

Twenty-second Session of the Scientific Advisory Committee  
on the Acid Deposition Monitoring Network in East Asia  
18-20 October 2022, Virtual Meeting

## **REPORT OF THE SESSION (ADOPTED)**

### **I. Introduction**

1. The Scientific Advisory Committee (SAC) of the Acid Deposition Monitoring Network in East Asia (EANET) held its Twenty-second Session of the SAC (SAC22) from 18-20 October 2022, virtually. The Session was organized by the Secretariat and the Network Center (NC) for the EANET.
2. The Session was attended by the members of the SAC and/or their alternates and other nominated persons from the Participating Countries of the EANET, namely: Cambodia, China, Indonesia, Japan, Lao PDR, Malaysia, Mongolia, Myanmar, Philippines, Republic of Korea, Russia, Thailand, Viet Nam, the Secretariat, and the NC. The List of Participants is attached as Annex.

### **II. Opening of the Session (Agenda Item 1)**

3. Mr. Bert Fabian, Coordinator, Secretariat for the EANET, delivered the Welcome Remarks. He thanked all participants and emphasized UNEP's focus on the triple planetary crises: climate change, pollution and biodiversity loss and the importance to link science to policy- and decision-making. Mr. Fabian mentioned how impressed he was with the longevity and quality of EANET data and reports and reminded participants of the timely expansion of the scope of the EANET to work on wider atmospheric substances and highlighted the role EANET could play in bridging the gap in science to policy- and decision-making on acid deposition and air pollution.
4. Dr. Shiro Hatakeyama, Director General of Asia Center for Air Pollution Research (ACAP), delivered the Introductory Remarks. In his speech, Dr. Hatakeyama thanked participants for joining the meeting. Although today's meeting was held online, he noted the presence of distinguished participants. Dr. Hatakeyama looked forward to the great success of the meeting through their contribution. Throughout 2021, the EANET has led many key activities among which monitoring activities, the publication of the PRSAD4, of data reports, QA/QC activities, seminars and capacity building activities (the Individual Training, Joint-research program etc...). As many activities were conducted online due to COVID-19 pandemic, Dr. Hatakeyama was delighted the IG24 would be organized in a hybrid format in 2022. Dr. Hatakeyama emphasized the expansion of the scope of the EANET would be effective by the end of October 2022 for Participating Countries who have approved it, leading to a new horizon for the EANET to open soon. Finally, he also congratulated and thanked all the contributors to the PRSAD4, in particular the SAC members.

### **III. Election of the Officers (Agenda Item 2)**

5. The SAC21 Session in 2021 had decided on a 3-year (2021-2023) fixed-term appointment for the SAC Bureau of officers composed of one Chairperson, two Vice-chairpersons, and a

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Rapporteur. The elected Bureau members were: Mr. Mohan Kumar Sammathuria, Principal Assistant Director, Atmospheric Sciences and Cloud Seeding Division, Malaysian Meteorological Department, Ministry of Environment and Water, Malaysia, as the Chairperson, Prof. Atsushi Kume, Professor, Department of Agro-environmental Sciences, Faculty of Agriculture, Kyushu University, Japan, and Ms. Setouvanh Phantavongsa, Deputy Director General, Natural Resources and Environment Research Institute, Ministry of Natural Resources and Environment, Lao PDR as the Vice-Chairpersons, and Dr. Hu Jingnan, Director of the Institute of Atmospheric Environment, Chinese Research Academy of Environmental Sciences, China, as the Rapporteur of the Session. The same set of officers have served as the Bureau members for the SAC22 Session. In 2022, representatives of Lao PDR Ms. Setouvanh Phantavongsa replaced Mr. Virasack Chundara who has moved to other functions.

**IV. Adoption of the Agenda (Agenda Item 3)**

6. The Session considered and adopted the Draft Provisional Agenda (EANET/SAC 22/3/1), Draft Annotated Provisional Agenda (EANET/SAC 22/3/2), as well as the Draft Program (EANET/SAC 22/3/3) of the Session.

