

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

**Report on the activities
of the Task Force on Atmospheric Environment Quality Management (TFAEM)**

Chairperson of the Task Force

Secretariat of the Task Force

I. Introduction

1. Task Forces under the Scientific Advisory Committee (SAC) of the Acid Deposition Monitoring Network in East Asia (EANET) have been reformed based on the decision at the 24th Session of the Intergovernmental Meeting at its (IG24) in November 2022. The Task Force on Atmospheric Environment Quality Management (TFAEM) was established during this reforming with replacement of the previous Task Force on Research Coordination to assist on reviewing new directions of EANET.
2. TFAEM will assist the SAC, IG, and the Network Center (NC) in the process of EANET activities related to scientific and technical issues deemed important for future development of the EANET designated by the SAC and IG. In particular, TFAEM will work on scientific and technical aspects for further development of the methodology of application of emission inventory and model simulation for air quality management, future atmospheric environmental management, the methodology of co-benefit/co-control approaches for air environment and climate change, the evaluation methods of policy effects on the atmospheric environment, clean air technology cooperation and transfer, and air quality control policies.
3. The members of TFAEM were nominated by the National Focal Points (NFPs) of the Participating Countries by the end of June, 2024. As the Chairperson of TFAEM, Dr. Sergey Gromov, has formally appointed the members in July, 2024.

II. Major activities until October 2026

4. The 2nd online meeting of TFAEM (TFAEM2) was held on 30 July 2025. The meeting discussed scientific and technical inputs to the Medium-Term Plan (MTP) of EANET for 2026–2030, focusing on four thematic areas: (1) emission inventories and model simulation, (2) co-benefit/co-control approaches for air pollution and climate change, (3) clean air technology cooperation and transfer, and (4) evaluation of policy effectiveness and sharing

of experience in air quality management.

5. TFAEM2 also discussed the process to develop the Strategy Paper for Atmospheric Environment Quality Management in East Asia. Although the initial schedule envisaged preparing a draft concept in 2025, the meeting recognized the need to prioritize the adoption of the MTP 2026–2030 at SAC25 and IG27. Consequently, development of the draft concept was postponed to 2026, with the aim of completing the Strategy Paper in 2027.
6. The 3rd online meeting of TFAEM (TFAEM3) was held on 25 September 2026 (see Annex 1). The meeting reviewed progress of the Task Force on Monitoring and Assessment of Atmospheric Environment (TFAE) and the Task Force on Monitoring and Assessment of Environmental Effects (TFEE), discussed the Draft Concept of the Strategy Paper for Atmospheric Environment Quality Management in East Asia, and considered the next steps for activities in 2026 and 2027.
7. TFAEM3 received progress reports from TFAE and TFEE on their respective Strategy Papers and related scientific activities, including atmospheric monitoring, environmental effects and human health-related methodological exchange. The meeting also discussed possible approaches to strengthening cooperation with external scientific experts.
8. The Secretariat of TFAEM presented the Draft Concept of the Strategy Paper (see Annex 2), which provides a conceptual framework for future atmospheric environment quality management in East Asia. The proposed framework consists of five interconnected stages: (1) Observation and Information, (2) Scientific Understanding and Assessment, (3) Development and Assessment of Management Options, (4) Policy Making and Implementation Support, and (5) Evaluation and Feedback. The Concept also envisages an integrative role for TFAEM in utilizing relevant scientific outputs from TFAE and TFEE, together with emission inventories, modeling, management approaches, technologies and policy experience.
9. During the discussion on the Draft Concept, it was pointed out that the proposed scope was broad and that greater emphasis should be placed on challenges and priorities specific to East Asia. Suggestions included to pay attention on sustainable monitoring systems, capacity building, regional modeling and integrated assessment, as well as a longer-term perspective beyond the current MTP. It was also suggested that priorities should be established for different periods, with appropriate milestones for reviewing progress. The

importance of hybrid air quality monitoring networks incorporating affordable low-cost sensors, particularly in developing countries, was also highlighted.

10. The meeting also discussed coordination among the three Task Forces and the scientific and policy-related scope of the Strategy Paper. It was pointed out that some proposed activities, particularly monitoring data analysis and scientific assessment, could overlap with those of TFAE and TFEE, and that their respective roles and coordination should be clarified. Concerns were raised that references to transboundary air pollution could be interpreted as involving politically sensitive intergovernmental negotiations. It was also suggested that relevant experience and best practices concerning air pollution control policies and technologies in East Asia and other regions should be considered in developing the Strategy Paper.
11. Regarding the next steps (see Annex 3), the Draft Concept of the Strategy Paper will be presented to SAC26 on 20–22 October 2026 to obtain scientific comments and guidance. Development of the full Strategy Paper is planned to continue in 2027, with further TFAEM meetings and consultations among members. The proposed schedule envisages submitting the Strategy Paper to SAC27 and IG29 for consideration and adoption in 2027, although the meeting noted that this schedule may be optimistic.

