

EANET NEWSLETTER



ACID DEPOSITION AND AIR QUALITY MANAGEMENT
FROM DATA TO POLICY



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INTEGRATING LOCAL ACTIONS WITH REGIONAL EFFORTS TO FIGHT AIR POLLUTION

Since the beginning of 2024, the EANET has continued leading activities against acid deposition and air pollution through technical missions, monitoring, capacity-building, and outreach activities at both national and regional levels.

In February, UNEA-6 adopted a resolution boosting regional cooperation on air quality, directly mentioning EANET and its regional role. More recently, in May, EANET's Participating Countries initiated discussions on shaping its future with the preparation of the next Medium Term Plan (2026-2030), focusing on capacity-building, advanced technology, and robust data-sharing to tackle air pollution in Asia.

Curious about what took place in the past months and what is coming next? Discover more inside!



*By Bert Fabian
Coordinator, Secretariat for the EANET*

The challenges and complexities of air quality management were well covered at the EANET Regional Awareness Workshop co-organized with UNEP and ESCAP on 27-28 May 2024 appropriately titled “Unlocking and future-proofing air quality management in Asia”. The integration of the concept and use of foresight and horizon scanning for air quality management was quite interesting as it forces the stakeholders, particularly policymakers to think about the future, anticipate challenges, and how various factors, like economic growth, urbanization, motorization, climate change, social cohesion, agricultural practices, etc. can influence future air quality.

The challenges and complexities can be categorized into technical, institutional, enforcement, and financing issues. There are many technical issues including the influence of climate change on weather and other meteorological factors on air quality including higher incidences of forest fires; the monitoring of air quality using traditional ground-based monitors, passive sampling, use of low-cost sensors, and satellite-based monitoring; identification of sources using emission inventories and source apportionment with air quality forecasting and modeling to effectively inform authorities and policymakers, and warn citizens on severe air quality episodes; and identification and assessment of the impact on ecosystems and public health, especially to those who are most vulnerable like the infirmed, the poor, children, and senior persons.

Institutional and enforcement issues, perhaps more challenging than technical issues, are common, particularly in low- and middle-income countries (LMIC).

Having the right policies and institutional arrangements with proper coordination and collaboration is key to the development and implementation of policies and actions. In many cases, various agencies are implementing actions that are not well aligned which hinders progress in reducing air pollution. Financing issues are also a main challenge, especially as many LMICs have competing priorities on economic, social, and environmental issues. However, the challenges and complexities are not insurmountable, as shared by various organizations and experts. UNEP has conducted a review of air quality management successes in Beijing and more recently in the Seoul, Incheon, and Gyeonggi regions where air quality was successfully improved.

EANET is at a crossroads as it is starting to develop its next Medium-Term Plan for 2026-2030. As it has expanded its scope and established a project fund mechanism to encourage collaboration and mobilize resources in 2021, it now has an opportunity to develop a more agile and effective intergovernmental initiative that can help the governments of its Participating Countries in addressing the challenges and complexities of acid deposition and air quality management.





Nations re-affirm their engagement to improve air quality globally through a new resolution at UNEA-6



The 6th edition of the United Nations Environment Assembly (UNEA-6) took place from 26 February to 1 March 2024, at the UNEP headquarters in Nairobi, Kenya, gathering over 6,000 delegates. The Assembly adopted 15 resolutions, including a resolution on Promoting Regional Cooperation on Air Pollution to Improve Air Quality Globally.

The United Nations Environment Assembly (UNEA) was created in 2012, as an outcome of the United Nations Conference on Sustainable Development (Rio+20). UNEA is the world's highest-level decision-making body for matters related to the environment. Usually held every two years, the Assembly includes the universal membership of 193 Member States. It sets the global environment agenda, provides policy responses to environmental challenges, and provides strategic guidance on the future direction of the United Nations Environment Programme (UNEP), in line with the 2030 Agenda for Sustainable Development. UNEA has adopted many important resolutions over the years, including a resolution in 2022 that called for a legally binding international instrument to end plastic pollution.

Recognizing that air pollution is a major threat to the environment and to human health, with more than 7 million people dying prematurely due to air pollution every year, Member States adopted a resolution 1/7 on strengthening the role of the United Nations Environment Programme (UNEP) in promoting air quality at UNEA-1 in 2014. A second resolution was adopted at UNEA-3 in December 2017 on Preventing and reducing air pollution to improve air quality globally. Following the adoption of these two resolutions, UNEP implemented numerous activities creating awareness, and building capacity and partnerships. These included strengthening cooperation with existing regional and global initiatives such as the EANET, as mentioned specifically in resolution 1/7.

At UNEA-6, Member States adopted 15 resolutions aiming to tackle the triple planetary crisis of climate change, nature and biodiversity loss, and pollution and waste, including the resolution on Promoting Regional Cooperation on Air Pollution to Improve Air Quality Globally.



This new resolution builds on Resolutions 1/7 and 3/8 and encourages Member States to continue their efforts to improve air quality by working on national air quality programmes and standards, bearing in mind the WHO global air quality guidelines. In addition, Member States requested UNEP's Executive Director to form an air quality cooperation network to work with governments, UN organizations, multilateral environmental agreements (MEAs), international and regional initiatives, including the EANET.

This network's tasks will include raising awareness on air pollution's impacts and the importance of mitigation actions, supporting capacity building, and encouraging collaboration with Member States with advanced air quality management capabilities to enhance national monitoring using low-cost sensors, satellite data, and other digital solutions, sharing knowledge, facilitating expertise exchange including on nitrogen management, and regional air quality programs, and building an updated global online platform for information-sharing and communication on air quality.

Just as in Resolution 1.7, this latest Resolution directly references the EANET and its role alongside various other key regional air quality initiatives: "Acknowledging the progress achieved by existing bodies and initiatives that facilitate cooperation on in-country and transboundary air pollution, including the UNECE Convention on Long-Range Transboundary Air Pollution (...) and the Acid Deposition Monitoring Network in East Asia".

The EANET, as a robust regional intergovernmental body with standardized monitoring methodologies, already significantly contributes to UNEA Resolutions 1/7 and 3/8 on air quality. Since 2001, the network has developed open access to high-quality datasets through centralized and government-approved data collection, publishes Periodic Reports on Acid Deposition in East Asia, leads joint research projects, offers capacity-building activities to enhance its Participating Countries' technical capabilities, raises public awareness and strengthens cooperation with regional and global initiatives.

The EANET coordinates with other global and regional networks and initiatives to promote cooperation. In May-June 2024, the EANET, together with UNEP and ESCAP, organized the Workshop "Unlocking and Future-Proofing Air Quality Management in Asia". The Workshop provided a venue for EANET National Focal Points to discuss the future direction of its network and inputs for the development of its next Medium Term Plan for 2026-2030.