**V. Review on the Draft Report on the Progress of the EANET since the Twenty-first Session of the Scientific Advisory Committee (SAC21) and the Draft Financial Report in 2021 (Agenda Item 4)**

7. The Secretariat and the NC presented the Draft Report on the Progress of the EANET since the Twenty-first Session of the Scientific Advisory Committee (SAC21) (EANET/SAC 22/4/1), including the Draft Financial Report of the Secretariat and the NC for 2021 (EANET/SAC 22/4/2).
8. The key points of the presentation of the Secretariat included:
- It was emphasized that the implementation of the EANET's activities was guided by the Medium-Term Plan for the EANET (2021-2025) and in accordance with the Work Programme and Budget of the EANET in 2021 and 2022.
  - The Secretariat highlighted activities which were implemented since SAC21, including the organization of EANET meetings (Working Group Meetings, IG23 and SAC21), the EANET Awareness Workshop in 2022, as well as various communication activities, and agreements with RRC.AP/AIT and the NC to support the implementation of the WPB 2022.
  - The total voluntary financial contribution received by the Secretariat in 2021 was US\$ 535,074. In addition, the total expenditures and commitments of the Secretariat in 2021 were US\$ 436,683. The cash balance for the Secretariat's core budget, including an estimated US\$ 379,429 for China in-kind contribution, is US\$ 654,586.
9. The key points of the presentation of the NC included:
- The NC stressed that the Report on the Progress of the EANET included the implemented core and non-core activities in 2021, as well as the implemented, ongoing core activities and project activities in 2022.
  - The NC highlighted activities that had been conducted which included:

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- Published the Fourth Periodic Report on the Status of Acid Deposition in East Asia (PR SAD);
  - Released Summary of Twentieth Anniversary report;
  - Implemented individual training program, and fellow ship program in 2021;
  - Revised Technical Manuals on Air Concentration Monitoring and Dry Deposition Flux Estimation in 2021 and 2022;
  - Summarized EANET Data Report in 2021;
  - Organized the Workshop on national air-quality monitoring systems and methodologies with other related partners in July, Seminar on Expanding Monitoring Systems using LCS (Low-cost Sensor) in July and Learning Opportunity on Reducing Emissions from Open Burning in September 2022.
- The total voluntary financial contribution received by the NC in 2021 was US\$ 797,341 which includes the financial contribution from the PCs for the Core activities which was US\$ 439,961, and additional revenues were US\$ 357,380. The total expenditures were US\$ 797,974, including the expenditures for core activities were US\$ 468,048, for the Non-core activities were US\$ 195,943. The balance in 2021 was minus US\$ 633.
- The NC announced that the NC received financial contribution from the Philippines US\$ 8,392 on 17 October 2022, as co-finance to 5 EANET projects in 2022.
10. The Session was invited to review the Report on the Progress of the EANET since the SAC21, including the Draft Financial Report of the Secretariat and the NC for 2021.
11. Major discussions included:  
-No comments were made.
12. The Session acknowledged the Draft Report on the Progress of the EANET since the SAC21 and the Draft Financial Reports in 2021.
- VI. Working Group Meeting 2022 Recommendations relevant to SAC22 [Agenda Item 5]**
13. The Secretariat and the NC presented the Recommendations of the Working Group Meeting of the EANET in 2022, held virtually on 24 to 25 August 2022, with a focus on Recommendations relevant to SAC22 (EANET/SAC 22/5).
14. The key points of the presentation included:
- (i) The presentation highlighted the Recommendations of the Working Group Meeting of the EANET in 2022 (WG 2022) which are relevant to the SAC22.
  - (ii) The Procedures for Establishing Task Forces and Expert Groups under the Scientific Advisory Committee of EANET (Annex 1) in the Guidelines on the Administrative and Financial Management for the Secretariat, the Network Center, and the EANET Project Fund (draft), and Text for the Supplementary Document (Annex) to the Instrument for Strengthening the EANET were explained in relation to the discussion of WG 2022.
15. The Session was invited to review the Working Group Meeting 2022 Recommendations relevant to SAC22 for consideration and adoption at the Session.

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16. Major discussions included:
  - No comments were made.
17. The Session acknowledged the Working Group Meeting 2022 Recommendations relevant to SAC22.

