

Thirteenth Session of the Intergovernmental Meeting  
on Acid Deposition Monitoring Network in East Asia  
30 November - 1 December 2011, Hanoi, Vietnam

**REPORT ON THE OUTCOMES OF THE ELEVENTH SESSION OF THE  
SCIENTIFIC ADVISORY COMMITTEE (SAC11)**

**I. INTRODUCTION**

1. The Scientific Advisory Committee (SAC) of the Acid Deposition Monitoring Network in East Asia (EANET) held its Eleventh Session (SAC11) from 12 to 14 October 2011 in Ho Chi Minh, Vietnam.
2. The Session was attended by the members of SAC or their alternates and other nominated persons from the participating countries of EANET, namely: Cambodia, China, Indonesia, Japan, Lao PDR, Malaysia, Mongolia, Myanmar, Philippines, Republic of Korea, Russia, Thailand and Vietnam as well as the Secretariat and the Network Center (NC) for EANET.
3. Considering the important tasks of the SAC, such as the development of the Periodic Report and others, and to ensure continuity, the Session re-elected the same bureau members, following the decision of the Sixth Session of the Intergovernmental Meeting (IG6) in 2004.
4. Dr. Duong Hong Son, Director, Center for Environmental Research (CENRE), Vietnam Institute of Meteorology, Hydrology and Environment (IMHEN), Vietnam was elected as the Chairperson. Prof. Hiroshi Hara, Field Science Center, Faculty of Agriculture, Tokyo University of Agriculture and Technology, Japan, and Dr. Elizabeth Philip, Senior Research Officer, Forest Research Institute of Malaysia (FRIM) were also elected as Vice-Chairpersons and Ms. Jean N. Rosete, Chief, Air Quality Management Section, Environmental Management Bureau (EMB), Department of Environment and Natural Resources (DENR), Philippines was elected as Rapporteur of the Session.

**II. PROGRESS OF SAC SINCE THE TENTH SESSION OF THE SCIENTIFIC ADVISORY COMMITTEE (SAC10)**

**Report on Progress of EANET**

5. Report on the Progress of EANET since the Tenth Session of the Scientific Advisory Committee (SAC10) was presented. In addition, the overall activities of the ACAP including manpower for each activity were presented to enhance its transparency.

6. The balance amount of savings was confirmed by the Secretariat. It was suggested that possibility of allocating the budgets should be considered for the EANET fellowship, public awareness and priority research projects utilizing the savings. It was also suggested that the meeting documents, research materials and other related materials of the SAC should be all posted on the website of EANET so that participating countries could refer to the scientific information. The Intergovernmental Meeting (IG) could consider and provide guidance on this issue, accordingly.

#### **EANET Data Report 2010**

7. The SAC adopted the draft Data Report 2010 which includes the wet deposition monitoring data, the dry deposition monitoring data, the soil and vegetation monitoring data and the inland aquatic environment monitoring data from the monitoring activities carried out by the participating countries in 2010, noting the forthcoming submission of the data set by Philippines.

#### **Contents of the Second Periodic Report on the State of Acid Deposition in East Asia (PRSAD2)**

8. The Lead Authors of the each chapter of PRSAD2 presented the Final Draft of Regional Report (Part I) and the Executive Summary (Part III) of PRSAD2. It was suggested that the Lead Author of each chapter should provide summary to be incorporated into the Executive Summary by the NC. It was pointed out that important parts on the regional assessment, such as wet deposition and overall deposition, have not yet been thoroughly prepared, and that SAC members should have responsibility for scientific aspects as experts of the respective countries.

#### **Inter-laboratory Comparison Projects 2010**

9. The SAC adopted the Report of the Inter-laboratory Comparison Projects 2010 on wet deposition, dry deposition (filter pack method), soil and inland aquatic environment. It was informed that the NC dispatched the samples for the Inter-laboratory Comparison Projects 2011 to the participating countries in October 2011.

#### **National Monitoring Plans of the Participating Countries**

10. Overview of the Updated National Monitoring Plans of the Participating Countries was presented. It was suggested that sampling frequency and on-site information should be submitted every year to ensure the sampling condition of the respective data.

