

The Eighteenth Session of the Intergovernmental Meeting
on the Acid Deposition Monitoring Network in East Asia
22-23 November 2016, Bangkok, Thailand

Report on the Review of Implementation of the Medium Term Plan (MTP) for the EANET (2011-2015)

I. INTRODUCTION

1. The Acid Deposition Monitoring Network in East Asia (EANET) decided to develop its first Medium Term Plan (MTP), the Strategy on the EANET Development (2006-2010) during the Fifth Session of the Intergovernmental Meeting (IG5) on the EANET in 2003. The Strategy was finally adopted as an MTP for the EANET at the Eighth Session of the Intergovernmental Meeting (IG8) on the EANET (IG8) in 2006.
2. The evaluation of the Strategy on the EANET Development (2006-2010) was conducted in two periods: at mid-term and final term of its implementation years. .
3. The Mid-term Report on the Implementation of the Strategy on EANET Development (2006-2010), endorsed at the Eleventh Session of the Intergovernmental Meeting (IG11) on the EANET reported that the EANET was able to achieve 89 to 93 percent of its expected outputs during the evaluation period of 2006 to 2008. In addition, the Report mentioned that the EANET Science Bulletin in 2008 was published as an additional output of the programme. In regard to the budget, the Secretariat and the Network Center (NC) were able to secure additional funding resources to support the EANET and there were scientists and experts from the participating countries provided their in-kind services for the EANET.
4. The Final Report on the Implementation of the Strategy on EANET Development (2006-2010) reported that the EANET was able to achieve 91 to 100 percent of its expected outputs during the period of 2006 to 2010. The Report mentioned that the EANET Science Bulletin (Volume 1-2) and the Strategy Paper of Future Direction of Monitoring for Dry Deposition of EANET were additional outputs of the EANET. The Report explained about a few activities that could not be implemented by the NC due to unexpected increasing cost of monitoring equipments, incident of staff movements of the NC and program adjustments to follow the decisions made at the IG Sessions and to follow any developments within the EANET. The implementation of the Strategy on EANET Development (2006-2010) was strengthened by the commitments of the participating countries shown by their willingness to provide support during the development of Instrument and to provide a sound basis for voluntary financial contribution to the EANET.
5. The Instrument for Strengthening the EANET (Instrument) was adopted at the Twelfth Session of the Intergovernmental Meeting (IG12) on the EANET and was fully operational from 1 January 2012. Once adopted, the participating countries began to sign the Instrument and it was finally signed by all in 2014.

6. The Second MTP for the EANET (2011-2015) was discussed and adopted during the IG12. The MTP have ten (10) objectives and it covers twenty-two (22) activities of the EANET for five years period.
7. Similar to the first MTP for the EANET, the Strategy on the EANET Development (2006-2010), the evaluation of the Second MTP for the EANET (2011-2015) were conducted in two periods, at mid-term or in 2013 and the final term or towards the end of 2015.
8. The Mid-Term Report on the Implementation of the MTP for the EANET (2011-2015) from January 2011 to June 2013 highlighted the significant progress of the EANET programme implemented in the first half of the MTP, particularly in the areas of increasing transparency of the EANET, improving the acid deposition monitoring and analysis, and conducting periodic scientific assessments on the state of acid deposition in East Asia, and capacity building. The recommendation to the second half of the implementation pointed out to focus on strengthening policy relevance of the EANET and promoting a common understanding on environmental, social and economic issues of atmospheric pollution ultimately leading to the establishment of an epistemic community. The other concerns were relevant to the institutional arrangement of the Secretariat and funding resources.
9. The Draft Report on Review of Implementation of the MTP for the EANET (2011-2015) was presented during the Sixteenth Session of the Scientific Advisory Committee (SAC16) on the EANET held on 24–26 October 2016 in Pathumthani, Thailand. The Draft Report highlighted the status of EANET activities implemented from 2011 to 2015 as well as funding resources for each activity and measurements of the activity progress against the objectives of the MTP. The SAC16 Session was invited to review, discuss, provide comments and guidance from scientific and technical view points The revised Draft Report is presented in Attachment.

II. ACTIONS REQUIRED

10. The Eighteenth Session of the Intergovernmental Meeting (IG18) on the EANET is invited to review the Draft Report on the Review of Implementation of Medium Term Plan (MTP) for the EANET (2011-2015), and may wish to discuss, make comments, provide guidance and adopt, as appropriate.

Attachment

**Report on the Review of Implementation of the Medium Term Plan (MTP)
for the EANET (2011-2015)**

I. BACKGROUND ON THE MTP (2011-2015)

1. For the future development including efficient and transparent activities of the EANET, the Eighth Session of the Intergovernmental Meeting (IG8) on the EANET in 2006 adopted the Strategy on EANET Development (2006-2010) which focuses on the whole activities of the EANET with clearly stated targets, activities including estimated cost to be undertaken and expected results at the end of the mentioned period. The success of the Strategy was reported in the Draft Final Report on the Implementation of the Strategy on EANET Development (2006-2010) presented at the Thirteenth Session of the Intergovernmental Meeting (IG13) on the EANET in November/December 2011. One of the activities identified in the Strategy on EANET Development was the development of the next medium term plan for the EANET taking into consideration the achievements of the Strategy, problems encountered and new developments in East Asia.
2. The second five-year plan, named Medium Term Plan (MTP) for the EANET (2011-2015) was drafted by the Secretariat and the Network Center (NC) for the EANET in collaboration with the Scientific Advisory Committee (SAC) and other relevant bodies of the EANET, and was finally adopted for implementation at the Twelfth Session of the Intergovernmental Meeting (IG12) on the EANET in November 2010.
3. The strategic direction of the MTP for the EANET (2011-2015) continued to focus on enhancement of the monitoring network, supported by the participating countries, through the implementation of strategic activities to improve geographical coverage, ensure site representativeness, and strengthen monitoring procedures, particularly sampling and analysis, to achieve more comprehensive and precise data.

I-1 Objectives of the MTP for the EANET (2011-2015)

4. The objectives of the MTP for the EANET (2011-2015) are as follows:
 - Improvement of current acid deposition monitoring in terms of data quality, completeness of monitoring items, distribution of monitoring sites and data management;
 - Extended assessment of the state of acid deposition including other relevant pollutants in East Asia based on the analysis of the EANET monitoring data;
 - Development of scientific researches on the atmospheric environment in East Asia;
 - Common understanding on environmental, social and economic issues of atmospheric pollution in East Asia through the establishment of an epistemic community and promotion of public awareness;

- Increasing transparency of the EANET;
- Strengthening policy relevance of the EANET activities;
- Providing policy advice and information based upon sound science assessment;
- Enhance coordination in the dissemination of knowledge and information, training and public awareness activities;
- Strengthening technology support and capacity in line with country needs; and
- Enhancement of cooperative efforts among participating countries and relevant organizations.

I-2 Categories of the Activities

5. To achieve the above objectives, activities in 2011-2015 were identified for implementation in the five year period by the participating countries, the Scientific Advisory Committee (SAC), the Secretariat, the NC and other relevant bodies of the EANET, under the following seven categories:

- (i) Promotion of acid deposition monitoring activities including quality assurance and quality control (QA/QC) activities;
- (ii) Improvement of compilation, verification, evaluation, storage and provision of data;
- (iii) Enhancement of data analysis and assessment;
- (iv) Implementation of technical support and capacity building activities;
- (v) Promotion of research activities related to acid deposition problems;
- (vi) Promotion of public awareness; and
- (vii) Further development of the EANET.

I-3 Activities in the MTP for the EANET (2011-2015)

6. Twenty two (22) activities including cost estimation with expected outputs and set targets have been identified by the Secretariat, the NC, the SAC and the participating countries for implementation in the period from 2011 to 2015 to achieve the objectives of the MTP for the EANET (2011-2015). As described in the tables of the Annex 1 and 3 of the MTP for the EANET (2011-2015), the implementation periods of the activities were also estimated since implementation of the activities is subject to availability of funds.

II. PURPOSE OF THIS REPORT

7. In line with the Implementation Plan in the adopted MTP for the EANET (2011-2015) and the Work Program and Budget of the EANET in 2016 approved at the Seventeenth Session of the Intergovernmental Meeting (IG17) on the EANET in November 2015, the Secretariat and the NC developed this Draft Report on the Review of Implementation of the MTP for the EANET (2011-2015)

8. The Draft Report presents the progress and the achievements of the activities implemented during

the period of the MTP since the start of its implementation in January 2011 to the end of the plan in December 2015. The recommendations were also made as appropriate for the improvement of the implementation of the activities during the next MTP for the EANET (2016-2020) period.

9. The draft Report was submitted to the Sixteenth Session of the Scientific Advisory Committee (SAC16) to review, discuss, make comments and provide guidance from scientific and technical viewpoints, and will be ultimately submitted to the IG18 in November 2016 for adoption.

III. STATUS OF IMPLEMENTATION OF THE EANET ACTIVITIES IN 2011-2015

10. The following section reports on the status of implementation of activities from January 2011 to December 2015, the target achieved and expected outputs reached. Some challenges that faced during the implementation period are highlighted.

Activity 1: Monitoring of all EANET priority chemical species, improvement in monitoring methodologies and better instrument maintenance

Target: To achieve more complete and precise data from all sites

Expected Outputs:

[1] More comprehensive monitoring of the priority chemical species at EANET sites according to the recommended procedures

[2] Updated regional and national SOPs

Implementation period: for output [1] from 2011-2015 and for output [2] from 2011-2014

Status	Comments
The participating countries are requested to make efforts to monitor all the priority chemical species in wet deposition, dry deposition, soil and vegetation/forest areas, and inland aquatic environment according to the recommended procedures to enable a comprehensive assessment of the state of acid deposition. PM2.5 monitoring equipment was installed in Myanmar and Vietnam in 2014 and in Mongolia in 2015. The QA/QC procedures should be strictly followed to ensure quality data.	The NC has continued to encourage participating countries to monitor all the priority species at the monitoring sites. However some countries still experience constraints in implementing the full set of measurements due to various reasons.
Scientific discussion to promote transparency of monitoring methodologies was made at the Sessions of the SAC. It was pointed out that monitoring method used in each country should be harmonized to obtain comparable data.	There are some different monitoring methods in the participating countries such as filter-pack monitoring, though the EANET has produced a set of technical manuals/ documents.
Monitoring and QA/QC System of Ozone was discussed at the Sessions of the SAC and Senior Technical Managers' Meeting (STM) including present calibration system. The NC also provided technical support to some participating countries, such as Indonesia, Malaysia, Philippines, Russia and Thailand. (Shown in the activity 13)	Taking into account of importance of monitoring of ozone, the NC included this issue into the agenda of the Sessions of the SAC and the STM several times.

<p>The Standard Operating Procedures (SOPs) were already provided from the NC to the participating countries. The NC has explained the necessity of upgrading the SOPs of the lab during the technical mission, etc.</p> <p>Note: Although it is rather difficult to develop unified SOPs in a country and/or region, it is necessary to develop the SOPs in the lab so as to analyze the necessary components appropriately using the installed equipment in the lab. It might be possible to develop the SOP(s) for a/some component(s), e.g., for South East Asian countries in order to overcome organic acid issues for wet deposition.</p>	<p>Most of the countries have already developed their SOPs and the NC has been making effort to harmonize the laboratory procedures.</p>
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Evaluation of expected outputs:

[1] All of countries can monitor the priority chemical species though countries which monitor ozone and/or PM2.5 are rather limited. At the end of 2015, monitoring of ozone and PM2.5 was implemented at the following countries:

Ozone: Indonesia, Japan, Mongolia, Philippines, R. of Korea, Russia and Thailand (7 countries)

PM2.5: Japan, Mongolia, Myanmar, Philippines, Thailand and Vietnam (6 countries)

[2] NC has developed the regional SOPs for EANET and many of the EANET countries have already developed their national SOPs by 2015.

Activity 2: Collaboration with participating countries to increase the number of regional monitoring sites

Target: To increase substantially the number of regional monitoring sites for better coverage of the East Asian region

Expected Outputs:

[3] New EANET sites established by participating countries at appropriate locations

Implementation period: 2011-2015

Status	Comments
<p>The number of monitoring sites in 2015 are:</p> <ul style="list-style-type: none"> - Wet deposition monitoring: 57 sites (13 countries) - Air concentration monitoring: 49 sites (13 countries) <p>The most recent dry deposition monitoring site was established in Myanmar in 2014.</p> <ul style="list-style-type: none"> - Soil monitoring: 21 areas (31 forests) (10 countries) - Vegetation monitoring: 18 areas (24 forests) (10 countries) - Inland aquatic environment monitoring: 19 sites (11 countries) - Catchment monitoring: 2 sites (2 countries) <p>[Annex 1: Number of EANET monitoring sites since 2001]</p>	<p>The establishment of new monitoring sites is the responsibility of the participating countries. The NC provides advice and assistance on the scientific and technical issues in the selection of the sites. In some cases, additional support is provided subject to the availability of resources.</p>
<p>3 new monitoring sites on wet and dry deposition (Yenbai, Hochiminh and Can Tho) were established in Vietnam in 2014-2015, and 1 dry deposition was established in Myanmar (Mandalay) in 2015. Catchment monitoring was started from 2010 in a site in Japan. One site in Philippines was also established at the end of 2015.</p>	<p>Even if the participating countries don't revise the NMPs, it's necessary for them to submit the latest NMPs to the NC every year.</p>

<p>At the SAC12 in 2012, the participating countries were requested to review their National Monitoring Plans (NMPs), and to submit the reviewed NMPs by the end of July every year from 2013 even if they don't revise the NMPs.</p>	<p>It's very difficult for the NC to know current exact situation of the monitoring sites including on-site information because more than 10 years have passed since the commencement of the regular phase monitoring of the EANET in 2001.</p>
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Evaluation of expected outputs: New EANET sites established by participating countries during implementation period were 3 wet deposition, 6 dry deposition, 1 soil and vegetation, 1 inland aquatic, and 1 catchment monitoring sites.