**VII. Adoption of the EANET Data Report 2021 [Agenda Item 6]**

18. The NC presented the Draft EANET Data Report 2021 (EANET/SAC 22/6).
19. The key points of the presentations included:
  - (i) Wet and dry deposition:
    - As for wet deposition monitoring, data from 59 sites were expected to be submitted to the Data Report 2021. It was informed that Gunung Brinchang had appeared as the new monitoring site while Tanah Rata had been closed. As for pH, part of China, Indonesia, Japan, Philippines, Malaysia and Russia had low pH sites. As for acidic substances, many sites demonstrate decreasing trends, while some sites demonstrate rapidly increasing trends.
    - As for dry deposition (air concentration) monitoring, the results monitored at 38 sites by filter-pack method, 33 sites by automatic monitor, and six sites by passive sampler were compiled in the Data Report 2021.
    - On the other hand, these numbers include sites that have stopped monitoring for some reasons in 2021, such as PM<sub>2.5</sub> monitoring at Jakarta, Mandalay, Vientiane, and Passive sampler at 3 sites in Russia.
    - Some data were submitted to the NC after the STM meeting, and 3 FP results from Republic of Korea, which were sampled and analyzed in 2020, were also submitted, so these results were updated on Data Report 2021.
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  - (ii) Soil and vegetation, inland aquatic environment, and catchment-scale:
    - Observation of the tree decline and surveys for soil, forest and understory were conducted in China and Japan in 2021. No pronounced changes have been observed in soil and vegetation condition.
    - The inland aquatic environment monitoring data in 2021 were submitted from 13 sites from 7 countries.
    - The catchment-scale monitoring was conducted in Lake Ijira, Japan and La Mesa Watershed, Philippines. Recovery from nitrogen saturation was not clear recently in Lake Ijira.
20. The Session reviewed the monitoring data of the Participating Countries in 2021 for consideration and adoption at the Session.

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21. Major discussions included:

(i) Wet and dry deposition:

- A participant from the Republic of Korea enquired on the method used to monitor PM<sub>2.5</sub> and PM<sub>10</sub> in the EANET over concerns Republic of Korea may be using a different method.
- The NC explained that for PM monitoring, most EANET Participating Countries are using the NILU-type filter pack method. Further information on this could be found and described in the EANET Technical Manual.
- The NC clarified that the differences from the filter pack method currently used in the Republic of Korea are the time resolution, flow rate, and PM impactor.
- It was informed that for next year, the Korean sampling method will be used in addition to the EANET method at one monitoring site in the Republic of Korea in order to compare the data.
- It was clarified that coarse particle matter concentration (PM<sub>c</sub>) was calculated as the difference between PM<sub>10</sub> and PM<sub>2.5</sub>.
- It was explained that automatic monitoring systems have been used for particle mass concentration, and passive sampling systems have been only used for gas components in some EANET sites.
- It was suggested to open the access to EANET data immediately after adoption of Data Report, [currently available outside the EANET one year after the publication of the Data Report (in line with document SAC3/6/2\_rev)], as it was already suggested during the SAC19 meeting. It was suggested that the next SAC session discuss to reconsider this decision so that the EANET data could be used more effectively.
- The NC informed the Session they would consider this issue and conduct necessary actions to solve it.

(ii) Soil and vegetation, inland aquatic environment, and catchment-scale:

- It was mentioned that currently, as reported in the PRSAD4, only China and Japan are conducting soil and vegetation monitoring. To better represent the EANET's geographic diversity and climates, it would be very useful if more EANET countries would agree to conduct such studies, to provide more regional data.
- Malaysia shared with the Session its plan to conduct soil and vegetation monitoring in Pasoh next year, monitoring which had been discontinued due to a change of personnel.
- It was announced that data at the Sungai Baru site for inland aquatic environment monitoring will be submitted soon.

22. The Session, in principle, adopted the Data Report 2021. Nevertheless, the Participating Countries which have not done it so far still can submit their data to the NC.

**VIII. Adoption of the Report on the Inter-laboratory Comparison Projects 2021 [Agenda Item 7]**

23. The NC presented the Draft Report on the Inter-laboratory Comparison (ILC) Projects 2021 (EANET/SAC 22/7), which included the results of the wet deposition, dry deposition (filter pack method), soil and vegetation, and inland aquatic environment ILC Projects carried out in 2021.

