



Consideration of the Proposed Project Plans in 2027

**The Twenty-sixth Session of the Scientific Advisory Committee (SAC26)
on the Acid Deposition Monitoring Network in East Asia
20-22 October 2026, Kuala Lumpur, Malaysia**

INTRODUCTION

• **IG27 (Nov 2025)** requested the Secretariat to organize a WG Meeting in 2026 to discuss EANET Project Plans (EPPs) for 2027.

• **EANET Project Fund Guidelines**

- EPP review process:
 - Preparation by Project Lead (PL)
 - WG review
 - SAC review
 - IG approval

• **Projects for SAC26 Consideration in 2027**

- 9 newly proposed EPPs for 2027
 - 1 continued EPP from 2026
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Proposed EANET Projects in 2027 – New

Proposal Number	Title of Project	Proposer/Project Lead	Duration and Remarks	Total Budget and Requested Amount from EPF	Co-Finance and/or In-kind Support
EPP (2027-01)	Enhancement of ammonia monitoring for sustainable nitrogen management in the EANET region	Network Center for EANET (NC), Asia Center for Air Pollution Research (ACAP)	January/2027 – December/2029	56,000 USD (18,000 requested from the EPF) (for 2027)	21,000 USD from In-kind (TUAT, Co-leads) 17,000 USD from Co-Finance (EMB, MOEJ) (for 2027)
EPP (2027-02)	Capacity building webinar workshop on application of satellite observation for atmospheric environmental management	Network Center for EANET (NC), Asia Center for Air Pollution Research (ACAP)	January 2027 – December 2027	18,000 USD (10,500 requested from EPF)	7,500 USD from In-Kind (NIES)
EPP (2027-03)	Fellowship for building leadership in Atmospheric Environment and Air Quality Management in East Asia	Network Center for EANET (NC), Asia Center for Air Pollution Research (ACAP), Fudan University	January 2027 – December 2027	90,000 USD (27,000 requested from EPF)	63,000 USD from Co-Finance (Fudan University, MOEJ)
EPP (2027-04)	The collaboration of Technical and Training (TNT) and capacity building program for personnel of the Participating Countries on monitoring	Network Center for EANET (NC), Asia Center for Air Pollution Research (ACAP), The National Institute of Environmental Research (NIER)	January/2027 – December/2027	120,000 USD (22,630 requested from the EPF)	97,350 USD from Co-Finance (NIER, MOEJ)
EPP (2027-05)	Integrated Capacity Building for Urban Ozone and Ambient VOCs under EANET	Network Center for EANET (NC), Asia Center for Air Pollution Research (ACAP), Chinese Research Academy of Environmental Sciences (CRAES)	January/2027 – December/2029	80,000 USD (35,000 requested from the EPF) (for 2027)	10,000 USD from Co-Finance (MEE, China) and 35,000 from Co-Finance (MOEJ) (for 2027)
EPP (2027-06)	Integrated Early Warning System (IEWS) Feasibility Study for Heat Stress and Air Pollution in the Mekong Sub-region	Network Center for EANET (NC), Asia Center for Air Pollution Research (ACAP)	January/2027 – December/2027	60,000 USD (30,000 requested from the EPF)	30,000 USD from Co-Finance (MOEJ (TBD))

Proposed EANET Projects in 2027 – New

Proposal Number	Title of Project	Proposer/Project Lead	Duration and Remarks	Total Budget and Requested Amount from EPF	Co-Finance and/or In-kind Support
EPP (2027-07)	Research on Spatiotemporal Evolution Patterns and Driving Mechanisms of Regional Acid Deposition Based on Artificial Intelligence	Institute of Atmospheric Environment, Chinese Research Academy of Environmental Sciences (CRAES)	January/2027 – December/2029	30,000 USD (30,000 USD requested from the EPF)	0
EPP (2027-08)	Roundtable Dialogue on Innovative Investment and Financing for Air Pollution Prevention and Control and Green Economy Incentive Policies (online+offline)	Foreign Environmental Cooperation Center (FECO) / China-ASEAN Environmental Protection Cooperation Center (CAEC), Ministry of Ecology and Environment of China	January 2027 – December 2027	30,000 USD (30,000 USD requested from the EPF)	0
EPP (2027-09)	Leveraging the AQMx platform for building capacity of EANET Participating Countries	Climate and Clean Air Coalition (CCAC), and Secretariat for the EANET	January 2027 – December 2027	8,000 USD (0 requested from the EPF)	8,000 USD from CCAC (in-kind)