**Review of Present Status of Air Pollution in East Asia**

11. Review of Present Status of Air Pollution in East Asia was presented. It includes the proposal on the establishment of a new “Expert Group on Review of Present Status of Air Pollution in East Asia”.
12. It was informed that PRSAD2 includes review of the literatures on air pollution in East Asia in Chapter 6. However, the literatures were mainly related to EANET activities. It was further clarified that more comprehensive review including the literatures outside EANET might be informative for the SAC. It was also pointed out that the review of the present status of air pollution could be reflected to the next periodic report and Executive Summary, which would be informative for the SAC.
13. It was suggested that the establishment of the new Expert Group might need much energy including manpower. The Session agreed to refer the Review of the Status of Air Pollution in East Asia into the existing Task Force on Research Coordination according to the TOR of the Task Force.

**Activities of the Task Forces and Expert Groups of SAC**

**1) Task Force on Soil and Vegetation Monitoring (TFSVM)**

14. Progress report on the activities of the Task Force on Soil and Vegetation Monitoring was presented.

**2) Task Force on Research Coordination (TFRC)**

15. Progress report on the activities of the Task Force on Research Coordination was presented. Other Task Forces (Dry Deposition Monitoring, Soil and Vegetation Monitoring, and Monitoring Instrumentation) were requested to identify one research topic per each Task Force to be discussed as potential high priority project. The Secretariat for EANET was requested to prepare document on possibility and measures to establish an EANET fund for research and to consider establishing a small expert group for feasibility study on fund establishment and creating research proposals for donor agencies.

**3) Expert Group on Preparation of Technical Manual for Air Concentration Monitoring (EGACM)**

16. The NC presented the Progress Report on the Activities of the Expert Group on Preparation of Technical Manual for Air Concentration Monitoring (EGACM). The EGACM reported the Table of Contents of the Technical Manual for Air Concentration Monitoring and there was no comment.

**Report on the Implementation of the Strategy on EANET Development (2006-2010)**

17. The Session agreed to submit the Final Report on the Implementation of the Strategy on EANET Development (2006-2010) (Draft) to the Thirteenth Session of the Intergovernmental Meeting (IG13) for its endorsement.

**Report on the EANET High Priority Research Projects**

18. The reports of two out of three EANET High Priority Research Projects were presented as below;

1. Aerosol Deposition Studies in Forests for Improvement of Estimation Method for Dry Deposition (EANET/SAC 11/12/1) by Dr. Pojanie Khummongkol
2. Feasibility Study on Low Cost Methodologies for Monitoring Air Concentrations (EANET/SAC 11/12/2) by the project secretariat

19. Major comments and discussions included the following:

i. Aerosol Deposition Studies

- It was informed that observation site for the project was located in a deciduous forest area of Ratchaburi province (approximately 200 km from Bangkok) and the tower height was 10 m above the ground.
- It was suggested that difference in deposition fluxes of sulfate and nitrate will be affected by aerosol diameter as well as atmospheric concentration.
- It was clarified that evaluation of deposition flux was focused on sulfate and nitrate species, not including ammonium species.

ii. Low cost methodologies

- It was clarified that statistical analysis of the project data would be conducted after compilation of the data until December 2011.
- It was pointed out that strong wind affected the sample collection in passive monitoring, while further investigation is needed for affection differences between components.
- It was pointed out that this study was conducted under different meteorological and other relevant conditions such as analytical facility, monitoring system, etc. compared to Europe and North America.

**Relevant Scientific Activities of EANET**

**1) Transparency of monitoring methodology and scientific discussion**

20. Report on Transparency of Monitoring Methodology and Scientific Discussion was presented. The monitoring method used in each country should be harmonized with each other to obtain comparable data, although each country may have their own policies on

monitoring activities. It was suggested that appropriate common methods should be identified based on scientific review and common understanding, and then the selected method should be applied for the EANET monitoring.

21. The National Monitoring Plan of each country was submitted to the NC when the EANET regular activities started. During the last ten years, many monitoring plans were partly revised several times and such updates have not been thoroughly compiled. It was suggested that the National Monitoring Plan should be compiled again in each country and be submitted to the NC as a set, and that the monitoring plan should be reviewed annually and revised if necessary. The Session agreed to develop the Quality Management Guideline for EANET.

## **2) Joint research activities on modeling studies for Asia**

22. Report on Joint Research Activities on Modeling Studies for Asia was presented. In the presentation, activities in the Model Inter-Comparison Studies (MICS) Asia Project and other modeling research activities were introduced. The modeling works in collaboration with various researchers may contribute to the implementation of the activities in the Medium Term Plan for EANET (2011-2015) (EANET/IG 12/5).