Access the UNEA 6 resolution on [Promoting Regional Cooperation on Air Pollution to Improve Air Quality Globally](#)

Photo credits: UNEA-6, the Opening plenary of the MEA day, 28 February 2024, ©UNEP / Francis Kiguta on Flickr.



The Informal Meeting on the Initial Preparation of the Draft Medium Term Plan (2026–2030) for the EANET



The Informal Meeting on the Initial Preparation of the Draft Medium Term Plan (2026–2030) for the EANET was held at the United Nations Conference Centre in Bangkok, Thailand, on May 29, 2024, as a side event to the EANET Regional Workshop in 2024. The session brought together around 30 representatives from the 13 Participating Countries, UNEP, the Asia Center for Air Pollution Research (ACAP), and observers, to discuss the future direction of EANET.

Dr. Le Ngoc Cau, Deputy Director General of the Viet Nam Institute of Meteorology, Hydrology and Climate Change (IMHEN), welcomed participants. He emphasized the importance of reflecting on the current Medium Term Plan (MTP) and gathering inputs for the upcoming 2026–2030 plan, the need for input on priorities such as resource mobilization, and climate change impacts on air quality. Dr. Mushtaq Memon, Regional Coordinator for Chemicals and Pollution Action at the United Nations Environment Programme, Asia Pacific Regional Office highlighted the importance of regional cooperation on air pollution and stressed enhancing the science-policy interface and improving capacity building efforts.

Prof. Meng Fan, Deputy Director General at the Asia Center for Air Pollution Research, highlighted potential modifications in EANET's MTP and objectives, potential future expansions including nitrogen management, climate change, VOC and ozone monitoring, and the importance of new technologies and aligning activities with policy objectives.

Representatives from the EANET Participating Countries shared a wide range of suggestions and insights for the next Medium Term Plan.

Among these suggestions, participants emphasized the need to improve the evaluation of air quality data to better inform policy decisions. There was a call for strengthening the coordination between various stakeholders, including government agencies and research institutions. Improving the digital infrastructure to support more effective data collection and analysis was also suggested.

Many countries stressed the importance of ongoing capacity-building initiatives to enhance the skills and knowledge of professionals involved in air quality monitoring and management, in particular targeting lower-income countries. Suggestions included developing more training programs and workshops including at the national and local levels. Additionally, the need for upgrading to new and more effective technologies for monitoring and data analysis was emphasized.

Several representatives pointed out the possibility of integrating climate change considerations into EANET’s activities. This could include assessing the impact of climate change on air quality and acid deposition patterns while ensuring such activities align with the Instrument and Annex for the EANET.

Increasing public awareness and mobilizing more resources was seen as vital. This includes campaigns to encourage participation in air quality improvement efforts and enhancing communication within national governments and between countries to promote EANET’s initiatives, while also developing strategies to mobilize more resources to support EANET’s activities in the future, through its Project Fund, among others.

The meeting set the stage for the development of a robust MTP for 2026–2030, focusing on understanding the Participating Countries’ needs and priorities, and enhancing EANET’s capacity to address air pollution and its impacts in Asia. Discussions on the preparation of the MTP for the EANET for 2026–2030 will continue during the Working Group meeting in 2024 (WG2024) to be held on 20 and 21 August 2024, and in EANET meetings next year and submission for approval of Participating Countries in November 2025.

Read the [Report of the Meeting](#) (available soon) and discover the meeting’s pictures on [Flickr](#).

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The Network Center for the EANET releases the Data Report 2022



Composed of data collected in 2022, comprising acid deposition and air pollution monitoring data endorsed by the Scientific Advisory Committee (SAC) end of 2023, the “Data Report 2022” and the “Report of the Inter-laboratory Comparison Project 2022” have been uploaded in open access on the EANET website.

In the context of the resolution on promoting regional cooperation on air pollution to improve air quality globally, adopted in UNEA-6 in March 2024, the importance of referring to high-quality data for air quality management has never been greater.

Covering, in 2024, the area of 13 countries, from Irkutsk (Russia) in the North to Lombok (Indonesia) in the South, Ochiishi (Japan) in the East, and Mandalay (Myanmar) in the West, the EANET’s total surface is extremely wide and diverse.

Since 1998 (during the preparatory phase activities of the Network), the EANET has deployed monitoring stations in urban, rural, and remote locations to monitor acid deposition and air pollution (in 2021, the EANET countries adopted an Annex defining monitored atmospheric environment-related substances). These monitoring sites gather high-quality data related to the deposition of major acidifying species and related chemical substances such as sulfate (SO₄²⁻), nitrate (NO₃⁻), hydrogen (H⁺) in precipitation, sulfur dioxide (SO₂), nitrogen dioxide (NO₂), ozone (O₃), and particulate matter (PM) in ambient air.

Monitoring data are used to evaluate the state of acid deposition and air pollution as well as their impacts on ecosystems.

Data on the atmospheric wet deposition of acidic components and other relevant pollutants have for example been used to understand the impacts of pollution on forest ecosystems, such as for the study led by EANET scientists in the dry evergreen forest of Sakaerat, in Nakhon Ratchasima Province, in northeastern Thailand.

Monitoring activities carried out in 2021 are presented in the Data Report 2022 (published in December 2023) and available in open access online.

Over the years, EANET scientists and monitoring officers have improved the collective knowledge and skills of the Network, among others on the quality assurance and quality control (QA/QC) of the data. The Report of the Inter-laboratory Comparison Project is conducted each year among the EANET analytical laboratories, based on the quality assurance/quality control (QA/QC) programs of the Network. The objectives of this project are to recognize the analytical precision and accuracy of the measurement in each participating laboratory, to give further opportunities to improve the quality of the analysis, and to improve the reliability of analytical data through the assessment of suitable analytical methods and techniques.

EANET data is available for non-commercial use for scientists, researchers, students, mobile app developers, etc... and anyone who wishes to understand the state of acid deposition and air pollution in East Asia over the last two decades. By widely sharing data, EANET aims to improve the global knowledge on acid deposition, as well as to provide collaboration opportunities to improve public health and ecosystems’ restoration.

The “Data Report 2022” and the “Report of the Inter-laboratory Comparison Project 2022” are available in open access online, for non-commercial use only. Users may also access customized data, such as hourly, weekly, and bi-weekly data on wet and dry deposition monitoring, by registering on the monitoring portal.

[Download the “Data Report 2022” and the “Report of the Inter-laboratory Comparison Project 2022”](#)

Photo credits: [lake during golden hour](#) by Hendra Yudha Pratama, (2018), free of copyrights.

