

The Nineteenth Session of the Scientific Advisory Committee
on the Acid Deposition Monitoring Network in East Asia
8-10 October 2019, Siem Reap, Cambodia

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 Nineteenth Session (SAC19) from 8-10 October 2019 in Siem Reap, Cambodia. The Session was organized by the Secretariat and the Network Center (NC) for the EANET and hosted by the General Directorate of Environmental Protection, Ministry of Environment, Cambodia.
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. Dr. Erdenebat Eldev-Ochir, Deputy Director General of Asia Center for Air Pollution Research (ACAP) delivered the Introductory Remarks. In his speech, Dr. Erdenebat highlighted activities carried out by the NC. He has noticed that the Medium Term Plan for the period 2021-2025 needs to be developed by considering a clear picture of what is our goal or target, what kind of activities needs to be undertaken, and what is our expected outcome. Dr. Erdenebat informed that in 2020, the EANET community together with the partner organizations will commemorate 20 years of the EANET by organizing Acid Rain 2020 and Clean Air Week in Niigata, Japan.
4. Mr. Tomi Haryadi, Coordinator, Secretariat for the EANET, delivered the Opening Remarks. He informed that EANET's contribution to better air quality in the region is well- noted in the international forums. In the report to the Fourth United Nations Environment Assembly, the Session recognized EANET's contribution to progress implementation of resolution 3/8 on preventing and reducing air pollution to improve air quality globally through its monitoring and assessment activities.

5. Mr. Heng Nareth, Director General, General Directorate of Environmental Protection, Ministry of Environment, Cambodia delivered the Welcome Remarks on behalf of the host country. He warmly welcomed delegates of the participating countries of the EANET and extended special thanks and appreciation for supporting Cambodia in the implementation of the EANET activities. He informed that since 2001, Cambodia is strongly committed to implementing EANET activities, including regularly monitoring of rainwater and dry deposition in Phnom Penh and Siem Reap province as well as inland aquatic at Preah Suramarit-Kossamak Kirirom National Park in Kompong Speu Province. Cambodia also started monitoring PM2.5 at Phnom Penh from April 2017 and received an ozone monitor from ACAP. He also informed that Cambodia is going to adopt new government regulations on measures of prevention of air pollution from oil import by limiting sulphur content.

III. Election of the Officers (Agenda Item 2)

6. The Secretariat and the NC introduced the previous system of 3-year fixed term bureau members and re-election of the officers of the SAC. The 3-year fixed term of the SAC bureau members from the Fifteenth Session to the Seventeenth Session of the SAC (SAC15-SAC17) was implemented by means of re-election. The Session decided a 3-year (2018-2020) fixed term appointment for the SAC bureau members composed of one Chairperson, two Vice-chairpersons, and a Rapporteur. The elected bureau members were as follows: Dr. Le Ngoc Cau, Director, Center of Environmental Research, IMHEN, MoNRE, Viet Nam as the Chairperson, Prof. Fan Meng, Director, Institute for Atmospheric Environment, Chinese Research Academy of Environmental Sciences, China, and Prof. Wilfredo M. Carandang, University of the Philippines Los Baños, Philippines, as Vice-Chairpersons, and Mr. Eka Suharguniyawan, Head, Atmospheric Chemistry Composition Analysis, Meteorological Climatological and Geophysical Agency, Indonesia as the Rapporteur of the Session. Unfortunately, Prof. Fan Meng and Mr. Eka Suharguniyawan were not able to join the SAC19. In this regard, the Secretariat requested Dr. Gantuya Ganbat, Head, Unit of Research, Innovation and Environmental Quality, the National Committee on Reducing Environmental Pollution, Ministry of Environment and Tourism of Mongolia, to serve as the Rapporteur of the Session.

IV. Adoption of the Agenda (Agenda Item 3)

7. The Session considered and adopted the Provisional Agenda (EANET/SAC 19/3/1), the Annotated Provisional Agenda (EANET/SAC 19/3/2), and the Draft Program (EANET/SAC 19/3/3) as proposed.

- V. **Review on the Draft Report on the Progress of the EANET since the Eighteenth Session of the Scientific Advisory Committee (SAC18) and the Draft Financial Report in 2018 (Agenda Item 4)**

8. The Secretariat and the NC presented the Draft Report on the Progress of the EANET since the Eighteenth Session of the Scientific Advisory Committee (SAC18) (EANET/SAC 19/4/1) including the Draft Financial Reports in 2018 of the Secretariat and the NC (EANET/SAC 19/4/2). The presentations also included the outcomes of the Twentieth Session of the Intergovernmental Meeting (IG20) on the EANET.

