

The Ninth Session of the Scientific Advisory Committee
on Acid Deposition Monitoring Network in East Asia
14-16 October 2009, Tsukuba, Japan

REPORT ON THE PROGRESS OF EANET SINCE THE EIGHTH SESSION OF THE SCIENTIFIC ADVISORY COMMITTEE (SAC8)

I. INTRODUCTION

1. This document is prepared to report the progress of the Acid Deposition Monitoring Network in East Asia (EANET) activities since the Eighth Session of the Scientific Advisory Committee (SAC8) held on 15-17 October 2008 in Hanoi, Viet Nam.
2. The activities of EANET implemented during this period were guided by the “Strategy on EANET Development (2006-2010)” adopted at the Eighth Session of the Intergovernmental Meeting (IG8) held in November 2006 in Hanoi, Viet Nam, and in accordance with the Work Program and Budget of EANET in 2008 and 2009 adopted at the Ninth Session of the Intergovernmental Meeting (IG9) and the Tenth Session of the Intergovernmental Meeting (IG10) respectively.

II. INSTITUTIONAL AND ADMINISTRATIVE ARRANGEMENT

Voluntary financial contribution from the participating countries

[Secretariat Budget]

3. In March 2009, the Ministry of the Environment (MOE), Japan and the United Nations Environment Programme, Regional Resource Centre for Asia and the Pacific (UNEP RRC.AP) signed an agreement regarding the Japanese government contribution for the budget of the Secretariat activities in 2008. In accordance with the contract, the contribution from Japan was made in March 2009.
4. Following the Revised Procedures and Guideline for Voluntary Contribution to EANET (EANET/IG 9/7.rev1) adopted at the IG9 in 2007 and the Work Program and Budget of EANET in 2009, participating countries such as Cambodia, Lao PDR, Mongolia, Republic of Korea and Thailand made contributions to the Secretariat budget for the year 2009. Japan made contributions for the year 2008, this year and China also transferred their contributions to the Secretariat budget for two years (2007 and 2008).

[Network Center Budget]

5. In March 2009, MOE, Japan and the Japan Environmental Sanitation Center (JESC) also signed agreements regarding Japanese contribution for the budget for implementation of the Network Center (NC) core and additional budget activities in 2008 and for the first quarter of 2009. In accordance with the contract, the contribution from Japan was made in March 2009.
6. In accordance with the Revised Procedures and Guideline for Voluntary Financial Contribution to EANET and the Work Program and Budget of EANET in 2009, Mongolia and Thailand made contributions to the NC core budget for the year 2009 in March 2009. Cambodia and Lao PDR also contributed to the NC core budget for the year 2009 in June and July 2009 respectively.
7. In June 2009, the Secretariat and the NC finalized the contract regarding the fellowship program in 2009.

Staff recruitment

[Network Center]

8. Dr. Hajime Akimoto was appointed by JESC as the Director General (DG) of the Acid Deposition and Oxidant Research Center (ADORC) from 1 April 2009 upon the retirement of Dr. Hiromasa Ueda.
9. In accordance with the “Guidelines for Recruiting the Deputy Director General of ADORC in charge of the NC of EANET (2008)”, JESC in cooperation with the Secretariat for EANET carried out the recruitment procedure of the next Deputy Director General (DDG) of ADORC in charge of the NC from September 2008. The Selection Committee of JESC met in December 2008, and selected Dr. Supat Wangwongwatana, Thailand as the final candidate. After considering the comments from the participating countries, he was selected as DDG of ADORC in charge of the NC by JESC in January 2009.
10. However, later he informed that it is difficult for him to assume the post within several months due to circumstances in Thailand. JESC decided to restart the recruitment procedures and an invitation to recommend candidates for the post was sent by the Secretariat to the National Focal Points (NFPs) on 4 May 2009. The deadline of the application was 30 June 2009.
11. The Selection Committee Meeting held on 17 July 2009 has selected Dr. Jesada Luangjame from Thailand as the final candidate for this position. After considering the

comments from the participating countries, he was selected as DDG of ADORC in charge of the NC by JESC. In accordance with the contract with JESC, he started on his EANET tasks in ADORC from October 2009.

Publication of proceedings, summaries of the meetings and newsletters, etc.

12. Two issues of the EANET Newsletter, dated December 2008 and June 2009, were published by the Secretariat in collaboration with the NC.
13. After the SAC8, publications of proceedings and summaries of the following meetings were completed and distributed to the participating countries and participants of the sessions:
 - Tenth Session of the Intergovernmental Meeting (IG10)
 - Seventh Session of the Working Group on Future Development of EANET (WGFD7)
 - Eighth Session of the Scientific Advisory Committee (SAC8)
 - Ninth Senior Technical Managers' Meeting (STM9)
 - Ninth Workshop on Public Awareness for Acid Deposition Problems (WSPA9)
14. The SAC8 endorsed the EANET Science Bulletin, Volume 1, prepared by the NC. The bulletin was published in early November 2008 and distributed to participating countries of EANET and related organizations in January 2009. It was also issued on EANET website in April 2009.
15. A Handbook on Multilateral Cooperation on Air Pollution: Science, Policy and Negotiations for Agreements/Instruments was drafted by the United Nations Environment Programme (UNEP) in collaboration with the Swedish International Development Cooperation Agency (Sida). This draft handbook was part of the references for the Capacity Building Workshop for Policy Makers of EANET held in May 2009 supported by UNEP.