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24. The key points of the presentations included:
- For ILC on wet deposition, 33 participating laboratories submitted their analytical results of the artificial rainwater samples to the NC. 90.0% and 86.9% of submitted data met the Data Quality Objective (DQO) of EANET for high and low concentration samples, respectively. The percentage of data by each participating laboratory within the DQO from 1998 to 2021 was shown. After disclosing the setting values of artificial samples, the NC will request a re-analysis of flagged parameters to confirm the validity of the analytical procedure in the laboratory.
  - For ILC on dry deposition, the NC distributed samples to 23 participating laboratories in 12 countries and received results from 19 laboratories. 75.0% for their small quantity and 69.6% for their large quantity of the submitted data met the DQO of EANET. The NC encouraged all participating laboratories to analyze the samples as soon as the samples arrives, and to inform the NC if the sample has anything wrong.
  - In 23<sup>rd</sup> ILC Project on soil, 14 laboratories from 7 countries participated. There were both random and systematic errors for factors of variabilities in measurements. Ratio of outliers was higher than usual.
  - Twenty-three laboratories participated in the 22<sup>nd</sup> ILC project on inland aquatic environment, and 20 laboratories submitted their analytical data. The NC pointed out that the flagged data percentage of all the reported data was lower than the last attempt.
25. The Session was invited to review, make comments, and provide guidance for consideration and adoption.
26. Major discussions included:
- The NC announced that the samples of the Inter-laboratory Comparison Projects 2022 would be shipped on 21 October 2022 to the Participating Countries.
27. The Session adopted the Report on the Inter-laboratory Comparison Projects 2021.
- IX. Overview of the Updated National Monitoring Plans of the Participating Countries**  
**[Agenda Item 8]**
28. The NC presented an overview of the National Monitoring Plans of the Participating Countries (EANET/SAC 22/8) based on the latest information submitted by the Participating Countries.
29. The key points of the presentations included:
- The NMPs have been prepared every year by the National QA/QC Managers in the Participating Countries using the electronic template available from the QA/QC Guidebook 2016.
  - The NMPs 2022 were submitted from almost all countries and finalized at the STM23. The NC will verify monitoring data for 2022 by referring to the 2022 NMP of each Participating Country.
  - The Participating Countries are expected to nominate existing national sites to the EANET.

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30. The Session was invited to discuss the National Monitoring Plans of the Participating Countries and provide necessary comments and guidance as appropriate.
31. Major discussions included:
  - It was pointed out that effects of PM<sub>2.5</sub> and ozone on human health and environment are clear in the East Asian region. It was pointed out that PM sources were quite different among the various EANET countries. The enhancement of the onsite observation would be required from the view of the remote sensing research field to identify possible PM sources, considering the diverse nature of the observed areas, such as in urban, rural, or remote settings, and in line with the timely expansion of the scope of the EANET.
  - Currently, National Monitoring Plans (NMP) from three Participating Countries have not been submitted. It was announced that Malaysia would submit its NMP soon.
  - The number of EANET sites monitoring ozone and PM<sub>2.5</sub> are not sufficient to cover the East Asia region. It was suggested various solutions to be considered to improve the spatial coverage. In addition to the possible nomination of the domestic sites and installation of the instruments in existing ones, the utilization of remote sensing and modeling may be considered as a solution. It was pointed out that SAC could consider this issue for the future as for ground observation, is it challenging to increase the monitoring sites. It was recommended that regional assessments for the whole region be promoted, from the scientific viewpoint.
  - It was informed that in the Philippines, the automatic PM<sub>2.5</sub> monitoring system was relocated from Metro Manila to Mt. Sto. Tomas, Batangas.
32. The Session acknowledged the updates on the overview of the National Monitoring Plans of the Participating Countries.
- X. **Consideration of the Progress of Activities by the Task Forces and Expert Groups under the Scientific Advisory Committee (SAC) [Agenda Item 9]**
33. The Network Center presented the Progress of Activities by the Task Forces and Expert Groups under the Scientific Advisory Committee (SAC) (EANET/SAC 22/9).
34. The key points of the presentation included:
  - Task Force on Soil and Vegetation Monitoring and (TFSVM) the NC shared the scientific information regarding the importance of the recovery process, regional impact assessment, and ozone effects. Publication of related papers written by Task Force members and/or NC scientists were introduced as scientific outputs.
  - The 3rd meeting of the Expert Group on revision of the Technical Manuals for Dry Deposition Flux Estimation and Air Concentration Monitoring (EGRTM) was held in June 2022 and the 6th meeting of the Task Force on Monitoring for Dry Deposition (TFMDD) was held in October 2022.
  - According to the comments and suggestions by EGRTM and TFMDD, the final drafts of Revised Technical Manuals were reported.
35. The Session was invited to make comments, suggestions, and recommendations from scientific and technical viewpoints.

