

Data Report on the Acid Deposition in the East Asian Region

2002

November 2003
Network Center for EANET

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1. Introduction

The East Asian region faces increasing risks of problems related to excessive deposition of acidic substances as a result of enforced industrialization for last decades. At this background the First Session of the Intergovernmental Meeting on the Acid Deposition Monitoring Network in East Asia (EANET) was held in March 1998 with remarkable decision to start the preparatory-phase activities of the Network on an interim basis from 1998. During this preparatory-phase participating countries had launched the monitoring of acid deposition as well as the ecological impact monitoring. The main technical documents were prepared to conduct continuous monitoring as well as some proposals was carried out to enhance the results at the common level. The Second Session of the Intergovernmental Meeting held in October 2000 concluded that the preparatory-phase activities had been successful, and the participating countries had developed the basis to start the monitoring on a regular basis using their experiences obtained through preparatory-phase activities from 1998 to 2000. And it was decided that the participating countries would cooperatively start the activities of EANET on the regular basis from January 2001.

Acid deposition monitoring of EANET covers four environmental items – wet deposition, dry deposition (started as air concentration monitoring), soil and vegetation, and inland aquatic environment. Monitoring of wet and dry deposition has been implemented in order to observe concentrations and to evaluate fluxes of acidic substances onto the land surface, while monitoring for soil/vegetation and inland aquatic environment was put into action to assess adverse impacts on terrestrial and aquatic ecosystems. These monitoring data will be utilized to evaluate the state of acid deposition as well as impacts on ecosystems.

The participating countries were requested to submit their data and related information obtained through the monitoring activities of EANET for the calendar year 2002 to the Network Center (NC) by 30 June 2003 based on the “Work program and Budget for EANET in 2003” adopted at the Forth Session of the Intergovernmental Meeting. NC had prepared a draft Data Report on the Acid Deposition Monitoring Network in East Asian Region 2002 with data from the participating countries by the Third Session of Scientific Advisory Committee (SAC3) held in November 2003 in Pattaya, Thailand. The draft Data Report was considered at SAC3 by the experts from participating countries. Following the comments and guidance at SAC3, NC has elaborated and finalized the report.

This report presents the EANET monitoring data in 2002 as the second one based on the regular-phase activities of EANET.

2. Network Description

Ten countries conducted a regular monitoring of the regular-phase activities of EANET during 2002, namely, China, Japan, Mongolia, Republic of Korea and Russian Federation from the North-East Asian region, and Indonesia, Malaysia, Philippines, Thailand and Vietnam from the South-East Asian region. EANET monitoring sites were classified into two categories under their purposes: Acid Deposition Monitoring Site and Ecological Survey Site, with criteria presented in [Table 2.1](#). The list of Acid deposition monitoring sites in 2002 is presented in [Table 2.2](#) and their

locations are indicated at [Fig.2.1](#). Forty-three EANET monitoring sites are located within a vast area of East Asia between 51° N to 6° S across ten participating countries, including 16 “remote”, 12 “rural”, and 15 “urban” sites. As described in [Table 2.3](#), wet deposition monitoring was conducted at 42 sites. The equipment for filter pack measurements of pollutant concentrations for dry deposition monitoring were in operation at 19 sites. Automatic or manual gas monitor for NO_x and SO₂ were operated at 17 sites, and 13 sites were equipped with monitor for ozone concentration measurement. Concentrations of particulate matter as PM₁₀ were measured by automatic or manual instruments at the 15 sites. Meteorological conditions such as wind speed, wind direction, air temperature, relative humidity, and solar radiation were measured by equipments installed at the sites or nearby at the meteorological observatories. Ecological survey sites established for soil and vegetation monitoring and inland aquatic monitoring are basically located in the vicinity of the Acid Deposition Monitoring Site. Information on the ecological survey sites is presented further in the chapter 5 and 6.

Table 2.1. Classification of Monitoring Sites

| Site Category | Site Classification | Main Purpose and Site Criteria |
|---|-------------------------|--|
| Acid Deposition Monitoring Site for wet deposition and dry deposition monitoring | Urban Site | <ul style="list-style-type: none"> - Assessment of the state of acid deposition in urban areas - Data can be used for evaluation of acid deposition on buildings and historical monuments - Urbanized and industrial areas, and the areas immediately outside the urban boundaries |
| | Rural Site | <ul style="list-style-type: none"> - Assessment of the state of acid deposition in rural areas and/or hinterlands - Data can be used for the evaluation of acid deposition on agricultural crops, forests and etc. - More than 20km apart from large pollution sources like cities, power plants and highways |
| | Remote Site | <ul style="list-style-type: none"> - Assessment of the state of acid deposition in background areas - Data can be used for evaluation of long-range transport and deposition models - More than 50km apart from large pollution sources like cities, power plants and highways - More than 500m apart from main roads (more than 500 vehicles per day) |
| Ecological Survey Site for soil and vegetation monitoring and Inland aquatic monitoring | Basic survey site | <ul style="list-style-type: none"> - Accumulation of basic data on soil, forest, and inland aquatic environment and disclose trends in their properties - In the vicinity of the acid deposition monitoring site |
| | Ecosystem analysis site | <ul style="list-style-type: none"> - Assessment of acid deposition impacts on whole ecosystem through application of terrestrial ecosystem analysis and/or catchment analysis - Area which sensitive to changes in atmospheric acidity and ecologically conserved area |

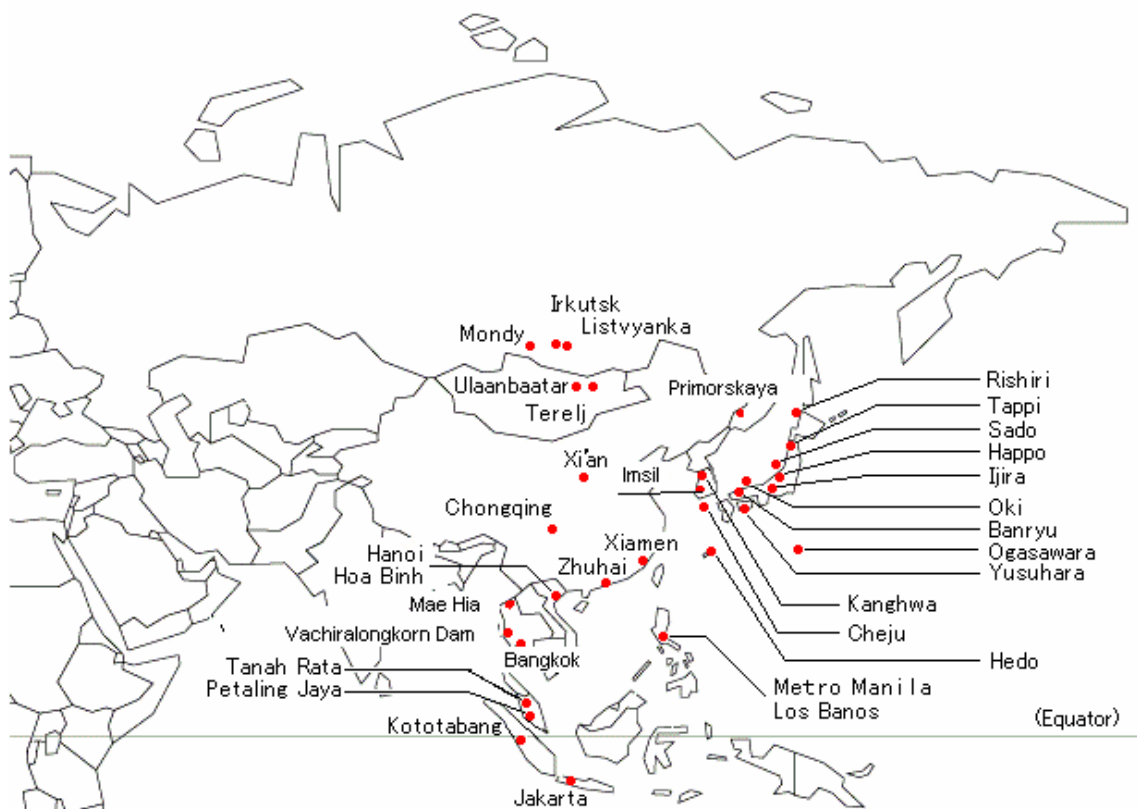


Fig. 2.1 Locations of EANET Sites in 2002

(Note: “Xi’an” includes 3 sites, and “Chongqing”, “Xiamen”, “Zhuhai” includes 2 sites, respectively. “Jakarta” includes also nearby “Serpong” and “Bandung” sites, and “Bangkok” includes also nearby “Samutprakarn” and “Patumthani” sites. “Metro Manila”/“Los Banos” and “Hanoi”/“Hoa Binh” are described as one point, respectively. Khao Lam Dam was renamed into Vachiralongkorn Dam in 2002.)

Table 2.2 Profile of Wet and Dry Deposition (Air Concentration) Monitoring Sites

| Country | Name of sites | Characteristics of sites | Latitude | Longitude | Height above sea |
|-------------------|---------------------|--------------------------|------------|------------|------------------|
| China | Chongqing | Urban | 29° 34' N | 106° 31' E | 262m |
| | -Guanyinqiao | Rural | 29° 49' N | 106° 22' E | 800m |
| | - Jinyunshan | | | | |
| | Xi'an | Urban | 34° 14' N | 108° 57' E | 400m |
| | - Shizhan | Rural | 34° 22' N | 108° 51' E | 366m |
| | -Weishuiyuan | Remote | 33° 50' N | 108° 48' E | 1,800m |
| | - Jiwozi | | | | |
| | Xiamen | Urban | 24° 28' N | 118° 08' E | 50m |
| | -Hongwen | Remote | 24° 51' N | 118° 02' E | 686m |
| | -Xiaoping | | | | |
| Zhuhai | Urban | 22° 16' N | 113° 34' E | 40m | |
| - Xiang Zhou | Urban | 22° 12' N | 113° 31' E | 45m | |
| -Zhuxian Cavern | | | | | |
| Indonesia | Jakarta | Urban | 6° 11' S | 106° 50' E | 7m |
| | Serpong | Rural | 6° 15' S | 106° 34' E | 46m |
| | Kototabang | Remote | 0° 12' S | 100° 19' E | 864m |
| | Bandung | Urban | 6° 54' S | 107° 35' E | 743m |
| Japan | Rishiri | Remote | 45° 07' N | 141° 14' E | 40m |
| | Tappi | Remote | 41° 15' N | 141° 21' E | 105m |
| | Ogasawara | Remote | 27° 50' N | 142° 13' E | 230m |
| | Sado-seki | Remote | 38° 14' N | 138° 24' E | 110m |
| | Happo | Remote | 36° 41' N | 137° 48' E | 1,850m |
| | Oki | Remote | 36° 17' N | 133° 11' E | 90m |
| | Yusuhara | Remote | 33° 22' N | 132° 56' E | 225m |
| | Hedo | Remote | 26° 51' N | 128° 15' E | 50m |
| | Ijira | Rural | 35° 43' N | 136° 41' E | 140m |
| Banryu | Urban | 34° 40' N | 131° 48' E | 60m | |
| Malaysia | Petaling Jaya | Urban | 03° 06' N | 101° 39' E | 87m |
| | Tanah Rata | Remote | 04° 28' N | 101° 23' E | 1,470m |
| Mongolia | Ulaanbaatar | Urban | 47° 54' N | 106° 49' E | 1,282m |
| | Terelj | Remote | 47° 59' N | 107° 29' E | 1,540m |
| Philippines | Metro Manila | Urban | 14° 38' N | 121° 04' E | 54m |
| | Los Banos | Rural | 14° 11' N | 121° 15' E | 35m |
| Republic of Korea | Kanghwa | Rural | 37° 42' N | 126° 17' E | 102m |
| | Cheju(Kosan) | Remote | 33° 18' N | 126° 10' E | 50m |
| | Imsil | Rural | 35° 36' N | 127° 11' E | -m |
| Russia | Mondy | Remote | 51° 40' N | 101° 0' E | 2,000m |
| | Listvyanka | Rural | 51° 51' N | 104° 54' E | 700m |
| | Irkutsk | Urban | 52° 14' N | 104° 15' E | 400m |
| | Primorskaya | Rural | 43° 42' N | 132° 07' E | 84m |
| Thailand | Bangkok | Urban | 13° 46' N | 100° 32' E | 2m |
| | Samutprakarn | Urban | 13° 44' N | 100° 34' E | 2m |
| | Patumthani | Rural | 14° 02' N | 100° 46' E | 2m |
| | Vachiralongkorn Dam | Remote | 14° 46' N | 98° 35' E | 170m |
| | Mae Hia | Rural | 18° 46' N | 98° 56' E | 350m |
| Vietnam | Hanoi | Urban | 21° 01' N | 105° 51' E | 5m |
| | Hoa Binh | Rural | 20° 49' N | 105° 20' E | 23m |

Table 2.3 Outline of Wet and Dry Deposition (Air Concentration) Monitoring

| Country | Name of sites | Characteristics of sites | Wet Dep. | Dry Dep. | | | |
|-------------------|---------------------|--------------------------|----------|----------------------------------|----------------|------|-------------|
| | | | | Automatic | | | Filter Pack |
| | | | | SO ₂ ,NO _x | O ₃ | PM | |
| China | Chongqing | Urban | 0 | None | None | None | None |
| | -Guanyinqiao | Rural | 0 | 0 | None | 0 | None |
| | - Jinyunshan | | | | | | |
| | Xi'an | Urban | 0 | None | None | None | None |
| | - Shizhan | Rural | 0 | 0 | None | 0 | None |
| | -Weishuiyuan | Remote | 0 | None | None | None | None |
| | - Jiwozi | | | | | | |
| | Xiamen | Urban | 0 | 0 | None | 0 | None |
| | -Hongwen | Remote | 0 | None | None | None | None |
| | -Xiaoping | | | | | | |
| Zhuhai | Urban | 0 | 0 | None | 0 | None | |
| - Xiang Zhou | Urban | 0 | None | None | None | None | |
| -Zhuxiandong | | | | | | | |
| Indonesia | Jakarta | Urban | 0 | None | None | None | None |
| | Serpong | Rural | 0 | None | None | None | 0 |
| | Kototabang | Remote | 0 | None | None | None | None |
| | Bandung | Urban | 0 | None | None | None | None |
| Japan | Rishiri | Remote | 0 | 0 | 0 | 0 | 0 |
| | Tappi | Remote | 0 | 0 | 0 | 0 | None |
| | Ogasawara | Remote | 0 | 0 | 0 | 0 | None |
| | Sado-seki | Remote | 0 | 0 | 0 | 0 | None |
| | Happo | Remote | 0 | 0 | 0 | 0 | None |
| | Oki | Remote | 0 | 0 | 0 | 0 | 0 |
| | Yusuhara | Remote | 0 | 0 | 0 | 0 | None |
| | Hedo | Remote | 0 | 0 | 0 | 0 | None |
| | Ijira | Rural | 0 | 0 | 0 | 0 | None |
| | Banryu | Urban | 0 | 0 | 0 | 0 | None |
| Malaysia | Petaling Jaya | Urban | 0 | None | None | None | 0 |
| | Tanah Rata | Remote | 0 | None | None | None | 0 |
| Mongolia | Ulaanbaatar | Urban | 0 | None | None | None | 0 |
| | Terej | Remote | 0 | None | None | None | 0 |
| Philippines | Metro Manila | Urban | 0 | None | None | None | 0 |
| | Los Banos | Rural | 0 | None | None | None | 0 |
| Republic of Korea | Kanghwa | Rural | 0 | None | None | None | 0 |
| | Cheju(Kosan) | Remote | 0 | None | None | None | 0 |
| | Imsil | Rural | 0 | None | None | None | 0 |
| Russia | Mondy | Remote | 0 | None | 0 | None | 0 |
| | Listvyanka | Rural | 0 | None | None | None | 0 |
| | Irkutsk | Urban | 0 | None | None | None | 0 |
| | Primorskaya | Rural | 0 | None | None | None | 0 |
| Thailand | Bangkok | Urban | 0 | 0 | None | None | None |
| | Samutprakarn | Urban | None | 0 | 0 | None | None |
| | Patumthani | Rural | 0 | None | None | None | None |
| | Vachiralongkorn Dam | Remote | 0 | 0 | 0 | 0 | None |
| | Mae Hia | Rural | 0 | None | None | None | 0 |
| Vietnam | Hanoi | Urban | 0 | None | None | None | 0 |
| | Hoa Binh | Rural | 0 | None | None | None | 0 |

3. Wet Deposition Monitoring

3.1 Method

To obtain the equivalent quality of monitoring data, each participating country carries out acid deposition monitoring fundamentally by common methodologies specified in the “Technical Documents for Wet deposition Monitoring in East Asia” adopted at The Second Interim Scientific Advisory group Meeting in March 2000. An example of the flow chart that was carried out by participating countries is described in Fig.3.1.

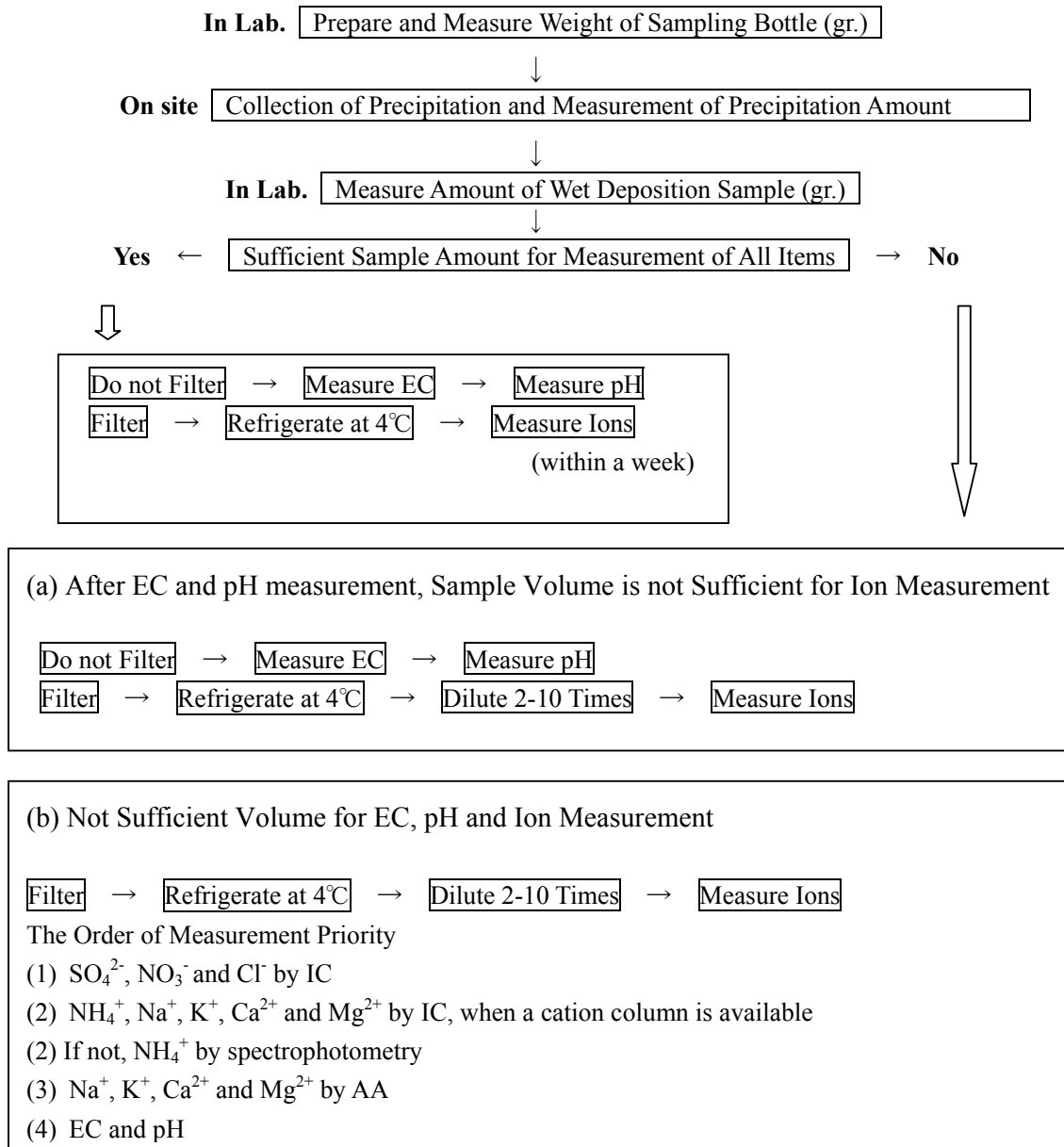


Fig. 3.1 Flow chart of sampling and chemical analysis of wet deposition

1) Field Operation

Most of the participating countries use the wet-only sampler designed to collect precipitation samples during the period of rainfall only by installing the precipitation sensor and motor-driven tightfitting lid to cover a collecting bucket or funnel. The wet-only sampler is a recommended method for sampling of precipitation. However, a manual sampler is installed at some sites with collection of rainwater by manual operation. Precipitation samples are collected on a daily basis at 28 sites of 42, while weekly collecting is performed at 10 sites and samples of every precipitation events are taken at other 4 sites, as presented in [Table 3.1](#). For wet deposition samples collected in a tropical region, a preservation of samples from microbial decomposition should be considered. Biocides such as Thymol are added for that purpose when a refrigerator is not available during sampling, shipping and storage periods. On the other hand, sampling of wet deposition in the higher latitude region such as Mongolia and Russia during winter seasons faces difficulties because of low air temperature has falling sometimes below minus 10 to 20 °C. Collected samples without biocides were shipped to laboratories in charge of chemical analysis by cooling box to keep the sample temperature low enough to preserve the sample chemistry.

2) Laboratory Operation

Procedures suggested for rainwater major constituent analysis by the manual are shown in [Table 3.2](#). Ion Chromatography is a major analytical method adopted by the participating countries for chemical analysis of both anions and cations contained in precipitation samples ([Table 3.3](#)). Atomic Absorption Spectrometry for Na^+ , K^+ , Ca^{2+} , and Mg^{2+} , and Spectrophotometry for NH_4^+ are also useful tools for the determination of these cations. However, some countries have to solve a problem of poor detection limit because of they use traditional methods with not enough analytical sensitivity, such as titration ones.

3) Data Management

Analytical data of precipitation samples were submitted from the participating laboratories to the National Centers. Then each National Center submitted the data to the Network Center. All the data were checked using ion balance and conductivity agreement by calculating ion balance (R_1) and conductivity agreement (R_2). If a sample or individual datum has problems including “insufficient sample volume” or “low precision”, the flags corresponding to the problems were attached to the data. Details of data management are described in the “Quality Assurance/Quality Control (QA/QC) Program for Wet Deposition Monitoring in East Asia” adopted at the Second Interim Scientific Advisory group Meeting in March 2000.

4) Meteorological Measurement

Wind direction/speed, temperature, humidity, precipitation amount and solar radiation in relation to wet deposition should be measured at the nearest meteorological station in accordance with the measurement frequencies and methods of the meteorological monitoring system of each country.

Table 3.1 Sampling Method for Wet Deposition Monitoring

| Country | Name of sites | Characteristics of sites | Sampling Interval | Starting Month | Note |
|-------------------|-------------------------|--------------------------|-------------------|----------------|------|
| China | Guanyinqiao (Chongqing) | Urban | Daily | April '99 | |
| | Jinyunshan (Chongqing) | Rural | Daily | April '99 | |
| | Shizhan (Xi'an) | Urban | Daily | April '99 | |
| | Weishuiyuan (Xi'an) | Rural | Daily | April '99 | |
| | Jiwozi (Xi'an) | Remote | Daily | April '99 | |
| | Hongwen (Xiamen) | Urban | Daily | April '99 | |
| | Xiaoping (Xiamen) | Remote | Daily | April '99 | |
| | Xiang Zhou (Zhuhai) | Urban | Daily | April '99 | |
| | Zhuxian Cavern (Zhuhai) | Urban | Daily | December '99 | |
| Indonesia | Jakarta | Urban | Weekly | April '98 | |
| | Serpong | Rural | Event | April '98 | |
| | Kototabang | Remote | Weekly | April '98 | |
| | Bandung | Urban | Event | January '99 | |
| Japan | Rishiri | Remote | Daily | April '98 | |
| | Tappi | Remote | Daily | April '98 | |
| | Ogasawara | Remote | Daily | May '99 | |
| | Sado-seki | Remote | Daily | April '99 | |
| | Happo | Remote | Daily | April '98 | |
| | Oki | Remote | Daily | April '98 | |
| | Yusuhara | Remote | Daily | December '99 | |
| | Hedo | Remote | Daily | December '99 | |
| | Ijira | Rural. | Weekly | June '99 | |
| | Banryu | Urban | Weekly | May '99 | |
| Malaysia | Petaling Jaya | Urban | Weekly | April '98 | |
| | Tanah Rata | Remote | Weekly | January '99 | |
| Mongolia | Ulaanbaatar | Urban | Daily | August '98 | |
| | Terelj | Remote | Daily | September '98 | |
| Philippines | Metro Manila | Urban | Weekly | April '99 | |
| | Los Banos | Rural | Weekly | April '99 | |
| Republic of Korea | Kanghwa | Rural | Daily | March '99 | |
| | Cheju (Kosan) | Remote | Daily | April '99 | |
| | Imsil | Rural | Daily | January '01 | |
| Russia | Mondy | Remote | Daily | May '99 | |
| | Listvyanka | Rural | Daily | January '00 | |
| | Irkutsk | Urban | Event | January '00 | |
| | Primorskaya | Rural | Event | February '02 | |
| Thailand | Bangkok | Urban | Daily | April '99 | |
| | Patumthani | Rural | Daily | March '99 | |
| | Vachiralongkorn Dam | Remote | Daily | April '99 | * |
| | Mae Hia | Rural | Daily | January '01 | |
| Vietnam | Hanoi | Urban | Weekly | August '99 | |
| | Hoa Binh | Rural | Weekly | August '99 | |

*:Khao Lam Dam renamed Vachiralongkorn Dam.

Table 3.2 Procedures suggested for rainwater major constituent analysis

| Analysis | Instrumental Method |
|--|--|
| Electric Conductivity (EC) | Conductivity Cell |
| pH | Glass electrode (preferably with the Electrode of non-leak inner cell) |
| Cl ⁻ , NO ₃ ⁻ , SO ₄ ²⁻ , NO ₂ ⁻ , F ⁻ , PO ₄ ³⁻ | Ion Chromatography (preferably with suppressor) Spectrophotometry |
| NH ₄ ⁺ | Ion Chromatography Spectrophotometry (Indophenol blue)* |
| Na ⁺ , K ⁺ , Ca ²⁺ , Mg ²⁺ | Ion Chromatography Atomic Absorption/ Emission Spectrometry |
| Heavy Metals, Al Hg | Atomic Absorption Spectrometry with Graphite Furnace, ICP Emission Spectrometry, ICP/MS, Mercury Analyzer With a Gold Trap |
| Organic Acids | Ion Chromatography |

* Not recommended if the biocide, thymol, is used in sample collection.

Table 3.3 Analytical Method for Wet Deposition Monitoring

| Country | Name of sites | Characteristics of sites | Anion Analysis | Cation Analysis | |
|-------------------|-------------------------|--------------------------|----------------|------------------------------|---------------|
| | | | | NH ₄ ⁺ | Other Cations |
| China | Guanyinqiao (Chongqing) | Urban | IC | IC | IC |
| | Jinyunshan (Chongqing) | Rural | IC | IC | IC |
| | Shizhan (Xi'an) | Urban | IC | IC | IC |
| | Weishuiyuan (Xi'an) | Rural | IC | IC | IC |
| | Jiwozi (Xi'an) | Remote | IC | IC | IC |
| | Hongwen (Xiamen) | Urban | IC | SP | IC |
| | Xiaoping (Xiamen) | Remote | IC | SP | IC |
| | Xiang Zhou (Zhuhai) | Urban | IC | IC | IC |
| | Zhuxian Cavern (Zhuhai) | Urban | IC | IC | IC |
| Indonesia | Jakarta | Urban | IC | SP | AAS |
| | Serpong | Rural | IC | SP | AAS |
| | Kototabang | Remote | IC | SP | AAS |
| | Bandung | Urban | IC | SP | AAS |
| Japan | Rishiri | Remote | IC | IC | IC |
| | Tappi | Remote | IC | IC | IC |
| | Ogasawara | Remote | IC | IC | IC |
| | Sado-seki | Remote | IC | IC | IC |
| | Happo | Remote | IC | IC | IC |
| | Oki | Remote | IC | IC | IC |
| | Yusuhara | Remote | IC | IC | IC |
| | Hedo | Remote | IC | IC | IC |
| | Ijira | Rural | IC | IC | IC |
| Banryu | Urban | IC | IC | IC | |
| Malaysia | Petaling Jaya | Urban | IC | IC | IC |
| | Tanah Rata | Remote | IC | IC | IC |
| Mongolia | Ulaanbaatar | Urban | IC | IC | IC |
| | Terelj | Remote | IC | IC | IC |
| Philippines | Metro Manila | Urban | IC | SP | AAS |
| | Los Banos | Rural | IC | SP | AAS |
| Republic of Korea | Kanghwa | Rural | IC | IC | IC |
| | Cheju (Kosan) | Remote | IC | IC | IC |
| | Imsil | Rural | IC | IC | IC |
| Russia | Mondy | Remote | IC | SP | AAS, FP |
| | Listvyanka | Rural | IC | SP | AAS, FP |
| | Irkutsk | Urban | IC | SP | AAS, FP |
| | Primorskaya | Rural | SP, TI | SP | AAS, FP |
| Thailand | Bangkok | Urban | IC | IC | IC |
| | Patumthani | Rural | IC | IC | IC |
| | Vachiralongkorn Dam | Remote | IC | IC | IC |
| | Mae Hia | Rural | IC | IC | IC |
| Vietnam | Hanoi | Urban | SP, TI | IC | IC |
| | Hoa Binh | Rural | SP, TI | IC | IC |

(Note)

AAS: Atomic Absorption Spectrometry, FP: Flame Photometry, IC: Ion Chromatography, SP: Spectrophotometry, TI: Titration

3.2 Results of Monitoring

The summaries of wet deposition monitoring in 2002 are presented in from [Table 3.6](#) through [Table 3.48](#), and [Fig.3.2](#) through [Fig 3.85](#). The summaries contain the precipitation weighted arithmetic averaged value, the maximum and minimum data reported over the year, data completeness (%PCL, %TP), the wet deposition amount, and the results of ion balance and conductivity agreement check. The summaries of annual data from 2000 to 2002 are shown in [Table 3.49](#) through [Table 3.73](#). The data of 2000 is based on the preparatory-phase activities of EANET.

1) Overview of the statistics and definition

An Overview of the statistics and definition is given below.

Weighted average: the precipitation weighted arithmetic mean concentration ($\mu\text{mol/L}$) over the summary period. Calculated as:

$$\hat{C} = \Sigma C_i P_i / \Sigma P_i$$

Where \hat{C} : precipitation weighted arithmetic mean concentration

C_i : measured valid concentration for sample i

P_i : precipitation amount for the same sample i with valid concentration

Maximum: The maximum value reported over the summary period.

Minimum: The minimum value reported over the summary period.

Deposition amount: the wet deposition amount (mmol/m^2) for the summary period. Calculated as:

$$\text{Deposition amount} = \hat{C} * (\text{total precipitation amount for the summary period})$$

The concentrations for the sampling periods with missing data have consequently been assumed to be equal to the weighted average of the summary period.

Non-sea-salt sulphate and non-sea-salt calcium ($\mu\text{mol/L}$): Equal to the measured sulphate (calcium) in the sample minus the sulphate (calcium) contributed by sea salt. Sea salt sulphate (calcium) is estimated from the concentration of sodium.

$$[\text{nss-SO}_4^{2-}] = [\text{SO}_4^{2-}] - 0.06028 * [\text{Na}^+]$$

$$[\text{nss-Ca}^{2+}] = [\text{Ca}^{2+}] - 0.02161 * [\text{Na}^+]$$

(Na^+ : 468.3 mmol/L, SO_4^{2-} : 28.23 mmol/L, Ca^{2+} : 10.12 mmol/L; “Guide to maritime observation” Oceanographic Society of Japan)

Data completeness:

- (i) **Percent precipitation coverage length (%PCL):** Percentage of days with measured precipitation plus no precipitation days in the summary period. Calculated as:

$$\%PCL = [(Number\ of\ days\ in\ the\ summary\ period) - (Number\ of\ days\ with\ missing\ or\ unknown\ precipitation)] / (Number\ of\ days\ in\ the\ summary\ period) * 100$$
- (ii) **Percent total precipitation (%TP):** Percentage of total precipitation amount over the summary period represented by valid component measurements. Calculated as:

$$\%TP = (Sum\ of\ precipitation\ amounts\ for\ samples\ with\ valid\ sample\ component\ measurements) / (Sum\ of\ precipitation\ amounts\ for\ all\ samples) * 100$$

(iii) Data completeness criteria for monthly and annual summaries:

$$\%PCL \geq 80\%, \text{ and } \%TP \geq 80\%$$

The low values on data completeness were caused by some trouble, such as contamination of sample and malfunction of the wet-only sampler or the rain gauge.

Ion balance (R₁): Calculated as:

$$R_1 = (C - A) / (C + A) * 100 (\%)$$

Where C: total cation equivalent concentration (μeq/L)

A: total anion equivalent concentration (μeq/L)

$$C = 10^{(6-pH)} / 1.008 + \sum C_{Ci} \cdot V_i$$

Where C_{Ci}: the concentration of i-th cation (μmol/L)

V_i: the valence of the given ion

$$A = \sum C_{Ai} \cdot V_i$$

Where C_{Ai}: the concentration of i-th anion (μmol/L)

If pH is greater than 6, bicarbonate (HCO₃⁻) concentration is included for the computation of R₁ and R₂. The bicarbonate concentration is calculated from the dissociation constant, Ka and pH. (If the bicarbonate concentration is measured, the measured data is considered in the evaluation of R₁ and R₂). Calculated as:

$$[HCO_3^-] = P_{CO_2} H_{CO_2} K_{a1} / [H^+] = (360 * 10^{-6}) * (3.4 * 10^{-2}) * 10^{(pH-6.35+6)} = 1.24 * 10^{(pH-5.35)}$$

Air concentration of CO₂ in equilibrium with precipitation samples is assumed to be 360ppm.

Dissociation constant in terms of pKa for carbonic acid is 6.35.

Required criteria for R₁: The required ion balances of precipitation analyses are given Table 3.4.

Table3.4 Required criteria for R₁

| (C+A) (μeq/L) | R ₁ (%) |
|---------------|--------------------|
| <50 | ± 30 |
| 50 – 100 | ± 15 |
| >100 | ± 8 |

Conductivity agreement (R₂) : Calculated as:

$$R_2 = (\Lambda_{\text{calc}} - \Lambda_{\text{meas}}) / (\Lambda_{\text{calc}} + \Lambda_{\text{meas}}) * 100 (\%)$$

Where Λ_{calc} : the calculated conductivity (mS/m)

Λ_{meas} : the measured conductivity (mS/m)

$$\Lambda_{\text{calc}} = \sum C_i \Lambda_i^0 * 10^{-4}$$

Where C_i : the ionic concentration of i-th ion ($\mu\text{mol/L}$)

Λ_i^0 : the molar conductivity at infinite dilution and 25 °C (Scm^2/mol)

$$\Lambda_{\text{calc}} = \{349.7 * 10^{(6-\text{pH})} + 80.0 * 2c(\text{SO}_4^{2-}) + 71.5c(\text{NO}_3^-) + 76.3c(\text{Cl}^-) + 73.5c(\text{NH}_4^+) + 50.1c(\text{Na}^+) + 73.5c(\text{K}^+) + 59.8 * 2c(\text{Ca}^{2+}) + 53.3 * 2c(\text{Mg}^{2+})\} / 10000$$

Where $c()$: the ionic concentrations ($\mu\text{mol/L}$)

The constants are the molar conductivity of the individual ion at infinite dilution at 25 °C (Scm^2/mol).

Required criteria for R₂ : The required conductivity comparison criteria are given Table 3.5.

Table 3.5 Required criteria for R₂

| Λ_{meas} (mS/m) | R ₂ (%) |
|--------------------------------|--------------------|
| <0.5 | ± 20 |
| 0.5 – 3 | ± 13 |
| >3 | ± 9 |

2) Terms and abbreviations

Terms and abbreviations indicate the followings:

In Table 3.6 - Table 3.47, Table 3.49 - Table 3.73

- Data in hatched column (■) : Rejected monthly (annual) value by the criteria [Percent precipitation coverage length (%PCL) < 80%, and/or percent total precipitation (%TP) < 80%]
- [--] : Precipitation was 0 mm.
- [*] : The constituent was not measured although precipitation was not 0 mm.
- [**] : Precipitation was not measured.

In Table 3.11-Table 3.35 Monthly weighted averages of each constituent,

- Max: Maximum data for a year, and “M” indicated the month that this maximum data occurred
- Min : Minimum data for a year, and “M” indicated the month that this minimum data occurred
- F: Sampling frequency (interval)
 - [d] : daily sampling
 - [e] : event sampling
 - [w] : weekly sampling or weekly-composite analysis of daily samples

In Table 3.31 Monthly weighted averages of H^+ concentrations,

- [<0.1] : $<0.1\mu\text{mol/L}$

In Table 3.6-Table 3.29 Monthly (Annual) weighted averages of each constituent,

[<0.2], [<0.4], [<1.0] : the values are lower than each Recommended Minimum Detectable Amount (MDA) given by the technical manual for wet deposition

- SO_4^{2-} , nss- SO_4^{2-} , NO_3^- , Cl^- , NH_4^+ , Na^+ , K^+ : $<1.0\mu\text{mol/L}$
- Ca^{2+} , nss- Ca^{2+} : $<0.2\mu\text{mol/L}$
- Mg^{2+} : $<0.4\mu\text{mol/L}$

In Table 3.37-Table 3.47 Monthly deposition amount of each constituent,

- [0.00] : Deposition amount is zero. (Precipitation was 0 mm.)
- [<0.01] : $<0.01\text{mmol/m}^2$

In Table 3.48 Results of ion balance and conductivity agreement check,

- Sample (N) : Number of samples
- R_1 (N) : Number of samples measured and calculated ion balance (R_1)
- R_1 (AA) : Number of samples within allowable ranges for R_1
- R_2 (N) : Number of samples measured and calculated conductivity agreement (R_2)
- R_2 (AA) : Number of samples within allowable ranges for R_2
- $R_1\&R_2$ (N) : Number of samples measured and calculated both R_1 and R_2
- $R_1\&R_2$ (AA) : Number of samples within allowable ranges of both R_1 and R_2

In Table 3.74 Site identification code

In Fig.3.2 - 3.83, descriptions are as follows.

(1) Ion Balance (R_1)

- (C + A) is logarithm scale
- Horizontal bar : The allowable range of R_1 in each concentration range

(2) Conductivity Agreement (R_2)

- (Λ_{meas}) is logarithm scale
- Horizontal bar : The allowable range of R_2 in each conductivity range

R_1 and R_2 were calculated including the following items:

- Guanyinqiao (China): F^-
- Jinyunshan (China): F^-
- Mondy (Russia): HCO_3^- , NO_2^-
- Listvjanka (Russia): HCO_3^- , NO_2^-
- Irkutsk (Russia): HCO_3^- , NO_2^- , Br^-
- Primorskaya (Russia): HCO_3^-

Table 3.6 Annual precipitation and weighted averages in 2002

| Country | Name of sites | Code | Precip. | SO ₄ ²⁻ | nss-SO ₄ ²⁻ | NO ₃ ⁻ | Cl ⁻ | NH ₄ ⁺ | Na ⁺ | K ⁺ | Ca ²⁺ | nss-Ca ²⁺ | Mg ²⁺ | H ⁺ | pH | EC |
|-------------------|---------------------|----------|---------|-------------------------------|-----------------------------------|------------------------------|-----------------|------------------------------|-----------------|----------------|------------------|----------------------|------------------|----------------|--------|--------|
| | | | mm | μmol/L | μmol/L | μmol/L | μmol/L | μmol/L | μmol/L | μmol/L | μmol/L | μmol/L | μmol/L | μmol/L | μmol/L | μmol/L |
| China | Guanyinqiao | CN 11001 | 1445.3 | 114 | 114 | 34.4 | 15.6 | 120 | 5.5 | 10.6 | 65.4 | 65.3 | 6.0 | 25.2 | 4.60 | 4.36 |
| | Jinyunshan | CN 11003 | 1606.6 | 78.3 | 78.0 | 29.4 | 12.9 | 83.5 | 5.9 | 10.3 | 29.7 | 29.6 | 3.4 | 43.6 | 4.36 | 3.69 |
| | Shizhan | CN 11004 | 349.0 | 850 | 835 | 150 | 349 | 203 | 246 | 40.5 | 479 | 474 | 67.9 | 0.6 | 6.24 | 16.1 |
| | Weishuiyuan | CN 11005 | 232.0 | 1010 | 994 | 168 | 285 | 319 | 207 | 76.6 | 617 | 612 | 91.1 | 0.9 | 6.03 | 21.7 |
| | Jiwozi | CN 11007 | 141.7 | 305 | 295 | 89.8 | 185 | 71.2 | 171 | 42.2 | 276 | 273 | 50.1 | 1.0 | 6.00 | 4.02 |
| | Hongwen | CN 11008 | 1567.5 | 42.8 | 39.4 | 30.7 | 42.9 | 44.2 | 55.6 | 4.3 | 49.1 | 47.9 | 9.6 | 16.2 | 4.79 | 2.64 |
| | Xiaoping | CN 11009 | 2170.7 | 16.7 | 15.7 | 14.8 | 9.1 | 31.1 | 16.4 | 3.8 | 10.6 | 10.3 | 1.6 | 33.6 | 4.47 | 1.60 |
| | Xiang Zhou | CN 11010 | 1731.4 | 27.9 | 25.4 | 17.8 | 68.9 | 95.8 | 41.5 | 17.6 | 15.5 | 14.6 | 5.5 | 7.8 | 5.11 | 3.20 |
| Zhuxian Cavern | CN 11011 | 1581.0 | 32.0 | 29.3 | 20.8 | 59.5 | 48.4 | 45.2 | 13.2 | 20.7 | 19.7 | 7.1 | 12.8 | 4.89 | 3.63 | |
| Indonesia | Jakarta | ID 11012 | 1572.3 | 38.5 | 36.4 | 28.2 | 28.1 | 31.7 | 35.3 | 11.3 | 42.9 | 42.2 | 13.1 | 16.9 | 4.77 | 2.97 |
| | Serpong | ID 11013 | 2505.2 | 25.7 | 24.2 | 32.6 | 23.0 | 46.0 | 25.2 | 3.9 | 9.9 | 9.4 | 4.5 | 22.6 | 4.65 | 1.87 |
| | Kototabang | ID 11014 | 1797.6 | 7.5 | 7.1 | 5.6 | 16.8 | 5.1 | 6.3 | 5.1 | 4.9 | 4.8 | 2.6 | 4.9 | 5.31 | 4.94 |
| | Bandung | ID 11015 | 2540.7 | 27.7 | 27.2 | 26.3 | 20.3 | 29.9 | 8.6 | 2.0 | 17.1 | 16.9 | 1.6 | 34.9 | 4.46 | 1.68 |
| Japan | Rishiri | JP 11016 | 957.0 | 27.3 | 15.6 | 13.5 | 217 | 20.1 | 197 | 5.1 | 10.2 | 5.9 | 22.3 | 15.0 | 4.82 | 4.23 |
| | Tappi | JP 11017 | 1329.4 | 22.7 | 12.9 | 16.9 | 191 | 14.7 | 165 | 4.1 | 9.0 | 5.5 | 19.6 | 20.9 | 4.68 | 3.89 |
| | Sado-seki | JP 11019 | 1432.9 | 28.2 | 13.1 | 15.0 | 307 | 14.5 | 268 | 6.5 | 9.1 | 3.4 | 30.7 | 22.7 | 4.64 | 4.99 |
| | Happo | JP 11021 | 2607.3 | 7.6 | 7.4 | 7.0 | 5.0 | 7.7 | 3.4 | <1.0 | 2.0 | 1.9 | 0.9 | 11.8 | 4.93 | 0.67 |
| | Oki | JP 11023 | 1570.8 | 35.3 | 13.5 | 15.1 | 419 | 12.4 | 363 | 9.5 | 11.5 | 3.9 | 40.6 | 18.6 | 4.73 | 6.59 |
| | Yusuhara | JP 11025 | 2345.9 | 11.2 | 9.4 | 8.4 | 31.8 | 7.6 | 28.9 | 1.0 | 1.8 | 1.2 | 3.6 | 17.4 | 4.76 | 1.42 |
| | Ogasawara | JP 11018 | 1330.5 | 18.1 | 3.9 | 2.7 | 278 | 5.4 | 236 | 6.2 | 8.6 | 3.6 | 32.4 | 8.2 | 5.09 | 3.95 |
| | Hedo | JP 11027 | 2032.4 | 36.9 | 7.4 | 9.5 | 593 | 18.5 | 515 | 12.0 | 14.0 | 2.9 | 59.0 | 11.3 | 4.95 | 8.85 |
| | Ijira | JP 11022 | 2648.3 | 19.7 | 18.0 | 21.8 | 33.3 | 22.8 | 28.5 | 2.1 | 4.2 | 3.6 | 3.5 | 30.4 | 4.52 | 2.18 |
| | Banryu | JP 11024 | 1303.0 | 19.0 | 14.2 | 19.1 | 88.9 | 17.9 | 79.4 | 2.9 | 5.4 | 3.7 | 9.3 | 20.4 | 4.69 | 2.56 |
| Malaysia | Petaling Jaya | MY 11029 | 2660.4 | 23.7 | 23.4 | 36.8 | 7.3 | 16.2 | 5.1 | 1.3 | 7.4 | 7.3 | 1.4 | 58.8 | 4.23 | 2.81 |
| | Tanah Rata | MY 11030 | 2782.6 | 4.6 | 4.5 | 6.0 | 2.3 | 4.0 | 1.6 | <1.0 | 3.1 | 3.0 | 0.4 | 10.8 | 4.97 | 0.59 |
| Mongolia | Ulaanbaatar | MN 11031 | 178.5 | 24.7 | 24.3 | 23.7 | 7.7 | 72.8 | 6.3 | 3.8 | 49.9 | 49.8 | 3.6 | 0.4 | 6.38 | 2.20 |
| | Terej | MN 11032 | 246.0 | 15.1 | 14.3 | 18.1 | 11.4 | 65.7 | 16.9 | 10.2 | 27.3 | 26.3 | 4.1 | 1.8 | 5.75 | 1.93 |
| Philippines | Metro Manila | PH 11033 | 2974.6 | 26.3 | 25.4 | 17.6 | 18.8 | 46.2 | 14.6 | 9.9 | 8.7 | 8.4 | 3.3 | 8.1 | 5.09 | 1.85 |
| | Los Banos | PH 11034 | 1701.6 | 16.1 | 14.8 | 8.2 | 24.6 | 34.5 | 21.1 | 6.4 | 7.2 | 6.8 | 2.9 | 1.8 | 5.74 | 1.22 |
| Republic of Korea | Kanghwa | KR 11035 | 824.1 | 34.5 | 31.5 | 32.7 | 43.0 | 40.1 | 49.2 | 8.8 | 11.1 | 10.0 | 6.3 | 22.2 | 4.65 | 2.68 |
| | Cheju | KR 11036 | 1016.8 | 28.0 | 24.5 | 24.0 | 83.8 | 43.3 | 58.3 | 6.4 | 9.4 | 8.1 | 7.5 | 24.3 | 4.61 | 3.03 |
| | Imsil | KR 11037 | 992.6 | 22.9 | 20.5 | 32.0 | 36.9 | 42.2 | 38.6 | 6.5 | 9.8 | 9.0 | 3.3 | 2.0 | 5.69 | 1.80 |
| Russia | Mondy | RU 11038 | 203.7 | 10.8 | 10.7 | 13.5 | 8.9 | 33.8 | 1.9 | 2.3 | 8.5 | 8.5 | 2.2 | 4.1 | 5.39 | 0.96 |
| | Listvyanka | RU 11039 | 360.3 | 18.2 | 18.0 | 25.0 | 6.8 | 26.8 | 3.8 | 2.2 | 11.4 | 11.3 | 3.0 | 13.2 | 4.88 | 1.39 |
| | Irkutsk | RU 11040 | 302.5 | 34.2 | 33.6 | 21.8 | 18.0 | 43.0 | 9.2 | 2.3 | 31.5 | 31.3 | 5.7 | 9.4 | 5.02 | 2.10 |
| | Primorskaya | RU 11041 | 834.7 | 29.0 | 27.6 | 10.2 | 33.9 | 35.9 | 23.1 | 5.3 | 18.1 | 17.6 | 5.7 | 6.3 | 5.20 | 1.77 |
| Thailand | Bangkok | TH 11042 | 1300.3 | 18.6 | 17.6 | 24.6 | 13.9 | 46.8 | 16.1 | 3.4 | 15.7 | 15.4 | 3.5 | 7.9 | 5.10 | 1.32 |
| | Patumthani | TH 11044 | 948.0 | 15.0 | 14.4 | 18.5 | 11.6 | 34.2 | 9.6 | 1.5 | 17.4 | 17.2 | 2.8 | 4.6 | 5.33 | 1.07 |
| | Vachiralongkorn Dam | TH 11045 | 2199.7 | 5.6 | 5.1 | 6.1 | 14.1 | 10.9 | 8.3 | 2.4 | 4.9 | 4.7 | 1.7 | 2.3 | 5.64 | 0.51 |
| | Mae Hia | TH 11046 | 1472.6 | 4.5 | 3.9 | 6.6 | 10.1 | 18.5 | 9.7 | 4.4 | 18.0 | 17.8 | 3.5 | 1.9 | 5.72 | 0.48 |
| Vietnam | Hanoi | VN 11047 | 1416.1 | 33.7 | 33.4 | 15.1 | 9.5 | 55.5 | 5.9 | 2.1 | 16.8 | 16.7 | 3.0 | 2.8 | 5.55 | 1.52 |
| | Hoa Binh | VN 11048 | 1625.9 | 18.8 | 18.6 | 20.2 | 7.0 | 28.2 | 2.1 | 1.5 | 12.6 | 12.6 | 1.4 | 6.5 | 5.19 | 1.06 |

Data in hatched column: Rejected annual value by the criteria of EANET (%PCL<80% or %TP<80%)

Table 3.8 Annual deposition in 2002

| Country | Name of sites | Code | SO ₄ ²⁻ | nss-SO ₄ ²⁻ | NO ₃ ⁻ | Cl ⁻ | NH ₄ ⁺ | Na ⁺ | K ⁺ | Ca ²⁺ | nss-Ca ²⁺ | Mg ²⁺ | H ⁺ |
|-------------------|---------------------|----------|-------------------------------|-----------------------------------|------------------------------|---------------------|------------------------------|---------------------|---------------------|---------------------|----------------------|---------------------|---------------------|
| | | | mmol/m ² | mmol/m ² | mmol/m ² | mmol/m ² | mmol/m ² | mmol/m ² | mmol/m ² | mmol/m ² | mmol/m ² | mmol/m ² | mmol/m ² |
| China | Guanyinqiao | CN 11001 | 165 | 164 | 49.7 | 22.5 | 173 | 8.01 | 15.3 | 94.5 | 94.3 | 8.67 | 36.4 |
| | Jinyunshan | CN 11003 | 126 | 125 | 47.3 | 20.8 | 134 | 9.48 | 16.5 | 47.7 | 47.5 | 5.41 | 70.1 |
| | Shizhan | CN 11004 | 297 | 291 | 52.2 | 122 | 70.7 | 85.7 | 14.1 | 167 | 165 | 23.7 | 0.20 |
| | Weishuiyuan | CN 11005 | 234 | 231 | 39.0 | 66.0 | 74.1 | 48.0 | 17.8 | 143 | 142 | 21.1 | 0.22 |
| | Jiwozi | CN 11007 | 43.2 | 41.7 | 12.7 | 26.2 | 10.1 | 24.2 | 5.99 | 39.1 | 38.6 | 7.09 | 0.14 |
| | Hongwen | CN 11008 | 67.0 | 61.8 | 48.2 | 67.3 | 69.3 | 87.2 | 6.73 | 77.0 | 75.1 | 15.1 | 25.4 |
| | Xiaoping | CN 11009 | 36.3 | 34.1 | 32.0 | 19.9 | 67.5 | 35.6 | 8.17 | 23.0 | 22.3 | 3.50 | 72.9 |
| | Xiang Zhou | CN 11010 | 48.3 | 44.0 | 30.9 | 119 | 166 | 71.9 | 30.4 | 26.9 | 25.3 | 9.56 | 13.5 |
| | Zhuxian Cavern | CN 11011 | 50.6 | 46.3 | 32.9 | 94.1 | 76.5 | 71.4 | 20.8 | 32.7 | 31.1 | 11.2 | 20.3 |
| Indonesia | Jakarta | ID 11012 | 60.5 | 57.3 | 44.3 | 44.2 | 49.8 | 55.6 | 17.8 | 67.5 | 66.3 | 20.7 | 26.5 |
| | Serpong | ID 11013 | 64.3 | 60.5 | 81.6 | 57.6 | 115 | 63.2 | 9.89 | 24.9 | 23.5 | 11.3 | 56.6 |
| | Kototabang | ID 11014 | 13.4 | 12.7 | 10.1 | 30.1 | 9.21 | 11.3 | 9.16 | 8.84 | 8.60 | 4.63 | 8.78 |
| | Bandung | ID 11015 | 70.4 | 69.1 | 66.7 | 51.5 | 75.9 | 22.0 | 5.19 | 43.4 | 42.9 | 4.16 | 88.7 |
| Japan | Rishiri | JP 11016 | 26.1 | 14.9 | 12.9 | 207 | 19.2 | 188 | 4.86 | 9.73 | 5.66 | 21.4 | 14.4 |
| | Tappi | JP 11017 | 30.2 | 17.1 | 22.5 | 253 | 19.6 | 219 | 5.41 | 12.0 | 7.30 | 26.1 | 27.8 |
| | Sado-seki | JP 11019 | 40.4 | 18.8 | 21.4 | 439 | 20.7 | 384 | 9.30 | 13.0 | 4.86 | 44.0 | 32.5 |
| | Happo | JP 11021 | 19.8 | 19.3 | 18.2 | 13.0 | 20.2 | 8.85 | 1.03 | 5.21 | 5.02 | 2.42 | 30.7 |
| | Oki | JP 11023 | 55.4 | 21.2 | 23.7 | 658 | 19.5 | 570 | 15.0 | 18.1 | 6.14 | 63.8 | 29.2 |
| | Yusuhara | JP 11025 | 26.2 | 22.1 | 19.8 | 74.6 | 17.8 | 67.8 | 2.37 | 4.17 | 2.91 | 8.34 | 40.8 |
| | Ogasawara | JP 11018 | 24.1 | 5.25 | 3.61 | 370 | 7.18 | 314 | 8.21 | 11.5 | 4.77 | 43.1 | 10.9 |
| | Hedo | JP 11027 | 75.0 | 15.1 | 19.3 | 1200 | 37.6 | 1050 | 24.3 | 28.5 | 5.87 | 120 | 22.9 |
| | Ijira | JP 11022 | 52.2 | 47.6 | 57.8 | 88.2 | 60.4 | 75.6 | 5.57 | 11.1 | 9.45 | 9.34 | 80.5 |
| Banryu | JP 11024 | 24.8 | 18.6 | 25.0 | 116 | 23.4 | 104 | 3.76 | 6.99 | 4.76 | 12.1 | 26.5 | |
| Malaysia | Petaling Jaya | MY 11029 | 63.1 | 62.3 | 97.9 | 19.5 | 43.0 | 13.5 | 3.37 | 19.8 | 19.5 | 3.79 | 157 |
| | Tanah Rata | MY 11030 | 12.8 | 12.6 | 16.7 | 6.29 | 11.2 | 4.56 | 2.21 | 8.56 | 8.46 | 1.17 | 30.1 |
| Mongolia | Ulaanbaatar | MN 11031 | 3.60 | 3.54 | 4.23 | 1.37 | 13.0 | 1.12 | 0.68 | 8.91 | 8.88 | 0.64 | 0.07 |
| | Terej | MN 11032 | 3.31 | 3.12 | 4.45 | 2.80 | 16.2 | 4.15 | 2.50 | 6.72 | 6.46 | 1.01 | 0.44 |
| Philippines | Metro Manila | PH 11033 | 78.2 | 75.6 | 52.3 | 55.9 | 137 | 43.3 | 29.4 | 25.9 | 25.0 | 9.72 | 24.1 |
| | Los Banos | PH 11034 | 27.3 | 25.1 | 14.0 | 41.9 | 58.8 | 35.9 | 10.9 | 12.3 | 11.5 | 5.00 | 3.07 |
| Republic of Korea | Kanghwa | KR 11035 | 28.4 | 26.0 | 27.0 | 35.5 | 33.0 | 40.6 | 7.28 | 9.14 | 8.27 | 5.22 | 18.3 |
| | Cheju | KR 11036 | 28.5 | 24.9 | 24.4 | 85.3 | 44.0 | 59.3 | 6.55 | 9.53 | 8.28 | 7.60 | 24.8 |
| | Imsil | KR 11037 | 22.7 | 20.4 | 31.8 | 36.7 | 41.9 | 38.3 | 6.50 | 9.76 | 8.93 | 3.28 | 2.00 |
| Russia | Mondy | RU 11038 | 2.20 | 2.17 | 2.75 | 1.81 | 6.89 | 0.39 | 0.47 | 1.74 | 1.73 | 0.45 | 0.83 |
| | Listvyanka | RU 11039 | 6.56 | 6.47 | 8.99 | 2.45 | 9.66 | 1.37 | 0.80 | 4.11 | 4.08 | 1.10 | 4.74 |
| | Irkutsk | RU 11040 | 10.3 | 10.2 | 6.59 | 5.45 | 13.0 | 2.78 | 0.70 | 9.53 | 9.47 | 1.71 | 2.86 |
| | Primorskaya | RU 11041 | 24.2 | 23.0 | 8.51 | 28.3 | 30.0 | 19.3 | 4.47 | 15.1 | 14.7 | 4.73 | 5.26 |
| Thailand | Bangkok | TH 11042 | 24.2 | 22.9 | 32.0 | 18.0 | 60.9 | 20.9 | 4.36 | 20.5 | 20.0 | 4.61 | 10.3 |
| | Patumthani | TH 11044 | 14.2 | 13.7 | 17.6 | 11.0 | 32.4 | 9.15 | 1.41 | 16.5 | 16.3 | 2.63 | 4.39 |
| | Vachiralongkorn Dam | TH 11045 | 12.4 | 11.2 | 13.3 | 30.9 | 24.0 | 18.3 | 5.23 | 10.8 | 10.4 | 3.85 | 5.05 |
| | Mae Hia | TH 11046 | 6.57 | 5.78 | 9.78 | 14.8 | 27.3 | 14.2 | 6.49 | 26.5 | 26.2 | 5.22 | 2.79 |
| Vietnam | Hanoi | VN 11047 | 47.8 | 47.3 | 21.4 | 13.5 | 78.6 | 8.41 | 2.93 | 23.8 | 23.6 | 4.18 | 3.95 |
| | Hoa Binh | VN 11048 | 30.5 | 30.3 | 32.8 | 11.3 | 45.9 | 3.34 | 2.40 | 20.5 | 20.4 | 2.31 | 10.6 |

Data in hatched column: Rejected annual value by the criteria of EANET (%PCL<80% or %TP<80%)

Table 3.9 Monthly precipitation

unit: mm

| Country | Name of sites | Code | 2002 | | | | | | | | | | | | Annual |
|-------------------|---------------------|----------|-------|-------|-------|-------|-------|-------|--------|-------|-------|-------|-------|--------|--------|
| | | | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | |
| China | Guanyinqiao | CN 11001 | 20.2 | 18.0 | 59.8 | 140.7 | 212.7 | 483.7 | 82.1 | 225.2 | 75.6 | 47.2 | 43.5 | 36.6 | 1445.3 |
| | Jinyunshan | CN 11003 | 19.3 | 28.2 | 73.0 | 182.1 | 282.1 | 335.4 | 195.6 | 285.1 | 70.7 | 52.6 | 50.0 | 32.5 | 1606.6 |
| | Shizhan | CN 11004 | 9.1 | 6.2 | 12.0 | 12.6 | 36.7 | 115.7 | 7.3 | 48.5 | 37.6 | 46.5 | 5.5 | 11.3 | 349.0 |
| | Weishuiyuan | CN 11005 | 0.0 | 7.8 | 9.6 | 0.0 | 15.0 | 86.5 | 6.9 | 36.2 | 41.0 | 25.2 | 3.8 | 0.0 | 232.0 |
| | Jiwozi | CN 11007 | ** | ** | ** | 35.0 | ** | ** | 0.0 | 38.0 | 0.0 | 61.0 | 7.7 | 0.0 | 141.7 |
| | Hongwen | CN 11008 | 41.4 | 5.1 | 22.4 | 70.9 | 181.1 | 86.8 | 275.6 | 561.0 | 137.8 | 24.9 | 71.5 | 89.1 | 1567.5 |
| | Xiaoping | CN 11009 | 0.0 | 0.0 | 0.0 | 88.7 | 143.8 | 228.3 | 609.4 | 538.9 | 308.6 | 26.7 | 76.4 | 149.8 | 2170.7 |
| | Xiang Zhou | CN 11010 | 25.6 | 5.0 | 122.6 | 76.1 | 265.6 | 220.2 | 331.0 | 216.0 | 327.4 | 74.8 | 0.0 | 67.1 | 1731.4 |
| Zhuxian Cavern | CN 11011 | 18.3 | 3.8 | 115.6 | 77.8 | 110.7 | 245.5 | 351.6 | 214.5 | 304.6 | 71.8 | 0.0 | 66.8 | 1581.0 | |
| Indonesia | Jakarta | ID 11012 | 502.2 | 510.4 | 82.1 | 98.2 | 55.9 | 0.0 | 116.5 | 0.0 | 0.0 | 0.0 | 100.0 | 107.0 | 1572.3 |
| | Serpong | ID 11013 | 375.0 | 494.6 | 323.7 | 235.0 | 244.1 | 184.8 | 159.2 | 36.6 | 33.9 | 12.4 | 243.2 | 162.6 | 2505.2 |
| | Kototabang | ID 11014 | 171.2 | 83.5 | 188.7 | 284.1 | 0.0 | 0.0 | 0.0 | 121.0 | 160.0 | 134.0 | 311.5 | 343.6 | 1797.6 |
| | Bandung | ID 11015 | 608.7 | 59.4 | 646.5 | 299.2 | 65.0 | 66.9 | 218.9 | 11.4 | 0.0 | 0.0 | 174.5 | 390.3 | 2540.7 |
| Japan | Rishiri | JP 11016 | 40.3 | 36.8 | 10.5 | 63.4 | 32.5 | 29.5 | 188.5 | 89.6 | 27.6 | 181.4 | 196.6 | 60.4 | 957.0 |
| | Tappi | JP 11017 | 80.0 | 33.0 | 50.0 | 67.0 | 39.0 | 105.5 | 171.0 | 440.4 | 61.0 | 156.0 | 85.8 | 40.6 | 1329.4 |
| | Sado-seki | JP 11019 | 143.5 | 32.0 | 62.0 | 31.5 | 120.5 | 54.5 | 413.7 | 147.8 | 73.5 | 120.9 | 186.3 | 46.7 | 1432.9 |
| | Happo | JP 11021 | 374.0 | 92.0 | 226.0 | 260.5 | 219.0 | 140.5 | 354.5 | 72.7 | 171.5 | 245.6 | 257.0 | 194.0 | 2607.3 |
| | Oki | JP 11023 | 200.2 | 44.0 | 94.4 | 140.6 | 133.6 | 42.0 | 293.9 | 28.1 | 228.7 | 122.2 | 100.1 | 143.1 | 1570.8 |
| | Yusuhara | JP 11025 | 105.0 | 60.5 | 164.0 | 200.6 | 226.5 | 224.5 | 426.0 | 513.0 | 135.0 | 89.5 | 80.8 | 120.5 | 2345.9 |
| | Ogasawara | JP 11018 | 62.0 | 4.0 | 167.0 | 25.5 | 93.5 | 244.0 | 32.0 | 80.5 | 58.0 | 86.5 | 307.5 | 170.0 | 1330.5 |
| | Hedo | JP 11027 | 50.1 | 69.5 | 125.5 | 108.0 | 116.3 | 182.6 | 288.3 | 153.0 | 503.5 | 240.5 | 46.5 | 148.5 | 2032.4 |
| | Ijira | JP 11022 | 308.6 | 64.0 | 240.5 | 144.5 | 241.7 | 232.4 | 637.3 | 124.8 | 194.5 | 218.0 | 91.5 | 150.5 | 2648.3 |
| | Banryu | JP 11024 | 132.5 | 34.5 | 197.5 | 100.5 | 213.5 | 96.0 | 91.0 | 57.0 | 114.5 | 136.0 | 68.0 | 62.0 | 1303.0 |
| Malaysia | Petaling Jaya | MY 11029 | 47.0 | 113.8 | 371.9 | 280.4 | 122.2 | 217.6 | 17.6 | 183.2 | 177.8 | 292.7 | 508.2 | 328.0 | 2660.4 |
| | Tanah Rata | MY 11030 | 26.0 | 2.9 | 90.9 | 414.4 | 362.6 | 206.0 | 137.8 | 314.8 | 357.6 | 400.7 | 372.0 | 96.9 | 2782.6 |
| Mongolia | Ulaanbaatar | MN 11031 | 7.5 | 0.6 | 3.8 | 9.0 | 37.0 | 65.2 | 8.1 | 16.8 | 13.9 | 4.8 | 9.6 | 2.2 | 178.5 |
| | Terelj | MN 11032 | 6.8 | 0.0 | 1.5 | 29.9 | 49.5 | 58.3 | 41.6 | 20.0 | 12.0 | 15.1 | 10.4 | 0.8 | 246.0 |
| Philippines | Metro Manila | PH 11033 | 0.0 | 21.8 | 21.6 | 20.4 | 49.9 | 157.0 | 1337.6 | 371.7 | 499.1 | 241.5 | 235.8 | 18.2 | 2974.6 |
| | Los Banos | PH 11034 | 2.6 | 12.9 | 17.2 | 6.2 | 132.2 | 124.7 | 585.5 | 214.1 | 166.6 | 188.9 | 176.1 | 74.6 | 1701.6 |
| Republic of Korea | Kanghwa | KR 11035 | 77.5 | 2.0 | 0.0 | 23.5 | 33.7 | 55.7 | 197.7 | 367.6 | 15.5 | 30.4 | 13.5 | 7.0 | 824.1 |
| | Cheju | KR 11036 | 24.2 | 49.1 | 35.2 | 48.8 | 88.0 | 33.3 | 182.1 | 287.0 | 110.0 | 82.0 | 26.1 | 51.0 | 1016.8 |
| | Imsil | KR 11037 | 103.6 | 9.4 | 50.4 | 75.6 | 50.3 | 90.0 | 137.0 | 303.5 | 62.5 | 27.0 | 29.9 | 53.4 | 992.6 |
| Russia | Mondy | RU 11038 | 0.0 | 0.0 | 0.0 | 8.8 | 11.3 | 51.0 | 111.0 | 3.8 | 0.0 | 17.8 | 0.0 | 0.0 | 203.7 |
| | Listvyanka | RU 11039 | 41.0 | 1.4 | 18.2 | 20.0 | 18.5 | 38.0 | 72.9 | 47.8 | 19.4 | 32.8 | 6.5 | 43.6 | 360.3 |
| | Irkutsk | RU 11040 | 16.2 | 1.9 | 8.1 | 6.8 | 13.8 | 66.4 | 52.3 | 57.1 | 21.6 | 41.1 | 12.4 | 4.9 | 302.5 |
| | Primorskaya | RU 11041 | ** | 10.0 | 19.0 | 63.4 | 32.5 | 114.0 | 137.5 | 181.4 | 68.1 | 190.8 | 14.4 | 3.6 | 834.7 |
| Thailand | Bangkok | TH 11042 | 0.0 | 51.2 | 0.2 | 85.8 | 352.0 | 60.3 | 68.8 | 82.6 | 225.2 | 261.3 | 99.1 | 14.0 | 1300.3 |
| | Patumthani | TH 11044 | 0.0 | 0.0 | 2.0 | 7.1 | 173.1 | 38.3 | 166.2 | 191.6 | 195.8 | 131.2 | 35.7 | 7.0 | 948.0 |
| | Vachiralongkorn Dam | TH 11045 | 0.0 | 0.0 | 4.5 | 140.7 | 460.5 | 222.9 | 433.7 | 467.1 | 344.9 | 59.2 | 45.6 | 20.6 | 2199.7 |
| | Mae Hia | TH 11046 | 21.4 | 6.4 | 0.0 | 13.6 | 202.4 | 134.8 | 99.0 | 166.1 | 278.4 | 109.9 | 345.4 | 95.2 | 1472.6 |
| Vietnam | Hanoi | VN 11047 | 13.2 | 13.8 | 10.6 | 59.4 | 213.9 | 281.7 | 156.1 | 259.5 | 177.5 | 124.0 | 47.9 | 58.5 | 1416.1 |
| | Hoa Binh | VN 11048 | 20.5 | 6.4 | 21.3 | 43.4 | 402.9 | 383.6 | 161.7 | 118.9 | 221.1 | 147.2 | 52.7 | 46.2 | 1625.9 |

[**]: Precipitation was not measured. (%PCL=0%)

Data in hatched column: Rejected monthly (annual) value by the criteria of EANET (%PCL<80%)

Table 3.11 Monthly weighted averages of SO₄²⁻ concentration

unit: μmol/L

| Country | Name of sites | Code | 2002 | | | | | | | | | | | | Annual | Max | M | Min | M | F |
|-------------------|---------------------|----------|------|------|------|------|------|------|------|------|------|------|------|------|--------|------|-----|------|----|---|
| | | | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | | | | | | |
| China | Guanyinqiao | CN 11001 | 513 | 362 | 147 | 107 | 134 | 74.8 | 120 | 97.6 | 93.4 | 161 | 119 | 203 | 114 | 1340 | 1 | 40.9 | 8 | d |
| | Jinyunshan | CN 11003 | 236 | 217 | 127 | 79.3 | 87.5 | 51.5 | 75.3 | 53.9 | 84.5 | 78.6 | 104 | 127 | 78.3 | 1240 | 3 | 12.5 | 8 | d |
| | Shizhan | CN 11004 | 4780 | 3050 | 1830 | 596 | 673 | 280 | 1720 | 852 | 733 | 460 | 1350 | 3300 | 850 | 5490 | 1 | 176 | 6 | d |
| | Weishuiyuan | CN 11005 | -- | 7020 | 1350 | -- | 824 | 763 | 1730 | 499 | 789 | 541 | 3030 | -- | 1010 | 7020 | 2 | 395 | 8 | d |
| | Jiwozi | CN 11007 | ** | ** | ** | 713 | ** | ** | -- | 186 | -- | 150 | 266 | -- | 305 | 845 | 12 | 150 | 10 | d |
| | Hongwen | CN 11008 | 99.5 | 62.9 | 199 | 105 | 50.2 | 19.4 | 15.5 | 28.3 | 22.1 | 203 | 75.5 | 71.2 | 42.8 | 440 | 3 | 8.0 | 6 | d |
| | Xiaoping | CN 11009 | -- | -- | -- | 24.9 | 29.6 | 5.4 | 17.1 | 11.0 | 23.1 | 33.8 | 22.0 | 16.4 | 16.7 | 72.3 | 5 | <1.0 | 6 | d |
| | Xiang Zhou | CN 11010 | 74.5 | 210 | 47.3 | 52.1 | 14.8 | 13.4 | 23.5 | 35.8 | 26.5 | 39.7 | -- | 23.7 | 27.9 | 407 | 3 | 1.0 | 8 | d |
| Zhuxian Cavern | CN 11011 | 170 | 229 | 79.0 | 82.2 | 25.8 | 13.3 | 28.5 | 31.3 | 15.6 | 34.8 | -- | 15.1 | 32.0 | 229 | 2 | 1.0 | 5 | d | |
| Indonesia | Jakarta | ID 11012 | 15.2 | 22.9 | 109 | 1.5 | 3.4 | -- | 109 | -- | -- | -- | 106 | 80.7 | 38.5 | 368 | 3 | 1.1 | 4 | w |
| | Serpong | ID 11013 | 11.3 | 13.0 | 23.3 | 26.2 | 22.8 | 41.6 | 27.1 | 97.1 | 170 | 82.6 | 30.1 | 29.0 | 25.7 | 203 | 9 | 5.4 | 1 | e |
| | Kototabang | ID 11014 | 2.0 | 5.0 | 4.6 | 2.4 | -- | -- | -- | 8.4 | 6.4 | 7.0 | 11.3 | 13.4 | 7.5 | 23.8 | 12 | <1.0 | 11 | w |
| | Bandung | ID 11015 | 18.3 | 25.8 | 29.5 | 30.9 | 51.8 | 48.8 | 66.4 | 83.6 | -- | -- | 14.7 | 12.3 | 27.7 | 132 | 7 | 4.6 | 5 | e |
| Japan | Rishiri | JP 11016 | 28.5 | 40.0 | 81.5 | 38.9 | 25.7 | 19.7 | 19.0 | 16.8 | 12.3 | 30.4 | 32.5 | 25.4 | 27.3 | 206 | 4 | 2.2 | 7 | d |
| | Tappi | JP 11017 | 26.5 | 45.2 | 66.2 | 44.1 | 14.3 | 14.6 | 8.0 | 7.5 | 8.7 | 23.2 | 47.7 | 40.7 | 22.7 | 200 | 10 | 1.8 | 8 | d |
| | Sado-seki | JP 11019 | 61.1 | 120 | 19.8 | * | 14.5 | 13.2 | 7.3 | 11.1 | 12.7 | 42.6 | 63.6 | 58.0 | 28.2 | 1110 | 12 | 1.4 | 7 | d |
| | Happo | JP 11021 | 10.3 | 54.7 | 9.7 | 2.1 | 3.1 | 12.3 | 2.2 | 9.9 | 12.1 | 6.9 | 13.3 | 7.6 | 7.6 | 84.4 | 6 | <1.0 | 7 | d |
| | Oki | JP 11023 | 78.7 | 75.8 | 29.1 | 11.7 | 9.1 | 15.6 | 1.5 | 9.7 | 12.1 | 51.6 | 58.6 | 52.3 | 35.3 | 493 | 1 | <1.0 | 7 | d |
| | Yusuhara | JP 11025 | * | 25.5 | 14.1 | 10.8 | 10.5 | 8.4 | 6.4 | 12.0 | 10.3 | 14.1 | 26.7 | 11.7 | 11.2 | 122 | 10 | <1.0 | 11 | d |
| | Ogasawara | JP 11018 | 22.3 | 21.6 | 7.3 | 8.6 | 16.0 | 3.8 | 37.3 | 52.8 | 24.7 | 37.8 | 22.6 | 10.4 | 18.1 | 1780 | 11 | 1.5 | 11 | d |
| | Hedo | JP 11027 | 24.6 | 18.6 | 23.3 | 19.4 | 9.5 | 5.3 | 74.8 | 85.6 | 153 | 23.2 | 41.6 | 27.0 | 36.9 | 515 | 12 | 2.7 | 8 | d |
| | Ijira | JP 11022 | 17.1 | 20.7 | 10.4 | * | 47.5 | 28.8 | 10.9 | 27.8 | 5.5 | 17.0 | 19.3 | 13.3 | 19.7 | 117 | 5 | 4.7 | 9 | w |
| Banryu | JP 11024 | 27.6 | 51.5 | 15.3 | 8.0 | 9.9 | 18.5 | * | 4.1 | 15.1 | 24.7 | 26.1 | 46.3 | 19.0 | 291 | 1 | 3.5 | 5 | w | |
| Malaysia | Petaling Jaya | MY 11029 | 34.7 | 30.3 | 36.6 | 16.3 | 33.0 | 24.3 | 39.4 | 21.6 | 20.8 | 28.2 | 19.4 | 12.5 | 23.7 | 50.6 | 3 | 2.4 | 4 | w |
| | Tanah Rata | MY 11030 | 2.7 | 6.2 | 7.5 | 2.7 | 2.4 | 3.5 | 5.8 | 4.2 | 4.3 | 11.1 | 1.6 | 3.5 | 4.6 | 14.9 | 10 | <1.0 | 9 | w |
| Mongolia | Ulaanbaatar | MN 11031 | * | * | * | * | 28.1 | 20.3 | 57.5 | 20.8 | 10.6 | 56.6 | * | * | 24.7 | 214 | 10 | 6.8 | 9 | d |
| | Terej | MN 11032 | * | -- | * | 24.6 | 17.4 | 13.5 | 15.7 | 13.8 | 10.7 | 16.1 | 6.2 | 37.4 | 15.1 | 118 | 4 | <1.0 | 7 | d |
| Philippines | Metro Manila | PH 11033 | -- | 120 | 104 | 15.7 | * | 37.7 | 21.0 | 18.1 | 33.7 | 34.9 | 59.2 | 9.8 | 26.3 | 121 | 2 | 6.9 | 4 | w |
| | Los Banos | PH 11034 | <1.0 | 52.3 | 27.0 | 16.6 | 27.1 | 14.3 | 10.7 | 17.1 | 14.0 | 9.0 | 9.5 | 69.3 | 16.1 | 275 | 12 | <1.0 | 1 | w |
| Republic of Korea | Kanghwa | KR 11035 | 57.8 | * | -- | 36.8 | 41.3 | 75.4 | 34.3 | 22.9 | 31.1 | 24.7 | * | 104 | 34.5 | 107 | 1 | 9.5 | 8 | d |
| | Cheju | KR 11036 | 57.4 | 62.9 | 23.9 | 22.5 | 18.3 | 23.7 | 22.2 | 21.7 | * | 44.6 | 32.2 | 35.7 | 28.0 | 88.9 | 10 | 6.6 | 5 | d |
| | Imsil | KR 11037 | * | 41.6 | 39.5 | 28.8 | 26.4 | 26.2 | 13.5 | 17.0 | 13.7 | 23.6 | 58.0 | 36.2 | 22.9 | 90.3 | 11 | 6.1 | 11 | d |
| Russia | Mondy | RU 11038 | -- | -- | -- | 13.8 | 22.2 | 13.9 | 7.3 | 28.2 | -- | 11.5 | -- | -- | 10.8 | 30.0 | 5 | 2.1 | 6 | d |
| | Listvyanka | RU 11039 | 19.4 | 46.1 | 23.1 | 17.0 | 14.7 | 15.9 | 16.0 | 21.7 | 19.0 | 15.1 | 18.3 | 19.9 | 18.2 | 61.1 | 2 | 5.3 | 1 | d |
| | Irkutsk | RU 11040 | 36.5 | 238 | 93.1 | 116 | 31.8 | 21.1 | 24.1 | 21.6 | 34.7 | 27.9 | 55.5 | 173 | 34.2 | 564 | 4 | 7.0 | 10 | e |
| | Primorskaya | RU 11041 | ** | 78.0 | 115 | 64.9 | 62.9 | 31.5 | 14.6 | 12.6 | 46.0 | 15.7 | 99.5 | 45.0 | 29.0 | 323 | 4 | 1.0 | 7 | e |
| Thailand | Bangkok | TH 11042 | -- | 7.3 | * | 35.5 | 21.2 | 14.3 | 18.1 | 16.8 | 12.6 | 18.9 | 16.8 | 25.5 | 18.6 | 216 | 7 | 4.6 | 6 | d |
| | Patumthani | TH 11044 | -- | -- | 40.9 | 31.4 | 24.5 | 14.7 | 14.3 | 11.0 | 15.2 | 8.1 | 13.8 | 14.6 | 15.0 | 88.0 | 5 | <1.0 | 10 | d |
| | Vachiralongkorn Dam | TH 11045 | -- | -- | * | 8.2 | 8.8 | 13.0 | 4.8 | 4.5 | 2.1 | * | * | * | 5.6 | 22.5 | 6 | <1.0 | 7 | d |
| | Mae Hia | TH 11046 | 20.5 | 19.1 | -- | 26.1 | 5.9 | 2.9 | 3.5 | 4.5 | 6.4 | 4.6 | 1.2 | 3.4 | 4.5 | 33.5 | 9 | <1.0 | 10 | d |
| Vietnam | Hanoi | VN 11047 | 246 | 302 | 186 | 41.3 | 18.9 | 16.9 | 36.1 | 27.9 | 29.7 | 18.0 | 45.8 | 78.1 | 33.7 | 328 | 1 | 10.4 | 5 | w |
| | Hoa Binh | VN 11048 | 109 | 111 | 135 | 41.7 | 12.4 | 5.8 | 9.0 | 18.0 | 23.3 | 19.4 | 49.0 | 32.0 | 18.8 | 202 | 1 | 4.3 | 6 | w |

[--]: Precipitation was 0 mm.

[*]: SO₄²⁻ was not measured although precipitation was not 0 mm. (%TP=0%)

[**]: Precipitation was not measured. (%PCL=0%)

Data in hatched column: Rejected monthly (annual) value by the criteria of EANET (%PCL<80% or %TP<80%)

Table 3.12 Data completeness of SO₄²⁻ (Percent total precipitation:%TP)

unit: %

| Country | Name of sites | Code | 2002 | | | | | | | | | | | | Annual | |
|-------------------|----------------------|----------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|-----|
| | | | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | | |
| China | Guanyinqiao | CN 11001 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | Jinyunshan | CN 11003 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | Shizhan | CN 11004 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | Weishuiyuan | CN 11005 | -- | 100 | 100 | -- | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | -- | 100 |
| | Jiwozi | CN 11007 | ** | ** | ** | 100 | ** | ** | -- | 100 | -- | 100 | 100 | 100 | -- | 100 |
| | Hongwen | CN 11008 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 95 | 100 | 100 |
| | Xiaoping | CN 11009 | -- | -- | -- | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | Xiang Zhou | CN 11010 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | -- | 100 | 100 |
| | Zhuxian Cavern | CN 11011 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | -- | 100 | 100 |
| Indonesia | Jakarta | ID 11012 | 100 | 100 | 100 | 100 | 100 | -- | 100 | -- | -- | -- | 100 | 100 | 100 | |
| | Serpong | ID 11013 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | Kototabang | ID 11014 | 100 | 100 | 100 | 100 | -- | -- | -- | 100 | 100 | 100 | 100 | 100 | 100 | |
| | Bandung | ID 11015 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | -- | -- | 100 | 100 | 100 | |
| Japan | Rishiri | JP 11016 | 99 | 100 | 90 | 97 | 100 | 100 | 98 | 96 | 91 | 99 | 88 | 99 | 96 | |
| | Tappi | JP 11017 | 99 | 50 | 82 | 99 | 90 | 97 | 29 | 61 | 98 | 100 | 97 | 99 | 75 | |
| | Sado-seki | JP 11019 | 77 | 98 | 48 | 0 | 11 | 98 | 100 | 95 | 90 | 74 | 65 | 92 | 78 | |
| | Happo | JP 11021 | 34 | 23 | 73 | 92 | 89 | 100 | 96 | 100 | 100 | 97 | 62 | 76 | 77 | |
| | Oki | JP 11023 | 100 | 98 | 76 | 55 | 82 | 100 | 46 | 74 | 99 | 86 | 75 | 99 | 80 | |
| | Yusuhara | JP 11025 | 0 | 100 | 52 | 79 | 100 | 100 | 100 | 81 | 100 | 89 | 98 | 91 | 85 | |
| | Ogasawara | JP 11018 | 100 | 100 | 100 | 100 | 99 | 100 | 100 | 99 | 100 | 99 | 100 | 100 | 100 | |
| | Hedo | JP 11027 | 95 | 100 | 100 | 100 | 100 | 99 | 99 | 99 | 1 | 100 | 98 | 99 | 75 | |
| | Ijira | JP 11022 | 100 | 100 | 33 | 0 | 100 | 100 | 100 | 100 | 42 | 100 | 100 | 100 | 84 | |
| | Banryu | JP 11024 | 100 | 100 | 99 | 100 | 100 | 100 | 0 | 90 | 100 | 100 | 72 | 100 | 91 | |
| Malaysia | Petaling Jaya | MY 11029 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | Tanah Rata | MY 11030 | 63 | 100 | 100 | 100 | 59 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 94 | |
| Mongolia | Ulaanbaatar | MN 11031 | 0 | 0 | 0 | 0 | 100 | 100 | 100 | 100 | 100 | 100 | 0 | 0 | 82 | |
| | Terej | MN 11032 | 0 | -- | 0 | 36 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 89 | |
| Philippines | Metro Manila | PH 11033 | -- | 96 | 25 | 100 | 0 | 10 | 47 | 100 | 93 | 32 | 2 | 99 | 55 | |
| | Los Banos | PH 11034 | 100 | 97 | 100 | 98 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| Republic of Korea | Kanghwa | KR 11035 | 100 | 0 | -- | 100 | 97 | 100 | 100 | 100 | 94 | 100 | 0 | 57 | 98 | |
| | Cheju | KR 11036 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 0 | 100 | 100 | 100 | 89 | |
| | Imsil | KR 11037 | 0 | 59 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 89 | |
| Russia | Mondy | RU 11038 | -- | -- | -- | 100 | 100 | 100 | 100 | 100 | -- | 100 | -- | -- | 100 | |
| | Listvyanka | RU 11039 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | Irkutsk | RU 11040 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | Primorskaja | RU 11041 | ** | 85 | 92 | 98 | 90 | 100 | 74 | 95 | 35 | 98 | 86 | 86 | 88 | |
| Thailand | Bangkok | TH 11042 | -- | 100 | 0 | 100 | 100 | 98 | 92 | 100 | 100 | 62 | 97 | 100 | 92 | |
| | Patumthani | TH 11044 | -- | -- | 100 | 100 | 100 | 100 | 100 | 99 | 100 | 100 | 100 | 100 | 100 | |
| | Vachiraklongkorn Dam | TH 11045 | -- | -- | 0 | 100 | 36 | 21 | 67 | 80 | 47 | 0 | 0 | 0 | 54 | |
| | Mae Hia | TH 11046 | 100 | 100 | -- | 100 | 100 | 100 | 100 | 100 | 97 | 100 | 100 | 100 | 100 | |
| Vietnam | Hanoi | VN 11047 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | Hoa Binh | VN 11048 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |

[--]: Precipitation was 0 mm.

[**]: Precipitation was not measured.

Table 3.13 Monthly weighted averages of nss-SO₄²⁻ concentration

unit: μmol/L

| Country | Name of sites | Code | 2002 | | | | | | | | | | | | Annual | Max | M | Min | M | F |
|-------------------|--------------------|----------|------|------|------|------|------|------|------|------|------|------|------|------|--------|------|------|------|----|---|
| | | | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | | | | | | |
| China | Guanyinqiao | CN 11001 | 512 | 360 | 146 | 107 | 133 | 74.7 | 120 | 97.3 | 93.1 | 161 | 119 | 202 | 114 | 1330 | 1 | 40.8 | 8 | d |
| | Jinyunshan | CN 11003 | 235 | 216 | 127 | 78.8 | 87.1 | 51.2 | 75.0 | 53.7 | 84.2 | 78.2 | 103 | 126 | 78.0 | 1240 | 3 | 12.3 | 8 | d |
| | Shizhan | CN 11004 | 4760 | 3040 | 1820 | 581 | 639 | 261 | 1710 | 847 | 723 | 455 | 1340 | 3280 | 835 | 5480 | 1 | 152 | 6 | d |
| | Weishuiyuan | CN 11005 | -- | 6990 | 1350 | -- | 803 | 752 | 1720 | 494 | 770 | 533 | 3010 | -- | 994 | 6990 | 2 | 390 | 8 | d |
| | Jiwozi | CN 11007 | ** | ** | ** | 697 | ** | ** | -- | 177 | -- | 143 | 249 | -- | 295 | 840 | 12 | 143 | 10 | d |
| | Hongwen | CN 11008 | 97.2 | 61.1 | 197 | 103 | 47.9 | 17.8 | 14.0 | 22.9 | 20.9 | 192 | 72.6 | 68.6 | 39.4 | 436 | 3 | 4.8 | 8 | d |
| | Xiaoping | CN 11009 | -- | -- | -- | 23.8 | 28.6 | 4.5 | 16.3 | 9.3 | 22.7 | 33.2 | 21.3 | 16.0 | 15.7 | 71.1 | 5 | <1.0 | 6 | d |
| | Xiang Zhou | CN 11010 | 74.0 | 207 | 45.6 | 47.4 | 13.9 | 12.5 | 21.6 | 32.2 | 21.6 | 37.7 | -- | 21.2 | 25.4 | 394 | 3 | <1.0 | 9 | d |
| Zhuxian Cavern | CN 11011 | 166 | 226 | 76.6 | 76.9 | 24.9 | 12.4 | 26.5 | 28.5 | 10.5 | 33.1 | -- | 12.2 | 29.3 | 226 | 2 | <1.0 | 6 | d | |
| Indonesia | Jakarta | ID 11012 | 13.8 | 20.4 | 107 | 0.0 | 1.1 | -- | 106 | -- | -- | -- | 103 | 79.4 | 36.4 | 365 | 3 | <1.0 | 4 | w |
| | Serpong | ID 11013 | 10.5 | 11.3 | 22.9 | 25.8 | 22.2 | 40.7 | 20.6 | 90.8 | 161 | 77.8 | 28.8 | 28.0 | 24.2 | 191 | 9 | 4.5 | 1 | e |
| | Kototabang | ID 11014 | 2.0 | 5.0 | 4.6 | 2.4 | -- | -- | -- | 8.1 | 6.1 | 6.5 | 10.4 | 12.7 | 7.1 | 22.6 | 12 | <1.0 | 11 | w |
| | Bandung | ID 11015 | 17.6 | 25.6 | 29.3 | 30.8 | 51.4 | 44.6 | 65.2 | 82.2 | -- | -- | 14.4 | 12.1 | 27.2 | 131 | 7 | 4.0 | 7 | e |
| Japan | Rishiri | JP 11016 | 14.1 | 29.5 | 66.2 | 30.0 | 23.0 | 16.0 | 17.9 | 15.5 | 7.6 | 7.7 | 11.8 | 12.2 | 15.6 | 180 | 7 | <1.0 | 10 | d |
| | Tappi | JP 11017 | 15.1 | 32.0 | 41.3 | 31.6 | 10.1 | 9.0 | 6.7 | 5.9 | 2.9 | 5.4 | 27.3 | 20.2 | 12.9 | 106 | 4 | <1.0 | 10 | d |
| | Sado-seki | JP 11019 | 18.1 | 52.1 | 6.9 | * | 13.1 | 12.0 | 6.3 | 8.6 | 11.7 | 7.0 | 31.0 | 23.0 | 13.1 | 218 | 6 | <1.0 | 1 | d |
| | Happo | JP 11021 | 10.2 | 54.2 | 9.3 | 2.0 | 3.0 | 12.2 | 2.1 | 9.8 | 12.0 | 6.4 | 12.8 | 7.2 | 7.4 | 83.9 | 6 | <1.0 | 7 | d |
| | Oki | JP 11023 | 19.1 | 24.8 | 17.9 | 8.6 | 8.7 | 11.5 | 1.3 | 7.6 | 9.1 | 29.0 | 22.1 | 10.6 | 13.5 | 139 | 3 | <1.0 | 1 | d |
| | Yusuhara | JP 11025 | * | 23.6 | 13.4 | 10.0 | 10.0 | 8.1 | 4.6 | 8.5 | 9.7 | 12.2 | 20.9 | 10.9 | 9.4 | 99.4 | 4 | <1.0 | 11 | d |
| | Ogasawara | JP 11018 | 9.1 | 14.2 | 4.5 | 6.5 | 12.0 | 1.7 | 2.9 | 2.4 | 3.4 | 2.3 | 2.4 | 4.4 | 3.9 | 50.7 | 12 | <1.0 | 10 | d |
| | Hedo | JP 11027 | 10.9 | 10.9 | 13.9 | 14.3 | 6.6 | 2.8 | 1.2 | 1.4 | 43.4 | 10.1 | 15.5 | 10.5 | 7.4 | 163 | 4 | <1.0 | 7 | d |
| | Ijira | JP 11022 | 13.6 | 16.4 | 10.1 | * | 46.5 | 28.4 | 9.6 | 25.9 | 5.3 | 15.4 | 14.3 | 11.7 | 18.0 | 116 | 5 | 4.0 | 12 | w |
| Banryu | JP 11024 | 18.2 | 33.1 | 13.7 | 7.1 | 9.2 | 17.5 | * | 3.9 | 11.6 | 16.7 | 17.3 | 26.6 | 14.2 | 165 | 1 | 2.8 | 5 | w | |
| Malaysia | Petaling Jaya | MY 11029 | 34.0 | 29.4 | 36.2 | 16.1 | 32.6 | 24.0 | 38.7 | 21.3 | 20.6 | 28.0 | 19.2 | 12.2 | 23.4 | 50.0 | 11 | 2.1 | 4 | w |
| | Tanah Rata | MY 11030 | 2.3 | 1.2 | 7.3 | 2.6 | 2.3 | 3.5 | 5.7 | 4.2 | 4.2 | 11.0 | 1.5 | 3.4 | 4.5 | 14.8 | 10 | <1.0 | 9 | w |
| Mongolia | Ulaanbaatar | MN 11031 | * | * | * | * | 27.7 | 20.0 | 57.0 | 20.3 | 10.5 | 55.4 | * | * | 24.3 | 213 | 10 | 6.7 | 9 | d |
| | Terelj | MN 11032 | * | -- | * | 23.2 | 16.0 | 12.3 | 15.5 | 13.3 | 10.7 | 15.5 | 6.2 | 35.5 | 14.3 | 114 | 4 | <1.0 | 7 | d |
| Philippine | Metro Manila | PH 11033 | -- | 116 | 102 | 14.8 | * | 36.6 | 19.6 | 17.6 | 33.4 | 34.2 | 57.7 | 8.9 | 25.4 | 116 | 2 | 6.7 | 4 | w |
| | Los Banos | PH 11034 | <1.0 | 47.6 | 15.8 | 13.3 | 26.4 | 13.4 | 9.2 | 16.4 | 13.7 | 8.5 | 7.9 | 65.0 | 14.8 | 271 | 12 | <1.0 | 1 | w |
| Republic of Korea | Kanghwa | KR 11035 | 55.6 | * | -- | 33.9 | 36.8 | 71.3 | 30.0 | 20.8 | 28.8 | 21.8 | * | 95.1 | 31.5 | 96.9 | 1 | 8.6 | 8 | d |
| | Cheju | KR 11036 | 44.6 | 55.2 | 22.1 | 18.5 | 17.3 | 22.3 | 20.0 | 19.8 | * | 40.3 | 27.1 | 22.8 | 24.5 | 81.6 | 10 | 5.4 | 8 | d |
| | Imsil | KR 11037 | * | 38.0 | 36.7 | 26.9 | 24.3 | 24.8 | 11.7 | 15.2 | 11.2 | 21.1 | 50.5 | 30.6 | 20.5 | 77.9 | 11 | 4.1 | 11 | d |
| Russia | Mondy | RU 11038 | -- | -- | -- | 13.4 | 22.0 | 13.7 | 7.2 | 28.0 | -- | 11.3 | -- | -- | 10.7 | 29.8 | 5 | 2.0 | 6 | d |
| | Listvyanka | RU 11039 | 18.9 | 45.3 | 23.0 | 16.7 | 14.6 | 15.8 | 16.0 | 21.5 | 18.8 | 15.0 | 18.0 | 19.3 | 18.0 | 60.6 | 2 | 5.0 | 1 | d |
| | Irkutsk | RU 11040 | 36.0 | 226 | 90.0 | 113 | 31.4 | 21.1 | 23.9 | 21.4 | 34.5 | 27.5 | 54.0 | 169 | 33.6 | 552 | 4 | 6.8 | 10 | e |
| | Primorskaya | RU 11041 | ** | 75.8 | 111 | 62.6 | 60.0 | 30.5 | 14.0 | 12.0 | 44.7 | 14.4 | 87.1 | 43.7 | 27.6 | 313 | 4 | <1.0 | 7 | e |
| Thailand | Bangkok | TH 11042 | -- | 6.9 | * | 34.9 | 19.2 | 13.5 | 16.2 | 15.8 | 12.4 | 18.8 | 16.3 | 24.8 | 17.6 | 178 | 7 | 1.4 | 5 | d |
| | Patumthani | TH 11044 | -- | -- | 38.8 | 29.6 | 23.2 | 14.0 | 13.1 | 10.8 | 15.0 | 8.0 | 13.7 | 14.6 | 14.4 | 86.3 | 5 | <1.0 | 10 | d |
| | Vachiralongkorn Da | TH 11045 | -- | -- | * | 8.8 | 8.5 | 11.7 | 3.9 | 4.0 | 1.9 | * | * | * | 5.1 | 20.4 | 6 | <1.0 | 7 | d |
| | Mae Hia | TH 11046 | 19.8 | 18.8 | -- | 25.1 | 5.3 | 1.8 | 3.1 | 4.2 | 5.5 | 4.0 | <1.0 | 2.9 | 3.9 | 33.2 | 9 | <1.0 | 10 | d |
| Vietnam | Hanoi | VN 11047 | 246 | 297 | 183 | 40.7 | 18.5 | 16.8 | 35.9 | 27.7 | 29.4 | 17.7 | 45.6 | 77.2 | 33.4 | 327 | 1 | 10.1 | 5 | w |
| | Hoa Binh | VN 11048 | 109 | 111 | 134 | 41.2 | 12.2 | 5.8 | 8.9 | 17.9 | 23.1 | 19.3 | 48.7 | 31.9 | 18.6 | 201 | 1 | 4.3 | 6 | w |

[--]: Precipitation was 0 mm.

[*]: SO₄²⁻ or Na⁺ was not measured although precipitation was not 0 mm. (%TP=0%)

[**]: Precipitation was not measured. (%PCL=0%)

Data in hatched column: Rejected monthly (annual) value by the criteria of EANET (%PCL<80% or %TP<80%)

Table 3.14 Data completeness of nss-SO₄²⁻ (Percent total precipitation: %TP)

unit: %

| Country | Name of sites | Code | 2002 | | | | | | | | | | | | Annual | |
|-------------------|---------------------|----------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|-----|
| | | | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | | |
| China | Guanyinqiao | CN 11001 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | Ji Yunshan | CN 11003 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | Shizhan | CN 11004 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | Weishuiyuan | CN 11005 | -- | 100 | 100 | -- | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | -- | 100 |
| | Jiwozi | CN 11007 | ** | ** | ** | 100 | ** | ** | -- | 100 | -- | 100 | 100 | 100 | -- | 100 |
| | Hongwen | CN 11008 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 95 | 100 | 100 |
| | Xiaoping | CN 11009 | -- | -- | -- | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | Xiang Zhou | CN 11010 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | -- | 100 | 100 |
| | Zhuxian Cavern | CN 11011 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | -- | 100 | 100 |
| Indonesia | Jakarta | ID 11012 | 100 | 100 | 100 | 100 | 100 | -- | 100 | -- | -- | -- | 100 | 100 | 100 | 100 |
| | Serpong | ID 11013 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | Kototabang | ID 11014 | 100 | 100 | 100 | 100 | -- | -- | -- | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | Bandung | ID 11015 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | -- | -- | 100 | 100 | 100 | 100 |
| Japan | Rishiri | JP 11016 | 99 | 100 | 90 | 97 | 100 | 100 | 98 | 96 | 91 | 99 | 88 | 99 | 96 | |
| | Tappi | JP 11017 | 99 | 50 | 82 | 99 | 90 | 97 | 29 | 61 | 98 | 100 | 97 | 99 | 75 | |
| | Sado-seki | JP 11019 | 77 | 98 | 48 | 0 | 11 | 98 | 100 | 95 | 90 | 74 | 65 | 92 | 78 | |
| | Happo | JP 11021 | 34 | 23 | 73 | 92 | 89 | 100 | 96 | 100 | 100 | 97 | 62 | 76 | 77 | |
| | Oki | JP 11023 | 100 | 98 | 76 | 55 | 82 | 100 | 46 | 74 | 99 | 86 | 75 | 99 | 80 | |
| | Yusuhara | JP 11025 | 0 | 100 | 52 | 79 | 100 | 100 | 100 | 81 | 100 | 89 | 98 | 91 | 85 | |
| | Ogasawara | JP 11018 | 100 | 100 | 100 | 100 | 99 | 100 | 100 | 99 | 100 | 99 | 100 | 100 | 100 | |
| | Hedo | JP 11027 | 95 | 100 | 100 | 100 | 100 | 99 | 99 | 99 | 1 | 100 | 98 | 99 | 75 | |
| | Ijira | JP 11022 | 100 | 100 | 33 | 0 | 100 | 100 | 100 | 100 | 42 | 100 | 100 | 100 | 84 | |
| | Banryu | JP 11024 | 100 | 100 | 99 | 100 | 100 | 100 | 0 | 90 | 100 | 100 | 72 | 100 | 91 | |
| Malaysia | Petaling Jaya | MY 11029 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | Tanah Rata | MY 11030 | 63 | 100 | 100 | 100 | 59 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 94 | |
| Mongolia | Ulaanbaatar | MN 11031 | 0 | 0 | 0 | 0 | 100 | 100 | 100 | 100 | 100 | 100 | 0 | 0 | 82 | |
| | Terej | MN 11032 | 0 | -- | 0 | 36 | 80 | 89 | 100 | 100 | 100 | 100 | 100 | 100 | 82 | |
| Philippines | Metro Manila | PH 11033 | -- | 96 | 25 | 100 | 0 | 10 | 47 | 100 | 93 | 32 | 2 | 99 | 55 | |
| | Los Banos | PH 11034 | 100 | 97 | 87 | 98 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| Republic of Korea | Kanghwa | KR 11035 | 100 | 0 | -- | 100 | 97 | 100 | 100 | 100 | 94 | 100 | 0 | 57 | 98 | |
| | Cheju | KR 11036 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 0 | 100 | 100 | 100 | 89 | |
| | Imsil | KR 11037 | 0 | 59 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 89 | |
| Russia | Mondy | RU 11038 | -- | -- | -- | 100 | 100 | 100 | 100 | 100 | -- | 100 | -- | -- | 100 | |
| | Listvyanka | RU 11039 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | Irkutsk | RU 11040 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | Primorskaja | RU 11041 | ** | 85 | 92 | 98 | 90 | 100 | 74 | 95 | 35 | 98 | 86 | 86 | 88 | |
| Thailand | Bangkok | TH 11042 | -- | 100 | 0 | 100 | 100 | 98 | 92 | 100 | 98 | 62 | 97 | 100 | 91 | |
| | Patumthani | TH 11044 | -- | -- | 100 | 100 | 100 | 100 | 99 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | Vachiraklongkom Dam | TH 11045 | -- | -- | 0 | 73 | 36 | 21 | 67 | 80 | 47 | 0 | 0 | 0 | 52 | |
| | Mae Hia | TH 11046 | 100 | 100 | -- | 100 | 100 | 100 | 100 | 100 | 97 | 100 | 100 | 100 | 100 | |
| Vietnam | Hanoi | VN 11047 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | Hoa Binh | VN 11048 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |

[--]: Precipitation was 0 mm.

[**]: Precipitation was not measured.

Table 3.15 Monthly weighted averages of NO₃⁻ concentration

unit: µmol/L

| Country | Name of sites | Code | 2002 | | | | | | | | | | | | Annual | Max | M | Min | M | F |
|-------------------|---------------------|----------|------|------|------|------|------|------|------|------|------|------|------|------|--------|------|-----|------|----|---|
| | | | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | | | | | | |
| China | Guanyinqiao | CN 11001 | 184 | 134 | 42.5 | 34.6 | 36.7 | 18.6 | 39.2 | 33.2 | 20.3 | 46.4 | 43.9 | 84.1 | 34.4 | 410 | 1 | 11.1 | 5 | d |
| | Jinyunshan | CN 11003 | 134 | 90.6 | 48.4 | 32.3 | 29.6 | 18.9 | 30.0 | 20.2 | 21.8 | 28.1 | 38.1 | 46.9 | 29.4 | 381 | 3 | 6.6 | 8 | d |
| | Shizhan | CN 11004 | 314 | 163 | 167 | 187 | 124 | 79.3 | 557 | 197 | 223 | 71.1 | 301 | 291 | 150 | 601 | 7 | 22.0 | 6 | d |
| | Weishuiyuan | CN 11005 | -- | 348 | 121 | -- | 107 | 37.3 | 543 | 62.0 | 537 | 53.2 | 239 | -- | 168 | 543 | 7 | 37.3 | 6 | d |
| | Jiwozi | CN 11007 | ** | ** | ** | 140 | ** | ** | -- | 69.0 | -- | 65.4 | 159 | -- | 89.8 | 159 | 11 | 53.7 | 8 | d |
| | Hongwen | CN 11008 | 60.9 | 31.5 | 158 | 71.7 | 36.2 | 17.0 | 12.1 | 28.4 | 15.6 | 7.8 | 52.0 | 39.9 | 30.7 | 431 | 1 | 3.6 | 10 | d |
| | Xiaoping | CN 11009 | -- | -- | -- | 31.1 | 26.4 | 9.2 | 13.8 | 9.3 | 14.9 | 41.1 | 23.1 | 16.4 | 14.8 | 87.9 | 10 | 2.7 | 7 | d |
| | Xiang Zhou | CN 11010 | 41.9 | 83.8 | 37.6 | 44.6 | 15.6 | 11.2 | 22.0 | 7.7 | 9.4 | 21.2 | -- | 16.9 | 17.8 | 288 | 3 | <1.0 | 6 | d |
| | Zhuxian Cavern | CN 11011 | 57.7 | 80.5 | 50.7 | 75.9 | 22.3 | 13.2 | 22.8 | 8.0 | 6.4 | 20.0 | -- | 13.8 | 20.8 | 250 | 4 | <1.0 | 6 | d |
| Indonesia | Jakarta | ID 11012 | 5.2 | 15.3 | 33.7 | 47.0 | 1.8 | -- | 84.4 | -- | -- | -- | 77.7 | 82.3 | 28.2 | 289 | 7 | <1.0 | 5 | w |
| | Serpong | ID 11013 | 10.4 | 10.9 | 25.6 | 25.2 | 26.8 | 51.0 | 45.6 | 124 | 246 | 125 | 52.9 | 46.6 | 32.6 | 282 | 9 | 5.4 | 1 | e |
| | Kototabang | ID 11014 | 2.7 | 3.5 | 4.3 | 2.5 | -- | -- | -- | 5.4 | 4.6 | 9.6 | 8.6 | 7.4 | 5.6 | 15.9 | 10 | 1.0 | 4 | w |
| | Bandung | ID 11015 | 18.4 | 13.7 | 26.3 | 22.8 | 40.5 | 54.6 | 75.4 | 117 | -- | -- | 15.1 | 10.5 | 26.3 | 150 | 7 | 4.4 | 12 | e |
| Japan | Rishiri | JP 11016 | 9.6 | 30.5 | 96.3 | 25.8 | 19.4 | 10.5 | 13.5 | 19.3 | 11.8 | 7.5 | 7.4 | 6.6 | 13.5 | 217 | 3 | <1.0 | 11 | d |
| | Tappi | JP 11017 | 13.9 | 43.8 | 49.9 | 43.1 | 11.8 | 12.5 | 14.4 | 8.2 | 6.4 | 9.9 | 29.1 | 28.4 | 16.9 | 123 | 4 | <1.0 | 9 | d |
| | Sado-seki | JP 11019 | 19.0 | 86.3 | 12.6 | * | 12.0 | 11.8 | 6.8 | 14.5 | 10.4 | 10.6 | 26.9 | 21.4 | 15.0 | 403 | 12 | <1.0 | 8 | d |
| | Happo | JP 11021 | 7.3 | 41.5 | 7.1 | 2.8 | 3.3 | 14.4 | 5.1 | 7.5 | 12.6 | 6.3 | 5.5 | 6.4 | 7.0 | 110 | 6 | <1.0 | 10 | d |
| | Oki | JP 11023 | 16.4 | 31.3 | 23.8 | 11.8 | 9.6 | 18.9 | 2.6 | 8.7 | 11.1 | 25.1 | 25.4 | 15.1 | 15.1 | 231 | 12 | <1.0 | 2 | d |
| | Yusuhara | JP 11025 | * | 18.5 | 10.8 | 11.7 | 7.6 | 6.5 | 3.6 | 5.4 | 6.6 | 17.2 | 28.0 | 13.8 | 8.4 | 128 | 4 | <1.0 | 7 | d |
| | Ogasawara | JP 11018 | 7.5 | 16.4 | 5.6 | 7.4 | 4.2 | 1.8 | <1.0 | 1.5 | 3.4 | 2.6 | <1.0 | 2.0 | 2.7 | 70.5 | 12 | <1.0 | 7 | d |
| | Hedo | JP 11027 | 12.4 | 8.8 | 20.6 | 23.9 | 12.9 | 3.9 | 1.6 | 3.6 | 68.5 | 9.9 | 20.5 | 8.0 | 9.5 | 169 | 4 | <1.0 | 7 | d |
| | Ijira | JP 11022 | 18.2 | 24.1 | 15.3 | * | 51.8 | 32.6 | 10.4 | 42.9 | 11.0 | 16.0 | 18.9 | 14.3 | 21.8 | 110 | 5 | 5.2 | 7 | w |
| Banryu | JP 11024 | 25.2 | 51.2 | 19.6 | 11.1 | 11.3 | 22.3 | * | 4.7 | 13.4 | 21.0 | 33.7 | 29.2 | 19.1 | 209 | 1 | 3.9 | 5 | w | |
| Malaysia | Petaling Jaya | MY 11029 | 54.7 | 40.4 | 52.1 | 46.5 | 40.8 | 43.3 | 70.3 | 38.0 | 21.7 | 36.1 | 29.1 | 19.8 | 36.8 | 95.4 | 11 | 3.7 | 1 | w |
| | Tanah Rata | MY 11030 | 1.8 | 2.9 | 5.6 | 3.0 | 10.3 | 4.4 | 8.1 | 4.8 | 5.9 | 11.5 | 3.0 | 4.0 | 6.0 | 34.6 | 5 | <1.0 | 3 | w |
| Mongolia | Ulaanbaatar | MN 11031 | * | * | * | * | 19.3 | 23.7 | 56.9 | 27.9 | 10.9 | 22.9 | * | * | 23.7 | 146 | 8 | 3.5 | 5 | d |
| | Terelj | MN 11032 | * | -- | * | 18.2 | 12.3 | 25.8 | 15.6 | 25.8 | 13.0 | 14.6 | 8.9 | 12.7 | 18.1 | 107 | 6 | <1.0 | 12 | d |
| Philippines | Metro Manila | PH 11033 | -- | 8.3 | 86.3 | 4.7 | * | 28.4 | 8.2 | 11.5 | 32.9 | 33.1 | 16.6 | 3.4 | 17.6 | 86.3 | 3 | <1.0 | 5 | w |
| | Los Banos | PH 11034 | 12.7 | 9.7 | 7.3 | 9.1 | 21.0 | 10.3 | 4.8 | 10.1 | 15.5 | 7.2 | 2.5 | 3.1 | 8.2 | 36.1 | 3 | 1.8 | 10 | w |
| Republic of Korea | Kanghwa | KR 11035 | 48.8 | * | -- | 33.9 | 64.5 | 74.9 | 39.5 | 15.6 | 32.5 | 26.4 | * | 157 | 32.7 | 157 | 12 | 8.7 | 8 | d |
| | Cheju | KR 11036 | 40.4 | 48.4 | 26.7 | 19.1 | 18.2 | 23.0 | 23.2 | 13.9 | * | 34.3 | 40.6 | 40.7 | 24.0 | 110 | 12 | 2.2 | 8 | d |
| | Imsil | KR 11037 | * | 40.8 | 49.8 | 37.8 | 33.5 | 26.4 | 18.6 | 19.6 | 21.0 | 25.2 | 121 | 85.4 | 32.0 | 199 | 11 | 10.4 | 11 | d |
| Russia | Mondy | RU 11038 | -- | -- | -- | 10.0 | 27.5 | 20.6 | 7.4 | 24.5 | -- | 21.7 | -- | -- | 13.5 | 39.5 | 5 | 4.8 | 7 | d |
| | Listvyanka | RU 11039 | 40.3 | 74.2 | 23.5 | 15.4 | 16.0 | 23.4 | 11.5 | 16.3 | 21.0 | 8.9 | 34.3 | 63.6 | 25.0 | 84.3 | 12 | 6.1 | 10 | d |
| | Irkutsk | RU 11040 | 23.9 | 86.4 | 36.4 | 63.7 | 31.5 | 13.5 | 18.9 | 16.8 | 24.6 | 17.0 | 33.4 | 78.6 | 21.8 | 313 | 4 | <1.0 | 6 | e |
| | Primorskaya | RU 11041 | ** | 19.4 | 4.9 | 16.6 | 14.6 | 6.6 | 7.3 | 4.1 | 1.4 | 17.5 | 12.9 | 23.1 | 10.2 | 30.0 | 5 | <1.0 | 3 | e |
| Thailand | Bangkok | TH 11042 | -- | 12.9 | * | 67.9 | 26.0 | 11.4 | 12.9 | 10.4 | 15.3 | 29.3 | 26.4 | 39.6 | 24.6 | 297 | 9 | 1.7 | 8 | d |
| | Patumthani | TH 11044 | -- | -- | 99.4 | 78.2 | 33.2 | 13.8 | 15.7 | 10.1 | 14.9 | 18.0 | 14.5 | 23.2 | 18.5 | 159 | 5 | <1.0 | 10 | d |
| | Vachiralongkorn Dam | TH 11045 | -- | -- | * | 13.7 | 12.3 | 5.3 | 5.2 | 2.8 | 2.3 | * | * | * | 6.1 | 23.4 | 4 | 1.2 | 7 | d |
| | Mae Hia | TH 11046 | 33.1 | 42.1 | -- | 63.8 | 8.3 | 2.4 | 4.3 | 4.3 | 2.5 | 6.5 | 7.5 | 8.1 | 6.6 | 86.2 | 4 | <1.0 | 6 | d |
| Vietnam | Hanoi | VN 11047 | 3.5 | 3.3 | 2.3 | 8.9 | 1.8 | 2.7 | 2.6 | 3.6 | 29.8 | 43.5 | 59.3 | 80.6 | 15.1 | 86.2 | 12 | 1.4 | 3 | w |
| | Hoa Binh | VN 11048 | 6.8 | 3.9 | 1.6 | 8.9 | 5.1 | 3.1 | 2.9 | 9.2 | 63.5 | 39.0 | 88.5 | 64.5 | 20.2 | 103 | 12 | 1.2 | 3 | w |

[--]: Precipitation was 0 mm.

[*]: NO₃⁻ was not measured although precipitation was not 0 mm. (%TP=0%)

[**]: Precipitation was not measured. (%PCL=0%)

Data in hatched column: Rejected monthly (annual) value by the criteria of EANET (%PCL<80% or %TP<80%)

Table 3.16 Data completeness of NO₃⁻ (Percent total precipitation: %TP)

unit: %

| Country | Name of sites | Code | 2002 | | | | | | | | | | | | Annual | |
|-------------------|---------------------|----------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|-----|
| | | | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | | |
| China | Guanyinqiao | CN 11001 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | Ji Yunshan | CN 11003 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | Shizhan | CN 11004 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | Weishuiyuan | CN 11005 | -- | 100 | 100 | -- | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | -- | 100 |
| | Jiwozi | CN 11007 | ** | ** | ** | 100 | ** | ** | -- | 100 | -- | 100 | 100 | -- | 100 | |
| | Hongwen | CN 11008 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 95 | 100 | 100 |
| | Xiaoping | CN 11009 | -- | -- | -- | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | Xiang Zhou | CN 11010 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | -- | 100 | 100 |
| | Zhuxian Cavern | CN 11011 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | -- | 100 | 100 |
| Indonesia | Jakarta | ID 11012 | 100 | 100 | 100 | 100 | 100 | -- | 100 | -- | -- | -- | 100 | 100 | 100 | 100 |
| | Serpong | ID 11013 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | Kototabang | ID 11014 | 100 | 100 | 100 | 100 | -- | -- | -- | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | Bandung | ID 11015 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | -- | -- | 100 | 100 | 100 | 100 |
| Japan | Rishiri | JP 11016 | 99 | 100 | 90 | 97 | 100 | 100 | 98 | 96 | 91 | 99 | 88 | 99 | 96 | |
| | Tappi | JP 11017 | 99 | 50 | 82 | 99 | 90 | 97 | 29 | 61 | 98 | 100 | 97 | 99 | 75 | |
| | Sado-seki | JP 11019 | 77 | 98 | 48 | 0 | 11 | 98 | 100 | 95 | 90 | 74 | 65 | 92 | 78 | |
| | Happo | JP 11021 | 34 | 23 | 73 | 92 | 89 | 100 | 96 | 100 | 100 | 97 | 62 | 76 | 77 | |
| | Oki | JP 11023 | 100 | 98 | 76 | 55 | 82 | 100 | 46 | 74 | 99 | 86 | 75 | 99 | 80 | |
| | Yusuhara | JP 11025 | 0 | 100 | 52 | 79 | 100 | 100 | 100 | 81 | 100 | 89 | 98 | 91 | 85 | |
| | Ogasawara | JP 11018 | 100 | 100 | 100 | 100 | 99 | 100 | 100 | 99 | 100 | 99 | 100 | 100 | 100 | |
| | Hedo | JP 11027 | 95 | 100 | 100 | 100 | 100 | 99 | 99 | 99 | 1 | 100 | 98 | 99 | 75 | |
| | Ijira | JP 11022 | 100 | 100 | 33 | 0 | 100 | 100 | 100 | 100 | 42 | 100 | 100 | 100 | 84 | |
| | Banryu | JP 11024 | 100 | 100 | 99 | 100 | 100 | 100 | 0 | 90 | 100 | 100 | 72 | 100 | 91 | |
| Malaysia | Petaling Jaya | MY 11029 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | Tanah Rata | MY 11030 | 63 | 100 | 100 | 100 | 59 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 94 | |
| Mongolia | Ulaanbaatar | MN 11031 | 0 | 0 | 0 | 0 | 100 | 100 | 100 | 100 | 100 | 100 | 0 | 0 | 82 | |
| | Terej | MN 11032 | 0 | -- | 0 | 36 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 89 | |
| Philippines | Metro Manila | PH 11033 | -- | 96 | 25 | 100 | 0 | 10 | 47 | 100 | 93 | 32 | 2 | 99 | 55 | |
| | Los Banos | PH 11034 | 100 | 97 | 100 | 98 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| Republic of Korea | Kanghwa | KR 11035 | 100 | 0 | -- | 100 | 97 | 100 | 100 | 100 | 94 | 100 | 0 | 57 | 98 | |
| | Cheju | KR 11036 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 0 | 100 | 100 | 100 | 89 | |
| | Imsil | KR 11037 | 0 | 59 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 89 | |
| Russia | Mondy | RU 11038 | -- | -- | -- | 100 | 100 | 100 | 100 | 100 | -- | 100 | -- | -- | 100 | |
| | Listvyanka | RU 11039 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | Irkutsk | RU 11040 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | Primorskaja | RU 11041 | ** | 85 | 92 | 98 | 90 | 100 | 74 | 95 | 35 | 98 | 86 | 86 | 88 | |
| Thailand | Bangkok | TH 11042 | -- | 100 | 0 | 100 | 100 | 98 | 92 | 100 | 100 | 62 | 97 | 100 | 92 | |
| | Patumthani | TH 11044 | -- | -- | 100 | 100 | 100 | 100 | 99 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | Vachiraklongkom Dam | TH 11045 | -- | -- | 0 | 100 | 36 | 21 | 67 | 80 | 47 | 0 | 0 | 0 | 54 | |
| | Mae Hia | TH 11046 | 100 | 100 | -- | 100 | 100 | 100 | 100 | 100 | 97 | 100 | 100 | 100 | 100 | |
| Vietnam | Hanoi | VN 11047 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | Hoa Binh | VN 11048 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |

[--]: Precipitation was 0 mm.