III. EANET MEETINGS

Scientific Advisory Committee (SAC)

16. The SAC8 was held on 15-17 October 2008 in Hanoi, Viet Nam in order to discuss all important technical and scientific issues of EANET including the review of progress of the Strategy on EANET Development (2006-2010). Major decisions/discussions during the SAC8 included the following:
 - 1) Report on progress of EANET since SAC7 and Financial Report in 2007;
 - 2) Review and adoption of the Data Report 2007;

- 3) Consideration of updated National Monitoring Plans of the participating countries;
 - 4) Review and adoption of the Report of the Inter-laboratory Comparison projects in 2007 and consideration of recommendations for improvement of QA/QC activities;
 - 5) Consideration of updated National Monitoring Plans of the participating countries;
 - 6) Consideration of the Reports from the Chairpersons of the Task Forces and Expert Groups of SAC:
 - Draft Guidelines and Procedures for Establishment of Task Forces and Expert Groups under SAC
 - Reports of the First Meetings of the Task Forces and Expert Groups (TFs/EGs) under SAC from the Chairpersons of the TFs/EGs
 - 7) Consideration of research activities and other scientific activities on acid deposition including collaboration with regional/international initiatives;
 - 8) Review of progress of the scientific activities of the Strategy on EANET Development (2006-2010);
 - 9) Consideration of Work Program and Budget of EANET in 2009 (from scientific and technical viewpoints); and
 - 10) Activities of other regional and international initiatives on acid deposition and transboundary air pollution.
17. The Ministry of the Environment, Japan has officially notified the Secretariat of their intention to host the Ninth Session of the Scientific Advisory Committee (SAC9). The Session will be held on 14-16 October 2009 in Tsukuba, Japan. The Regional Scientific Workshop on Acid Deposition in East Asia 2009 will be held back-to-back with the SAC9 on 12-13 October 2009 in Tsukuba, Japan to discuss the “Current state and long-term trends of wet and dry deposition”, “Results of modeling analysis of regional air pollution in East Asia”, “Results of studies on ecological and human health impacts of acid deposition and related air pollutants”, etc. The members of the SAC will also be invited to attend this workshop.

Intergovernmental Meeting of EANET (IG)

18. The Intergovernmental Meeting (IG) of EANET held its Tenth Session in Chiang Mai, Thailand on 20-21 November 2008. The Session made decisions and guidance on the implementation of EANET activities. The details are provided in the document EANET/SAC 9/4/3.
19. The Session endorsed the following three high-priority research projects proposed by SAC. (Ref.: paragraph 56)
 - Aerosol Deposition Studies in Forests for Improvement of Estimation Method for Dry Deposition;

- Feasibility Study on Low Cost Methodologies for Monitoring Air Concentrations; and
 - Analysis of Existing Data for Improving the Understanding of the Status of Acidification in East Asia.
20. In response to the proposal from SAC8 to change the name of the “Task Force on Dry Deposition Monitoring” to “Task Force on Air Quality Monitoring and Dry Deposition,” the Session suggested that SAC reconsider the renaming as “Task Force on Monitoring for Dry Deposition,” and make related modifications to the Terms of Reference of this task force. The Session approved the “Procedures for Establishing Task Forces and Expert Groups under the Scientific Advisory Committee of EANET” and the “Terms of Reference of the Task Forces and Expert Groups (Draft)”, subject to the revisions stated above.

Working Group on Future Development of EANET (WGFD)

21. The Third Special Session of the WGFD (WGFD-S3) was held on 19 November in Chiang Mai, Thailand back-to-back with the IG10. The Session discussed the Revised Draft Text of the Instrument to Provide a Sound Basis for Contribution to EANET and the Draft Report of the WGFD on the Text of the Instrument to Provide a Sound Basis for Contribution to EANET (Fourth Draft).
22. The Eighth Session of the WGFD (WGFD8) was held in Pattaya, Thailand on 29-31 July 2009. The Session discussed the Revised Draft Text of the Instrument to Provide a Sound Basis for Contribution to EANET, Draft Explanatory Note for Obtaining the Signatures for the Instrument, Draft Second Report on Future Development of EANET, Draft Mid-Term Report on Implementation of the Strategy on EANET Development (2006-2010), Draft Strategy on EANET Development (2011-2015), Second Report for Policy Makers on EANET (Final Draft), Draft Report on Progress of EANET since the IG10, Draft Financial Report of the Secretariat and the NC in 2008, and Draft Work Program and Budget in 2010 for EANET. The Session achieved significant progress on the revised draft Text of the Instrument which will be submitted to the Eleventh Session of the Intergovernmental Meeting (IG11) to be held in November 2009.

Senior Technical Managers’ Meeting (STM)

23. On 18 March 2009, the NC sent an invitation letter to all NFPs of EANET participating countries to host the Tenth Senior Technical Managers’ Meeting (STM10). Since the NC did not receive any offer from the participating countries, it was decided that the STM10 be held in Pathumthani, Thailand on 26-28 August 2009, back-to-back with the Second Meeting of the Task Force on Monitoring Instrumentation. Major discussion items during the STM10 were as follows:

- Report on progress of EANET since STM9;
- Update of national monitoring plans of the participating countries;
- Consideration of the preliminary draft Data Report 2008;
- Consideration of the preliminary draft Report on Inter-laboratory Comparison Projects in 2008;
- Progress report on scientific and technical activities of EANET; and
- Importance of ozone and aerosol measurements in East Asia.