III. Action required

12. The 26th Session of the SAC will review the report of TFAEM3.

Meeting Minutes

The Third Meeting of Task Force on Atmospheric Environment Quality Management (TFAEM) Scientific Advisory Committee (SAC)

(25 September 2026, online)

I. Open by the Chair

1. Dr. Sergey Gromov, Chair of TFAEM, opened the meeting and welcomed the participants.

II. Welcome remarks by the NC and the Secretariat

2. Ms. Yujeong Kim, Ad Interim Coordinator of the EANET Secretariat, highlighted EANET's transition from its original focus on acid deposition toward broader air pollution challenges in East Asia. Referring to the MTP 2026–2030, she emphasized strengthening scientific understanding through monitoring, providing evidence-based and policy-relevant information to decision-makers, and enhancing regional cooperation.
She also noted the potential role of TFAEM in bridging science and practical air quality management through emission inventories, modeling, policy evaluation, co-benefit approaches, technology cooperation, and exchange of experience.

III. Introductory Remarks by the Chair

3. Dr. Gromov recalled the broader role of TFAEM in addressing atmospheric environment quality management beyond monitoring alone. He referred to the need to consider emission inventories, air pollution levels and assessment tools, environmental and health-related risks, and scientific knowledge and experience concerning technical and management measures.
He emphasized that TFAEM should not establish binding rules or policies for Participating Countries, but should provide scientific information, assessments and recommendations that countries could use in considering appropriate management measures.

IV. Adoption of agenda

4. The provisional agenda was adopted without amendment.
5. Progress of Task Force on Monitoring and Assessment of Atmospheric Environment (TFAE) and Task Force on Monitoring and Assessment of Environmental Effects (TFEE)
6. Dr. Ken Yamashita introduced the item, noting that TFAEM is expected to consider future atmospheric environmental management based also on outputs from the other EANET Task Forces.
7. Dr. Keiichi Sato reported on progress of TFAE, including development of its new Strategy Paper. Major directions included strengthening and harmonizing monitoring systems, data evaluation and integrated analysis, emerging monitoring approaches such as satellite observations and low-cost sensors, capacity building, and regional cooperation.
8. Dr. Hiroyuki Sase reported on progress of TFEE, including updating its Strategy Paper and activities for 2026–2030. Major scientific topics included reactive nitrogen deposition, ozone and particulate matter in forest areas, ecosystem recovery from acidification and eutrophication, and information and methodological exchange and capacity building concerning human health effects.
9. In the discussion, Dr. Gromov focused particularly on cooperation with external experts. He noted that previous attempts within EANET to establish expert rosters had not necessarily produced an effective mechanism. Rather than relying only on formal cooperation among organizations or networks, he suggested that it might be more practical to identify suitable individual scientists and involve them periodically in Task Force or SAC activities.
10. Dr. Sato acknowledged that a concrete mechanism had not yet been established and suggested that this could be further considered by TFAE, taking into account suggestions from members.

VI. Discussion on Draft Concept of the Strategy Paper for Atmospheric Environment Quality Management in East Asia

10. Dr. Ken Yamashita presented the Draft Concept, explaining that it was a conceptual framework for developing the future Strategy Paper rather than the Strategy Paper itself.
The Concept proposed a long-term framework connecting five stages: Observation and Information; Scientific Understanding and Assessment; Development and Assessment of Management Options; Policy Making and Implementation Support; and Evaluation and Feedback. It also envisaged an integrative role for TFAEM, linking relevant outputs from TFAE and TFEE with emission inventories, modeling, management approaches, technologies and policy experience.

Scope, priorities and time horizon

11. Dr. Toshimasa Ohara considered that the proposed Concept covered too wide a range of topics and remained rather general. He suggested giving greater focus to challenges and visions specific to East Asia, including sustainable monitoring systems, capacity building in developing countries, modeling and AI-based regional assessment, and integrated assessment including climate-related aspects.
He also emphasized that the Strategy should contribute to development of the next MTP, while considering a longer-term perspective, possibly around ten years.
12. Dr. Gromov agreed on the need for prioritization. He suggested that different priorities could be established for different periods, with milestones for reviewing progress. For example, capacity building and emission inventories might be emphasized initially, followed later by more integrated or synthesis-oriented activities.
He also cautioned against fixing currently emerging technologies such as AI too firmly as long-term priorities, since their relevance could change over the Strategy period.

Hybrid monitoring and low-cost sensors

13. Dr. Le Ngoc Cau supported Dr. Ohara's emphasis on regional needs and highlighted the importance of hybrid air quality monitoring networks incorporating affordable low-cost sensors (LCS), particularly for developing countries.
Referring to experience with LCS in Hanoi and Ho Chi Minh City, he suggested expanding such approaches and combining monitoring networks with AI and machine-learning techniques. He recommended including more specific activities concerning hybrid monitoring networks and LCS in the Strategy Paper.