Advancing Atmospheric and Environmental Monitoring in Asia: Technical Missions Supporting EANET Countries in 2023 and 2024



The Asia Center for Air Pollution Research (ACAP), as the Network Center (NC) for the EANET, has undertaken a series of technical missions aimed at supporting EANET Participating Countries to conduct their monitoring activities, e.g. Wet and Dry Deposition of atmospheric pollutants, inland, soil & vegetation and catchment monitoring, and meteorological data. From Mongolia, Indonesia, Lao PDR, and Cambodia, these missions have sought to enhance environmental monitoring capabilities and facilitate collaboration among stakeholders.

In Mongolia, the technical mission took place from 12th to 19th November 2023 in Ulaanbaatar and focused on updating monitoring site information and providing advanced technical guidance on the analysis of ion chromatography results. Additionally, a new rain sensor was deployed to enhance data accuracy.

Meetings with the National Agency for Meteorology and Environmental Monitoring (NAMEM), the Central Laboratory of Environment and Meteorology (CLEM), the German-Mongolia Institute for Resources and Technology (GMIT), and the National University of Mongolia took place and aimed at deepening the understanding of EANET activities, particularly in Volatile Organic Compounds (VOCs) monitoring. Successful training sessions on VOCs monitoring, utilizing the sorbent tubes method, were conducted to reinforce local capacities.

The technical mission in Indonesia took place from 11th to 16th December 2023 in Jakarta and Bandung, in partnership with the Secretariat for the EANET. It involved collaboration with laboratories affiliated with EANET activities.

Visits were made to key institutions such as the Ministry of the Environment and Forestry, PSILKH Serpong, BMKG Jakarta, and BRIN Bandung, where technical guidance was provided, and feedback was collected. Discussions revolved around potential institutional arrangements to strengthen EANET implementation in Indonesia, promoting improved coordination and efficiency in environmental monitoring. During the mission, the NC representatives also met with the ASEAN Secretariat to discuss possible collaboration opportunities.

In Lao PDR, the technical mission took place in Vientiane, from the 11th to 15th December 2023. A visit was made to the Natural Resources and Environment Research Institute (NRERI), Ministry of Natural Resources and Environment (MONRE). It included a comprehensive assessment of monitoring infrastructures and procedures. Maintenance work was undertaken on monitoring equipment, including the Wet-Only sampler and Filter Pack, to ensure precise data collection. Technical guidance was shared on inspection procedures and analytical methodologies, particularly focusing on ion chromatography. Additionally, knowledge exchange through meetings and discussions on EANET activities facilitated enhanced collaboration among stakeholders.

The mission in Cambodia took place in Phnom Penh, from the 8th to the 12th of January 2024. It focused on sustaining continuous monitoring efforts for various pollutants. A visit was made to the Ministry of Environment, Cambodia, to provide maintenance and calibration of the ozone monitor, which was installed in 2019 through the IBAQ Programme, alongside training sessions to ensure effective ozone data reporting. Technical assistance was extended for repairing sampling systems and optimizing ion chromatography procedures, thereby strengthening the country's capacity for environmental monitoring.

The NC for the EANET's technical missions across Mongolia, Indonesia, Lao PDR, and Cambodia have aimed at enhancing environmental monitoring capabilities and fostering collaboration among stakeholders. By providing specialized technical expertise and facilitating knowledge exchange, these missions significantly contribute to assisting Participating Countries' efforts to provide high-quality air quality monitoring data and improve technical capabilities in the Region. The NC will conduct more technical missions in 2024 to support other EANET Participating Countries.

Find out more about the [EANET monitoring sites](#) and download [EANET data](#).





EANET Regional Workshop 2024: Unlocking and Future-Proofing Air Quality Management in Asia

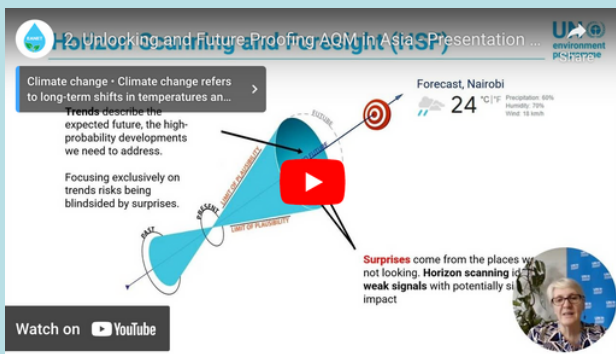


Focused on unlocking and future-proofing air quality management in Asia, the regional multi-stakeholder consultation workshop was held in Bangkok, Thailand, on May 27 and 28 2024. Co-organized by UNEP, ESCAP, and EANET, it aimed to improve multilateral and international cooperation on air pollution, drawing 212 participants from 32 countries, including representatives from academia, government, youth groups, NGOs, the private sector, and UN agencies.

Ms. Maria Cristina Zucca, Head of the Pollution and Health Unit at UNEP opened the workshop. She stressed the health risks of air pollution, causing 6.5 million deaths annually, mainly in Asia-Pacific. She urged for robust action and multilateral cooperation, citing the UNEA-6 resolution on promoting regional cooperation on air pollution.

Dr. Sangmin Nam, Director of the Environment and Development Division at ESCAP, highlighted the public health impact in Asia-Pacific and emphasized the importance of regional technical cooperation through RAPAP. Dr. Le Ngoc Cau, Deputy Director General of the Viet Nam Institute of Meteorology, Hydrology, and Climate Change, and Chair of the Bureau of the 25th Intergovernmental EANET Meeting emphasized the significance of EANET and called for continued regional cooperation to advance air quality management, including monitoring additional pollutants.

Transitioning to future-oriented strategies, Dr. Andrea Hinwood, Chief Scientist at UNEP, delivered a keynote presentation on the importance of horizon scanning and strategic foresight in air quality management. She stressed the interconnectedness of air pollution, climate change, and biodiversity, and how these factors collectively impact public health and the environment.



Watch Andrea Hinwood's presentation on [YouTube](#)

The workshop continued with experts from the World Health Organization, the World Meteorological Organization, the Thai Geo-Informatics and Space Technology Development Agency, and the Stockholm Environment Institute setting the scene on Air Quality Management in Asia.

Several strategies were proposed to effectively address air pollution. Firstly, the implementation of WHO guidelines on air pollution was advocated, with aims to save lives, disseminate knowledge, establish standards, promote dialogue, and contribute to climate action. Secondly, leveraging both Low-Cost Sensors and satellite data was suggested to bridge gaps in atmospheric monitoring. This approach could support existing monitoring networks and prioritize early warning systems for events such as Dust and Sand Storms (DSS) wildfires, and overall air quality. Thirdly, enhancing air pollution monitoring using satellite data was recommended, with a comprehensive approach that included mapping, monitoring, modeling, and measuring. Additionally, integrating data from various spheres such as the atmosphere, lithosphere, biosphere, and hydrosphere was proposed to gain a better understanding of air pollution dynamics. Collaboration with international organizations was also encouraged.

Finally, recognizing clean air as a fundamental human right was emphasized. Prioritizing data collection on areas and populations most affected by air pollution was deemed essential for targeted interventions and policy formulation.