Meetings of the Task Forces and Expert Groups established under SAC

24. The NC has continued its task as the secretariat of the TFs/EGs. The NC contacted the Chairpersons of the TFs/EGs to discuss on dates, agenda of the second meeting and also membership of the TFs/EGs as appropriate. The latest Chairpersons and members of the TFs/EGs, and schedule of their meetings are attached as Annex 1.
25. After the SAC8, the following TFs/EGs meetings were held to discuss the important issues of each TF or EG in accordance with the TOR, future plan, etc.
 - Second Meeting of the Expert Group on Dry Deposition Flux Estimation (19 February 2009, Tokyo, Japan)
 - Second Meeting of the Task Force on Soil and Vegetation Monitoring (15-16 July 2009, Niigata, Japan)
 - Second Meeting of the Expert Group on Revision of Technical Manual on Inland Aquatic Environment Monitoring (6-7 August 2009, Niigata, Japan)
 - Second Meeting of the Task Force on Monitoring Instrumentation (25 August 2009, Pathumthani, Thailand)
 - Second Meeting of the Expert Group on Revision of Technical Manual on Wet Deposition Monitoring (1-2 October 2009, Niigata, Japan)
 - Second Meeting of the Task Force on Research Coordination (13 October 2009, Tsukuba, Japan)
26. Following TF meeting will be held during the SAC9.
 - Second Meeting of the Task Force on Monitoring for Dry Deposition (14 October 2009, Tsukuba, Japan)

IV. INTERNATIONAL COOPERATION - PARTICIPATION IN MEETINGS AND WORKSHOPS RELATED TO EANET

Model Inter-Comparison Study in Asia (MICS-Asia)

27. The 11th Workshop on the Transport of Air Pollution in Asia held at the International Institute for Applied Systems Analysis (IIASA), Austria on 26-27 February 2009 was

financially supported using additional budget of EANET. Collaboration between MICS-Asia members and ADORC scientists will be continued in the next phase of activities. The outputs are expected to contribute to the preparation of the next Periodic Report on the State of Acid Deposition in East Asia (PR SAD) and provide useful information for future development of EANET.

Collaborative Action Network (CAN)

28. The NC participated in the Ninth Collaborative Action Network (CAN) Meeting held on 5 March 2009 in Pathumthani, Thailand that brings together CAN partners and donors of UNEP to exchange information and communicate on issues of common interest. UNEP RRC.AP shared information on their draft strategy and the meeting discussed ways to enhance collaboration. Five publications on National Sub-regional Development Strategy (NSDS) were launched. The meeting also discussed preparedness and interest of the region in developing the Climate Change Adaptation Knowledge Platform of Asia and the Pacific Region.

Joint Meeting of the Intergovernmental Networks on Regional Air Pollution in Asia and the Pacific Region

29. The Joint Meeting of the Intergovernmental Networks on Regional Air Pollution in Asia and the Pacific Region was held in Pathumthani, Thailand on 9 March 2009. Representatives from the participating countries of Malé Declaration on Control and Prevention of Air Pollution and its Likely Transboundary Effects for South Asia (Bangladesh, Bhutan, India, Iran, Maldives, Nepal, Pakistan, Sri Lanka) and EANET (Cambodia, China, Indonesia, Lao PDR, Malaysia, Mongolia, Myanmar, Philippines, Russia, Thailand and Viet Nam) as well as representatives from other networks related to air pollution issues in Asia and the Pacific participated in the meeting. The representatives from the Secretariat and the NC for EANET also attended this meeting.

WMO SAG-PC Meeting

30. The Scientific Advisory Group on Precipitation Chemistry (SAG-PC) of the World Meteorological Organization (WMO) will publish a Global Assessment of the state of science of precipitation chemistry for the period 2000-2008 to inform the global science community of the status of precipitation chemistry and major ion deposition on both global and regional scales. The NC is invited to participate in this activity and to contribute to the assessment of measurements from East Asia. The NC attended the first Global Precipitation Chemistry Assessment Writing Workshop held in Geneva, Switzerland on 9-11 May 2009.

CLRTAP Meeting

31. The Task Force on Hemispheric Transport of Air Pollution (TF HTAP) under the Convention on Long-range Transboundary Air Pollution (CLRTAP) held a workshop back-to-back with the SAC8 on 13-14 October 2008 in Hanoi, Viet Nam. The workshop aimed to enhance technical and scientific cooperation on regional and intercontinental transport of air pollution with a focus on Asian air pollution issues. Some presentations included among others the following: air quality modeling (regional to global linkages), impacts of transboundary transport, emission inventories and observations. Participants of the SAC8 were invited to attend the workshop.
32. The NC attended the 33rd Steering Body Meeting to the Cooperative Programme for Monitoring and Evaluation of the Long-range Transmission of Air Pollutants in Europe (EMEP) held by United Nations Economic Commission for Europe (UNECE) at the United Nations Office at Geneva, Switzerland on 7-9 September 2009. The NC introduced the recent progress and achievements of EANET. Continuous cooperation between EMEP and EANET was also discussed.

V. COMMUNICATION WITH PARTICIPATING COUNTRIES AND OTHER RELEVANT AGENCIES

Communication with the participating countries, etc.

33. The Secretariat received communications from some NFPs regarding a few changes on institutional bodies of EANET in their respective countries, e.g. NFPs, SAC members, etc. from time to time and circulated this information to all concerned.
34. The Secretariat is communicating continuously to all concerns regarding administrative and financial matters for EANET which include: contracting with ADORC for the NC activities and the MOE, Japan. In January 2009, the Secretariat also sent communication to all participating countries regarding transfer of voluntary contributions to EANET which included the Secretariat budget in 2009 and the NC core budget in 2009.
35. The Secretariat and the NC maintained close communication with the participating countries in all related activities of EANET and relevant international organizations such as UNECE, UNEP, etc.
36. The NC also communicated with participating countries regarding scientific and technical issues to improve monitoring and assessment of acid deposition in the region.