[**]: Precipitation was not measured.

Table 3.17 Monthly weighted averages of Cl⁻ concentration

unit: µmol/L

| Country | Name of sites | Code | 2002 | | | | | | | | | | | | Annual | Max | M | Min | M | F |
|-------------------|---------------------|----------|------|------|------|------|------|------|------|------|------|------|------|------|--------|-------|-----|------|----|---|
| | | | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | | | | | | |
| China | Guanyinqiao | CN 11001 | 66.8 | 58.1 | 20.5 | 12.3 | 21.3 | 10.1 | 29.7 | 7.1 | 12.0 | 23.9 | 13.6 | 29.1 | 15.6 | 192 | 8 | <1.0 | 8 | d |
| | Jinyunshan | CN 11003 | 40.0 | 22.5 | 18.7 | 14.0 | 14.8 | 7.5 | 9.5 | 8.5 | 28.5 | 14.1 | 16.6 | 27.4 | 12.9 | 181 | 1 | 1.7 | 6 | d |
| | Shizhan | CN 11004 | 434 | 410 | 220 | 202 | 1370 | 298 | 27 | 136 | 161 | 133 | 234 | 438 | 349 | 1600 | 5 | 22.6 | 7 | d |
| | Weishuiyuan | CN 11005 | -- | 484 | 191 | -- | 263 | 439 | 55.2 | 110 | 198 | 186 | 347 | -- | 285 | 484 | 2 | 55.2 | 7 | d |
| | Jiwozi | CN 11007 | ** | ** | ** | 231 | ** | ** | -- | 108 | -- | 216 | 108 | -- | 185 | 418 | 12 | 99.0 | 8 | d |
| | Hongwen | CN 11008 | 66.4 | 27.9 | 128 | 40.6 | 19.0 | 18.8 | 18.4 | 65.8 | 21.8 | 84.0 | 34.2 | 45.6 | 42.9 | 329 | 3 | 5.6 | 6 | d |
| | Xiaoping | CN 11009 | -- | -- | -- | 14.6 | 9.9 | 3.6 | 7.0 | 12.3 | 7.6 | 20.9 | 16.4 | 8.4 | 9.1 | 186 | 4 | <1.0 | 7 | d |
| | Xiang Zhou | CN 11010 | 21.9 | 51.3 | 28.1 | 105 | 16.4 | 22.6 | 43.2 | 234 | 82.0 | 37.9 | -- | 47.5 | 68.9 | 2040 | 8 | <1.0 | 5 | d |
| | Zhuxian Cavern | CN 11011 | 103 | 95.0 | 54.9 | 116 | 20.7 | 16.7 | 52.9 | 110 | 73.0 | 40.2 | -- | 41.1 | 59.5 | 463 | 8 | 1.1 | 6 | d |
| Indonesia | Jakarta | ID 11012 | 10.4 | 31.8 | 26.4 | 23.5 | 33.5 | -- | 43.1 | -- | -- | -- | 61.4 | 48.4 | 28.1 | 78.3 | 7 | 7.5 | 7 | w |
| | Serpong | ID 11013 | 11.0 | 20.9 | 13.8 | 16.5 | 7.0 | 38.1 | 46.0 | 78.6 | 195 | 52.1 | 24.6 | 16.2 | 23.0 | 273 | 9 | <1.0 | 5 | e |
| | Kototabang | ID 11014 | 4.0 | 7.4 | 9.0 | 8.5 | -- | -- | -- | 6.0 | 12.6 | 18.9 | 29.7 | 29.8 | 16.8 | 42.5 | 10 | 3.2 | 1 | w |
| | Bandung | ID 11015 | 5.1 | 6.4 | 14.1 | 8.7 | 38.4 | 60.2 | 100 | 101 | -- | -- | 19.7 | 8.4 | 20.3 | 170 | 7 | <1.0 | 1 | e |
| Japan | Rishiri | JP 11016 | 268 | 181 | 289 | 162 | 50.7 | 70.1 | 21.7 | 23.6 | 87.3 | 424 | 381 | 242 | 217 | 2750 | 10 | 2.5 | 7 | d |
| | Tappi | JP 11017 | 215 | 250 | 472 | 217 | 77.9 | 110 | 26.5 | 30.6 | 120 | 335 | 422 | 418 | 191 | 3150 | 10 | 3.4 | 8 | d |
| | Sado-seki | JP 11019 | 809 | 1620 | 246 | * | 26.9 | 24.5 | 17.8 | 49.7 | 22.0 | 672 | 707 | 717 | 307 | 27700 | 2 | 1.8 | 7 | d |
| | Happo | JP 11021 | 3.7 | 9.4 | 9.0 | 1.2 | 2.0 | 4.1 | 1.6 | 4.0 | 3.3 | 9.8 | 11.8 | 7.0 | 5.0 | 54.2 | 8 | <1.0 | 5 | d |
| | Oki | JP 11023 | 1150 | 1000 | 212 | 54.2 | 9.0 | 76.7 | 5.9 | 38.0 | 50.3 | 432 | 691 | 822 | 419 | 8490 | 1 | 2.5 | 7 | d |
| | Yusuhara | JP 11025 | * | 34.9 | 14.4 | 14.5 | 10.0 | 3.7 | 32.8 | 64.6 | 10.8 | 31.9 | 106 | 15.2 | 31.8 | 578 | 10 | <1.0 | 9 | d |
| | Ogasawara | JP 11018 | 257 | 145 | 55.0 | 41.2 | 85.0 | 45.3 | 687 | 946 | 409 | 686 | 395 | 126 | 278 | 36100 | 11 | 13.0 | 6 | d |
| | Hedo | JP 11027 | 256 | 141 | 181 | 94.1 | 54.4 | 46.0 | 1520 | 1700 | 2000 | 247 | 486 | 333 | 593 | 10900 | 12 | 13.4 | 5 | d |
| | Ijira | JP 11022 | 70.8 | 88.2 | 4.0 | * | 23.8 | 8.8 | 21.6 | 35.6 | 2.9 | 28.5 | 98.2 | 32.9 | 33.3 | 220 | 2 | 2.5 | 9 | w |
| Banryu | JP 11024 | 174 | 345 | 27.8 | 7.7 | 15.1 | 20.4 | * | 5.9 | 65.0 | 152 | 154 | 372 | 88.9 | 2410 | 1 | 5.1 | 8 | w | |
| Malaysia | Petaling Jaya | MY 11029 | 16.5 | 14.6 | 7.9 | 6.2 | 14.0 | 7.8 | 17.1 | 8.5 | 6.3 | 7.1 | 4.4 | 5.2 | 7.3 | 28.8 | 3 | 2.8 | 12 | w |
| | Tanah Rata | MY 11030 | 7.4 | 2.5 | 3.4 | 1.7 | 2.9 | 1.1 | 2.6 | 2.2 | 2.9 | 2.7 | 1.4 | 3.0 | 2.3 | 13.5 | 1 | <1.0 | 6 | w |
| Mongolia | Ulaanbaatar | MN 11031 | * | * | * | * | 6.8 | 6.2 | 11.6 | 11.8 | 6.4 | 18.2 | * | * | 7.7 | 86.6 | 8 | 1.7 | 8 | d |
| | Terelj | MN 11032 | * | -- | * | 8.5 | 23.5 | 11.7 | 6.1 | 7.1 | 4.8 | 9.9 | 4.9 | 23.1 | 11.4 | 178 | 5 | <1.0 | 12 | d |
| Philippines | Metro Manila | PH 11033 | -- | 138 | 53.6 | 8.1 | * | 17.2 | 26.1 | 12.4 | 10.0 | 12.8 | 18.8 | 11.1 | 18.8 | 140 | 2 | 3.2 | 4 | w |
| | Los Banos | PH 11034 | 239 | 74.9 | 182 | 54.7 | 15.8 | 23.2 | 27.0 | 15.9 | 8.0 | 8.2 | 30.0 | 60.5 | 24.6 | 474 | 3 | 4.3 | 10 | w |
| Republic of Korea | Kanghwa | KR 11035 | 45.4 | * | -- | 57.4 | 106 | 51.1 | 50.1 | 29.9 | 31.1 | 49.3 | * | 145 | 43.0 | 227 | 1 | 8.9 | 1 | d |
| | Cheju | KR 11036 | 392 | 230 | 42.0 | 89.7 | 21.4 | 34.0 | 45.4 | 61.0 | * | 88.9 | 120 | 200 | 83.8 | 430 | 1 | 6.1 | 4 | d |
| | Imsil | KR 11037 | * | 72.2 | 61.2 | 26.6 | 44.6 | 21.9 | 23.2 | 30.9 | 40.1 | 41.1 | 109 | 66.6 | 36.9 | 158 | 11 | 7.2 | 5 | d |
| Russia | Mondy | RU 11038 | -- | -- | -- | 3.2 | 21.4 | 16.1 | 5.3 | 24.8 | -- | 1.6 | -- | -- | 8.9 | 34.1 | 5 | <1.0 | 7 | d |
| | Listvyanka | RU 11039 | 4.8 | 1.9 | 12.1 | 2.2 | 6.1 | 9.2 | 9.8 | 9.8 | 8.0 | 2.7 | 2.2 | 1.8 | 6.8 | 19.7 | 7 | <1.0 | 1 | d |
| | Irkutsk | RU 11040 | 10.1 | 221 | 57.4 | 48.9 | 19.3 | 11.4 | 10.2 | 10.7 | 20.3 | 11.0 | 45.4 | 92.1 | 18.0 | 350 | 2 | <1.0 | 7 | e |
| | Primorskaya | RU 11041 | ** | 45.9 | 84.9 | 41.4 | 58.7 | 29.3 | 39.4 | 18.5 | 25.4 | 28.0 | 174 | 29.6 | 33.9 | 336 | 11 | 2.0 | 8 | e |
| Thailand | Bangkok | TH 11042 | -- | 9.8 | * | 16.3 | 17.8 | 13.0 | 34.0 | 18.5 | 8.6 | 6.5 | 8.3 | 10.1 | 13.9 | 840 | 7 | 3.8 | 6 | d |
| | Patumthani | TH 11044 | -- | -- | 43.0 | 32.4 | 22.8 | 12.0 | 20.3 | 4.6 | 6.3 | 3.1 | 6.0 | 15.6 | 11.6 | 76.0 | 7 | 1.2 | 6 | d |
| | Vachiralongkorn Dam | TH 11045 | -- | -- | * | 7.5 | 7.8 | 24.3 | 28.6 | 10.5 | 5.7 | * | * | * | 14.1 | 835 | 7 | 3.1 | 7 | d |
| | Mae Hia | TH 11046 | 14.9 | 15.1 | -- | 24.5 | 13.7 | 15.4 | 7.2 | 4.6 | 13.0 | 12.6 | 6.1 | 7.0 | 10.1 | 155 | 6 | 1.6 | 9 | d |
| Vietnam | Hanoi | VN 11047 | 13.6 | 57.9 | 29.2 | 16.6 | 4.7 | 2.1 | 5.6 | 17.0 | 4.7 | 6.9 | 22.0 | 27.7 | 9.5 | 60.9 | 2 | <1.0 | 7 | w |
| | Hoa Binh | VN 11048 | 16.0 | 12.1 | 21.4 | 15.8 | 7.8 | 3.3 | 2.4 | 8.1 | 7.4 | 6.7 | 17.0 | 10.9 | 7.0 | 35.1 | 3 | 1.5 | 7 | w |

[--]: Precipitation was 0 mm.

[*]: Cl⁻ was not measured although precipitation was not 0 mm. (%TP=0%)

[**]: Precipitation was not measured. (%PCL=0%)

Data in hatched column: Rejected monthly (annual) value by the criteria of EANET (%PCL<80% or %TP<80%)

Table 3.18 Data completeness of CI (Percent total precipitation: %TP)

unit: %

| Country | Name of sites | Code | 2002 | | | | | | | | | | | | Annual | |
|-------------------|---------------------|----------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|-----|
| | | | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | | |
| China | Guanyinqiao | CN 11001 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | Ji Yunshan | CN 11003 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | Shizhan | CN 11004 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | Weishuiyuan | CN 11005 | -- | 100 | 100 | -- | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | -- | 100 |
| | Jiwozi | CN 11007 | ** | ** | ** | 100 | ** | ** | -- | 100 | -- | 100 | 100 | 100 | -- | 100 |
| | Hongwen | CN 11008 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 95 | 100 | 100 |
| | Xiaoping | CN 11009 | -- | -- | -- | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | Xiang Zhou | CN 11010 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | -- | 100 | 100 |
| | Zhuxian Cavern | CN 11011 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | -- | 100 | 100 |
| Indonesia | Jakarta | ID 11012 | 100 | 100 | 100 | 100 | 100 | -- | 100 | -- | -- | -- | 100 | 100 | 100 | 100 |
| | Serpong | ID 11013 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | Kototabang | ID 11014 | 100 | 100 | 100 | 100 | -- | -- | -- | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | Bandung | ID 11015 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | -- | -- | 100 | 100 | 100 | 100 |
| Japan | Rishiri | JP 11016 | 99 | 100 | 90 | 97 | 100 | 100 | 98 | 96 | 91 | 99 | 88 | 99 | 96 | |
| | Tappi | JP 11017 | 99 | 50 | 82 | 99 | 90 | 97 | 29 | 61 | 98 | 100 | 97 | 99 | 75 | |
| | Sado-seki | JP 11019 | 77 | 98 | 48 | 0 | 11 | 98 | 100 | 95 | 90 | 74 | 65 | 92 | 78 | |
| | Happo | JP 11021 | 34 | 23 | 73 | 92 | 89 | 100 | 96 | 100 | 100 | 97 | 62 | 76 | 77 | |
| | Oki | JP 11023 | 100 | 98 | 76 | 55 | 82 | 100 | 46 | 74 | 99 | 86 | 75 | 99 | 80 | |
| | Yusuhara | JP 11025 | 0 | 100 | 52 | 79 | 100 | 100 | 100 | 81 | 100 | 89 | 98 | 91 | 85 | |
| | Ogasawara | JP 11018 | 100 | 100 | 100 | 100 | 99 | 100 | 100 | 99 | 100 | 99 | 100 | 100 | 100 | |
| | Hedo | JP 11027 | 95 | 100 | 100 | 100 | 100 | 99 | 99 | 99 | 1 | 100 | 98 | 99 | 75 | |
| | Ijira | JP 11022 | 100 | 100 | 33 | 0 | 100 | 100 | 100 | 100 | 42 | 100 | 100 | 100 | 84 | |
| | Banryu | JP 11024 | 100 | 100 | 99 | 100 | 100 | 100 | 0 | 90 | 100 | 100 | 72 | 100 | 91 | |
| Malaysia | Petaling Jaya | MY 11029 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | Tanah Rata | MY 11030 | 63 | 100 | 100 | 100 | 59 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 94 | |
| Mongolia | Ulaanbaatar | MN 11031 | 0 | 0 | 0 | 0 | 100 | 100 | 100 | 100 | 100 | 100 | 0 | 0 | 82 | |
| | Terej | MN 11032 | 0 | -- | 0 | 36 | 80 | 75 | 100 | 100 | 100 | 100 | 100 | 100 | 79 | |
| Philippines | Metro Manila | PH 11033 | -- | 96 | 25 | 100 | 0 | 10 | 47 | 100 | 93 | 32 | 2 | 99 | 55 | |
| | Los Banos | PH 11034 | 100 | 97 | 100 | 98 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| Republic of Korea | Kanghwa | KR 11035 | 100 | 0 | -- | 100 | 97 | 100 | 100 | 100 | 94 | 100 | 0 | 57 | 98 | |
| | Cheju | KR 11036 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 0 | 100 | 100 | 100 | 89 | |
| | Imsil | KR 11037 | 0 | 59 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 89 | |
| Russia | Mondy | RU 11038 | -- | -- | -- | 100 | 100 | 100 | 100 | 100 | -- | 100 | -- | -- | 100 | |
| | Listvyanka | RU 11039 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | Irkutsk | RU 11040 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | Primorskaja | RU 11041 | ** | 85 | 92 | 98 | 90 | 100 | 74 | 95 | 35 | 98 | 86 | 86 | 88 | |
| Thailand | Bangkok | TH 11042 | -- | 100 | 0 | 100 | 100 | 98 | 92 | 100 | 100 | 62 | 97 | 100 | 92 | |
| | Patumthani | TH 11044 | -- | -- | 100 | 100 | 100 | 100 | 99 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | Vachiraklongkom Dam | TH 11045 | -- | -- | 0 | 100 | 36 | 21 | 67 | 80 | 47 | 0 | 0 | 0 | 54 | |
| | Mae Hia | TH 11046 | 100 | 100 | -- | 100 | 100 | 100 | 100 | 100 | 97 | 100 | 100 | 100 | 100 | |
| Vietnam | Hanoi | VN 11047 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | Hoa Binh | VN 11048 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |

[--]: Precipitation was 0 mm.

[**]: Precipitation was not measured.

Table 3.19 Monthly weighted averages of NH₄⁺ concentration

unit: μmol/L

| Country | Name of sites | Code | 2002 | | | | | | | | | | | | Annual | Max | M | Min | M | F |
|-------------------|---------------------|----------|------|------|------|------|------|------|------|------|------|------|------|------|--------|------|-----|------|----|---|
| | | | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | | | | | | |
| China | Guanyinqiao | CN 11001 | 537 | 548 | 190 | 142 | 176 | 72.6 | 120 | 49.3 | 67.1 | 128 | 148 | 269 | 120 | 1330 | 1 | 29.4 | 8 | d |
| | Jinyunshan | CN 11003 | 296 | 217 | 193 | 103 | 90.0 | 54.5 | 73.1 | 44.5 | 66.0 | 88.4 | 109 | 122 | 83.5 | 1260 | 1 | 1.4 | 5 | d |
| | Shizhan | CN 11004 | 741 | 1320 | 822 | 155 | 145 | 96.9 | 390 | 115 | 117 | 129 | 409 | 565 | 203 | 3910 | 3 | 83.7 | 6 | d |
| | Weishuiyuan | CN 11005 | -- | 1400 | 285 | -- | 581 | 292 | 504 | 109 | * | 131 | 699 | -- | 319 | 1400 | 2 | 96.2 | 8 | d |
| | Jiwozi | CN 11007 | ** | ** | ** | 130 | ** | ** | -- | 72.0 | -- | 28.1 | 141 | -- | 71.2 | 162 | 4 | 28.1 | 10 | d |
| | Hongwen | CN 11008 | 82.2 | 92.1 | 234 | 134 | 67.8 | 51.9 | 23.9 | 18.4 | 33.7 | 124 | 82.3 | 38.9 | 44.2 | 365 | 1 | 2.8 | 8 | d |
| | Xiaoping | CN 11009 | -- | -- | -- | 83.1 | 71.5 | 35.9 | 35.0 | 8.1 | 34.3 | 54.4 | 30.0 | 11.3 | 31.1 | 155 | 5 | <1.0 | 12 | d |
| | Xiang Zhou | CN 11010 | 77.5 | 104 | 53.3 | 74.8 | 19.9 | 16.4 | 33.1 | 506 | 49.4 | 35.2 | -- | 46.4 | 95.8 | 5800 | 8 | 1.1 | 7 | d |
| | Zhuxian Cavern | CN 11011 | 99.4 | 152 | 71.3 | 90.1 | 47.9 | 15.3 | 40.1 | 64.6 | 51.2 | 37.4 | -- | 53.0 | 48.4 | 298 | 8 | 4.1 | 8 | d |
| Indonesia | Jakarta | ID 11012 | 20.3 | 32.3 | 33.7 | <1.0 | 158 | -- | 42.7 | -- | -- | -- | * | * | 31.7 | 210 | 5 | <1.0 | 4 | w |
| | Serpong | ID 11013 | 11.2 | 13.8 | 39.2 | 56.0 | 33.3 | 105 | 100 | 124 | 249 | 25.7 | 57.1 | 47.3 | 46.0 | 292 | 10 | 2.7 | 10 | e |
| | Kototabang | ID 11014 | 6.4 | 11.0 | 8.2 | 0.6 | -- | -- | -- | * | * | * | * | * | 5.1 | 25.2 | 3 | <1.0 | 3 | w |
| | Bandung | ID 11015 | 21.1 | 57.1 | 36.0 | 26.0 | 55.1 | 33.0 | 24.5 | 70.4 | -- | -- | 21.5 | 33.1 | 29.9 | 184 | 2 | 6.4 | 1 | e |
| Japan | Rishiri | JP 11016 | 11.4 | 31.9 | 85.8 | 20.9 | 35.1 | 22.7 | 31.5 | 19.6 | 20.6 | 13.3 | 11.3 | 9.2 | 20.1 | 353 | 7 | <1.0 | 10 | d |
| | Tappi | JP 11017 | 7.8 | 40.1 | 45.5 | 41.0 | 6.8 | 15.5 | 8.9 | 9.4 | 3.3 | 9.5 | 22.9 | 11.3 | 14.7 | 163 | 4 | <1.0 | 1 | d |
| | Sado-seki | JP 11019 | 18.2 | 72.2 | 5.9 | * | 10.6 | 11.3 | 8.6 | 10.9 | 10.2 | 13.2 | 27.8 | 13.4 | 14.5 | 313 | 6 | <1.0 | 1 | d |
| | Happo | JP 11021 | 8.7 | 44.5 | 10.7 | 4.9 | 3.5 | 18.6 | 3.5 | 10.9 | 12.9 | 5.8 | 7.2 | 4.1 | 7.7 | 151 | 6 | <1.0 | 7 | d |
| | Oki | JP 11023 | 16.0 | 24.0 | 18.9 | 11.8 | 5.8 | 20.0 | 1.1 | 5.2 | 5.9 | 34.1 | 15.3 | 8.4 | 12.4 | 244 | 3 | <1.0 | 11 | d |
| | Yusuhara | JP 11025 | * | 16.4 | 11.7 | 9.7 | 6.2 | 8.1 | 3.4 | 6.6 | 6.6 | 11.3 | 20.7 | 7.1 | 7.6 | 119 | 9 | <1.0 | 5 | d |
| | Ogasawara | JP 11018 | 8.3 | 7.6 | 5.9 | 7.8 | 18.9 | 1.6 | 1.2 | 13.3 | 3.2 | 1.3 | 1.7 | 8.2 | 5.4 | 265 | 12 | <1.0 | 6 | d |
| | Hedo | JP 11027 | 12.4 | 10.7 | 25.4 | 17.2 | 5.6 | 2.8 | 7.9 | 78.7 | 140 | 9.4 | 17.3 | 17.6 | 18.5 | 450 | 12 | <1.0 | 1 | d |
| | Ijira | JP 11022 | 13.5 | 19.9 | 11.6 | * | 41.6 | 44.6 | 18.9 | 42.3 | 9.0 | 17.2 | 10.9 | 8.3 | 22.8 | 185 | 5 | 3.3 | 1 | w |
| Banryu | JP 11024 | 19.0 | 48.3 | 19.1 | 7.8 | 10.9 | 33.3 | * | 2.4 | 8.0 | 21.7 | 29.0 | 26.3 | 17.9 | 219 | 1 | 1.6 | 5 | w | |
| Malaysia | Petalang Jaya | MY 11029 | 14.9 | 36.2 | 25.3 | 15.2 | 20.8 | 10.7 | 44.7 | 23.1 | 11.9 | 25.2 | 6.5 | 5.6 | 16.2 | 75.8 | 8 | <1.0 | 9 | w |
| | Tanah Rata | MY 11030 | <1.0 | 8.6 | 4.3 | 1.5 | 2.9 | 1.6 | 5.8 | 1.7 | 4.0 | 14.1 | <1.0 | <1.0 | 4.0 | 19.2 | 10 | <1.0 | 3 | w |
| Mongolia | Ulaanbaatar | MN 11031 | * | * | * | * | 53.9 | 58.9 | 128 | 94.6 | 128 | 80.6 | * | * | 72.8 | 289 | 7 | 32.2 | 6 | d |
| | Terelj | MN 11032 | * | -- | * | 69.3 | 29.4 | 125 | 32.0 | 117 | 62.6 | 23.1 | 8.7 | 20.5 | 65.7 | 443 | 6 | 3.9 | 7 | d |
| Philippine | Metro Manila | PH 11033 | -- | 686 | 216 | 61.3 | * | 178 | 19.4 | 27.5 | 51.8 | 91.9 | 243 | 30.4 | 46.2 | 693 | 2 | 16.6 | 8 | w |
| | Los Banos | PH 11034 | 97.6 | 107 | 6.7 | 40.6 | 35.6 | 17.9 | 13.8 | 24.7 | 17.2 | 18.8 | 104 | 156 | 34.5 | 514 | 12 | 6.7 | 3 | w |
| Republic of Korea | Kanghwa | KR 11035 | 81.3 | * | -- | 22.0 | 46.9 | 88.1 | 48.9 | 21.8 | 7.4 | 23.7 | * | 113 | 40.1 | 212 | 1 | 7.0 | 8 | d |
| | Cheju | KR 11036 | 27.2 | 55.6 | 22.9 | 13.0 | 15.9 | 27.2 | 44.2 | 51.0 | * | 71.5 | 50.4 | 44.7 | 43.3 | 160 | 7 | 1.0 | 4 | d |
| | Imsil | KR 11037 | * | 26.8 | 35.7 | 32.4 | 79.1 | 55.1 | 33.7 | 35.1 | 34.2 | 43.0 | 104 | 43.8 | 42.2 | 148 | 11 | 7.0 | 11 | d |
| Russia | Mondy | RU 11038 | -- | -- | -- | 12.7 | 55.4 | 61.6 | 17.7 | 125 | -- | 32.2 | -- | -- | 33.8 | 126 | 6 | 2.2 | 6 | d |
| | Listvyanka | RU 11039 | 5.4 | 9.2 | 18.3 | 15.7 | 39.4 | 32.4 | 22.7 | 55.8 | 63.0 | 20.1 | 11.7 | 12.4 | 26.8 | 143 | 8 | <1.0 | 1 | d |
| | Irkutsk | RU 11040 | 40.1 | 111 | 54.1 | 68.4 | 46.7 | 42.2 | 28.7 | 38.2 | 68.2 | 34.2 | 67.7 | 79.1 | 43.0 | 233 | 8 | 11.1 | 7 | e |
| | Primorskaya | RU 11041 | ** | 58.7 | 103 | 24.9 | 75.6 | 46.7 | 41.7 | 17.3 | 66.0 | 30.5 | 24.0 | 18.9 | 35.9 | 220 | 5 | <1.0 | 7 | e |
| Thailand | Bangkok | TH 11042 | -- | 16.3 | * | 87.0 | 64.2 | 29.0 | 39.4 | 35.5 | 24.2 | 43.2 | 43.2 | 74.6 | 46.8 | 227 | 4 | 3.7 | 9 | d |
| | Patumthani | TH 11044 | -- | -- | 123 | 111 | 61.4 | 28.7 | 24.3 | 22.9 | 37.5 | 18.3 | 29.5 | 64.7 | 34.2 | 246 | 5 | <1.0 | 6 | d |
| | Vachiralongkorn Dam | TH 11045 | -- | -- | * | 39.3 | 25.4 | 5.5 | 6.0 | 4.9 | 2.0 | * | * | * | 10.9 | 80.8 | 4 | <1.0 | 6 | d |
| | Mae Hia | TH 11046 | 102 | 94.3 | -- | 146 | 32.8 | 14.3 | 18.4 | 15.9 | 10.4 | 10.4 | 11.7 | 13.8 | 18.5 | 203 | 4 | <1.0 | 9 | d |
| Vietnam | Hanoi | VN 11047 | 303 | 516 | 205 | 43.3 | 34.4 | 29.8 | 45.4 | 53.8 | 43.9 | 46.6 | 98.2 | 131 | 55.5 | 550 | 2 | 3.8 | 5 | w |
| | Hoa Binh | VN 11048 | 138 | 182 | 196 | 50.0 | 19.5 | 10.0 | 14.1 | 21.1 | 39.6 | 27.1 | 80.0 | 45.2 | 28.2 | 274 | 3 | 6.2 | 5 | w |

[--]: Precipitation was 0 mm.

[*]: NH₄⁺ was not measured although precipitation was not 0 mm. (%TP=0%)

[**]: Precipitation was not measured. (%PCL=0%)

Data in hatched column: Rejected monthly (annual) value by the criteria of EANET (%PCL<80% or %TP<80%)

Table 3.20 Data completeness of NH₄⁺ (Percent total precipitation: %TP)

unit: %

| Country | Name of sites | Code | 2002 | | | | | | | | | | | | Annual | |
|-------------------|---------------------|----------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|-----|
| | | | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | | |
| China | Guanyinqiao | CN 11001 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | Ji Yunshan | CN 11003 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | Shizhan | CN 11004 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | Weishuiyuan | CN 11005 | -- | 100 | 100 | -- | 100 | 100 | 100 | 100 | 0 | 100 | 100 | -- | 82 | |
| | Jiwozi | CN 11007 | ** | ** | ** | 100 | ** | ** | -- | 100 | -- | 100 | 100 | -- | 100 | |
| | Hongwen | CN 11008 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 95 | 100 | 100 |
| | Xiaoping | CN 11009 | -- | -- | -- | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | Xiang Zhou | CN 11010 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | -- | 100 | 100 |
| | Zhuxian Cavern | CN 11011 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | -- | 100 | 100 |
| Indonesia | Jakarta | ID 11012 | 100 | 100 | 100 | 100 | 100 | -- | 100 | -- | -- | -- | 0 | 0 | 87 | |
| | Serpong | ID 11013 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | Kototabang | ID 11014 | 100 | 100 | 100 | 100 | -- | -- | -- | 0 | 0 | 0 | 0 | 0 | 40 | |
| | Bandung | ID 11015 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | -- | -- | 100 | 100 | 100 | |
| Japan | Rishiri | JP 11016 | 99 | 100 | 90 | 97 | 100 | 100 | 98 | 96 | 91 | 99 | 88 | 99 | 96 | |
| | Tappi | JP 11017 | 99 | 50 | 82 | 99 | 90 | 97 | 29 | 61 | 98 | 100 | 97 | 99 | 75 | |
| | Sado-seki | JP 11019 | 77 | 98 | 48 | 0 | 11 | 98 | 100 | 95 | 90 | 74 | 65 | 92 | 78 | |
| | Happo | JP 11021 | 34 | 23 | 73 | 92 | 89 | 100 | 96 | 100 | 100 | 97 | 62 | 76 | 77 | |
| | Oki | JP 11023 | 100 | 98 | 76 | 55 | 82 | 100 | 46 | 74 | 99 | 86 | 75 | 99 | 80 | |
| | Yusuhara | JP 11025 | 0 | 100 | 52 | 79 | 100 | 100 | 100 | 81 | 100 | 89 | 98 | 91 | 85 | |
| | Ogasawara | JP 11018 | 100 | 100 | 100 | 100 | 99 | 100 | 100 | 99 | 100 | 99 | 100 | 100 | 100 | |
| | Hedo | JP 11027 | 95 | 100 | 100 | 100 | 100 | 99 | 99 | 99 | 1 | 100 | 98 | 99 | 75 | |
| | Ijira | JP 11022 | 100 | 100 | 33 | 0 | 100 | 100 | 100 | 100 | 42 | 100 | 100 | 100 | 84 | |
| | Banryu | JP 11024 | 100 | 100 | 99 | 100 | 100 | 100 | 0 | 90 | 100 | 100 | 72 | 100 | 91 | |
| Malaysia | Petaling Jaya | MY 11029 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | Tanah Rata | MY 11030 | 63 | 100 | 100 | 100 | 59 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 94 | |
| Mongolia | Ulaanbaatar | MN 11031 | 0 | 0 | 0 | 0 | 100 | 100 | 100 | 100 | 100 | 100 | 0 | 0 | 82 | |
| | Terej | MN 11032 | 0 | -- | 0 | 36 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 89 | |
| Philippines | Metro Manila | PH 11033 | -- | 96 | 25 | 100 | 0 | 10 | 47 | 100 | 93 | 32 | 2 | 99 | 55 | |
| | Los Banos | PH 11034 | 100 | 97 | 87 | 98 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| Republic of Korea | Kanghwa | KR 11035 | 100 | 0 | -- | 100 | 97 | 100 | 100 | 100 | 94 | 100 | 0 | 57 | 98 | |
| | Cheju | KR 11036 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 0 | 100 | 100 | 100 | 89 | |
| | Imsil | KR 11037 | 0 | 59 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 89 | |
| Russia | Mondy | RU 11038 | -- | -- | -- | 100 | 100 | 100 | 100 | 100 | -- | 100 | -- | -- | 100 | |
| | Listvyanka | RU 11039 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | Irkutsk | RU 11040 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | Primorskaja | RU 11041 | ** | 85 | 92 | 98 | 90 | 100 | 74 | 95 | 35 | 98 | 86 | 86 | 88 | |
| Thailand | Bangkok | TH 11042 | -- | 100 | 0 | 100 | 100 | 98 | 92 | 100 | 98 | 62 | 97 | 100 | 91 | |
| | Patumthani | TH 11044 | -- | -- | 100 | 100 | 100 | 100 | 99 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | Vachiraklongkom Dam | TH 11045 | -- | -- | 0 | 73 | 36 | 21 | 67 | 80 | 47 | 0 | 0 | 0 | 52 | |
| | Mae Hia | TH 11046 | 100 | 100 | -- | 100 | 100 | 100 | 100 | 100 | 97 | 100 | 100 | 100 | 100 | |
| Vietnam | Hanoi | VN 11047 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | Hoa Binh | VN 11048 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |

[--]: Precipitation was 0 mm.

[**]: Precipitation was not measured.

Table 3.21 Monthly weighted averages of Na⁺ concentration

unit: μmol/L

| Country | Name of sites | Code | 2002 | | | | | | | | | | | | Annual | Max | M | Min | M | F |
|-------------------|---------------------|----------|------|------|------|------|------|------|------|------|------|------|------|------|--------|-------|------|------|----|---|
| | | | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | | | | | | |
| China | Guanyinqiao | CN 11001 | 29.1 | 35.2 | 9.6 | 5.5 | 7.1 | 1.9 | 9.9 | 4.2 | 4.5 | 9.4 | 5.4 | 7.2 | 5.5 | 97.9 | 2 | <1.0 | 6 | d |
| | Jinyunshan | CN 11003 | 10.3 | 10.1 | 13.8 | 8.4 | 6.5 | 3.6 | 4.7 | 3.7 | 5.5 | 7.1 | 5.1 | 12.2 | 5.9 | 144 | 3 | <1.0 | 6 | d |
| | Shizhan | CN 11004 | 277 | 228 | 175 | 241 | 566 | 306 | 246 | 82.3 | 170 | 86.9 | 177 | 293 | 246 | 640 | 5 | 79.3 | 8 | d |
| | Weishuiyuan | CN 11005 | -- | 607 | 122 | -- | 334 | 182 | 170 | 88.8 | 311 | 127 | 253 | -- | 207 | 607 | 2 | 82.1 | 8 | d |
| | Jiwozi | CN 11007 | ** | ** | ** | 270 | ** | ** | -- | 146 | -- | 114 | 294 | -- | 171 | 294 | 11 | 72.6 | 12 | d |
| | Hongwen | CN 11008 | 39.5 | 29.6 | 42.3 | 44.3 | 38.3 | 26.3 | 24.6 | 90.4 | 19.9 | 188 | 48.0 | 42.2 | 55.6 | 248 | 10 | 4.8 | 11 | d |
| | Xiaoping | CN 11009 | -- | -- | -- | 17.4 | 16.9 | 15.4 | 13.3 | 29.2 | 7.4 | 10.8 | 10.6 | 6.2 | 16.4 | 234 | 4 | <1.0 | 10 | d |
| | Xiang Zhou | CN 11010 | 8.6 | 57.2 | 26.8 | 77.5 | 15.0 | 14.5 | 30.8 | 60.0 | 81.4 | 32.5 | -- | 41.3 | 41.5 | 302 | 3 | <1.0 | 5 | d |
| | Zhuxian Cavern | CN 11011 | 71.5 | 53.5 | 40.1 | 89.3 | 16.1 | 15.5 | 33.4 | 46.5 | 84.7 | 28.2 | -- | 48.4 | 45.2 | 196 | 9 | <1.0 | 5 | d |
| Indonesia | Jakarta | ID 11012 | 22.8 | 40.8 | 36.8 | 34.9 | 41.8 | -- | 60.3 | -- | -- | -- | 51.8 | 21.1 | 35.3 | 136 | 7 | 11.2 | 3 | w |
| | Serpong | ID 11013 | 14.1 | 27.5 | 6.6 | 6.8 | 10.9 | 14.9 | 108 | 104 | 149 | 78.2 | 21.9 | 17.0 | 25.2 | 198 | 9 | <1.0 | 12 | e |
| | Kototabang | ID 11014 | <1.0 | 0.3 | <1.0 | <1.0 | -- | -- | -- | 5.1 | 6.4 | 8.7 | 14.7 | 11.3 | 6.3 | 22.7 | 11 | <1.0 | 1 | w |
| | Bandung | ID 11015 | 11.7 | 4.1 | 3.2 | 2.4 | 6.1 | 68.7 | 20.0 | 22.9 | -- | -- | 4.5 | 3.6 | 8.6 | 167 | 6 | <1.0 | 1 | e |
| Japan | Rishiri | JP 11016 | 239 | 175 | 255 | 148 | 46.1 | 61.4 | 19.0 | 21.4 | 78.6 | 386 | 346 | 219 | 197 | 2520 | 10 | 1.5 | 7 | d |
| | Tappi | JP 11017 | 188 | 218 | 413 | 209 | 70.1 | 93.3 | 22.7 | 25.6 | 97.4 | 301 | 338 | 341 | 165 | 2840 | 10 | 2.6 | 8 | d |
| | Sado-seki | JP 11019 | 725 | 1480 | 213 | * | 22.3 | 19.3 | 16.5 | 40.9 | 16.7 | 637 | 566 | 581 | 268 | 25000 | 2 | 1.6 | 7 | d |
| | Happo | JP 11021 | 2.5 | 9.3 | 6.9 | <1.0 | <1.0 | 1.4 | 1.1 | 1.5 | 1.7 | 7.4 | 9.0 | 5.7 | 3.4 | 42.2 | 8 | <1.0 | 1 | d |
| | Oki | JP 11023 | 989 | 846 | 185 | 51.9 | 7.2 | 67.4 | 3.8 | 36.5 | 49.8 | 387 | 605 | 699 | 363 | 7830 | 1 | 1.3 | 7 | d |
| | Yusuhara | JP 11025 | * | 30.8 | 12.7 | 12.4 | 9.2 | 3.6 | 29.3 | 59.5 | 10.8 | 31.7 | 95.2 | 12.7 | 28.9 | 557 | 10 | <1.0 | 7 | d |
| | Ogasawara | JP 11018 | 218 | 123 | 47.3 | 35.5 | 65.8 | 33.8 | 572 | 814 | 353 | 616 | 335 | 98.0 | 236 | 29900 | 11 | <1.0 | 6 | d |
| | Hedo | JP 11027 | 226 | 128 | 157 | 83.8 | 48.4 | 41.1 | 1330 | 1440 | 1820 | 218 | 437 | 287 | 515 | 8700 | 12 | 11.2 | 5 | d |
| | Ijira | JP 11022 | 57.6 | 71.5 | 4.4 | * | 17.0 | 6.8 | 22.0 | 30.8 | 2.5 | 25.7 | 81.7 | 27.2 | 28.5 | 172 | 2 | 1.7 | 9 | w |
| Banryu | JP 11024 | 156 | 305 | 26.5 | 14.3 | 12.0 | 17.3 | * | 3.8 | 56.9 | 132 | 147 | 326 | 79.4 | 2090 | 1 | 2.9 | 8 | w | |
| Malaysia | Petaling Jaya | MY 11029 | 11.2 | 14.1 | 5.7 | 3.9 | 6.5 | 4.7 | 12.5 | 5.8 | 3.7 | 4.4 | 2.6 | 5.4 | 5.1 | 21.7 | 8 | 1.7 | 11 | w |
| | Tanah Rata | MY 11030 | 6.3 | 83.4 | 3.9 | 1.2 | 1.8 | 1.0 | 1.7 | <1.0 | 1.6 | 1.8 | 1.3 | 2.1 | 1.6 | 83.4 | 2 | <1.0 | 11 | w |
| Mongolia | Ulaanbaatar | MN 11031 | * | * | * | * | 6.9 | 4.9 | 8.7 | 8.9 | 1.7 | 20.1 | * | * | 6.3 | 94.0 | 6 | <1.0 | 7 | d |
| | Terelj | MN 11032 | * | -- | * | 23.1 | 32.2 | 27.0 | 3.2 | 8.2 | 0.2 | 9.8 | 1.1 | 31.4 | 16.9 | 253 | 5 | <1.0 | 7 | d |
| Philippine | Metro Manila | PH 11033 | -- | 76.7 | 34.7 | 15.3 | * | 18.8 | 23.1 | 8.1 | 5.5 | 10.4 | 24.5 | 15.2 | 14.6 | 82.2 | 2 | 4.0 | 4 | w |
| | Los Banos | PH 11034 | 86.1 | 78.7 | 128 | 55.4 | 11.5 | 14.8 | 24.6 | 10.9 | 4.3 | 7.9 | 26.7 | 71.5 | 21.1 | 128 | 3 | 4.3 | 9 | w |
| Republic of Korea | Kanghwa | KR 11035 | 35.1 | * | -- | 47.5 | 74.5 | 68.4 | 70.3 | 35.3 | 38.0 | 49.0 | * | 141 | 49.2 | 160 | 1 | 10.0 | 1 | d |
| | Cheju | KR 11036 | 212 | 127 | 29.3 | 66.4 | 16.7 | 22.7 | 36.9 | 32.8 | * | 70.1 | 84.8 | 214 | 58.3 | 475 | 12 | 7.8 | 4 | d |
| | Imsil | KR 11037 | * | 59.1 | 46.6 | 31.6 | 34.9 | 23.0 | 29.9 | 29.1 | 42.3 | 40.4 | 124 | 92.0 | 38.6 | 207 | 11 | 6.9 | 11 | d |
| Russia | Mondy | RU 11038 | -- | -- | -- | 6.0 | 2.6 | 2.7 | <1.0 | 3.9 | -- | 2.9 | -- | 1.9 | 6.5 | 4 | <1.0 | 7 | d | |
| | Listvyanka | RU 11039 | 9.3 | 13.0 | 2.6 | 3.9 | 2.1 | <1.0 | 0.8 | 3.7 | 2.2 | 1.9 | 4.3 | 9.2 | 3.8 | 39.1 | 8 | <1.0 | 6 | d |
| | Irkutsk | RU 11040 | 8.6 | 204 | 52.5 | 56.3 | 6.2 | 1.0 | 3.4 | 2.7 | 3.2 | 6.4 | 25.8 | 65.4 | 9.2 | 320 | 2 | <1.0 | 7 | e |
| | Primorskaya | RU 11041 | ** | 35.4 | 65.5 | 37.6 | 47.3 | 16.0 | 11.1 | 9.5 | 21.8 | 21.4 | 207 | 23.0 | 23.1 | 283 | 11 | <1.0 | 7 | e |
| Thailand | Bangkok | TH 11042 | -- | 6.3 | * | 9.1 | 33.2 | 13.6 | 31.0 | 16.6 | 5.3 | 1.1 | 7.2 | 10.7 | 16.1 | 624 | 7 | <1.0 | 9 | d |
| | Patumthani | TH 11044 | -- | -- | 34.8 | 30.3 | 20.9 | 11.4 | 18.9 | 3.6 | 4.5 | <1.0 | 1.1 | <1.0 | 9.6 | 69.6 | 6 | <1.0 | 10 | d |
| | Vachiralongkorn Dam | TH 11045 | -- | -- | * | 2.6 | 4.0 | 21.2 | 15.2 | 7.6 | 2.3 | * | * | * | 8.3 | 62.5 | 7 | <1.0 | 9 | d |
| | Mae Hia | TH 11046 | 11.2 | 5.3 | -- | 15.4 | 9.1 | 17.7 | 6.9 | 3.8 | 13.5 | 13.2 | 6.6 | 7.9 | 9.7 | 207 | 6 | <1.0 | 5 | d |
| Vietnam | Hanoi | VN 11047 | 10.4 | 78.5 | 44.9 | 11.3 | 6.8 | 1.9 | 2.3 | 4.2 | 5.5 | 5.0 | 3.4 | 14.4 | 5.9 | 81.9 | 2 | <1.0 | 6 | w |
| | Hoa Binh | VN 11048 | 7.9 | 8.8 | 16.6 | 8.2 | 2.2 | <1.0 | <1.0 | 1.2 | 2.9 | 1.8 | 4.8 | 1.5 | 2.1 | 33.5 | 3 | <1.0 | 6 | w |

[--]: Precipitation was 0 mm.

[*]: Na⁺ was not measured although precipitation was not 0 mm. (%TP=0%)

[**]: Precipitation was not measured. (%PCL=0%)

Data in hatched column: Rejected monthly (annual) value by the criteria of EANET (%PCL<80% or %TP<80%)

Table 3.22 Data completeness of Na⁺ (Percent total precipitation: %TP)

unit: %

| Country | Name of sites | Code | 2002 | | | | | | | | | | | | Annual | |
|-------------------|---------------------|----------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|-----|
| | | | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | | |
| China | Guanyinqiao | CN 11001 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | Ji Yunshan | CN 11003 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | Shizhan | CN 11004 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | Weishuiyuan | CN 11005 | -- | 100 | 100 | -- | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | -- | 100 |
| | Jiwozi | CN 11007 | ** | ** | ** | 100 | ** | ** | -- | 100 | -- | 100 | 100 | -- | 100 | |
| | Hongwen | CN 11008 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 95 | 100 | 100 |
| | Xiaoping | CN 11009 | -- | -- | -- | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | Xiang Zhou | CN 11010 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | -- | 100 | 100 |
| | Zhuxian Cavern | CN 11011 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | -- | 100 | 100 |
| Indonesia | Jakarta | ID 11012 | 100 | 100 | 100 | 100 | 100 | -- | 100 | -- | -- | -- | 100 | 100 | 100 | |
| | Serpong | ID 11013 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | Kototabang | ID 11014 | 100 | 100 | 100 | 100 | -- | -- | -- | 100 | 100 | 100 | 100 | 100 | 100 | |
| | Bandung | ID 11015 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | -- | -- | 100 | 100 | 100 | |
| Japan | Rishiri | JP 11016 | 99 | 100 | 90 | 97 | 100 | 100 | 98 | 96 | 91 | 99 | 88 | 99 | 96 | |
| | Tappi | JP 11017 | 99 | 50 | 82 | 99 | 90 | 97 | 29 | 61 | 98 | 100 | 97 | 99 | 75 | |
| | Sado-seki | JP 11019 | 77 | 98 | 48 | 0 | 11 | 98 | 100 | 95 | 90 | 74 | 65 | 92 | 78 | |
| | Happo | JP 11021 | 34 | 23 | 73 | 92 | 89 | 100 | 96 | 100 | 100 | 97 | 62 | 76 | 77 | |
| | Oki | JP 11023 | 100 | 98 | 76 | 55 | 82 | 100 | 46 | 74 | 99 | 86 | 75 | 99 | 80 | |
| | Yusuhara | JP 11025 | 0 | 100 | 52 | 79 | 100 | 100 | 100 | 81 | 100 | 89 | 98 | 91 | 85 | |
| | Ogasawara | JP 11018 | 100 | 100 | 100 | 100 | 99 | 100 | 100 | 99 | 100 | 99 | 100 | 100 | 100 | |
| | Hedo | JP 11027 | 95 | 100 | 100 | 100 | 100 | 99 | 99 | 99 | 1 | 100 | 98 | 99 | 75 | |
| | Ijira | JP 11022 | 100 | 100 | 33 | 0 | 100 | 100 | 100 | 100 | 42 | 100 | 100 | 100 | 84 | |
| | Banryu | JP 11024 | 100 | 100 | 99 | 100 | 100 | 100 | 0 | 90 | 100 | 100 | 72 | 100 | 91 | |
| Malaysia | Petaling Jaya | MY 11029 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | Tanah Rata | MY 11030 | 63 | 100 | 100 | 100 | 59 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 94 | |
| Mongolia | Ulaanbaatar | MN 11031 | 0 | 0 | 0 | 0 | 100 | 100 | 100 | 100 | 100 | 100 | 0 | 0 | 82 | |
| | Terej | MN 11032 | 0 | -- | 0 | 36 | 80 | 89 | 100 | 100 | 100 | 100 | 100 | 100 | 82 | |
| Philippines | Metro Manila | PH 11033 | -- | 96 | 25 | 100 | 0 | 10 | 47 | 100 | 93 | 32 | 2 | 99 | 55 | |
| | Los Banos | PH 11034 | 100 | 97 | 87 | 98 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| Republic of Korea | Kanghwa | KR 11035 | 100 | 0 | -- | 100 | 97 | 100 | 100 | 100 | 94 | 100 | 0 | 57 | 98 | |
| | Cheju | KR 11036 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 0 | 100 | 100 | 100 | 89 | |
| | Imsil | KR 11037 | 0 | 59 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 89 | |
| Russia | Mondy | RU 11038 | -- | -- | -- | 100 | 100 | 100 | 100 | 100 | -- | 100 | -- | -- | 100 | |
| | Listvyanka | RU 11039 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | Irkutsk | RU 11040 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | Primorskaja | RU 11041 | ** | 85 | 92 | 98 | 90 | 100 | 74 | 95 | 35 | 98 | 86 | 86 | 88 | |
| Thailand | Bangkok | TH 11042 | -- | 100 | 0 | 100 | 100 | 98 | 92 | 100 | 98 | 62 | 97 | 100 | 91 | |
| | Patumthani | TH 11044 | -- | -- | 100 | 100 | 100 | 100 | 99 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | Vachiraklongkom Dam | TH 11045 | -- | -- | 0 | 73 | 36 | 21 | 67 | 80 | 47 | 0 | 0 | 0 | 52 | |
| | Mae Hia | TH 11046 | 100 | 100 | -- | 100 | 100 | 100 | 100 | 100 | 97 | 100 | 100 | 100 | 100 | |
| Vietnam | Hanoi | VN 11047 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | Hoa Binh | VN 11048 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |

[--]: Precipitation was 0 mm.

[**]: Precipitation was not measured.

Table 3.23 Monthly weighted averages of K⁺ concentration

unit: μmol/L

| Country | Name of sites | Code | 2002 | | | | | | | | | | | | Annual | Max | M | Min | M | F |
|-------------------|---------------------|----------|------|------|------|------|------|------|------|------|------|------|------|------|--------|------|----|------|----|---|
| | | | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | | | | | | |
| China | Guanyinqiao | CN 11001 | 51.7 | 42.4 | 15.3 | 9.3 | 13.4 | 5.4 | 15.3 | 8.0 | 7.3 | 16.6 | 12.3 | 25.2 | 10.6 | 160 | 8 | 1.0 | 8 | d |
| | Jinyunshan | CN 11003 | 31.6 | 23.3 | 22.4 | 8.7 | 10.8 | 5.9 | 7.9 | 5.7 | 23.3 | 10.2 | 19.8 | 21.3 | 10.3 | 123 | 1 | <1.0 | 8 | d |
| | Shizhan | CN 11004 | 111 | 81.8 | 66.2 | 68.1 | 65.7 | 18.2 | 90.3 | 30.6 | 48.4 | 25.8 | 72.7 | 77.7 | 40.5 | 194 | 3 | 13.0 | 6 | d |
| | Weishuiyuan | CN 11005 | -- | 217 | 49.1 | -- | 111 | 71.7 | 114 | 34.4 | 109 | 36.4 | 79.3 | -- | 76.6 | 217 | 2 | 30.6 | 8 | d |
| | Jiwozi | CN 11007 | ** | ** | ** | 70.2 | ** | ** | -- | 27.1 | -- | 33.1 | 62.8 | -- | 42.2 | 98.9 | 4 | 21.4 | 12 | d |
| | Hongwen | CN 11008 | 8.3 | 6.2 | 16.8 | 13.1 | 3.4 | 4.3 | 4.0 | 3.1 | 2.3 | 11.2 | 4.8 | 3.5 | 4.3 | 48.2 | 1 | 1.1 | 8 | d |
| | Xiaoping | CN 11009 | -- | -- | -- | 15.3 | 1.4 | 8.2 | 3.5 | <1.0 | 2.4 | 4.1 | 12.1 | 2.3 | 3.8 | 177 | 4 | <1.0 | 8 | d |
| | Xiang Zhou | CN 11010 | 14.5 | 24.6 | 7.0 | 11.4 | 3.4 | 3.5 | 13.7 | 75.7 | 10.7 | 6.4 | -- | 24.7 | 17.6 | 846 | 8 | <1.0 | 7 | d |
| | Zhuxian Cavern | CN 11011 | 26.7 | 20.7 | 9.6 | 15.4 | 5.8 | 3.5 | 18.6 | 14.1 | 14.9 | 7.1 | -- | 27.6 | 13.2 | 86.8 | 8 | <1.0 | 5 | d |
| Indonesia | Jakarta | ID 11012 | 9.4 | 14.9 | 15.6 | <1.0 | 14.9 | -- | 7.6 | -- | -- | -- | 16.5 | 7.9 | 11.3 | 32.4 | 5 | <1.0 | 4 | w |
| | Serpong | ID 11013 | 1.6 | 3.7 | 4.2 | 2.6 | 2.1 | 5.2 | 7.5 | 11.3 | 25.3 | 14.7 | 4.0 | 2.5 | 3.9 | 32.8 | 9 | <1.0 | 12 | e |
| | Kototabang | ID 11014 | <1.0 | 1.8 | <1.0 | <1.0 | -- | -- | -- | 4.6 | 3.5 | 6.8 | 11.4 | 8.5 | 5.1 | 52.6 | 11 | <1.0 | 1 | w |
| | Bandung | ID 11015 | 2.7 | 2.5 | <1.0 | 1.1 | 2.4 | 9.3 | 4.2 | 31.1 | -- | -- | <1.0 | <1.0 | 2.0 | 31.1 | 8 | <1.0 | 11 | e |
| Japan | Rishiri | JP 11016 | 6.1 | 5.8 | 13.5 | 5.3 | 2.8 | 2.6 | 1.9 | 1.1 | 2.0 | 8.3 | 7.5 | 4.7 | 5.1 | 68.9 | 10 | <1.0 | 7 | d |
| | Tappi | JP 11017 | 4.4 | 7.9 | 12.5 | 6.3 | 2.1 | 2.9 | 0.9 | 0.5 | 1.9 | 6.3 | 8.8 | 6.8 | 4.1 | 63.3 | 10 | <1.0 | 8 | d |
| | Sado-seki | JP 11019 | 15.9 | 31.1 | 3.4 | * | 2.6 | 1.5 | 1.3 | <1.0 | 1.2 | 14.0 | 14.5 | 11.8 | 6.5 | 428 | 2 | <1.0 | 8 | d |
| | Happo | JP 11021 | <1.0 | 2.7 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | 5.4 | 6 | <1.0 | 1 | d |
| | Oki | JP 11023 | 25.2 | 24.2 | 5.9 | 3.4 | <1.0 | 3.7 | 0.3 | 1.1 | 1.3 | 12.1 | 15.8 | 14.5 | 9.5 | 183 | 1 | <1.0 | 7 | d |
| | Yusuhara | JP 11025 | * | 2.0 | 1.1 | 1.8 | <1.0 | <1.0 | 1.5 | <1.0 | 1.4 | 3.1 | <1.0 | <1.0 | 1.0 | 117 | 4 | <1.0 | 2 | d |
| | Ogasawara | JP 11018 | 5.3 | 3.6 | 1.9 | <1.0 | 2.2 | 1.4 | 13.5 | 19.9 | 9.8 | 18.4 | 7.5 | 2.8 | 6.2 | 601 | 11 | <1.0 | 4 | d |
| | Hedo | JP 11027 | 5.1 | 2.3 | 5.1 | 3.0 | 1.3 | 1.2 | 29.3 | 31.2 | 63.7 | 5.7 | 11.1 | 7.9 | 12.0 | 179 | 12 | <1.0 | 5 | d |
| | Ijira | JP 11022 | 2.9 | 2.7 | 0.8 | * | 2.2 | 1.8 | 1.6 | 2.6 | 1.8 | 2.6 | 3.9 | 1.3 | 2.1 | 7.2 | 5 | <1.0 | 1 | w |
| | Banryu | JP 11024 | 4.9 | 10.7 | 1.7 | 1.2 | <1.0 | 2.1 | * | <1.0 | 1.6 | 4.3 | 4.6 | 8.9 | 2.9 | 65.7 | 1 | <1.0 | 8 | w |
| Malaysia | Petaling Jaya | MY 11029 | 2.0 | 3.2 | 2.2 | 1.0 | 1.3 | 1.1 | 2.7 | 1.2 | <1.0 | 1.6 | <1.0 | <1.0 | 1.3 | 7.6 | 3 | <1.0 | 11 | w |
| | Tanah Rata | MY 11030 | 1.9 | 31.4 | 1.4 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | 1.2 | <1.0 | <1.0 | <1.0 | 31.4 | 2 | <1.0 | 11 | w |
| Mongolia | Ulaanbaatar | MN 11031 | * | * | * | * | 4.0 | 2.8 | 6.6 | 4.9 | 3.2 | 10.0 | * | * | 3.8 | 36.3 | 8 | <1.0 | 6 | d |
| | Terelj | MN 11032 | * | -- | * | 19.8 | 19.2 | 9.4 | 3.3 | 9.3 | 4.4 | 5.8 | 2.7 | 13.7 | 10.2 | 126 | 5 | <1.0 | 9 | d |
| Philippine | Metro Manila | PH 11033 | -- | 294 | 15.7 | 4.0 | * | 7.6 | 9.7 | 1.7 | 3.3 | 14.1 | 43.2 | 3.6 | 9.9 | 297 | 2 | <1.0 | 8 | w |
| | Los Banos | PH 11034 | 16.9 | 8.4 | 17.0 | 4.0 | 2.7 | 4.3 | 4.7 | 2.2 | 1.6 | 1.6 | 20.8 | 28.0 | 6.4 | 126 | 12 | <1.0 | 8 | w |
| Republic of Korea | Kanghwa | KR 11035 | 11.8 | * | -- | 4.9 | 15.1 | 14.0 | 12.5 | 3.9 | 13.5 | 20.2 | * | 19.1 | 8.8 | 37.9 | 1 | 2.7 | 8 | d |
| | Cheju | KR 11036 | 19.9 | 11.5 | 2.7 | 1.7 | 7.9 | 6.1 | 3.0 | 3.8 | * | 19.7 | 9.7 | 4.5 | 6.4 | 68.5 | 11 | <1.0 | 4 | d |
| | Imsil | KR 11037 | * | 4.7 | 4.2 | 4.3 | 12.1 | 8.1 | 6.3 | 5.0 | 1.3 | 11.6 | 17.6 | 11.5 | 6.5 | 27.7 | 11 | <1.0 | 9 | d |
| Russia | Mondy | RU 11038 | -- | -- | -- | 2.9 | 3.7 | 3.0 | <1.0 | 5.6 | -- | 7.8 | -- | -- | 2.3 | 10.6 | 10 | <1.0 | 7 | d |
| | Listvyanka | RU 11039 | 3.4 | 2.6 | 1.3 | 1.5 | 1.2 | <1.0 | <1.0 | 2.4 | 5.4 | 2.0 | 2.0 | 5.4 | 2.2 | 16.6 | 9 | <1.0 | 6 | d |
| | Irkutsk | RU 11040 | 1.7 | 21.7 | 6.6 | 10.2 | 3.2 | <1.0 | <1.0 | 1.9 | 3.9 | 2.7 | 3.9 | 9.3 | 2.3 | 62.7 | 2 | <1.0 | 6 | e |
| | Primorskaya | RU 11041 | ** | 9.1 | 11.3 | 9.9 | 15.0 | 8.9 | 4.6 | 1.6 | 5.8 | 3.0 | 9.3 | 3.5 | 5.3 | 66.5 | 4 | <1.0 | 7 | e |
| Thailand | Bangkok | TH 11042 | -- | 2.1 | * | 1.4 | 3.1 | 3.3 | 5.6 | 4.9 | 3.1 | 3.3 | 4.1 | 5.3 | 3.4 | 47.8 | 7 | <1.0 | 5 | d |
| | Patumthani | TH 11044 | -- | -- | 11.3 | 4.1 | 1.9 | 1.7 | 1.6 | 1.1 | 1.8 | <1.0 | 1.7 | 2.6 | 1.5 | 39.4 | 6 | <1.0 | 10 | d |
| | Vachiralongkorn Dam | TH 11045 | -- | -- | * | 4.3 | 1.9 | 2.3 | 2.4 | 2.3 | 1.9 | * | * | * | 2.4 | 9.2 | 4 | <1.0 | 7 | d |
| | Mae Hia | TH 11046 | 13.5 | 9.0 | -- | 13.9 | 4.3 | 8.3 | 2.1 | 1.2 | 4.0 | 5.3 | 4.6 | 2.8 | 4.4 | 73.0 | 6 | <1.0 | 5 | d |
| Vietnam | Hanoi | VN 11047 | <1.0 | <1.0 | 3.9 | 2.8 | <1.0 | <1.0 | <1.0 | <1.0 | 3.6 | 4.1 | 9.6 | 12.9 | 2.1 | 29.0 | 11 | <1.0 | 6 | w |
| | Hoa Binh | VN 11048 | 2.8 | <1.0 | 4.9 | 3.5 | <1.0 | <1.0 | <1.0 | <1.0 | 3.6 | 2.9 | 8.2 | 4.5 | 1.5 | 22.6 | 4 | <1.0 | 1 | w |

[--]: Precipitation was 0 mm.

[*]: K⁺ was not measured although precipitation was not 0 mm. (%TP=0%)

[**]: Precipitation was not measured. (%PCL=0%)

Data in hatched column: Rejected monthly (annual) value by the criteria of EANET (%PCL<80% or %TP<80%)

Table 3.24 Data completeness of K⁺ (Percent total precipitation: %TP)

unit: %

| Country | Name of sites | Code | 2002 | | | | | | | | | | | | Annual | |
|-------------------|---------------------|----------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|-----|
| | | | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | | |
| China | Guanyinqiao | CN 11001 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | Ji Yunshan | CN 11003 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | Shizhan | CN 11004 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | Weishuiyuan | CN 11005 | -- | 100 | 100 | -- | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | -- | 100 |
| | Jiwozi | CN 11007 | ** | ** | ** | 100 | ** | ** | -- | 100 | -- | 100 | 100 | -- | 100 | |
| | Hongwen | CN 11008 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 95 | 100 | 100 |
| | Xiaoping | CN 11009 | -- | -- | -- | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | Xiang Zhou | CN 11010 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | -- | 100 | 100 |
| | Zhuxian Cavern | CN 11011 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | -- | 100 | 100 |
| Indonesia | Jakarta | ID 11012 | 100 | 100 | 100 | 100 | 100 | -- | 100 | -- | -- | -- | 100 | 100 | 100 | |
| | Serpong | ID 11013 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | Kototabang | ID 11014 | 100 | 100 | 100 | 100 | -- | -- | -- | 100 | 100 | 100 | 100 | 100 | 100 | |
| | Bandung | ID 11015 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | -- | -- | 100 | 100 | 100 | |
| Japan | Rishiri | JP 11016 | 99 | 100 | 90 | 97 | 100 | 100 | 98 | 96 | 91 | 99 | 88 | 99 | 96 | |
| | Tappi | JP 11017 | 99 | 50 | 82 | 99 | 90 | 97 | 29 | 61 | 98 | 100 | 97 | 99 | 75 | |
| | Sado-seki | JP 11019 | 77 | 98 | 48 | 0 | 11 | 98 | 100 | 95 | 90 | 74 | 65 | 92 | 78 | |
| | Happo | JP 11021 | 34 | 23 | 73 | 92 | 89 | 100 | 96 | 100 | 100 | 97 | 62 | 76 | 77 | |
| | Oki | JP 11023 | 100 | 98 | 76 | 55 | 82 | 100 | 46 | 74 | 99 | 86 | 75 | 99 | 80 | |
| | Yusuhara | JP 11025 | 0 | 100 | 52 | 79 | 100 | 100 | 100 | 81 | 100 | 89 | 98 | 91 | 85 | |
| | Ogasawara | JP 11018 | 100 | 100 | 100 | 100 | 99 | 100 | 100 | 99 | 100 | 99 | 100 | 100 | 100 | |
| | Hedo | JP 11027 | 95 | 100 | 100 | 100 | 100 | 99 | 99 | 99 | 1 | 100 | 98 | 99 | 75 | |
| | Ijira | JP 11022 | 100 | 100 | 33 | 0 | 100 | 100 | 100 | 100 | 42 | 100 | 100 | 100 | 84 | |
| | Banryu | JP 11024 | 100 | 100 | 99 | 100 | 100 | 100 | 0 | 90 | 100 | 100 | 72 | 100 | 91 | |
| Malaysia | Petaling Jaya | MY 11029 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | Tanah Rata | MY 11030 | 63 | 100 | 100 | 100 | 59 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 94 | |
| Mongolia | Ulaanbaatar | MN 11031 | 0 | 0 | 0 | 0 | 100 | 100 | 100 | 100 | 100 | 100 | 0 | 0 | 82 | |
| | Terej | MN 11032 | 0 | -- | 0 | 36 | 100 | 77 | 100 | 100 | 100 | 100 | 100 | 100 | 83 | |
| Philippines | Metro Manila | PH 11033 | -- | 96 | 25 | 100 | 0 | 10 | 47 | 100 | 93 | 32 | 2 | 99 | 55 | |
| | Los Banos | PH 11034 | 100 | 97 | 87 | 98 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| Republic of Korea | Kanghwa | KR 11035 | 100 | 0 | -- | 100 | 97 | 100 | 100 | 100 | 94 | 100 | 0 | 57 | 98 | |
| | Cheju | KR 11036 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 0 | 100 | 100 | 100 | 89 | |
| | Imsil | KR 11037 | 0 | 59 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 89 | |
| Russia | Mondy | RU 11038 | -- | -- | -- | 100 | 100 | 100 | 100 | 100 | -- | 100 | -- | -- | 100 | |
| | Listvyanka | RU 11039 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | Irkutsk | RU 11040 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | Primorskaja | RU 11041 | ** | 85 | 92 | 98 | 90 | 100 | 74 | 95 | 35 | 98 | 86 | 86 | 88 | |
| Thailand | Bangkok | TH 11042 | -- | 100 | 0 | 100 | 100 | 98 | 92 | 100 | 98 | 62 | 97 | 100 | 91 | |
| | Patumthani | TH 11044 | -- | -- | 100 | 100 | 100 | 100 | 99 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | Vachiraklongkom Dam | TH 11045 | -- | -- | 0 | 73 | 36 | 21 | 67 | 80 | 47 | 0 | 0 | 0 | 52 | |
| | Mae Hia | TH 11046 | 100 | 100 | -- | 100 | 100 | 100 | 100 | 100 | 97 | 100 | 100 | 100 | 100 | |
| Vietnam | Hanoi | VN 11047 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | Hoa Binh | VN 11048 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |

[--]: Precipitation was 0 mm.

[**]: Precipitation was not measured.

Table 3.25 Monthly weighted averages of Ca²⁺ concentration

unit: µmol/L

| Country | Name of sites | Code | 2002 | | | | | | | | | | | | Annual | Max | M | Min | M | F |
|-------------------|---------------------|----------|------|------|------|------|------|------|------|------|------|------|------|------|--------|------|------|------|----|---|
| | | | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | | | | | | |
| China | Guanyinqiao | CN 11001 | 322 | 224 | 81.4 | 51.9 | 58.7 | 31.4 | 99.3 | 73.2 | 64.7 | 159 | 82.8 | 95.9 | 65.4 | 1390 | 8 | 16.0 | 6 | d |
| | Jinyunshan | CN 11003 | 74.7 | 59.5 | 78.3 | 27.0 | 19.0 | 12.1 | 25.3 | 23.1 | 40.6 | 62.6 | 71.7 | 101 | 29.7 | 814 | 3 | 2.2 | 8 | d |
| | Shizhan | CN 11004 | 1900 | 904 | 1030 | 831 | 460 | 289 | 602 | 377 | 409 | 289 | 935 | 1300 | 479 | 2440 | 3 | 194 | 6 | d |
| | Weishuiyuan | CN 11005 | -- | 2570 | 789 | -- | 632 | 580 | 539 | 221 | 848 | 262 | 711 | -- | 617 | 2570 | 2 | 209 | 8 | d |
| | Jiwozi | CN 11007 | ** | ** | ** | 643 | ** | ** | -- | 147 | -- | 146 | 281 | -- | 276 | 808 | 4 | 145 | 12 | d |
| | Hongwen | CN 11008 | 90.3 | 52.3 | 145 | 82.5 | 18.2 | 30.2 | 16.2 | 54.2 | 16.0 | 594 | 11.6 | 58.6 | 49.1 | 853 | 10 | 0.3 | 11 | d |
| | Xiaoping | CN 11009 | -- | -- | -- | 3.7 | 2.8 | 5.2 | 9.2 | 16.7 | 8.4 | 3.5 | 44.5 | 2.9 | 10.6 | 97.1 | 11 | <0.2 | 5 | d |
| | Xiang Zhou | CN 11010 | 24.3 | 60.1 | 8.5 | 10.3 | 6.7 | 11.5 | 14.8 | 15.3 | 19.6 | 20.6 | -- | 54.4 | 15.5 | 228 | 9 | 1.0 | 7 | d |
| | Zhuxian Cavern | CN 11011 | 99.8 | 131 | 42.2 | 21.0 | 25.3 | 6.8 | 19.0 | 13.8 | 13.2 | 25.5 | -- | 57.4 | 20.7 | 131 | 2 | 0.5 | 6 | d |
| Indonesia | Jakarta | ID 11012 | 7.8 | 23.4 | 27.3 | 118 | 79.2 | -- | 79.0 | -- | -- | -- | 147 | 88.6 | 42.9 | 318 | 4 | 5.9 | 1 | w |
| | Serpong | ID 11013 | 2.1 | 1.7 | 7.5 | 6.0 | 6.1 | 25.4 | 27.5 | 57.4 | 86.0 | 45.5 | 10.9 | 3.6 | 9.9 | 112 | 10 | <0.2 | 2 | e |
| | Kototabang | ID 11014 | 2.8 | 3.3 | 2.4 | 2.5 | -- | -- | -- | 4.4 | 4.9 | 5.3 | 8.3 | 6.7 | 4.9 | 20.9 | 11 | <0.2 | 3 | w |
| | Bandung | ID 11015 | 16.5 | 24.3 | 15.3 | 11.0 | 23.4 | 53.5 | 24.5 | 18.9 | -- | -- | 31.1 | 6.5 | 17.1 | 207 | 7 | 1.0 | 7 | e |
| Japan | Rishiri | JP 11016 | 8.2 | 11.0 | 69.9 | 39.9 | 6.2 | 4.3 | 1.4 | 1.2 | 2.7 | 11.2 | 13.4 | 6.6 | 10.2 | 185 | 4 | <0.2 | 7 | d |
| | Tappi | JP 11017 | 6.1 | 18.8 | 53.2 | 33.3 | 5.8 | 3.7 | 1.8 | 1.1 | 2.7 | 7.7 | 12.6 | 9.8 | 9.0 | 183 | 3 | 0.7 | 8 | d |
| | Sado-seki | JP 11019 | 16.0 | 55.1 | 6.5 | * | 4.3 | 3.6 | 1.7 | 2.4 | 2.5 | 18.7 | 19.9 | 20.6 | 9.1 | 537 | 2 | 0.6 | 8 | d |
| | Happo | JP 11021 | 1.5 | 14.5 | 4.9 | 1.9 | 1.5 | 2.5 | 0.8 | 1.1 | 0.9 | 1.5 | 1.8 | 3.1 | 2.0 | 29.5 | 2 | <0.2 | 5 | d |
| | Oki | JP 11023 | 26.9 | 29.3 | 15.6 | 5.1 | 1.3 | 6.3 | 0.4 | 2.2 | 1.5 | 15.0 | 19.9 | 16.1 | 11.5 | 306 | 3 | <0.2 | 5 | d |
| | Yusuhara | JP 11025 | * | 7.9 | 2.2 | 2.0 | 1.5 | 0.6 | 1.2 | 1.0 | 0.9 | 2.2 | 7.0 | 2.7 | 1.8 | 49.4 | 2 | <0.2 | 3 | d |
| | Ogasawara | JP 11018 | 7.6 | 8.8 | 2.8 | 5.1 | 4.1 | 2.1 | 16.8 | 23.6 | 12.9 | 29.3 | 10.6 | 3.0 | 8.6 | 867 | 11 | <0.2 | 10 | d |
| | Hedo | JP 11027 | 6.7 | 3.6 | 7.9 | 15.2 | 2.9 | 1.8 | 30.7 | 32.7 | 60.8 | 6.4 | 13.4 | 8.6 | 14.0 | 381 | 12 | <0.2 | 2 | d |
| | Ijira | JP 11022 | 3.4 | 7.6 | 1.5 | * | 5.3 | 3.4 | 2.3 | 5.2 | 1.0 | 4.8 | 15.9 | 5.9 | 4.2 | 32.4 | 11 | 0.3 | 9 | w |
| Banryu | JP 11024 | 9.1 | 20.5 | 6.8 | 2.0 | 2.1 | 2.4 | * | <0.2 | 2.1 | 5.8 | 8.2 | 13.2 | 5.4 | 149 | 1 | <0.2 | 8 | w | |
| Malaysia | Petaling Jaya | MY 11029 | 19.3 | 10.9 | 8.0 | 5.7 | 8.8 | 7.7 | 25.2 | 7.1 | 4.6 | 8.0 | 6.5 | 6.4 | 7.4 | 41.9 | 9 | 1.0 | 10 | w |
| | Tanah Rata | MY 11030 | 5.0 | 11.1 | 5.3 | 2.7 | 1.7 | 0.9 | 3.6 | 3.4 | 4.1 | 3.0 | 2.3 | 4.7 | 3.1 | 111 | 2 | 0.5 | 6 | w |
| Mongolia | Ulaanbaatar | MN 11031 | * | * | * | * | 51.5 | 36.5 | 91.9 | 93.9 | 18.4 | 86.3 | * | * | 49.9 | 468 | 6 | 6.7 | 5 | d |
| | Terelj | MN 11032 | * | -- | * | 43.1 | 44.2 | 30.5 | 9.8 | 23.2 | 17.5 | 22.3 | 9.4 | 28.9 | 27.3 | 332 | 5 | 1.5 | 7 | d |
| Philippine | Metro Manila | PH 11033 | -- | 17.0 | 63.1 | 23.0 | * | 13.1 | 8.3 | 4.7 | 8.5 | 20.7 | 28.7 | 8.6 | 8.7 | 63.1 | 3 | 2.7 | 8 | w |
| | Los Banos | PH 11034 | 39.2 | 19.5 | 19.7 | 38.9 | 6.6 | 14.7 | 8.4 | 7.3 | 6.8 | 2.1 | 2.4 | 3.5 | 7.2 | 39.2 | 1 | 0.5 | 10 | w |
| Republic of Korea | Kanghwa | KR 11035 | 10.5 | * | -- | 45.2 | 44.9 | 25.3 | 10.7 | 2.8 | 17.4 | 15.8 | * | 75.0 | 11.1 | 75.0 | 12 | 1.4 | 8 | d |
| | Cheju | KR 11036 | 50.2 | 32.8 | 14.6 | 14.6 | 2.1 | 2.2 | 3.6 | 7.5 | * | 6.4 | 14.1 | 9.5 | 9.4 | 59.6 | 1 | <0.2 | 5 | d |
| | Imsil | KR 11037 | * | 26.7 | 32.9 | 15.8 | 6.8 | 9.3 | 2.8 | 4.4 | 1.5 | 9.2 | 43.4 | 22.2 | 9.8 | 69.6 | 11 | 1.0 | 9 | d |
| Russia | Mondy | RU 11038 | -- | -- | -- | 21.8 | 22.9 | 12.9 | 2.9 | 17.7 | -- | 13.4 | -- | -- | 8.5 | 40.2 | 4 | <0.2 | 7 | d |
| | Listvyanka | RU 11039 | 22.6 | 45.0 | 19.3 | 11.6 | 7.6 | 7.8 | 5.3 | 6.9 | 9.7 | 5.4 | 16.1 | 20.9 | 11.4 | 58.6 | 2 | 0.5 | 7 | d |
| | Irkutsk | RU 11040 | 45.9 | 339 | 128 | 146 | 34.4 | 8.0 | 14.0 | 19.6 | 24.5 | 23.0 | 63.2 | 206 | 31.5 | 626 | 4 | 1.5 | 7 | e |
| | Primorskaya | RU 11041 | ** | 100 | 80.7 | 60.1 | 43.4 | 8.2 | 6.4 | 7.3 | 13.1 | 8.4 | 89.9 | 35.4 | 18.1 | 499 | 4 | <0.2 | 6 | e |
| Thailand | Bangkok | TH 11042 | -- | 3.5 | * | 20.2 | 20.6 | 16.2 | 15.9 | 17.9 | 9.9 | 14.5 | 12.1 | 26.7 | 15.7 | 166 | 11 | <0.2 | 7 | d |
| | Patumthani | TH 11044 | -- | -- | 34.0 | 34.6 | 29.6 | 23.9 | 20.9 | 10.1 | 15.2 | 8.3 | 12.0 | 35.7 | 17.4 | 94.5 | 5 | 3.0 | 10 | d |
| | Vachiralongkorn Dam | TH 11045 | -- | -- | * | 6.1 | 4.1 | 7.4 | 7.0 | 4.9 | 0.5 | * | * | * | 4.9 | 26.4 | 7 | 0.3 | 9 | d |
| | Mae Hia | TH 11046 | 19.0 | 14.1 | -- | 44.3 | 22.5 | 18.6 | 21.1 | 19.8 | 24.1 | 18.0 | 9.0 | 12.9 | 18.0 | 72.4 | 5 | 5.2 | 11 | d |
| Vietnam | Hanoi | VN 11047 | 62.7 | 47.7 | 71.6 | 21.6 | 18.8 | 9.4 | 16.6 | 13.6 | 17.0 | 12.6 | 27.4 | 26.8 | 16.8 | 207 | 9 | 5.4 | 12 | w |
| | Hoa Binh | VN 11048 | 29.1 | 16.4 | 36.6 | 19.2 | 6.4 | 2.9 | 4.3 | 16.9 | 31.9 | 20.0 | 25.5 | 10.0 | 12.6 | 54.9 | 3 | 2.2 | 6 | w |

[--]: Precipitation was 0 mm.

[*]: Ca²⁺ was not measured although precipitation was not 0 mm. (%TP=0%)

[**]: Precipitation was not measured. (%PCL=0%)

Data in hatched column: Rejected monthly (annual) value by the criteria of EANET (%PCL<80% or %TP<80%)

Table 3.26 Data completeness of Ca²⁺ (Percent total precipitation: %TP)

unit: %

| Country | Name of sites | Code | 2002 | | | | | | | | | | | | Annual | |
|-------------------|---------------------|----------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|-----|
| | | | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | | |
| China | Guanyinqiao | CN 11001 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | Ji Yunshan | CN 11003 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | Shizhan | CN 11004 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | Weishuiyuan | CN 11005 | -- | 100 | 100 | -- | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | -- | 100 |
| | Jiwozi | CN 11007 | ** | ** | ** | 100 | ** | ** | -- | 100 | -- | 100 | 100 | -- | 100 | |
| | Hongwen | CN 11008 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 95 | 100 | 100 |
| | Xiaoping | CN 11009 | -- | -- | -- | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | Xiang Zhou | CN 11010 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | -- | 100 | 100 |
| | Zhuxian Cavern | CN 11011 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | -- | 100 | 100 |
| Indonesia | Jakarta | ID 11012 | 100 | 100 | 100 | 100 | 100 | -- | 100 | -- | -- | -- | 100 | 100 | 100 | 100 |
| | Serpong | ID 11013 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | Kototabang | ID 11014 | 100 | 100 | 100 | 100 | -- | -- | -- | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | Bandung | ID 11015 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | -- | -- | 100 | 100 | 100 | 100 |
| Japan | Rishiri | JP 11016 | 99 | 100 | 90 | 97 | 100 | 100 | 98 | 96 | 91 | 99 | 88 | 99 | 96 | |
| | Tappi | JP 11017 | 99 | 50 | 82 | 99 | 90 | 97 | 29 | 61 | 98 | 100 | 97 | 99 | 75 | |
| | Sado-seki | JP 11019 | 77 | 98 | 48 | 0 | 11 | 98 | 100 | 95 | 90 | 74 | 65 | 92 | 78 | |
| | Happo | JP 11021 | 34 | 23 | 73 | 92 | 89 | 100 | 96 | 100 | 100 | 97 | 62 | 76 | 77 | |
| | Oki | JP 11023 | 100 | 98 | 76 | 55 | 82 | 100 | 46 | 74 | 99 | 86 | 75 | 99 | 80 | |
| | Yusuhara | JP 11025 | 0 | 100 | 52 | 79 | 100 | 100 | 100 | 81 | 100 | 89 | 98 | 91 | 85 | |
| | Ogasawara | JP 11018 | 100 | 100 | 100 | 100 | 99 | 100 | 100 | 99 | 100 | 99 | 100 | 100 | 100 | |
| | Hedo | JP 11027 | 95 | 100 | 100 | 100 | 100 | 99 | 99 | 99 | 1 | 100 | 98 | 99 | 75 | |
| | Ijira | JP 11022 | 100 | 100 | 33 | 0 | 100 | 100 | 100 | 100 | 42 | 100 | 100 | 100 | 84 | |
| | Banryu | JP 11024 | 100 | 100 | 99 | 100 | 100 | 100 | 0 | 90 | 100 | 100 | 72 | 100 | 91 | |
| Malaysia | Petaling Jaya | MY 11029 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | Tanah Rata | MY 11030 | 63 | 100 | 100 | 100 | 59 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 94 | |
| Mongolia | Ulaanbaatar | MN 11031 | 0 | 0 | 0 | 0 | 100 | 100 | 100 | 100 | 100 | 100 | 0 | 0 | 82 | |
| | Terej | MN 11032 | 0 | -- | 0 | 36 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 89 | |
| Philippines | Metro Manila | PH 11033 | -- | 96 | 25 | 100 | 0 | 10 | 47 | 100 | 93 | 32 | 2 | 99 | 55 | |
| | Los Banos | PH 11034 | 100 | 97 | 87 | 98 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| Republic of Korea | Kanghwa | KR 11035 | 100 | 0 | -- | 100 | 97 | 100 | 100 | 100 | 94 | 100 | 0 | 57 | 98 | |
| | Cheju | KR 11036 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 0 | 100 | 100 | 100 | 89 | |
| | Imsil | KR 11037 | 0 | 59 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 89 | |
| Russia | Mondy | RU 11038 | -- | -- | -- | 100 | 100 | 100 | 100 | 100 | -- | 100 | -- | -- | 100 | |
| | Listvyanka | RU 11039 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | Irkutsk | RU 11040 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | Primorskaja | RU 11041 | ** | 85 | 92 | 98 | 90 | 100 | 74 | 95 | 35 | 98 | 86 | 86 | 88 | |
| Thailand | Bangkok | TH 11042 | -- | 100 | 0 | 100 | 100 | 98 | 92 | 100 | 98 | 62 | 97 | 100 | 91 | |
| | Patumthani | TH 11044 | -- | -- | 100 | 100 | 100 | 100 | 99 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | Vachiraklongkom Dam | TH 11045 | -- | -- | 0 | 73 | 36 | 21 | 67 | 80 | 47 | 0 | 0 | 0 | 52 | |
| | Mae Hia | TH 11046 | 100 | 100 | -- | 100 | 100 | 100 | 100 | 100 | 97 | 100 | 100 | 100 | 100 | |
| Vietnam | Hanoi | VN 11047 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | Hoa Binh | VN 11048 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |

[--]: Precipitation was 0 mm.

[**]: Precipitation was not measured.

Table 3.27 Monthly weighted averages of nss-Ca²⁺ concentration

unit: µmol/L

| Country | Name of sites | Code | 2002 | | | | | | | | | | | | Annual | Max | M | Min | M | F |
|-------------------|---------------------|----------|----------|------|------|------|------|------|------|------|------|------|------|------|--------|------|-----|------|-----|---|
| | | | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | | | | | | |
| China | Guanyinqiao | CN 11001 | 321 | 223 | 81.2 | 51.7 | 58.5 | 31.3 | 99.1 | 73.1 | 64.6 | 159 | 82.7 | 95.7 | 65.3 | 1380 | 8 | 15.9 | 6 | d |
| | Jinyunshan | CN 11003 | 74.5 | 59.3 | 78.0 | 26.8 | 18.8 | 12.1 | 25.2 | 23.0 | 40.5 | 62.5 | 71.6 | 101 | 29.6 | 81 | 3 | 2.2 | 8 | d |
| | Shizhan | CN 11004 | 1890 | 899 | 1020 | 826 | 448 | 282 | 597 | 375 | 405 | 287 | 931 | 1290 | 474 | 2420 | 3 | 192 | 6 | d |
| | Weishuiyuan | CN 11005 | -- | 2560 | 786 | -- | 624 | 576 | 536 | 219 | 842 | 259 | 706 | -- | 612 | 2560 | 2 | 207 | 8 | d |
| | Jiwozi | CN 11007 | ** | ** | ** | 637 | ** | ** | -- | 144 | -- | 143 | 274 | -- | 273 | 80 | 4 | 143 | 10 | d |
| | Hongwen | CN 11008 | 89.5 | 51.6 | 144 | 81.6 | 17.4 | 29.7 | 15.6 | 52.2 | 15.6 | 590 | 10.6 | 57.7 | 47.9 | 840 | 10 | <0.2 | 11 | d |
| | Xiaoping | CN 11009 | -- | -- | -- | 3.3 | 2.5 | 4.9 | 8.9 | 16.1 | 8.2 | 3.3 | 44.2 | 2.8 | 10.3 | 97.0 | 11 | <0.2 | 5 | d |
| | Xiang Zhou | CN 11010 | 24.1 | 58.8 | 7.9 | 8.6 | 6.3 | 11.2 | 14.2 | 14.0 | 17.8 | 19.9 | -- | 53.5 | 14.6 | 227 | 9 | 0.8 | 7 | d |
| | Zhuxian Cavern | CN 11011 | 98.3 | 130 | 41.3 | 19.1 | 25.0 | 6.4 | 18.3 | 12.8 | 11.4 | 24.9 | -- | 56.4 | 19.7 | 130 | 2 | <0.2 | 6 | d |
| | Indonesia | Jakarta | ID 11012 | 7.3 | 22.6 | 26.5 | 118 | 78.3 | -- | 77.7 | -- | -- | -- | 145 | 88.1 | 42.2 | 316 | 4 | 5.2 | 1 |
| Serpong | | ID 11013 | 1.8 | 1.2 | 7.4 | 5.8 | 5.9 | 25.1 | 25.2 | 55.1 | 82.8 | 43.8 | 10.5 | 3.3 | 9.4 | 110 | 10 | <0.2 | 1 | e |
| Kototabang | | ID 11014 | 2.8 | 3.3 | 2.4 | 2.5 | -- | -- | -- | 4.3 | 4.7 | 5.1 | 8.0 | 6.5 | 4.8 | 20.5 | 11 | <0.2 | 4 | w |
| Bandung | | ID 11015 | 16.3 | 24.2 | 15.3 | 11.0 | 23.3 | 52.1 | 24.1 | 18.4 | -- | -- | 31.0 | 6.4 | 16.9 | 206 | 7 | 0.8 | 7 | e |
| Japan | Rishiri | JP 11016 | 3.1 | 7.3 | 64.3 | 36.7 | 5.2 | 3.0 | 1.0 | 0.8 | 1.0 | 2.9 | 5.9 | 1.9 | 5.9 | 182 | 4 | <0.2 | 1 | d |
| | Tappi | JP 11017 | 2.1 | 14.0 | 44.3 | 28.8 | 4.3 | 1.7 | 1.4 | 0.6 | 0.6 | 1.4 | 5.3 | 2.4 | 5.5 | 170 | 3 | <0.2 | 1 | d |
| | Sado-seki | JP 11019 | 1.2 | 23.5 | 1.9 | * | 3.9 | 3.2 | 1.3 | 1.5 | 2.1 | 5.0 | 7.7 | 8.0 | 3.4 | 108 | 6 | <0.2 | 1 | d |
| | Happo | JP 11021 | 1.4 | 14.3 | 4.8 | 1.9 | 1.5 | 2.5 | 0.8 | 1.1 | 0.9 | 1.3 | 1.6 | 3.0 | 1.9 | 28.8 | 2 | <0.2 | 5 | d |
| | Oki | JP 11023 | 5.8 | 11.0 | 11.6 | 4.0 | 1.2 | 4.9 | 0.3 | 1.4 | 0.6 | 6.7 | 7.1 | 2.4 | 3.9 | 263 | 3 | <0.2 | 1 | d |
| | Yusuhara | JP 11025 | * | 7.2 | 2.0 | 1.7 | 1.3 | 0.6 | 0.6 | <0.2 | 0.7 | 1.6 | 5.0 | 2.5 | 1.2 | 45.3 | 4 | <0.2 | 3 | d |
| | Ogasawara | JP 11018 | 2.9 | 6.1 | 1.8 | 4.3 | 2.7 | 1.3 | 4.5 | 6.0 | 5.2 | 16.1 | 3.6 | 1.0 | 3.6 | 220 | 11 | <0.2 | 10 | d |
| | Hedo | JP 11027 | 1.8 | 1.0 | 4.5 | 13.4 | 1.9 | 0.9 | 1.9 | 1.5 | 21.5 | 1.7 | 4.0 | 2.5 | 2.9 | 240 | 4 | <0.2 | 1 | d |
| | Ijira | JP 11022 | 2.2 | 6.1 | 1.4 | * | 4.9 | 3.3 | 1.8 | 4.6 | 1.0 | 4.2 | 14.1 | 5.3 | 3.6 | 31.1 | 11 | 0.3 | 9 | w |
| | Banryu | JP 11024 | 5.7 | 13.9 | 6.2 | 1.7 | 1.8 | 2.1 | * | <0.2 | 0.9 | 2.9 | 5.0 | 6.1 | 3.7 | 104 | 1 | <0.2 | 6 | w |
| Malaysia | Petaling Jaya | MY 11029 | 19.0 | 10.6 | 7.8 | 5.6 | 8.6 | 7.6 | 24.9 | 7.0 | 4.5 | 7.9 | 6.5 | 6.3 | 7.3 | 41.6 | 9 | 1.0 | 10 | w |
| | Tanah Rata | MY 11030 | 4.9 | 110 | 5.2 | 2.7 | 1.7 | 0.8 | 3.6 | 3.4 | 4.0 | 2.9 | 2.3 | 4.6 | 3.0 | 110 | 2 | 0.5 | 1 | w |
| Mongolia | Ulaanbaatar | MN 11031 | * | * | * | * | 51.3 | 36.4 | 91.8 | 93.7 | 18.4 | 85.8 | * | * | 49.8 | 460 | 6 | 6.7 | 5 | d |
| | Terej | MN 11032 | * | -- | * | 42.6 | 42.6 | 31.4 | 9.8 | 23.0 | 17.5 | 22.0 | 9.3 | 28.2 | 26.3 | 320 | 5 | 1.5 | 7 | d |
| Philippine | Metro Manila | PH 11033 | -- | 15.4 | 62.4 | 22.7 | * | 12.7 | 7.8 | 4.5 | 8.3 | 20.5 | 28.2 | 8.3 | 8.4 | 62.4 | 3 | 2.5 | 8 | w |
| | Los Banos | PH 11034 | 37.3 | 17.8 | 16.9 | 37.7 | 6.4 | 14.4 | 7.9 | 7.0 | 6.7 | 2.0 | 1.8 | 1.9 | 6.8 | 37.7 | 4 | 0.4 | 10 | w |
| Republic of Korea | Kanghwa | KR 11035 | 9.7 | * | -- | 44.1 | 43.3 | 23.8 | 9.2 | 2.0 | 16.6 | 14.8 | * | 71.9 | 10.0 | 71.9 | 12 | 0.7 | 7 | d |
| | Cheju | KR 11036 | 45.6 | 30.1 | 14.0 | 13.2 | 1.7 | 1.7 | 2.8 | 6.8 | * | 5.2 | 12.2 | 4.9 | 8.1 | 54.7 | 1 | <0.2 | 5 | d |
| | Imsil | KR 11037 | * | 25.4 | 31.9 | 15.1 | 6.1 | 8.8 | 2.1 | 3.7 | 0.5 | 8.3 | 40.7 | 20.2 | 9.0 | 65.1 | 11 | <0.2 | 9 | d |
| Russia | Mondy | RU 11038 | -- | -- | -- | 21.7 | 22.8 | 12.9 | 2.9 | 17.6 | -- | 13.3 | -- | -- | 8.5 | 40.0 | 4 | <0.2 | 7 | d |
| | Listvyanka | RU 11039 | 22.4 | 44.7 | 19.2 | 11.5 | 7.5 | 7.8 | 5.3 | 6.9 | 9.7 | 5.4 | 16.0 | 20.7 | 11.3 | 58.4 | 2 | 0.5 | 7 | d |
| | Irkutsk | RU 11040 | 45.7 | 334 | 127 | 145 | 34.3 | 8.0 | 13.9 | 19.6 | 24.5 | 22.9 | 62.7 | 205 | 31.3 | 624 | 4 | 1.5 | 7 | e |
| | Primorskaya | RU 11041 | ** | 99.6 | 79.3 | 59.3 | 42.4 | 8.0 | 6.2 | 7.1 | 12.6 | 8.0 | 85.4 | 34.9 | 17.6 | 496 | 4 | <0.2 | 6 | e |
| Thailand | Bangkok | TH 11042 | -- | 3.4 | * | 20.0 | 19.9 | 15.9 | 15.3 | 17.5 | 9.8 | 14.5 | 11.9 | 26.5 | 15.4 | 163 | 11 | <0.2 | 7 | d |
| | Patumthani | TH 11044 | -- | -- | 33.3 | 34.0 | 29.1 | 23.7 | 20.4 | 10.1 | 15.1 | 8.3 | 12.0 | 35.7 | 17.2 | 94.1 | 5 | 3.0 | 10 | d |
| | Vachiralongkorn Dam | TH 11045 | -- | -- | * | 6.1 | 4.1 | 7.0 | 6.7 | 4.7 | 0.5 | * | * | * | 4.7 | 25.3 | 7 | 0.2 | 9 | d |
| | Mae Hia | TH 11046 | 18.8 | 14.0 | -- | 44.0 | 22.3 | 18.2 | 20.9 | 19.7 | 23.8 | 17.7 | 8.9 | 12.7 | 17.8 | 71.8 | 5 | 5.1 | 11 | d |
| Vietnam | Hanoi | VN 11047 | 62.4 | 46.0 | 70.6 | 21.3 | 18.6 | 9.4 | 16.5 | 13.5 | 16.9 | 12.4 | 27.3 | 26.5 | 16.7 | 206 | 9 | 5.2 | 12 | w |
| | Hoa Binh | VN 11048 | 28.9 | 16.2 | 36.2 | 19.0 | 6.3 | 2.9 | 4.3 | 16.9 | 31.8 | 20.0 | 25.4 | 9.9 | 12.6 | 54.1 | 3 | 2.2 | 6 | w |

[--]: Precipitation was 0 mm.

[*]: Ca²⁺ or Na⁺ was not measured although precipitation was not 0 mm. (%TP=0%)

[**]: Precipitation was not measured. (%PCL=0%)

Data in hatched column: Rejected monthly (annual) value by the criteria of EANET (%PCL<80% or %TP<80%)

Table 3.28 Data completeness of nss-Ca²⁺ (Percent total precipitation: %TP)

unit: %

| Country | Name of sites | Code | 2002 | | | | | | | | | | | | Annual |
|-------------------|----------------------|----------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|
| | | | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | |
| China | Guanyinqiao | CN 11001 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | Jinyunshan | CN 11003 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | Shizhan | CN 11004 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | Weishuiyuan | CN 11005 | -- | 100 | 100 | -- | 100 | 100 | 100 | 100 | 100 | 100 | 100 | -- | 100 |
| | Jiwozi | CN 11007 | ** | ** | ** | 100 | ** | ** | -- | 100 | -- | 100 | 100 | -- | 100 |
| | Hongwen | CN 11008 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 95 | 100 |
| | Xiaoping | CN 11009 | -- | -- | -- | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | Xiang Zhou | CN 11010 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | -- | 100 |
| | Zhuxian Cavern | CN 11011 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | -- | 100 |
| Indonesia | Jakarta | ID 11012 | 100 | 100 | 100 | 100 | 100 | -- | 100 | -- | -- | -- | 100 | 100 | 100 |
| | Serpong | ID 11013 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | Kototabang | ID 11014 | 100 | 100 | 100 | 100 | -- | -- | -- | 100 | 100 | 100 | 100 | 100 | 100 |
| | Bandung | ID 11015 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | -- | -- | 100 | 100 | 100 |
| Japan | Rishiri | JP 11016 | 99 | 100 | 90 | 97 | 100 | 100 | 98 | 96 | 91 | 99 | 88 | 99 | 96 |
| | Tappi | JP 11017 | 99 | 50 | 82 | 99 | 90 | 97 | 29 | 61 | 98 | 100 | 97 | 99 | 75 |
| | Sado-seki | JP 11019 | 77 | 98 | 48 | 0 | 11 | 98 | 100 | 95 | 90 | 74 | 65 | 92 | 78 |
| | Happo | JP 11021 | 34 | 23 | 73 | 92 | 89 | 100 | 96 | 100 | 100 | 97 | 62 | 76 | 77 |
| | Oki | JP 11023 | 100 | 98 | 76 | 55 | 82 | 100 | 46 | 74 | 99 | 86 | 75 | 99 | 80 |
| | Yusuhara | JP 11025 | 0 | 100 | 52 | 79 | 100 | 100 | 100 | 81 | 100 | 89 | 98 | 91 | 85 |
| | Ogasawara | JP 11018 | 100 | 100 | 100 | 100 | 99 | 100 | 100 | 99 | 100 | 99 | 100 | 100 | 100 |
| | Hedo | JP 11027 | 95 | 100 | 100 | 100 | 100 | 99 | 99 | 99 | 1 | 100 | 98 | 99 | 75 |
| | Ijira | JP 11022 | 100 | 100 | 33 | 0 | 100 | 100 | 100 | 100 | 42 | 100 | 100 | 100 | 84 |
| | Banryu | JP 11024 | 100 | 100 | 99 | 100 | 100 | 100 | 0 | 90 | 100 | 100 | 72 | 100 | 91 |
| Malaysia | Petaling Jaya | MY 11029 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | Tanah Rata | MY 11030 | 63 | 100 | 100 | 100 | 59 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 94 |
| Mongolia | Ulaanbaatar | MN 11031 | 0 | 0 | 0 | 0 | 100 | 100 | 100 | 100 | 100 | 100 | 0 | 0 | 82 |
| | Terej | MN 11032 | 0 | -- | 0 | 36 | 80 | 89 | 100 | 100 | 100 | 100 | 100 | 100 | 82 |
| Philippines | Metro Manila | PH 11033 | -- | 96 | 25 | 100 | 0 | 10 | 47 | 100 | 93 | 32 | 2 | 99 | 55 |
| | Los Banos | PH 11034 | 100 | 97 | 87 | 98 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| Republic of Korea | Kanghwa | KR 11035 | 100 | 0 | -- | 100 | 97 | 100 | 100 | 100 | 94 | 100 | 0 | 57 | 98 |
| | Cheju | KR 11036 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 0 | 100 | 100 | 100 | 89 |
| | Imsil | KR 11037 | 0 | 59 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 89 |
| Russia | Mondy | RU 11038 | -- | -- | -- | 100 | 100 | 100 | 100 | 100 | -- | 100 | -- | -- | 100 |
| | Listvyanka | RU 11039 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | Irkutsk | RU 11040 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | Primorskaja | RU 11041 | ** | 85 | 92 | 98 | 90 | 100 | 74 | 95 | 35 | 98 | 86 | 86 | 88 |
| Thailand | Bangkok | TH 11042 | -- | 100 | 0 | 100 | 100 | 98 | 92 | 100 | 98 | 62 | 97 | 100 | 91 |
| | Patumthani | TH 11044 | -- | -- | 100 | 100 | 100 | 100 | 100 | 99 | 100 | 100 | 100 | 100 | 100 |
| | Vachiraklongkorn Dam | TH 11045 | -- | -- | 0 | 73 | 36 | 21 | 67 | 80 | 47 | 0 | 0 | 0 | 52 |
| | Mae Hia | TH 11046 | 100 | 100 | -- | 100 | 100 | 100 | 100 | 100 | 97 | 100 | 100 | 100 | 100 |
| Vietnam | Hanoi | VN 11047 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | Hoa Binh | VN 11048 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |

[--]: Precipitation was 0 mm.

[**]: Precipitation was not measured.

Table 3.29 Monthly weighted averages of Mg²⁺ concentration

unit: µmol/L

| Country | Name of sites | Code | 2002 | | | | | | | | | | | | Annual | Max | M | Min | M | F |
|-------------------|---------------------|----------|------|------|------|------|------|------|------|------|------|------|------|------|--------|------|----|------|----|---|
| | | | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | | | | | | |
| China | Guanyinqiao | CN 11001 | 24.3 | 25.9 | 7.6 | 6.8 | 7.0 | 3.6 | 7.1 | 5.2 | 5.1 | 10.4 | 5.1 | 6.6 | 6.0 | 92.5 | 8 | 2.1 | 6 | d |
| | Jinyunshan | CN 11003 | 7.9 | 7.2 | 10.0 | 5.0 | 3.0 | 2.1 | 2.5 | 2.7 | 2.7 | 3.3 | 2.8 | 3.1 | 3.4 | 83.5 | 3 | 0.4 | 8 | d |
| | Shizhan | CN 11004 | 190 | 96.4 | 93.0 | 89.1 | 119 | 41.4 | 84.4 | 51.8 | 67.1 | 40.5 | 130 | 153 | 67.9 | 241 | 12 | 25.1 | 6 | d |
| | Weishuiyuan | CN 11005 | -- | 218 | 67.6 | -- | 117 | 49.7 | 73.2 | 44.5 | 218 | 50.4 | 99.7 | -- | 91.1 | 218 | 9 | 40.2 | 8 | d |
| | Jiwozi | CN 11007 | ** | ** | ** | 82.8 | ** | ** | -- | 35.3 | -- | 38.1 | 69.0 | -- | 50.1 | 85.6 | 4 | 28.9 | 12 | d |
| | Hongwen | CN 11008 | 16.5 | 16.0 | 21.3 | 20.0 | 7.2 | 6.5 | 4.4 | 10.1 | 4.5 | 66.1 | 4.3 | 12.3 | 9.6 | 91.7 | 10 | 0.7 | 11 | d |
| | Xiaoping | CN 11009 | -- | -- | -- | 1.6 | 1.3 | 1.7 | 1.9 | 1.7 | 0.8 | 2.3 | 3.3 | 1.3 | 1.6 | 10.4 | 4 | <0.4 | 5 | d |
| | Xiang Zhou | CN 11010 | 2.7 | 11.0 | 3.1 | 8.5 | 2.4 | 2.1 | 4.6 | 7.4 | 7.6 | 4.7 | -- | 20.1 | 5.5 | 40.7 | 12 | 0.4 | 5 | d |
| | Zhuxian Cavern | CN 11011 | 9.7 | 23.7 | 4.7 | 12.5 | 3.9 | 3.4 | 7.4 | 7.4 | 6.6 | 8.1 | -- | 20.4 | 7.1 | 35.8 | 7 | 0.4 | 5 | d |
| Indonesia | Jakarta | ID 11012 | 3.3 | 8.4 | 11.0 | 57.2 | 31.9 | -- | 28.3 | -- | -- | -- | 21.0 | 9.5 | 13.1 | 66.0 | 4 | 1.4 | 1 | w |
| | Serpong | ID 11013 | 0.9 | 1.7 | 1.3 | 0.9 | 2.4 | 2.9 | 7.6 | 18.5 | 143 | 62.5 | 2.7 | 1.5 | 4.5 | 181 | 9 | <0.4 | 1 | e |
| | Kototabang | ID 11014 | 0.5 | 1.7 | 1.5 | 0.7 | -- | -- | -- | 3.1 | 3.9 | 2.6 | 4.2 | 3.7 | 2.6 | 11.4 | 11 | <0.4 | 1 | w |
| | Bandung | ID 11015 | 1.7 | 1.4 | 0.8 | 0.9 | 2.3 | 6.6 | 2.7 | 13.3 | -- | -- | 2.0 | 1.3 | 1.6 | 15.8 | 7 | <0.4 | 1 | e |
| Japan | Rishiri | JP 11016 | 27.7 | 21.1 | 35.0 | 17.5 | 6.4 | 7.7 | 2.5 | 2.5 | 8.1 | 42.2 | 39.0 | 26.1 | 22.3 | 282 | 10 | <0.4 | 7 | d |
| | Tappi | JP 11017 | 22.1 | 26.5 | 50.4 | 26.6 | 9.9 | 11.0 | 3.6 | 3.5 | 11.2 | 33.6 | 41.3 | 39.1 | 19.6 | 324 | 10 | 1.2 | 8 | d |
| | Sado-seki | JP 11019 | 79.1 | 159 | 22.6 | * | 4.3 | 3.4 | 2.6 | 5.7 | 3.1 | 69.6 | 69.2 | 67.6 | 30.7 | 2550 | 2 | <0.4 | 7 | d |
| | Happo | JP 11021 | 0.6 | 3.7 | 1.8 | 0.4 | 0.8 | 1.0 | <0.4 | 0.9 | 0.7 | 1.3 | 1.6 | 1.2 | 0.9 | 22.9 | 5 | <0.4 | 5 | d |
| | Oki | JP 11023 | 111 | 95.4 | 22.4 | 6.0 | 1.1 | 8.8 | <0.4 | 4.3 | 4.9 | 40.8 | 72.5 | 76.1 | 40.6 | 891 | 1 | <0.4 | 7 | d |
| | Yusuhara | JP 11025 | * | 4.3 | 2.0 | 1.6 | 1.3 | 0.6 | 3.8 | 6.6 | 1.4 | 3.9 | 11.4 | 2.0 | 3.6 | 64.2 | 2 | <0.4 | 5 | d |
| | Ogasawara | JP 11018 | 28.0 | 19.2 | 6.6 | 5.5 | 11.0 | 5.9 | 84.6 | 111 | 46.1 | 93.5 | 42.7 | 12.7 | 32.4 | 3660 | 11 | 1.4 | 6 | d |
| | Hedo | JP 11027 | 24.4 | 14.1 | 18.1 | 11.1 | 5.7 | 4.9 | 152 | 166 | 216 | 25.0 | 49.6 | 31.8 | 59.0 | 903 | 12 | 1.3 | 5 | d |
| | Ijira | JP 11022 | 7.0 | 9.5 | 0.4 | * | 2.7 | 0.8 | 2.1 | 3.7 | <0.4 | 3.2 | 12.5 | 4.1 | 3.5 | 21.8 | 2 | <0.4 | 6 | w |
| | Banryu | JP 11024 | 18.7 | 36.4 | 3.7 | 1.0 | 1.3 | 1.8 | * | <0.4 | 6.1 | 15.2 | 18.1 | 38.1 | 9.3 | 250 | 1 | <0.4 | 8 | w |
| Malaysia | Petaling Jaya | MY 11029 | 4.3 | 4.4 | 2.5 | 1.1 | 1.8 | 2.0 | 5.0 | 1.3 | 0.8 | 1.3 | 0.4 | 0.4 | 1.4 | 11.1 | 3 | 0.4 | 8 | w |
| | Tanah Rata | MY 11030 | 1.3 | 5.1 | 0.7 | <0.4 | 0.5 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 5.1 | 2 | <0.4 | 4 | w |
| Mongolia | Ulaanbaatar | MN 11031 | * | * | * | * | 3.8 | 2.5 | 7.2 | 5.5 | 1.7 | 8.8 | * | * | 3.6 | 35.8 | 6 | 0.4 | 5 | d |
| | Terelj | MN 11032 | * | -- | * | 5.9 | 5.2 | 4.2 | 1.4 | 6.2 | 2.4 | 4.6 | 4.5 | 4.5 | 4.1 | 33.7 | 5 | 0.4 | 5 | d |
| Philippine | Metro Manila | PH 11033 | -- | 32.1 | 13.8 | 7.2 | * | 6.7 | 4.4 | 1.7 | 1.0 | 4.5 | 9.9 | 3.0 | 3.3 | 32.3 | 2 | 0.5 | 9 | w |
| | Los Banos | PH 11034 | 38.3 | 12.1 | 22.6 | 12.5 | 3.2 | 3.4 | 2.7 | 2.1 | 0.5 | 1.1 | 3.4 | 7.3 | 2.9 | 38.3 | 1 | <0.4 | 9 | w |
| Republic of Korea | Kanghwa | KR 11035 | 9.2 | * | -- | 10.0 | 28.0 | 10.4 | 5.2 | 3.5 | 6.3 | 4.8 | * | 24.6 | 6.3 | 39.9 | 1 | 1.4 | 10 | d |
| | Cheju | KR 11036 | 54.8 | 30.7 | 4.2 | 8.4 | 1.7 | 1.4 | 2.9 | 5.5 | * | 5.9 | 9.6 | 6.8 | 7.5 | 62.6 | 1 | 0.5 | 6 | d |
| | Imsil | KR 11037 | * | 10.5 | 7.6 | 9.4 | 6.7 | 1.4 | 0.8 | 1.1 | 0.6 | 4.2 | 6.4 | 9.6 | 3.3 | 26.0 | 4 | <0.4 | 6 | d |
| Russia | Mondy | RU 11038 | -- | -- | -- | 3.6 | 8.9 | 2.5 | 0.9 | 6.2 | -- | 3.6 | -- | -- | 2.2 | 10.7 | 5 | 0.4 | 7 | d |
| | Listvyanka | RU 11039 | 6.3 | 21.7 | 4.6 | 2.6 | 1.7 | 1.9 | 1.4 | 2.1 | 3.2 | 1.0 | 3.8 | 5.6 | 3.0 | 30.0 | 2 | 0.4 | 7 | d |
| | Irkutsk | RU 11040 | 9.6 | 53.8 | 15.2 | 19.8 | 7.2 | 1.9 | 2.9 | 3.8 | 4.2 | 4.0 | 13.5 | 36.8 | 5.7 | 104 | 4 | 0.4 | 7 | e |
| | Primorskaya | RU 11041 | ** | 30.7 | 27.2 | 13.4 | 11.3 | 6.9 | 1.3 | 1.1 | 1.8 | 3.4 | 35.9 | 6.7 | 5.7 | 136 | 4 | <0.4 | 6 | e |
| Thailand | Bangkok | TH 11042 | -- | 0.7 | * | 3.0 | 6.1 | 2.7 | 4.2 | 6.2 | 1.9 | 1.1 | 1.8 | 3.6 | 3.5 | 120 | 8 | <0.4 | 7 | d |
| | Patumthani | TH 11044 | -- | -- | 8.0 | 6.5 | 4.9 | 3.2 | 3.4 | 1.8 | 2.1 | 1.3 | 1.8 | 2.9 | 2.8 | 14.0 | 10 | <0.4 | 10 | d |
| | Vachiralongkorn Dam | TH 11045 | -- | -- | * | 2.7 | 1.7 | 2.0 | 2.5 | 1.5 | <0.4 | * | * | * | 1.7 | 9.0 | 7 | <0.4 | 9 | d |
| | Mae Hia | TH 11046 | 2.1 | 1.7 | -- | 7.7 | 3.3 | 2.9 | 3.2 | 1.3 | 6.5 | 6.7 | 2.3 | 1.3 | 3.5 | 19.2 | 9 | <0.4 | 5 | d |
| Vietnam | Hanoi | VN 11047 | 5.7 | 13.9 | 11.8 | 3.8 | 2.7 | 2.5 | 2.7 | 2.1 | 2.5 | 2.7 | 4.2 | 5.8 | 3.0 | 35.6 | 7 | 1.4 | 8 | w |
| | Hoa Binh | VN 11048 | 3.4 | 2.5 | 6.5 | 4.1 | 1.2 | <0.4 | 0.5 | 1.0 | 2.2 | 2.2 | 4.5 | 1.4 | 1.4 | 9.8 | 3 | <0.4 | 6 | w |

[--]: Precipitation was 0 mm.

[*]: Mg²⁺ was not measured although precipitation was not 0 mm. (%TP=0%)

[**]: Precipitation was not measured. (%PCL=0%)

Data in hatched column: Rejected monthly (annual) value by the criteria of EANET (%PCL<80% or %TP<80%)

Table 3.30 Data completeness of Mg²⁺ (Percent total precipitation: %TP)

unit: %

| Country | Name of sites | Code | 2002 | | | | | | | | | | | | Annual | |
|-------------------|---------------------|----------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|-----|
| | | | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | | |
| China | Guanyinqiao | CN 11001 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | Ji Yunshan | CN 11003 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | Shizhan | CN 11004 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | Weishuiyuan | CN 11005 | -- | 100 | 100 | -- | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | -- | 100 |
| | Jiwozi | CN 11007 | ** | ** | ** | 100 | ** | ** | -- | 100 | -- | 100 | 100 | -- | 100 | |
| | Hongwen | CN 11008 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 95 | 100 | 100 |
| | Xiaoping | CN 11009 | -- | -- | -- | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | Xiang Zhou | CN 11010 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | -- | 100 | 100 |
| | Zhuxian Cavern | CN 11011 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | -- | 100 | 100 |
| Indonesia | Jakarta | ID 11012 | 100 | 100 | 100 | 100 | 100 | -- | 100 | -- | -- | -- | 100 | 100 | 100 | 100 |
| | Serpong | ID 11013 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | Kototabang | ID 11014 | 100 | 100 | 100 | 100 | -- | -- | -- | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | Bandung | ID 11015 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | -- | -- | 100 | 100 | 100 | 100 |
| Japan | Rishiri | JP 11016 | 99 | 100 | 90 | 97 | 100 | 100 | 98 | 96 | 91 | 99 | 88 | 99 | 96 | |
| | Tappi | JP 11017 | 99 | 50 | 82 | 99 | 90 | 97 | 29 | 61 | 98 | 100 | 97 | 99 | 75 | |
| | Sado-seki | JP 11019 | 77 | 98 | 48 | 0 | 11 | 98 | 100 | 95 | 90 | 74 | 65 | 92 | 78 | |
| | Happo | JP 11021 | 34 | 23 | 73 | 92 | 89 | 100 | 96 | 100 | 100 | 97 | 62 | 76 | 77 | |
| | Oki | JP 11023 | 100 | 98 | 76 | 55 | 82 | 100 | 46 | 74 | 99 | 86 | 75 | 99 | 80 | |
| | Yusuhara | JP 11025 | 0 | 100 | 52 | 79 | 100 | 100 | 100 | 81 | 100 | 89 | 98 | 91 | 85 | |
| | Ogasawara | JP 11018 | 100 | 100 | 100 | 100 | 99 | 100 | 100 | 99 | 100 | 99 | 100 | 100 | 100 | |
| | Hedo | JP 11027 | 95 | 100 | 100 | 100 | 100 | 99 | 99 | 99 | 1 | 100 | 98 | 99 | 75 | |
| | Ijira | JP 11022 | 100 | 100 | 33 | 0 | 100 | 100 | 100 | 100 | 42 | 100 | 100 | 100 | 84 | |
| | Banryu | JP 11024 | 100 | 100 | 99 | 100 | 100 | 100 | 0 | 90 | 100 | 100 | 72 | 100 | 91 | |
| Malaysia | Petaling Jaya | MY 11029 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | Tanah Rata | MY 11030 | 63 | 100 | 100 | 100 | 59 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 94 | |
| Mongolia | Ulaanbaatar | MN 11031 | 0 | 0 | 0 | 0 | 100 | 100 | 100 | 100 | 100 | 100 | 0 | 0 | 82 | |
| | Terej | MN 11032 | 0 | -- | 0 | 36 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 89 | |
| Philippines | Metro Manila | PH 11033 | -- | 96 | 25 | 100 | 0 | 10 | 47 | 100 | 93 | 32 | 2 | 99 | 55 | |
| | Los Banos | PH 11034 | 100 | 97 | 87 | 98 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| Republic of Korea | Kanghwa | KR 11035 | 100 | 0 | -- | 100 | 97 | 100 | 100 | 100 | 94 | 100 | 0 | 57 | 98 | |
| | Cheju | KR 11036 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 0 | 100 | 100 | 100 | 89 | |
| | Imsil | KR 11037 | 0 | 59 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 89 | |
| Russia | Mondy | RU 11038 | -- | -- | -- | 100 | 100 | 100 | 100 | 100 | -- | 100 | -- | -- | 100 | |
| | Listvyanka | RU 11039 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | Irkutsk | RU 11040 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | Primorskaja | RU 11041 | ** | 85 | 92 | 98 | 90 | 100 | 74 | 95 | 35 | 98 | 86 | 86 | 88 | |
| Thailand | Bangkok | TH 11042 | -- | 100 | 0 | 100 | 100 | 98 | 92 | 100 | 98 | 62 | 97 | 100 | 91 | |
| | Patumthani | TH 11044 | -- | -- | 100 | 100 | 100 | 100 | 99 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | Vachiraklongkom Dam | TH 11045 | -- | -- | 0 | 73 | 36 | 21 | 67 | 80 | 47 | 0 | 0 | 0 | 52 | |
| | Mae Hia | TH 11046 | 100 | 100 | -- | 100 | 100 | 100 | 100 | 100 | 97 | 100 | 100 | 100 | 100 | |
| Vietnam | Hanoi | VN 11047 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | Hoa Binh | VN 11048 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |

[--]: Precipitation was 0 mm.

[**]: Precipitation was not measured.