Activity 3: Continuation of activities to improve the current methods used to measure air concentrations and estimate dry deposition

Target: To develop an accurate method to measure air concentrations and estimate deposition of priority chemical species in East Asia

Expected Outputs:

[4] Improved method to measure air concentrations and estimate dry deposition developed by the Task Force on Monitoring for Dry Deposition

Implementation period: 2011-2015

Status	Comments
<p>The Technical Manual for on Dry Deposition Flux Estimation developed by the Expert Group on Dry Deposition Flux Estimation under the Task Force on Monitoring for Dry Deposition (TFMD) was submitted to SAC10 in 2010 and adopted. And the Technical Manual for Air Concentration Monitoring by the Expert Group on Preparation of the Technical Manual for Air Concentration Monitoring under the TFMD was submitted to SAC13 in 2013 and adopted. These published documents were issued on the website and distributed to the participating countries. In addition filter-pack method is developed in 2003. In order to include latest information, it is necessary to update these manuals (Dry deposition flux estimation and Air concentration monitoring) as early as possible. The NC was preparing establishing new Expert Group for review and revising these two manuals.</p>	<p>The Technical Manual provides guidance to participating countries on selection of a suitable method to measure air concentration and dry deposition. The draft TOR and membership of the Expert Group on Revision of the Technical Manuals for Dry Deposition Flux Estimation and Air Concentration Monitoring were adopted at the SAC16 in 2016 and will be submitted to the IG18 for endorsement as appropriate.</p>

Evaluation of expected outputs: One technical manual was developed, namely Technical Manual for Air Concentration Monitoring

Activity 4: Development/review of guidelines, technical manuals and documents, as necessary

Target: To provide guidance on the EANET monitoring including types of instrumentation

Expected Outputs:

[5] New/revised guidelines, technical manuals and documents developed by the respective task forces under SAC

Implementation period: 2011-2015

Status	Comments
<p>Distribution of the new/revised guidelines and technical manuals: <u>2012</u>: The following documents adopted at the IG12 in 2010 were distributed to the participating countries and uploaded on the website in 2012, since it took rather long time to publish the guidelines and manuals after the adoption due to many editorial corrections, etc.</p> <ul style="list-style-type: none"> - Revised Technical Manual for Wet deposition Monitoring - Revised Technical Manual for Inland Aquatic Environment Monitoring - New Technical Manual on Dry Deposition Flux Estimation - New Guidelines for Catchment–scale Monitoring 	<p>All the EANET technical manuals have been revised lately and the new Technical Manual for Air Concentration Monitoring was also completed at the end of 2013 as scheduled.</p>
<p>Development of the Technical Manual for Air Concentration Monitoring <u>2011</u>: Started the discussion for development of the new technical manual <u>2012</u>: Continued discussion. <u>2013</u>: Development of the final draft submitted by the Task Force on Monitoring for Dry Deposition to the SAC13 for adoption, and finally endorsed at the IG15.</p>	<p>Since the EANET didn't have the Technical Manual for Air Concentration Monitoring (except for technical document of the filter-pack method), development of the manual was one of the very important issues for the EANET at that time, and was completed in 2013 as planned.</p>

Evaluation of expected outputs: One technical manual was developed, namely Technical Manual for Air Concentration Monitoring.

Activity 5: Development/update of strategy papers for guidance on future directions of the EANET monitoring, as necessary

Target: To provide guidance on the future direction of the EANET monitoring

Expected Outputs: [6] Strategy papers prepared by the respective task forces under SAC

Implementation period: 2011-2015

Status	Comments
<p>The Strategy Paper on Future Direction of Monitoring for Dry Deposition of the EANET (2011-2015) was distributed to the participating countries and uploaded on the EANET website in 2012 after editorial corrections.</p> <p>The “Strategy Paper on Future Direction of Monitoring for Dry Deposition of EANET (2016-2020)”, was adopted at SAC in 2015. It will be issued on the EANET website and distributed to the participating countries soon.</p>	<p>The Strategy Paper of the EANET have been developed by the TFMD and adopted at the SAC as planned.</p>
<p>The Strategy Paper for Future Direction of Soil, Vegetation and related Ecosystem Monitoring of the EANET was also issued on the EANET website in 2012 for convenience of the participating countries.</p>	<p>Ecosystem monitoring was newly included in this Strategy Paper, and this paper was revised again in 2014.</p>

<p>The “Strategy Paper of Future Direction of EANET on Monitoring of Effects on Agricultural Crops, Forest and Inland Water by Acidifying Species and Related Chemical Substances” was adopted at SAC in 2014 and issued on the EANET website and distributed to the participating countries soon.</p>	
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Evaluation of expected outputs: Two strategy papers were developed, namely Strategy Paper of Future Direction of EANET on Monitoring of Effects on Agricultural Crops, Forest and Inland Water by Acidifying Species and Related Chemical Substances and Strategy Paper on Future Direction of Monitoring for Dry Deposition of EANET (2016-2020)

Activity 6: Implementation of QA/QC activities

Target: To enable all sites to adopt a standard set of quality control and quality assurance measures

Expected Outputs:

- [7] Annual inter-laboratory comparison surveys to identify analytical problems
- [8] A QA/QC manual for EANET monitoring

Implementation period: for output [7] from 2011-2015 and for output [8] from 2011-2012

Status	Comments
<p>Inter-laboratory Comparison Projects for Wet Deposition, Dry Deposition, Soil and Inland Aquatic Environment to identify analytical problems were implemented in 2011-2015 every year. [Annex 2: Results of Inter-laboratory Comparison Projects on Wet Deposition in 1998-2015]</p>	<p>All the Inter-laboratory Comparison Projects were implemented on schedule.</p>
<p>Proposal for a QA/QC Guideline for the EANET Monitoring was discussed in 2011 and 2012. The proposed a QA/QC Guideline in 2011/2012 was not adopted at the SAC due to issues that should be clarified.</p>	<p>Taking into account of the discussion at the previous Sessions, the NC submitted Draft QA/QC Guidebook to the SAC16. The SAC16 adopted the QA/QC Guidebook.</p>

Evaluation of expected outputs: Annual inter-laboratory comparison for every country has been done. A draft QA/QC Guideline for the EANET Monitoring was developed in 2011-2012 but had not adopted by 2015 and has been revised for resubmission to the SAC16 in 2016.

Activity 7: Routine compilation, verification, evaluation, storage and provision of data and maintenance of database

- Targets:
- To ensure that all EANET data are routinely compiled, verified and stored
 - To share the EANET dataset among participating countries

Expected Outputs:

- [9] A complete, updated dataset available within the next year
- [10] Annual publication of EANET Data Report

Implementation period: 2011-2015

Status	Comments
<p>All previous data sets have been completed because all the EANET data (in 2001-2015) have been verified by the International Ad hoc Verification Group.</p> <p>The EANET 2001-2014 dataset was compiled and shared among participating countries although submission of data from some countries was delayed sometimes due to problems of the equipment and other personnel issues. Verification of data in 2015 was completed before SAC16.</p>	<p>Data compilation and verification followed the agreed schedule.</p>
<p>EANET Data Report 2001-2014 were published following submission of data by participating countries. Data Report 2015 will be completed by January 2017 with necessary corrections after adoption at the SAC16.</p>	<p>The two reports were published and distributed on schedule.</p>

Evaluation of expected outputs:

Monitoring data set was compiled from participating countries every year and published.

Activity 8: Upgrading of the data management system in the NC to enable easy access by approved users

Target: To upgrade the EANET database management system to international standard

Expected Outputs: [11] An improved data management system at NC

Implementation period: 2011-2013

Status	Comments
<p>In order to provide the requested raw data through website, an improved data management system was developed at the NC.</p> <p>However taking into account of the request data users, more advanced data management system to enable easy access by approved users is still necessary. Development of this new system is included in the MTP (2016-2020).</p>	<p>The improved data management system at the NC has been implemented.</p> <p>The new data user friendly system will be planned to be developed by the end of 2018.</p>

Evaluation of expected outputs: An improved data management system was developed. New more data user friendly system will be developed by the end of 2018.

Activity 9: Conduct continuous assessment of the state of acid deposition using trend analysis, indicators, numerical models

Target: To provide updated information on the state of acid deposition in East Asia to policy makers

Expected Outputs:

[12] Assessments of the EANET data by the Task Force on Research Coordination and SAC including assessment of current status, trends, and use of model outputs.

Implementation period: 2011-2015

Status	Comments
<p>The Second Periodic Report on the State of Acid Deposition in East Asia (PRSAD2) published in 2011, Part I provided a detailed assessment of the state of acid deposition in East Asia from 2005 to 2009.</p> <p>The Part I of the Third Periodic Report on the State of Acid Deposition in East Asia (PRSAD3) agreed at the SAC16 in 2016 will also provide the detailed assessment of the state of acid deposition in East Asia from 2009 to 2014. The agreed Draft PRSAD3 was submitted to the IG18 for approval.</p>	<p>Assessment of the state of acid deposition in East Asia will continue to be performed as additional monitoring data is received by the NC. The results will be used as inputs to the various reports being prepared. The PRSAD3 was agreed at the SAC16 to be submitted to the IG18 for approval as appropriate.</p>
<p>The Task Force on Research Coordination (TFRC) has established a Reviewing Committee (RC) to review the state of air pollution in East Asia, for submission of the report to the SAC in 2013 and 2014, and to the WGFD and the IG in 2013 and 2014 for consideration of expanding the scope of the EANET. Model studies have been conducted as joint research activities on the Model Inter-comparison Study in Asia (MICS-Asia) and so on.</p> <p>The Report for Policy Makers (RPM) published by the EANET every 4 years also provides information on the state of the atmospheric environment and emerging environmental issues of concern. The Third RPM was prepared for consideration and recommendations by the SAC13 and the WGFD12 in 2013, and for endorsement by the IG15 at the end of 2013. Taking into account of the comments submitted from the participating countries after IG15, it was finally published in December 2014.</p>	<p>The NC has been designated as the Secretariat of the RC.</p> <p>Providing policy advice and information based upon sound science assessment is very important.</p>

Evaluation of expected outputs: PRSAD2 was published in 2011; The Review Report of State of the air pollution in East Asia was published in 2015. The assessment of data was done by Task Force on Research Coordination and SAC for the expanding of scope of the EANET purpose and input to the report for policy maker and PRSAD3.

Activity 10: Evaluation of the monitoring data to assess impact on ecosystems

Target: To identify areas which have potential for damage by acid deposition and other priority chemical species

Expected Outputs:

[13] A report identifying areas or regions in East Asia susceptible to damage by acid deposition and other priority chemical species will be prepared by the Task Force on Soil and Vegetation

Implementation period: 2011-2014

Status	Comments
<p>A report identifying areas or regions in East Asia susceptible to be damaged by acid deposition and other priority chemical species was prepared by the Task Force on Soil and Vegetation Monitoring (TFSV) in collaboration with the NC and reported at the SAC11, SAC14 and SAC15 in 2011/2014/2015 during the 5 years in 2011-2015.</p>	<p>Although data from only one of the participating countries was used, it may be possible to introduce data in Japan at the Session of the SAC as a case study.</p>

Evaluation of expected outputs: The report was done for only 1 country due to lack of monitoring

data participating from other countries.

Activity 11: Preparation of periodic assessment reports on the state of acid deposition in East Asia

Target: To provide useful scientific input to policy makers, scientists and the general public

Expected Outputs: [14] Periodic Reports on the State of Acid Deposition in East Asia

Implementation period: 2011-2012 and 2014-2015

Status	Comments
The Second Periodic Report on the State of Acid Deposition in East Asia (PRSAD2) was prepared and published after endorsement at the IG13 in December 2011.	PRSAD2 was published, distributed to the participating countries and uploaded on the EANET website on schedule with effort of the members of the Drafting Committee, the NC and the Secretariat.
The Third Periodic Report on the State of Acid Deposition in East Asia (PRSAD3) is focus on activities and data in 2010-2014. Monitoring data is being compiled for the assessment. Establishing the Drafting Committee (DC) for the PRSAD3 was endorsed at the Session of the IG in 2014 (IG16). Preparation of the report was commenced in June 2015, and the DC and Lead Authors' Meetings (LAMs) have been held several times since 2015. The final Draft of the Regional Report, National Report and Summary will be submitted to the Session of the SAC in 2016.	Development of the PRSAD3 has been implemented as planned from 2015 for finalization in 2016. At the SAC16 in 2016, the PRSAD3 was agreed to be submitted to the IG18 for approval as appropriate.

Evaluation of expected outputs:

The process of PRSAD3 development was initiated and will be approved at the IG18 in 2016 as appropriate.

Activity 12: Promotion of capacity building for personnel of the participating countries including training courses, capacity building workshops, fellowships, etc.