A panel of experts from the Thailand Environmental Institute, the Food and Agriculture Organization, the World Meteorological Organization, the governments of Lao PDR, and Japan discussed the Transboundary Haze issue in Asia.

Key actions were emphasized in addressing haze pollution. Collaboration among ASEAN countries was deemed crucial to address transboundary haze pollution, with a focus on implementing regional initiatives such as the ASEAN Haze-Free Roadmap. Engagement of various stakeholders beyond traditional forestry sectors, including agriculture and biodiversity sectors, was seen as necessary to address land-clearing practices. Developing robust warning systems like the WMO's Vegetation Fire and Smoke Pollution Warning Advisory and Assessment System was considered vital, alongside enforcing national laws and fostering regional cooperation to combat haze pollution effectively. Prioritizing sustainable land and forest management, particularly in regions like the Mekong countries, was highlighted as essential to prevent large-scale fires. Providing financial support for projects addressing air quality management and ensuring scientific findings translated into actionable solutions through community engagement and implementation-focused initiatives were both emphasized.



The session on unlocking financial resources for clean air initiatives brought together experts from various organizations including UNEP, the Clean Air Fund, representatives from the governments of the Republic of Korea, Japan, and Mongolia, the World Bank, and the Massive Earth Foundation.

National governments were advised to establish robust legal and policy frameworks and secure long-term funding for air quality initiatives. Government support, societal investment in environmental efforts, substantial funding mechanisms, and private sector involvement were deemed crucial. Learning from examples such as Mongolia, considering the environmental impact of small businesses, and raising awareness through NGOs was recommended. Regional cooperation, international funding channels, and domestic commitments to funding air quality projects were seen as essential. Climate action presented opportunities for industrial innovation. Reforming vehicle tax systems to prioritize mileage and emissions over vehicle type, inspired by successful reforms in Europe, could fund clean air initiatives.

Juliette Laurent from the Climate and Clean Air Coalition (CCAC) emphasized the importance of assessment, political support, and future planning for air quality management, introducing the CCAC's Air Quality Management Exchange (AQMx) initiative.



The final session of the workshop addressed future challenges and potential solutions in air quality management. Experts from UNEP, the governments of Japan, the Republic of Korea and Thailand, and ESCAP, participated in this session.

The discussions emphasized regional and subregional bodies, as well as financing institutions, to develop and implement regional solutions and cooperate on setting goals for air quality improvement, as outlined in UNEA Resolution 6/10. Panelists underscored the need for essential resource mobilization and tailored regional solutions to achieve significant air quality improvements. Strengthening international and regional collaboration through platforms such as RAPAP, EANET, and the Asia Pacific Clean Air Partnership (APCAP) was recommended, focusing on knowledge sharing, capacity building, and joint research projects. It was also suggested to promote greater regional coherence and harmonization towards cleaner air, leveraging cooperative channels, and addressing regional ozone pollution. Prioritizing technology and innovation, improving data accuracy for public communication, and fostering international and regional cooperation were highlighted as essential for effectively combating air pollution. Leveraging geospatial data, ground-based sensors, digital technology, AI, promoting sustainable agriculture practices, and fostering cross-border collaboration were also recommended strategies.





The sessions on 28 May focused on the Regional Action Programme on Air Pollution (RAPAP) which was adopted by ESCAP member States at the 7th Committee on Environment and Development in 2022, and subsequently endorsed by ESCAP resolution (79/6). RAPAP provides a framework or reference for national, subregional, multilateral, and multistakeholder mechanisms to advance their cooperation agenda for clean air in the Asia Pacific region. The sessions aimed at exchanging information and updates on initiatives supporting regional clean air cooperation, identifying focus areas, and recommending actions to enhance collaboration and stakeholder contributions.

Experts from UN agencies, Development agencies, Foundations, the ASEAN, NGOs, research institutes, and Asian governments discussed opportunities for technical cooperation involving identifying training needs, sharing best practices, and promoting partnerships to tackle air pollution. Recommendations for accelerating regional cooperation were discussed, including developing coordinated strategies, enhancing air quality monitoring and technical assistance, and improving communication and stakeholder engagement.

Useful Resources:

- View the [Concept Note and Programme](#)
- [View the speakers' presentations](#)
- Read a more detailed summary of the workshop's content in the [Event Report](#), including the summary of 27 May, the survey results, and the Participants' List.
- View the Workshop's recordings (27 May only) on [YouTube](#)
- View and download the [photos on Flickr](#)

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Highlights from the EANET National Stakeholder Awareness Workshop in Cambodia



The EANET National Stakeholder Awareness Workshop in Cambodia – Understanding Air Pollution and its Sources, Weather, Climate, and Topography in Cambodia, was held in Phnom Penh, Cambodia, on 19 March 2024, in partnership with the Ministry of Environment, Cambodia, and the United Nations Environment Programme (UNEP), back-to-back with UNEP’s Cambodia Clean Air and Sustainable Transport Workshop, held on 18-19 March. About 30 participants joined the Workshop. The workshop aimed to promote the EANET’s achievements, gain insight into Cambodia’s specific needs related to air quality management, and foster the development of additional initiatives to assist in addressing acid deposition and air pollution.

The meeting started with Opening Remarks from Dr. Chou Monidarin, Deputy Director General of the General Directorate of Environmental Protection, Ministry of Environment Cambodia, and the National Focal Point of Cambodia for the EANET, followed by an introduction to the EANET and to the objectives of the meeting by Mr. Bert Fabian, Coordinator, Secretariat for the EANET. Prof. Meng Fan, Deputy Director General of the Network Center for the EANET, the Asia Center for Air Pollution Research (ACAP) then presented the activities of the EANET on air quality and acid deposition management, air pollution trends in the region, and the main activities of the EANET including monitoring, capacity building and technical support to Participating Countries.



Mr. Chandath Him outlined Cambodia's air quality, citing primary pollution sources as older vehicles and industrial plants. With over 6.6 million registered motorcycles and cars since 1990, along with 1,859 operational industrial plants, pollution also stems from construction activities and agricultural practices. He highlighted the significance of airborne dust due to unpaved streets and construction and discussed ongoing initiatives on monitoring like satellite projects and Low-Cost Sensors (LCS). Cambodia is updating its air pollution laws, including new vehicle emission standards, fines, and industry controls, with Euro 5/V standards enforced from January 2027. He introduced Cambodia's Clean Air Plan, analyzing pollutants and proposing mitigation measures to reduce air pollution and combat climate change, aiming for integrated planning and coordinated management efforts.