Table 3.31 Monthly weighted averages of H⁺ concentration

unit: μmol/L

| Country | Name of sites | Code | 2002 | | | | | | | | | | | | Annual | Max | M | Min | M | F |
|-------------------|---------------------|----------|------|------|------|------|------|------|------|------|------|------|------|------|--------|------|----|------|----|---|
| | | | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | | | | | | |
| China | Guanyinqiao | CN 11001 | 25.2 | 43.6 | 21.1 | 21.6 | 28.8 | 33.0 | 8.1 | 23.4 | 13.7 | 3.0 | 12.7 | 29.3 | 25.2 | 245 | 12 | <0.1 | 8 | d |
| | Jinyunshan | CN 11003 | 205 | 205 | 37.8 | 45.6 | 57.4 | 30.8 | 50.5 | 32.4 | 20.9 | 6.8 | 28.9 | 11.4 | 43.6 | 646 | 1 | 0.1 | 9 | d |
| | Shizhan | CN 11004 | 1.7 | 0.8 | 0.8 | 0.5 | 0.3 | 0.4 | 0.3 | 0.5 | 1.0 | 0.7 | 0.9 | 0.3 | 0.6 | 1.9 | 1 | 0.2 | 12 | d |
| | Weishuiyuan | CN 11005 | -- | 1.8 | 0.2 | -- | 0.3 | 0.4 | 0.6 | 1.6 | 0.9 | 2.0 | 2.3 | -- | 0.9 | 2.3 | 11 | 0.2 | 3 | d |
| | Jiwozi | CN 11007 | ** | ** | ** | 0.4 | ** | ** | -- | 0.3 | -- | 1.9 | <0.1 | -- | 1.0 | 1.9 | 10 | <0.1 | 11 | d |
| | Hongwen | CN 11008 | 15.4 | 14.5 | 10.8 | 16.7 | 21.4 | 11.8 | 7.9 | 16.8 | 15.8 | 56.3 | 8.3 | 29.5 | 16.2 | 234 | 10 | <0.1 | 3 | d |
| | Xiaoping | CN 11009 | -- | -- | -- | 58.6 | 41.1 | 26.8 | 27.6 | 35.0 | 33.8 | 65.4 | 20.4 | 41.2 | 33.6 | 186 | 8 | <0.1 | 11 | d |
| | Xiang Zhou | CN 11010 | 2.9 | 25.0 | 2.7 | 8.1 | 4.0 | 6.4 | 6.7 | 10.6 | 13.1 | 11.3 | -- | 3.7 | 7.8 | 107 | 5 | 0.1 | 8 | d |
| | Zhuxian Cavern | CN 11011 | 25.1 | 5.9 | 7.9 | 47.3 | 17.0 | 22.8 | 5.6 | 7.6 | 10.4 | 10.6 | -- | 3.4 | 12.8 | 115 | 4 | 0.2 | 8 | d |
| Indonesia | Jakarta | ID 11012 | 37.8 | 7.3 | 1.0 | 0.7 | 18.2 | -- | 17.8 | -- | -- | -- | 1.7 | 4.0 | 16.9 | 46.8 | 1 | 0.2 | 4 | w |
| | Serpong | ID 11013 | 9.9 | 8.2 | 19.9 | 21.8 | 21.1 | 14.6 | 6.9 | 21.7 | 16.4 | 24.3 | 41.3 | 102 | 22.6 | 269 | 12 | 0.5 | 10 | e |
| | Kototabang | ID 11014 | 10.1 | 10.1 | 17.3 | 4.4 | -- | -- | -- | 0.6 | 5.7 | 1.1 | 0.3 | 1.4 | 4.9 | 40.7 | 3 | <0.1 | 4 | w |
| | Bandung | ID 11015 | 14.8 | 5.3 | 15.3 | 16.1 | 10.9 | 14.6 | 17.2 | 13.5 | -- | -- | 221 | 52.4 | 34.9 | 692 | 12 | 0.3 | 11 | e |
| Japan | Rishiri | JP 11016 | 13.3 | 35.9 | 2.0 | 1.3 | 19.6 | 17.1 | 17.1 | 29.2 | 11.3 | 12.3 | 10.4 | 13.1 | 15.0 | 138 | 8 | 0.1 | 4 | d |
| | Tappi | JP 11017 | 27.9 | 34.6 | 17.5 | 9.2 | 19.6 | 16.6 | 22.1 | 14.5 | 19.1 | 17.7 | 45.4 | 41.8 | 20.9 | 102 | 11 | 0.2 | 3 | d |
| | Sado-seki | JP 11019 | 30.7 | 46.9 | 16.0 | * | 16.6 | 21.5 | 12.6 | 23.4 | 26.1 | 15.3 | 47.4 | 30.1 | 22.7 | 126 | 11 | 1.2 | 12 | d |
| | Happo | JP 11021 | 16.5 | 60.2 | 9.6 | 2.4 | 5.9 | 17.0 | 6.0 | 16.6 | 24.3 | 11.2 | 19.0 | 11.0 | 11.8 | 97.7 | 6 | 0.5 | 3 | d |
| | Oki | JP 11023 | 19.9 | 23.0 | 14.7 | 6.4 | 14.3 | 13.2 | 5.4 | 10.5 | 20.0 | 31.8 | 35.7 | 22.0 | 18.6 | 155 | 9 | <0.1 | 3 | d |
| | Yusuhara | JP 11025 | * | 35.2 | 20.2 | 23.4 | 16.3 | 14.7 | 9.4 | 15.8 | 19.4 | 20.9 | 39.8 | 20.4 | 17.4 | 170 | 4 | 2.6 | 5 | d |
| | Ogasawara | JP 11018 | 19.4 | 18.6 | 7.8 | 6.6 | 11.6 | 4.1 | 3.0 | 4.1 | 3.9 | 5.5 | 3.8 | 22.4 | 8.2 | 67.6 | 12 | 0.5 | 10 | d |
| | Hedo | JP 11027 | 21.7 | 20.8 | 15.9 | 7.9 | 17.7 | 9.4 | 3.4 | 2.9 | 7.3 | 17.4 | 20.7 | 10.3 | 11.3 | 145 | 12 | 0.2 | 12 | d |
| | Ijira | JP 11022 | 34.9 | 23.6 | 22.9 | * | 91.1 | 44.4 | 8.7 | 38.8 | 12.6 | 25.7 | 18.4 | 17.8 | 30.4 | 129 | 5 | 0.9 | 11 | w |
| | Banryu | JP 11024 | 28.5 | 38.5 | 14.3 | 4.1 | 11.9 | 21.4 | * | 6.6 | 22.6 | 29.1 | 37.2 | 40.4 | 20.4 | 155 | 12 | 2.3 | 4 | w |
| Malaysia | Petaling Jaya | MY 11029 | 72.2 | 51.8 | 87.3 | 65.1 | 66.2 | 76.4 | 109 | 54.3 | 40.1 | 60.1 | 51.4 | 27.7 | 58.8 | 170 | 11 | 14.1 | 8 | w |
| | Tanah Rata | MY 11030 | 7.5 | * | 14.7 | 11.9 | 14.2 | 15.2 | 15.4 | 10.0 | 6.0 | 16.2 | 3.7 | 5.1 | 10.8 | 23.4 | 6 | 1.8 | 11 | w |
| Mongolia | Ulaanbaatar | MN 11031 | * | * | * | * | 0.7 | 0.4 | 0.4 | 0.0 | 0.2 | 0.1 | * | * | 0.4 | 5.0 | 6 | <0.1 | 5 | d |
| | Terelj | MN 11032 | * | -- | * | 0.3 | 0.6 | 0.3 | 7.0 | 0.4 | 0.2 | 1.1 | 1.6 | 0.3 | 1.8 | 22.4 | 7 | <0.1 | 8 | d |
| Philippine | Metro Manila | PH 11033 | -- | 0.1 | 0.2 | <0.1 | * | <0.1 | <0.1 | 11.3 | 19.1 | 1.0 | 0.2 | <0.1 | 8.1 | 23.4 | 8 | <0.1 | 4 | w |
| | Los Banos | PH 11034 | 0.5 | 0.4 | 0.4 | <0.1 | 2.8 | 1.1 | 0.4 | 3.1 | 8.4 | 1.0 | 0.2 | <0.1 | 1.8 | 12.0 | 8 | <0.1 | 12 | w |
| Republic of Korea | Kanghwa | KR 11035 | 54.8 | * | -- | 2.5 | 0.3 | 3.5 | 2.9 | 32.5 | 39.8 | 4.9 | * | 12.6 | 22.2 | 63.1 | 8 | 0.1 | 5 | d |
| | Cheju | KR 11036 | 12.6 | 37.9 | 32.4 | 21.5 | 28.4 | 58.2 | 30.3 | 18.2 | * | 9.3 | 26.5 | 21.4 | 24.3 | 79.4 | 6 | 1.3 | 12 | d |
| | Imsil | KR 11037 | * | 3.2 | 2.1 | 2.9 | 2.5 | 0.3 | 2.0 | 2.4 | 1.4 | 1.4 | 2.6 | 1.6 | 2.0 | 4.0 | 4 | 0.3 | 6 | d |
| Russia | Mondy | RU 11038 | -- | -- | -- | 0.6 | 3.0 | 2.2 | 5.8 | 0.3 | -- | 2.0 | -- | -- | 4.1 | 12.9 | 7 | 0.3 | 8 | d |
| | Listvyanka | RU 11039 | 8.1 | 3.4 | 4.4 | 7.9 | 2.5 | 18.4 | 19.6 | 9.9 | 8.7 | 11.2 | 12.9 | 20.3 | 13.2 | 47.9 | 12 | 0.3 | 8 | d |
| | Irkutsk | RU 11040 | 1.5 | <0.1 | <0.1 | 0.5 | 2.3 | 14.9 | 17.4 | 4.7 | 7.4 | 10.9 | 1.3 | 0.1 | 9.4 | 50.1 | 6 | <0.1 | 2 | e |
| | Primorskaya | RU 11041 | ** | 11.7 | 0.4 | 5.0 | 3.0 | 6.7 | 5.4 | 5.9 | 11.1 | 7.7 | 1.3 | 23.6 | 6.3 | 55.0 | 9 | <0.1 | 4 | e |
| Thailand | Bangkok | TH 11042 | -- | 20.9 | * | 14.0 | 8.1 | 0.7 | 0.5 | 0.6 | 5.9 | 4.1 | 21.5 | 2.6 | 7.9 | 166 | 9 | 0.2 | 6 | d |
| | Patumthani | TH 11044 | -- | -- | 5.2 | 1.4 | 2.4 | 1.8 | 3.9 | 5.1 | 3.7 | 10.9 | 2.8 | 2.2 | 4.6 | 61.7 | 10 | 0.2 | 5 | d |
| | Vachiralongkorn Dam | TH 11045 | -- | -- | * | 2.5 | 3.2 | 5.4 | 1.8 | 2.0 | 1.8 | * | * | * | 2.3 | 42.2 | 8 | 0.2 | 7 | d |
| | Mae Hia | TH 11046 | 5.6 | 10.0 | -- | 0.6 | 0.8 | 0.8 | 0.7 | 0.7 | 1.3 | 1.8 | 3.2 | 5.3 | 1.9 | 17.8 | 1 | 0.1 | 5 | d |
| Vietnam | Hanoi | VN 11047 | 15.9 | 0.2 | 0.6 | 7.9 | 0.5 | 0.3 | 1.0 | 0.4 | 3.0 | 1.3 | 3.1 | 33.4 | 2.8 | 42.7 | 12 | <0.1 | 5 | w |
| | Hoa Binh | VN 11048 | 28.9 | 6.4 | 1.7 | 2.6 | 2.4 | 3.7 | 2.4 | 1.4 | 2.0 | 6.0 | 50.9 | 60.8 | 6.5 | 77.6 | 11 | 0.4 | 8 | w |

[--]: Precipitation was 0 mm.

[*]: pH was not measured although precipitation was not 0 mm. (%TP=0%)

[**]: Precipitation was not measured. (%PCL=0%)

Data in hatched column: Rejected monthly (annual) value by the criteria of EANET (%PCL<80% or %TP<80%)

Table 3.32 Data completeness of H⁺ (Percent total precipitation: %TP)

unit: %

| Country | Name of sites | Code | 2002 | | | | | | | | | | | | Annual | |
|-------------------|---------------------|----------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|-----|
| | | | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | | |
| China | Guanyinqiao | CN 11001 | 100 | 89 | 100 | 99 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | Ji Yunshan | CN 11003 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | Shizhan | CN 11004 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | Weishuiyuan | CN 11005 | -- | 100 | 100 | -- | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | -- | 100 |
| | Jiwozi | CN 11007 | ** | ** | ** | 100 | ** | ** | -- | 100 | -- | 100 | 100 | 100 | -- | 100 |
| | Hongwen | CN 11008 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | Xiaoping | CN 11009 | -- | -- | -- | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | Xiang Zhou | CN 11010 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | -- | 100 | 100 |
| | Zhuxian Cavern | CN 11011 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | -- | 100 | 100 |
| Indonesia | Jakarta | ID 11012 | 100 | 100 | 100 | 100 | 100 | -- | 100 | -- | -- | -- | 100 | 100 | 100 | 100 |
| | Serpong | ID 11013 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | Kototabang | ID 11014 | 100 | 100 | 100 | 100 | -- | -- | -- | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | Bandung | ID 11015 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | -- | -- | 100 | 100 | 100 | 100 |
| Japan | Rishiri | JP 11016 | 98 | 93 | 90 | 97 | 100 | 100 | 98 | 96 | 91 | 99 | 88 | 99 | 96 | |
| | Tappi | JP 11017 | 99 | 50 | 82 | 99 | 90 | 97 | 29 | 61 | 98 | 99 | 97 | 99 | 75 | |
| | Sado-seki | JP 11019 | 76 | 89 | 48 | 0 | 11 | 97 | 100 | 95 | 90 | 70 | 63 | 84 | 76 | |
| | Happo | JP 11021 | 34 | 22 | 73 | 92 | 89 | 100 | 96 | 98 | 100 | 97 | 61 | 76 | 77 | |
| | Oki | JP 11023 | 100 | 96 | 75 | 55 | 82 | 99 | 46 | 69 | 99 | 84 | 74 | 99 | 79 | |
| | Yusuhara | JP 11025 | 0 | 100 | 52 | 79 | 100 | 100 | 100 | 81 | 100 | 89 | 98 | 86 | 85 | |
| | Ogasawara | JP 11018 | 98 | 63 | 100 | 98 | 98 | 99 | 100 | 98 | 97 | 96 | 99 | 99 | 99 | |
| | Hedo | JP 11027 | 95 | 100 | 100 | 100 | 100 | 98 | 99 | 99 | 1 | 100 | 98 | 99 | 75 | |
| | Ijira | JP 11022 | 100 | 100 | 33 | 0 | 100 | 100 | 100 | 100 | 42 | 100 | 100 | 100 | 84 | |
| | Banryu | JP 11024 | 100 | 100 | 99 | 100 | 100 | 100 | 0 | 89 | 100 | 100 | 72 | 100 | 91 | |
| Malaysia | Petaling Jaya | MY 11029 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | Tanah Rata | MY 11030 | 63 | 0 | 100 | 100 | 59 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 94 | |
| Mongolia | Ulaanbaatar | MN 11031 | 0 | 0 | 0 | 0 | 100 | 100 | 100 | 100 | 100 | 100 | 0 | 0 | 82 | |
| | Terej | MN 11032 | 0 | -- | 0 | 36 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 89 | |
| Philippines | Metro Manila | PH 11033 | -- | 96 | 25 | 100 | 0 | 10 | 47 | 100 | 93 | 32 | 2 | 99 | 55 | |
| | Los Banos | PH 11034 | 100 | 97 | 87 | 98 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| Republic of Korea | Kanghwa | KR 11035 | 100 | 0 | -- | 100 | 97 | 100 | 100 | 100 | 94 | 100 | 0 | 57 | 98 | |
| | Cheju | KR 11036 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 0 | 100 | 100 | 100 | 89 | |
| | Imsil | KR 11037 | 0 | 59 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 89 | |
| Russia | Mondy | RU 11038 | -- | -- | -- | 100 | 100 | 100 | 100 | 100 | -- | 100 | -- | -- | 100 | |
| | Listvyanka | RU 11039 | 100 | 100 | 100 | 100 | 99 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | Irkutsk | RU 11040 | 100 | 100 | 100 | 100 | 99 | 100 | 100 | 100 | 100 | 100 | 98 | 100 | 100 | |
| | Primorskaja | RU 11041 | ** | 85 | 94 | 99 | 92 | 100 | 75 | 95 | 35 | 98 | 92 | 94 | 88 | |
| Thailand | Bangkok | TH 11042 | -- | 100 | 0 | 100 | 100 | 97 | 90 | 100 | 99 | 62 | 97 | 14 | 90 | |
| | Patumthani | TH 11044 | -- | -- | 100 | 85 | 100 | 98 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | Vachiraklongkom Dam | TH 11045 | -- | -- | 0 | 100 | 36 | 21 | 67 | 80 | 47 | 0 | 0 | 0 | 54 | |
| | Mae Hia | TH 11046 | 100 | 100 | -- | 100 | 100 | 100 | 100 | 100 | 97 | 100 | 100 | 100 | 100 | |
| Vietnam | Hanoi | VN 11047 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | Hoa Binh | VN 11048 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |

[--]: Precipitation was 0 mm.

[**]: Precipitation was not measured.

Table 3.33 Monthly weighted averages of pH

pH units

| Country | Name of sites | Code | 2002 | | | | | | | | | | | | Annual | Max | M | Min | M | F |
|-------------------|---------------------|----------|------|------|------|------|------|------|------|------|------|------|------|------|--------|------|----|------|----|---|
| | | | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | | | | | | |
| China | Guanyinqiao | CN 11001 | 4.60 | 4.36 | 4.68 | 4.67 | 4.54 | 4.48 | 5.09 | 4.63 | 4.86 | 5.53 | 4.90 | 4.53 | 4.60 | 7.43 | 8 | 3.61 | 12 | d |
| | Jinyunshan | CN 11003 | 3.69 | 3.69 | 4.42 | 4.34 | 4.24 | 4.51 | 4.30 | 4.49 | 4.68 | 5.17 | 4.54 | 4.94 | 4.36 | 6.85 | 9 | 3.19 | 1 | d |
| | Shizhan | CN 11004 | 5.77 | 6.12 | 6.08 | 6.28 | 6.47 | 6.44 | 6.55 | 6.28 | 5.99 | 6.13 | 6.03 | 6.46 | 6.24 | 6.67 | 12 | 5.71 | 1 | d |
| | Weishuiyuan | CN 11005 | -- | 5.74 | 6.78 | -- | 6.48 | 6.38 | 6.21 | 5.80 | 6.04 | 5.69 | 5.64 | -- | 6.03 | 6.78 | 3 | 5.64 | 11 | d |
| | Jiwozi | CN 11007 | ** | ** | ** | 6.44 | ** | ** | -- | 6.50 | -- | 5.72 | 7.11 | -- | 6.00 | 7.11 | 11 | 5.72 | 10 | d |
| | Hongwen | CN 11008 | 4.81 | 4.84 | 4.97 | 4.78 | 4.67 | 4.93 | 5.10 | 4.78 | 4.80 | 4.25 | 5.08 | 4.53 | 4.79 | 7.36 | 3 | 3.63 | 10 | d |
| | Xiaoping | CN 11009 | -- | -- | -- | 4.23 | 4.39 | 4.57 | 4.56 | 4.46 | 4.47 | 4.18 | 4.69 | 4.38 | 4.47 | 8.21 | 11 | 3.73 | 8 | d |
| | Xiang Zhou | CN 11010 | 5.53 | 4.60 | 5.56 | 5.09 | 5.40 | 5.19 | 5.17 | 4.97 | 4.88 | 4.95 | -- | 5.43 | 5.11 | 6.99 | 8 | 3.97 | 5 | d |
| | Zhuxian Cavern | CN 11011 | 4.60 | 5.23 | 5.10 | 4.32 | 4.77 | 4.64 | 5.25 | 5.12 | 4.98 | 4.98 | -- | 5.47 | 4.89 | 6.81 | 8 | 3.94 | 4 | d |
| Indonesia | Jakarta | ID 11012 | 4.42 | 5.14 | 6.01 | 6.17 | 4.74 | -- | 4.75 | -- | -- | -- | 5.78 | 5.40 | 4.77 | 6.75 | 4 | 4.33 | 1 | w |
| | Serpong | ID 11013 | 5.00 | 5.09 | 4.70 | 4.66 | 4.68 | 4.84 | 5.16 | 4.66 | 4.79 | 4.62 | 4.38 | 3.99 | 4.65 | 6.26 | 10 | 3.57 | 12 | e |
| | Kototabang | ID 11014 | 5.00 | 5.00 | 4.76 | 5.36 | -- | -- | -- | 6.22 | 5.25 | 5.96 | 6.47 | 5.87 | 5.31 | 7.74 | 4 | 4.39 | 3 | w |
| | Bandung | ID 11015 | 4.83 | 5.28 | 4.82 | 4.79 | 4.96 | 4.83 | 4.76 | 4.87 | -- | -- | 3.66 | 4.28 | 4.46 | 6.57 | 11 | 3.16 | 12 | e |
| Japan | Rishiri | JP 11016 | 4.88 | 4.44 | 5.70 | 5.90 | 4.71 | 4.77 | 4.77 | 4.54 | 4.95 | 4.91 | 4.98 | 4.88 | 4.82 | 6.83 | 4 | 3.86 | 8 | d |
| | Tappi | JP 11017 | 4.55 | 4.46 | 4.76 | 5.04 | 4.71 | 4.78 | 4.66 | 4.84 | 4.72 | 4.75 | 4.34 | 4.38 | 4.68 | 6.81 | 3 | 3.99 | 11 | d |
| | Sado-seki | JP 11019 | 4.51 | 4.33 | 4.80 | * | 4.78 | 4.67 | 4.90 | 4.63 | 4.58 | 4.82 | 4.32 | 4.52 | 4.64 | 5.91 | 12 | 3.90 | 11 | d |
| | Happo | JP 11021 | 4.78 | 4.22 | 5.02 | 5.62 | 5.23 | 4.77 | 5.22 | 4.78 | 4.61 | 4.95 | 4.72 | 4.96 | 4.93 | 6.28 | 3 | 4.01 | 6 | d |
| | Oki | JP 11023 | 4.70 | 4.64 | 4.83 | 5.19 | 4.85 | 4.88 | 5.27 | 4.98 | 4.70 | 4.50 | 4.45 | 4.66 | 4.73 | 7.46 | 3 | 3.81 | 9 | d |
| | Yusuhara | JP 11025 | * | 4.45 | 4.69 | 4.63 | 4.79 | 4.83 | 5.03 | 4.80 | 4.71 | 4.68 | 4.40 | 4.69 | 4.76 | 5.58 | 5 | 3.77 | 4 | d |
| | Ogasawara | JP 11018 | 4.71 | 4.73 | 5.11 | 5.18 | 4.94 | 5.39 | 5.52 | 5.38 | 5.41 | 5.26 | 5.42 | 4.65 | 5.09 | 6.33 | 10 | 4.17 | 12 | d |
| | Hedo | JP 11027 | 4.66 | 4.68 | 4.80 | 5.10 | 4.75 | 5.03 | 5.46 | 5.54 | 5.14 | 4.76 | 4.68 | 4.99 | 4.95 | 6.76 | 12 | 3.84 | 12 | d |
| | Ijira | JP 11022 | 4.46 | 4.63 | 4.64 | * | 4.04 | 4.35 | 5.06 | 4.41 | 4.90 | 4.59 | 4.73 | 4.75 | 4.52 | 6.07 | 11 | 3.89 | 5 | w |
| | Banryu | JP 11024 | 4.54 | 4.41 | 4.84 | 5.39 | 4.93 | 4.67 | * | 5.18 | 4.65 | 4.54 | 4.43 | 4.39 | 4.69 | 5.63 | 4 | 3.81 | 12 | w |
| Malaysia | Petaling Jaya | MY 11029 | 4.14 | 4.29 | 4.06 | 4.19 | 4.18 | 4.12 | 3.96 | 4.27 | 4.40 | 4.22 | 4.29 | 4.56 | 4.23 | 4.85 | 8 | 3.77 | 11 | w |
| | Tanah Rata | MY 11030 | 5.12 | * | 4.83 | 4.92 | 4.85 | 4.82 | 4.81 | 5.00 | 5.22 | 4.79 | 5.43 | 5.29 | 4.97 | 5.74 | 11 | 4.63 | 6 | w |
| Mongolia | Ulaanbaatar | MN 11031 | * | * | * | * | 6.14 | 6.37 | 6.43 | 7.39 | 6.78 | 6.97 | * | * | 6.38 | 8.05 | 5 | 5.30 | 6 | d |
| | Terelj | MN 11032 | * | -- | * | 6.55 | 6.21 | 6.55 | 5.15 | 6.40 | 6.61 | 5.96 | 5.80 | 6.56 | 5.75 | 7.15 | 8 | 4.65 | 7 | d |
| Philippine | Metro Manila | PH 11033 | -- | 6.94 | 6.64 | 7.17 | * | 7.55 | 7.13 | 4.95 | 4.72 | 6.00 | 6.73 | 7.23 | 5.09 | 7.68 | 4 | 4.63 | 8 | w |
| | Los Banos | PH 11034 | 6.30 | 6.36 | 6.40 | 7.39 | 5.56 | 5.96 | 6.38 | 5.50 | 5.07 | 5.99 | 6.72 | 7.29 | 5.74 | 7.57 | 12 | 4.92 | 8 | w |
| Republic of Korea | Kanghwa | KR 11035 | 4.26 | * | -- | 5.60 | 6.47 | 5.45 | 5.54 | 4.49 | 4.40 | 5.31 | * | 4.90 | 4.65 | 7.00 | 5 | 4.20 | 8 | d |
| | Cheju | KR 11036 | 4.90 | 4.42 | 4.49 | 4.67 | 4.55 | 4.24 | 4.52 | 4.74 | * | 5.03 | 4.58 | 4.67 | 4.61 | 5.90 | 12 | 4.10 | 6 | d |
| | Imsil | KR 11037 | * | 5.50 | 5.67 | 5.53 | 5.60 | 6.52 | 5.70 | 5.62 | 5.84 | 5.85 | 5.58 | 5.80 | 5.69 | 6.60 | 6 | 5.40 | 4 | d |
| Russia | Mondy | RU 11038 | -- | -- | -- | 6.19 | 5.53 | 5.67 | 5.24 | 6.55 | -- | 5.69 | -- | -- | 5.39 | 6.55 | 8 | 4.89 | 7 | d |
| | Listvyanka | RU 11039 | 5.09 | 5.46 | 5.35 | 5.10 | 5.60 | 4.74 | 4.71 | 5.01 | 5.06 | 4.95 | 4.89 | 4.69 | 4.88 | 6.46 | 8 | 4.32 | 12 | d |
| | Irkutsk | RU 11040 | 5.82 | 7.32 | 7.16 | 6.30 | 5.64 | 4.83 | 4.76 | 5.32 | 5.13 | 4.96 | 5.90 | 6.85 | 5.02 | 7.52 | 2 | 4.30 | 6 | e |
| | Primorskaya | RU 11041 | ** | 4.93 | 6.45 | 5.30 | 5.52 | 5.18 | 5.27 | 5.23 | 4.96 | 5.12 | 5.89 | 4.63 | 5.20 | 7.90 | 4 | 4.26 | 9 | e |
| Thailand | Bangkok | TH 11042 | -- | 4.68 | * | 4.85 | 5.09 | 6.16 | 6.27 | 6.23 | 5.23 | 5.39 | 4.67 | 5.59 | 5.10 | 6.67 | 6 | 3.78 | 9 | d |
| | Patumthani | TH 11044 | -- | -- | 5.28 | 5.86 | 5.62 | 5.75 | 5.41 | 5.29 | 5.43 | 4.96 | 5.56 | 5.65 | 5.33 | 6.75 | 5 | 4.21 | 10 | d |
| | Vachiralongkorn Dam | TH 11045 | -- | -- | * | 5.60 | 5.49 | 5.27 | 5.75 | 5.69 | 5.75 | * | * | * | 5.64 | 6.75 | 7 | 4.38 | 8 | d |
| | Mae Hia | TH 11046 | 5.25 | 5.00 | -- | 6.19 | 6.11 | 6.12 | 6.15 | 6.16 | 5.90 | 5.75 | 5.50 | 5.28 | 5.72 | 6.85 | 5 | 4.75 | 1 | d |
| Vietnam | Hanoi | VN 11047 | 4.80 | 6.81 | 6.22 | 5.10 | 6.30 | 6.51 | 5.99 | 6.43 | 5.52 | 5.87 | 5.51 | 4.48 | 5.55 | 7.01 | 5 | 4.37 | 12 | w |
| | Hoa Binh | VN 11048 | 4.54 | 5.19 | 5.78 | 5.58 | 5.61 | 5.43 | 5.62 | 5.84 | 5.69 | 5.22 | 4.29 | 4.22 | 5.19 | 6.38 | 8 | 4.11 | 11 | w |

[--]: Precipitation was 0 mm.

[*]: pH was not measured although precipitation was not 0 mm. (%TP=0%)

[**]: Precipitation was not measured. (%PCL=0%)

Data in hatched column: Rejected monthly (annual) value by the criteria of EANET (%PCL<80% or %TP<80%)

Table 3.34 Data completeness of pH (Percent total precipitation: %TP)

unit: %

| Country | Name of sites | Code | 2002 | | | | | | | | | | | | Annual | |
|-------------------|---------------------|----------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|-----|
| | | | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | | |
| China | Guanyinqiao | CN 11001 | 100 | 89 | 100 | 99 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | Ji Yunshan | CN 11003 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | Shizhan | CN 11004 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | Weishuiyuan | CN 11005 | -- | 100 | 100 | -- | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | -- | 100 |
| | Jiwozi | CN 11007 | ** | ** | ** | 100 | ** | ** | -- | 100 | -- | 100 | 100 | 100 | -- | 100 |
| | Hongwen | CN 11008 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | Xiaoping | CN 11009 | -- | -- | -- | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | Xiang Zhou | CN 11010 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | -- | 100 | 100 |
| | Zhuxian Cavern | CN 11011 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | -- | 100 | 100 |
| Indonesia | Jakarta | ID 11012 | 100 | 100 | 100 | 100 | 100 | -- | 100 | -- | -- | -- | 100 | 100 | 100 | |
| | Serpong | ID 11013 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | Kototabang | ID 11014 | 100 | 100 | 100 | 100 | -- | -- | -- | 100 | 100 | 100 | 100 | 100 | 100 | |
| | Bandung | ID 11015 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | -- | -- | 100 | 100 | 100 | |
| Japan | Rishiri | JP 11016 | 98 | 93 | 90 | 97 | 100 | 100 | 98 | 96 | 91 | 99 | 88 | 99 | 96 | |
| | Tappi | JP 11017 | 99 | 50 | 82 | 99 | 90 | 97 | 29 | 61 | 98 | 99 | 97 | 99 | 75 | |
| | Sado-seki | JP 11019 | 76 | 89 | 48 | 0 | 11 | 97 | 100 | 95 | 90 | 70 | 63 | 84 | 76 | |
| | Happo | JP 11021 | 34 | 22 | 73 | 92 | 89 | 100 | 96 | 98 | 100 | 97 | 61 | 76 | 77 | |
| | Oki | JP 11023 | 100 | 96 | 75 | 55 | 82 | 99 | 46 | 69 | 99 | 84 | 74 | 99 | 79 | |
| | Yusuhara | JP 11025 | 0 | 100 | 52 | 79 | 100 | 100 | 100 | 81 | 100 | 89 | 98 | 86 | 85 | |
| | Ogasawara | JP 11018 | 98 | 63 | 100 | 98 | 98 | 99 | 100 | 98 | 97 | 96 | 99 | 99 | 99 | |
| | Hedo | JP 11027 | 95 | 100 | 100 | 100 | 100 | 98 | 99 | 99 | 1 | 100 | 98 | 99 | 75 | |
| | Ijira | JP 11022 | 100 | 100 | 33 | 0 | 100 | 100 | 100 | 100 | 42 | 100 | 100 | 100 | 84 | |
| | Banryu | JP 11024 | 100 | 100 | 99 | 100 | 100 | 100 | 0 | 89 | 100 | 100 | 72 | 100 | 91 | |
| Malaysia | Petaling Jaya | MY 11029 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | Tanah Rata | MY 11030 | 63 | 0 | 100 | 100 | 59 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 94 | |
| Mongolia | Ulaanbaatar | MN 11031 | 0 | 0 | 0 | 0 | 100 | 100 | 100 | 100 | 100 | 100 | 0 | 0 | 82 | |
| | Terej | MN 11032 | 0 | -- | 0 | 36 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 89 | |
| Philippines | Metro Manila | PH 11033 | -- | 96 | 25 | 100 | 0 | 10 | 47 | 100 | 93 | 32 | 2 | 99 | 55 | |
| | Los Banos | PH 11034 | 100 | 97 | 87 | 98 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| Republic of Korea | Kanghwa | KR 11035 | 100 | 0 | -- | 100 | 97 | 100 | 100 | 100 | 94 | 100 | 0 | 57 | 98 | |
| | Cheju | KR 11036 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 0 | 100 | 100 | 100 | 89 | |
| | Imsil | KR 11037 | 0 | 59 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 89 | |
| Russia | Mondy | RU 11038 | -- | -- | -- | 100 | 100 | 100 | 100 | 100 | -- | 100 | -- | -- | 100 | |
| | Listvyanka | RU 11039 | 100 | 100 | 100 | 100 | 99 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | Irkutsk | RU 11040 | 100 | 100 | 100 | 100 | 99 | 100 | 100 | 100 | 100 | 100 | 98 | 100 | 100 | |
| | Primorskaja | RU 11041 | ** | 85 | 94 | 99 | 92 | 100 | 75 | 95 | 35 | 98 | 92 | 94 | 88 | |
| Thailand | Bangkok | TH 11042 | -- | 100 | 0 | 100 | 100 | 97 | 90 | 100 | 99 | 62 | 97 | 14 | 90 | |
| | Patumthani | TH 11044 | -- | -- | 100 | 85 | 100 | 98 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | Vachiraklongkom Dam | TH 11045 | -- | -- | 0 | 100 | 36 | 21 | 67 | 80 | 47 | 0 | 0 | 0 | 54 | |
| | Mae Hia | TH 11046 | 100 | 100 | -- | 100 | 100 | 100 | 100 | 100 | 97 | 100 | 100 | 100 | 100 | |
| Vietnam | Hanoi | VN 11047 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | Hoa Binh | VN 11048 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |

[--]: Precipitation was 0 mm.

[**]: Precipitation was not measured.

Table 3.35 Monthly weighted averages of conductivity

unit: mS/m

| Country | Name of sites | Code | 2002 | | | | | | | | | | | | Annual | Max | M | Min | M | F |
|-------------------|--------------------|----------|------|------|------|------|------|------|------|------|------|------|------|------|--------|------|------|------|----|---|
| | | | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | | | | | | |
| China | Guanyinqiao | CN 11001 | 16.0 | 13.7 | 4.31 | 4.63 | 5.41 | 3.14 | 4.41 | 3.57 | 2.98 | 5.85 | 4.69 | 8.43 | 4.36 | 36.7 | 8 | 1.25 | 8 | d |
| | Jinyunshan | CN 11003 | 15.0 | 9.84 | 4.09 | 4.22 | 4.54 | 2.28 | 3.61 | 2.52 | 3.85 | 3.21 | 4.41 | 5.21 | 3.69 | 62.4 | 1 | 0.45 | 8 | d |
| | Shizhan | CN 11004 | 44.9 | 26.2 | 17.1 | 10.9 | 8.31 | 5.20 | 49.9 | 20.4 | 15.6 | 14.8 | 38.9 | 84.9 | 16.1 | 108 | 12 | 3.80 | 6 | d |
| | Weishuiyuan | CN 11005 | -- | 59.0 | 17.8 | -- | 16.5 | 14.5 | 35.3 | 17.2 | 31.3 | 15.8 | 91.1 | -- | 21.7 | 91.1 | 11 | 14.5 | 6 | d |
| | Jiwozi | CN 11007 | ** | ** | ** | 6.30 | ** | ** | -- | 3.73 | -- | 2.35 | 8.27 | -- | 4.02 | 8.27 | 11 | 2.35 | 10 | d |
| | Hongwen | CN 11008 | 5.11 | 3.36 | 13.0 | 5.62 | 2.32 | 2.07 | 1.22 | 2.00 | 1.65 | 10.7 | 4.70 | 3.73 | 2.64 | 46.8 | 3 | 0.75 | 7 | d |
| | Xiaoping | CN 11009 | -- | -- | -- | 3.53 | 1.86 | 1.05 | 1.81 | 0.87 | 1.61 | 5.63 | 2.42 | 1.67 | 1.60 | 9.46 | 10 | 0.31 | 7 | d |
| | Xiang Zhou | CN 11010 | 4.82 | 9.52 | 3.36 | 5.18 | 3.86 | 1.59 | 2.18 | 3.10 | 3.40 | 5.36 | -- | 4.28 | 3.20 | 24.8 | 5 | 0.55 | 6 | d |
| | Zhuxian Cavern | CN 11011 | 6.68 | 7.92 | 4.77 | 7.53 | 2.90 | 2.11 | 3.53 | 3.06 | 3.46 | 5.17 | -- | 4.27 | 3.63 | 26.3 | 7 | 1.03 | 7 | d |
| Indonesia | Jakarta | ID 11012 | 1.30 | 1.47 | 1.74 | 1.96 | 5.02 | -- | 5.35 | -- | -- | -- | 15.6 | 4.35 | 2.97 | 15.6 | 11 | 1.09 | 1 | w |
| | Serpong | ID 11013 | 0.91 | 1.05 | 2.07 | 2.33 | 1.84 | 1.76 | 1.36 | 2.67 | 11.9 | 4.13 | 2.76 | 2.43 | 1.87 | 14.1 | 9 | 0.54 | 1 | e |
| | Kototabang | ID 11014 | 0.41 | 0.68 | 0.75 | 0.51 | -- | -- | -- | 6.21 | 7.80 | 7.82 | 8.03 | 8.48 | 4.94 | 8.90 | 9 | 0.21 | 1 | w |
| | Bandung | ID 11015 | 1.39 | 1.22 | 1.72 | 1.54 | 2.59 | 1.75 | 2.91 | 4.90 | -- | -- | 2.27 | 1.01 | 1.68 | 4.90 | 8 | 0.05 | 1 | e |
| Japan | Rishiri | JP 11016 | 4.60 | 5.24 | 7.52 | 4.01 | 2.46 | 2.28 | 1.59 | 2.04 | 2.18 | 6.65 | 6.16 | 4.38 | 4.23 | 38.8 | 10 | 0.29 | 7 | d |
| | Tappi | JP 11017 | 4.43 | 5.93 | 9.01 | 5.16 | 2.32 | 2.61 | 1.54 | 1.22 | 2.45 | 5.51 | 7.99 | 7.12 | 3.89 | 49.8 | 10 | 0.64 | 8 | d |
| | Sado-seki | JP 11019 | 11.9 | 20.0 | 4.19 | * | 1.52 | 1.52 | 1.09 | 1.92 | 1.69 | 10.8 | 11.2 | 7.49 | 4.99 | 114 | 1 | 0.30 | 7 | d |
| | Happo | JP 11021 | 0.90 | 3.87 | 0.74 | 0.18 | 0.27 | 1.02 | 0.27 | 0.85 | 1.19 | 0.68 | 1.07 | 0.67 | 0.67 | 6.30 | 6 | 0.08 | 6 | d |
| | Oki | JP 11023 | 15.9 | 14.7 | 3.89 | 1.33 | 0.90 | 2.01 | 0.32 | 1.07 | 1.81 | 8.01 | 11.5 | 11.8 | 6.59 | 108 | 10 | 0.20 | 7 | d |
| | Yusuhara | JP 11025 | * | 2.59 | 1.50 | 1.51 | 1.05 | 0.88 | 0.97 | 1.77 | 1.08 | 1.73 | 3.77 | 1.36 | 1.42 | 15.1 | 10 | 0.21 | 5 | d |
| | Ogasawara | JP 11018 | 4.33 | 2.94 | 1.29 | 1.12 | 1.78 | 0.91 | 9.37 | 13.7 | 3.76 | 8.81 | 4.98 | 2.60 | 3.95 | 77.0 | 11 | 0.48 | 10 | d |
| | Hedo | JP 11027 | 4.67 | 2.99 | 3.61 | 2.39 | 1.60 | 1.08 | 21.7 | 22.3 | 29.8 | 4.62 | 8.41 | 4.86 | 8.85 | 133 | 12 | 0.56 | 5 | d |
| | Ijira | JP 11022 | 2.59 | 2.77 | 1.37 | * | 5.05 | 2.68 | 1.03 | 2.78 | 0.77 | 1.86 | 2.54 | 1.49 | 2.18 | 8.73 | 5 | 0.63 | 7 | w |
| Banryu | JP 11024 | 4.17 | 7.59 | 1.51 | 0.53 | 0.95 | 1.87 | * | 0.35 | 2.14 | 3.97 | 4.56 | 7.49 | 2.56 | 40.0 | 1 | 0.35 | 8 | w | |
| Malaysia | Petaling Jaya | MY 11029 | 3.98 | 2.99 | 4.15 | 2.81 | 3.35 | 3.28 | 5.42 | 2.81 | 2.04 | 2.88 | 2.29 | 1.56 | 2.81 | 6.54 | 7 | 0.91 | 11 | w |
| | Tanah Rata | MY 11030 | 0.54 | * | 0.95 | 0.56 | 0.70 | 0.59 | 0.74 | 0.52 | 0.53 | 0.95 | 0.24 | 0.39 | 0.59 | 1.34 | 3 | 0.14 | 11 | w |
| Mongolia | Ulaanbaatar | MN 11031 | * | * | * | * | 1.98 | 1.76 | 3.55 | 3.38 | 2.15 | 3.56 | * | * | 2.20 | 13.9 | 8 | 0.65 | 5 | d |
| | Terelej | MN 11032 | * | -- | * | 2.34 | 1.95 | 2.79 | 1.19 | 2.36 | 1.38 | 1.12 | 0.55 | 1.59 | 1.93 | 12.0 | 5 | 0.23 | 7 | d |
| Philippine | Metro Manila | PH 11033 | -- | 21.7 | 5.63 | 1.74 | * | 2.94 | 1.21 | 1.19 | 2.17 | 2.37 | 5.87 | 0.83 | 1.85 | 21.9 | 2 | 0.71 | 4 | w |
| | Los Banos | PH 11034 | 5.69 | 3.01 | 2.27 | 2.48 | 1.36 | 1.24 | 0.95 | 1.02 | 1.01 | 0.71 | 2.38 | 2.01 | 1.22 | 7.92 | 11 | 0.44 | 10 | w |
| Republic of Korea | Kanghwa | KR 11035 | 4.39 | * | -- | 2.57 | 3.23 | 4.22 | 2.36 | 2.20 | 2.96 | 2.03 | * | 7.03 | 2.68 | 8.52 | 1 | 0.98 | 8 | d |
| | Cheju | KR 11036 | 7.17 | 6.35 | 2.54 | 2.64 | 1.80 | 3.34 | 2.68 | 2.27 | * | 3.31 | 4.21 | 4.95 | 3.03 | 10.1 | 12 | 0.83 | 4 | d |
| | Imsil | KR 11037 | * | 2.77 | 2.80 | 1.93 | 2.28 | 1.59 | 1.13 | 1.35 | 1.22 | 1.75 | 5.52 | 3.32 | 1.80 | 8.53 | 11 | 0.73 | 7 | d |
| Russia | Mondy | RU 11038 | -- | -- | -- | 0.97 | 2.04 | 1.47 | 0.56 | 2.13 | -- | 1.13 | -- | -- | 0.96 | 2.71 | 5 | 0.35 | 6 | d |
| | Listvyanka | RU 11039 | 1.55 | 2.47 | 1.16 | 1.03 | 1.00 | 1.47 | 1.24 | 1.44 | 1.64 | 0.90 | 1.44 | 1.97 | 1.39 | 3.02 | 12 | 0.55 | 5 | d |
| | Irkutsk | RU 11040 | 2.23 | 13.9 | 5.58 | 6.15 | 1.99 | 1.41 | 1.64 | 1.33 | 2.16 | 1.71 | 3.45 | 8.82 | 2.10 | 24.8 | 4 | 0.58 | 6 | e |
| | Primorskaya | RU 11041 | ** | 3.54 | 5.00 | 2.93 | 3.34 | 1.72 | 1.28 | 0.93 | 2.26 | 1.45 | 6.25 | 2.70 | 1.77 | 17.9 | 4 | 0.41 | 7 | e |
| Thailand | Bangkok | TH 11042 | -- | 0.83 | * | 2.41 | 1.52 | 0.93 | 1.27 | 1.15 | 0.89 | 1.12 | 1.60 | 3.28 | 1.32 | 10.4 | 9 | 0.27 | 9 | d |
| | Patumthani | TH 11044 | -- | -- | 3.62 | 2.88 | 1.55 | 0.99 | 1.21 | 0.71 | 0.87 | 0.96 | 0.97 | 1.60 | 1.07 | 4.19 | 10 | 0.12 | 9 | d |
| | Vachiralongkom Dam | TH 11045 | -- | -- | * | 0.69 | 0.67 | 0.78 | 0.57 | 0.42 | 0.20 | * | * | * | 0.51 | 2.15 | 7 | 0.17 | 9 | d |
| | Mae Hia | TH 11046 | 1.80 | 2.21 | -- | 3.10 | 0.61 | 0.61 | 0.50 | 0.46 | 0.37 | 0.28 | 0.26 | 0.53 | 0.48 | 4.20 | 6 | 0.14 | 9 | d |
| Vietnam | Hanoi | VN 11047 | 7.49 | 9.75 | 5.94 | 1.87 | 1.03 | 0.70 | 1.18 | 1.23 | 1.42 | 1.34 | 2.63 | 4.77 | 1.52 | 10.4 | 1 | 0.49 | 6 | w |
| | Hoa Binh | VN 11048 | 4.28 | 3.66 | 4.40 | 1.59 | 0.55 | 0.35 | 0.35 | 0.80 | 1.61 | 1.26 | 4.32 | 3.73 | 1.06 | 8.20 | 1 | 0.25 | 6 | w |

[--]: Precipitation was 0 mm.

[*]: EC was not measured although precipitation was not 0 mm. (%TP=0%)

[**]: Precipitation was not measured. (%PCL=0%)

Data in hatched column: Rejected monthly (annual) value by the criteria of EANET (%PCL<80% or %TP<80%)

Table 3.36 Data completeness of conductivity (Percent total precipitation: %TP)

unit: %

| Country | Name of sites | Code | 2002 | | | | | | | | | | | | Annual | |
|-------------------|---------------------|----------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|-----|
| | | | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | | |
| China | Guanyinqiao | CN 11001 | 100 | 89 | 100 | 99 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | Ji Yunshan | CN 11003 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | Shizhan | CN 11004 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | Weishuiyuan | CN 11005 | -- | 100 | 100 | -- | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | -- | 100 |
| | Jiwozi | CN 11007 | ** | ** | ** | 100 | ** | ** | -- | 100 | -- | 100 | 100 | -- | 100 | 100 |
| | Hongwen | CN 11008 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | Xiaoping | CN 11009 | -- | -- | -- | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | Xiang Zhou | CN 11010 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | -- | 100 | 100 |
| | Zhuxian Cavern | CN 11011 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | -- | 100 | 100 |
| Indonesia | Jakarta | ID 11012 | 100 | 100 | 100 | 100 | 100 | -- | 100 | -- | -- | -- | 100 | 100 | 100 | |
| | Serpong | ID 11013 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | Kototabang | ID 11014 | 100 | 100 | 100 | 100 | -- | -- | -- | 100 | 100 | 100 | 100 | 100 | 100 | |
| | Bandung | ID 11015 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | -- | -- | 100 | 100 | 100 | |
| Japan | Rishiri | JP 11016 | 98 | 93 | 90 | 97 | 100 | 100 | 98 | 96 | 91 | 99 | 88 | 99 | 96 | |
| | Tappi | JP 11017 | 99 | 50 | 82 | 99 | 90 | 97 | 29 | 61 | 98 | 99 | 97 | 99 | 75 | |
| | Sado-seki | JP 11019 | 76 | 89 | 48 | 0 | 11 | 97 | 100 | 95 | 90 | 70 | 63 | 84 | 76 | |
| | Happo | JP 11021 | 34 | 22 | 73 | 92 | 89 | 100 | 96 | 98 | 100 | 97 | 61 | 76 | 77 | |
| | Oki | JP 11023 | 100 | 96 | 75 | 55 | 82 | 99 | 46 | 69 | 99 | 84 | 74 | 99 | 79 | |
| | Yusuhara | JP 11025 | 0 | 100 | 52 | 79 | 100 | 100 | 100 | 81 | 100 | 89 | 98 | 86 | 85 | |
| | Ogasawara | JP 11018 | 98 | 63 | 100 | 98 | 98 | 99 | 100 | 98 | 97 | 96 | 99 | 99 | 99 | |
| | Hedo | JP 11027 | 95 | 100 | 100 | 100 | 100 | 98 | 99 | 99 | 1 | 100 | 98 | 99 | 75 | |
| | Ijira | JP 11022 | 100 | 100 | 33 | 0 | 100 | 100 | 100 | 100 | 42 | 100 | 100 | 100 | 84 | |
| | Banryu | JP 11024 | 100 | 100 | 99 | 100 | 100 | 100 | 0 | 89 | 100 | 100 | 72 | 100 | 91 | |
| Malaysia | Petaling Jaya | MY 11029 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | Tanah Rata | MY 11030 | 63 | 0 | 100 | 100 | 59 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 94 | |
| Mongolia | Ulaanbaatar | MN 11031 | 0 | 0 | 0 | 0 | 100 | 100 | 100 | 100 | 100 | 100 | 0 | 0 | 82 | |
| | Terej | MN 11032 | 0 | -- | 0 | 36 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 89 | |
| Philippines | Metro Manila | PH 11033 | -- | 96 | 25 | 100 | 0 | 10 | 47 | 100 | 93 | 32 | 2 | 99 | 55 | |
| | Los Banos | PH 11034 | 100 | 97 | 87 | 98 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| Republic of Korea | Kanghwa | KR 11035 | 100 | 0 | -- | 100 | 97 | 100 | 100 | 100 | 94 | 100 | 0 | 57 | 98 | |
| | Cheju | KR 11036 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 0 | 100 | 100 | 100 | 89 | |
| | Imsil | KR 11037 | 0 | 59 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 89 | |
| Russia | Mondy | RU 11038 | -- | -- | -- | 100 | 100 | 100 | 100 | 100 | -- | 100 | -- | -- | 100 | |
| | Listvyanka | RU 11039 | 100 | 100 | 100 | 100 | 99 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | Irkutsk | RU 11040 | 100 | 100 | 100 | 100 | 99 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | Primorskaja | RU 11041 | ** | 85 | 92 | 98 | 90 | 100 | 74 | 95 | 35 | 98 | 86 | 86 | 88 | |
| Thailand | Bangkok | TH 11042 | -- | 100 | 0 | 100 | 100 | 97 | 90 | 100 | 99 | 62 | 96 | 14 | 90 | |
| | Patumthani | TH 11044 | -- | -- | 100 | 85 | 100 | 98 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | Vachiraklongkom Dam | TH 11045 | -- | -- | 0 | 100 | 36 | 21 | 67 | 80 | 47 | 0 | 0 | 0 | 54 | |
| | Mae Hia | TH 11046 | 100 | 100 | -- | 100 | 100 | 100 | 100 | 100 | 97 | 100 | 100 | 100 | 100 | |
| Vietnam | Hanoi | VN 11047 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | Hoa Binh | VN 11048 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |

[--]: Precipitation was 0 mm.

[**]: Precipitation was not measured.

Table 3.37 Monthly SO₄²⁻ deposition

 unit: mmol/m²/month or mmol/m²/year

| Country | Name of sites | Code | 2002 | | | | | | | | | | | | Annual |
|-------------------|---------------------|----------|------|------|------|------|------|------|------|------|------|------|------|------|--------|
| | | | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | |
| China | Guanyinqiao | CN 11001 | 10.4 | 6.51 | 8.79 | 15.1 | 28.5 | 36.2 | 9.89 | 22.0 | 7.06 | 7.62 | 5.18 | 7.42 | 165 |
| | Jinyunshan | CN 11003 | 4.55 | 6.11 | 9.30 | 14.4 | 24.7 | 17.3 | 14.7 | 15.4 | 5.98 | 4.14 | 5.18 | 4.13 | 126 |
| | Shizhan | CN 11004 | 43.5 | 18.9 | 22.0 | 7.50 | 24.7 | 32.4 | 12.6 | 41.3 | 27.6 | 21.4 | 7.45 | 37.3 | 297 |
| | Weishuiyuan | CN 11005 | 0.00 | 54.8 | 13.0 | 0.00 | 12.4 | 66.0 | 12.0 | 18.1 | 32.3 | 13.6 | 11.5 | 0.00 | 234 |
| | Jiwozi | CN 11007 | ** | ** | ** | 24.9 | ** | ** | 0.00 | 7.08 | 0.00 | 9.12 | 2.05 | 0.00 | 43.2 |
| | Hongwen | CN 11008 | 4.12 | 0.32 | 4.47 | 7.47 | 9.09 | 1.68 | 4.28 | 15.9 | 3.05 | 5.06 | 5.40 | 6.34 | 67.0 |
| | Xiaoping | CN 11009 | 0.00 | 0.00 | 0.00 | 2.21 | 4.26 | 1.24 | 10.4 | 5.95 | 7.13 | 0.90 | 1.68 | 2.46 | 36.3 |
| | Xiang Zhou | CN 11010 | 1.91 | 1.05 | 5.79 | 3.96 | 3.93 | 2.94 | 7.77 | 7.74 | 8.67 | 2.97 | 0.00 | 1.59 | 48.3 |
| | Zhuxian Cavern | CN 11011 | 3.11 | 0.87 | 9.13 | 6.40 | 2.86 | 3.28 | 10.0 | 6.71 | 4.76 | 2.50 | 0.00 | 1.01 | 50.6 |
| Indonesia | Jakarta | ID 11012 | 7.63 | 11.7 | 8.95 | 0.14 | 0.19 | 0.00 | 12.7 | 0.00 | 0.00 | 0.00 | 10.6 | 8.63 | 60.5 |
| | Serpong | ID 11013 | 4.25 | 6.42 | 7.55 | 6.17 | 5.57 | 7.68 | 4.32 | 3.56 | 5.76 | 1.02 | 7.33 | 4.71 | 64.3 |
| | Kototabang | ID 11014 | 0.34 | 0.42 | 0.87 | 0.68 | 0.00 | 0.00 | 0.00 | 1.02 | 1.03 | 0.94 | 3.53 | 4.60 | 13.4 |
| | Bandung | ID 11015 | 11.1 | 1.53 | 19.0 | 9.26 | 3.36 | 3.27 | 14.5 | 0.95 | 0.00 | 0.00 | 2.56 | 4.81 | 70.4 |
| Japan | Rishiri | JP 11016 | 1.15 | 1.47 | 0.86 | 2.47 | 0.84 | 0.58 | 3.58 | 1.50 | 0.34 | 5.52 | 6.40 | 1.53 | 26.1 |
| | Tappi | JP 11017 | 2.12 | 1.49 | 3.31 | 2.96 | 0.56 | 1.54 | 1.37 | 3.30 | 0.53 | 3.62 | 4.09 | 1.65 | 30.2 |
| | Sado-seki | JP 11019 | 8.77 | 3.83 | 1.23 | * | 1.75 | 0.72 | 3.02 | 1.64 | 0.93 | 5.15 | 11.9 | 2.71 | 40.4 |
| | Happo | JP 11021 | 3.86 | 5.04 | 2.19 | 0.54 | 0.67 | 1.73 | 0.78 | 0.72 | 2.07 | 1.69 | 3.43 | 1.47 | 19.8 |
| | Oki | JP 11023 | 15.8 | 3.33 | 2.75 | 1.64 | 1.22 | 0.65 | 0.44 | 0.27 | 2.77 | 6.31 | 5.86 | 7.48 | 55.4 |
| | Yusuhara | JP 11025 | * | 1.54 | 2.32 | 2.16 | 2.39 | 1.88 | 2.72 | 6.18 | 1.40 | 1.26 | 2.15 | 1.41 | 26.2 |
| | Ogasawara | JP 11018 | 1.38 | 0.09 | 1.22 | 0.22 | 1.49 | 0.92 | 1.19 | 4.25 | 1.43 | 3.27 | 6.95 | 1.76 | 24.1 |
| | Hedo | JP 11027 | 1.23 | 1.30 | 2.93 | 2.09 | 1.11 | 0.97 | 21.6 | 13.1 | 77.0 | 5.59 | 1.93 | 4.01 | 75.0 |
| | Ijira | JP 11022 | 5.27 | 1.32 | 2.50 | * | 11.5 | 6.70 | 6.96 | 3.47 | 1.07 | 3.71 | 1.76 | 2.00 | 52.2 |
| | Banryu | JP 11024 | 3.66 | 1.78 | 3.02 | 0.80 | 2.11 | 1.78 | * | 0.23 | 1.73 | 3.36 | 1.77 | 2.87 | 24.8 |
| Malaysia | Petaling Jaya | MY 11029 | 1.63 | 3.44 | 13.6 | 4.58 | 4.03 | 5.29 | 0.69 | 3.96 | 3.71 | 8.27 | 9.84 | 4.10 | 63.1 |
| | Tanah Rata | MY 11030 | 0.07 | 0.02 | 0.68 | 1.12 | 0.87 | 0.73 | 0.79 | 1.34 | 1.52 | 4.44 | 0.58 | 0.34 | 12.8 |
| Mongolia | Ulaanbaatar | MN 11031 | * | * | * | * | 1.04 | 1.32 | 0.47 | 0.35 | 0.15 | 0.27 | * | * | 4.41 |
| | Terelj | MN 11032 | * | 0.00 | * | 0.74 | 0.86 | 0.78 | 0.65 | 0.28 | 0.13 | 0.24 | 0.06 | 0.03 | 3.72 |
| Philippines | Metro Manila | PH 11033 | 0.00 | 2.62 | 2.25 | 0.32 | * | 5.92 | 28.1 | 6.73 | 16.8 | 8.42 | 14.0 | 0.18 | 78.2 |
| | Los Banos | PH 11034 | 0.00 | 0.67 | 0.46 | 0.10 | 3.58 | 1.78 | 6.24 | 3.65 | 2.33 | 1.70 | 1.67 | 5.17 | 27.3 |
| Republic of Korea | Kanghwa | KR 11035 | 4.48 | * | 0.00 | 0.87 | 1.39 | 4.20 | 6.77 | 8.43 | 0.48 | 0.75 | * | 0.73 | 28.4 |
| | Cheju | KR 11036 | 1.39 | 3.09 | 0.84 | 1.10 | 1.61 | 0.79 | 4.05 | 6.24 | * | 3.65 | 0.84 | 1.82 | 28.5 |
| | Imsil | KR 11037 | * | 0.39 | 1.99 | 2.18 | 1.33 | 2.36 | 1.85 | 5.15 | 0.86 | 0.64 | 1.73 | 1.93 | 22.7 |
| Russia | Mondy | RU 11038 | 0.00 | 0.00 | 0.00 | 0.12 | 0.25 | 0.71 | 0.81 | 0.11 | 0.00 | 0.20 | 0.00 | 0.00 | 2.20 |
| | Listvyanka | RU 11039 | 0.80 | 0.07 | 0.42 | 0.34 | 0.27 | 0.60 | 1.17 | 1.04 | 0.37 | 0.50 | 0.12 | 0.87 | 6.56 |
| | Irkutsk | RU 11040 | 0.59 | 0.44 | 0.75 | 0.79 | 0.44 | 1.40 | 1.26 | 1.23 | 0.75 | 1.15 | 0.69 | 0.84 | 10.3 |
| | Primorskaya | RU 11041 | ** | 0.78 | 2.19 | 4.11 | 2.04 | 3.59 | 2.01 | 2.28 | 3.13 | 2.99 | 1.43 | 0.16 | 24.2 |
| Thailand | Bangkok | TH 11042 | 0.00 | 0.37 | * | 3.04 | 7.47 | 0.86 | 1.24 | 1.38 | 2.84 | 4.93 | 1.66 | 0.36 | 24.2 |
| | Patumthani | TH 11044 | 0.00 | 0.00 | 0.08 | 0.22 | 4.23 | 0.56 | 2.37 | 2.10 | 2.98 | 1.06 | 0.49 | 0.10 | 14.2 |
| | Vachiralongkorn Dam | TH 11045 | 0.00 | 0.00 | * | 1.15 | 4.04 | 2.89 | 2.09 | 2.10 | 0.72 | * | * | * | 12.4 |
| | Mae Hia | TH 11046 | 0.44 | 0.12 | 0.00 | 0.35 | 1.19 | 0.39 | 0.35 | 0.74 | 1.77 | 0.51 | 0.40 | 0.32 | 6.57 |
| Vietnam | Hanoi | VN 11047 | 3.25 | 4.17 | 1.97 | 2.46 | 4.04 | 4.75 | 5.63 | 7.25 | 5.28 | 2.23 | 2.19 | 4.57 | 47.8 |
| | Hoa Binh | VN 11048 | 2.24 | 0.71 | 2.88 | 1.81 | 4.98 | 2.24 | 1.45 | 2.14 | 5.15 | 2.86 | 2.58 | 1.48 | 30.5 |

 [0.00]: Deposition was 0 mmol/m² because precipitation was 0 mm.

 [*]: SO₄²⁻ was not measured although precipitation was not 0 mm. (%TP=0%)

[**]: Precipitation was not measured. (%PCL=0%)

Data in hatched column: Rejected monthly (annual) value by the criteria of EANET (%PCL<80% or %TP<80%)

Table 3.38 Monthly nss-SO₄²⁻ deposition

unit: mmol/m²/month or mmol/m²/year

| Country | Name of sites | Code | 2002 | | | | | | | | | | | | Annual |
|-------------------|---------------------|----------|------|-------|------|-------|------|------|------|------|------|------|------|------|--------|
| | | | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | |
| China | Guanyinqiao | CN 11001 | 10.3 | 6.47 | 8.75 | 15.1 | 28.4 | 36.1 | 9.84 | 21.9 | 7.04 | 7.59 | 5.17 | 7.41 | 164 |
| | Jinyunshan | CN 11003 | 4.53 | 6.10 | 9.24 | 14.3 | 24.6 | 17.2 | 14.7 | 15.3 | 5.95 | 4.11 | 5.16 | 4.11 | 125 |
| | Shizhan | CN 11004 | 43.3 | 18.8 | 21.8 | 7.32 | 23.5 | 30.2 | 12.5 | 41.1 | 27.2 | 21.2 | 7.39 | 37.1 | 291 |
| | Weishuiyuan | CN 11005 | 0.00 | 54.5 | 12.9 | 0.00 | 12.1 | 65.0 | 11.9 | 17.9 | 31.6 | 13.4 | 11.4 | 0.00 | 231 |
| | Jiwozi | CN 11007 | ** | ** | ** | 24.4 | ** | ** | 0.00 | 6.74 | 0.00 | 8.70 | 1.92 | 0.00 | 41.7 |
| | Hongwen | CN 11008 | 4.02 | 0.31 | 4.41 | 7.28 | 8.67 | 1.55 | 3.87 | 12.8 | 2.88 | 4.78 | 5.20 | 6.11 | 61.8 |
| | Xiaoping | CN 11009 | 0.00 | 0.00 | 0.00 | 2.11 | 4.12 | 1.04 | 9.96 | 5.00 | 6.99 | 0.89 | 1.63 | 2.40 | 34.1 |
| | Xiang Zhou | CN 11010 | 1.89 | 1.03 | 5.60 | 3.61 | 3.69 | 2.75 | 7.16 | 6.96 | 7.08 | 2.82 | 0.00 | 1.42 | 44.0 |
| | Zhuxian Cavern | CN 11011 | 3.03 | 0.86 | 8.85 | 5.98 | 2.75 | 3.05 | 9.32 | 6.10 | 3.20 | 2.38 | 0.00 | 0.82 | 46.3 |
| Indonesia | Jakarta | ID 11012 | 6.94 | 10.4 | 8.77 | <0.01 | 0.06 | 0.00 | 12.3 | 0.00 | 0.00 | 0.00 | 10.3 | 8.50 | 57.3 |
| | Serpong | ID 11013 | 3.94 | 5.59 | 7.42 | 6.07 | 5.41 | 7.52 | 3.28 | 3.33 | 5.45 | 0.96 | 7.01 | 4.55 | 60.5 |
| | Kototabang | ID 11014 | 0.34 | 0.42 | 0.87 | 0.68 | 0.00 | 0.00 | 0.00 | 0.98 | 0.97 | 0.87 | 3.25 | 4.36 | 12.7 |
| | Bandung | ID 11015 | 10.7 | 1.52 | 18.9 | 9.21 | 3.34 | 2.99 | 14.3 | 0.94 | 0.00 | 0.00 | 2.51 | 4.73 | 69.1 |
| Japan | Rishiri | JP 11016 | 0.57 | 1.08 | 0.70 | 1.90 | 0.75 | 0.47 | 3.37 | 1.39 | 0.21 | 1.39 | 2.32 | 0.74 | 14.9 |
| | Tappi | JP 11017 | 1.21 | 1.06 | 2.06 | 2.12 | 0.39 | 0.95 | 1.14 | 2.62 | 0.17 | 0.85 | 2.34 | 0.82 | 17.1 |
| | Sado-seki | JP 11019 | 2.60 | 1.67 | 0.43 | * | 1.58 | 0.66 | 2.61 | 1.27 | 0.86 | 0.85 | 5.78 | 1.07 | 18.8 |
| | Happo | JP 11021 | 3.81 | 4.98 | 2.10 | 0.53 | 0.67 | 1.72 | 0.76 | 0.72 | 2.06 | 1.58 | 3.29 | 1.40 | 19.3 |
| | Oki | JP 11023 | 3.83 | 1.09 | 1.69 | 1.20 | 1.16 | 0.48 | 0.37 | 0.21 | 2.08 | 3.54 | 2.21 | 1.52 | 21.2 |
| | Yusuhara | JP 11025 | * | 1.43 | 2.19 | 2.01 | 2.26 | 1.83 | 1.97 | 4.34 | 1.31 | 1.09 | 1.69 | 1.32 | 22.1 |
| | Ogasawara | JP 11018 | 0.57 | 0.06 | 0.74 | 0.17 | 1.12 | 0.42 | 0.09 | 0.19 | 0.19 | 0.20 | 0.75 | 0.76 | 5.25 |
| | Hedo | JP 11027 | 0.55 | 0.76 | 1.74 | 1.55 | 0.77 | 0.52 | 0.34 | 0.22 | 21.9 | 2.42 | 0.72 | 1.56 | 15.1 |
| | Ijira | JP 11022 | 4.20 | 1.05 | 2.44 | * | 11.2 | 6.61 | 6.12 | 3.24 | 1.04 | 3.37 | 1.31 | 1.75 | 47.6 |
| | Banryu | JP 11024 | 2.41 | 1.14 | 2.71 | 0.72 | 1.96 | 1.68 | * | 0.22 | 1.33 | 2.28 | 1.17 | 1.65 | 18.6 |
| Malaysia | Petaling Jaya | MY 11029 | 1.60 | 3.35 | 13.5 | 4.51 | 3.98 | 5.23 | 0.68 | 3.90 | 3.67 | 8.19 | 9.76 | 3.99 | 62.3 |
| | Tanah Rata | MY 11030 | 0.06 | <0.00 | 0.66 | 1.09 | 0.83 | 0.72 | 0.78 | 1.32 | 1.49 | 4.39 | 0.55 | 0.33 | 12.6 |
| Mongolia | Ulaanbaatar | MN 11031 | * | * | * | * | 1.03 | 1.31 | 0.46 | 0.34 | 0.15 | 0.27 | * | * | 4.34 |
| | Terelj | MN 11032 | * | 0.00 | * | 0.70 | 0.79 | 0.72 | 0.64 | 0.27 | 0.13 | 0.23 | 0.06 | 0.03 | 3.51 |
| Philippines | Metro Manila | PH 11033 | 0.00 | 2.52 | 2.20 | 0.30 | * | 5.74 | 26.2 | 6.55 | 16.7 | 8.27 | 13.6 | 0.16 | 75.6 |
| | Los Banos | PH 11034 | 0.00 | 0.61 | 0.27 | 0.08 | 3.49 | 1.67 | 5.37 | 3.51 | 2.28 | 1.61 | 1.38 | 4.85 | 25.1 |
| Republic of Korea | Kanghwa | KR 11035 | 4.31 | * | 0.00 | 0.80 | 1.24 | 3.97 | 5.94 | 7.65 | 0.45 | 0.66 | * | 0.67 | 26.0 |
| | Cheju | KR 11036 | 1.08 | 2.71 | 0.78 | 0.90 | 1.52 | 0.74 | 3.64 | 5.67 | * | 3.31 | 0.71 | 1.16 | 24.9 |
| | Imsil | KR 11037 | * | 0.36 | 1.85 | 2.04 | 1.22 | 2.23 | 1.60 | 4.62 | 0.70 | 0.57 | 1.51 | 1.64 | 20.4 |
| Russia | Mondy | RU 11038 | 0.00 | 0.00 | 0.00 | 0.12 | 0.25 | 0.70 | 0.80 | 0.11 | 0.00 | 0.20 | 0.00 | 0.00 | 2.17 |
| | Listvyanka | RU 11039 | 0.77 | 0.06 | 0.42 | 0.34 | 0.27 | 0.60 | 1.16 | 1.03 | 0.37 | 0.49 | 0.12 | 0.84 | 6.47 |
| | Irkutsk | RU 11040 | 0.58 | 0.42 | 0.73 | 0.77 | 0.43 | 1.40 | 1.25 | 1.22 | 0.74 | 1.13 | 0.67 | 0.82 | 10.2 |
| | Primorskaya | RU 11041 | ** | 0.76 | 2.11 | 3.97 | 1.95 | 3.48 | 1.92 | 2.18 | 3.04 | 2.74 | 1.25 | 0.16 | 23.0 |
| Thailand | Bangkok | TH 11042 | 0.00 | 0.35 | * | 2.99 | 6.77 | 0.82 | 1.11 | 1.30 | 2.79 | 4.91 | 1.62 | 0.35 | 22.9 |
| | Patumthani | TH 11044 | 0.00 | 0.00 | 0.08 | 0.21 | 4.01 | 0.54 | 2.18 | 2.06 | 2.93 | 1.06 | 0.49 | 0.10 | 13.7 |
| | Vachiralongkorn Dam | TH 11045 | 0.00 | 0.00 | * | 1.24 | 3.93 | 2.61 | 1.69 | 1.88 | 0.67 | * | * | * | 11.2 |
| | Mae Hia | TH 11046 | 0.42 | 0.12 | 0.00 | 0.34 | 1.08 | 0.25 | 0.31 | 0.70 | 1.54 | 0.44 | 0.31 | 0.28 | 5.78 |
| Vietnam | Hanoi | VN 11047 | 3.24 | 4.10 | 1.94 | 2.41 | 3.96 | 4.72 | 5.61 | 7.18 | 5.22 | 2.19 | 2.18 | 4.52 | 47.3 |
| | Hoa Binh | VN 11048 | 2.23 | 0.71 | 2.86 | 1.79 | 4.93 | 2.24 | 1.45 | 2.13 | 5.11 | 2.84 | 2.57 | 1.47 | 30.3 |

[0.00]: Deposition was 0 mmol/m² because precipitation was 0 mm.

[*]: SO₄²⁻ or Na⁺ was not measured although precipitation was not 0 mm. (%TP=0%)

[**]: Precipitation was not measured. (%PCL=0%)

Data in hatched column: Rejected monthly (annual) value by the criteria of EANET (%PCL<80% or %TP<80%)

Table 3.39 Monthly NO₃⁻ deposition

unit: mmol/m²/month or mmol/m²/year

| Country | Name of sites | Code | 2002 | | | | | | | | | | | | Annual |
|-------------------|---------------------|----------|------|-------|------|------|------|------|------|------|------|------|------|------|--------|
| | | | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | |
| China | Guanyinqiao | CN 11001 | 3.72 | 2.41 | 2.54 | 4.87 | 7.80 | 9.00 | 3.22 | 7.48 | 1.54 | 2.19 | 1.91 | 3.08 | 49.7 |
| | Jinyunshan | CN 11003 | 2.59 | 2.55 | 3.53 | 5.88 | 8.34 | 6.33 | 5.87 | 5.75 | 1.54 | 1.48 | 1.90 | 1.52 | 47.3 |
| | Shizhan | CN 11004 | 2.85 | 1.01 | 2.00 | 2.36 | 4.56 | 9.17 | 4.06 | 9.56 | 8.37 | 3.31 | 1.66 | 3.29 | 52.2 |
| | Weishuiyuan | CN 11005 | 0.00 | 2.71 | 1.16 | 0.00 | 1.61 | 3.23 | 3.74 | 2.24 | 22.0 | 1.34 | 0.91 | 0.00 | 39.0 |
| | Jiwozi | CN 11007 | ** | ** | ** | 4.90 | ** | ** | 0.00 | 2.62 | 0.00 | 3.99 | 1.22 | 0.00 | 12.7 |
| | Hongwen | CN 11008 | 2.52 | 0.16 | 3.55 | 5.08 | 6.56 | 1.47 | 3.34 | 15.9 | 2.14 | 0.19 | 3.72 | 3.55 | 48.2 |
| | Xiaoping | CN 11009 | 0.00 | 0.00 | 0.00 | 2.76 | 3.80 | 2.11 | 8.44 | 5.01 | 4.59 | 1.10 | 1.76 | 2.46 | 32.0 |
| | Xiang Zhou | CN 11010 | 1.07 | 0.42 | 4.61 | 3.39 | 4.13 | 2.47 | 7.28 | 1.66 | 3.08 | 1.59 | 0.00 | 1.14 | 30.9 |
| | Zhuxian Cavern | CN 11011 | 1.06 | 0.31 | 5.86 | 5.90 | 2.47 | 3.24 | 8.01 | 1.71 | 1.96 | 1.43 | 0.00 | 0.92 | 32.9 |
| Indonesia | Jakarta | ID 11012 | 2.61 | 7.81 | 2.77 | 4.62 | 0.10 | 0.00 | 9.83 | 0.00 | 0.00 | 0.00 | 7.77 | 8.81 | 44.3 |
| | Serpong | ID 11013 | 3.91 | 5.38 | 8.29 | 5.91 | 6.53 | 9.42 | 7.27 | 4.53 | 8.33 | 1.55 | 12.9 | 7.59 | 81.6 |
| | Kototabang | ID 11014 | 0.45 | 0.29 | 0.81 | 0.70 | 0.00 | 0.00 | 0.00 | 0.66 | 0.73 | 1.28 | 2.66 | 2.55 | 10.1 |
| | Bandung | ID 11015 | 11.2 | 0.82 | 17.0 | 6.83 | 2.63 | 3.66 | 16.5 | 1.33 | 0.00 | 0.00 | 2.64 | 4.09 | 66.7 |
| Japan | Rishiri | JP 11016 | 0.39 | 1.12 | 1.01 | 1.64 | 0.63 | 0.31 | 2.55 | 1.73 | 0.33 | 1.36 | 1.45 | 0.40 | 12.9 |
| | Tappi | JP 11017 | 1.11 | 1.45 | 2.50 | 2.89 | 0.46 | 1.32 | 2.47 | 3.62 | 0.39 | 1.54 | 2.49 | 1.15 | 22.5 |
| | Sado-seki | JP 11019 | 2.73 | 2.76 | 0.78 | * | 1.45 | 0.64 | 2.83 | 2.14 | 0.76 | 1.28 | 5.01 | 1.00 | 21.4 |
| | Happo | JP 11021 | 2.72 | 3.82 | 1.60 | 0.72 | 0.72 | 2.03 | 1.81 | 0.54 | 2.16 | 1.54 | 1.42 | 1.25 | 18.2 |
| | Oki | JP 11023 | 3.28 | 1.38 | 2.25 | 1.66 | 1.28 | 0.79 | 0.76 | 0.25 | 2.55 | 3.06 | 2.55 | 2.16 | 23.7 |
| | Yusuhara | JP 11025 | * | 1.12 | 1.77 | 2.36 | 1.73 | 1.45 | 1.54 | 2.80 | 0.89 | 1.54 | 2.26 | 1.66 | 19.8 |
| | Ogasawara | JP 11018 | 0.47 | 0.07 | 0.94 | 0.19 | 0.39 | 0.44 | 0.01 | 0.12 | 0.20 | 0.23 | 0.22 | 0.34 | 3.61 |
| | Hedo | JP 11027 | 0.62 | 0.61 | 2.58 | 2.58 | 1.50 | 0.72 | 0.46 | 0.56 | 34.5 | 2.38 | 0.95 | 1.18 | 19.3 |
| | Ijira | JP 11022 | 5.62 | 1.54 | 3.68 | * | 12.5 | 7.58 | 6.62 | 5.35 | 2.14 | 3.48 | 1.73 | 2.15 | 57.8 |
| | Banryu | JP 11024 | 3.34 | 1.77 | 3.86 | 1.12 | 2.42 | 2.14 | * | 0.27 | 1.54 | 2.86 | 2.29 | 1.81 | 25.0 |
| Malaysia | Petaling Jaya | MY 11029 | 2.57 | 4.60 | 19.4 | 13.0 | 4.99 | 9.42 | 1.24 | 6.96 | 3.86 | 10.6 | 14.8 | 6.48 | 97.9 |
| | Tanah Rata | MY 11030 | 0.05 | <0.01 | 0.51 | 1.25 | 3.75 | 0.90 | 1.11 | 1.51 | 2.10 | 4.59 | 1.10 | 0.39 | 16.7 |
| Mongolia | Ulaanbaatar | MN 11031 | * | * | * | * | 0.71 | 1.55 | 0.46 | 0.47 | 0.15 | 0.11 | * | * | 4.23 |
| | Terelj | MN 11032 | * | 0.00 | * | 0.55 | 0.61 | 1.50 | 0.65 | 0.52 | 0.16 | 0.22 | 0.09 | 0.01 | 4.45 |
| Philippines | Metro Manila | PH 11033 | 0.00 | 0.18 | 1.86 | 0.10 | * | 4.46 | 11.0 | 4.27 | 16.4 | 8.00 | 3.91 | 0.06 | 52.3 |
| | Los Banos | PH 11034 | 0.03 | 0.12 | 0.12 | 0.06 | 2.77 | 1.29 | 2.78 | 2.17 | 2.59 | 1.36 | 0.45 | 0.23 | 14.0 |
| Republic of Korea | Kanghwa | KR 11035 | 3.78 | * | 0.00 | 0.80 | 2.17 | 4.17 | 7.81 | 5.73 | 0.50 | 0.80 | * | 1.10 | 27.0 |
| | Cheju | KR 11036 | 0.98 | 2.38 | 0.94 | 0.93 | 1.60 | 0.77 | 4.22 | 3.99 | * | 2.81 | 1.06 | 2.08 | 24.4 |
| | Imsil | KR 11037 | * | 0.38 | 2.51 | 2.86 | 1.68 | 2.38 | 2.55 | 5.96 | 1.31 | 0.68 | 3.61 | 4.56 | 31.8 |
| Russia | Mondy | RU 11038 | 0.00 | 0.00 | 0.00 | 0.09 | 0.31 | 1.05 | 0.82 | 0.09 | 0.00 | 0.39 | 0.00 | 0.00 | 2.75 |
| | Listvyanka | RU 11039 | 1.65 | 0.11 | 0.43 | 0.31 | 0.30 | 0.89 | 0.84 | 0.78 | 0.41 | 0.29 | 0.22 | 2.77 | 8.99 |
| | Irkutsk | RU 11040 | 0.39 | 0.16 | 0.29 | 0.43 | 0.43 | 0.90 | 0.99 | 0.96 | 0.53 | 0.70 | 0.42 | 0.38 | 6.59 |
| | Primorskaya | RU 11041 | ** | 0.19 | 0.09 | 1.05 | 0.48 | 0.76 | 1.01 | 0.74 | 0.10 | 3.34 | 0.19 | 0.08 | 8.51 |
| Thailand | Bangkok | TH 11042 | 0.00 | 0.66 | * | 5.82 | 9.14 | 0.69 | 0.89 | 0.86 | 3.44 | 7.66 | 2.62 | 0.55 | 32.0 |
| | Patumthani | TH 11044 | 0.00 | 0.00 | 0.20 | 0.56 | 5.75 | 0.53 | 2.61 | 1.93 | 2.92 | 2.37 | 0.52 | 0.16 | 17.6 |
| | Vachiralongkorn Dam | TH 11045 | 0.00 | 0.00 | * | 1.93 | 5.67 | 1.17 | 2.25 | 1.30 | 0.80 | * | * | * | 13.3 |
| | Mae Hia | TH 11046 | 0.71 | 0.27 | 0.00 | 0.87 | 1.69 | 0.33 | 0.43 | 0.71 | 0.69 | 0.72 | 2.59 | 0.77 | 9.78 |
| Vietnam | Hanoi | VN 11047 | 0.05 | 0.05 | 0.02 | 0.53 | 0.38 | 0.76 | 0.41 | 0.94 | 5.29 | 5.39 | 2.84 | 4.72 | 21.4 |
| | Hoa Binh | VN 11048 | 0.14 | 0.03 | 0.03 | 0.39 | 2.04 | 1.19 | 0.46 | 1.09 | 14.0 | 5.74 | 4.66 | 2.98 | 32.8 |

[0.00]: Deposition was 0 mmol/m² because precipitation was 0 mm.

[*]: NO₃⁻ was not measured although precipitation was not 0 mm. (%TP=0%)

[**]: Precipitation was not measured. (%PCL=0%)

Data in hatched column: Rejected monthly (annual) value by the criteria of EANET (%PCL<80% or %TP<80%)

Table 3.40 Monthly Cl⁻ depositionunit: mmol/m²/month or mmol/m²/year

| Country | Name of sites | Code | 2002 | | | | | | | | | | | | Annual |
|-------------------|---------------------|----------|------|-------|------|------|------|------|------|------|------|------|------|------|--------|
| | | | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | |
| China | Guanyinqiao | CN 11001 | 1.35 | 1.05 | 1.23 | 1.73 | 4.54 | 4.87 | 2.44 | 1.60 | 0.91 | 1.13 | 0.59 | 1.07 | 22.5 |
| | Jinyunshan | CN 11003 | 0.77 | 0.64 | 1.36 | 2.55 | 4.18 | 2.50 | 1.87 | 2.42 | 2.01 | 0.74 | 0.83 | 0.89 | 20.8 |
| | Shizhan | CN 11004 | 3.94 | 2.54 | 2.64 | 2.54 | 50.3 | 34.5 | 0.19 | 6.60 | 6.07 | 6.18 | 1.29 | 4.95 | 122 |
| | Weishuiyuan | CN 11005 | 0.00 | 3.78 | 1.84 | 0.00 | 3.94 | 38.0 | 0.38 | 4.00 | 8.12 | 4.69 | 1.32 | 0.00 | 66.0 |
| | Jiwozi | CN 11007 | ** | ** | ** | 8.07 | ** | ** | 0.00 | 4.10 | 0.00 | 13.2 | 0.83 | 0.00 | 26.2 |
| | Hongwen | CN 11008 | 2.75 | 0.14 | 2.86 | 2.88 | 3.44 | 1.63 | 5.06 | 36.9 | 3.00 | 2.09 | 2.44 | 4.07 | 67.3 |
| | Xiaoping | CN 11009 | 0.00 | 0.00 | 0.00 | 1.29 | 1.43 | 0.81 | 4.27 | 6.62 | 2.36 | 0.56 | 1.25 | 1.26 | 19.9 |
| | Xiang Zhou | CN 11010 | 0.56 | 0.26 | 3.45 | 7.96 | 4.35 | 4.98 | 14.3 | 50.6 | 26.9 | 2.84 | 0.00 | 3.19 | 119 |
| | Zhuxian Cavern | CN 11011 | 1.88 | 0.36 | 6.35 | 9.05 | 2.29 | 4.10 | 18.6 | 23.6 | 22.2 | 2.88 | 0.00 | 2.75 | 94.1 |
| Indonesia | Jakarta | ID 11012 | 5.24 | 16.3 | 2.17 | 2.31 | 1.87 | 0.00 | 5.02 | 0.00 | 0.00 | 6.14 | 5.18 | 44.2 | |
| | Serpong | ID 11013 | 4.14 | 10.3 | 4.48 | 3.88 | 1.70 | 7.04 | 7.33 | 2.88 | 6.61 | 0.65 | 5.98 | 2.63 | 57.6 |
| | Kototabang | ID 11014 | 0.68 | 0.61 | 1.69 | 2.41 | 0.00 | 0.00 | 0.00 | 0.72 | 2.01 | 2.53 | 9.25 | 10.2 | 30.1 |
| | Bandung | ID 11015 | 3.11 | 0.38 | 9.15 | 2.60 | 2.50 | 4.03 | 21.9 | 1.16 | 0.00 | 0.00 | 3.43 | 3.28 | 51.5 |
| Japan | Rishiri | JP 11016 | 10.8 | 6.65 | 3.04 | 10.3 | 1.65 | 2.07 | 4.08 | 2.11 | 2.40 | 77.0 | 74.9 | 14.6 | 207 |
| | Tappi | JP 11017 | 17.2 | 8.27 | 23.6 | 14.5 | 3.04 | 11.6 | 4.52 | 13.5 | 7.29 | 52.2 | 36.2 | 17.0 | 253 |
| | Sado-seki | JP 11019 | 116 | 51.8 | 15.2 | * | 3.24 | 1.33 | 7.37 | 7.34 | 1.62 | 81.2 | 132 | 33.5 | 439 |
| | Happo | JP 11021 | 1.38 | 0.86 | 2.04 | 0.31 | 0.44 | 0.58 | 0.56 | 0.29 | 0.56 | 2.40 | 3.03 | 1.37 | 13.0 |
| | Oki | JP 11023 | 230 | 44.0 | 20.0 | 7.62 | 1.20 | 3.22 | 1.73 | 1.07 | 11.5 | 52.8 | 69.2 | 118 | 658 |
| | Yusuhara | JP 11025 | * | 2.11 | 2.36 | 2.90 | 2.26 | 0.83 | 14.0 | 33.1 | 1.45 | 2.85 | 8.59 | 1.84 | 74.6 |
| | Ogasawara | JP 11018 | 15.9 | 0.58 | 9.19 | 1.05 | 7.95 | 11.1 | 22.0 | 76.2 | 23.7 | 59.3 | 121 | 21.4 | 370 |
| | Hedo | JP 11027 | 12.8 | 9.78 | 22.7 | 10.2 | 6.33 | 8.41 | 438 | 260 | 1010 | 59.3 | 22.6 | 49.4 | 1200 |
| | Ijira | JP 11022 | 21.9 | 5.64 | 0.96 | * | 5.76 | 2.05 | 13.8 | 4.44 | 0.56 | 6.20 | 8.98 | 4.95 | 88.2 |
| | Banryu | JP 11024 | 23.1 | 11.9 | 5.49 | 0.78 | 3.22 | 1.96 | * | 0.34 | 7.44 | 20.7 | 10.4 | 23.1 | 116 |
| Malaysia | Petaling Jaya | MY 11029 | 0.78 | 1.66 | 2.94 | 1.74 | 1.70 | 1.70 | 0.30 | 1.55 | 1.13 | 2.07 | 2.25 | 1.69 | 19.5 |
| | Tanah Rata | MY 11030 | 0.19 | <0.01 | 0.31 | 0.68 | 1.04 | 0.22 | 0.35 | 0.68 | 1.03 | 1.08 | 0.53 | 0.29 | 6.29 |
| Mongolia | Ulaanbaatar | MN 11031 | * | * | * | * | 0.25 | 0.40 | 0.09 | 0.20 | 0.09 | 0.09 | * | * | 1.37 |
| | Terelj | MN 11032 | * | 0.00 | * | 0.25 | 1.17 | 0.68 | 0.25 | 0.14 | 0.06 | 0.15 | 0.05 | 0.02 | 2.80 |
| Philippines | Metro Manila | PH 11033 | 0.00 | 3.02 | 1.16 | 0.17 | * | 2.70 | 34.9 | 4.62 | 5.01 | 3.10 | 4.43 | 0.20 | 55.9 |
| | Los Banos | PH 11034 | 0.62 | 0.97 | 3.14 | 0.34 | 2.08 | 2.89 | 15.8 | 3.40 | 1.34 | 1.54 | 5.29 | 4.51 | 41.9 |
| Republic of Korea | Kanghwa | KR 11035 | 3.52 | * | 0.00 | 1.35 | 3.57 | 2.85 | 9.91 | 11.0 | 0.48 | 1.50 | * | 1.02 | 35.5 |
| | Cheju | KR 11036 | 9.48 | 11.3 | 1.48 | 4.38 | 1.88 | 1.13 | 8.26 | 17.5 | * | 7.29 | 3.12 | 10.2 | 85.3 |
| | Imsil | KR 11037 | * | 0.68 | 3.09 | 2.01 | 2.24 | 1.97 | 3.18 | 9.37 | 2.51 | 1.11 | 3.25 | 3.55 | 36.7 |
| Russia | Mondy | RU 11038 | 0.00 | 0.00 | 0.00 | 0.03 | 0.24 | 0.82 | 0.59 | 0.09 | 0.00 | 0.03 | 0.00 | 0.00 | 1.81 |
| | Listvyanka | RU 11039 | 0.20 | 0.00 | 0.22 | 0.04 | 0.11 | 0.35 | 0.72 | 0.47 | 0.16 | 0.09 | 0.01 | 0.08 | 2.45 |
| | Irkutsk | RU 11040 | 0.16 | 0.41 | 0.47 | 0.33 | 0.27 | 0.76 | 0.54 | 0.61 | 0.44 | 0.45 | 0.56 | 0.45 | 5.45 |
| | Primorskaya | RU 11041 | ** | 0.46 | 1.61 | 2.62 | 1.91 | 3.35 | 5.41 | 3.36 | 1.73 | 5.35 | 2.51 | 0.11 | 28.3 |
| Thailand | Bangkok | TH 11042 | 0.00 | 0.50 | * | 1.40 | 6.25 | 0.79 | 2.34 | 1.53 | 1.94 | 1.71 | 0.83 | 0.14 | 18.0 |
| | Patumthani | TH 11044 | 0.00 | 0.00 | 0.09 | 0.23 | 3.95 | 0.46 | 3.38 | 0.88 | 1.24 | 0.40 | 0.21 | 0.11 | 11.0 |
| | Vachiralongkorn Dam | TH 11045 | 0.00 | 0.00 | * | 1.05 | 3.59 | 5.42 | 12.4 | 4.88 | 1.97 | * | * | * | 30.9 |
| | Mae Hia | TH 11046 | 0.32 | 0.10 | 0.00 | 0.33 | 2.78 | 2.08 | 0.72 | 0.77 | 3.61 | 1.38 | 2.10 | 0.67 | 14.8 |
| Vietnam | Hanoi | VN 11047 | 0.18 | 0.80 | 0.31 | 0.99 | 1.01 | 0.58 | 0.87 | 4.40 | 0.83 | 0.85 | 1.05 | 1.62 | 13.5 |
| | Hoa Binh | VN 11048 | 0.33 | 0.08 | 0.46 | 0.68 | 3.13 | 1.26 | 0.38 | 0.96 | 1.63 | 0.99 | 0.90 | 0.50 | 11.3 |

[0.00]: Deposition was 0 mmol/m² because precipitation was 0 mm.[*]: Cl⁻ was not measured although precipitation was not 0 mm. (%TP=0%)

[**]: Precipitation was not measured. (%PCL=0%)

Data in hatched column: Rejected monthly (annual) value by the criteria of EANET (%PCL<80% or %TP<80%)

Table 3.41 Monthly NH₄⁺ deposition

unit: mmol/m²/month or mmol/m²/year

| Country | Name of sites | Code | 2002 | | | | | | | | | | | | Annual |
|-------------------|---------------------|----------|------|------|------|-------|------|------|------|------|------|------|------|------|--------|
| | | | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | |
| China | Guanyinqiao | CN 11001 | 10.8 | 9.87 | 11.3 | 20.0 | 37.5 | 35.1 | 9.83 | 11.1 | 5.07 | 6.02 | 6.43 | 9.84 | 173 |
| | Jinyunshan | CN 11003 | 5.71 | 6.13 | 14.1 | 18.7 | 25.4 | 18.3 | 14.3 | 12.7 | 4.67 | 4.65 | 5.46 | 3.96 | 134 |
| | Shizhan | CN 11004 | 6.74 | 8.17 | 9.87 | 1.95 | 5.30 | 11.2 | 2.84 | 5.59 | 4.41 | 6.01 | 2.25 | 6.38 | 70.7 |
| | Weishuiyuan | CN 11005 | 0.00 | 10.9 | 2.73 | 0.00 | 8.72 | 25.2 | 3.48 | 3.94 | * | 3.31 | 2.65 | 0.00 | 74.1 |
| | Jiwozi | CN 11007 | ** | ** | ** | 4.55 | ** | ** | 0.00 | 2.74 | 0.00 | 1.71 | 1.09 | 0.00 | 10.1 |
| | Hongwen | CN 11008 | 3.40 | 0.47 | 5.24 | 9.51 | 12.3 | 4.51 | 6.59 | 10.3 | 4.64 | 3.07 | 5.89 | 3.47 | 69.3 |
| | Xiaoping | CN 11009 | 0.00 | 0.00 | 0.00 | 7.37 | 10.3 | 8.19 | 21.3 | 4.35 | 10.6 | 1.45 | 2.30 | 1.70 | 67.5 |
| | Xiang Zhou | CN 11010 | 1.98 | 0.52 | 6.53 | 5.70 | 5.28 | 3.61 | 11.0 | 109 | 16.2 | 2.63 | 0.00 | 3.11 | 166 |
| | Zhuxian Cavern | CN 11011 | 1.82 | 0.58 | 8.24 | 7.01 | 5.31 | 3.77 | 14.1 | 13.9 | 15.6 | 2.68 | 0.00 | 3.54 | 76.5 |
| Indonesia | Jakarta | ID 11012 | 10.2 | 16.5 | 2.77 | <0.01 | 8.81 | 0.00 | 4.97 | 0.00 | 0.00 | 0.00 | * | * | 49.8 |
| | Serpong | ID 11013 | 4.19 | 6.83 | 12.7 | 13.2 | 8.13 | 19.4 | 15.9 | 4.54 | 8.46 | 0.32 | 13.9 | 7.70 | 115 |
| | Kototabang | ID 11014 | 1.09 | 0.92 | 1.55 | 0.17 | 0.00 | 0.00 | 0.00 | * | * | * | * | * | 9.21 |
| | Bandung | ID 11015 | 12.8 | 3.39 | 23.3 | 7.77 | 3.58 | 2.21 | 5.36 | 0.80 | 0.00 | 0.00 | 3.75 | 12.9 | 75.9 |
| Japan | Rishiri | JP 11016 | 0.46 | 1.17 | 0.90 | 1.32 | 1.14 | 0.67 | 5.93 | 1.76 | 0.57 | 2.40 | 2.22 | 0.55 | 19.2 |
| | Tappi | JP 11017 | 0.62 | 1.32 | 2.27 | 2.74 | 0.26 | 1.64 | 1.53 | 4.12 | 0.20 | 1.47 | 1.97 | 0.46 | 19.6 |
| | Sado-seki | JP 11019 | 2.62 | 2.31 | 0.36 | * | 1.27 | 0.61 | 3.58 | 1.62 | 0.75 | 1.59 | 5.18 | 0.63 | 20.7 |
| | Happo | JP 11021 | 3.25 | 4.10 | 2.43 | 1.28 | 0.77 | 2.62 | 1.25 | 0.79 | 2.21 | 1.43 | 1.85 | 0.79 | 20.2 |
| | Oki | JP 11023 | 3.20 | 1.06 | 1.79 | 1.66 | 0.77 | 0.84 | 0.33 | 0.15 | 1.35 | 4.16 | 1.53 | 1.21 | 19.5 |
| | Yusuhara | JP 11025 | * | 0.99 | 1.92 | 1.94 | 1.41 | 1.81 | 1.44 | 3.38 | 0.89 | 1.01 | 1.67 | 0.86 | 17.8 |
| | Ogasawara | JP 11018 | 0.52 | 0.03 | 0.99 | 0.20 | 1.77 | 0.40 | 0.04 | 1.07 | 0.18 | 0.11 | 0.51 | 1.39 | 7.18 |
| | Hedo | JP 11027 | 0.62 | 0.74 | 3.19 | 1.86 | 0.65 | 0.52 | 2.27 | 12.0 | 70.4 | 2.26 | 0.81 | 2.61 | 37.6 |
| | Ijira | JP 11022 | 4.16 | 1.27 | 2.79 | * | 10.1 | 10.4 | 12.0 | 5.28 | 1.74 | 3.76 | 1.00 | 1.24 | 60.4 |
| | Banryu | JP 11024 | 2.52 | 1.67 | 3.78 | 0.79 | 2.32 | 3.20 | * | 0.14 | 0.91 | 2.95 | 1.97 | 1.63 | 23.4 |
| Malaysia | Petaling Jaya | MY 11029 | 0.70 | 4.12 | 9.39 | 4.27 | 2.54 | 2.32 | 0.79 | 4.23 | 2.11 | 7.39 | 3.30 | 1.85 | 43.0 |
| | Tanah Rata | MY 11030 | 0.01 | 0.02 | 0.39 | 0.63 | 1.05 | 0.33 | 0.81 | 0.53 | 1.44 | 5.67 | 0.09 | 0.02 | 11.2 |
| Mongolia | Ulaanbaatar | MN 11031 | * | * | * | * | 1.99 | 3.84 | 1.04 | 1.59 | 1.77 | 0.39 | * | * | 13.0 |
| | Terelj | MN 11032 | * | 0.00 | * | 2.08 | 1.46 | 7.28 | 1.33 | 2.33 | 0.75 | 0.35 | 0.09 | 0.02 | 16.2 |
| Philippines | Metro Manila | PH 11033 | 0.00 | 15.0 | 4.67 | 1.25 | * | 27.9 | 25.9 | 10.2 | 25.8 | 22.2 | 57.3 | 0.55 | 137 |
| | Los Banos | PH 11034 | 0.25 | 1.37 | 0.12 | 0.25 | 4.71 | 2.24 | 8.08 | 5.28 | 2.87 | 3.55 | 18.4 | 11.7 | 58.8 |
| Republic of Korea | Kanghwa | KR 11035 | 6.30 | * | 0.00 | 0.52 | 1.58 | 4.90 | 9.66 | 8.01 | 0.11 | 0.72 | * | 0.79 | 33.0 |
| | Cheju | KR 11036 | 0.66 | 2.73 | 0.81 | 0.63 | 1.40 | 0.91 | 8.04 | 14.6 | * | 5.86 | 1.32 | 2.28 | 44.0 |
| | Imsil | KR 11037 | * | 0.25 | 1.80 | 2.45 | 3.98 | 4.96 | 4.61 | 10.7 | 2.14 | 1.16 | 3.12 | 2.34 | 41.9 |
| Russia | Mondy | RU 11038 | 0.00 | 0.00 | 0.00 | 0.11 | 0.62 | 3.14 | 1.96 | 0.47 | 0.00 | 0.57 | 0.00 | 0.00 | 6.89 |
| | Listvyanka | RU 11039 | 0.22 | 0.01 | 0.33 | 0.31 | 0.73 | 1.23 | 1.65 | 2.67 | 1.22 | 0.66 | 0.08 | 0.54 | 9.66 |
| | Irkutsk | RU 11040 | 0.65 | 0.21 | 0.44 | 0.47 | 0.64 | 2.81 | 1.50 | 2.18 | 1.47 | 1.40 | 0.84 | 0.39 | 13.0 |
| | Primorskaya | RU 11041 | ** | 0.59 | 1.96 | 1.58 | 2.46 | 5.32 | 5.74 | 3.14 | 4.49 | 5.83 | 0.35 | 0.07 | 30.0 |
| Thailand | Bangkok | TH 11042 | 0.00 | 0.84 | * | 7.46 | 22.6 | 1.75 | 2.71 | 2.93 | 5.45 | 11.3 | 4.28 | 1.04 | 60.9 |
| | Patumthani | TH 11044 | 0.00 | 0.00 | 0.25 | 0.79 | 10.6 | 1.10 | 4.03 | 4.39 | 7.34 | 2.40 | 1.05 | 0.45 | 32.4 |
| | Vachiralongkorn Dam | TH 11045 | 0.00 | 0.00 | * | 5.53 | 11.7 | 1.22 | 2.61 | 2.29 | 0.69 | * | * | * | 24.0 |
| | Mae Hia | TH 11046 | 2.18 | 0.60 | 0.00 | 1.99 | 6.63 | 1.92 | 1.83 | 2.65 | 2.90 | 1.14 | 4.06 | 1.31 | 27.3 |
| Vietnam | Hanoi | VN 11047 | 4.00 | 7.12 | 2.17 | 2.57 | 7.36 | 8.40 | 7.09 | 14.0 | 7.79 | 5.78 | 4.70 | 7.67 | 78.6 |
| | Hoa Binh | VN 11048 | 2.84 | 1.17 | 4.18 | 2.17 | 7.86 | 3.83 | 2.28 | 2.51 | 8.75 | 3.99 | 4.22 | 2.09 | 45.9 |

[0.00]: Deposition was 0 mmol/m² because precipitation was 0 mm.

[*]: NH₄⁺ was not measured although precipitation was not 0 mm. (%TP=0%)

[**]: Precipitation was not measured. (%PCL=0%)

Data in hatched column: Rejected monthly (annual) value by the criteria of EANET (%PCL<80% or %TP<80%)

Table 3.42 Monthly Na⁺ depositionunit: mmol/m²/month or mmol/m²/year

| Country | Name of sites | Code | 2002 | | | | | | | | | | | | Annual |
|-------------------|---------------------|----------|-------|------|-------|------|------|------|-------|-------|------|------|------|------|--------|
| | | | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | |
| China | Guanyinqiao | CN 11001 | 0.59 | 0.63 | 0.58 | 0.77 | 1.51 | 0.90 | 0.81 | 0.94 | 0.34 | 0.44 | 0.23 | 0.26 | 8.01 |
| | Jinyunshan | CN 11003 | 0.20 | 0.29 | 1.01 | 1.53 | 1.84 | 1.22 | 0.92 | 1.07 | 0.39 | 0.37 | 0.25 | 0.40 | 9.48 |
| | Shizhan | CN 11004 | 2.52 | 1.41 | 2.10 | 3.04 | 20.8 | 35.4 | 1.80 | 3.99 | 6.40 | 4.04 | 0.97 | 3.31 | 85.7 |
| | Weishuiyuan | CN 11005 | 0.00 | 4.73 | 1.17 | 0.00 | 5.01 | 15.7 | 1.17 | 3.22 | 12.8 | 3.19 | 0.96 | 0.00 | 48.0 |
| | Jiwozi | CN 11007 | ** | ** | ** | 9.44 | ** | ** | 0.00 | 5.57 | 0.00 | 6.98 | 2.27 | 0.00 | 24.2 |
| | Hongwen | CN 11008 | 1.64 | 0.15 | 0.95 | 3.14 | 6.94 | 2.28 | 6.79 | 50.7 | 2.74 | 4.67 | 3.44 | 3.76 | 87.2 |
| | Xiaoping | CN 11009 | 0.00 | 0.00 | 0.00 | 1.54 | 2.43 | 3.52 | 8.10 | 15.7 | 2.28 | 0.29 | 0.81 | 0.92 | 35.6 |
| | Xiang Zhou | CN 11010 | 0.22 | 0.29 | 3.28 | 5.90 | 3.98 | 3.18 | 10.2 | 13.0 | 26.6 | 2.43 | 0.00 | 2.77 | 71.9 |
| | Zhuxian Cavern | CN 11011 | 1.31 | 0.20 | 4.63 | 6.95 | 1.78 | 3.80 | 11.7 | 9.97 | 25.8 | 2.02 | 0.00 | 3.24 | 71.4 |
| Indonesia | Jakarta | ID 11012 | 11.5 | 20.8 | 3.02 | 3.43 | 2.34 | 0.00 | 7.02 | 0.00 | 0.00 | 5.18 | 2.26 | 55.6 | |
| | Serpong | ID 11013 | 5.28 | 13.6 | 2.14 | 1.59 | 2.67 | 2.75 | 17.3 | 3.82 | 5.05 | 0.97 | 5.31 | 2.76 | 63.2 |
| | Kototabang | ID 11014 | <0.01 | 0.03 | <0.01 | 0.01 | 0.00 | 0.00 | 0.00 | 0.62 | 1.02 | 1.16 | 4.57 | 3.90 | 11.3 |
| | Bandung | ID 11015 | 7.12 | 0.24 | 2.05 | 0.73 | 0.40 | 4.60 | 4.38 | 0.26 | 0.00 | 0.00 | 0.78 | 1.41 | 22.0 |
| Japan | Rishiri | JP 11016 | 9.62 | 6.44 | 2.69 | 9.36 | 1.50 | 1.81 | 3.59 | 1.92 | 2.17 | 70.1 | 68.0 | 13.2 | 188 |
| | Tappi | JP 11017 | 15.0 | 7.21 | 20.6 | 14.0 | 2.73 | 9.84 | 3.88 | 11.3 | 5.94 | 47.0 | 29.0 | 13.9 | 219 |
| | Sado-seki | JP 11019 | 104 | 47.3 | 13.2 | * | 2.69 | 1.05 | 6.84 | 6.04 | 1.23 | 77.0 | 105 | 27.1 | 384 |
| | Happo | JP 11021 | 0.93 | 0.86 | 1.55 | 0.14 | 0.09 | 0.20 | 0.38 | 0.11 | 0.29 | 1.82 | 2.31 | 1.12 | 8.85 |
| | Oki | JP 11023 | 198 | 37.2 | 17.5 | 7.29 | 0.96 | 2.83 | 1.13 | 1.02 | 11.4 | 47.3 | 60.5 | 100 | 570 |
| | Yusuhara | JP 11025 | * | 1.86 | 2.08 | 2.49 | 2.07 | 0.80 | 12.5 | 30.5 | 1.45 | 2.84 | 7.69 | 1.53 | 67.8 |
| | Ogasawara | JP 11018 | 13.5 | 0.49 | 7.90 | 0.90 | 6.16 | 8.26 | 18.3 | 65.5 | 20.5 | 53.3 | 103 | 16.7 | 314 |
| | Hedo | JP 11027 | 11.3 | 8.87 | 19.7 | 9.05 | 5.63 | 7.50 | 384 | 221 | 915 | 52.5 | 20.3 | 42.5 | 1050 |
| | Ijira | JP 11022 | 17.8 | 4.58 | 1.06 | * | 4.12 | 1.58 | 14.0 | 3.84 | 0.48 | 5.60 | 7.48 | 4.09 | 75.6 |
| Malaysia | Banryu | JP 11024 | 20.7 | 10.5 | 5.24 | 1.44 | 2.57 | 1.66 | * | 0.21 | 6.51 | 17.9 | 9.98 | 20.2 | 104 |
| | Petaling Jaya | MY 11029 | 0.53 | 1.60 | 2.14 | 1.10 | 0.79 | 1.03 | 0.22 | 1.07 | 0.66 | 1.29 | 1.31 | 1.78 | 13.5 |
| Mongolia | Tanah Rata | MY 11030 | 0.16 | 0.24 | 0.36 | 0.48 | 0.65 | 0.22 | 0.23 | 0.31 | 0.56 | 0.73 | 0.47 | 0.20 | 4.56 |
| | Ulaanbaatar | MN 11031 | * | * | * | * | 0.26 | 0.32 | 0.07 | 0.15 | 0.02 | 0.10 | * | * | 1.12 |
| Philippines | Terelj | MN 11032 | * | 0.00 | * | 0.69 | 1.59 | 1.58 | 0.13 | 0.16 | 0.00 | 0.15 | 0.01 | 0.03 | 4.15 |
| | Metro Manila | PH 11033 | 0.00 | 1.67 | 0.75 | 0.31 | * | 2.95 | 30.9 | 3.00 | 2.76 | 2.50 | 5.78 | 0.28 | 43.3 |
| Republic of Korea | Los Banos | PH 11034 | 0.22 | 1.01 | 2.21 | 0.34 | 1.52 | 1.85 | 14.4 | 2.32 | 0.72 | 1.50 | 4.70 | 5.33 | 35.9 |
| | Kanghwa | KR 11035 | 2.72 | * | 0.00 | 1.12 | 2.51 | 3.81 | 13.89 | 12.97 | 0.59 | 1.49 | * | 0.99 | 40.6 |
| | Cheju | KR 11036 | 5.13 | 6.26 | 1.03 | 3.24 | 1.47 | 0.76 | 6.72 | 9.42 | * | 5.74 | 2.21 | 10.9 | 59.3 |
| Russia | Imsil | KR 11037 | * | 0.56 | 2.35 | 2.39 | 1.76 | 2.07 | 4.09 | 8.84 | 2.64 | 1.09 | 3.72 | 4.91 | 38.3 |
| | Mondy | RU 11038 | 0.00 | 0.00 | 0.00 | 0.05 | 0.03 | 0.14 | 0.11 | 0.01 | 0.00 | 0.05 | 0.00 | 0.00 | 0.39 |
| | Listvyanka | RU 11039 | 0.38 | 0.02 | 0.05 | 0.08 | 0.04 | 0.04 | 0.06 | 0.18 | 0.04 | 0.06 | 0.03 | 0.40 | 1.37 |
| | Irkutsk | RU 11040 | 0.14 | 0.38 | 0.43 | 0.38 | 0.08 | 0.07 | 0.18 | 0.15 | 0.07 | 0.26 | 0.32 | 0.32 | 2.78 |
| Thailand | Primorskaya | RU 11041 | ** | 0.35 | 1.24 | 2.39 | 1.54 | 1.82 | 1.53 | 1.72 | 1.48 | 4.09 | 2.98 | 0.08 | 19.3 |
| | Bangkok | TH 11042 | 0.00 | 0.32 | * | 0.78 | 11.7 | 0.82 | 2.13 | 1.37 | 1.20 | 0.29 | 0.71 | 0.15 | 20.9 |
| | Patumthani | TH 11044 | 0.00 | 0.00 | 0.07 | 0.22 | 3.61 | 0.43 | 3.14 | 0.69 | 0.88 | 0.05 | 0.04 | 0.00 | 9.15 |
| | Vachiralongkorn Dam | TH 11045 | 0.00 | 0.00 | * | 0.36 | 1.83 | 4.72 | 6.60 | 3.53 | 0.81 | * | * | * | 18.3 |
| | Mae Hia | TH 11046 | 0.24 | 0.03 | 0.00 | 0.21 | 1.84 | 2.39 | 0.69 | 0.63 | 3.76 | 1.45 | 2.28 | 0.75 | 14.2 |
| Vietnam | Hanoi | VN 11047 | 0.14 | 1.08 | 0.48 | 0.67 | 1.46 | 0.52 | 0.35 | 1.10 | 0.98 | 0.62 | 0.17 | 0.84 | 8.41 |
| | Hoa Binh | VN 11048 | 0.16 | 0.06 | 0.35 | 0.36 | 0.90 | 0.11 | 0.03 | 0.14 | 0.64 | 0.27 | 0.25 | 0.07 | 3.34 |

[0.00]: Deposition was 0 mmol/m² because precipitation was 0 mm.[*]: Na⁺ was not measured although precipitation was not 0 mm. (%TP=0%)

[**]: Precipitation was not measured. (%PCL=0%)

Data in hatched column: Rejected monthly (annual) value by the criteria of EANET (%PCL<80% or %TP<80%)

Table 3.43 Monthly K⁺ deposition

unit: mmol/m²/month or mmol/m²/year

| Country | Name of sites | Code | 2002 | | | | | | | | | | | | Annual |
|-------------------|---------------------|----------|-------|-------|------|-------|------|------|------|------|------|------|------|------|--------|
| | | | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | |
| China | Guanyinqiao | CN 11001 | 1.04 | 0.76 | 0.91 | 1.31 | 2.85 | 2.62 | 1.25 | 1.80 | 0.55 | 0.78 | 0.54 | 0.92 | 15.3 |
| | Jinyunshan | CN 11003 | 0.61 | 0.66 | 1.64 | 1.59 | 3.04 | 1.98 | 1.55 | 1.61 | 1.64 | 0.54 | 0.99 | 0.69 | 16.5 |
| | Shizhan | CN 11004 | 1.01 | 0.51 | 0.79 | 0.86 | 2.41 | 2.10 | 0.66 | 1.49 | 1.82 | 1.20 | 0.40 | 0.88 | 14.1 |
| | Weishuiyuan | CN 11005 | 0.00 | 1.70 | 0.47 | 0.00 | 1.67 | 6.21 | 0.78 | 1.24 | 4.48 | 0.92 | 0.30 | 0.00 | 17.8 |
| | Jiwozi | CN 11007 | ** | ** | ** | 2.46 | ** | ** | 0.00 | 1.03 | 0.00 | 2.02 | 0.48 | 0.00 | 5.99 |
| | Hongwen | CN 11008 | 0.34 | 0.03 | 0.38 | 0.93 | 0.61 | 0.38 | 1.11 | 1.71 | 0.32 | 0.28 | 0.34 | 0.32 | 6.73 |
| | Xiaoping | CN 11009 | 0.00 | 0.00 | 0.00 | 1.36 | 0.20 | 1.87 | 2.10 | 0.53 | 0.74 | 0.11 | 0.92 | 0.34 | 8.17 |
| | Xiang Zhou | CN 11010 | 0.37 | 0.12 | 0.86 | 0.87 | 0.91 | 0.76 | 4.53 | 16.3 | 3.52 | 0.48 | 0.00 | 1.66 | 30.4 |
| | Zhuxian Cavern | CN 11011 | 0.49 | 0.08 | 1.11 | 1.20 | 0.65 | 0.85 | 6.53 | 3.03 | 4.52 | 0.51 | 0.00 | 1.84 | 20.8 |
| Indonesia | Jakarta | ID 11012 | 4.70 | 7.60 | 1.28 | <0.01 | 0.83 | 0.00 | 0.88 | 0.00 | 0.00 | 0.00 | 1.65 | 0.84 | 17.8 |
| | Serpong | ID 11013 | 0.59 | 1.82 | 1.34 | 0.62 | 0.52 | 0.96 | 1.20 | 0.42 | 0.86 | 0.18 | 0.98 | 0.40 | 9.89 |
| | Kototabang | ID 11014 | 0.14 | 0.15 | 0.16 | 0.23 | 0.00 | 0.00 | 0.00 | 0.55 | 0.55 | 0.91 | 3.55 | 2.93 | 9.16 |
| | Bandung | ID 11015 | 1.63 | 0.15 | 0.61 | 0.33 | 0.16 | 0.62 | 0.92 | 0.35 | 0.00 | 0.00 | 0.08 | 0.35 | 5.19 |
| Japan | Rishiri | JP 11016 | 0.25 | 0.21 | 0.14 | 0.34 | 0.09 | 0.08 | 0.36 | 0.10 | 0.05 | 1.51 | 1.48 | 0.29 | 4.86 |
| | Tappi | JP 11017 | 0.36 | 0.26 | 0.63 | 0.42 | 0.08 | 0.31 | 0.15 | 0.22 | 0.11 | 0.98 | 0.75 | 0.28 | 5.41 |
| | Sado-seki | JP 11019 | 2.28 | 1.00 | 0.21 | * | 0.31 | 0.08 | 0.55 | 0.14 | 0.09 | 1.69 | 2.70 | 0.55 | 9.30 |
| | Happo | JP 11021 | 0.27 | 0.24 | 0.16 | 0.05 | 0.02 | 0.09 | 0.04 | 0.02 | 0.04 | 0.11 | 0.18 | 0.08 | 1.03 |
| | Oki | JP 11023 | 5.05 | 1.06 | 0.56 | 0.48 | 0.12 | 0.15 | 0.09 | 0.03 | 0.30 | 1.48 | 1.58 | 2.08 | 15.0 |
| | Yusuhara | JP 11025 | * | 0.12 | 0.18 | 0.37 | 0.11 | 0.06 | 0.25 | 0.77 | 0.05 | 0.13 | 0.25 | 0.07 | 2.37 |
| | Ogasawara | JP 11018 | 0.33 | 0.01 | 0.32 | 0.02 | 0.20 | 0.35 | 0.43 | 1.60 | 0.57 | 1.59 | 2.31 | 0.48 | 8.21 |
| | Hedo | JP 11027 | 0.26 | 0.16 | 0.64 | 0.33 | 0.15 | 0.22 | 8.44 | 4.77 | 32.1 | 1.38 | 0.51 | 1.17 | 24.3 |
| | Ijira | JP 11022 | 0.89 | 0.17 | 0.19 | * | 0.54 | 0.42 | 1.04 | 0.32 | 0.35 | 0.56 | 0.35 | 0.19 | 5.57 |
| | Banryu | JP 11024 | 0.66 | 0.37 | 0.33 | 0.12 | 0.20 | 0.20 | * | 0.01 | 0.18 | 0.58 | 0.31 | 0.55 | 3.76 |
| Malaysia | Petaling Jaya | MY 11029 | 0.09 | 0.36 | 0.83 | 0.29 | 0.16 | 0.25 | 0.05 | 0.22 | 0.15 | 0.48 | 0.33 | 0.16 | 3.37 |
| | Tanah Rata | MY 11030 | 0.05 | 0.09 | 0.13 | 0.37 | 0.29 | 0.08 | 0.09 | 0.15 | 0.24 | 0.49 | 0.19 | 0.05 | 2.21 |
| Mongolia | Ulaanbaatar | MN 11031 | * | * | * | * | 0.15 | 0.18 | 0.05 | 0.08 | 0.05 | 0.05 | * | * | 0.68 |
| | Terelj | MN 11032 | * | 0.00 | * | 0.59 | 0.95 | 0.55 | 0.14 | 0.19 | 0.05 | 0.09 | 0.03 | 0.01 | 2.50 |
| Philippines | Metro Manila | PH 11033 | 0.00 | 6.40 | 0.34 | 0.08 | * | 1.19 | 13.0 | 0.62 | 1.62 | 3.39 | 10.2 | 0.07 | 29.4 |
| | Los Banos | PH 11034 | 0.04 | 0.11 | 0.29 | 0.02 | 0.36 | 0.53 | 2.73 | 0.47 | 0.27 | 0.30 | 3.66 | 2.09 | 10.9 |
| Republic of Korea | Kanghwa | KR 11035 | 0.92 | * | 0.00 | 0.12 | 0.51 | 0.78 | 2.48 | 1.43 | 0.21 | 0.61 | * | 0.13 | 7.28 |
| | Cheju | KR 11036 | 0.48 | 0.56 | 0.09 | 0.08 | 0.69 | 0.20 | 0.55 | 1.08 | * | 1.61 | 0.25 | 0.23 | 6.55 |
| | Imsil | KR 11037 | * | 0.04 | 0.21 | 0.33 | 0.61 | 0.73 | 0.86 | 1.50 | 0.08 | 0.31 | 0.53 | 0.61 | 6.50 |
| Russia | Mondy | RU 11038 | 0.00 | 0.00 | 0.00 | 0.03 | 0.04 | 0.15 | 0.09 | 0.02 | 0.00 | 0.14 | 0.00 | 0.00 | 0.47 |
| | Listvyanka | RU 11039 | 0.14 | <0.01 | 0.02 | 0.03 | 0.02 | 0.02 | 0.03 | 0.12 | 0.10 | 0.07 | 0.01 | 0.24 | 0.80 |
| | Irkutsk | RU 11040 | 0.03 | 0.04 | 0.05 | 0.07 | 0.04 | 0.03 | 0.04 | 0.11 | 0.08 | 0.11 | 0.05 | 0.05 | 0.70 |
| | Primorskaya | RU 11041 | ** | 0.09 | 0.21 | 0.63 | 0.49 | 1.02 | 0.63 | 0.29 | 0.40 | 0.57 | 0.13 | 0.01 | 4.47 |
| Thailand | Bangkok | TH 11042 | 0.00 | 0.11 | * | 0.12 | 1.10 | 0.20 | 0.39 | 0.41 | 0.71 | 0.85 | 0.41 | 0.07 | 4.36 |
| | Patumthani | TH 11044 | 0.00 | 0.00 | 0.02 | 0.03 | 0.34 | 0.06 | 0.27 | 0.21 | 0.35 | 0.05 | 0.06 | 0.02 | 1.41 |
| | Vachiralongkorn Dam | TH 11045 | 0.00 | 0.00 | * | 0.61 | 0.87 | 0.52 | 1.02 | 1.06 | 0.67 | * | * | * | 5.23 |
| | Mae Hia | TH 11046 | 0.29 | 0.06 | 0.00 | 0.19 | 0.87 | 1.12 | 0.21 | 0.19 | 1.12 | 0.58 | 1.60 | 0.27 | 6.49 |
| Vietnam | Hanoi | VN 11047 | <0.01 | <0.01 | 0.04 | 0.16 | 0.15 | 0.08 | 0.04 | 0.08 | 0.63 | 0.51 | 0.46 | 0.76 | 2.93 |
| | Hoa Binh | VN 11048 | 0.06 | 0.00 | 0.10 | 0.15 | 0.15 | 0.06 | 0.00 | 0.01 | 0.80 | 0.43 | 0.43 | 0.21 | 2.40 |

[0.00]: Deposition was 0 mmol/m² because precipitation was 0 mm.

