

# **EANET Science Bulletin (Vol.5)**

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## **Background**

The Science Bulletin Volume 1~4 was published in 2008, 2011, 2013 and 2016 respectively since the publication of the Bulletin discussed at the first meeting of TFRC and SAC8 of the EANET in 2008

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## Objectives of the Bulletin

The main objectives of the EANET Science Bulletin are:

- To share the research findings from the EANET Research Fellowship Program and Joint Research Projects among the EANET community; and
- To provide a platform for scientists from member countries to publish their scientific and technical research activities which are relevant to the EANET.

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## Preparation of the Bulletin (Vol.5)

- The plan for publishing the EANET Science Bulletin (Vol.5) was reported at the Eighteenth Session of the Scientific Advisory Committee (SAC18) held in Hanoi, Viet Nam and the IG20 held in Bangkok, Thailand, 2018 respectively
- The NC invited scientific and technical research papers from the participating countries that related to the EANET activities as well as the reports of the Research Fellowship Program and Joint Research Projects of the EANET
- Editorial Board for the publication of the Bulletin in NC was established in June 2019)
- Science Bulletin (Vol.5) follows the previous bulletins in general and submits to the Nineteenth Session of the Scientific Advisory Committee (SAC19)

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Year	Month	Activities/Events	Deliverables
2019	March	Send the request letter for the papers to the NFCs and SAC members	The letter was sent on 15 March
2019	June	Establish Editorial Board	Editorial Board was established in June
2019	July	Deadline for receiving the scientific papers	Scientific papers
2019	August-September	Revise all papers by researchers and NC	NC
2019	October-November	Submitting to the SAC and IG	NC
2019	EANET SAC19/11 December	Printing and delivery	Science Bulletin (Vol.5)

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EANET SAC19/11 Total	16	12	13	13	17

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Volume 5                      December 2019                      ISSN 1883-3608

**Acid Deposition Monitoring Network in East Asia (EANET)**

**EANET Science Bulletin**



Acid Deposition Monitoring Network in East Asia (EANET)  
<http://www.eanet.asia>

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**Acid Deposition Monitoring Network in East Asia (EANET)**

**Objectives**

- To create a common understanding of the state of acid deposition in East Asia;
- To provide useful inputs for decision making at local, national and regional levels aimed at preventing or reducing adverse impacts on the environment caused by acid deposition;
- To contribute to cooperation on the issues related to acid deposition among the participating countries.

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## Editorial Board

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Keiichi Sato (Data Management Department)

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Shiro Hatakeyama (Director General)

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## Preface

This is Volume 5 of the EANET Science Bulletin. The Bulletin is published to share the scientific findings from the research activities within EANET and to provide a platform for scientists from participating countries to publish their scientific and technical research results relevant to the EANET activities.

This volume is comprised of the Reports of the EANET Fellowship Program (2016-2018), Joint Projects of the EANET with Participating Countries, as well as Scientific and Technological Research Papers from Participating Countries.

This Science Bulletin follows the Medium Term Plan (MTP) for the EANET (2016-2020) that was adopted at the Seventeenth Session of the Intergovernmental Meeting (IG17) on the EANET in 2015. The Bulletin would contribute to a better understanding of the state of acid deposition with atmospheric pollutants and their impacts on the environment in East Asia. It can also contribute to promote research activities on atmospheric transport modeling as well as to improve capacity building for tackling various air pollution issues such as Ozone/PM2.5 problems in participating countries.

Quality assured/quality controlled monitoring data and research results utilizing such data are very important and useful to assist policy makers in planning air pollution control and mitigation measures by improving the scientific and technical knowledge in not only each participating country but also in whole East Asia.

I hereby express my sincere appreciation to all authors of the research papers and the members of Editorial Board for this Bulletin. I look forward to their continuous cooperation and concern for the EANET activities.

Dr. Shiro Hatakeyama  
Director General  
Asia Center for Air Pollution Research (ACAP)  
Network Center for the EANET  
September 2019

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## **Message from the Editor**

Promotion of research activity is in the Medium Term Plan for the Acid Deposition Monitoring Network in East Asia (2016-2020). In this regard, EANET encourages participating countries to conduct research work on the state of acid deposition and publish it in the Science Bulletin.