## **3) Monitoring and QA/QC system of ozone**

23. Monitoring and QA/QC system of Ozone was presented. In the presentation, the current situation of ozone monitoring in EANET countries and necessity of establishing ozone traceability system were introduced. It was announced that the NC started calibration of ozone monitor at EANET sites in Japan, and ozone calibration in China, Russia and Thailand will be implemented in 2011.

## **Procedure for PRSAD2 based on Third Meeting of the Drafting Committee (DC3)**

24. The draft PRSAD2 was approved by the Session, subject to the submission of necessary corrections by the NFPs and Lead Authors. The following schedule for the PRSAD2 as recommended by the DC3 meeting was agreed by the Session:
  - National Assessment Report will be sent back to the NFPs so that the NC will receive the revision by 15 November 2011.
  - Chapter 2: Data Quality will be submitted to the NC by 29 October 2011.
  - Chapter 3: Wet deposition in East Asia will be submitted to the NC by 29 October 2011 with the support of the NC.
  - Chapter 4: Dry and overall deposition in East Asia will be modified and submitted to the NC by 29 October 2011.
  - On Regional Assessment Report and Executive Summary, the NC will circulate them to the NFPs, DC, LAM and Contributors by e-mail on 7 November 2011.

- The deadline for NFPs to send the above Reports back to the NC is by 15 November 2011, after approval or revision.
- The NC will revise them and send back to NFPs again for final approval. NFPs have to send them back to the NC by 22 November 2011.
- The NC will prepare all documents for IG13 endorsement on 30 Nov-1 December 2011.

25. Other comments are as follows:

Part I- Regional Assessment

- The lead authors for Chapter 4 will revise the title and content, accordingly.

Part III- Executive Summary

- It was suggested to maintain the Title of Part III as Executive Summary.
- It was agreed to include the Summary for Policy Makers, for about 3 pages after Preface.
- In Chapter 8, it was also recommended that summary findings should be included and the title of this chapter will be changed to “Summary and Recommendations”.

**Work Program and Budget of EANET in 2012**

26. The Work Program and Budget of EANET in 2012 (Draft) (EANET/SAC 11/15) was presented by the Secretariat and the NC. This document was prepared for consideration and adoption by IG13.

**Updates on the Activities of Other Regional and International Initiatives on Acid Deposition and Transboundary Air Pollution**

27. Dr. Wenche Aas, Senior Scientist, Department of Atmospheric and Climate Research (ATMOS), Norwegian Institute for Air Research (NILU), made a presentation on “Discussion of central air pollution topics in Europe like particulate matters and nitrogen deposition, and their relevance to climate change”. Ms. Ma Bernadeth Lim, Associate Programme Officer, Malé Declaration introduced the activities under the Declaration, in particular about the Phase IV implementations (2010-2012). The current Phase IV implementation (2010-2012) of the Malé Declaration focuses on strengthening regional cooperation, enhancing monitoring network, emission inventory and impact assessment.

**III. ISSUES REQUIRING CONSIDERATION AND ADOPTION AT IG13**

**Consideration of adoption of the Second Periodic Report on the State of Acid Deposition in East Asia (PRSA2)**

28. Final Draft of the PRSA2 (Part I: Regional Report, Part II: National Report, and Part III: Executive Summary) was developed by the SAC and approved by the SAC11, subject to the submission of necessary corrections by the National Focal Points (NFPs) and Lead Authors.

29. The IG13 is requested to endorse the PRSAD2 as well as the Report on Outcomes of the SAC11.

The Eleventh Session of the Scientific Advisory Committee  
on Acid Deposition Monitoring Network in East Asia  
12-14 October 2011, Ho Chi Minh, Vietnam

## **REPORT OF THE SESSION**

### **I. Introduction**

1. The Scientific Advisory Committee (SAC) of the Acid Deposition Monitoring Network in East Asia (EANET) held its Eleventh Session (SAC11) from 12 to 14 October 2011 in Ho Chi Minh, Vietnam. The Session was organized by the Secretariat for EANET and the Network Center (NC) for EANET and hosted by the Government of Vietnam.
2. The Session was attended by the members of SAC or their alternates and other nominated persons from the participating countries of EANET, namely: Cambodia, China, Indonesia, Japan, Lao PDR, Malaysia, Mongolia, Myanmar, Philippines, Republic of Korea, Russia, Thailand and Vietnam as well as the Secretariat and the NC.
3. The Session was also attended by experts from Norwegian Institute for Air Research (NILU), Norway and Secretariat for Malé Declaration on Control and Prevention of Air Pollution and Its Likely Trans-boundary Effects for South Asia (Malé Declaration). Researchers from Japan and Vietnam attended the Session as observers.
4. The List of Participants is attached as Annex.