9. The key points of the presentation of the Secretariat included:
 - The Secretariat highlighted the implementation of EANET activities since SAC18 managed by the Secretariat, including organization of EANET meetings (IG20, SAC18), Working Group Meeting of the MTP (2021-2025), and Awareness Forum on Prevention of Air Pollution in Asia Pacific, renewal of EANET website, and development of the communication materials. The Secretariat developed the Small-Scale Funding Agreement with the RRC.AP/AIT and the NC.
 - The total voluntary financial contribution received by the Secretariat in 2018 is US\$ 500,752. The total expenditures and commitments of the Secretariat in 2018 are US\$ 476,469. The grand-total expenditure of the Secretariat, including the expenses for a 1-year technical consultant (China in-kind contribution) is US\$ 553,979.

10. The key points of the presentation of the NC included:
 - The NC highlighted progress of implementation of EANET activities since the SAC18 including the administrative arrangements, such as Inter-laboratory Comparison Projects in 2017/2018/2019, publication of Data Report 2017, organization of Clean Air Technology Workshop 2018 in China, individual training at the NC in 2019, provision of technical support including technical missions to the participating countries, implementation of EANET fellowship, research activities in 2018. The Twentieth Senior Technical Managers' Meeting (STM20) organized by the NC in Malaysia was also introduced.

- The NC introduced that the voluntary financial contributions from the participating countries to the NC core budget in 2018 were US\$ 351,090, and voluntary financial contributions from the organizations in Japan to the NC additional budget and office rental cost in 2018 was US\$ 680,539. The total revenue of the NC for the EANET in 2018 (core and additional budget and office rental cost) is US\$ 1,031,629. The total expenditure for the implementation of the NC activities, including office rental cost in 2018 is US\$ 1,009,177.
11. The Session was invited to make comments on the presentation and provide guidance.
 12. Major discussion included:
 - Initially, three researchers from the participating countries selected the EANET Research Fellowship in 2019. Unfortunately, two selected researchers were withdrawn due to an unforeseen situation. The Secretariat and the NC proposed reallocating the unspent two fellowship budget of 2019 to 2020, given the total of four fellowships available in 2020.
 - The participating countries are requested to encourage their researchers to apply for the fellowships in 2020.
 13. The Session acknowledged the Draft Report on the Progress of the EANET since the SAC18 and the Draft Financial Reports in 2018.

VI. Adoption of the EANET Data Report 2018 (Agenda Item 5)

14. The NC presented the Draft Data Report 2018 (EANET/SAC 19/5). The report included data on wet deposition, dry deposition, soil and vegetation, inland aquatic environment and catchment-scale, from the monitoring activities carried out by the participating countries in 2018, which were submitted to the NC.
15. The key points of the presentations included:
 - i. Wet and dry deposition:
 - Wet deposition data from 57 sites were compiled in the Data Report 2018. Low completeness of the data in several sites was due to malfunctions of instruments. It was pointed out as a major problem of wet deposition monitoring. Compared to the 5-year

average of the previous years, the deposition amounts of acidic substances in 2018 showed an increase or decrease depending on sites.

- Dry deposition (air concentration) data from 52 sites were compiled in the Data Report 2018. In some sites in China and Japan, the declining trends of air concentrations have been observed for acidic substances, such as SO₂, in the last several years, while increasing trends on acidic substances could be observed in sites in Southeast Asian countries.
- A new data download system of the EANET was introduced with detailed data disclosing procedures. Currently, the entire data are disclosed for the EANET countries immediately after the adoption of the Data Report, while the raw data (such as high-time resolution data) will be disclosed outside the EANET one year after the adoption. The one-year time lag was adopted to allow the EANET community to assess the data within the region at first.

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

- Soil and forest vegetation monitoring is conducted every 3 to 5 years, while observation of tree decline is recommended to be conducted every year. Finally, only one country, Malaysia, submitted the soil data, while two countries, China and Japan, submitted the tree decline data. No pronounced change on tree decline conditions was reported.
- Inland aquatic data from 15 sites were compiled in the Data Report 2018. In a number of sites in China and Japan, an increase of pH with a decrease of SO₄²⁻ and NO₃⁻ concentrations has been observed recently, which was harmonized with the atmospheric data.
- The regular catchment-scale monitoring has been started in La Mesa Watershed, the Philippines, in addition to Lake Ijira catchment, Japan. Although only the data from Lake Ijira catchment are compiled in Data Report 2018, the data from La Mesa Watershed are expected to be submitted soon.