Target: To enhance capacity of personnel involved in the EANET activities

Expected Outputs:

[15] Annual STM meetings to strengthen technical capacity in participating countries

[16] Technical support for EANET meetings including meetings of the task forces and expert groups

[17] Textbooks and other guidance materials

[18] Trained personnel on EANET monitoring

[19] Workshops for policy makers to enhance knowledge on EANET activities

Implementation period: 2011-2015

Status	Comments
STM meetings have been held annually organized by the NC: STM12 on 21-22 September 2011 in Kuala Lumpur, Malaysia STM13 on 30-31 August 2012 in Hanoi, Vietnam STM14 on 26-28 August 2013 in Tokyo, Japan STM15 on 4-5 August 2014 in Hanoi, Vietnam STM16 on 25-26 August 2015 in Ulaanbaatar, Mongolia	All 5 meetings of the STM were held successfully on schedule.

STM17 on 21-22 September 2016, Listvyanka, Russian	
<p>The Secretariat and the NC provided technical support for the sessions of IG, SAC, WGFD, STM and the meetings of the various Task Forces and Expert Groups established under SAC.</p> <p>All the necessary documents including presentation files were sent to the participating countries in advance. Most of the documents were dispatched one month before the Sessions/Meetings.</p> <p>From the year 2015, in order to promote “Eco-friendly EANET Meetings”, the Secretariat and the NC only send electric files of the meeting documents through inter-net, and don’t distribute most of the meeting documents to the participants of the EANET Sessions except some important and thick documents, such as “Draft Data Report and Draft Inter-lab Report at the Sessions of the SAC and STM”.</p>	<p>All the sessions were successfully held on schedule.</p> <p>In order to promote efficient discussion, the meeting documents should be dispatched to the participating countries one month before the Sessions/Meetings in principle.</p> <p>In order to promote “Eco-friendly EANET Meetings”, sending only electric files of the meeting documents is very informative. This important policy should be continued as the EANET.</p>
<p>Almost all of the necessary textbooks have been developed. The NC has concentrated on developing/revising technical manuals/monitoring guidelines lately.</p>	<p>The development of Guidelines for Developing Emission Inventory is not the NC activity during this period.</p>
<p>Trainees who participated in the individual training at the Network Center are:</p> <p>2011: 3 persons from China, Malaysia and Russia 2012: 2 persons from Lao PDR and Philippines 2012: 4 persons from Malaysia, Mongolia, Russia and Vietnam (in December 2012 instead of beginning of 2013) 2014: 3 persons from Cambodia, Malaysia and Myanmar 2015: 4 persons from Cambodia, Malaysia, Myanmar and Thailand</p> <p>[Annex 3: Number of trainees that attended the individual training program at the Network Center]</p>	<p>This activity is subject to the availability of resources.</p> <p>Taking into account of the weather condition of the winter in Niigata, Japan, individual training in 2013 was implemented at the end of 2012. In order to promote air concentration monitoring especially PM2.5 and ozone, individual training should be further enhanced as the EANET.</p>
<p>In addition, 10 Thai trainees received training in March 2012 in Japan under the JICA Country Focused Training Course on Capacity Building on Acid Deposition and Impact Assessment Analysis.</p>	<p>The training was implemented as planned with the support of the JICA and Governments of Japan and Thailand.</p>

Evaluation of expected outputs: Annual STM meetings were held; Technical support of the EANET meetings was made; Technical manuals and guidelines were printed and made available online; Individual training and group training were made available annually; no specific workshops for policy makers were made. The knowledge enhancement for policy makers updating EANET activities was made during the EANET meetings and newsletter.

Activity 13: Promotion of technical support to participating countries by provision of advice, technical information and equipment to countries

Target: To assist participating countries to conduct the EANET monitoring

Expected Outputs:

[20] Experts for advice and other technical support provided by NC to participating countries

focusing on QA/QC

[21] Equipment and other assistance provided to participating countries especially using external funds from donor agencies

Implementation period: 2011-2015

Status	Comments
<p>To provide technical support to the participating countries, technical missions were dispatched to: 2011: 4 countries/5 times (Cambodia (twice), Russia, Lao PDR, Myanmar) 2012: 4 countries (Indonesia, Lao PDR, Myanmar, Philippines) 2013: 4 countries (Malaysia, Russia, Mongolia, China) 2014: 4 countries (Indonesia, Korea, Malaysia, Philippines) 2015: 3 countries (Indonesia, Russia, Philippines)</p> <p>[Annex 4: The Network Center technical missions to the participating countries in 2006-2015]</p>	<p>The technical missions to the participating countries were made annually according to plans. The technical missions are subject to the availability of funds.</p>
<p>Equipment was provided to Cambodia, Indonesia, Lao PDR, and Myanmar in 2011, to Indonesia, Lao PDR, Myanmar, and Philippines in 2012, to Mongolia and Myanmar in 2013, to Cambodia, China and Mongolia in 2014, and to Cambodia, Indonesia and Myanmar in 2015. Spares and consumables were also provided to Cambodia, China, Indonesia, Lao PDR, Mongolia, Myanmar, Philippines, Russia, and Vietnam during this period of 5 years in 2011-2015.</p>	<p>The provision of equipment is dependent on the availability of external funds and contributions from donor agencies.</p>

Evaluation of expected outputs:

Technical Expert support and monitoring equipment were provided to the request countries.

Activity 14: Provision of new and updated information and communication technologies

Target: To provide access to the knowledge base and to enable EANET to operate in a manner that is comparable with other networks and programmes

Expected Outputs: [22] Access to state-of-the-art information and communication technologies

Implementation period: 2011-2015

Status	Comments
<p>A Workshop on Capacity Building for Information and Communication Technologies for the EANET was planned in 2011 by the Secretariat as an opportunity to introduce state-of-the-art information and communication technologies to the EANET participating countries.</p>	<p>This workshop was cancelled due to budgetary constraints.</p>
<p>The data and publications were made available for access through internet with the security protection by each user's password.</p>	<p>The NC made data and information accessible online.</p>

Evaluation of expected outputs:

The data and information were made online with security protection.

Activity 15: Promotion of research studies particularly on the applicability of various

methodologies for measurement of air concentrations in East Asia

Target: To encourage research studies on acid deposition including improvement of methodologies for measurement of air concentrations in East Asia

Expected Outputs:

[23] Biennial publication of EANET Science Bulletin

[24] Research opportunities for young scientists through the EANET Research Fellowship Program

[25] An evaluation of the performance of the various methodologies for monitoring air concentrations. A report with recommendation on the most appropriate methodologies will be submitted by the Task Force on Monitoring Instrumentation to SAC

Implementation period: for output [23] from 2012, 2014 and for output [24-25] from 2011-2015

Status	Comments
The EANET Science Bulletin (Volume 2) was completed in December 2010 and published in January 2011. Among others, the bulletin reported on the joint research studies implemented with Malaysia, Thailand, Japan, Russia and the Republic of Korea. Volume 3 of the Bulletin was prepared in 2013 and finally adopted at the Session of the SAC in 2013. It includes Reports of the EANET Research Fellowship Program (2010-2012), Joint Projects of the EANET with Participation Countries, and Scientific and Technological Research Papers from Participating Countries.	On schedule, once every two or three years. The EANET Science Bulletin (Volume 4) was endorsed at the SAC16 in 2016, and will be published by the end of 2016.
Under the EANET Research Fellowship Program, 1 researcher each from China and Malaysia were selected to conduct research at the NC in 2011, 1 researcher from Thailand participated in the program in 2012, 1 researcher each from Mongolia and Russia were selected to conduct research in 2014, 1 researcher each from Mongolia and Thailand were selected to conduct research in 2015 Their science papers (in 2011-2012) were be published in the EANET Science Bulletin Vol. 3. The science papers (in 2013-2015) will be published as the EANET Science Bulletin (Vol. 4) by the end of 2016 after endorsement at the Session of the SAC in 2016 (SAC16). [Annex 5: Number of researchers that participated in the EANET Research Fellowship Program]	Two researchers from the EANET countries have participated annually except only one researcher in 2011 since the other one was cancelled due to some specific reasons. This activity is subject to the availability of funds.
The Feasibility Study on Low Cost Methodologies for Monitoring Air Concentrations was reported at the SAC11 in 2011. Low Cost Methodologies for Monitoring Air Concentration is included in the technical manual developed in 2013.	The Feasibility Study has been completed. The results are useful for the preparation of the Technical Manual for Air Concentration Monitoring.
The Aerosol Deposition Studies in Forests for Improvement of Estimation Method for Dry Deposition was reported at the SAC11 in 2011.	The research study has been completed.

Evaluation of expected outputs: EANET Science Bulletin was compiled and adopted at the SAC13 in 2013; EANET fellowship for young researcher was awarded annually; and evaluation for the low cost methodology for monitoring air concentration was made and included in technical manual.

Activity 16: Promotion of studies on the effects of acid deposition and other priority chemical

species on the ecosystem, human health, and other social aspects from the viewpoint of the socio-economics

Target: To determine the impacts of acid deposition and other priority chemical species in East Asia and further understand the inter-linkages between pollutants and effects

Expected Outputs:

[26] Scientific papers and reports on impacts of acid deposition and other priority chemical species on the ecosystem, human health, and other social aspects from the viewpoint of the socio-economics in East Asia, including results from simulation models. A recommendation on future direction of EANET monitoring will be submitted by SAC to IG

Implementation period: 2011-2015

Status	Comments
<p>Joint research projects on catchment analysis was implemented with the Royal Forest Department (RFD) and the Environmental Research and Training Center (ERTC) in Thailand, with the Universiti Putra Malaysia (UPM) and the Malaysian Meteorological Department (MMD) in Malaysia, and with Niigata Prefecture and Niigata University in Japan until July 2015 to study dynamics of sulfur derived from atmospheric deposition utilizing S isotopic analysis in forest catchments in these countries.</p>	<p>The research projects with Thailand, Malaysia and Japan was successfully implemented and the results were reported several times at the EANET sessions. The research projects will continue if external funding is available.</p>
<p>A review of scientific papers and reports on impacts of acid deposition and other priority chemical species on the ecosystem, human health, and other social aspects from the viewpoint of the socio-economics of East Asia including results from simulation models was carried out and the results published in Chapter 6 of the PRSAD2, Part I: Regional Assessment. A recommendation on future direction of the EANET monitoring was also included.</p>	<p>The review has been completed on schedule and reported in Chapter 6 of PRSAD2. The results were also reported in the Review on the State of Air Pollution in East Asia (RSAP) published in Feb. 2015.</p>

Evaluation of expected outputs: Joint research on catchment analysis in the forest was conducted. The review of scientific papers on impact of acid deposition was carried out and recommendations were made.

Activity 17: Promotion of studies on models to assess and analyze the trend of national and regional acid deposition and other related air pollutants in East Asia by evaluating existing models and providing a suitable one, and promotion of atmospheric simulation model through workshops, training courses etc.

Target: To identify high concentration areas and enhance the capability of usage of modelling for interested countries

Expected Outputs:

[27] Mapping of concentrations and deposition of priority chemical species, and elucidation of transport, chemical transformation, and deposition processes in East Asia. Trained and knowledgeable scientists on atmospheric chemical transport modeling in interested EANET countries.

Implementation period: 2011-2015

Status	Comments
<p>The International Workshop on Atmospheric Modelling Research in East Asia was held once a year during 2010-2015 in China. At the workshop, the Work Plan for Model Inter-Comparison Study for Asia (MICS-Asia) Phase III, settings of model simulations including input data such as meteorological fields, initial/boundary conditions and emission inventories, and submission list of variables required for participant models were discussed. Preliminary analysis of inter-comparison of first submitted results was reported. The outcomes of the MICS-Asia Phase III activities will be useful to policy makers of countries in East Asia to identify high pollutant concentration areas.</p>	<p>Number of participants of the workshops were about 60-80 mainly from EANET countries. At the workshop, recent research activities about observation, modeling and emission inventories in East Asia were also reported and discussed.</p>
<p>A Modelling and Emission Inventory Training Workshop was held from 30 January to 3 February 2012 in Niigata, Japan. Around 20 participants from 11 EANET participating countries attended the training workshop. In the Workshop, instruction materials were provided to the participants as reference documents.</p>	<p>The workshop was carried out as planned.</p>
<p>The NC is promoting the research activities on modelling and emission inventories in the MICS-Asia project in collaboration with a research institute in China. In the MICS-Asia `Phase III, reliable emission inventories in Asia were developed called MIX inventory which were also provided to HTAPv2. Now participants of MICS-Asia Phase III are implementing the further analysis of model inter-comparison results.</p>	<p>Regarding the activities on “Modeling and emission inventories”, a proposal from the SAC on establishment of an expert group for promotion of the modeling and emission inventories was submitted to the IG in 2007 based on the “Strategy on the EANET Development (2006-2010)”. Although it was not approved, the discussion of the research on modeling and emission inventories was implemented again in 2009-2010, and the research was included in the MTP for the EANET (2011-2015).</p>

Evaluation of expected outputs:

The cooperation on research based for this activity was carried out with MICS-ASIA project.

Activity 18: Promotion of emission inventories through workshops, training courses, pilot studies, preparation of reference materials, etc.