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

5. The Session was opened by Dr. Duong Hong Son as the Chairperson of the SAC from the Ninth Session of the Scientific Advisory Committee (SAC9).
6. On behalf of the Secretariat for EANET, Mr. Christer Holtsberg, Senior Technical Advisor of the United Nations Environment Programme, Regional Resource Centre for Asia and the Pacific (UNEP RRC.AP) delivered the Opening Remarks. He expressed his sincere gratitude to the government of Vietnam for being such splendid and welcoming host of SAC11. He pointed out that many international meetings are crucial, but this annual meeting of the SAC is perhaps one of the most important of all in achieving the goals and objectives of EANET. He emphasized the significance of the adoption of the Instrument for Strengthening the Acid Deposition Monitoring Network in East Asia (EANET), and mentioned that right now, we are witnessing a confluence of large-scale, interrelated environmental problems, air pollution, climate change and others and that UNEP is doing its best efforts for sustainable future. He informed the Session about some upcoming events in



next two weeks to be convened by UNEP RRCAP, which include the Second Meeting of the Task Force on Governance, Partnerships and Impact of the Regional Forum on Environment and Health, the 12<sup>th</sup> Annual Collaborative Action Network (CAN 2011), and the Asia-Pacific Climate Change Adaptation Forum 2011.

7. Dr. Hajime Akimoto, Director General of the Asia Center for Air Pollution Research (ACAP) delivered the introductory remarks. He expressed his sincere appreciation to the participating countries for their sympathy and help for the East Japan Earthquake disaster on 11 March 2011. He pointed out the importance of interrelationship between issues in atmospheric environment for the second decade of EANET. Acid deposition is a part of regional air pollution issues, and air pollution and climate change is now becoming to be discussed under one package. Single-issue approach is no more effective as an atmospheric management policy, and multi-pollutant multi-effect approach is now recognized to be more effective control policy in general. He also emphasized that scientific integrity should be more important in the future EANET activities and the SAC should play more important role to give proper guideline for EANET regarding scientific and technical issues.

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

8. Considering the important tasks of the SAC, such as the development of the Periodic Report and others, and to ensure continuity, the Session re-elected the same bureau members, following the decision of the Sixth Session of the Intergovernmental Meeting (IG6).
9. Dr. Duong Hong Son, Director, Center for Environmental Research (CENRE), Vietnam Institute of Meteorology, Hydrology and Environment (IMHEN), Vietnam was elected as the Chairperson. Prof. Hiroshi Hara, Field Science Center, Faculty of Agriculture, Tokyo University of Agriculture and Technology, Japan, and Dr. Elizabeth Philip, Senior Research Officer, Forest Research Institute of Malaysia (FRIM) were also elected as Vice-Chairpersons and Ms. Jean N. Rosete, Chief, Air Quality Management Section, Environmental Management Bureau (EMB), Department of Environment and Natural Resources (DENR), Philippines was elected as Rapporteur of the Session.

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

10. The Session adopted the Agenda (EANET/SAC 11/3/1) and the Draft Program (EANET/SAC 11/3/3) as proposed.

### **V. Report on the Progress of EANET since the Tenth Session of the Scientific Advisory Committee (SAC10) and the Financial Report in 2010 (Agenda Item 4)**