16. The Session was invited to review the monitoring data of the Participating Countries in 2018 for consideration and adoption at the Session.

17. Major discussion included:

- i. Wet and dry deposition:
 - No question/comment on this agenda item.
- ii. Data download system:

- The local time in each site is used for hourly data of the air concentration monitoring. It was suggested that the NC consider the possibility of using Coordinated Universal Time (UTC) as the time standard of the network data.
 - Raw data (high-time resolution data) are provided for online-registered users. The number of registered users is gradually increasing but still not high enough. It was suggested that the entire data could be disclosed for all countries without the one-year time lag to promote use of the EANET data in the scientific community. It was suggested that revision of the Data Mechanism of Article 4 of the Procedures on Data and Information Disclosure for EANET (EANET/SAC 3/6/2_rev) could be discussed in the next Session of SAC.
 - In the case that scientists use the EANET data for their scientific papers, this should be noted in the acknowledgement of the paper. The data are updated regularly/ occasionally, and the URL may also be modified. It was suggested that an appropriate method for citing should be discussed and shown to the data users.
 - Users of data access are open to EANET members and non-members by submitting the registration online. This registration system is separated from the repository on the EANET website.
 - At this moment, the number of registered users is approximately 60 from 20 countries. EANET data users are currently expanded to outside EANET countries.
- iii. Soil and vegetation, inland aquatic environment and catchment-scale:
- No question/comment on this agenda item.
18. The Session, in principle, adopted the Data Report 2018. Nevertheless, the participating countries still could submit the data to the NC.
- VII. Adoption of the Report on the Inter-laboratory Comparison Projects 2018 [Agenda Item 6]**
19. The NC presented the Draft Report on the Inter-laboratory Comparison (ILC) Projects 2018 (EANET/SAC 19/6) 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 2018.
20. The key points of the presentation included:

- For ILC on wet deposition, 33 participating laboratories submitted their analytical results of the artificial rainwater samples to the NC. 87.8% and 82.8% of submitted data met the Data Quality Objective (DQO) of EANET for large and small quantity samples, respectively. After ILC was done, artificial rain samples can be used as Standard Reference Material. After disclosing the setting values of artificial samples, the NC will request re-analysis of flagged parameters to confirm the validity of the analytical procedure in laboratory.
 - For ILC on dry deposition, 27 participating laboratories submitted their analytical results of the filter samples to the NC. 84.5% and 57.5% of submitted data met the DQO of EANET for large and small quantity samples, respectively. Most of the reported data showed negative bias, which may be caused by the filter extraction process. The selection of the proper calibration curve range is important for accurate analysis.
 - For ILC on soil, 13 participating laboratories submitted their analytical results of the soil samples to the NC. The coefficient of variations (CVs) of inter-laboratories precision for pH was small but became larger compared to 2017. CVs of within-laboratory precision were small enough in all properties, while CVs of inter-laboratory precisions were still relatively large for exchangeable cations.
 - For ILC on inland aquatic environment, 22 participating laboratories submitted their analytical results of the artificial inland water samples to the NC. 84.7% of submitted data met the DQO of EANET. Although flagged data of K^+ , Mg^{2+} , and NH_4^+ decreased from the last ILC survey, the number of flagged data of NH_4^+ is still high. Contamination of NH_4^+ in the laboratory, improper calibration curve range, incomplete separation of NH_4^+ and Na^+ peaks in ion chromatogram are the main reasons for the flagged data.
21. The Session was invited to review, make comments, and provide guidance for consideration and adoption at the Session.
22. Major discussion included:
- i. Wet and dry deposition:
 - No question/comment on this agenda item.
 - ii. Soil and inland aquatic environment:
 - The ratio of outlying data for the project on inland aquatic environment is lower than those in the early period of the EANET. It was pointed out that the actual causes of the improvement were not clear. It may be caused by various factors, such as changes in

analytical staff and instruments, affected the data quality, as well as increasing accuracy in the analysis by laboratory staff.