Target: To provide a harmonized methodology on the development of emission inventory and strengthen capacity of interested countries in emission inventories

Expected Outputs:

[28] Reference document(s) for emission inventory

[29] Trained and knowledgeable personnel on emission inventories in EANET countries

Implementation period: 2012-2013

Status	Comments
As mentioned above, a Modelling and Emission Inventory Training Workshop was held from 30 January to 3 February 2012 in Niigata, Japan. Around 20 participants from 11 EANET participating countries attended the training workshop.	The workshop was carried out as planned, and was also included in the MTP for the EANET (2016-2020) for future development of the EANET.
The “Guidelines for Developing Emission Inventory in East Asia (around 400 pages)” and other materials were provided to the participants as reference documents.	Provision of the guidelines was very informative for many participants and participating countries.

Evaluation of expected outputs: Guideline was developed and training workshop was held in 2012.

Activity 19: Promotion of public awareness on acid deposition and other priority chemical species including their effects, control and mitigations measures, the activities of the EANET, to school children and others

Target: To enhance understanding and knowledge on air pollution to achieve better air quality in East Asia

Expected Outputs:

[30] Public awareness activities including workshops for participating countries and to multi-layer stakeholders

[31] Regular updating of the EANET webpage

[32] Public awareness and environmental education materials disseminated through publications and the EANET webpage

[33] Periodic issues of the EANET Newsletter

[34] Report for Policy Makers

[35] Regional and national workshops held in the participating countries to promote good practices and best available technologies for prevention and control of air pollution and other workshops for the youth and school children

[36] A special High Level Segment at an EANET session to disseminate information to policy makers

Implementation period: 2011-2015

Status	Comments
The Tenth Workshop on Public Awareness for Acid Deposition Problems was held in Niigata in 2012. The workshop was attended by approximately 140 participants from the participating countries of the EANET and school children. [Annex 6: Public awareness workshops organized by the EANET]	The Tenth Workshop on Public Awareness was successfully held in Niigata, Japan in February/March 2012.
The EANET webpage, maintained by the NC, is regularly updated with information on current events and activities, new meeting reports and publications and other useful information.	The webpage is continuously updated as new information becomes available

<p>In accordance with the “Criteria for Uploading Priority Documents to the EANET Website” in the “Revised Guidelines on Administrative and Financial Management for the Secretariat and the NC” approved at the IG14 in 2012, the Secretariat and the NC is preparing for uploading all of necessary priority EANET documents to the EANET website. After identification of the EANET members in the participating countries for granting the authorized documents access on the EANET website, the new system was started at the end of 2013.</p>	<p>It’s also one of progress of the EANET for promotion of transparency and efficiency.</p>
<p>The EANET brochure was updated in March 2011. EANET public awareness and environmental education publications are disseminated at environmental awareness events, and relevant meetings held in participating countries and are also available on the EANET webpage.</p>	<p>The public awareness materials including the EANET brochure developed in 2011 should be updated and are distributed at appropriate events.</p>
<p>Volume 10 and 11 of the Newsletters: Issued in early 2012. Volume 12 and 13 of the Newsletters: Issued in 2012. Volume 14 and 15 of the Newsletters: Issued in 2013. Volume 16 and 17 of the Newsletters: Issued in 2014. Volume 18 of the Newsletters: Issued in 2015.</p>	<p>Although the Newsletters in 2011 (Volume 10&11) were delayed due to disruption of the EANET Secretariat works caused by major flooding in Thailand during the last quarter of 2011 and early 2012, the Newsletters after 2012 were completed, issued on the website and distributed to the participating countries on schedule.</p>
<p>The Third Report for Policy Makers (RPM3) was published and distributed in 2015.</p>	<p>Although the RPM3 was planned to develop by the end of 2013, since during and after the Session of the IG in 2013 there are many comments from the participating countries, it was finalized at the end of 2014; published and distributed to participating countries and public in 2015.</p>
<p>An in-country public awareness workshop was held in the Philippines in 2011. About 100 government officials, students and general public in Philippines benefited from the workshop. Experts from the NC were invited as resource persons.</p>	<p>The workshop in 2011-2012 and conference in 2012 were successfully held. Participating countries also made effort to promote public awareness in their national activities.</p>
<p>An environmental conference for school children was held in Japan in 2012 involving 140 schoolchildren, experts and NGOs.</p>	<p>The environmental conference was held with financial support from the funding agency in Japan.</p>
<p>A Public Awareness Workshop on Acid Deposition in Lao PDR was held together with the Instrument signing ceremony in 2012 with 25 participants comprising government officials and experts attended.</p> <p>In 2013, Two in-country public awareness workshops in Myanmar and Thailand were in 2013 with 60 and 80 participants, respectively from governmental agencies, local government agencies, private sectors, and academia.</p> <p>The public awareness workshop in Vietnam was held in 2014 including the Youth Public Awareness Workshop and site visit in Hoabinh by 65 participants from local environment governmental officers, teachers and secondary and high school students.</p>	<p>The post evaluation of the national public awareness workshop as agreed by IG17 was conducted and presented in Annex 7. The result of post evaluation showed satisfaction from participating countries. Recommendation was to continue the workshop with consideration of expansion of the event.</p> <p>Not all EANET participating countries have conducted a public awareness workshop on acid deposition. A few countries have never requested a support from Secretariat and NC.</p>

The NC undertook a joint project with Indonesia to support environmental study activities on acid deposition in schools in 2011.	The projects in Indonesia were implemented successfully in 2011.
Regional seminar on “Clean Air Technologies and Integrated approach for Air Quality Management” to promote good practices and best available technologies for prevention and control of air pollution was held for senior officials of the EANET in 2014	All senior officials of the participating countries of the EANET attended.
The IG has not yet decided on the appropriate time to hold the Special High Level Segment at an EANET session to disseminate information to policy makers.	Special High Level Segment was planned to be held in 2020 in the MTP for the EANET (2016-2020).

Evaluation of expected outputs: Public awareness activities including workshops were conducted but may not involve as many as stakeholders; EANET webpage was update regularly; EANET newsletter was issued biannually to updating policy maker the EANET activities; Regional seminar to promote good practices and best available technologies for prevention and control of air pollution was held. No high level segment was convened as decided by participating countries.

Activity 20: Sharing a common understanding on atmospheric environmental issues among the scientific community and policy makers by exchanging information through a network of experts

Target: To support formation of an epistemic community in East Asia

Expected Outputs:

[37] Creation of a network of experts concerned with atmospheric environment issues within East Asia

Implementation period: 2011-2015

Status	Comments
<p>EANET scientists and policy makers meet regularly at the EANET meetings, particularly at the SAC sessions, to discuss on the EANET development and exchange information.</p> <p>The EANET Secretariat attended the Seventeenth Senior Official Meeting (SOM) of North-East Asian Sub-regional Program for Environmental Cooperation (NEASPEC) in December 2012 in China, International Workshop on Strengthening the International Cooperation Framework and Science-Policy Interface to Promote Air Pollution Control in East Asia 2013 in February 2013 in Japan, the Thirteenth Session of the Intergovernmental Meeting (IG13) of Malé Declaration Control and Prevention of Air Pollution and Its Likely Transboundary Effects for South Asia including its Seventh Regional Stakeholders cum Coordination Meeting (RSC7) in May 2013 in Bangladesh, and International Workshop on Air Quality in Asia in June 2013 in Singapore.</p> <p>The Secretariat and the NC attended the Better Air Quality (BAQ) 2012 Conference held in 2012 in Hong Kong and Colombo in 2014, made their presentations and exchanged</p>	<p>No target dates have been set for the formation of an epistemic community in East Asia.</p>

<p>information and views with the participants. The other forums held in the regions such as the Regional Intergovernmental Consultation on Near-Term Climate Protection and Clean Air Benefits in Asia and the Pacific held in February 2013, and the Fourth Governmental Meeting on Urban Air Quality in Asia held in February 2013, have provided further opportunities for interaction between scientists and policy makers. The Secretariat and the NC also attended the Fifth Governmental Meeting on Urban Air Quality in Asia held in November 2014 that the Guidance Framework on Urban Air Quality in Asian Cities was discussed and issued in 2016.</p>	
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Evaluation of expected outputs:

Network of Scientists was created through SAC members, task forces and expert groups of the EANET.

Activity 21: Consideration on the extension of the scope of the Instrument and institutional arrangement of the EANET taking into account of recent developments and future requirements, including a possibility of establishing additional bodies if necessary

Target: To improve the existing activities and structure of the EANET to enable future development and continuation of benefits to participating countries

Expected Outputs:

[38] Report with recommendations on extension of the scope of the instrument and institutional arrangement of EANET to be submitted to IG

Implementation period: 2011-2015

Status	Comments
<p>The SAC11 held in 2011 decided that the SAC review the state of air pollution in East Asia. Based on the discussion at the SAC11, a Reviewing Committee (RC) was established in 2012 under the TFRC. The final draft report, Review on the State of Air Pollution in East Asia (RSAP), was developed in 2014 and issued on the website in Feb. 2015. It was also decided that the draft reports be discussed at the TFRC and the SAC in 2013/2014, and the reports also be submitted to the Sessions of the WGFD and the IG in 2013 and 2014.</p>	<p>Preparation of the Review on the State of Air Pollution in East Asia was also implemented in 2013-2014. The final draft report was submitted by TFRC to SAC for approval in 2014. The WGFD also reviewed and discussed the future expansion of the scope of the EANET in its sessions in 2013, 2014 and 2015 and made recommendations to the Session of the IG.</p>
<p>In accordance with the discussion at the IG15 in 2013, Prefeasibility Study on the expansion of the scope of the EANET was conducted by the NC and discussion was made at the Sessions of the WGFD, SAC, and IG in 2014. In line with the results of the Prefeasibility Study, Feasibility Study on the expansion of the scope of the EANET was also implemented in 2015, and some of the activities in the Feasibility Study (Category 1 and 2) were included in the next Medium term Plan for the EANET (2016-2020) especially promotion of PM2.5 and ozone monitoring.</p>	<p>Further progress in this activity will depend on the decision of the IG and the participating countries.</p>

<p>Decision 1/IG.15, considering the review report on the future arrangement of the Secretariat for the EANET in 2013, reconfirmed the designation of UNEP as the Secretariat for the EANET and selected Option 1B (UNEP as the EANET Secretariat with some function implemented through RRC.AP/AIT with Coordinator at UN-P4 level) for the new arrangement of the EANET Secretariat. This arrangement will be reviewed again 2 years after its operationalization. The transition period to arrange the Secretariat function at UNEP ROAP was taken 1 year. UNEP ROAP started its secretariat services for the EANET in May 2015.</p>	<p>The review report on the future arrangement of the Secretariat was presented at IG15 in 2013.</p> <p>All documents as required by Decision 1/IG.15 for the arrangement of the Secretariat services at UNEP ROAP was approved at the end of the MTP (2011-2015) except for the Framework document on the arrangement of the Secretariat between UNEP and the EANET. IG17 established the Working Group on Framework to develop the draft Framework document to be submitted to the IG18 for making a decision in 2016.</p>
<p>The IG14 in 2012 decided that the WGFD will be continued on an ad-hoc basis for the three years period of 2013-2015. The Terms of Reference (TOR) for the WGFD (2013-2015) was adopted at the IG14. However the TOR after 2015 was not discussed.</p>	<p>If the participating countries request to discuss important EANET issues at the WGFD, it is necessary to consider proposing new draft TOR of the WGFD as appropriate.</p>

Evaluation of expected outputs: Feasibility study of the extension of the scope of the EANET was submitted to IG17; EANET Secretariat arrangement at UNEP was reconfirmed by IG15 and the transition to UNEP ROAP was made in 2015.

Activity 22: Development of the Medium Term Plan for the EANET (2016-2020)

Target: To plan a strategy for future development of the EANET

Expected Outputs: [39] Medium Term Plan for EANET (2016-2020)

Implementation period: 2014-2015

Status	Comments
<p>The Medium Term Plan (MTP) for the EANET (2016-2020) was discussed at WGFD, SAC and IG Sessions in 2014-2015, and finally approved at the IG17 in November 2015.</p>	<p>Even if during the period of (MTP) for the EANET (2016-2020), if the IG requests to review and revise the MTP as appropriate, the Secretariat and the NC has to follow the decision of the IG.</p>

Evaluation of expected outputs:

Medium Term Plan (2016-2020) was developed and approved at IG17 as planned.

