

The First Session
of the Scientific Advisory Committee
on the Acid Deposition Monitoring Network
in East Asia
14-16 November 2001, Chiang Mai, Thailand

**Report on the Progress after the Third Interim Scientific Advisory Group
Meeting of Acid Deposition Monitoring Network in East Asia (EANET)**

I. INTRODUCTION

1. This is a report prepared for the First Session of the Scientific Advisory Committee (SAC1) on the Acid Deposition Monitoring Network in East Asia (EANET) to review the progress of EANET activities. This report covers the EANET activities implemented after the Third Interim Scientific Advisory Group Meeting (ISAG3) held on 31 July and 1 August 2000 in Manila, Philippine.

2. Following the decision at the Second Session of the Intergovernmental Meeting (IG2) held on 25 and 26 October 2000 in Niigata, Japan, EANET activities started on a regular basis from January 2001.

II. INSTITUTIONAL ARRANGEMENTS

3. The Acid Deposition and Oxidant Research Center (ADORC) started its functions as the Network Center (NC) from January 2001. On 1 January 2001, the Japan Environmental Sanitation Center (JESC) appointed the following persons:

Dr. Tsumugu Totsuka: Director General

Mr. Motokazu Iwata: Deputy Director General in charge of Administrative
Management and Domestic Activities.

4. On 6 January 2001, as the result of government restructuring in Japan, the Environment Agency became the Ministry of the Environment. Mr. Katsunori Suzuki, Director of the Global Environment Issues Division, Global Environment Bureau, Ministry of the Environment (MOE), took over the role of Director of the Interim Secretariat (IS) from Mr. Masao Nii, former Director of Air Pollution Control Division, Air Quality Bureau, Environment Agency of Japan (EAJ). MOE continues to serve as IS to deal with the duties of the Secretariat until the United Nations Environment Programme (UNEP), particularly the Regional Resource Center for Asia and the Pacific

(RRC.AP: restructured from the Environment Assessment Programme for Asia and the Pacific (EAP.AP)) assumes the role of the Secretariat.

5. As of October 2001, IS officially received information that Japan, Malaysia and Russia had changed their national focal points through the diplomatic channel. Newly nominated national focal point of Japan is Mr. Katsunori Suzuki, Malaysia Dr. Zulkifli Idris (Director, Conservation and Environmental Management Division, Ministry of Science, Technology and Environment), and Russia Dr. Sergey Gromov (Institute of Global Climate and Ecology, Russian Federal Service for Hydrometeorology and Environmental Monitoring).

6. As of October 2001, IS officially received the information that China, Indonesia, Japan, Mongolia, the Philippines and Russia had nominated their Scientific Advisory Committee (SAC) members.

7. At IG2, UNEP was requested to become the Secretariat of EANET and to start the necessary arrangement to assume the role of the Secretariat after IG3, possibly from January 2002 at the UNEP RRC.AP.

8. Accordingly, UNEP and IS held an informal meeting on arrangements of the Secretariat of EANET on 1 March 2001 in Tokyo, Japan. Discussions were mainly focused on rules and regulations applicable to the Secretariat, establishment of fund, cost estimates for annual budget, recruitment of staff for the Secretariat and other preparatory arrangement.

9. The Chairperson of the Intergovernmental Meeting officially sent a letter dated 6 June 2001 to the UNEP Executive Director requesting the necessary arrangements for establishing the Secretariat with some conditions described in the Decision 3/IG.2 (EANET/IG 2/9). The UNEP Executive Director sent his reply to the Chairperson of the Intergovernmental Meeting on 18 June 2001 confirming its readiness to assume the role as the Secretariat of EANET.

10. JESC has been making necessary internal arrangement for appointment of the Deputy Director General of ADORC in charge of the Network Center who will be invited from a participating country.

11. IS was contacted by the Kingdom of Cambodia and Lao People's Democratic Republic concerning admission procedures to EANET. Both countries informally informed IS of their willingness to submit applications..

III. INTERGOVERNMENTAL MEETING/ITS SUBSIDIARY BODIES

III-1. INTERGOVERNMENTAL MEETING

12. It was agreed that the First Session of the Scientific Advisory Committee (SAC1) be held from 14-16 November 2001, and IG3 on 19-20 November 2001 both in Chiang Mai, Thailand. An informal meeting on financial mechanism etc. will be held on 17 November also in Chiang Mai.