11. The Secretariat and the NC made presentations on the Report on the Progress of EANET since the Tenth Session of the Scientific Advisory Committee (SAC10) (EANET/SAC 11/4/1) and the Financial Report of the Secretariat and the Network Center in 2010 (EANET/SAC 11/4/2). The Secretariat also presented the Report on the Outcomes of the Twelfth Session of the Intergovernmental Meeting (IG12), and the Fourth Special and Tenth Session of the Working Group on Future Development of EANET (WGFD-S4 and WGFD10) (EANET/SAC 11/4/3). In addition, the NC introduced the overall activities of the ACAP including manpower for each activity to enhance its transparency.
12. Major points highlighted were as follows:
  - It was informed that to date, four countries, namely, Indonesia, Lao PDR, Malaysia and Russia, have not yet signed the Instrument for Strengthening the Acid Deposition Monitoring Network in East Asia (EANET). The Secretariat is communicating with these countries on signing the Instrument.
  - The balance amount of savings was confirmed by the Secretariat. It was suggested by the Session that possibility of allocating the budgets should be considered for the EANET fellowship, public awareness and priority research projects utilizing the savings.
  - It was suggested that the meeting documents, research materials and other related materials of the SAC should be all posted on the website of EANET so that participating countries could refer to the scientific information. The Intergovernmental Meeting (IG) could consider and provide guidance on this issue, accordingly.
  - It was requested to report the results of the EANET High Priority Research Projects, including the procedures and financial matters, to make the data of the projects available and funding shall be transparent and disclosed.

#### **VI. Review of the EANET Data Report 2010 (Agenda Item 5)**

13. The NC presented the draft Data Report 2010 (EANET/SAC 11/5). 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 2010, which were submitted to the NC.
14. Major discussions were as follows:
  - i. General
    - The NC announced that all the monitoring data will be made available in the Excel file on the website after SAC11.
    - Due to instrumental problems in the laboratories, submission of the data from Philippines and Lao PDR was delayed. It was informed that the data from Philippines could be included in the final version of the Data Report 2010, if the data would be submitted within the next week after SAC11. It was also informed that the data from Lao PDR could not be included in the Data Report 2010.

- It was proposed that the Second Periodic Report on the State of Acid Deposition in East Asia (PRSAD2) would present the comprehensive analysis of EANET data including the periodical trends of the acid deposition and their evaluation results and so on.
  - It was proposed that some conclusion be obtained by the data spatial analysis and temporal analysis of 10-year data in PRSAD2.
- ii. Wet deposition monitoring data
- Regarding the pH tendency, it was suggested that precise evaluation should be conducted with converted  $H^+$  concentration and composition of ions.
- iii. Catchment-scale monitoring data
- The data in Lake Ijira Catchment from Japan was included in the Data Report 2010. It was clarified that the data was based on the regular catchment-scale monitoring conducted in Japan.
  - It was informed that Philippines had started preliminary surveys in La Mesa Watershed for the regular monitoring on catchment-scale.
15. The Session adopted the Data Report 2010, noting the forthcoming submission of the data set by Philippines.

**VII. Consideration on the Final Draft of the Second Periodic Report on the State of Acid Deposition in East Asia (PRSAD2) (Agenda Item 6)**

16. The Lead Authors of the each chapter of PRSAD2 made presentations on the Final Draft of Regional Report (Part I) and the Executive Summary (Part III) of PRSAD2. The Session was invited to make comments on the contents of the PRSAD2 and provide guidance.
17. Major discussions were as follows:
- i. General
- It was suggested that the Lead Author of each chapter should provide summary to be incorporated into the Executive Summary by the NC.
  - It was pointed out that important parts on the regional assessment, such as wet deposition and overall deposition, have not yet been thoroughly prepared.
  - It was pointed out that SAC members should have responsibility for scientific aspects as experts of the respective countries.
  - It was informed that the First Periodic Report on the State of Acid Deposition in East Asia (PRSAD1) was endorsed, together with procedures of its finalization by the IG at its Eighth Session (IG8).
  - It was clarified that all the contributors would be shown in the final text.

- ii. Chapter 2
  - It was suggested that location of dry deposition monitoring sites should be summarized based on the latest information from the National Monitoring Plan.
- iii. Chapter 3
  - It was informed that the full manuscript would be submitted immediately after the SAC11.
  - It was suggested that trend analysis should be done using 10-year data set, while clear trend might not be found by such short-term data.
- iv. Chapter 4
  - It was pointed out that the final draft should be prepared immediately after the SAC11,
  - Regarding flux of aerosols, it was informed that the fluxes estimated by the inferential method and gradient method were comparable according to the latest observational study in central Japan.
  - It should be noted that conditions of each network should be remarked when EANET, US and European deposition data are compared.
- v. Chapter 6
  - It was clarified that the contents of Chapter 6 focused on the East Asian region.
- vi. Chapter 7
  - It was pointed out that recommendations would be further enhanced according to suggestions by the SAC.