IV. FUNDING SOURCES OF THE MTP ACTIVITIES

11. A breakdown of the activities and their sources of funding is shown below:

Activities		Source of Funding		
		Secretariat Budget	NC Core Budget	NC Additional Budget
1	Monitoring of all the EANET priority chemical species, improvement of monitoring methodologies	-	Yes	-
2	Collaboration with countries to increase the number of regional monitoring sites	-	Yes	-

3	Activities to improve current methods to measure air concentrations and estimate dry deposition	-	Yes	-
4	Development/review of Guidelines, Technical Manuals, documents	-	Yes	-
5	Development of strategy papers for guidance on future direction of the EANET monitoring	-	Yes	-
6	Implementation of QA/QC activities	-	Yes	-
7	Routine compilation of data	-	Yes	-
8	Upgrading of data management system in NC	-	Yes	-
9	Continuous assessment of state of acid deposition	-	Yes	-
10	Evaluation of monitoring data to assess impact on ecosystems	-	Yes	-
11	Preparation of Periodic assessment reports on state of acid deposition in East Asia	-	Yes	-
12	Promotion of capacity building for personnel of the participating countries, supporting the EANET meetings, etc.	Yes	Yes	Yes
13	Technical support to participating countries	-	-	Yes
14	Provision of new and updated information and communication technologies	Yes (cancelled due to budget constraint in 2011)	-	-
15	Promotion of research studies	-	-	Yes
16	Promotion of studies on effects of acid deposition and other chemical species on ecosystem, human health and socio-economics	-	-	Yes
17	Promotion of studies on modeling	-	-	Yes
18	Promotion of emission inventories through workshops, training courses, reference materials	-	-	Yes
19	Promotion of public awareness on acid deposition and related chemical species to multi-stakeholders	Yes	Yes	Yes
20	Sharing a common understanding through promoting formation of an epistemic community	-	-	Yes
21	Consideration on the expansion of the scope of the Instrument and institutional arrangement of the EANET taking into account of recent developments and future requirements, including a possibility of establishing additional bodies if necessary	Yes	Yes	-
22	Development of the MTP for the EANET(2016-2020)	Yes	Yes	-

12. The NC additional budget is contributed by several sources: the Ministry of Environment of Japan, ACAP, other agencies within Japan and an international funding agency for research activities. The continuation of these funds, in particular the research funds, will depend on the future research activities of the NC. Currently there are no major projects under the MTP that require substantial funding other than the normal core activities of the EANET.
13. Technical support to the participating countries in establishing new monitoring sites is dependent on the availability of contributions, in cash or kind, from donors. In 2014, the NC was able to mobilize funding from the Clean Air Asia (CAA) projects supported by Government of Japan. The support of PM_{2.5} monitoring sites were provided to Myanmar and Vietnam in 2014 and in Mongolia and Indonesia in 2015. The sites will enable these EANET participating countries to share the qualified data of PM_{2.5} to the network in the near future.

14. The actual expenditure and revenues of the Secretariat and the NC in 2011-2015 are presented below. The actual/expected amount from voluntary financial contributions from the participating countries and other organizations is in brackets.

		2011 Actual expenditure (Actual revenue)	2012 Actual Expenditure (Actual revenue)	2013 Actual Expenditure (Actual revenue)	2014 Actual Expenditure (Actual revenue)	2015 Actual Expenditure (Actual revenue)
Secre tariat	Regular Budget	411.9 (371.8)	333.4(385.5)	361.5 (409.1)	379.6 (357)	189,659* (400.7)
NC	Core Budget Activities	407.3 (433.4)	398.4(418.7)	400.0 (413.7)	396.1 (394.5)	407,3 (393.2)
	Additional Budget Activities	703.5 (705.0)	636.6 (654.5)	522.6(539.9)	539.6 (635.9)	440.9 (604.7)

Note: Figures in thousands USD.

* 2015 was a transition period of the Secretariat function from RRC.AP/AIT to UNEP ROAP and USD 146,680 was used from the Savings at RRC.AP/AIT. This is in addition to USD 189,659 disbursed from UNEP ROAP.

15. The financial situation of the EANET Secretariat in 2011 and 2014 was in deficit a bit as some participating countries did not make financial contribution or made financial contribution less than the expected amount. Due to budget constraint in 2011, some of the activities of the Secretariat, notably the Workshop on Capacity Building for Information and Communication Technologies, were cancelled.
16. Regarding the NC budget in 2011-2015, although actual contribution to the core budget (2011-2013) and additional budget (2011-2015) was larger than actual expenditures, actual contribution to the core budget (2014-2015) was a bit smaller than actual contribution. The reason was that some participating countries still have not started their voluntary financial contribution to the NC core budget, though contribution from Japan was larger than that of expected amount. As mentioned, the voluntary financial contributions from participating countries every year have not all been received by the NC. If the total voluntary financial contributions from the participating countries and from other agencies fall short of the estimated budget, some activities of the MTP may be affected.

V. REVIEW OF PROGRESS IN ACHIEVING THE OVERALL OBJECTIVES OF THE MTP (JAN 2011 – DEC 2015)

Objective 1: Improvement of current acid deposition monitoring in terms of data quality, completeness of monitoring items, distribution of monitoring sites and data management

18. Progress achieved: Steady progress has been made during the period of the MTP for the

EANET (2011-2015). The revision of the set of technical manuals and guidelines and the newly developed Technical Manual on Air Concentration Monitoring further contributed to standardization of the monitoring and chemical analysis procedures. The NC has taken steps to improve on data management at ACAP and the actions to improve transparency of the EANET will further contribute to more efficient management of the monitoring activities.

19. Although the number of monitoring sites has not increased significantly in this period, it is noted that the establishment of sites or decision to include an existing national monitoring site into the EANET network depends on internal factors which may include financial considerations.
20. Problems (if any):
 - i) As of the end of 2015, not all the monitoring sites conduct air concentration (dry deposition) measurements due to various reasons.
 - ii) It is very difficult to know the current exact situation of the EANET monitoring sites including on-site information although it was decided at the Session of the SAC in 2012 that the national monitoring plan of each country from 2013 should be submitted to the NC every year by the end of July.
 - iii) There are some different monitoring methods in the participating countries such as filter-pack monitoring.
21. Recommendations (if any): More efforts should be made by participating countries to establish new monitoring sites in order to improve coverage. Participating countries should carry out measurements of all the recommended priority chemical species. These efforts include secure funding for its monitoring activities as one of the contribution to the network expressed by its signing of the Instrument for Strengthening the Acid Deposition Network in East Asia (EANET). As decided in the Activity 2, at the SAC12 in 2012 it was requested that the participating countries should submit their latest national monitoring plan every year for obtaining comparable data and harmonizing monitoring methodologies, whereby scientific discussion could be further promoted.

Objective 2: Assessment of the state of acid deposition including other relevant air pollutants in East Asia

22. Progress achieved: The NC has made commendable attempts to assess the state of acid deposition in East Asia using the available data from the EANET monitoring sites and results of other studies carried out in the region. The data analysis and assessment as presented in the PRSAD2 Part I are considered the most comprehensive and latest report. The review on the status of air pollution in East Asia prepared by the RC under the TFRC provided further insight into the state of air pollution. Development of the Third Periodic Report on the State of Acid Deposition in East Asia (PRSAD3), and preparation of the PRSAD3 was started in 2015 and the SAC16 agreed to submit the PRSAD3 to the IG18 in 2016 for approval.

23. Problems (if any): The quality of the assessment will depend on the EANET dataset available.
24. Recommendations (if any): A comprehensive report on reviewing the state of air pollution in East Asia including impacts of all the major air pollutants on human health and ecosystem would be very useful to policy makers.

Objective 3: Development of scientific researches on the atmospheric environment in East Asia

25. Progress achieved: The participating countries and the NC have made progress in promoting research activities on the atmospheric environment. The Research Fellowship program in 2011-2015 are the efforts to encourage young scientists from the participating countries to conduct relevant research at the NC. The researchers at the NC are also involved in related research activities to improve understanding of air pollution and its impacts in East Asia. Joint research projects with some countries such as Thailand, Malaysia and Japan are still ongoing during this period. As described in the activities of 17, modelling and emission inventory activities will continue to be implemented as the research project of the MICS-Asia by the ACAP in collaboration with the research institute in China and relevant researchers in East Asia and other regions.
26. Problems (if any): Research activities/projects are supported by the NC, ACAP and other external sources such as the Asia-Pacific Network for Global Change Research (APN).
27. Recommendations (if any): The continuation and expansion of the research activities during the next MTP for the EANET (2016-2020) will depend on the success of efforts to secure additional sources of funding. Strategies and action plan in obtaining external funding from international organizations and other funding agencies should be developed.

Objective 4: Common understanding on environmental, social and economic issues of atmospheric pollution through establishment of an epistemic community and promotion of public awareness

28. Progress achieved: Groups which have common interests in particular areas have been identified. The establishment of an epistemic community remains as a future plan. Joint public awareness activities of the NC were implemented with Indonesia. In-country public awareness workshop was held in Philippines, Lao PDR., Myanmar, Thailand and Vietnam during this period. The EANET held the 10th Workshop on Public Awareness for Acid Deposition Problems in Niigata in 2012.
29. Problems (if any): Funds would be required to organize a large conference to bring the various stakeholders together. The public awareness workshops are also dependent on the availability of external funds.

30. Recommendations (if any): As public awareness is an important activity and in view that there are new emerging issues that should be informed to policy makers of the participating countries, the Secretariat and the NC should secure funding to further expand this activity.

Objective 5: Increasing transparency of the EANET

31. Progress achieved: Through the efforts of the Secretariat and the NC and under the guidance of the WGFD and the IG, much progress has been made. The operationalization of the Instrument for Strengthening the Acid Deposition Monitoring Network in East Asia (EANET) with the signature from all of the participating countries of the EANET made in 2014 and the approval of the Revised Guidelines on Administrative and Financial Management for the Secretariat and the Network Center are the major milestones. In accordance with the approved Revised Guidelines, most of the EANET meeting documents from 2001 have been uploaded on the EANET website since 2013 for convenience of the participating countries of the EANET. Current financial modalities were also explained by the NC in 2011 for further improvement of transparency.
32. The institutional arrangement of the Secretariat services at UNEP was discussed and reconsidered during this period. With reference to the Decision made by the Second Session of the Intergovernmental Meeting on the EANET (IG2) in 2000, UNEP has been designated as the Secretariat of the EANET. Subsequently, the Secretariat was established in 2003 in the United Nations Environmental Programme Regional Resource Centre for Asia and the Pacific (UNEP RRC.AP) in the Asian Institute of Technology (AIT) in Thailand in accordance with the Framework on the Establishment of the Secretariat of the EANET signed between UNEP and EANET in 2002. The Instrument for Strengthening the EANET signed by the participating countries in 2010 confirmed that UNEP is the Secretariat for the EANET.
33. Due to new agreement development between UNEP and AIT in 2011, the IG14 requested the Secretariat to prepare a draft supplementary agreement between AIT and UNEP under the 2011 AIT/UNEP MoU for the temporary arrangement of the Secretariat at Regional Resource Centre for Asia and the Pacific (RRC.AP), AIT and requested the Secretariat to prepare a review report on the future arrangement of the Secretariat presented at IG15.
34. IG15 made decision to have UNEP Regional Office for Asia and the Pacific (ROAP) providing Secretariat services with some function implemented through RRC.AP/AIT. The arrangement will be reviewed again 2 years after its operationalization.
35. IG-EX and IG16 in 2014 discussed the proposed 3 main documents necessary to the Secretariat arrangement at ROAP. The procedures for financial contributions to the EANET Trust Fund to support activities of the EANET and Terms of Reference of the Coordinator of the Secretariat for the EANET were endorsed at IG16. The Framework document on the arrangement of the Secretariat between UNEP and the EANET continued to be further discussed and submitted to

the IG18 for decision.

36. UNEP ROAP started its Secretariat services for the EANET in May 2015.
37. Problems (if any): The cost of operation Secretariat function at UNEP is required support from participating countries to make voluntary financial contribution as approved by the IG. The efficiency of programme management and cost saving measures are the challenges the Secretariat will be facing.
38. Recommendations (if any): The Revised Guidelines on Administrative and Financial Management will need to be revised to accommodate a new arrangement of the Secretariat.

Objective 6: Strengthening policy relevance of the EANET activities

39. Progress achieved: The monitoring of acid deposition and scientific assessments has enabled a better understanding of the acid deposition issue among countries in East Asia. However, acid deposition information alone may not be very useful to policy makers who are required to address a range of atmospheric pollution issues. Extended activities on information exchange, research and capacity building to the participating countries would be more beneficial to policy makers.
40. Problems (if any): The acid deposition impacts to health and environment with the strong linkage to relevant atmospheric issues may not be well informed to the high level policy makers. Efforts from many countries to actively participating in the EANET activities are not notable. The policy on reducing acid deposition in countries is not well discussed in the EANET.
41. Recommendations (if any): Discussion at IG more on policy of reducing acid deposition in countries should be initiated.

Objective 7: Providing policy advice and information based upon sound science and assessment

42. Progress achieved: The EANET has produced reports and brochures on state of acid deposition in East Asia and report for policy makers. These reports were distributed to countries and also made available on its website. The assessment results have been informed to policy makers regularly during the meetings of the EANET. Policy makers were encouraged to use the information available in the formulation of strategies for air quality improvement and for international negotiations. As mentioned above, most of the EANET meeting documents from 2001 have been uploaded on the EANET website since 2013. The recent Third Report for Policy Makers (RPM3) was also developed in 2014 and uploaded early 2015 by the NC in collaboration with the Secretariat.
43. Problems (if any): There were no problems in disseminating the information on acid deposition

to policy makers. However, it may need to encourage countries to utilize policy advice and information to develop their own policy of acid deposition reduction

44. Recommendations (if any): A special High Level Segment at an EANET session to disseminate new information, in particular the RPM4 which is to be developed to policy makers would be highly effective.

Objective 8: Enhancing coordination in the dissemination of knowledge and information, training and public awareness activities

45. Progress achieved: The distribution of information materials to the participating countries was carried out as a matter of routine in the EANET. More workshops for policy makers and other interest groups would be useful to disseminate knowledge and information. As mentioned above, most of the EANET meeting documents from 2001 for authorized users have been uploaded on the EANET website since 2013.
46. Problems (if any): No problems encountered in coordinating the dissemination of information but funds are lacking to organize more public awareness workshops.
47. Recommendations (if any): The Secretariat and the NC should explore innovative means to secure funding for workshops with some in-kind contribution from the countries.