Relationship with TFAE and TFEE

14. Dr. Gromov pointed out that some elements under Section 5.2, Scientific Understanding and Assessment, particularly analysis of monitoring data and long-term trends, overlapped with activities of TFAE and TFEE. He stressed the need to clarify cooperation among the Task Forces and avoid duplication.
15. Dr. Yamashita agreed that close information exchange and coordination with the other Task Forces would be necessary. He also noted that the Periodic Report on the State of Atmospheric Environment in East Asia (PRSAE), coordinated by Dr. Kurokawa, should be considered as another important source of scientific assessment.

Transboundary air pollution

16. Dr. Gromov expressed concern that references to transboundary transport could be interpreted in connection with intergovernmental negotiations and might therefore be politically sensitive in the EANET region. He suggested reconsidering the wording so that the Strategy would not imply a political role that EANET might not be ready to assume.

Policy experience and best practices

17. Dr. Gromov noted that EANET itself did not necessarily possess sufficient information and experience concerning some of the proposed areas, particularly best practices in technologies and policy measures.
He suggested drawing on reports and experience from other regional and intergovernmental initiatives, including documented experience concerning national air pollution policies and

technological measures in East Asia, such as China's Five-Year Plans and sulfur emission control measures.

18. Dr. Yamashita agreed to search for relevant policy and technical experience, particularly from Asia and East Asia, while also considering relevant experience from Europe and the United States.
19. In concluding the agenda item, Dr. Gromov stressed that the document under discussion should be understood as conceptual material indicating what the future Strategy Paper could contain, rather than the Strategy Paper itself. He requested that the comments raised at the meeting be reflected in the meeting minutes and invited members to provide additional comments during subsequent circulation and revision.

VII. Next step - Activity in 2026 and 2027

20. Dr. Ken Yamashita presented the proposed schedule. The Draft Concept would be presented to SAC26 on 20–22 October 2026 for discussion and guidance, followed under the original plan by submission of a revised Concept to IG28 on 24–25 November 2026. Development of the full Strategy Paper would continue in 2027, aiming at consideration by SAC27 and IG29. Dr. Yamashita noted that completion in 2027 represented an optimistic schedule.
21. Dr. Gromov questioned whether the Concept was sufficiently mature for substantive discussion by IG28. He noted that IG members were governmental representatives, had limited meeting time, and would normally expect relatively clear and finalized documents. He therefore suggested concentrating substantive discussion at SAC26 and possibly providing the Concept to IG as information material rather than establishing a specific IG agenda item.
22. Dr. Yamashita acknowledged the concern and noted that asking IG members to discuss an unfinished conceptual framework could cause confusion. He understood Dr. Gromov's suggestion that scientific discussion could first take place at SAC and its results subsequently be reported to IG.
23. Ms. Yujeong Kim emphasized that the Strategy Paper would be important not only scientifically but also in terms of policy relevance and the future direction of EANET. She considered it useful for IG members and National Focal Points to see the Concept and have an opportunity to provide guidance.
24. Dr. Hiroyuki Sase explained that the updated TFEE Strategy Paper would be attached to the TFEE activity report for adoption by IG28 and had already been circulated in advance to facilitate consideration by SAC and IG members.
25. Dr. Gromov noted that the situation of TFAEM was different because its document was still a Concept without sufficiently clear boundaries. He reiterated his suggestion that it might be more appropriate to provide the Concept to IG as information material rather than placing it on the agenda as a specific item for substantive discussion.
26. Ms. Kim indicated that the Secretariat and TFAEM could discuss the matter further when preparing the provisional agenda for IG28 and that SAC26 would provide another opportunity to consider the issue.
27. Dr. Gromov requested that these views be recorded in the meeting minutes and invited members to provide additional comments when the draft minutes were circulated.

VIII. Closing of the meeting

28. Dr. Gromov thanked the participants and the Network Center. He noted that the topics and strategic directions contained in the Draft Concept were broad, but considered the document useful material for starting or continuing development of the Strategy Paper.
29. Dr. Yamashita informed members that the draft meeting minutes would be circulated as soon as possible.
30. Dr. Gromov invited members to review the draft minutes and provide additional comments on both the record of the meeting and the Draft Concept, and then formally closed the Third Meeting of TFAEM.