**VIII. Review of the Report on the Inter-laboratory Comparison Projects 2010 (Agenda Item 7)**

- 18. The NC presented the Report of the Inter-laboratory Comparison Projects 2010 on wet deposition, dry deposition (filter pack method), soil and inland aquatic environment (EANET/SAC 11/7).
- 19. The Session adopted the Report on the Inter-laboratory Comparison Projects 2010.
- 20. The Session was further informed that the NC already shipped the samples for the Inter-laboratory Comparison Projects 2011 to the participating laboratories in October 2011. Participating laboratories were requested to submit their results to the NC after the review of their national QA/QC managers by 28 February 2012.

**IX. Overview of the updated National Monitoring Plans of the participating countries (Agenda Item 8)**

21. The NC presented the Overview of the Updated National Monitoring Plans of the Participating Countries (EANET/SAC 11/8).
22. Major points of discussion was as follows:
  - It was suggested that sampling frequency and on-site information should be submitted every year to ensure the sampling condition of the respective data.

**X. Consideration on Review of Present Status of Air Pollution in East Asia including Ozone and PM (Agenda Item 9)**

23. The NC made a presentation on the Review of Present Status of Air Pollution in East Asia (EANET/SAC 11/9). This includes the proposal on the establishment of a new “Expert Group on Review of Present Status of Air Pollution in East Asia”.
24. Major comments and discussions included the following:
  - It was informed that PRSAD2 includes review of the literatures on air pollution in East Asia in Chapter 6. However, the literatures were mainly related to EANET activities. It was further clarified that more comprehensive review including the literatures outside EANET might be informative for the SAC.
  - It was stressed that review of present status of air pollution would contribute and support the preparation of the next medium term plan.
  - It was pointed out that the review of the present status of air pollution could be reflected to the next periodic report and Executive Summary, which would be informative for the SAC. With the comprehensive review, assessment of the EANET data for the next periodic report may be conducted effectively.
  - It was suggested that the establishment of the new Expert Group might need much energy including manpower.
  - Some issues were raised on the TOR of the proposed Expert Group as well as the outcomes of the review.
  - It was pointed out that external scientific data should be used cautiously for EANET formal reports so as not to weaken the report.

25. In consideration of the discussion, the Session agreed to refer the Review of the Status of Air Pollution in East Asia into the existing Task Force on Research Coordination according to the TOR of the Task Force.

**XI. Consideration of the Reports from the Chairpersons of the Task Forces and Expert Groups of Scientific Advisory Committee (SAC) (Agenda Item 10)**

### **Task Force on Soil and Vegetation Monitoring**

26. The Chairperson of the Task Force on Soil and Vegetation Monitoring presented the Progress report on the activities of the Task Force on Soil and Vegetation Monitoring (EANET/SAC 11/10/1).

### **Task Force on Research Coordination**

27. The Chairperson of the Task Force on Research Coordination (TFRC) presented the Progress Report on the Activities of the Task Force on Research Coordination (EANET/SAC 11/10/2).
28. It was highlighted that:
- The chair of TFRC and the NC will revise the procedures and themes of the program for the research fellowship.
  - Other Task Forces (on Dry Deposition Monitoring, on Soil and Vegetation Monitoring, and on Monitoring Instrumentation) were requested to identify one research topic per each Task Force to be discussed as potential high priority project.
  - The Secretariat for EANET was requested to prepare document on possibility and measures to establish an EANET fund for research and to consider establishing a small expert group for feasibility study on fund establishment and creating research proposals for donor agencies.

### **Expert Group on Preparation of Technical Manual for Air Concentration Monitoring**

29. The NC on behalf of the Chairperson of the Expert Group on Preparation of Technical Manual for Air Concentration Monitoring (EGACM) presented the Progress Report on the Activities of the Expert Group on Preparation of Technical Manual for Air Concentration Monitoring (EANET/SAC 11/10/3).
30. The EGACM reported the Table of Contents of the Technical Manual for Air Concentration Monitoring and there was no comment.

## **XII. Consideration on the Final Report on the Implementation of the Strategy on EANET Development (2006-2010) (Draft) (Agenda Item 11)**

31. The NC presented the Final Report on the Implementation of the Strategy on EANET Development (2006-2010) (Draft) (EANET/SAC 11/11).
32. The Session agreed to submit the Final Report on the Implementation of the Strategy on EANET Development (2006-2010) (Draft) to the Thirteenth Session of the Intergovernmental Meeting (IG13) for its endorsement.

