

The Third Meeting of Drafting Committee for the Third  
Periodic Report on the State of Acid Deposition in East Asia  
10 August 2016, Niigata, Japan

**MINUTES**  
**of the Third Meeting of the Drafting Committee**  
**for the Third Periodic Report**  
**on the State of Acid Deposition in East Asia (Draft)**

1. The Third Meeting of the Drafting Committee (DC) for the Third Periodic Report on the State of Acid Deposition in East Asia (PRSAD3) was held 10 August, 2016 in Niigata, Japan. Meeting was attended by DC members and some alternatives from 13 participating countries, namely, Cambodia, China, Indonesia, Japan, Lao PDR, Malaysia, Mongolia, Myanmar, Philippines, Republic of Korea, Russia, Thailand, and Vietnam. Two resource persons and the relevant staff of the Network Center for the EANET (NC) also took part in the meeting. The List of Participants is attached as Annex 1.

**(Agenda 1: Opening of the Meeting)**

2. Prof. Cho Seog Yeon, Republic of Korea, Chairperson of the DC, opened the meeting.

**(Agenda 2: Adoption of the Agenda)**

3. The Provisional Agenda, attached as Annex 2, was adopted with appropriate change of the order of the Program. Prior to the DC Meeting, the Third Meeting of the Lead Authors' Meeting (LAM) was held on the previous day, 9 August 2016 and the progress of the preparation of the regional assessment has already been discussed there. Since the DC members other than Lead Authors, the agenda item 3, "Review of the progress of PRSAD3 preparation since the Second Lead Authors/DC Meeting", was omitted.

**(Agenda 4: Consideration on the first draft of the regional assessment report of Periodic Report)**

4. The NC confirmed the format with the numbering system for sections/subsections for preparation of the manuscript according to the discussions in the Third Lead Authors' Meeting of Drafting Committee for the Third Periodic Report. The major point is shown as follows.
  - It was clarified that the format was same as that in the previous periodic reports and the same format should basically be used for the national assessment report.

**(Agenda 5: Consideration on the draft national assessment reports of the participating countries)**

5. The DC members or the alternative participants introduced the progress of preparation on the draft national assessment reports. Major discussions included the following:

- i) Cambodia
  - No presentation. The draft report is still under preparation.
- ii) China
  - No presentation. The draft report is still under preparation.
- iii) Indonesia
  - The draft report was presented. But it has not been approved yet at the national level.
- iv) Japan
  - The draft report was presented. The major discussions included the following;
    - Risk maps of acidification for soil and inland water were introduced. It was clarified that silicate-rich rocks, such as granite, rhyolite, and chert, could be considered as low acid neutralizing capacity and sensitive to acidification. Based on distribution of the acid-sensitive rocks and cumulative acid loads for the past 25 years, the risk map for inland water was produced.
    - It was pointed out that sensitivity to ozone must be different in different tree species and crop species. Therefore, the difference of the sensitivity should be taken into account to assessment of ozone effects. The map of estimated growth reduction rate due to ozone could be produced for the respective tree species, taking account of their sensitivity and distribution.
    - It was pointed out that effects of ozone have not been enough detected in actual fields.
    - The draft report was prepared basically based on the national periodic report from 2008 to 2012, which was adopted at the national committee. The data in 2013 and 2014 are not included.
    - The national monitoring in Japan has been fully harmonizing with the EANET activities since 2000. Some of the monitoring methodologies before 2000 were different from the current ones, and the data quality seemed to be better since 2000. Therefore, it was clarified that the national periodic report used the data from 2000 to 2012.
    - The seasonal pattern of  $\text{nss-SO}_4^{2-}$  wet deposition was determined by precipitation and emission of  $\text{SO}_2$ .
    - All of EANET stations use UV absorption method for ozone monitoring. Some local stations adopted KI absorption method in past time.
- v) Lao PDR
  - No presentation. The draft report is still under preparation.
- vi) Malaysia
  - No presentation. The draft report is still discussed in the national committee.
- vii) Mongolia
  - The draft report was presented. The major discussions included the following;

- The filter pack monitoring has been stopped in 2012, 2013 and 2014. It was clarified that the sampling was conducted but the chemical analysis was not conducted due to malfunction of an ion chromatograph. The samples may be stored in a refrigerator.
- Decreasing trend of wet deposition at Terelj site is noteworthy.
- It was pointed out that the seasonal pattern of ozone concentrations in an urban station was different from that in a suburban station.
- It is recommended to show the site location map in Ulaanbaatar.