Discussion with potential donors

37. The IG9 endorsed the “Capacity Building Workshops for Policy Makers of the Participating Countries of EANET”, with a funding support from UNEP. The workshops will be implemented for a period of two years (2008 and 2009). The first workshop was held on 23-26 September 2008 in Pathumthani, Thailand. The second Capacity Building Workshop for Policy Makers of the Participating Countries of EANET was convened on 13-14 May 2009 in Pathumthani, Thailand. (Ref.: paragraph 42)

VI. CENTRAL COMPILATION, EVALUATION, STORAGE AND DISSEMINATION OF DATA AND RELEVANT INFORMATION

38. The NC published the Data Report 2007 in November 2008 and distributed it to NFPs, National Centers, SAC members and other relevant organizations in January 2009. Most of the participating countries have already submitted their 2008 monitoring data to the NC. The NC drafted the Data Report 2008 for the SAC9.
39. In accordance with the Detailed Mechanism of Article 4 of the Procedures on Data and Information Disclosure for EANET, all the EANET monitoring data up to 2006 were disclosed outside of EANET in January 2009. The data of 2007 will be disclosed in January 2010.

VII. STRENGTHENING THE CAPACITY IN THE PARTICIPATING COUNTRIES

Dispatch of technical missions

40. After the SAC8, the NC dispatched technical missions to Viet Nam (October 2008), Mongolia (November 2008), Lao PDR (December 2008), Cambodia (December 2008), Thailand (December 2008), Republic of Korea (March 2009), China (March 2009) and Indonesia (May 2009) and Russia (September 2009) to exchange information, provide technical advice and assess the suitability of proposed EANET monitoring sites. The mission members also checked the condition of the instruments provided to countries. (Ref. Annex 2: Summary of Technical Missions of the NC since SAC8).

Implementation of technical cooperation programs

41. With financial support from MOE, Japan, the NC under its technical cooperation program, provided assistance to Cambodia, China, Lao PDR, Mongolia, Philippines, Russia and Viet Nam in 2008 and/or 2009 for their monitoring activities.

Capacity Building Workshop for Policy Makers of the Participating Countries of EANET

42. The Secretariat made an arrangement regarding the “Capacity Building Workshop for Policy Makers of the Participating Countries of EANET” held on 13-14 May 2009 in Pathumthani, Thailand. The main objectives of this workshop were to enhance the capacity of officials of the participating countries of EANET on international negotiations and to provide the policy makers with good practices and knowledge relating to other international networks and agreements related to acid deposition and transboundary air pollution issues. Presentations were made by the experts involving various multilateral agreements related to air pollution. The participants also engaged in two negotiating exercises and the results of the group discussion were reported and presented at the plenary session. The participants viewed that capacity building workshop for policy makers will be continued with the ultimate aim of facilitating international agreements/instruments. (Ref.: paragraph 37)

VIII. IMPLEMENTATION AND COORDINATION OF QA/QC ACTIVITIES

Inter-laboratory comparison projects

43. The NC published the Report of Interlaboratory Comparison Project 2007 comprising the 10th Inter-laboratory comparison project on wet deposition, the 3rd Inter-laboratory comparison project on dry deposition (filter pack method), the 9th Inter-laboratory comparison project on soil and the 8th Inter-laboratory comparison project on artificial surface water, and distributed it to the participating laboratories in January 2009.
44. The NC distributed samples for the 11th Inter-laboratory comparison project on wet deposition, the 4th Inter-laboratory comparison project on dry deposition (filter pack method), the 10th Inter-laboratory comparison project on soil and the 9th Inter-laboratory comparison project on artificial surface water to the participating countries in October 2008. Most of the participating countries have submitted the results of the projects to the NC.
45. Several EANET laboratories in Japan, Philippines, Russia, Thailand and Viet Nam also participated in the international inter-comparison 2008 organized by the CLRTAP International Cooperative Programme on Assessment and Monitoring of Acidification in Rivers and Lakes (ICP-Waters) and so on.

IX. IMPLEMENTATION OF TRAINING ACTIVITIES

Questionnaire Survey for Training Activities 2008

46. In July 2009, the NC implemented the annual questionnaire survey on training activities carried out by the participating countries. The information gathered on training requirements and suggestions on new training areas are useful for planning of the future training activities of EANET. The results including the requests on EANET training activities from the participating countries were summarized as Annex 3.

JICA Training Course on EANET

47. The JICA training course, “The Acid Deposition Monitoring Network in East Asia”, in 2008 was held from 5 October through 13 December 2008 in Kobe and some other places in Japan. Five trainees from four EANET participating countries, namely Cambodia, China, Lao PDR and Myanmar attended this course. Several lectures were delivered by the NC staff. During the visit of JICA trainees to ADORC, Niigata, the NC presented lectures and demonstrated practices on acid deposition monitoring of EANET.
48. The NC maintained close communication with the organizers of the JICA training course on the curriculum by attending the meetings of the steering committee and briefing them on EANET activities regularly. The training course in 2009 is being carried out in Kobe, Japan. The duration is from 28 September to 11 December 2009. Seven trainees from six EANET participating countries, namely Cambodia, China, Lao PDR (2), Myanmar, Thailand and Viet Nam attended this course in 2009.