23. The Session adopted the Report on the Inter-laboratory Comparison Projects 2018.

VIII. Overview of the Updated National Monitoring Plans of the Participating Countries
[Agenda Item 7]

24. The NC presented an overview of the National Monitoring Plans of the Participating Countries based on the latest information submitted from the Participating Countries (EANET/SAC 19/7).

25. The key points of the presentation included:

- The National QA/QC Managers were requested to prepare the NMPs every year by using the electronic template available from the QA/QC Guidebook 2016.
- The NMPs 2019 were finalized based on the discussions in the STM20. The monitoring data in 2019 will be verified by referring to the NMPs 2019 of each participating country.
- According to the information on the NMPs 2019, the number of EANET monitoring sites is increased compared to the previous year. By nomination of the national site as well as installation of monitoring instruments into existing monitoring sites, further increase of monitoring sites is expected.

26. The Session was invited to discuss the NMPs of the participating countries and provide necessary comments and guidance as appropriate.

27. Major discussion included:

- It was clarified that there were 13 national air quality monitoring stations in Ulaanbaatar, Mongolia. Two new monitoring stations have been put into operation since 2019. The NC requested Mongolia to update the NMPs after the internal consideration of the selection of stations.
- The changes in the surrounding area of monitoring sites should be compiled as metadata properly. The new template of the NMPs includes the information on surrounding area of the monitoring sites. It was suggested to consider the appropriate systems/methods to share the information on the surrounding area. The NC informed that the existing metadata of the EANET would be provided to World Meteorological Organization, Global Atmosphere Watch (WMO/GAW) as part of their contributing networks.

- The NC informed that QA/QC of automatic sampler could not be ensured by inter-laboratory comparison, so users should estimate data quality by themselves.
 - PM2.5 and ozone monitoring in the participating countries should be strengthened.
 - The number of sites for gas and aerosol monitoring is not enough for spatial coverage in East Asia. It was suggested that monitoring on PM2.5 should be strengthened and satellite data also should be used for assessing PM2.5.
 - The PM2.5 monitoring device in Viet Nam provided by ACAP is not working stably recently due to high temperature and humidity. Viet Nam plans to increase the number of PM2.5 monitoring sites in near future.
 - Taking into account possible future scope expansion of EANET activities, China considers sharing PM2.5 data of other cities in the future. New sites in China may include the monitoring of ozone and PM2.5.
28. The Session acknowledged the updates on the overview of the National Monitoring Plans of the Participating Countries.

IX. Consideration of the Reports from the Chairpersons of the Task Forces of the Scientific Advisory Committee (SAC) [Agenda Item 8]

Task Force on Monitoring for Dry Deposition

29. The Secretariat of the Task Force on Monitoring for Dry Deposition (TFMDD) presented the Progress Report on the Activities of the Task Force on Monitoring for Dry Deposition (EANET/SAC 19/8/1).
30. The key points of the presentation included:
- The current status of activities to be implemented to achieve the objectives of the Strategy on Monitoring for Dry Deposition from 2016 to 2020 is explained.
 - In late 2019/early 2020, the 1st meeting of the Expert Group to review the current Technical Manuals and discussions on elaborated methods of dry deposition flux estimation and air concentration monitoring methods in East Asia will be organized.
 - In the first quarter of 2020, the 5th meeting of the Task Force will be organized. The main purpose of the meeting is to review the current Technical Manuals and the Strategy Paper for the Future Direction of Dry Deposition Monitoring of EANET.
31. The Session was invited to make comments on the presentation and provide guidance.

32. Major discussion included:
- The NC was requested to update the list of members of the Task Force and the Expert Group on the revision of the Technical Manuals for Dry Deposition Flux Estimation and Air Concentration Monitoring.
 - One SAC member from Russia could be nominated as a member of the Task Force and Expert Group.

Task Force on Soil and Vegetation Monitoring

33. The Chairperson of the Task Force on Soil and Vegetation Monitoring (TFSV) presented the Progress Report on the Activities of the Task Force on Soil and Vegetation Monitoring (EANET/SAC 19/8/2).
34. The key points of the presentation included:
- Progress of the specific activities in line with the strategy paper was reported.
 - The 5th meeting of the Task Force would be held in the middle of November 2019. The Workshop on Regional Impact Assessment of Atmospheric Deposition and Air Pollution on Forest Ecosystems will also be held back-to-back in cooperation with International Co-operative Programme on Assessment and Monitoring of Air Pollution Effects on Forests (ICP Forests).
 - The regular catchment monitoring has been started in the La Mesa Watershed, Metro Manila, in the Philippines. A paper on Lake Ijira catchment has been published in the scientific journal, Biogeochemistry. The Task Force members from the Philippines and Japan contributed to the achievements above.
35. The Session was invited to make comments on the presentation and provide guidance.
36. Major discussion included:
- As an output from a relevant research project, particles larger than PM10 could be trapped by tree canopy effectively compared to PM2.5 in the park of Niigata city in Japan. It was suggested that the collected field data were well harmonized with the size-dependent theory on dry deposition velocity.
37. The Session acknowledged the Report of the Task Forces of the SAC.