viii) Myanmar

- The draft report was presented. The major discussions included the following;
  - It was clarified that the indicated precipitation amount is the average of weekly samples.
  - The sampling is conducted daily during the rain event and the concentration data are obtained for weekly basis.

ix) Philippines

- The draft report was presented. The major discussions included the following;
  - No data were shown for gases and aerosols at Metro Manila and Los Banos sites because of malfunction of the filter pack system. It was informed that the filter pack monitoring would be restarted soon.
  - It was noted that haze episode was identified by local organizations.
  - Map of emission inventory indicates total of VOC CO and other pollutants. It was recommended that this inventory is separated by chemical species.
  - It was suggested that other data such as alkalinity would be included for the section of the inland aquatic environment monitoring in addition to pH and EC. The style of the graph should be standardized for each parameter.

x) Republic of Korea

- The draft report was presented. The major discussions included the following;
  - Seasonal variation of  $\text{NH}_4\text{NO}_3$  concentration in aerosol phase is determined by temperature dependence on gas-aerosol equilibrium. The sampling temperature is controlled to avoid artifact during sampling.
  - It was note that ion balance of aerosol is used for data quality check.
  - $\text{SO}_2$  concentration at Cheju (Gosan) site is located in remote area, and it shows low concentration.
  - Annual trends on air concentrations may be influenced by transboundary air pollution. However, no decreased trend was observed although China recently reduced the emission of air pollutants.

xi) Russia

- No presentation. The draft report is still under preparation.

## xii) Thailand

- The draft report was presented. The major discussions included the following;
  - Although both PCD and TMD are located within Bangkok, the rainwater chemistry is slightly different. It was pointed out that TMD site is located close to the industrial area of the next province.
  - The site name should be consistent with the EANET data report.
  - High sulfate deposition at Chonburi is caused by coal combustion and industry. It is pointed that coal consumption in Thailand is remarkable.

## xiii) Vietnam

- The draft report was presented. The major discussions included the following;
  - The figure of air quality management system in Vietnam is informative.
  - High nss-SO<sub>4</sub><sup>2-</sup>, NO<sub>3</sub><sup>-</sup>, H<sup>+</sup> deposition in December 2011 at Da Nang should be checked.

**(Agenda 6: Consideration on further process of report preparation)**

6. The NC explained the revised implementation plan for PRSAD3. Major discussions included the following:
  - There is a chance to review the contents PRSAD3 at the Special Session on PRSAD3 in BAQ/IUAPPA which will be held in Busan, Republic of Korea from 29 August to 2 September.
  - Two potential reviewers were proposed by the NC, and the other reviewers will be nominated later.
  - All revised manuscript should be submitted to the NC by the end of August, 2016. Then, the NC will be sent to the external reviewers for comments.
  - The reviewing process will take 3 or 4 weeks. The final draft of PRSAD3 will be sent to the SAC members as well as comments by the external reviewers.

**(Agenda 7: Other issues)**

7. The NC kindly asked the lead authors and contributors for keeping timeline of draft preparation.

**(Agenda 8: Wrap-up of the Meeting)**

8. The meeting considered the meeting minutes prepared by the meeting secretariat.

**(Agenda 9: Closing of the Meeting)**

9. The Chairperson closed the meeting.

## List of Participants

### Participating Countries

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#### Cambodia

Mr. Savuth KONG  
Chief Office  
Air quality Analysis and Acid Deposition  
Laboratory Dept  
General Department of Environment Protection

#### China

Dr. Fan MENG  
Director  
Atmospheric Environment Institute  
Chinese Research Academy of Environmental  
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#### Indonesia

Prof. Edvin ALDRIAN  
Senior Researcher  
Agency for Assessment and Application of  
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#### Japan

Dr. Toshimasa OHARA  
Fellow  
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National Institute for Environmental Studies

#### Lao PDR

Ms. Darounny VILAYTHONG  
Director of Planning and Administrative  
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#### Malaysia

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#### Mongolia

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General manager and Scientific secretary  
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#### Myanmar

Ms. Htwe Htwe Win  
Assistant Director  
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#### Philippines

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#### Republic of Korea

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*Secretariat*

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**Annex 2**

**Provisional Agenda**

- (1) Opening of the Meeting.
- (2) Adoption of the Agenda
- (3) Review of the progress of PRSAD3 preparation since the Second Lead Authors/DC Meeting
- (4) Consideration on the second draft of the regional assessment of Periodic Report
- (5) Consideration on the draft national assessment of Periodic Report
- (6) Consideration on further process of report preparation
- (7) Other issues
- (8) Wrap-up of the Meeting
- (9) Closing of the Meeting