**XIII. Consideration of the Report on the EANET High Priority Research Projects (Agenda Item 12)**

33. The reports of two out of three EANET High Priority Research Projects were presented as below;
1. Aerosol Deposition Studies in Forests for Improvement of Estimation Method for Dry Deposition (EANET/SAC 11/12/1) by Dr. Pojanie Khummongkol
  2. Feasibility Study on Low Cost Methodologies for Monitoring Air Concentrations (EANET/SAC 11/12/2) by the project secretariat
34. Outcomes from these research projects would be used to supplement the Technical Manual on Dry Deposition Flux Estimation and promotion of low cost methodologies of air concentration monitoring respectively.
35. Major comments and discussions included the following:
- i. Aerosol Deposition Studies
    - It was informed that observation site for the project was located in a deciduous forest area of Ratchaburi province (approximately 200 km from Bangkok) and the tower height was 10 m above the ground.
    - It was suggested that difference in deposition fluxes of sulfate and nitrate will be affected by aerosol diameter as well as atmospheric concentration.
    - It was clarified that evaluation of deposition flux was focused on sulfate and nitrate species, not including ammonium species.
  - ii. Low cost methodologies
    - It was clarified that statistical analysis of the project data would be conducted after compilation of the data until December 2011.
    - It was pointed out that strong wind affected the sample collection in passive monitoring, while further investigation is needed for affection differences between components.
    - It was pointed out that this study was conducted under different meteorological and other relevant conditions such as analytical facility, monitoring system, etc. compared to Europe and North America.

**XIV. Consideration of the Relevant Scientific Activities of EANET (Agenda Item 13)**

**Transparency of monitoring methodology and scientific discussion**

36. The NC made presentations on the Report on Transparency of Monitoring Methodology and Scientific Discussion (EANET/SAC 11/13/1).

37. Major comments and discussions included the following:
- The monitoring method used in each country should be harmonized with each other to obtain comparable data, although each country may have their own policies on monitoring activities. It was suggested that appropriate common methods should be identified based on scientific review and common understanding, and then the selected method should be applied for the EANET monitoring.
  - The National Monitoring Plan of each country was submitted to the NC when the EANET regular activities started. During the last ten years, many monitoring plans were partly revised several times and such updates have not been thoroughly compiled. It was suggested that the National Monitoring Plan should be compiled again in each country and be submitted to the NC as a set, and that the monitoring plan should be reviewed annually and revised if necessary. To operate this work smoothly, the NC was requested to contact the QA/QC manager of each country.
  - It was suggested that the EANET website could be utilized to confirm and update the current National Monitoring Plan as appropriate.
  - Technical Manuals for wet deposition monitoring and for inland aquatic environment monitoring were revised in 2010. In this process, specific descriptions of QA/QC for each monitoring item were included in the respective new manuals, while the common descriptions of QA/QC have not been compiled yet as an independent document. Consequently, the NC suggested that the proposed Quality Management Guideline for EANET would compile the common description of QA/QC and other relevant information on data quality. The draft table of contents of the Quality Management Guideline was also proposed by the NC.
38. The Session agreed to develop the Quality Management Guideline for EANET.

#### **Joint research activities on modeling studies for Asia**

39. The NC presented the Report on Joint Research Activities on Modeling Studies for Asia (EANET/SAC 11/13/2). In the presentation, activities in the Model Inter-Comparison Studies (MICS) Asia Project and other modeling research activities were introduced. Moreover, it was pointed out that several modeling researchers from China and Japan would contribute to PRSAD2 on a voluntary basis. The modeling works in collaboration with various researchers may contribute to the implementation of the activities in the Medium Term Plan for EANET (2011-2015) (EANET/IG 12/5).

#### **Monitoring and QA/QC system of ozone**

40. The NC presented the Monitoring and QA/QC system of Ozone (EANET/SAC 11/13/3) at EANET sites. In the presentation, the current situation of ozone monitoring in EANET countries and necessity of establishing ozone traceability system were introduced. It was announced that the NC started calibration of ozone monitor at EANET sites in Japan, and ozone calibration in China, Russia and Thailand will be implemented in 2011. The



establishment of calibration system will contribute to implementation of the activity in line with the Strategy Paper for Future Direction of Monitoring for Dry Deposition of EANET (2011-2015).