Objective 9: Strengthening technology support and capacity in line with country needs

48. Progress achieved: So far the NC has been able to find source for funds to assist some countries to start up their monitoring programmes by providing equipment, spares and consumables in 2011-2015.
49. Problems (if any): If the NC is required to continue providing technical support in the next MTP period in 2016-2020, additional funds would be needed for this activity in order that the monitoring activities will not be affected for long periods due to instrument breakdown.
50. Recommendations (if any): Funds to maintain the monitoring activities should, as far as possible, come from the participating countries. Mobilization of local resources will promote ownership at the local level. Some countries need to provide self contribution to keep effective monitoring equipment running at all times.

Objective 10: Enhancing of cooperative efforts among participating countries and with outside organizations

51. Progress achieved: Workshops have been organized to bring together representatives from participating countries and experts to provide opportunities for capacity building and building partnerships to address environmental issues. Whenever funds are available, the Secretariat or

NC has attended the meetings, conferences of the international organizations as representatives of the EANET, and has invited outside experts as resource persons to the EANET Sessions for exchanging information and views.

52. Problems (if any): Funds are required to continue implementing these activities.
53. Recommendations (if any): Closer collaboration with other networks and initiatives can be beneficial for sharing of information. There can be cost-saving if joint activities are carried out particularly on public awareness and capacity building.

VI. RECOMMENDATIONS

VI-1 Implementation of the MTP Activities

54. Although the manpower and the available budget were limited, most of the activities of the MTP were implemented by the Secretariat and the NC for the EANET as planned. As a result some significant achievements were made during this period. They include the following:
 - (1) Making the necessary arrangements for the meetings of the IG, SAC and other subsidiary bodies of the EANET during the period from January 2011 to June 2013;
 - (2) The administrative and financial arrangements for managing the EANET;
 - (3) Communication and cooperation with the National Focal Points (NFPs), SAC members and related organizations and initiatives;
 - (4) Carrying out the scientific and technical tasks related to managing the regional monitoring network;
 - (5) Capacity building and public awareness activities;
 - (6) Development/Revision and distribution of four technical manuals, one guidelines and two strategy papers;
 - (7) Improvement of the data management system for provision of the EANET data;
 - (8) Development and distribution of the PRSAD2, the EANET Science Bulletin (Vol. 2 and 3), and EANET Newsletters;
 - (9) Implementing joint research activities;
 - (10) Providing technical support to the participating countries especially Cambodia, Lao PDR and Myanmar;
 - (11) Development of the Revised Guidelines on Administrative and Financial Management of the Secretariat and the NC including uploading of most of the EANET documents to the website for the EANET members in the participating countries; and
 - (12) Development of Report of the Feasibility Study on the Expansion of the Scope of the EANET; and
 - (13) Development of the Medium Term Plan for the EANET (2016-2020).

55. The effective implementation of the EANET activities by the Secretariat, the NC and the participating countries relies on the availability of funds. Since annual budget of the Secretariat and the NC (core budget) under the annual Work Program and Budget of the EANET approved by the IG comes mainly from the voluntary financial contribution, if the participating countries do not make financial contribution or make financial contribution less than the expected amount calculated for each participating country based on burden sharing principle with the application of the latest United Nations assessment scale, the implementation of the approved annual work program will be affected and hence the success of the implementation of the MTP and its achievement.
56. **Recommendation 1:** The participating countries to be encouraged to make voluntary financial contribution in accordance with the amount for each participating countries presented in the approved annual Work Program and Budget of the EANET. In order to avoid cash flow problem faced by the Secretariat and the NC in the implementation of the approved annual work program, the participating countries should make their financial contributions as early in the year as possible, but not later than June of every year.
57. **Recommendation 2:** The Secretariat and the NC to develop strategies and action plans for obtaining external funds from international organizations or donor agencies.
58. **Recommendation 3:** The Secretariat and the NC to enhance capacity building for, technical supports to and research activities with the participating countries which are considered important activities for the development of the EANET.

VI-2 Achieving the Objectives of the MTP

59. With regard to the progress made in achieving the objectives of the MTP, it was noted that the activities implemented so far mainly addressed the need to improve acid deposition monitoring, but there was limited progress in some areas:

Objective	Progress Achieved		
	Good	Moderate	Need more attention
Improvement of current acid deposition monitoring in terms of data quality, completeness of monitoring items, distribution of monitoring sites and data management	√		
Assessment of the state of acid deposition including other relevant air pollutants in East Asia	√		
Development of scientific researches on the atmospheric environment in East Asia		√	
Common understanding on environmental, social and economic issues of atmospheric pollution through establishment of an epistemic community and promotion of public awareness			√
Increasing transparency of the EANET	√		

Strengthening policy relevance of the EANET activities			√
Providing policy advice and information based upon sound science and assessment		√	
Enhancing coordination in the dissemination of knowledge and information, training and public awareness activities	√		
Strengthening technology support and capacity in line with country needs	√		
Enhancing of cooperative efforts among participating countries and with outside organizations	√		

60. **Recommendations 4:** The NC to conduct more scientific assessments on risk of acid deposition and air pollution to human health and ecosystem with respect to conditions in East Asia.
61. **Recommendation 5:** The Secretariat and the NC to utilize effective means of communicating the importance of scientific understanding and assessment to policy making, including holding more workshops for policy makers.
62. **Recommendation 6:** The Secretariat and the NC to discuss with the participating countries on strategies to strengthen the policy relevance of the EANET. Some suggested strategies that do not require much funding could be implemented.

VI-3. Arrangement of the Secretariat

63. Based on Decision 1/IG.15, UNEP ROAP is providing Secretariat services starting from May 2015. The cost of hosting Secretariat services at UNEP requires more funding support. Contractual arrangement of Secretariat services will be effected if voluntary contributions are not made in time and in full amount.
64. **Recommendation 7:** The participating countries made decision at the IG15 to have Secretariat services provided by UNEP and agreed with the cost associated with. It is encourage the participating countries to make voluntary financial contribution during the first quarter of each year as much as possible.

VI-4. Activities to strengthen the EANET

65. WGFD14 agreed to the draft feasibility study on the expansion of the scope of the EANET to extend activities listed below and incorporate these activities into the next MTP (2016-2020). These new activities will strengthen the current monitoring activities to cover ozone and PM2.5 and promote other activities other than monitoring. The IG17 approved these activities proposed in the MTP (2016-2020).

Category 1 : Strengthening current monitoring activities

- 1) Promotion of the monitoring of ozone and PM2.5 including research cooperation and communication on the results as appropriate;
- 2) Capacity building activities especially for ozone and PM2.5 monitoring;
- 3) Increasing number of EANET monitoring sites; and
- 4) Strengthening understanding and capacity for monitoring of meteorological parameters and reporting on these as appropriate

Category 2 : Promotion of activities other than monitoring

- 1) Promotion of information exchange
 - Information exchange on clean air technologies and regional impact assessment through workshops, seminars, etc.
- 2) Promotion of research and technical cooperation on emission inventory to support the capacity building
 - Research on technical guidelines on emission inventory to support the capacity building; and
 - Capacity building for emission inventories.
- 3) Promotion of research activities
 - Research activities on regional impact assessment to plants and ecosystems; and
 - Research activities on measurement methodology for elemental carbon (EC) and organic carbon (OC).

66. **Recommendation 8:** The participating countries are encouraged to make best efforts and contribution to actively participate to these new activities in the MTP (2016-2020).

67. **Recommendation 9:** The participating countries to add monitoring of ozone, fine particulates and meteorological parameters into their National Monitoring Plans to enable more comprehensive evaluation of the state of acid deposition and air pollution in East Asia. Countries that are currently monitoring these parameters in their countries are strongly encouraged to submit their data to the NC.

68. As an important initiative to protect atmospheric environment in East Asia and to strengthen cooperation among participating countries of the EANET and outside of the region, the following are recommended as activities of the Secretariat and the NC within the present scope of the EANET:

Recommendation 10: The Secretariat to implement activities to strengthen the EANET in line with the new MTP 2016-2020.

69. **Recommendation 11:** The NC to implement the following activities to strengthen the EANET:

- (1) Promotion of the establishment of the new monitoring sites including catchment monitoring in order to clarify the status of the atmospheric environment over the whole East Asian region;**
- (2) Promotion of monitoring of all priority chemical species especially ozone and particulate matter (PM10/PM2.5) and meteorological parameters taking into account of the current serious air pollution in the region. Such promotion should include technical support, capacity building, QA/QC, data reporting and analysis, research activities, etc.;**
- (3) Promotion of transparency and harmonization of the monitoring methodologies such as dry deposition/air concentration monitoring;**
- (4) Revision of the Technical Manual for Air Concentration Monitoring and Technical Manual on Dry Deposition Flux Estimation on schedule (TOR and membership of the Expert Group were adopted at the SAC16 in 2016 and will be submitted to the IG18 for endorsement as appropriate.);**
- (5) Development of the new QA/QC Guidebook for the EANET taking into account of the contents of the new and/or revised technical manuals, etc. (The new QA/QC Guidebook was adopted at the SAC16 in 2016.);**
- (6) Strengthening technical support of the EANET countries including capacity building activities taking into account of the situation of the many developing countries of the EANET;**
- (7) Promotion of research activities and discussion on the strategies and action plan for obtaining external funds. These include the following; and**
 - Research on appropriate measurement methodologies for elemental carbon (EC) and organic carbon (OC) in East Asia;**
 - Research on impacts of air pollution/acid deposition to the ecosystems and human health; and**
 - Research on modeling and emission inventories.**
- (8) Establishment of an epistemic community and promotion of public awareness to achieve a common understanding on atmospheric pollution.**

VII. CONCLUSIONS

70. Overall, significant progress has been made by the Secretariat, the NC and the participating countries during the period from January 2011 to December 2015, particularly in the areas of increasing transparency of the EANET, improving the acid deposition monitoring and analysis, and conducting periodic scientific assessments on the state of acid deposition in East Asia and future development of the EANET including expansion of the scope of the EANET. Capacity building was also achieved through the various training courses and workshops held. To attain more balanced growth and achieve all the objectives/targets identified in the MTP, additional activities could be considered for strengthening policy relevance of the EANET and promoting a common understanding on environmental, social and economic issues of atmospheric pollution ultimately leading to the establishment of an epistemic community.

71. Issue on the institutional arrangement of the Secretariat has been finalized. While efforts should be continued to secure additional funding from external sources, the voluntary financial contributions from the participating countries are crucial to ensure the continuation and successful activities. The research activities, technical support to participating countries, and capacity building activities, in particular, are of great importance for strengthening the EANET and should therefore be further enhanced with adequate funding provided. The MTP (2016-2020), which provides clear objectives for EANET for the next 5 years, will be very useful for activities from 2016.

Annex 1

Number of EANET monitoring sites since 2001

1. Wet Deposition Monitoring Sites

Country	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Cambodia	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1
China	9	9	9	9	9	9	8	8	8	8	8	8	7	7	8
Indonesia	4	4	4	4	4	4	4	5	5	5	5	5	5	5	5
Japan	10	10	11	11	11	11	12	12	12	12	12	12	12	12	12
Lao PDR	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1
Malaysia	2	2	2	2	3	3	3	4	4	4	4	4	4	4	4
Mongolia	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Myanmar	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1
Philippines	2	2	2	2	2	3	3	3	3	3	3	3	3	3	3
R. of Korea	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Russia	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Thailand	4	4	4	5	5	6	6	6	6	6	6	6	6	6	6
Vietnam	2	2	2	2	2	2	2	2	4	4	4	4	4	6	7
Total	41	42	44	46	47	49	50	52	54	54	54	54	53	55	57

2. Air Concentration (Dry Deposition) Monitoring Sites

Country	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Cambodia	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1
China	4	4	4	4	4	4	3	3	3	3	3	3	3	3	3
Indonesia	1	1	1	1	1	1	3	4	4	4	4	4	4	4	4
Japan	10	10	10	10	10	10	11	12	12	12	12	12	12	12	12
Lao PDR	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1
Malaysia	2	2	2	2	2	3	3	3	3	3	3	3	3	3	3
Mongolia	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Myanmar	0	0	0	0	0	0	0	0	0	0	1	1	1	1	2
Philippines	2	2	2	2	2	3	3	3	3	3	3	3	3	3	3
R. of Korea	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Russia	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Thailand	4	4	4	5	5	6	6	6	6	6	6	6	6	6	6
Vietnam	2	2	2	2	2	2	2	2	2	2	2	2	2	4	5
Total	34	34	34	35	35	38	40	42	42	43	44	45	45	47	49

3. Soil and Vegetation Monitoring Sites

Country	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Cambodia	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
China	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Indonesia	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Japan	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Lao PDR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Malaysia	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2
Mongolia	0	0	0	0	1	1	1	1	1	1	1	1	1	2	2
Myanmar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Philippines	1	1	1	1	1	1	2	3	3	3	3	3	3	3	3
R. of Korea	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Russia	3	3	3	3	3	4	4	4	4	4	4	4	4	4	4
Thailand	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Vietnam	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Total	15	15	15	15	16	17	18	19	19	20	20	20	20	21	21