Dr. Chanmoly OR, Director of the Research and Innovation Center at the Institute of Technology of Cambodia presented an analysis of the complex interplay between topography, weather, and air pollution in Cambodia. Favorable wind circulation aids in pollutant dispersion, while factors including humidity, temperature, and precipitation also influence air quality. The presentation underscored the need for comprehensive research to understand pollution sources better coming mainly from the the transport and construction sectors in urban areas and from open-burning and agriculture, in rural areas, including emerging concerns such as microplastic particle pollution.



Dr. Anantaa Pandey outlined the Global Green Growth Institute's (GGGI) efforts to enhance air quality in Cambodia, focusing on emissions inventories, public transportation improvement, and capacity building. The program aims to address challenges such as equipment maintenance, expand monitoring infrastructure, and develop emission control strategies tailored to Cambodia's context.

The discussion segment saw active participation from experts and policymakers, emphasizing the urgency of addressing air pollution through multifaceted strategies. Participants highlighted the importance of upgrading vehicle emission standards, promoting cleaner fuels, and regulating industrial emissions. Challenges such as economic constraints and the high cost of fuel upgrades were acknowledged, with suggestions for phased transitions and international support.

The EANET meeting concluded with a consensus on the need for concerted efforts to combat air pollution in Cambodia. Key takeaways included the importance of robust monitoring infrastructure, innovative solutions tailored to local contexts, and international collaboration. The meeting underscored the critical role of initiatives like EANET in guiding Cambodia towards a cleaner and healthier future.

Useful Resources

- [Access the Panelists' Presentations](#)

Photo credits: cover photo of Phnom Penh (2022) by allPhoto Bangkok, group photo by Clean Air Asia.



National Stakeholder Awareness Workshop in China: Promoting Acid Deposition and Air Quality Management in East Asia



The EANET National Awareness Workshop in China: Promoting Acid Deposition and Air Quality Management in East Asia was held on 18 October 2023 at Fudan University in Shanghai, China, and online, as a side event of the First International Conference on Chemical Weather and Chemical Climate (CWCC2023). The Workshop was co-organized by EANET and Fudan University and was joined by 50 participants.

Mr. Zhou Jun, Director of the Asian, African, and Latin American Affairs Division of the Department of International Cooperation of the Ministry of Ecology and Environment, P.R. China, and EANET National Focal Point, delivered the opening remarks. He emphasized EANET's two-decade journey in building a strong network and China's commitment to its collaboration.

China places high importance on EANET as a platform for expertise and knowledge-sharing and has actively supported its scope expansion. China has declared a "war" on air pollution and achieved a 57% reduction in average PM2.5 concentrations from 2013 to 2022 while doubling its GDP. Mr. Zhou Jun expressed China's willingness to continue supporting EANET and collaborate for atmospheric environmental protection.

Prof. Xu Tang, from Fudan University, welcomed participants to the EANET side event at the First International Conference on Chemical Weather and Chemical Climate (CWCC2023). He explained the event's focus on showcasing EANET and fostering collaboration, aligning with CWCC2023. Prof. Xu highlighted ongoing discussions about cooperation between EANET and Fudan University, particularly in capacity-building efforts.



Mr. Bert Fabian, Coordinator of the Secretariat for the EANET, outlined the workshop's goals. He emphasized the connection between air pollution and climate change and the valuable opportunity for EANET to collaborate with Fudan University, which works closely with the World Meteorological Organization (WMO) and MAP-AQ. EANET has a strong history of monitoring acid deposition and air pollutants and providing high-quality data, and the Awareness Workshop aims to enhance interaction among researchers, scientists, and policymakers in China and beyond for the benefit of EANET Participating Countries and partners.

Dr. Meihua Zhu of the Asia Center for Air Pollution Research (ACAP) discussed EANET's evolution from the 1990s to its formal establishment in 2001, the adoption of the Instrument in 2012, and scope expansion in 2021. She highlighted EANET's crucial role in policy development, data collection, annual Data Reports, and Periodic Reports on Acid Deposition in East Asia. Dr. Zhu also emphasized the availability of high-quality data on the EANET website. She introduced the Project Fund mechanism and its funded projects in 2023 and 2024. Dr. Zhu underscored EANET's intergovernmental and cooperative approach in advancing shared knowledge and enhancing air quality in East and Southeast Asia.

Dr. Siyuan Liang of the China National Environmental Monitoring Centre (CNEMC), the National Center for EANET in China, presented China's acid deposition and air quality management over recent years. In 2021, PM_{2.5} levels in cities at the prefecture level or above in China dropped from 46 $\mu\text{g}/\text{m}^3$ in 2015 to 30 $\mu\text{g}/\text{m}^3$, with significant reductions in PM_{2.5}, SO₂, NO₂, and CO concentrations from 2013 to 2022. She highlighted 1,000 acid monitoring sites in 469 cities, including Chongqing, Lijiang, Wuzhishan, Xiamen, Xi'an, and Zhuhai sites, part of the EANET network, and highlighted the reduction in acid deposition pollution since 2005. Dr. Liang also presented the various advanced monitoring methods and big data platforms in use in China. She ended her presentation by mentioning the importance of further enhancing monitoring data for environmental management, covering various pollutants to aid decision-making.

Dr. Yangxi Chu from the Chinese Research Academy of Environmental Sciences (CRAES) presented China's impressive air quality improvements over the last decade. Key achievements include stricter air pollution policies, enhanced vehicle emissions standards, clean residential heating, and joint air pollution prevention and control. Dr. Chu outlined China's 2025 air quality goals and highlighted the role of science and technology in policymaking. He mentioned the National Joint Research Center for Air Pollution Control and its collaborative network, to recognize the main PM_{2.5} sources and to complete the "last mile" of scientific and technological applications to the ground. Dr. Chu showcased China's substantial reduction in PM_{2.5} concentration nationwide and in Beijing, realizing air quality improvement as well as economic development.



Dr. Wei Wan from Clean Air Asia, China Office, discussed China's journey toward cleaner air, emphasizing significant reductions in air pollutants from 2013 to 2021. She highlighted the successful balance between economic growth and air quality, attributed to revised air quality standards in 2012, among other policies.

Dr. Syarif Romadhon from Indonesia's National Research and Innovation Agency (BRIN) emphasized the importance of EANET's collaboration and admired China's example of economic development while reducing air pollution.

Professor Gantuya Gambat from the German-Mongolian Institute for Resources and Technology expressed appreciation for EANET's efforts for uniting scientists and policymakers in particular through the EANET Project Fund activities.

Professor Greg Carmichael, from the University of Iowa, USA, and Chair of the Scientific Steering Committee of WMO-GAW, highlighted the significance of EANET from the perspectives of the World Meteorological Organization (WMO) and the Global Atmosphere Watch (GAW). He emphasized the importance of monitoring acid deposition in East and Southeast Asia and the collaboration between GAW and EANET. Professor Carmichael expressed gratitude for EANET's data access and emphasized the need for relevant intercomparison models and emission projections.