Proposed EANET Projects in 2027 – Continued

EPP Number	Title of Project	Proposer/Project Lead	Duration and Remarks	Total Budget and Requested Amount from EPF	Co-Finance and/or In-kind Support
EPP (2026-06)	Methodological Study on PM2.5 Source Identification and Capacity Enhancement in EANET with Emphasis on Southeast Asia	Network Center for EANET (NC), Asia Center for Air Pollution Research (ACAP)	January/2026 – December /2027	60,000 USD (30,000 requested from the EPF) (for 2027)	30,000 USD from Co-Finance (JETRO Indonesia Proof of Concept (PoC) project) (for 2027)

Enhancement of ammonia monitoring for sustainable nitrogen management in the EANET region (2027-2029)

Project Lead: Network Center for EANET

Co-Lead: EMB, the Philippines, (additional partner(s))

Implementation Agencies:

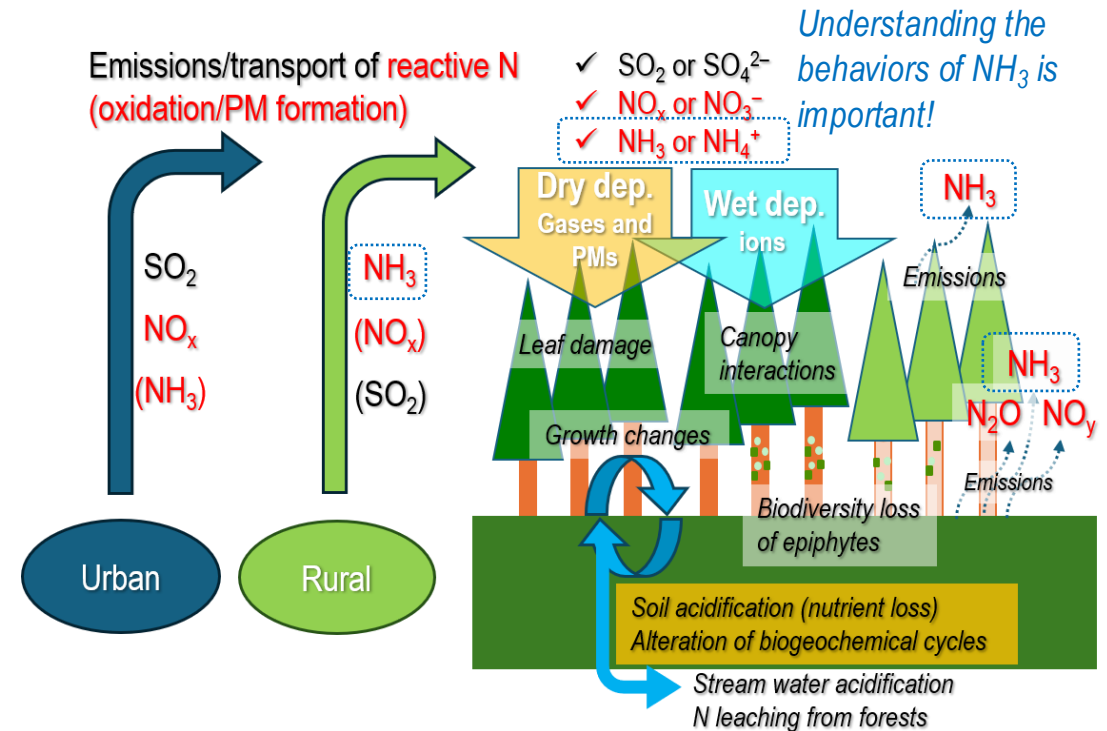
NC, EMB, Tokyo University of Agriculture and Technology (TUAT),
(additional partner(s))