X. Consideration of the Establishment of the Drafting Committee (DC) of the Fourth Periodic Report on the State of Acid Deposition in East Asia (PRSAD4) [Agenda Item 9]

38. The NC made a presentation on the Establishment of the Drafting Committee (DC) of the Fourth Periodic Report on the State of the Acid Deposition in East Asia (PRSAD4) (EANET/SAC 19/9) including its schedule.

39. The key points of the presentation included:

- It was recommended that PRSAD4 should be prepared in a similar manner to PRSAD3, focusing on trend analysis and impact assessment of acid deposition and air pollution in the region by using the data 2015-2019, mainly.
- PRSAD4 will consist of three parts, regional assessment, national assessment, and executive summary. Regional assessment will be done using EANET data. However, it is also recommended to use national monitoring data in the participating countries.
- After endorsement of IG21 on the Report of the Session of SAC19, including the establishment of the DC, the NC will communicate with the NFPs to nominate one expert from SAC member as a member of the DC. The NC will arrange the first meeting of the DC in April 2020.

40. The Session was invited to make comments on the presentation and provide guidance.

41. Major discussion included:

- The schedule of preparing the National Assessment Report will be discussed in the 1st meeting of the DC.
- It was suggested that the results of analysis of emission inventory and modelling should be included in the Regional Assessment of PRSAD4.

42. The Session acknowledged the establishment of the DC of the PRSAD4, including its schedule.

XI. Consideration of the Proposed Ideas of the Participating Countries for the Next Medium Term Plan (MTP) for the EANET (2021-2025) from the Scientific and Technical Viewpoints [Agenda Item 10]

43. The Secretariat and the NC made a presentation on the Proposed Ideas of the Participating Countries for the Next MTP for the EANET (2021-2025) (EANET/SAC 19/10), based on the inputs from the Working Group Meeting on Preparation of Development of the Medium Term Plan for the EANET (2021-2025) on 20-21 August 2019 in Bangkok, Thailand.
44. The key points of the presentation included:
- The Secretariat and the NC presented highlights of the Synthesis Report on Proposed Ideas of Participating Countries for the Next MTP (2021-2025). The Report was developed by summarizing inputs provided by the Participating Countries at the Working Group Meeting on Preparation of Development of the MTP (2021-2025).
 - The Synthesis Report consists of the Framework of the MTP (2021-2025); Objectives of the MTP (2021-2025); Proposed Activities of the MTP (2021-2025); Arrangement of the Budget of the Secretariat and the NC for the EANET; Specific Issue: Proposal to Rename EANET; Points to be Considered by the Session of IG21 Meeting; Proposed Next Steps of Development of the MTP (2021-2025).
45. The Session was invited to discuss, make comments and provide guidance from scientific and technical viewpoints for consideration at the IG21.
46. Major discussion included:
- It was informed that IG21 will further discuss if the revision of the Instrument is required.
 - From scientific viewpoint, five years are too short to achieve so many proposed activities. Therefore, it was suggested to prioritize the activities during the MTP (2021-2025).
 - To promote new activities, the EANET could learn from its own experience in developing the acid deposition monitoring network. It was suggested that air quality monitoring, research on comparable monitoring methods, assessment on the air quality state of the EANET region could be prioritized in the next MTP.
 - It was mentioned that renaming the EANET and revision of the Instrument might face some challenges.
 - Secondary pollutants, including ozone and PM_{2.5}, should be included in the expansion of scope of activities. Taking into account co-benefits, interaction between climate change and air pollution including SLCPs as well as multiple adverse effects of climate change and air pollution should be considered in the near future.