JICA Third Country Training Program

49. JICA Third Country Training Course on “Control Strategy and Mitigation Measures of Acid Deposition” was held at the Environmental Research and Training Center (ERTC), Thailand from 19 January through 6 February 2009. This is the second year of Phase II of the training course. (Phase I of this course was implemented in 2004-2007.) The NC dispatched an expert to Thailand as one of the lecturers of the training course. There were 21 trainees from 7 EANET countries, namely Cambodia, Lao PDR, Malaysia, Mongolia, Myanmar, Philippines and Thailand.

EANET individual training at ADORC

50. One trainee each from Indonesia, Malaysia, Mongolia, Russia and Thailand were selected to participate in the EANET individual training at ADORC from 2 through 27 February 2009. They received training on wet deposition, dry deposition, soil/vegetation and inland aquatic environment monitoring, and data management as well as atmospheric transport modeling. The next course is planned in late 2009.

X. RESEARCH ACTIVITIES

51. The research activities of EANET are important to evaluate the environmental impacts of acid deposition on the region's diverse ecosystem, to improve the monitoring methodologies, and develop analytical methods suitable for East Asia. The NC performed research activities with consideration of the regional characteristics.

EANET research fellowship program 2008

52. One researcher from Indonesia and one from Thailand were selected to carry out research at ADORC from the end of October to the end of December 2008 under the EANET fellowship research program 2008. Their research topics were "Studies on effect of acid deposition and related air pollutants on ecosystems/inland water aquatic" and "Ion chromatographic determination of organic acids in rainwater", respectively.
53. On 5 June 2009, the NC sent a letter to NFPs and SAC members inviting applicants for the research fellowship in 2009. In response to the invitation letter, the NC received 7 applications from 3 countries namely Lao PDR, Mongolia and Thailand. Based on the procedures of the fellowship research program, the Selection Committee of the NC considered the proposed research plans submitted by the applicants and decided to invite one researcher from Thailand to conduct the research in ADORC for two months.

Joint research project on catchment analysis with Thailand, Malaysia and Japan

54. Catchment analysis is one of the issues described in the Strategy Paper for Future Direction of Soil, Vegetation and related Ecosystems Monitoring of EANET (2009-2014). The NC has implemented the joint research project on catchment analysis in Thailand with the Royal Forest Department (RFD) and ERTC, in Malaysia with the Malaysian Meteorological Department (MMD), and in Japan with Niigata Prefecture and Niigata University. Part of the projects is financially supported by the Global Environment Research Fund of the MOE, Japan. Monitoring on input (deposition) and output (stream water) fluxes in/from a small catchment area, and analyses on other biogeochemical aspects has been carried out continuously, and nutrient dynamics and acid deposition impacts in the area would be estimated. The experience obtained through the above three joint projects will be informative for development of guidelines on catchment-scale monitoring. Moreover, the data is being utilized for development of catchment-scale biogeochemical model.

Joint research project on dry deposition monitoring with Thailand

55. The Joint Research Project on dry monitoring was carried out by the NC and Pollution Control Department (PCD), Thailand focusing on QA/QC of gas concentration monitoring method in tropical region. Measurement of gas concentrations by several types of monitoring methods has been carried out at Bangkok EANET monitoring site in order to evaluate the difference of gas concentrations among some different types of monitoring methods (automatic monitor, filter-pack method, and passive sampling method) in the tropical region in East Asia.

EANET high priority research projects

56. The NC has started implementation of the following three EANET high priority research projects with the leaders of the projects. Implementation plans of these projects were sent to the SAC members in June 2009. (Ref.: paragraph 19)
- Aerosol Deposition Studies in Forests for Improvement of Estimation Method for Dry Deposition
 - Feasibility Study on Low Cost Methodologies for Monitoring Air Concentrations
 - Analysis of Existing Data for Improving the Understanding of the Status of Acidification in East Asia

XI. BUILDING PUBLIC AWARENESS

Joint project on environmental education activities

57. The NC undertook a joint project with Thailand to support their environmental study activities on acid deposition in schools from August 2008 to February 2009. The results of the project by the school children from one school in Bangkok and two elementary schools in Niigata Prefecture, such as measurements of the concentration of nitrogen oxides, dust around their schools and the pH value of rainwater were presented by the school children during the Workshop on Public Awareness for Acid Deposition Problems 2009.
58. The NC made a plan for a similar joint project with China to support the environmental study activities on acid deposition in schools of China and Japan in 2009. One elementary school in Chongqing, China and two elementary schools in Niigata Prefecture, Japan will participate in the project.

Workshop on Public Awareness for Acid Deposition Problems 2009

59. The Ninth Workshop on Public Awareness for Acid Deposition Problems was held in

Niigata, Japan, on 12-13 February 2009, organized by the NC in collaboration with the Niigata Prefectural Environment Conservation Corporation (NPECC), Japan. The Workshop consisted of three parts. Part I was an Environmental Conference of School Children, participated by approximately one hundred and ten school children and teachers from Bangkok, Thailand and Niigata, Japan, and approximately forty participants and observers from twelve EANET participating countries. In Part II, participants and observers from EANET countries and the school teachers discussed on the Environmental Conference and future directions of the environmental education programs.

60. Part III, attended by approximately thirty participants and observers from EANET participating countries, was held in ADORC, Niigata, Japan. Policies and practices on acid deposition and related air pollution issues in the countries were presented. The workshop also discussed the preparation of the fact sheet on policies and practices concerning acid deposition of the EANET participating countries to supplement the Second Report for Policy Makers.