Budget (USD): **56,000 (2027)**, 50,000 (2028), 44,000 (2029)

(including in-kind contributions, 21,000 USD/year)

Rationale:

- Ammonia (NH_3)
 - ☐ An important precursor of $\text{PM}_{2.5}$ (such as $(\text{NH}_4)_2\text{SO}_4$)
 - ☐ Emitted mainly in rural and remote areas, such as agricultural fields and forest areas
 - ☐ Tends to remain in the gas phase as emissions of SO_2 and NO_x have decreased
 - ☐ Exhibits complex behavior, including bidirectional exchange (deposition and emissions) with terrestrial ecosystems
 - ☐ Can be detected by using passive samplers without electricity in rural and forest areas
- Understanding NH_3 behavior is essential for managing reactive nitrogen flows between the atmosphere and the terrestrial environment.



Enhancement of ammonia monitoring for sustainable nitrogen management in the EANET region (continued)

Objectives:

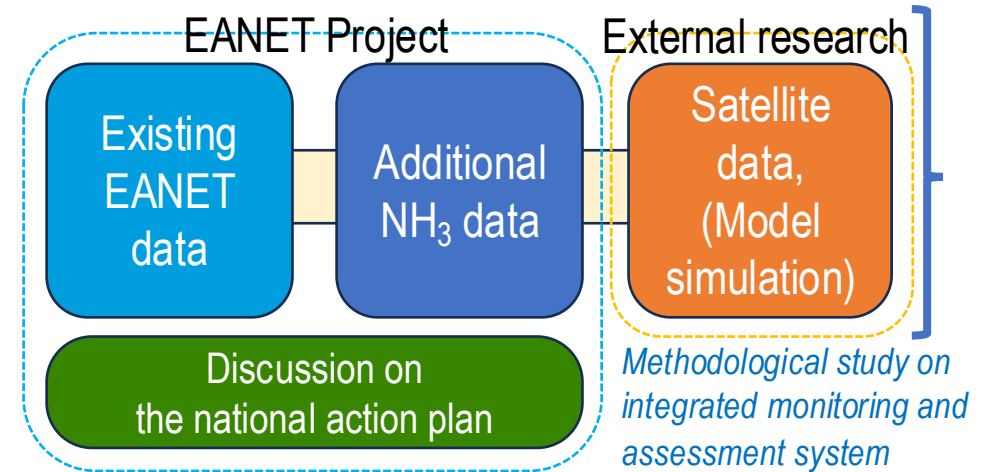
- To enhance NH₃ monitoring in rural and forest areas
- To understand NH₃ behavior and nitrogen flows from the atmosphere to ecosystems
- To promote discussion on preparation of a national action plan for sustainable nitrogen management

Activities:

- NH₃ monitoring using passive samplers at 5–10 sites in rural and forest areas in 2-3 countries (including parallel sampling at existing EANET sites for comparison with the filter pack method)
- Data comparison and assessment using other methods (e.g., denuder method, satellite observation, (and model simulations)) as part of a methodological study on an integrated monitoring and assessment system — In cooperation with external scientists
- Assessment of nitrogen flows from the atmosphere to forest ecosystems, where applicable at existing monitoring sites
- Online seminar towards preparation of the national action plan for sustainable nitrogen management, referring to relevant country experiences (e.g., Japan)

Benefits:

- Accumulation of NH₃ data (The passive sampling data can be submitted as the EANET data for the annual Data Report)
- Enhanced understanding of NH₃ behavior and nitrogen flows, serving as a starting point for practical discussion on the national action plan for sustainable nitrogen management



Capacity building webinar workshop on application of satellite observation for atmospheric environmental management

Duration: 1 Year including preparation for two half-day webinar- or hybrid-style workshops

Project Lead: NC

Partner Organization: National Institute for Environmental Studies (NIES) (Japan) *Additional POs are being explored.

