

The Twenty-first Senior Technical Managers' Meeting  
of the Acid Deposition Monitoring Network in East Asia  
7 August 2020, Online Platform

## MINUTES OF THE MEETING

### **I. Introduction**

1. The Twenty-first Senior Technical Managers' Meeting (STM21) on the Acid Deposition Monitoring Network in East Asia (EANET) was held online on 7 August 2020. The Meeting was organized by the Network Center (NC) for the EANET in collaboration with the Secretariat for the EANET.
2. Senior technical officials involved in the EANET monitoring activities from Cambodia, China, Indonesia, Japan, Lao PDR, Malaysia, Mongolia, Myanmar, Philippines, Republic of Korea, Russia, Thailand and Viet Nam participated in the Meeting. The Secretariat of the EANET and the representatives of the NC attended the Meeting. The List of Participants is attached as Annex.

### **II. The opening of the Meeting (Agenda Item 1)**

3. The meeting was opened by the NC.
4. Mr. Tomi Haryadi, Coordinator, Secretariat for the EANET delivered the Opening Remarks during the Opening Session. He expressed his high appreciation to the Network Center and STM21 Meeting participants. He mentioned that inputs from the STM21 Meeting are very critical and timely as inputs to the development of future activities as reflected in the next Medium Term Plan for the EANET (2021-2025).
5. Dr. Shiro Hatakeyama, Director General, Asia Center for Air Pollution Research (ACAP), delivered the Welcome Remarks. He expressed the objectives of this annual meeting to exchange information on the current status of the EANET monitoring activities, including to consider the draft Data Report 2019 and the draft Inter-laboratory Comparison Project Report 2019 and to discuss the National Monitoring Plans 2020. Those activities were in line with the Work Program and Budget of the EANET in 2020.

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

6. At each of the previous STM meetings, two Co-chairpersons have been elected from participating countries. However, STM21 was held as the virtual meeting and the meeting time was significantly shorter than those of previous meetings. In order to proceed with the meeting smoothly, Dr. Tsuyoshi Ohizumi, the QA/QC Manager of the EANET, Head of Data Management Department, and Dr. Keiichi Sato, Principal Senior Researcher of Atmospheric Research Department, ACAP, served as moderators on behalf of the Chairperson.

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

7. The Agenda was adopted as proposed (EANET/STM 21/3/1).

#### **V. Overview of the Preliminary Draft Data Report 2019 (Agenda Item 4)**

8. The NC presented the Preliminary Draft Data Report 2019 (EANET/STM 21/4), which contains wet deposition, dry deposition (air concentration), soil and vegetation, inland aquatic environment and catchment-scale monitoring including a summary of the monitoring data in 2019 and related information submitted by the participating countries. The meeting was invited to discuss and provide comments, as appropriate.

9. Major discussion on this agenda included the following:

(Wet deposition)

- i. The NC requested Cambodia, Malaysia, and the Philippines to submit the data.
- ii. No other specific comment.

(Dry deposition)

- i. The NC requested Cambodia, Lao PDR, Malaysia, and Philippines to submit the data.
- ii. It was informed that the Republic of Korea has submitted the updated data just before STM21. The NC confirmed that the updated data would be included in the draft Data Report 2019.
- iii. Cambodia informed that the Filter Pack data in 2019 are not available because of mechanical trouble.
- iv. Lao PDR informed that the automatic data would be submitted to the NC just before STM21 but the Filter Pack data in 2019 were not available. It was also informed that the 3 new sites would be included in 2020.
- v. Malaysia informed that the data would be submitted to the NC within August.
- vi. The SO<sub>2</sub> data in Chinese new sites are too low, almost zero. It was pointed out that the data should be checked whether the appropriate unit was used or not.

(Soil and vegetation)

- i. It was confirmed that no forest surveys were conducted in 2019.
- ii. Soil and vegetation monitoring should be done every 3- 5 years. However, in several countries, the monitoring has not been conducted recently. It was pointed out that the data on soil chemical properties could be compared to the previous data even after 10 years. The NC requested the countries to consider the possibility of restarting the monitoring at the existing sites.
- iii. existing sites.

(Inland aquatic environment)

- i. It was pointed out that precipitation data near the monitoring site should be submitted as the meta data.

- ii. The NC informed that Malaysia has identified the new monitoring site, Kuala Tahan, which has already been included in the National Monitoring Plan 2019. It was clarified that the site table would be updated when the data from the new site would be submitted.

(Catchment-scale)

- i. The NC informed that the data from La Mesa Watershed has already submitted to the NC just before STM21, which included the data on stream water chemistry and the meteorological data close to the catchment. It was clarified that the meteorological data would be utilized as the reference data for comparison to the deposition data at Metro Manila.

10. STM21 was held earlier than usual. For the countries which have not submitted the monitoring data 2019 to the NC or have the necessity of data modifications, it was requested that the data be submitted to the Data Management Department of the NC as early as possible.
11. The draft Data Report 2019 will be submitted to the Scientific Advisory Committee for adoption at its Twentieth Session of (SAC20).