National Workshop on Public Awareness on Acid Deposition Issues and Problems

61. In line with the Work Program and Budget in 2009, the Secretariat communicated to all NFPs of the participating countries on their willingness to host National Workshop on Acid Deposition Issues and Problems. The objectives of the workshop were to enhance awareness and promote understanding of the importance of EANET activities and to disseminate information on acid deposition issues and problems to the general public, scientific community, policy makers and others.
62. The National Workshop on Acid Deposition Issues and Problems and its Impact Management was held in Jakarta, Indonesia on 27-28 May 2009. This workshop was organized by the Ministry of Environment, Indonesia in cooperation with the Secretariat and the NC for EANET. The workshop was attended by approximately 65 participants who included representatives from government, academe, and scientist; Non Governmental Organization (NGOs); media/journalists; the Secretariat and the NC for EANET. The workshop discussed the following topics: Scientific Background of Acid Deposition and its Impact Management; International/Regional Cooperation for Acid Deposition and Air Pollution; Regulation on Air Pollution in Indonesia; Acid Deposition Management in Japan; Public Participation for Acid Deposition Impact Management; Public Awareness Activities of EANET - Joint Project on Environmental Study in Thailand and Japan; and Acid Deposition and its Impact Management/Monitoring in Indonesia.
63. The National Workshop on Public Awareness on Acid Deposition in Mongolia was held on 11-12 June 2009 at Ulaanbaatar, Mongolia. This workshop was organized by the

National Agency for Meteorology and Environment Monitoring (NAMEM), Mongolia in cooperation with the Secretariat and the NC for EANET. The workshop was attended by approximately 60 participants who included: representatives from government, academe, scientists and experts as well as the Secretariat and the NC for EANET. The following topics were presented during the Workshop: Brief on EANET; Brief on Scientific and Technical Matters of EANET; Mongolian Activities on EANET; Results of the Acid Deposition Monitoring in Mongolia; Indoor Air Quality; Air Pollution Influences in Forest Soil; Some Results of Air Pollution in Erdenet City; Air Quality in Mongolia; Particulate Air Pollution Study of Ulaanbaatar City; Air Quality Monitoring in Dornod Province; Use of Efficient Stove for Reducing Air Pollution in Ulaanbaatar; and Public Awareness Activities of EANET.

64. The Secretariat has communicated with the National Focal Point (NFP) of Myanmar for possible conduct of the National Workshop on Public Awareness in their country. However, the NFP of Myanmar informed the Secretariat that they were not prepared to hold the National Workshop on Public Awareness this year, due to the transition period.

EANET website

65. The websites of EANET and ADORC were renewed in April 2009. Though the changes were minor, some new information was included on the web site such as research activities by ADORC staff and links to related organizations in the participating countries.
66. The NC also made some minor improvements to the e-Learning program on acid deposition problems for environmental education.

XII. CHALLENGES/PROBLEMS/SOLUTIONS IN EANET IMPLEMENTATION

67. No serious problems have been encountered by the Secretariat and the NC in the implementation of the activities of EANET during this period. The Secretariat and the NC recognized that the participating countries are in consensus of a step-by-step approach regarding EANET activities and all countries have different situations and conditions.

Annex 1

Members and meeting schedule of the Task Forces and Expert Groups under SAC

Name	Members	Meeting date and venue
Task Force on Monitoring for Dry Deposition	<p>Dr. Cho Seog-Yeon (R. of Korea) - Chairperson Mr. Chin Chamroeun (Cambodia) Dr. Li Jianjun (China) Ms. Rina Aprishanty (Indonesia) Dr. Shiro Hatakeyama (Japan) Member (Lao PDR) Ms. Maznorizan Mohamad (Malaysia) Ms. B. Altantuya (Mongolia) Ms. Htwe Htwe Win (Myanmar) Engr. Jean N. Rosete (Philippines) Dr. Chang Lim-Seok (Republic of Korea) Dr. Tamara V. Khodzher (Russia) Dr. Pojanie Khummongkol (Thailand) Dr. Ding Thai Hung (Viet Nam)</p>	<p>14 October 2009 in Tsukuba, Japan (during SAC9)</p>
Task Force on Soil and Vegetation Monitoring	<p>Dr. Wilfredo M. Carandang (Philippines) - Chairperson Mr. Liu Fang (China) Dr. Masamichi Takahashi (Japan) Dr. Nik Abdul Majid/Dr. Ahmad Makmum Abdullah (Malaysia) Dr. Apolonio M. Ocampo (Philippines) Ms. Noh Hoe-Jung (Republic of Korea) Dr. Tatiana A. Mikhailova (Russia) Dr. Jesada Luangjame (Thailand) Dr. Hiroyuki Sase (ADORC)</p>	<p>15-16 July 2009 in Niigata, Japan</p>
Task Force on Monitoring Instrumentation	<p>Prof. Wang Ruibin (China) - Chairperson Mr. Chhek Roth (Cambodia) Mr. Zheng Haohao (China) Ms. Novy Farhani (Indonesia) Dr. Hiroaki Yago (Japan) Ms. Setouvanh Phanthavongsa (Lao PDR) Ms. Wong Fook Lian/Ms. Siniarovina Urban (Malaysia) Mr. Barkhasragchaa Baldorj (Mongolia) Ms. Htwe Htwe Win (Myanmar) Engr. Arturo Bongco /Engr. Robert Co (Philippines) Dr. Ahn Joon-Young (Republic of Korea) Dr. Sergey Paramonov (Russia) Ms. Wassana Toruksa (Thailand) Mr. Tran Son (Viet Nam)</p>	<p>25 August 2009 in Pathumthani, Thailand (back to back with STM10)</p>