[*]: K⁺ was not measured although precipitation was not 0 mm. (%TP=0%)

[**]: Precipitation was not measured. (%PCL=0%)

Data in hatched column: Rejected monthly (annual) value by the criteria of EANET (%PCL<80% or %TP<80%)

Table 3.44 Monthly Ca²⁺ deposition

unit: mmol/m²/month or mmol/m²/year

| Country | Name of sites | Code | 2002 | | | | | | | | | | | | Annual |
|-------------------|---------------------|----------|------|------|------|------|------|------|------|-------|------|------|------|------|--------|
| | | | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | |
| China | Guanyinqiao | CN 11001 | 6.50 | 4.04 | 4.87 | 7.30 | 12.5 | 15.2 | 8.15 | 16.5 | 4.89 | 7.52 | 3.60 | 3.51 | 94.5 |
| | Jinyunshan | CN 11003 | 1.44 | 1.68 | 5.71 | 4.92 | 5.35 | 4.07 | 4.94 | 6.59 | 2.87 | 3.29 | 3.59 | 3.28 | 47.7 |
| | Shizhan | CN 11004 | 17.3 | 5.61 | 12.3 | 10.5 | 16.9 | 33.4 | 4.40 | 18.3 | 15.4 | 13.4 | 5.14 | 14.6 | 167 |
| | Weishuiyuan | CN 11005 | 0.00 | 20.0 | 7.57 | 0.00 | 9.48 | 50.2 | 3.72 | 8.00 | 34.8 | 6.60 | 2.70 | 0.00 | 143 |
| | Jiwozi | CN 11007 | ** | ** | ** | 22.5 | ** | ** | 0.00 | 5.59 | 0.00 | 8.89 | 2.16 | 0.00 | 39.1 |
| | Hongwen | CN 11008 | 3.74 | 0.27 | 3.24 | 5.85 | 3.30 | 2.62 | 4.46 | 30.4 | 2.20 | 14.8 | 0.83 | 5.22 | 77.0 |
| | Xiaoping | CN 11009 | 0.00 | 0.00 | 0.00 | 0.33 | 0.40 | 1.19 | 5.60 | 9.02 | 2.58 | 0.09 | 3.40 | 0.43 | 23.0 |
| | Xiang Zhou | CN 11010 | 0.62 | 0.30 | 1.04 | 0.78 | 1.77 | 2.53 | 4.91 | 3.30 | 6.41 | 1.54 | 0.00 | 3.65 | 26.9 |
| | Zhuxian Cavern | CN 11011 | 1.83 | 0.50 | 4.88 | 1.64 | 2.80 | 1.66 | 6.70 | 2.96 | 4.03 | 1.83 | 0.00 | 3.83 | 32.7 |
| Indonesia | Jakarta | ID 11012 | 3.92 | 12.0 | 2.24 | 11.6 | 4.43 | 0.00 | 9.20 | 0.00 | 0.00 | 0.00 | 14.7 | 9.48 | 67.5 |
| | Serpong | ID 11013 | 0.77 | 0.84 | 2.43 | 1.41 | 1.50 | 4.69 | 4.38 | 2.10 | 2.92 | 0.56 | 2.66 | 0.59 | 24.9 |
| | Kototabang | ID 11014 | 0.49 | 0.28 | 0.45 | 0.71 | 0.00 | 0.00 | 0.00 | 0.53 | 0.78 | 0.71 | 2.59 | 2.32 | 8.84 |
| | Bandung | ID 11015 | 10.1 | 1.44 | 9.91 | 3.30 | 1.52 | 3.58 | 5.37 | 0.22 | 0.00 | 0.00 | 5.42 | 2.54 | 43.4 |
| Japan | Rishiri | JP 11016 | 0.33 | 0.41 | 0.74 | 2.53 | 0.20 | 0.13 | 0.26 | 0.11 | 0.07 | 2.04 | 2.63 | 0.40 | 9.73 |
| | Tappi | JP 11017 | 0.49 | 0.62 | 2.66 | 2.23 | 0.23 | 0.39 | 0.32 | 0.50 | 0.17 | 1.20 | 1.08 | 0.40 | 12.0 |
| | Sado-seki | JP 11019 | 2.30 | 1.76 | 0.40 | * | 0.52 | 0.20 | 0.69 | 0.36 | 0.18 | 2.26 | 3.71 | 0.96 | 13.0 |
| | Happo | JP 11021 | 0.56 | 1.34 | 1.11 | 0.50 | 0.32 | 0.35 | 0.30 | 0.08 | 0.16 | 0.37 | 0.45 | 0.60 | 5.21 |
| | Oki | JP 11023 | 5.39 | 1.29 | 1.47 | 0.72 | 0.18 | 0.27 | 0.12 | 0.06 | 0.35 | 1.84 | 1.99 | 2.30 | 18.1 |
| | Yusuhara | JP 11025 | * | 0.48 | 0.37 | 0.39 | 0.34 | 0.14 | 0.53 | 0.50 | 0.12 | 0.20 | 0.57 | 0.33 | 4.17 |
| | Ogasawara | JP 11018 | 0.47 | 0.04 | 0.47 | 0.13 | 0.38 | 0.51 | 0.54 | 1.90 | 0.75 | 2.54 | 3.26 | 0.51 | 11.5 |
| | Hedo | JP 11027 | 0.33 | 0.25 | 0.99 | 1.64 | 0.34 | 0.33 | 8.85 | 5.01 | 30.6 | 1.54 | 0.62 | 1.28 | 28.5 |
| | Ijira | JP 11022 | 1.06 | 0.49 | 0.36 | * | 1.28 | 0.79 | 1.47 | 0.65 | 0.20 | 1.04 | 1.46 | 0.89 | 11.1 |
| | Banryu | JP 11024 | 1.20 | 0.71 | 1.34 | 0.20 | 0.44 | 0.23 | * | <0.01 | 0.25 | 0.79 | 0.56 | 0.82 | 6.99 |
| Malaysia | Petaling Jaya | MY 11029 | 0.91 | 1.24 | 2.96 | 1.60 | 1.07 | 1.68 | 0.44 | 1.30 | 0.82 | 2.35 | 3.31 | 2.11 | 19.8 |
| | Tanah Rata | MY 11030 | 0.13 | 0.32 | 0.48 | 1.12 | 0.63 | 0.18 | 0.50 | 1.07 | 1.45 | 1.19 | 0.86 | 0.45 | 8.56 |
| Mongolia | Ulaanbaatar | MN 11031 | * | * | * | * | 1.90 | 2.38 | 0.74 | 1.58 | 0.26 | 0.41 | * | * | 8.91 |
| | Terelj | MN 11032 | * | 0.00 | * | 1.29 | 2.19 | 1.78 | 0.41 | 0.46 | 0.21 | 0.34 | 0.10 | 0.02 | 6.72 |
| Philippines | Metro Manila | PH 11033 | 0.00 | 0.37 | 1.36 | 0.47 | * | 2.06 | 11.1 | 1.75 | 4.22 | 5.00 | 6.77 | 0.16 | 25.9 |
| | Los Banos | PH 11034 | 0.10 | 0.25 | 0.34 | 0.24 | 0.87 | 1.83 | 4.92 | 1.56 | 1.13 | 0.40 | 0.42 | 0.26 | 12.3 |
| Republic of Korea | Kanghwa | KR 11035 | 0.81 | * | 0.00 | 1.06 | 1.51 | 1.41 | 2.12 | 1.01 | 0.27 | 0.48 | * | 0.53 | 9.14 |
| | Cheju | KR 11036 | 1.21 | 1.61 | 0.51 | 0.71 | 0.18 | 0.07 | 0.66 | 2.14 | * | 0.52 | 0.37 | 0.49 | 9.53 |
| | Imsil | KR 11037 | * | 0.25 | 1.66 | 1.19 | 0.34 | 0.83 | 0.38 | 1.33 | 0.09 | 0.25 | 1.30 | 1.19 | 9.76 |
| Russia | Mondy | RU 11038 | 0.00 | 0.00 | 0.00 | 0.19 | 0.26 | 0.66 | 0.32 | 0.07 | 0.00 | 0.24 | 0.00 | 0.00 | 1.74 |
| | Listvyanka | RU 11039 | 0.93 | 0.06 | 0.35 | 0.23 | 0.14 | 0.30 | 0.39 | 0.33 | 0.19 | 0.18 | 0.11 | 0.91 | 4.11 |
| | Irkutsk | RU 11040 | 0.74 | 0.63 | 1.04 | 0.99 | 0.48 | 0.53 | 0.73 | 1.12 | 0.53 | 0.95 | 0.79 | 1.01 | 9.53 |
| | Primorskaya | RU 11041 | ** | 1.00 | 1.53 | 3.81 | 1.41 | 0.93 | 0.88 | 1.33 | 0.89 | 1.60 | 1.29 | 0.13 | 15.1 |
| Thailand | Bangkok | TH 11042 | 0.00 | 0.18 | * | 1.74 | 7.25 | 0.98 | 1.09 | 1.48 | 2.23 | 3.78 | 1.20 | 0.37 | 20.5 |
| | Patumthani | TH 11044 | 0.00 | 0.00 | 0.07 | 0.25 | 5.12 | 0.92 | 3.47 | 1.94 | 2.97 | 1.09 | 0.43 | 0.25 | 16.5 |
| | Vachiralongkorn Dam | TH 11045 | 0.00 | 0.00 | * | 0.86 | 1.91 | 1.66 | 3.05 | 2.29 | 0.18 | * | * | * | 10.8 |
| | Mae Hia | TH 11046 | 0.41 | 0.09 | 0.00 | 0.60 | 4.55 | 2.50 | 2.08 | 3.29 | 6.71 | 1.98 | 3.12 | 1.23 | 26.5 |
| Vietnam | Hanoi | VN 11047 | 0.83 | 0.66 | 0.76 | 1.28 | 4.02 | 2.65 | 2.58 | 3.54 | 3.02 | 1.56 | 1.31 | 1.57 | 23.8 |
| | Hoa Binh | VN 11048 | 0.60 | 0.10 | 0.78 | 0.83 | 2.58 | 1.10 | 0.70 | 2.01 | 7.04 | 2.94 | 1.34 | 0.46 | 20.5 |

[0.00]: Deposition was 0 mmol/m² because precipitation was 0 mm.

[*]: Ca²⁺ was not measured although precipitation was not 0 mm. (%TP=0%)

[**]: Precipitation was not measured. (%PCL=0%)

Data in hatched column: Rejected monthly (annual) value by the criteria of EANET (%PCL<80% or %TP<80%)

Table 3.45 Monthly nss-Ca²⁺ deposition

unit: mmol/m²/month or mmol/m²/year

| Country | Name of sites | Code | 2002 | | | | | | | | | | | | Annual |
|-------------------|---------------------|----------|------|------|------|------|------|------|------|-------|------|------|------|------|--------|
| | | | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | |
| China | Guanyinqiao | CN 11001 | 6.49 | 4.02 | 4.85 | 7.28 | 12.4 | 15.1 | 8.14 | 16.5 | 4.88 | 7.51 | 3.60 | 3.50 | 94.3 |
| | Jinyunshan | CN 11003 | 1.44 | 1.67 | 5.69 | 4.89 | 5.31 | 4.05 | 4.92 | 6.56 | 2.86 | 3.29 | 3.58 | 3.27 | 47.5 |
| | Shizhan | CN 11004 | 17.2 | 5.58 | 12.3 | 10.4 | 16.4 | 32.7 | 4.36 | 18.2 | 15.2 | 13.3 | 5.12 | 14.6 | 165 |
| | Weishuiyuan | CN 11005 | 0.00 | 19.9 | 7.55 | 0.00 | 9.37 | 49.8 | 3.70 | 7.93 | 34.5 | 6.53 | 2.68 | 0.00 | 142 |
| | Jiwozi | CN 11007 | ** | ** | ** | 22.3 | ** | ** | 0.00 | 5.47 | 0.00 | 8.73 | 2.11 | 0.00 | 38.6 |
| | Hongwen | CN 11008 | 3.70 | 0.26 | 3.22 | 5.78 | 3.15 | 2.57 | 4.31 | 29.3 | 2.15 | 14.7 | 0.76 | 5.14 | 75.1 |
| | Xiaoping | CN 11009 | 0.00 | 0.00 | 0.00 | 0.30 | 0.36 | 1.11 | 5.42 | 8.68 | 2.53 | 0.09 | 3.38 | 0.41 | 22.3 |
| | Xiang Zhou | CN 11010 | 0.62 | 0.29 | 0.97 | 0.65 | 1.68 | 2.46 | 4.69 | 3.02 | 5.84 | 1.49 | 0.00 | 3.59 | 25.3 |
| | Zhuxian Cavern | CN 11011 | 1.80 | 0.49 | 4.78 | 1.49 | 2.77 | 1.58 | 6.44 | 2.75 | 3.47 | 1.79 | 0.00 | 3.76 | 31.1 |
| Indonesia | Jakarta | ID 11012 | 3.67 | 11.5 | 2.18 | 11.5 | 4.38 | 0.00 | 9.05 | 0.00 | 0.00 | 0.00 | 14.5 | 9.43 | 66.3 |
| | Serpong | ID 11013 | 0.67 | 0.59 | 2.39 | 1.37 | 1.44 | 4.63 | 4.01 | 2.02 | 2.81 | 0.54 | 2.55 | 0.53 | 23.5 |
| | Kototabang | ID 11014 | 0.49 | 0.28 | 0.45 | 0.71 | 0.00 | 0.00 | 0.00 | 0.52 | 0.76 | 0.68 | 2.49 | 2.23 | 8.60 |
| | Bandung | ID 11015 | 9.91 | 1.44 | 9.86 | 3.29 | 1.51 | 3.48 | 5.28 | 0.21 | 0.00 | 0.00 | 5.40 | 2.51 | 42.9 |
| Japan | Rishiri | JP 11016 | 0.12 | 0.27 | 0.68 | 2.32 | 0.17 | 0.09 | 0.18 | 0.07 | 0.03 | 0.53 | 1.16 | 0.11 | 5.66 |
| | Tappi | JP 11017 | 0.17 | 0.46 | 2.22 | 1.93 | 0.17 | 0.18 | 0.23 | 0.26 | 0.04 | 0.22 | 0.45 | 0.10 | 7.30 |
| | Sado-seki | JP 11019 | 0.18 | 0.75 | 0.12 | * | 0.47 | 0.17 | 0.55 | 0.23 | 0.15 | 0.60 | 1.43 | 0.38 | 4.86 |
| | Happo | JP 11021 | 0.54 | 1.32 | 1.07 | 0.50 | 0.32 | 0.35 | 0.29 | 0.08 | 0.16 | 0.33 | 0.40 | 0.58 | 5.02 |
| | Oki | JP 11023 | 1.16 | 0.48 | 1.10 | 0.56 | 0.16 | 0.20 | 0.10 | 0.04 | 0.13 | 0.82 | 0.71 | 0.34 | 6.14 |
| | Yusuhara | JP 11025 | * | 0.44 | 0.33 | 0.34 | 0.30 | 0.13 | 0.28 | 0.01 | 0.09 | 0.14 | 0.40 | 0.30 | 2.91 |
| | Ogasawara | JP 11018 | 0.18 | 0.02 | 0.30 | 0.11 | 0.25 | 0.33 | 0.14 | 0.48 | 0.30 | 1.39 | 1.10 | 0.16 | 4.77 |
| | Hedo | JP 11027 | 0.09 | 0.07 | 0.56 | 1.44 | 0.22 | 0.17 | 0.56 | 0.23 | 10.8 | 0.40 | 0.19 | 0.37 | 5.87 |
| | Ijira | JP 11022 | 0.67 | 0.39 | 0.34 | * | 1.19 | 0.76 | 1.16 | 0.57 | 0.19 | 0.92 | 1.29 | 0.80 | 9.45 |
| | Banryu | JP 11024 | 0.75 | 0.48 | 1.22 | 0.17 | 0.38 | 0.20 | * | <0.01 | 0.10 | 0.40 | 0.34 | 0.38 | 4.76 |
| Malaysia | Petaling Jaya | MY 11029 | 0.89 | 1.21 | 2.91 | 1.58 | 1.05 | 1.66 | 0.44 | 1.28 | 0.81 | 2.32 | 3.29 | 2.07 | 19.5 |
| | Tanah Rata | MY 11030 | 0.13 | 0.32 | 0.47 | 1.10 | 0.62 | 0.17 | 0.49 | 1.07 | 1.44 | 1.17 | 0.85 | 0.45 | 8.46 |
| Mongolia | Ulaanbaatar | MN 11031 | * | * | * | * | 1.90 | 2.37 | 0.74 | 1.57 | 0.26 | 0.41 | * | * | 8.88 |
| | Terelj | MN 11032 | * | 0.00 | * | 1.27 | 2.11 | 1.83 | 0.41 | 0.46 | 0.21 | 0.33 | 0.10 | 0.02 | 6.46 |
| Philippines | Metro Manila | PH 11033 | 0.00 | 0.33 | 1.35 | 0.46 | * | 1.99 | 10.4 | 1.69 | 4.16 | 4.95 | 6.64 | 0.15 | 25.0 |
| | Los Banos | PH 11034 | 0.10 | 0.23 | 0.29 | 0.23 | 0.84 | 1.79 | 4.61 | 1.51 | 1.12 | 0.37 | 0.31 | 0.15 | 11.5 |
| Republic of Korea | Kanghwa | KR 11035 | 0.75 | * | 0.00 | 1.04 | 1.46 | 1.33 | 1.82 | 0.73 | 0.26 | 0.45 | * | 0.50 | 8.27 |
| | Cheju | KR 11036 | 1.10 | 1.48 | 0.49 | 0.64 | 0.15 | 0.06 | 0.52 | 1.95 | * | 0.42 | 0.32 | 0.25 | 8.28 |
| | Imsil | KR 11037 | * | 0.24 | 1.61 | 1.14 | 0.31 | 0.79 | 0.29 | 1.14 | 0.03 | 0.23 | 1.22 | 1.08 | 8.93 |
| Russia | Mondy | RU 11038 | 0.00 | 0.00 | 0.00 | 0.19 | 0.26 | 0.66 | 0.32 | 0.07 | 0.00 | 0.24 | 0.00 | 0.00 | 1.73 |
| | Listvyanka | RU 11039 | 0.92 | 0.06 | 0.35 | 0.23 | 0.14 | 0.30 | 0.39 | 0.33 | 0.19 | 0.18 | 0.10 | 0.90 | 4.08 |
| | Irkutsk | RU 11040 | 0.74 | 0.62 | 1.03 | 0.98 | 0.47 | 0.53 | 0.73 | 1.12 | 0.53 | 0.94 | 0.78 | 1.00 | 9.47 |
| | Primorskaya | RU 11041 | ** | 1.00 | 1.51 | 3.76 | 1.38 | 0.92 | 0.85 | 1.30 | 0.86 | 1.53 | 1.23 | 0.13 | 14.7 |
| Thailand | Bangkok | TH 11042 | 0.00 | 0.17 | * | 1.72 | 7.00 | 0.96 | 1.05 | 1.45 | 2.21 | 3.78 | 1.18 | 0.37 | 20.0 |
| | Patumthani | TH 11044 | 0.00 | 0.00 | 0.07 | 0.24 | 5.04 | 0.91 | 3.40 | 1.93 | 2.95 | 1.09 | 0.43 | 0.25 | 16.3 |
| | Vachiralongkorn Dam | TH 11045 | 0.00 | 0.00 | * | 0.85 | 1.87 | 1.55 | 2.91 | 2.21 | 0.16 | * | * | * | 10.4 |
| | Mae Hia | TH 11046 | 0.40 | 0.09 | 0.00 | 0.60 | 4.51 | 2.45 | 2.07 | 3.27 | 6.63 | 1.94 | 3.07 | 1.21 | 26.2 |
| Vietnam | Hanoi | VN 11047 | 0.82 | 0.64 | 0.75 | 1.27 | 3.99 | 2.63 | 2.58 | 3.52 | 2.99 | 1.54 | 1.31 | 1.55 | 23.6 |
| | Hoa Binh | VN 11048 | 0.59 | 0.10 | 0.77 | 0.83 | 2.56 | 1.10 | 0.70 | 2.00 | 7.03 | 2.94 | 1.34 | 0.46 | 20.4 |

[0.00]: Deposition was 0 mmol/m² because precipitation was 0 mm.

[*]: Ca²⁺ Na⁺ was not measured although precipitation was not 0 mm. (%TP=0%)

[**]: Precipitation was not measured. (%PCL=0%)

Data in hatched column: Rejected monthly (annual) value by the criteria of EANET (%PCL<80% or %TP<80%)

Table 3.46 Monthly Mg²⁺ deposition

unit: mmol/m²/month or mmol/m²/year

| Country | Name of sites | Code | 2002 | | | | | | | | | | | | Annual |
|-------------------|---------------------|----------|------|------|------|------|------|------|------|-------|------|------|------|------|--------|
| | | | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | |
| China | Guanyinqiao | CN 11001 | 0.49 | 0.47 | 0.46 | 0.96 | 1.49 | 1.72 | 0.58 | 1.18 | 0.38 | 0.49 | 0.22 | 0.24 | 8.67 |
| | Jinyunshan | CN 11003 | 0.15 | 0.20 | 0.73 | 0.92 | 0.85 | 0.70 | 0.49 | 0.76 | 0.19 | 0.18 | 0.14 | 0.10 | 5.41 |
| | Shizhan | CN 11004 | 1.73 | 0.60 | 1.12 | 1.12 | 4.36 | 4.79 | 0.62 | 2.51 | 2.52 | 1.88 | 0.71 | 1.73 | 23.7 |
| | Weishuiyuan | CN 11005 | 0.00 | 1.70 | 0.65 | 0.00 | 1.75 | 4.30 | 0.50 | 1.61 | 8.96 | 1.27 | 0.38 | 0.00 | 21.1 |
| | Jiwozi | CN 11007 | ** | ** | ** | 2.90 | ** | ** | 0.00 | 1.34 | 0.00 | 2.32 | 0.53 | 0.00 | 7.09 |
| | Hongwen | CN 11008 | 0.68 | 0.08 | 0.48 | 1.42 | 1.31 | 0.56 | 1.21 | 5.69 | 0.63 | 1.64 | 0.31 | 1.10 | 15.1 |
| | Xiaoping | CN 11009 | 0.00 | 0.00 | 0.00 | 0.14 | 0.18 | 0.39 | 1.13 | 0.90 | 0.25 | 0.06 | 0.25 | 0.19 | 3.50 |
| | Xiang Zhou | CN 11010 | 0.07 | 0.05 | 0.38 | 0.65 | 0.64 | 0.46 | 1.54 | 1.59 | 2.48 | 0.35 | 0.00 | 1.35 | 9.56 |
| | Zhuxian Cavern | CN 11011 | 0.18 | 0.09 | 0.55 | 0.97 | 0.43 | 0.84 | 2.61 | 1.58 | 2.00 | 0.58 | 0.00 | 1.36 | 11.2 |
| Indonesia | Jakarta | ID 11012 | 1.67 | 4.29 | 0.90 | 5.61 | 1.78 | 0.00 | 3.29 | 0.00 | 0.00 | 2.10 | 1.01 | 20.7 | |
| | Serpong | ID 11013 | 0.33 | 0.83 | 0.41 | 0.22 | 0.59 | 0.54 | 1.21 | 0.68 | 4.86 | 0.77 | 0.66 | 0.24 | 11.3 |
| | Kototabang | ID 11014 | 0.09 | 0.14 | 0.28 | 0.21 | 0.00 | 0.00 | 0.00 | 0.38 | 0.62 | 0.35 | 1.31 | 1.27 | 4.63 |
| | Bandung | ID 11015 | 1.05 | 0.09 | 0.54 | 0.27 | 0.15 | 0.44 | 0.60 | 0.15 | 0.00 | 0.00 | 0.34 | 0.52 | 4.16 |
| Japan | Rishiri | JP 11016 | 1.12 | 0.78 | 0.37 | 1.11 | 0.21 | 0.23 | 0.47 | 0.22 | 0.22 | 7.66 | 7.67 | 1.58 | 21.4 |
| | Tappi | JP 11017 | 1.77 | 0.88 | 2.52 | 1.79 | 0.39 | 1.16 | 0.62 | 1.55 | 0.68 | 5.24 | 3.54 | 1.59 | 26.1 |
| | Sado-seki | JP 11019 | 11.3 | 5.09 | 1.40 | * | 0.52 | 0.19 | 1.08 | 0.84 | 0.23 | 8.41 | 12.9 | 3.16 | 44.0 |
| | Happo | JP 11021 | 0.21 | 0.34 | 0.40 | 0.11 | 0.18 | 0.14 | 0.08 | 0.06 | 0.13 | 0.33 | 0.41 | 0.24 | 2.42 |
| | Oki | JP 11023 | 22.2 | 4.20 | 2.12 | 0.85 | 0.15 | 0.37 | 0.10 | 0.12 | 1.13 | 4.99 | 7.25 | 10.9 | 63.8 |
| | Yusuhara | JP 11025 | * | 0.26 | 0.32 | 0.32 | 0.29 | 0.13 | 1.64 | 3.41 | 0.19 | 0.35 | 0.92 | 0.24 | 8.34 |
| | Ogasawara | JP 11018 | 1.74 | 0.08 | 1.10 | 0.14 | 1.03 | 1.45 | 2.71 | 8.93 | 2.67 | 8.09 | 13.1 | 2.16 | 43.1 |
| | Hedo | JP 11027 | 1.22 | 0.98 | 2.28 | 1.20 | 0.67 | 0.89 | 43.8 | 25.4 | 109 | 6.01 | 2.30 | 4.73 | 120 |
| | Ijira | JP 11022 | 2.17 | 0.61 | 0.10 | * | 0.65 | 0.19 | 1.32 | 0.46 | 0.00 | 0.69 | 1.14 | 0.61 | 9.34 |
| | Banryu | JP 11024 | 2.48 | 1.25 | 0.72 | 0.10 | 0.27 | 0.18 | * | <0.01 | 0.70 | 2.06 | 1.23 | 2.37 | 12.1 |
| Malaysia | Petaling Jaya | MY 11029 | 0.20 | 0.50 | 0.91 | 0.31 | 0.22 | 0.44 | 0.09 | 0.25 | 0.15 | 0.38 | 0.22 | 0.13 | 3.79 |
| | Tanah Rata | MY 11030 | 0.03 | 0.01 | 0.06 | 0.12 | 0.18 | 0.08 | 0.06 | 0.14 | 0.15 | 0.16 | 0.15 | 0.04 | 1.17 |
| Mongolia | Ulaanbaatar | MN 11031 | * | * | * | * | 0.14 | 0.16 | 0.06 | 0.09 | 0.02 | 0.04 | * | * | 0.64 |
| | Terelj | MN 11032 | * | 0.00 | * | 0.18 | 0.26 | 0.24 | 0.06 | 0.12 | 0.03 | 0.07 | 0.05 | 0.00 | 1.01 |
| Philippines | Metro Manila | PH 11033 | 0.00 | 0.70 | 0.30 | 0.15 | * | 1.05 | 5.89 | 0.63 | 0.50 | 1.08 | 2.33 | 0.05 | 9.72 |
| | Los Banos | PH 11034 | 0.10 | 0.16 | 0.39 | 0.08 | 0.43 | 0.42 | 1.59 | 0.46 | 0.08 | 0.20 | 0.60 | 0.55 | 5.00 |
| Republic of Korea | Kanghwa | KR 11035 | 0.71 | * | 0.00 | 0.23 | 0.94 | 0.58 | 1.04 | 1.28 | 0.10 | 0.15 | * | 0.17 | 5.22 |
| | Cheju | KR 11036 | 1.33 | 1.51 | 0.15 | 0.41 | 0.15 | 0.05 | 0.53 | 1.58 | * | 0.49 | 0.25 | 0.34 | 7.60 |
| | Imsil | KR 11037 | * | 0.10 | 0.38 | 0.71 | 0.34 | 0.13 | 0.11 | 0.35 | 0.04 | 0.11 | 0.19 | 0.51 | 3.28 |
| Russia | Mondy | RU 11038 | 0.00 | 0.00 | 0.00 | 0.03 | 0.10 | 0.13 | 0.10 | 0.02 | 0.00 | 0.06 | 0.00 | 0.00 | 0.45 |
| | Listvyanka | RU 11039 | 0.26 | 0.03 | 0.08 | 0.05 | 0.03 | 0.07 | 0.10 | 0.10 | 0.06 | 0.03 | 0.02 | 0.25 | 1.10 |
| | Irkutsk | RU 11040 | 0.15 | 0.10 | 0.12 | 0.13 | 0.10 | 0.13 | 0.15 | 0.22 | 0.09 | 0.16 | 0.17 | 0.18 | 1.71 |
| | Primorskaya | RU 11041 | ** | 0.31 | 0.52 | 0.85 | 0.37 | 0.78 | 0.17 | 0.20 | 0.12 | 0.65 | 0.52 | 0.02 | 4.73 |
| Thailand | Bangkok | TH 11042 | 0.00 | 0.04 | * | 0.26 | 2.14 | 0.16 | 0.29 | 0.51 | 0.44 | 0.30 | 0.18 | 0.05 | 4.61 |
| | Patumthani | TH 11044 | 0.00 | 0.00 | 0.02 | 0.05 | 0.85 | 0.12 | 0.57 | 0.35 | 0.42 | 0.18 | 0.06 | 0.02 | 2.63 |
| | Vachiralongkorn Dam | TH 11045 | 0.00 | 0.00 | * | 0.39 | 0.76 | 0.46 | 1.09 | 0.70 | 0.12 | * | * | * | 3.85 |
| | Mae Hia | TH 11046 | 0.04 | 0.01 | 0.00 | 0.10 | 0.67 | 0.40 | 0.32 | 0.22 | 1.81 | 0.74 | 0.80 | 0.12 | 5.22 |
| Vietnam | Hanoi | VN 11047 | 0.08 | 0.19 | 0.13 | 0.23 | 0.58 | 0.70 | 0.42 | 0.54 | 0.44 | 0.33 | 0.20 | 0.34 | 4.18 |
| | Hoa Binh | VN 11048 | 0.07 | 0.02 | 0.14 | 0.18 | 0.48 | 0.12 | 0.09 | 0.12 | 0.48 | 0.32 | 0.24 | 0.07 | 2.31 |

[0.00]: Deposition was 0 mmol/m² because precipitation was 0 mm.

[*]: Mg²⁺ was not measured although precipitation was not 0 mm. (%TP=0%)

[**]: Precipitation was not measured. (%PCL=0%)

Data in hatched column: Rejected monthly (annual) value by the criteria of EANET (%PCL<80% or %TP<80%)

Table 3.47 Monthly H⁺ deposition

unit: mmol/m²/month or mmol/m²/year

| Country | Name of sites | Code | 2002 | | | | | | | | | | | | Annual |
|-------------------|---------------------|----------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|-------|-------|--------|
| | | | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | |
| China | Guanyinqiao | CN 11001 | 0.51 | 0.78 | 1.26 | 3.04 | 6.13 | 16.0 | 0.66 | 5.27 | 1.04 | 0.14 | 0.55 | 1.07 | 36.4 |
| | Jinyunshan | CN 11003 | 3.96 | 5.78 | 2.76 | 8.30 | 16.2 | 10.3 | 9.88 | 9.24 | 1.48 | 0.36 | 1.44 | 0.37 | 70.1 |
| | Shizhan | CN 11004 | 0.02 | <0.01 | <0.01 | <0.01 | 0.01 | 0.04 | <0.01 | 0.03 | 0.04 | 0.03 | <0.01 | <0.01 | 0.20 |
| | Weishuiyuan | CN 11005 | 0.00 | 0.01 | <0.01 | 0.00 | <0.01 | 0.04 | <0.01 | 0.06 | 0.04 | 0.05 | <0.01 | 0.00 | 0.22 |
| | Jiwozi | CN 11007 | ** | ** | ** | 0.01 | ** | ** | 0.00 | 0.01 | 0.00 | 0.12 | <0.01 | 0.00 | 0.14 |
| | Hongwen | CN 11008 | 0.64 | 0.07 | 0.24 | 1.18 | 3.87 | 1.03 | 2.19 | 9.40 | 2.17 | 1.40 | 0.59 | 2.63 | 25.4 |
| | Xiaoping | CN 11009 | 0.00 | 0.00 | 0.00 | 5.20 | 5.92 | 6.11 | 16.8 | 18.9 | 10.4 | 1.75 | 1.56 | 6.18 | 72.9 |
| | Xiang Zhou | CN 11010 | 0.08 | 0.12 | 0.34 | 0.62 | 1.06 | 1.41 | 2.23 | 2.30 | 4.30 | 0.85 | 0.00 | 0.25 | 13.5 |
| | Zhuxian Cavern | CN 11011 | 0.46 | 0.02 | 0.92 | 3.68 | 1.88 | 5.59 | 1.96 | 1.63 | 3.16 | 0.76 | 0.00 | 0.23 | 20.3 |
| Indonesia | Jakarta | ID 11012 | 19.0 | 3.71 | 0.08 | 0.07 | 1.02 | 0.00 | 2.07 | 0.00 | 0.00 | 0.00 | 0.17 | 0.43 | 26.5 |
| | Serpong | ID 11013 | 3.71 | 4.03 | 6.44 | 5.13 | 5.15 | 2.69 | 1.10 | 0.79 | 0.56 | 0.30 | 10.0 | 16.6 | 56.6 |
| | Kototabang | ID 11014 | 1.73 | 0.84 | 3.27 | 1.25 | 0.00 | 0.00 | 0.00 | 0.07 | 0.91 | 0.15 | 0.11 | 0.47 | 8.78 |
| | Bandung | ID 11015 | 9.02 | 0.31 | 9.88 | 4.80 | 0.71 | 0.98 | 3.76 | 0.15 | 0.00 | 0.00 | 38.6 | 20.5 | 88.7 |
| Japan | Rishiri | JP 11016 | 0.53 | 1.32 | 0.02 | 0.08 | 0.64 | 0.50 | 3.22 | 2.61 | 0.31 | 2.22 | 2.05 | 0.79 | 14.4 |
| | Tappi | JP 11017 | 2.23 | 1.14 | 0.87 | 0.62 | 0.76 | 1.75 | 3.78 | 6.39 | 1.16 | 2.76 | 3.89 | 1.70 | 27.8 |
| | Sado-seki | JP 11019 | 4.40 | 1.50 | 0.99 | * | 2.00 | 1.17 | 5.23 | 3.46 | 1.92 | 1.84 | 8.82 | 1.41 | 32.5 |
| | Happo | JP 11021 | 6.18 | 5.54 | 2.16 | 0.62 | 1.29 | 2.38 | 2.13 | 1.21 | 4.17 | 2.75 | 4.87 | 2.13 | 30.7 |
| | Oki | JP 11023 | 3.98 | 1.01 | 1.39 | 0.90 | 1.91 | 0.55 | 1.58 | 0.29 | 4.57 | 3.88 | 3.58 | 3.14 | 29.2 |
| | Yusuhara | JP 11025 | * | 2.13 | 3.32 | 4.70 | 3.69 | 3.30 | 4.02 | 8.11 | 2.61 | 1.87 | 3.22 | 2.46 | 40.8 |
| | Ogasawara | JP 11018 | 1.20 | 0.07 | 1.31 | 0.17 | 1.08 | 1.00 | 0.10 | 0.33 | 0.23 | 0.48 | 1.16 | 3.81 | 10.9 |
| | Hedo | JP 11027 | 1.09 | 1.45 | 1.99 | 0.86 | 2.05 | 1.72 | 0.99 | 0.44 | 3.68 | 4.17 | 0.96 | 1.53 | 22.9 |
| | Ijira | JP 11022 | 10.8 | 1.51 | 5.51 | * | 22.0 | 10.3 | 5.52 | 4.84 | 2.46 | 5.61 | 1.69 | 2.68 | 80.5 |
| | Banryu | JP 11024 | 3.78 | 1.33 | 2.83 | 0.41 | 2.53 | 2.05 | * | 0.38 | 2.59 | 3.95 | 2.53 | 2.50 | 26.5 |
| Malaysia | Petaling Jaya | MY 11029 | 3.39 | 5.90 | 32.5 | 18.3 | 8.09 | 16.6 | 1.91 | 9.95 | 7.12 | 17.6 | 26.1 | 9.08 | 157 |
| | Tanah Rata | MY 11030 | 0.20 | * | 1.33 | 4.93 | 5.15 | 3.14 | 2.13 | 3.16 | 2.14 | 6.49 | 1.37 | 0.50 | 30.1 |
| Mongolia | Ulaanbaatar | MN 11031 | * | * | * | * | 0.03 | 0.03 | 0.00 | 0.00 | 0.00 | 0.00 | * | * | 0.07 |
| | Terelj | MN 11032 | * | 0.00 | * | 0.01 | 0.03 | 0.02 | 0.29 | 0.01 | 0.00 | 0.02 | 0.02 | 0.00 | 0.44 |
| Philippines | Metro Manila | PH 11033 | 0.00 | <0.01 | <0.01 | <0.01 | * | <0.01 | 0.10 | 4.21 | 9.53 | 0.24 | 0.04 | <0.01 | 24.1 |
| | Los Banos | PH 11034 | <0.01 | <0.01 | <0.01 | <0.01 | 0.37 | 0.14 | 0.24 | 0.67 | 1.40 | 0.19 | 0.03 | <0.01 | 3.07 |
| Republic of Korea | Kanghwa | KR 11035 | 4.25 | * | 0.00 | 0.06 | 0.01 | 0.20 | 0.58 | 11.9 | 0.62 | 0.15 | * | 0.09 | 18.3 |
| | Cheju | KR 11036 | 0.30 | 1.86 | 1.14 | 1.05 | 2.50 | 1.94 | 5.52 | 5.22 | * | 0.77 | 0.69 | 1.09 | 24.8 |
| | Imsil | KR 11037 | * | 0.03 | 0.11 | 0.22 | 0.13 | 0.03 | 0.27 | 0.72 | 0.09 | 0.04 | 0.08 | 0.08 | 2.00 |
| Russia | Mondy | RU 11038 | 0.00 | 0.00 | 0.00 | <0.01 | 0.03 | 0.11 | 0.64 | <0.01 | 0.00 | 0.04 | 0.00 | 0.00 | 0.83 |
| | Listvyanka | RU 11039 | 0.33 | <0.01 | 0.08 | 0.16 | 0.05 | 0.70 | 1.43 | 0.47 | 0.17 | 0.37 | 0.08 | 0.89 | 4.74 |
| | Irkutsk | RU 11040 | 0.02 | <0.01 | <0.01 | <0.01 | 0.03 | 0.99 | 0.91 | 0.27 | 0.16 | 0.45 | 0.02 | <0.01 | 2.86 |
| | Primorskaya | RU 11041 | ** | 0.12 | <0.01 | 0.32 | 0.10 | 0.76 | 0.74 | 1.07 | 0.75 | 1.46 | 0.02 | 0.08 | 5.26 |
| Thailand | Bangkok | TH 11042 | 0.00 | 1.07 | * | 1.20 | 2.86 | 0.04 | 0.04 | 0.05 | 1.32 | 1.06 | 2.13 | 0.04 | 10.3 |
| | Patumthani | TH 11044 | 0.00 | 0.00 | 0.01 | <0.01 | 0.41 | 0.07 | 0.65 | 0.97 | 0.73 | 1.42 | 0.10 | 0.02 | 4.39 |
| | Vachiralongkorn Dam | TH 11045 | 0.00 | 0.00 | * | 0.36 | 1.48 | 1.20 | 0.78 | 0.94 | 0.62 | * | * | * | 5.05 |
| | Mae Hia | TH 11046 | 0.12 | 0.06 | 0.00 | <0.01 | 0.16 | 0.10 | 0.07 | 0.11 | 0.35 | 0.20 | 1.10 | 0.50 | 2.79 |
| Vietnam | Hanoi | VN 11047 | 0.21 | <0.01 | <0.01 | 0.47 | 0.11 | 0.09 | 0.16 | 0.10 | 0.53 | 0.17 | 0.15 | 1.96 | 3.95 |
| | Hoa Binh | VN 11048 | 0.59 | 0.04 | 0.04 | 0.11 | 0.99 | 1.42 | 0.39 | 0.17 | 0.45 | 0.88 | 2.68 | 2.81 | 10.6 |

[0.00]: Deposition was 0 mmol/m² because precipitation was 0 mm.

[*]: pH was not measured although precipitation was not 0 mm. (%TP=0%)

[**]: Precipitation was not measured. (%PCL=0%)

Data in hatched column: Rejected monthly (annual) value by the criteria of EANET (%PCL<80% or %TP<80%)

Table 3.48 Results of ion balance and conductivity agreement check

| Country | Name of sites | Code | Sample(N) | R1(N) | R1(AA) | % | R2(N) | R2(AA) | % | R1&R2(N) | R1&R2(AA) | % |
|-------------------|---------------------|----------|-----------|-------|--------|-----|-------|--------|-----|----------|-----------|-----|
| China | Guanyinqiao | CN 11001 | 84 | 81 | 65 | 80 | 81 | 67 | 83 | 81 | 54 | 67 |
| | Jinyunshan | CN 11003 | 117 | 116 | 87 | 75 | 116 | 90 | 78 | 116 | 69 | 59 |
| | Shizhan | CN 11004 | 27 | 26 | 4 | 15 | 26 | 9 | 35 | 26 | 0 | 0 |
| | Weishuiyuan | CN 11005 | 12 | 10 | 1 | 10 | 10 | 2 | 20 | 10 | 0 | 0 |
| | Jiwozi | CN 11007 | 6 | 7 | 2 | 29 | 7 | 0 | 0 | 7 | 0 | 0 |
| | Hongwen | CN 11008 | 60 | 58 | 9 | 16 | 58 | 36 | 62 | 58 | 7 | 12 |
| | Xiaoping | CN 11009 | 62 | 61 | 9 | 15 | 61 | 22 | 36 | 61 | 7 | 11 |
| | Xiang Zhou | CN 11010 | 65 | 64 | 14 | 22 | 64 | 17 | 27 | 64 | 6 | 9 |
| Zhuxian Cavern | CN 11011 | 62 | 61 | 17 | 28 | 61 | 16 | 26 | 61 | 7 | 11 | |
| Indonesia | Jakarta | ID 11012 | 22 | 18 | 4 | 22 | 18 | 9 | 50 | 18 | 3 | 17 |
| | Serpong | ID 11013 | 74 | 73 | 44 | 60 | 73 | 55 | 75 | 73 | 37 | 51 |
| | Kototabang | ID 11014 | 31 | 15 | 7 | 47 | 15 | 8 | 53 | 15 | 5 | 33 |
| | Bandung | ID 11015 | 70 | 69 | 9 | 13 | 69 | 37 | 54 | 69 | 7 | 10 |
| Japan | Rishiri | JP 11016 | 219 | 136 | 132 | 97 | 136 | 136 | 100 | 136 | 132 | 97 |
| | Tappi | JP 11017 | 140 | 111 | 109 | 98 | 111 | 111 | 100 | 111 | 109 | 98 |
| | Sado-seki | JP 11019 | 163 | 108 | 108 | 100 | 108 | 108 | 100 | 108 | 108 | 100 |
| | Happo | JP 11021 | 169 | 144 | 144 | 100 | 144 | 144 | 100 | 144 | 144 | 100 |
| | Oki | JP 11023 | 179 | 125 | 125 | 100 | 125 | 124 | 99 | 125 | 124 | 99 |
| | Yusuhara | JP 11025 | 131 | 112 | 112 | 100 | 112 | 112 | 100 | 112 | 112 | 100 |
| | Ogasawara | JP 11018 | 131 | 105 | 96 | 91 | 105 | 103 | 98 | 105 | 95 | 90 |
| | Hedo | JP 11027 | 136 | 126 | 124 | 98 | 126 | 126 | 100 | 126 | 124 | 98 |
| | Ijira | JP 11022 | 42 | 41 | 41 | 100 | 41 | 41 | 100 | 41 | 41 | 100 |
| | Banryu | JP 11024 | 42 | 37 | 37 | 100 | 37 | 37 | 100 | 37 | 37 | 100 |
| Malaysia | Petaling Jaya | MY 11029 | 48 | 46 | 37 | 80 | 46 | 43 | 93 | 46 | 36 | 78 |
| | Tanah Rata | MY 11030 | 43 | 40 | 29 | 73 | 40 | 39 | 98 | 40 | 28 | 70 |
| Mongolia | Ulaanbaatar | MN 11031 | 34 | 33 | 5 | 15 | 33 | 29 | 88 | 33 | 3 | 9 |
| | Terej | MN 11032 | 54 | 46 | 8 | 17 | 46 | 40 | 87 | 46 | 7 | 15 |
| Philippines | Metro Manila | PH 11033 | 22 | 16 | 5 | 31 | 16 | 11 | 69 | 16 | 5 | 31 |
| | Los Banos | PH 11034 | 31 | 28 | 8 | 29 | 28 | 19 | 68 | 28 | 5 | 18 |
| Republic of Korea | Kanghwa | KR 11035 | 25 | 24 | 22 | 92 | 24 | 23 | 96 | 24 | 21 | 88 |
| | Cheju | KR 11036 | 51 | 50 | 38 | 76 | 50 | 50 | 100 | 50 | 38 | 76 |
| | Imsil | KR 11037 | 47 | 46 | 35 | 76 | 46 | 46 | 100 | 46 | 35 | 76 |
| Russia | Mondy | RU 11038 | 18 | 17 | 15 | 88 | 17 | 17 | 100 | 17 | 15 | 88 |
| | Listvyanka | RU 11039 | 63 | 61 | 59 | 97 | 61 | 61 | 100 | 61 | 59 | 97 |
| | Irkutsk | RU 11040 | 86 | 82 | 80 | 98 | 81 | 81 | 100 | 81 | 79 | 98 |
| | Primorskaya | RU 11041 | 75 | 65 | 61 | 94 | 65 | 63 | 97 | 65 | 61 | 94 |
| Thailand | Bangkok | TH 11042 | 90 | 76 | 28 | 37 | 75 | 63 | 84 | 75 | 24 | 32 |
| | Patumthani | TH 11044 | 68 | 65 | 10 | 15 | 65 | 58 | 89 | 65 | 7 | 11 |
| | Vachiralongkorn Dam | TH 11045 | 54 | 52 | 39 | 75 | 52 | 47 | 90 | 52 | 39 | 75 |
| | Mae Hia | TH 11046 | 88 | 87 | 1 | 1 | 87 | 40 | 46 | 87 | 0 | 0 |
| Vietnam | Hanoi | VN 11047 | 40 | 39 | 39 | 100 | 39 | 39 | 100 | 39 | 39 | 100 |
| | Hoa Binh | VN 11048 | 47 | 46 | 46 | 100 | 46 | 46 | 100 | 46 | 46 | 100 |

Sample(N) : Number of samples

R1(N) : Number of samples measured and calculated ion balance (R1)

R1(AA) : Number of samples within allowable ranges for R1

R2(N) : Number of samples measured and calculated conductivity agreement (R2)

R2(AA) : Number of samples within allowable ranges for R2

R1&R2(N) : Number of samples measured and calculated both R1 and R2

R1&R2(AA) : Number of samples within allowable ranges for both R1 and R2

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: R1 and R2, calculated including concentrations of additional measured constituents

Table 3.49 Annual precipitation

| | | unit: mm | | | |
|-------------------|---------------------|----------|--------|--------|--------|
| Country | Name of sites | Code | 2000 | 2001 | 2002 |
| China | Guanyinqiao | CN 11001 | 1081.1 | 751.6 | 1445.3 |
| | Nanshan | CN 11002 | 1259.4 | | |
| | Jinyunshan | CN 11003 | | 710.1 | 1606.6 |
| | Shizhan | CN 11004 | 559.1 | 363.9 | 349.0 |
| | Weishuiyuan | CN 11005 | 447.4 | 69.3 | 232.0 |
| | Dabagou | CN 11006 | 829.3 | | |
| | Jiwozi | CN 11007 | | 208.8 | 141.7 |
| | Hongwen | CN 11008 | 1517.2 | 295.5 | 1567.5 |
| | Xiaoping | CN 11009 | 1566.4 | 2681.5 | 2170.7 |
| | Xiang Zhou | CN 11010 | 2030.5 | 1989.5 | 1731.4 |
| | Zhuxian Cavern | CN 11011 | 1778.8 | 2570.8 | 1581.0 |
| Indonesia | Jakarta | ID 11012 | 1577.4 | 1236.7 | 1572.3 |
| | Serpong | ID 10014 | *** | 1606.7 | 2505.2 |
| | Kototabang | ID 10013 | 2339.8 | 1208.7 | 1797.6 |
| | Bandung | ID 11015 | 893.3 | 2604.7 | 2540.7 |
| Japan | Rishiri | JP 11016 | 769.9 | 614.9 | 957.0 |
| | Tappi | JP 11017 | 1048.8 | 1081.6 | 1329.4 |
| | Sado-seki | JP 11019 | 1067.7 | 970.5 | 1432.9 |
| | Happo | JP 11021 | 2187.9 | 2345.1 | 2607.3 |
| | Oki | JP 11023 | 1209.1 | 1245.8 | 1570.8 |
| | Yusuhara | JP 11025 | 2800.7 | 2080.1 | 2345.9 |
| | Ogasawara | JP 11018 | 1984.9 | 1805.7 | 1330.5 |
| | Hedo | JP 11023 | 2906.8 | 2125.6 | 2032.4 |
| | Ijira | JP 11022 | 2685.2 | 2236.5 | 2648.3 |
| | Banryu | JP 11024 | 1565.2 | 1788.0 | 1303.0 |
| Malaysia | Petaling Jaya | MY 11029 | 3417.4 | 3085.3 | 2660.4 |
| | Tanah Rata | MY 11030 | 3127.4 | 2626.3 | 2782.6 |
| Mongolia | Ulaanbaatar | MN 11031 | 196.5 | 165.8 | 178.5 |
| | Terej | MN 11032 | 207.6 | 88.6 | 246.0 |
| Philippines | Metro Manila | PH 11033 | 4035.6 | 2291.2 | 2974.6 |
| | Los Banos | PH 11034 | 2635.2 | 1816.5 | 1701.6 |
| Republic of Korea | Kanghwa | KR 11035 | 1117.6 | 1139.4 | 824.1 |
| | Cheju | KR 11036 | 1058.4 | 1113.7 | 1016.8 |
| | Imsil | KR 11037 | | 1299.1 | 992.6 |
| Russia | Mondy | RU 11038 | 304.7 | 319.3 | 203.7 |
| | Listvyanka | RU 11039 | 441.6 | 493.6 | 360.3 |
| | Irkutsk | RU 11040 | 534.4 | 468.4 | 302.5 |
| | Primorskaya | RU 11041 | | | 834.7 |
| Thailand | Bangkok | TH 11042 | 1147.9 | 1173.9 | 1300.3 |
| | Samutprakarn | TH 11043 | 977.7 | | |
| | Patumthani | TH 11044 | 955.6 | 1348.5 | 948.0 |
| | Vachiralongkorn Dam | TH 11045 | 881.3 | 1516.0 | 2199.7 |
| | Mae Hia | TH 11046 | | 1083.9 | 1472.6 |
| Vietnam | Hanoi | VN 11047 | 1256.3 | 2254.7 | 1416.1 |
| | Hoa Binh | VN 11048 | 1893.6 | 2223.2 | 1625.9 |

[***]: No data or not measured

Data in hatched column: Rejected annual value by the criteria of EANET (%PCL<80% or %TP<80%)

Black column: Monitoring wasn't carried out.

Table 3.50 Annual weighted averages of SO₄²⁻ concentration

| | | unit: µmol/L | | | |
|-------------------|---------------------|--------------|------|------|------|
| Country | Name of sites | Code | 2000 | 2001 | 2002 |
| China | Guanyinqiao | CN 11001 | 152 | 205 | 114 |
| | Nanshan | CN 11002 | 130 | | |
| | Jinyunshan | CN 11003 | | 124 | 78 |
| | Shizhan | CN 11004 | 356 | 470 | 850 |
| | Weishuiyuan | CN 11005 | 538 | 1510 | 1010 |
| | Dabagou | CN 11006 | 141 | | |
| | Jiwozi | CN 11007 | | 326 | 305 |
| | Hongwen | CN 11008 | 20.2 | 56.5 | 42.8 |
| | Xiaoping | CN 11009 | 14.6 | 18.3 | 16.7 |
| | Xiang Zhou | CN 11010 | 22.4 | 15.7 | 27.9 |
| | Zhuxian Cavern | CN 11011 | 48.0 | 19.3 | 32.0 |
| Indonesia | Jakarta | ID 11012 | 58.7 | 62.7 | 38.5 |
| | Serpong | ID 11014 | *** | 38.2 | 25.7 |
| | Kototabang | ID 10013 | 3.7 | 4.7 | 7.5 |
| | Bandung | ID 11015 | 67.4 | 33.7 | 27.7 |
| Japan | Rishiri | JP 11016 | 39.0 | 31.0 | 27.3 |
| | Tappi | JP 11017 | 21.9 | 22.9 | 22.7 |
| | Sado-seki | JP 11019 | 34.4 | 41.0 | 28.2 |
| | Happo | JP 11021 | 13.3 | 11.7 | 7.6 |
| | Oki | JP 11023 | 40.5 | 33.8 | 35.3 |
| | Yusuhara | JP 11025 | 11.1 | 9.2 | 11.2 |
| | Ogasawara | JP 11018 | 11.4 | 11.4 | 18.1 |
| | Hedo | JP 11023 | 32.2 | 15.9 | 36.9 |
| | Ijira | JP 11022 | 19.9 | 22.0 | 19.7 |
| | Banryu | JP 11024 | 15.6 | 19.0 | 19.0 |
| Malaysia | Petaling Jaya | MY 11029 | 23.5 | 22.2 | 23.7 |
| | Tanah Rata | MY 11030 | 4.1 | 3.7 | 4.6 |
| Mongolia | Ulaanbaatar | MN 11031 | 24.3 | 25.2 | 24.7 |
| | Terej | MN 11032 | 16.4 | 9.7 | 15.1 |
| Philippines | Metro Manila | PH 11033 | 23.4 | 37.3 | 26.3 |
| | Los Banos | PH 11034 | 10.5 | 15.6 | 16.1 |
| Republic of Korea | Kanghwa | KR 11035 | 31.6 | 25.0 | 34.5 |
| | Cheju | KR 11036 | 23.2 | 20.7 | 28.0 |
| | Imsil | KR 11037 | | 16.4 | 22.9 |
| Russia | Mondy | RU 11038 | 7.2 | 11.0 | 10.8 |
| | Listvyanka | RU 11039 | 15.4 | 13.4 | 18.2 |
| | Irkutsk | RU 11040 | 30.1 | 29.6 | 34.2 |
| | Primorskaya | RU 11041 | | | 29.0 |
| Thailand | Bangkok | TH 11042 | 21.6 | 18.2 | 18.6 |
| | Samutprakarn | TH 11043 | 25.5 | | |
| | Patumthani | TH 11044 | 19.6 | 17.2 | 15.0 |
| | Vachiralongkorn Dam | TH 11045 | 3.6 | 5.2 | 5.6 |
| | Mae Hia | TH 11046 | | 2.8 | 4.5 |
| Vietnam | Hanoi | VN 11047 | 30.1 | 14.0 | 33.7 |
| | Hoa Binh | VN 11048 | 16.3 | 14.7 | 18.8 |

Table 3.51 Annual weighted averages of nss-SO₄²⁻ concentration

| | | | unit: µmol/L | | |
|-------------------|---------------------|----------|--------------|------|------|
| Country | Name of sites | Code | 2000 | 2001 | 2002 |
| China | Guanyinqiao | CN 11001 | 151 | 205 | 114 |
| | Nanshan | CN 11002 | 130 | | |
| | Jinyunshan | CN 11003 | | 123 | 78 |
| | Shizhan | CN 11004 | 353 | 460 | 835 |
| | Weishuiyuan | CN 11005 | 534 | 1500 | 994 |
| | Dabagou | CN 11006 | 140 | | |
| | Jiwozi | CN 11007 | | 316 | 295 |
| | Hongwen | CN 11008 | 18.8 | 55.9 | 39.4 |
| | Xiaoping | CN 11009 | 14.1 | 16.8 | 15.7 |
| | Xiang Zhou | CN 11010 | 19.9 | 14.6 | 25.4 |
| | Zhuxian Cavern | CN 11011 | 46.3 | 18.0 | 29.3 |
| Indonesia | Jakarta | ID 11012 | 55.6 | 60.3 | 36.4 |
| | Serpong | ID 10014 | *** | 36.8 | 24.2 |
| | Kototabang | ID 10013 | *** | 4.4 | 7.1 |
| | Bandung | ID 11015 | *** | 32.5 | 27.2 |
| Japan | Rishiri | JP 11016 | 19.4 | 18.2 | 15.6 |
| | Tappi | JP 11017 | 12.9 | 14.8 | 12.9 |
| | Sado-seki | JP 11019 | 18.9 | 19.5 | 13.1 |
| | Happo | JP 11021 | 12.9 | 11.3 | 7.4 |
| | Oki | JP 11023 | 16.9 | 14.8 | 13.5 |
| | Yusuhara | JP 11025 | 10.1 | 8.4 | 9.4 |
| | Ogasawara | JP 11018 | 3.1 | 5.1 | 3.9 |
| | Hedo | JP 11023 | 5.9 | 6.5 | 7.4 |
| | Ijira | JP 11022 | 18.7 | 20.2 | 18.0 |
| | Banryu | JP 11024 | 13.9 | 14.3 | 14.2 |
| Malaysia | Petaling Jaya | MY 11029 | 23.2 | 22.0 | 23.4 |
| | Tanah Rata | MY 11030 | 4.0 | 3.6 | 4.5 |
| Mongolia | Ulaanbaatar | MN 11031 | 23.9 | 24.6 | 24.3 |
| | Terej | MN 11032 | 16.0 | 8.8 | 14.3 |
| Philippines | Metro Manila | PH 11033 | 21.6 | 22.7 | 25.4 |
| | Los Banos | PH 11034 | 8.5 | 13.2 | 14.8 |
| Republic of Korea | Kanghwa | KR 11035 | 28.2 | 22.5 | 31.5 |
| | Cheju | KR 11036 | 14.0 | 16.2 | 24.5 |
| | Imsil | KR 11037 | | 15.5 | 20.5 |
| Russia | Mondy | RU 11038 | 7.1 | 10.8 | 10.7 |
| | Listvyanka | RU 11039 | 15.1 | 13.2 | 18.0 |
| | Irkutsk | RU 11040 | 29.6 | 29.1 | 33.6 |
| | Primorskaya | RU 11041 | | | 27.6 |
| Thailand | Bangkok | TH 11042 | 21.2 | 17.7 | 17.6 |
| | Samutprakarn | TH 11043 | 24.9 | | |
| | Patumthani | TH 11044 | 18.9 | 16.7 | 14.4 |
| | Vachiralongkorn Dam | TH 11045 | 3.1 | 4.5 | 5.1 |
| | Mae Hia | TH 11046 | | 2.6 | 3.9 |
| Vietnam | Hanoi | VN 11047 | 29.0 | 13.3 | 33.4 |
| | Hoa Binh | VN 11048 | 15.5 | 14.1 | 18.6 |

Table 3.52 Annual weighted averages of NO₃⁻ concentration

| | | | unit: µmol/L | | |
|-------------------|---------------------|----------|--------------|------|------|
| Country | Name of sites | Code | 2000 | 2001 | 2002 |
| China | Guanyinqiao | CN 11001 | 42.1 | 52.8 | 34.4 |
| | Nanshan | CN 11002 | 41.6 | | |
| | Jinyunshan | CN 11003 | | 40.3 | 29.4 |
| | Shizhan | CN 11004 | 87.0 | 153 | 150 |
| | Weishuiyuan | CN 11005 | 95.8 | 210 | 168 |
| | Dabagou | CN 11006 | 29.1 | | |
| | Jiwozi | CN 11007 | | 140 | 89.8 |
| | Hongwen | CN 11008 | 18.7 | 37.9 | 30.7 |
| | Xiaoping | CN 11009 | 14.6 | 18.3 | 14.8 |
| | Xiang Zhou | CN 11010 | 15.6 | 14.1 | 17.8 |
| | Zhuxian Cavern | CN 11011 | 33.5 | 22.2 | 20.8 |
| Indonesia | Jakarta | ID 11012 | 17.6 | 53.7 | 28.2 |
| | Serpong | ID 10014 | *** | 50.7 | 32.6 |
| | Kototabang | ID 10013 | 6.2 | 2.7 | 5.6 |
| | Bandung | ID 11015 | 34.4 | 26.9 | 26.3 |
| Japan | Rishiri | JP 11016 | 18.1 | 18.0 | 13.5 |
| | Tappi | JP 11017 | 12.9 | 15.3 | 16.9 |
| | Sado-seki | JP 11019 | 18.3 | 22.2 | 15.0 |
| | Happo | JP 11021 | 11.1 | 8.9 | 7.0 |
| | Oki | JP 11023 | 18.6 | 15.7 | 15.1 |
| | Yusuhara | JP 11025 | 7.0 | 6.8 | 8.4 |
| | Ogasawara | JP 11018 | 2.4 | 3.7 | 2.7 |
| | Hedo | JP 11023 | 5.7 | 6.6 | 9.5 |
| | Ijira | JP 11022 | 24.1 | 21.7 | 21.8 |
| | Banryu | JP 11024 | 13.9 | 17.4 | 19.1 |
| Malaysia | Petaling Jaya | MY 11029 | 27.2 | 23.7 | 36.8 |
| | Tanah Rata | MY 11030 | 3.3 | 3.4 | 6.0 |
| Mongolia | Ulaanbaatar | MN 11031 | 19.9 | 20.7 | 23.7 |
| | Terej | MN 11032 | 17.6 | 9.2 | 18.1 |
| Philippines | Metro Manila | PH 11033 | 12.1 | 18.5 | 17.6 |
| | Los Banos | PH 11034 | 5.4 | 13.9 | 8.2 |
| Republic of Korea | Kanghwa | KR 11035 | 42.4 | 28.6 | 32.7 |
| | Cheju | KR 11036 | 15.3 | 18.4 | 24.0 |
| | Imsil | KR 11037 | | 15.6 | 32.0 |
| Russia | Mondy | RU 11038 | 10.0 | 10.6 | 13.5 |
| | Listvyanka | RU 11039 | 18.7 | 14.7 | 25.0 |
| | Irkutsk | RU 11040 | 21.0 | 18.4 | 21.8 |
| | Primorskaya | RU 11041 | | | 10.2 |
| Thailand | Bangkok | TH 11042 | 21.6 | 17.9 | 24.6 |
| | Samutprakarn | TH 11043 | 15.4 | | |
| | Patumthani | TH 11044 | 18.6 | 19.6 | 18.5 |
| | Vachiralongkorn Dam | TH 11045 | 5.7 | 6.8 | 6.1 |
| | Mae Hia | TH 11046 | | 4.1 | 6.6 |
| Vietnam | Hanoi | VN 11047 | 16.1 | 5.1 | 15.1 |
| | Hoa Binh | VN 11048 | 9.7 | 8.8 | 20.2 |

[***]: No data or not measured

Data in hatched column: Rejected annual value by the criteria of EANET (%PCL<80% or %TP<80%)

Black column: Monitoring wasn't carried out.

**Table 3.53 Annual weighted averages of
Cl⁻ concentration**

| | | | unit: µmol/L | | |
|-------------------|---------------------|----------|--------------|------|------|
| Country | Name of sites | Code | 2000 | 2001 | 2002 |
| China | Guanyinqiao | CN 11001 | 24.0 | 29.8 | 15.6 |
| | Nanshan | CN 11002 | 15.6 | | |
| | Jinyunshan | CN 11003 | | 56.8 | 12.9 |
| | Shizhan | CN 11004 | 49.0 | 81.3 | 34.9 |
| | Weishuiyuan | CN 11005 | 91.6 | 278 | 285 |
| | Dabagou | CN 11006 | 32.3 | | |
| | Jiwozi | CN 11007 | | 98.9 | 185 |
| | Hongwen | CN 11008 | 32.0 | 35.8 | 42.9 |
| | Xiaoping | CN 11009 | 20.7 | 29.2 | 9.1 |
| | Xiang Zhou | CN 11010 | 49.8 | 37.8 | 68.9 |
| | Zhuxian Cavern | CN 11011 | 39.4 | 27.7 | 59.5 |
| Indonesia | Jakarta | ID 11012 | 21.5 | 38.9 | 28.1 |
| | Serpong | ID 10014 | *** | 32.3 | 23.0 |
| | Kototabang | ID 10013 | 6.8 | 6.6 | 16.8 |
| | Bandung | ID 11015 | 105 | 25.0 | 20.3 |
| Japan | Rishiri | JP 11016 | 372 | 235 | 217 |
| | Tappi | JP 11017 | 178 | 156 | 191 |
| | Sado-seki | JP 11019 | 274 | 378 | 307 |
| | Happo | JP 11021 | 10.7 | 8.8 | 5.0 |
| | Oki | JP 11023 | 449 | 359 | 419 |
| | Yusuhara | JP 11025 | 18.7 | 12.3 | 31.8 |
| | Ogasawara | JP 11018 | 164 | 123 | 278 |
| | Hedo | JP 11023 | 515 | 175 | 593 |
| | Ijira | JP 11022 | 23.0 | 32.7 | 33.3 |
| | Banryu | JP 11024 | 31.0 | 86.5 | 88.9 |
| Malaysia | Petaling Jaya | MY 11029 | 8.5 | 7.5 | 7.3 |
| | Tanah Rata | MY 11030 | 6.8 | 3.0 | 2.3 |
| Mongolia | Ulaanbaatar | MN 11031 | 9.0 | 9.7 | 7.7 |
| | Terej | MN 11032 | 9.0 | 8.7 | 11.4 |
| Philippines | Metro Manila | PH 11033 | 25.6 | 115 | 18.8 |
| | Los Banos | PH 11034 | 33.0 | 34.5 | 24.6 |
| Republic of Korea | Kanghwa | KR 11035 | 54.9 | 42.6 | 43.0 |
| | Cheju | KR 11036 | 210 | 112 | 83.8 |
| | Imsil | KR 11037 | | 28.7 | 36.9 |
| Russia | Mondy | RU 11038 | 2.6 | 1.4 | 8.9 |
| | Listvyanka | RU 11039 | 5.0 | 2.2 | 6.8 |
| | Irkutsk | RU 11040 | 11.6 | 12.2 | 18.0 |
| | Primorskaya | RU 11041 | | | 33.9 |
| Thailand | Bangkok | TH 11042 | 12.6 | 9.4 | 13.9 |
| | Samutprakarn | TH 11043 | 12.9 | | |
| | Patumthani | TH 11044 | 10.4 | 7.8 | 11.6 |
| | Vachiralongkorn Dam | TH 11045 | 17.6 | 10.0 | 14.1 |
| | Mae Hia | TH 11046 | | 4.5 | 10.1 |
| Vietnam | Hanoi | VN 11047 | 24.3 | 27.1 | 9.5 |
| | Hoa Binh | VN 11048 | 20.3 | 22.1 | 7.0 |

[***]: No data or not measured

Data in hatched column: Rejected annual value by the criteria of EANET (%PCL<80% or %TP<80%)

Black column: Monitoring wasn't carried out.

**Table 3.54 Annual weighted averages of
NH₄⁺ concentration**

| | | | unit: µmol/L | | |
|-------------------|---------------------|----------|--------------|------|------|
| Country | Name of sites | Code | 2000 | 2001 | 2002 |
| China | Guanyinqiao | CN 11001 | 161 | 211 | 120 |
| | Nanshan | CN 11002 | 105 | | |
| | Jinyunshan | CN 11003 | | 111 | 83.5 |
| | Shizhan | CN 11004 | 421 | 255 | 203 |
| | Weishuiyuan | CN 11005 | 426 | 354 | 319 |
| | Dabagou | CN 11006 | 199 | | |
| | Jiwozi | CN 11007 | | 171 | 71.2 |
| | Hongwen | CN 11008 | 31.6 | 64.9 | 44.2 |
| | Xiaoping | CN 11009 | 19.8 | 31.4 | 31.1 |
| | Xiang Zhou | CN 11010 | 20.5 | 25.0 | 95.8 |
| | Zhuxian Cavern | CN 11011 | 51.0 | 30.3 | 48.4 |
| Indonesia | Jakarta | ID 11012 | 77.3 | 66.2 | 31.7 |
| | Serpong | ID 10014 | *** | 67.6 | 46.0 |
| | Kototabang | ID 10013 | 1.1 | 2.4 | 5.1 |
| | Bandung | ID 11015 | 32.8 | 37.9 | 29.9 |
| Japan | Rishiri | JP 11016 | 34.0 | 26.0 | 20.1 |
| | Tappi | JP 11017 | 9.6 | 12.7 | 14.7 |
| | Sado-seki | JP 11019 | 16.9 | 19.7 | 14.5 |
| | Happo | JP 11021 | 14.2 | 10.8 | 7.7 |
| | Oki | JP 11023 | 19.4 | 14.7 | 12.4 |
| | Yusuhara | JP 11025 | 5.1 | 5.2 | 7.6 |
| | Ogasawara | JP 11018 | 2.3 | 4.8 | 5.4 |
| | Hedo | JP 11023 | 7.2 | 4.5 | 18.5 |
| | Ijira | JP 11022 | 23.8 | 17.6 | 22.8 |
| | Banryu | JP 11024 | 11.6 | 13.8 | 17.9 |
| Malaysia | Petaling Jaya | MY 11029 | 43.7 | 58.1 | 16.2 |
| | Tanah Rata | MY 11030 | 41.1 | 35.4 | 4.0 |
| Mongolia | Ulaanbaatar | MN 11031 | 52.0 | 49.9 | 72.8 |
| | Terej | MN 11032 | 44.3 | 30.5 | 65.7 |
| Philippines | Metro Manila | PH 11033 | 35.6 | 77.1 | 46.2 |
| | Los Banos | PH 11034 | 13.6 | 22.4 | 34.5 |
| Republic of Korea | Kanghwa | KR 11035 | 37.6 | 37.5 | 40.1 |
| | Cheju | KR 11036 | 20.2 | 32.3 | 43.3 |
| | Imsil | KR 11037 | | 42.3 | 42.2 |
| Russia | Mondy | RU 11038 | 11.4 | 22.2 | 33.8 |
| | Listvyanka | RU 11039 | 16.5 | 10.8 | 26.8 |
| | Irkutsk | RU 11040 | 32.1 | 25.1 | 43.0 |
| | Primorskaya | RU 11041 | | | 35.9 |
| Thailand | Bangkok | TH 11042 | 41.3 | 36.2 | 46.8 |
| | Samutprakarn | TH 11043 | 31.8 | | |
| | Patumthani | TH 11044 | 38.3 | 35.5 | 34.2 |
| | Vachiralongkorn Dam | TH 11045 | 6.8 | 11.0 | 10.9 |
| | Mae Hia | TH 11046 | | 15.8 | 18.5 |
| Vietnam | Hanoi | VN 11047 | 27.5 | 20.3 | 55.5 |
| | Hoa Binh | VN 11048 | 8.0 | 12.5 | 28.2 |

Table 3.55 Annual weighted averages of Na⁺ concentration

| Country | Name of sites | Code | unit: µmol/L | | |
|-------------------|---------------------|----------|--------------|------|------|
| | | | 2000 | 2001 | 2002 |
| China | Guanyinqiao | CN 11001 | 11.8 | 10.8 | 5.5 |
| | Nanshan | CN 11002 | 7.7 | | |
| | Jinyunshan | CN 11003 | | 10.2 | 5.9 |
| | Shizhan | CN 11004 | 44.1 | 164 | 246 |
| | Weishuiyuan | CN 11005 | 68.9 | 219 | 207 |
| | Dabagou | CN 11006 | 23.8 | | |
| | Jiwozi | CN 11007 | | 158 | 171 |
| | Hongwen | CN 11008 | 23.8 | 10.8 | 55.6 |
| | Xiaoping | CN 11009 | 8.7 | 9.6 | 16.4 |
| | Xiang Zhou | CN 11010 | 42.1 | 24.6 | 41.5 |
| | Zhuxian Cavern | CN 11011 | 31.2 | 27.5 | 45.2 |
| Indonesia | Jakarta | ID 11012 | 52.4 | 39.4 | 35.3 |
| | Serpong | ID 10014 | *** | 23.8 | 25.2 |
| | Kototabang | ID 10013 | *** | 4.5 | 6.3 |
| | Bandung | ID 11015 | *** | 20.2 | 8.6 |
| Japan | Rishiri | JP 11016 | 325 | 212 | 197 |
| | Tappi | JP 11017 | 149 | 134 | 165 |
| | Sado-seki | JP 11019 | 258 | 355 | 268 |
| | Happo | JP 11021 | 7.8 | 6.2 | 3.4 |
| | Okii | JP 11023 | 396 | 316 | 363 |
| | Yusuhara | JP 11025 | 15.2 | 11.8 | 28.9 |
| | Ogasawara | JP 11018 | 139 | 104 | 236 |
| | Hedo | JP 11023 | 454 | 160 | 515 |
| | Ijira | JP 11022 | 19.9 | 29.7 | 28.5 |
| | Banryu | JP 11024 | 28.9 | 78.2 | 79.4 |
| Malaysia | Petaling Jaya | MY 11029 | 5.0 | 3.7 | 5.1 |
| | Tanah Rata | MY 11030 | 1.9 | 1.9 | 1.6 |
| Mongolia | Ulaanbaatar | MN 11031 | 7.9 | 9.1 | 6.3 |
| | Terelj | MN 11032 | 6.5 | 15.9 | 16.9 |
| Philippines | Metro Manila | PH 11033 | 30.6 | 205 | 14.6 |
| | Los Banos | PH 11034 | 34.8 | 37.2 | 21.1 |
| Republic of Korea | Kanghwa | KR 11035 | 56.3 | 41.7 | 49.2 |
| | Cheju | KR 11036 | 152 | 74.7 | 58.3 |
| | Imsil | KR 11037 | | 15.4 | 38.6 |
| Russia | Mondy | RU 11038 | 1.8 | 2.3 | 1.9 |
| | Listvyanka | RU 11039 | 4.6 | 3.4 | 3.8 |
| | Irkutsk | RU 11040 | 8.8 | 8.3 | 9.2 |
| | Primorskaya | RU 11041 | | | 23.1 |
| Thailand | Bangkok | TH 11042 | 6.9 | 8.3 | 16.1 |
| | Samutprakarn | TH 11043 | 10.1 | | |
| | Patumthani | TH 11044 | 10.9 | 8.1 | 9.6 |
| | Vachiralongkorn Dam | TH 11045 | 9.7 | 11.3 | 8.3 |
| | Mae Hia | TH 11046 | | 3.9 | 9.7 |
| Vietnam | Hanoi | VN 11047 | 18.1 | 11.5 | 5.9 |
| | Hoa Binh | VN 11048 | 12.7 | 9.8 | 2.1 |

Table 3.56 Annual weighted averages of K⁺ concentration

| Country | Name of sites | Code | unit: µmol/L | | |
|-------------------|---------------------|----------|--------------|------|------|
| | | | 2000 | 2001 | 2002 |
| China | Guanyinqiao | CN 11001 | 14.2 | 18.7 | 10.6 |
| | Nanshan | CN 11002 | 16.3 | | |
| | Jinyunshan | CN 11003 | | 44.4 | 10.3 |
| | Shizhan | CN 11004 | 26.5 | 42.2 | 40.5 |
| | Weishuiyuan | CN 11005 | 34.7 | 74.9 | 76.6 |
| | Dabagou | CN 11006 | 17.9 | | |
| | Jiwozi | CN 11007 | | 43.6 | 42.2 |
| | Hongwen | CN 11008 | 5.0 | 10.4 | 4.3 |
| | Xiaoping | CN 11009 | 2.8 | 2.9 | 3.8 |
| | Xiang Zhou | CN 11010 | 6.6 | 4.0 | 17.6 |
| | Zhuxian Cavern | CN 11011 | 6.2 | 5.9 | 13.2 |
| Indonesia | Jakarta | ID 11012 | *** | 24.3 | 11.3 |
| | Serpong | ID 10014 | *** | 7.0 | 3.9 |
| | Kototabang | ID 10013 | *** | 1.3 | 5.1 |
| | Bandung | ID 11015 | *** | 12.6 | 2.0 |
| Japan | Rishiri | JP 11016 | 9.9 | 6.0 | 5.1 |
| | Tappi | JP 11017 | 3.6 | 3.3 | 4.1 |
| | Sado-seki | JP 11019 | 6.4 | 8.2 | 6.5 |
| | Happo | JP 11021 | <1.0 | <1.0 | <1.0 |
| | Okii | JP 11023 | 10.5 | 8.8 | 9.5 |
| | Yusuhara | JP 11025 | <1.0 | <1.0 | 1.0 |
| | Ogasawara | JP 11018 | 3.6 | 4.1 | 6.2 |
| | Hedo | JP 11023 | 9.1 | 3.6 | 12.0 |
| | Ijira | JP 11022 | 2.9 | 4.1 | 2.1 |
| | Banryu | JP 11024 | 1.4 | 2.7 | 2.9 |
| Malaysia | Petaling Jaya | MY 11029 | 1.8 | 1.4 | 1.3 |
| | Tanah Rata | MY 11030 | 1.1 | <1.0 | <1.0 |
| Mongolia | Ulaanbaatar | MN 11031 | 3.9 | 4.6 | 3.8 |
| | Terelj | MN 11032 | 4.5 | 3.8 | 10.2 |
| Philippines | Metro Manila | PH 11033 | 15.5 | 23.2 | 9.9 |
| | Los Banos | PH 11034 | 1.7 | 9.5 | 6.4 |
| Republic of Korea | Kanghwa | KR 11035 | 5.6 | 4.7 | 8.8 |
| | Cheju | KR 11036 | 6.3 | 9.4 | 6.4 |
| | Imsil | KR 11037 | | 14.8 | 6.5 |
| Russia | Mondy | RU 11038 | 1.2 | 2.1 | 2.3 |
| | Listvyanka | RU 11039 | 4.7 | 1.7 | 2.2 |
| | Irkutsk | RU 11040 | 4.4 | 7.4 | 2.3 |
| | Primorskaya | RU 11041 | | | 5.3 |
| Thailand | Bangkok | TH 11042 | 3.2 | 4.1 | 3.4 |
| | Samutprakarn | TH 11043 | 5.3 | | |
| | Patumthani | TH 11044 | 2.3 | 1.7 | 1.5 |
| | Vachiralongkorn Dam | TH 11045 | 8.9 | 5.0 | 2.4 |
| | Mae Hia | TH 11046 | | 2.9 | 4.4 |
| Vietnam | Hanoi | VN 11047 | 4.1 | 3.8 | 2.1 |
| | Hoa Binh | VN 11048 | 3.6 | 2.3 | 1.5 |

[***]: No data or not measured

Data in hatched column: Rejected annual value by the criteria of EANET (%PCL<80% or %TP<80%)

Black column: Monitoring wasn't carried out.

Table 3.57 Annual weighted averages of Ca²⁺ concentration

| | | | unit: µmol/L | | |
|-------------------|---------------------|----------|--------------|------|------|
| Country | Name of sites | Code | 2000 | 2001 | 2002 |
| China | Guanyinqiao | CN 11001 | 63.0 | 137 | 65.4 |
| | Nanshan | CN 11002 | 55.2 | | |
| | Jinyunshan | CN 11003 | | 44.9 | 29.7 |
| | Shizhan | CN 11004 | 229 | 675 | 479 |
| | Weishuiyuan | CN 11005 | 305 | 1160 | 617 |
| | Dabagou | CN 11006 | 124 | | |
| | Jiwozi | CN 11007 | | 429 | 276 |
| | Hongwen | CN 11008 | 6.7 | 36.3 | 49.1 |
| | Xiaoping | CN 11009 | 0.8 | 5.3 | 10.6 |
| | Xiang Zhou | CN 11010 | 21.2 | 8.0 | 15.5 |
| | Zhuxian Cavern | CN 11011 | 25.0 | 14.3 | 20.7 |
| Indonesia | Jakarta | ID 11012 | 87.6 | 64.4 | 42.9 |
| | Serpong | ID 10014 | *** | 13.6 | 9.9 |
| | Kototabang | ID 10013 | 4.0 | 1.4 | 4.9 |
| | Bandung | ID 11015 | *** | 24.2 | 17.1 |
| Japan | Rishiri | JP 11016 | 13.7 | 10.1 | 10.2 |
| | Tappi | JP 11017 | 6.4 | 5.8 | 9.0 |
| | Sado-seki | JP 11019 | 11.7 | 15.8 | 9.1 |
| | Happo | JP 11021 | 3.9 | 4.3 | 2.0 |
| | Oki | JP 11023 | 16.0 | 12.9 | 11.5 |
| | Yusuhara | JP 11025 | 2.7 | 3.4 | 1.8 |
| | Ogasawara | JP 11018 | 5.1 | 5.4 | 8.6 |
| | Hedo | JP 11023 | 10.1 | 4.9 | 14.0 |
| | Ijira | JP 11022 | 6.8 | 5.6 | 4.2 |
| | Banryu | JP 11024 | 4.2 | 6.0 | 5.4 |
| Malaysia | Petaling Jaya | MY 11029 | 6.8 | 6.3 | 7.4 |
| | Tanah Rata | MY 11030 | 2.3 | 3.1 | 3.1 |
| Mongolia | Ulaanbaatar | MN 11031 | 37.7 | 47.4 | 49.9 |
| | Terelj | MN 11032 | 15.2 | 15.0 | 27.3 |
| Philippines | Metro Manila | PH 11033 | 14.5 | 71.6 | 8.7 |
| | Los Banos | PH 11034 | 7.0 | 65.3 | 7.2 |
| Republic of Korea | Kanghwa | KR 11035 | 26.5 | 14.0 | 11.1 |
| | Cheju | KR 11036 | 13.8 | 5.9 | 9.4 |
| | Imsil | KR 11037 | | 5.8 | 9.8 |
| Russia | Mondy | RU 11038 | 5.8 | 7.0 | 8.5 |
| | Listvyanka | RU 11039 | 12.8 | 7.3 | 11.4 |
| | Irkutsk | RU 11040 | 28.0 | 34.8 | 31.5 |
| | Primorskaya | RU 11041 | | | 18.1 |
| Thailand | Bangkok | TH 11042 | 11.4 | 12.0 | 15.7 |
| | Samutprakarn | TH 11043 | 11.1 | | |
| | Patumthani | TH 11044 | 13.2 | 13.0 | 17.4 |
| | Vachiralongkorn Dam | TH 11045 | 4.8 | 9.0 | 4.9 |
| | Mae Hia | TH 11046 | | 6.9 | 18.0 |
| Vietnam | Hanoi | VN 11047 | 20.9 | 10.7 | 16.8 |
| | Hoa Binh | VN 11048 | 13.1 | 10.4 | 12.6 |

Table 3.58 Annual weighted averages of nss-Ca²⁺ concentration

| | | | unit: µmol/L | | |
|-------------------|---------------------|----------|--------------|------|------|
| Country | Name of sites | Code | 2000 | 2001 | 2002 |
| China | Guanyinqiao | CN 11001 | 62.8 | 137 | 65.3 |
| | Nanshan | CN 11002 | 55.0 | | |
| | Jinyunshan | CN 11003 | | 44.7 | 29.6 |
| | Shizhan | CN 11004 | 228 | 672 | 474 |
| | Weishuiyuan | CN 11005 | 303 | 1150 | 612 |
| | Dabagou | CN 11006 | 123 | | |
| | Jiwozi | CN 11007 | | 425 | 273 |
| | Hongwen | CN 11008 | 6.3 | 36.1 | 47.9 |
| | Xiaoping | CN 11009 | 0.6 | 5.0 | 10.3 |
| | Xiang Zhou | CN 11010 | 20.3 | 7.4 | 14.6 |
| | Zhuxian Cavern | CN 11011 | 24.3 | 13.7 | 19.7 |
| Indonesia | Jakarta | ID 11012 | 86.4 | 63.5 | 42.2 |
| | Serpong | ID 10014 | *** | 13.1 | 9.4 |
| | Kototabang | ID 10013 | *** | 1.4 | 4.8 |
| | Bandung | ID 11015 | *** | 23.7 | 16.9 |
| Japan | Rishiri | JP 11016 | 6.7 | 5.5 | 5.9 |
| | Tappi | JP 11017 | 3.2 | 3.0 | 5.5 |
| | Sado-seki | JP 11019 | 6.2 | 8.3 | 3.4 |
| | Happo | JP 11021 | 3.7 | 4.2 | 1.9 |
| | Oki | JP 11023 | 7.5 | 6.1 | 3.9 |
| | Yusuhara | JP 11025 | 2.4 | 3.2 | 1.2 |
| | Ogasawara | JP 11018 | 2.1 | 3.2 | 3.6 |
| | Hedo | JP 11023 | 0.8 | 1.7 | 2.9 |
| | Ijira | JP 11022 | 6.3 | 5.0 | 3.6 |
| | Banryu | JP 11024 | 3.7 | 4.3 | 3.7 |
| Malaysia | Petaling Jaya | MY 11029 | 6.7 | 6.2 | 7.3 |
| | Tanah Rata | MY 11030 | 2.2 | 3.1 | 3.0 |
| Mongolia | Ulaanbaatar | MN 11031 | 37.6 | 47.2 | 49.8 |
| | Terelj | MN 11032 | 15.1 | 14.6 | 26.3 |
| Philippines | Metro Manila | PH 11033 | 13.9 | 67.2 | 8.4 |
| | Los Banos | PH 11034 | 6.2 | 64.5 | 6.8 |
| Republic of Korea | Kanghwa | KR 11035 | 25.3 | 13.1 | 10.0 |
| | Cheju | KR 11036 | 10.5 | 4.3 | 8.1 |
| | Imsil | KR 11037 | | 5.5 | 9.0 |
| Russia | Mondy | RU 11038 | 5.7 | 6.9 | 8.5 |
| | Listvyanka | RU 11039 | 12.7 | 7.2 | 11.3 |
| | Irkutsk | RU 11040 | 27.8 | 34.6 | 31.3 |
| | Primorskaya | RU 11041 | | | 17.6 |
| Thailand | Bangkok | TH 11042 | 11.2 | 11.8 | 15.4 |
| | Samutprakarn | TH 11043 | 10.8 | | |
| | Patumthani | TH 11044 | 12.9 | 12.8 | 17.2 |
| | Vachiralongkorn Dam | TH 11045 | 4.6 | 8.8 | 4.7 |
| | Mae Hia | TH 11046 | | 6.9 | 17.8 |
| Vietnam | Hanoi | VN 11047 | 20.5 | 10.4 | 16.7 |
| | Hoa Binh | VN 11048 | 12.8 | 10.2 | 12.6 |

[***]: No data or not measured

Data in hatched column: Rejected annual value by the criteria of EANET (%PCL<80% or %TP<80%)

Black column: Monitoring wasn't carried out.

Table 3.59 Annual weighted averages of Mg²⁺ concentration

| | | | unit: µmol/L | | |
|-------------------|---------------------|----------|--------------|------|------|
| Country | Name of sites | Code | 2000 | 2001 | 2002 |
| China | Guanyinqiao | CN 11001 | 8.5 | 11.6 | 6.0 |
| | Nanshan | CN 11002 | 7.0 | | |
| | Jinyunshan | CN 11003 | | 5.8 | 3.4 |
| | Shizhan | CN 11004 | 23.6 | 48.5 | 67.9 |
| | Weishuiyuan | CN 11005 | 31.7 | 88.4 | 91.1 |
| | Dabagou | CN 11006 | 14.6 | | |
| | Jiwozi | CN 11007 | | 41.1 | 50.1 |
| | Hongwen | CN 11008 | 4.2 | 6.3 | 9.6 |
| | Xiaoping | CN 11009 | 1.3 | 2.8 | 1.6 |
| | Xiang Zhou | CN 11010 | 6.9 | 2.9 | 5.5 |
| | Zhuxian Cavern | CN 11011 | 7.9 | 3.3 | 7.1 |
| Indonesia | Jakarta | ID 11012 | 219 | 69.0 | 13.1 |
| | Serpong | ID 10014 | *** | 3.5 | 4.5 |
| | Kototabang | ID 10013 | *** | 1.0 | 2.6 |
| | Bandung | ID 11015 | *** | 4.1 | 1.6 |
| Japan | Rishiri | JP 11016 | 36.3 | 24.8 | 22.3 |
| | Tappi | JP 11017 | 17.5 | 15.5 | 19.6 |
| | Sado-seki | JP 11019 | 29.0 | 40.5 | 30.7 |
| | Happo | JP 11021 | 1.7 | 1.6 | 0.9 |
| | Oki | JP 11023 | 45.0 | 36.6 | 40.6 |
| | Yusuhara | JP 11025 | 2.2 | 1.8 | 3.6 |
| | Ogasawara | JP 11018 | 19.2 | 13.3 | 32.4 |
| | Hedo | JP 11023 | 50.0 | 16.9 | 59.0 |
| | Ijira | JP 11022 | 2.9 | 4.0 | 3.5 |
| | Banryu | JP 11024 | 3.3 | 9.1 | 9.3 |
| Malaysia | Petaling Jaya | MY 11029 | 1.4 | 1.3 | 1.4 |
| | Tanah Rata | MY 11030 | 0.4 | 0.4 | 0.4 |
| Mongolia | Ulaanbaatar | MN 11031 | 4.1 | 5.4 | 3.6 |
| | Terelj | MN 11032 | 3.2 | 2.5 | 4.1 |
| Philippines | Metro Manila | PH 11033 | 6.3 | 15.0 | 3.3 |
| | Los Banos | PH 11034 | 3.7 | 11.1 | 2.9 |
| Republic of Korea | Kanghwa | KR 11035 | 9.3 | 5.3 | 6.3 |
| | Cheju | KR 11036 | 18.6 | 10.0 | 7.5 |
| | Imsil | KR 11037 | | 1.9 | 3.3 |
| Russia | Mondy | RU 11038 | 1.1 | 1.5 | 2.2 |
| | Listvyanka | RU 11039 | 2.9 | 1.8 | 3.0 |
| | Irkutsk | RU 11040 | 5.0 | 5.5 | 5.7 |
| | Primorskaya | RU 11041 | | | 5.7 |
| Thailand | Bangkok | TH 11042 | 2.0 | 3.2 | 3.5 |
| | Samutprakarn | TH 11043 | 2.4 | | |
| | Patumthani | TH 11044 | 2.4 | 2.2 | 2.8 |
| | Vachiralongkorn Dam | TH 11045 | 1.7 | 2.5 | 1.7 |
| | Mae Hia | TH 11046 | | 1.1 | 3.5 |
| | Vietnam | Hanoi | VN 11047 | 5.0 | 4.0 |
| Hoa Binh | | VN 11048 | 4.7 | 3.7 | 1.4 |

Table 3.60 Annual weighted averages of H⁺ concentration

| | | | unit: µmol/L | | |
|-------------------|---------------------|----------|--------------|------|------|
| Country | Name of sites | Code | 2000 | 2001 | 2002 |
| China | Guanyinqiao | CN 11001 | 46.7 | 16.1 | 25.2 |
| | Nanshan | CN 11002 | 60.5 | | |
| | Jinyunshan | CN 11003 | | 65.4 | 43.6 |
| | Shizhan | CN 11004 | 2.1 | 0.4 | 0.6 |
| | Weishuiyuan | CN 11005 | 0.4 | 0.5 | 0.9 |
| | Dabagou | CN 11006 | 3.8 | | |
| | Jiwozi | CN 11007 | | 0.6 | 1.0 |
| | Hongwen | CN 11008 | 19.1 | 29.6 | 16.2 |
| | Xiaoping | CN 11009 | 12.2 | 12.4 | 33.6 |
| | Xiang Zhou | CN 11010 | 7.0 | 11.4 | 7.8 |
| | Zhuxian Cavern | CN 11011 | 23.0 | 16.7 | 12.8 |
| Indonesia | Jakarta | ID 11012 | 6.6 | 3.8 | 16.9 |
| | Serpong | ID 10014 | *** | 23.7 | 22.6 |
| | Kototabang | ID 10013 | 31.2 | 8.5 | 4.9 |
| | Bandung | ID 11015 | *** | 10.1 | 34.9 |
| Japan | Rishiri | JP 11016 | 15.7 | 16.8 | 15.0 |
| | Tappi | JP 11017 | 19.0 | 23.0 | 20.9 |
| | Sado-seki | JP 11019 | 26.9 | 23.2 | 22.7 |
| | Happo | JP 11021 | 18.6 | 14.6 | 11.8 |
| | Oki | JP 11023 | 22.8 | 17.0 | 18.6 |
| | Yusuhara | JP 11025 | 19.5 | 14.9 | 17.4 |
| | Ogasawara | JP 11018 | 5.9 | 8.1 | 8.2 |
| | Hedo | JP 11023 | 7.4 | 10.9 | 11.3 |
| | Ijira | JP 11022 | 30.1 | 37.1 | 30.4 |
| | Banryu | JP 11024 | 22.9 | 21.9 | 20.4 |
| Malaysia | Petaling Jaya | MY 11029 | 44.9 | 56.0 | 58.8 |
| | Tanah Rata | MY 11030 | 16.1 | 12.7 | 10.8 |
| Mongolia | Ulaanbaatar | MN 11031 | 0.5 | 0.6 | 0.4 |
| | Terelj | MN 11032 | 3.0 | 0.9 | 1.8 |
| Philippines | Metro Manila | PH 11033 | 3.3 | 3.9 | 8.1 |
| | Los Banos | PH 11034 | 3.6 | 3.0 | 1.8 |
| Republic of Korea | Kanghwa | KR 11035 | 10.0 | 10.2 | 22.2 |
| | Cheju | KR 11036 | 14.1 | 12.9 | 24.3 |
| | Imsil | KR 11037 | | 8.0 | 2.0 |
| Russia | Mondy | RU 11038 | 5.5 | 3.1 | 4.1 |
| | Listvyanka | RU 11039 | 8.6 | 11.0 | 13.2 |
| | Irkutsk | RU 11040 | 7.8 | 5.3 | 9.4 |
| | Primorskaya | RU 11041 | | | 6.3 |
| Thailand | Bangkok | TH 11042 | 11.1 | 10.7 | 7.9 |
| | Samutprakarn | TH 11043 | 14.8 | | |
| | Patumthani | TH 11044 | 5.7 | 7.4 | 4.6 |
| | Vachiralongkorn Dam | TH 11045 | 2.7 | 5.5 | 2.3 |
| | Mae Hia | TH 11046 | | 1.9 | 1.9 |
| | Vietnam | Hanoi | VN 11047 | 3.6 | 1.5 |
| Hoa Binh | | VN 11048 | 7.8 | 9.1 | 6.5 |

[***]: No data or not measured

Data in hatched column: Rejected annual value by the criteria of EANET (%PCL<80% or %TP<80%)

Black column: Monitoring wasn't carried out.

Table 3.61 Annual weighted averages of pH

| Country | Name of sites | Code | 2000 | 2001 | 2002 |
|-------------------|---------------------|----------|----------|------|------|
| China | Guanyinqiao | CN 11001 | 4.33 | 4.79 | 4.60 |
| | Nanshan | CN 11002 | 4.22 | | |
| | Jinyunshan | CN 11003 | | 4.18 | 4.36 |
| | Shizhan | CN 11004 | 5.68 | 6.38 | 6.24 |
| | Weishuiyuan | CN 11005 | 6.42 | 6.32 | 6.03 |
| | Dabagou | CN 11006 | 5.42 | | |
| | Jiwozi | CN 11007 | | 6.24 | 6.00 |
| | Hongwen | CN 11008 | 4.72 | 4.53 | 4.79 |
| | Xiaoping | CN 11009 | 4.91 | 4.91 | 4.47 |
| | Xiang Zhou | CN 11010 | 5.15 | 4.94 | 5.11 |
| | Zhuxian Cavern | CN 11011 | 4.64 | 4.78 | 4.89 |
| | Indonesia | Jakarta | ID 11012 | 5.18 | 5.42 |
| Serpong | | ID 10014 | *** | 4.63 | 4.65 |
| Kototabang | | ID 10013 | 4.51 | 5.07 | 5.31 |
| Bandung | | ID 11015 | *** | 4.99 | 4.46 |
| Japan | Rishiri | JP 11016 | 4.80 | 4.77 | 4.82 |
| | Tappi | JP 11017 | 4.72 | 4.64 | 4.68 |
| | Sado-seki | JP 11019 | 4.57 | 4.63 | 4.64 |
| | Happo | JP 11021 | 4.73 | 4.84 | 4.93 |
| | Oki | JP 11023 | 4.64 | 4.77 | 4.73 |
| | Yusuhara | JP 11025 | 4.71 | 4.83 | 4.76 |
| | Ogasawara | JP 11018 | 5.23 | 5.09 | 5.09 |
| | Hedo | JP 11023 | 5.13 | 4.96 | 4.95 |
| | Ijira | JP 11022 | 4.52 | 4.43 | 4.52 |
| | Banryu | JP 11024 | 4.64 | 4.66 | 4.69 |
| Malaysia | Petaling Jaya | MY 11029 | 4.35 | 4.25 | 4.23 |
| | Tanah Rata | MY 11030 | 4.79 | 4.90 | 4.97 |
| Mongolia | Ulaanbaatar | MN 11031 | 6.26 | 6.19 | 6.38 |
| | Terelj | MN 11032 | 5.52 | 6.04 | 5.75 |
| Philippines | Metro Manila | PH 11033 | 5.48 | 5.41 | 5.09 |
| | Los Banos | PH 11034 | 5.44 | 5.53 | 5.74 |
| Republic of Korea | Kanghwa | KR 11035 | 5.00 | 4.99 | 4.65 |
| | Cheju | KR 11036 | 4.85 | 4.89 | 4.61 |
| | Imsil | KR 11037 | | 5.09 | 5.69 |
| Russia | Mondy | RU 11038 | 5.26 | 5.50 | 5.39 |
| | Listvyanka | RU 11039 | 5.07 | 4.96 | 4.88 |
| | Irkutsk | RU 11040 | 5.11 | 5.28 | 5.02 |
| | Primorskaya | RU 11041 | | | 5.20 |
| Thailand | Bangkok | TH 11042 | 4.95 | 4.97 | 5.10 |
| | Samutprakarn | TH 11043 | 4.83 | | |
| | Patumthani | TH 11044 | 5.25 | 5.13 | 5.33 |
| | Vachiralongkorn Dam | TH 11045 | 5.56 | 5.26 | 5.64 |
| | Mae Hia | TH 11046 | | 5.71 | 5.72 |
| | | | | | |
| Vietnam | Hanoi | VN 11047 | 5.45 | 5.83 | 5.55 |
| | Hoa Binh | VN 11048 | 5.11 | 5.04 | 5.19 |

[***]: No data or not measured

Data in hatched column: Rejected annual value by the criteria of EANET (%PCL<80% or %TP<80%)

Black column: Monitoring wasn't carried out.

Table 3.62 Annual weighted averages of EC

unit: mS/m

| Country | Name of sites | Code | 2000 | 2001 | 2002 |
|-------------------|---------------------|----------|----------|------|------|
| China | Guanyinqiao | CN 11001 | 5.61 | 7.00 | 4.36 |
| | Nanshan | CN 11002 | 5.20 | | |
| | Jinyunshan | CN 11003 | | 6.23 | 3.69 |
| | Shizhan | CN 11004 | 11.4 | 19.5 | 16.1 |
| | Weishuiyuan | CN 11005 | 15.1 | 27.7 | 21.7 |
| | Dabagou | CN 11006 | 7.71 | | |
| | Jiwozi | CN 11007 | | 9.65 | 4.02 |
| | Hongwen | CN 11008 | 1.66 | 3.87 | 2.64 |
| | Xiaoping | CN 11009 | 0.88 | 1.42 | 1.60 |
| | Xiang Zhou | CN 11010 | 2.05 | 1.95 | 3.20 |
| | Zhuxian Cavern | CN 11011 | 3.04 | 2.08 | 3.63 |
| | Indonesia | Jakarta | ID 11012 | 5.06 | 26.4 |
| Serpong | | ID 10014 | *** | 2.94 | 1.87 |
| Kototabang | | ID 10013 | 1.00 | 0.43 | 4.94 |
| Bandung | | ID 11015 | 3.37 | 2.08 | 1.68 |
| Japan | Rishiri | JP 11016 | 6.37 | 4.51 | 4.23 |
| | Tappi | JP 11017 | 3.69 | 3.52 | 3.89 |
| | Sado-seki | JP 11019 | 4.76 | 5.64 | 4.99 |
| | Happo | JP 11021 | 1.22 | 0.96 | 0.67 |
| | Oki | JP 11023 | 7.28 | 5.90 | 6.59 |
| | Yusuhara | JP 11025 | 1.17 | 0.98 | 1.42 |
| | Ogasawara | JP 11018 | 2.59 | 2.20 | 3.95 |
| | Hedo | JP 11023 | 7.21 | 2.95 | 8.85 |
| | Ijira | JP 11022 | 2.11 | 2.44 | 2.18 |
| | Banryu | JP 11024 | 1.82 | 2.52 | 2.56 |
| Malaysia | Petaling Jaya | MY 11029 | 2.08 | 2.13 | 2.81 |
| | Tanah Rata | MY 11030 | 0.73 | 0.54 | 0.59 |
| Mongolia | Ulaanbaatar | MN 11031 | 1.79 | 1.91 | 2.20 |
| | Terelj | MN 11032 | 1.28 | 0.93 | 1.93 |
| Philippines | Metro Manila | PH 11033 | 2.20 | 6.49 | 1.85 |
| | Los Banos | PH 11034 | 1.13 | 2.08 | 1.22 |
| Republic of Korea | Kanghwa | KR 11035 | 2.50 | 1.98 | 2.68 |
| | Cheju | KR 11036 | 3.37 | 2.56 | 3.03 |
| | Imsil | KR 11037 | | 1.31 | 1.80 |
| Russia | Mondy | RU 11038 | 0.58 | 0.68 | 0.96 |
| | Listvyanka | RU 11039 | 1.04 | 0.95 | 1.39 |
| | Irkutsk | RU 11040 | 1.71 | 1.79 | 2.10 |
| | Primorskaya | RU 11041 | | | 1.77 |
| Thailand | Bangkok | TH 11042 | 1.64 | 1.50 | 1.32 |
| | Samutprakarn | TH 11043 | 1.52 | | |
| | Patumthani | TH 11044 | 1.48 | 1.80 | 1.07 |
| | Vachiralongkorn Dam | TH 11045 | 0.52 | 0.56 | 0.51 |
| | Mae Hia | TH 11046 | | 0.88 | 0.48 |
| | | | | | |
| Vietnam | Hanoi | VN 11047 | 1.55 | 0.92 | 1.52 |
| | Hoa Binh | VN 11048 | 1.15 | 1.04 | 1.06 |

Table 3.63 Annual SO₄²⁻ deposition

| | | | unit: mmol/m ² /year | | |
|-------------------|---------------------|----------|---------------------------------|------|------|
| Country | Name of sites | Code | 2000 | 2001 | 2002 |
| China | Guanyinqiao | CN 11001 | 164 | 154 | 165 |
| | Nanshan | CN 11002 | 164 | | |
| | Jinyunshan | CN 11003 | | 87.7 | 126 |
| | Shizhan | CN 11004 | 199 | 171 | 297 |
| | Weishuiyuan | CN 11005 | 241 | 105 | 234 |
| | Dabagou | CN 11006 | 117 | | |
| | Jiwozi | CN 11007 | | 68.0 | 43.2 |
| | Hongwen | CN 11008 | 30.7 | 16.7 | 67.0 |
| | Xiaoping | CN 11009 | 22.8 | 77.8 | 36.3 |
| | Xiang Zhou | CN 11010 | 45.5 | 31.2 | 48.3 |
| | Zhuxian Cavern | CN 11011 | 85.4 | 49.5 | 50.6 |
| Indonesia | Jakarta | ID 11012 | 92.7 | 77.5 | 60.5 |
| | Serpong | ID 10014 | *** | 61.4 | 64.3 |
| | Kototabang | ID 10013 | 8.65 | 5.66 | 13.4 |
| | Bandung | ID 11015 | 60.2 | 87.8 | 70.4 |
| Japan | Rishiri | JP 11016 | 30.0 | 19.1 | 26.1 |
| | Tappi | JP 11017 | 22.9 | 24.7 | 30.2 |
| | Sado-seki | JP 11019 | 36.8 | 39.8 | 40.4 |
| | Happo | JP 11021 | 29.2 | 27.4 | 19.8 |
| | Oki | JP 11023 | 49.0 | 42.1 | 55.4 |
| | Yusuhara | JP 11025 | 31.0 | 19.0 | 26.2 |
| | Ogasawara | JP 11018 | 22.6 | 20.7 | 24.1 |
| | Hedo | JP 11023 | 93.6 | 33.9 | 75.0 |
| | Ijira | JP 11022 | 53.3 | 49.1 | 52.2 |
| Banryu | JP 11024 | 24.4 | 33.9 | 24.8 | |
| Malaysia | Petaling Jaya | MY 11029 | 80.4 | 68.4 | 63.1 |
| | Tanah Rata | MY 11030 | 12.9 | 9.79 | 12.8 |
| Mongolia | Ulaanbaatar | MN 11031 | 4.78 | 4.17 | 3.60 |
| | Terej | MN 11032 | 3.41 | 0.86 | 3.31 |
| Philippines | Metro Manila | PH 11033 | 94.4 | 85.5 | 78.2 |
| | Los Banos | PH 11034 | 27.7 | 28.4 | 27.3 |
| Republic of Korea | Kanghwa | KR 11035 | 35.3 | 28.5 | 28.4 |
| | Cheju | KR 11036 | 24.5 | 23.0 | 28.5 |
| | Imsil | KR 11037 | | 21.3 | 22.7 |
| Russia | Mondy | RU 11038 | 2.19 | 3.51 | 2.20 |
| | Listvyanka | RU 11039 | 6.79 | 6.60 | 6.56 |
| | Irkutsk | RU 11040 | 16.1 | 13.9 | 10.3 |
| | Primorskaja | RU 11041 | | | 24.2 |
| Thailand | Bangkok | TH 11042 | 24.8 | 21.3 | 24.2 |
| | Samutprakarn | TH 11043 | 25.0 | | |
| | Patumthani | TH 11044 | 18.7 | 23.2 | 14.2 |
| | Vachiralongkorn Dam | TH 11045 | 3.21 | 7.91 | 12.4 |
| | Mae Hia | TH 11046 | | 3.02 | 6.57 |
| | | | | | |
| Vietnam | Hanoi | VN 11047 | 37.9 | 31.5 | 47.8 |
| | Hoa Binh | VN 11048 | 30.8 | 32.6 | 30.5 |

[***]: No data or not measured

Data in hatched column: Rejected annual value by the criteria of EANET (%PCL<80% or %TP<80%)

Black column: Monitoring wasn't carried out.

Table 3.64 Annual nss-SO₄²⁻ deposition

| | | | unit: mmol/m ² /year | | |
|-------------------|---------------------|----------|---------------------------------|------|------|
| Country | Name of sites | Code | 2000 | 2001 | 2002 |
| China | Guanyinqiao | CN 11001 | 163 | 154 | 164 |
| | Nanshan | CN 11002 | 164 | | |
| | Jinyunshan | CN 11003 | | 87.3 | 125 |
| | Shizhan | CN 11004 | 198 | 167 | 291 |
| | Weishuiyuan | CN 11005 | 239 | 104 | 231 |
| | Dabagou | CN 11006 | 116 | | |
| | Jiwozi | CN 11007 | | 66.0 | 41.7 |
| | Hongwen | CN 11008 | 28.5 | 16.5 | 61.8 |
| | Xiaoping | CN 11009 | 22.0 | 75.2 | 34.1 |
| | Xiang Zhou | CN 11010 | 40.3 | 29.1 | 44.0 |
| | Zhuxian Cavern | CN 11011 | 82.4 | 46.2 | 46.3 |
| Indonesia | Jakarta | ID 11012 | 87.7 | 74.6 | 57.3 |
| | Serpong | ID 10014 | *** | 59.1 | 60.5 |
| | Kototabang | ID 10013 | *** | 5.33 | 12.7 |
| | Bandung | ID 11015 | *** | 84.6 | 69.1 |
| Japan | Rishiri | JP 11016 | 14.9 | 11.2 | 14.9 |
| | Tappi | JP 11017 | 13.5 | 16.0 | 17.1 |
| | Sado-seki | JP 11019 | 20.2 | 18.9 | 18.8 |
| | Happo | JP 11021 | 28.1 | 26.6 | 19.3 |
| | Oki | JP 11023 | 20.4 | 18.4 | 21.2 |
| | Yusuhara | JP 11025 | 28.4 | 17.6 | 22.1 |
| | Ogasawara | JP 11018 | 6.22 | 9.23 | 5.25 |
| | Hedo | JP 11023 | 17.1 | 13.8 | 15.1 |
| | Ijira | JP 11022 | 50.1 | 45.1 | 47.6 |
| Banryu | JP 11024 | 21.7 | 25.5 | 18.6 | |
| Malaysia | Petaling Jaya | MY 11029 | 79.3 | 67.7 | 62.3 |
| | Tanah Rata | MY 11030 | 12.5 | 9.49 | 12.6 |
| Mongolia | Ulaanbaatar | MN 11031 | 4.69 | 4.08 | 3.54 |
| | Terej | MN 11032 | 3.33 | 0.78 | 3.12 |
| Philippines | Metro Manila | PH 11033 | 87.0 | 52.0 | 75.6 |
| | Los Banos | PH 11034 | 22.4 | 23.9 | 25.1 |
| Republic of Korea | Kanghwa | KR 11035 | 31.6 | 25.6 | 26.0 |
| | Cheju | KR 11036 | 14.8 | 18.0 | 24.9 |
| | Imsil | KR 11037 | | 20.1 | 20.4 |
| Russia | Mondy | RU 11038 | 2.16 | 3.46 | 2.17 |
| | Listvyanka | RU 11039 | 6.67 | 6.50 | 6.47 |
| | Irkutsk | RU 11040 | 15.8 | 13.6 | 10.2 |
| | Primorskaja | RU 11041 | | | 23.0 |
| Thailand | Bangkok | TH 11042 | 24.4 | 20.7 | 22.9 |
| | Samutprakarn | TH 11043 | 24.4 | | |
| | Patumthani | TH 11044 | 18.1 | 22.5 | 13.7 |
| | Vachiralongkorn Dam | TH 11045 | 2.72 | 6.89 | 11.2 |
| | Mae Hia | TH 11046 | | 2.78 | 5.78 |
| | | | | | |
| Vietnam | Hanoi | VN 11047 | 36.5 | 30.0 | 47.3 |
| | Hoa Binh | VN 11048 | 29.4 | 31.3 | 30.3 |

Table 3.65 Annual NO₃⁻ depositionunit: mmol/m²/year

| Country | Name of sites | Code | 2000 | 2001 | 2002 |
|-------------------|---------------------|----------|------|------|------|
| China | Guanyinqiao | CN 11001 | 45.5 | 39.7 | 49.7 |
| | Nanshan | CN 11002 | 52.4 | | |
| | Jinyunshan | CN 11003 | | 28.6 | 47.3 |
| | Shizhan | CN 11004 | 48.6 | 55.8 | 52.2 |
| | Weishuiyuan | CN 11005 | 42.9 | 14.5 | 39.0 |
| | Dabagou | CN 11006 | 24.1 | | |
| | Jiwozi | CN 11007 | | 29.3 | 12.7 |
| | Hongwen | CN 11008 | 28.4 | 11.2 | 48.2 |
| | Xiaoping | CN 11009 | 22.8 | 82.2 | 32.0 |
| | Xiang Zhou | CN 11010 | 31.8 | 28.0 | 30.9 |
| | Zhuxian Cavern | CN 11011 | 59.6 | 57.1 | 32.9 |
| Indonesia | Jakarta | ID 11012 | 27.8 | 66.4 | 44.3 |
| | Serpong | ID 10014 | *** | 81.4 | 81.6 |
| | Kototabang | ID 10013 | 14.4 | 3.32 | 10.1 |
| | Bandung | ID 11015 | 30.7 | 70.0 | 66.7 |
| Japan | Rishiri | JP 11016 | 13.9 | 11.1 | 12.9 |
| | Tappi | JP 11017 | 13.5 | 16.5 | 22.5 |
| | Sado-seki | JP 11019 | 19.5 | 21.6 | 21.4 |
| | Happo | JP 11021 | 24.3 | 20.8 | 18.2 |
| | Oki | JP 11023 | 22.4 | 19.5 | 23.7 |
| | Yusuhara | JP 11025 | 19.7 | 14.2 | 19.8 |
| | Ogasawara | JP 11018 | 4.73 | 6.67 | 3.61 |
| | Hedo | JP 11023 | 16.7 | 14.0 | 19.3 |
| | Ijira | JP 11022 | 64.8 | 48.5 | 57.8 |
| | Banryu | JP 11024 | 21.7 | 31.1 | 25.0 |
| Malaysia | Petaling Jaya | MY 11029 | 92.9 | 73.2 | 97.9 |
| | Tanah Rata | MY 11030 | 10.4 | 8.90 | 16.7 |
| Mongolia | Ulaanbaatar | MN 11031 | 3.91 | 3.43 | 4.23 |
| | Terej | MN 11032 | 3.65 | 0.81 | 4.45 |
| Philippines | Metro Manila | PH 11033 | 48.9 | 42.5 | 52.3 |
| | Los Banos | PH 11034 | 14.3 | 25.3 | 14.0 |
| Republic of Korea | Kanghwa | KR 11035 | 47.4 | 32.6 | 27.0 |
| | Cheju | KR 11036 | 16.2 | 20.5 | 24.4 |
| | Imsil | KR 11037 | | 20.2 | 31.8 |
| Russia | Mondy | RU 11038 | 3.04 | 3.38 | 2.75 |
| | Listvyanka | RU 11039 | 8.25 | 7.26 | 8.99 |
| | Irkutsk | RU 11040 | 11.2 | 8.61 | 6.59 |
| | Primorskaja | RU 11041 | | | 8.51 |
| Thailand | Bangkok | TH 11042 | 24.8 | 21.0 | 32.0 |
| | Samutprakarn | TH 11043 | 15.1 | | |
| | Patumthani | TH 11044 | 17.8 | 26.5 | 17.6 |
| | Vachiralongkorn Dam | TH 11045 | 5.06 | 10.2 | 13.3 |
| | Mae Hia | TH 11046 | | 4.47 | 9.78 |
| Vietnam | Hanoi | VN 11047 | 20.2 | 11.4 | 21.4 |
| | Hoa Binh | VN 11048 | 18.3 | 19.5 | 32.8 |

[***]: No data or not measured

Data in hatched column: Rejected annual value by the criteria of EANET (%PCL<80% or %TP<80%)

Black column: Monitoring wasn't carried out.

