



East Asian Air Pollutant Emissions Grid Database (EAGrid2000)

– First edition: May 2007 –

[日本語](#)

The East Asian Air Pollutant Emissions Grid Database (EAGrid2000) was created as a result of the development of emission inventories for a research project that took place between 2002 and 2004 on the elaboration and verification of a next-generation source-receptor matrix. This research is a part of the International Co-operative Survey to Clarify Trans-boundary Air Pollution Across the Northern Hemisphere which was funded by the Global Environment Research Fund (GERF) of the Ministry of the Environment of Japan.

The original East Asian Air Pollutant Emissions Grid Database (EAGrid1995) contained estimates of emissions per grid cell of air pollutants such as sulfur dioxide (SO₂), nitrogen oxides (NO_x), non-methane volatile organic compounds (NMVOCs), and ammonia (NH₃) for China, Taiwan, Japan, the Republic of Korea (ROK), the Democratic People's Republic of Korea (DPRK), and Mongolia. This database was developed as a part of a Global Environment Research Fund project that lasted from 1999 to 2001. The purpose of this original project was to enter emissions data into a long-range atmospheric transport model that incorporated an atmospheric chemical reaction process meant to elucidate the mechanisms by which sulfates and nitrates are formed, transported, and removed. It was later deemed necessary to revise the basic database in light of economic development in China, and the need to include other air pollutants in the database. The 2002–2004 project developed a year 2000 emission inventory that included the following substances in addition to those that were already included in EAGrid1995: carbon monoxide (CO), which is important as a tracer in the long-range transport process; particulates (here PM₁₀), which are becoming increasingly important due to their impact on human health; and mercury (Hg), which is a particularly important heavy metal in terms of global pollution, and has especially high emission rates in China.

Download

| | | | | |
|--------------------------|---|--|---|--|
| Overview of the database | pdf, 0.9MB | | | |
| Database (csv format) | SO₂ (1.26MB) | NO_x (1.26MB) | NH₃ (1.51MB) | Anthropogenic NMVOC (1.55MB) |
| | CO (1.26MB) | PM₁₀ (1.26MB) | Hg (1.14MB) | Biogenic NMVOC (7.95MB) |

Authors

MURANO Kentaro (Hosei University)
 TONOOKA Yutaka (Saitama University)
 KANNARI Akiyoshi (Independent Researcher, formerly of the Institute of Behavioral Sciences)

Contact

MUKAI Hitoshi (Inmukaih@nies.go.jp)

16-2 Onogawa, Tsukuba, Ibaraki 305-8506 JAPAN

Copyright © National Institute for Environmental Studies. All Rights Reserved.