PROVISIONAL AGENDA (including timetable)

<u>Time table</u>	<u>Speakers/ contributors</u>
15:00-15:10 (Japanese Standard Time, UTC+9)	
<u>4.</u> Open by the Chair	Dr. Sergey Gromov, Chair of TFAEM
<u>5.</u> Welcome remarks by the NC and the Secretariat	Ms. Siwaporn Rungsiyanon DDG, Network Center for the EANET, Ms. Yujeong Kim Ad Interim Coordinator, Secretariat for the EANET
15:10-15:20	
<u>6.</u> Introductory remarks by the Chair (Group-photo session on screen)	Chair
15:20-15:25	
<u>7.</u> Adoption of agenda	Chair
15:25-15:45	
<u>8.</u> Progress of Task Force on Monitoring and Assessment of Atmospheric Environment (TFAE) and Task Force on Monitoring and Assessment of Environmental Effects (TFEE)	NC
15:45-16:45	
<u>9.</u> Discussion on Draft Concept of the Strategy Paper for Atmospheric Environment Quality Management in East Asia	NC
16:45-16:55	
<u>10.</u> Next step - Activity in 2026 and 2027	NC
17:00	
<u>11.</u> Closing of the meeting	Chair

List of Participants

China

Dr. Chu Yangxi
Associate Research Professor, Chinese Research
Academy of Environmental Sciences (CRAES)

Japan

Dr. Toshimasa Ohara
Director General, Asia Center for Air Pollution
Research (ACAP)

Malaysia

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Mongolia

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Hydrology (DMH)

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Dr. Sergey Gromov
Institute of Global Climate and Ecology (IGCE)

Russia

Dr. Ekaterina Zhadanovskaya
Institute of Global Climate and Ecology (IGCE)

Vietnam

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Vietnam Institute of Meteorology, Hydrogy, and
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**Network Center for the EANET: Asia Center for Air
Pollution Research (ACAP)**

Mr. Hayashi
Deputy Director General

Dr. Hiroyuki Sase
Head, Ecological Impact Research Department

Dr. Keiichi Sato
Head, Atmospheric Research Department

Dr. Minguo Huo,
Senior Researcher, Atmospheric Research Department

Mr. Junji Matsushita
Senior Technical Officer

Ms. Miho Tamura
Senior Officer

**Secretariat for the EANET: United Nations
Environment Programme Regional Office for Asia
and Pacific**

Ms. Yujeong Kim, Ad Interim Coordinator

Ms. Aurélia Lemoine, Communications and Institutional
Support

Secretariat of the Task Force (NC)

Dr. Ken Yamashita
Senior Research Fellow

Dr. Meihua Zhu
Head, Planning and Training Department

Draft Concept of the Strategy Paper for Atmospheric Environment Quality Management in East Asia

Network Center for the EANET

1. Background and Rationale

The Acid Deposition Monitoring Network in East Asia (EANET) was established in 2001 as an intergovernmental regional initiative to create a common understanding of acid deposition problems in East Asia, provide useful inputs for decision-making, and promote cooperation among participating countries. Over more than two decades, EANET has developed a coordinated regional monitoring system based on standardized methodologies, quality assurance and quality control (QA/QC), data reporting, scientific assessment, capacity building, and exchange of scientific and technical information.

EANET was originally established with a primary focus on acid deposition. However, atmospheric environmental problems in East Asia have become more diverse and complex. In response to these changes, the scope of EANET was expanded in 2021 to include a broader range of atmospheric environment-related substances, including particulate matter and surface ozone. The Medium-Term Plan for the EANET (2026–2030) is the first Medium-Term Plan that substantially addresses this expanded scope.

This expansion has important implications for the future role of EANET. While reliable monitoring remains a fundamental strength of the Network, atmospheric environment quality management requires more than monitoring alone. Monitoring data need to be analyzed together with information on emissions, atmospheric transport and transformation, source contributions, environmental effects, and available management measures. Scientific information also needs to be communicated in forms that can support policy making and implementation by national and local authorities.

The MTP for the EANET (2026–2030) reflects this broader role. It identifies three major outcomes: strengthened understanding of the state of air pollution and atmospheric deposition through monitoring; increased access of decision-makers to evidence-based and policy-relevant information; and increased cooperation on air pollution and atmospheric deposition in the region.

The MTP further emphasizes that, together with increasing monitoring capacity, there is a need to **integrate and assess data and knowledge to support policy-relevant decision making**. This integration is expected to help governments and other relevant organizations develop appropriate interventions to address air pollution and atmospheric deposition.

Against this background, EANET has entered a new stage in which its accumulated scientific and technical assets can be more systematically linked to atmospheric environment quality management.

1.1 Development of the EANET Task Force structure

The present Task Force structure of EANET was established following the expansion of the scope of EANET. Prior to the restructuring, several Task Forces addressed individual subjects such as dry deposition monitoring, soil and vegetation monitoring, monitoring instrumentation, and research coordination. The expansion of EANET's scope made it necessary to reconsider these arrangements and establish Task Forces capable of addressing broader atmospheric environmental issues.