Table 3.66 Annual Cl⁻ depositionunit: mmol/m²/year

| Country | Name of sites | Code | 2000 | 2001 | 2002 |
|-------------------|---------------------|----------|------|------|------|
| China | Guanyinqiao | CN 11001 | 25.9 | 22.4 | 22.5 |
| | Nanshan | CN 11002 | 19.7 | | |
| | Jinyunshan | CN 11003 | | 40.3 | 20.8 |
| | Shizhan | CN 11004 | 27.4 | 29.6 | 122 |
| | Weishuiyuan | CN 11005 | 41.0 | 19.3 | 66.0 |
| | Dabagou | CN 11006 | 26.8 | | |
| | Jiwozi | CN 11007 | | 20.7 | 26.2 |
| | Hongwen | CN 11008 | 48.6 | 10.6 | 67.3 |
| | Xiaoping | CN 11009 | 32.4 | 131 | 19.9 |
| | Xiang Zhou | CN 11010 | 101 | 75.2 | 119 |
| | Zhuxian Cavern | CN 11011 | 70.2 | 71.2 | 94.1 |
| Indonesia | Jakarta | ID 11012 | 33.9 | 48.2 | 44.2 |
| | Serpong | ID 10014 | *** | 51.8 | 57.6 |
| | Kototabang | ID 10013 | 15.8 | 7.97 | 30.1 |
| | Bandung | ID 11015 | 93.7 | 65.1 | 51.5 |
| Japan | Rishiri | JP 11016 | 286 | 145 | 207 |
| | Tappi | JP 11017 | 187 | 169 | 253 |
| | Sado-seki | JP 11019 | 292 | 367 | 439 |
| | Happo | JP 11021 | 23.4 | 20.7 | 13.0 |
| | Oki | JP 11023 | 543 | 448 | 658 |
| | Yusuhara | JP 11025 | 52.4 | 25.6 | 74.6 |
| | Ogasawara | JP 11018 | 325 | 222 | 370 |
| | Hedo | JP 11023 | 1500 | 373 | 1200 |
| | Ijira | JP 11022 | 61.8 | 73.0 | 88.2 |
| | Banryu | JP 11024 | 48.5 | 155 | 116 |
| Malaysia | Petaling Jaya | MY 11029 | 29.1 | 23.2 | 19.5 |
| | Tanah Rata | MY 11030 | 21.3 | 7.87 | 6.29 |
| Mongolia | Ulaanbaatar | MN 11031 | 1.76 | 1.60 | 1.37 |
| | Terej | MN 11032 | 1.86 | 0.77 | 2.80 |
| Philippines | Metro Manila | PH 11033 | 103 | 264 | 55.9 |
| | Los Banos | PH 11034 | 87.1 | 62.7 | 41.9 |
| Republic of Korea | Kanghwa | KR 11035 | 61.4 | 48.6 | 35.5 |
| | Cheju | KR 11036 | 222 | 125 | 85.3 |
| | Imsil | KR 11037 | | 37.3 | 36.7 |
| Russia | Mondy | RU 11038 | 0.79 | 0.46 | 1.81 |
| | Listvyanka | RU 11039 | 2.22 | 1.07 | 2.45 |
| | Irkutsk | RU 11040 | 6.19 | 5.72 | 5.45 |
| | Primorskaja | RU 11041 | | | 28.3 |
| Thailand | Bangkok | TH 11042 | 14.4 | 11.1 | 18.0 |
| | Samutprakarn | TH 11043 | 12.6 | | |
| | Patumthani | TH 11044 | 10.0 | 10.5 | 11.0 |
| | Vachiralongkorn Dam | TH 11045 | 15.5 | 15.1 | 30.9 |
| | Mae Hia | TH 11046 | | 4.91 | 14.8 |
| Vietnam | Hanoi | VN 11047 | 30.5 | 61.2 | 13.5 |
| | Hoa Binh | VN 11048 | 38.4 | 49.2 | 11.3 |

Table 3.67 Annual NH₄⁺ depositionunit: mmol/m²/year

| Country | Name of sites | Code | 2000 | 2001 | 2002 |
|-------------------|---------------------|----------|------|------|------|
| China | Guanyinqiao | CN 11001 | 174 | 158 | 173 |
| | Nanshan | CN 11002 | 132 | | |
| | Jinyunshan | CN 11003 | | 79.1 | 134 |
| | Shizhan | CN 11004 | 235 | 92.8 | 70.7 |
| | Weishuiyuan | CN 11005 | 190 | 24.5 | 74.1 |
| | Dabagou | CN 11006 | 165 | | |
| | Jiwozi | CN 11007 | | 35.7 | 10.1 |
| | Hongwen | CN 11008 | 47.9 | 19.2 | 69.3 |
| | Xiaoping | CN 11009 | 31.0 | 141 | 67.5 |
| | Xiang Zhou | CN 11010 | 41.7 | 49.8 | 166 |
| | Zhuxian Cavern | CN 11011 | 90.7 | 77.8 | 76.5 |
| Indonesia | Jakarta | ID 11012 | 122 | 81.9 | 49.8 |
| | Serpong | ID 10014 | *** | 109 | 115 |
| | Kototabang | ID 11013 | 2.66 | 2.88 | 9.21 |
| | Bandung | ID 11015 | 29.3 | 98.8 | 75.9 |
| Japan | Rishiri | JP 11016 | 26.2 | 16.0 | 19.2 |
| | Tappi | JP 11017 | 10.1 | 13.8 | 19.6 |
| | Sado-seki | JP 11019 | 18.1 | 19.2 | 20.7 |
| | Happo | JP 11021 | 31.0 | 25.3 | 20.2 |
| | Oki | JP 11023 | 23.5 | 18.4 | 19.5 |
| | Yusuhara | JP 11025 | 14.2 | 10.7 | 17.8 |
| | Ogasawara | JP 11018 | 4.62 | 8.70 | 7.18 |
| | Hedo | JP 11023 | 21.0 | 9.52 | 37.6 |
| | Ijira | JP 11022 | 63.8 | 39.4 | 60.4 |
| | Banryu | JP 11024 | 18.2 | 24.6 | 23.4 |
| Malaysia | Petaling Jaya | MY 11029 | 149 | 179 | 43.0 |
| | Tanah Rata | MY 11030 | 129 | 93.0 | 11.2 |
| Mongolia | Ulaanbaatar | MN 11031 | 10.2 | 8.28 | 13.0 |
| | Terelj | MN 11032 | 9.20 | 2.70 | 16.2 |
| Philippines | Metro Manila | PH 11033 | 143 | 177 | 137 |
| | Los Banos | PH 11034 | 35.9 | 40.7 | 58.8 |
| Republic of Korea | Kanghwa | KR 11035 | 42.0 | 42.7 | 33.0 |
| | Cheju | KR 11036 | 21.3 | 36.0 | 44.0 |
| | Imsil | KR 11037 | | 54.9 | 41.9 |
| Russia | Mondy | RU 11038 | 3.47 | 7.08 | 6.89 |
| | Listvyanka | RU 11039 | 7.29 | 5.34 | 9.66 |
| | Irkutsk | RU 11040 | 17.2 | 11.7 | 13.0 |
| | Primorskaja | RU 11041 | | | 30.0 |
| Thailand | Bangkok | TH 11042 | 47.4 | 42.5 | 60.9 |
| | Samutprakarn | TH 11043 | 31.1 | | |
| | Patumthani | TH 11044 | 36.6 | 47.9 | 32.4 |
| | Vachiralongkorn Dam | TH 11045 | 6.03 | 16.7 | 24.0 |
| | Mae Hia | TH 11046 | | 17.1 | 27.3 |
| Vietnam | Hanoi | VN 11047 | 34.5 | 45.7 | 78.6 |
| | Hoa Binh | VN 11048 | 15.2 | 27.8 | 45.9 |

Table 3.68 Annual Na⁺ depositionunit: mmol/m²/year

| Country | Name of sites | Code | 2000 | 2001 | 2002 |
|-------------------|---------------------|----------|------|------|-------|
| China | Guanyinqiao | CN 11001 | 12.8 | 8.11 | 8.01 |
| | Nanshan | CN 11002 | 9.73 | | |
| | Jinyunshan | CN 11003 | | 7.25 | 9.48 |
| | Shizhan | CN 11004 | 24.7 | 59.8 | 85.7 |
| | Weishuiyuan | CN 11005 | 30.8 | 15.1 | 48.0 |
| | Dabagou | CN 11006 | 19.8 | | |
| | Jiwozi | CN 11007 | | 33.1 | 24.2 |
| | Hongwen | CN 11008 | 36.1 | 3.20 | 87.2 |
| | Xiaoping | CN 11009 | 13.6 | 42.9 | 35.6 |
| | Xiang Zhou | CN 11010 | 85.4 | 49.0 | 71.9 |
| | Zhuxian Cavern | CN 11011 | 55.5 | 70.7 | 71.4 |
| Indonesia | Jakarta | ID 11012 | 82.6 | 48.8 | 55.6 |
| | Serpong | ID 10014 | *** | 38.2 | 63.2 |
| | Kototabang | ID 11013 | *** | 5.46 | 11.3 |
| | Bandung | ID 11015 | *** | 52.7 | 22.0 |
| Japan | Rishiri | JP 11016 | 250 | 130 | 188 |
| | Tappi | JP 11017 | 156 | 145 | 219 |
| | Sado-seki | JP 11019 | 275 | 345 | 384 |
| | Happo | JP 11021 | 17.2 | 14.6 | 8.85 |
| | Oki | JP 11023 | 479 | 394 | 570 |
| | Yusuhara | JP 11025 | 42.6 | 24.5 | 67.8 |
| | Ogasawara | JP 11018 | 277 | 189 | 314 |
| | Hedo | JP 11023 | 1320 | 341 | 1050 |
| | Ijira | JP 11022 | 53.5 | 66.4 | 75.6 |
| | Banryu | JP 11024 | 45.2 | 140 | 104 |
| Malaysia | Petaling Jaya | MY 11029 | 17.0 | 11.4 | 13.5 |
| | Tanah Rata | MY 11030 | 5.94 | 5.05 | 4.56 |
| Mongolia | Ulaanbaatar | MN 11031 | 1.55 | 1.51 | 1.12 |
| | Terelj | MN 11032 | 1.34 | 1.41 | 4.15 |
| Philippines | Metro Manila | PH 11033 | 123 | 470 | 43.3 |
| | Los Banos | PH 11034 | 91.7 | 67.6 | 35.9 |
| Republic of Korea | Kanghwa | KR 11035 | 62.9 | 47.5 | 40.6 |
| | Cheju | KR 11036 | 161 | 83.2 | 59.3 |
| | Imsil | KR 11037 | | 20.0 | 38.3 |
| Russia | Mondy | RU 11038 | 0.56 | 0.73 | 0.39 |
| | Listvyanka | RU 11039 | 2.02 | 1.67 | 1.37 |
| | Irkutsk | RU 11040 | 4.73 | 3.88 | 2.78 |
| | Primorskaja | RU 11041 | | | 19.3 |
| Thailand | Bangkok | TH 11042 | 7.95 | 9.78 | 20.94 |
| | Samutprakarn | TH 11043 | 9.91 | | |
| | Patumthani | TH 11044 | 10.4 | 10.9 | 9.15 |
| | Vachiralongkorn Dam | TH 11045 | 8.55 | 17.1 | 18.3 |
| | Mae Hia | TH 11046 | | 4.27 | 14.2 |
| Vietnam | Hanoi | VN 11047 | 22.8 | 25.9 | 8.41 |
| | Hoa Binh | VN 11048 | 24.1 | 21.8 | 3.34 |

[***]: No data or not measured

Data in hatched column: Rejected annual value by the criteria of EANET (%PCL<80% or %TP<80%)

Black column: Monitoring wasn't carried out.

Table 3.69 Annual K⁺ depositionunit: mmol/m²/year

| Country | Name of sites | Code | 2000 | 2001 | 2002 | |
|-------------------|---------------------|---------------|----------|------|------|------|
| China | Guanyinqiao | CN 11001 | 15.3 | 14.0 | 15.3 | |
| | Nanshan | CN 11002 | 20.5 | | | |
| | Jinyunshan | CN 11003 | | 31.6 | 16.5 | |
| | Shizhan | CN 11004 | 14.8 | 15.3 | 14.1 | |
| | Weishuiyuan | CN 11005 | 15.5 | 5.19 | 17.8 | |
| | Dabagou | CN 11006 | 14.8 | | | |
| | Jiwozi | CN 11007 | | 9.11 | 5.99 | |
| | Hongwen | CN 11008 | 7.56 | 3.06 | 6.73 | |
| | Xiaoping | CN 11009 | 4.40 | 13.1 | 8.17 | |
| | Xiang Zhou | CN 11010 | 13.4 | 8.00 | 30.4 | |
| | Zhuxian Cavern | CN 11011 | 11.0 | 15.1 | 20.8 | |
| | Indonesia | Jakarta | ID 11012 | *** | 30.1 | 17.8 |
| Serpong | | ID 10014 | *** | 11.3 | 9.89 | |
| Kototabang | | ID 10013 | *** | 1.59 | 9.16 | |
| Bandung | | ID 11015 | *** | 32.7 | 5.19 | |
| Japan | | Rishiri | JP 11016 | 7.66 | 3.71 | 4.86 |
| | Tappi | JP 11017 | 3.82 | 3.55 | 5.41 | |
| | Sado-seki | JP 11019 | 6.80 | 7.95 | 9.30 | |
| | Happo | JP 11021 | 1.76 | 1.50 | 1.03 | |
| | Oki | JP 11023 | 12.7 | 10.9 | 15.0 | |
| | Yusuhara | JP 11025 | 2.15 | 1.05 | 2.37 | |
| | Ogasawara | JP 11018 | 7.10 | 7.37 | 8.21 | |
| | Hedo | JP 11023 | 26.3 | 7.57 | 24.3 | |
| | Ijira | JP 11022 | 7.91 | 9.09 | 5.57 | |
| | Banryu | JP 11024 | 2.12 | 4.89 | 3.76 | |
| | Malaysia | Petaling Jaya | MY 11029 | 6.06 | 4.39 | 3.37 |
| | | Tanah Rata | MY 11030 | 3.41 | 2.40 | 2.21 |
| Mongolia | Ulaanbaatar | MN 11031 | 0.77 | 0.77 | 0.68 | |
| | Terelj | MN 11032 | 0.93 | 0.34 | 2.50 | |
| Philippines | Metro Manila | PH 11033 | 62.6 | 53.1 | 29.4 | |
| | Los Banos | PH 11034 | 4.58 | 17.3 | 10.9 | |
| Republic of Korea | Kanghwa | KR 11035 | 6.27 | 5.40 | 7.28 | |
| | Cheju | KR 11036 | 6.69 | 10.4 | 6.55 | |
| | Imsil | KR 11037 | | 19.3 | 6.50 | |
| Russia | Mondy | RU 11038 | 0.36 | 0.66 | 0.47 | |
| | Listvyanka | RU 11039 | 2.06 | 0.86 | 0.80 | |
| | Irkutsk | RU 11040 | 2.34 | 3.45 | 0.70 | |
| | Primorskaja | RU 11041 | | | 4.47 | |
| Thailand | Bangkok | TH 11042 | 3.70 | 4.83 | 4.36 | |
| | Samutprakarn | TH 11043 | 5.17 | | | |
| | Patumthani | TH 11044 | 2.16 | 2.27 | 1.41 | |
| | Vachiralongkorn Dam | TH 11045 | 7.82 | 7.54 | 5.23 | |
| | Mae Hia | TH 11046 | | 3.19 | 6.49 | |
| Vietnam | Hanoi | VN 11047 | 5.14 | 8.59 | 2.93 | |
| | Hoa Binh | VN 11048 | 6.74 | 5.19 | 2.40 | |

[***]: No data or not measured

Data in hatched column: Rejected annual value by the criteria of EANET (%PCL<80% or %TP<80%)

Black column: Monitoring wasn't carried out.

Table 3.70 Annual Ca²⁺ depositionunit: mmol/m²/year

| Country | Name of sites | Code | 2000 | 2001 | 2002 | |
|-------------------|---------------------|---------------|----------|------|------|------|
| China | Guanyinqiao | CN 11001 | 68.1 | 103 | 94.5 | |
| | Nanshan | CN 11002 | 69.5 | | | |
| | Jinyunshan | CN 11003 | | 31.9 | 47.7 | |
| | Shizhan | CN 11004 | 128 | 246 | 167 | |
| | Weishuiyuan | CN 11005 | 136 | 80.0 | 143 | |
| | Dabagou | CN 11006 | 103 | | | |
| | Jiwozi | CN 11007 | | 89.5 | 39.1 | |
| | Hongwen | CN 11008 | 10.2 | 10.7 | 77.0 | |
| | Xiaoping | CN 11009 | 1.21 | 23.5 | 23.0 | |
| | Xiang Zhou | CN 11010 | 43.1 | 15.8 | 26.9 | |
| | Zhuxian Cavern | CN 11011 | 44.4 | 36.8 | 32.7 | |
| | Indonesia | Jakarta | ID 11012 | 138 | 79.6 | 67.5 |
| Serpong | | ID 10014 | *** | 21.8 | 24.9 | |
| Kototabang | | ID 10013 | 9.28 | 1.73 | 8.84 | |
| Bandung | | ID 11015 | *** | 63.0 | 43.4 | |
| Japan | | Rishiri | JP 11016 | 10.6 | 6.21 | 9.73 |
| | Tappi | JP 11017 | 6.68 | 6.25 | 12.0 | |
| | Sado-seki | JP 11019 | 12.5 | 15.4 | 13.0 | |
| | Happo | JP 11021 | 8.49 | 10.1 | 5.21 | |
| | Oki | JP 11023 | 19.4 | 16.1 | 18.1 | |
| | Yusuhara | JP 11025 | 7.55 | 7.09 | 4.17 | |
| | Ogasawara | JP 11018 | 10.1 | 9.81 | 11.5 | |
| | Hedo | JP 11023 | 29.3 | 10.4 | 28.5 | |
| | Ijira | JP 11022 | 18.2 | 12.6 | 11.1 | |
| | Banryu | JP 11024 | 6.64 | 10.7 | 6.99 | |
| | Malaysia | Petaling Jaya | MY 11029 | 23.4 | 19.4 | 19.8 |
| | | Tanah Rata | MY 11030 | 7.06 | 8.13 | 8.56 |
| Mongolia | Ulaanbaatar | MN 11031 | 7.41 | 7.86 | 8.91 | |
| | Terelj | MN 11032 | 3.16 | 1.33 | 6.72 | |
| Philippines | Metro Manila | PH 11033 | 58.6 | 164 | 25.9 | |
| | Los Banos | PH 11034 | 18.3 | 119 | 12.3 | |
| Republic of Korea | Kanghwa | KR 11035 | 29.6 | 15.9 | 9.14 | |
| | Cheju | KR 11036 | 14.6 | 6.56 | 9.53 | |
| | Imsil | KR 11037 | | 7.60 | 9.76 | |
| Russia | Mondy | RU 11038 | 1.76 | 2.24 | 1.74 | |
| | Listvyanka | RU 11039 | 5.66 | 3.58 | 4.11 | |
| | Irkutsk | RU 11040 | 14.9 | 16.3 | 9.53 | |
| | Primorskaja | RU 11041 | | | 15.1 | |
| Thailand | Bangkok | TH 11042 | 13.0 | 14.1 | 20.5 | |
| | Samutprakarn | TH 11043 | 10.8 | | | |
| | Patumthani | TH 11044 | 12.6 | 17.5 | 16.5 | |
| | Vachiralongkorn Dam | TH 11045 | 4.19 | 13.7 | 10.8 | |
| | Mae Hia | TH 11046 | | 7.53 | 26.5 | |
| Vietnam | Hanoi | VN 11047 | 26.2 | 24.1 | 23.8 | |
| | Hoa Binh | VN 11048 | 24.8 | 23.1 | 20.5 | |

Table 3.71 Annual nss-Ca²⁺ deposition

unit: mmol/m²/year

| Country | Name of sites | Code | 2000 | 2001 | 2002 |
|-------------------|---------------------|---------------|----------|------|------|
| China | Guanyinqiao | CN 11001 | 67.9 | 103 | 94.3 |
| | Nanshan | CN 11002 | 69.3 | | |
| | Jinyunshan | CN 11003 | | 31.7 | 47.5 |
| | Shizhan | CN 11004 | 128 | 244 | 165 |
| | Weishuiyuan | CN 11005 | 136 | 79.7 | 142 |
| | Dabagou | CN 11006 | 102 | | |
| | Jiwozi | CN 11007 | | 88.8 | 38.6 |
| | Hongwen | CN 11008 | 9.59 | 10.7 | 75.1 |
| | Xiaoping | CN 11009 | 0.94 | 22.6 | 22.3 |
| | Xiang Zhou | CN 11010 | 41.3 | 14.8 | 25.3 |
| | Zhuxian Cavern | CN 11011 | 43.2 | 35.3 | 31.1 |
| | Indonesia | Jakarta | ID 11012 | 136 | 78.5 |
| Serpong | | ID 10014 | *** | 21.0 | 23.5 |
| Kototabang | | ID 10013 | *** | 1.65 | 8.60 |
| Bandung | | ID 11015 | *** | 61.8 | 42.9 |
| Japan | Rishiri | JP 11016 | 5.14 | 3.40 | 5.66 |
| | Tappi | JP 11017 | 3.36 | 3.25 | 7.30 |
| | Sado-seki | JP 11019 | 6.60 | 8.08 | 4.86 |
| | Happo | JP 11021 | 8.12 | 9.80 | 5.02 |
| | Oki | JP 11023 | 9.07 | 7.60 | 6.14 |
| | Yusuhara | JP 11025 | 6.80 | 6.68 | 2.91 |
| | Ogasawara | JP 11018 | 4.24 | 5.77 | 4.77 |
| | Hedo | JP 11023 | 2.35 | 3.64 | 5.87 |
| | Ijira | JP 11022 | 17.0 | 11.1 | 9.45 |
| | Banryu | JP 11024 | 5.74 | 7.68 | 4.76 |
| | Malaysia | Petaling Jaya | MY 11029 | 23.0 | 19.2 |
| Tanah Rata | | MY 11030 | 6.93 | 8.02 | 8.46 |
| Mongolia | Ulaanbaatar | MN 11031 | 7.38 | 7.83 | 8.88 |
| | Terelj | MN 11032 | 3.13 | 1.30 | 6.46 |
| Philippines | Metro Manila | PH 11033 | 56.0 | 154 | 25.0 |
| | Los Banos | PH 11034 | 16.3 | 117 | 11.5 |
| Republic of Korea | Kanghwa | KR 11035 | 28.2 | 14.9 | 8.27 |
| | Cheju | KR 11036 | 11.1 | 4.79 | 8.28 |
| | Imsil | KR 11037 | | 7.16 | 8.93 |
| Russia | Mondy | RU 11038 | 1.75 | 2.22 | 1.73 |
| | Listvyanka | RU 11039 | 5.61 | 3.54 | 4.08 |
| | Irkutsk | RU 11040 | 14.8 | 16.2 | 9.47 |
| | Primorskaja | RU 11041 | | | 14.7 |
| Thailand | Bangkok | TH 11042 | 12.9 | 13.9 | 20.0 |
| | Samutprakarn | TH 11043 | 10.6 | | |
| | Patumthani | TH 11044 | 12.3 | 17.3 | 16.3 |
| | Vachiralongkorn Dam | TH 11045 | 4.02 | 13.4 | 10.4 |
| | Mae Hia | TH 11046 | | 7.44 | 26.2 |
| Vietnam | Hanoi | VN 11047 | 25.7 | 23.5 | 23.6 |
| | Hoa Binh | VN 11048 | 24.2 | 22.6 | 20.4 |

Table 3.72 Annual Mg²⁺ deposition

unit: mmol/m²/year

| Country | Name of sites | Code | 2000 | 2001 | 2002 |
|-------------------|---------------------|---------------|----------|------|------|
| China | Guanyinqiao | CN 11001 | 9.23 | 8.73 | 8.67 |
| | Nanshan | CN 11002 | 8.87 | | |
| | Jinyunshan | CN 11003 | | 4.09 | 5.41 |
| | Shizhan | CN 11004 | 13.2 | 17.6 | 23.7 |
| | Weishuiyuan | CN 11005 | 14.2 | 6.13 | 21.1 |
| | Dabagou | CN 11006 | 12.1 | | |
| | Jiwozi | CN 11007 | | 8.58 | 7.09 |
| | Hongwen | CN 11008 | 6.40 | 1.86 | 15.1 |
| | Xiaoping | CN 11009 | 2.07 | 12.4 | 3.50 |
| | Xiang Zhou | CN 11010 | 14.1 | 5.83 | 9.56 |
| | Zhuxian Cavern | CN 11011 | 14.1 | 8.56 | 11.2 |
| | Indonesia | Jakarta | ID 11012 | 346 | 85.3 |
| Serpong | | ID 10014 | *** | 5.67 | 11.3 |
| Kototabang | | ID 10013 | *** | 1.25 | 4.63 |
| Bandung | | ID 11015 | *** | 10.6 | 4.16 |
| Japan | Rishiri | JP 11016 | 28.0 | 15.2 | 21.4 |
| | Tappi | JP 11017 | 18.3 | 16.7 | 26.1 |
| | Sado-seki | JP 11019 | 30.9 | 39.3 | 44.0 |
| | Happo | JP 11021 | 3.66 | 3.73 | 2.42 |
| | Oki | JP 11023 | 54.4 | 45.6 | 63.8 |
| | Yusuhara | JP 11025 | 6.09 | 3.80 | 8.34 |
| | Ogasawara | JP 11018 | 38.2 | 23.9 | 43.1 |
| | Hedo | JP 11023 | 145 | 35.8 | 120 |
| | Ijira | JP 11022 | 7.75 | 8.93 | 9.34 |
| | Banryu | JP 11024 | 5.22 | 16.3 | 12.1 |
| | Malaysia | Petaling Jaya | MY 11029 | 4.74 | 4.02 |
| Tanah Rata | | MY 11030 | 1.30 | 1.07 | 1.17 |
| Mongolia | Ulaanbaatar | MN 11031 | 0.81 | 0.90 | 0.64 |
| | Terelj | MN 11032 | 0.66 | 0.22 | 1.01 |
| Philippines | Metro Manila | PH 11033 | 25.5 | 34.4 | 9.72 |
| | Los Banos | PH 11034 | 9.78 | 20.1 | 5.00 |
| Republic of Korea | Kanghwa | KR 11035 | 10.4 | 6.00 | 5.22 |
| | Cheju | KR 11036 | 19.7 | 11.1 | 7.60 |
| | Imsil | KR 11037 | | 2.49 | 3.28 |
| Russia | Mondy | RU 11038 | 0.33 | 0.47 | 0.45 |
| | Listvyanka | RU 11039 | 1.30 | 0.88 | 1.10 |
| | Irkutsk | RU 11040 | 2.66 | 2.60 | 1.71 |
| | Primorskaja | RU 11041 | | | 4.73 |
| Thailand | Bangkok | TH 11042 | 2.30 | 3.71 | 4.61 |
| | Samutprakarn | TH 11043 | 2.33 | | |
| | Patumthani | TH 11044 | 2.30 | 2.93 | 2.63 |
| | Vachiralongkorn Dam | TH 11045 | 1.47 | 3.82 | 3.85 |
| | Mae Hia | TH 11046 | | 1.19 | 5.22 |
| Vietnam | Hanoi | VN 11047 | 6.27 | 8.94 | 4.18 |
| | Hoa Binh | VN 11048 | 8.84 | 8.25 | 2.31 |

[***]: No data or not measured

Data in hatched column: Rejected annual value by the criteria of EANET (%PCL<80% or %TP<80%)

Black column: Monitoring wasn't carried out.

Table 3.73 Annual H⁺ deposition

unit: mmol/m²/year

| Country | Name of sites | Code | 2000 | 2001 | 2002 |
|-------------------|---------------------|----------|------|------|------|
| China | Guanyinqiao | CN 11001 | 50.5 | 12.1 | 36.4 |
| | Nanshan | CN 11002 | 76.2 | | |
| | Jinyunshan | CN 11003 | | 46.5 | 70.1 |
| | Shizhan | CN 11004 | 1.17 | 0.15 | 0.20 |
| | Weishuiyuan | CN 11005 | 0.17 | 0.03 | 0.22 |
| | Dabagou | CN 11006 | 3.14 | | |
| | Jiwozi | CN 11007 | | 0.12 | 0.14 |
| | Hongwen | CN 11008 | 29.0 | 8.75 | 25.4 |
| | Xiaoping | CN 11009 | 19.1 | 55.5 | 72.9 |
| | Xiang Zhou | CN 11010 | 14.2 | 22.7 | 13.5 |
| | Zhuxian Cavern | CN 11011 | 40.8 | 43.0 | 20.3 |
| Indonesia | Jakarta | ID 11012 | 10.4 | 4.68 | 26.5 |
| | Serpong | ID 10014 | *** | 38.0 | 56.6 |
| | Kototabang | ID 10013 | 73.0 | 10.3 | 8.78 |
| | Bandung | ID 11015 | *** | 26.4 | 88.7 |
| Japan | Rishiri | JP 11016 | 12.1 | 10.3 | 14.4 |
| | Tappi | JP 11017 | 19.9 | 24.9 | 27.8 |
| | Sado-seki | JP 11019 | 28.7 | 22.5 | 32.5 |
| | Happo | JP 11021 | 40.6 | 34.1 | 30.7 |
| | Okii | JP 11023 | 27.6 | 21.1 | 29.2 |
| | Yusuhara | JP 11025 | 54.7 | 31.1 | 40.8 |
| | Ogasawara | JP 11018 | 11.7 | 14.6 | 10.9 |
| | Hedo | JP 11023 | 21.5 | 23.1 | 22.9 |
| | Ijira | JP 11022 | 80.7 | 82.9 | 80.5 |
| | Banryu | JP 11024 | 35.9 | 39.1 | 26.5 |
| Malaysia | Petaling Jaya | MY 11029 | 153 | 173 | 157 |
| | Tanah Rata | MY 11030 | 50.4 | 33.4 | 30.1 |
| Mongolia | Ulaanbaatar | MN 11031 | 0.11 | 0.11 | 0.07 |
| | Terelj | MN 11032 | 0.63 | 0.08 | 0.44 |
| Philippines | Metro Manila | PH 11033 | 13.2 | 8.86 | 24.1 |
| | Los Banos | PH 11034 | 9.58 | 5.41 | 3.07 |
| Republic of Korea | Kanghwa | KR 11035 | 11.2 | 11.6 | 18.3 |
| | Cheju | KR 11036 | 15.0 | 14.4 | 24.8 |
| | Imsil | KR 11037 | | 10.5 | 2.00 |
| Russia | Mondy | RU 11038 | 1.68 | 1.00 | 0.83 |
| | Listvyanka | RU 11039 | 3.78 | 5.42 | 4.74 |
| | Irkutsk | RU 11040 | 4.15 | 2.49 | 2.86 |
| | Primorskaja | RU 11041 | | | 5.26 |
| Thailand | Bangkok | TH 11042 | 12.8 | 12.6 | 10.3 |
| | Samutprakarn | TH 11043 | 14.5 | | |
| | Patumthani | TH 11044 | 5.41 | 10.0 | 4.39 |
| | Vachiralongkorn Dam | TH 11045 | 2.41 | 8.29 | 5.05 |
| | Mae Hia | TH 11046 | | 2.10 | 2.79 |
| Vietnam | Hanoi | VN 11047 | 4.48 | 3.31 | 3.95 |
| | Hoa Binh | VN 11048 | 14.7 | 20.2 | 10.6 |

[***]: No data or not measured

Data in hatched column: Rejected annual value by the criteria of EANET (%PCL<80% or %TP<80%)

Black column: Monitoring wasn't carried out.

Table 3.74 Site Code

| Country | Name of sites | Code |
|-------------------|---------------------|---------------|
| China | Guanyinqiao | CN 11001 |
| | Nanshan | CN 11002 |
| | Jinyunshan | CN 11003 |
| | Shizhan | CN 11004 |
| | Weishuiyuan | CN 11005 |
| | Dabagou | CN 11006 |
| | Jiwozi | CN 11007 |
| | Hongwen | CN 11008 |
| | Xiaoping | CN 11009 |
| | Xiang Zhou | CN 11010 |
| | Zhuxian Cavern | CN 11011 |
| | Indonesia | Jakarta |
| Kototabang | | ID 11013 |
| Serpong | | ID 11014 |
| Bandung | | ID 11015 |
| Japan | Rishiri | JP 11016 |
| | Tappi | JP 11017 |
| | Ogasawara | JP 11018 |
| | Sodo-seki | JP 11019 |
| | Sado | JP 11020 |
| | Happo | JP 11021 |
| | Ijira | JP 11022 |
| | Oki | JP 11023 |
| | Banryu | JP 11024 |
| | Yusuhara | JP 11025 |
| | Ashizuri | JP 11026 |
| | Hedo | JP 11027 |
| | Kunigami | JP 11028 |
| | Malaysia | Petaling Jaya |
| Tanah Rata | | MY 11030 |
| Mongolia | Ulaanbaatar | MN 11031 |
| | Terelj | MN 11032 |
| Philippines | Metro Manila | PH 11033 |
| | Los Banos | PH 11034 |
| Republic of Korea | Kanghwa | KR 11035 |
| | Cheju | KR 11036 |
| | Imsil | KR 11037 |
| Russia | Mondy | RU 11038 |
| | Listvyanka | RU 11039 |
| | Irkutsk | RU 11040 |
| | Primorskaya | RU 11041 |
| Thailand | Bangkok | TH 11042 |
| | Samutprakam | TH 11043 |
| | Patumthani | TH 11044 |
| | Vachiralongkorn Dam | TH 11045 |
| | Mae Hia | TH 11046 |
| Viet Nam | Hanoi | VN 11047 |
| | Hoa Binh | VN 11048 |

Including the sites working only for preparatory-phase activities

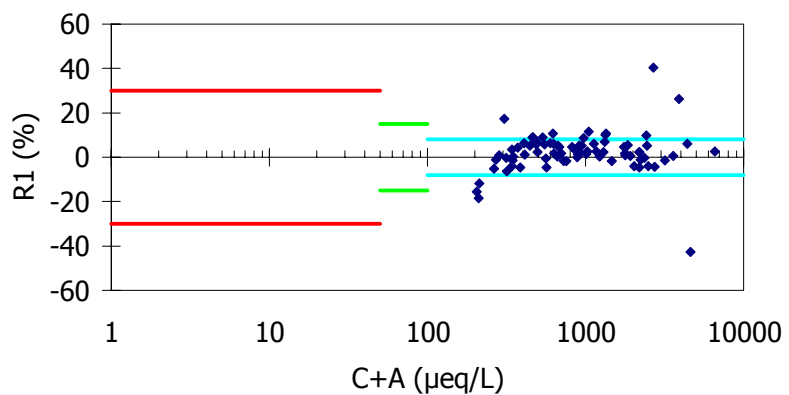


Fig. 3.2 Chongqing(Guanyinqiao) Ion Balance (R1)

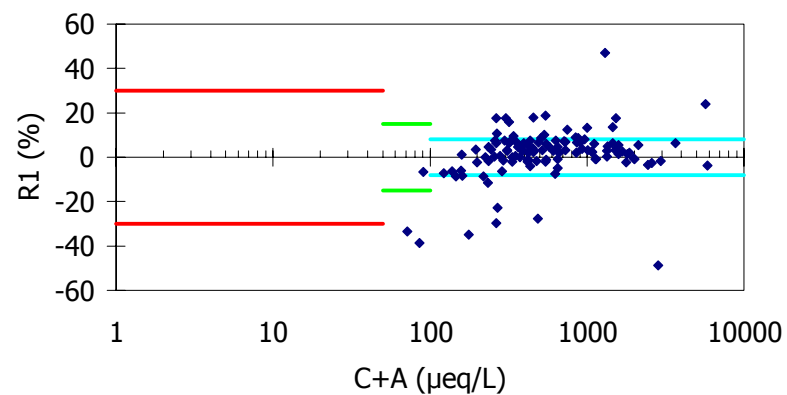


Fig. 3.4 Chongqing(Jinyunshan) Ion Balance (R1)

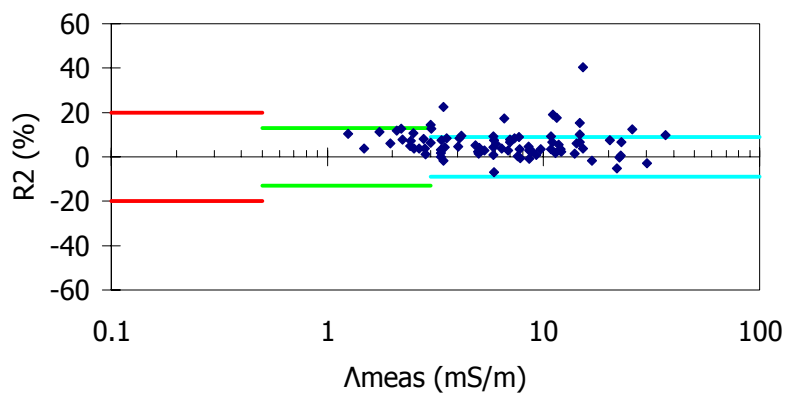


Fig. 3.3 Chongqing(Guanyinqiao) Conductivity Agreement (R2)

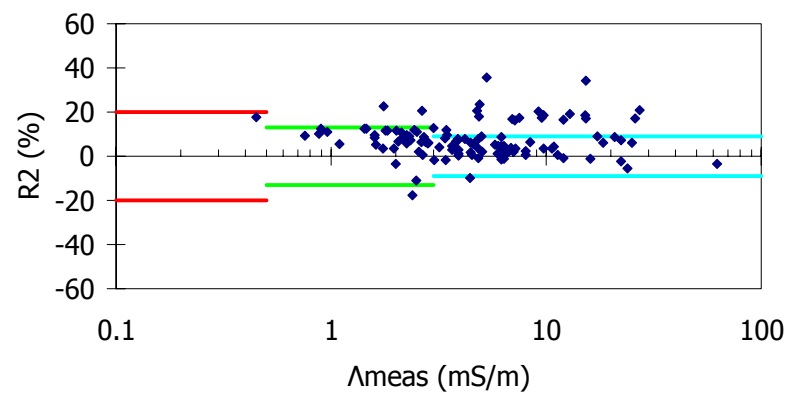


Fig. 3.5 Chongqing(Jinyunshan) Conductivity Agreement (R2)

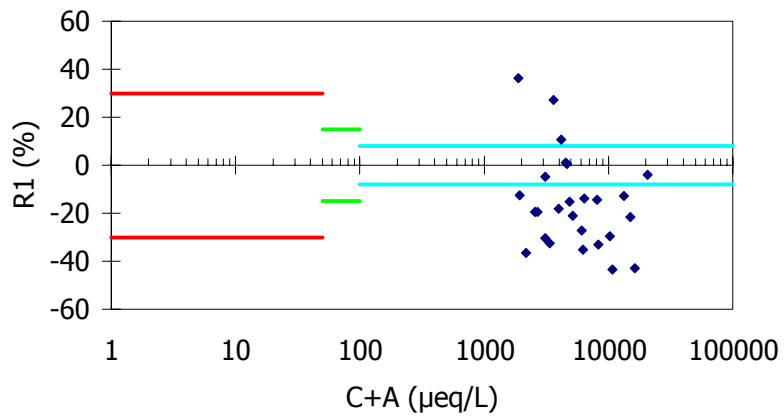


Fig. 3.6 Xi'an(Shizhan) Ion Balance (R1)

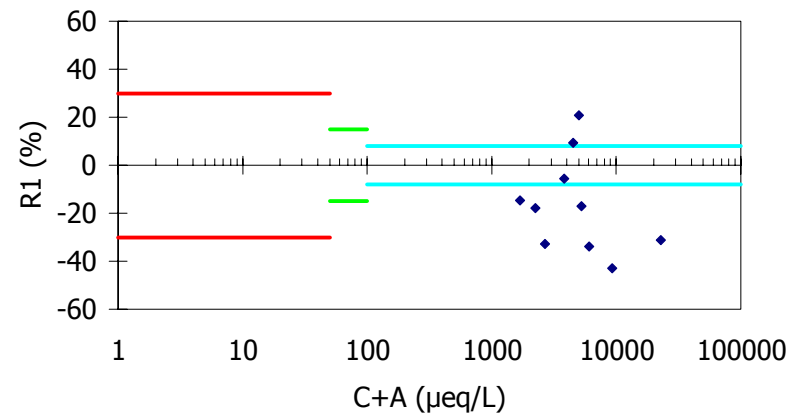


Fig. 3.8 Xi'an(Weishuiyuan) Ion Balance (R1)

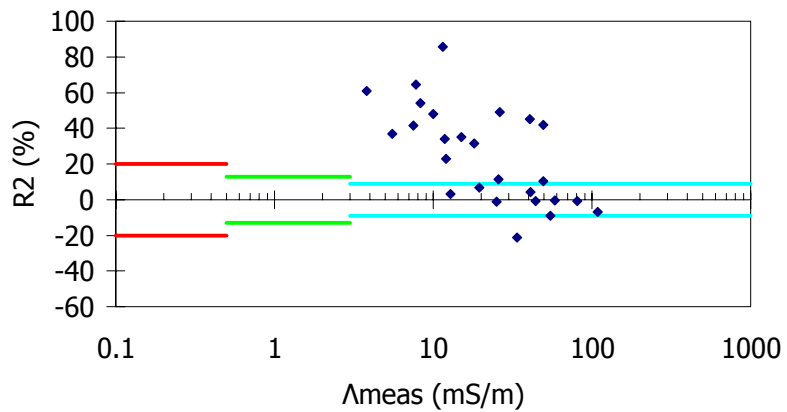


Fig. 3.7 Xi'an(Shizhan) Conductivity Agreement (R2)

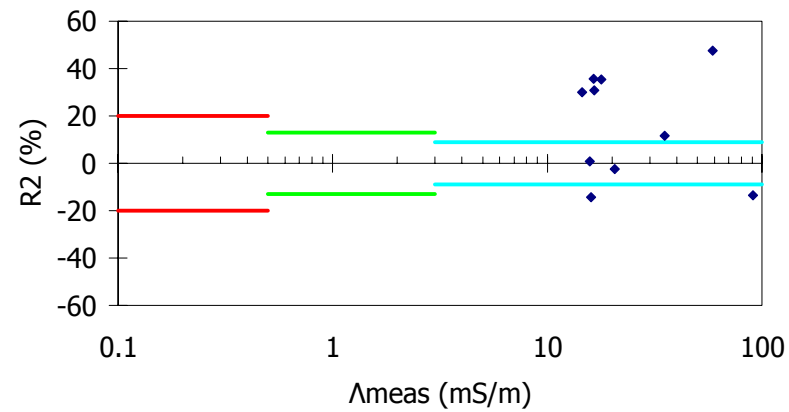


Fig. 3.9 Xi'an(Weishuiyuan) Conductivity Agreement (R2)

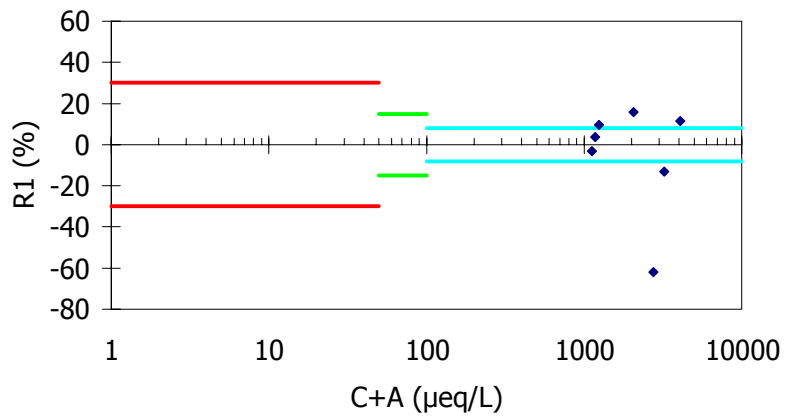


Fig. 3.10 Xi'an(Jiwozi) Ion Balance (R1)

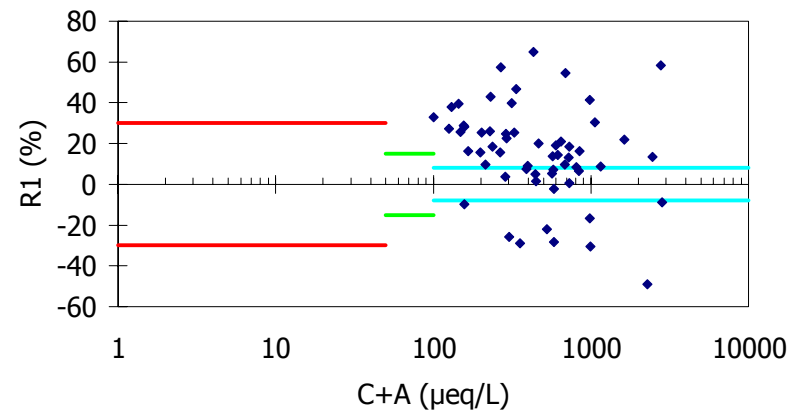


Fig. 3.12 Xiamen(Hongwen) Ion Balance (R1)

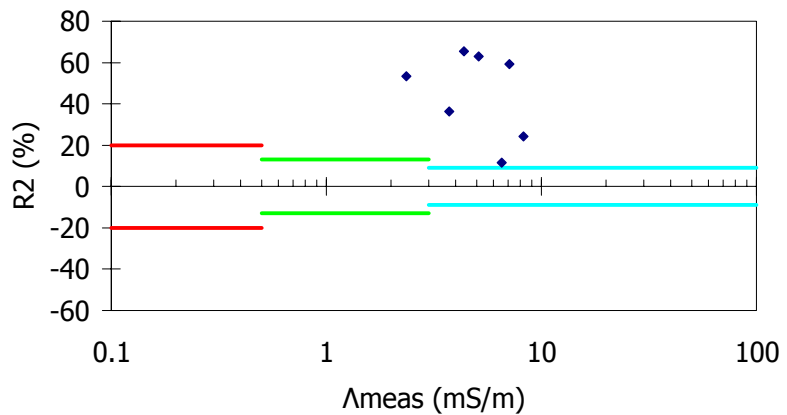


Fig. 3.11 Xi'an(Jiwozi) Conductivity Agreement (R2)

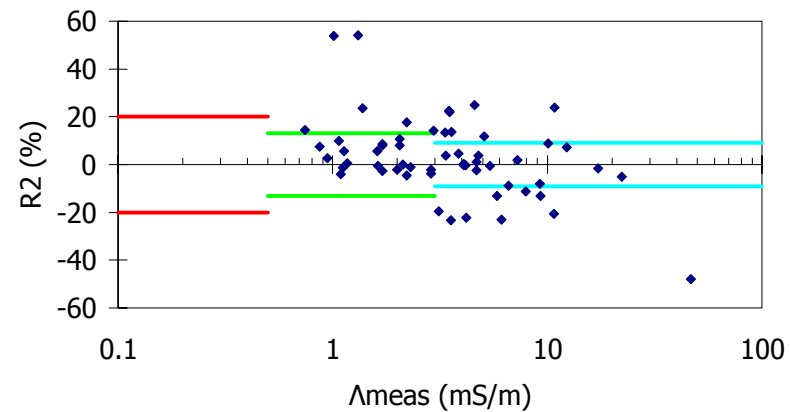


Fig. 3.13 Xiamen(Hongwen) Conductivity Agreement (R2)

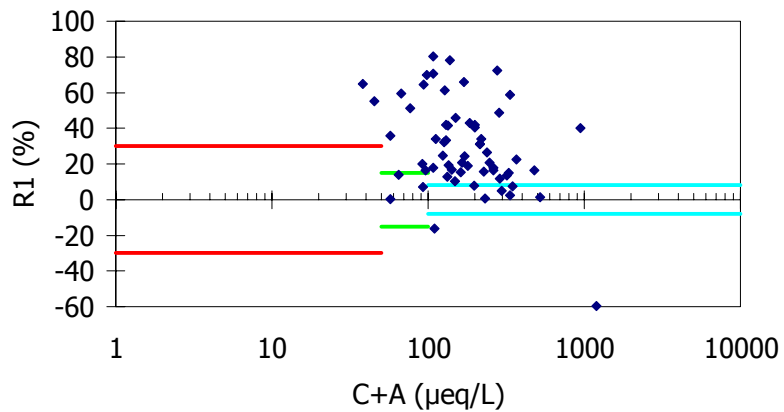


Fig. 3.14 Xiamen(Xiaoping) Ion Balance (R1)

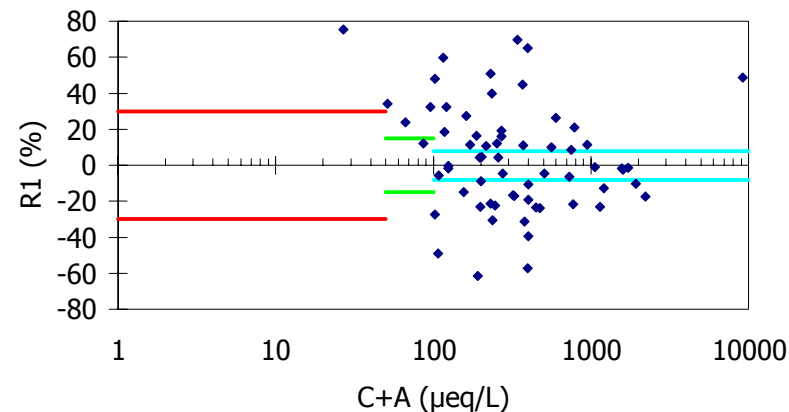


Fig. 3.16 Zhuhai(XiangZhou) Ion Balance (R1)

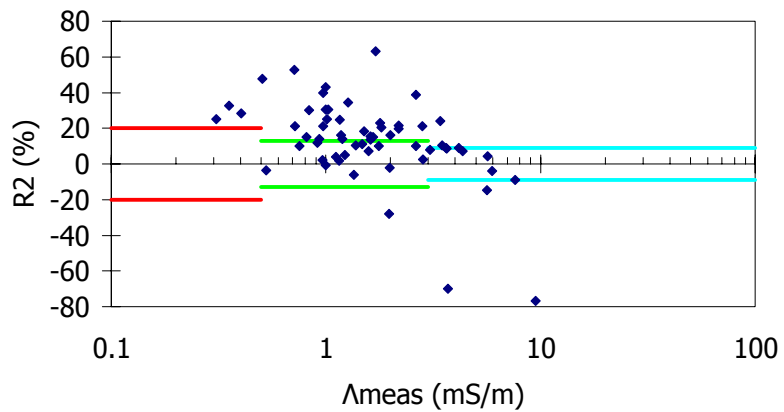


Fig. 3.15 Xiamen(Xiaoping) Conductivity Agreement (R2)

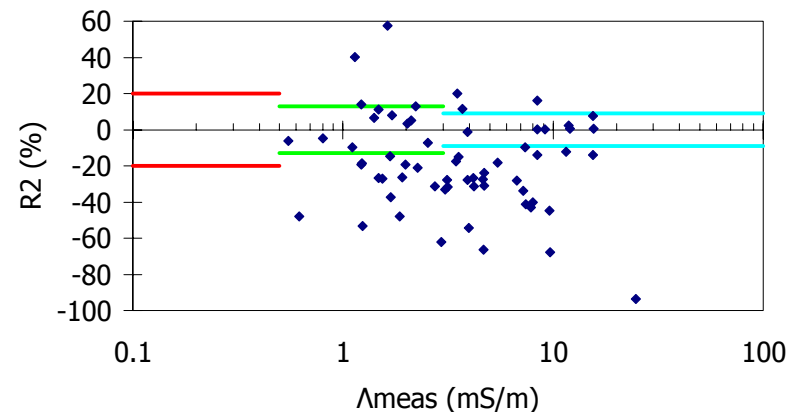


Fig. 3.17 Zhuhai(XiangZhou) Conductivity Agreement (R2)

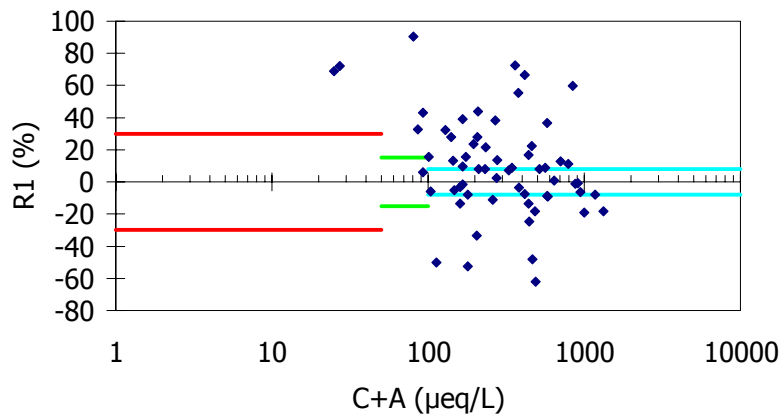


Fig. 3.18 Zhuhai(Zhuxian Cavern) Ion Balance (R1)

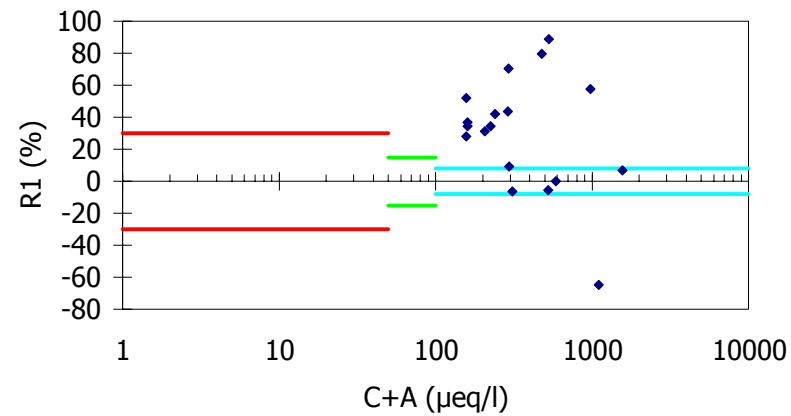


Fig. 3.20 Jakarta Ion Balance (R1)

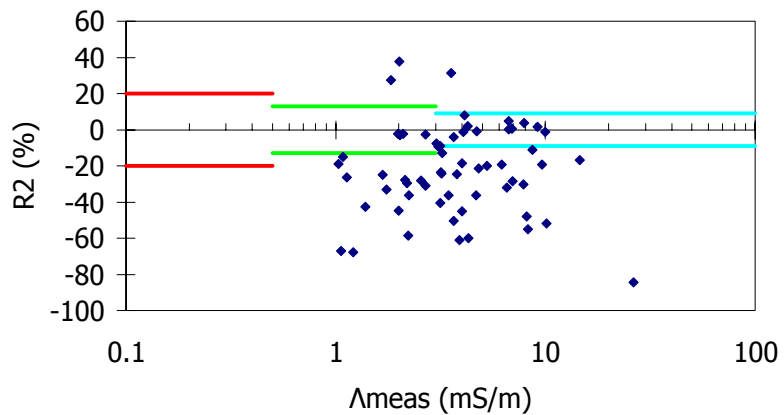


Fig. 3.19 Zhuhai(Zhuxian Cavern) Conductivity Agreement (R2)

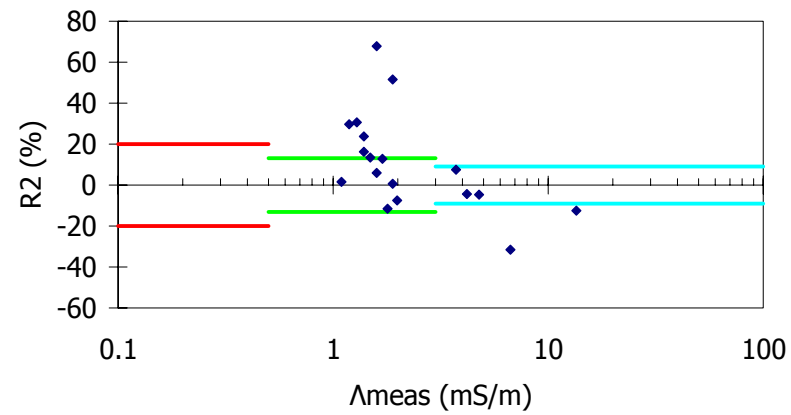


Fig. 3.21 Jakarta Conductivity Agreement (R2)

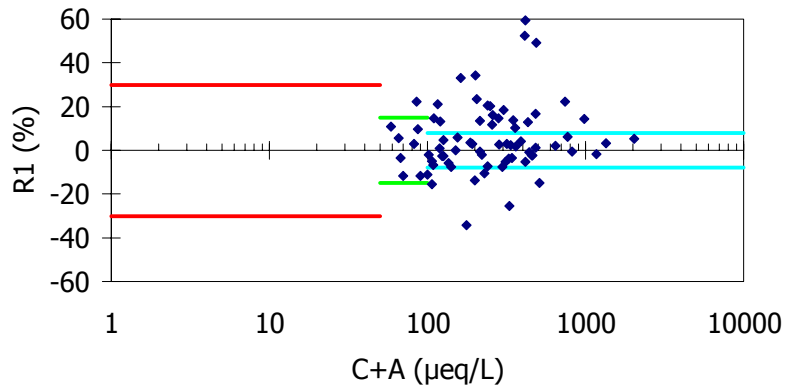


Fig. 3.22 Serpong Ion Balance (R1)

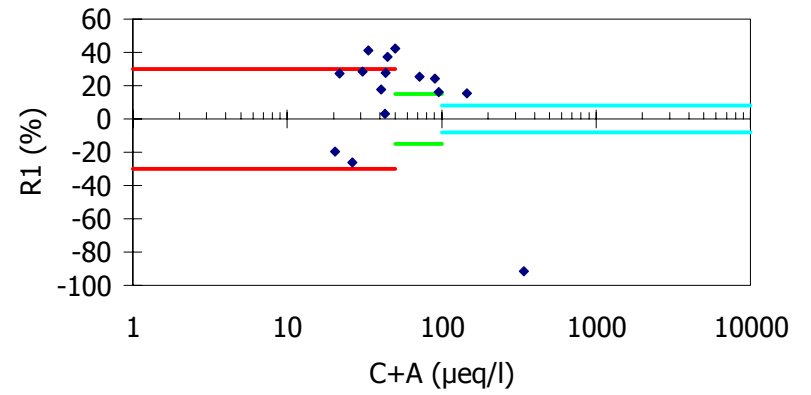


Fig. 3.24 Kototabang Ion Balance (R1)

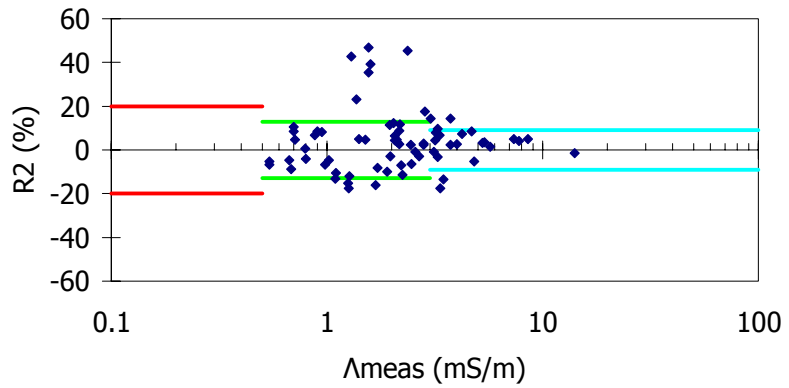


Fig 3.23 Serpong Conductivity Agreement (R2)

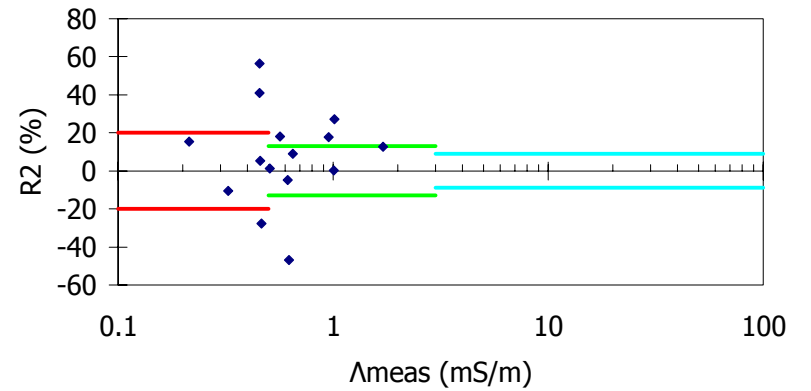


Fig. 3.25 Kototabang Conductivity Agreement (R2)

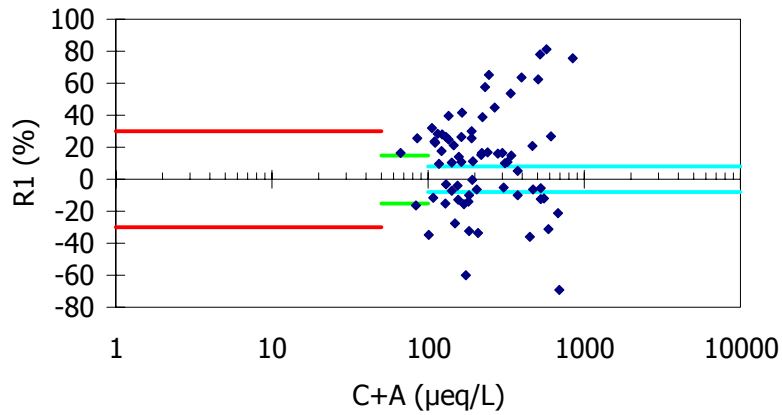


Fig. 3.26 Bandung Ion Balance (R1)

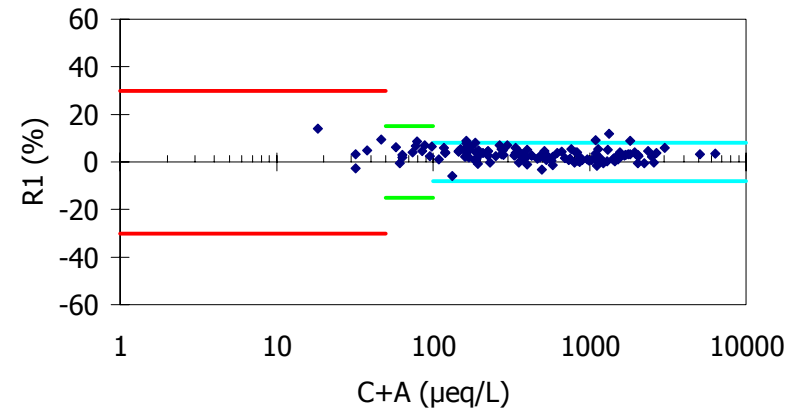


Fig. 3.28 Rishiri Ion Balance (R1)

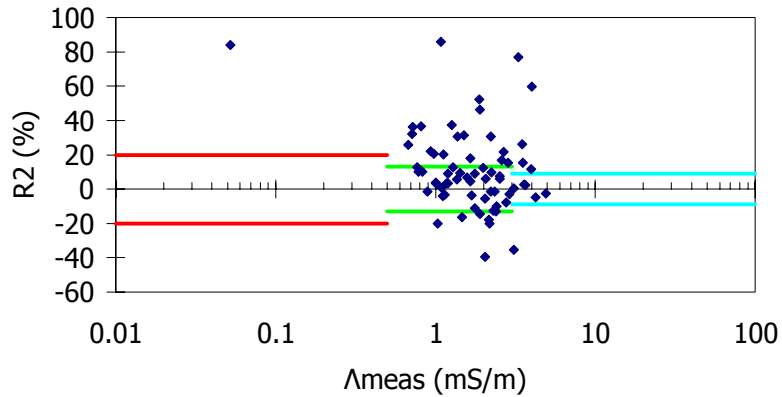


Fig. 3.27 Bandung Conductivity Agreement (R2)

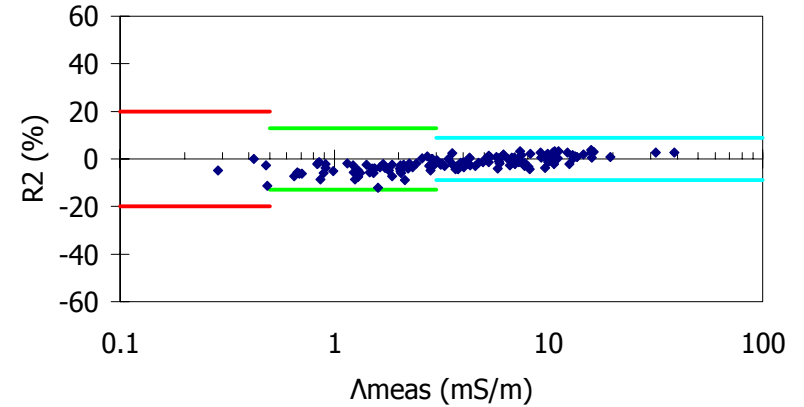


Fig. 3.29 Rishiri Conductivity Agreement (R2)

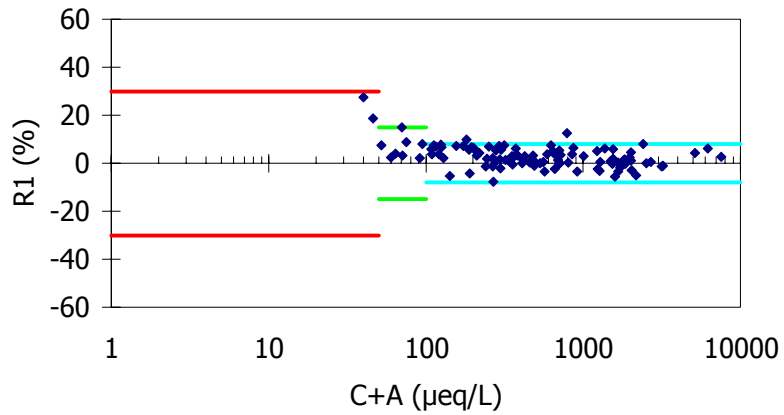


Fig. 3.30 Tappi Ion Balance (R1)

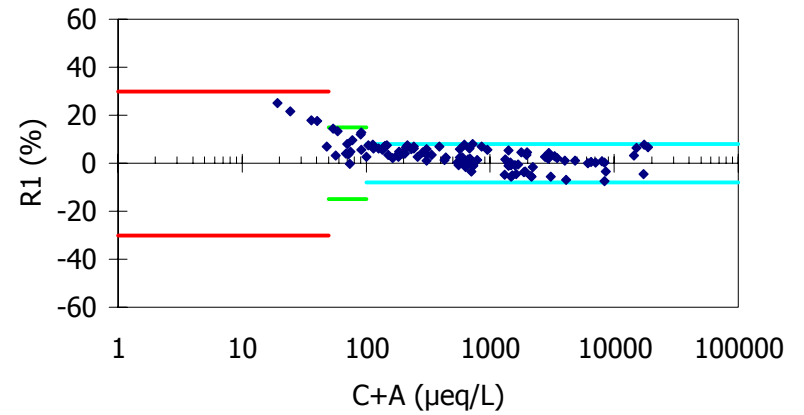


Fig. 3.32 Sado-seki Ion Balance (R1)

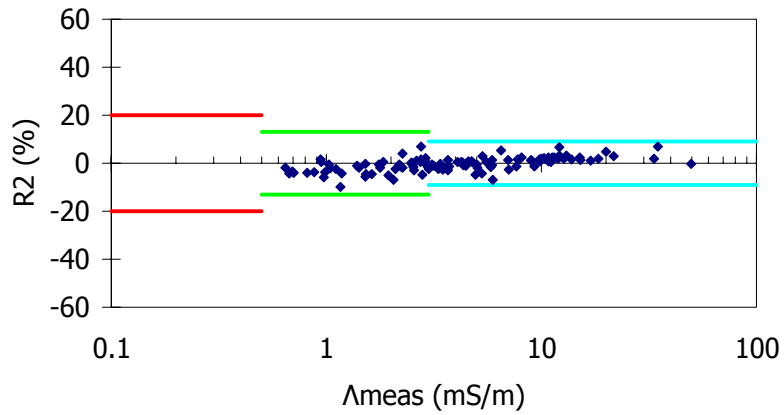


Fig. 3.31 Tappi Conductivity Agreement (R2)

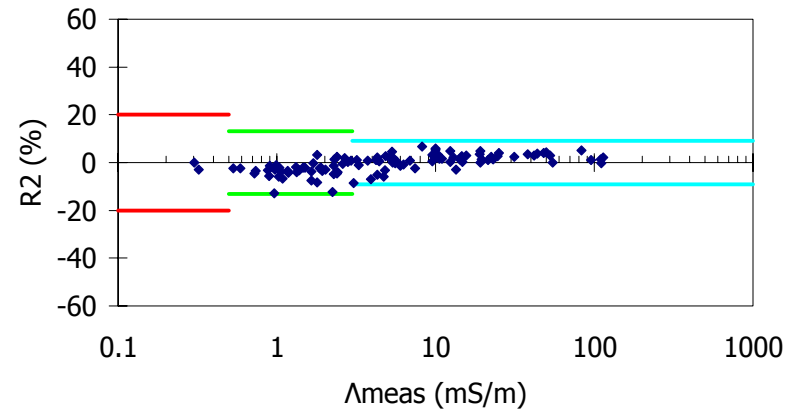


Fig. 3.33 Sado-seki Conductivity Agreement (R2)

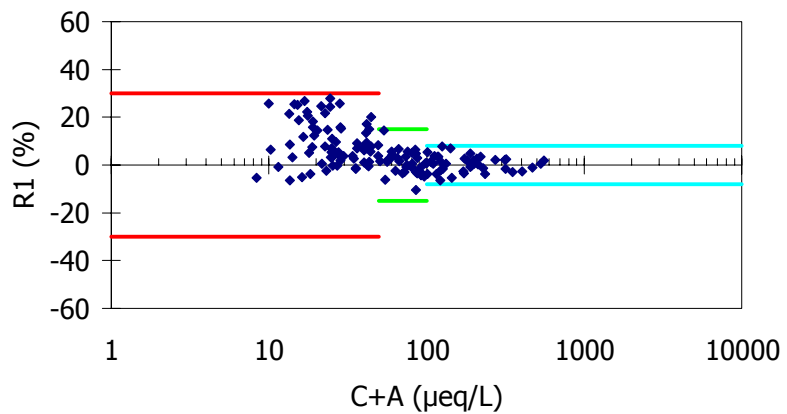


Fig. 3.34 Happo Ion Balance (R1)

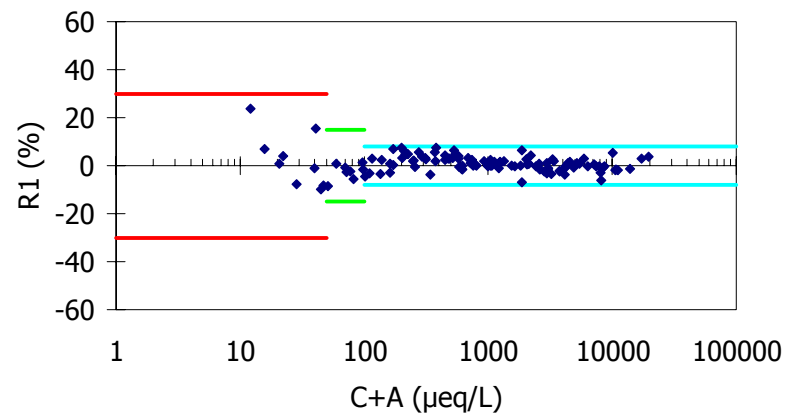


Fig. 3.36 Oki Ion Balance (R1)

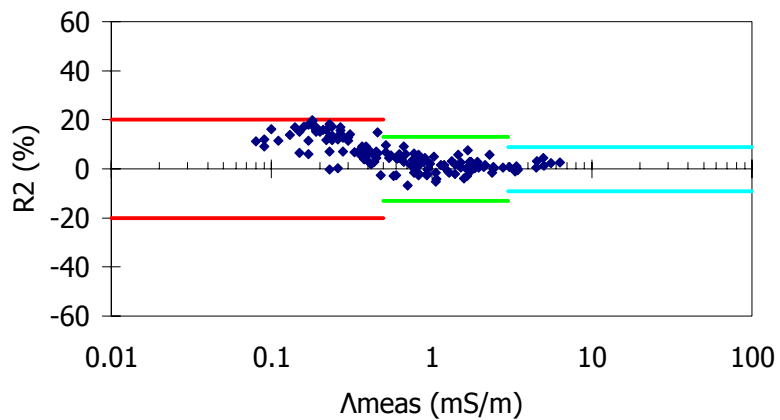


Fig. 3.35 Happo Conductivity Agreement (R2)

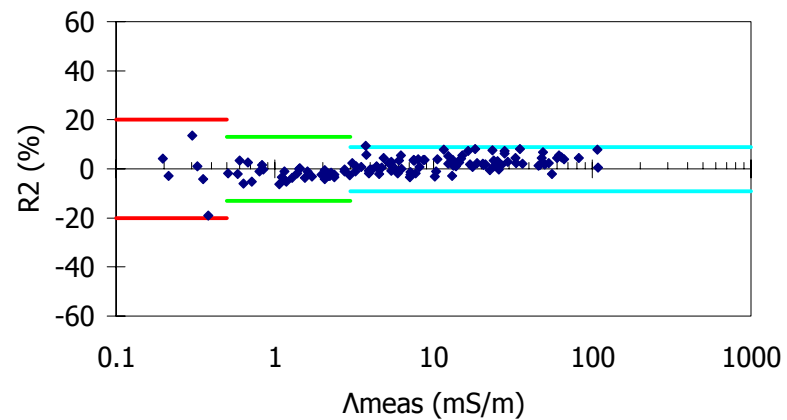


Fig. 3.37 Oki Conductivity Agreement (R2)

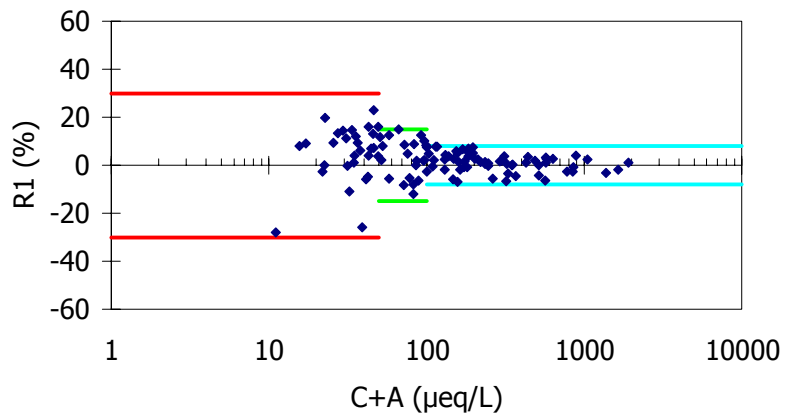


Fig. 3.38 Yusuhara Ion Balance (R1)

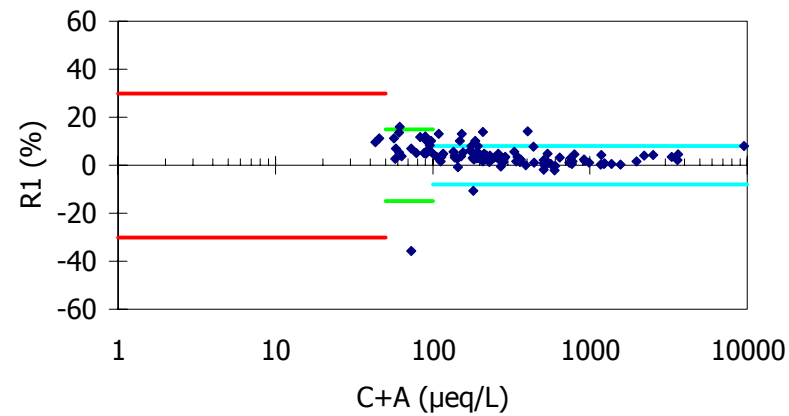


Fig. 3.40 Ogasawara Ion Balance (R1)

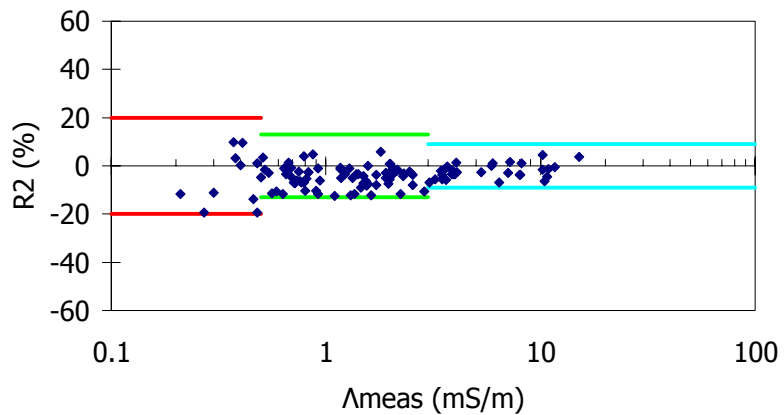


Fig. 3.39 Yusuhara Conductivity Agreement (R2)

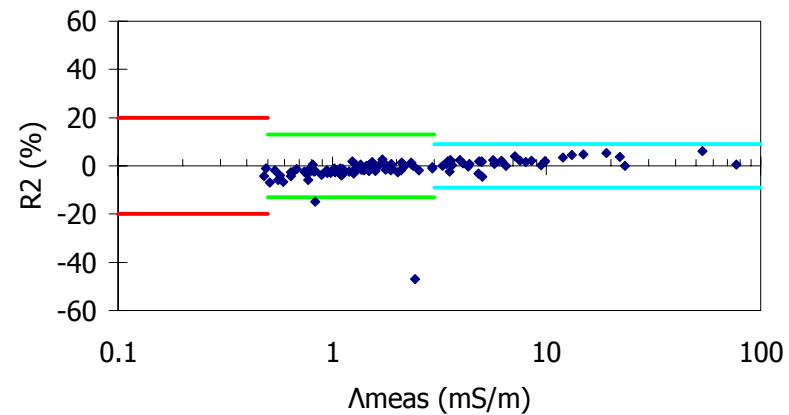


Fig. 3.41 Ogasawara Conductivity Agreement (R2)

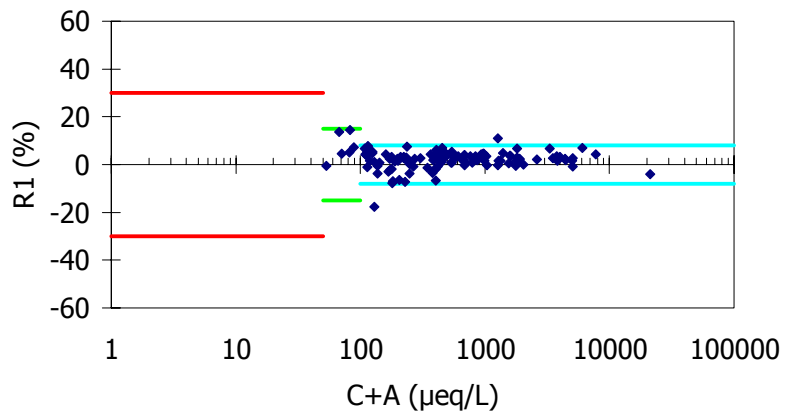


Fig. 3.42 Hedro Ion Balance (R1)

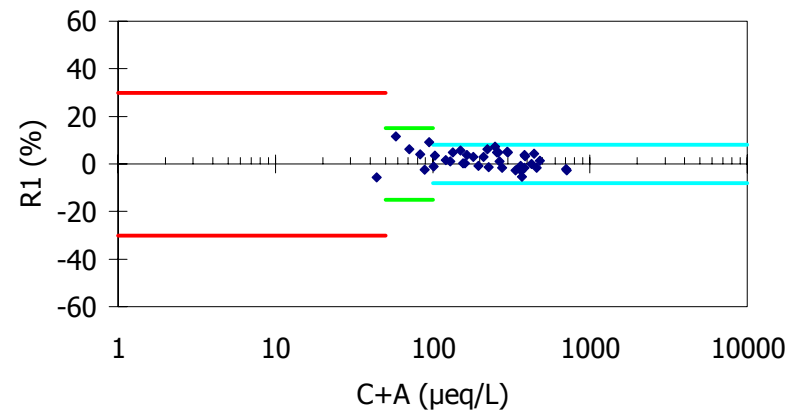


Fig. 3.44 Ijira Ion Balance (R1)

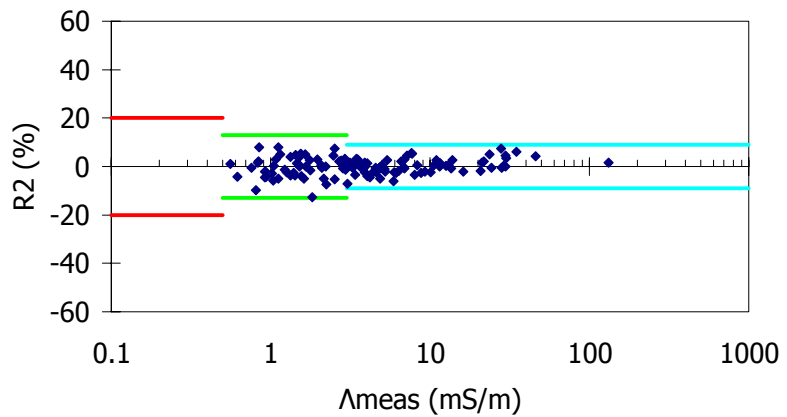


Fig. 3.43 Hedro Conductivity Agreement (R2)

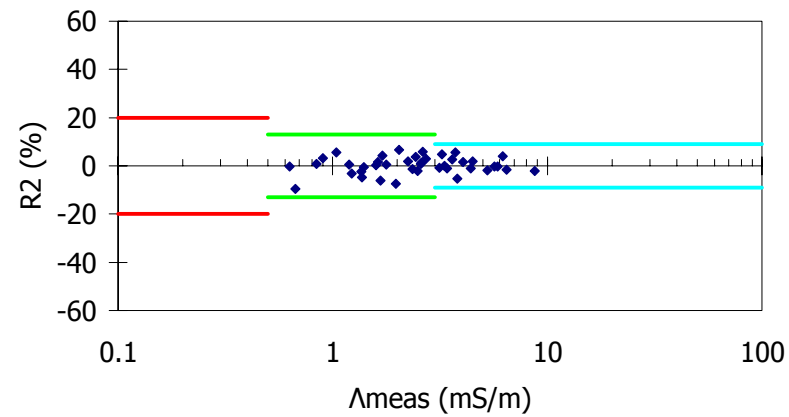


Fig. 3.45 Ijira Conductivity Agreement (R2)

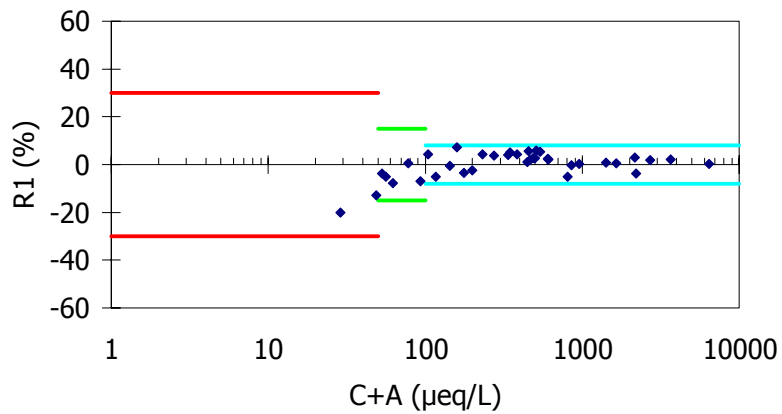


Fig. 3.46 Banryu Ion Balance (R1)

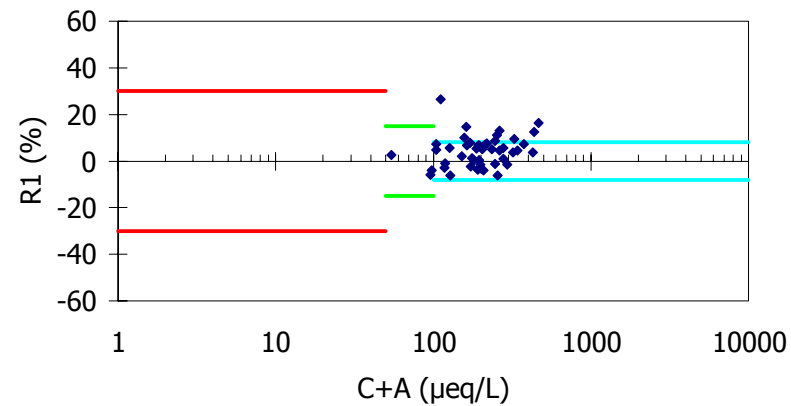


Fig. 3.48 Petaling Jaya Ion Balance (R1)

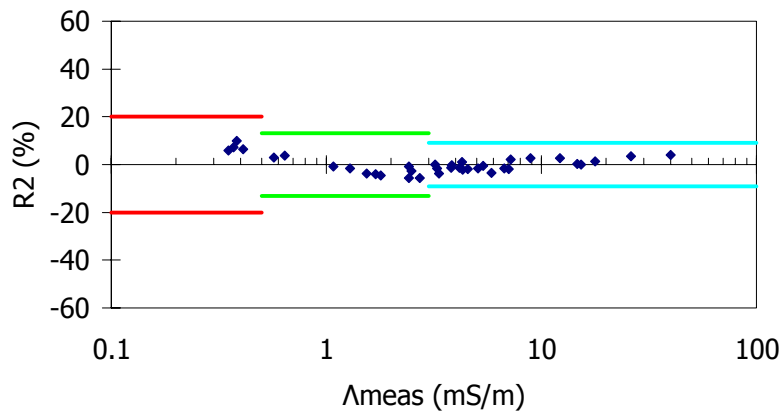


Fig. 3.47 Banryu Conductivity Agreement (R2)

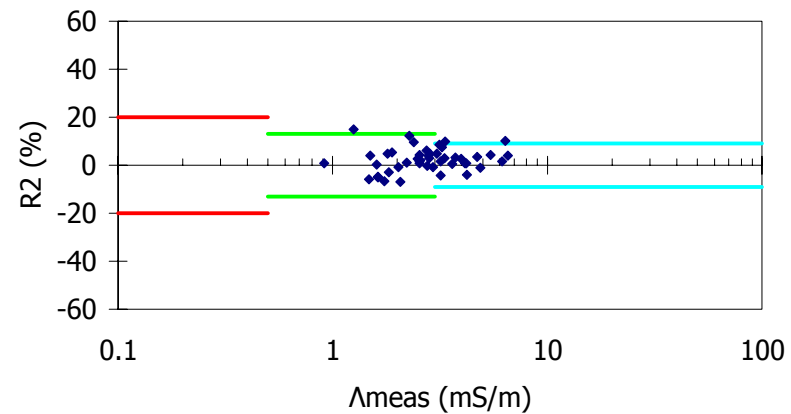


Fig. 3.49 Petaling Jaya Conductivity Agreement (R2)

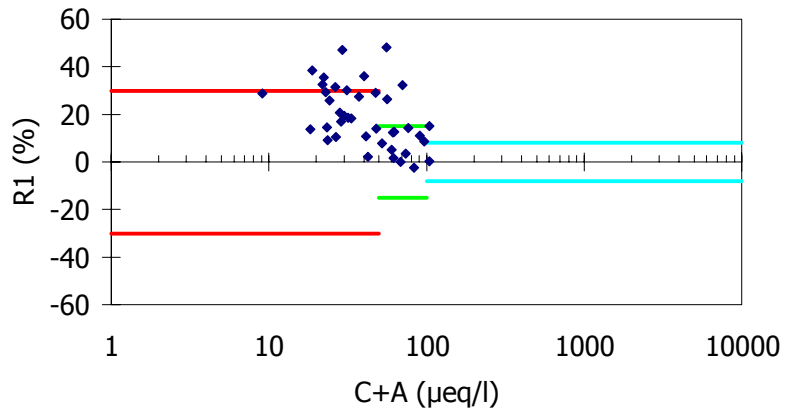


Fig. 3.50 Tanah Rata Ion Balance (R1)

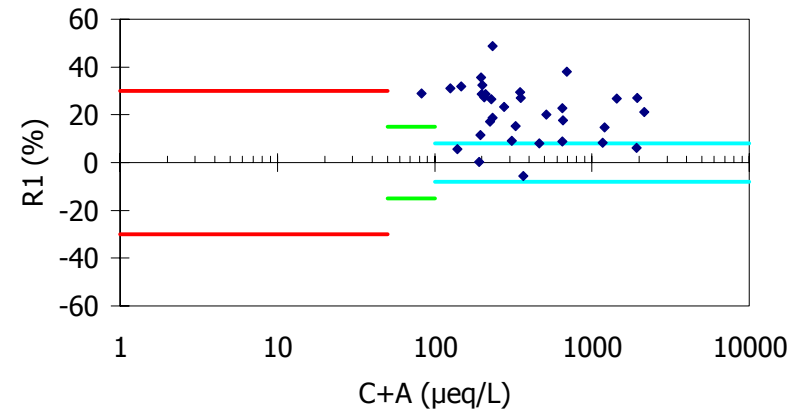


Fig. 3.52 Ulaanbaatar Ion Balance (R1)

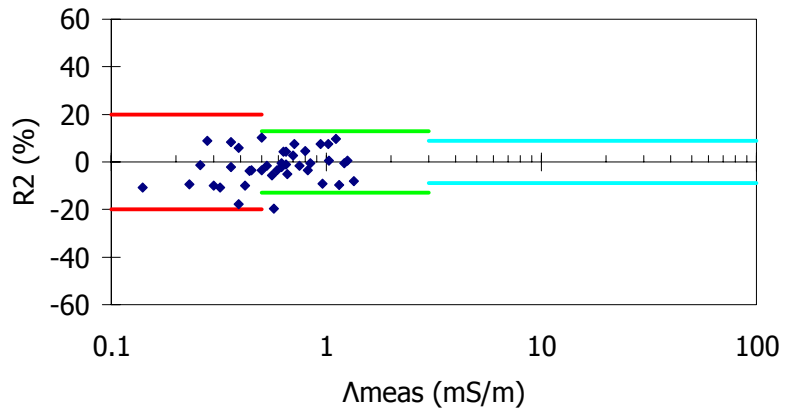


Fig. 3.51 Tanah Rata Conductivity Agreement (R2)

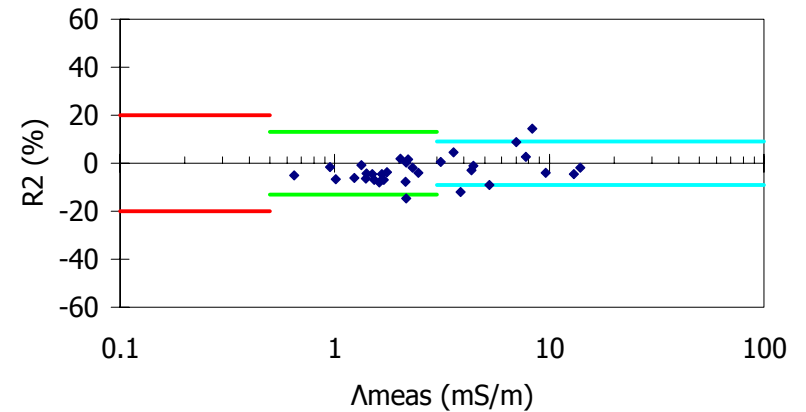


Fig. 3.53 Ulaanbaatar Conductivity Agreement (R2)

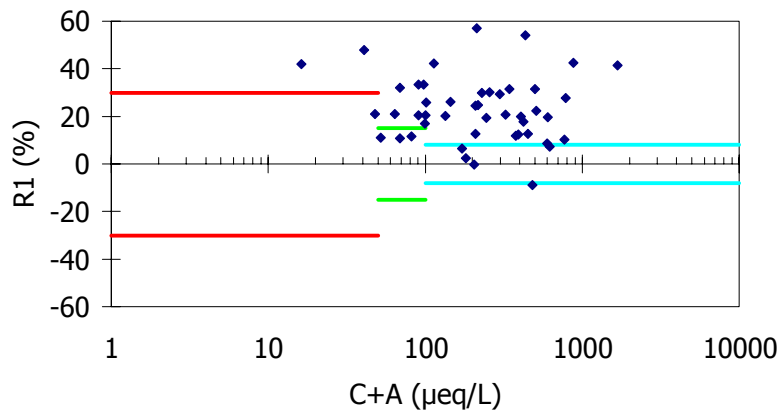


Fig. 3.54 Terej Ion Balance (R1)

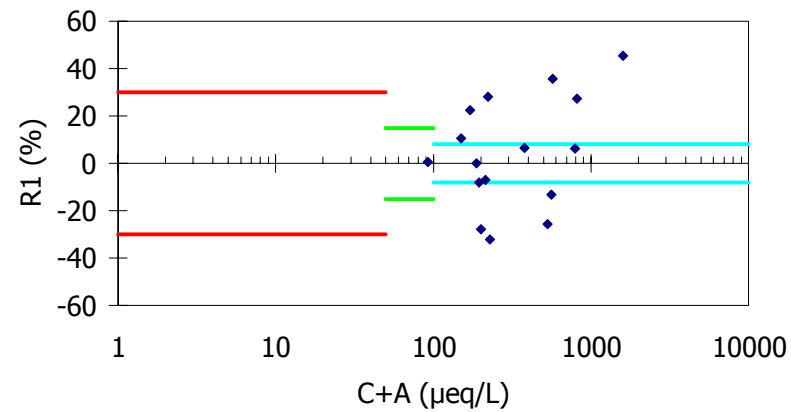


Fig. 3.56 Metro Manila Ion Balance (R1)

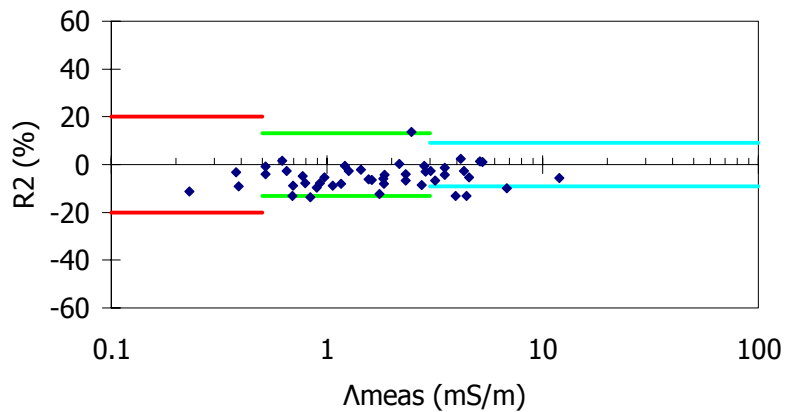


Fig. 3.55 Terej Conductivity Agreement (R2)

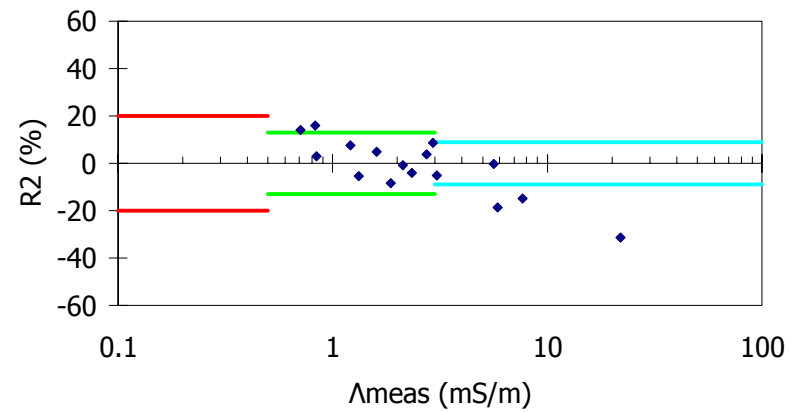


Fig. 3.57 Metro Manila Conductivity Agreement (R2)

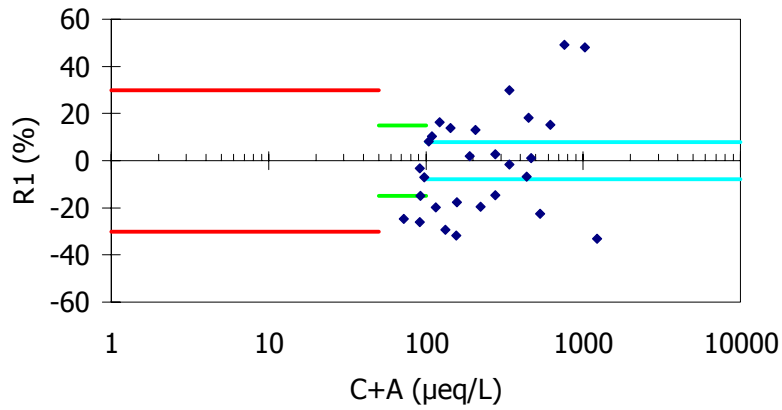


Fig. 3.58 Los Banos Ion Balance (R1)

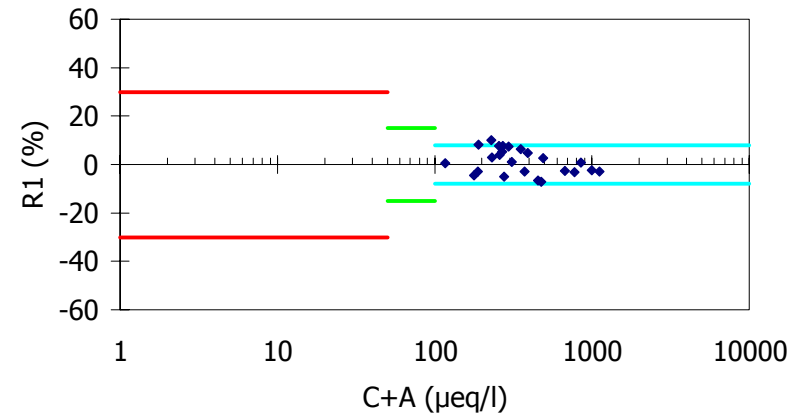


Fig. 3.60 Kanghwa Ion Balance (R1)

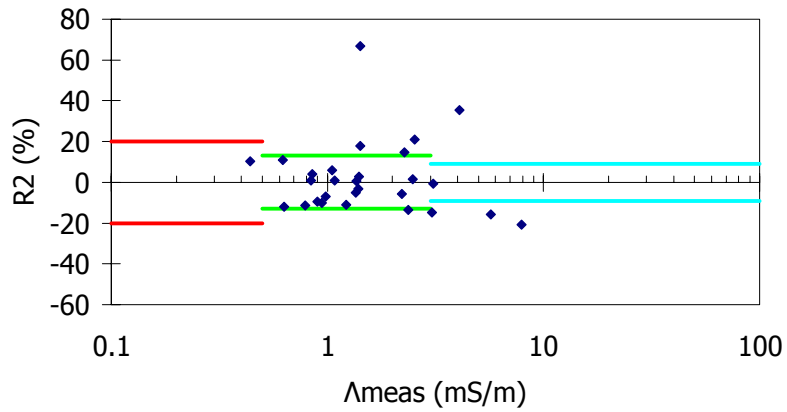


Fig. 3.59 Los Banos Conductivity Agreement (R2)

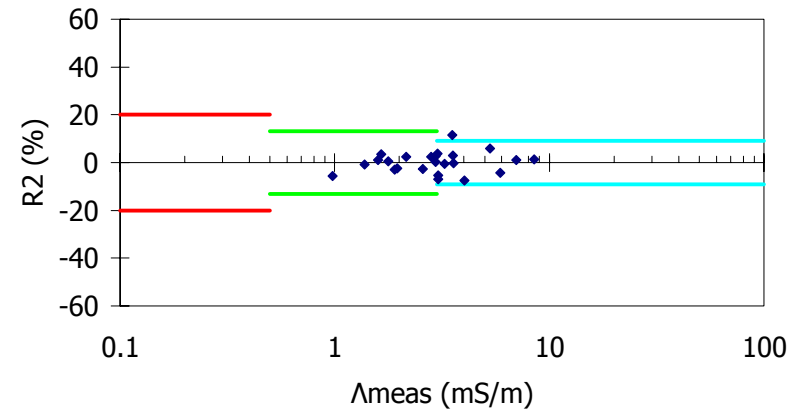


Fig. 3.61 Kanghwa Conductivity Agreement (R2)

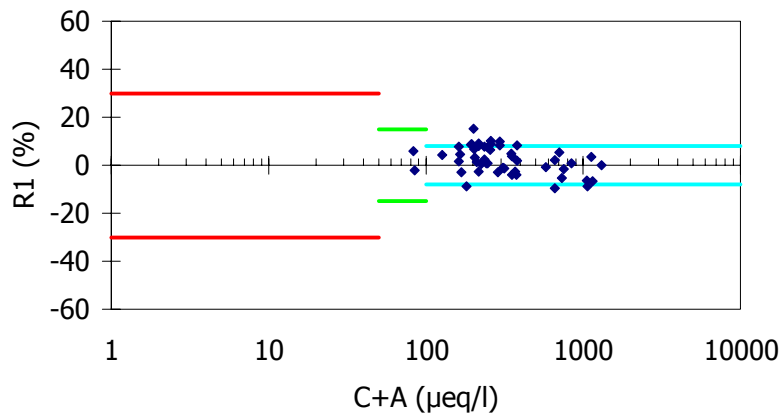


Fig. 3.62 Cheju(Kosan) Ion Balance (R1)

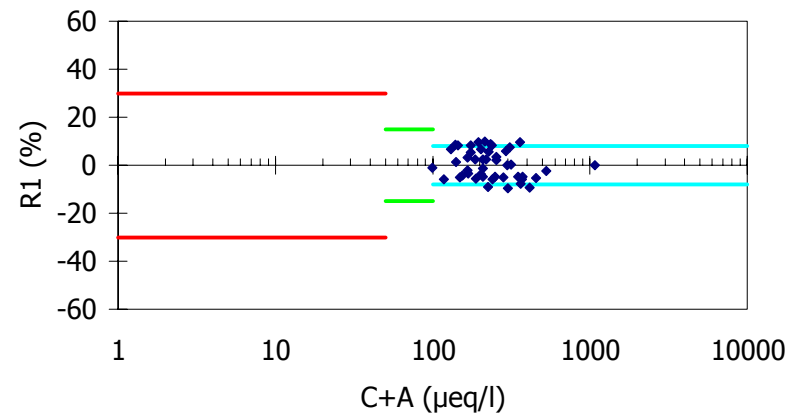


Fig. 3.64 Imsil Ion Balance (R1)

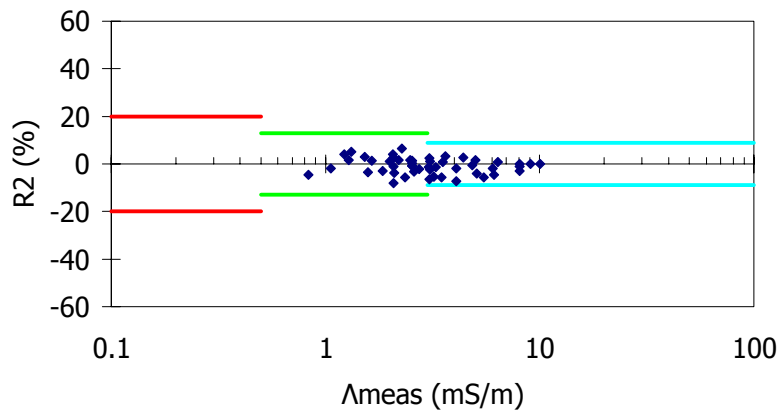


Fig. 3.63 Cheju(Kosan) Conductivity Agreement (R2)

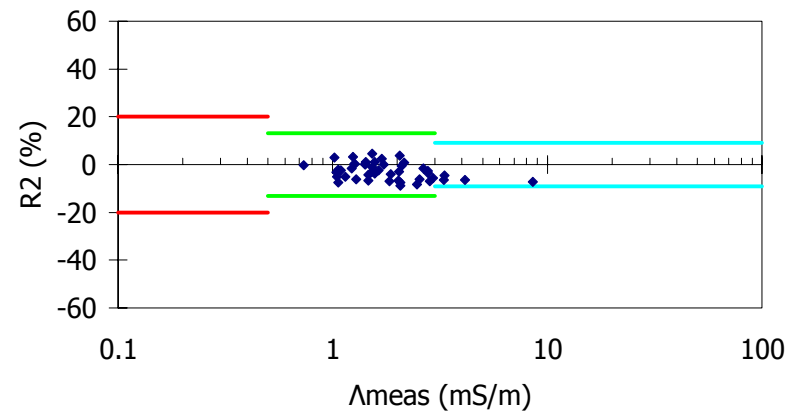


Fig. 3.65 Imsil Conductivity Agreement (R2)

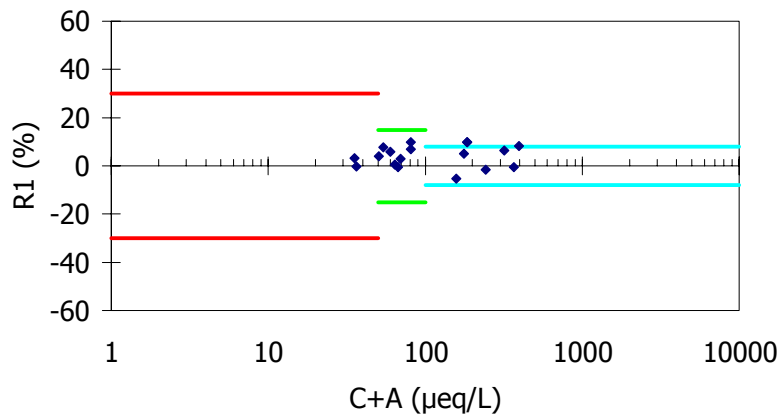


Fig. 3.66 Mondy Ion Balance (R1)

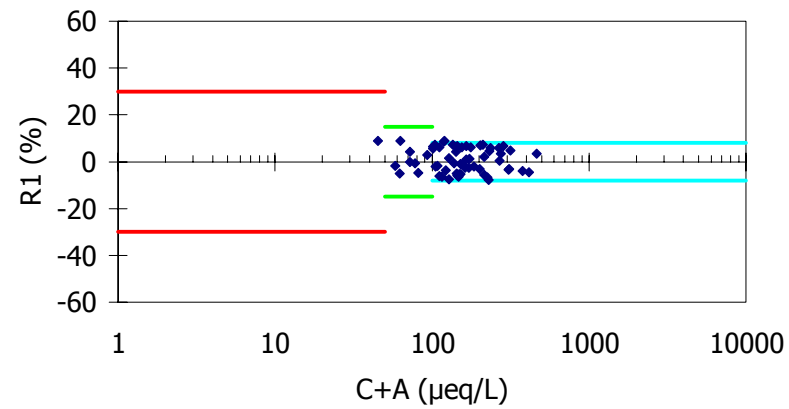


Fig. 3.68 Listvyanka Ion Balance (R1)

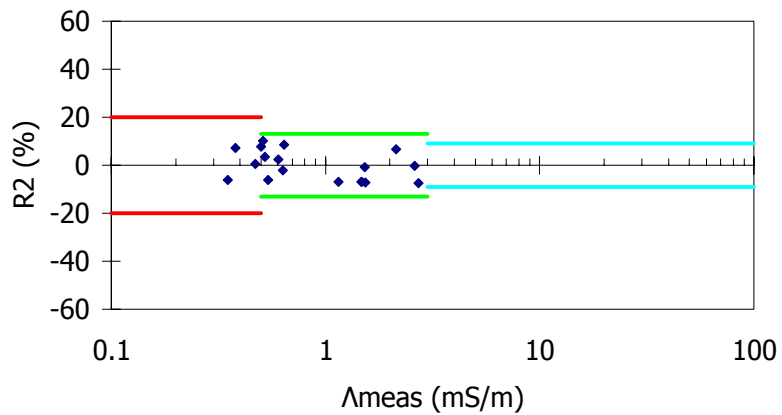


Fig. 3.67 Mondy Conductivity Agreement (R2)

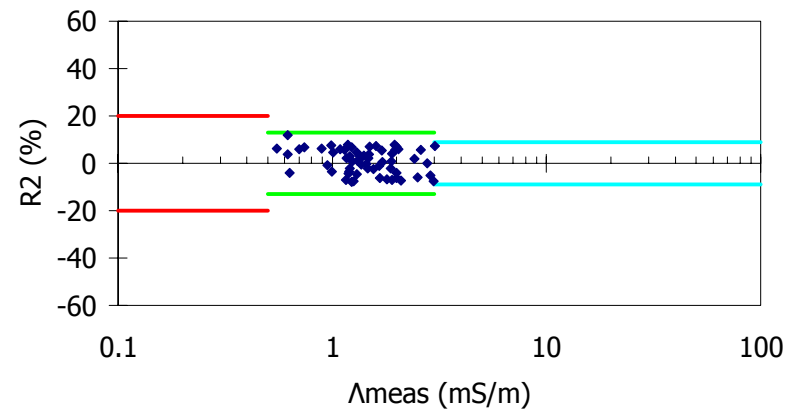


Fig. 3.69 Listvyanka Conductivity Agreement (R2)

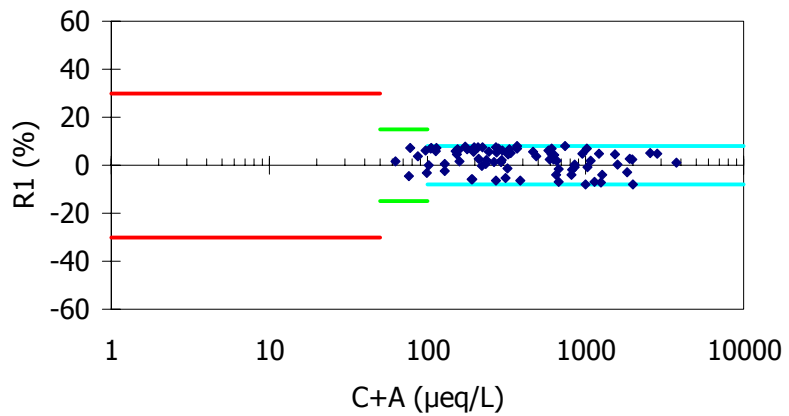


Fig. 3.70 Irkutsk Ion Balance (R1)

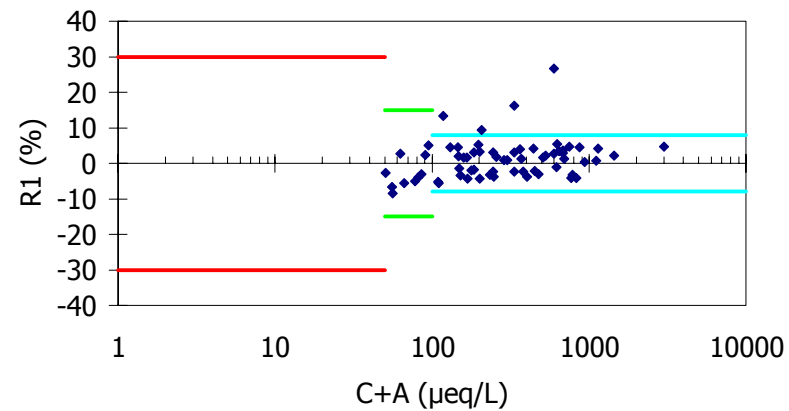


Fig. 3.72 Primorskaya Ion Balance (R1)

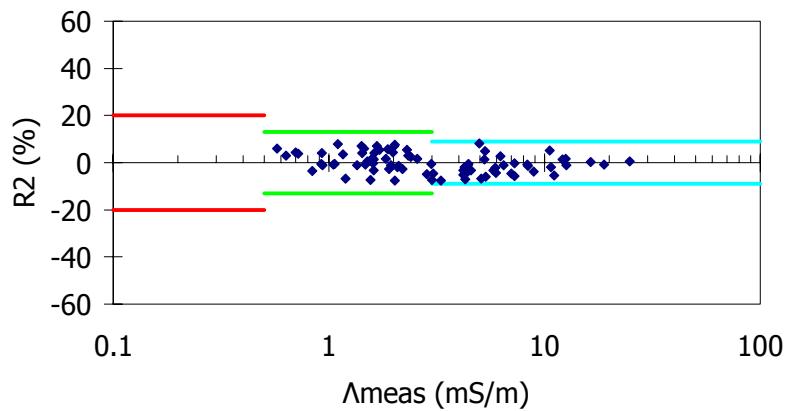


Fig. 3.71 Irkutsk Conductivity Agreement (R2)

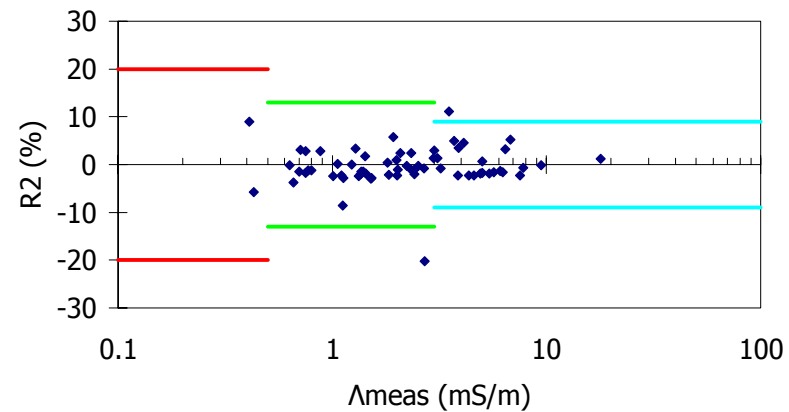


Fig. 3.73 Primorskaya Conductivity Agreement (R2)

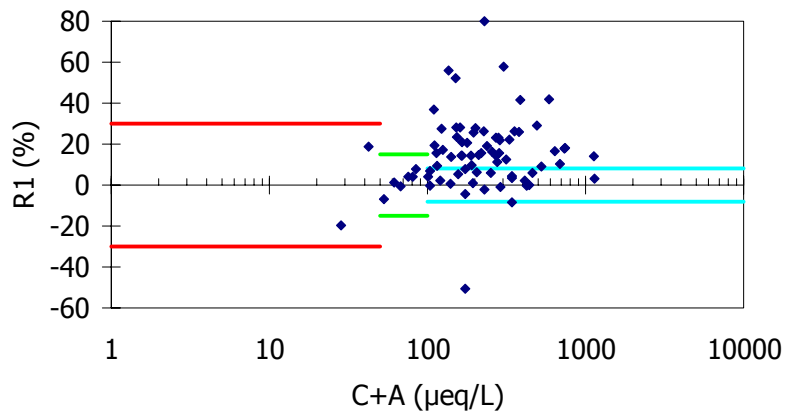


Fig. 3.74 Bangkok Ion Balance (R1)

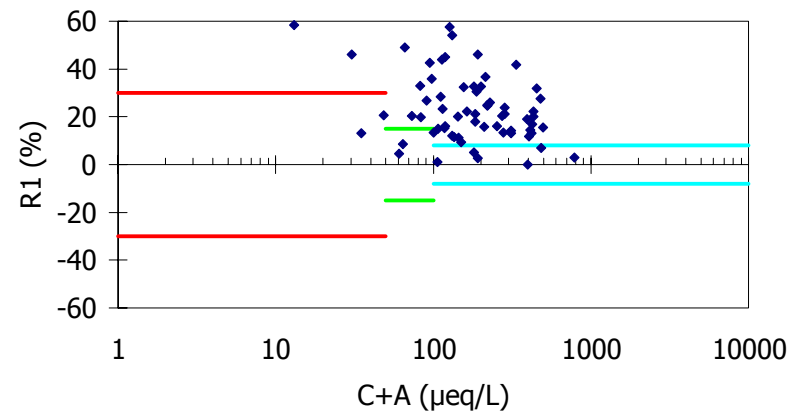


Fig. 3.76 Patumthani Ion Balance (R1)

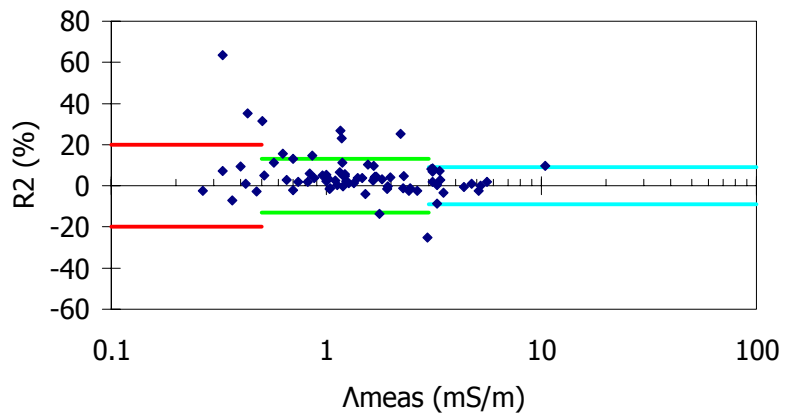


Fig. 3.75 Bangkok Conductivity Agreement (R2)

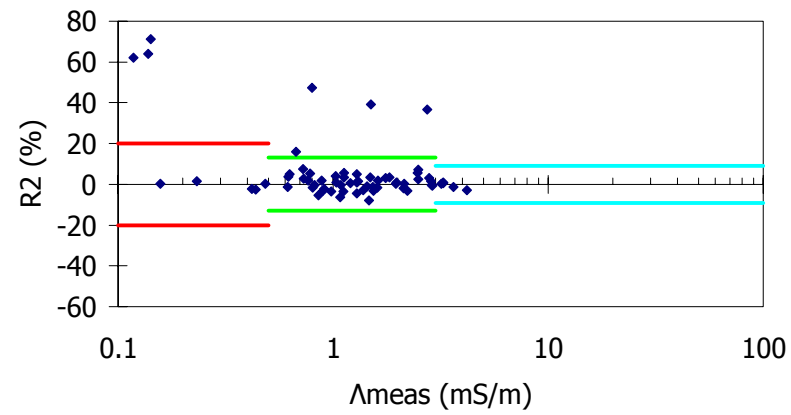


Fig. 3.77 Patumthani Conductivity Agreement (R2)

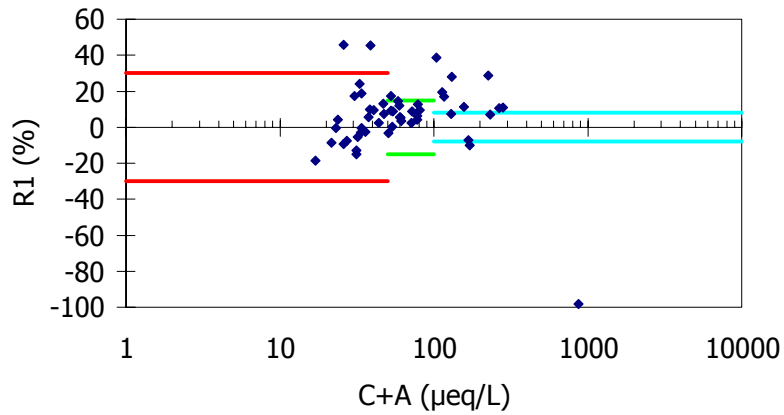


Fig. 3.78 Vachiralongkorn Dam Ion Balance (R1)

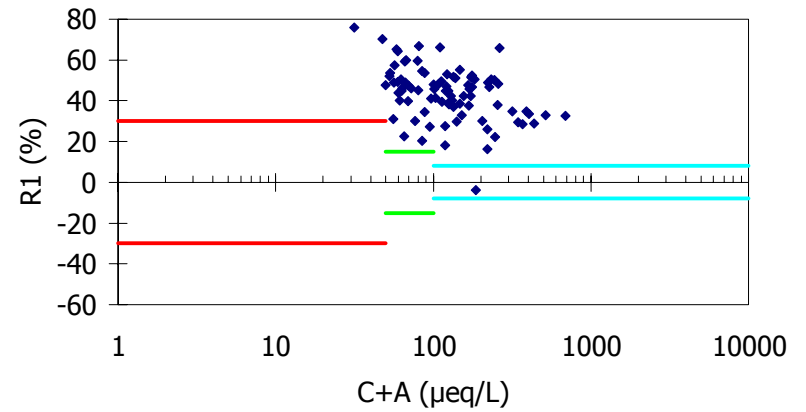


Fig. 3.80 Mae Hia Ion Balance (R1)

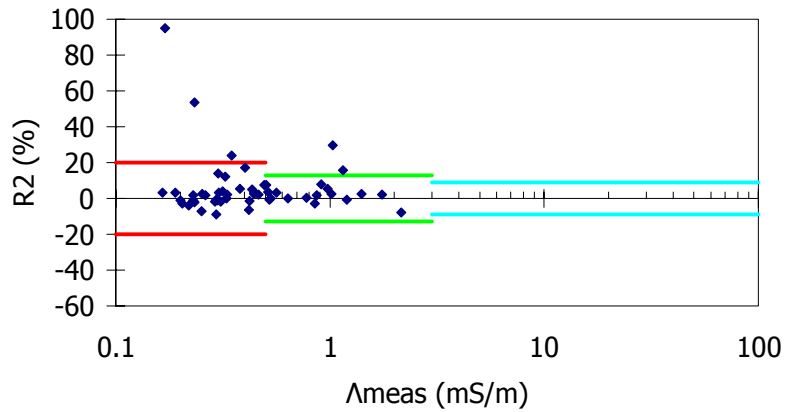


Fig. 3.79 Vachiralongkorn Dam Conductivity Agreement (R2)

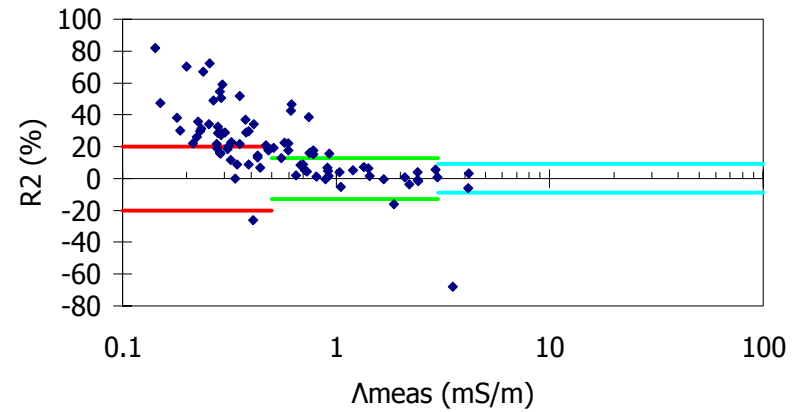


Fig. 3.81 Mae Hia Conductivity Agreement (R2)

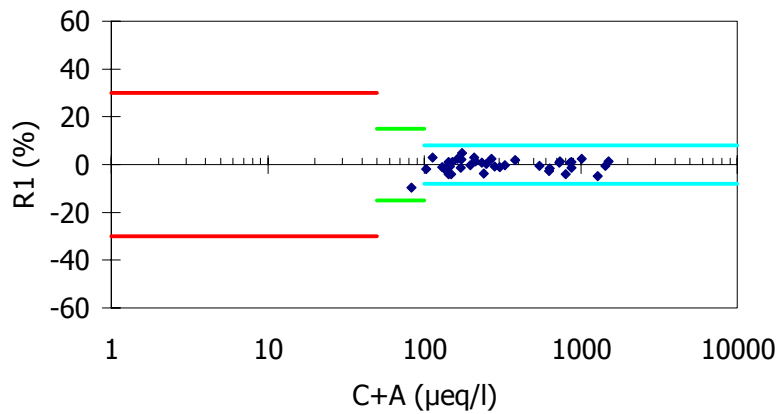


Fig. 3.82 Hanoi Ion Balance (R1)

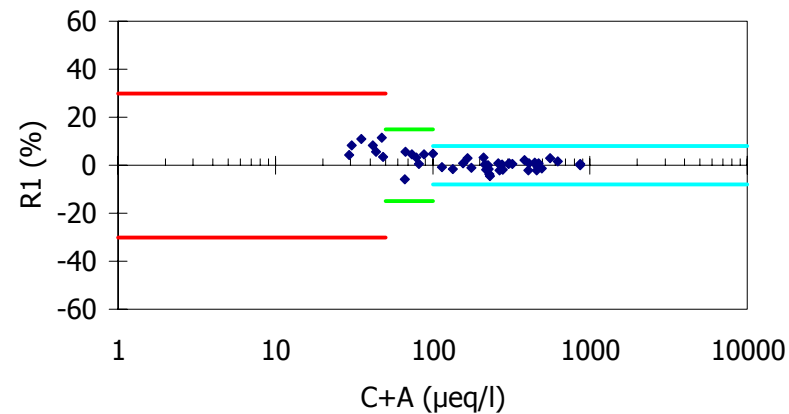


Fig. 3.84 Hoa Binh Ion Balance (R1)

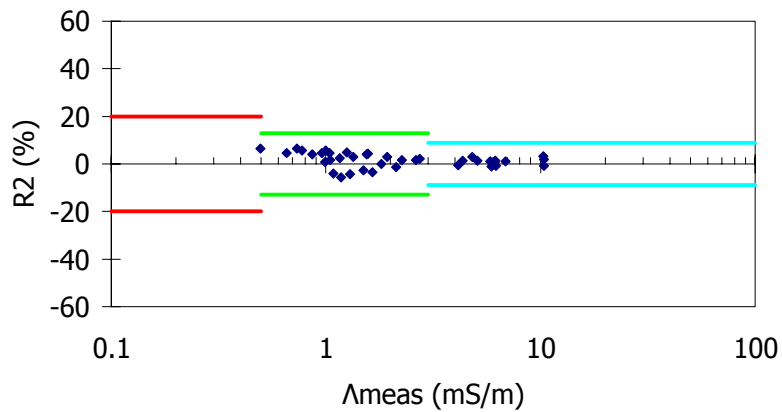


Fig. 3.83 Hanoi Conductivity Agreement (R2)

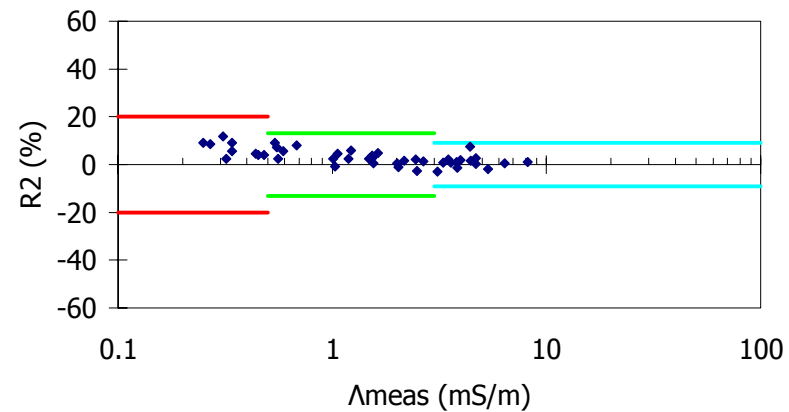


Fig. 3.85 Hoa Binh Conductivity Agreement (R2)

4. Dry Deposition (Air Concentration) Monitoring

4.1 Method

Automatic monitoring methods and filter pack method were mainly used to implement the dry deposition (air concentration) monitoring in 2002. The monitoring items were selected, taking into account priority of the chemical species defined in the “Strategy Paper for Future Direction of Dry Deposition Monitoring of EANET (1999) ”.