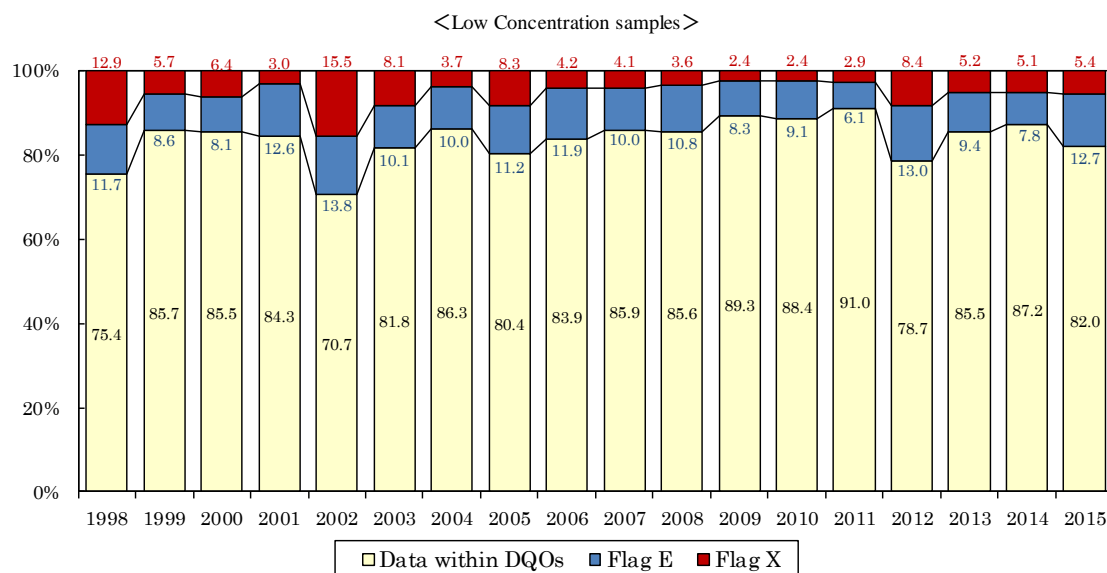
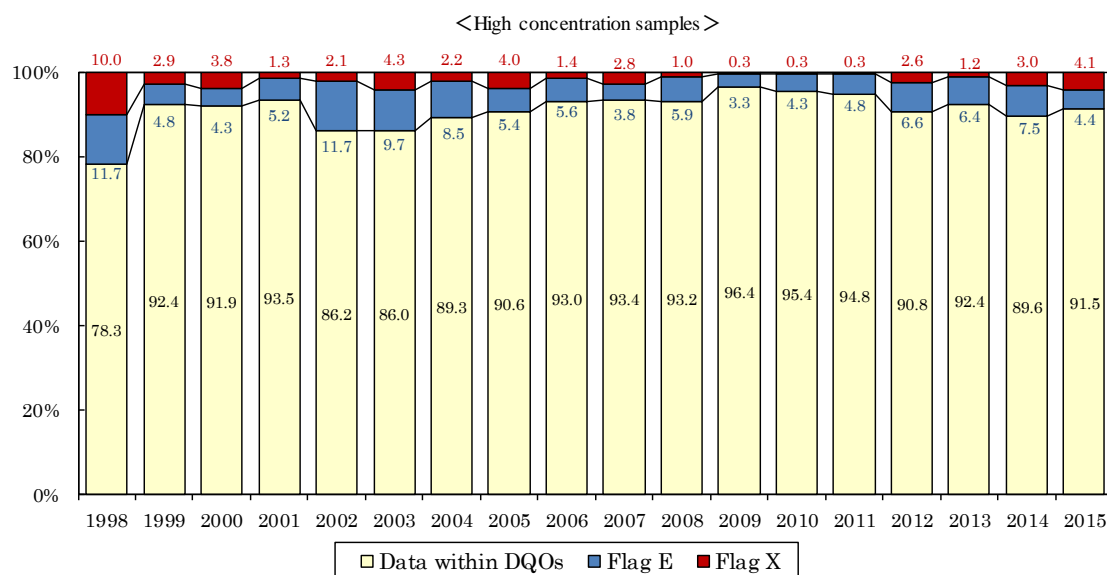
Note 1: The figures indicate the number of the area. In each area, one, two, or three plots are

Annex 2

Results of the Inter-laboratory Comparison Projects on wet deposition in 1998-2015

1. Comparison on results of the Inter-laboratory Comparison Projects on wet deposition in 1998-2015

The figures below show the percentages of flagged data and percentage of data that satisfied the DQO

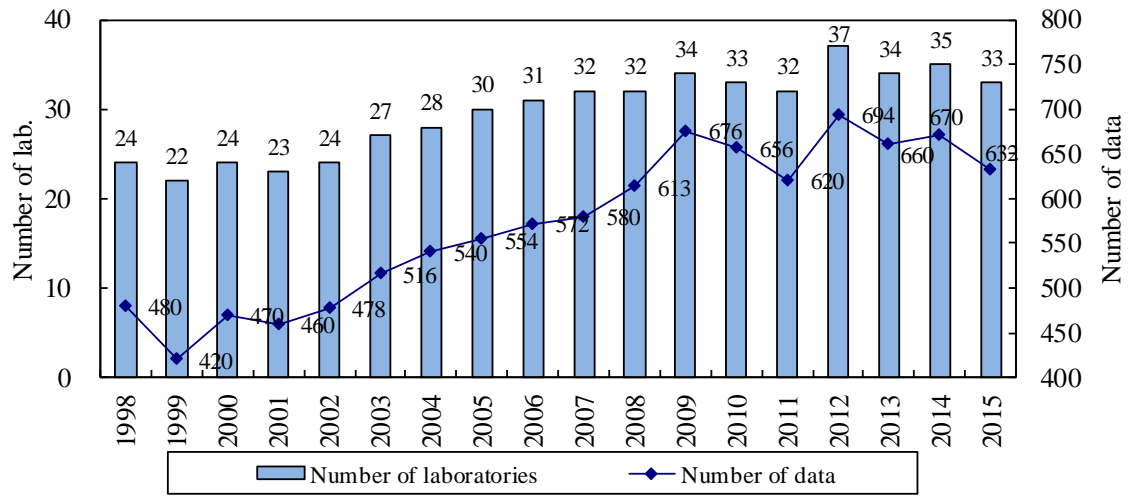


Note:

Flag "E" was applied to data that exceed the DQOs by a factor less than 2 ($\pm 15\% \sim \pm 30\%$)

Flag "X" was applied to data that exceed the DQOs by more than a factor of 2 ($< -30\%$ or $> 30\%$).

2. Number of participating laboratories and data received



Annex 3

Number of trainees that attended the individual training program at the Network Center

Year	Number of Participants	Countries	Training Provided
1998	2	Thailand, Russia	Filter-pack monitoring
1999	10	China (9), Indonesia	Training on the EANET activities
2000	4	Philippines, Russia, Thailand (2)	Training on the EANET/ Wet and dry deposition monitoring, data management
2001	6	Indonesia(3), Malaysia, Philippines, Vietnam	Wet and dry deposition, soil and vegetation, inland aquatic environment monitoring and data management
2002	6	China (2), Indonesia, Mongolia, Philippines, Thailand	Wet and dry deposition, soil and vegetation, inland aquatic environment monitoring and data management
2003	6	Cambodia, China, Lao PDR, Thailand (2), Vietnam	Wet and dry deposition, soil and vegetation, inland aquatic environment monitoring and data management/EANET activities
2004	5	Cambodia, China, Lao PDR, Malaysia, Philippines	Wet and dry deposition, soil and vegetation, inland aquatic environment monitoring and data management
2005	6	Cambodia, China, Indonesia, Lao PDR, Thailand, Vietnam	Wet and dry deposition, soil and vegetation, inland aquatic environment monitoring and data management
2006	2	Cambodia, Lao PDR	Wet and dry deposition, soil and vegetation, inland aquatic environment monitoring and data management
2007	5	Cambodia, China, Indonesia, Lao PDR, Myanmar	Wet and dry deposition, soil and vegetation, inland aquatic environment monitoring and data management
2008	5	Cambodia, China, Lao PDR, Myanmar, Vietnam	Wet and dry deposition, soil and vegetation, inland aquatic environment monitoring and data management
2009	6	Indonesia, Malaysia (2), Mongolia, Russia, Thailand	Wet and dry deposition, soil and vegetation, inland aquatic environment monitoring, data management and atmospheric transport modeling
2010	6	Cambodia, China, Indonesia, Lao PDR, Myanmar, Vietnam	Wet and dry deposition, soil and vegetation, inland aquatic environment monitoring and data management
2011	3	China, Malaysia, Russia	Wet and dry deposition, soil and vegetation, inland aquatic environment monitoring and data management
2012	6	Lao PDR, Malaysia, Mongolia, Philippines, Russia, Vietnam	Wet and dry deposition, soil and vegetation, inland aquatic environment monitoring and data management
2013*	-		
2104	3	Cambodia, Malaysia, Myanmar	Wet and dry deposition, soil and vegetation, inland aquatic environment monitoring and data management
2015	4	Cambodia, Malaysia, Myanmar, Thailand	Wet and dry deposition, soil and vegetation, inland aquatic environment monitoring and data management
Total	85		

* The training was implemented at the end of the year 2012.

Reference: Numbers of participants that attended individual training at the Network Center each year

Country	-2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013*	2014	2015	Total	2016
Cambodia			1	1	1	1	1	1		1				1	1	9	1
China	9	2	1	1	1		1	1	1	1	1					19	
Indonesia	4	1			1		1			1						8	1
Japan																	1
Lao PDR			1	1	1	1	1	1		1		1				8	1
Malaysia	1			1					2		1	1		1	1	8	1
Mongolia		1							1			1				3	1
Myanmar							1	1		1				1	1	5	1
Philippines	2	1		1								1				5	1
R. of Korea																	
Russia	2								1		1	1				5	1
Thailand	3	1	2		1				1						1	9	1
Vietnam	1		1		1			1		1		1				6	1
Total	22	6	6	5	6	2	5	5	6	6	3	6	0	3	4	85	10

* The plan of individual training in 2013 was implemented in December 2012.

Annex 4

**The Network Center technical missions to the participating countries
(in 2006-2015)**

Country	2006	2007	2008	2009	2010	2011	2012	2013	2104	2015
Cambodia	12-16 Nov	5-8 Dec	14-16 Dec		9-13 Feb	10-13 Jan 16-19 Oct				
China	11-18 Oct	17-21 Dec		23-28 Mar				24-29 Nov		
Indonesia	12-18 Mar	8-11 Aug		24-29 May			13-17 Feb		10-14 March	9-12 March
Japan										
Lao PDR	9-12 Nov	9-12 Dec	10-14 Dec		21-25 Mar 7-11 Nov	15-17 Sep	9-11 May			
Malaysia	10-16 Dec		4-10 Jan	31 Aug - 7 Sep	20-25 Sep			18-22 Feb	26-30 Jan	
Mongolia	11-5 Sep		10-14 Nov					21-25 Oct		
Myanmar	20-24 Mar 4 Aug	18-22 Dec		23-27 Nov	25-29 Oct	8-11 Nov	13-15 May 21 Nov			
Philippines			14-18 Jan		16-21 Jan		23-27 July		1-4 Dec	1-4 Dec
R. of Korea	6-9 Feb	20-22 Feb	18-20 Mar	9-11 Mar					8-11 April	
Russia	26 Aug - 3 Sep	16-23 Sep	21-28 Sep	6-11 Sep	15-20 Aug	20-26 Aug		14-19 July		6-13 Sep
Thailand	26 Nov – 1 Dec	16-21 Dec	15-20 Dec		18-21 Oct					
Vietnam	4-10 Aug		17-21 Mar 18-24 Oct							
Total	12	8	10	6	8	5	5	4	4	3

Annex 5

Number of researchers participated in Research Fellowship Program in 2005-2015

Country	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Total	2016
Cambodia													
China	1		1				1	(1)**				3	1
Indonesia				1								1	
Japan													
Lao PDR													
Malaysia							1					1	
Mongolia		1							1	1	1	4	
Myanmar													
Philippines	1											1	
R. of Korea													
Russia		1								1		2	
Thailand				1	1	1		1	1		1	6	
Vietnam			1			1						2	
Total	2	2	2	2	1*	2	2	1	2	2	2	20	1

Note: * In 2009, only one research plan was selected taking into account of the draft research plans.

