in Asia Pacific.² These solutions have been identified to provide multiple benefits for public health, agriculture, and the climate.

There has been progress made by countries in taking key actions to significantly improve air quality, including these 25 solutions.³ According to the State of Global Air 2024, regions including South Asia, Southeast and East Asia and Oceania, have seen reductions in PM_{2.5} exposures in the last two decades.⁴ Similar results were described in the United Nations Statistics Division (UNSD)'s 2024 Sustainable Development Goals Report which mentioned that air quality improvements are possible through international cooperation and multisectoral actions.⁵

Much headway has been achieved in Asia Pacific with the adoption of the Asia-Pacific Regional Action Programme on Air Pollution (RAPAP) in 2022 during the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP)'s Committee on Environment and Development. The Asia Pacific Clean Air Partnership (APCAP) continues to provide technical assistance to facilitate adoption of the 25 clean air measures. Adoption of a new Roadmap on the ASEAN Cooperation towards Transboundary Haze Pollution Control with Means of Implementation 2023-2030.⁶ The EANET, an intergovernmental network working on acid deposition and air pollution issues for over 20 years, has expanded its scope and partnership engagement in 2023.

¹ State of Global Air 2024.

² <https://wedocs.unep.org/handle/20.500.11822/26861>

³ <https://www.unep.org/topics/air/multi-level-air-quality-management/actions-air-quality-report-update>

⁴ State of Global Air 2024.

⁵ https://unstats.un.org/sdgs/report/2024/extended-report/Extended-Report_Goal-11.pdf

⁶ https://hazeportal.asean.org/media_release/media-release-of-17th-asean-ministerial-meeting-on-the-environment-and-18th-meeting-of-the-conference-of-the-parties-to-the-asean-agreement-on-transboundary-haze-pollution/

Despite some progress, challenges remain, including policy enforcement gaps, resource constraints, and the need for stronger science-policy and multisectoral integration. Low- and middle-income countries account for 93% of premature mortality caused by air pollution, mainly in Asia and Africa.⁷ Air pollution work remains woefully underfunded.⁸ In addition to health impacts, it is also linked with climate change and impacts food insecurity, among others. Short-lived climate pollutants, such as black carbon and methane, pose a dual threat by harming human health and contributes to near term warming, emphasizing the urgency of comprehensive and integrated solutions. There is also evidence that air pollution is affecting crop production in many of the world's key agricultural areas, including those in Central Africa, Pakistan, India, China and South-East Asia.⁹

Looking ahead, continued strong and transformative action is needed as the World Economic Forum (WEF)'s Global Risks Report 2025 cautions that environmental risks, including pollution, are expected to dominate the risk landscape in the next decade.¹⁰ Some of the recommended actions include strengthening regulatory frameworks and unlocking ambitious financing, especially for technological solutions. It would also benefit to focus resources on synergistic actions that bring multiple benefits as many Sustainable Development Goals and climate targets are off-track and under-funded. Improving air quality has been identified as one of these 'synergy solutions', as it can deliver benefits for health, climate, and socio-economic development.¹¹

Regional cooperation will be vital to help address these challenges. The important role of regional cooperation has been emphasized by member states at the Sixth Session of the UN Environment Assembly (UNEA-6) adopted a resolution on *Promoting regional cooperation on air pollution to improve air quality globally*.¹²

OBJECTIVES

The session aims to:

- Highlight successes in reducing air pollution or improving air quality management through regional cooperation mechanisms
- Identify existing gaps and challenges to address air pollution that could potentially be supported through regional cooperation
- Understand emerging developments that may affect clean air action in the coming years
- Launch the Regional Action Programme on Air Pollution (RAPAP)'s Online Coordination Platform

SESSION STRUCTURE

Session moderator: Ms. Kaye Patdu, Associate Programme Officer – APCAP, UNEP Asia Pacific Office

Time	Items
10.00 – 10.05 (5 minutes)	Introduction of the Session and Panelists by the moderator
10.05 – 10.35 (30 minutes)	Setting the scene: <ul style="list-style-type: none">• UNEP's strategy to improve air quality Presentation by Ms. Soraya Smaoun, Air Quality Coordinator, Pollution and Health Unit, UNEP (15 minutes) (recording)

⁷ https://unstats.un.org/sdgs/report/2024/extended-report/Extended-Report_Goal-3.pdf

⁸ <https://www.cleanairfund.org/resource/air-quality-funding-2024/>

⁹ <https://library.wmo.int/records/item/68653-the-impacts-of-particulate-matter-on-crop-yield-mechanisms-quantification-and-options-for-mitigation>

¹⁰ <https://www.weforum.org/publications/global-risks-report-2025/>

¹¹ United Nations (2023c). *Synergy Solutions for a World in Crisis: Tackling Climate and SDG Action Together*.

¹² UNEP/EA.6/Res.10 - Promoting regional cooperation on air pollution to improve air quality globally <https://www.unep.org/environmentassembly/unea6/outcomes> (Accessed: July 2024).

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- **Launch of RAPAP Online Coordination Platform** | Presentation by **Mr. Anshuman Varma**, Economic Affairs Officer, ESCAP (15 minutes)
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10.35 – 11.00
(25 minutes)

Part 1: Air Pollution in Asia and the Pacific: Science-based Solutions – Achievement, Remaining Challenges and Future Perspective

5 minutes per
speaker

Interventions from Invited Speakers

1. **Ms. Siwaporn Rungsiyanon**, Pollution Control Department, Thailand
2. **Mr. Raksmey Yim**, Deputy Director, Air Quality and Noise Management Department, Ministry of Environment, Cambodia
3. **Ms. Bounmany Soulideth**, Deputy Head of Modelling Division, Natural Resources and Environment Research Institute, Ministry of Natural Resources and Environment, Lao PDR
4. **Dr. Toshihiko Takemura**, Distinguished Professor, Kyushu University
5. **Ms. Dang Espita-Casanova**, Associate Program Director, Clean Air Asia

Guide questions:

[For the panelists from governments] [speaker #1, #2, and #3]

1. How have regional cooperation initiatives, such as APCAP and RAPAP, supported in advancing clean air action in your country or in the sub-region? What types of support have been most useful?
2. What are the remaining or emerging challenges on air quality management in Asia Pacific that these regional cooperation initiatives could prioritize?

[For the panelists from research institutes] [speaker #4]

1. What has been the value of regional assessments, such as the “Air Pollution in Asia Pacific: Science-based Solutions” developed by leading scientists and researchers from the region, in science-policy interface?
2. Please share 1-2 recent scientific developments that the regional air quality community needs to focus on or consider for developing interventions?

[For the panelists from civil society organization] [speaker #5]

1. In what way do regional cooperation initiatives help advance the mission and work of your organization either at the local or international level?
2. What areas of work need to be further strengthened to scale up the adoption and implementation of clean air solutions? (such as cross-sectoral collaboration, financing, etc.)

11.00

Summary and closing by the moderator