Beneficiaries: EANET participating countries (PCs)

- Technical officers responsible for analyzing ground monitoring data and interested in using satellite observation data to support their analysis
- Policymakers responsible for atmospheric environmental management and interested in using satellite observation data for policy making

Summary: EANET currently monitors atmospheric environment-related substances, including atmospheric deposition and air pollution, across East Asia with high reliability. However, **one hurdle for the EANET is achieving sufficient spatial coverage with the limited number of monitoring sites**. Although satellite observations have limitations such as spatial and temporal resolutions and relatively large uncertainties, they **generally provide coverage across the whole East Asia**. Therefore, **the satellite monitoring data have potentials to support the analysis based on the EANET monitoring data**. In addition, satellite observation has another **potential to support the sustainable monitoring of the EANET** because the satellite monitoring data are becoming increasingly publicly available. However, the benefit, practical uses, and limitations of satellite observation data are **not still well recognized in the EANET community**. In this project, **the capacity building webinar and hybrid workshops will be held to share information of currently available satellite observation data, how to access, analyze and utilize the data including practical applications of satellite observation data in air quality management as case studies**.

Budget: The total amount of required resources in USD is 18,000 (including 7,500 USD as in-kind contributions expressed in USD): The requested amount for EANET Project Fund (USD): USD 10,500 (except for 3,000 USD PF holder fee)

Overview

- How far have satellite observation come?

- Atmospheric environment-related substances, relevant parameters, spatial and time resolution, etc.

How to access?

- Where can we access the data?
- How should the data be processed and read?
 - Knowledge of data formats and required tools/libraries

How to analyze?

1. Analyzing spatial distribution and long-term trend: Hot spot, differences of concentrations among regions, etc.
2. Limitations and uncertainties

How to utilize?

- Evaluation of biomass burning
- Early warning system for air pollution
- Inverse modeling for emissions
- ...

Case Studies

- Application of satellite observation data in EANET participating countries for atmospheric environment management, including future perspectives (Ex. GOSAT-GW, GEMS, etc.)

Discussion: Future Relationship between EANET and Satellite Observations

- How EANET can utilize the satellite observation data especially to support the analysis of EANET monitoring data and how EANET monitoring data can contribute to the satellite observation community?
- The discussion results will be reported and further discussed at SAC27.

EANET Project Plan Number: 2027-03

Fellowship for building leadership in Atmospheric Environment and Air Quality Management in East Asia

- **Duration:** January – December 2027
- **Project Lead:** NC, Fudan University in China
- **Beneficiaries:** EANET PCs

Summary: Participants from EANET Participating Countries will take part in the “Fellowship for building leadership in Atmospheric Environment and Air Quality Management in East Asia” at Fudan University, Shanghai, China, and the NC for the EANET, Niigata, Japan, respectively. The on-site program will take place over a total period of approximately one and a half months, with about three weeks in China and about four weeks in Japan, including discussion and instruction with supervisors.

In order to fully utilize the limited budget, this project adopts a hybrid approach. The theme should be limited within the scope of EANET, including natural science and social science. This program will provide a platform for the younger generation of researchers and government officials, who will be responsible for managing EANET in the future, to have an integrated discussion and reflection.

Budget (2027): ~~90,000~~ USD (including Fudan Univ. 39,000 co-finance)

Fellowship program has started **from 2005**, and **total 40 fellows** from EANET PCs have participated in this program

Fellows in 2025
Indonesia & Lao PDR & Malaysia
& Mongolia & Vietnam



EANET Project Plan Number: 2027-04

Collaboration of Technical and Training (TNT) and capacity building program for personnel of the Participating Countries on monitoring

- **Duration:** January – December 2027
- **Project Lead:** NC, The National Institute of Environmental Research (NIER), R. of Korea
- **Beneficiaries:** EANET PCs

Summary: The TNT program offers in-person and online training to build capacity in air pollution monitoring and analysis. Participants learn both basic and advanced techniques, including lab work, equipment maintenance, and data analysis. Training covers wet/dry deposition, PM2.5, ozone, emission inventory, and forecasting methods. Hands-on sessions and site visits provide practical experience and policy insights.