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36. Major discussions included:
- A publication on ozone effects on agricultural crops was shared as the latest scientific information among the Task Force on Soil and Vegetation Monitoring. It was pointed out that the assessment results on ozone effects be carefully considered taking account of their uncertainty. It was suggested that relevant research activities be promoted to evaluate the effects.
  - The improvements and updates made recently on the Technical Manual on dry deposition flux estimation were noted and welcomed. It was however suggested to continue improving the practical aspects and usability of the manual to be more user-friendly and adapted to users who may not be experts in this field, in particular on data usage.
  - It was suggested to invite the Network Center to consider organizing a workshop on the implementation of the technical manuals in the various EANET Participating Countries, with a focus on dry deposition calculation. Such workshop would be in line with the World Meteorological Organization's (WMO) atmospheric approach and evaluation of atmospheric pollution and would contribute to the quality of the EANET data.
  - The Network Center informed the Session they would further improve the manuals and send these for review based on the comments from SAC.
  - The Task Forces' continued hard work, even remotely, during the COVID-19 pandemic were acknowledged and praised.
37. The Session considered and acknowledged the Progress of Activities by the Task Forces and Expert Groups and provided comments, suggestions, and recommendations from scientific and technical viewpoints for consideration and approval at the IG24 of EANET.
38. The Session also adopted the Revised Technical Manual for Air Concentration Monitoring in East Asia and the Revised Technical Manual on Dry Deposition Flux Estimation in East Asia with corrections as appropriate.

**XI. Consideration of the Re-organization of the Task Forces [Agenda Item 10]**

39. The Network Center presented the Re-organization of the Task Forces (EANET/SAC 22/10)
40. The key points of the presentation mentioned that:
- the proposal of the re-organization of Task Forces is in line with the expansion of scope of EANET.
  - the proposed three Task Forces will be responsible for the scientific field of activities in EANET.
  - SAC discussions and views are important from the scientific viewpoints and will make recommendations to IG24.
41. The Session was invited to make comments, suggestions, and recommendations from scientific and technical viewpoints for consideration and approval at the IG24 of EANET.
42. Major discussions included:



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- The new structure of the Task Forces was welcomed and noted to better fit the expanded scope of the EANET.
- However, it was pointed out that activities of re-organized Task Forces may be more complicated than before in response to the expansion of the EANET scope and shift from monitoring techniques to assessment and evaluation.
- It was suggested to take example from other Task Forces in the region, and as for the composition of the Task Force on Monitoring and Assessment of Environmental Effects (TFEE), it was suggested that the new Task Force invites external experts on human health risks and other regional partners conducting similar activities, such as from the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP) in addition to WHO.
- It was suggested that the name of the Task Force on Atmospheric Environmental Management (TFAEM) be Task Force on Atmospheric Environmental “Quality” Management.
- It was suggested to improve the names of the Task Forces to be more specific to the activities to be performed.
- It was suggested to delete “region” in “EANET Region” from the TOR descriptions and instead focus on pilot cities or on voluntary-basis studies within EANET countries.
- It was suggested to delay health-related studies since the state of the research on this topic is less advanced in EANET and instead focus on ecosystems’ impacts.
- It was suggested to delete the words “first step” in the TFAEM TOR description.
- The Network Center explained that Task Force activities should contribute not only to specific pilot cities, but to the whole region. Moreover, one of the objectives of EANET is “*to provide useful inputs for decision making at local, national and regional levels aimed at preventing or reducing adverse impacts on the environment caused by acid deposition*”. Therefore, local (city level), national, and regional levels can be considered in parallel.
- The Network Center further clarified that based on the approved Annex to the Instrument, research on health may be conducted, even though this research topic is new for the EANET. This is why, as a first step, the TFAEM would discuss the methodology on how to estimate the impacts on health and then submit the results to the SAC. Although health impact studies contain uncertainties to some extent, they should not be neglected as the health impact is key, along with the impacts on ecosystems. Many studies have been conducted under international organizations and researchers including the WHO reports on health impacts related to atmospheric environmental issues.
- For TFAEM, it was suggested that modeling could be useful for regional assessment and be applied to any spatial levels.
- For TFAEM, it was suggested to revise the sentence on co-benefits, by rephrasing that they allow to mitigate “Green House Gases” instead of “Climate Change”.
- It was mentioned that a step-by-step approach is important to implement activities of the Task Forces. However, science teams of the Task Forces are encouraged to discuss not only short-term, but also mid-term and long-term workplans from the scientific point of view.
- It was suggested that the activities of TFEE be conducted in pilot research projects considering the complexity and uncertainty of the technologies in assessing environmental effects.