The Science Bulletin (Vol.5) include reports of the EANET research fellowship program (2016-2018), joint projects of the EANET with the participating countries, scientific and technological research papers from participating countries and technical note.

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## **Reports of the EANET Research Fellowship Program (2016-2018)**

The EANET Science Bulletin is issued once every three years according to the Medium Term Plan (2016~2020) approved at the Seventeenth Session of the Intergovernmental Meeting(IG17) on the EANET held in Bangkok, Thailand, 2015.

The research reports of the EANET Fellowship Research Program for 2016~2018 are included in this Bulletin.

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## **Joint Projects of the EANET with Participating Countries**

Scientists from the EANET participating countries and the Network Center have been promoting joint research projects for various topics. Progress reports of the ongoing projects are introduced in this chapter.

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## **Scientific and Technological Research Papers from Participating Countries**

For our cooperation on research activities, we have some research papers, including a technical note from our participating countries that have been utilized the EANET data. Therefore, they are included in this part of the EANET Science Bulletin.

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*Cuihong Chen, Jun-ichi Kurokawa, Hiroaki Minoura*

- Investigation of atmospheric input and runoff discharge of sulfur and nitrogen compounds as the balance components of Komarovka river catchment by long-term observations at Russian EANET Primorskaya station (for 2005 - 2015).

*Ekaterina Zhigacheva, Hiroyuki Sase, Masaaki Takahashi, Tsuyoshi Ohizumi, Sergey A. Gromov*

- The effects of exposure to fine particulate matter on human health in Bangkok, Thailand

*Kessinee Unapumnuk*

- Study on the impacts of air pollution transport and its effects to human health

*Kong Savuth and Ken Yamashita*

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## Joint Projects of the EANET with Participation Countries

Japan-China intercity cooperation project for cleaner air, *Minoura H, Sato K, Zhu M, Huo M and Kiriya Y*

Report of the joint research project on catchment analysis in Thailand  
*Hiroyuki Sase, Naoyuki Yamashita, Hathairatana Garivait, Kazuhide Matsuda and Tsuyoshi Ohizumi*

Report of the joint research project on catchment analysis in Japan. *Hiroyuki Sase*

The model inter-comparison study for Asia (MICS-Asia): Phase III and next steps  
*Jun-ichi Kurokawa, Zifa Wang, Joshua S. Fu, Jung-Hun Woo, Qiang Zhang, Zhiwei Han, Gregory Carmichael, Narisara Thongboonchoo, Ming-Tung Chuang, Yun Fat Lam, Jie Li, Tatsuya Nagashima, Meigen Zhang, Baozhu Ge, Syuichi Itahashi, Meng Li, Meng Gao, Keiichi Sato, Hiroaki Minoura and Hajime Akimoto*

Report of the joint research project on PM2.5 Source apportionment and rain composition analysis in Bangkok Metropolitan Region, Thailand. *Keiichi Sato and Mingqun Huo*

The Development of the Emission Inventory Manual of Mongolia. *Ken Yamashita*

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## Scientific and Technological Research Papers from Participating Countries

- Temporal variation of atmospheric dry deposition at Kaba-aye site, Yangon in Myanmar  
*Kyu Kyu Sein*

- Evaluation of dry deposition of sulfur dioxide, ammonia and nitrous oxide at Primorskaya station  
*Trifonova-Yakovleva A, Stambrovskaya A, Gromov S.*

- Airborne ammonia concentrations in areas of two EANET stations in Baikal region derived from EANET monitoring and satellite measurements  
*Trifonova-Yakovleva A, Gromov S.*

- Technical note on more precise approach to calculate the water discharge of small rain-feeding river at the temperate region of Far East  
*Zhigacheva E, Gromov S.*

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## **Technical Note**

QA/QC and Data Management System in  
EANET, *Keiichi Sato*

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## **Action Required**

The SAC19 is invited to review the draft of the EANET Science Bulletin (Vol.5) and provide comments and suggestions to the NC for improvement of contents of the Bulletin as ANNEX. Finally, the SAC19 is requested to endorse the EANET Science Bulletin (Vol.5)

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