**XV. Consideration on the Procedure for PRSAD2 based on Third Meeting of the Drafting Committee (DC3) (Agenda Item 14)**

41. The NC presented possible procedures for preparation of PRSAD2 based on the Minutes of the Meeting (EANET/PRSAD2/DC 3/8) of DC3.
42. Major comments and discussions included the following:
  - i. General
    - The following schedules for the PRSAD2 as recommended by the DC3 meeting were agreed by the Session:
      - National Assessment Report will be sent back to the NFPs so that the NC will receive the revision by 15 November 2011.
      - Chapter 2: Data Quality will be submitted to the NC by 29 October 2011.
      - Chapter 3: Wet deposition in East Asia will be submitted to the NC by 29 October 2011 with the support of the NC.
      - Chapter 4: Dry and overall deposition in East Asia will be modified and submitted to the NC by 29 October 2011.
      - On Regional Assessment Report and Executive Summary, the NC will circulate them to the NFPs, DC, LAM and Contributors by e-mail on 7 November 2011.
      - The deadline for NFPs to send the above Reports back to the NC is by 15 November 2011, after approval or revision.
      - The NC will revise them and send back to NFPs again for final approval. NFPs have to send them back to the NC by 22 November 2011.
      - The NC will prepare all documents for IG13 endorsement on 30 Nov-1 December 2011.
    - The draft PRSAD2 was approved by the Session, subject to the submission of necessary corrections by the NFPs and Lead Authors.
  - ii. Part I- Regional Assessment
    - The lead authors for Chapter 4 will revise the title and content, accordingly.
  - iii. Part III- Executive Summary
    - It was suggested to maintain the Title of Part III as Executive Summary.
    - It was agreed to include the Summary for Policy Makers, for about 3 pages after Preface.
    - In Chapter 8, it was also recommended that summary findings should be included and the title of this chapter will be changed to “Summary and Recommendations”.

**XVI. Consideration of Work Program and Budget of EANET in 2012 from scientific and technical viewpoints (Agenda Item 15)**

43. The Work Program and Budget of EANET in 2012 (Draft) (EANET/SAC 11/15) was presented by the Secretariat and the NC. This document was prepared for consideration and adoption by IG13.

**XVII. Updates on the Activities of Other Regional and International Initiatives on Acid Deposition and Transboundary Air Pollution (Agenda Item 16)**

44. Dr. Wenche Aas, Senior Scientist, Department of Atmospheric and Climate Research (ATMOS), Norwegian Institute for Air Research (NILU), made a presentation on “Discussion of central air pollution topics in Europe like particulate matters and nitrogen deposition, and their relevance to climate change”. She introduced the framework of EMEP and UNECE/LRTAP, its monitoring program and cooperation with infrastructure and research project for developing of the network and science. Substantial reduction of sulfur deposition, chemical speciation of particulate matters, importance of short lived climate forcers, and nitrogen pollution were focused on.
45. Ms. Ma Bernadeth Lim, Associate Programme Officer, Malé Declaration introduced the activities under the Declaration, in particular about the Phase IV implementations (2010 – 2012). The current Phase IV implementation (2010 – 2012) of the Malé Declaration focuses on strengthening regional cooperation, enhancing monitoring network, emission inventory and impact assessment. The Task Force on Future Development (Task Force) was established in order to plan for the next steps of implementation and prepared the sustainable financing mechanism. The Task Force also prepared the feasibility study on establishing regional center as well as a feasibility study on strengthening the regional cooperation.

**XVIII. Other Issues (Agenda Item 17)**

46. The NC informed about the upcoming International Global Atmospheric Chemistry (IGAC) Conference to be held in September 2012 in Beijing, China. This is the largest biennial conference, which will focus on emission, transformation, transport and deposition of air pollutants.

**XIX. Consideration and adoption of the Report of the Session (Agenda Item 18)**

47. The Report of the Session (EANET/SAC 11/18) was considered and adopted.

**XX. Closing of the Session (Agenda Item 19)**

48. The Session expressed its deepest gratitude to the host country, Vietnam, the Secretariat and the NC for organizing the SAC11. The Session also appreciated the efforts made by the Chairperson, Vice-Chairpersons, Rapporteur and resource persons.
49. The Session was officially closed by the Chairperson, thanking all the participants for their great contributions.

**Annex**

**List of Participants**

*Participating Countries*

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