Dr. Shiro Hatakeyama, DG at ACAP, delivered the Closing Remarks. He highlighted EANET's two-decade experience in addressing acid deposition and improving air quality. Dr. Hatakeyama credited the collaborative efforts of the 13 Participating Countries for significant improvements in the atmospheric environment. He expressed admiration for the rapid enhancement of air quality in China and emphasized EANET's contribution to bettering the atmospheric environment in East Asia. In 2021, EANET expanded its scope to include atmospheric environmental pollutants including ozone and PM2.5, recognizing that controlling these pollutants can yield co-benefits for human health, global warming, and climate change mitigation. Dr. Hatakeyama mentioned the Project Fund mechanism, fostering collaboration beyond the Participating Countries, and expressed hope for extended cooperation.

Useful Resources:

Read the Panelists' Presentations:

- 30 Years of Acid Deposition Monitoring Network in East Asia (EANET) and Its Future Direction, [by Dr. Zhu](#)
- Status and prospects in acid deposition monitoring and air quality monitoring in China, [by Dr. Liang](#)
- Air Quality Improvement and Science & Technology Development in China during the Last Decade, [by Dr. Chu](#)
- China's 10-year Path Towards Cleaner Air – an Asian Perspective, [by Dr. Wan](#)

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Assessing Emissions Inventories and Source Apportionment in Southeast Asia: Second Meeting of the EANET Project



On May 29, 2024, the Secretariat for the EANET organized the project meeting “Emissions Inventories and Source Apportionment of Air Pollution in Southeast Asia” at the United Nations Conference Center in Bangkok in collaboration with the Asian Institute of Technology Regional Resource Centre for Asia and the Pacific (AIT-RRC.AP), as a side event to the EANET Regional Workshop in 2024, bringing together 28 participants from various countries and organizations.

Following a first kick-off meeting organized in April 2024, this second meeting of this project aimed to share updates on emissions inventories (EI) and source apportionment (SA) studies across Southeast Asia, which are crucial for understanding and managing air pollution in the region.

Representatives from government agencies, academic institutions, and international organizations including the Ministry of Environment, Cambodia; the Institute of Global Climate and Ecology (IGCE), Russia; the French Centre Interprofessionnel Technique d'Etudes de la Pollution Atmosphérique (CITEPA); Clean Air Asia (CAA); the Bandung Institute of Technology (ITB), Indonesia; the Universiti Kebangsaan Malaysia (UKM); King Mongkut's University of Technology Thonburi (JGSEE-KMUTT); the Asia Center For Air Pollution Research (ACAP) and the Children and Youth Major Group to UNEP (CYMG) joined the meeting. Participants discussed the current state of EI and SA, identified challenges, and explored potential solutions for harmonizing data collection and methodology.

Mr. Bert Fabian, EANET Coordinator, opened the session by emphasizing the project's significance, which seeks to compile and assess EI and SA studies to support policy formulation in Southeast Asia. Dr. R. L. Verma from RRC.AP presented a survey-based assessment of institutional capabilities in the region. His findings revealed that while most countries have designated agencies for EI, there are significant gaps in specific regulations and resources. Dr. Truong Thi Huyen from AIT presented updates on the analytical framework for assessing EI and SA development in Southeast Asian countries, highlighting key findings, compilation strategies, and the next steps with an expected timeframe.

A key takeaway from the discussions was the necessity for a harmonized approach to developing and sharing EI and SA data. Participants highlighted the role of governments in overseeing data collection and ensuring its accessibility. They also noted the importance of local emission factors and the involvement of academic institutions in developing these factors.

The meeting featured two panel discussions. The first panel focused on experiences from EANET Participating Countries, while the second addressed challenges in harmonizing EI and SA methodologies and data collection. Experts from various organizations shared insights on engaging government participation, ensuring data quality, and formulating effective policies. The project meeting underscored the critical need for regional cooperation and effective data management to tackle air pollution challenges in Southeast Asia.

In his closing remarks, Mr. Fabian thanked the participants for their active engagement and emphasized the next steps, including further collaboration and capacity building to address air pollution in Southeast Asia.

The project Stocktaking and Methodological Assessment of Emissions Inventories and Source Apportionment of Air Pollution in Southeast Asia is being conducted with the support of the EANET Project Fund.

[View the meeting's photos.](#)

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Kick-off Meeting – Stocktaking and Methodological Assessment of Emissions Inventories and Source Apportionment of Air Pollution in Southeast Asia



The Secretariat for the Acid Deposition Monitoring Network in East Asia (EANET) and the Asian Institute of Technology – Regional Resource Centre for Asia and the Pacific (AIT RRC.AP), organized the kick-off meeting of the project “Stocktaking and Methodological Assessment of Emissions Inventories and Source Apportionment of Air Pollution in Southeast Asia” on 26 March 2024 in Bangkok, Thailand. The objective of the meeting was to better understand the emissions inventories and source apportionment situation in the countries of Southeast Asia and discuss with project partners and experts the framework for metadata analysis and project ideas on emission inventories and source apportionment studies in the region. Representatives from the National Air Emission Inventory and Research Center (NAIR) in Korea, the Environmental Management Bureau (EMB) of the Department of Environment and Natural Resources (DENR) in the Philippines, the International Institute for Applied Systems Analysis (IIASA),

the Centre Interprofessionnel Technique d’Etudes de la Pollution Atmosphérique (CITEPA), the Stockholm Environment Institute (SEI), Clean Air Asia (CAA), the Bandung Institute of Technology in Indonesia, Universiti Kebangsaan Malaysia, the Asia Center For Air Pollution Research (ACAP), the Regional Resource Center For Asia and the Pacific (RRC.AP), the Asian Institute of Technology (AIT) in Thailand, the United Nations Environment Programme (UNEP), and the EANET Secretariat attended the meeting with a total of 28 participants.

Dr. Mushtaq Memon from UNEP opened the meeting, and, in his remarks, he stressed the importance of regional mechanisms like EANET for addressing air pollution. He highlighted the need for emission inventories, supportive policies, air quality standards, stakeholder engagement, and public awareness.



Experts from the EANET region and Europe presented use cases on emission inventories and source apportionment in different settings.

Dr. Ekbordin Winijkul from AIT discussed Thailand's emission inventory experience, emphasizing an integrated approach to air quality management, and outlining the plans for the Thailand National Emission Inventory project. Dr. Jongmin Joo from NAIR introduced the Clean Air Policy Support System (CAPSS) and the Republic of Korea's National Emissions and Air Quality Assessment System (NEAS), detailing their methodologies and their integration into policymaking and governmental acknowledgment. Mr. Jundy del Socorro from EMB, Philippines, discussed emission inventory development, highlighting methodologies and regional contributions to air pollutants, as well as introducing the Philippines' Integrated Information System (IIS) for data coordination.