13. In accordance with the Work Program and Budget in 2001, IS convened the Preparatory Meeting for IG3, 14-15 June 2001 in Bangkok, Thailand. The Meeting held discussions on organizational matters and identified some important issues to be discussed at SAC1 /IG3. IS sent in July 2001 the revised documents, taking account of the comments at the Preparatory Meeting, to the participating countries for their further comments.

III-2. SUPPORT TO TASK FORCES

14. The (Interim) Network Center (INC/NC) was requested to serve as the secretariats of the Task Force on Dry Deposition Monitoring, the Task Force on Soil and Vegetation Monitoring, and the Network of Soil and Vegetation Specialists. By the end of May 2001, the members of the Task Forces and the Network were nominated by most participating countries.

15. One of the activities of the Task Force on Dry Deposition Monitoring is to develop "QA/QC Program for the Air Concentration Monitoring in East Asia". A draft QA/QC Program was developed by the Task Force on Dry Deposition Monitoring and distributed among the Interim Scientific Advisory Group (ISAG) members as well as the national focal points and the heads of the national centers in September 1999 for their comments. Based on the comments and intensive discussions with experts in the participating countries, the revised draft was prepared by INC and distributed in December 2000 among the members of the new Task Force on Dry Deposition

Monitoring, which was reorganized at the Second Session of the ISAG and the Fourth Session of the Working Group in March 2000, for asking further comments by the end of February 2001. There was no comment to the revised draft from the Task Force members. In September 2001, the revised draft was discussed at the Second Senior Technical Managers' (STM) Meeting, and NC sent the final draft to the Task Force members for their confirmation. After the finalization by the Task Force members, the QA/QC Program is expected to be submitted to SAC1 for its endorsement.

16. INC/NC prepared preliminary draft outline of the strategy paper for future direction of soil and vegetation monitoring, based on discussions in the previous international meetings/workshops and comments by Japanese experts. It was circulated among the Task Force members in May 2001 and discussed at the Second STM Meeting. NC will present the progress in developing the strategy paper at SAC1 for its consideration and guidance as appropriate.

17. In order to share common information and knowledge, NC sent first and second packages of technical materials regarding soil and vegetation monitoring to the Network members respectively in January and June 2001. These materials include EANET monitoring guideline and technical documents, and the abstract book of the 6th International Conference on Acidic Deposition.

IV. COMPILATION, EVALUATION AND DISSEMINATION OF DATA AND RELEVANT INFORMATION

18. At the Third Session of ISAG in July/August 2000 in Manila, Philippines, ISAG considered a draft "Report on the Acid Deposition Monitoring of EANET during the Preparatory Phase – Its Results, Major Constraints and Ways to Overcome Them-", which had been prepared with the support of INC. The report was adopted with some modifications at the Meeting, and INC was requested to prepare the finalized report.

19. The finalized report was presented and endorsed at IG2, and INC issued the report in December 2000, in accordance with the decision at IG2.

20. The participating countries have submitted the data and related information obtained through the monitoring activities of EANET in 2000 to NC. NC has prepared a preliminary draft data report for the consideration at the Second STM

Meeting. After the Meeting, NC established the ad hoc group in NC to verify the data submitted by the participating countries. Based on comments by the ad hoc group members, NC communicated with the relevant participating countries and prepared a draft data report for consideration at SAC1.

V. TECHNICAL ASSISTANCE TO THE PARTICIPATING COUNTRIES

V-1. Dispatch of technical missions

21. INC/NC dispatches technical missions to the participating countries to exchange information and experiences, to provide technical advice and to disseminate the latest technical information. The INC technical missions were sent to eight participating countries, namely, China, Indonesia, Malaysia, Philippines, Republic of Korea, Russia, Thailand and Viet Nam, during the period between July and December 2000 (Mongolia in June 2000). In 2001 the NC missions were sent to Indonesia and Philippines (April), Russia (July/August), Mongolia (August) and Malaysia (September).

22. INC/NC visited (candidate) network monitoring sites and laboratories, and held technical discussions with local experts on acid deposition and to exchange information and experiences on the preparatory-phase activities as well as the regular-phase activities. In some countries, technical workshops were held during the INC/NC technical missions. These missions were considered very useful for INC/NC in grasping the present capacities of the participating countries and for the participating countries in having detailed technical discussions among various experts from relevant agencies and academies (List of technical missions during June 2000 and October 2001 is attached as Annex of this document).

