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on Acid Deposition Monitoring Network in East Asia
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Consideration for establishment of new EANET sites

Network Center for EANET

I. Introduction

1. Acid Deposition Monitoring Network in East Asia (EANET) started its regular-phase activities in 2001. The monitoring data on wet deposition, dry deposition, soil and vegetation, and inland aquatic environment, have been accumulated year by year, and the number of the monitoring sites increased step by step. However, the East Asian region is latitudinally and longitudinally wide area, and distribution of the monitoring sites in the region may not be enough spread.
2. The “Strategy on EANET Development (2006-2010) (EANET/IG 8/7/1 rev)”, which was adopted by the Intergovernmental Meeting at its 8th Session in November 2006, proposed the following activity on this issue:
 - Consideration and efforts on achieving appropriate distribution of monitoring sites: No. (2)
Consequently, to discuss practical solution on this issue, this paper summarized the current status and suggested possible strategies for establishment of new EANET site.

II. Current status of the monitoring sites

3. Monitoring data of the atmospheric deposition monitoring (wet deposition and air concentration) will be submitted from all of 13 EANET countries in 2007. The number of the acid deposition monitoring sites is 51 including 20 remote, 12 rural and 19 urban sites. However, air concentration monitoring has not been conducted at 12 monitoring sites.
4. Ecological survey sites established for soil and vegetation monitoring and inland aquatic monitoring are basically located in the vicinity of the acid deposition monitoring sites. Monitoring data of the ecological impact survey will be submitted from of 10 EANET countries in 2007. The number of the sites which conduct the monitoring of Soil, Forest and Inland aquatic (S/F/I) is 11. The number of the sites which conduct the monitoring of Soil and Forest (S/F) is 4. The number of the sites which conduct the monitoring of Soil (S) is 1. The number of the sites which conduct the monitoring of Inland aquatic (I) is 3.
5. Location of monitoring sites in 2007 is described in Figure 1. It seems that the number of

monitoring sites in EANET is not enough to cover whole of East Asian region. Moreover, in the current states of EANET, sampling parameters for air concentration monitoring and ecological impact survey have not satisfied the recommendation described in the Strategy Paper for future direction of “Dry deposition monitoring” and “Soil and Vegetation monitoring” of EANET. It is obvious that the monitoring sites should be increased in order to evaluate the acid deposition in detail. However, the new monitoring sites should be established according to their necessity and circumstances of each participating countries that would maintain the new monitoring sites.