** In 2012, the selected researcher from China was unable to participate in the program.

Reference 1: Numbers of applications to Research Fellowship Program in 2005-2015

Country	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Total	2016
Cambodia		1	1					1		1		4	1
China	1		1				1	1				4	2
Indonesia	4	2		2			1	1			1	11	1
Japan													
Lao PDR					1							1	1
Malaysia	1			1		1	1				1	5	
Mongolia		1	1		2	1	1	1	1	1	1	10	1
Myanmar			1					1	1			3	
Philippines	2	1	1									4	
R. of Korea													
Russia		1						1		1		3	
Thailand		1		4	4	1	3	1	5	1	3	23	
Vietnam	1	1	1			1						4	
Total	9	8	6	7	7	4	7	7	7	4	6	72	6

Reference 2: Research themes of EANET Research Fellowship Program in 2005-2015

Year	Researchers	Country	Research Themes
2005	Mr. Eyi Wang	China	Assessment of Ozone Variability in East Asia During Recent Years
	Ms. Arcely C. Viernes	Philippines	Determination of Unanalyzed Components in Rainwater
2006	Ms. Bulgan Tumendemberel	Mongolia	Determination of Unanalyzed Components in Precipitation Water
	Ms. Elena Gritsan	Russia	Application of scientific climatological approach and statistical methods for optimization of the EANET network
2007	Dr. Yibing Lu	China	Comparison of Air Pollution and Acid Deposition between Two Mega-cities
	Mr. Son Anh Truong	Vietnam	Assessment of Ozone and Other Gaseous Concentrations in East Asia
2008	Ms. Yani Sumarriani Sutaryo	Indonesia	Studies on effect of acid deposition and related air pollutants on ecosystems/ inland water aquatic
	Ms. Soontree Khuntong	Thailand	Ion chromatographic determination of organic acids in rainwater
2009	Dr. Rattapon Onchang	Thailand	Effect of haze on wet and dry deposition at the EANET sites in Thailand
2010	Ms. Sopittaporn Sillapapiromsu	Thailand	Effect of Biomass Burning on Atmospheric Acid Deposition in Chang Mai-Lamphun Basin, Thailand
	Mr. Sy Van Pham	Vietnam	Study on the Wet-and Dry-Deposition over the Southeast Asia by the CMAQ model and the EANET data
2011	Dr. Chu Baolin	China	Improvement of the QA/QC activities for air monitoring in China
	Dr. Susilawati Kasim	Malaysia	Effect of simulated acid rain (SAR) on Leachate and selected chemical characteristics on the soil
2012	Mr. Ittipol Paw-Armart	Thailand	Comparison of aerosol and rainwater composition in urban and rural areas and their relationship to emission characteristics in Thailand
2013	Ms. Dugerjav Oyunchimeg	Mongolia	Intercontinental transport of air pollution (trace gases) related with meteorological process in Asia
	Dr. Wan Wiriya	Thailand	Atmospheric dry and wet deposition in South East Asia: Trend and Identified long ranged and local sources (biomass burning source)
2014	Dr. Tsatsral Batmunkh	Mongolia	Meteorological condition during the highly polluted and clean days in Ulaanbaatar, Mongolia
	Ms. Trifonova-Iakovleva A	Russia	Investigation of long-term changes of air pollutants concentrations in North-East Asia including Russia using EANET monitoring data
2015	Mr. Barkhasragchaa Baldorj	Mongolia	Source apportionment of PM in Ulaanbaatar, Mongolia
	Ms. Rungruang Janta	Thailand	Influence of long-range transport on air quality in northern part of Southeast Asia during open burning season
Total	20 Researchers		

Annex 6

Public awareness workshops organized by EANET

1. Public awareness workshops on acid deposition problems

Year	Target Audience	Activity	Number of participants
2001	Participating countries	First Public Awareness Workshop on Acid Deposition Problems (Niigata)	20
2002	Participating countries, relevant officials, NGOs	Second Public Awareness Workshop on Acid Deposition Problems (Beijing)	50
2003 (Feb)	Participating countries	Third Public Awareness Workshop on Acid Deposition Problems (Niigata)	30
2003 (Dec)	Participating countries, school children and general public	Fourth Public Awareness Workshop on Acid Deposition Problems (Niigata)	200
2005	Participating countries, school children and general public	Fifth Public Awareness Workshop on Acid Deposition Problems (Niigata)	300
2006	Participating countries	Sixth Public Awareness Workshop on Acid Deposition Problems (Niigata)	30
2007	Participating countries, NGOs, private sectors, etc.	Seventh Public Awareness Workshop on Acid Deposition Problems (Niigata)	60
2008	Participating countries and school children, etc	Eighth Public Awareness Workshop on Acid Deposition Problems (Internet conference for school children between Bangkok and Niigata)	350
2009	Participating countries and school children, etc	Ninth Public Awareness Workshop on Acid Deposition Problems (in Niigata)	150
2012	Participating countries and school children, etc	Tenth Public Awareness Workshop on Acid Deposition Problems (in Niigata)	140

2. National public awareness workshops organized by EANET

Year	Target Audience	Activity (Target country)	Number of participants
2001	School children and general public	In-country workshop (Philippines)	38
2002	School children and general public	In-country workshop (Indonesia)	100
2002	School children and general public	In-country workshop (Vietnam)	60
2003	School children and general public	In-country workshop (Mongolia)	80
2004	School children and general public	In-country workshop (Russia)	300
2005	School children and general public	In-country workshop (Cambodia)	45
2006	Government officials, private sector and NGOs	Public awareness workshop on acid deposition (Philippines)	36
2006	School children and general public	In-country workshop (Lao PDR)	50
2006	Government officials and general public	Public awareness workshop on acid deposition (Lao PDR)	100
2006	Government officials private sector and general public	Public awareness workshop on acid deposition (Cambodia)	80
2007	School children and general public	In-country workshop (Myanmar)	30
2008	Government officials private sector and NGOs, etc.	Public awareness workshop on acid deposition (Indonesia)	65
2009	Government officials NGOs, etc.	Public awareness workshop on acid deposition (Mongolia)	60
2010	School children and experts, NGOs, etc.	Environmental conference of school children (Japan)	160
2011	Government officials, students and experts, NGOs, etc.	Public awareness workshop on acid deposition (Philippines)	100
2012	School children and experts, NGOs, etc.	Environmental conference of school children (Japan)	140
2012	Government officials, experts, etc.	Public awareness workshop on acid deposition (Lao PDR)	25
2013	Governmental officials, teachers, students, etc.	National Public Awareness Workshop in Myanmar (Myanmar)	60
2013	Governmental officials, private sectors, academia, NGOs, etc.	National Public Awareness Workshop in Thailand (Thailand)	80
2014	Governmental officials, private sectors, students, NGOs, etc.	National Public Awareness Workshop in Vietnam (Vietnam)	100

Evaluation of the Public Awareness National Workshop organized by Acid Deposition Monitoring Network in East Asia (EANET) (In country National Workshop)

I. Introduction

1. The 1st Five Year Medium Term Plan for the Acid Deposition Monitoring Network in East Asia (EANET) (2006-2010) so called “EANET Strategy” identified the basic policy of promotion of public awareness as “*Considering that the common understanding of the state of acid deposition problems by policy makers and the general public is indispensable to prevent or reduce adverse impacts caused on the environment and human health by acid deposition, EANET will make efforts to collect a wide range of information, provide appropriate and useful information to relevant people and implement other activities to promote public awareness*” of which the promotion of public awareness was agreed as one of the categories of activities to be undertaken during 2006-2010. The in-country public awareness workshops were undertaken by the Network Center (NC) budget since 2006 (2006: Cambodia, Lao PDR; 2007: Lao PDR, Myanmar). Since 2009, the national public awareness workshop received the fund supported from the Secretariat budget (2009: Indonesia, Mongolia).
2. **The Instrument for Strengthening the EANET** adopted by the participating countries in 2010 has set out **Item 8 for Public Awareness whereby the participating countries will promote and cooperate in 1) development and implementation of public awareness programs on acid deposition and 2) improvement of public access to information on acid deposition and its effects**. Thus, the budget from the Secretariat is required to provide support to the participating countries to be able to promote and implement the public awareness programs in the countries.
3. The 2nd Medium Term Plan of Acid Deposition Monitoring Network in East Asia (MTP) for 2011-2015 adopted at 12th Session of the Intergovernmental meeting on the EANET (IG12) in 2010 set one of its objectives on promotion of public awareness to be in line with the Instrument. The objective was “**to enhance the common understanding on environmental, social and economic issues of atmospheric pollution in East Asia through the establishment of an epistemic community and promotion of public awareness**”.
4. In addition, MTP 2011-2015 had set up the promotion of public awareness as one of the activity convened by the Secretariat and Network Center under the Secretariat budget. The implementation of in-country public awareness workshop had convened in many participating countries of EANET during the MTP period as follows:

Table 1: Record of national / in country public awareness workshops support from EANET Secretariat 2011-2015

Year	Topic of Workshop	Country	Stakeholder attendees	Number of Participant	Budget spent
2011	1. Acid Deposition workshop	Philippines	1. Government Officials, students, experts, NGOs, etc.	100	USD 2,563
2012	1. Acid Deposition workshop	Lao PDR	1. Government officials, experts, etc.	25	USD 4,757
2013	1. Acid Deposition workshop	Myanmar	1. Government Officials, teachers ,students	50	USD 13,005 for both workshops
	2. Acid Deposition workshop	Thailand	2. Government Officials, private sector, academia, NGOs	80	
2014	1. Acid Deposition and air pollution in East Asia	Vietnam	1. Government Officials, scientists, academia	35	USD 12,884 for both workshops
	2. Youth public awareness on acid deposition and its monitoring and laboratories with demonstration	Vietnam	2. Students and teachers	65	

II. Objectives of public awareness workshop

5. Overall objectives of the public awareness workshop that had been held in the participating countries who expressed the interest to the Secretariat were:
- To promote the understanding of acid deposition among all stakeholders in the countries
 - To provide platform for all stakeholders to exchange information and view on status of acid deposition, its causes and impacts
 - To make awareness of all stakeholders' involvement to prevent its causes and effect
 - To at some points encourage the stakeholders' participation to reduce acid deposition in the country

III. Evaluation

6. At the SAC15, it was clarified that the Secretariat may implement the evaluation of the effectiveness of national public awareness workshop conducted during the previous MTP (2011-2015). Therefore, the Secretariat set up the post survey using evaluation form to be circulated to the participating countries that had organized the national public awareness

workshops during 2011-2015, namely Philippines, Lao PDR., Myanmar, Thailand and Vietnam. The filled in evaluation has been summarized into a part of the report on the Implementation of the MTP for the EANET (2011-2015) which is given in Table 2.

7. The results from post evaluation received from participating countries convening the in-country national public awareness workshops (except Lao PDR which is on process of evaluation) expressed the satisfaction and importance of public awareness workshop benefiting the countries and participants in the workshops.
8. The recommendation from participating countries convening the in-country national public awareness workshop is to continue this activity and have more support to expand to cover various groups of stakeholders to attend and participate in the workshop.

Table 2: Post Survey on in-country national public awareness workshop implementing during previous Medium Term Plan (2011-2015)

Topic	Results
1) What is your overall assessment of the National Public Awareness Workshop held in your country?	All responses rated 'Good' at 100%
2) What extent the workshops helped your country on knowledge dissemination and outreach related to acid deposition matters?	Responses rated 'Good' at 75% Response rated 'Adequate' at 25%
3) Did the National Public Awareness Workshop held in your country contributed in achieving the objectives of the EANET?	All responses rated 'Yes' at 100%
4) Knowledge and information provided to participant at this event? 4.1 Met your expectations 4.2 Support your work and collaborations in your country	All responses rated 'Yes' at 100% All responses rated 'Mostly' at 100%
5) Additional Comments from countries	
Myanmar	<ul style="list-style-type: none"> - Give Information on acid deposition and other related atmospheric pollutions and their impacts on the environment and provided knowledge and experiences related to acid deposition and other related atmospheric pollutions to governmental departments and particularly among school children, teachers and others socio-economic sectors by conducting EANET National Public Awareness Workshop in our country. - Should organize public awareness workshop annually or once per two years in country wise and workshop should conduct based on the feedback from the EANET countries.
Philippines	<ul style="list-style-type: none"> - The conduct of the public awareness workshop was able to create awareness of the existence of the EANET program in the Philippines and the activities and policies being undertaken by the Government of the Philippines. The audience which was mostly composed from the academe (from all levels) learned about acid deposition (its causes and impacts and mitigation). With the lessons learned, they will be able to contribute to reduce or mitigate the occurrence of acid deposition.
Thailand	Thailand National Public Awareness Workshop was held during 16-17 July, 2013 in Bangkok, Thailand. In order to evaluate the achievement of workshop, evaluation forms were circulated to all participants to collect their views and comments which the benefit of the workshop can be summarized as follow;

	<ul style="list-style-type: none"> - building capacity, raising public awareness and technical knowledge for staffs of Thai authorities concerned particularly on air pollution and its management, acid deposition, haze episode and public health, PM and health impact and PAHs and public health - building network and cooperation on air pollution management - the knowledge gained from the workshop can be apply to routine work and complaint case - a forum for dissemination, sharing, and update data and information relating to air pollution and acid deposition - enhancing the knowledge on new pollutants, i.e. SLCPs and PAHs - knowledge about EANET and ACAP and its functions <p>According to information above, Public Awareness Workshop is considered as the key forum to building capacity, raising public awareness, dissemination and sharing the most updated data and information on air pollution and its management including acid deposition. The network of cooperation on air pollution and concerned issues can also be built through this kind of workshop, resulting in fruitful air pollution management as a whole. In addition, the information of EANET and ACAP can also be disseminated through the workshop.</p> <p>In conclusion, Thailand supports that the national public awareness workshop should be further held as appropriate.</p>
<p>Vietnam</p>	<ul style="list-style-type: none"> - Under EANET activities, Vietnam held two workshops in 2014: one for researchers, scientists, governmental officers, managers and one for raising public awareness on acid deposition. The two workshops were very successful because they attracted interests of many researchers, scientists, governmental officers, managers and publics (teachers and pupils). However, scale of workshops was not large enough, only focused in Hanoi and Hoa Binh province (in Northern Vietnam). - National awareness workshop should be held frequently in EANET countries and multiplied in whole country scale.