- Activities using scientific tools such as emissions inventory and modelling should be strengthened in the next MTP.
 - Data analysis of satellite and ground observations should be strengthened.
 - The relationship between science & policy and science & society is important for the EANET to be considered.
 - It was proposed that national emission inventory should be developed by each country in the region.
 - Availability of funds is essential to support the proposed activities.
47. The Session acknowledged the Proposed Ideas of the Participating Countries for the Next MTP for the EANET (2021-2025) and recommended for review and consideration at the IG21.

XII. Consideration of the EANET Science Bulletin (Vol.5) [Agenda Item 11]

48. The NC presented the EANET Science Bulletin (Vol.5).
49. The key points of the presentation included:
- The Science Bulletin (Vol.5) follows the previous bulletins in general.
 - The NC has developed the implementation plan to draft the Science Bulletin.
 - For the publication of the EANET Science Bulletin, the NC established the Editorial Board.
 - The NC has introduced the draft table of contents of the Science Bulletin.
50. The Session was invited to discuss, make comments and provide guidance from scientific and technical viewpoints.
51. No question/comment on this agenda item.
52. The Session endorsed the EANET Science Bulletin (Vol.5).

XIII. Consideration of the Report of Progress on the Cooperation with World Meteorological Organization, Global Atmosphere Watch (WMO/GAW) [Agenda Item 12]

53. The NC made a presentation on the Report of Progress on the Cooperation with WMO/GAW.

54. The key points of presentation included:
- The differences of DQO between EANET and WMO/GAW were introduced. The required detection limits of WMO/GAW are comparable with those of EANET. On the other hand, DQO of the completeness of the total amount of the precipitation (%TP), ionic balance of precipitation (R1) and difference between calculation and measurement of the total conductivity (R2) of EANET are stricter than those of WMO/GAW.
 - The Current Progress and Work Plan of Cooperation with WMO/GAW in 2019/20 were presented by the NC. It was informed that the NC is preparing the prescribed format of metadata including information on atmospheric monitoring stations to be uploaded to the GAW Station Information System (GAWSIS). The NC also discussed and exchanged information on monitoring database. The NC invited WMO/GAW to participate in the Acid Rain 2020.
55. The Session was invited to discuss, make comments and provide guidance from scientific and technical viewpoints.
56. Major discussion included:
- It was suggested to inform communities outside EANET about the Acid Rain 2020.
 - Unit system of atmospheric concentrations should be discussed in order to ensure networks compatibility and implement integrated data assessment.
 - The content of Letter of Arrangement between EANET and WMO/GAW could be amended if the name of EANET is changed or the component of WMO/GAW is re-organized. A discussion could be made with WMO on this.
 - It was proposed to seek possibility to conduct joint research with WMO/GAW on how to integrate the data on air quality monitoring with meteorology data for a better air quality forecasting. Further discussion with WMO/GAW could be arranged.
 - It was suggested to provide link to World Data Centers (WDCs) homepage and GAWSIS at EANET website.
57. The Session considered and acknowledged the Report of Progress on the Cooperation with World Meteorological Organization, Global Atmosphere Watch (WMO/GAW).

XIV. Consideration of the Relevant Scientific Activities [Agenda Item 13]

Progress of Preparation of Acid Rain 2020 and Clean Air Week.

58. The ACAP presented the Progress of Preparation of Acid Rain 2020 and Clean Air Week.
59. The key points of the presentation included:
- Session topics for abstract submission and keynote speakers of the Acid Rain 2020 were presented. Abstract submission, registration, and call for sponsors will be opened in October 2019.
 - Other international meetings/events on air pollution, including the Third Joint Forum of the Asia Pacific Clean Air Partnership (APCAP) will also be held in the same place and in the same week in parallel with the Acid Rain 2020 as Clean Air Week.
60. The Session was invited to discuss, make comments and provide guidance from the scientific and technical viewpoints.
61. No question/comment on this agenda item.

Progress of the Joint Research Activities on Model Inter-Comparison Study for Asia (MICS-Asia)

62. The NC made a presentation on the research activities on MICS-Asia.
63. The key points of the presentation included:
- Some of recent results from papers submitted to special issues of MICS-Asia phase III were reported.
 - MICS-Asia phase IV will be started this year. Its planned activities were introduced.
 - Work plan of MICS-Asia phase IV will be discussed at the 11th International Workshop on Atmospheric Modeling Research in East Asia to be held in early next year.
64. The Session was invited to discuss, make comments and provide guidance from scientific and technical viewpoints.
65. Major discussion included:
- The status of participation of Southeast Asian Working Group to topic 1 (Air Quality Model Intercomparison) was clarified. In phase III, only Hong Kong Group joined the topic 1 as the co-leader or Southeast Asian Working Group. Due to limitation of time and resources, model intercomparison study in Southeast Asia could not be done in phase III. It will be one of the important issues of MICS-Asia phase IV.