In 2022, the Twenty-fourth Session of the Intergovernmental Meeting approved a revised structure consisting of three Task Forces under the Scientific Advisory Committee:

- the Task Force on Monitoring and Assessment of Atmospheric Environment (TFAE);
- the Task Force on Monitoring and Assessment of Environmental Effects (TFEE); and
- the Task Force on Atmospheric Environmental Quality Management (TFAEM).

The three Task Forces are established as subsidiary scientific and technical bodies under the SAC and maintain their respective mandates. They are also expected to work in close coordination in areas of common interest and exchange relevant information.

TFAE focuses primarily on atmospheric monitoring methodologies, QA/QC, evaluation of monitoring data, and scientific and technical directions related to atmospheric monitoring and assessment.

TFEE addresses environmental effects, including ecological impacts and human health risk. With regard to human health, EANET's role is primarily related to methodological exchange, review of relevant research, capacity building, and cooperation with appropriate organizations and national authorities rather than conducting independent health impact assessments. The TOR specifically envisages practical cooperation with the World Health Organization and relevant authorities in Participating Countries.

TFAEM has a different but complementary function. Its TOR includes the application of emission inventories and model simulation to air quality management, consideration of future atmospheric environmental management based on outputs from other EANET Task Forces, co-benefit/co-control approaches for air pollution and climate change, evaluation of policy effects, support for pilot projects and clean-air technology cooperation, and exchange of experience on air quality control policies.

These provisions give TFAEM an important **integrative function**: scientific information and outputs developed through monitoring, assessment and effects-related activities can be considered together with emissions, modeling, management approaches, technology and policy experience in the context of atmospheric environment quality management.

1.2 Existing EANET Strategy Papers

EANET has already used Strategy Papers as guideline for providing long-term scientific and technical direction.

Under the former Task Force on Monitoring for Dry Deposition, Strategy Papers were developed to guide future directions of dry deposition evaluation and associated technical activities. The Strategy Paper on Future Direction of Monitoring for Dry Deposition of the EANET (2021-2025) followed earlier versions and was adopted by the SAC. TFAE is preparing the Strategy Paper on Future Direction of Monitoring for Dry Deposition of the EANET (2027-2032).

Similarly, the Strategy Paper was developed for monitoring and assessment of environmental effects, including effects of air pollutants on ecosystems, inland waters and forest catchments.

When the present Task Force structure was established, development or updating of Strategy Papers was envisaged for all three Task Forces. At the same time, consideration of the broader future development of EANET was assigned particularly to TFAEM. The Strategy Paper for Future Direction of EANET on Monitoring of Effects on Agricultural Crops, Forest and Inland Water by Acidifying Species and Related Chemical Substances is prepared in this year.

The proposed Strategy Paper for Atmospheric Environment Quality Management should therefore be understood as part of this established EANET approach to long-term strategic guidance, while having a broader integrative function corresponding to the mandate of TFAEM.

2. Purpose of the Strategy Paper

The proposed Strategy Paper aims:

To provide a long-term strategic framework for integrating scientific knowledge, monitoring and assessment, management approaches, and policy-relevant information to support policy making and implementation for atmospheric environment quality management in East Asia.

The Strategy Paper would not establish regulatory requirements, emission reduction obligations, or air quality policies for Participating Countries.

Rather, it would clarify how EANET can provide scientific and technical support to Participating Countries through monitoring, assessment, methodologies, modeling, information exchange, capacity building, technology cooperation, policy-relevant information, and regional cooperation.

In this sense, the Strategy Paper would help connect two important dimensions of EANET:

scientific understanding of the atmospheric environment, and practical needs for atmospheric environment quality management.

The Strategy Paper should have a longer-term perspective than an individual Medium-Term Plan. Individual activities and priorities would continue to be developed and approved through the established EANET processes, including Medium-Term Plans, annual Work Programmes, Core Activities and Project Activities.

3. Relationship with Other EANET Strategy Papers

The Strategy Paper for Atmospheric Environment Quality Management should be developed in close relation to the Strategy Papers and scientific activities of TFAE and TFEE.

However, it should neither replace nor subordinate those Strategy Papers. The three Task Forces have separate mandates under the SAC. Accordingly, their Strategy Papers should maintain their own scientific and technical objectives, directions and associated activities.

At the same time, the TOR of TFAEM explicitly provides for discussion of future atmospheric environmental management based on outputs from other EANET Task Forces.

The relationship among the three Strategies can therefore be characterized as:

independent, complementary, mutually reinforcing, and integrated where appropriate.

The TFAE Strategy can continue to guide development of monitoring, QA/QC, atmospheric data assessment and related methodologies.

The TFEE Strategy can continue to guide environmental effects monitoring, methodological development and capacity building related to ecosystems and human health risk.