Name	Members	Meeting date and venue
Task Force on Research Coordination	Dr. Sergey Gromov (Russia) - Chairperson Prof. Wang Ruibin (China) Dr. Hiroshi Hara (Japan) Prof. Katsunori Suzuki (Japan) Dr. Elizabeth Phillip (Malaysia) Dr. Cho Seog-Yeon (R. of Korea) Dr. Wilfredo M. Carandang (Philippines) Dr. Tamara Khodzher (Russia) Dr. Pojanie Khummongkol (Thailand) Dr. Duong Hong Son (Viet Nam) Dr. Hajime Akimoto (ADORC)	13 October 2009 in Tsukuba, Japan (back to back with SAC9)
Expert Group on Dry Deposition Flux Estimation	Dr. Pojanie Khummongkol (Thailand) - Chairperson Dr. Kazuhide Matsuda (Japan) Dr. Kentaro Hayashi (Japan) Dr. Akira Takahashi (Japan) Dr. Hiromasa Ueda (Japan) Dr. Chang Lim-Seok (R. of Korea)	19 February 2009 in Tokyo, Japan
Expert Group on Preparation of Second Periodic Report on the State of Acid Deposition in East Asia	Dr. Hajime Akimoto (ADORC) - Chairperson Prof. Wang Ruibin (China) Dr. Wilfredo M. Carandang (Philippines) Dr. Sergey Gromov (Russia) Dr. Duong Hong Son (Viet Nam) Ms. Adelaida B. Roman (Secretariat)	-
Expert Group on Revision of Technical Manual on Wet Deposition Monitoring	Dr. Hiroshi Hara (Japan) - Chairperson Dr. Tsuyoshi Ohizumi (Japan) Mr. Izumi Noguchi (Japan) Ms. Bulgan Tumendemberel (Mongolia) Dr. Ahn Joon-Young (R. of Korea) Dr. Hathairatana Garivait (Thailand) Dr. Dave Mactavish (WMO/Canada) Ms. Leong Chow Peng (ADORC) Mr. Shinji Nakayama (ADORC)	1-2 October 2009 in Niigata, Japan
Expert Group on Revision of Technical Manual on Inland Aquatic Environment Monitoring	Dr. Tamara Khodzher (Russia) - Chairperson Dr. Simon S. Brahmana (Indonesia) Dr. Senichi Ebise (Japan) Dr. Haruo Fukuhara (Japan) Dr. Vu Van Tuan (Viet Nam) Prof. Seiichi Ohta (Japan) Prof. Tomonori Kawakami (Japan) Dr. Hiroyuki Sase (ADORC)	6-7 August 2009 in Niigata, Japan

Annex 2

Summary of Technical Missions of the NC since SAC8

Country	Duration	Major Activities/Outcomes of the Mission
Viet Nam	18-24 October 2008	The mission visited relevant agencies and (candidate) monitoring sites in Hanoi, Danang and Hochiminh, and discussed how to improve QA/QC, etc. The mission also visited JICA office and asked support from JICA to the “Capacity building project for air quality monitoring using passive sampling method” to proceed by Viet Nam.
Mongolia	10-14 November 2008	The mission visited relevant agencies and exchanged information on the views and progress of EANET including QA/QC activities. The Mission also visited the EANET sites in Ulaanbaatar and Terelj.
Lao P.D.R.	10-14 December 2008	The mission confirmed that the monitoring site in Vientiane was moved to the Department of Meteorology and Hydrology near the Wattay International Airport, whose environmental location was much better than the former location. Since the wet only sampler and IC systems in the lab had some problems, NC decided to support repairing of the equipment as soon as possible. And the mission provided some consumables and apparatus for IC operation and filter-pack monitoring.
Cambodia	14-16 December 2008	The mission confirmed that IC systems in Cambodia have been operated without any problems. But, the mission was requested to provide an opportunity of training course for IC maintenance in order to maintain the equipment appropriately. The mission replaced one of micro photo sensors of wet only sampler in Phnom Penh to new one and repaired it. And the mission provided some consumables and apparatus for IC operation and filter-pack monitoring.
Thailand	15-20 December 2008	The mission demonstrated the leak check method of Filter-pack holder, and explained the procedure of the comparison test for Filter-pack method. The mission and the staffs of Pollution Control Department (PCD) agreed to re-analyze the samples of the comparison test for passive analysis again to confirm the results of NO ₂ . Regarding new research projects between NC and PCD, the mission was requested to submit the draft working plan of the project in 2009.
Republic of Korea	9-11 March 2009	The mission requested National Institute of Environmental Research, R. of Korea to provide air concentration monitoring data on hourly basis, and NO and NO _x data in addition to the NO ₂ data for NC. The draft implementation plan on the “Joint research project on aerosol monitoring” in 2009 was discussed, and after the mission it was decided to implement intensive monitoring in October 2009.
China	23-28 March 2009	The mission visited two monitoring sites in Chongqing. The mission and China National Environmental Monitoring Center (CNEMC) fundamentally agreed to implement comparative study of air concentration monitoring on ozone at two cities (Chongqing and one another city) in China in 2009. The mission and China discussed future development of EANET including future institutional arrangement. China requested NC training of data analysis at NC.

Country	Duration	Major Activities/Outcomes of the Mission
Indonesia	24-30 May 2009	The mission attended the Workshop on Public Awareness on Acid Deposition held in Jakarta on 27-28 May 2009 and made presentations on the environmental study project, the scientific background of acid deposition and its impacts management, etc. The mission visited the Environmental Management Center (EMC) and discussed and exchanged information on technical issues, especially QA/QC activities and data reporting, including check on condition of analytical instruments.
Russia	6-11 September 2009	The mission discussed the MOA of the Joint Research Project. It was contracted by ADORC and Limnological Institute (LIN). The mission visited LIN and Primorsky Center for Environmental Monitoring (PCEM) and discussed EANET activities in Russia. The Mission also visited three atmospheric monitoring stations and a monitoring site for inland aquatic environment.