Dr. Zbigniew Klimont from IIASA presented the Greenhouse Gas Air Pollution Interactions and Synergies (GAINS) model, emphasizing its use in assessing emission control strategies' cost-effectiveness and showcasing case studies in Asia. Dr. Sophie Moukhtar from CITEPA discussed emissions inventories under the Convention on Long-Range Transboundary Air Pollution (CLRTAP), emphasizing their importance and reporting obligations.

Dr. Chris Malley from SEI presented the Long-range Energy Alternatives Planning Integrated Benefits Calculator (LEAP-IBC) for integrated air pollution and climate change mitigation assessment, while Mr. Enrique Mikhael Cosep from CAA discussed emission inventories and source apportionment challenges in Asia.

Dr. Jun-ichi Kurokawa from ACAP presented the EANET's activities related to emission inventories and source apportionment, highlighting ongoing projects.

The project kick-off meeting continued with discussions among participants on how to develop a relevant framework for metadata analysis of the studies in Southeast Asia.

Dr. Ram Lal Verma from AIT RRC.AP provided an initial review of existing emission inventories in Southeast Asian countries, highlighting available research studies and developed inventories in several countries in the region. Dr. Nguyen Thi Kim Oanh from AIT discussed the meta-analysis of emission inventory and source apportionment databases in Southeast Asia, proposing a framework and sharing database templates. Participants expressed insights on follow-up activities and projects of EANET, emphasizing the need to avoid duplication of work and standardize frameworks for emission inventories and source apportionment methodologies. It was agreed that government involvement is crucial for data collection and quality assurance when developing emission inventories. Participants stressed the necessity of regional mechanisms to harmonize emission inventories' methodologies and processes. Source apportionment studies were noted as important but lacking in ASEAN countries, requiring capacity building and resources. Volatile Organic Compound speciation and Greenhouse gas emissions' emission inventories processes were suggested for inclusion in the meta-analysis. Finally, lessons from the European Union's common frameworks for emission inventories were discussed as an important model to consider for the ASEAN region.

The project Stocktaking and Methodological Assessment of Emissions Inventories and Source Apportionment of Air Pollution in Southeast Asia is being conducted with the support of the EANET Project Fund.

[View the meeting's photos.](#)

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Sustainable Nitrogen Management Seminar: Experts Convene to Address Global Challenges



As a pre-seminar to UNEA-6, the Sustainable Nitrogen Management Seminar, addressed the significant yet underrepresented issue of nitrogen management in Asia and globally, and provided a platform for EANET Participating Countries to enhance their understanding of the nitrogen challenge. Organized virtually by EANET, with the support of the Ministry of the Environment, Japan, through the EANET Project Fund, the Seminar gathered around 100 participants. It aimed to explore strategies for sustainable nitrogen management through experts' lectures and discuss the accumulation of nitrogen data within the EANET framework. The seminar, facilitated by Ms. Aurélie Lemoine (Session 1) and by Bert Fabian (Session 2) from the Secretariat for the EANET, started with an opening address by Mr. Yu Kamei, Director for International Cooperation at the Ministry of the Environment, Japan.

Dr. Ning Liu, Programme Management Officer, Source to Sea Pollution Unit, UNEP, presented updates on the UNEP Working Group on Nitrogen, highlighting the importance of collaborative efforts in addressing nitrogen-related challenges. Prof. Kentaro Hayashi, Professor, at the Research Institute for Humanity and Nature, Japan emphasized the interconnectedness of nitrogen issues with the atmosphere and the overall narrative surrounding nitrogen management.

Dr. Wilfried Winiwarter, a Senior Research Scholar from the Pollution Management Research Group, Energy, Climate, and Environment at the International Institute for Applied Systems Analysis (IIASA), Austria, presented the use of nitrogen budgets for sustainable management, highlighting comprehensive approaches to tackle nitrogen-related issues.

Dr. Kazuya Nishina, a Senior Researcher at the Earth System Division (Biogeochemical Cycle Modeling and Analysis Section), from the National Institute for Environmental Studies (NIES), introduced the Japan Nitrogen Waste project, underlining the importance of national inventories in understanding nitrogen dynamics. Dr. Hiroyuki Sase, Head of the Ecological Impact Research Department, ACAP, presented the potential of EANET in contributing to sustainable nitrogen management, emphasizing the importance of monitoring nitrogen cycles comprehensively. Dr. Le Ngoc Cau, Deputy Director General, Viet Nam Institute of Meteorology, Hydrology and Climate Change (IMHEN), Ministry of Natural Resources and Environment Viet Nam, highlighted efforts in Viet Nam to identify and control nitrate pollution in water bodies, reflecting the global significance of nitrogen management.

The seminar featured Q&A sessions, where participants raised questions regarding the implications of ammonia as a new fuel and the role of nitrogen in European farming practices. Discussions revolved around the need for enhanced collaboration and the significance of localized approaches in nitrogen management strategies.

Wrapping up Part I, Prof. Hayashi emphasized the pivotal role of EANET in addressing atmospheric aspects of nitrogen management, stressing its direct and indirect contributions to sustainable practices. Dr. Sase concluded Part II by highlighting EANET's extensive data accumulation efforts, emphasizing its potential to understand nitrogen flows comprehensively. Experts reiterated the importance of EANET's role in nitrogen management, emphasizing the need for continued collaboration and data-driven approaches.

Find out more about the EANET [Project Fund](#)

Useful Resources

Read the [Panelists' Presentations](#)

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Advancing Emission Inventory Management for Combustion Sources: Insights from the EANET Workshop

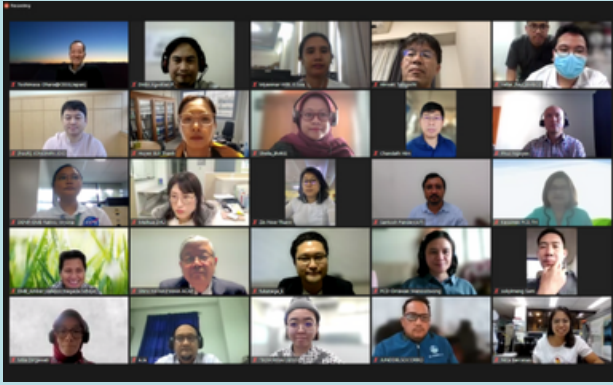


The Network Center for the EANET organized a virtual Emission Inventory Workshop on Combustion Sources on December 11, 2023. The event featured expert lectures and brief participant presentations. The first session covered key topics such as the importance of emission inventory in managing atmospheric environmental issues, methodologies for estimating emissions from stationary sources and the transportation sector, and the framework of national emission inventory. Participants also shared the status and pertinent data on emissions from combustion sources in their respective countries and discussed ideas for EANET's involvement in addressing combustion emissions. Approximately 60 participants attended the workshop.