The TFAEM Strategy can use relevant outputs and knowledge from these areas, together with information on emissions, atmospheric modeling, technologies, management measures and policy experience, to construct a broader atmospheric environment quality management framework.

Thus, “integration” in the TFAEM Strategy refers to **conceptual and functional integration of scientific knowledge for atmospheric environment quality management**, rather than institutional integration of the Task Forces themselves.

4. Vision and Guiding Principles

4.1 Vision

A clean, healthy and sustainable atmospheric environment in East Asia supported by science-based and cooperative atmospheric environment quality management.

The vision reflects the ultimate environmental and societal purposes of atmospheric environment quality management while recognizing the scientific and cooperative nature of EANET.

4.2 Guiding Principles

The Strategy Paper could be developed according to the following principles.

Science-based

Management approaches should be supported by reliable monitoring data, appropriate scientific methodologies and the best available scientific knowledge.

Policy-relevant

Scientific and technical activities should respond, where appropriate, to the information and methodological needs of those responsible for policy making and implementation.

Integrated

Atmospheric environmental problems should be considered using multi-pollutant, multi-effect, multi-scale and, where appropriate, cross-sectoral approaches.

Cooperative

Regional cooperation, scientific exchange, capacity building and sharing of experience should remain fundamental characteristics of EANET.

Open and shared

Relevant scientific information, methodologies, experiences and good practices should be shared as appropriate among Participating Countries and relevant partners.

Flexible and forward-looking

The Strategy should be capable of responding to emerging pollutants, changing atmospheric conditions, new technologies, scientific developments and evolving policy needs.

Respectful of national circumstances

Atmospheric environmental conditions, institutional arrangements, development priorities, resources and management needs differ considerably among Participating Countries. The Strategy should therefore support national and local decision-making without prescribing uniform policies or measures.

5. Proposed Framework for Atmospheric Environment Quality Management

Atmospheric environment quality management can be understood as a continuous process in which scientific observation supports assessment, assessment supports consideration of management options, scientific information supports policy making and implementation, and subsequent monitoring and evaluation provide feedback for further improvement.

The proposed framework consists of five interconnected stages.

5.1 Observation and Information

Reliable information is the starting point for atmospheric environment quality management.

This stage may include:

- ground-based monitoring;
- QA/QC;
- emission inventories;
- data management and information sharing;
- satellite observations;
- low-cost sensors;
- artificial intelligence and other emerging data technologies; and
- other relevant scientific information sources.

EANET has particular strengths in long-term coordinated monitoring, harmonized methodologies, QA/QC, technical training and regional data exchange.

The MTP 2026–2030 also identifies satellite observations, low-cost sensors and AI as areas for methodology and practical experience exchange, while recognizing their present limitations and different levels of applicability among Participating Countries.

5.2 Scientific Understanding and Assessment

Monitoring data alone cannot fully explain the causes and implications of air pollution.

Scientific assessment may include:

- analysis of monitoring data and long-term trends;
- emission inventory analysis;
- atmospheric modeling;
- source apportionment;
- source-receptor relationships;
- atmospheric transport and transformation;
- deposition processes;
- ecosystem impacts;
- consideration of human health implications using relevant scientific evidence, methodologies and assessments from WHO and other appropriate organizations;
- interaction between air pollution and climate change; and
- transboundary transport of air pollution.

Relevant outputs from TFAE and TFEE would provide important scientific inputs to this stage.

For human health, the Strategy should remain consistent with the EANET Instrument, Annex and TFEE TOR. EANET would use and exchange relevant methodologies and scientific information and cooperate with organizations having appropriate expertise, rather than establish an independent regional health impact assessment system.

5.3 Development and Assessment of Management Options

Once the sources, causes and impacts of atmospheric pollution are better understood, scientific and technical information can help identify possible management options.

Areas for consideration may include:

- emission reduction scenarios;
- source-specific control measures;
- air pollution control technologies;
- cleaner fuels and energy technologies;

- co-benefit and co-control approaches for air pollution and climate change;
- assessment of environmental benefits of control measures;
- technological feasibility;
- economic and social considerations; and
- methods for comparing alternative management approaches.

This stage does not imply that EANET selects policies for Participating Countries. Rather, EANET can provide scientific evidence, methodologies, technical information and shared experience that enable countries to consider appropriate options according to their own circumstances.

5.4 Policy Making and Implementation Support

Scientific knowledge has practical value when it can be translated into information and tools relevant to those responsible for atmospheric environment quality management.

EANET could support this process through:

- policy-relevant scientific assessments;
- strengthening the science-policy interface;
- technical information for policy development;
- methodologies for evaluating expected policy effects;
- capacity building for national and local authorities and experts;
- pilot projects;
- technical cooperation;
- clean-air technology cooperation and transfer;
- exchange of experience on policy design and implementation;
- sharing of successful practices and lessons learned; and
- regional and international cooperation.