- It was pointed out that definition of seasons should be considered carefully to compare differences of seasonal variation of PM2.5 concentrations in different cities in Asia.
- It was noted that the results of MICS-Asia could be utilized for policy making to improve air quality in East Asia (including Southeast Asia).

Progress of Preparation of EANET National Awareness Workshop in Malaysia

66. The Secretariat made a presentation on the Progress of Preparation of EANET National Awareness Workshop in Malaysia
67. The key points of the presentation included:
- EANET National Awareness Workshop in 2019 will be held from 26 to 28 November 2019 in Dorsett Hotel, Putrajaya, Malaysia. This Workshop is co-organized by the Secretariat and the Ministry of Energy, Science, Technology, Environment, and Climate Change (MESTECC), Malaysia. There will be about 70 people participating in the workshop.
 - The Workshop consists of two-day indoor activities and half-day site visit. The objective of the workshop is to facilitate sharing and learning platforms and to increase understanding of issues related to the prevention of acid deposition and air pollution that contribute to the achievement of EANET objectives.
68. The Session was invited to discuss, make comments and provide guidance from the scientific and technical viewpoints.
69. No question/comment on this agenda item.
70. The Session acknowledged the Progress of Preparation of Acid Rain 2020 and Clean Air Week, Progress of the Joint Research Activities on MICS-Asia, and Progress of EANET National Awareness Workshop in Malaysia.

XV. Consideration of the Draft Work Programme and Budget of the EANET in 2020 from Scientific and Technical Viewpoints [Agenda Item 14]

71. The Secretariat and the NC made presentations on the Draft Work Programme and Budget of the EANET in 2020.
72. The key points of the presentation of the Secretariat included:

- In 2020, the Work Programme of the Secretariat includes administrative and financial arrangements of the Secretariat for the EANET; enhancement of intergovernmental cooperation; provision of policy relevant information; promotion of public awareness; enhancement of cooperation and collaboration.
 - The total budget proposed for the Secretariat activities in 2020 is US\$ 720,714. The adjustment of the estimated budget of the Secretariat in 2020 above was made to cover the cost of two proposed Working Group Meetings on Preparation of Development of the next MTP (2021-2025) in 2020 pending approval of the IG21. A five-year flat amount of annual voluntary contribution is US\$ 619,600 decided by the IG17, based on the approved MTP (2016-2020).
73. The key points of the presentation of the NC included:
- In 2020, the Work Programme of the NC includes administrative and financial arrangements of the NC for the EANET; acid deposition monitoring including QA/QC activities; promotion of activities other than monitoring; promotion of public awareness; enhancement of intergovernmental cooperation; enhancement of cooperation and collaboration; promotion of public awareness, and so on.
 - Based on the MTP for the EANET (2016-2020), the proposed annual budget of the NC in 2020 is estimated to be US\$ 1,140,000, including personnel and administrative costs consist of US\$ 477,000 required for the core budget activities, US\$ 543,000 required for the additional budget activities. US\$ 120,000 is for rental fee of the ACAP building.
74. The Session was invited to make comments, suggestions, and recommendations from scientific and technical viewpoints for consideration and approval at the IG21.
75. Major discussion included:
- R. of Korea supported the proposal of the Secretariat and the NC to allocate unspent two fellowship budget in 2020.
76. The Session considered, acknowledged and made recommendations on the Draft Work Programme and Budget of the EANET in 2020.
- XVI. Other issues [Agenda Item 15]**
77. The Session discussed and considered the following issues raised by the participants, the Secretariat and the NC.

- No question/comment on this agenda item.

XVII. Consideration and Adoption of the Report of the Session (Agenda Item 16)

78. The Report of the Session (EANET/SAC 19/16) was considered and adopted.

XVIII. Closing of the Session (Agenda Item 17)

79. The Session expressed its deepest gratitude to the host country, Cambodia, the Secretariat and the NC for organizing the SAC19. The Session also appreciated the efforts made by the Chairperson, Vice-Chairpersons, Rapporteur and the resource persons.
80. The Session was officially closed by the Chairperson, thanking all the participants for their exceptional contributions.

Annex

LIST OF PARTICIPANTS

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