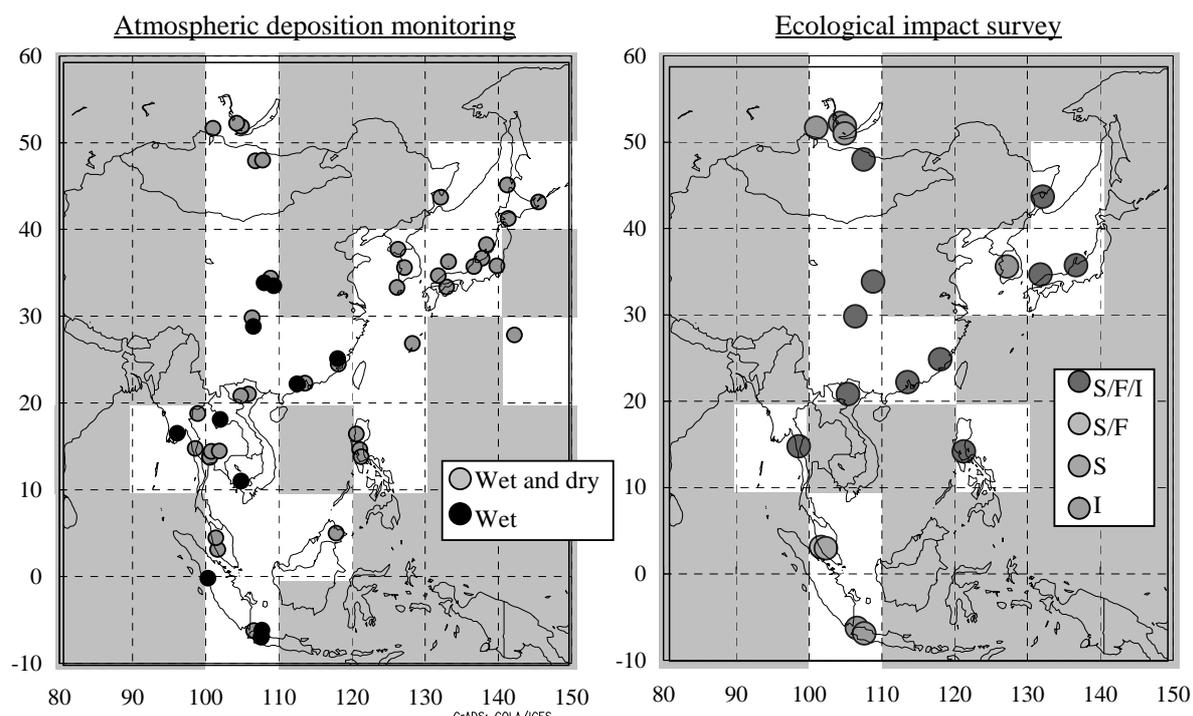


Figure 1 Location of EANET monitoring sites in 2007. (S: Soil, F: Forest, I: Inland aquatic)

III. Necessity of the denser monitoring network

6. Model validation regarding time variation and spatial distribution should be undertaken by monitoring data obtained at lots of sites in various regions. The present network is not sufficient for the evaluation of spatial distribution. One site in the area of 10x10 degree can be suggested for the evaluation of spatial distribution.
7. Since East Asia consists of various seasonal and land use categories, there are various vegetations and their tolerance and characteristics must be different each other. Many kinds of vegetation and ecological system should be monitored and the relationship with the acid deposition should be investigated.

IV. Ongoing plans on the new site establishment

8. Indonesia and Cambodia have plans to establish new monitoring site on wet deposition. In the case of Indonesia they plan to choose a site in Borneo Island. Also it was informed at STM8 that new monitoring sites, Sapa, Cuc Phuong National Park, Da Nang, Nhabe, would be nominated in Viet Nam.
9. Some participating countries have own national monitoring sites on wet deposition, and these sites can be nominated as EANET sites. In this respect Malaysia is considering adding a site in Kuching, Sarawak to the EANET network.
10. Indonesia, Malaysia and Mongolia are now considering to establish new monitoring sites on soil and vegetation. The location of the new site in Malaysia will be at Danum Valley and Telelj in Mongolia.
11. Indonesia and Lao PDR have plans to establish new monitoring on inland aquatic environment. Malaysia has started conducting inland aquatic monitoring at Danum Valley since beginning of 2007.

V. Strategies for the increase sites and selection of the location for new site establishment

12. The participating countries are encouraged to make efforts to increase the EANET sites considering the following points:
 - The existing sites for the national monitoring network can be utilized as EANET sites with minimal cost and equipments.
 - Use of less expensive instruments can allow the countries to lessen financial burden in establishing new monitoring sites.
 - Monitoring on inland aquatic environment, soil and/or vegetation can be started near/at existing wet and dry deposition monitoring sites.
13. Some countries may not have enough capacity (human and financial) to establish new sites. To assist such countries, NC will consider requesting donations from companies/donor agencies to supply equipment to the countries Moreover, the Secretariat and NC are preparing the bigger proposals to possible donor agencies for regional/international financial support to increase the number of EANET sites. The concept paper on establishment of monitoring sites in EANET has been prepared and will be submitted to the possible donor agencies.
14. Collaboration with the other initiatives such as WMO-GAW, LTP, JICA project in China should be considered to complement EANET network. Harmonization of the monitoring procedures, comparison of the relevant data, and exchange of relevant information should be promoted.

15. Scientific Advisory Committee (SAC) is invited to give some guidance to increase the number of the EANET monitoring sites.

16. NC will fully support the all the efforts by the participating countries, receiving trainees, dispatching the technical missions, providing technical information, and so on. Moreover, NC will make efforts to obtain financial support from possible donor agencies.