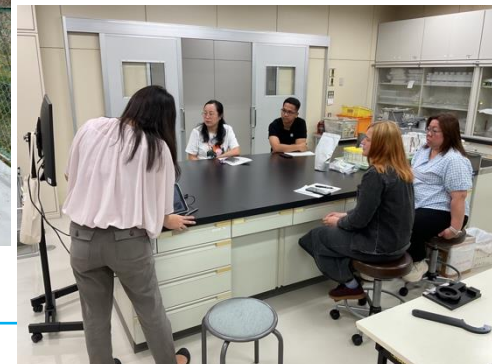
The program is held in Korea and Japan, combining foundational and applied methodologies. Participating countries benefit by enhancing technical skills, data quality, and regional collaboration.

Budget (2027): 120,000 USD (including NIER 77,700 co-finance)

Individual training and TNT program has been conducted **more than 25 years**, and **nearly 200 trainees** from EANET PCs have participated in this program

TNT and Capacity Building Program in 2025

Cambodia & China & Lao PDR & Malaysia & Mongolia & Philippines & Russia & Thailand



EANET Project Plan Number: 2027-05

Integrated Capacity Building for Urban Ozone and Ambient VOCs under EANET (2027-2029) Supporting Urban Ozone Mitigation in East Asia

Project Lead: Network Center for EANET (NC), CRAES (China)

Co-Lead (under consultation): EMB, the Philippines; CLEM, Mongolia;

MoE, Cambodia; IMHEN, Vietnam;

(additional partner(s))

Partner Organizations (POs): CESS, Japan; Korea University, Korea

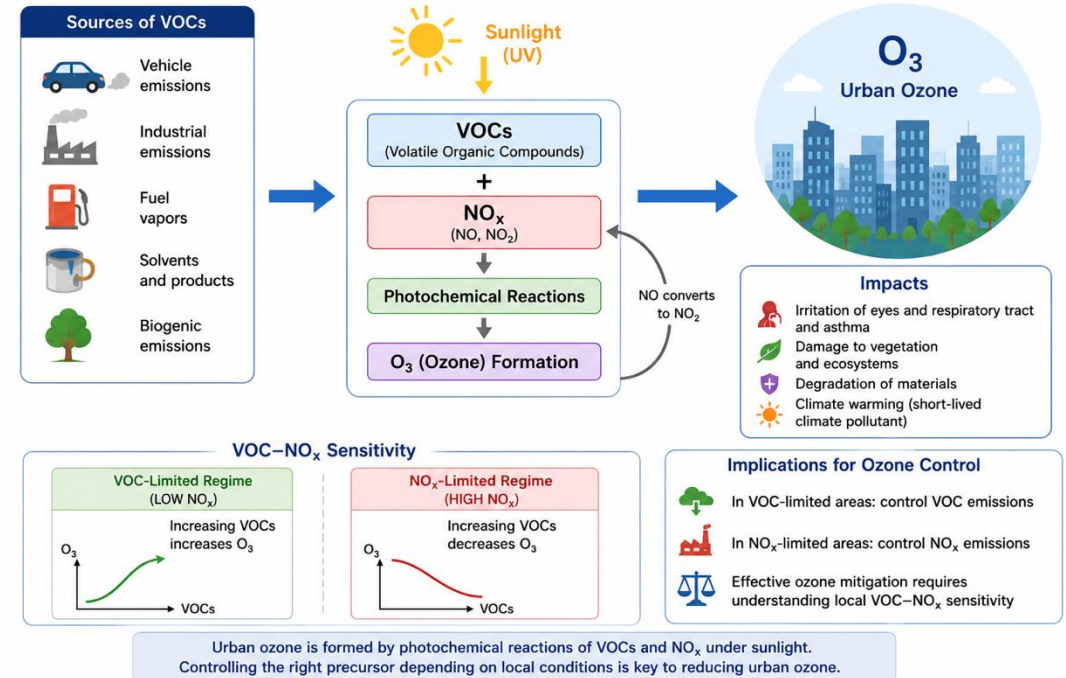
Budget (USD): 80,000 (2027), 60,000 (2028), 35,000 (2029)