Annex 3

National Training Activities in the Participating Countries of EANET in 2008/9

Country Name		Title of Training	Duration	No. of Participants	Major Topics
Cambodia	1	Training course on “Air Pollution and Acid Deposition, Their Effluence, and Related Countermeasure”	23-25 April 2008	50	<ul style="list-style-type: none"> - Air Pollution and their effects; - General aspect of acid deposition and their impacts; - Countermeasure on acid deposition and air pollution ; - Methodologies for monitoring wet deposition.
China	1	Training on automatic air quality monitoring	11-13 June 2008	64	<ul style="list-style-type: none"> - To give lectures on the operation and maintenance of automatic instruments for air quality monitoring.
Indonesia	1	Meeting on Feb 2008	1 day	16	<ul style="list-style-type: none"> - Acid deposition monitoring development - Implementation of monitoring plan 2008
	2	Meeting on June 2008	1 day	16	<ul style="list-style-type: none"> - Acid deposition monitoring data 2007
	3	Training on sampling and analysis method for wet and dry deposition monitoring	26-28 Oct. 2008	22	<ul style="list-style-type: none"> - Introduction of EANET - Acid deposition process - Methodologies for sampling and analysis of wet and dry deposition monitoring - QA/QC and data reporting - Practice on sampling and analysis
Japan	1	The training of atmospheric and traffic environment	30 Sep. - 3 Oct. 2008	70	<ul style="list-style-type: none"> - Atmospheric and traffic environment
	2	The training of equipment operation	16 Jun. – 1 Jul. 2008	34	<ul style="list-style-type: none"> - Equipment operation training
	3	The training of atmosphere monitoring	28 Jan. - 2 Feb. 2008	13	<ul style="list-style-type: none"> - Sampling/analytical methods for atmospheric monitoring
	4	The training of acid deposition monitoring for officials of municipalities	22-23 May 2008	21	<ul style="list-style-type: none"> - General consideration of acid deposition - Sampling/analytical methods for acid deposition monitoring
	5	Audit (Inspection and guidance) of National monitoring sites(including EANET monitoring sites)	Jan. – Dec. 2008	60	<ul style="list-style-type: none"> - Site and laboratory audit - Wet and dry deposition sites 12 - Soil and vegetation Monitoring sites 4 - Sites on inland aquatic environment 4
Lao PDR					

Country Name		Title of Training	Duration	No. of Participants	Major Topics
Malaysia					
Mongolia	1	Yearly seminar for environmental monitoring CLEM	17-22 Mar.2008	20	<ul style="list-style-type: none"> - Environmental (air, water, soil) quality monitoring - Acid deposition monitoring - SOPs - QA/QC activity
	2	Individual training course CLEM	12-26 May. 2008	4	<ul style="list-style-type: none"> - Air pollution monitoring - Water pollution monitoring - Soil monitoring Data
	3	Methodology of water chemistry Ministry of Nature, Environment and Tourism	23 Dec. 2008	60	<ul style="list-style-type: none"> - IC, AAS, GC Equipments - Water chemical analysis - Identification of heavy metal
Myanmar					
Philippines					
R. of Korea					
Russia					
Thailand	1	The meeting of National Acid Deposition Monitoring Network Sub-Committee	22 July 2008		<ul style="list-style-type: none"> - Acid Deposition Monitoring and Inter- laboratory comparison Data 2007 - Acid Deposition Activities - Consideration of EANET Meeting documents
	2	The meeting of National Acid Deposition Monitoring Network Sub-Committee	17 Nov. 2008		<ul style="list-style-type: none"> - Consideration of EANET Meeting documents
	3	Training on Operation and Maintenance of Automatic Air Monitoring Instruments	2-3 days		<ul style="list-style-type: none"> - Operation and maintenance method of automatic air monitoring instruments
	4	JICA Third Country Training on Control Strategy and Mitigation Measures of Acid Deposition	14 Jan.- 1 Feb. 2008	22 (From 8 EANET countries)	<ul style="list-style-type: none"> - General Information of Air Pollution - Atmospheric Chemistry - Air Quality Management - Air Pollution Control Technology - Environmental Economy - Acid Deposition Control Technology

Country Name		Title of Training	Duration	No. of Participants	Major Topics
Viet Nam	1	Capacity building for air quality monitoring using passive sampling method	From February to May 2009	32 from environmental research units, etc. from Northern provinces	<ul style="list-style-type: none"> - Passive sampling technology - Application of passive sampling method in air quality monitoring - Implementation of air quality monitoring activity in the site study of Northern Hanoi.

Training Requirements

Country	Requirements
Cambodia	(1) Basic training on acid deposition monitoring (2) Air Pollution and Acid Deposition, their Effluence, and Related Countermeasure”
China	Basic training on acid deposition monitoring
Indonesia	Technical on Analysis using Ion Chromatograph, including maintenance of IC
Mongolia	Basic training on acid deposition monitoring
Viet Nam	Basic training on acid deposition monitoring
Thailand	(1) Acid Deposition and Impact Assessment Analysis (2) Soil and Vegetation Analysis

Suggestions in EANET Training Activities

<ol style="list-style-type: none"> 1. The more training courses related on air pollution and acid deposition monitoring from EANET. 2. To implement training on model application on urban, national and regional scales and emission inventories 3. To consider regular training course such as JICA training and specific training course such as impact assessment analysis of acid deposition, soil and vegetation analysis
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