Measurement methods and parameters in each monitoring site for Dry Deposition (Air Concentration) Monitoring in 2002 are shown in [Table 4.1](#).

1) Automatic monitoring method

In the priority of the chemical species, SO₂, NO₂(urban), NO, O₃, and PM could be monitored by use of automatic monitoring methods. The methods were used by China, Japan, Malaysia, Republic of Korea, Russia and Thailand. The QA/QC program for monitoring the SO₂, NO₂(urban), NO, O₃, and PM using automatic monitors was described in the “QA/QC Program for the Air Concentration Monitoring in East Asia (2001) ”. Individual methods of each site are shown in [Table 4.2](#).

2) Filter pack method

Filter pack methods were used by Indonesia, Japan, Malaysia, Mongolia, Philippines, Republic of Korea, Russia, Thailand and Vietnam for the filter pack monitoring in 2002. The methods could determine gaseous (SO₂, HNO₃, HCl, NH₃) and particulate components (SO₄²⁻, NO₃⁻, Cl⁻, Na⁺, K⁺, NH₄⁺, Ca²⁺, Mg²⁺).

The Task Force on Dry Deposition Monitoring has been considering the draft “Technical Document of Filter Pack Monitoring in East Asia” since September 2002. The draft technical document currently forces on the four-stage filter pack method, because most countries adopt the method for dry deposition monitoring. Recommended specifications described in the Technical Document of four-stage filter pack method are shown in [Fig. 4.1](#). Indonesia, Japan, Malaysia, Mongolia, Philippines, Russia, Thailand and Vietnam adopted the recommended specifications.

3) Other methods

Malaysia adopted aerosol sampler to monitor aerosol components and passive sampler to monitor PMC, SO₂, HNO₃ and NO₂. It is expected to consider the applicability of the passive sampler for the Dry Deposition Monitoring of EANET in the future.

Table 4.1 Sampling Method and Parameter for Dry Deposition (Air Concentration) Monitoring in 2002

| Country | Name of sites | Characteristics of sites | Method | Parameter | |
|-------------------|---------------|--------------------------|--|---|---|
| China | Chongqing | Urban | - | None | |
| | -Guanyinqiao | Rural | AT | SO ₂ , NO ₂ , PM ₁₀ | |
| | -Jinyunshan | | | | |
| | Xi'an | Urban | - | None | |
| | -Shizhan | Rural | AT | SO ₂ , NO ₂ , PM ₁₀ | |
| | -Weishuiyuan | Remote | - | None | |
| | -Jiwozi | | | | |
| | Xiamen | Urban | AT | SO ₂ , NO ₂ , PM ₁₀ | |
| | -Hongwen | Remote | - | None | |
| | -Xiaoping | | | | |
| Zhuhai | Urban | AT | SO ₂ , NO ₂ , PM ₁₀ | | |
| -Xiang Zhou | Urban | - | None | | |
| -Zhuxian Cavern | | | | | |
| Indonesia | Jakarta | Urban | - | None | |
| | Serpong | Rural | FP | SO ₂ , HNO ₃ , HCl, NH ₃ , PMC | |
| | Kototabang | Remote | - | None | |
| | Bandung | Urban | - | None | |
| Japan | Rishiri | Remote | AT FP | SO ₂ , NO, NO _x *, O ₃ , PM _{10/2.5} HNO ₃ , HCl, NH ₃ , PMC | |
| | Tappi | Remote | AT | SO ₂ , NO, NO _x *, O ₃ , PM ₁₀ | |
| | Ogasawara | Remote | AT | SO ₂ , NO, NO _x *, O ₃ , PM ₁₀ | |
| | Sado-seki | Remote | AT | SO ₂ , NO, NO _x *, O ₃ , PM ₁₀ | |
| | Happo | Remote | AT | SO ₂ , NO, NO _x *, O ₃ , PM ₁₀ | |
| | Oki | Remote | AT FP | SO ₂ , NO, NO _x *, O ₃ , PM _{10/2.5} HNO ₃ , HCl, NH ₃ , PMC | |
| | Yusuhara | Remote | AT | SO ₂ , NO, NO _x *, O ₃ , PM ₁₀ | |
| | Hedo | Remote | AT | SO ₂ , NO, NO _x *, O ₃ , PM ₁₀ | |
| | Ijira | Rural | AT | SO ₂ , NO, NO _x *, O ₃ , PM ₁₀ | |
| | Banryu | Urban | AT | SO ₂ , NO, NO _x *, O ₃ , PM ₁₀ | |
| | Malaysia | Tanah Rata | Remote | FP PS | SO ₂ , HNO ₃ , NH ₃ , PMC NO ₂ |
| | | Petaling Jaya | Urban | AS PS AT | PMC SO ₂ , HNO ₃ , NO ₂ PM ₁₀ |
| | | | | | |
| | | | | | |
| Mongolia | Ulaanbaatar | Urban | FP | SO ₂ , HNO ₃ , HCl, NH ₃ , PMC | |
| | Terej | Remote | FP | SO ₂ , HNO ₃ , HCl, NH ₃ , PMC | |
| Philippines | Metro Manila | Urban | FP | SO ₂ , HNO ₃ , HCl, NH ₃ , PMC | |
| | Los Banos | Rural | FP | SO ₂ , HNO ₃ , HCl, NH ₃ , PMC | |
| Republic of Korea | Kanghwa | Rural | AT FP | SO ₂ , NO ₂ , O ₃ , PM ₁₀ PMC in PM _{2.5} | |
| | Cheju (Kosan) | Remote | AT FP | SO ₂ , NO ₂ , O ₃ , PM ₁₀ PMC in PM _{2.5} | |
| | Imsil | Rural | AT FP | SO ₂ , NO ₂ , O ₃ , PM ₁₀ PMC in PM _{2.5} | |
| | | | | | |
| | | | | | |
| | | | | | |

Table 4.1 Sampling Method and Parameter for Dry Deposition (Air Concentration) Monitoring in 2002 (continued)

| Country | Name of sites | Characteristics of sites | Method | Parameter |
|----------|-------------------------|--------------------------|----------|---|
| Russia | Mondy | Remote | FP AT | SO ₂ , HNO ₃ , HCl, NH ₃ , PMC O ₃ |
| | Listvyanka | Rural | FP | SO ₂ , HNO ₃ , HCl, NH ₃ , PMC |
| | Irkutsk | Urban | FP | SO ₂ , HNO ₃ , HCl, NH ₃ , PMC |
| | Primorskaya | Rural | FP | SO ₂ , HNO ₃ , HCl, NH ₃ , PMC |
| Thailand | Mae Hia | Rural | FP | SO ₂ , HNO ₃ , HCl, NH ₃ , PMC |
| | Vachiralongkorn Dam | Remote | AT FP | SO ₂ , NO, NO _x *, O ₃ , PM ₁₀ HNO ₃ , HCl, NH ₃ , PMC |
| | Bangkok Samutprakarn | Urban Urban | AT AT | SO ₂ , NO _x SO ₂ , NO _x , O ₃ |
| | Patumthani | Rural | - | |
| Vietnam | Hanoi | Urban | FP | SO ₂ , HNO ₃ , HCl, NH ₃ , PMC |
| | Hoa Binh | Rural | FP | SO ₂ , HNO ₃ , HCl, NH ₃ , PMC |

(Note 1) AT: Automatic monitor, FP: Filter pack, AS: Aerosol sampler, PS: passive sampler, PMC: particulate matter components

(Note 2) SO₂, HNO₃ and NH₃ measured by PS and PMC measured by AS in Tanah Rata and SO₂ measured by FP in Vachiralongkorn Dam are annexed in this Section 4.

Table 4.2 Methods of automatic monitors in 2002

| Country | Sites | Parameter | | | |
|-------------------|---------------------|-----------------|-----------------|----------------|---------------------------------------|
| | | SO ₂ | NO _x | O ₃ | PM ₁₀ (PM _{2.5}) |
| China | Jinyunshan | UVF | CLD | - | β-ray |
| | Weishuiyuan | UVF | CLD | - | β-ray |
| | Hongwen | DOAS | DOAS | - | TEOM |
| | Xianzhou | DOAS | DOAS | - | TEOM |
| Japan | Rishiri | UVF | CLD | UVP | β-ray (TEOM) |
| | Tappi | UVF | CLD | UVP | TEOM |
| | Ogasawara | UVF | CLD | UVP | β-ray |
| | Sado-seki | UVF | CLD | UVP | TEOM |
| | Happo | UVF | CLD | UVP | β-ray |
| | Oki | UVF | CLD | UVP | TEOM (TEOM) |
| | Yusuhara | UVF | CLD | UVP | β-ray |
| | Hedo | UVF | CLD | UVP | β-ray |
| | Ijira | UVF | CLD | UVP | TEOM |
| | Banryu | UVF | CLD | UVP | TEOM |
| Malaysia | Petaling Jaya | - | - | - | TEOM |
| Republic of Korea | Kanghwa | UVF | CLD | UVP | β-ray |
| | Cheju (Kosan) | UVF | CLD | UVP | β-ray |
| | Imsil | UVF | CLD | UVP | β-ray |
| Russia | Mondy | - | - | UVP | - |
| Thailand | Vachiralongkorn Dam | UVF | CLD | UVP | β-ray |
| | Samutprakarn | UVF | CLD | UVP | - |

(Note) UVF: ultraviolet fluorescent method, CLD: chemiluminescence detection method, UVP: ultraviolet photometric method, β-ray: β-ray absorption method, TEOM: Tapered Element Oscillating Microbalance method, DOAS: Differential Optical Absorption Spectroscopy method

Preparation of filter pack

| Stage | Specification of filter | Collected species |
|-------------------------|---|--|
| 1 st (F0) | PTFE filter (pore size: 0.8 μ m, diameter: 47mm) | Aerosols |
| 2 nd (F1) | Polyamide filter (pore size: 0.45 μ m, diameter: 47mm) | HNO ₃ , SO ₂ , HCl, NH ₃ |
| 3 rd (F2) | Impregnated cellulose filter Solution: 6% K ₂ CO ₃ + 2% glycerin | SO ₂ , HCl |
| 4 th (F3) | Impregnated cellulose filter Solution: 5% phosphoric acid + 2% glycerin | NH ₃ |



Sampling on site

| |
|---|
| Air flow rate: approximately 1 liter/minute Sampling period: a week or two weeks |
|---|



Pretreatment of filter pack

| Stage | Solvent | Extracted species |
|-------|---|---|
| F0 | Extracted by 20mL deionized water | SO ₄ ²⁻ , NO ₃ ⁻ , Cl ⁻ , NH ₄ ⁺ , Na ⁺ , K ⁺ , Ca ²⁺ , Mg ²⁺ |
| F1 | Extracted by 20mL deionized water | SO ₄ ²⁻ , NO ₃ ⁻ , Cl ⁻ , NH ₄ ⁺ |
| F2 | Extracted by 20mL 0.05% H ₂ O ₂ | SO ₄ ²⁻ , Cl ⁻ |
| F3 | Extracted by 20mL deionized water | NH ₄ ⁺ |



Chemical analysis

| |
|--|
| By Ion Chromatography or other suitable analytical methods |
|--|

Fig. 4.1 Recommended specification of four-stage filter pack method

4.2 Results of Monitoring

Monitoring data were summed up into monthly averaged values accompanied with maximum, minimum and data completeness for a month. For the calculations of monthly averages, non-detected data were regarded as zero. Summarized data are presented in [Table 4.3](#) through [Table 4.20](#).

In these tables, terms and abbreviations indicate the followings:

- Mean : monthly arithmetic average value,
- Max-d : maximum value of daily data in a month,
- Min-d : minimum value of daily data in a month,
- Max-10d : maximum value of 10-day interval data in a month,
- Min-10d : minimum value of 10-day interval data in a month,
- Max-w : maximum value of weekly data in a month,
- Min-w : minimum value of weekly data in a month,
- Max-2w : maximum value of biweekly data in a month,
- Min-2w : minimum value of biweekly data in a month,
- Max-* : maximum value of flexible interval data in a month,
- Min-* : minimum value of flexible interval data in a month,
- % : percentage of period of available data during a month,
- NOx* : NOx measured by CLD in remote or rural sites.

In the case of automatic monitoring in rural and remote sites, a lot of non-detected data can be appeared, especially in the data of SO₂ and NO_x. Median value could be representative value in that case. Median value (Median) and percentage of period of available data during a month not including data under detection limit (%*) in Japanese remote sites are shown in [Table 4.21](#) through [Table 4.23](#).

In the [Table 4.3](#) though [Table 4.23](#), ppb unit for gas and µg/m³ unit for particle were used. Approximate conversion ratios from ppb to µg/m³, which are based on 20°C, 1 atm, were shown in [Table 4.24](#).

Actually detection limit depends on specification of instrument or procedures of sampling and analysis. NC set up expedient detection limits as shown in [Table 4.25](#) taking into account methods adopted by each country. Data under the detection limit were treated as “N.D.” in the [Table 4.3](#) though [Table 4.23](#).

Table 4.3 SO₂

| Unit: ppb | | | 2002 | | | | | | | | | | | | |
|-----------|-------------|---------------|-------|------|------|------|------|------|------|------|------|------|------|------|------|
| Country | Site | | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | |
| China | Jinyunshan | Mean | 20.0 | 17.5 | 13.4 | 10.5 | 5.3 | 5.3 | 5.3 | 6.9 | 10.3 | 10.7 | 15.3 | 12.1 | |
| | | % | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | | Max-d | 43.1 | 43.1 | 31.1 | 23.3 | 14.6 | 19.5 | 11.6 | 19.9 | 19.9 | 22.9 | 38.6 | 23.6 | |
| | | Min-d | 6.8 | 5.3 | 3.8 | 1.5 | 1.1 | 1.1 | 1.1 | 1.5 | 1.9 | 1.9 | 3.8 | 3.8 | |
| | Weishuiyuan | Mean | 9.5 | 8.9 | 5.3 | 3.3 | 3.0 | 3.7 | 3.0 | 3.1 | 2.4 | 3.1 | 4.9 | 4.6 | |
| | | % | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | | Max-d | 18.4 | 12.8 | 11.6 | 5.3 | 5.3 | 11.6 | 4.1 | 4.1 | 3.4 | 8.6 | 8.6 | 9.8 | |
| | | Min-d | 2.3 | 4.1 | 2.3 | 2.3 | 1.1 | 1.1 | 1.1 | 1.1 | 1.1 | 1.1 | 2.3 | 1.1 | |
| | Hongwen | Mean | 17.0 | 11.3 | 13.2 | 11.0 | 8.1 | 6.2 | 6.3 | 6.1 | 9.1 | 11.0 | 11.4 | 11.5 | |
| | | % | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | | Max-d | 29.6 | 17.6 | 20.6 | 32.6 | 18.4 | 10.9 | 13.9 | 11.3 | 14.6 | 20.3 | 22.5 | 20.3 | |
| | | Min-d | 7.5 | 5.3 | 5.3 | 3.0 | 2.6 | 1.5 | 1.1 | 0.8 | 3.8 | 3.0 | 4.9 | 4.9 | |
| | Xiang Zhou | Mean | 17.4 | 8.3 | 8.5 | 7.0 | 8.6 | 4.6 | 7.8 | 9.2 | 7.8 | 11.5 | 13.7 | 9.2 | |
| | | % | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | | Max-d | 35.6 | 25.1 | 26.6 | 28.5 | 38.3 | 12.0 | 21.8 | 22.9 | 18.4 | 31.5 | 27.0 | 18.4 | |
| | | Min-d | 4.9 | 2.3 | 1.5 | 2.6 | 1.5 | 1.5 | 1.9 | 1.9 | 1.5 | 3.0 | 4.9 | 2.3 | |
| Indonesia | Serpong | Mean | 0.4 | 0.6 | 1.1 | 0.6 | 0.3 | 1.3 | 0.1 | 1.1 | 1.8 | 1.9 | 1.3 | 1.5 | |
| | | % | 84 | 65 | 100 | 100 | 100 | 80 | 100 | 97 | 100 | 97 | 100 | 80 | |
| | | Max-w | 0.8 | 0.9 | 3.0 | 1.3 | 0.6 | 2.6 | 0.3 | 2.2 | 3.1 | 2.8 | 1.6 | 2.2 | |
| | | Min-w | 0.1 | N.D. | N.D. | N.D. | 0.1 | N.D. | N.D. | N.D. | 0.9 | 1.1 | 0.6 | 0.9 | |
| Japan | Rishiri | Mean | 0.2 | 0.6 | 0.1 | N.D. | 0.2 | N.D. | N.D. | N.D. | N.D. | N.D. | 0.3 | 0.5 | |
| | | % | 98 | 99 | 87 | 97 | 97 | 97 | 97 | 98 | 97 | 88 | 97 | 97 | |
| | | Max-d | 0.4 | 1.5 | 0.5 | 0.4 | 0.6 | 0.4 | 0.2 | 0.4 | 0.2 | 0.2 | 2.4 | 1.9 | |
| | | Min-d | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | |
| | Tappi | Mean | 0.5 | 0.6 | 0.3 | 0.2 | 0.3 | 0.3 | 0.1 | 0.1 | 0.2 | 0.2 | 0.5 | 0.6 | |
| | | % | 99 | 99 | 99 | 99 | 99 | 88 | 98 | 99 | 61 | 99 | 99 | 99 | |
| | | Max-d | 1.2 | 2.0 | 0.8 | 0.8 | 1.3 | 1.5 | 0.4 | 0.4 | 0.7 | 0.6 | 4.0 | 4.6 | |
| | | Min-d | N.D. | 0.1 | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | |
| | Sado-seki | Mean | 1.0 | 1.1 | 0.5 | 0.5 | 0.2 | 0.6 | 0.3 | 0.3 | 0.3 | 0.4 | 0.5 | 0.3 | |
| | | % | 87 | 71 | 72 | 98 | 99 | 82 | 98 | 98 | 98 | 42 | 75 | 98 | |
| | | Max-d | 3.1 | 4.7 | 2.1 | 2.5 | 0.9 | 4.2 | 1.0 | 2.1 | 2.7 | 1.3 | 2.0 | 1.5 | |
| | | Min-d | 0.1 | 0.2 | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | |
| | Happo | Mean | 0.9 | 0.5 | 0.6 | 0.5 | 0.4 | 0.5 | 0.6 | 0.6 | 0.5 | 0.5 | 0.4 | 0.4 | |
| | | % | 98 | 98 | 87 | 98 | 97 | 98 | 83 | 94 | 98 | 86 | 68 | 98 | |
| | | Max-d | 3.2 | 1.6 | 4.2 | 2.4 | 2.6 | 3.7 | 6.9 | 5.4 | 3.8 | 4.2 | 1.1 | 1.2 | |
| | | Min-d | N.D. | 0.1 | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | |
| | Ogasawara | Mean | 0.3 | 0.3 | 0.1 | N.D. | 0.1 | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | |
| | | % | 98 | 97 | 90 | 98 | 97 | 96 | 91 | 97 | 95 | 95 | 96 | 97 | |
| | | Max-d | 0.7 | 0.8 | 1.7 | 0.5 | 2.8 | N.D. | 0.1 | N.D. | 0.1 | 0.2 | 0.4 | 0.3 | |
| | | Min-d | 0.2 | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | |
| | Oki | Mean | 1.3 | 1.2 | 0.6 | 0.4 | 0.3 | 0.3 | 0.2 | 0.1 | N.D. | N.D. | 0.3 | 0.2 | |
| | | % | 47 | 98 | 93 | 97 | 72 | 97 | 96 | 98 | 97 | 88 | 97 | 97 | |
| | | Max-d | 3.5 | 5.1 | 2.2 | 1.5 | 1.2 | 1.0 | 0.7 | 0.7 | N.D. | 0.6 | 1.6 | 0.8 | |
| | | Min-d | 0.1 | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | |
| | Ijira | Mean | 0.2 | 0.3 | 0.5 | 0.6 | 0.6 | 0.9 | 1.4 | 0.6 | 0.3 | 0.3 | 0.2 | 0.2 | |
| | | % | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | | Max-d | 1.3 | 1.0 | 3.8 | 3.6 | 6.6 | 9.2 | 11.4 | 3.4 | 1.4 | 1.2 | 0.5 | 0.5 | |
| | | Min-d | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | |
| | Banryu | Mean | 1.7 | 1.0 | 1.2 | 0.7 | 0.6 | 0.7 | 0.7 | 0.6 | 0.8 | 1.0 | 0.9 | 1.1 | |
| | | % | 62 | 77 | 47 | 97 | 10 | 72 | 98 | 98 | 98 | 98 | 83 | 42 | |
| | | Max-d | 5.0 | 2.6 | 2.8 | 2.2 | 1.0 | 1.7 | 2.2 | 2.6 | 2.5 | 4.3 | 3.1 | 3.0 | |
| | | Min-d | 0.1 | 0.4 | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | 0.2 | 0.3 | 0.4 | 0.2 | |
| | Yusuhara | Mean | 1.1 | 1.6 | 1.2 | 0.8 | 0.4 | 0.6 | 0.4 | 0.4 | 0.3 | 0.8 | 1.2 | 1.0 | |
| | | % | 98 | 100 | 98 | 97 | 85 | 98 | 98 | 98 | 98 | 98 | 91 | 99 | |
| | | Max-d | 3.8 | 4.2 | 3.7 | 3.1 | 1.5 | 1.7 | 3.3 | 2.7 | 0.8 | 4.0 | 4.3 | 6.2 | |
| | | Min-d | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | 0.3 | N.D. | |
| | Hedo | Mean | 0.6 | 0.4 | 0.4 | 0.3 | 0.2 | N.D. | 0.1 | 0.2 | 0.3 | 0.2 | 0.3 | 0.3 | |
| | | % | 98 | 97 | 97 | 97 | 97 | 98 | 94 | 98 | 86 | 97 | 97 | 81 | |
| | | Max-d | 2.7 | 1.9 | 1.6 | 3.3 | 1.2 | 0.1 | 0.9 | 0.8 | 1.4 | 1.1 | 1.8 | 1.5 | |
| | | Min-d | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | |
| | Malaysia | TanahRata | Mean | 0.1 | N.D. | 0.1 | N.D. | N.D. | 0.1 | 0.1 | N.D. | N.D. | N.D. | N.D. | N.D. |
| | | | % | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | | | Max-w | 0.3 | N.D. | 0.5 | N.D. | 0.1 | 0.3 | 0.2 | 0.2 | 0.1 | N.D. | N.D. | N.D. |
| | | | Min-w | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| | | Petaling Jaya | Mean | 6.7 | 5.7 | 6.0 | 5.9 | 4.7 | 4.1 | 4.4 | 4.5 | 5.8 | 3.4 | 4.5 | 4.7 |
| | | | % | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 88 | 100 | 100 |
| | | | Max-w | 8.9 | 9.0 | 8.1 | 6.6 | 6.8 | 8.2 | 5.7 | 5.3 | 9.3 | 4.8 | 6.8 | 6.7 |
| | | | Min-w | 4.6 | 4.4 | 4.1 | 4.6 | 2.9 | 0.6 | 0.7 | 3.8 | 4.0 | 3.0 | 3.4 | 3.2 |

Table 4.3 SO₂

| Unit: ppb | | | 2002 | | | | | | | | | | | | |
|-------------------|---------------------|---------|------|------|------|------|------|------|------|------|------|------|------|------|-----|
| Country | Site | | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | |
| Mongolia | Ulaanbaatar | Mean | - | - | - | - | 0.8 | 0.8 | 0.6 | 0.5 | 1.4 | 1.8 | 0.9 | - | |
| | | % | - | - | - | - | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 25 | - |
| | | Max-w | - | - | - | - | 1.9 | 1.5 | 0.9 | 1.4 | 2.3 | 2.2 | 2.6 | - | - |
| | | Min-w | - | - | - | - | 0.3 | 0.4 | 0.3 | N.D. | 0.3 | 1.4 | N.D. | - | - |
| | Terej | Mean | 0.8 | 0.6 | 0.6 | 0.3 | 0.1 | 0.2 | 0.2 | 0.1 | N.D. | 0.1 | 0.3 | 0.2 | - |
| | | % | 44 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | | Max-w | 2.3 | 1.2 | 0.9 | 0.5 | 0.2 | 0.2 | 0.3 | 0.2 | N.D. | 0.2 | 0.5 | 0.3 | - |
| | | Min-w | 1.0 | 0.2 | 0.2 | 0.2 | N.D. | N.D. | 0.1 | N.D. | N.D. | N.D. | 0.2 | 0.2 | - |
| Republic of Korea | Kanghwa | Mean | 4.0 | 3.0 | 4.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 5.0 | 6.0 | |
| | | % | 81 | 93 | 100 | 87 | 100 | 100 | 100 | 97 | 100 | 100 | 93 | 100 | |
| | | Max-d | 8.0 | 5.0 | 7.0 | 6.0 | 4.0 | 7.0 | 6.0 | 5.0 | 5.0 | 6.0 | 10.0 | 10.0 | |
| | | Min-d | 2.0 | 2.0 | 2.0 | 2.0 | 1.0 | 2.0 | 2.0 | 1.0 | 2.0 | 1.0 | 3.0 | 4.0 | |
| | Cheju | Mean | 2.0 | 2.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 2.0 | |
| | | % | 100 | 100 | 100 | 100 | 100 | 87 | 100 | 90 | 97 | 100 | 90 | 100 | |
| | | Max-d | 10.0 | 11.0 | 3.0 | 3.0 | 2.0 | 2.0 | 2.0 | 1.0 | 3.0 | 3.0 | 3.0 | 6.0 | |
| | | Min-d | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | N.D. | 1.0 | N.D. | 1.0 | 1.0 | N.D. | N.D. | |
| | Imsil | Mean | 3.0 | 4.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 1.0 | 1.0 | 1.0 | 2.0 | 5.0 | |
| | | % | 100 | 93 | 77 | 100 | 94 | 83 | 100 | 77 | 100 | 77 | 87 | 94 | |
| | | Max-d | 7.0 | 7.0 | 4.0 | 3.0 | 4.0 | 3.0 | 3.0 | 2.0 | 2.0 | 2.0 | 3.0 | 4.0 | |
| | | Min-d | 2.0 | 3.0 | 1.0 | 1.0 | 1.0 | 2.0 | 2.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | |
| Philippines | Metro Manila | Mean | 4.4 | 7.0 | 5.8 | 4.7 | 4.0 | 4.3 | 2.3 | 3.8 | 4.5 | 4.2 | 3.6 | 2.7 | |
| | | % | 73 | 100 | 100 | 79 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 81 | |
| | | Max-* | 7.1 | 8.1 | 7.1 | 5.0 | 5.9 | 5.1 | 3.5 | 6.0 | 5.1 | 6.6 | 4.5 | 3.5 | |
| | | Min-* | 0.3 | 4.9 | 5.0 | 4.4 | 0.5 | 2.7 | 1.0 | 1.3 | 3.5 | 0.2 | 2.9 | 2.2 | |
| | Los Banos | Mean | 0.3 | 0.1 | 0.2 | 0.6 | 0.7 | 0.5 | 3.3 | 1.9 | 2.3 | 0.3 | 0.2 | N.D. | |
| | | % | 74 | 97 | 100 | 100 | 100 | 100 | 100 | 100 | 61 | 100 | 100 | 82 | |
| | | Max-* | 0.3 | 0.2 | 0.4 | 0.7 | 1.1 | 0.7 | 4.8 | 4.3 | 2.3 | 0.6 | 0.2 | 0.1 | |
| | | Min-* | 0.2 | N.D. | N.D. | 0.5 | 0.3 | 0.3 | 0.9 | 0.2 | 2.3 | N.D. | 0.2 | N.D. | |
| Russia | Mondy | Mean | 0.1 | 0.2 | 0.2 | 0.1 | 0.1 | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | |
| | | % | 94 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | | Max-2w | 0.1 | 0.3 | 0.2 | 0.1 | 0.2 | N.D. | 0.2 | N.D. | N.D. | N.D. | N.D. | 0.1 | |
| | | Min-2w | N.D. | 0.1 | 0.2 | 0.1 | 0.1 | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | |
| | Listvianka | Mean | 1.9 | 1.5 | 1.8 | 0.9 | 1.0 | 0.6 | 0.7 | 0.5 | 0.8 | 1.1 | 1.6 | 1.3 | |
| | | % | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | | Max-10d | 2.3 | 1.8 | 2.2 | 1.4 | 1.7 | 0.9 | 1.0 | 0.6 | 0.9 | 2.0 | 2.1 | 1.6 | |
| | | Min-10d | 1.4 | 1.2 | 1.1 | 0.7 | 0.3 | 0.4 | 0.6 | 0.5 | 0.7 | 0.4 | 0.9 | 0.6 | |
| | Irkutsk | Mean | 1.2 | 1.5 | 0.8 | 0.9 | 0.4 | 0.2 | N.D. | 0.4 | 0.1 | 0.4 | 1.2 | 1.7 | |
| | | % | 65 | 50 | 60 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | | Max-w | 2.1 | 1.9 | 1.2 | 1.3 | 0.9 | 0.3 | 0.1 | 1.1 | 0.2 | 0.9 | 1.3 | 2.2 | |
| | | Min-w | 0.7 | 1.2 | 0.6 | 0.2 | 0.2 | N.D. | N.D. | 0.2 | N.D. | 0.2 | 0.9 | 0.8 | |
| | Primorskaya | Mean | 0.6 | 0.5 | 0.4 | 0.6 | 0.8 | 0.7 | 0.5 | 0.2 | N.D. | 0.2 | 0.3 | 0.7 | |
| | | % | 100 | 100 | 82 | 64 | 75 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | | Max-w | 0.7 | 0.6 | 0.5 | 0.8 | 0.9 | 0.9 | 0.8 | 0.3 | 0.1 | 0.2 | 0.3 | 0.8 | |
| | | Min-w | 0.5 | 0.4 | 0.4 | 0.4 | 0.7 | 0.6 | 0.3 | 0.2 | N.D. | 0.2 | 0.2 | 0.5 | |
| Thai Land | Mae Hia | Mean | 0.9 | 0.1 | 0.1 | - | 0.7 | 0.2 | 1.1 | - | - | 0.7 | - | - | |
| | | % | 23 | 25 | 23 | - | 23 | 23 | 23 | - | - | 23 | - | - | |
| | | Max-w | - | - | - | - | - | - | - | - | - | - | - | - | |
| | | Min-w | - | - | - | - | - | - | - | - | - | - | - | - | |
| | Vachiralongkorn Dam | Mean | - | - | 1.0 | 1.0 | - | - | 2.9 | - | - | - | 0.6 | - | |
| | | % | - | - | 16 | 36 | - | - | 41 | - | - | - | 35 | - | |
| | | Max-d | - | - | 2.0 | 1.7 | - | - | 4.6 | - | - | - | 1.2 | - | |
| | | Min-d | - | - | 0.7 | 0.3 | - | - | 1.7 | - | - | - | N.D. | - | |
| | Bangkok | Mean | 4.9 | 3.3 | 1.0 | 1.4 | 1.3 | 2.2 | 2.9 | 1.8 | 2.0 | 2.4 | 2.8 | 3.6 | |
| | | % | 87 | 98 | 99 | 99 | 98 | 100 | 96 | 95 | 96 | 95 | 95 | 95 | |
| | | Max-d | 10.2 | 6.1 | 7.9 | 2.8 | 2.4 | 6.6 | 6.0 | 4.4 | 4.7 | 6.3 | 5.5 | 6.7 | |
| | | Min-d | 1.2 | 0.7 | 0.2 | N.D. | 0.6 | 0.3 | 0.7 | N.D. | 0.5 | N.D. | 0.7 | 0.8 | |
| | Samutprakarn | Mean | 4.5 | 2.0 | 2.0 | 3.7 | 4.6 | 5.2 | 2.7 | 5.6 | 7.7 | 4.2 | 4.9 | 5.9 | |
| | | % | 93 | 81 | 92 | 93 | 82 | 94 | 94 | 90 | 89 | 93 | 95 | 95 | |
| | | Max-d | 11.3 | 5.5 | 8.1 | 9.0 | 8.2 | 16.0 | 6.4 | 16.8 | 15.1 | 9.1 | 8.5 | 12.0 | |
| | | Min-d | N.D. | N.D. | 0.4 | 0.7 | 0.6 | 0.5 | 0.3 | N.D. | 1.1 | 0.2 | 0.9 | 2.4 | |
| Viet Nam | Ha Noi | Mean | 3.2 | 6.0 | 4.9 | 4.0 | 1.7 | 1.3 | 1.2 | 3.0 | 1.9 | 1.5 | 1.9 | 2.0 | |
| | | % | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | | Max-w | 5.1 | 13.6 | 9.4 | 5.4 | 2.9 | 2.0 | 1.6 | 9.6 | 2.7 | 1.8 | 3.1 | 2.5 | |
| | | Min-w | 1.3 | 2.4 | 2.5 | 2.5 | 1.1 | 0.9 | 0.9 | 0.9 | 1.5 | 1.0 | 0.9 | 1.5 | |
| | Hoa Binh | Mean | 2.9 | 7.2 | 2.8 | 2.1 | 1.7 | 1.7 | 0.8 | 1.8 | 2.0 | 1.6 | 1.3 | 2.8 | |
| | | % | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | | Max-w | 5.6 | 19.9 | 5.4 | 3.6 | 3.2 | 2.3 | 0.9 | 2.1 | 2.7 | 2.5 | 1.9 | 6.9 | |
| | | Min-w | 1.0 | 0.6 | 1.0 | 0.9 | 0.9 | 1.1 | 0.7 | 1.6 | 1.3 | 1.2 | 0.8 | 0.9 | |

Table 4.4 HNO₃

| Unit: ppb | | 2002 | | | | | | | | | | | | |
|-------------|--------------------|---------|------|------|------|------|------|------|------|------|------|------|------|------|
| Country | Site | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | |
| Indonesia | Serpong | Mean | 0.4 | 1.4 | 0.5 | 0.8 | 0.5 | 0.9 | 0.4 | 1.0 | 4.3 | 4.4 | 0.4 | 0.6 |
| | | % | 84 | 65 | 100 | 100 | 100 | 80 | 100 | 97 | 100 | 97 | 100 | 80 |
| | | Max-w | 1.0 | 3.5 | 0.9 | 1.8 | 0.8 | 2.7 | 0.8 | 2.6 | 5.6 | 7.3 | 0.6 | 1.1 |
| | | Min-w | 0.2 | 0.2 | 0.1 | N.D. | 0.4 | 0.2 | 0.2 | N.D. | 3.4 | 2.3 | N.D. | N.D. |
| Japan | Rishiri | Mean | - | - | - | - | - | - | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| | | % | - | - | - | - | - | - | 100 | 100 | 100 | 100 | 100 | 100 |
| | | Max-2w | - | - | - | - | - | - | 0.1 | N.D. | 0.1 | N.D. | N.D. | N.D. |
| | | Min-2w | - | - | - | - | - | - | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| | Oki | Mean | - | - | - | 0.1 | 0.1 | 0.3 | 0.3 | N.D. | N.D. | 0.2 | N.D. | N.D. |
| | | % | - | - | - | 23 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| Max-2w | | - | - | - | N.D. | N.D. | 0.4 | 0.3 | 0.2 | N.D. | 0.3 | N.D. | N.D. | |
| Min-2w | | - | - | - | N.D. | N.D. | 0.3 | 0.1 | N.D. | N.D. | N.D. | N.D. | N.D. | |
| Malaysia | TanahRata | Mean | N.D. | N.D. | N.D. | N.D. | 0.1 | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| | | % | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | | Max-w | N.D. | N.D. | N.D. | N.D. | 0.3 | 0.2 | 0.2 | 0.2 | 0.1 | 0.2 | N.D. | N.D. |
| | | Min-w | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| | Petaling Jaya | Mean | 1.5 | 2.2 | 3.1 | 2.2 | 1.1 | 1.3 | 1.4 | 1.4 | 1.8 | 2.0 | 1.7 | 1.7 |
| | | % | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 88 | 100 | 100 |
| Max-w | | 2.9 | 3.9 | 7.2 | 2.8 | 1.5 | 1.7 | 2.1 | 1.5 | 2.6 | 3.8 | 3.1 | 2.6 | |
| Min-w | | 0.9 | 1.0 | 1.4 | 1.5 | 0.7 | 0.7 | 0.8 | 1.0 | 1.5 | 1.1 | 1.0 | 1.2 | |
| Mongolia | Ulaanbaatar | Mean | - | - | - | - | 0.1 | N.D. | N.D. | 0.1 | 0.1 | N.D. | N.D. | - |
| | | % | - | - | - | - | 100 | 100 | 100 | 100 | 100 | 100 | 25 | - |
| | | Max-w | - | - | - | - | 0.1 | 0.1 | N.D. | 0.2 | 0.2 | N.D. | N.D. | - |
| | | Min-w | - | - | - | - | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | - |
| | Terej | Mean | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | 0.1 | N.D. | N.D. | N.D. | N.D. |
| | | % | 44 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| Max-w | | 0.1 | N.D. | N.D. | N.D. | N.D. | N.D. | 0.1 | 0.2 | N.D. | N.D. | N.D. | N.D. | |
| Min-w | | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | |
| Philippines | Metro Manila | Mean | 0.3 | 0.1 | 0.2 | 0.2 | N.D. | 0.3 | 0.2 | 0.3 | 0.3 | 0.4 | 0.2 | 0.1 |
| | | % | 73 | 100 | 100 | 79 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 81 |
| | | Max-* | 0.3 | 0.1 | 0.3 | 0.2 | 0.1 | 0.4 | 0.3 | 0.5 | 0.5 | 0.6 | 0.3 | 0.3 |
| | | Min-* | 0.2 | N.D. | 0.1 | 0.2 | N.D. | 0.1 | N.D. | 0.2 | N.D. | N.D. | N.D. | N.D. |
| | Los Banos | Mean | N.D. | N.D. | N.D. | 0.2 | N.D. | N.D. | 0.4 | 0.2 | 0.5 | N.D. | N.D. | N.D. |
| | | % | 74 | 97 | 100 | 100 | 100 | 100 | 100 | 100 | 61 | 100 | 100 | 82 |
| Max-* | | 0.1 | 0.1 | 0.2 | 0.4 | N.D. | N.D. | 1.0 | 0.3 | 0.5 | N.D. | N.D. | N.D. | |
| Min-* | | N.D. | N.D. | N.D. | 0.1 | N.D. | N.D. | N.D. | 0.2 | 0.5 | N.D. | N.D. | N.D. | |
| Russia | Mondy | Mean | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| | | % | 94 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | | Max-2w | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | 0.1 | N.D. | N.D. | N.D. | N.D. |
| | | Min-2w | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| | Listvianka | Mean | 0.5 | 0.6 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.3 | 0.3 | 0.3 | 0.3 | 0.4 |
| | | % | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | | Max-10d | 0.7 | 0.9 | 0.4 | 0.4 | 0.7 | 0.5 | 0.4 | 0.3 | 0.4 | 0.3 | 0.6 | 0.6 |
| | | Min-10d | 0.3 | 0.4 | 0.3 | 0.3 | N.D. | 0.3 | 0.4 | 0.2 | 0.3 | 0.2 | 0.2 | 0.2 |
| | Irkutsk | Mean | 0.3 | 0.3 | 0.3 | N.D. | N.D. | N.D. | N.D. | 0.3 | N.D. | N.D. | 0.1 | 0.1 |
| | | % | 65 | 50 | 60 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | | Max-w | 0.6 | 0.3 | 0.4 | 0.2 | 0.2 | 0.1 | N.D. | 0.9 | N.D. | N.D. | 0.2 | 0.1 |
| | | Min-w | 0.1 | 0.2 | 0.2 | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | 0.1 |
| Primorskaya | Mean | 0.3 | 0.2 | 0.2 | 0.2 | 0.2 | 0.1 | 0.1 | N.D. | 0.1 | N.D. | 0.1 | N.D. | |
| | % | 100 | 100 | 82 | 64 | 75 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | Max-w | 0.3 | 0.2 | 0.4 | 0.3 | 0.3 | 0.1 | 0.1 | 0.1 | 0.1 | N.D. | 0.2 | N.D. | |
| | Min-w | 0.2 | 0.1 | 0.1 | 0.1 | 0.2 | 0.1 | 0.1 | N.D. | 0.1 | N.D. | N.D. | N.D. | |
| Thai Land | Mae Hia | Mean | 0.1 | 0.9 | N.D. | - | 0.4 | N.D. | N.D. | - | - | N.D. | - | - |
| | | % | 23 | 25 | 23 | - | 23 | 23 | 23 | - | - | 23 | - | - |
| | | Max-w | - | - | - | - | - | - | - | - | - | - | - | - |
| | | Min-w | - | - | - | - | - | - | - | - | - | - | - | - |
| | Vachiralongkom Dam | Mean | - | - | - | - | - | - | 0.2 | - | - | - | - | - |
| | | % | - | - | - | - | - | - | 61 | - | - | - | - | - |
| Max-w | | - | - | - | - | - | - | 0.3 | - | - | - | - | - | |
| Min-w | | - | - | - | - | - | - | N.D. | - | - | - | - | - | |
| Viet Nam | Ha Noi | Mean | 1.8 | 2.4 | 2.1 | 2.9 | 1.9 | 1.5 | 1.5 | 2.1 | 2.2 | 1.5 | 1.7 | 1.7 |
| | | % | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | | Max-w | 3.2 | 3.7 | 3.8 | 7.1 | 2.5 | 2.2 | 2.2 | 4.0 | 3.7 | 2.0 | 2.3 | 2.7 |
| | | Min-w | 1.2 | 1.6 | 1.1 | 1.2 | 1.6 | 1.0 | 1.1 | 1.5 | 1.2 | 1.2 | 1.3 | 0.9 |
| | Hoa Binh | Mean | 1.7 | 3.1 | 2.5 | 2.1 | 2.0 | 1.5 | 1.6 | 2.1 | 1.8 | 1.0 | 1.1 | 1.0 |
| | | % | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| Max-w | | 3.3 | 4.9 | 4.5 | 3.0 | 3.3 | 1.8 | 2.1 | 2.8 | 3.6 | 1.5 | 1.4 | 1.5 | |
| Min-w | | 1.0 | 1.4 | 1.4 | 1.3 | 1.5 | 1.2 | 1.2 | 1.6 | 0.9 | 0.7 | 0.8 | 0.5 | |

Table 4.5 HCl

| Unit: ppb | | | 2002 | | | | | | | | | | | |
|-------------|--------------------|---------|------|------|------|------|------|------|------|------|------|------|------|------|
| Country | Site | | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
| Indonesia | Serpong | Mean | 3.1 | 6.9 | 6.9 | 3.2 | 2.5 | 2.8 | 0.8 | 0.9 | 0.8 | 0.5 | 1.3 | 1.6 |
| | | % | 84 | 65 | 100 | 100 | 100 | 80 | 100 | 97 | 100 | 97 | 100 | 80 |
| | | Max-w | 8.6 | 12.9 | 15.5 | 5.0 | 3.6 | 4.5 | 1.4 | 2.0 | 2.6 | 0.7 | 3.3 | 2.4 |
| | | Min-w | N.D. | 3.0 | 1.8 | 1.3 | 2.1 | 1.2 | 0.2 | 0.2 | 0.1 | 0.5 | 0.4 | 0.6 |
| Japan | Rishiri | Mean | - | - | - | - | - | - | 0.3 | 0.4 | 0.3 | 0.2 | 0.3 | 0.1 |
| | | % | - | - | - | - | - | - | 100 | 100 | 100 | 100 | 100 | 100 |
| | | Max-2w | - | - | - | - | - | - | 0.4 | 0.5 | 0.7 | 0.3 | 0.3 | 0.2 |
| | | Min-2w | - | - | - | - | - | - | 0.3 | 0.3 | N.D. | N.D. | 0.2 | N.D. |
| | Okii | Mean | - | - | - | 0.3 | 0.2 | 0.2 | 0.3 | 0.3 | 0.3 | 0.3 | 0.2 | 0.2 |
| | | % | - | - | - | 23 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | | Max-2w | - | - | - | N.D. | 0.2 | 0.2 | 0.4 | 0.4 | 0.3 | 0.4 | 0.2 | 0.2 |
| | | Min-2w | - | - | - | N.D. | 0.2 | 0.1 | 0.2 | 0.2 | 0.2 | 0.3 | 0.2 | 0.2 |
| Malaysia | TanahRata | Mean | - | - | - | - | - | - | - | - | - | - | - | - |
| | | % | - | - | - | - | - | - | - | - | - | - | - | - |
| | | Max-w | - | - | - | - | - | - | - | - | - | - | - | - |
| | | Min-w | - | - | - | - | - | - | - | - | - | - | - | - |
| Mongolia | Ulaanbaatar | Mean | - | - | - | - | 0.4 | 0.5 | 0.5 | 0.5 | 0.3 | 0.7 | 0.2 | - |
| | | % | - | - | - | - | 100 | 100 | 100 | 100 | 100 | 100 | 25 | - |
| | | Max-w | - | - | - | - | 0.5 | 0.6 | 0.6 | 1.1 | 0.5 | 1.0 | 0.5 | - |
| | | Min-w | - | - | - | - | 0.2 | 0.3 | 0.2 | 0.2 | 0.2 | 0.4 | N.D. | - |
| | Terej | Mean | 0.1 | 0.2 | 0.2 | 0.3 | 0.2 | 0.3 | 0.4 | 0.3 | 0.2 | 0.4 | 0.2 | 0.4 |
| | | % | 44 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | | Max-w | 0.3 | 0.4 | 0.3 | 0.4 | 0.2 | 0.6 | 0.5 | 0.5 | 0.5 | 0.5 | 0.2 | 0.6 |
| | | Min-w | 0.2 | 0.1 | 0.2 | 0.2 | 0.1 | 0.1 | 0.2 | 0.1 | N.D. | 0.2 | N.D. | 0.3 |
| Philippines | Metro Manila | Mean | N.D. | 0.5 | 1.3 | 0.7 | 0.6 | 1.1 | 1.2 | 0.7 | 0.9 | 0.8 | 0.7 | 2.5 |
| | | % | 73 | 100 | 100 | 79 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 81 |
| | | Max-* | 1.2 | 1.4 | 2.7 | 0.8 | 1.2 | 1.4 | 2.7 | 1.2 | 1.5 | 1.5 | 0.8 | 4.1 |
| | | Min-* | N.D. | N.D. | 0.5 | 0.6 | 0.1 | 0.8 | 0.4 | 0.5 | 0.4 | N.D. | 0.6 | 0.7 |
| | Los Banos | Mean | 1.7 | N.D. | 0.4 | 0.7 | N.D. | 1.0 | 0.3 | 0.7 | 0.8 | 0.5 | 0.6 | N.D. |
| | | % | 74 | 97 | 100 | 100 | 100 | 100 | 100 | 100 | 61 | 100 | 100 | 82 |
| | | Max-* | 6.3 | 0.4 | 0.6 | 1.5 | 0.6 | 1.6 | 0.7 | 0.9 | 0.8 | 1.0 | 0.8 | 0.6 |
| | | Min-* | N.D. | N.D. | N.D. | N.D. | N.D. | 0.4 | N.D. | 0.5 | 0.8 | N.D. | 0.4 | N.D. |
| Russia | Mondy | Mean | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | 0.1 |
| | | % | 94 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | | Max-2w | N.D. | 0.1 | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | 0.1 |
| | | Min-2w | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| | Listvianka | Mean | 0.2 | 0.2 | 0.3 | 0.2 | 0.3 | 0.6 | 0.8 | 0.5 | 0.3 | 0.3 | 0.5 | 0.5 |
| | | % | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | | Max-10d | 0.4 | 0.4 | 0.5 | 0.3 | 0.6 | 0.7 | 0.9 | 0.5 | 0.6 | 0.5 | 1.1 | 0.8 |
| | | Min-10d | N.D. | 0.1 | 0.2 | 0.2 | N.D. | 0.4 | 0.6 | 0.4 | 0.2 | 0.2 | 0.2 | 0.2 |
| | Irkutsk | Mean | 0.5 | 0.3 | 0.5 | 0.3 | 0.2 | 0.3 | 0.2 | 0.2 | 0.5 | 0.3 | 0.4 | 0.3 |
| | | % | 65 | 50 | 60 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | | Max-w | 1.0 | 0.4 | 0.8 | 0.3 | 0.3 | 0.4 | 0.2 | 0.3 | 1.0 | 0.3 | 0.8 | 0.3 |
| | | Min-w | 0.3 | 0.2 | 0.2 | 0.2 | 0.1 | 0.2 | 0.2 | N.D. | 0.2 | 0.2 | 0.2 | 0.3 |
| | Primorskaya | Mean | 0.1 | 0.7 | 0.6 | 0.5 | 1.1 | 0.7 | 1.0 | 0.3 | 0.2 | 0.2 | 0.1 | N.D. |
| | | % | 100 | 100 | 82 | 64 | 75 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | | Max-w | 0.2 | 1.1 | 0.9 | 0.9 | 1.8 | 1.0 | 2.5 | 0.6 | 0.3 | 0.2 | 0.1 | N.D. |
| | | Min-w | N.D. | 0.4 | 0.4 | 0.4 | 0.6 | N.D. | 0.4 | 0.2 | N.D. | 0.2 | 0.1 | N.D. |
| Thai Land | Mae Hia | Mean | 0.8 | 0.3 | 0.3 | - | 0.9 | N.D. | 0.1 | - | - | N.D. | - | - |
| | | % | 23 | 25 | 23 | - | 23 | 23 | 23 | - | - | 23 | - | - |
| | | Max-w | - | - | - | - | - | - | - | - | - | - | - | - |
| | | Min-w | - | - | - | - | - | - | - | - | - | - | - | - |
| | Vachiralongkom Dam | Mean | - | - | - | - | - | - | 0.7 | - | - | - | - | - |
| | | % | - | - | - | - | - | - | 61 | - | - | - | - | - |
| | | Max-w | - | - | - | - | - | - | 1.4 | - | - | - | - | - |
| | | Min-w | - | - | - | - | - | - | N.D. | - | - | - | - | - |
| Viet Nam | Ha Noi | Mean | 2.0 | 7.9 | 4.8 | 5.7 | 3.4 | 2.8 | 2.9 | 4.0 | 4.3 | 2.5 | 2.3 | 6.0 |
| | | % | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | | Max-w | 2.7 | 20.0 | 8.4 | 11.2 | 5.6 | 3.0 | 3.0 | 8.3 | 7.1 | 3.3 | 3.0 | 14.4 |
| | | Min-w | 1.3 | 2.9 | 2.7 | 2.5 | 2.7 | 2.6 | 2.8 | 2.4 | 2.8 | 1.3 | 1.7 | 0.5 |
| | Hoa Binh | Mean | 1.6 | 6.1 | 5.6 | 5.4 | 3.9 | 3.2 | 3.5 | 4.3 | 6.4 | 4.0 | 3.6 | 5.9 |
| | | % | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | | Max-w | 2.9 | 12.2 | 10.7 | 7.5 | 5.8 | 3.6 | 4.3 | 6.5 | 11.9 | 6.8 | 8.4 | 16.0 |
| | | Min-w | 1.1 | 1.4 | 2.9 | 4.0 | 2.8 | 2.8 | 3.1 | 3.1 | 2.6 | 2.8 | 1.9 | 1.9 |

Table 4.6 NH₃

| Unit: ppb | | | 2002 | | | | | | | | | | | | |
|-------------|--------------------|---------|------|------|------|------|------|------|------|------|------|------|------|------|-----|
| Country | Site | | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | |
| Indonesia | Serpong | Mean | 0.6 | 0.5 | 4.1 | 1.4 | 4.1 | 1.4 | 1.0 | 5.6 | 9.8 | 12.6 | 9.0 | 10.6 | |
| | | % | 84 | 65 | 100 | 100 | 100 | 80 | 100 | 97 | 100 | 97 | 100 | 80 | |
| | | Max-w | 0.9 | 1.1 | 9.6 | 2.5 | 6.5 | 2.3 | 1.2 | 10.4 | 11.3 | 16.9 | 19.6 | 15.6 | |
| | | Min-w | 0.1 | N.D. | 0.4 | 0.2 | 2.0 | N.D. | 0.5 | 0.6 | 6.3 | 10.2 | 1.1 | 2.2 | |
| Japan | Rishiri | Mean | - | - | - | - | - | - | 0.5 | 0.5 | 0.6 | 0.4 | 0.3 | 0.3 | |
| | | % | - | - | - | - | - | - | 100 | 100 | 100 | 100 | 100 | 100 | |
| | | Max-2w | - | - | - | - | - | - | - | 0.6 | 0.5 | 0.8 | 0.6 | 0.3 | 0.4 |
| | | Min-2w | - | - | - | - | - | - | - | 0.5 | 0.5 | 0.5 | 0.3 | 0.2 | 0.1 |
| | Oki | Mean | - | - | - | 2.5 | 0.9 | 1.4 | 1.2 | 1.1 | 0.9 | 1.1 | 0.4 | 0.3 | |
| | | % | - | - | - | 23 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | | Max-2w | - | - | - | N.D. | 1.2 | 1.4 | 1.4 | 1.1 | 0.9 | 1.4 | 0.5 | 0.3 | |
| | | Min-2w | - | - | - | N.D. | 0.6 | 1.4 | 0.9 | 1.0 | 0.9 | 0.8 | 0.4 | 0.2 | |
| Malaysia | TanahRata | Mean | 0.4 | 0.6 | 1.0 | 0.5 | 1.3 | 0.8 | 1.0 | 0.3 | 0.4 | 0.5 | N.D. | N.D. | |
| | | % | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | | Max-w | 0.6 | 1.0 | 1.8 | 0.7 | 2.2 | 1.6 | 1.7 | 0.4 | 0.5 | 1.2 | 0.1 | 0.1 | |
| | | Min-w | 0.2 | N.D. | 0.4 | 0.5 | 0.7 | 0.4 | 0.7 | N.D. | 0.2 | 0.1 | N.D. | N.D. | |
| | Petaling Jaya | Mean | - | - | - | - | - | - | - | - | - | - | - | - | |
| | | % | - | - | - | - | - | - | - | - | - | - | - | - | |
| | | Max-w | - | - | - | - | - | - | - | - | - | - | - | - | |
| | | Min-w | - | - | - | - | - | - | - | - | - | - | - | - | |
| Mongolia | Ulaanbaatar | Mean | - | - | - | - | 10.9 | 10.2 | 13.7 | 12.6 | 13.3 | 6.9 | 0.9 | - | |
| | | % | - | - | - | - | 100 | 100 | 100 | 100 | 100 | 100 | 25 | - | |
| | | Max-w | - | - | - | - | 12.7 | 13.4 | 16.5 | 14.2 | 17.0 | 9.3 | 2.8 | - | |
| | | Min-w | - | - | - | - | 7.6 | 8.3 | 11.9 | 11.4 | 10.0 | 4.3 | N.D. | - | |
| | Terej | Mean | 0.1 | 1.3 | 1.6 | 2.0 | 1.4 | 2.6 | 4.1 | 1.7 | 1.1 | 0.5 | 0.7 | 0.5 | |
| | | % | 44 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | | Max-w | 0.4 | 3.2 | 2.0 | 2.3 | 2.0 | 3.3 | 4.7 | 5.1 | 1.1 | 0.9 | 1.0 | 0.7 | |
| | | Min-w | N.D. | 0.3 | 1.4 | 1.8 | 0.9 | 1.7 | 3.6 | 3.2 | 0.9 | 0.2 | 0.4 | 0.5 | |
| Philippines | Metro Manila | Mean | 13.0 | 14.6 | 9.0 | 9.2 | 12.1 | 10.5 | 7.9 | 7.4 | 6.5 | 8.8 | 10.1 | 11.3 | |
| | | % | 73 | 100 | 100 | 79 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 81 | |
| | | Max-* | 18.1 | 20.4 | 13.1 | 13.4 | 17.2 | 17.1 | 9.6 | 9.1 | 8.1 | 15.7 | 11.8 | 12.8 | |
| | | Min-* | 7.4 | 11.2 | 4.3 | 5.1 | 9.2 | 3.5 | 5.2 | 5.1 | 3.8 | 0.5 | 8.0 | 9.8 | |
| | Los Banos | Mean | 5.8 | 4.7 | 4.0 | 6.8 | 7.7 | 3.8 | 15.0 | 6.4 | 5.4 | 6.3 | 4.2 | 3.5 | |
| | | % | 74 | 97 | 100 | 100 | 100 | 100 | 100 | 100 | 61 | 100 | 100 | 82 | |
| | | Max-* | 8.4 | 5.7 | 5.6 | 8.0 | 9.4 | 5.9 | 26.4 | 8.1 | 5.4 | 9.7 | 5.2 | 4.8 | |
| | | Min-* | 1.1 | 4.0 | 2.7 | 5.4 | 6.3 | 1.8 | 6.8 | 5.0 | 5.4 | 4.7 | 3.2 | 2.8 | |
| Russia | Mondy | Mean | 0.3 | 0.5 | 0.5 | 0.7 | 1.0 | 0.9 | 0.3 | 1.5 | 1.7 | 0.6 | 0.5 | 0.3 | |
| | | % | 94 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | | Max-2w | 0.3 | 0.8 | 0.7 | 0.9 | 1.2 | 0.9 | 0.6 | 1.8 | 2.8 | 0.8 | 0.7 | 0.4 | |
| | | Min-2w | 0.2 | 0.2 | 0.3 | 0.5 | 0.8 | 0.9 | N.D. | 1.3 | 0.6 | 0.5 | 0.2 | 0.3 | |
| | Listvianka | Mean | 0.8 | 0.9 | 0.5 | 0.4 | 0.8 | 0.8 | 1.5 | 0.4 | 1.1 | 0.7 | 0.7 | 0.4 | |
| | | % | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | | Max-10d | 0.9 | 1.1 | 0.8 | 0.8 | 1.1 | 1.3 | 1.9 | 1.3 | 1.3 | 0.8 | 1.3 | 0.7 | |
| | | Min-10d | 0.6 | 0.6 | 0.3 | 0.2 | 0.4 | N.D. | 1.2 | N.D. | 1.0 | 0.5 | 0.1 | N.D. | |
| | Irkutsk | Mean | 1.3 | 0.7 | 1.5 | 1.3 | 2.4 | 1.6 | 1.0 | 1.2 | 2.1 | 1.8 | 0.9 | 0.3 | |
| | | % | 65 | 50 | 60 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | | Max-w | 2.8 | 1.3 | 3.0 | 1.9 | 2.7 | 2.9 | 1.3 | 2.2 | 3.8 | 2.5 | 2.2 | 0.4 | |
| | | Min-w | N.D. | N.D. | N.D. | 0.7 | 2.1 | 0.8 | 0.6 | N.D. | 1.1 | 0.6 | 0.3 | 0.2 | |
| Primorskaya | Mean | N.D. | N.D. | N.D. | 13.4 | 17.9 | 38.1 | 26.6 | 14.1 | 19.6 | 7.4 | 3.0 | 3.7 | | |
| | % | 100 | 100 | 82 | 64 | 75 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | | |
| | Max-w | N.D. | N.D. | N.D. | 16.9 | 36.6 | 42.8 | 43.2 | 18.8 | 22.4 | 7.4 | 5.9 | 9.4 | | |
| | Min-w | N.D. | N.D. | N.D. | 10.0 | 1.8 | 31.7 | 17.8 | 10.3 | 16.8 | 7.4 | N.D. | 0.2 | | |
| Thai Land | Mae Hia | Mean | 6.4 | 6.3 | 11.5 | - | 3.0 | N.D. | N.D. | - | - | N.D. | - | - | |
| | | % | 23 | 25 | 23 | - | 23 | 23 | 23 | - | - | 23 | - | - | |
| | | Max-w | - | - | - | - | - | - | - | - | - | - | - | - | |
| | | Min-w | - | - | - | - | - | - | - | - | - | - | - | - | |
| | Vachiralongkom Dam | Mean | - | - | - | - | - | - | 6.5 | - | - | - | - | - | |
| | | % | - | - | - | - | - | - | 61 | - | - | - | - | - | |
| | | Max-w | - | - | - | - | - | - | 6.6 | - | - | - | - | - | |
| | | Min-w | - | - | - | - | - | - | 6.3 | - | - | - | - | - | |
| Viet Nam | Ha Noi | Mean | 6.4 | 8.5 | 11.6 | 5.7 | 2.6 | 3.3 | 0.6 | 3.1 | 1.1 | 3.3 | 2.1 | 1.1 | |
| | | % | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | | Max-w | 11.0 | 14.9 | 28.2 | 8.6 | 3.6 | 8.6 | 0.7 | 7.6 | 1.5 | 8.2 | 5.6 | 1.4 | |
| | | Min-w | 4.1 | 2.9 | 4.1 | 3.5 | 1.9 | 0.5 | 0.5 | 0.8 | 0.8 | 0.6 | 1.0 | 0.7 | |
| | Hoa Binh | Mean | 2.9 | 6.7 | 7.7 | 4.0 | 3.7 | 2.1 | 0.6 | 0.5 | 1.5 | 1.9 | 1.0 | 0.7 | |
| | | % | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | | Max-w | 4.6 | 10.9 | 16.4 | 4.8 | 4.4 | 3.1 | 1.0 | 0.9 | 2.5 | 2.4 | 1.7 | 1.2 | |
| | | Min-w | 1.7 | 2.9 | 3.0 | 2.8 | 3.1 | 0.3 | 0.2 | 0.3 | 1.1 | 1.3 | 0.7 | 0.4 | |

Table 4.7 NO

| Unit: ppb | | | 2002 | | | | | | | | | | | |
|-----------|--------------------|-------|------|------|------|------|------|------|------|------|------|------|------|------|
| Country | Site | | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
| Japan | Rishiri | Mean | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | 0.1 | N.D. | N.D. | N.D. | N.D. | N.D. |
| | | % | 98 | 99 | 87 | 97 | 97 | 97 | 97 | 98 | 97 | 97 | 97 | 97 |
| | | Max-d | 0.2 | 0.2 | 0.1 | 0.1 | 0.3 | 0.3 | 0.8 | 0.1 | N.D. | N.D. | N.D. | N.D. |
| | | Min-d | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| | Tappi | Mean | N.D. | N.D. | 0.1 | 0.1 | 0.1 | 0.2 | 0.2 | N.D. | N.D. | N.D. | N.D. | N.D. |
| | | % | 99 | 99 | 99 | 99 | 99 | 96 | 99 | 99 | 96 | 99 | 99 | 99 |
| | | Max-d | 0.1 | 0.1 | 0.2 | 0.6 | 1.0 | 1.1 | 0.7 | 0.3 | 0.3 | 0.1 | N.D. | N.D. |
| | | Min-d | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| | Sado-seki | Mean | N.D. | N.D. | 0.2 | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| | | % | 87 | 71 | 72 | 98 | 99 | 80 | 98 | 98 | 98 | 99 | 98 | 98 |
| | | Max-d | 0.1 | 0.2 | 0.1 | 0.1 | 0.1 | 0.2 | N.D. | 0.1 | 0.1 | N.D. | 0.2 | 0.1 |
| | | Min-d | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| | Happo | Mean | 0.2 | 0.2 | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | 0.2 |
| | | % | 98 | 98 | 87 | 98 | 97 | 98 | 83 | 94 | 98 | 86 | 68 | 98 |
| | | Max-d | 0.8 | 0.7 | 0.4 | 0.3 | 0.2 | 0.5 | 0.2 | 0.4 | 0.2 | 0.2 | 0.5 | 0.7 |
| | | Min-d | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| | Ogasawara | Mean | N.D. | N.D. | N.D. | N.D. | N.D. | 0.2 | N.D. | 0.1 | N.D. | N.D. | N.D. | N.D. |
| | | % | 98 | 97 | 90 | 97 | 97 | 95 | 91 | 97 | 94 | 94 | 95 | 96 |
| | | Max-d | N.D. | N.D. | 0.4 | N.D. | 0.2 | 2.0 | 0.1 | 0.7 | 0.1 | 0.2 | 0.2 | 0.2 |
| | | Min-d | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| | Oki | Mean | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| | | % | 20 | 70 | 67 | 55 | 97 | 97 | 67 | 98 | 70 | 88 | 97 | 68 |
| | | Max-d | N.D. | 0.1 | 0.2 | N.D. | N.D. | 0.2 | 0.3 | 0.4 | N.D. | 0.1 | N.D. | N.D. |
| | | Min-d | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| | Ijira | Mean | 0.2 | 0.3 | 0.2 | 0.3 | 0.4 | 0.4 | 1.3 | 1.0 | 0.9 | 0.1 | 0.2 | 0.2 |
| | | % | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 80 | 100 | 100 | 100 |
| | | Max-d | 1.3 | 1.0 | 0.7 | 1.2 | 2.7 | 2.3 | 4.6 | 3.2 | 3.3 | 0.5 | 2.1 | 1.1 |
| | | Min-d | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| | Banryu | Mean | 0.3 | 0.3 | 0.2 | 0.2 | 0.2 | 0.2 | 0.4 | 0.4 | 0.2 | 0.2 | 0.3 | 0.3 |
| | | % | 96 | 98 | 97 | 97 | 34 | 72 | 98 | 98 | 98 | 98 | 83 | 42 |
| | | Max-d | 1.2 | 0.6 | 0.5 | 0.5 | 0.5 | 0.6 | 1.6 | 1.4 | 0.4 | 0.7 | 0.7 | 0.7 |
| | | Min-d | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | 0.1 | 0.1 | N.D. | N.D. | N.D. |
| | Yusuhara | Mean | 0.2 | 0.2 | 0.2 | N.D. | N.D. | 0.1 | 0.1 | N.D. | N.D. | N.D. | 0.2 | 0.1 |
| | | % | 97 | 100 | 96 | 95 | 98 | 98 | 98 | 98 | 98 | 98 | 94 | 98 |
| | | Max-d | 0.4 | 0.4 | 0.4 | 0.2 | N.D. | 0.2 | 0.2 | 0.1 | 0.1 | 0.1 | 1.6 | 0.5 |
| | | Min-d | 0.1 | 0.1 | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| Hedo | Mean | 0.1 | 0.3 | 0.4 | 0.4 | 0.3 | 0.4 | 0.3 | 0.3 | 0.3 | N.D. | N.D. | N.D. | |
| | % | 98 | 97 | 97 | 97 | 98 | 98 | 94 | 97 | 85 | 67 | 97 | 80 | |
| | Max-d | 0.6 | 0.6 | 1.1 | 0.6 | 0.5 | 0.6 | 0.6 | 0.6 | 0.6 | N.D. | N.D. | 0.3 | |
| | Min-d | N.D. | 0.1 | 0.1 | N.D. | 0.1 | 0.3 | N.D. | 0.1 | 0.1 | N.D. | N.D. | N.D. | |
| Thai Land | Vachiralongkom Dam | Mean | - | - | N.D. | N.D. | - | - | 0.6 | - | - | - | 0.5 | - |
| | | % | - | - | 16 | 36 | - | - | 41 | - | - | - | 34 | - |
| | | Max-d | - | - | 0.3 | 0.1 | - | - | 1.1 | - | - | - | 2.4 | - |
| | | Min-d | - | - | N.D. | N.D. | - | - | N.D. | - | - | - | N.D. | - |
| | Bangkok | Mean | 26.9 | 8.3 | 5.0 | 10.9 | 23.4 | 26.0 | 25.7 | 29.9 | 27.2 | 33.5 | 20.1 | 21.9 |
| | | % | 87 | 98 | 99 | 99 | 99 | 100 | 96 | 96 | 96 | 95 | 88 | 96 |
| | | Max-d | 80.5 | 19.1 | 38.3 | 35.1 | 61.6 | 49.6 | 52.8 | 55.8 | 69.1 | 82.7 | 62.6 | 56.4 |
| | | Min-d | 2.7 | 3.5 | 2.8 | 2.4 | 7.2 | 10.8 | 7.7 | 11.4 | 9.6 | 9.3 | 6.1 | 4.4 |
| | Samutprakam | Mean | 21.2 | 5.8 | 5.0 | 8.6 | 12.8 | 20.9 | 18.0 | 24.5 | 20.7 | 26.9 | 25.6 | 25.8 |
| | | % | 94 | 74 | 55 | 92 | 95 | 95 | 94 | 94 | 95 | 95 | 95 | 95 |
| | | Max-d | 82.0 | 18.3 | 44.6 | 55.0 | 27.8 | 37.9 | 47.1 | 47.7 | 40.3 | 72.6 | 54.0 | 58.7 |
| | | Min-d | 2.8 | 1.9 | 1.9 | 1.5 | 2.9 | 9.0 | 4.2 | 3.9 | 3.3 | 0.2 | 4.2 | 3.0 |

Table 4.8 NO₂

| Unit: ppb | | | 2002 | | | | | | | | | | | | |
|-----------|---------------|-------|------|------|------|------|------|------|------|------|------|------|------|------|-----|
| Country | Site | | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | |
| China | Hongwen | Mean | 18.5 | 12.3 | 13.1 | 13.9 | 10.1 | 7.5 | 8.7 | 8.3 | 11.6 | 14.0 | 15.9 | 17.1 | |
| | | % | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | | Max-d | 48.6 | 29.3 | 25.1 | 49.7 | 21.4 | 17.3 | 19.4 | 16.2 | 22.0 | 31.9 | 36.1 | 38.2 | |
| | | Min-d | 8.4 | 4.2 | 5.2 | 3.1 | 3.7 | 2.1 | 1.6 | 2.1 | 3.7 | 3.7 | 6.3 | 7.8 | |
| | Xiang Zhou | Mean | 43.4 | 29.1 | 26.7 | 26.0 | 24.4 | 11.1 | 22.2 | 24.3 | 18.8 | 20.7 | 25.5 | 18.3 | |
| | | % | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | | Max-d | 61.2 | 48.1 | 53.3 | 59.6 | 53.9 | 22.0 | 39.2 | 42.4 | 30.3 | 39.2 | 36.6 | 28.8 | |
| | | Min-d | 18.8 | 15.2 | 15.7 | 14.1 | 6.3 | 2.6 | 8.4 | 7.3 | 5.8 | 4.7 | 11.5 | 10.5 | |
| Japan | Banryu | Mean | 4.4 | 4.8 | 4.5 | 3.3 | 3.4 | 3.1 | 3.2 | 2.6 | 3.4 | 3.9 | 4.0 | 4.0 | |
| | | % | 90 | 49 | 97 | 97 | 34 | 72 | 98 | 98 | 98 | 98 | 83 | 42 | |
| | | Max-d | 10.6 | 7.7 | 9.5 | 5.0 | 5.1 | 4.9 | 5.5 | 5.7 | 6.5 | 6.8 | 8.0 | 6.5 | |
| | | Min-d | 1.6 | 2.5 | 2.7 | 1.3 | 1.4 | 2.2 | 1.2 | 0.7 | 2.2 | 2.2 | 2.1 | 2.0 | |
| Malaysia | Petaling Jaya | Mean | 30.4 | 25.4 | 30.6 | 31.2 | 29.9 | 29.2 | 21.1 | 27.3 | 28.8 | 36.9 | 32.5 | 29.6 | |
| | | % | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | | Max-w | 43.3 | 35.8 | 38.9 | 37.1 | 36.0 | 36.8 | 34.6 | 32.9 | 33.7 | 40.5 | 38.2 | 32.5 | |
| | | Min-w | 25.2 | 17.7 | 18.5 | 19.6 | 26.9 | 20.8 | 12.0 | 22.6 | 15.2 | 30.4 | 23.5 | 26.9 | |
| Thailand | Bangkok | Mean | 44.2 | 26.6 | 22.0 | 25.2 | 28.9 | 25.6 | 21.8 | 23.1 | 24.7 | 34.6 | 30.0 | 35.5 | |
| | | % | 87 | 98 | 99 | 99 | 99 | 100 | 96 | 96 | 96 | 95 | 88 | 96 | |
| | | Max-d | 74.3 | 45.6 | 57.6 | 47.0 | 64.9 | 43.1 | 28.6 | 33.2 | 44.8 | 54.8 | 44.1 | 57.2 | |
| | | Min-d | 18.0 | 18.8 | 14.2 | 11.6 | 12.8 | 16.5 | 15.5 | 17.2 | 15.6 | 16.9 | 17.2 | 17.1 | |
| | Samutprakarn | Mean | 24.0 | 8.1 | 3.0 | 7.6 | 14.3 | 12.9 | 9.5 | 14.3 | 15.7 | 17.7 | 24.5 | 29.4 | |
| | | % | 88 | 59 | 55 | 88 | 95 | 95 | 94 | 94 | 95 | 95 | 95 | 95 | |
| | | Max-d | 44.6 | 27.3 | 29.6 | 24.0 | 31.3 | 18.6 | 14.5 | 23.1 | 32.5 | 32.9 | 42.8 | 43.2 | |
| | | Min-d | N.D. | N.D. | N.D. | N.D. | 2.3 | 8.4 | 4.6 | 2.8 | 1.6 | 4.3 | 5.6 | 16.7 | |

Table 4.9 NOx

| Unit: ppb | | | 2002 | | | | | | | | | | | | |
|--------------|---------------------|----------------------------------|-------|-------|------|------|------|-------|------|------|------|-------|-------|------|-------|
| Country | Site | | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | |
| Japan | Rishiri (NOx*) | Mean | 0.7 | 1.2 | 0.9 | 1.0 | 1.0 | 0.8 | 1.1 | 0.5 | 0.6 | 0.6 | 0.8 | 0.8 | |
| | | % | 98 | 99 | 87 | 97 | 97 | 97 | 97 | 98 | 97 | 97 | 97 | 97 | |
| | | Max-d | 1.7 | 2.8 | 1.9 | 2.2 | 2.1 | 2.1 | 3.8 | 0.9 | 1.1 | 1.3 | 2.0 | 2.0 | |
| | | Min-d | 0.4 | 0.5 | 0.4 | 0.5 | 0.2 | 0.1 | 0.2 | 0.1 | 0.3 | 0.2 | 0.2 | 0.4 | |
| | Tappi (NOx*) | Mean | 1.0 | 1.0 | 1.3 | 1.9 | 1.7 | 2.0 | 1.7 | 0.9 | 1.1 | 0.9 | 0.9 | 0.9 | |
| | | % | 99 | 99 | 99 | 99 | 99 | 96 | 99 | 99 | 96 | 99 | 99 | 99 | |
| | | Max-d | 1.9 | 2.5 | 3.9 | 7.3 | 8.5 | 6.2 | 4.1 | 1.9 | 3.1 | 2.0 | 2.6 | 3.0 | |
| | | Min-d | 0.3 | 0.6 | 0.4 | 0.6 | 0.6 | 0.7 | 0.6 | 0.2 | 0.4 | 0.2 | 0.3 | 0.3 | |
| | Sado-seki (NOx*) | Mean | 2.1 | 2.9 | 2.8 | 3.0 | 0.8 | 1.2 | 1.1 | 0.6 | 1.0 | 1.5 | 1.3 | 1.2 | |
| | | % | 87 | 71 | 72 | 98 | 99 | 80 | 98 | 98 | 98 | 99 | 98 | 98 | |
| | | Max-d | 5.1 | 7.9 | 5.1 | 5.8 | 3.1 | 2.8 | 2.4 | 2.3 | 2.9 | 3.5 | 2.3 | 3.0 | |
| | | Min-d | 0.9 | 1.0 | 1.2 | 1.1 | N.D. | N.D. | N.D. | N.D. | 0.2 | 0.4 | 0.6 | 0.4 | |
| | Happo (NOx*) | Mean | 2.4 | 2.3 | 2.3 | 2.5 | 2.5 | 3.1 | 2.3 | 2.4 | 2.2 | 2.1 | 1.5 | 1.9 | |
| | | % | 98 | 98 | 87 | 98 | 97 | 98 | 83 | 94 | 98 | 86 | 68 | 98 | |
| | | Max-d | 4.4 | 8.1 | 3.9 | 6.1 | 5.0 | 7.3 | 4.5 | 4.4 | 4.5 | 4.4 | 3.2 | 4.7 | |
| | | Min-d | 0.9 | 0.9 | 0.8 | 0.7 | 1.1 | 0.9 | 0.9 | 0.5 | 0.7 | 0.6 | 0.8 | 0.6 | |
| | Ogasawara (NOx*) | Mean | 0.7 | 0.8 | 0.8 | 0.4 | 0.4 | 0.4 | 0.4 | 0.1 | 0.2 | 0.2 | 0.4 | 0.8 | |
| | | % | 98 | 97 | 90 | 97 | 97 | 95 | 91 | 97 | 94 | 94 | 95 | 96 | |
| | | Max-d | 2.6 | 2.2 | 5.5 | 1.8 | 3.2 | 3.5 | 0.6 | 1.2 | 0.4 | 2.8 | 3.2 | 2.4 | |
| | | Min-d | 0.1 | 0.1 | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | 0.1 | |
| | Okii (NOx*) | Mean | 1.0 | 2.0 | 2.1 | 1.7 | 1.2 | 1.6 | 1.5 | 2.1 | 1.7 | 1.7 | 1.5 | 1.3 | |
| | | % | 22 | 70 | 49 | 4 | 48 | 96 | 67 | 72 | 70 | 81 | 97 | 68 | |
| | | Max-d | 1.6 | 4.4 | 3.9 | 2.3 | 2.4 | 4.7 | 6.0 | 6.1 | 2.7 | 2.8 | 4.0 | 3.6 | |
| | | Min-d | 0.7 | 0.7 | 1.3 | 1.7 | 0.5 | 0.2 | 0.3 | 0.4 | 0.8 | 0.6 | 0.7 | 0.4 | |
| | Ijira (NOx*) | Mean | 2.2 | 2.7 | 2.7 | 3.3 | 3.7 | 3.8 | 5.3 | 4.3 | 4.2 | 2.0 | 1.8 | 1.9 | |
| | | % | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 80 | 100 | 100 | 100 | |
| | | Max-d | 8.0 | 9.1 | 6.6 | 8.7 | 10.8 | 9.7 | 9.8 | 9.3 | 10.6 | 9.0 | 7.8 | 7.7 | |
| | | Min-d | 0.3 | 0.3 | 0.6 | 0.2 | 0.3 | 0.4 | 0.4 | 0.3 | 0.3 | 0.2 | 0.2 | 0.2 | |
| | Banryu | Mean | 4.6 | 5.0 | 4.7 | 3.5 | 3.6 | 3.3 | 3.7 | 2.9 | 3.6 | 4.1 | 4.2 | 4.3 | |
| | | % | 90 | 49 | 97 | 97 | 34 | 72 | 98 | 98 | 98 | 98 | 83 | 42 | |
| | | Max-d | 11.8 | 8.0 | 9.9 | 5.4 | 5.3 | 5.5 | 6.8 | 7.1 | 6.9 | 7.4 | 8.3 | 7.2 | |
| | | Min-d | 1.7 | 2.7 | 2.9 | 1.3 | 1.4 | 2.2 | 1.5 | 0.8 | 2.4 | 2.4 | 2.2 | 2.0 | |
| | Yusuhara (NOx*) | Mean | 2.3 | 2.6 | 2.5 | 1.7 | 1.2 | 1.3 | 0.8 | 0.7 | 1.1 | 1.7 | 2.3 | 2.2 | |
| | | % | 97 | 100 | 96 | 95 | 98 | 98 | 98 | 98 | 98 | 98 | 94 | 98 | |
| | | Max-d | 3.7 | 5.7 | 5.5 | 3.4 | 2.4 | 2.6 | 2.2 | 1.8 | 2.6 | 3.0 | 3.6 | 3.6 | |
| | | Min-d | 1.0 | 1.6 | 0.9 | 0.2 | 0.2 | 0.5 | 0.1 | N.D. | 0.2 | 0.4 | 1.2 | 1.0 | |
| | Hedo (NOx*) | Mean | 0.9 | 1.1 | 1.1 | 1.1 | 0.9 | 0.9 | 0.7 | 0.7 | 0.8 | 0.7 | 0.8 | 0.7 | |
| | | % | 98 | 97 | 97 | 97 | 98 | 98 | 94 | 97 | 85 | 67 | 96 | 80 | |
| | | Max-d | 2.1 | 1.8 | 2.2 | 1.9 | 1.4 | 1.7 | 1.3 | 1.9 | 1.1 | 1.0 | 1.7 | 1.8 | |
| | | Min-d | 0.4 | 0.5 | 0.7 | 0.6 | 0.6 | 0.5 | 0.4 | 0.4 | 0.3 | 0.2 | 0.3 | N.D. | |
| | Thai Land | Vachiralongkorn Dam (NOx*) | Mean | - | - | 6.5 | 6.0 | - | - | 1.0 | - | - | - | 3.3 | - |
| | | | % | - | - | 16 | 36 | - | - | 41 | - | - | - | 34 | - |
| | | | Max-d | - | - | 7.0 | 8.8 | - | - | 1.5 | - | - | - | 7.8 | - |
| | | | Min-d | - | - | 5.6 | 4.3 | - | - | N.D. | - | - | - | 1.3 | - |
| | | Bangkok | Mean | 71.2 | 34.9 | 28.0 | 36.6 | 51.7 | 52.0 | 47.7 | 53.0 | 52.2 | 68.3 | 50.3 | 57.4 |
| | | | % | 87 | 98 | 99 | 99 | 99 | 100 | 96 | 96 | 96 | 95 | 88 | 96 |
| | | | Max-d | 157.2 | 64.3 | 95.4 | 83.7 | 115.5 | 80.0 | 76.7 | 77.2 | 113.9 | 126.6 | 92.2 | 112.5 |
| | | | Min-d | 21.6 | 23.2 | 17.9 | 13.8 | 20.8 | 29.8 | 25.0 | 29.9 | 30.4 | 25.8 | 24.5 | 29.9 |
| Samutprakarn | | Mean | 45.7 | 11.6 | 6.0 | 16.3 | 27.1 | 33.7 | 27.4 | 38.8 | 36.3 | 44.6 | 50.1 | 55.3 | |
| | | % | 88 | 72 | 55 | 88 | 95 | 95 | 94 | 94 | 95 | 95 | 95 | 95 | |
| | | Max-d | 122.3 | 32.3 | 74.3 | 75.3 | 58.1 | 51.3 | 60.2 | 67.3 | 63.9 | 92.8 | 86.3 | 93.7 | |
| | | Min-d | 2.8 | 1.1 | 0.3 | 1.0 | 5.1 | 19.6 | 8.7 | 10.6 | 6.2 | 4.4 | 10.3 | 22.0 | |

Table 4.10 O₃

| Unit: ppb | | 2002 | | | | | | | | | | | | | |
|-------------------|--------------------|-------|-----|-----|-----|-----|-----|-----|-----|------|-----|-----|-----|-----|----|
| Country | Site | | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | |
| Japan | Rishiri | Mean | 39 | 48 | 47 | 51 | 55 | 37 | 28 | 29 | 35 | 39 | 41 | 41 | |
| | | % | 98 | 99 | 87 | 91 | 97 | 97 | 97 | 98 | 97 | 97 | 97 | 97 | 97 |
| | | Max-d | 43 | 64 | 57 | 62 | 73 | 66 | 47 | 38 | 50 | 58 | 47 | 48 | |
| | | Min-d | 34 | 39 | 38 | 41 | 42 | 20 | 13 | 17 | 18 | 28 | 33 | 36 | |
| | Tappi | Mean | 42 | 48 | 52 | 55 | 58 | 44 | 37 | 37 | 43 | 50 | 46 | 45 | |
| | | % | 99 | 99 | 99 | 99 | 99 | 95 | 99 | 99 | 99 | 99 | 99 | 99 | |
| | | Max-d | 46 | 61 | 64 | 72 | 68 | 82 | 59 | 52 | 55 | 75 | 53 | 49 | |
| | | Min-d | 37 | 43 | 43 | 47 | 45 | 31 | 25 | 27 | 30 | 38 | 39 | 42 | |
| | Sado-seki | Mean | 32 | 39 | 45 | 47 | 41 | 50 | 41 | 36 | 44 | 52 | 43 | 43 | |
| | | % | 87 | 71 | 72 | 98 | 99 | 80 | 98 | 98 | 98 | 99 | 98 | 98 | |
| | | Max-d | 38 | 58 | 57 | 71 | 56 | 81 | 70 | 52 | 53 | 78 | 48 | 46 | |
| | | Min-d | 27 | 30 | 35 | 35 | 28 | 32 | 29 | 25 | 34 | 35 | 38 | 39 | |
| | Happo | Mean | 47 | 53 | 62 | 70 | 65 | - | 54 | 48 | 51 | 56 | 52 | 48 | |
| | | % | 98 | 98 | 87 | 98 | 66 | - | 74 | 93 | 98 | 86 | 68 | 98 | |
| | | Max-d | 55 | 61 | 76 | 91 | 94 | - | 92 | 80 | 76 | 87 | 69 | 59 | |
| | | Min-d | 40 | 41 | 51 | 53 | 46 | - | 27 | 24 | 30 | 34 | 41 | 35 | |
| | Ogasawara | Mean | 40 | 42 | 41 | 40 | 29 | 13 | 9 | 11 | 22 | 31 | 37 | 39 | |
| | | % | 98 | 97 | 90 | 98 | 97 | 96 | 91 | 97 | 84 | 82 | 96 | 97 | |
| | | Max-d | 47 | 52 | 55 | 65 | 51 | 72 | 16 | 43 | 56 | 48 | 51 | 48 | |
| | | Min-d | 33 | 32 | 19 | 19 | 8 | 2 | 2 | N.D. | 8 | 4 | 14 | 23 | |
| | Oki | Mean | 40 | 46 | 50 | 54 | 52 | 51 | 34 | 25 | 24 | 34 | 34 | 33 | |
| | | % | 93 | 98 | 93 | 97 | 97 | 97 | 96 | 98 | 28 | 21 | 97 | 97 | |
| | | Max-d | 49 | 60 | 62 | 69 | 81 | 75 | 62 | 43 | 28 | 42 | 41 | 39 | |
| | | Min-d | 34 | 38 | 41 | 42 | 32 | 31 | 21 | 10 | 21 | 27 | 31 | 26 | |
| | Ijira | Mean | 21 | 23 | 28 | 30 | 28 | 27 | 15 | 16 | 19 | 31 | 25 | 25 | |
| | | % | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 80 | 100 | 100 | 100 | |
| | | Max-d | 29 | 34 | 35 | 46 | 48 | 45 | 34 | 34 | 33 | 49 | 35 | 35 | |
| | | Min-d | 14 | 12 | 22 | 14 | 11 | 8 | 2 | 4 | 5 | 18 | 15 | 12 | |
| | Banryu | Mean | 36 | 38 | 45 | 47 | 57 | 44 | 27 | 24 | 33 | 35 | 29 | 31 | |
| | | % | 96 | 98 | 97 | 97 | 34 | 98 | 98 | 98 | 98 | 99 | 87 | 42 | |
| | | Max-d | 53 | 48 | 57 | 62 | 67 | 61 | 58 | 41 | 48 | 57 | 46 | 42 | |
| | | Min-d | 19 | 25 | 27 | 32 | 46 | 17 | 10 | 11 | 15 | 14 | 18 | 14 | |
| | Yusuhara | Mean | 41 | 51 | 52 | 39 | 30 | 38 | 9 | 11 | 16 | 27 | 21 | 18 | |
| | | % | 97 | 100 | 99 | 98 | 99 | 99 | 99 | 99 | 99 | 99 | 98 | 100 | |
| | | Max-d | 63 | 72 | 78 | 56 | 46 | 55 | 31 | 23 | 25 | 42 | 30 | 22 | |
| | | Min-d | 30 | 29 | 25 | 26 | 21 | 12 | 3 | 3 | 4 | 14 | 15 | 12 | |
| Hedo | Mean | 51 | 54 | 50 | 49 | 44 | 25 | 18 | 22 | 38 | 51 | 50 | 45 | | |
| | % | 99 | 60 | 65 | 98 | 99 | 99 | 95 | 99 | 88 | 99 | 98 | 82 | | |
| | Max-d | 67 | 65 | 65 | 72 | 84 | 58 | 30 | 49 | 68 | 85 | 65 | 56 | | |
| | Min-d | 32 | 46 | 24 | 20 | 17 | 9 | 9 | 8 | 11 | 18 | 40 | 25 | | |
| Republic of Korea | Kanghwa | Mean | 31 | 38 | 45 | 56 | 60 | 49 | 36 | 34 | 42 | 41 | 35 | 31 | |
| | | % | 97 | 100 | 100 | 97 | 100 | 93 | 90 | 100 | 100 | 100 | 93 | 100 | |
| | | Max-d | 40 | 45 | 55 | 84 | 82 | 79 | 78 | 62 | 64 | 58 | 54 | 43 | |
| | | Min-d | 14 | 21 | 34 | 40 | 39 | 13 | 4 | 15 | 10 | 28 | 13 | 13 | |
| | Cheju | Mean | 41 | 47 | 48 | 48 | 49 | 48 | 29 | 31 | 50 | 50 | 26 | 21 | |
| | | % | 100 | 100 | 100 | 100 | 100 | 90 | 100 | 90 | 97 | 100 | 90 | 100 | |
| | | Max-d | 68 | 63 | 65 | 69 | 69 | 71 | 55 | 54 | 66 | 68 | 45 | 26 | |
| | | Min-d | 30 | 40 | 40 | 32 | 29 | 28 | 12 | 11 | 34 | 36 | 16 | 13 | |
| | Imsil | Mean | 30 | 31 | 39 | 43 | 38 | 38 | 20 | 12 | 35 | 36 | 27 | 21 | |
| | | % | 94 | 93 | 77 | 100 | 94 | 83 | 100 | 77 | 100 | 77 | 87 | 94 | |
| | | Max-d | 44 | 41 | 50 | 62 | 55 | 53 | 49 | 25 | 50 | 50 | 45 | 31 | |
| | | Min-d | 14 | 13 | 28 | 26 | 23 | 20 | 9 | 1 | 17 | 28 | 13 | 5 | |
| Russia | Mondy | Mean | 40 | 43 | 50 | 53 | 53 | 45 | 41 | 36 | - | 39 | 40 | 39 | |
| | | % | 100 | 96 | 100 | 100 | 100 | 100 | 68 | 90 | - | 68 | 100 | 58 | |
| | | Max-d | 45 | 50 | 56 | 59 | 67 | 59 | 48 | 51 | - | 44 | 46 | 44 | |
| | | Min-d | 30 | 31 | 44 | 47 | 35 | 32 | 22 | 23 | - | 33 | 31 | 30 | |
| Thai Land | Vachiralongkom Dam | Mean | - | - | 20 | 24 | - | - | 7 | - | - | - | 5 | - | |
| | | % | - | - | 16 | 35 | - | - | 41 | - | - | - | 34 | - | |
| | | Max-d | - | - | 31 | 28 | - | - | 16 | - | - | - | 6 | - | |
| | | Min-d | - | - | 12 | 21 | - | - | 3 | - | - | - | 1 | - | |
| | Samutprakarn | Mean | 9 | 12 | 8 | 34 | 10 | 7 | 6 | 8 | 8 | 16 | 17 | 14 | |
| | | % | 86 | 82 | 72 | 87 | 96 | 95 | 94 | 94 | 95 | 95 | 95 | 96 | |
| | | Max-d | 22 | 29 | 55 | 53 | 20 | 10 | 9 | 21 | 17 | 33 | 32 | 23 | |
| | | Min-d | 3 | 3 | 2 | 3 | 4 | 5 | 3 | 4 | 4 | 5 | 8 | 6 | |

Table 4.11 PM₁₀

| Unit: $\mu\text{g}/\text{m}^3$ | | | 2002 | | | | | | | | | | | |
|--------------------------------|-------------|-------|------|-----|-----|-----|-----|------|------|-----|-----|------|-----|-----|
| Country | Site | | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
| China | Jinyunshan | Mean | 116 | 102 | 96 | 87 | 54 | 65 | 66 | 51 | 60 | 61 | 61 | 57 |
| | | % | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | | Max-d | 242 | 225 | 313 | 178 | 104 | 115 | 124 | 97 | 107 | 154 | 140 | 158 |
| | | Min-d | 22 | 15 | 22 | 18 | 5 | 15 | 22 | 13 | 24 | 11 | 8 | 8 |
| | Weishuiyuan | Mean | 159 | 134 | 159 | 164 | 76 | 130 | 108 | 97 | 92 | 151 | 190 | 199 |
| | | % | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | | Max-d | 264 | 203 | 479 | 478 | 133 | 325 | 251 | 148 | 125 | 294 | 420 | 428 |
| | | Min-d | 54 | 78 | 66 | 47 | 33 | 58 | 55 | 62 | 32 | 56 | 71 | 47 |
| | Hongwen | Mean | 101 | 69 | 79 | 69 | 57 | 36 | 37 | 42 | 56 | 62 | 63 | 75 |
| | | % | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | | Max-d | 177 | 144 | 143 | 145 | 120 | 68 | 89 | 72 | 99 | 120 | 131 | 160 |
| | | Min-d | 35 | 19 | 23 | 25 | 24 | 15 | 13 | 12 | 11 | 25 | 14 | 27 |
| | Xiang Zhou | Mean | 86 | 45 | 51 | 40 | 44 | 25 | 37 | 39 | 45 | 54 | 63 | 52 |
| | | % | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | | Max-d | 145 | 77 | 98 | 73 | 118 | 45 | 86 | 76 | 121 | 101 | 94 | 101 |
| Min-d | | 37 | 21 | 19 | 22 | 21 | 5 | 13 | 20 | 13 | 15 | 23 | 24 | |
| Japan | Rishiri | Mean | 8 | 18 | 45 | 35 | 18 | 13 | 9 | 9 | 12 | 15 | 18 | 13 |
| | | % | 100 | 100 | 92 | 94 | 96 | 96 | 96 | 96 | 96 | 96 | 96 | 96 |
| | | Max-d | 21 | 55 | 423 | 234 | 34 | 43 | 23 | 16 | 29 | 42 | 117 | 41 |
| | | Min-d | 3 | 5 | 7 | 7 | 5 | 2 | 3 | 4 | 6 | 4 | 2 | 5 |
| | Tappi | Mean | 16 | 20 | 83 | 70 | 15 | 14 | 15 | 12 | 13 | 22 | 21 | 14 |
| | | % | 100 | 100 | 100 | 98 | 79 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | | Max-d | 36 | 72 | 765 | 477 | 29 | 55 | 43 | 32 | 25 | 46 | 138 | 43 |
| | | Min-d | 7 | 10 | 8 | 12 | 4 | 6 | 5 | 3 | 5 | 9 | 8 | 6 |
| | Sado-seki | Mean | 14 | 18 | 70 | 77 | 18 | 19 | 18 | 18 | 15 | 26 | 17 | 16 |
| | | % | 88 | 71 | 100 | 100 | 64 | 73 | 95 | 100 | 100 | 100 | 100 | 100 |
| | | Max-d | 23 | 39 | 522 | 422 | 44 | 47 | 41 | 32 | 26 | 62 | 33 | 35 |
| | | Min-d | N.D. | 7 | 9 | 15 | 6 | N.D. | 5 | 3 | 8 | 7 | 6 | 8 |
| | Happo | Mean | 4 | 8 | 15 | 34 | 12 | 14 | 12 | 10 | 9 | 13 | 6 | 4 |
| | | % | 86 | 77 | 88 | 100 | 100 | 100 | 84 | 99 | 100 | 88 | 67 | 98 |
| | | Max-d | 16 | 23 | 68 | 182 | 28 | 41 | 30 | 22 | 20 | 54 | 18 | 8 |
| | | Min-d | 1 | 3 | 2 | 4 | 2 | 1 | N.D. | 2 | 2 | N.D. | 1 | 2 |
| | Ogasawara | Mean | 14 | 14 | 18 | 17 | 12 | 6 | 12 | 13 | 11 | 12 | 12 | 12 |
| | | % | 100 | 99 | 94 | 100 | 100 | 87 | 92 | 92 | 100 | 98 | 100 | 100 |
| | | Max-d | 25 | 38 | 43 | 57 | 44 | 10 | 35 | 29 | 24 | 25 | 21 | 25 |
| | | Min-d | 7 | 8 | 3 | 5 | 2 | 3 | 4 | 5 | 4 | 6 | 4 | 4 |
| | Oki | Mean | 30 | 31 | 42 | 79 | 22 | 28 | 23 | 17 | 18 | 28 | 32 | 21 |
| | | % | 100 | 97 | 100 | 100 | 100 | 100 | 77 | 98 | 97 | 46 | 100 | 100 |
| | | Max-d | 74 | 88 | 741 | 548 | 47 | 60 | 47 | 37 | 48 | 60 | 148 | 39 |
| | | Min-d | 6 | 10 | 14 | 12 | 6 | 8 | 4 | 7 | 7 | 15 | 12 | 10 |
| | Ijira | Mean | 12 | 16 | 34 | 47 | 35 | 27 | 29 | 22 | 22 | 24 | 15 | 11 |
| | | % | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | | Max-d | 30 | 53 | 156 | 185 | 296 | 61 | 59 | 36 | 37 | 65 | 70 | 21 |
| | | Min-d | 4 | 7 | 11 | 9 | 7 | 7 | 7 | 9 | 10 | 6 | 4 | 4 |
| | Banryu | Mean | 31 | 28 | 76 | 71 | 25 | 36 | 24 | 18 | 23 | 32 | 32 | 22 |
| | | % | 100 | 99 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 99 | 100 | 100 |
| | | Max-d | 77 | 58 | 550 | 421 | 57 | 81 | 59 | 28 | 49 | 72 | 192 | 45 |
| | | Min-d | 8 | 13 | 20 | 9 | 11 | 9 | 9 | 9 | 9 | 12 | 11 | 10 |
| | Yusuhara | Mean | 17 | 19 | 41 | 41 | 15 | 24 | 16 | 15 | 16 | 22 | 21 | 12 |
| | | % | 97 | 95 | 94 | 87 | 99 | 97 | 90 | 81 | 93 | 96 | 89 | 86 |
| | | Max-d | 45 | 41 | 97 | 138 | 31 | 47 | 40 | 29 | 28 | 66 | 102 | 32 |
| | | Min-d | 5 | 8 | 10 | 3 | 1 | 2 | 3 | 4 | 8 | 4 | 7 | 2 |
| Hedo | Mean | 44 | 36 | 47 | 79 | 61 | 44 | 65 | 57 | 57 | 30 | 31 | 22 | |
| | % | 97 | 97 | 100 | 98 | 99 | 100 | 98 | 100 | 31 | 100 | 99 | 100 | |
| | Max-d | 70 | 75 | 101 | 194 | 211 | 73 | 161 | 253 | 194 | 68 | 90 | 60 | |
| | Min-d | 21 | 14 | 19 | 31 | 25 | 22 | 11 | 20 | 14 | 12 | 13 | 7 | |

Table 4.12 PM_{2.5}

| Unit: $\mu\text{g}/\text{m}^3$ | | 2002 | | | | | | | | | | | | |
|--------------------------------|---------|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Country | Site | | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
| Japan | Rishiri | Mean | 6 | 12 | 13 | 12 | 9 | 7 | 6 | 6 | 6 | 7 | 8 | 7 |
| | | % | 100 | 100 | 99 | 99 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | | Max-d | 11 | 30 | 59 | 43 | 15 | 21 | 16 | 10 | 11 | 19 | 26 | 15 |
| | | Min-d | 3 | 4 | 6 | 5 | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 3 |
| | Oki | Mean | 13 | 15 | 23 | 23 | 13 | 17 | 14 | 9 | 9 | 13 | 13 | 8 |
| | | % | 100 | 97 | 100 | 100 | 100 | 100 | 99 | 100 | 100 | 97 | 100 | 99 |
| | | Max-d | 35 | 31 | 179 | 83 | 31 | 40 | 37 | 29 | 21 | 32 | 36 | 16 |
| | | Min-d | 3 | 6 | 7 | 7 | 4 | 3 | 3 | 4 | 4 | 4 | 6 | 4 |

Table 4.13 Particulate matter component: SO₄²⁻

| Unit: µg/m ³ | | 2002 | | | | | | | | | | | | |
|-------------------------|---------------|---------|------|------|------|------|------|------|------|------|------|------|------|------|
| Country | Site | | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
| Indonesia | Serpong | Mean | N.D. | N.D. | 3.5 | 2.3 | 2.1 | 2.3 | 1.0 | 0.4 | 1.0 | 1.9 | 1.3 | 2.2 |
| | | % | 84 | 65 | 100 | 100 | 100 | 80 | 100 | 97 | 100 | 97 | 100 | 80 |
| | | Max-w | N.D. | 2.5 | 6.9 | 4.3 | 6.6 | 7.3 | 2.8 | 0.8 | 2.3 | 4.8 | 2.5 | 4.0 |
| | | Min-w | N.D. | 1.6 | 0.2 | 0.6 | 0.5 | 0.1 | N.D. | N.D. | N.D. | 0.6 | 0.2 | 0.7 |
| Japan | Rishiri | Mean | - | - | - | - | - | - | 1.8 | 1.7 | 0.9 | 1.6 | 3.1 | 1.4 |
| | | % | - | - | - | - | - | - | 100 | 100 | 100 | 100 | 100 | 100 |
| | | Max-2w | - | - | - | - | - | - | 2.2 | 2.1 | 1.0 | 2.2 | 3.3 | 1.6 |
| | | Min-2w | - | - | - | - | - | - | 1.5 | 1.2 | 0.7 | 1.1 | 2.9 | 1.3 |
| | Okii | Mean | - | - | - | 5.5 | 3.1 | 8.8 | 5.3 | 2.5 | 2.9 | 5.6 | 3.0 | 2.8 |
| | | % | - | - | - | 23 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | | Max-2w | - | - | - | N.D. | 0.1 | 10.9 | 6.7 | 4.5 | 3.5 | 7.4 | 3.5 | 3.1 |
| | | Min-2w | - | - | - | N.D. | 2.0 | 6.6 | 3.3 | 0.5 | 2.4 | 3.7 | 2.5 | 2.4 |
| Malaysia | TanahRata | Mean | 1.9 | N.D. | 0.8 | 0.9 | 0.6 | 0.2 | N.D. | N.D. | 0.4 | N.D. | 0.5 | 0.3 |
| | | % | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | | Max-w | 4.1 | 1.8 | 2.9 | 1.6 | 1.7 | 0.7 | N.D. | N.D. | 1.3 | N.D. | 1.0 | 0.7 |
| | | Min-w | 0.2 | N.D. | N.D. | 0.2 | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | 0.2 | N.D. |
| | Petaling Jaya | Mean | 4.7 | N.D. | 5.5 | 2.8 | 3.8 | 2.5 | 3.5 | 6.1 | 5.0 | 5.3 | 4.2 | 3.3 |
| | | % | 100 | 100 | 100 | 75 | 80 | 100 | 100 | 100 | 100 | 25 | 100 | 100 |
| | | Max-w | 6.5 | 6.3 | 12.0 | 4.4 | 6.2 | 3.2 | 6.1 | 10.6 | 6.2 | 5.3 | 5.5 | 3.6 |
| | | Min-w | 3.0 | 1.9 | 2.3 | 0.1 | 2.2 | 1.7 | 2.2 | 2.6 | 4.0 | 5.3 | 2.1 | 3.1 |
| Mongolia | Ulaanbaatar | Mean | - | - | - | - | 1.4 | 1.1 | 1.4 | 2.5 | 1.3 | 3.1 | 1.7 | - |
| | | % | - | - | - | - | 100 | 100 | 100 | 100 | 100 | 100 | 25 | - |
| | | Max-w | - | - | - | - | 3.3 | 2.7 | 3.0 | 3.6 | 2.2 | 4.2 | 5.0 | - |
| | | Min-w | - | - | - | - | 0.3 | 0.2 | 0.7 | 1.1 | 0.5 | 2.1 | N.D. | - |
| | Terej | Mean | 0.8 | 0.7 | 0.7 | 0.7 | 1.4 | 0.3 | 0.9 | 1.6 | 0.3 | 0.2 | 0.4 | 0.9 |
| | | % | 44 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | | Max-w | 2.0 | 1.6 | 2.0 | 1.5 | 2.6 | 0.7 | 1.8 | 3.3 | 0.4 | 0.4 | 0.6 | 1.4 |
| | | Min-w | 1.2 | N.D. | N.D. | 0.1 | N.D. | N.D. | 0.1 | 0.3 | 0.1 | 0.3 | 0.2 | 0.3 |
| Philippines | Metro Manila | Mean | 2.6 | N.D. | 2.1 | 3.5 | 2.2 | 1.9 | 1.5 | 4.0 | 3.7 | 2.6 | 2.0 | 1.0 |
| | | % | 73 | 100 | 100 | 79 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 81 |
| | | Max-* | 4.9 | 4.4 | 2.4 | 3.7 | 3.9 | 2.6 | 2.8 | 5.8 | 4.9 | 4.2 | 3.1 | 1.2 |
| | | Min-* | N.D. | 1.9 | 1.5 | 3.2 | 0.3 | 0.6 | 0.4 | 2.8 | 1.6 | N.D. | 0.3 | 0.9 |
| | Los Banos | Mean | N.D. | N.D. | 0.8 | 0.6 | 1.0 | 0.2 | 7.2 | 2.8 | 4.0 | 0.5 | 1.0 | 0.4 |
| | | % | 74 | 97 | 100 | 100 | 100 | 100 | 100 | 100 | 61 | 100 | 100 | 82 |
| | | Max-* | 1.2 | 1.1 | 2.2 | 1.5 | 1.9 | 0.4 | 14.6 | 3.8 | 4.0 | 1.0 | 1.8 | 0.9 |
| | | Min-* | N.D. | 0.8 | N.D. | N.D. | 0.3 | N.D. | 1.3 | 1.8 | 4.0 | N.D. | 0.4 | N.D. |
| Republic of Korea | Kanghwa | Mean | 8.5 | 8.7 | 6.1 | 11.6 | 5.2 | 8.4 | 4.4 | 2.3 | 6.8 | 7.4 | - | - |
| | | % | 9 | 10 | 11 | 4 | 11 | 9 | 11 | 9 | 7 | 10 | - | - |
| | | Max-d | 19.5 | 17.9 | 10.1 | 11.6 | 10.5 | 13.5 | 8.0 | 4.1 | 9.2 | 9.8 | - | - |
| | | Min-d | 3.0 | 3.1 | 1.9 | 11.6 | 0.5 | 5.8 | 1.9 | 0.7 | 4.5 | 5.0 | - | - |
| | Cheju | Mean | 4.0 | 6.8 | 5.1 | 2.9 | 7.5 | 12.7 | 9.6 | 0.8 | 9.4 | 13.6 | 5.8 | 2.7 |
| | | % | 25 | 29 | 11 | 11 | 11 | 9 | 11 | 3 | 11 | 10 | 11 | 9 |
| | | Max-d | 4.8 | 9.7 | 7.2 | 4.2 | 13.6 | 20.1 | 11.5 | 0.8 | 21.7 | 20.7 | 5.9 | 4.6 |
| | | Min-d | 3.5 | 4.0 | 3.9 | 1.5 | 2.2 | 1.2 | 6.7 | 0.8 | 2.0 | 9.5 | 5.5 | 0.9 |
| | Imsil | Mean | - | 7.2 | 4.9 | 5.5 | 11.0 | 5.3 | 8.2 | 0.7 | 1.0 | 5.7 | 3.3 | 3.5 |
| | | % | - | 10 | 11 | 11 | 7 | 9 | 11 | 9 | 11 | 10 | 11 | 6 |
| | | Max-d | - | 16.0 | 6.0 | 11.7 | 14.5 | 8.7 | 18.2 | 1.8 | 2.7 | 9.9 | 7.3 | 4.5 |
| | | Min-d | - | 0.9 | 2.8 | 1.7 | 7.6 | 2.6 | 2.8 | 0.2 | N.D. | 0.5 | 0.6 | 2.5 |
| Russia | Mondy | Mean | 0.3 | N.D. | 0.5 | 1.0 | 0.8 | 0.4 | 0.1 | 0.7 | 0.5 | 0.6 | 0.5 | 0.6 |
| | | % | 94 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | | Max-2w | 0.3 | 0.7 | 0.6 | 1.2 | 1.1 | 0.4 | 0.3 | 0.7 | 0.6 | 0.8 | 0.9 | 0.8 |
| | | Min-2w | 0.2 | 0.6 | 0.4 | 0.8 | 0.4 | 0.4 | N.D. | 0.6 | 0.4 | 0.3 | 0.2 | 0.5 |
| | Listvianka | Mean | 3.3 | N.D. | 2.3 | 2.6 | 1.7 | 1.1 | 1.3 | 1.4 | 1.4 | 1.3 | 1.7 | 2.2 |
| | | % | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | | Max-10d | 3.9 | 2.8 | 2.9 | 2.7 | 1.7 | 1.9 | 1.5 | 1.8 | 1.8 | 2.0 | 3.2 | 3.0 |
| | | Min-10d | 2.6 | 2.4 | 1.5 | 2.3 | 1.7 | 0.7 | 0.9 | 0.9 | 1.1 | 0.5 | 0.4 | 0.8 |
| | Irkutsk | Mean | 6.3 | N.D. | 1.0 | 2.3 | 1.6 | 0.4 | 0.1 | 0.1 | 0.8 | 3.6 | 13.8 | 16.7 |
| | | % | 65 | 50 | 60 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | | Max-w | 9.2 | 1.6 | 1.4 | 2.3 | 2.3 | 0.7 | 0.2 | 0.4 | 1.3 | 7.2 | 17.5 | 21.1 |
| | | Min-w | 0.8 | 0.9 | 0.6 | 2.2 | 1.1 | N.D. | N.D. | N.D. | 0.4 | 2.1 | 7.0 | 14.3 |
| | Primorskaya | Mean | 6.5 | N.D. | 3.7 | 3.0 | 1.6 | 1.4 | 1.3 | 0.8 | 1.4 | 1.8 | 2.1 | 1.8 |
| | | % | 100 | 100 | 82 | 64 | 75 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | | Max-w | 7.2 | 9.5 | 4.7 | 4.5 | 2.1 | 1.5 | 1.8 | 0.9 | 1.9 | 1.8 | 2.3 | 2.4 |
| | | Min-w | 5.9 | 4.6 | 2.9 | 1.7 | 1.1 | 1.3 | 0.7 | 0.7 | 0.8 | 1.8 | 1.9 | 1.0 |

Table 4.13 Particulate matter component: SO₄²⁻

| Unit: µg/m ³ | | 2002 | | | | | | | | | | | | | |
|-------------------------|---------------------|-------|------|------|------|------|------|-----|------|------|------|------|------|------|---|
| Country | Site | | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | |
| Thai Land | Mae Hia | Mean | 0.2 | 5.5 | 5.9 | - | 0.3 | 0.9 | 0.5 | - | - | 0.9 | - | - | |
| | | % | 23 | 25 | 23 | - | 23 | 23 | 23 | - | - | 23 | - | - | |
| | | Max-w | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | | Min-w | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | Vachiralongkorn Dam | Mean | - | - | - | - | - | - | - | N.D. | - | - | - | - | - |
| | | % | - | - | - | - | - | - | - | 61 | - | - | - | - | - |
| | | Max-w | - | - | - | - | - | - | - | N.D. | - | - | - | - | - |
| | | Min-w | - | - | - | - | - | - | - | N.D. | - | - | - | - | - |
| Viet Nam | Ha Noi | Mean | 29.6 | N.D. | 3.8 | 13.0 | 9.0 | 6.8 | 6.7 | 3.6 | 7.1 | 1.7 | 9.7 | 12.7 | |
| | | % | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | | Max-w | 53.9 | 25.9 | 10.7 | 37.8 | 15.6 | 8.1 | 8.8 | 4.7 | 13.9 | 2.7 | 14.9 | 16.4 | |
| | | Min-w | 8.6 | 1.6 | 1.2 | 0.7 | 6.5 | 5.5 | 4.1 | 0.9 | 2.2 | 0.9 | 0.9 | 9.9 | |
| | Hoa Binh | Mean | 13.7 | N.D. | 13.3 | 5.4 | 2.2 | 0.7 | 0.7 | 0.7 | 1.2 | 0.7 | 4.2 | 7.1 | |
| | | % | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | | Max-w | 15.1 | 24.5 | 26.8 | 14.4 | 4.1 | 0.8 | 1.5 | 1.5 | 4.3 | 2.0 | 9.5 | 13.7 | |
| | | Min-w | 12.0 | 9.1 | 0.8 | 0.8 | 0.7 | 0.7 | N.D. | N.D. | N.D. | N.D. | 0.9 | 3.7 | |

Table 4.14 Particulate matter component: NO₃⁻

| Unit: µg/m ³ | | 2002 | | | | | | | | | | | | | |
|-------------------------|---------------------|-------|------|------|------|------|-----|-----|------|------|-----|------|-----|-----|---|
| Country | Site | | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | |
| Thai Land | Mae Hia | Mean | N.D. | 0.4 | 0.1 | - | 0.2 | 0.4 | N.D. | - | - | 0.2 | - | - | |
| | | % | 23 | 25 | 23 | - | 23 | 23 | 23 | - | - | 23 | - | - | |
| | | Max-w | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | | Min-w | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | Vachiralongkorn Dam | Mean | - | - | - | - | - | - | - | N.D. | - | - | - | - | - |
| | | % | - | - | - | - | - | - | - | 61 | - | - | - | - | - |
| | | Max-w | - | - | - | - | - | - | - | N.D. | - | - | - | - | - |
| | | Min-w | - | - | - | - | - | - | - | N.D. | - | - | - | - | - |
| Viet Nam | Ha Noi | Mean | 4.7 | N.D. | 2.3 | N.D. | 2.5 | 2.6 | 2.0 | 2.2 | 1.2 | 0.3 | 1.1 | 3.7 | |
| | | % | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | | Max-w | 8.0 | 4.1 | 6.8 | 13.0 | 5.2 | 5.1 | 3.1 | 5.3 | 2.1 | 1.1 | 2.1 | 6.2 | |
| | | Min-w | 1.4 | 0.3 | 0.2 | 0.3 | 0.4 | 0.9 | N.D. | N.D. | 0.5 | N.D. | 0.2 | 0.9 | |
| | Hoa Binh | Mean | 1.1 | N.D. | 0.4 | N.D. | 1.6 | 0.3 | 1.0 | 0.5 | 0.8 | 1.4 | 1.2 | 1.9 | |
| | | % | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | | Max-w | 1.8 | 1.7 | 0.9 | 8.4 | 3.7 | 0.5 | 3.2 | 1.2 | 1.1 | 5.2 | 2.1 | 3.6 | |
| | | Min-w | 0.4 | 0.2 | N.D. | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.5 | 0.2 | 0.3 | 0.5 | |