V-2. The First Senior Technical Managers' Meeting of EANET

23. The First STM Meeting of EANET was held from 20 through 22 February 2001 in Niigata, Japan, organized by NC to discuss the important technical issues. The Meeting was attended by senior technical managers of all the participating countries, who are responsible for technical issues on EANET activities in each country. The Meeting was also attended by experts from international organizations as well as Japanese universities, research institutes, local governments and relevant bodies.

Through the intensive discussions, it became clear that there were technical issues to be further addressed for the regular-phase monitoring, such as site selection, monitoring methodologies, equipment for monitoring and analysis, capacity building, QA/QC activities, data assessment and reporting.

V-3. The Second Senior Technical Managers' Meeting of EANET

24. NC organized the Second STM Meeting from 19 through 21 September in Niigata, Japan. The Meeting discussed important technical issues such as national monitoring plans submitted to NC by the participating countries, monitoring data in 2000 and results of inter-laboratory comparison studies in 2000.

V-4. Implementation of the technical cooperation programs

25. INC/NC, with financial support by the Environment Agency/the Ministry of the Environment of Japan, implemented the technical cooperation programs for the participating countries in Japanese Fiscal Year (JFY) 2000 and 2001 by providing technical as well as financial support to the countries.

26. Monitoring materials such as spare-parts, consumable supplies and standard reference materials for wet deposition monitoring were provided to Indonesia, Mongolia, Philippines, Russia and Viet Nam. Taking its severe economic situation into consideration, (I)NC provided Indonesia with operational cost for the interagency committee and preliminary survey of soil and vegetation monitoring site.

VI. IMPLEMENTATION AND COORDINATION OF QA/QC ACTIVITIES

VI-1. Inter-laboratory comparison projects

27. In October 2000, INC issued the report of the second inter-laboratory comparison project on wet deposition undertaken in November 1999. The results of the second project shows remarkable improvement compared with the first project in 1998.

28. For soil monitoring, INC undertook the first inter-laboratory comparison project in November 1999. Tentative report of the project were informed at the Third

ISAG in March 2000, based on the data obtained by then. Having received the results from the last participating laboratory in February 2001, NC analyzed data statistically and finalized the report of the project.

29. INC undertook the third inter-laboratory comparison project on wet deposition, the second one on soil and the first one on artificial surface water in December 2000. The results of the analysis by participating laboratories have been submitted to NC except for some laboratories. NC has prepared draft reports on these projects and discussed them at the Second STM Meeting in September 2001.

VII. IMPLEMENTATION OF TRAINING ACTIVITIES

VII-1. Utilization of existing training programs (JICA Group Training Course)

30. The Japan International Cooperation Agency (JICA) has been implementing the Group Training Course on Monitoring and Control Technologies of Acid Deposition since JFY 1997 for leading technical officials or researchers in national or local governments of East Asia, in cooperation with Hyogo Prefecture of Japan and other relevant organizations. In the training programs for EANET, this training course was designated as one of the training activities under EANET.

31. The training course in JFY 2000 was held from 6 November through 22 December 2000 in Kobe, Japan. The participants of this course were mid-level technical officials or researchers in the East Asian region who were working for EANET or expected to work for EANET, to make directly link with EANET activities. It was participated by those from eight East Asian countries, namely, China, Indonesia, Malaysia, Mongolia, Philippines, Thailand, Viet Nam and Cambodia.

32. The training course in JFY 2001, the name of which was changed to the "Country Focused Training Course on the Acid Deposition Monitoring Network in East Asia", has started on 8 October 2001 and will finish on 16 December 2001, receiving 10 trainees from 9 countries.

33. The training course has been implemented for 5 years by JFY 2001. According to the rule of JICA, one term of a training course is 5 years and each training course should be evaluated at the end of the term to decide whether it should

be extended or terminated. A study team was dispatched to Malaysia and Laos from 25 September through 4 October 2001 to collect information for evaluation. JICA, in consultation with the Government of Japan, will decide the needs of the extension of this training course by the end of JFY 2001 (March 2002).

VII-2. Implementation of individual training

34. Considering the importance of intensive training, the individual training at INC/NC has been promoted as well as dispatch of short-term experts to the participating countries. The individual training aimed at enhancing the proficiency of various monitoring skills of participating countries, taking account of specific situations in the countries.

35. As one of its training activity in JFY 2000, INC provided individual training for two officials of the Pollution Control Department (PCD), Thailand, for wet and dry deposition monitoring and data management during May and June 2000.