Background:

- Ozone problem is becoming increasingly serious in EANET
 - ❑ Many countries are strengthening ozone-related air quality standards
 - ❑ Ozone concentrations remain elevated in many parts of East Asia
 - ❑ Ozone pollution is closely linked with VOC/NO_x emissions, meteorological conditions, heat waves, and human health and agricultural impacts (co-benefit)
- Current gaps within EANET
 - ❑ Limited ozone and VOC monitoring capacity
 - ❑ Lack of integrated analysis of VOC–O₃ relationships
 - ❑ Need for stronger regional scientific cooperation and policy support

Volatile Organic Compounds (VOCs) act as key precursors that, in the presence of sunlight, undergo photochemical reactions with nitrogen oxides (NO_x) to drive the formation of urban ozone.

Relationship Between Urban Ozone (O₃) and VOCs



- Existing achievements provide a strong foundation
 - ❑ The EANET VOC Project (2024–2026) established: VOC Technical Training Guidance, and Pilot capacity-building activities.
 - ❑ These outcomes provide an important basis for advancing integrated VOC–ozone assessment and management under EANET

Integrated Capacity Building for Urban Ozone and VOCs under EANET (continued)

Objectives:

- Strengthen the capacity for VOC, ozone (O₃), NO_x and related pollutant monitoring in selected EANET Participating countries and promote the feasible monitoring practices.
- Improve scientific understanding of VOC characteristics, ozone formation mechanisms, and their relationships with meteorological conditions.
- Support evidence-based urban ozone management and strengthen cooperation through policy dialogue.

Activities:

Activity 1 — Capacity building to support the urban ozone and ambient VOCs monitoring practices

- Organize in-country technical training on VOC and urban O₃ monitoring in participating countries, QA/QC procedures of VOC/O₃/NO_x monitoring.



Activity 2 — Capacity building on integrated data analysis of ambient VOCs characteristics and urban ozone formation

- Data analysis of VOC contributions to urban ozone formation, urban ozone characteristics, and their relationships with meteorological conditions.



Activity 3 — Development and dissemination of technical recommendations

- Organize policy dialogues, Prepare technical recommendations based on project findings, Share practices and experiences among participating countries, and distribution of project outcomes through EANET platforms

Expected Outputs

- QA/QC procedures for VOC, NO_x and urban ozone monitoring in participating countries.
- Data analysis of VOC characteristics and urban ozone formation completed in selected participating countries.
- Technical recommendations for urban ozone management developed and shared through EANET.

Strategic Contributions to EANET countries

- Enhance urban ozone monitoring and capacity building
- Support urban ozone management and environmental standards
- Strengthen scientific understanding of VOC and urban O₃ relationships
- Promote science-based urban ozone policy development
- Strengthen EANET's role in atmospheric environment management

EANET Project Plan Number: 2027-06

Integrated Early Warning System (IEWS) Feasibility Study for Heat Stress and Air Pollution in the Mekong Sub-region

- **Duration:** January – December 2027
- **Project Lead:** NC,
- **Beneficiaries:** EANET PCs