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43. The Session considered this Agenda item and provided comments, and suggestions from some SAC members for further consideration and possible approval at the IG24 of EANET.

## **XII. Updates on the Research Activities of the EANET [Agenda Item 11]**

### **(1) Progress of the Studies on the Effects of Acid Deposition on Ecosystems**

44. The Network Center presented the Progress of the Studies on the Effects of Acid Deposition on Ecosystems (EANET/SAC 22/11/1).
45. The key points of the presentation included:
- As the overall project scheme, it was clarified that the research project has been closely related to the EANET Core monitoring activities as well as the relevant research activities and the national monitoring. The project scheme is expected to contribute to common understanding of acid deposition effects.
  - The publications on impact assessments on a catchment scale and the regional scale were introduced as scientific outputs.
46. The Session was invited to make comments, suggestions, and recommendations from scientific and technical viewpoints for consideration and approval at the IG24 of EANET
47. Major discussions included:
- No comments were made.
48. The Session considered, acknowledged this Agenda item and provided comments, suggestions, and recommendations from scientific and technical viewpoints for consideration and approval at the IG24 of EANET.

### **(2) Observational Studies of the PM<sub>2.5</sub> Components and Source Apportionment**

49. The Network Center presented the Observational Studies of the PM<sub>2.5</sub> Components and Source Apportionment (EANET/SAC 22/11/2).
50. The key points of the presentation included:
- Seasonal intensive monitoring of PM<sub>2.5</sub> components at Niigata-Maki was conducted from 2015 to 2021 to clarify characteristics of PM<sub>2.5</sub> components in eastern Japan and quantify the source contributions of PM<sub>2.5</sub> by a receptor model.
  - Long-term daily monitoring of PM<sub>2.5</sub> at 3 sites in Bangkok was conducted under Japan-Thailand Clean Air Partnership (JTCAP) from 2018 to 2019 to characterize PM<sub>2.5</sub> components and quantify major sources of PM<sub>2.5</sub>.
  - Long-term weekly monitoring of PM<sub>2.5</sub> and precipitation at 2 sites in Bangkok was jointly conducted by JICA Research Institute, Asian Institute of Technology, ACAP, and the Thailand PCD from 2015 to 2017 to clarify removal processes of carbonaceous species and inorganic ions in PM<sub>2.5</sub>.

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51. The Session was invited to make comments, suggestions, and recommendations from scientific and technical viewpoints for consideration and approval at the IG24 of EANET
52. Major discussions included:
  - On the study conducted under Japan-Thailand Clean Air Partnership (JTCAP), it was suggested to include secondary formation of PM<sub>2.5</sub> in Bangkok in addition to primary sources of PM<sub>2.5</sub> in the EANET report.
  - It was also clarified that the high concentration of nitrate reported in the study is due to the monitored location situated close to the roadside.
  - The NC informed that next year, this study would be proposed as a project activity and the results and analysis would be more detailed on the source apportionment study.
53. The Session considered, acknowledged this Agenda item and provided comments, suggestions, and recommendations from scientific and technical viewpoints for consideration and approval at the IG24 of EANET

### **XIII. Consideration of the Draft Work Programme and Budget of the EANET in 2023 from scientific and technical viewpoints [Agenda Item 12]**