This formulation is consistent with the TFAEM TOR, which includes support for pilot projects, technology cooperation and transfer, evaluation of policy effects, and sharing of air quality control policy experience. EANET's role would therefore be to **support policy making and implementation**, rather than to act as the authority responsible for adopting or enforcing national policies.

5.5 Evaluation and Feedback

Atmospheric environment quality management should be adaptive.

Continued monitoring and scientific assessment can help evaluate:

- changes in pollutant concentrations and deposition;
- trends in emissions;
- changes in environmental conditions;
- effectiveness of implemented measures, where appropriate;
- unintended or secondary effects;
- remaining scientific uncertainties; and
- emerging management needs.

Results from such evaluation can identify new monitoring needs, scientific questions and management priorities.

The overall management cycle can therefore be expressed as:

Observation and Information

- Scientific Understanding and Assessment
- Development and Assessment of Management Options
- Policy Making and Implementation Support
- Evaluation and Feedback
- Observation and Information

6. Cross-cutting Perspectives

Several issues should be considered across the full management framework rather than treated as isolated topics.

Human Health

Protection of human health is one of the fundamental motivations for improving air quality.

EANET should make appropriate use of internationally recognized scientific evidence and health assessments and promote methodological exchange and capacity building in cooperation with WHO and relevant national authorities, within the scope defined by the EANET Instrument, Annex and TFEE TOR.

Ecosystem Protection

EANET has long-standing experience in monitoring atmospheric deposition and ecological effects. Maintaining the connection between atmospheric pollution and ecosystem effects is an important characteristic of the Network.

Climate Change

Air pollution and climate change are closely interconnected through emissions, atmospheric chemistry, meteorology and common sources. Co-benefit and co-control approaches should therefore be considered where scientifically and practically appropriate.

Transboundary Air Pollution

Atmospheric pollution frequently crosses national boundaries. Regional monitoring, modeling, information exchange and cooperation are therefore important components of effective atmospheric environment quality management.

Socio-economic and Technological Development

Management options need to be considered in the context of economic development, energy systems, technology availability, infrastructure and social conditions.

Capacity and National Circumstances

Participating Countries differ substantially in monitoring capacity, technical resources and institutional arrangements. Capacity building and flexible approaches should therefore remain central to EANET cooperation.

7. Possible Strategic Directions

The full Strategy Paper could elaborate the following long-term strategic directions.

Strategic Direction 1**Strengthen the scientific foundation for atmospheric environment quality management**

Strengthen monitoring, QA/QC, emission inventory methodologies, modeling, source analysis, data integration and appropriate use of emerging technologies.

Strategic Direction 2**Promote integrated scientific assessment**

Strengthen links among emissions, atmospheric concentrations and deposition, atmospheric processes, source contributions, ecosystems, human health implications and climate interactions.

Strategic Direction 3**Strengthen scientific and technical support for development and assessment of management options**

Promote methodologies for emission scenarios, control measure evaluation, technology assessment, co-benefit/co-control approaches and consideration of environmental and socio-economic implications.

Strategic Direction 4**Strengthen support for policy making and implementation**

Improve the accessibility and relevance of scientific information; enhance the science-policy interface; strengthen capacity building, pilot applications, technology cooperation and exchange of policy and implementation experience.

Strategic Direction 5**Strengthen regional and international cooperation**

Promote cooperation among Participating Countries and collaboration with relevant regional and international organizations, scientific networks and initiatives.

Such cooperation could include organizations and frameworks such as UNEP and the Asia Pacific Clean Air Partnership, WHO, WMO, ESCAP, the Convention on Long-range Transboundary Air Pollution (CLRTAP) and its scientific bodies, and other appropriate partners.

8. Development and Implementation of the Strategy

The Strategy Paper should provide **long-term scientific and technical direction** rather than constitute a separate operational programme.

The Strategy could guide the development and prioritization of future EANET activities implemented through:

- successive Medium-Term Plans;
- Core Activities;
- EANET Project Activities;
- activities under TFAE, TFEE and TFAEM;
- periodic scientific assessments;
- capacity-building programmes;
- methodological and information exchange;
- pilot activities; and
- cooperation with relevant regional and international organizations.

Specific activities would continue to be considered, developed and approved through the established EANET decision-making processes.

The Strategy should also be periodically reviewed to reflect:

- scientific progress;
- lessons learned from EANET activities;
- new atmospheric environmental challenges;
- technological developments;
- changing policy needs; and
- priorities expressed by Participating Countries.

9. Proposed Development Process

The Concept should first be reviewed and discussed by TFAEM.

Based on comments and guidance from TFAEM, SAC and the Intergovernmental Meeting, a full Strategy Paper could subsequently be developed.