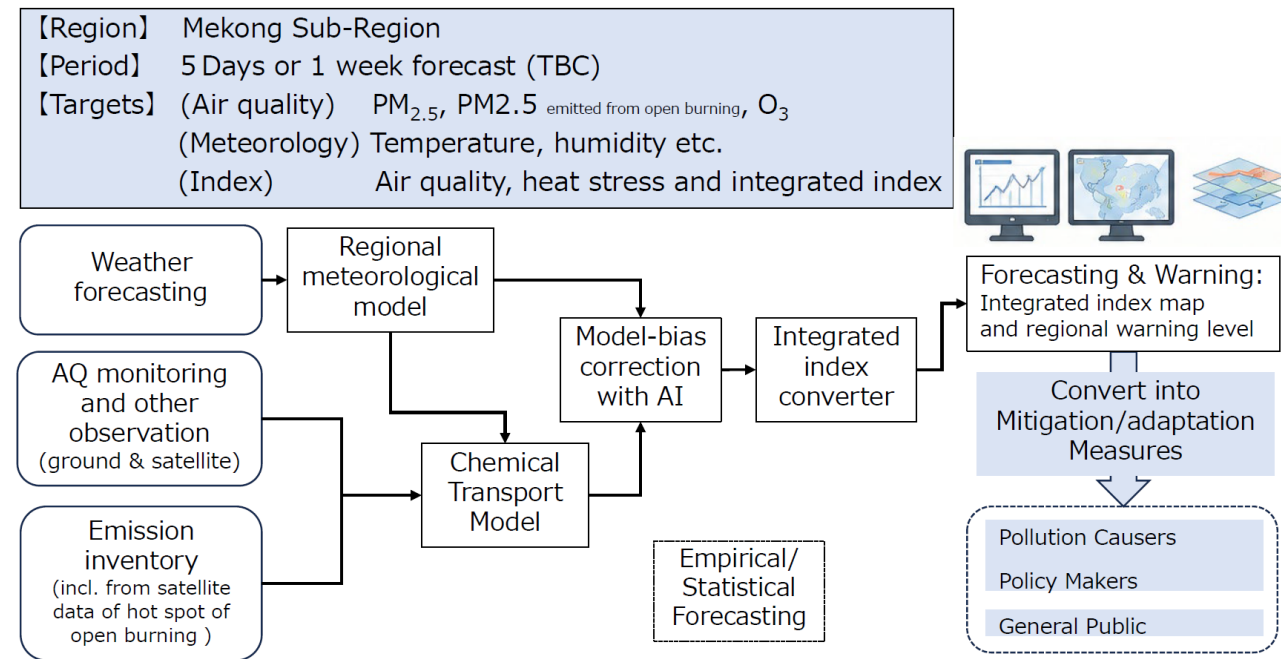
Purpose

- Assess feasibility of an **Integrated Early Warning System (IEWS)** for extreme heat and air pollution in the Mekong Sub-region
- Combine weather forecasts, air quality data, and AI to provide advance warnings

Key Activities

- Review existing monitoring, forecasting, research, and institutional capacities
- Identify technical, data, and operational gaps through stakeholder consultations
- Define governance, implementation approach, and potential AI applications

Tentative Framework of Heat & Air Quality Early Warning System



Budget (2027): 60,000 USD

Research on Spatiotemporal Evolution Patterns and Driving Mechanisms of Regional Acid Deposition Based on Artificial Intelligence



- **Duration:** January – December 2027
- **Project Lead:** Institute of Atmospheric Environment, Chinese Research Academy of Environmental Sciences (CRAES)
- **Beneficiaries:** Direct beneficiaries: China, Japan and the Republic of Korea; Indirect beneficiaries: the remaining Participating Countries

Summary: Acid deposition remains a transboundary environmental challenge in East Asia, and despite long-term monitoring by EANET, the region lacks a high-resolution understanding of its spatiotemporal patterns and drivers. This project will use AI and machine learning techniques, including Random Forest and Gradient Boosting Trees, to integrate EANET monitoring data with satellite remote sensing and meteorological reanalysis data, creating a harmonized regional database and high-resolution acid deposition maps. Explainable AI methods will be applied to identify driving factors and apportion sources, while training activities will strengthen national capacity. The project will deliver a validated assessment framework, source attribution results, and policy-relevant recommendations to support EANET Participating Countries in reviewing and improving their acid deposition control strategies.