Table 4.15 Particulate matter component: Cl⁻

| Unit: $\mu\text{g}/\text{m}^3$ | | | 2002 | | | | | | | | | | | |
|--------------------------------|---------------|---------|------|------|------|------|------|------|------|------|------|------|------|------|
| Country | Site | | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
| Indonesia | Serpong | Mean | 1.2 | 3.0 | 3.4 | 3.7 | 0.9 | 3.1 | 1.1 | 1.1 | 0.4 | 0.2 | 0.1 | 0.4 |
| | | % | 84 | 65 | 100 | 100 | 100 | 80 | 100 | 97 | 100 | 97 | 100 | 80 |
| | | Max-w | 1.7 | 4.6 | 6.4 | 5.7 | 2.8 | 3.4 | 2.2 | 3.3 | 1.1 | 0.3 | 0.2 | 0.7 |
| | | Min-w | 0.2 | N.D. | N.D. | 0.4 | 0.1 | 2.8 | 0.3 | N.D. | N.D. | N.D. | N.D. | N.D. |
| Japan | Rishiri | Mean | - | - | - | - | - | - | 0.3 | 0.9 | 2.6 | 4.1 | 5.1 | 1.3 |
| | | % | - | - | - | - | - | - | 100 | 100 | 100 | 100 | 100 | 100 |
| | | Max-2w | - | - | - | - | - | - | 0.3 | 1.2 | 3.2 | 4.4 | 6.9 | 1.7 |
| | | Min-2w | - | - | - | - | - | - | 0.3 | 0.5 | 1.7 | 3.8 | 3.3 | 0.9 |
| | Okii | Mean | - | - | - | 1.7 | 0.1 | N.D. | N.D. | 0.4 | 0.5 | 2.6 | 4.1 | 3.3 |
| | | % | - | - | - | 23 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | | Max-2w | - | - | - | N.D. | 0.2 | 0.2 | 0.1 | 0.5 | 0.7 | 4.9 | 5.3 | 4.3 |
| | | Min-2w | - | - | - | N.D. | N.D. | N.D. | N.D. | 0.3 | 0.3 | 0.3 | 2.9 | 2.7 |
| Malaysia | TanahRata | Mean | 0.1 | 0.2 | N.D. | N.D. | N.D. | N.D. | 0.1 | N.D. | N.D. | N.D. | N.D. | 0.1 |
| | | % | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | | Max-w | 0.2 | 0.7 | N.D. | N.D. | N.D. | N.D. | 0.2 | N.D. | N.D. | 0.2 | N.D. | 0.4 |
| | | Min-w | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| | Petaling Jaya | Mean | N.D. | 0.1 | N.D. | 0.1 | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| | | % | 100 | 100 | 100 | 75 | 80 | 100 | 100 | 100 | 100 | 25 | 100 | 100 |
| | | Max-w | 0.1 | 0.2 | N.D. | 0.2 | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| | | Min-w | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| Mongolia | Ulaanbaatar | Mean | - | - | - | - | 0.2 | 0.2 | 0.1 | 0.4 | 0.4 | 0.7 | 0.5 | - |
| | | % | - | - | - | - | 100 | 100 | 100 | 100 | 100 | 100 | 25 | - |
| | | Max-w | - | - | - | - | 0.4 | 0.4 | 0.1 | 0.6 | 0.5 | 0.9 | 1.5 | - |
| | | Min-w | - | - | - | - | 0.1 | N.D. | N.D. | 0.3 | 0.3 | 0.6 | N.D. | - |
| | Terej | Mean | N.D. | N.D. | 0.3 | N.D. | N.D. | N.D. | 0.2 | 0.1 | N.D. | 0.1 | 0.2 | 0.2 |
| | | % | 44 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | | Max-w | N.D. | 0.1 | 0.7 | 0.1 | N.D. | 0.2 | 0.2 | 0.2 | N.D. | 0.3 | 0.3 | 0.3 |
| | | Min-w | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | 0.1 | N.D. | N.D. | N.D. | 0.1 | 0.1 |
| Philippines | Metro Manila | Mean | 0.6 | 1.0 | 0.8 | 0.5 | 0.6 | 0.4 | 0.5 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| | | % | 73 | 100 | 100 | 79 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 81 |
| | | Max-* | 1.1 | 1.3 | 1.3 | 0.6 | 0.9 | 0.7 | 0.8 | 0.5 | 0.3 | 0.6 | 0.3 | 0.3 |
| | | Min-* | N.D. | 0.7 | 0.5 | 0.3 | 0.2 | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| | Los Banos | Mean | 0.9 | 2.2 | 1.1 | 0.3 | 0.4 | N.D. | 2.9 | 0.2 | 0.9 | 0.3 | 1.1 | 0.5 |
| | | % | 74 | 97 | 100 | 100 | 100 | 100 | 100 | 100 | 61 | 100 | 100 | 82 |
| | | Max-* | 1.6 | 3.1 | 3.0 | 0.5 | 1.3 | 0.2 | 4.1 | 0.4 | 0.9 | 0.4 | 2.1 | 1.6 |
| | | Min-* | N.D. | 0.7 | N.D. | N.D. | N.D. | N.D. | 1.2 | N.D. | 0.9 | 0.2 | 0.6 | N.D. |
| Republic of Korea | Kanghwa | Mean | 0.6 | 0.4 | 0.3 | 0.4 | 0.3 | 0.3 | 0.3 | 0.1 | 0.4 | 0.3 | - | - |
| | | % | 9 | 10 | 11 | 4 | 11 | 9 | 11 | 9 | 7 | 10 | - | - |
| | | Max-d | 0.9 | 0.5 | 0.4 | 0.4 | 0.3 | 0.5 | 0.4 | 0.2 | 0.4 | 0.4 | - | - |
| | | Min-d | 0.3 | 0.3 | 0.3 | 0.4 | 0.3 | 0.1 | 0.3 | N.D. | 0.4 | 0.2 | - | - |
| | Cheju | Mean | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.3 | 0.3 | 0.7 | 0.3 | 0.4 | 0.6 | 0.5 |
| | | % | 25 | 29 | 11 | 11 | 11 | 9 | 11 | 3 | 11 | 10 | 11 | 9 |
| | | Max-d | 0.2 | 0.3 | 0.3 | 0.2 | 0.2 | 0.4 | 0.3 | 0.7 | 0.4 | 0.5 | 0.8 | 0.7 |
| | | Min-d | 0.1 | N.D. | 0.1 | 0.2 | 0.2 | 0.2 | 0.3 | 0.7 | 0.3 | 0.3 | 0.4 | 0.4 |
| | Imsil | Mean | - | 0.4 | 0.2 | 0.4 | 0.4 | 0.3 | 0.3 | 0.4 | 0.3 | 0.3 | 0.3 | 0.3 |
| | | % | - | 10 | 11 | 11 | 7 | 9 | 11 | 9 | 11 | 10 | 11 | 6 |
| | | Max-d | - | 0.6 | 0.3 | 0.6 | 0.5 | 0.3 | 0.4 | 0.4 | 0.3 | 0.3 | 0.3 | 0.3 |
| | | Min-d | - | 0.2 | 0.2 | 0.2 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.2 | 0.3 | 0.3 |
| Russia | Mondy | Mean | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| | | % | 94 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | | Max-2w | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | 0.1 |
| | | Min-2w | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| | Listvianka | Mean | 0.3 | 1.4 | 0.4 | 0.4 | N.D. | 0.2 | 0.3 | 0.2 | 0.3 | 0.2 | 0.1 | N.D. |
| | | % | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | | Max-10d | 0.5 | 1.4 | 0.5 | 0.5 | 0.1 | 0.2 | 0.5 | 0.4 | 0.4 | 0.3 | 0.3 | 0.3 |
| | | Min-10d | N.D. | 1.2 | 0.3 | 0.3 | N.D. | 0.1 | 0.2 | N.D. | 0.2 | N.D. | N.D. | N.D. |
| | Irkutsk | Mean | 0.3 | 0.2 | 0.4 | 0.3 | 0.2 | N.D. | 0.1 | 0.4 | 0.4 | 0.4 | 1.3 | 1.2 |
| | | % | 65 | 50 | 60 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | | Max-w | 0.4 | 0.2 | 0.4 | 0.5 | 0.3 | 0.1 | 0.3 | 0.6 | 0.8 | 0.6 | 1.8 | 1.4 |
| | | Min-w | 0.3 | 0.1 | 0.3 | 0.1 | N.D. | N.D. | N.D. | 0.1 | N.D. | N.D. | 0.7 | 0.5 |
| | Primorskaya | Mean | 0.2 | N.D. | 0.9 | 0.4 | 0.3 | N.D. | 0.2 | N.D. | N.D. | 0.2 | N.D. | 0.1 |
| | | % | 100 | 100 | 82 | 64 | 75 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | | Max-w | 0.5 | 0.1 | 1.4 | 1.1 | 0.4 | 0.2 | 0.3 | 0.2 | 0.1 | 0.2 | N.D. | 0.2 |
| | | Min-w | N.D. | N.D. | 0.6 | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | 0.2 | N.D. | N.D. |

Table 4.15 Particulate matter component: Cl⁻

| Unit: $\mu\text{g}/\text{m}^3$ | | | 2002 | | | | | | | | | | | | |
|--------------------------------|--------------------|-------|------|------|-----|-----|-----|-----|------|------|-----|------|-----|------|---|
| Country | Site | | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | |
| Thai Land | Mae Hia | Mean | N.D. | N.D. | 0.5 | - | 0.1 | 0.2 | N.D. | - | - | N.D. | - | - | |
| | | % | 23 | 25 | 23 | - | 23 | 23 | 23 | - | - | 23 | - | - | |
| | | Max-w | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | | Min-w | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | Vachiralongkom Dam | Mean | - | - | - | - | - | - | - | N.D. | - | - | - | - | - |
| | | % | - | - | - | - | - | - | - | 61 | - | - | - | - | - |
| | | Max-w | - | - | - | - | - | - | - | N.D. | - | - | - | - | - |
| | Min-w | - | - | - | - | - | - | - | N.D. | - | - | - | - | - | |
| Viet Nam | Ha Noi | Mean | 2.2 | 0.9 | 0.9 | 1.6 | 2.6 | 2.6 | 2.1 | 1.4 | 1.4 | 0.8 | 1.3 | 3.3 | |
| | | % | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | | Max-w | 4.3 | 1.9 | 1.8 | 3.6 | 4.2 | 2.9 | 3.1 | 2.9 | 2.2 | 1.1 | 1.9 | 10.8 | |
| | | Min-w | 0.6 | 0.2 | 0.3 | 0.7 | 1.9 | 2.4 | 1.3 | 0.4 | 0.8 | 0.3 | 0.8 | 1.1 | |
| | Hoa Binh | Mean | 2.2 | 3.7 | 2.0 | 2.9 | 1.8 | 0.9 | 1.0 | 1.1 | 1.3 | 0.8 | 0.8 | 2.6 | |
| | | % | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | | Max-w | 3.1 | 7.4 | 3.9 | 4.6 | 3.8 | 1.4 | 2.1 | 2.1 | 2.0 | 1.2 | 1.3 | 10.6 | |
| | | Min-w | 1.6 | 1.9 | 0.8 | 0.6 | 1.0 | 0.6 | 0.5 | 0.4 | 0.7 | 0.6 | 0.4 | 0.4 | |

Table 4.16 Particulate matter component: NH₄⁺

| Unit: µg/m ³ | | 2002 | | | | | | | | | | | | |
|-------------------------|---------------|---------|------|------|------|------|------|------|------|------|------|------|------|------|
| Country | Site | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | |
| Indonesia | Serpong | Mean | N.D. | 1.1 | 0.9 | 1.1 | 0.2 | 1.2 | 1.0 | 0.2 | 0.3 | 0.2 | 0.8 | |
| | | % | 84 | 65 | 100 | 100 | 100 | 80 | 100 | 97 | 100 | 97 | 100 | 80 |
| | | Max-w | N.D. | 2.0 | 1.5 | 1.6 | 0.6 | 1.8 | 1.3 | 0.8 | 0.5 | 1.0 | 0.5 | 1.4 |
| | | Min-w | N.D. | 0.3 | N.D. | N.D. | N.D. | N.D. | 0.5 | N.D. | N.D. | N.D. | N.D. | 0.3 |
| Japan | Rishiri | Mean | - | - | - | - | - | - | 0.4 | 0.2 | 0.2 | 0.3 | 0.7 | 0.3 |
| | | % | - | - | - | - | - | - | 100 | 100 | 100 | 100 | 100 | 100 |
| | | Max-2w | - | - | - | - | - | - | 0.4 | 0.3 | 0.3 | 0.4 | 0.8 | 0.4 |
| | | Min-2w | - | - | - | - | - | - | 0.3 | 0.2 | N.D. | 0.1 | 0.6 | 0.2 |
| | Oki | Mean | - | - | - | 0.4 | 0.9 | 2.7 | 1.0 | 0.4 | 0.6 | 0.8 | 0.3 | 0.3 |
| | | % | - | - | - | 23 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| Malaysia | TanahRata | Mean | 0.2 | 0.2 | 0.2 | 0.2 | 0.1 | 0.4 | 0.6 | 0.2 | N.D. | 1.0 | 0.1 | N.D. |
| | | % | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | | Max-w | 0.4 | 0.3 | 0.5 | 0.4 | 0.3 | 1.0 | 0.8 | 0.6 | 0.4 | 1.5 | 0.2 | 0.2 |
| | | Min-w | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | 0.4 | N.D. | N.D. | N.D. | N.D. | N.D. |
| | Petaling Jaya | Mean | 1.4 | 1.3 | 2.0 | 0.8 | 1.3 | 0.8 | 1.0 | 2.0 | 1.6 | 1.8 | 1.1 | 0.7 |
| | | % | 100 | 100 | 100 | 75 | 80 | 100 | 100 | 100 | 100 | 25 | 100 | 100 |
| Mongolia | Ulaanbaatar | Mean | - | - | - | - | 0.3 | 0.1 | 0.2 | 0.5 | 0.4 | 1.0 | 0.8 | - |
| | | % | - | - | - | - | 100 | 100 | 100 | 100 | 100 | 100 | 25 | - |
| | | Max-w | - | - | - | - | 0.4 | 0.2 | 0.4 | 1.4 | 0.7 | 2.0 | 2.3 | - |
| | | Min-w | - | - | - | - | 0.2 | N.D. | N.D. | N.D. | N.D. | 0.3 | N.D. | - |
| | Terej | Mean | 0.3 | 0.3 | 0.3 | 0.4 | 0.3 | 0.1 | 0.2 | 0.7 | 0.1 | N.D. | N.D. | 0.5 |
| | | % | 44 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| Philippines | Metro Manila | Mean | 0.4 | 1.2 | 0.1 | 0.2 | 0.8 | 4.0 | 0.6 | 1.0 | 1.8 | 0.6 | 0.4 | 0.1 |
| | | % | 73 | 100 | 100 | 79 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 81 |
| | | Max-* | 0.8 | 2.8 | 0.3 | 0.4 | 1.6 | 10.7 | 0.8 | 1.5 | 4.0 | 1.4 | 1.1 | 0.3 |
| | | Min-* | N.D. | 0.2 | N.D. | N.D. | 0.3 | 0.5 | 0.2 | 0.7 | 0.3 | N.D. | N.D. | N.D. |
| | Los Banos | Mean | 0.2 | N.D. | 0.2 | N.D. | 0.5 | 0.2 | 1.2 | 0.7 | 0.8 | N.D. | 0.3 | N.D. |
| | | % | 74 | 97 | 100 | 100 | 100 | 100 | 100 | 100 | 61 | 100 | 100 | 82 |
| Republic of Korea | Kanghwa | Mean | 2.8 | 2.9 | 2.2 | 4.5 | 2.1 | 2.7 | 2.6 | 0.9 | 2.5 | 2.6 | - | - |
| | | % | 9 | 10 | 11 | 4 | 11 | 9 | 11 | 9 | 7 | 10 | - | - |
| | | Max-d | 7.8 | 6.8 | 3.5 | 4.5 | 3.7 | 4.2 | 3.8 | 1.4 | 3.1 | 3.0 | - | - |
| | | Min-d | 0.4 | 0.7 | 0.9 | 4.5 | 0.7 | 1.9 | 1.3 | N.D. | 1.9 | 1.9 | - | - |
| | Cheju | Mean | 1.1 | 1.8 | 1.5 | 0.9 | 2.2 | 4.2 | 3.0 | 0.2 | 2.6 | 3.7 | 2.0 | 0.8 |
| | | % | 25 | 29 | 11 | 11 | 11 | 9 | 11 | 3 | 11 | 10 | 11 | 9 |
| Imsil | Mean | - | 1.8 | 1.1 | 0.9 | 3.6 | 2.3 | 3.1 | 0.1 | 0.3 | 1.2 | 0.4 | 0.7 | |
| | % | - | 10 | 11 | 11 | 7 | 9 | 11 | 9 | 11 | 10 | 11 | 6 | |
| | Max-d | - | 4.0 | 1.5 | 1.6 | 4.2 | 3.5 | 5.9 | 0.3 | 0.8 | 2.2 | 0.9 | 0.7 | |
| | Min-d | - | N.D. | 0.4 | 0.3 | 3.1 | 1.4 | 1.4 | N.D. | N.D. | N.D. | 0.1 | 0.6 | |
| Russia | Mondy | Mean | 0.1 | 0.3 | 0.2 | 0.4 | 0.3 | 0.2 | 0.1 | 0.2 | 0.3 | 0.1 | 0.1 | 0.2 |
| | | % | 94 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | | Max-2w | 0.2 | 0.3 | 0.2 | 0.4 | 0.4 | 0.2 | 0.2 | 0.2 | 0.3 | 0.3 | 0.2 | 0.2 |
| | | Min-2w | N.D. | 0.2 | 0.2 | 0.3 | 0.1 | 0.2 | 0.1 | 0.2 | 0.3 | N.D. | N.D. | 0.2 |
| | Listvianka | Mean | 1.1 | 1.4 | 1.2 | 1.3 | 0.5 | 0.4 | 0.3 | 0.4 | 0.5 | 0.6 | 0.7 | 0.8 |
| | | % | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | | Max-10d | 1.3 | 1.6 | 1.5 | 1.5 | 0.6 | 0.6 | 0.5 | 0.4 | 0.7 | 0.8 | 1.2 | 1.1 |
| | | Min-10d | 0.8 | 1.3 | 1.0 | 1.1 | 0.5 | 0.2 | 0.2 | 0.4 | 0.3 | 0.4 | 0.3 | 0.4 |
| | Irkutsk | Mean | 2.3 | 0.6 | 0.5 | 0.9 | 0.7 | 0.3 | 0.3 | 0.4 | 0.8 | 1.5 | 4.6 | 5.1 |
| | | % | 65 | 50 | 60 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | | Max-w | 3.8 | 0.7 | 0.7 | 1.1 | 1.1 | 0.4 | 0.5 | 0.6 | 1.0 | 3.5 | 6.5 | 6.3 |
| | | Min-w | 0.6 | 0.4 | 0.4 | 0.8 | 0.5 | 0.2 | 0.2 | 0.2 | 0.5 | 0.7 | 2.3 | 4.0 |
| Primorskaya | Mean | 2.1 | 3.4 | 1.7 | 2.3 | 0.7 | 0.3 | 0.4 | 0.2 | 0.5 | 0.8 | 0.6 | 0.5 | |
| | % | 100 | 100 | 82 | 64 | 75 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | Max-w | 2.4 | 5.9 | 2.8 | 3.2 | 1.6 | 0.4 | 0.6 | 0.3 | 0.7 | 0.8 | 0.8 | 0.6 | |
| | Min-w | 1.9 | 2.0 | 1.1 | 1.5 | 0.2 | 0.2 | 0.1 | 0.2 | 0.2 | 0.8 | 0.4 | 0.3 | |

Table 4.16 Particulate matter component: NH₄⁺

| Unit: µg/m ³ | | 2002 | | | | | | | | | | | | | |
|-------------------------|---------------------|-------|------|------|------|-----|------|------|------|------|------|-----|------|-----|---|
| Country | Site | | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | |
| Thai Land | Mae Hia | Mean | N.D. | 0.8 | 0.7 | - | N.D. | N.D. | 0.2 | - | - | 0.1 | - | - | |
| | | % | 23 | 25 | 23 | - | 23 | 23 | 23 | - | - | 23 | - | - | |
| | | Max-w | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | | Min-w | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | Vachiralongkorn Dam | Mean | - | - | - | - | - | - | - | N.D. | - | - | - | - | - |
| | | % | - | - | - | - | - | - | - | 61 | - | - | - | - | - |
| | | Max-w | - | - | - | - | - | - | - | N.D. | - | - | - | - | - |
| | | Min-w | - | - | - | - | - | - | - | N.D. | - | - | - | - | - |
| Viet Nam | Ha Noi | Mean | 5.8 | 3.9 | 0.5 | 0.9 | 1.9 | 1.0 | 2.0 | 0.5 | 1.3 | 0.5 | 2.6 | 4.8 | |
| | | % | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | | Max-w | 11.0 | 8.9 | 1.4 | 2.1 | 4.5 | 1.7 | 2.9 | 1.2 | 4.0 | 1.0 | 4.5 | 7.2 | |
| | | Min-w | 0.2 | N.D. | 0.2 | 0.2 | 0.3 | 0.5 | 0.8 | 0.2 | N.D. | 0.2 | N.D. | 3.2 | |
| | Hoa Binh | Mean | 4.1 | 7.9 | 2.7 | 2.1 | 0.9 | 0.7 | 0.3 | 0.4 | 0.9 | 0.8 | 1.9 | 2.7 | |
| | | % | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | | Max-w | 5.5 | 20.7 | 11.7 | 4.8 | 2.1 | 1.3 | 0.9 | 1.2 | 1.8 | 1.5 | 2.7 | 4.2 | |
| | | Min-w | 3.0 | 0.3 | N.D. | 0.2 | 0.1 | 0.1 | N.D. | N.D. | N.D. | 0.2 | 0.8 | 1.9 | |

Table 4.17 Particulate matter component: Na⁺

| Unit: $\mu\text{g}/\text{m}^3$ | | 2002 | | | | | | | | | | | | |
|--------------------------------|---------------|---------|------|------|------|------|------|------|------|------|------|------|------|------|
| Country | Site | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | |
| Indonesia | Serpong | Mean | 1.2 | 2.0 | 1.5 | 1.5 | 0.7 | 1.0 | 0.9 | 0.3 | 0.3 | 0.8 | 0.8 | 0.4 |
| | | % | 84 | 65 | 100 | 100 | 100 | 80 | 100 | 97 | 100 | 97 | 100 | 80 |
| | | Max-w | 2.0 | 3.1 | 2.0 | 2.3 | 1.9 | 2.1 | 1.5 | 0.5 | 0.5 | 1.3 | 1.5 | 0.7 |
| | | Min-w | N.D. | 0.3 | N.D. | N.D. | 0.2 | 0.3 | 0.5 | N.D. | 0.2 | 0.4 | 0.3 | 0.2 |
| Japan | Rishiri | Mean | - | - | - | - | - | - | 0.5 | 1.0 | 1.7 | 2.6 | 3.3 | 0.9 |
| | | % | - | - | - | - | - | - | 100 | 100 | 100 | 100 | 100 | 100 |
| | | Max-2w | - | - | - | - | - | - | 0.6 | 1.3 | 2.0 | 2.9 | 4.2 | 1.2 |
| | | Min-2w | - | - | - | - | - | - | 0.5 | 0.6 | 1.2 | 2.4 | 2.3 | 0.6 |
| | Oki | Mean | - | - | - | 4.3 | 0.8 | 1.4 | 1.4 | 1.0 | 1.0 | 3.3 | 4.0 | 3.8 |
| | | % | - | - | - | 23 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | | Max-2w | - | - | - | N.D. | 1.0 | 1.9 | 1.8 | 1.7 | 1.0 | 4.1 | 4.5 | 4.3 |
| | | Min-2w | - | - | - | N.D. | 0.6 | 0.8 | 0.8 | 0.2 | 1.0 | 2.6 | 3.5 | 3.3 |
| Malaysia | TanahRata | Mean | 0.2 | 0.4 | 0.3 | N.D. | 0.1 | N.D. | 0.3 | N.D. | N.D. | 0.2 | N.D. | 0.1 |
| | | % | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | | Max-w | 0.5 | 0.8 | 0.8 | N.D. | 0.2 | 0.2 | 0.4 | 0.3 | N.D. | 0.3 | 0.2 | 0.3 |
| | | Min-w | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | 0.2 | N.D. | N.D. | N.D. | N.D. | N.D. |
| | Petaling Jaya | Mean | 0.5 | 0.5 | 0.3 | 0.2 | 0.2 | N.D. | 0.2 | 0.2 | 0.2 | 0.1 | 0.2 | 0.3 |
| | | % | 100 | 100 | 100 | 75 | 80 | 100 | 100 | 100 | 100 | 25 | 100 | 100 |
| | | Max-w | 0.7 | 0.7 | 0.7 | 0.3 | 0.3 | 0.1 | 0.5 | 0.4 | 0.2 | 0.1 | 0.4 | 0.4 |
| | | Min-w | 0.3 | 0.4 | 0.1 | N.D. | N.D. | N.D. | 0.1 | 0.1 | 0.1 | 0.1 | N.D. | 0.2 |
| Mongolia | Ulaanbaatar | Mean | - | - | - | - | N.D. | N.D. | 0.1 | 0.4 | 0.4 | 0.2 | 0.2 | - |
| | | % | - | - | - | - | 100 | 100 | 100 | 100 | 100 | 100 | 25 | - |
| | | Max-w | - | - | - | - | 0.2 | 0.2 | 0.1 | 0.6 | 0.9 | 0.3 | 0.7 | - |
| | | Min-w | - | - | - | - | N.D. | N.D. | N.D. | 0.2 | N.D. | 0.2 | N.D. | - |
| | Terej | Mean | N.D. | 0.1 | 0.2 | 0.1 | 0.3 | N.D. | 0.1 | N.D. | N.D. | N.D. | N.D. | 0.2 |
| | | % | 44 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | | Max-w | 0.1 | 0.3 | 0.5 | 0.2 | 0.3 | 0.1 | 0.2 | 0.2 | N.D. | 0.2 | 0.1 | 0.5 |
| | | Min-w | N.D. | N.D. | N.D. | N.D. | 0.1 | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| Philippines | Metro Manila | Mean | N.D. | 0.7 | 0.4 | 0.5 | 0.4 | N.D. | 0.4 | 0.4 | 0.4 | 0.2 | 0.2 | 0.3 |
| | | % | 73 | 100 | 100 | 79 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 81 |
| | | Max-* | 1.3 | 1.1 | 0.8 | 0.7 | 0.8 | 0.3 | 0.7 | 0.6 | 0.5 | 0.3 | 0.3 | 0.3 |
| | | Min-* | N.D. | 0.4 | N.D. | 0.3 | N.D. | N.D. | N.D. | 0.1 | 0.2 | N.D. | 0.1 | 0.2 |
| | Los Banos | Mean | N.D. | 1.0 | 1.0 | 1.0 | 0.3 | 0.3 | 4.1 | 0.4 | 0.4 | N.D. | 1.0 | 0.7 |
| | | % | 74 | 97 | 100 | 100 | 100 | 100 | 100 | 100 | 61 | 100 | 100 | 82 |
| | | Max-* | 0.9 | 1.5 | 2.1 | 1.6 | 0.7 | 0.6 | 9.3 | 0.6 | 0.4 | 0.3 | 1.7 | 1.0 |
| | | Min-* | N.D. | 0.4 | N.D. | 0.5 | 0.1 | N.D. | 1.3 | 0.1 | 0.4 | N.D. | 0.2 | 0.1 |
| Republic of Korea | Kanghwa | Mean | 1.0 | 1.1 | 0.7 | 0.8 | 0.6 | 0.8 | 0.4 | 0.2 | 0.4 | 0.4 | - | - |
| | | % | 9 | 10 | 11 | 4 | 11 | 9 | 11 | 9 | 7 | 10 | - | - |
| | | Max-d | 1.5 | 1.5 | 0.8 | 0.8 | 0.7 | 0.8 | 0.4 | 0.2 | 0.4 | 0.5 | - | - |
| | | Min-d | 0.6 | 0.6 | 0.7 | 0.8 | 0.4 | 0.7 | 0.3 | 0.1 | 0.4 | 0.1 | - | - |
| | Cheju | Mean | 0.4 | 0.4 | 0.3 | 0.2 | 0.3 | 0.4 | 0.3 | 0.4 | 0.3 | 0.6 | 0.6 | 0.3 |
| | | % | 25 | 29 | 11 | 11 | 11 | 9 | 11 | 3 | 11 | 10 | 11 | 9 |
| | | Max-d | 0.6 | 0.5 | 0.4 | 0.3 | 0.5 | 0.6 | 0.5 | 0.4 | 0.5 | 0.6 | 0.8 | 0.5 |
| | | Min-d | 0.3 | 0.2 | 0.2 | N.D. | 0.2 | 0.2 | 0.3 | 0.4 | 0.1 | 0.5 | 0.3 | 0.1 |
| | Imsil | Mean | - | 0.7 | 0.5 | 0.6 | 0.3 | 0.2 | 0.2 | 0.2 | N.D. | 0.5 | 0.3 | 0.3 |
| | | % | - | 10 | 11 | 11 | 7 | 9 | 11 | 9 | 11 | 10 | 11 | 6 |
| | | Max-d | - | 1.5 | 0.6 | 1.3 | 0.4 | 0.3 | 0.4 | 0.4 | 0.1 | 0.8 | 0.4 | 0.4 |
| | | Min-d | - | 0.2 | 0.3 | 0.3 | 0.3 | 0.2 | N.D. | 0.1 | N.D. | 0.1 | 0.2 | 0.2 |
| Russia | Mondy | Mean | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | |
| | | % | 94 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | | Max-2w | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | |
| | | Min-2w | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | |
| | Listvianka | Mean | 0.2 | N.D. | 0.2 | N.D. | N.D. | N.D. | 0.1 | N.D. | N.D. | N.D. | N.D. | 0.1 |
| | | % | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | | Max-10d | 0.2 | 0.2 | 0.2 | N.D. | N.D. | N.D. | 0.2 | N.D. | N.D. | N.D. | 0.1 | 0.2 |
| | | Min-10d | 0.1 | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| | Irkutsk | Mean | 0.3 | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | 0.2 | 0.5 | 0.6 |
| | | % | 65 | 50 | 60 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | | Max-w | 0.4 | 0.1 | N.D. | 0.1 | N.D. | N.D. | 0.1 | N.D. | N.D. | 0.3 | 0.9 | 0.9 |
| | | Min-w | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | 0.3 | 0.2 |
| | Primorskaya | Mean | 0.2 | 0.3 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.1 | 0.1 | N.D. | 0.1 | 0.2 |
| | | % | 100 | 100 | 82 | 64 | 75 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | | Max-w | 0.3 | 0.4 | 0.3 | 0.2 | 0.3 | 0.3 | 0.2 | 0.2 | 0.2 | N.D. | 0.2 | 0.2 |
| | | Min-w | 0.2 | 0.1 | N.D. | 0.2 | 0.1 | 0.2 | 0.2 | 0.1 | 0.1 | N.D. | N.D. | 0.2 |

Table 4.17 Particulate matter component: Na⁺

| Unit: $\mu\text{g}/\text{m}^3$ | | 2002 | | | | | | | | | | | | | |
|--------------------------------|--------------------|-------|-----|------|------|------|------|------|------|------|-----|------|------|------|---|
| Country | Site | | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | |
| Thai Land | Mae Hia | Mean | 0.2 | N.D. | N.D. | - | N.D. | 0.4 | 0.1 | - | - | N.D. | - | - | |
| | | % | 23 | 25 | 23 | - | 23 | 23 | 23 | - | - | 23 | - | - | |
| | | Max-w | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | | Min-w | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | Vachiralongkom Dam | Mean | - | - | - | - | - | - | - | N.D. | - | - | - | - | - |
| | | % | - | - | - | - | - | - | - | 61 | - | - | - | - | - |
| | | Max-w | - | - | - | - | - | - | - | N.D. | - | - | - | - | - |
| | Min-w | - | - | - | - | - | - | - | N.D. | - | - | - | - | - | |
| Viet Nam | Ha Noi | Mean | 0.6 | 0.5 | 0.4 | 1.0 | 0.4 | 0.6 | 0.3 | 0.2 | 0.5 | 0.2 | 0.8 | 1.0 | |
| | | % | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | | Max-w | 1.3 | 1.5 | 1.6 | 1.9 | 0.7 | 0.9 | 0.3 | 0.5 | 0.7 | 0.3 | 1.7 | 2.2 | |
| | | Min-w | 0.2 | N.D. | N.D. | N.D. | 0.2 | 0.4 | 0.2 | N.D. | 0.4 | N.D. | 0.1 | 0.3 | |
| | Hoa Binh | Mean | 0.3 | 0.5 | 0.4 | 1.0 | 0.5 | 0.2 | 0.2 | 0.3 | 0.3 | 0.2 | 0.3 | 2.4 | |
| | | % | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | | Max-w | 0.4 | 0.8 | 1.2 | 1.7 | 1.1 | 0.3 | 0.6 | 0.5 | 0.4 | 0.2 | 0.6 | 10.7 | |
| | | Min-w | 0.3 | 0.3 | N.D. | N.D. | 0.2 | N.D. | N.D. | 0.1 | 0.2 | N.D. | N.D. | N.D. | |

Table 4.18 Particulate matter component: K⁺

| Unit: $\mu\text{g}/\text{m}^3$ | | | 2002 | | | | | | | | | | | | |
|--------------------------------|---------------|---------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Country | Site | | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | |
| Indonesia | Serpong | Mean | N.D. | 0.4 | 0.2 | N.D. | 2.8 | 0.7 | 0.2 | 0.1 | N.D. | 0.2 | 0.4 | 0.4 | |
| | | % | 84 | 65 | 100 | 100 | 100 | 80 | 100 | 97 | 100 | 97 | 100 | 80 | |
| | | Max-w | 0.2 | 0.6 | 0.3 | 0.2 | 10.7 | 2.6 | 0.5 | 0.2 | 0.1 | 0.5 | 0.7 | 0.9 | |
| | | Min-w | N.D. | 0.2 | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | 0.1 | 0.2 | |
| Japan | Rishiri | Mean | - | - | - | - | - | - | N.D. | N.D. | N.D. | 0.1 | 0.2 | N.D. | |
| | | % | - | - | - | - | - | - | 100 | 100 | 100 | 100 | 100 | 100 | |
| | | Max-2w | - | - | - | - | - | - | - | N.D. | N.D. | 0.1 | 0.2 | 0.3 | N.D. |
| | | Min-2w | - | - | - | - | - | - | - | N.D. | N.D. | N.D. | N.D. | 0.2 | N.D. |
| | Okii | Mean | - | - | - | 0.3 | 0.1 | 0.4 | 0.1 | N.D. | 0.1 | 0.3 | 0.2 | 0.2 | |
| | | % | - | - | - | 23 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | | Max-2w | - | - | - | N.D. | 0.2 | 0.4 | 0.2 | 0.1 | 0.2 | 0.4 | 0.3 | 0.2 | |
| | | Min-2w | - | - | - | N.D. | N.D. | 0.3 | N.D. | N.D. | N.D. | 0.2 | 0.2 | 0.2 | |
| Malaysia | TanahRata | Mean | N.D. | 0.1 | 2.1 | 0.2 | 0.1 | 0.1 | 0.3 | 0.1 | N.D. | 0.3 | N.D. | N.D. | |
| | | % | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | | Max-w | 0.1 | 0.5 | 8.4 | 0.5 | 0.4 | 0.3 | 0.5 | 0.3 | 0.1 | 0.5 | 0.2 | N.D. | |
| | | Min-w | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | 0.2 | N.D. | N.D. | N.D. | N.D. | N.D. | |
| | Petaling Jaya | Mean | 0.4 | 0.5 | 0.4 | 0.2 | 0.3 | 0.2 | 0.3 | 0.5 | 0.4 | 0.4 | 0.3 | 0.3 | |
| | | % | 100 | 100 | 100 | 75 | 80 | 100 | 100 | 100 | 100 | 25 | 100 | 100 | |
| | | Max-w | 0.5 | 0.7 | 0.8 | 0.3 | 0.4 | 0.2 | 0.7 | 0.8 | 0.6 | 0.4 | 0.5 | 0.5 | |
| | | Min-w | 0.3 | 0.2 | 0.2 | N.D. | 0.2 | 0.1 | 0.2 | 0.2 | 0.3 | 0.4 | 0.2 | 0.2 | |
| Mongolia | Ulaanbaatar | Mean | - | - | - | - | 0.2 | 0.2 | 0.2 | 0.4 | 0.3 | 0.3 | N.D. | - | |
| | | % | - | - | - | - | 100 | 100 | 100 | 100 | 100 | 100 | 25 | - | |
| | | Max-w | - | - | - | - | 0.4 | 0.4 | 0.2 | 0.5 | 0.7 | 0.4 | 0.2 | - | |
| | | Min-w | - | - | - | - | N.D. | N.D. | 0.1 | 0.3 | N.D. | 0.2 | N.D. | - | |
| | Terej | Mean | N.D. | 0.2 | 0.2 | 0.2 | 0.3 | 0.1 | 0.2 | 0.4 | N.D. | 0.1 | 0.2 | 0.2 | |
| | | % | 44 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | | Max-w | 0.1 | 0.6 | 0.6 | 0.4 | 0.3 | 0.2 | 0.3 | 1.1 | 0.1 | 0.2 | 0.2 | 0.2 | |
| | | Min-w | 0.1 | N.D. | N.D. | N.D. | 0.2 | N.D. | N.D. | N.D. | N.D. | N.D. | 0.2 | 0.1 | |
| Philippines | Metro Manila | Mean | 0.1 | 0.2 | 0.2 | 0.2 | 0.2 | N.D. | 0.6 | 0.5 | 0.6 | 0.3 | 0.3 | 0.2 | |
| | | % | 73 | 100 | 100 | 79 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 81 | |
| | | Max-* | 0.4 | 0.3 | 0.3 | 0.3 | 0.2 | 0.2 | 2.4 | 0.8 | 0.9 | 0.5 | 0.5 | 0.3 | |
| | | Min-* | N.D. | N.D. | 0.2 | N.D. | N.D. | N.D. | N.D. | 0.4 | 0.3 | N.D. | 0.1 | 0.1 | |
| | Los Banos | Mean | N.D. | N.D. | N.D. | 0.3 | N.D. | N.D. | N.D. | 0.5 | 1.7 | 0.1 | 0.2 | 0.1 | |
| | | % | 74 | 97 | 100 | 100 | 100 | 100 | 100 | 61 | 100 | 100 | 100 | 82 | |
| | | Max-* | 0.3 | N.D. | 0.2 | 0.7 | 0.1 | N.D. | 0.3 | 1.3 | 1.7 | 0.2 | 0.3 | 0.3 | |
| | | Min-* | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | 1.7 | N.D. | N.D. | N.D. | |
| Republic of Korea | Kanghwa | Mean | 0.7 | 0.5 | 0.4 | 0.5 | 0.4 | 0.7 | 0.3 | 0.2 | 0.6 | 0.8 | - | - | |
| | | % | 9 | 10 | 11 | 4 | 11 | 9 | 11 | 9 | 7 | 10 | - | - | |
| | | Max-d | 1.8 | 0.9 | 0.6 | 0.5 | 0.6 | 1.4 | 0.5 | 0.2 | 0.8 | 0.9 | - | - | |
| | | Min-d | N.D. | 0.1 | 0.3 | 0.5 | 0.1 | 0.1 | 0.2 | 0.2 | 0.4 | 0.7 | - | - | |
| | Cheju | Mean | 0.2 | 0.4 | 0.3 | 0.1 | 0.3 | 0.9 | 0.5 | 0.2 | 0.3 | 0.7 | 0.4 | 0.1 | |
| | | % | 25 | 29 | 11 | 11 | 11 | 9 | 11 | 3 | 11 | 10 | 11 | 9 | |
| | | Max-d | 0.4 | 0.5 | 0.3 | 0.3 | 0.7 | 2.2 | 0.7 | 0.2 | 0.5 | 1.1 | 0.5 | 0.2 | |
| | | Min-d | 0.1 | 0.3 | 0.2 | N.D. | N.D. | 0.1 | 0.3 | 0.2 | 0.2 | 0.4 | 0.4 | N.D. | |
| | Imsil | Mean | - | 0.8 | 0.6 | 0.7 | 1.1 | 0.3 | 0.3 | 0.3 | 0.2 | 0.7 | 0.4 | 0.4 | |
| | | % | - | 10 | 11 | 11 | 7 | 9 | 11 | 9 | 11 | 10 | 11 | 6 | |
| | | Max-d | - | 1.7 | 0.9 | 1.2 | 2.0 | 0.3 | 0.4 | 0.4 | 0.2 | 1.1 | 0.7 | 0.5 | |
| | | Min-d | - | 0.2 | 0.2 | 0.3 | 0.3 | 0.3 | 0.2 | 0.2 | 0.1 | 0.1 | 0.1 | 0.3 | |
| Russia | Mondy | Mean | N.D. | 0.1 | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | |
| | | % | 94 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | | Max-2w | N.D. | 0.2 | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | 0.1 | N.D. | 0.1 | N.D. | N.D. |
| | | Min-2w | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | |
| | Listvianka | Mean | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | 0.1 | N.D. | N.D. | N.D. | |
| | | % | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | | Max-10d | N.D. | N.D. | N.D. | N.D. | 0.1 | N.D. | N.D. | 0.1 | 0.2 | N.D. | 0.1 | N.D. | |
| | | Min-10d | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | |
| | Irkutsk | Mean | 0.2 | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | 0.1 | 0.4 | 0.6 | |
| | | % | 65 | 50 | 60 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | | Max-w | 0.3 | N.D. | N.D. | N.D. | N.D. | 0.1 | 0.2 | 0.1 | N.D. | 0.2 | 0.6 | 0.7 | |
| | | Min-w | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | 0.2 | 0.3 | |
| | Primorskaya | Mean | 0.6 | 0.4 | 0.2 | 0.1 | 0.2 | 0.2 | 0.1 | 0.1 | 0.3 | 0.2 | 0.4 | 0.3 | |
| | | % | 100 | 100 | 82 | 64 | 75 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | | Max-w | 0.8 | 0.7 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.1 | 0.3 | 0.2 | 0.4 | 0.3 | |
| | | Min-w | 0.4 | 0.3 | 0.1 | N.D. | N.D. | 0.1 | N.D. | N.D. | 0.2 | 0.2 | 0.4 | 0.3 | |

Table 4.18 Particulate matter component: K⁺

| Unit: $\mu\text{g}/\text{m}^3$ | | | 2002 | | | | | | | | | | | | |
|--------------------------------|--------------------|-------|------|------|------|------|------|-----|------|------|------|------|------|-----|---|
| Country | Site | | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | |
| Thai Land | Mae Hia | Mean | N.D. | 1.0 | 2.2 | - | N.D. | 0.3 | N.D. | - | - | 0.1 | - | - | |
| | | % | 23 | 25 | 23 | - | 23 | 23 | 23 | - | - | 23 | - | - | |
| | | Max-w | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | | Min-w | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | Vachiralongkom Dam | Mean | - | - | - | - | - | - | - | N.D. | - | - | - | - | - |
| | | % | - | - | - | - | - | - | - | 61 | - | - | - | - | - |
| | | Max-w | - | - | - | - | - | - | - | N.D. | - | - | - | - | - |
| | | Min-w | - | - | - | - | - | - | N.D. | - | - | - | - | - | |
| Viet Nam | Ha Noi | Mean | 1.8 | 0.8 | 0.2 | 0.5 | 0.7 | 0.7 | 1.0 | 0.4 | 0.7 | 0.2 | 0.8 | 1.6 | |
| | | % | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | | Max-w | 4.0 | 1.7 | 0.5 | 1.2 | 1.1 | 0.8 | 1.6 | 0.8 | 1.2 | 0.3 | 1.6 | 2.2 | |
| | | Min-w | 0.4 | N.D. | N.D. | N.D. | 0.3 | 0.6 | 0.6 | N.D. | 0.2 | N.D. | N.D. | 1.2 | |
| | Hoa Binh | Mean | 1.6 | 2.8 | 1.5 | 2.9 | 1.5 | 0.6 | 0.3 | 0.6 | 0.5 | 0.4 | 0.6 | 1.0 | |
| | | % | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | | Max-w | 1.8 | 7.3 | 6.4 | 6.6 | 3.2 | 0.9 | 1.1 | 1.6 | 0.9 | 0.7 | 1.2 | 1.4 | |
| | | Min-w | 1.3 | 0.4 | N.D. | 0.1 | 0.2 | 0.3 | N.D. | N.D. | N.D. | 0.1 | 0.2 | 0.5 | |

Table 4.19 Particulate matter component: Mg²⁺

| Unit: µg/m ³ | | | 2002 | | | | | | | | | | | | |
|-------------------------|--------------------|-------|------|------|------|------|------|------|------|------|------|------|------|------|---|
| Country | Site | | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | |
| Thai Land | Mae Hia | Mean | N.D. | N.D. | 0.1 | - | N.D. | N.D. | N.D. | - | - | N.D. | - | - | |
| | | % | 23 | 25 | 23 | - | 23 | 23 | 23 | - | - | 23 | - | - | |
| | | Max-w | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | | Min-w | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | Vachiralongkom Dam | Mean | - | - | - | - | - | - | - | N.D. | - | - | - | - | - |
| | | % | - | - | - | - | - | - | - | 61 | - | - | - | - | - |
| | | Max-w | - | - | - | - | - | - | - | N.D. | - | - | - | - | - |
| | | Min-w | - | - | - | - | - | - | - | N.D. | - | - | - | - | - |
| Viet Nam | Ha Noi | Mean | 0.8 | 0.6 | 0.2 | 0.6 | 0.4 | 0.5 | 0.4 | 0.2 | 0.3 | 0.1 | 0.4 | 0.6 | |
| | | % | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | | Max-w | 1.4 | 0.7 | 0.7 | 1.0 | 0.6 | 0.5 | 0.4 | 0.4 | 0.5 | 0.2 | 0.9 | 0.9 | |
| | | Min-w | 0.3 | 0.4 | N.D. | N.D. | 0.3 | 0.4 | 0.3 | N.D. | 0.2 | 0.1 | N.D. | 0.3 | |
| | Hoa Binh | Mean | 0.3 | 0.3 | 0.3 | 0.5 | 0.2 | 0.1 | 0.2 | 0.2 | 0.2 | N.D. | 0.1 | 0.1 | |
| | | % | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | | Max-w | 0.3 | 0.8 | 0.9 | 0.9 | 0.5 | 0.3 | 0.2 | 0.4 | 0.4 | 0.1 | 0.2 | 0.2 | |
| | | Min-w | 0.2 | N.D. | N.D. | N.D. | N.D. | N.D. | 0.1 | N.D. | N.D. | N.D. | N.D. | N.D. | |

Table 4.20 Particulate matter component: Ca²⁺

| Unit: µg/m ³ | | | 2002 | | | | | | | | | | | |
|-------------------------|---------------|---------|------|------|------|------|------|------|------|------|------|------|------|------|
| Country | Site | | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
| Indonesia | Serpong | Mean | 0.2 | 0.3 | 0.2 | 0.1 | 0.5 | 0.8 | 0.3 | 0.4 | 0.1 | 0.5 | 0.2 | 0.2 |
| | | % | 84 | 65 | 100 | 100 | 100 | 80 | 100 | 97 | 100 | 97 | 100 | 80 |
| | | Max-w | 0.5 | 0.5 | 0.3 | 0.2 | 1.4 | 3.0 | 0.9 | 0.7 | 0.3 | 0.9 | 0.4 | 0.3 |
| | | Min-w | N.D. | 0.2 | N.D. | 0.1 | N.D. | 0.1 | N.D. | N.D. | N.D. | N.D. | 0.2 | N.D. |
| Japan | Rishiri | Mean | - | - | - | - | - | - | N.D. | N.D. | N.D. | 0.1 | 0.3 | N.D. |
| | | % | - | - | - | - | - | - | 100 | 100 | 100 | 100 | 100 | 100 |
| | | Max-2w | - | - | - | - | - | - | N.D. | N.D. | 0.1 | 0.2 | 0.4 | 0.1 |
| | | Min-2w | - | - | - | - | - | - | N.D. | N.D. | N.D. | N.D. | 0.2 | N.D. |
| | Okii | Mean | - | - | - | 1.0 | 0.1 | 0.2 | N.D. | N.D. | N.D. | 0.4 | 0.3 | 0.2 |
| | | % | - | - | - | 23 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | | Max-2w | - | - | - | N.D. | 0.1 | 0.2 | N.D. | N.D. | 0.1 | 0.4 | 0.5 | 0.2 |
| | | Min-2w | - | - | - | N.D. | N.D. | 0.2 | N.D. | N.D. | N.D. | 0.3 | 0.2 | 0.1 |
| Malaysia | TanahRata | Mean | N.D. | N.D. | N.D. | N.D. | N.D. | 0.2 | 0.2 | N.D. | N.D. | N.D. | N.D. | N.D. |
| | | % | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | | Max-w | 0.1 | 0.1 | N.D. | N.D. | 0.2 | 1.2 | 0.3 | N.D. | N.D. | 0.1 | N.D. | N.D. |
| | | Min-w | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | 0.1 | N.D. | N.D. | N.D. | N.D. | N.D. |
| | Petaling Jaya | Mean | 0.2 | 0.4 | 0.3 | 0.6 | 0.2 | N.D. | 0.1 | 0.1 | N.D. | N.D. | 0.2 | 0.2 |
| | | % | 100 | 100 | 100 | 75 | 80 | 100 | 100 | 100 | 100 | 25 | 100 | 100 |
| | | Max-w | 0.3 | 0.8 | 0.5 | 1.1 | 0.3 | 0.2 | 0.3 | 0.2 | 0.1 | N.D. | 0.3 | 0.2 |
| | | Min-w | 0.2 | 0.2 | 0.2 | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | 0.1 |
| Mongolia | Ulaanbaatar | Mean | - | - | - | - | 3.9 | 4.3 | 3.0 | 4.8 | 3.8 | 4.5 | 0.9 | - |
| | | % | - | - | - | - | 100 | 100 | 100 | 100 | 100 | 100 | 25 | - |
| | | Max-w | - | - | - | - | 6.6 | 7.4 | 3.7 | 8.2 | 6.6 | 5.8 | 2.7 | - |
| | | Min-w | - | - | - | - | 1.8 | 1.7 | 2.3 | 2.0 | 1.3 | 2.7 | N.D. | - |
| | Terej | Mean | 0.2 | 0.3 | 0.3 | 0.4 | 0.5 | 0.2 | 0.2 | 0.5 | 0.2 | 0.3 | 0.2 | 0.3 |
| | | % | 44 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | | Max-w | 0.6 | 0.4 | 0.4 | 0.7 | 1.1 | 0.4 | 0.3 | 1.1 | 0.3 | 0.5 | 0.3 | 0.5 |
| | | Min-w | 0.3 | 0.3 | 0.2 | 0.1 | 0.3 | 0.2 | N.D. | 0.2 | 0.2 | 0.1 | 0.2 | N.D. |
| Philippines | Metro Manila | Mean | 1.3 | 1.0 | 0.9 | 0.8 | N.D. | 0.6 | 0.2 | 0.2 | 0.4 | 0.6 | 0.7 | 0.4 |
| | | % | 73 | 100 | 100 | 79 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 81 |
| | | Max-* | 2.5 | 1.6 | 1.0 | 1.2 | 0.7 | 1.1 | 0.6 | 0.3 | 0.5 | 1.2 | 1.1 | 0.8 |
| | | Min-* | N.D. | 0.4 | 0.8 | 0.5 | N.D. | N.D. | N.D. | 0.1 | 0.2 | N.D. | N.D. | N.D. |
| | Los Banos | Mean | 0.1 | N.D. | 0.7 | 13.7 | N.D. | N.D. | 5.8 | 0.1 | 0.2 | N.D. | 0.4 | 0.5 |
| | | % | 74 | 97 | 100 | 100 | 100 | 100 | 100 | 100 | 61 | 100 | 100 | 82 |
| | | Max-* | 0.4 | 1.1 | 1.3 | 39.6 | 0.2 | N.D. | 15.6 | 0.3 | 0.2 | 0.2 | 0.9 | 0.5 |
| | | Min-* | N.D. | N.D. | 0.3 | 0.3 | N.D. | N.D. | 0.8 | N.D. | 0.2 | N.D. | N.D. | 0.4 |
| Republic of Korea | Kanghwa | Mean | 0.5 | N.D. | 0.2 | 0.4 | 0.2 | 0.2 | 0.3 | N.D. | 0.2 | 0.1 | - | - |
| | | % | 9 | 10 | 11 | 4 | 11 | 9 | 11 | 9 | 7 | 10 | - | - |
| | | Max-d | 1.3 | 0.1 | 0.2 | 0.4 | 0.2 | 0.4 | 0.4 | N.D. | 0.2 | 0.2 | - | - |
| | | Min-d | N.D. | N.D. | N.D. | 0.4 | 0.1 | 0.2 | 0.2 | N.D. | 0.2 | 0.1 | - | - |
| | Cheju | Mean | 0.1 | 0.1 | 0.5 | 0.4 | N.D. | N.D. | N.D. | N.D. | 0.1 | 0.3 | 0.2 | 0.2 |
| | | % | 25 | 29 | 11 | 11 | 11 | 9 | 11 | 3 | 11 | 10 | 11 | 9 |
| | | Max-d | 0.1 | 0.1 | 0.7 | 0.7 | 0.1 | 0.1 | N.D. | N.D. | 0.2 | 0.4 | 0.2 | 0.4 |
| | | Min-d | N.D. | N.D. | 0.3 | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | 0.3 | 0.1 | N.D. |
| | Imsil | Mean | - | 0.4 | 0.3 | 0.9 | 0.3 | 0.2 | 0.2 | 0.1 | 0.2 | 0.3 | 0.4 | 0.3 |
| | | % | - | 10 | 11 | 11 | 7 | 9 | 11 | 9 | 11 | 10 | 11 | 6 |
| | | Max-d | - | 0.8 | 0.4 | 2.2 | 0.4 | 0.3 | 0.2 | 0.1 | 0.2 | 0.5 | 0.8 | 0.3 |
| | | Min-d | - | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 0.2 |
| Russia | Mondy | Mean | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | 0.1 | N.D. | N.D. | N.D. |
| | | % | 94 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | | Max-2w | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | 0.1 | 0.2 | N.D. | N.D. | N.D. |
| | | Min-2w | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| | Listvianka | Mean | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | N.D. | 0.1 | 0.2 |
| | | % | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | | Max-10d | 0.3 | 0.3 | 0.2 | 0.2 | 0.3 | 0.2 | 0.2 | 0.2 | 0.2 | 0.1 | 0.3 | 0.2 |
| | | Min-10d | N.D. | 0.2 | 0.2 | 0.1 | 0.2 | N.D. | 0.1 | 0.1 | 0.1 | N.D. | N.D. | 0.1 |
| | Irkutsk | Mean | 0.7 | 0.2 | 0.1 | 0.5 | 0.4 | 0.2 | N.D. | N.D. | 0.2 | 0.6 | 1.5 | 1.3 |
| | | % | 65 | 50 | 60 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | | Max-w | 1.4 | 0.2 | 0.2 | 0.6 | 0.6 | 0.5 | 0.1 | 0.1 | 0.3 | 0.9 | 2.1 | 1.7 |
| | | Min-w | N.D. | 0.2 | N.D. | 0.3 | 0.3 | N.D. | N.D. | N.D. | 0.1 | 0.2 | 1.0 | 1.2 |
| | Primorskaya | Mean | 0.4 | 0.4 | 0.4 | 0.2 | 0.1 | 0.1 | N.D. | N.D. | 0.1 | 0.1 | 0.2 | 0.4 |
| | | % | 100 | 100 | 82 | 64 | 75 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | | Max-w | 0.4 | 0.6 | 1.0 | 0.3 | 0.2 | 0.1 | N.D. | N.D. | 0.2 | 0.1 | 0.2 | 0.4 |
| | | Min-w | 0.3 | 0.1 | 0.2 | 0.2 | N.D. | N.D. | N.D. | N.D. | 0.1 | 0.1 | 0.2 | 0.4 |

Table 4.20 Particulate matter component: Ca²⁺

| Unit: µg/m ³ | | | 2002 | | | | | | | | | | | | |
|-------------------------|---------------------|-------|------|------|-----|-----|-----|------|------|-----|-----|-----|-----|-----|---|
| Country | Site | | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | |
| Thai Land | Mae Hia | Mean | 0.5 | N.D. | 1.0 | - | 0.3 | N.D. | 0.2 | - | - | 0.9 | - | - | |
| | | % | 23 | 25 | 23 | - | 23 | 23 | 23 | - | - | 23 | - | - | |
| | | Max-w | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | | Min-w | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | Vachiralongkorn Dam | Mean | - | - | - | - | - | - | 0.1 | - | - | - | - | - | |
| | | % | - | - | - | - | - | - | 61 | - | - | - | - | - | |
| | | Max-w | - | - | - | - | - | - | 0.3 | - | - | - | - | - | |
| | | Min-w | - | - | - | - | - | - | N.D. | - | - | - | - | - | |
| Viet Nam | Ha Noi | Mean | 5.9 | 2.8 | 1.1 | 4.5 | 3.4 | 3.9 | 4.0 | 2.0 | 2.2 | 0.9 | 2.0 | 5.9 | |
| | | % | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | | Max-w | 12.2 | 5.3 | 3.7 | 9.2 | 5.0 | 4.1 | 5.0 | 4.3 | 4.9 | 1.3 | 5.0 | 8.3 | |
| | | Min-w | 1.3 | 1.0 | 0.3 | 0.6 | 1.5 | 3.7 | 3.1 | 0.5 | 0.8 | 0.4 | 0.2 | 2.9 | |
| | Hoa Binh | Mean | 1.7 | 2.9 | 2.1 | 3.5 | 1.7 | 0.7 | 0.8 | 0.9 | 1.3 | 0.6 | 0.8 | 0.7 | |
| | | % | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | | Max-w | 2.3 | 8.1 | 7.5 | 6.6 | 3.0 | 0.8 | 1.3 | 1.5 | 2.1 | 0.9 | 1.6 | 1.0 | |
| | | Min-w | 1.4 | 0.4 | 0.2 | 0.7 | 0.6 | 0.5 | 0.5 | 0.4 | 0.4 | 0.3 | 0.3 | 0.3 | |

Table 4.21 SO₂ (Median)

| Unit: ppb | | 2002 | | | | | | | | | | | | | |
|-----------|-----------|--------|-----|-----|------|------|------|------|------|------|------|------|------|------|-----|
| Country | Site | | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | |
| Japan | Rishiri | Median | 0.1 | 0.4 | N.D. | N.D. | 0.1 | N.D. | N.D. | N.D. | N.D. | N.D. | 0.1 | 0.3 | |
| | | %* | 82 | 98 | 35 | 28 | 52 | 26 | 31 | 24 | 28 | 21 | 55 | 94 | |
| | Tappi | Median | 0.3 | 0.4 | 0.2 | 0.2 | 0.2 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 0.2 | 0.2 |
| | | %* | 90 | 99 | 91 | 82 | 84 | 63 | 70 | 74 | 46 | 78 | 93 | 92 | |
| | Sado-seki | Median | 0.6 | 0.6 | 0.3 | 0.2 | N.D. | 0.2 | 0.1 | 0.2 | 0.1 | 0.2 | 0.3 | 0.1 | |
| | | %* | 86 | 70 | 66 | 82 | 39 | 53 | 78 | 72 | 84 | 29 | 73 | 77 | |
| | Happo | Median | 0.6 | 0.3 | 0.2 | 0.3 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 0.3 | |
| | | %* | 91 | 92 | 78 | 71 | 64 | 61 | 46 | 68 | 49 | 51 | 48 | 91 | |
| | Ogasawara | Median | 0.2 | 0.2 | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | |
| | | %* | 98 | 91 | 40 | 25 | 26 | 6 | 17 | 5 | 18 | 18 | 39 | 42 | |
| | Okii | Median | 0.7 | 0.6 | 0.3 | 0.2 | 0.1 | 0.2 | 0.1 | N.D. | N.D. | 0.1 | 0.2 | 0.1 | |
| | | %* | 47 | 94 | 83 | 80 | 50 | 73 | 59 | 47 | 3 | 46 | 75 | 63 | |
| | Ijira | Median | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | |
| | | %* | 63 | 68 | 71 | 69 | 62 | 73 | 74 | 61 | 53 | 68 | 59 | 76 | |
| | Banryu | Median | 1.0 | 0.6 | 0.9 | 0.3 | 0.5 | 0.4 | 0.4 | 0.2 | 0.4 | 0.6 | 0.6 | 0.6 | |
| | | %* | 60 | 74 | 42 | 77 | 9 | 67 | 83 | 78 | 88 | 96 | 83 | 40 | |
| | Yusuhara | Median | 0.6 | 1.1 | 0.9 | 0.4 | 0.2 | 0.3 | 0.1 | 0.2 | 0.2 | 0.6 | 0.8 | 0.5 | |
| | | %* | 81 | 98 | 84 | 70 | 54 | 76 | 58 | 65 | 76 | 90 | 87 | 83 | |
| | Hedo | Median | 0.2 | 0.2 | 0.2 | 0.1 | 0.1 | N.D. | N.D. | N.D. | 0.1 | 0.1 | 0.1 | 0.1 | |
| | | %* | 79 | 78 | 77 | 49 | 49 | 38 | 45 | 43 | 58 | 71 | 63 | 57 | |

Table 4.22 NO (Median)

| Unit: ppb | | | 2002 | | | | | | | | | | | |
|-----------|-----------|--------|------|------|------|------|------|------|------|------|------|------|------|------|
| Country | Site | | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
| Japan | Rishiri | Median | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| | | %* | 17 | 16 | 11 | 22 | 28 | 31 | 37 | 27 | 29 | 13 | 10 | 8 |
| | Tappi | Median | N.D. | N.D. | 0.1 | N.D. | N.D. | 0.1 | 0.1 | N.D. | N.D. | N.D. | N.D. | N.D. |
| | | %* | 18 | 48 | 78 | 39 | 35 | 56 | 51 | 41 | 27 | 24 | 17 | 2 |
| | Sado-seki | Median | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| | | %* | 13 | 13 | 15 | 35 | 28 | 19 | 29 | 32 | 27 | 15 | 7 | 11 |
| | Happo | Median | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| | | %* | 48 | 45 | 40 | 43 | 38 | 38 | 36 | 43 | 28 | 27 | 20 | 37 |
| | Ogasawara | Median | N.D. | N.D. | N.D. | N.D. | N.D. | 0.1 | 0.1 | 0.1 | N.D. | N.D. | N.D. | N.D. |
| | | %* | 14 | 13 | 10 | 8 | 17 | 59 | 49 | 57 | 31 | 23 | 18 | 21 |
| | Oki | Median | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| | | %* | 1 | 8 | 11 | 11 | 12 | 22 | 18 | 28 | 3 | 3 | 3 | 5 |
| | Ijira | Median | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 0.2 | 0.5 | 0.4 | 0.3 | 0.1 | N.D. | 0.1 |
| | | %* | 73 | 76 | 92 | 82 | 94 | 96 | 99 | 98 | 78 | 72 | 46 | 55 |
| | Banryu | Median | 0.1 | 0.1 | 0.1 | N.D. | 0.1 | 0.1 | 0.2 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 |
| | | %* | 49 | 50 | 51 | 47 | 18 | 42 | 69 | 66 | 54 | 51 | 42 | 23 |
| | Yusuhara | Median | 0.2 | 0.2 | 0.1 | 0.1 | N.D. | 0.1 | 0.1 | N.D. | N.D. | N.D. | N.D. | 0.1 |
| | | %* | 97 | 100 | 85 | 56 | 11 | 90 | 80 | 14 | 11 | 18 | 37 | 63 |
| | Hedo | Median | 0.1 | 0.3 | 0.4 | 0.4 | 0.4 | 0.4 | 0.3 | 0.3 | 0.3 | N.D. | N.D. | N.D. |
| | | %* | 53 | 96 | 97 | 97 | 98 | 98 | 92 | 96 | 85 | 12 | 19 | 22 |

Table 4.23 NO_x* (Median)

| Unit: ppb | | 2002 | | | | | | | | | | | | |
|-----------|----------------------------------|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Country | Site | | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
| Japan | Rishiri (NO _x *) | Median | 0.6 | 1.0 | 0.8 | 0.8 | 0.7 | 0.5 | 0.7 | 0.4 | 0.5 | 0.6 | 0.7 | 0.6 |
| | | %* | 98 | 99 | 87 | 97 | 96 | 96 | 97 | 98 | 97 | 97 | 97 | 97 |
| | Tappi (NO _x *) | Median | 0.7 | 0.9 | 1.1 | 1.3 | 1.1 | 1.3 | 1.1 | 0.7 | 0.9 | 0.8 | 0.7 | 0.6 |
| | | %* | 99 | 99 | 99 | 99 | 99 | 96 | 98 | 94 | 94 | 98 | 99 | 99 |
| | Sado-seki (NO _x *) | Median | 1.8 | 2.2 | 2.3 | 2.6 | 0.3 | 0.8 | 0.8 | 0.3 | 0.7 | 1.1 | 0.9 | 0.9 |
| | | %* | 87 | 71 | 72 | 98 | 59 | 72 | 81 | 67 | 96 | 99 | 98 | 98 |
| | Happo (NO _x *) | Median | 1.9 | 1.7 | 1.9 | 2.0 | 2.0 | 2.7 | 2.1 | 2.2 | 1.7 | 1.7 | 1.3 | 1.4 |
| | | %* | 98 | 98 | 87 | 98 | 97 | 98 | 83 | 93 | 98 | 85 | 68 | 98 |
| | Ogasawara (NO _x *) | Median | 0.4 | 0.5 | 0.3 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.3 | 0.5 |
| | | %* | 96 | 93 | 64 | 70 | 58 | 66 | 77 | 94 | 66 | 72 | 90 | 95 |
| | Oki (NO _x *) | Median | 0.9 | 1.3 | 1.8 | 1.5 | 0.9 | 1.2 | 1.1 | 1.2 | 1.3 | 1.4 | 1.2 | 1.0 |
| | | %* | 22 | 70 | 49 | 4 | 48 | 96 | 67 | 72 | 70 | 81 | 97 | 68 |
| | Ijira (NO _x *) | Median | 1.0 | 1.0 | 1.2 | 1.4 | 1.8 | 2.0 | 4.6 | 3.1 | 2.2 | 0.8 | 0.6 | 0.7 |
| | | %* | 98 | 99 | 100 | 98 | 99 | 100 | 100 | 100 | 80 | 96 | 93 | 97 |
| | Banryu | Median | 3.7 | 4.2 | 4.0 | 3.2 | 3.2 | 3.0 | 3.1 | 2.4 | 3.0 | 3.5 | 3.5 | 3.4 |
| | | %* | 90 | 49 | 97 | 97 | 34 | 72 | 98 | 98 | 98 | 98 | 83 | 42 |
| | Yusuhara (NO _x *) | Median | 2.1 | 2.4 | 2.3 | 1.5 | 1.1 | 1.2 | 0.5 | 0.6 | 1.0 | 1.6 | 2.2 | 2.0 |
| | | %* | 97 | 100 | 96 | 95 | 98 | 98 | 97 | 87 | 97 | 98 | 93 | 98 |
| | Hedo (NO _x *) | Median | 0.8 | 1.0 | 1.0 | 1.0 | 0.8 | 0.7 | 0.6 | 0.6 | 0.7 | 0.6 | 0.7 | 0.5 |
| | | %* | 98 | 97 | 97 | 97 | 98 | 98 | 94 | 97 | 85 | 67 | 96 | 75 |

Table 4.24 Approximate conversion ratios from ppb to $\mu\text{g}/\text{m}^3$ (20°C, 1 atm)

| Species | SO ₂ | O ₃ | NO | NO ₂ | HNO ₃ | HCl | NH ₃ |
|---------|-----------------|----------------|--------|-----------------|------------------|--------|-----------------|
| Ratio | x 2.66 | x 2.00 | x 1.25 | x 1.91 | x 2.62 | x 1.52 | x 0.71 |

Table 4.25 Expedient detection limits for summarizing air concentration data

| Species | Detection limits |
|------------------------------------|------------------------------|
| SO ₂ | 0.1 ppb |
| NO NO ₂ NO _x | 0.1 ppb |
| O ₃ | 1 ppb |
| HNO ₃ | 0.1 ppb |
| HCl | 0.1 ppb |
| NH ₃ | 0.1 ppb |
| PM | 1 $\mu\text{g}/\text{m}^3$ |
| Particulate components | 0.1 $\mu\text{g}/\text{m}^3$ |

Appendix

Additional data in Tanah Rata, Malaysia

| Unit: ppb | | | 2002 | | | | | | | | | | | | | |
|-----------|------------|--------------------------|-------|------|------|------|------|------|-----|-----|------|------|-----|------|------|------|
| Country | Site | Gas | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | | |
| Malaysia | Tanah Rata | SO ₂ (PS) | Mean | 1.6 | 0.9 | 0.5 | 0.8 | 1.1 | 2.1 | 0.5 | 0.3 | 0.4 | 0.4 | 0.2 | 0.2 | |
| | | | % | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | | | Max-w | 2.3 | 2.6 | 0.9 | 1.3 | 2.3 | 3.7 | 1.3 | 0.5 | 0.6 | 0.9 | 0.6 | 0.4 | 0.4 |
| | | | Min-w | 0.5 | 0.1 | N.D. | 0.6 | 0.3 | 0.9 | 0.3 | N.D. | N.D. | 0.2 | N.D. | 0.1 | 0.1 |
| | | HNO ₃ (PS) | Mean | 0.4 | 0.4 | 0.3 | 0.3 | 0.3 | 0.5 | 0.9 | 0.5 | 0.4 | 0.6 | 0.4 | 0.3 | 0.3 |
| | | | % | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | | | Max-w | 0.6 | N.D. | 0.4 | 0.5 | 0.5 | 1.4 | 2.9 | 0.6 | 0.6 | 0.7 | 0.7 | 0.5 | 0.5 |
| | | | Min-w | 0.2 | 0.2 | 0.2 | 0.3 | N.D. | 0.1 | 0.3 | 0.4 | 0.2 | 0.6 | 0.3 | N.D. | N.D. |
| | | NH ₃ (PS) | Mean | 9.2 | 6.3 | 7.0 | 10.3 | 8.2 | - | - | - | - | - | - | - | - |
| | | | % | 100 | 100 | 100 | 100 | 100 | - | - | - | - | - | - | - | - |
| | | | Max-w | 44.8 | 20.0 | 18.1 | 21.7 | 18.4 | - | - | - | - | - | - | - | - |
| | | | Min-w | 0.9 | 1.0 | 0.5 | 6.1 | 2.0 | - | - | - | - | - | - | - | - |

| Unit: µg/m ³ | | | 2002 | | | | | | | | | | | | | |
|--------------------------|------------|---------------------------------------|-------|------|------|------|------|------|------|------|------|------|------|------|-----|---|
| Country | Site | Particle | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | | |
| Malaysia | Tanah Rata | SO ₄ ²⁻ (AS) | Mean | 1.2 | N.D. | 2.1 | 1.3 | 0.9 | 3.1 | 2.9 | 2.8 | 1.5 | 4.2 | 0.9 | - | |
| | | | % | 100 | 100 | 100 | 100 | 75 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | - |
| | | | Max-w | 2.0 | 0.1 | 3.7 | 2.0 | 2.1 | 4.0 | 3.7 | 5.9 | 3.0 | 4.7 | 1.8 | 1.8 | - |
| | | | Min-w | 0.7 | 1.0 | 1.1 | 0.8 | 0.7 | 0.8 | 2.5 | 0.9 | N.D. | 4.0 | 0.4 | 0.4 | - |
| | | NO ₃ ⁻ (AS) | Mean | 0.1 | N.D. | 0.2 | N.D. | 0.1 | 0.3 | 0.2 | N.D. | N.D. | 0.1 | N.D. | - | - |
| | | | % | 100 | 100 | 100 | 100 | 75 | 100 | 100 | 100 | 100 | 100 | 100 | - | - |
| | | | Max-w | 0.2 | 0.1 | 0.4 | N.D. | 0.2 | 0.9 | 0.3 | 0.1 | 0.1 | 0.4 | 0.2 | - | - |
| | | | Min-w | 0.1 | 0.2 | N.D. | N.D. | 0.2 | N.D. | 0.1 | N.D. | N.D. | N.D. | N.D. | - | - |
| | | Cl ⁻ (AS) | Mean | 0.1 | 0.2 | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | - | - |
| | | | % | 100 | 100 | 100 | 100 | 75 | 100 | 100 | 100 | 100 | 100 | 100 | - | - |
| | | | Max-w | 0.3 | 0.5 | 0.2 | N.D. | N.D. | 0.1 | N.D. | N.D. | N.D. | N.D. | N.D. | - | - |
| | | | Min-w | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | - | - |
| | | NH ₄ ⁺ (AS) | Mean | 0.3 | 0.4 | 0.6 | 0.4 | 0.3 | 0.9 | 0.9 | 0.8 | 0.4 | 1.3 | 0.2 | - | - |
| | | | % | 100 | 100 | 100 | 100 | 75 | 100 | 100 | 100 | 100 | 100 | 100 | - | - |
| | | | Max-w | 0.5 | 0.7 | 1.0 | 0.6 | 0.6 | 1.3 | 1.0 | 1.8 | 0.9 | 1.5 | 0.4 | - | - |
| | | | Min-w | 0.2 | 0.2 | 0.4 | 0.3 | 0.2 | 0.2 | 0.7 | 0.3 | N.D. | 1.2 | 0.1 | - | - |
| | | Na ⁺ (AS) | Mean | 0.3 | 0.5 | 0.3 | N.D. | 0.1 | 0.1 | 0.2 | 0.1 | N.D. | 0.1 | N.D. | - | - |
| | | | % | 100 | 100 | 100 | 100 | 75 | 100 | 100 | 100 | 100 | 100 | 100 | - | - |
| | | | Max-w | 0.4 | 0.7 | 0.7 | 0.1 | 0.2 | 0.2 | 0.3 | 0.2 | 0.1 | 0.2 | 0.3 | - | - |
| | | | Min-w | 0.2 | 0.3 | N.D. | N.D. | 0.2 | N.D. | 0.2 | N.D. | N.D. | N.D. | N.D. | - | - |
| | | K ⁺ (AS) | Mean | N.D. | 0.2 | 0.2 | 0.1 | N.D. | 0.2 | 0.2 | 0.2 | 0.1 | 0.3 | N.D. | - | - |
| | | | % | 100 | 100 | 100 | 100 | 75 | 100 | 100 | 100 | 100 | 100 | 100 | - | - |
| | | | Max-w | 0.1 | 0.3 | 0.4 | 0.2 | 0.1 | 0.3 | 0.3 | 0.3 | 0.2 | 0.4 | 0.1 | - | - |
| | | | Min-w | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | 0.2 | N.D. | N.D. | 0.2 | N.D. | - | - |
| | | Mg ²⁺ (AS) | Mean | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | - | - |
| | | | % | 100 | 100 | 100 | 100 | 75 | 100 | 100 | 100 | 100 | 100 | 100 | - | - |
| | | | Max-w | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | - | - |
| | | | Min-w | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | - | - |
| Ca ²⁺ (AS) | Mean | N.D. | N.D. | N.D. | N.D. | N.D. | 0.3 | 0.1 | N.D. | N.D. | N.D. | N.D. | - | - | | |
| | % | 100 | 100 | 100 | 100 | 75 | 100 | 100 | 100 | 100 | 100 | 100 | - | - | | |
| | Max-w | N.D. | N.D. | N.D. | N.D. | N.D. | 0.9 | 0.2 | N.D. | N.D. | N.D. | N.D. | - | - | | |
| | Min-w | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | 0.1 | N.D. | N.D. | N.D. | N.D. | - | - | | |

Additional data in Vachiralongkorn Dam, Thailand

| Unit: ppb | | | 2002 | | | | | | | | | | | | |
|-----------|---------------------|-------------------------|-------|-----|-----|-----|-----|-----|-----|-------|------|-----|-----|-----|---|
| Country | Site | Gas | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | |
| Thai Land | Vachiralongkorn Dam | SO ₂ (FP) | Mean | - | - | - | - | - | - | 0.1 | - | - | - | - | |
| | | | % | - | - | - | - | - | - | 61.29 | - | - | - | - | |
| | | | Max-w | - | - | - | - | - | - | - | 0.2 | - | - | - | - |
| | | | Min-w | - | - | - | - | - | - | - | N.D. | - | - | - | - |

5. Soil and Vegetation Monitoring

5.1 Method

The basic survey was principally carried out for the initial objectives (namely, establishment of baseline data and early detection of possible impact) in the participating countries with accordance to the Technical Manual. General items are described in the [Table 5.1](#) but actual implement of item sets was dependent on respective site.

Table 5.1. Basic survey for soil and forest

| Item | Parameters |
|--------|--|
| Soil | <ul style="list-style-type: none"> - pH(H₂O), pH(KCl), Exchangeable base cations (Na, K, Ca, and Mg), Exchangeable acidity, Effective cation exchange capacity (ECEC) - Exchangeable Al and H, Total C content, Total N content (optional) - Available P, Sulfate (voluntary) - Physical properties (Fine earth bulk density, and Penetration resistance)(optional) |
| Forest | <ul style="list-style-type: none"> - General description of the forest (Description of trees, and Understory vegetation), Observation of tree decline - Photographic record of tree decline, Estimation of decline causes (optional) |

1) Monitoring Sites

Since the interval of soil and vegetation monitoring was decided as 3–5 years in the Technical Manual, most sites, which were reported in 2001, were not surveyed in 2002. Data of three areas of three countries were submitted this year. Unpublished data of the year 2001 were also submitted for UP Quezon – Laguna Land Grant. The list of monitoring site and reported items for 2002 was shown in [Table 5.2](#).

Table 5.2. Outline of the Monitoring Sites in 2002

| Country | Nearest deposition monitoring site | Site (Name of forest area) | Soil type | Items ^{*1} |
|-------------|------------------------------------|-------------------------------|-------------------------------------|---------------------|
| Philippines | Los Banos | Mt. Makiling | Eutric Cambisols | S |
| | | UP Quezon - Laguna Land Grant | Dystric Nitosols | S, F ^{*2} |
| Russia | Listvyanka | Bolshie Koty | Mollic Leptosols Umbric Luvisols | F |
| Thailand | Vachiralongkorn Dam | Vachiralongkorn Dam | Ferric Acrisols | S |
| | | Vachiralongkorn Puyea | Luvisols | S, F |

*1. S, Soil monitoring; F, Forest monitoring *2. Unpublished data of the year 2001 were submitted this year.

2) Field Operation

Basically, two forest areas, whose soils have different sensitivities to acid deposition, are recommended to be selected in an area. Several plots (at least two ones) of areas from 5m*5m to 10m*10m should be chosen randomly at each forest area (each soil type). Five subplots with 1m*1m square of each are set up for soil sampling at the center and along the diagonal lines of the plot (Fig.5.1). Three coaxial round plots are established for general description of trees with areas of 1000, 400 and 200 square meters respectively (Fig. 5.2). Observation of tree decline is carried out basically for selected twenty trees with average height of around 20m.

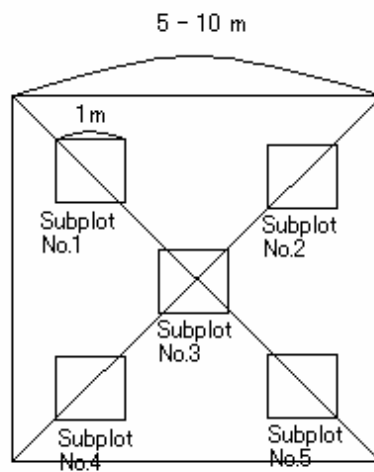


Figure 5.1 Plot for soil sampling

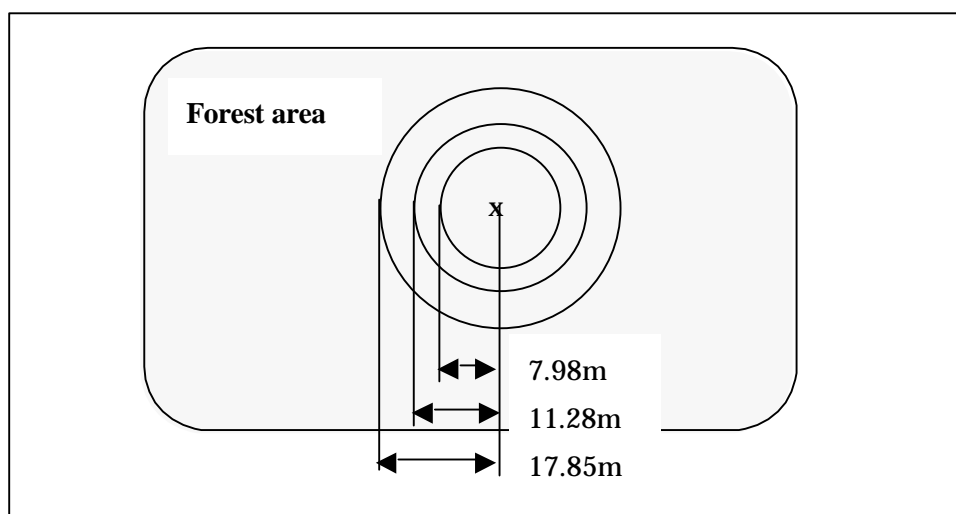


Figure 5.2. Plots for description of trees

3) Laboratory Operation

Analytical methods recommended in the Manual are presented in [Table 5.3](#).

Table 5.3. Analytical equipment and methods for soil monitoring

| Parameters | Equipment/methods |
|---|--|
| Chemical Properties of Soil | |
| a) Moisture Content | Drying oven, Balance |
| b) pH (H ₂ O) and pH (KCl) | Glass electrode |
| c) Exchangeable Base Cations (Ca, Mg, K and Na) | AAS, ICP-AES or ICP-MS (CH ₃ COONH ₄ -Extraction) |
| d) Exchangeable Acidity | Titration (KCl-Extraction) |
| e) Exchangeable Al, H | ibid. |
| f) Effective Cation Exchange Capacity (ECEC) | Calculation (as sum of exchangeable cations) |
| g) Carbonate Content (for calcareous soil) | Volumetric calcimeter |
| h) Total Carbon Content | Titration (Walkley-Black method) or CN-analyzer |
| i) Total Nitrogen Content | Titration (Kjeldahl method) or CN-analyzer |
| j) Available Phosphate | Spectrophotometry (Bray-1 test) |
| k) Sulfate | Turbidimetry, IC, ICP-AES or ICP-MS |
| Physical Properties of Soil | |
| a) Fine Earth Bulk Density | Metal sampling cylinder, Drying oven, Balance |
| b) Penetration Resistance (in the fieldwork) | Pocket penetrometer |

5.2 Results of Monitoring

Results of basic survey for soil and forest were reported in the following tables:

Table 5.4: Results of soil chemical analysis

Table 5.5: Results of description of trees

Table 5.6: Results of understory vegetation survey

Table 5.7: Results of observation of tree decline

Figure 5.3: Photographic record of tree decline

5.3 Important Subjects for Elaboration in The Monitoring Design and Procedures

Not only for the sites surveyed in 2002, but also for the other sites, the following subjects should be elaborated in the monitoring design and procedures according to the Technical Documents on Soil and Vegetation Monitoring in East Asia:

- 1) The type of soils should be classified according to FAO/UNESCO Soil Map of the World.
Soil type (soil unit) of FAO/UNESCO classification has not been reported for six areas of three countries although data has been submitted.
- 2) Two forest areas with different types of soil are insistently recommended to be selected in an area within 50km from a deposition-monitoring site.
Only one type of soil has been selected at seven areas of four countries.
- 3) Two plots should be established in each forest area, and five subplots should be set up in each soil plot.
Only one plot has been established at three forest sites of three countries, and any subplots have not been established at one forest site.
- 4) Soil samples should be taken from two soil layers separately by fixed depths (0-10 and 10-20cm).
The current method was decided when the Technical Manual was adopted in March 2000. However, samples were collected according to soil horizons in seven areas of four countries even after the year 2000.
- 5) Repeat analysis should be carried out in within-laboratory reproducibility condition.
Only two countries have reported the results of repeat analysis.

Concerning the item 2) above, some countries have difficulties in selecting two types of soil in an area. A supplementary document of the Technical Manual is planned for modification of the site selection criteria based on the discussion in the Third Session of Scientific Advisory Committee (SAC3) in November 2003.

Table 5.4 a-1) Soil chemical analysis: Philippines-1

Sampling period: 19-Feb-02

Name of analysis laboratory: Department of Soil Science, UPLB

| Sample No. | Location | Soil type | Plot No. | Subplot No. | Layer analyzed (cm) | Repeat* analysis | Moisture content (wt%) | pH | | Exchangeable basecations (B) | | | | Ex-acidity (A) | Ex-acid cations | | ECEC (A)+(B) | Base saturation | T-C | T-N |
|------------|---------------------------------|-----------------|----------|-------------|---------------------|------------------|------------------------|----------------------------|-------|------------------------------|-------|------|------|----------------|-----------------|-------|-----------------------|-----------------|-------|-----|
| | | | | | | | | H ₂ O | KCl | Ca | Mg | K | Na | Al | H | % | (g kg ⁻¹) | | | |
| | | | | | | | | (cmol(+)kg ⁻¹) | | | | | | | | | | | | |
| 1 | Mt. Makiling, Los Banos, Laguna | Eutric Cambisol | 1 | 1 | 0-10 | 1st | 1.1 | 5.22 | 4.73 | 18.00 | 16.86 | 2.56 | 2.86 | 0.21 | 0.00 | 0.21 | 34.40 | 117.09 | 29.70 | |
| | | | | 1.1 | | | 5.10 | 4.49 | 13.01 | 18.04 | 2.51 | 2.51 | 0.36 | 0.11 | 0.25 | 28.81 | 125.20 | 23.80 | | |
| | | | | 1.2 | | | 5.18 | 4.59 | 14.98 | 15.84 | 2.58 | 2.79 | 0.29 | 0.06 | 0.23 | 29.34 | 123.35 | 23.60 | | |
| | | | | 1.1 | | | 5.15 | 4.51 | 12.96 | 16.69 | 2.53 | 2.53 | 0.33 | 0.10 | 0.23 | 29.18 | 118.95 | 22.00 | | |
| | | | | 1.1 | | | 4.44 | 3.95 | 7.46 | 15.85 | 2.20 | 2.36 | 2.62 | 1.99 | 0.63 | 25.68 | 108.53 | 19.30 | | |
| 2 | | | | 10-20 | 1st | 1.1 | 5.02 | 4.39 | 14.21 | 14.02 | 1.92 | 2.44 | 0.43 | 0.20 | 0.23 | 28.28 | 115.24 | 18.00 | | |
| | | | | | | 1.1 | 4.57 | 4.05 | 7.79 | 15.23 | 2.00 | 2.28 | 2.20 | 1.62 | 0.58 | 25.63 | 106.52 | 14.70 | | |
| | | | | | | 1.1 | 4.62 | 4.02 | 10.17 | 13.01 | 2.02 | 2.24 | 1.91 | 1.34 | 0.57 | 25.73 | 106.65 | 15.50 | | |
| | | | | | | 1.1 | 4.64 | 3.99 | 8.46 | 14.88 | 2.28 | 2.26 | 2.52 | 1.78 | 0.74 | 18.09 | 154.12 | 15.60 | | |
| | | | | | | 1.1 | 4.32 | 3.78 | 4.22 | 15.20 | 1.82 | 2.08 | 6.15 | 4.90 | 1.25 | 24.65 | 94.60 | 13.50 | | |
| 3 | | | 2 | 0-10 | 1st | 1.1 | 5.97 | 5.24 | 23.96 | 15.21 | 3.19 | 3.15 | 0.13 | 0 | 0.13 | 37.37 | 121.78 | 24.80 | | |
| | | | | | | 1.1 | 5.95 | 5.26 | 23.08 | 15.31 | 3.10 | 3.20 | 0.12 | 0 | 0.12 | 37.52 | 119.11 | 24.70 | | |
| | | | | | | 1.1 | 5.88 | 5.17 | 23.57 | 16.13 | 3.53 | 3.28 | 0.13 | 0 | 0.13 | 39.95 | 116.42 | 26.50 | | |
| | | | | | | 1.1 | 5.42 | 4.73 | 20.66 | 13.89 | 2.73 | 2.84 | 0.17 | 0 | 0.27 | 32.99 | 121.61 | 23.10 | | |
| | | | | | | 1.3 | 5.86 | 5.04 | 19.28 | 15.56 | 3.04 | 2.80 | 0.13 | 0 | 0.13 | 35.21 | 115.54 | 20.90 | | |
| 4 | 10-20 | 1st | | 1.1 | 5.91 | 5.03 | 18.34 | 14.54 | 2.96 | 2.91 | 0.14 | 0 | 0.14 | 31.61 | 122.59 | 14.70 | | | | |
| | | | | 1.1 | 5.85 | 4.86 | 16.03 | 15.30 | 2.69 | 2.60 | 0.17 | 0 | 0.17 | 30.64 | 119.52 | 13.30 | | | | |
| | | | | 1.1 | 5.67 | 4.72 | 17.11 | 14.39 | 2.67 | 2.62 | 0.20 | 0 | 0.20 | 32.14 | 114.47 | 15.20 | | | | |
| | | | | 1.1 | 5.54 | 4.41 | 17.84 | 13.22 | 2.14 | 2.61 | 0.19 | 0 | 0.19 | 30.10 | 118.97 | 16.20 | | | | |
| | | | | 1.1 | 5.58 | 4.63 | 15.02 | 15.45 | 2.56 | 2.53 | 0.20 | 0 | 0.20 | 30.66 | 115.98 | 14.60 | | | | |

Note: Repeat analysis was not reported.

Table 5.4 a-2) Soil chemical analysis: Philippines-2

Sampling period: 30-Oct-01

Name of analysis laboratory: Department of Soil Science, UPLB

| Sample No. | Location | Soil type | Plot No. | Subplot No. | Layer analyzed (cm) | Repeat analysis | Moisture content (wt%) | pH | | Exchangeable basecations (B) | | | | Ex-acidity (A) | Ex-acid cations | | ECEC (A)+(B) | Base saturation | T-C | T-N |
|------------|-------------------------------|-----------------|----------|-------------|---------------------|-----------------|------------------------|------------------|------|------------------------------|------|------|------|----------------|-----------------|----------------------------|--------------|-----------------------|-------|-----|
| | | | | | | | | H ₂ O | KCl | Ca | Mg | K | Na | Al | H | (cmol(+)kg ⁻¹) | % | (g kg ⁻¹) | | |
| | | | | | | | | | | | | | | | | | | | | |
| 1 | Up Quezon - Laguna Land Grant | Dystric Nitosol | 1 | 1 | 0-10 | 1st | 1.1 | 4.02 | 4.00 | 0.37 | 0.35 | 0.21 | 0.29 | 4.40 | 3.85 | 0.55 | 5.62 | 21.71 | 37.00 | |
| | | | | 1.1 | | | 4.04 | 4.02 | 0.69 | 0.61 | 0.30 | 0.45 | 4.42 | 3.79 | 0.63 | 6.47 | 31.68 | 37.90 | | |
| | | | | 1.1 | | | 4.09 | 4.05 | 0.53 | 0.37 | 0.23 | 0.41 | 4.45 | 3.90 | 0.66 | 5.99 | 25.71 | 39.90 | | |
| | | | | 1.1 | | | 4.09 | 4.05 | 0.48 | 0.39 | 0.24 | 0.31 | 4.13 | 3.53 | 0.60 | 5.55 | 25.59 | 39.00 | | |
| | | | | 1.1 | | | 4.24 | 4.06 | 0.53 | 0.42 | 0.25 | 0.44 | 3.76 | 3.27 | 0.49 | 5.40 | 30.37 | 34.70 | | |
| 2 | | | 10-20 | 1st | 1 | 1.1 | 4.02 | 3.87 | 0.37 | 0.35 | 0.18 | 0.27 | 5.28 | 4.66 | 0.62 | 6.45 | 18.14 | 23.30 | | |
| | | | | | 1.1 | 4.01 | 3.81 | 0.64 | 0.35 | 0.22 | 0.36 | 4.59 | 4.03 | 0.56 | 6.16 | 25.49 | 26.50 | | | |
| | | | | | 1.1 | 4.04 | 3.83 | 0.27 | 0.26 | 0.20 | 0.31 | 4.60 | 3.93 | 0.67 | 5.64 | 18.44 | 28.20 | | | |
| | | | | | 1.1 | 4.04 | 3.96 | 0.37 | 0.35 | 0.23 | 0.28 | 4.45 | 3.79 | 0.66 | 5.68 | 21.65 | 33.40 | | | |
| | | | | | 1.1 | 4.15 | 4.06 | 0.26 | 0.35 | 0.23 | 0.39 | 4.27 | 3.63 | 0.64 | 5.50 | 22.36 | 24.00 | | | |
| 3 | 2 | 1st | 1 | 1.1 | 4.01 | 3.88 | 0.75 | 0.62 | 0.21 | 0.51 | 6.72 | 4.86 | 1.86 | 8.81 | 23.72 | 31.60 | | | | |
| | | | 1.1 | 3.93 | 3.92 | 0.37 | 0.25 | 0.16 | 0.28 | 6.39 | 4.69 | 1.70 | 7.45 | 14.23 | 32.20 | | | | | |
| | | | 1.1 | 3.95 | 3.99 | 0.59 | 0.39 | 0.18 | 0.42 | 6.06 | 4.48 | 1.58 | 7.64 | 20.68 | 24.60 | | | | | |
| | | | 1.1 | 3.92 | 3.91 | 0.74 | 0.33 | 0.16 | 0.33 | 6.58 | 4.68 | 1.90 | 8.14 | 19.16 | 26.00 | | | | | |
| | | | 1.1 | 4.14 | 3.99 | 0.53 | 0.30 | 0.17 | 0.29 | 5.78 | 4.30 | 1.48 | 7.07 | 18.25 | 29.80 | | | | | |
| 4 | 10-20 | 1st | 1 | 1.1 | 3.90 | 3.88 | 0.48 | 0.52 | 0.18 | 0.33 | 6.91 | 5.09 | 1.82 | 8.42 | 17.93 | 23.40 | | | | |
| | | | 1.1 | 3.91 | 3.72 | 0.37 | 0.25 | 0.16 | 0.26 | 6.67 | 4.86 | 1.81 | 7.71 | 13.49 | 24.80 | | | | | |
| | | | 1.1 | 3.94 | 3.74 | 0.43 | 0.26 | 0.16 | 0.27 | 6.35 | 4.66 | 1.69 | 7.47 | 14.99 | 21.80 | | | | | |
| | | | 1.1 | 3.90 | 3.91 | 0.64 | 0.31 | 0.15 | 0.30 | 6.70 | 4.91 | 1.79 | 8.10 | 17.28 | 21.30 | | | | | |
| | | | 1.1 | 3.98 | 3.84 | 0.48 | 0.25 | 0.16 | 0.28 | 5.80 | 4.16 | 1.64 | 6.97 | 16.79 | 19.60 | | | | | |

Note: Repeat analysis was not reported.

Table 5.4 b-1) Soil chemical analysis: Thailand-1

Sampling period : 20-Sep-02

Name of analysis laboratory: KingMongkut's University fo Technology Thonburi

| Sample No. | Location | Soil type | Plot No. | Subplot No. | Layer analyzed (cm) | Repeat* analysis | Moisture content (wt%) | pH | | Exchangeable basecations (B) | | | | Ex-acidity (A) | Ex-acid cations | | ECEC (A)+(B) | Base saturation % | T-C (g kg ⁻¹) | T-N (g kg ⁻¹) | Available Phosphate (mg/kg) |
|------------|----------------------|-----------------|----------|-------------|---------------------|------------------|------------------------|----------------------------|-----|------------------------------|-------|-------|-------|----------------|-----------------|-------|--------------|-------------------|---------------------------|---------------------------|-----------------------------|
| | | | | | | | | H ₂ O | KCl | Ca | Mg | K | Na | | Al | H | | | | | |
| | | | | | | | | (cmol(+)kg ⁻¹) | | | | | | | | | | | | | |
| | Vachiralongkorn Ddam | Ferric Acrisols | 1 | 1 | 0-23 | 1st | 6.7 | 6.1 | 5.4 | 9.810 | 45.99 | 0.06 | 0.210 | 0.47 | 0.00 | 0.47 | 56.5 | 99.2 | 0 | | 2.09 |
| | | | | 2 | 0-23 | | 6.4 | 6.3 | 5.6 | 9.34 | 60.05 | 0.08 | 0.340 | 0.47 | 0.00 | 0.47 | 70.3 | 99.3 | 0 | | 1.86 |
| | | | | 3 | 0-23 | | 5.6 | 5.8 | 4.9 | 15.65 | 43.07 | 0.11 | 0.190 | 0.46 | 0.00 | 0.460 | 59.5 | 99.2 | 0 | | 1.08 |
| | | | | 4 | 0-23 | | 6.6 | 6.3 | 5.6 | 14.860 | 56.62 | 0.02 | 0.160 | 0.94 | 0.00 | 0.94 | 72.6 | 98.7 | 0 | | 1.85 |
| | | | | 5 | 0-23 | | 6.9 | 6.3 | 5.7 | 19.29 | 56.80 | 0.03 | 0.230 | 0.47 | 0.00 | 0.470 | 76.8 | 99.4 | 0 | | 2.01 |
| | | | 2 | 1st | 1 | 0-20 | 6.7 | 7.2 | 7.0 | 15.4 | 47.74 | 0.03 | 0.290 | 0.47 | 0.00 | 0.47 | 63.9 | 99.3 | 0 | | 1.77 |
| | | | | | 2 | 0-20 | 5.9 | 6.2 | 5.6 | 7.75 | 57.13 | 0.06 | 0.210 | 0.47 | 0.00 | 0.47 | 65.6 | 99.3 | 0 | | 2.47 |
| | | | | | 3 | 0-20 | 6.0 | 6.1 | 5.6 | 14.760 | 55.64 | 0.01 | 0.200 | 0.47 | 0.00 | 0.47 | 71.1 | 99.3 | 0 | | 2.23 |
| | | | | | 4 | 0-20 | 6.5 | 5.3 | 4.9 | 5.76 | 64.50 | 0.19 | 0.060 | 0.47 | 0.24 | 0.23 | 71.0 | 99.3 | 0 | | 1.24 |
| | | | | | 5 | 0-20 | 6.3 | 5.7 | 5.2 | 18.69 | 68.53 | 0.04 | 0.18 | 0.47 | 0.00 | 0.47 | 87.9 | 99.5 | 0 | | 2.63 |
| | | | 1 | 1st | 1 | 23+ | 5.8 | 5.6 | 5.1 | 5.55 | 23.13 | 0.110 | 0.160 | 0.46 | 0.00 | 0.46 | 29.4 | 98.4 | 0 | | 1.77 |
| | | | | | 2 | 23+ | 5.7 | 5.5 | 5.0 | 3.73 | 20.51 | 0.10 | 0.250 | 0.46 | 0.00 | 0.46 | 25.1 | 98.2 | 0 | | 1.86 |
| | | | | | 3 | 23+ | 5.3 | 5.6 | 4.9 | 14.860 | 31.87 | 0.07 | 0.220 | 0.46 | 0.00 | 0.46 | 47.5 | 99.0 | 0 | | 1.55 |
| | | | | | 4 | 23+ | 6.0 | 6.1 | 5.4 | 8.180 | 32.61 | 0.04 | 0.130 | 0.47 | 0.00 | 0.47 | 41.4 | 98.9 | 0.5 | | 1.47 |
| | | | | | 5 | 23+ | 6.3 | 6.3 | 5.5 | 16.52 | 42.67 | 0.10 | 0.200 | 0.93 | 0.00 | 0.93 | 60.4 | 98.5 | 0 | | 1.62 |
| | | | 2 | 1st | 1 | 20+ | 5.8 | 6.8 | 6.4 | 5.63 | 33.74 | 0.02 | 0.100 | 0.46 | 0.00 | 0.46 | 40.0 | 98.8 | 0 | | 2.16 |
| | | | | | 2 | 20+ | 5.4 | 5.6 | 5.2 | 6.75 | 50.44 | 0.01 | 0.170 | 0.46 | 0.00 | 0.46 | 57.8 | 99.2 | 0 | | 3.17 |
| | | | | | 3 | 20+ | 5.0 | 4.9 | 4.7 | 3.650 | 37.66 | 0.11 | 0.110 | 0.47 | 0.13 | 0.34 | 42.0 | 98.9 | 0 | | 3.16 |
| | | | | | 4 | 20+ | 6.1 | 4.7 | 4.2 | 1.03 | 37.17 | 0.08 | 0.080 | 1.40 | 0.81 | 0.59 | 39.8 | 96.5 | 0 | | 1.24 |
| | | | | | 5 | 20+ | 6.3 | 4.9 | 4.6 | 6.98 | 35.32 | 0.12 | 0.120 | 0.46 | 0.25 | 0.21 | 43.0 | 98.9 | 0 | | 1.69 |

Note: Sampling was carried out according to soil horizon. Repeat analysis was not reported.

Table 5.4 b-2) Soil chemical analysis: Thailand-2

Sampling priod: 18-Sep-02

Name of analysis laboratory: King Mongkut's University of Technology Thonburi

| Sample No. | Location | Soil type* | Plot No. | Subplot No. | Layer analyzed (cm) | Repeat analysis | Moisture content (wt%) | pH | | Exchangeable basecations (B) | | | | Ex-acidity (A) | Ex-acid cations | | ECEC (A)+(B) | Base saturation % | T-C (g kg ⁻¹) | T-N (g kg ⁻¹) | Available Phosphate (mg/kg) | | |
|------------|-------------------------|------------|----------|-------------|----------------------|-----------------|------------------------|----------------------------|------|------------------------------|--------|-------|-------|----------------|-----------------|------|--------------|-------------------|---------------------------|---------------------------|-----------------------------|------|------|
| | | | | | | | | H ₂ O | KCl | Ca | Mg | K | Na | | Al | H | | | | | | | |
| | | | | | | | | (cmol(+)kg ⁻¹) | | | | | | | | | | | | | | | |
| | Vachiralongkorn (Puyea) | Luvisols | 3 | 1 | 0-20 | 1st | 1.7 | 3.9 | 3.8 | 2.32 | 0.36 | 0.08 | 0.05 | 2.82 | 2.19 | 0.63 | 5.6 | 49.9 | 0 | | 1.01 | | |
| | | | | 2 | 0-20 | | 1.8 | 4.1 | 4.0 | 4.16 | 0.99 | 0.03 | 0.040 | 1.46 | 1.34 | 0.12 | 6.7 | 78.1 | 0 | | 0.77 | | |
| | | | | 3 | 0-20 | | 1.8 | 4.2 | 4.0 | 4.86 | 1.90 | 0.08 | 0.12 | 1.27 | 1.10 | 0.17 | 8.2 | 84.6 | 0 | | 1.16 | | |
| | | | | 4 | 0-20 | | 1.9 | 4.2 | 3.9 | 7.72 | 2.02 | 0.16 | 0.100 | 1.96 | 1.63 | 0.33 | 12.0 | 83.6 | 0 | | 1.08 | | |
| | | | | 5 | 0-20 | | 2.0 | 5.0 | 5.0 | 6.1 | 2.68 | 0.08 | 0.090 | 0.29 | 0.24 | 0.05 | 9 | 96.9 | 0 | | 3.17 | | |
| | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | 3 | 1 | 20+ | 1st | 1.3 | 3.9 | 3.9 | 11.62 | 0.53 | 0.12 | 0.140 | 2.81 | 2.75 | 0.06 | 15.2 | 81.5 | 0 | | 0.85 |
| | | | | 2 | | 20+ | 1.4 | | 4.5 | 4.3 | 14.340 | 0.46 | 0.06 | 0.020 | 0.39 | 0.28 | 0.11 | 15.3 | 97.4 | 0 | | 0.85 | |
| | | | | 3 | | 20+ | 1.5 | | 4.1 | 4.0 | 2.48 | 0.73 | 0.09 | 0.060 | 2.24 | 2.23 | 0.01 | 5.6 | 60.0 | 0 | | 0.77 | |
| | | | | 4 | | 20+ | 1.3 | | 4.1 | 3.9 | 3.550 | 0.39 | 0.04 | 0.020 | 2.43 | 1.86 | 0.57 | 6.4 | 62.2 | 0 | | 0.77 | |
| | | 5 | 20+ | 1.5 | | 4.7 | 4.3 | | 8.33 | 1.32 | 0.08 | 0.090 | 0.58 | 0.48 | 0.10 | 10.4 | 94.4 | 0 | | 1.31 | | | |
| | | | | | | | | | | | | | | | | | | | | | | | |

Note: Sampling was carried out according to soil horizon. Repeat analysis was not reported. One plot was established.

Table 5.5 a) Results of description of trees: Philippines

Name of Plot: UP Quezon-Laguna Land Grant

Date: October 2001

Survey area 1: radius 7.98 m

| No. | Species Name | DBH (cm) | Height (m) | Survey area 1: radius 7.98 m | | DBH (cm) | Height (m) | No. | Species Name | DBH (cm) | Height (m) |
|-----|---|----------|------------|--------------------------------------|--|----------|------------|--------------------------------------|---|----------|------------|
| | | | | No. | Species Name | | | | | | |
| | | | | 33 | <i>Firmiana simplex</i> | 6 | 4.2 | 63 | <i>Polycias nodosa</i> | 5.2 | 3.2 |
| | | | | 34 | <i>Nauclea undulata</i> | 5.5 | 4.2 | 64 | <i>Polycias nodosa</i> | 5.4 | 4.3 |
| 1 | <i>Pterocarpus indicus</i> | 14 | 8.13 | 35 | <i>Nauclea undulata</i> | 5 | 4.5 | 65 | <i>Alstonia macrophylla</i> | 6.4 | 4.7 |
| 2 | <i>Pterocarpus indicus</i> | 11 | 4.16 | 36 | <i>Diospyros pilosanthera</i> | 3 | 4.3 | 66 | <i>Delonix regia</i> | 19.8 | 11.42 |
| 3 | <i>Syzygium nitidum</i> | 5 | 4.5 | 37 | <i>Ficus nota</i> | 2.5 | 2 | 67 | <i>Macaranga bicolor</i> | 9 | 7.15 |
| 4 | <i>Buchanania arborescens</i> | 2 | 2 | 38 | <i>Baccaurea philippinensis</i> | 5 | 5 | 68 | <i>Ficus callosa</i> | 4.5 | 4.5 |
| 5 | <i>Hopea foxworthyi</i> | 4.2 | 4.2 | 39 | <i>Ailanthus integrifolia</i> | 5 | 5.4 | 69 | <i>Pterocarpus indicus</i> | 9.5 | 9 |
| 6 | <i>Sandoricum dubium</i> | 5 | 2.3 | 40 | <i>Aglai spp.</i> | 7.5 | 6 | 70 | <i>Trichadenia philippinensis</i> | 5 | 5.9 |
| 7 | <i>Vitex parviflora</i> | 4.5 | 5 | 41 | <i>Broussonetia papyrifera</i> | 7 | 6.5 | 71 | <i>Dipterocarpus alatus</i> | 5 | 5.4 |
| 8 | Unidentified | 8.5 | 3 | 42 | <i>Hopea foxworthyi</i> | 6.5 | 8 | 72 | <i>Pandanacea spp.</i> | 9 | 4 |
| 9 | Unidentified | 11.5 | 8.96 | 43 | <i>Hopea foxworthyi</i> | 3.5 | 4 | 73 | <i>Ficus callosa</i> | 7 | 6.7 |
| 10 | <i>Pterocarpus indicus</i> | 12 | 7.61 | 44 | Mangkunai | 2.5 | 2.9 | 74 | <i>Pterocarpus indicus</i> | 4.5 | 6 |
| 11 | <i>Euphoria gracilis</i> | 5.4 | 4.2 | 45 | <i>Solanum erianthum</i> | 3 | 2.5 | 75 | <i>Polycias nodosa</i> | 8 | 7 |
| 12 | <i>Hopea foxworthyi</i> | 4 | 3.9 | 46 | <i>Dipterocarpus alatus</i> | 9 | 6.5 | 76 | <i>Pterocarpus indicus</i> | 7.5 | 7.8 |
| 13 | Unidentified | 9 | 6.5 | 47 | <i>Elaeocarpus candolei</i> | 2.9 | 2.7 | 77 | <i>Acacia mangium</i> | 20 | 11.92 |
| 14 | <i>Ficus callosa</i> | 3.2 | 2.6 | 48 | <i>Cratoxylum formosum</i> | 3 | 3 | 78 | <i>Pterocarpus indicus</i> | 4.5 | 4 |
| 15 | <i>Ficus callosa</i> | 5.4 | 4 | 49 | <i>Ficus callosa</i> | 5 | 6 | 79 | <i>Artocarpus blancoi</i> | 5.4 | 7 |
| 16 | <i>Pandanus spp.</i> | 5.7 | 3.5 | 50 | <i>Ficus callosa</i> | 8.5 | 5.5 | 80 | <i>Pterocarpus indicus</i> | 12.5 | 8 |
| 17 | <i>Xanthophyllum excelsis</i> | 3.5 | 3.5 | 51 | <i>Cratoxylum formosum</i> | 6.5 | 5.5 | 81 | <i>Calophyllum inophyllum</i> | 4.2 | 4 |
| 18 | <i>Buchanania arborescens</i> | 6.2 | 5.2 | 52 | mangkunai | 3 | 3 | 82 | <i>Macaranga bicolor</i> | 5 | 3.7 |
| 19 | <i>Solanum verbascifolium</i> | 3.5 | 4.15 | 53 | <i>Dipterocarpus alatus</i> | 9.5 | 5.8 | 83 | <i>Ormosia calavansis</i> | 7 | 7.2 |
| 20 | <i>Syzygium brevistylum</i> | 3 | 2.9 | 54 | <i>Macaranga bicolor</i> | 5 | 5.6 | 84 | <i>Palaquium luzonensis</i> | 10.8 | 6.3 |
| 21 | <i>Macaranga bicolor</i> | 7 | 6 | 55 | <i>Mangifera altissima</i> | 7.5 | 6.2 | 85 | <i>Microcos stylocarpa</i> | 5.5 | 3.2 |
| 22 | <i>Baccaurea philippinensis</i> | 4 | 4 | | | | | 86 | <i>Ficus callosa</i> | 5.2 | 4 |
| 23 | <i>Pterocarpus indicus</i> | 0.5 | 3.8 | Survey area 2: radius 11.28 m | | | | 87 | Unidentified | 8.5 | 6.5 |
| 24 | <i>Aporosa alvarezii</i> | 4 | 5.3 | No. | Species Name | DBH (cm) | Height (m) | 88 | <i>Ficus ampelas</i> | 8.3 | 5.3 |
| 25 | <i>Canarium vrieseanum forma stenophyllum</i> | 4.5 | 5 | | | | | 89 | <i>Ficus ampelas</i> | 8 | 5.5 |
| 26 | <i>Ficus callosa</i> | 7 | 6 | 56 | <i>Macaranga bicolor</i> | 9.2 | 5 | Survey area 3: radius 17.85 m | | | |
| 27 | <i>Ficus callosa</i> | 7.5 | 5.9 | 57 | <i>Trichadenia philippinensis /Broussonetia papyrifera</i> | 5.9 | 5 | No. | Species Name | DBH (cm) | Height (m) |
| 28 | <i>Randia stenophylla/ Baccaurea philippinensis</i> | 6 | 6.2 | 58 | <i>Drypetes falcata</i> | 6 | 4.5 | 90 | Unidentified | 28 | 12.45 |
| 29 | <i>Acmena acuminatissima</i> | 4 | 3.8 | 59 | <i>Pterocarpus indicus</i> | 5.3 | 5 | 91 | <i>Litchi chinensis spp. philippinensis</i> | 21 | 11.37 |
| 30 | <i>Aporosa alvarezii</i> | 3 | 2.6 | 60 | <i>Beilsmedia glomerata</i> | 4.5 | 4 | 92 | <i>Paraserianthes falcataria</i> | 20 | 8.79 |
| 31 | <i>Baccaurea philippinensis</i> | 4.5 | 3.9 | 61 | Unidentified | 15 | 7 | | | | |
| 32 | <i>Mallotus korthasii</i> | 13 | 5.4 | 62 | <i>Baccaurea philippinensis</i> | 4 | 3.5 | | | | |

Table 5.5 c) Results of description of trees: Thailand

Name of plot: Vachiralongkorn (Pueya)

Date: 11 July 2002

Survey area 1: radius 7.98 m

Survey area 2: radius 11.28 m

Survey area 3: radius 17.85 m

| Serial No. | Species name | DBH (cm) | Height (m) | Serial No. | Species name | DBH (cm) | Height (m) | Serial No. | Species name | DBH (cm) | Height (m) |
|------------|------------------------------------|----------|--------------|------------|----------------------------------|----------|--------------|------------|---------------------------------|----------|--------------|
| 1 | <i>Erythrina subumbrans</i> | <1 | <2 | 1 | <i>Xanthophyllum lanceatum</i> | 16.5 | 19.0 | 1 | NI (Kluck) | 26.5 | 21.0 |
| 2 | <i>Amorphophallus amygdaloides</i> | <1 | <2 | 2 | <i>Millettia brandisiana</i> | 7.0 | 20.0 | 2 | <i>Curcuma aeruginosa</i> | 50.5 | 37.0 |
| 3 | <i>Trema tomentosa</i> | 1.0 | 3.0 | 3 | NI (Kluck) | 18.0 | 12.0 | 3 | <i>Aphanamixis ploystachya</i> | 83.0 | 29.0 |
| 4 | <i>Sterculia guttata</i> | <1 | 2.5 | 4 | <i>Bambusa longispiculata</i> | | | 4 | <i>Sterculia guttata</i> | 36.5 | 24.0 |
| 5 | Sterculia guttata | 1.3 | <2 | 5 | <i>Gigantochloa hasskarliana</i> | | | 5 | <i>Dipterocarpus turbinatus</i> | 38.0 | 33-34 |
| 6 | <i>Sterculia villosa</i> | 1.3 | 2.0 | 6 | <i>Dioscorea alata</i> | 14.5 | 11.0 | 6 | <i>Dipterocarpus turbinatus</i> | 69.5 | 34.0 |
| 7 | <i>Microcos tomentosa</i> | <1 | <2 | 7 | <i>Premna tomentosa</i> | 5.0 | 5.0 | 7 | <i>Dipterocarpus turbinatus</i> | 71.5 | 35.0 |
| 8 | Baccaurea ramiflora | <1 | <2 | | | | | 8 | <i>Premna tomentosa</i> | 21.0 | 13.0 |
| 9 | <i>Baccaurea ramiflora</i> | 1.6 | 2.5 | | | | | 9 | <i>Melaleuca cajuputi</i> | 78.0 | 33.0 |
| 10 | <i>Baccaurea ramiflora</i> | 1.2 | 2.0 | | | | | | | | |
| 11 | <i>Lepisanthes rubiginosa</i> | 0.9 | 2.2 | | | | | | | | |
| 12 | <i>Tacca leontopetaloides</i> | <1 | <2 | | | | | | | | |
| 13 | <i>Dipterocarpus turbinatus</i> | 1.3 | 3.0 | | | | | | | | |
| 14 | <i>Ammannia villosum</i> | <1 | <2 | | | | | | | | |
| 15 | <i>Paranephelium xestophyllum</i> | <1 | <2 | | | | | | | | |
| 16 | <i>Combretum punctatum</i> | 2.5 | 3.5 | | | | | | | | |
| 17 | Mammea harmandi i | <1 | <2 | | | | | | | | |
| 18 | <i>Cynometra cauliflora</i> | 1.1 | 2.5 | | | | | | | | |
| 19 | Cynometra cauliflora | 1.5 | 2.5 | | | | | | | | |
| 20 | <i>Polygala glabrum</i> | <1 | <2 | | | | | | | | |

Note: NI, not identified in Latin; In parenthesis, Thai name is shown. In the form for the survey area 1, trees whose DBH is smaller than 4 cm and height is higher than 1.3 m were reported. The larger trees in the survey area 1 were reported in the form for the survey area 2 (4cm < DBH < 18cm) and survey area 3 (18 cm < DBH). Trees whose DBH is larger than 18cm in the survey area 2 were reported in the form for survey area 3.

Table 5.6 a) Results of understory vegetation survey: Philippines

Name of Plot: UP Quezon-Laguna Land Grant

Date: October 2001

Number of species: 14

| Species Name | Dominance |
|--------------------------------|-----------|
| <i>Dicranopteris linearis</i> | 2 |
| <i>Nephrolepis biserrata</i> | 2 |
| Unidentified | 2 |
| <i>Cratoxylon formosum</i> | + |
| Unidentified | + |
| <i>Diospyros pilosantha</i> | 2 |
| <i>Ficus ampelas</i> | + |
| <i>Anaxagorea luzonensis</i> | + |
| <i>Pandanus spp.</i> | + |
| <i>Microsorium longissimum</i> | + |
| <i>Clitoria ternatea</i> | + |
| <i>Pterocarpus indicus</i> | 1 |
| <i>Artocarpus blancoi</i> | + |
| <i>Lygodium circinnatum</i> | + |

Table 5.6 b) Results of understory vegetation survey: Russia

Name of Plot: Bolshie Koty

Date: 8 August 2002.

Number of species: 24

| Species Name | Dominance |
|--|-----------|
| <i>Rhododendron dahuricum</i> L. | 4 |
| <i>Spiraea media</i> Franz. Schmidt | 2 |
| <i>Cotoneaster melanocarpus</i> Fisch. ex Blytt. | 2 |
| <i>Rosa acicularis</i> Lindl. | 1 |
| <i>Vaccinium vitis-idaea</i> L. | 1 |
| <i>Vicia baicalensis</i> (Turcz.) B. Fedtsch. | 3 |
| <i>Vicia unijuga</i> A. Br. | 2 |
| <i>Carex macroura</i> Meinsh. | 2 |
| <i>Rubus saxatilis</i> L. | 1 |
| <i>Calamagrostis arundinacea</i> (L.) Roth | 1 |
| <i>Calamagrostis obtusata</i> Trin. | 1 |
| <i>Campanula glomerata</i> L. | 1 |
| <i>Cimicifuga foetida</i> L. | 1 |
| <i>Polygonatum odoratum</i> (Miller) Druce | 2 |
| <i>Geranium eriostemon</i> Fisch. | 2 |
| <i>Maianthemum bifolium</i> (L.) S. W. Schmidt | 1 |
| <i>Pleurospermum uralense</i> Hoffm. | 1 |
| <i>Aconitum barbatum</i> Pers. | 2 |
| <i>Trommsdorfia maculata</i> (L.) Bernh. | 2 |
| <i>Sanguisorba officinalis</i> L. | 1 |
| <i>Aster alpinus</i> L. | + |
| <i>Bupleurum scorzonerifolium</i> Willd. | + |
| <i>Dicranum polisetum</i> Sw. | 2 |
| <i>Rhytidium rugosum</i> (Hedev.) Kindb. | 2 |

Table 5.6 c) Results of understory vegetation survey: Thailand

Name of plot: Vachiralongkorn (Puyea)

Date: 11 July 2002

Number of species: 26

| Species name | Dominance |
|---------------------------------|-----------|
| NI (Krataowkee) | |
| <i>Millettia brandisiana</i> | 4 |
| <i>Chassalia ophioxylodes</i> | |
| <i>Barringtonia longipes</i> | |
| NI (Tao-klingsong) | |
| <i>Bauhinia integrifolia</i> | |
| NI (Taowankao) | |
| <i>Combretum punctatum</i> | |
| NI (Taolorkkik) | |
| NI (Toraneesang) | |
| <i>Micromelum integerrimum</i> | |
| <i>Amorphophallus aberrans</i> | |
| <i>Trema tomentosa</i> | |
| <i>Sterculia hypochra</i> | |
| <i>Sterculia villosa</i> | |
| <i>Cyanotis axillaris</i> | |
| <i>Endospermum diadenum</i> | |
| <i>Habenaria rhodocheila</i> | |
| <i>Baccaurea ramiflora</i> | |
| <i>Dipterocarpus turbinatus</i> | |
| <i>Ammannia villosum</i> | |
| <i>Gloriosa superba</i> | |
| <i>Melaleuca cajuputi</i> | |
| NI (unknown species) | |
| NI (Nhamsawad) | |
| <i>Cynometra cauliflora</i> | |

Note: NI, not identified in Latin; In parenthesis, Thai name is shown. Dominance scale was recorded only for dominant

Table 5.7 a) Results of observation of tree decline: Philippines

Name of Plot: UP Quezon-Laguna Land Grant

Nearest deposition monitoring site: Los Banos

Date: October 2001

| Individual No. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
|-----------------------|----------------------------------|-------------------------|---------------------|----------------------------|----------------------------|-----------------------------------|--------------------------|--------------------------|--------------------------|----------------------|----------------------------|---------------------------|-------------------------|-------------------------|----------------------|----------------------------------|-----------------------------------|-------------------------|---------------------------|------------------------|
| Plant Name | <i>Paraserianthes falcataria</i> | <i>Peris tripartita</i> | <i>Unidentified</i> | <i>Astonia macrophylla</i> | <i>Astonia macrophylla</i> | <i>Trichadenia philippinensis</i> | <i>Macaranga bicolor</i> | <i>Macaranga bicolor</i> | <i>Macaranga bicolor</i> | <i>Ficus callosa</i> | <i>Pterocarpus indicus</i> | <i>Randia stenophylla</i> | <i>Syzygium nitidum</i> | <i>Peris tripartita</i> | <i>Ficus callosa</i> | <i>Paraserianthes falcataria</i> | <i>Trichadenia philippinensis</i> | <i>Vaccanga globosa</i> | <i>Syzygium calubecob</i> | <i>Ceiba pentandra</i> |
| Vitality of tree | | | | | | | | | | | | | | | | | | | | |
| Form of tree | | | | | | | | | | | | | | | | | | | | |
| Branch growth | | | | | | | | | | | | | | | | | | | | |
| Dieback of stem | | | | | | | | | | | | | | | | | | | | |
| Density of foliage | | | | | | | | | | | | | | | | | | | | |
| Deformation of leaves | | | | | | | | | | | | | | | | | | | | |
| Size of leaves | | | | | | | | | | | | | | | | | | | | |
| Color of leaves | | | | | | | | | | | | | | | | | | | | |
| Injury of leaves | | | | | | | | | | | | | | | | | | | | |

Estimated cause of decline:

Note: Scale 0 "zero" was omitted in the table.