Dr. Toshimasa Ohara from the Center for Environmental Science in Saitama, Japan delivered a lecture on the significance of emission inventories in managing atmospheric environmental issues.

The presentation began with an overview of air pollution status and historical trends of emissions in East Asia. It then covered fundamental aspects of emission inventories such as estimation methodologies, types, target species, and their role in atmospheric environmental management. Additionally, examples were provided on how emission inventories are applied, including assessing the impacts of control measures and utilizing them as input data for air quality model simulations.

Dr. Jun-ichi Kurokawa, from the Asia Center for Air Pollution Research, delivered two lectures. The first focused on methodologies for estimating emissions from stationary sources. It began with an introduction to the basic principles of developing emission inventories and included examples of calculating emissions from a coal-fired power plant.



The lecture then detailed the actual procedures for estimating emissions, following the process flow of emission inventory development: defining scope and structure, designing methodology, collecting necessary data (e.g. activity data, emission factors, and reduction rates), and finally calculating emissions and creating final products. A case study on the evaluation of emission controls for SO₂ in Japan was also presented. The second lecture covered various issues related to emission inventory, including methodologies for developing gridded emission data, evaluating uncertainties in emission inventories, and inverse modeling. Additionally, the lecture explored the interrelationships among emission inventories, monitoring, modeling, and stakeholders, including policymakers.

Dr. Didin Agustian Permadi, from the National Institute of Technology in Bandung, Indonesia, delivered a lecture on emission inventories for the transport sector, focusing on on-road mobile sources, civil aviation, and shipping. For on-road mobile sources, the lecture covered methodologies for estimating emissions from road vehicles, including both basic approaches using bulk emission factors and advanced methods accounting for running and start-up emissions. The presentation also introduced on-road transport emission models such as the International Vehicle Emission Model (IVE). Regarding civil aviation, the lecture discussed emissions from airport activities and during cruising, presenting three levels of methodologies to estimate these emissions. Procedures for estimating shipping emissions were also provided. Case studies demonstrating the calculation of emissions from airports and major harbors in Indonesia were presented to illustrate the application of these methodologies.

Dr. Jongmin Joo, from the National Air Emission Inventory and Research Center in the Republic of Korea, presented a lecture on the national official emission inventory, focusing on the National Air Pollutant Emission Inventory of the Republic of Korea. The lecture began with an introduction to the Clean Air Policy Support System (CAPSS) of the Republic of Korea, an air pollutant emissions estimation system operating at a national level. The framework of the CAPSS system was outlined, followed by discussions on methodologies for estimating emissions from point sources, mobile sources, and area sources. The presentation included emission estimation results for 2020, as well as procedures for emissions recalculation for the years 2016 to 2019. Future plans for CAPSS were also discussed, which involve identifying previously unaccounted sources such as small and medium-sized businesses and fertilizers in farmland. Additionally, plans were presented for establishing a Hazardous Air Pollutants (HAPs) emissions inventory and developing a health risk assessment system.

During the second session, participants exchanged information on significant combustion sources, discussing the air pollution status and control measures in their countries. They also highlighted ongoing activities related to emission inventories. In the ensuing discussions, many countries identified the continuous enhancement of national emission inventories as a challenge and expressed the desire for additional EANET projects focusing on capacity-building activities. Suggestions included not only webinars but also on-site training courses. The Network Center for the EANET, as the workshop organizer, will assess potential future activities through the EANET Project Fund.

Find out more about the EANET Project Fund.

Useful Resources

- Download the [Workshop's presentations](#)

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Exploring the Impacts of Air Pollution on Health and the Environment



The EANET Seminar on the Effects of Acid Deposition and Air Pollution on Human Health and Ecosystems was conducted online on 31 October 2023 and aimed to gain knowledge, learn from pollution reduction efforts globally, and foster a collective understanding among scientists and policymakers. Approximately 80 participants joined the seminar online, contributing to meaningful discussions on the adverse effects of air pollution.

Opening remarks were delivered by Dr. Shiro Hatakeyama, Director General of the Asia Center for Air Pollution Research (ACAP), the Network Center for the EANET, and Mr. Bert Fabian, Coordinator, Secretariat for the EANET.

Mr. Thomas Scheuschner, an expert from the German Environmental Agency specializing in ICP Modeling and Mapping under UNECE, started by presenting the: “Critical load assessment and its contribution to policy decision making in Europe.” In his presentation, he highlighted the key milestones of the UNECE Convention on Long-Range Transboundary Air Pollution (CLRTAP) and then explained how Critical Load Approaches and analyses can be used for air quality management strategies, by presenting Critical Load estimation methods and the European Critical Load database, among others.

Dr. Dorota Jarosinska from the WHO Regional Office for Europe, European Centre for Environment and Health, WHO, followed with her presentation on “Experience of policy-making based on scientific evidence of the Task Force on Health under the CLRTAP and WHO with CLRTAP.”

In her presentation, Dr. Jarosinska introduced the Joint Task Force on the Health Aspects of Air Pollution (TFH) established under the CLRTAP and its work plan, before explaining the importance of the new WHO global air quality guidelines, and how they are being used by policymakers in the European Union.

Finally, Dr. Hiroaki Minoura from Nagoya University of Commerce & Business, presented his findings on the “Health effects study of in vivo and in vitro exposure to automobile emissions.” He explained the results from in vivo testing to assess health risks of emissions from transport, in vitro toxicological screening for automotive emission-related substances, and an epidemiological assessment of automobile-related health risks.

The session concluded with closing remarks delivered by Prof. Fan Meng, Deputy Director General of ACAP. The seminar was marked by discussions among participants contributing to fostering a better understanding of the complex relationship between air pollution, human health, and the environment.

Find out more about the EANET Project Fund.

Useful Resources:

- Read the Panelists’ Presentations:
- View the Seminar’s recordings on [YouTube](#)

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2024 Calendar of Events



JULY

15 JUL - 9 AUG 2024 | China & Japan |
The Fellowship for Leadership in Atmospheric Environment and Air Quality Management in East Asia

AUGUST

20-21 AUG 2024 | Online |
The Working Group Meeting (WG2024) on the EANET in 2024

28-29 AUG 2024 | Thailand |
The Twenty-fifth Senior Technical Managers' Meeting (STM25) on the EANET

SEPTEMBER

30 SEP - 4 OCT 2024 | Japan |
TNT and Capacity Building Program, Session 2 in Japan

OCTOBER

7-18 OCT 2024 | Rep. of Korea |
TNT and Capacity Building Program, Session 2 in Rep. of Korea

29-31 OCT 2024 | Rep. of Korea |
The Twenty-fourth Scientific Advisory Committee (SAC24) meeting on the EANET

NOVEMBER

27-28 NOV 2024 | Malaysia |
The Twenty-sixth Session of the Intergovernmental Meeting (IG26) on the EANET will be organized in Kuala Lumpur, Malaysia, and online.

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