Preparation of the full Strategy Paper should include:

- review of existing EANET Strategy Papers;
- review of the EANET Instrument, Annex and Medium-Term Plans;
- consultation with TFAE and TFEE;
- review of relevant international approaches and strategies;
- identification of needs and priorities of Participating Countries; and
- discussion of appropriate long-term strategic directions and implementation mechanisms.

The Strategy Paper should be developed as an EANET-owned document reflecting the characteristics, experience and needs of the region, while drawing on relevant experience and scientific approaches developed internationally.

Preliminary References

A. EANET institutional and strategic documents

1. EANET. Instrument for Strengthening the Acid Deposition Monitoring Network in East Asia (EANET).
2. EANET. Supplementary Document (Annex) to the Instrument for Strengthening the Acid Deposition Monitoring Network in East Asia.
3. EANET. The Medium-Term Plan for the EANET (2026–2030): Towards the Improvement of Atmospheric Environment in East Asia. November 2025.
4. EANET. Revision of the Task Forces of the EANET, EANET/IG24/8, Twenty-fourth Session of the Intergovernmental Meeting, 24–25 November 2022.
5. EANET. Terms of Reference of the Task Force on Monitoring and Assessment of Atmospheric Environment (TFAE).
6. EANET. Terms of Reference of the Task Force on Monitoring and Assessment of Environmental Effects (TFEE).
7. EANET. Terms of Reference of the Task Force on Atmospheric Environmental Quality Management (TFAEM).
8. EANET. Strategy Paper on Future Direction of Monitoring for Dry Deposition of EANET, relevant editions.
9. EANET. Strategy Paper for Future Direction of EANET on Monitoring of Effects on Agricultural Crops, Forest and Inland Water by Acidifying Species and Related Chemical Substances, relevant editions.
10. EANET/TFAEM. Discussion on Inputs to the Next Medium-Term Plan (2026–2030) from the Scientific Viewpoints of TFAEM, 2025. The document identifies emission inventory and modeling, air pollution–climate co-benefit/co-control, clean-air technology cooperation and transfer, and policy effects and policy experience as possible fields for TFAEM consideration.

B. International reference documents and frameworks

11. UNECE. Long-term Strategy for the Convention on Long-range Transboundary Air Pollution for 2020–2030 and Beyond.
12. UNECE. Strategy for Scientific Bodies under the Convention on Long-range Transboundary Air Pollution, 2022.
13. UNEP. Air Pollution in Asia and the Pacific: Science-based Solutions. 2019.
14. UNEP / Asia Pacific Clean Air Partnership. Relevant regional scientific assessments, policy briefs and air quality management activities.
15. UNEP Global Environment Monitoring System for Air (GEMS Air). GEMS Air Strategic Plan and related air quality management guidance.
16. United States Environmental Protection Agency. Air Quality Management Process Cycle and related guidance on air quality assessment, control strategies, implementation and evaluation.
17. World Health Organization. Relevant guidelines, methodologies and assessments concerning ambient air pollution and human health.

Next steps - Activity in 2026 and 2027

Secretariat of the Task Force

I. Next steps

1. The draft meeting minutes (with recommendation for the next MTP) will be circulated among the members hopefully next week after the meeting. Progress of the task force activities including the meeting minutes will be presented at the 26th Session of Scientific Advisory Committee (SAC26) on 20-22 October 2026.
2. The proposed the draft concept of the Strategy Paper for Atmospheric Environment Quality Management in East Asia is proposed to SAC26 to be discussed and receive the guidance. The revised draft concept of the strategy paper based on the discussion of SAC26 will be submitted to the 28th Intergovernmental Meeting on EANET (IG28) on 24-25 November 2026 to be discussed. The strategy paper will be drafted by this TF in 2026 and 2027, and submitted to SAC27 and IG29 to be approved and adopted in 2027.

II. Possible schedule

Time	Work	Implementing body
September 2026 (before SAC25)	The 3 rd online TFAEM meeting (Draft concept of strategy paper)	TFAEM members, NC
20-22 October 2026	Progress report at SAC26 Submit Draft concept of strategy paper	Chair of the Task Force, in cooperation with NC
24-25 November 2026	Progress report at IG28 Submit Draft concept of strategy paper	Chair of SAC26, NC
Spring/summer 2027	The 4 th online TFAEM meeting (1st draft strategy paper)	TFAEM members, NC, resource person(s)
Occasionally	E-mail communications	TFAEM members, NC
September/October 2027 (before SAC27)	The 5 th online TFAEM meeting (2 nd draft strategy paper)	TFAEM members, NC
October 2027	Progress report at SAC27 Submit the 3 rd draft strategy paper to be approved by SAC27	Chair of the Task Force, in cooperation with NC
November 2027	Progress report at IG29 Submit the final draft strategy paper to be adopted by IG29	Chair of SAC27, NC