

The Third Session of the Scientific Advisory
Committee on the Acid Deposition Monitoring
Network in East Asia
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Discussion Paper on Future Research Activities of Highest Priority

1. Introduction

The Work Program and Budget in 2001 for EANET mentioned that EANET activities in 2001 should aim at, among others, “starting consideration of further scientific issues such as emission inventory studies and numerical modeling” and the First Session of the Scientific Advisory Committee (SAC1) was considered to discuss the future research activities on acid deposition.

The Network Center (NC) prepared “Proposal for Future Research Activities in EANET” and presented it for consideration at SAC1 in November 2001.

Because the proposal was prepared in rather comprehensive manner, the participants of SAC1 generally felt that clear prioritization for future research activities was needed, and NC responded further elaboration of the proposal.

NC considered that the future direction of investigations should be discussed before the proposal for more determined future research activities would be elaborated. Corresponded “Proposal for Future Direction of Research Activities in EANET” was presented by NC at the Second Session of the Scientific Advisory Committee (SAC2). In this document the proposed future direction of research activities was described as classifying into “highest priority researches” and “other important researches.” While the document was recommended for future discussion among SAC members, it was felt that SAC should more specifically discuss highest priority researches in the first place.

NC has prepared this paper for discussion at SAC3 on research activities of highest priority in the short term (three to five years).

2. Proposed research activities of highest priority

2.1. Evaluation of state of acid deposition in East Asia based on previous data

According to the “Tentative Design of the Acid Deposition Monitoring Network in East Asia (EANET)” (EANET/IG 2/5/3), “Periodic reports on the state of acid deposition in East Asia will be

made available to the public” is specified among other activities to achieve the objectives of the Network (para. 3). And “preparation of periodic reports on the state of acid deposition in East Asia, based on the data reports by the Network Center” is included in the tasks of SAC (para. 6). It was also pointed out at SAC2 that SAC and NC should start analysis and evaluation of previous monitoring data.

It should be necessary to consider how to initiate this issue in EANET especially by SAC and NC.

2.2 Researches for improvement of monitoring activities

Joint research projects with NC have been implemented in some countries towards improvement of monitoring activities in East Asian region that extend geographically from tropical to boreal zones with different characteristics of climate and vegetation.

These include researches on dry deposition flux in tropical regions with Thailand, on monitoring methodologies in boreal region with Russia, and on sensitivity of plants in semi-arid zone with Mongolia.

Researches for improvement of monitoring activities should be continued while the specific subjects should be considered through reviewing the results of previous researches.

2.3 Review of technical manuals and QA/QC programs

Most of the participating countries and NC have accumulated experience in EANET activities for more than 5 years since the start of the preparatory phase.

Research activities including the above-mentioned joint research projects may provide basic knowledge and experience to improve monitoring methodologies. It was stressed by some participants at SAC2 that research activities should be incorporated into revision of technical manuals and QA/QC programs.

The present technical manuals, QA/QC programs and data reporting procedures/formats should be considered to review based on the knowledge and experience obtained through monitoring and research activities. The strategy paper on dry deposition monitoring would also be reviewed.

2.4 Consideration of mid and long-term research activities

Besides consideration and implementation of short-term research activities, discussion on research activities in the mid and long term should start taking the objectives of EANET into account.

They could include the development of emission inventories and simulation models of long-range trans-boundary air pollution and development of methodologies for early detection of impacts of acid deposition on soil, vegetation and inland aquatic environment, and moreover the economic and social issues.

3. Next steps toward implementation of research activities

NC will prepare a draft plan for short-term research activities based on the discussion at SAC3. It might include establishing a scientific team for evaluation of previous EANET data and reviewing present technical documents. The expected schedule should be indicated in the plan.

The draft plan will be circulated among SAC members and revised based on their comments.