#### **(1) Core Activities of the EANET and Proposed Project Plans in 2023**

54. The Secretariat and the NC presented the Core Activities of the EANET and proposed eight Project Plans in 2023 (EANET/SAC 22/12/1) and (EANET/SAC 22/12/2).
55. The key points of the presentation included:
  - The presentation included additional activities and supplementary information arising from the Working Group 2022 recommendations and in line with the expansion of scope and the establishment of the EANET Project Fund, approved by the IG23 in November 2021.
  - The estimated voluntary financial contribution of Participating Countries to the SEC and NC core budget for the EANET in 2023: US\$ 607,200 for the SEC and US\$ 548,799 for the NC.
  - An overview of annual budget, contributions, expenditure, and cumulative cash balance of the Secretariat from 2015 to 2021.
  - The estimated cash balance for activities in 2023 and the operating reserve (in US\$) of the SEC, showing a total estimated income for 2022 of US\$1,130,375 considering the available cash balance as at 31 Dec 2021 plus the estimated voluntary contributions to be received in 2022 minus the expenditure and commitment in 2022 and the 80% of Core Budget of the SEC for 2023 based on the MTP 2021-2025 (operating reserve), resulting in an available cash balance of US\$ 73,215 for activities in 2023.
  - The Core Budget of the Secretariat and Network Center in 2023, with a total of US\$ 637,885 for the SEC and US\$ 626,130 for the NC.
  - The estimated revenue for the Network Center in 2023 which is US\$ 684,329.
  - The presentation also listed the additional tasks of the EANET Secretariat based on the EANET Project Fund and Project Guideline approved at IG23 in November 2021.

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- The presentation on the Project Plans in 2023 included the 8 project plans/ concept notes submitted to the Secretariat for the EANET by the end of July 2022.
  - The criteria of selection of projects plans were presented to inform the SAC.
  - The summary of the budget available for the Project Plans totaling US\$412,000, including funding from the available cash balance of the Secretariat, and financial support from Japan.
56. The Session was invited to make comments, suggestions, and recommendations from scientific and technical viewpoints for consideration and approval at the IG24 of EANET
57. Major discussions included:
- It was clarified that Project 2023-1: “Studies on the effects of atmospheric deposition on ecosystems, from a catchment scale to a regional scale” would include a study focusing on the entire EANET region but a regional-scale study would be conducted as a methodological study. To reflect this, the project title will be modified by adding “as a methodological study” after “a regional scale”.
  - It was suggested that the information shared during workshops should be clarified as not representing the official EANET opinion whenever research findings that may include uncertainties are concerned.
  - It was clarified that any scientific activities might have uncertainties and workshops/seminars did not require consensus since such activities did not intend to represent the official EANET opinion, as such, the results of such activities should be attributed to the authors. However, it is important to share scientific facts through such opportunities.
  - It was clarified that concerning Project 2023-06 “The webinar workshop for capacity building on emission inventory for combustion sources” the workshop content would only consist of information sharing from each Participating Country on their local challenges and expected learnings and not intend to express the official opinion of the EANET.
  - The Philippines expressed its enthusiasm to participate in the VOC project as this activity will contribute to the Philippines’ work on the development of national air quality guidelines.
  - Mongolia also informed the Session that they are looking forward to the implementation of the VOC project.
58. The Session considered the Agenda item and provided comments and suggestions from some SAC members for consideration and possible approval at the IG24 of EANET.

**XIV. Other matters [Agenda Item 13]**

59. In agreement with the Bureau, the Network Center prepared the document “Revision of Detailed Mechanism of Article 4 of the Procedures on Data and Information Disclosure for EANET (draft)” (EANET/SAC 22/13/1) to be discussed under Agenda 13, following discussions on the first day of the SAC22 meeting on the subject. The document was shared with Participating Countries on 20 October 2022 before the meeting.
60. The key points of the presentation included:

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- The presentation of the history of previous revisions of the document “Detailed Mechanism of Article 4 of the Procedures on Data and Information Disclosure for EANET” (EANET/SAC 22/13/1) since SAC3 and SAC14.
  - The details of the proposed revisions to the document in para 2.2 “Starting time of disclosure” and in the chart.
61. The Session was invited to make comments, suggestions, and recommendations from scientific and technical viewpoints for consideration and approval at the IG24 of EANET.
62. Major discussions included:
- It was informed that the first version of this document was prepared 20 years ago. At that time the delay was of 1 year to disclose the monitoring data outside of the EANET region, such as in the USA or Europe. Today, this seems out of date as the monitoring data could be used immediately once validated by SAC members who all represent each Participating Country. It would benefit EANET more. This proposal could be submitted to IG24.
  - SAC members from China expressed their concerns on the proposed revision of the document “Detailed Mechanism of Article 4 of the Procedures on Data and Information Disclosure for EANET” because this proposal only came in the morning of 20 Oct.
63. The Session considered this Agenda item and provided comments and suggestions, from some SAC members for consideration at the IG24 of EANET.
64. In agreement with the Bureau, Agenda item 10 was discussed further. The NC presented changes to the Consideration of the Re-organization of the Task Forces. The NC also shared information on events.
65. Major discussions included:
- i. On Agenda 10:
    - While some participants suggested to keep the reference to the “pilot cities” in the TOR of the Task Forces, and delete the word “region” in “EANET Region”, others discussed the benefits of keeping the wording mentioning the “region”.
    - It was suggested that the name of the Task Force on Atmospheric Environmental Management (TFAEM) be Task Force on Atmospheric Environmental “Quality” Management.
    - On the TF on Environmental Effects, it was suggested to call it “Terrestrial” Environmental Effects although some hesitations on this suggestion were expressed.
  - ii. Events:
    - The NC shared the program of the [EANET Emission Inventory Webinar Workshop on Open Biomass Burning](#) that will take place on the 5 December 2022, the [EANET Workshop on the Relationship between the Atmospheric Environment, Human Health and Ecosystems](#) on 31 October 2022, and the 13<sup>th</sup> International Workshop on Atmospheric Modeling Research in East Asia, on 22-23 December 2022. The NC also presented the [Acid Rain 2020](#) event which will take place in April 2023 and reminded the abstract submission is extended to 31 October 2022.

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66. The Session considered, acknowledged this Agenda item and provided comments, suggestions, and recommendations from scientific and technical viewpoints for consideration and approval at the IG24 of EANET.

**XV. Consideration and Adoption of the Report of the Session [Agenda item 14]**

- The Report of the Session (EANET/SAC 22/14) including the SAC22 Recommendations was considered and adopted.

**XVI. Closing of the Session (Agenda Item 15)**

- The Session expressed its appreciation to the efforts made by the Chairperson, Vice-Chairpersons, and the Rapporteur in making the SAC22 Session fruitful and successful.
- The Session was officially closed by the Chairperson, thanking all the participants for their valuable contributions.

**Annex 1**

**SAC22 RECOMMENDATIONS TO IG24**

Recalling the mandate of the Scientific Advisory Committee as “*the subsidiary body of the IG, will advise and assist the IG with various scientific and technical matters related to the EANET activities as mandated to it by the IG*” in the approved revised Guidelines on the Administrative and Financial Management for the Secretariat and the Network Center, section on Rules of Procedures of the EANET Meetings and Dissemination of Data and Information.

Further recalling the Procedure for Establishing Task Forces and Expert Groups under the SAC of the EANET (Annex 2 of EANET/IG 10/7) approved at the Tenth Session of the Intergovernmental Meeting (IG10) on the EANET in 2008.

The 22<sup>nd</sup> Session of the Scientific Advisory Committee (SAC 22) Meeting held from 18-20 October 2022 recommends the twenty-fourth Session of the Intergovernmental Meeting (IG24) on the Acid Deposition Monitoring Network in East Asia (EANET) to:

***I. Re-organization of Task Forces***

Consider and possibly approve the re-organization of following Task Forces;

- 1) Task Force on Monitoring and Assessment of Atmospheric Environment
- 2) Task Force on Monitoring and Assessment of Environmental Effects
- 3) Task Force on Atmospheric Environmental Quality Management

***II. Work Programme and Budget of the EANET in 2023***

Consider and possibly approve the Work Programme and Budget of the EANET in 2023 of Core Activities and proposed EANET Project Plans, as appropriate.

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The Eighteenth Session of the Scientific Advisory Committee  
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