36. One each trainee from the Environmental Management Center (EMC) of Indonesia, the Department of Chemistry (DOC) of Malaysia and the Environmental Management Bureau (EMB) of the Philippine received individual training at NC from February to March 2001, focusing on the wet and dry deposition monitoring especially in terms of data analysis and data management.

37. Three trainees from Indonesia and Viet Nam are under individual training at NC from October to November 2001, focusing on the wet and dry deposition monitoring.

VII-3. Dispatch of short-term experts

38. In consultation with INC/NC, JICA dispatched short-term experts on acid deposition monitoring to the participating countries, namely, China, Indonesia, the Philippines and Viet Nam in the period between June 2000 and October 2001.

VIII. RESEARCH ACTIVITIES

VIII-1. Joint research program with Russia

39. Since JFY 1998, INC/NC has been implementing a joint research program on acid deposition monitoring in frigid zones with the Limnological Institute, Russian Academy of Science, Siberian Branch (RAS/SB). Under this program, wet deposition monitoring as well as dry deposition monitoring started in JFY 1998 in a remote site to study appropriate methodologies for monitoring in frigid zones. The program also included the soil and vegetation monitoring and monitoring for inland aquatic environment in Siberia. The number of the research monitoring sites was increased to three in JFY 2000.

VIII-2. Joint research program with Thailand

40. Since JFY 1999, INC/NC has been carrying out a joint research program on dry deposition flux with PCD, Thailand. Under this program, a reference site to study dry deposition flux for tropical forest was selected in Lampang Province, Thailand. An observational station has been under construction in the selected site from JFY 2000.

VIII-3. Eco-frontier Fellowship

41. An application of a researcher from Republic of Korea was approved by the Ministry of Environment to carry out a study on inland aquatic environment in ADORC. The researcher joined ADORC in early October 2001.

IX. OTHER ACTIVITIES

IX-1. Activities related to Public Awareness for Acid Deposition Problems

42. Since JFY 1999, ADORC has been undertaking joint projects with selected participating countries to develop their own national brochures and/or videotapes on acid deposition. In addition to the projects with China and Thailand in JFY 1999 to develop brochures in respective countries, ADORC undertook projects in JFY 2000 with China to develop a video tape, with Malaysia and the Philippines to develop brochures. In JFY 2001, ADORC undertook similar projects with Indonesia.

43. ADORC organized the Workshop on Public Awareness for Acid Deposition

Problems on 23 February 2001 in Niigata, Japan. The Workshop was attended by approximately twenty participants and observers from China, Indonesia, Japan, Malaysia, the Philippines, Thailand and Russia. The main objective of the Workshop was to exchange information and share experiences on public awareness raising, mainly through the implementation of joint projects.

IX-2. Communication with relevant organizations

44. INC attended the Third Expert Meeting for Long-range Transboundary Air Pollutants in Northeast Asia (LTP Project) held on 22-24 August 2000 in Seoul, Republic of Korea. NC attended the Fourth Expert Meeting held on 22-24 August 2001 in Seoul, Republic of Korea. INC/NC contributed to the project by providing monitoring data of some EANET sites in Japan and presenting a transboundary air pollution model.

45. INC and the Scientific Advisory Group on Precipitation Chemistry (PC SAG) of the WMO Global Atmospheric Watch (GAW) exchanged views on technical matters and enhancement of mutual cooperation, at the fourth meeting of PC SAG held on 6-9 December 2000 in Tokyo.

46. NC sent a mission to Europe to attend the 17th Task Force Meeting of the International Co-operative Programme on Assessment and Monitoring of Air Pollution Effects on Forests (ICP Forests) in May 2001 and discussed the possibility of closer cooperation between EANET and ICP Forests. It was recognized that the exchange of information among experts should be promoted as a first step of closer cooperation.

IX-3. Introduction/dissemination of EANET activities

47. The 6th International Conference on Acidic Deposition (ACID Rain 2000) was held on 11-15 December 2000 in Tsukuba, Japan. INC and experts from some participating countries made presentations regarding EANET activities. INC also disseminated the information about EANET activities by holding an explanation session as a side event of the Conference on 12 December, and by using an exhibition booth. Approximately 50 participants gathered at the explanation session from various countries including Europe and North America.

48. INC exchanged information and experiences with the World Bank, the Asian Development Bank and other members of the RAINS ASIA from time to time, and especially at the RAINS ASIA Final Workshop, held on 9 December 2000 in Tsukuba, Japan.