Budget (2027): 30,000 USD (*30,000 USD requested from the EPF*)

EANET Project Plan Number: 2027-08

Roundtable Dialogue on Innovative Investment and Financing for Air Pollution Prevention and Control and Green Economy Incentive Policies (*online + offline*)



- **Duration:** January – December 2027
- **Project Lead:** Foreign Environmental Cooperation Center (FECO) / China-ASEAN Environmental Protection Cooperation Center (CAEC), Ministry of Ecology and Environment of China
- **Beneficiaries:** government agencies, financial institutions, academic institutions, and practitioners from EANET Participating Countries. Target: at least 50% female participation in the dialogue sessions. Indirect beneficiaries: all EANET Participating Countries through publicly released outcome reports and policy briefs.

Summary: The Asia-Pacific region faces funding and institutional challenges in air pollution prevention. To address these issues, the project will organize a hybrid Roundtable Dialogue in China in 2027 on innovative investment, financing, and green economy incentives, covering cost-benefit analysis for data-driven decision-making, digital and intelligent air quality monitoring, green financing instruments for pollution control, and transparent disclosure of environmental outcomes to strengthen public trust and attract investment. The project aims to enhance practical knowledge exchange among EANET Participating Countries on mobilizing investment, improving financing mechanisms, and integrating green incentives into air pollution policies. Expected outputs include a successful roundtable dialogue and a Best Practice and Policy Recommendations Report.

Budget (2027): 30,000 USD (*30,000 USD requested from the EPF*)

Leveraging the AQMx platform for building capacity of EANET Participating Countries



Powered by CCAC @UNEP

- **Duration:** January – December 2027
- **Project Lead:** Climate and Clean Air Coalition (CCAC), and Secretariat for the EANET
- **Beneficiaries:** Primarily targeted to representatives of Ministry of Environment and relevant air pollution control agencies of the EANET PCs.

Summary: The Climate and Clean Air Coalition (CCAC) Air Quality Management Exchange Platform (AQMx), launched in 2024, provides guidance, tools, data, and resources to support air quality management and strengthen implementation capacity. This project will build the capacity of EANET Participating Countries to use AQMx resources through a scoping exercise to identify national needs and practical use cases, followed by online webinars featuring guidance, complementary resources, and expert discussions. It will also explore opportunities for longer-term collaboration between EANET and AQMx/CCAC, including joint capacity-building activities, future content development, and knowledge sharing. Expected outputs include enhanced capacity to apply AQMx resources and a report summarizing webinar outcomes and opportunities for further cooperation.

Budget (2027): 8,000 USD (*0 requested from the EPF*)

EANET Project Plan Number: 2026-06 (Continued Project)

Methodological Study on PM2.5 Source Identification and Capacity Enhancement in EANET with Emphasis on Southeast Asia

- **Duration:** January 2026 – December 2027
- **Project Lead:** Network Center for EANET, Asia Center for Air Pollution Research (ACAP)
- **Beneficiaries:** National and local/city government officers in charge of air quality monitoring, policy makers involved in air pollution mitigation

Summary:

This project aims to collaboratively develop standardized methodologies for PM2.5 component measurement and source apportionment among EANET member countries, with a particular focus on Southeast Asia. Through the selection of pilot cities and close collaboration with local laboratories and research institutions, the project will establish regionally adaptable PM2.5 measurement protocols and guidelines. It will also utilize chemical analysis, receptor models, and low-cost sensor (LCS) data to identify and quantify major PM2.5 sources and improve the spatial and temporal resolution of source apportionment. In addition, the project will strengthen institutional and technical capacity through training, knowledge exchange, and collaborative research, thereby supporting evidence-based air quality management and policy development across the region. (Added the Implementation Plan in 2027)

Budget: The total amount of required resources in USD is 72,000 (2 years). The requested amount for EANET Project Fund is USD 51,000 (2 years). The estimated amount of co-finance is USD 21,000 (2 years).



ACTION REQUIRED

01

Review

The SAC26 is invited to review the Draft EANET Project Plans for 2027, from the technical and scientific viewpoints.

02

Discuss & Provide Guidance

The SAC26 may wish to discuss and consider the progress of each project and provide guidance for further implementation and coordination.

03

Recommend to IG28

Findings and recommendations addressed to the 28th Intergovernmental Meeting (IG28), to be held from 24-26 November 2026, in Niigata, Japan.

Thank you



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