**VI. Evaluation for the Results of the Inter-laboratory Comparison (ILC) Projects 2019 (Agenda Item 5)**

12. The NC presented the preliminary draft Report on the Inter-laboratory Comparison Projects in 2019 for wet deposition, dry deposition (filter pack method), soil and inland aquatic environment (EANET/STM 21/5). The participating countries were requested to submit the results of the Inter-laboratory Comparison (ILC) Projects by the deadline, the end of February every year. Also, it was notified that the participating countries which have not submitted the 2019 ILC data were requested to submit the data as soon as possible, so as to complete the ILC Project Report 2019 for adoption at the SAC20. The meeting was invited to discuss and provide comments.
13. Major discussion on this agenda included the following:

(Wet deposition)

- i. It was noted that the NC asked to re-analyze ILC samples (artificial rainwater samples) for the laboratories which had flagged data. Then, the NC will provide technical guidance to identify factors that cause large uncertainty and outlier for ion chromatography analysis.

(Dry deposition)

- i. Negative variation from the setting values can be seen for some parameters. It was suggested that high blank values or low extraction efficiency would affect the data.
- ii. Ranges of the calibration standard solutions are shown in the report. The range should cover ranges of the samples as appropriate. The data from Russia show

significant high concentrations of the standard solutions compared to the sample ranges. It was suggested that analytical conditions be checked in the laboratory.

(Soil)

- i. It was informed that Indonesia submitted the revised data just before STM21, because the different dataset was accidentally submitted to the NC due to the simple mix-up of the files among the relevant agencies. Since the measurement itself has already finished last November, the NC accepted the data, which would be included in the draft ILC Report 2019 to be submitted to SAC20.
- ii. It was pointed out that the data reporting process had a large effect on the data quality and should carefully be checked before the formal submission to the NC.

(Inland aquatic environment)

- i. The artificial inland water sample may also be used as a working standard for the daily analysis, as like the artificial rainwater samples. However, the artificial inland water sample is not concentrated, which may have shorter life time. It was suggested that the artificial inland water sample be stored in a refrigerator and used as a working standard.

#### **VII. Consideration of the National Monitoring Plans (NMPs), Current Monitoring Activities for the EANET and Overall Air Concentration Monitoring Status of the Participating Countries (Agenda Item 6)**

14. At each of the previous STM meetings, the representatives of the participating countries made presentations on their NMPs and current EANET activities, including monitoring capacities, technical problems, future plan and so on, for improvement of the activities of the EANET. However, the meeting time is shorter than usual. Therefore, the NC made a presentation on a summary of the EANET activities (EANET/STM 21/6), and then, the representatives of a few countries introduced their new monitoring sites.
15. The meeting was invited to review the above issues and to discuss with their experiences and knowledge to solve the problems for their future innovation.
16. Major discussion on this agenda included the following:
  - i. Summary by the NC
    - It was informed that several countries registered new sites for the EANET, while some sites were removed. As the results, number of monitoring sites in 2020 for wet deposition, dry deposition, soil and vegetation, inland aquatic environment, and catchment scale are 60, 47, 21, 19, and 2, respectively.
    - It was clarified that the number of the monitoring sites was counted based on the National Monitoring Plan, which might be slightly different the site number based on the submitted data in the Data Report.

## ii. China

- It was introduced that the monitoring on wet and dry deposition has just been started at Wuzhishan site and Lijiang site which were newly registered for the EANET. It was clarified that SO<sub>2</sub>, NO<sub>x</sub> and PM<sub>10</sub> were monitored by the automatic instruments as air concentration monitoring. It was clarified that the air inlet is set on the rooftop and the automatic inside the station.

## iii. Indonesia

- It was informed that Jembrana in Bali Province and Lombok Barat in West Nusa Tenggara Province were newly registered as the EANET monitoring site. It was clarified that transportation of the wet deposition samples have been conducted smoothly.

**VIII. Other issues (Agenda Item 7)**

17. Due to the COVID-19 Pandemic, STM21 was held as a virtual meeting. However, Viet Nam and the NC have been discussing the possibility of holding a face-to-face meeting in Viet Nam, hopefully within this year, although it depends on the COVID-19 situation. However, the situation in Viet Nam is very uncertain.
18. The representative of Malaysia requested to re-analyze the 2019 ILC sample for dry deposition. The NC responded the sample was already expired, but the sample will be shipped together with the 2020 samples if Malaysia wants to try re-analysis.

**IX. Closing of the Meeting (Agenda Item 8)**

- 19 On behalf of the NC, Dr. Erdenebat Eldev-Ochir, Deputy Director General, ACAP, delivered the Closing Remarks. He pointed out that all Agenda Items of STM21 have been accomplished even though the meeting was conducted virtually and in a very limited period of time. It was also suggested that the participating countries would contact the NC for any additional questions or clarifications, because there might be some remaining issues that could not be discussed in detail. He expressed his deep appreciation to all participants for active contribution, and to presenters and NC colleagues for excellent preparation for the Meeting.
- 20 The Meeting was officially closed.