49. INC introduced EANET activities at the Workshop on the Transport of Air Pollutants in Asia held in September 2000 in Laxenburg, Austria, which focused on a model comparison study in Asia (MICS-Asia). It also introduced EANET activities at the First Meeting of the National Focal Points for the North East Asian Center for Environmental Data and Training (NEACEDT) held in February 2001 in Incheon, Republic of Korea.

50. IS introduced EANET activities in various other occasions, such as Eco-Asia in September 2000 and Tripartite Environment Ministers Meeting between China, Japan and Republic of Korea in April 2001.

Technical Missions of INC (June – December 2000)

Country	Term	Main Purposes
China	12 – 17 June	(i) to participate in and contribute to the National WS; and (ii) to discuss the monitoring methods for dry deposition, soil/vegetation and inland aquatic environment in China.
Mongolia	17 – 21 June	(i) to exchange information and views on the progress of the monitoring activities in Mongolia; and (ii) to exchange information and views in detail on the soil and vegetation monitoring and to discuss a possibility of soil and vegetation monitoring in Mongolia.
Malaysia	25 – 29 July	(i) to discuss the present status and future perspective on EANET activities and other activities on acid deposition in Malaysia; and (ii) to discuss feasibility of analysis of the wet and dry deposition samples by DOC.
Indonesia	13 – 19 August	(i) to exchange information and views on implementation of soil and vegetation monitoring, and (ii) to identify needs to support Indonesian organizations, under the economic crisis in Indonesia.
Russia	21 – 29 August	(i) to discuss a draft memorandum of agreement on the joint research program in JFY 2000; and (ii) to visit laboratories on soil and vegetation monitoring to exchange information and views.
Republic. Of Korea	29 August – 1 September	(i) to discuss future EANET activities as a whole and specifically in ROK; and (ii) to discuss possibility to start soil and vegetation monitoring and monitoring for inland aquatic environment in ROK..
Thailand	3 – 9 September	(i) to assist the Pollution Control Department (PCD) in holding the training workshop on wet deposition; and (ii) to visit the possible monitoring site(s) for inland aquatic environment and soil /vegetation.
Philippines	5 – 10 September	(i) to exchange information and views on the progress of the monitoring activities in the Philippines; and (ii) to discuss detailed technical issues on EANET soil/vegetation monitoring with relevant researchers.
Viet Nam	10 – 16 September	(i) to visit candidate sites and relevant laboratories for the soil/vegetation monitoring and inland aquatic environment monitoring in Hoabinh area; and (ii) to visit candidate sites and relevant laboratories for wet and dry deposition monitoring etc. in Southern Viet Nam
China	17 – 25 December	(i) to join the Meeting among four EANET cities in China; and (ii) to visit laboratories for acid deposition monitoring in Kunming, and candidate monitoring site(s) in Lijiang.

Technical Missions of NC (January – October 2001)

Country	Term	Main Purposes
Indonesia	17 – 12 April	(i) to exchange information and views on the maintenance of the equipments for monitoring and analysis; (ii) to investigate the cause of malfunction on Japanese wet-only sampler in Indonesia; and (iii) to repair the samplers at EMC station and LAPAN station.
Philippines	22 – 25 April	(i) to exchange information and views on the maintenance of the equipments for monitoring and analysis; (ii) to investigate the cause of malfunction on Japanese wet-only sampler in Indonesia; and (iii) to repair the samplers at Los Banos station.
Russia	29 July – 5 August	(i) to finalize MOA of the Cooperation Research Project in 2001; (ii) to visit Usuriiskaya monitoring station near Vladivostok; and (iii) to visit the Center for ENvironmental Monitoring of Primorsky Territorial Management for Hydrometeorology and Environment Monitoring tw. Vladivostok and exchange views and information.
Mongolia	25 – 29 August	(i) to discuss the methodologies of wet and dry deposition monitoring, especially for winter season; (ii) to exchange information and views in detail on the progress of the soil and vegetation monitoring of EANET in Mongolia; and (iii) to discuss the possibility of the inland aquatic environment monitoring of EANET in Mongolia.
Malaysia	2 – 8 September	(i) to discuss and exchange information on wet and dry deposition sampling of MMS including the selection of new monitoring sites; (ii) to discuss wet and dry deposition analysis conditions of DOC including the analytical capacity of DOC; and (iii) to exchange the other information and views on acid deposition.