Table 5.7 b) Results of observation of tree decline: Russia

Name of Plot: Bolshie Koty

Nearest deposition monitoring site: Listvyanka

Date: 8 August 2002.

| Individual No. | 1 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 27 |
|-----------------------|-------------------------|-----------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-----------------------|-------------------------|-------------------------|-------------------------|-------------------------|-----------------------|-----------------------|-------------------------|-----------------------|-------------------------|
| Plant Name | <i>Pinus sylvestris</i> | <i>Larix sibirica</i> | <i>Pinus sylvestris</i> | <i>Pinus sylvestris</i> | <i>Pinus sylvestris</i> | <i>Pinus sylvestris</i> | <i>Pinus sylvestris</i> | <i>Pinus sylvestris</i> | <i>Larix sibirica</i> | <i>Pinus sylvestris</i> | <i>Pinus sylvestris</i> | <i>Pinus sylvestris</i> | <i>Pinus sylvestris</i> | <i>Larix sibirica</i> | <i>Larix sibirica</i> | <i>Pinus sylvestris</i> | <i>Larix sibirica</i> | <i>Pinus sylvestris</i> |
| Vitality of tree | 2 | 1 | | | 1 | 1 | | | | | | | | | 1 | | | 1 |
| Form of tree | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | | 1 | 2 | 2 | 2 | 2 | 2 | 2 |
| Branch growth | 2 | 2 | 1 | 2 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 |
| Dieback of stem | | | | | | | | | | | | | | | | | | |
| Density of foliage | 2 | 2 | 2 | 1 | 2 | 2 | 1 | 1 | 2 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 |
| Deformation of leaves | 1 | 1 | | 1 | | 1 | | | | | 1 | 1 | 1 | | 1 | 1 | 1 | 1 |
| Size of leaves | 1 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 |
| Color of leaves | 1 | 1 | 1 | 1 | 1 | 1 | | 1 | 1 | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Injury of leaves | 1 | | 1 | 1 | 1 | | | | | | | 1 | 1 | 1 | 1 | 1 | 1 | 1 |

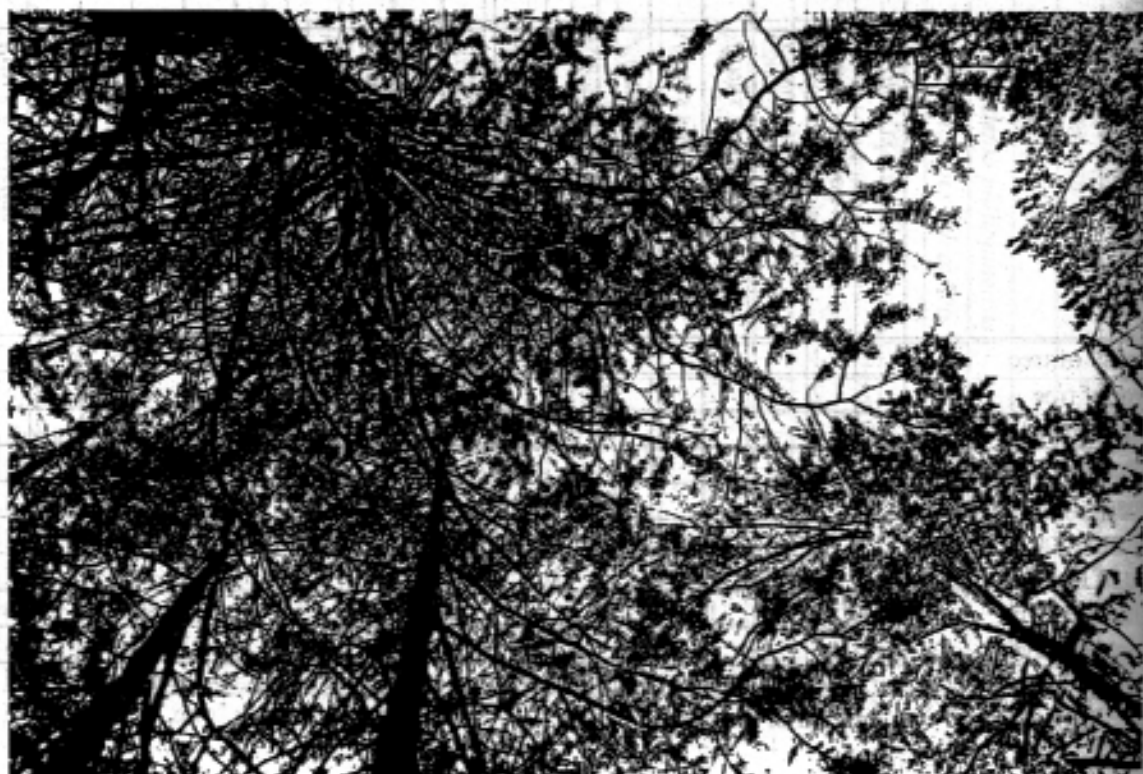
Estimated cause of decline: Specific natural conditions (steep slopes, poor soils), insect diseases.

Note: Scale 0 "zero" was omitted in the table.

Figure 5.3: Photographic record of tree decline: Russia

Name of Plot: Bolshie Koty

East:



West:



South:



North:



6. Inland Aquatic Environment

6.1 Method

There were evidences over Northern Europe and North America that the lake water pH levels decreased in the 1970's compared to the levels in the 1930's and the damages were appeared as the results of this decrease, such as decline of fish population. The cause of this pH decline is believed to be the deposition of acidic substances into lakes in excess amounts of their neutralization or buffering capacity. In general, inland bodies of water with low alkalinity and low electric conductivities are prone to be sensitive to acidification by acid deposition. Therefore it is important to conduct continuous monitoring of water bodies and aquatic fauna and so on. The participating countries of EANET are expected to carry out the monitoring of water temperature, pH, electric conductivity (EC), alkalinity and concentrations of SO_4^{2-} , NO_3^- , Cl^- , NH_4^+ , Na^+ , K^+ , Ca^{2+} , and Mg^{2+} of targeted lakes/rivers at least four times a year (seasonally), and, transparency, water color, DOC(if impossible, COD), NO_2^- , PO_4^{3-} more than once a year. While, another items are specified as optional parameters to be monitored.

1) Selection of Monitoring Sites

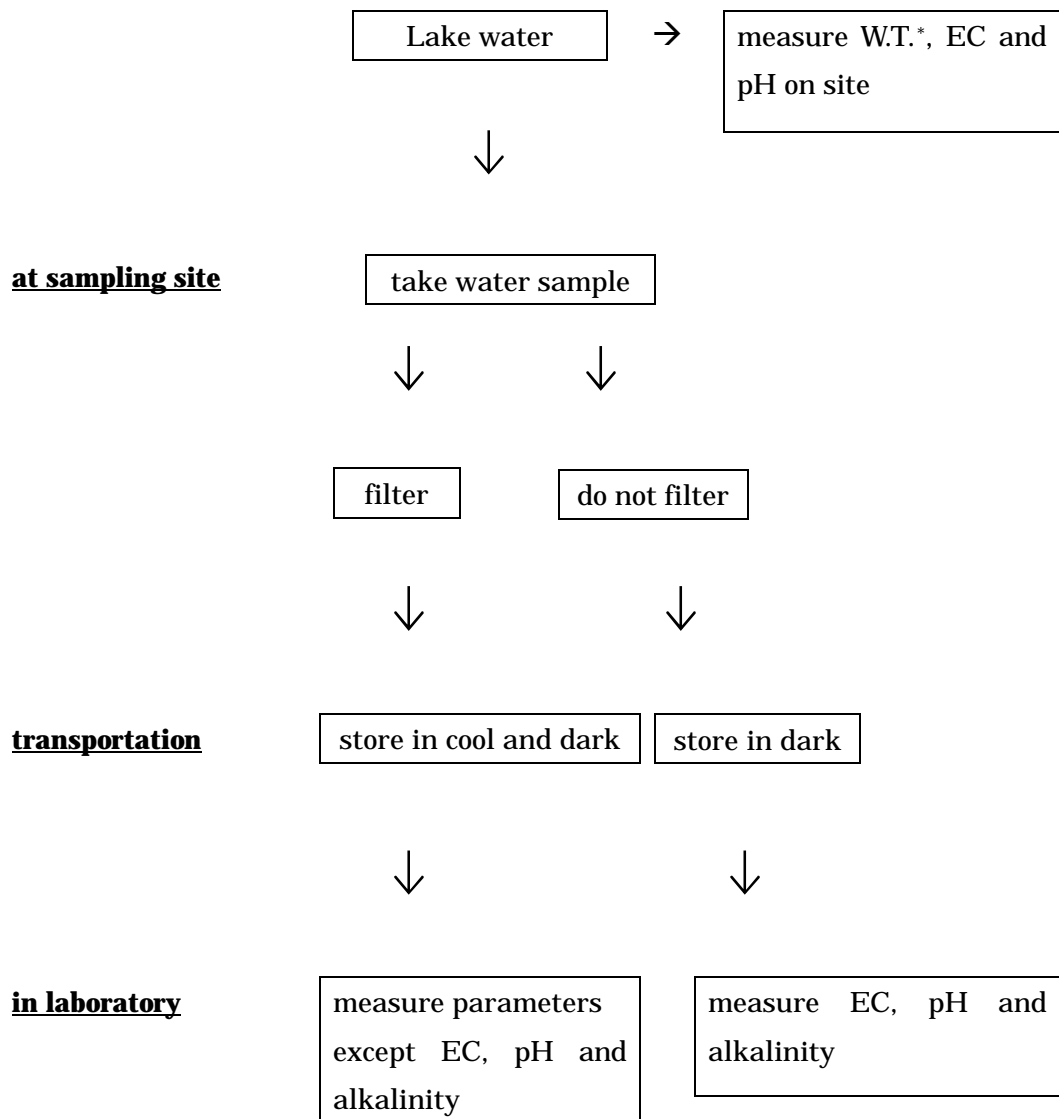
As described in [Table 6.1](#), 8 countries (China, Indonesia, Japan, Mongolia, Philippines, Russia, Thailand, and Vietnam) carried out inland aquatic environment monitoring. (Properties of lakes in [Table 6.3](#) are not completed yet.) These monitoring sites were established for 9 lakes/reservoirs and 3 stream. According to the Manual for Monitoring Inland Aquatic Environment, the lakes chosen for monitoring should be harmonic type lakes, preferably with depths of approximately 10m or less, a water residence time of 1 year or less, an area of 1 ha or more, with low alkalinity and electric conductivity, minimal anthropogenic water pollution and no coverage of the surface with aquatic organisms. For the monitoring of springs, it is desirable to locate in nature protection areas, and a minimum of human activities such as deforestation, and cultivation should be conducted or planned in the upstream area.

2) Field Operation

Surface water was sampled at one location at the center of the lake. In principle, measurement of pH and electric conductivity was conducted at the site before a precise measurement in the laboratory. Water samples for later analysis were put in a tightly stoppered polyethylene bottle and kept in a cool dark place. The samples were shipped to the laboratory for chemical analysis. The water samples for analysis of chemical components other than alkalinity are filtered at the sampling site with a glass fiber filter. An example of treatment procedure is described in [Fig.6.1](#).

Table 6.1 Outline of Inland Aquatic Environment Monitoring

| Country | Name of Lake | Nearest deposition monitoring | Parameter | Interval |
|-------------|-------------------------------------|-------------------------------|---|-------------|
| China | Chongqing -Jinyunshan Lake | Rural | Water quality of Jinyunshan lake | 4times/yr. |
| | Xi'an -Jiwozi River | Remote | Water quality of Jiwozi River | 3times/yr. |
| | Xiamen -Xiaoping Dam | Remote | Water quality of Xiaoping Dam | 4times/yr. |
| | Zhuhai -Zhuxiandong Reservoir | Urban | Water quality of Zhuxiandong reservoir | 4times/yr. |
| Indonesia | Petenggang Lake | Rural | Water quality of Petenggang Lake | 3times/yr. |
| Japan | Lake Ijira | Rural/Ecolog. | Water quality of Lake Ijira | 4times/yr. |
| | Lake Banryu | Urban/Ecolog. | Water quality of Lake Banryu | 4times/yr. |
| Malaysia | - | - | - | - |
| Mongolia | Terelj River | Rural | Water quality of Terelj River | 5times/yr. |
| Philippines | Lake Mojicap | Rural | Water quality of Mojicap Lake | 5times/yr. |
| Korea | - | - | - | - |
| Russia | River Krestovka | Rural | Water quality of River Krestvoka | 12times/yr. |
| Thailand | Vachiralongor n Dam | Remote | Water quality of Vachiralongorn Dam | 4times/yr. |
| Vietnam | Hoa Binh Reservoir | Rural | Water quality of Hoa Binh Reservoir | 4times/yr. |



W.T.* : Water Temperature

Fig.6.1 Example of treatment procedure of lake water sample

3) Laboratory Operation

Collected samples were analyzed by analytical methods specified in [Table 6.2](#) immediately or after stored in a refrigerator.

Table 6.2 Parameters and recommended analytical methods

| Parameter | Analytical method |
|--|---|
| pH | pH meter (glass electrode) |
| Electric Conductivity | Conductivity meter |
| Alkalinity | Titration by burette or digital burette with pH meter |
| NH ₄ ⁺ , NO ₃ ⁻ , NO ₂ ⁻ , PO ₄ ³⁻ | Ion Chromatography or spectrometry |
| K ⁺ , Mg ²⁺ , Ca ²⁺ , Na ⁺ | Ion Chromatography or atomic absorption spectrometry |
| SO ₄ ²⁻ | Ion Chromatography or Turbidimetry |
| DOC | Combustion- infrared method or wet-oxidation method |

6.2 Results of Monitoring

Properties of lakes are presented in [Table 6.3](#), but not completed. The results of measurements for pH, EC and concentrations of major ions are summarized in [Table 6.4](#). Data within or exceeded the criteria of R1,R2 were treated as judged " O" or " X" in [Table 6.4](#) according to the Manual for Monitoring Inland Aquatic Environment.

Since 2002 Mongolia started monitoring in Terelj river. 8 countries (12 sites) participated in Inland aquatic environment monitoring in 2002. R1 and R2 of the data at Xiaoping dam, Jiwozi river and Zhuxiandong reservoir in China, Terelj river in Mongolia and Vachiralongorn dam in Thailand seemed to be over the allowable range. However it was not able to specify the main reasons. Alkalinities of Mojicap Lake in Philippines and Hoa Binh Reservoir in Vietnam seem to be slightly high. Therefore there is a possibility that pH of their lakes will not become low even if more acid depositions enter to them.

Table 6.3(1) Properties of lakes

Lake Name: Ijira Lake

| | |
|--------------------------------|---------------------------------------|
| Country | Japan |
| Location | Gifu prefecture |
| Altitude | 110m |
| Origin | Artificial (dam-made lake) |
| Area and shape | 0.1km ² |
| Shore line length | 1.8km |
| Lake hydrologic type | Reservoir |
| Lake trophic type | Oligotrophic or mesotrophic |
| Water depth | Ave. 5.4m (Max 10.9m) |
| Water volume | 0.00054km ³ |
| Annual water level fluctuation | 0-0.74m (Ave. 0.22m) |
| Precipitation | 1,583mm/year (2001) |
| Solar radiation | Daylight time Ave.178hr/month (2001) |
| Wind speed | 2.2-2.9 (Ave. 2.6) m/s (2001) |
| Wind direction | SSW, S(summer), WNW, W(winter) (2001) |
| Residence time of water | 23 days |
| Lake utilization | Irrigation and fishing |
| Watershed area | 5.4 km ² |
| River (flows into) | Ijira River, Koudou River |

Table 6.3(2) Properties of lakes

Lake Name: Banryu Lake

| | |
|--------------------------------|--------------------------------------|
| Country | Japan |
| Location | Shimane prefecture |
| Altitude | 25m |
| Origin | Natural damming lake |
| Area and shape | 0.13km ² |
| Shore line length | 5.7km |
| Lake hydrologic type | |
| Lake trophic type | Mesotrophic |
| Water depth | Ave. 8-8.5m |
| Water volume | km ³ |
| Annual water level fluctuation | 1.5 m |
| Precipitation | 1,683mm/year (2001) |
| Solar radiation | Daylight time Ave.152hr/month (2001) |
| Wind speed | 1.5-2.3 (Ave. 1.7) m/s (2001) |
| Wind direction | SE, N(summer), NW,NW(winter) (2001) |
| Residence time of water | - days |
| Lake utilization | Irrigation |
| Watershed area | 0.73 km ² |
| River (flows into) | none |

Table 6.3(3) Properties of lakes

Lake Name: Mojicap Lake

| | |
|--------------------------------|------------------------|
| Country | Philippines |
| Location | San Pablo City, Laguna |
| Altitude | m |
| Origin | |
| Area and shape | 0.02km ² |
| Shore line length | km |
| Lake hydrologic type | |
| Lake trophic type | |
| Water depth | 25m or less |
| Water volume | km ³ |
| Annual water level fluctuation | m |
| Precipitation | |
| Solar radiation | |
| Wind speed | |
| Wind direction | |
| Residence time of water | - days |
| Lake utilization | |
| Watershed area | km ² |
| River (flows into) | |

Table 6.3(4) Properties of lakes

Lake Name: Vachiralongorn Dam

| | |
|--------------------------------|---|
| Country | Thailand |
| Location | Kanchanaburi Province |
| Altitude | 170m |
| Origin | Artificial (Dam made lake) |
| Area and shape | 3,720 km ² |
| Shore line length | - |
| Lake hydrologic type | Reservoir |
| Lake trophic type | - |
| Water depth | Avg. 149.08 m (max:153.21 m) |
| Water volume | 6.7276 km ³ |
| Annual water level fluctuation | 0-18 m (avg. 9m) |
| Precipitation | 1,780 mm/year (2001) |
| Solar radiation | - |
| Wind speed | Avg. 0.47 m/s (0.1-0.9 m/s) |
| Wind direction | SE, NW, W(summer), W(raining), SE(winter) |
| Residence time of water | 165 days |
| Lake utilization | Irrigation and Electric power |
| Watershed area | 3,720 km ² |
| River (flows into) | |

Table 6.3(5) Properties of lakes

Lake Name: Hoa Binh Reservoir

| | |
|--------------------------------|---|
| Country | Vietnam |
| Location | Hoa Binh Provinces |
| Altitude | 23m |
| Origin | Artificial (dam-made lake) |
| Area and shape | 208 km ² -25km ² (*) |
| Shore line length | 208km-16.7km(*) |
| Lake hydrologic type | Reservoir |
| Lake trophic type | Mesotrophic |
| Water depth | 60m (max: 120m) |
| Water volume | 9.45 km ³ -2.5 km ³ (*) |
| Annual water level fluctuation | 80m- 120m (Ave.100m) |
| Precipitation | |
| Solar radiation | |
| Wind speed | |
| Wind direction | |
| Residence time of water | 365 days |
| Lake utilization | electric power and flood control |
| Watershed area | 51,700 km ² -13,700km ² (*) |
| River (flows into) | Da River |

(*)The second values are in affected area of reservoir.

Table 6.4(1) Result of Inland Aquatic Environment Monitoring

Duration: 2002.2.-2002.12
 Country: China
 Lake name: See below

| Site | Sampling Date | Mandatory Parameters : 4 times/year | | | | | | | | | | | Mandatory Parameters : Once/year | | | | |
|-----------------------------------|-------------------------------|-------------------------------------|------|-----------|--------------------|--------------------------------------|-------------------------------------|------------------------|-------------------------------------|------------------------|-----------------------|-------------------------|----------------------------------|------------------|-------------|------------|-------------------------------------|
| | | Temp. (degreeC) | pH | EC (mS/m) | Alkalinity (meq/l) | SO ₄ ²⁻ (mg/l) | NO ₃ ⁻ (mg/l) | Cl ⁻ (mg/l) | NH ₄ ⁺ (mg/l) | Na ⁺ (mg/l) | K ⁺ (mg/l) | Ca ²⁺ (mg/l) | Mg ²⁺ (mg/l) | Transparency (m) | Water color | DOC (mg/l) | NO ₂ ⁻ (mg/l) |
| Chongqing -Jinyunshan Lake | 14-Mar-02 | *2 | 6.78 | 8.52 | *2 | 26.04 | 5.00 | 2.54 | 0.19 | 2.97 | 1.84 | 10.36 | 3.83 | | | | |
| | 30-May-02 | *2 | 5.78 | 10.98 | *2 | 29.81 | 10.74 | 2.33 | 0.03 | 2.27 | 1.53 | 9.08 | 3.43 | | | | |
| | 03-Sep-02 | *2 | 5.98 | 8.55 | *2 | 23.01 | 9.22 | 2.43 | 0.00 | 2.22 | 1.97 | 7.72 | 2.78 | | | | |
| | 20-Dec-02 | *2 | 6.78 | 10.02 | *2 | 26.56 | 6.99 | 2.82 | 0.13 | 2.54 | 1.81 | 9.14 | 3.09 | | | | |
| | mean ^{*1} | - | 6.12 | 9.52 | - | 26.36 | 7.99 | 2.53 | 0.09 | 2.50 | 1.79 | 9.08 | 3.28 | | | | |
| Xiamen -Xiaoping dam | 01-Feb-02 | *2 | 7.48 | 7.52 | *2 | 5.20 | 6.80 | 2.90 | 0.17 | 6.24 | 2.29 | 2.38 | 0.90 | | | | |
| | 10-Jun-02 | *2 | 7.66 | 4.38 | *2 | 6.45 | 7.26 | 3.30 | 0.37 | 2.59 | 2.25 | 2.51 | 0.82 | | | | |
| | 06-Sep-02 | *2 | 7.12 | 9.41 | *2 | 4.83 | 5.28 | 3.16 | 0.08 | 15.21 | 1.92 | 2.63 | 0.76 | | | | |
| | 04-Dec-02 | *2 | 7.51 | 6.69 | *2 | 2.18 | 7.28 | 1.93 | 0.19 | 5.10 | 2.11 | 1.66 | 0.78 | | | | |
| | mean ^{*1} | - | 7.39 | 7.00 | - | 4.67 | 6.66 | 2.82 | 0.20 | 7.29 | 2.14 | 2.29 | 0.82 | | | | |
| Xi'an ^{*4} -Jiwozi river | 29-Mar-02 | 7.0 | 7.63 | 4.90 | 0.12 | 15.15 | 1.32 | 1.93 | 0.00 | 3.09 | 0.96 | 10.31 | 1.94 | | | | |
| | 29-Sep-02 | 14.0 | 7.75 | 15.50 | 0.11 | 10.79 | 1.63 | 1.72 | 0.00 | 2.79 | 1.49 | 14.29 | 1.51 | | | | |
| | 30-Nov-02 | 9.0 | 7.47 | 5.00 | 0.10 | 10.53 | 2.16 | 1.76 | 0.00 | 2.52 | 1.14 | 13.57 | 1.70 | | | | |
| | mean ^{*3} | 10.0 | 7.60 | 8.47 | 0.11 | 12.16 | 1.70 | 1.80 | 0.00 | 2.80 | 1.20 | 12.73 | 1.72 | | | | |
| | Zhuhai -Zhuxiandong reservoir | 01-Feb-02 | 13.0 | 7.99 | 6.95 | 0.99 | 29.90 | 0.67 | 50.90 | 0.33 | 7.52 | 1.64 | 18.67 | 2.81 | | | |
| | 08-May-02 | 29.0 | 8.29 | 5.96 | 0.83 | 22.16 | 0.53 | 16.57 | 0.16 | 6.83 | 1.34 | 17.29 | 2.52 | | | | |
| | 06-Aug-02 | 28.0 | 7.69 | 6.66 | 1.10 | 12.76 | 0.54 | 14.91 | 0.36 | 6.51 | 1.51 | 15.36 | 2.09 | | | | |
| | 04-Nov-02 | 22.0 | 7.93 | 7.22 | 0.93 | 14.73 | 1.57 | 12.83 | 0.07 | 8.20 | 1.79 | 16.68 | 2.56 | | | | |
| | mean ^{*1} | 23.0 | 7.93 | 6.70 | 0.96 | 19.89 | 0.83 | 23.80 | 0.23 | 7.27 | 1.57 | 17.00 | 2.50 | | | | |

note

- *1 : Mean of pH takes an average of hydrogen ion
- *2 : Items were not analysed in 2002. Alkalinity will be analysed in 2003.
- *3 : average of three times a year
- *4 : Xi'an couldn't get a sample in the summer in 2002, because the road to Jiwozi Site was broken by flood.

| Date | Anion | Cation | R1 | Judge ^{*5} | ?calc | R2 | Judge ^{*5} | |
|-------------------------------|-----------|--------|--------|---------------------|-------|------|---------------------|----------------------------|
| | | | | | | | | Chongqing -Jinyunshan Lake |
| | 30-May-02 | 859.6 | 876.1 | 1.0 | O | 11.8 | 3.5 | O |
| | 03-Sep-02 | 696.3 | 762.0 | 4.5 | O | 9.8 | 7.0 | O |
| | 20-Dec-02 | 745.3 | 874.3 | 8.0 | O | 10.9 | 4.1 | O |
| Xiamen -Xiaoping dam | 01-Feb-02 | 299.7 | 531.9 | 27.9 | X | 5.2 | -17.9 | X |
| | 10-Jun-02 | 344.5 | 383.0 | 5.3 | O | 4.9 | 5.3 | O |
| | 06-Sep-02 | 274.8 | 908.8 | 53.6 | X | 6.9 | -15.2 | X |
| | 04-Dec-02 | 217.2 | 433.3 | 33.2 | X | 4.0 | -24.7 | X |
| Xi'an -Jiwozi river | 29-Mar-02 | 511.1 | 832.9 | 23.9 | X | 8.4 | 26.3 | X |
| | 29-Sep-02 | 409.4 | 996.5 | 41.8 | X | 8.7 | -28.3 | X |
| | 30-Nov-02 | 403.8 | 955.7 | 40.6 | X | 8.4 | 25.3 | X |
| Zhuhai -Zhuxiandong reservoir | 01-Feb-02 | 3059.7 | 1550.1 | -32.7 | X | 29.3 | 61.7 | X |
| | 08-May-02 | 1767.5 | 1410.2 | -11.2 | X | 19.1 | 52.4 | X |
| | 06-Aug-02 | 1794.1 | 1280.1 | -16.7 | X | 17.6 | 45.2 | X |
| | 04-Nov-02 | 1626.4 | 1449.2 | -5.8 | O | 17.8 | 42.3 | X |

note

*5 : Concerning "x" judging, there are some possible reasons, but it is still difficult to specify the main reasons. More researches and analysis are needed.

Table 6.4(2) Result of Inland Aquatic Environment Monitoring

Duration: 2002.8.-2002.12

Country: Indonesia

Lake Name: Patenggang Lake

| Site | Sampling Date | Mandatory Parameters : 4 times/year | | | | | | | | | | | | Mandatory Parameters : Once/year | | | | |
|-----------------------------------|--------------------|-------------------------------------|------|-----------|--------------------|--------------------------------------|-------------------------------------|------------------------|-------------------------------------|------------------------|-----------------------|-------------------------|-------------------------|----------------------------------|-------------|------------|-------------------------------------|--------------------------------------|
| | | Temp. (degreeC) | pH | EC (mS/m) | Alkalinity (meq/l) | SO ₄ ²⁻ (mg/l) | NO ₃ ⁻ (mg/l) | Cl ⁻ (mg/l) | NH ₄ ⁺ (mg/l) | Na ⁺ (mg/l) | K ⁺ (mg/l) | Ca ²⁺ (mg/l) | Mg ²⁺ (mg/l) | Transparency (m) | Water color | DOC (mg/l) | NO ₂ ⁻ (mg/l) | PO ₄ ³⁻ (mg/l) |
| Center ^{*2} (Surface) | 30-Aug-02 | *3 | 9.27 | 6.58 | 0.280 | 12.00 | 0.00 | 5.00 | 0.460 | 4.00 | 1.00 | 5.00 | 2.50 | | | | | |
| | 2-Nov-02 | *3 | 8.31 | 6.78 | 0.250 | 5.50 | 0.10 | 11.00 | 0.018 | 6.00 | 0.74 | 4.50 | 2.00 | | | | | |
| | 16-Dec-02 | *3 | 8.30 | 4.13 | 0.236 | 4.50 | 0.08 | 2.90 | 0.018 | 3.80 | 0.40 | 2.60 | 1.30 | | | | | |
| | mean ^{*1} | - | 8.46 | 5.83 | 0.255 | 7.33 | 0.06 | 6.30 | 0.165 | 4.60 | 0.71 | 4.03 | 1.93 | | | | | |

note

*1 : Mean of pH takes an average of hydrogen ion and Average of three times a year

*2 : Patenggang Lake couldn't be got a sample before 30 August because of no budget

*3 : Items were not analysed

| | Date | Anion | Cation | R1 | Judge | ?calc | R2 | Judge ^{*4} |
|---------------------|-----------|-------|--------|------|-------|-------|------|---------------------|
| Center (Surface) | 30-Aug-02 | 670.9 | 680.2 | 0.7 | O | 8.2 | 10.7 | X |
| | 2-Nov-02 | 676.4 | 669.9 | -0.5 | O | 8.1 | 8.8 | O |
| | 16-Dec-02 | 412.8 | 413.2 | 0.0 | O | 4.7 | 6.3 | O |
| | | | | | | | | |

note

*4 : Concerning "x" judging, it seems that analytical methods are different.

Na and K : AAS Ca and Mg : Calculation Anion and NH₄ : Spectrophotometer

Table 6.4(3) Result of Inland Aquatic Environment Monitoring

Duration: 2002.6.-2003.3.
 Country: Japan
 Lake Name: Ijira Lake

| Site | Sampling Date | Mandatory Parameters : 4 times/year | | | | | | | | | | | Mandatory Parameters : Once/year | | | | | |
|----------------------|--------------------|-------------------------------------|-----|-----------|--------------------|--------------------------------------|------------------------|------------------------|-------------------------------------|------------------------|-----------------------|-------------------------|----------------------------------|-------------------|-------------|--------------------|-------------------------------------|--------------------------------------|
| | | Temp. (degreeC) | pH | EC (mS/m) | Alkalinity (meq/l) | SO ₄ ²⁻ (mg/l) | NO ₃ (mg/l) | Cl ⁻ (mg/l) | NH ₄ ⁺ (mg/l) | Na ⁺ (mg/l) | K ⁺ (mg/l) | Ca ²⁺ (mg/l) | Mg ²⁺ (mg/l) | Transparency (m) | Water color | DOC (mg/l) | NO ₂ ⁻ (mg/l) | PO ₄ ³⁻ (mg/l) |
| Center (Surface) | 17-Jun-02 | 26.0 | 7.9 | 4.28 | 0.128 | 5.47 | 1.58 | 2.32 | 0.10 | 2.32 | 0.41 | 3.14 | 1.30 | | clear | | <0.01 ^{*4} | <0.066 ^{*4} |
| | 27-Sep-02 | 24.3 | 6.8 | 4.66 | 0.211 | 5.23 | 2.04 | 2.34 | 0.15 | 2.31 | 0.51 | 3.58 | 1.43 | 2.20 | clear | 3.18 | <0.01 ^{*4} | <0.066 ^{*4} |
| | 02-Dec-02 | 11.9 | 6.4 | 4.83 | 0.197 | 6.05 | 2.32 | 2.23 | 0.08 | 2.30 | 0.36 | 3.71 | 1.43 | | clear | | <0.01 ^{*4} | <0.066 ^{*4} |
| | 10-Mar-03 | - | 6.7 | 4.32 | 0.155 | 5.76 | 2.10 | 2.19 | 0.01 | 2.02 | 0.24 | 3.12 | 1.32 | | clear | | <0.01 ^{*4} | <0.066 ^{*4} |
| | mean | 20.7 | 6.7 | 4.52 | 0.173 | 5.63 | 2.01 | 2.27 | 0.09 | 2.23 | 0.38 | 3.39 | 1.37 | 2.2 ^{*1} | | 3.18 ^{*1} | <0.01 ^{*4} | <0.066 ^{*4} |
| Ijira River (Input) | 17-Jun-02 | 18.4 | 7.0 | 4.51 | 0.108 | 6.71 | 3.45 | 2.08 | 0.04 | 2.14 | 0.38 | 3.22 | 1.50 | | clear | | <0.01 ^{*4} | <0.066 ^{*4} |
| | 27-Sep-02 | 21.2 | 7.1 | 4.71 | 0.157 | 7.47 | 2.78 | 2.07 | 0.01 | 2.34 | 0.37 | 3.41 | 1.53 | | clear | 2.05 | <0.01 ^{*4} | <0.066 ^{*4} |
| | 02-Dec-02 | 11.8 | 6.7 | 4.52 | 0.140 | 7.52 | 2.10 | 2.21 | 0.04 | 2.16 | 0.30 | 3.17 | 1.45 | | clear | | <0.01 ^{*4} | <0.066 ^{*4} |
| | 10-Mar-03 | 8.0 | 6.6 | 4.30 | 0.130 | 6.52 | 2.66 | 2.09 | 0.01 | 1.91 | 0.22 | 2.54 | 1.44 | | clear | | <0.01 ^{*4} | <0.066 ^{*4} |
| | mean | 14.9 | 6.8 | 4.51 | 0.133 | 7.05 | 2.75 | 2.11 | 0.03 | 2.14 | 0.32 | 3.08 | 1.48 | | | 2.05 ^{*1} | <0.01 ^{*4} | <0.066 ^{*4} |
| Kodo River (Input) | 17-Jun-02 | 17.4 | 6.4 | 4.06 | 0.107 | 4.76 | 3.24 | 2.27 | 0.04 | 2.41 | 0.37 | 2.30 | 1.53 | | clear | | <0.01 ^{*4} | <0.066 ^{*4} |
| | 27-Sep-02 | 19.5 | 6.2 | 4.24 | 0.155 | 4.75 | 3.49 | 2.31 | <0.001 ^{*4} | 2.57 | 0.31 | 2.43 | 1.56 | | clear | 1.83 | <0.01 ^{*4} | <0.066 ^{*4} |
| | 02-Dec-02 | - | - | - | - | - | - | - | - | - | - | - | - | | - | - | - | - |
| | 10-Mar-03 | 6.4 | 6.6 | 3.69 | 0.121 | 4.65 | 2.16 | 2.26 | 0.01 | 2.16 | 0.19 | 1.88 | 1.35 | | clear | | <0.01 ^{*4} | <0.066 ^{*4} |
| | mean ^{*3} | 14.4 | 6.4 | 4.00 | 0.127 | 4.72 | 2.97 | 2.28 | 0.02 | 2.38 | 0.29 | 2.20 | 1.48 | | | 1.83 ^{*1} | <0.01 ^{*4} | <0.066 ^{*4} |
| Ijira River (Output) | 17-Jun-02 | 19.5 | 8.0 | 4.35 | 0.137 | 5.41 | 1.54 | 2.35 | 0.06 | 2.24 | 0.37 | 3.13 | 1.31 | | clear | | <0.01 ^{*4} | <0.066 ^{*4} |
| | 27-Sep-02 | - | - | - | - | - | - | - | - | - | - | - | - | | - | - | - | - |
| | 02-Dec-02 | - | - | - | - | - | - | - | - | - | - | - | - | | - | - | - | - |
| | 10-Mar-03 | 8.5 | 6.8 | 4.30 | 0.155 | 5.85 | 2.09 | 2.26 | 0.02 | 2.04 | 0.25 | 3.12 | 1.33 | | clear | | <0.01 ^{*4} | <0.066 ^{*4} |
| | mean ^{*2} | 14.0 | 7.1 | 4.32 | 0.146 | 5.63 | 1.81 | 2.30 | 0.04 | 2.14 | 0.31 | 3.12 | 1.32 | | | | <0.01 ^{*4} | <0.066 ^{*4} |
| Discharge | 17-Jun-02 | 20.3 | 6.6 | 4.36 | 0.116 | 5.58 | 2.84 | 2.12 | 0.07 | 2.08 | 0.44 | 3.09 | 1.36 | | clear | | <0.01 ^{*4} | <0.066 ^{*4} |
| | 27-Sep-02 | 23.5 | 6.6 | 4.59 | 0.178 | 5.27 | 2.60 | 2.20 | <0.001 ^{*4} | 2.24 | 0.46 | 3.56 | 1.44 | | clear | 2.18 | <0.01 ^{*4} | <0.066 ^{*4} |
| | 02-Dec-02 | 10.8 | 6.6 | 4.76 | 0.135 | 5.69 | 2.55 | 2.13 | 0.02 | 2.24 | 0.35 | 3.69 | 1.43 | | clear | | <0.01 ^{*4} | <0.066 ^{*4} |
| | 10-Mar-03 | 8.6 | 6.8 | 4.28 | 0.154 | 5.89 | 1.91 | 2.25 | 0.02 | 2.03 | 0.25 | 2.74 | 1.35 | | clear | | <0.01 ^{*4} | <0.066 ^{*4} |
| | mean | 15.8 | 6.6 | 4.50 | 0.146 | 5.61 | 2.47 | 2.18 | 0.03 | 2.15 | 0.37 | 3.27 | 1.40 | | | 2.18 ^{*1} | <0.01 ^{*4} | <0.066 ^{*4} |

note
 - : Items were not analyzed
 *1 : once a year
 *2 : average of twice a year
 *3 : average of three times a year
 *4 : detection limits
 *5 : determination limits
 # pick up 2 samples on site and measure three times/sample.
 # Mean of pH takes an average of hydrogen ion.
 # When the value is under detection limits, it considers "0". When it is over detection limits and under determination limits, it considers half determination limits. And using it, it was calculated the average and R1R2".
 # Annual precipitation is 1307mm/year in FY2002(Gifu pref. Meteorological observatory)
 # There is no running water at Kodo River and Ijira River(output) on September and December.

| | Date | Anion | Cation | R1 | Judge |
|-------------------------|-----------|-------|--------|------|-------|
| Center (Surface) | 17-Jun-02 | 332.3 | 380.7 | 6.8 | O |
| | 27-Sep-02 | 418.7 | 418.2 | -0.1 | O |
| | 02-Dec-02 | 423.2 | 417.0 | -0.7 | O |
| | 10-Mar-03 | 370.6 | 358.9 | -1.6 | O |
| Ijira River (Input) | 17-Jun-02 | 361.3 | 389.0 | 3.7 | O |
| | 27-Sep-02 | 415.1 | 408.2 | -0.8 | O |
| | 02-Dec-02 | 392.2 | 380.9 | -1.5 | O |
| | 10-Mar-03 | 367.5 | 334.3 | -4.7 | O |
| Kodo River (Input) | 17-Jun-02 | 322.1 | 358.2 | 5.3 | O |
| | 27-Sep-02 | 374.7 | 369.2 | -0.7 | O |
| | 02-Dec-02 | - | - | - | - |
| | 10-Mar-03 | 316.1 | 304.3 | -1.9 | O |
| Ijira River (Output) | 17-Jun-02 | 340.2 | 374.0 | 4.7 | O |
| | 27-Sep-02 | - | - | - | - |
| | 02-Dec-02 | - | - | - | - |
| | 10-Mar-03 | 374.3 | 361.0 | -1.8 | O |
| Discharge | 17-Jun-02 | 337.1 | 371.5 | 4.9 | O |
| | 27-Sep-02 | 391.6 | 405.8 | 1.8 | O |
| | 02-Dec-02 | 354.7 | 409.2 | 7.1 | O |
| | 10-Mar-03 | 371.1 | 343.0 | -3.9 | O |

| ?calc | R2 | Judge |
|-------|------|-------|
| 4.3 | 0.1 | O |
| 4.9 | 2.7 | O |
| 5.0 | 1.5 | O |
| 4.4 | 0.5 | O |
| 4.6 | 1.1 | O |
| 5.0 | 2.8 | O |
| 4.7 | 2.2 | O |
| 4.3 | -0.2 | O |
| 4.1 | 0.7 | O |
| 4.4 | 2.1 | O |
| - | - | - |
| 3.7 | 0.4 | O |
| 4.3 | -0.7 | O |
| - | - | - |
| - | - | - |
| 4.4 | 1.3 | O |
| 4.3 | -0.5 | O |
| 4.7 | 1.4 | O |
| 4.6 | -1.7 | O |
| 4.3 | 0.0 | O |

Table 6.4(4) Result of Inland Aquatic Environment Monitoring

Duration: 2002.5.-2002.12

Country: Japan

Lake Name: Banryu Lake

| Site | Sampling Date | Mandatory Parameters : 4 times/year | | | | | | | | | | | | Mandatory Parameters : Once/year | | | | |
|------------------------------------|---------------|-------------------------------------|------|--------------|-----------------------|---|--|---------------------------|--|---------------------------|--------------------------|----------------------------|----------------------------|----------------------------------|-------------|---------------|--|---|
| | | Temp. (degreeC) | pH | EC (mS/m) | Alkalinity (meq/l) | SO ₄ ²⁻ (mg/l) | NO ₃ ⁻ (mg/l) | Cl ⁻ (mg/l) | NH ₄ ⁺ (mg/l) | Na ⁺ (mg/l) | K ⁺ (mg/l) | Ca ²⁺ (mg/l) | Mg ²⁺ (mg/l) | Transparency (m) | Water color | DOC (mg/l) | NO ₂ ⁻ (mg/l) | PO ₄ ³⁻ (mg/l) |
| NO.2 (center) surface | 15-May-02 | 19.8 | 7.04 | 9.4 | 0.163 | 4.17 | <0.005 ^{*5} | 20.2 | <0.02 ^{*5} | 12.9 | 1.66 | 1.23 | 1.68 | 1.3 | gray-green | 2.5 | <0.003 ^{*5} | <0.003 ^{*5} |
| | 16-Jul-02 | 29.5 | 7.25 | 9.9 | 0.164 | 4.01 | <0.005 ^{*5} | 21.4 | <0.02 ^{*5} | 13.3 | 1.81 | 1.16 | 1.63 | 2.4 | green | 2.5 | <0.003 ^{*5} | <0.003 ^{*5} |
| | 10-Sep-02 | 27.5 | 6.91 | 10.4 | 0.154 | 3.71 | <0.005 ^{*5} | 22.7 | <0.02 ^{*5} | 12.2 | 1.75 | 1.12 | 1.76 | 1.3 | green | 2.6 | <0.003 ^{*5} | <0.003 ^{*5} |
| | 17-Dec-02 | 8.2 | 7.15 | 10.8 | 0.223 | 3.82 | 0.302 | 23.4 | 0.12 | 13.5 | 2.01 | 1.34 | 1.96 | 1.2 | gray-green | 2.3 | 0.003 | <0.003 ^{*5} |
| | mean | 21.3 | 7.07 | 10.1 | 0.176 | 3.93 | 0.077 | 21.9 | 0.04 | 13.0 | 1.80 | 1.21 | 1.76 | 1.6 | | 2.5 | <0.003 ^{*5} | <0.003 ^{*5} |
| NO.2 (center) near bottom | 15-May-02 | 9.1 | 6.68 | 11.2 | 0.327 | 3.95 | 0.074 | 20.8 | 0.23 | 14.0 | 2.02 | 1.98 | 2.42 | | | 2.6 | 0.024 | <0.003 ^{*5} |
| | 16-Jul-02 | 10.3 | 6.59 | 15.6 | 0.638 | 0.93 | <0.005 ^{*5} | 21.1 | 0.12 | 13.9 | 2.28 | 3.71 | 3.56 | | | 6.2 | 0.046 | 0.029 |
| | 10-Sep-02 | 12.3 | 6.58 | 15.2 | 0.630 | 1.11 | <0.005 ^{*5} | 21.3 | 0.03 | 12.7 | 2.50 | 2.95 | 3.41 | | | 5.1 | 0.037 | 0.020 |
| | 17-Dec-02 | 7.8 | 7.12 | 10.8 | 0.223 | 3.88 | 0.296 | 23.9 | 0.14 | 14.0 | 2.02 | 1.27 | 1.92 | | | 2.4 | 0.004 | <0.003 ^{*5} |
| | mean | 9.9 | 6.70 | 13.2 | 0.455 | 2.47 | 0.094 | 21.8 | 0.13 | 13.7 | 2.21 | 2.48 | 2.83 | | | 4.1 | 0.028 | 0.013 |
| NO.3 surface | 15-May-02 | 19.8 | 7.10 | 9.2 | 0.168 | 4.22 | <0.005 ^{*5} | 19.7 | 0.02 | 12.9 | 1.65 | 1.35 | 1.71 | 1.3 | gray-green | 2.3 | 0.004 | <0.003 ^{*5} |
| | 16-Jul-02 | 29.1 | 7.33 | 9.9 | 0.166 | 4.09 | 0.014 | 21.2 | <0.02 ^{*5} | 13.3 | 1.78 | 1.25 | 1.62 | 2.4 | green | 2.7 | 0.007 | <0.003 ^{*5} |
| | 10-Sep-02 | 28.0 | 7.58 | 10.4 | 0.194 | 3.62 | 0.006 | 22.6 | <0.02 ^{*5} | 12.6 | 1.85 | 1.16 | 1.84 | 1.2 | green | 2.7 | 0.005 | <0.003 ^{*5} |
| | 17-Dec-02 | 7.9 | 7.15 | 10.6 | 0.222 | 4.04 | 0.320 | 23.4 | 0.12 | 13.1 | 2.04 | 1.44 | 1.97 | 1.4 | gray-green | 2.3 | 0.008 | <0.003 ^{*5} |
| | mean | 21.2 | 7.25 | 10.0 | 0.188 | 3.99 | 0.086 | 21.7 | 0.04 | 13.0 | 1.83 | 1.30 | 1.79 | 1.6 | | 2.5 | 0.006 | <0.003 ^{*5} |

note

- : Items were not analyzed

*1 : once a year

*2 : average of twice a year

*3 : average of three times a year

*4 : detection limits

*5 : determination limits

pick up 2 samples on site, only center surface and measure three times/sample.

Mean of pH takes an average of hydrogen ion.

When the value is under detection limits, it considers "0". When it is over detection limits and under determination limits, it considers half determination limits. And using it, it was calculated the average and R1R2".

Change of vegetation of watershed area: at No.3(surface) side, the vegetation have been changed a broadleaf wood and a fern.

#Large-scale forest cutting: a forest fell was 170m3 because of die by bagworm.

Annual precipitation is 1181mm/year in 2002(Masuda Meteorological observatory)

| | Date | Anion | Cation | R1 | Judge ^{*6} | | ?calc | R2 | Judge |
|--|-----------|--------|--------|------|---------------------|--|-------|------|-------|
| NO.2 (center) surface | 15-May-02 | 818.3 | 803.0 | -0.9 | O | | 10.0 | 3.0 | O |
| | 16-Jul-02 | 849.8 | 817.3 | -1.9 | O | | 10.3 | 2.0 | O |
| | 10-Sep-02 | 871.6 | 774.4 | -5.9 | O | | 10.3 | -0.3 | O |
| | 17-Dec-02 | 966.9 | 872.9 | -5.1 | O | | 11.3 | 2.6 | O |
| NO.2 (center) near bottom | 15-May-02 | 997.2 | 971.4 | -1.3 | O | | 11.8 | 2.5 | O |
| | 16-Jul-02 | 1252.6 | 1147.7 | -4.4 | O | | 13.7 | -6.4 | O |
| | 10-Sep-02 | 1254.0 | 1045.9 | -9.0 | X | | 13.2 | -7.0 | O |
| | 17-Dec-02 | 982.7 | 889.7 | -5.0 | O | | 11.5 | 3.3 | O |
| NO.3 surface | 15-May-02 | 811.6 | 812.5 | 0.1 | O | | 10.0 | 4.0 | O |
| | 16-Jul-02 | 849.4 | 819.7 | -1.8 | O | | 10.3 | 2.0 | O |
| | 10-Sep-02 | 907.0 | 804.6 | -6.0 | O | | 10.6 | 0.9 | O |
| | 17-Dec-02 | 971.4 | 862.6 | -5.9 | O | | 11.3 | 3.3 | O |
| note | | | | | | | | | |
| *6 : Concerning "x" judging, at near bottom of center(NO.2) DO(dissolved oxygen) was so low, therefore it appears Fe and Mn were deoxidized. | | | | | | | | | |

Table 6.4(5) Result of Inland Aquatic Environment Monitoring

Duration: 2002.5-2002.9

Country: Mongolia

Lake Name: Terelj river

| Site | Sampling Date | Mandatory Parameters : 4 times/year | | | | | | | | | | | | Mandatory Parameters : Once/year | | | | |
|---------|--------------------|-------------------------------------|------|--------------|-----------------------|---|--|---------------------------|--|---------------------------|--------------------------|----------------------------|----------------------------|----------------------------------|----------------|---------------|--|---|
| | | Temp. (degreeC) | pH | EC (mS/m) | Alkalinity (meq/l) | SO ₄ ²⁻ (mg/l) | NO ₃ ⁻ (mg/l) | Cl ⁻ (mg/l) | NH ₄ ⁺ (mg/l) | Na ⁺ (mg/l) | K ⁺ (mg/l) | Ca ²⁺ (mg/l) | Mg ²⁺ (mg/l) | Transparency (m) | Water color | DOC (mg/l) | NO ₂ ⁻ (mg/l) | PO ₄ ³⁻ (mg/l) |
| Surface | 25-May-02 | *2 | 7.24 | 5.2 | 0.10 | 3.78 | 0.930 | 0.55 | 0.099 | 2.05 | 0.59 | 8.69 | 0.85 | | | | | |
| | 25-Jun-02 | *2 | 7.10 | 4.4 | 0.07 | 3.02 | 0.818 | 0.39 | 0.051 | 1.68 | 0.47 | 7.43 | 0.82 | | | | | |
| | 25-Jul-02 | *2 | 7.29 | 4.9 | 0.11 | 3.31 | 0.732 | 0.35 | 0.020 | 1.91 | 0.54 | 6.60 | 0.87 | | | | | |
| | 25-Aug-02 | *2 | 7.26 | 4.8 | 0.10 | 3.55 | 1.469 | 0.49 | 0.020 | 1.92 | 0.57 | 6.57 | 0.92 | | | | | |
| | 25-Sep-02 | *2 | 7.31 | 5.0 | 0.11 | 3.71 | 1.612 | 0.39 | 0.000 | 1.80 | 0.42 | 6.58 | 0.90 | | | | | |
| | mean ^{*1} | - | 7.23 | 4.8 | 0.10 | 3.47 | 1.112 | 0.43 | 0.038 | 1.87 | 0.52 | 7.17 | 0.87 | | | | | |

note

*1 : Mean of pH takes an average of hydrogen ion.

*2 : Items were not analysed.

| Date | Anion | Cation | R1 | Judge ^{*3} | ?calc | R2 | Judge | |
|------|-----------|--------|-------|---------------------|-------|-----|-------|---------|
| | | | | | | | | Surface |
| | 25-Jun-02 | 156.7 | 526.1 | 54.1 | X | 4.0 | -4.7 | O |
| | 25-Jul-02 | 198.7 | 499.0 | 43.0 | X | 4.1 | -8.9 | O |
| | 25-Aug-02 | 212.3 | 502.6 | 40.6 | X | 4.2 | -6.1 | O |
| | 25-Sep-02 | 227.3 | 491.4 | 36.7 | X | 4.2 | -7.9 | O |

note

*3 : Concerning "x" judging, it was not able to specify the main reasons.

Table 6.4(6) Result of Inland Aquatic Environment Monitoring

Duration: 2002.3-2002.12

Country: Philippines

Lake Name: Mojicap Lake

| Site | Sampling Date | Mandatory Parameters : 4 times/year | | | | | | | | | | | | Mandatory Parameters : Once/year | | | | |
|---------|--------------------|-------------------------------------|------|--------------|-----------------------|---|--|---------------------------|--|---------------------------|--------------------------|----------------------------|----------------------------|----------------------------------|----------------|---------------|--|---|
| | | Temp. (degreeC) | pH | EC (mS/m) | Alkalinity (meq/l) | SO ₄ ²⁻ (mg/l) | NO ₃ ⁻ (mg/l) | Cl ⁻ (mg/l) | NH ₄ ⁺ (mg/l) | Na ⁺ (mg/l) | K ⁺ (mg/l) | Ca ²⁺ (mg/l) | Mg ²⁺ (mg/l) | Transparency (m) | Water color | DOC (mg/l) | NO ₂ ⁻ (mg/l) | PO ₄ ³⁻ (mg/l) |
| Surface | 04-Mar-02 | *2 | 7.99 | 34.5 | 3.20 | 1.92 | 0.552 | 6.60 | 1.500 | 14.70 | 4.77 | 28.80 | 18.89 | | | | | *2 |
| | 15-May-02 | *2 | 8.52 | 30.8 | 2.79 | 2.30 | 0.087 | 6.39 | 0.111 | 15.50 | 7.09 | 19.70 | 15.79 | | | | | *2 |
| | 11-Jul-02 | *2 | 7.83 | 29.9 | 2.67 | 3.35 | 0.292 | 6.51 | 0.240 | 14.80 | 6.36 | 16.90 | 16.04 | | | | | *2 |
| | 01-Oct-02 | *2 | 8.14 | 26.4 | 2.18 | 3.98 | 0.123 | 5.40 | 0.000 | 12.10 | 5.19 | 16.30 | 14.79 | | | | | *3 |
| | 10-Dec-02 | *2 | 7.91 | 23.0 | 2.77 | 3.78 | 0.090 | 5.81 | 0.000 | 18.60 | 6.59 | 22.00 | 14.19 | | | | | *3 |
| | mean ^{*1} | - | 8.02 | 28.9 | 2.72 | 3.07 | 0.229 | 6.14 | 0.370 | 15.14 | 6.00 | 20.74 | 15.94 | | | | | - |

note

*1 : Mean of pH takes an average of hydrogen ion.

*2 : Items were not analysed.

*3 : Items were not detected.

| | Date | Anion | Cation | R1 | Judge | | ?calc | R2 | Judge ^{*4} |
|---------|-----------|--------|--------|-----|-------|--|-------|------|---------------------|
| Surface | 04-Mar-02 | 3430.7 | 3835.3 | 5.6 | O | | 37.6 | 4.3 | O |
| | 15-May-02 | 3015.5 | 3143.5 | 2.1 | O | | 31.7 | 1.5 | O |
| | 11-Jul-02 | 2929.4 | 2982.5 | 0.9 | O | | 30.5 | 1.0 | O |
| | 01-Oct-02 | 2416.8 | 2689.0 | 5.3 | O | | 26.5 | 0.2 | O |
| | 10-Dec-02 | 3013.6 | 3242.7 | 3.7 | O | | 32.3 | 16.8 | X |

note

*4 : Concerning "x" judging, it was not able to specify the main reasons.

Table 6.4(7) Result of Inland Aquatic Environment Monitoring

Duration: 2002.1.-2002.12
 Country: Russian Federation
 Lake Name: River Krestovka

| Site | Sampling Date | Mandatory Parameters : 4 times/year | | | | | | | | | | | | Mandatory Parameters : Once/year | | | | |
|---------------------------|--------------------|-------------------------------------|------|-----------|--------------------|--------------------------------------|-------------------------------------|------------------------|-------------------------------------|------------------------|-----------------------|-------------------------|-------------------------|----------------------------------|-------------|------------|-------------------------------------|--------------------------------------|
| | | Temp. (degreeC) | pH | EC (mS/m) | Alkalinity (meq/l) | SO ₄ ²⁻ (mg/l) | NO ₃ ⁻ (mg/l) | Cl ⁻ (mg/l) | NH ₄ ⁺ (mg/l) | Na ⁺ (mg/l) | K ⁺ (mg/l) | Ca ²⁺ (mg/l) | Mg ²⁺ (mg/l) | Transparency (m) | Water color | DOC (mg/l) | NO ₂ ⁻ (mg/l) | PO ₄ ³⁻ (mg/l) |
| River Krestovka (surface) | 19-Jan-02 | 0.3 | 6.67 | 8.62 | 0.43 | 13.26 | 0.13 | 0.44 | 0.108 | 3.98 | 0.84 | 4.98 | 2.59 | 0.150 | yellow | | 0.000 | 0.014 |
| | 17-Feb-02 | 0.3 | 6.35 | 8.14 | 0.42 | 13.24 | 0.16 | 0.48 | 0.137 | 3.95 | 0.77 | 4.95 | 2.48 | 0.150 | yellow | | 0.000 | 0.007 |
| | 16-Mar-02 | 0.3 | 6.51 | 9.05 | 0.47 | 15.72 | 0.14 | 0.49 | 0.235 | 4.83 | 0.98 | 5.26 | 2.77 | 0.150 | yellow | | 0.000 | 0.003 |
| | 12-Apr-02 | 0.6 | 6.49 | 6.91 | 0.42 | 10.85 | 0.19 | 0.65 | 0.345 | 3.29 | 1.76 | 4.14 | 2.73 | 0.600 | yellow | | 0.000 | 0.015 |
| | 28-Apr-02 | 0.6 | 6.74 | 5.48 | 0.25 | 9.63 | 0.25 | 0.49 | 0.332 | 2.42 | 0.66 | 2.93 | 1.67 | 0.500 | yellow | | 0.000 | 0.013 |
| | 09-Jun-02 | 3.2 | 7.33 | 5.90 | 0.29 | 11.32 | 0.06 | 0.32 | 0.245 | 2.43 | 0.52 | 4.01 | 2.03 | 0.100 | yellow | | 0.000 | 0.004 |
| | 18-Jul-02 | 12.1 | 7.01 | 7.11 | 0.33 | 12.89 | 0.10 | 0.15 | 0.210 | 2.77 | 0.82 | 4.43 | 2.24 | 0.100 | yellow | | 0.000 | 0.007 |
| | 21-Aug-02 | 14.5 | 7.13 | 7.11 | 0.31 | 12.30 | 0.11 | 0.26 | 0.065 | 2.77 | 0.76 | 3.98 | 2.23 | 0.150 | yellow | | 0.001 | 0.010 |
| | 23-Sep-02 | 6.1 | 7.01 | 8.01 | 0.37 | 12.87 | 0.12 | 0.34 | 0.070 | 3.40 | 0.80 | 4.94 | 2.30 | 0.150 | yellow | | 0.000 | 0.011 |
| | 23-Oct-02 | 2.5 | 6.90 | 8.07 | 0.42 | 12.84 | 0.11 | 0.40 | 0.082 | 3.53 | 0.90 | 5.04 | 2.51 | 0.150 | yellow | | 0.000 | 0.012 |
| | 29-Nov-02 | 0.5 | 6.58 | 8.36 | 0.48 | 13.33 | 0.16 | 0.45 | 0.090 | 2.99 | 0.91 | 6.94 | 2.60 | 0.150 | yellow | | 0.000 | 0.013 |
| | 20-Dec-02 | 0.5 | 6.65 | 7.98 | 0.48 | 13.83 | 0.19 | 0.49 | 0.102 | *2 | *2 | *2 | *2 | 0.150 | yellow | | 0.000 | 0.017 |
| | mean ^{*1} | 3.5 | 6.66 | 7.56 | 0.39 | 12.67 | 0.14 | 0.41 | 0.168 | 3.31 | 0.88 | 4.69 | 2.38 | 0.208 | | | 0.000 | 0.010 |

note
 *1 : Mean of pH takes an average of hydrogen ion
 *2 : Data on cation on 20 Dec were lost.

| | Date | Anion | Cation | R1 | Judge | ?calc | R2 | Judge |
|---------------------------|-----------|-------|--------|------|-------|-------|-------|-------|
| River Krestovka (surface) | 19-Jan-02 | 720.6 | 661.5 | -4.3 | O | 7.9 | -4.22 | O |
| | 17-Feb-02 | 711.6 | 650.7 | -4.5 | O | 7.8 | -1.89 | O |
| | 16-Mar-02 | 808.5 | 738.7 | -4.5 | O | 8.9 | -0.62 | O |
| | 12-Apr-02 | 668.9 | 638.9 | -2.3 | O | 7.5 | 3.97 | O |
| | 28-Apr-02 | 463.3 | 424.3 | -4.4 | O | 5.2 | -2.32 | O |
| | 09-Jun-02 | 534.0 | 500.1 | -3.3 | O | 6.1 | 1.35 | O |
| | 18-Jul-02 | 604.2 | 558.5 | -3.9 | O | 6.8 | -2.17 | O |
| | 21-Aug-02 | 575.1 | 526.0 | -4.5 | O | 6.4 | -4.92 | O |
| | 23-Sep-02 | 647.9 | 607.5 | -3.2 | O | 7.3 | -4.80 | O |
| | 23-Oct-02 | 700.2 | 638.5 | -4.6 | O | 7.7 | -2.46 | O |
| | 29-Nov-02 | 769.5 | 718.8 | -3.4 | O | 8.5 | 1.08 | O |
| | 20-Dec-02 | 786.5 | - | - | - | - | - | - |

Table 6.4(8) Result of Inland Aquatic Environment Monitoring

Duration: 2002.3-2002.12
 Country: Thailand
 Lake Name: Vachiralongorn Dam

| Site | Sampling Date | Mandatory Parameters : 4 times/year | | | | | | | | | | | | Mandatory Parameters : Once/year | | | | |
|------------------------------|--------------------|-------------------------------------|-----|-----------|--------------------|--------------------------------------|-------------------------------------|------------------------|-------------------------------------|------------------------|-----------------------|-------------------------|-------------------------|----------------------------------|-------------|------------|-------------------------------------|--------------------------------------|
| | | Temp. (?) | pH | EC (mS/m) | Alkalinity (meq/l) | SO ₄ ²⁻ (mg/l) | NO ₃ ⁻ (mg/l) | Cl ⁻ (mg/l) | NH ₄ ⁺ (mg/l) | Na ⁺ (mg/l) | K ⁺ (mg/l) | Ca ²⁺ (mg/l) | Mg ²⁺ (mg/l) | Transparency (m) | Water color | COD (mg/l) | NO ₂ ⁻ (mg/l) | PO ₄ ³⁻ (mg/l) |
| Station1 (Ban Pong Chang) | 28-Mar-02 | 26.5 | 7.8 | 11.3 | 0.62 | 1.0 | 0.1 | 0.8 | *2 | 1.1 | 0.9 | 15.6 | 3.1 | 5.0 | Light blue | 4.0 | <0.01 | <0.01 |
| | 13-Jun-02 | 25.3 | 7.8 | 10.7 | 0.63 | 1.4 | 0.0 | 0.9 | *2 | *2 | *2 | *2 | *2 | 5.5 | Light blue | | <0.01 | 0.055 |
| | 28-Aug-02 | 32.3 | 7.3 | 12.0 | 0.62 | 1.1 | 0.0 | 0.9 | *2 | 1.1 | 1.1 | 8.9 | 2.7 | 4.0 | Light blue | | <0.01 | 0.043 |
| | 17-Dec-02 | 26.9 | 7.4 | 14.5 | 0.63 | 1.2 | <0.01 | 1.1 | *2 | 1.2 | 1.0 | 15.4 | 3.2 | 6.5 | Light blue | | <0.01 | <0.01 |
| | mean ^{*1} | 27.8 | 7.5 | 12.1 | 0.63 | 1.1 | 0.0 | 0.9 | - | 1.1 | 1.0 | 13.3 | 3.0 | 5.3 | | 4.0 | <0.01 | 0.049 |
| Station2 (Ban Pang Pueng) | 28-Mar-02 | 27.4 | 7.7 | 11.0 | 0.64 | 1.1 | 0.1 | 1.0 | *2 | 1.3 | 0.9 | 15.7 | 2.8 | 5.0 | Light blue | 3.0 | <0.01 | 0.010 |
| | 13-Jun-02 | 25.6 | 7.6 | 10.4 | 0.61 | 1.3 | 0.1 | 0.8 | *2 | *2 | *2 | *2 | *2 | 6.0 | Light blue | | <0.01 | 0.065 |
| | 28-Aug-02 | 31.7 | 7.3 | 11.5 | 0.64 | 1.3 | 0.0 | 0.8 | *2 | 1.2 | 1.0 | 8.2 | 2.9 | 4.5 | Light blue | | <0.01 | 0.063 |
| | 17-Dec-02 | 26.7 | 7.0 | 15.0 | 0.64 | 1.2 | <0.01 | 1.0 | *2 | 1.1 | 1.0 | 16.0 | 3.1 | 6.5 | Light blue | | <0.01 | <0.01 |
| | mean ^{*1} | 27.9 | 6.9 | 12.0 | 0.63 | 1.2 | 0.1 | 0.9 | - | 1.2 | 1.0 | 13.3 | 2.9 | 5.5 | | 3.0 | <0.01 | 0.046 |

note

*1 : Mean of pH takes an average of hydrogen ion

*2 : Items were not analysed because the instruments had some trouble.

Annual precipitation amount : 2010.6mm/year (reported year 2002)

| | Date | Anion | Cation | R1 | Judge ^{*3} | | ?calc | R2 | Judge ^{*3} |
|------------------------------|-----------|-------|--------|------|---------------------|--|-------|-------|---------------------|
| Station1 (Ban Pong Chang) | 28-Mar-02 | 663.2 | 1102.4 | 24.9 | X | | 9.51 | -8.6 | O |
| | 13-Jun-02 | 683.9 | - | - | - | | - | - | - |
| | 28-Aug-02 | 667.3 | 739.7 | 5.1 | O | | 7.40 | -23.7 | X |
| | 17-Dec-02 | 683.9 | 1105.9 | 23.6 | X | | 9.66 | -20.1 | X |
| Station2 (Ban Pang Pueng) | 28-Mar-02 | 691.2 | 1087.5 | 22.3 | X | | 9.58 | -6.9 | O |
| | 13-Jun-02 | 662.7 | - | - | - | | - | - | - |
| | 28-Aug-02 | 690.8 | 723.5 | 2.3 | O | | 7.40 | -21.7 | X |
| | 17-Dec-02 | 692.8 | 1123.8 | 23.7 | X | | 9.81 | -20.9 | X |

note

*3 : Concerning "x" judging, it was not able to specify the main reasons.

Table 6.4(9) Result of Inland Aquatic Environment Monitoring

Duration: 2002.3.-2002.12.

Country: Vietnam

Lake Name Hoa Binh Reservoir

| Site | Sampling Date | Mandatory Parameters : 4 times/year | | | | | | | | | | | | Mandatory Parameters : Once/year | | | | |
|---------|-------------------|-------------------------------------|------|-----------|--------------------|--------------------------------------|-------------------------------------|------------------------|-------------------------------------|------------------------|-----------------------|-------------------------|-------------------------|----------------------------------|-------------|------------|-------------------------------------|--------------------------------------|
| | | Temp. (degreeC) | pH | EC (mS/m) | Alkalinity (meq/l) | SO ₄ ²⁻ (mg/l) | NO ₃ ⁻ (mg/l) | Cl ⁻ (mg/l) | NH ₄ ⁺ (mg/l) | Na ⁺ (mg/l) | K ⁺ (mg/l) | Ca ²⁺ (mg/l) | Mg ²⁺ (mg/l) | Transparency (m) | Water color | DOC (mg/l) | NO ₂ ⁻ (mg/l) | PO ₄ ³⁻ (mg/l) |
| Surface | 15-Mar-02 | 21.4 | 8.24 | 17.92 | 1.700 | 3.00 | 0.41 | 1.28 | 0.20 | 1.41 | 0.78 | 23.47 | 6.07 | | | | | |
| | 15-Jun-02 | *2 | 8.02 | 17.64 | 1.600 | 6.20 | 0.90 | 1.28 | 0.56 | 1.88 | 1.53 | 22.70 | 5.84 | | | | | |
| | 15-Sep-02 | *2 | 7.68 | 15.69 | 1.550 | 1.00 | 0.18 | 1.28 | 0.07 | 2.38 | 1.33 | 20.39 | 4.44 | | | | | |
| | 15-Dec-02 | *2 | 7.78 | 17.29 | 1.600 | 5.40 | 0.36 | 1.54 | 0.01 | 1.13 | 1.00 | 23.57 | 5.62 | | | | | |
| | mean [†] | 21.4 | 7.88 | 17.14 | 1.613 | 3.90 | 0.46 | 1.35 | 0.21 | 1.70 | 1.16 | 22.53 | 5.49 | | | | | |

note

*1:Mean of pH takes an average of hydrogen ion

*2:Items were not analysed.

| Site | Date | Anion | Cation | R1 | Judge | | ? calc | R2 | Judge |
|------|-----------|--------|--------|------|-------|--|--------|-----|-------|
| | | | | | | | | | |
| | 15-Jun-02 | 1779.7 | 1765.0 | -0.4 | O | | 18.8 | 3.2 | O |
| | 15-Sep-02 | 1609.8 | 1524.0 | -2.7 | O | | 16.2 | 1.6 | O |
| | 15-Dec-02 | 1761.7 | 1713.6 | -1.4 | O | | 18.3 | 2.9 | O |

Table 6.4 (10) Summary of Inland Aquatic Environment Monitoring in 2002

| Country | Location | Site | Mandatory Parameters : 4 times/year | | | | | | | | | | | Mandatory Parameters : Once/year | | | | | |
|-------------|------------------------|-------------------------------------|-------------------------------------|------|--------------|-----------------------|---|--|---------------------------|--|---------------------------|--------------------------|----------------------------|----------------------------------|---------------------|----------------|---------------|--|---|
| | | | Temp. (degreeC) | pH | EC (mS/m) | Alkalinity (meq/l) | SO ₄ ²⁻ (mg/l) | NO ₃ ⁻ (mg/l) | Cl ⁻ (mg/l) | NH ₄ ⁺ (mg/l) | Na ⁺ (mg/l) | K ⁺ (mg/l) | Ca ²⁺ (mg/l) | Mg ²⁺ (mg/l) | Transparency (m) | Water color | DOC (mg/l) | NO ₂ ⁻ (mg/l) | PO ₄ ³⁻ (mg/l) |
| China | Chongqing | Jiayunshan Lake | - | 6.12 | 9.52 | - | 26.36 | 7.99 | 2.53 | 0.087 | 2.50 | 1.79 | 9.08 | 3.28 | | | | | |
| | Xiamen | Xiaoping Dam | - | 7.39 | 7.00 | - | 4.67 | 6.66 | 2.82 | 0.201 | 7.29 | 2.14 | 2.29 | 0.82 | | | | | |
| | Xi'an | Jiwozi River | 10.0 | 7.60 | 8.47 | 0.110 | 12.16 | 1.70 | 1.80 | 0.000 | 2.80 | 1.20 | 12.73 | 1.72 | | | | | |
| | Zhuhai | Zhuxiandong Reservoir | 23.0 | 7.93 | 6.70 | 0.963 | 19.89 | 0.83 | 23.80 | 0.230 | 7.27 | 1.57 | 17.00 | 2.50 | | | | | |
| Indonesia | Bandung | Patenggang Lake (Center, surface) | - | 8.46 | 5.83 | 0.255 | 7.33 | 0.06 | 6.30 | 0.165 | 4.60 | 0.71 | 4.03 | 1.93 | | | | | |
| Japan | Gifu pref. | Ijira Lake (Center, surface) | 20.7 | 6.72 | 4.52 | 0.173 | 5.63 | 2.01 | 2.27 | 0.085 | 2.23 | 0.38 | 3.39 | 1.37 | 2.20 | clear | 3.18 | <0.01 ^{*1} | <0.066 ^{*1} |
| | Shimane pref. | Banryu Lake (Center, surface) | 21.3 | 7.07 | 10.10 | 0.176 | 3.93 | 0.08 | 21.90 | 0.038 | 12.96 | 1.80 | 1.21 | 1.76 | 1.6 | (gray)green | 2.5 | <0.003 ^{*2} | <0.003 ^{*2} |
| Mongolia | | Terej river | - | 7.23 | 4.84 | 0.098 | 3.47 | 1.11 | 0.43 | 0.038 | 1.87 | 0.52 | 7.17 | 0.87 | | | | | |
| Philippines | San Pablo City, Laguna | Mojicap Lake (Surface) | - | 8.02 | 28.92 | 2.720 | 3.07 | 0.23 | 6.14 | 0.370 | 15.14 | 6.00 | 20.74 | 15.94 | | | | - | |
| Russia | Listvyanka | River Krestovka (Surface) | 3.5 | 6.66 | 7.56 | 0.388 | 12.67 | 0.14 | 0.41 | 0.168 | 3.31 | 0.88 | 4.69 | 2.38 | 0.208 | yellow | | 0.000 | 0.010 |
| Thailand | Kanchanaburi Province | Vachiralongorn Dam (Ban Pong Chang) | 27.8 | 7.52 | 12.13 | 0.625 | 1.15 | 0.04 | 0.89 | - | 1.14 | 1.01 | 13.27 | 2.98 | 5.3 | light blue | 4.0 | <0.01 | 0.049 |
| | | Vachiralongorn Dam (Ban Pang Pueng) | 27.9 | 6.92 | 11.98 | 0.633 | 1.24 | 0.06 | 0.90 | - | 1.19 | 0.99 | 13.28 | 2.90 | 5.5 | light blue | 3.0 | <0.01 | 0.046 |
| Vietnam | Hoa Binh Province | Hoa Binh Reservoir (Surface) | 21.4 | 7.88 | 17.14 | 1.613 | 3.90 | 0.46 | 1.35 | 0.210 | 1.70 | 1.16 | 22.53 | 5.49 | | | | | |

note
blank : Items are not including to National Monitoring Plan
- : Items were not analysed or not detected
*1 : detection limits
*2 : determination limits

Appendix

Meteorological Condition of Monitoring Sites

Table Meteorological condition in 2002 (Rishiri)

| Month | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|--|----------------|------|------|------|------|------|------|------|------|------|------|------|-------|
| Items | | | | | | | | | | | | | |
| Temperature (°C) | monthly mean | -4.0 | -1.5 | 0.0 | 6.1 | 11.0 | 12.4 | 16.8 | 17.6 | 15.8 | 10.1 | 1.7 | -5.2 |
| | max.daily mean | 2.0 | 4.2 | 6.0 | 12.8 | 16.0 | 15.8 | 20.1 | 20.9 | 21.4 | 17.1 | 11.3 | 8.8 |
| | min.daily mean | -7.5 | -8.8 | -6.6 | 2.5 | 6.6 | 8.7 | 13.4 | 13.4 | 11.9 | 3.4 | -4.3 | -12.0 |
| Humidity (%) | monthly mean | 75 | 73 | 69 | 74 | 69 | 80 | 87 | 83 | 72 | 74 | 75 | 68 |
| | max.daily mean | 85 | 90 | 90 | 92 | 90 | 92 | 96 | 93 | 91 | 86 | 92 | 84 |
| | min.daily mean | 63 | 57 | 50 | 45 | 40 | 64 | 77 | 47 | 53 | 51 | 59 | 53 |
| Mean wind speed (m/s) | | 4.8 | 4.8 | 4.9 | 3.2 | 2.9 | 3.3 | 2.3 | 2.9 | 3.6 | 5.3 | 5.9 | 5.5 |
| Most appearance wind direction (bearings) | | E | WSW | NW | E | E | ENE | E | E | NE | E | WNW | NW |
| Precipitation amount (mm/month) | | 65 | 47 | 11 | 63 | 33 | 30 | 166 | 105 | 29 | 129 | 204 | 59 |
| Sunshine duration (hours/month) | | | | | | | | | | | | | |
| Solar radiation (MJ/m ² /month) | | 134 | 210 | 356 | 415 | 582 | 491 | 388 | 393 | 449 | 225 | 100 | 103 |

Table Meteorological condition in 2002 (Tappi)

| Month | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|--|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Items | | | | | | | | | | | | | |
| Temperature (°C) | monthly mean | 0.3 | 1.3 | 4.2 | 9.4 | 11.9 | 15.0 | 19.6 | 20.7 | 18.6 | 13.8 | 4.6 | -0.3 |
| | max.daily mean | 4.5 | 7.1 | 9.1 | 15.0 | 17.4 | 20.8 | 23.3 | 23.7 | 23.7 | 20.0 | 12.1 | 8.7 |
| | min.daily mean | -3.3 | -5.4 | -3.6 | 6.3 | 9.0 | 12.1 | 15.5 | 17.2 | 15.6 | 6.2 | 0.1 | -7.0 |
| Humidity (%) | monthly mean | 70 | 67 | 64 | 71 | 75 | 80 | 88 | 84 | 73 | 68 | 66 | 65 |
| | max.daily mean | 84 | 82 | 89 | 91 | 89 | 92 | 94 | 91 | 94 | 87 | 81 | 79 |
| | min.daily mean | 58 | 54 | 43 | 40 | 54 | 59 | 76 | 66 | 55 | 57 | 54 | 53 |
| Mean wind speed (m/s) | | 8.5 | 8.2 | 8.5 | 5.6 | 5.6 | 5.5 | 5.2 | 5.1 | 5.1 | 7.5 | 9.9 | 9.5 |
| Most appearance wind direction (bearings) | | WSW | WSW | WSW | WSW | ENE | ENE | ENE | ENE | WSW | WSW | WSW | WSW |
| Precipitation amount (mm/month) | | 82 | 33 | 50 | 67 | 40 | 106 | 171 | 345 | 61 | 146 | 93 | 39 |
| Sunshine duration (hours/month) | | | | | | | | | | | | | |
| Solar radiation (MJ/m ² /month) | | 142 | 209 | 342 | 534 | 609 | 605 | 401 | 404 | 444 | 314 | 159 | 160 |

Table Meteorological condition in 2002 (Sado-seki)

| Month | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|--|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Items | | | | | | | | | | | | | |
| Temperature (°C) | monthly mean | 3.3 | 3.8 | 7.2 | 13.0 | 14.9 | 19.1 | 23.9 | 24.7 | 21.2 | 16.0 | 7.6 | 4.1 |
| | max.daily mean | 10.5 | 8.4 | 13.8 | 19.8 | 21.1 | 24.0 | 29.1 | 28.9 | 29.8 | 22.9 | 14.1 | 12.3 |
| | min.daily mean | -1.6 | -1.6 | 0.3 | 8.5 | 10.3 | 14.8 | 20.2 | 19.2 | 17.4 | 7.6 | 3.6 | -2.4 |
| Humidity (%) | monthly mean | 72 | 67 | 63 | 62 | 74 | 71 | 79 | 76 | 71 | 69 | 71 | 70 |
| | max.daily mean | 89 | 78 | 89 | 84 | 95 | 93 | 93 | 92 | 86 | 86 | 84 | 88 |
| | min.daily mean | 50 | 53 | 36 | 36 | 31 | 44 | 60 | 59 | 53 | 55 | 51 | 57 |
| Mean wind speed (m/s) | | 9.2 | 6.9 | 6.5 | 5.1 | 3.9 | 3.5 | 3.4 | 4.3 | 3.4 | 6.3 | 7.6 | 6.4 |
| Most appearance wind direction (bearings) | | W | W | WSW | WSW | WSW | WSW | WSW | WSW | ENE | W | W | WNW |
| Precipitation amount (mm/month) | | 126 | 33 | 62 | 26 | 120 | 53 | 416 | 148 | 73 | 113 | 194 | 46 |
| Sunshine duration (hours/month) | | | | | | | | | | | | | |
| Solar radiation (MJ/m ² /month) | | 104 | 217 | 351 | 499 | 589 | 583 | 502 | 516 | 431 | 273 | 118 | 102 |

Table Meteorological condition in 2002 (Happo)

| Month | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|--|----------------|-------|-------|-------|------|------|------|------|------|------|------|------|-------|
| Items | | | | | | | | | | | | | |
| Temperature (°C) | monthly mean | -7.8 | -7.2 | -3.2 | 3.4 | 7.0 | 10.6 | 16.7 | 15.6 | 11.2 | 5.2 | -3.0 | -5.5 |
| | max.daily mean | 3.4 | 1.1 | 3.2 | 10.1 | 11.0 | 14.2 | 19.2 | 18.9 | 17.4 | 11.2 | 4.9 | 2.7 |
| | min.daily mean | -13.6 | -13.5 | -10.5 | -2.3 | 3.2 | 5.3 | 13.9 | 8.2 | 5.8 | -4.5 | -8.0 | -13.5 |
| Humidity (%) | monthly mean | 84 | 72 | 69 | 66 | 76 | 83 | 91 | 92 | 91 | 85 | 82 | 78 |
| | max.daily mean | 98 | 92 | 97 | 99 | 100 | 100 | 100 | 100 | 100 | 100 | 98 | 98 |
| | min.daily mean | 43 | 26 | 40 | 25 | 43 | 31 | 78 | 73 | 43 | 51 | 30 | 24 |
| Mean wind speed (m/s) | | 6.1 | 4.6 | 5.7 | 4.6 | 2.3 | 2.1 | 2.4 | 2.2 | 1.9 | 2.8 | 4.3 | 4.6 |
| Most appearance wind direction (bearings) | | NW | NW | NW | S | S | SSE | SSE | SSE | SSE | SSE | NW | NW |
| Precipitation amount (mm/month) | | 374 | 92 | 233 | 224 | 256 | 122 | 360 | 72 | 170 | 240 | 232 | 194 |
| Sunshine duration (hours/month) | | | | | | | | | | | | | |
| Solar radiation (MJ/m ² /month) | | 243 | 358 | 453 | 600 | 586 | 510 | 358 | 414 | 323 | 299 | 181 | 247 |

Table Meteorological condition in 2002 (Oki)

| Month | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|--|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Items | | | | | | | | | | | | | |
| Temperature (°C) | monthly mean | 5.4 | 6.1 | 9.4 | 13.6 | 15.8 | 20.3 | 24.4 | 25.1 | 21.2 | 16.4 | 9.8 | 6.8 |
| | max.daily mean | 14.3 | 10.1 | 15.6 | 18.5 | 20.0 | 22.8 | 28.2 | 28.3 | 28.1 | 22.0 | 17.0 | 12.3 |
| | min.daily mean | 0.1 | 1.6 | 3.3 | 10.2 | 12.5 | 16.6 | 20.9 | 21.2 | 17.9 | 9.5 | 6.2 | 1.6 |
| Humidity (%) | monthly mean | 73 | 67 | 70 | 69 | 79 | 74 | 84 | 80 | 79 | 74 | 68 | 74 |
| | max.daily mean | 92 | 88 | 88 | 93 | 95 | 89 | 98 | 93 | 97 | 89 | 83 | 93 |
| | min.daily mean | 54 | 54 | 46 | 49 | 60 | 56 | 66 | 62 | 57 | 56 | 54 | 59 |
| Mean wind speed (m/s) | | 5.2 | 3.8 | 3.9 | 3.2 | 2.8 | 2.7 | 2.4 | 3.2 | 3.5 | 3.7 | 4.1 | 4.3 |
| Most appearance wind direction (bearings) | | WSW | N | SSW | S | S | NNE | S | S | NNE | WSW | WSW | N |
| Precipitation amount (mm/month) | | 204 | 41 | 69 | 136 | 138 | 2 | 45 | 27 | 207 | 111 | 62 | 141 |
| Sunshine duration (hours/month) | | | | | | | | | | | | | |
| Solar radiation (MJ/m ² /month) | | - | - | 49 | 494 | 532 | 664 | 418 | 555 | 456 | 319 | 200 | - |

Table Meteorological condition in 2002 (Yusuhara)

| Month | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|--|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Items | | | | | | | | | | | | | |
| Temperature (°C) | monthly mean | 1.9 | 3.0 | 7.4 | 11.7 | 15.6 | 18.6 | 22.3 | 22.0 | 19.2 | 13.4 | 5.8 | 4.0 |
| | max.daily mean | 12.1 | 10.3 | 11.6 | 15.4 | 18.0 | 20.7 | 24.6 | 24.7 | 21.8 | 19.4 | 10.7 | 9.8 |
| | min.daily mean | -4.9 | -3.1 | 0.1 | 6.4 | 12.7 | 14.5 | 20.4 | 18.3 | 15.1 | 5.1 | 0.7 | -3.0 |
| Humidity (%) | monthly mean | 80 | 71 | 68 | 73 | 77 | 80 | 90 | 87 | 84 | 80 | 79 | 77 |
| | max.daily mean | 98 | 97 | 99 | 100 | 100 | 100 | 100 | 100 | 100 | 99 | 94 | 94 |
| | min.daily mean | 51 | 32 | 38 | 24 | 35 | 55 | 75 | 60 | 56 | 54 | 59 | 57 |
| Mean wind speed (m/s) | | 3.6 | 2.9 | 2.8 | 2.2 | 1.8 | 1.6 | 1.7 | 2.3 | 1.7 | 2.2 | 2.8 | 2.8 |
| Most appearance wind direction (bearings) | | NNW | NNW | NNW | NNW | NNW | NNW | SSE | SSE | NNW | NNW | NNW | NNW |
| Precipitation amount (mm/month) | | - | 61 | 164 | 175 | 253 | 225 | 426 | 483 | 165 | 77 | 88 | 127 |
| Sunshine duration (hours/month) | | | | | | | | | | | | | |
| Solar radiation (MJ/m ² /month) | | 235 | 345 | 493 | 439 | 514 | 570 | 497 | 567 | 490 | 414 | 275 | 228 |

Table Meteorological condition in 2002 (Ogasawara)

| Month | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|--|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Items | | | | | | | | | | | | | |
| Temperature (°C) | monthly mean | 15.9 | 15.3 | 17.1 | 13.0 | 14.9 | 19.1 | 23.9 | 24.7 | 21.2 | 16.0 | 7.6 | 4.1 |
| | max.daily mean | 19.4 | 18.2 | 20.8 | 19.8 | 21.1 | 24.0 | 29.1 | 28.9 | 29.8 | 22.9 | 14.1 | 12.3 |
| | min.daily mean | 13.2 | 13.2 | 13.6 | 8.5 | 10.3 | 14.8 | 20.2 | 19.2 | 17.4 | 7.6 | 3.6 | -2.4 |
| Humidity (%) | monthly mean | 78 | 74 | 86 | 62 | 74 | 71 | 79 | 76 | 71 | 69 | 71 | 70 |
| | max.daily mean | 94 | 91 | 99 | 84 | 95 | 93 | 93 | 92 | 86 | 86 | 84 | 88 |
| | min.daily mean | 61 | 61 | 66 | 36 | 31 | 44 | 60 | 59 | 53 | 55 | 51 | 57 |
| Mean wind speed (m/s) | | 1.4 | 1.3 | 1.5 | 5.1 | 3.9 | 3.5 | 3.4 | 4.3 | 3.4 | 6.3 | 7.6 | 6.4 |
| Most appearance wind direction (bearings) | | SW | SW | SW | WSW | WSW | WSW | WSW | WSW | ENE | W | W | WNW |
| Precipitation amount (mm/month) | | 62 | 4 | 163 | 26 | 120 | 53 | 416 | 148 | 73 | 113 | 194 | 46 |
| Sunshine duration (hours/month) | | | | | | | | | | | | | |
| Solar radiation (MJ/m ² /month) | | 314 | 440 | 441 | 499 | 589 | 583 | 502 | 516 | 431 | 273 | 118 | 102 |

Table Meteorological condition in 2002 (Hedo)

| Month | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|--|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Items | | | | | | | | | | | | | |
| Temperature (°C) | monthly mean | 16.1 | 16.2 | 18.3 | 21.0 | 23.8 | 25.9 | 27.5 | 27.7 | 26.3 | 23.6 | 20.0 | 18.4 |
| | max.daily mean | 21.6 | 19.1 | 22.1 | 24.6 | 26.9 | 28.2 | 28.8 | 28.6 | 27.9 | 26.5 | 22.7 | 22.3 |
| | min.daily mean | 13.3 | 13.2 | 14.8 | 17.4 | 20.6 | 22.9 | 25.9 | 26.2 | 24.6 | 20.6 | 17.0 | 13.4 |
| Humidity (%) | monthly mean | 65 | 67 | 75 | 80 | 79 | 86 | 84 | 79 | 78 | 75 | 69 | 75 |
| | max.daily mean | 88 | 87 | 94 | 93 | 92 | 92 | 91 | 87 | 88 | 91 | 91 | 92 |
| | min.daily mean | 49 | 53 | 44 | 67 | 52 | 77 | 75 | 71 | 59 | 58 | 50 | 56 |
| Mean wind speed (m/s) | | 5.0 | 4.2 | 4.5 | 4.2 | 3.7 | 3.9 | 5.0 | 4.0 | 3.8 | 5.0 | 5.8 | 5.0 |
| Most appearance wind direction (bearings) | | NNW | N | E | SSW | E | SW | E | SE | NNE | E | NNW | N |
| Precipitation amount (mm/month) | | 52 | 67 | 126 | 108 | 115 | 183 | 288 | 155 | 65 | 240 | 47 | 149 |
| Sunshine duration (hours/month) | | | | | | | | | | | | | |
| Solar radiation (MJ/m ² /month) | | 266 | 316 | 459 | 482 | 626 | 506 | 621 | 683 | 511 | 392 | 269 | 226 |

Table Meteorological condition in 2002 (Ijira)

| Month | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|--|----------------|------|-----|------|------|------|------|------|------|------|------|------|------|
| Items | | | | | | | | | | | | | |
| Temperature (°C) | monthly mean | 1.9 | 3.6 | 7.5 | 13.3 | 16.5 | 20.3 | 25.0 | 24.9 | 21.0 | 14.8 | 6.5 | 4.3 |
| | max.daily mean | 6.4 | 7.8 | 12.2 | 17.4 | 19.1 | 22.7 | 28.2 | 28.8 | 25.8 | 19.2 | 11.6 | 10.9 |
| | min.daily mean | -1.2 | 0.0 | 2.4 | 8.1 | 13.6 | 16.6 | 21.4 | 21.2 | 16.8 | 6.9 | 3.8 | 0.3 |
| Humidity (%) | monthly mean | 94 | 86 | 79 | 79 | 85 | 85 | 94 | 89 | 91 | 94 | 96 | 95 |
| | max.daily mean | 99 | 99 | 98 | 99 | 99 | 99 | 99 | 99 | 99 | 99 | 99 | 99 |
| | min.daily mean | 77 | 57 | 50 | 41 | 57 | 54 | 84 | 61 | 70 | 85 | 76 | 79 |
| Mean wind speed (m/s) | | 0.5 | 0.7 | 0.9 | 0.8 | 0.7 | 0.7 | 0.6 | 0.7 | 0.6 | 0.6 | 0.5 | 0.5 |
| Most appearance wind direction (bearings) | | Calm | W | W | W | Calm | W | W | W | W | W | W | Calm |
| Precipitation amount (mm/month) | | 225 | 64 | 241 | 177 | 209 | 203 | 665 | 115 | 203 | 182 | 127 | 151 |
| Sunshine duration (hours/month) | | | | | | | | | | | | | |
| Solar radiation (MJ/m ² /month) | | 180 | 274 | 405 | 408 | 450 | 491 | 390 | 463 | 353 | 319 | 216 | 189 |

Table Meteorological condition in 2002 (Banryu)

| Month | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|--|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Items | | | | | | | | | | | | | |
| Temperature (°C) | monthly mean | 6.2 | 6.3 | 10.2 | 14.6 | 16.9 | 21.2 | 25.9 | 26.2 | 21.8 | 16.4 | 9.3 | 7.3 |
| | max.daily mean | 16.0 | 10.5 | 14.8 | 20.0 | 20.8 | 24.5 | 28.9 | 29.5 | 28.2 | 21.8 | 15.1 | 13.2 |
| | min.daily mean | 1.3 | 3.4 | 5.6 | 10.2 | 14.1 | 16.7 | 22.1 | 21.4 | 17.2 | 10.2 | 6.0 | 3.1 |
| Humidity (%) | monthly mean | 67 | 70 | 68 | 69 | 82 | 78 | 81 | 76 | 81 | 76 | 68 | 74 |
| | max.daily mean | 92 | 94 | 93 | 92 | 96 | 93 | 93 | 90 | 93 | 94 | 87 | 89 |
| | min.daily mean | 50 | 46 | 44 | 35 | 62 | 61 | 67 | 61 | 65 | 51 | 51 | 55 |
| Mean wind speed (m/s) | | 4.1 | 3.3 | 3.5 | 3.3 | 2.6 | 2.6 | 2.3 | 3.0 | 3.0 | 3.0 | 3.5 | 3.5 |
| Most appearance wind direction (bearings) | | W | S | S | S | S | S | S | SSE | S | S | S | S |
| Precipitation amount (mm/month) | | 129 | 39 | 198 | 113 | 198 | 98 | 100 | 57 | 115 | 110 | 95 | 62 |
| Sunshine duration (hours/month) | | | | | | | | | | | | | |
| Solar radiation (MJ/m ² /month) | | 172 | 274 | 410 | 459 | 468 | 600 | 550 | 563 | 477 | 346 | 235 | 157 |

Table Meteorological condition in 2002 (Metro-Manila)

| Month | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|--|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Items | | | | | | | | | | | | | |
| Temperature (°C) | monthly mean | 25.7 | 25.8 | 27.3 | 28.9 | 29.7 | 29.3 | 27.2 | 27.9 | 27.6 | 28.0 | 27.0 | 27.1 |
| | max.daily mean | 30.9 | 30.7 | 33.1 | 34.9 | 34.8 | 33.8 | 30.3 | 31.7 | 31.4 | 32.3 | 31.0 | 31.9 |
| | min.daily mean | 20.4 | 20.8 | 21.6 | 22.9 | 24.6 | 24.8 | 24.1 | 24.1 | 23.7 | 23.6 | 23.0 | 22.3 |
| Humidity (%) | monthly mean | 76 | 75 | 70 | 68 | 71 | 77 | 88 | 85 | 87 | 85 | 86 | 82 |
| | max.daily mean | | | | | | | | | | | | |
| | min.daily mean | | | | | | | | | | | | |
| Mean wind speed (m/s) | | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 |
| Most appearance wind direction (bearings) | | N | NE | N | E | WSW | WSW | WSW | SW | SW | NE | N | N |
| Precipitation amount (mm/month) | | 8 | 13 | 22 | 20 | 50 | 184 | 1310 | 445 | 426 | 242 | 235 | 37 |
| Sunshine duration (hours/month) | | 172 | 159 | 247 | 242 | 230 | 175 | 101 | - | 128 | - | - | - |
| Solar radiation (MJ/m ² /month) | | | | | | | | | | | | | |

Table Meteorological condition in 2002 (Los Banos)

| Month | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|--|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Items | | | | | | | | | | | | | |
| Temperature (°C) | monthly mean | 25.5 | 25.9 | 27.0 | 28.7 | 29.3 | 29.5 | 27.8 | 28.0 | 27.8 | 28.2 | 27.2 | 26.6 |
| | max.daily mean | 29.7 | 30.1 | 31.8 | 34.2 | 34.4 | 34.5 | 31.8 | 32.2 | 32.0 | 32.2 | 30.8 | 30.3 |
| | min.daily mean | 21.2 | 21.6 | 22.2 | 23.2 | 24.3 | 24.4 | 23.8 | 23.7 | 23.5 | 24.1 | 23.6 | 22.9 |
| Humidity (%) | monthly mean | 81 | 80 | 80 | 76 | 79 | 82 | 90 | 86 | 84 | 85 | 85 | 87 |
| | max.daily mean | | | | | | | | | | | | |
| | min.daily mean | | | | | | | | | | | | |
| Mean wind speed (m/s) | | 1 | 1 | 1 | 1 | 1 | 1 | 4 | 1 | 1 | 1 | 1 | 1 |
| Most appearance wind direction (bearings) | | NE | NE | NE | NE | N | E | NW | E | NNW | NE | E | - |
| Precipitation amount (mm/month) | | 10 | 12 | 16 | 7 | 132 | 89 | 622 | 215 | 166 | 189 | 174 | 81 |
| Sunshine duration (hours/month) | | 207 | 201 | 232 | 307 | 264 | 231 | 137 | 160 | 169 | 189 | 154 | 171 |
| Solar radiation (MJ/m ² /month) | | 625 | 598 | 710 | 782 | 717 | 716 | 563 | 642 | 608 | 644 | 515 | 526 |

Table Meteorological condition in 2002 (Irkutsk)

| Month | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|--|----------------|-------|-------|------|------|------|------|------|------|------|------|-------|-------|
| Items | | | | | | | | | | | | | |
| Temperature (°C) | monthly mean | -10.8 | -9.7 | -3.2 | 1.6 | 12.4 | 17.0 | 20.5 | 17.7 | 10.2 | -0.8 | -10.5 | -19.1 |
| | max.daily mean | -5.1 | -2.7 | 4.0 | 7.8 | 20.8 | 24.3 | 27.2 | 24.9 | 18.5 | 4.0 | -5.3 | -14.4 |
| | min.daily mean | -15.5 | -15.3 | -8.6 | -3.4 | 5.0 | 11.2 | 15.5 | 12.4 | 4.0 | -4.4 | -14.7 | -22.8 |
| Humidity (%) | monthly mean | 81 | 72 | 61 | 53 | 50 | 69 | 75 | 74 | 72 | 74 | 82 | 88 |
| | max.daily mean | | | | | | | | | | | | |
| | min.daily mean | 66 | 52 | 40 | 32 | 28 | 47 | 54 | 52 | 46 | 55 | 69 | 82 |
| Mean wind speed (m/s) | | 1.7 | 1.9 | 2.3 | 2.8 | - | - | - | 2.0 | 2.0 | 2.1 | 1.8 | 1.2 |
| Most appearance wind direction (bearings) | | ESE | E | WNW | WNW | - | - | - | SE | E | WNW | ENE | ENE |
| Precipitation amount (mm/month) | | 20 | 3 | 10 | 25 | 19 | 61 | 52 | 61 | 25 | 43 | 16 | 3 |
| Sunshine duration (hours/month) | | - | - | - | - | - | - | - | 242 | 229 | 100 | 108 | 95 |
| Solar radiation (MJ/m ² /month) | | 168 | 259 | 419 | 519 | - | - | - | 549 | 424 | 229 | 149 | 103 |

Table Meteorological condition in 2002 (Bangkok)

| Month | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|--|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Items | | | | | | | | | | | | | |
| Temperature (°C) | monthly mean | 26.2 | 28.4 | 29.6 | 30.4 | 28.5 | 28.9 | 28.6 | 27.8 | 27.2 | 28.9 | 26.6 | 27.1 |
| | max.daily mean | 28.0 | 29.4 | 30.9 | 32.2 | 30.2 | 30.4 | 29.6 | 29.5 | 28.9 | 28.4 | 28.6 | 28.9 |
| | min.daily mean | 22.4 | 26.8 | 24.7 | 27.1 | 26.3 | 27.3 | 26.7 | 26.3 | 25.0 | 25.0 | 24.0 | 24.2 |
| Humidity (%) | monthly mean | 86 | 88 | 90 | 87 | 94 | 92 | 87 | 92 | 93 | 92 | 91 | 90 |
| | max.daily mean | 94 | 94 | 100 | 97 | 99 | 100 | 96 | 99 | 99 | 99 | 97 | 98 |
| | min.daily mean | 74 | 80 | 84 | 78 | 89 | 86 | 77 | 81 | 86 | 82 | 82 | 85 |
| Mean wind speed (m/s) | | 0.7 | 1.0 | 1.3 | 1.2 | 1.1 | 1.1 | 1.2 | 1.0 | 1.2 | 1.0 | 0.9 | 0.9 |
| Most appearance wind direction (bearings) | | | | | | | | | | | | | |
| Precipitation amount (mm/month) | | 2 | 20 | 15 | 111 | 381 | 100 | 113 | 191 | 122 | 271 | 133 | 41 |
| Sunshine duration (hours/month) | | | | | | | | | | | | | |
| Solar radiation (MJ/m ² /month) | | 343 | 354 | 435 | 459 | 355 | 369 | 368 | 336 | 337 | 340 | 336 | 333 |

Note: measured at nearest meteorological station (PCD'Jatujak station)

Table Meteorological condition in 2002 (Mae Hia)

| Month | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|--|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Items | | | | | | | | | | | | | |
| Temperature (°C) | monthly mean | 21.5 | 24.0 | 26.5 | 29.3 | 27.8 | 27.2 | 26.8 | 26.2 | 25.9 | 25.7 | 24.0 | 22.8 |
| | max.daily mean | 24.5 | 26.4 | 29.0 | 31.9 | 31.7 | 28.6 | 28.7 | 27.6 | 27.4 | 27.5 | 26.6 | 25.5 |
| | min.daily mean | 18.6 | 21.7 | 23.5 | 25.9 | 24.2 | 25.5 | 23.5 | 24.3 | 24.7 | 23.1 | 20.5 | 19.0 |
| Humidity (%) | monthly mean | 71 | 62 | 53 | 49 | 72 | 80 | 82 | 83 | 86 | 80 | 83 | 83 |
| | max.daily mean | 77 | 77 | 69 | 73 | 92 | 91 | 95 | 95 | 92 | 92 | 95 | 91 |
| | min.daily mean | 63 | 51 | 45 | 37 | 51 | 69 | 73 | 75 | 80 | 67 | 76 | 74 |
| Mean wind speed (m/s) | | 7.7 | 8.0 | 7.9 | 15.2 | 14.9 | 13.3 | 11.6 | 12.8 | 13.1 | 9.7 | 8.6 | 7.5 |
| Most appearance wind direction (bearings) | | | | | | | | | | | | | |
| Precipitation amount (mm/month) | | 9 | 10 | 1 | 11 | 222 | 124 | 77 | 255 | 310 | 145 | 332 | 116 |
| Sunshine duration (hours/month) | | | | | | | | | | | | | |
| Solar radiation (MJ/m ² /month) | | | | | | | | | | | | | |

Note: Measured at nearest meteorological station (Chiang Mai station)

Table Meteorological condition in 2002 (Patumthani)

| Month | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|--|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Items | | | | | | | | | | | | | |
| Temperature (°C) | monthly mean | | | | | | | | | | | | |
| | max.daily mean | 33.0 | 34.6 | 35.3 | 37.1 | 34.5 | 34.7 | 34.4 | 33.5 | 33.4 | 33.1 | 32.7 | 33.4 |
| | min.daily mean | 21.1 | 23.7 | 24.7 | 25.2 | 25.1 | 25.2 | 25.0 | 24.6 | 24.5 | 24.2 | 23.4 | 23.8 |
| Humidity (%) | monthly mean | | | | | | | | | | | | |
| | max.daily mean | 92 | 96 | 97 | 96 | 97 | 95 | 94 | 94 | 96 | 97 | 92 | 93 |
| | min.daily mean | 48 | 50 | 57 | 49 | 61 | 60 | 60 | 62 | 63 | 62 | 59 | 57 |
| Mean wind speed (m/s) | | 1.5 | 1.9 | 2.4 | 1.7 | 2.5 | 2.4 | 2.5 | 2.9 | 2.5 | 1.5 | 2.4 | 1.3 |
| Most appearance wind direction (bearings) | | E | SE | SE | SE | SW | SW | SW | SW | SW | N | N | NE |
| Precipitation amount (mm/month) | | 0 | 15 | 89 | 10 | 175 | 70 | 116 | 187 | 156 | 190 | 114 | 10 |
| Sunshine duration (hours/month) | | | | | | | | | | | | | |
| Solar radiation (MJ/m ² /month) | | | | | | | | | | | | | |

Note: Measured at nearest meteorological station (Patumtani Agro station)

Table Meteorological condition in 2002 (Vachiralongkorn Dam)

| Month | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|--|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Items | | | | | | | | | | | | | |
| Temperature (°C) | monthly mean | 24.4 | 27.8 | 29.1 | 30.1 | 27.8 | 27.4 | 26.5 | 26.1 | 26.3 | 26.8 | 26.3 | 26.2 |
| | max.daily mean | 27.0 | 29.3 | 30.9 | 32.2 | 30.0 | 28.6 | 27.5 | 28.5 | 28.3 | 28.8 | 28.3 | 28.2 |
| | min.daily mean | 20.2 | 25.8 | 26.5 | 28.3 | 24.6 | 26.1 | 25.7 | 24.8 | 24.2 | 24.6 | 23.5 | 24.5 |
| Humidity (%) | monthly mean | 73 | 66 | 61 | 64 | 83 | 85 | 88 | 87 | 88 | 83 | 82 | 80 |
| | max.daily mean | 75 | 73 | 76 | 81 | 95 | 92 | 93 | 94 | 96 | 93 | 90 | 89 |
| | min.daily mean | 69 | 58 | 53 | 53 | 72 | 79 | 83 | 79 | 78 | 77 | 73 | 76 |
| Mean wind speed (m/s) | | 8.6 | 8.2 | 9.7 | 11.3 | 8.5 | 8.4 | 8.3 | 10.1 | 8.1 | 9.0 | 8.8 | 8.3 |
| Most appearance wind direction (bearings) | | | | | | | | | | | | | |
| Precipitation amount (mm/month) | | 0 | 0 | 36 | 150 | 367 | 148 | 384 | 411 | 360 | 86 | 47 | 22 |
| Sunshine duration (hours/month) | | | | | | | | | | | | | |
| Solar radiation (MJ/m ² /month) | | | | | | | | | | | | | |

Note: Measured at nearest meteorological station (Thong Pa Poom station)

Corrigenda of Data Report on the Acid Deposition in East Asian Region 2002

Owing to a printing error, Table 3.27 on Page 36 and Table 3.49 on page 58 are incorrect, including values "####". Please correct the tables as follows.

Table 3.27 Monthly weighted averages of nss-Ca²⁺ concentration

unit: $\mu\text{mol/L}$

| Country | Name of sites | Code | 2002 | | | | | | | | | | | | Annual | Max | M | Min | M | F |
|-------------------|---------------------|----------|------|------|------|------|------|------|------|------|------|------|------|------|--------|------|------|------|----|---|
| | | | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | | | | | | |
| China | Guanyinqiao | CN 11001 | 321 | 223 | 81.2 | 51.7 | 58.5 | 31.3 | 99.1 | 73.1 | 64.6 | 159 | 82.7 | 95.7 | 65.3 | 1380 | 8 | 15.9 | 6 | d |
| | Jinyunshan | CN 11003 | 74.5 | 59.3 | 78.0 | 26.8 | 18.8 | 12.1 | 25.2 | 23.0 | 40.5 | 62.5 | 71.6 | 101 | 29.6 | 811 | 3 | 2.2 | 8 | d |
| | Shizhan | CN 11004 | 1890 | 899 | 1020 | 826 | 448 | 282 | 597 | 375 | 405 | 287 | 931 | 1290 | 474 | 2420 | 3 | 192 | 6 | d |
| | Weishuiyuan | CN 11005 | -- | 2560 | 786 | -- | 624 | 576 | 536 | 219 | 842 | 259 | 706 | -- | 612 | 2560 | 2 | 207 | 8 | d |
| | Jiwozi | CN 11007 | ** | ** | ** | 637 | ** | ** | -- | 144 | -- | 143 | 274 | -- | 273 | 802 | 4 | 143 | 10 | d |
| | Hongwen | CN 11008 | 89.5 | 51.6 | 144 | 81.6 | 17.4 | 29.7 | 15.6 | 52.2 | 15.6 | 590 | 10.6 | 57.7 | 47.9 | 848 | 10 | <0.2 | 11 | d |
| | Xiaoping | CN 11009 | -- | -- | -- | 3.3 | 2.5 | 4.9 | 8.9 | 16.1 | 8.2 | 3.3 | 44.2 | 2.8 | 10.3 | 97.0 | 11 | <0.2 | 5 | d |
| | Xiang Zhou | CN 11010 | 24.1 | 58.8 | 7.9 | 8.6 | 6.3 | 11.2 | 14.2 | 14.0 | 17.8 | 19.9 | -- | 53.5 | 14.6 | 227 | 9 | 0.8 | 7 | d |
| Zhuxian Cavern | CN 11011 | 98.3 | 130 | 41.3 | 19.1 | 25.0 | 6.4 | 18.3 | 12.8 | 11.4 | 24.9 | -- | 56.4 | 19.7 | 130 | 2 | <0.2 | 6 | d | |
| Indonesia | Jakarta | ID 11012 | 7.3 | 22.6 | 26.5 | 118 | 78.3 | -- | 77.7 | -- | -- | -- | 145 | 88.1 | 42.2 | 316 | 4 | 5.2 | 1 | w |
| | Serpong | ID 11013 | 1.8 | 1.2 | 7.4 | 5.8 | 5.9 | 25.1 | 25.2 | 55.1 | 82.8 | 43.8 | 10.5 | 3.3 | 9.4 | 110 | 10 | <0.2 | 1 | e |
| | Kototabang | ID 11014 | 2.8 | 3.3 | 2.4 | 2.5 | -- | -- | -- | 4.3 | 4.7 | 5.1 | 8.0 | 6.5 | 4.8 | 20.5 | 11 | <0.2 | 4 | w |
| | Bandung | ID 11015 | 16.3 | 24.2 | 15.3 | 11.0 | 23.3 | 52.1 | 24.1 | 18.4 | -- | -- | 31.0 | 6.4 | 16.9 | 206 | 7 | 0.8 | 7 | e |
| Japan | Rishiri | JP 11016 | 3.1 | 7.3 | 64.3 | 36.7 | 5.2 | 3.0 | 1.0 | 0.8 | 1.0 | 2.9 | 5.9 | 1.9 | 5.9 | 182 | 4 | <0.2 | 1 | d |
| | Tappi | JP 11017 | 2.1 | 14.0 | 44.3 | 28.8 | 4.3 | 1.7 | 1.4 | 0.6 | 0.6 | 1.4 | 5.3 | 2.4 | 5.5 | 170 | 3 | <0.2 | 1 | d |
| | Sado-seki | JP 11019 | 1.2 | 23.5 | 1.9 | * | 3.9 | 3.2 | 1.3 | 1.5 | 2.1 | 5.0 | 7.7 | 8.0 | 3.4 | 108 | 6 | <0.2 | 1 | d |
| | Happo | JP 11021 | 1.4 | 14.3 | 4.8 | 1.9 | 1.5 | 2.5 | 0.8 | 1.1 | 0.9 | 1.3 | 1.6 | 3.0 | 1.9 | 28.8 | 2 | <0.2 | 5 | d |
| | Oki | JP 11023 | 5.8 | 11.0 | 11.6 | 4.0 | 1.2 | 4.9 | 0.3 | 1.4 | 0.6 | 6.7 | 7.1 | 2.4 | 3.9 | 265 | 3 | <0.2 | 1 | d |
| | Yusuhara | JP 11025 | * | 7.2 | 2.0 | 1.7 | 1.3 | 0.6 | 0.6 | <0.2 | 0.7 | 1.6 | 5.0 | 2.5 | 1.2 | 45.3 | 4 | <0.2 | 3 | d |
| | Ogasawara | JP 11018 | 2.9 | 6.1 | 1.8 | 4.3 | 2.7 | 1.3 | 4.5 | 6.0 | 5.2 | 16.1 | 3.6 | 1.0 | 3.6 | 220 | 11 | <0.2 | 10 | d |
| | Hedo | JP 11027 | 1.8 | 1.0 | 4.5 | 13.4 | 1.9 | 0.9 | 1.9 | 1.5 | 21.5 | 1.7 | 4.0 | 2.5 | 2.9 | 240 | 4 | <0.2 | 1 | d |
| | Ijira | JP 11022 | 2.2 | 6.1 | 1.4 | * | 4.9 | 3.3 | 1.8 | 4.6 | 1.0 | 4.2 | 14.1 | 5.3 | 3.6 | 31.2 | 11 | 0.3 | 9 | w |
| | Banryu | JP 11024 | 5.7 | 13.9 | 6.2 | 1.7 | 1.8 | 2.1 | * | <0.2 | 0.9 | 2.9 | 5.0 | 6.1 | 3.7 | 104 | 1 | <0.2 | 6 | w |
| Malaysia | Petaling Jaya | MY 11029 | 19.0 | 10.6 | 7.8 | 5.6 | 8.6 | 7.6 | 24.9 | 7.0 | 4.5 | 7.9 | 6.5 | 6.3 | 7.3 | 41.6 | 9 | 1.0 | 10 | w |
| | Tanah Rata | MY 11030 | 4.9 | 110 | 5.2 | 2.7 | 1.7 | 0.8 | 3.6 | 3.4 | 4.0 | 2.9 | 2.3 | 4.6 | 3.0 | 110 | 2 | 0.5 | 1 | w |
| Mongolia | Ulaanbaatar | MN 11031 | * | * | * | * | 51.3 | 36.4 | 91.8 | 93.7 | 18.4 | 85.8 | * | * | 49.8 | 466 | 6 | 6.7 | 5 | d |
| | Terelj | MN 11032 | -- | -- | * | 42.6 | 42.6 | 31.4 | 9.8 | 23.0 | 17.5 | 22.0 | 9.3 | 28.2 | 26.3 | 327 | 5 | 1.5 | 7 | d |
| Philippines | Metro Manila | PH 11033 | -- | 15.4 | 62.4 | 22.7 | * | 12.7 | 7.8 | 4.5 | 8.3 | 20.5 | 28.2 | 8.3 | 8.4 | 62.4 | 3 | 2.5 | 8 | w |
| | Los Banos | PH 11034 | 37.3 | 17.8 | 16.9 | 37.7 | 6.4 | 14.4 | 7.9 | 7.0 | 6.7 | 2.0 | 1.8 | 1.9 | 6.8 | 37.7 | 4 | 0.4 | 10 | w |
| Republic of Korea | Kanghwa | KR 11035 | 9.7 | * | -- | 44.1 | 43.3 | 23.8 | 9.2 | 2.0 | 16.6 | 14.8 | * | 71.9 | 10.0 | 71.9 | 12 | 0.7 | 7 | d |
| | Cheju | KR 11036 | 45.6 | 30.1 | 14.0 | 13.2 | 1.7 | 1.7 | 2.8 | 6.8 | * | 5.2 | 12.2 | 4.9 | 8.1 | 54.7 | 1 | <0.2 | 5 | d |
| | Imsil | KR 11037 | * | 25.4 | 31.9 | 15.1 | 6.1 | 8.8 | 2.1 | 3.7 | 0.5 | 8.3 | 40.7 | 20.2 | 9.0 | 65.1 | 11 | <0.2 | 9 | d |
| Russia | Mondy | RU 11038 | -- | -- | -- | 21.7 | 22.8 | 12.9 | 2.9 | 17.6 | -- | 13.3 | -- | -- | 8.5 | 40.0 | 4 | <0.2 | 7 | d |
| | Listvyanka | RU 11039 | 22.4 | 44.7 | 19.2 | 11.5 | 7.5 | 7.8 | 5.3 | 6.9 | 9.7 | 5.4 | 16.0 | 20.7 | 11.3 | 58.4 | 2 | 0.5 | 7 | d |
| | Irkutsk | RU 11040 | 45.7 | 334 | 127 | 145 | 34.3 | 8.0 | 13.9 | 19.6 | 24.5 | 22.9 | 62.7 | 205 | 31.3 | 622 | 4 | 1.5 | 7 | e |
| | Primorskaya | RU 11041 | ** | 99.6 | 79.3 | 59.3 | 42.4 | 8.0 | 6.2 | 7.1 | 12.6 | 8.0 | 85.4 | 34.9 | 17.6 | 496 | 4 | <0.2 | 6 | e |
| Thailand | Bangkok | TH 11042 | -- | 3.4 | * | 20.0 | 19.9 | 15.9 | 15.3 | 17.5 | 9.8 | 14.5 | 11.9 | 26.5 | 15.4 | 165 | 11 | <0.2 | 7 | d |
| | Patumthani | TH 11044 | -- | -- | 33.3 | 34.0 | 29.1 | 23.7 | 20.4 | 10.1 | 15.1 | 8.3 | 12.0 | 35.7 | 17.2 | 94.0 | 5 | 3.0 | 10 | d |
| | Vachiralongkorn Dam | TH 11045 | -- | -- | * | 6.1 | 4.1 | 7.0 | 6.7 | 4.7 | 0.5 | * | * | * | 4.7 | 25.5 | 7 | 0.2 | 9 | d |
| | Mae Hia | TH 11046 | 18.8 | 14.0 | -- | 44.0 | 22.3 | 18.2 | 20.9 | 19.7 | 23.8 | 17.7 | 8.9 | 12.7 | 17.8 | 71.8 | 5 | 5.1 | 11 | d |
| Vietnam | Hanoi | VN 11047 | 62.4 | 46.0 | 70.6 | 21.3 | 18.6 | 9.4 | 16.5 | 13.5 | 16.9 | 12.4 | 27.3 | 26.5 | 16.7 | 206 | 9 | 5.2 | 12 | w |
| | Hoa Binh | VN 11048 | 28.9 | 16.2 | 36.2 | 19.0 | 6.3 | 2.9 | 4.3 | 16.9 | 31.8 | 20.0 | 25.4 | 9.9 | 12.6 | 54.3 | 3 | 2.2 | 6 | w |

[--]: Precipitation was 0 mm.

[*]: Ca²⁺ or Na⁺ was not measured although precipitation was not 0 mm. (%TP=0%)

[**]: Precipitation was not measured. (%PCL=0%)

Data in hatched column: Rejected monthly (annual) value by the criteria of EANET (%PCL<80% or %TP<80%)

Table 3.49 Annual precipitation

unit: mm

| Country | Name of sites | Code | 2000 | 2001 | 2002 |
|-------------------|------------------------|----------|--------|--------|--------|
| China | Guanyinqiao | CN 11001 | 1081.1 | 751.6 | 1445.3 |
| | Nanshan | CN 11002 | 1259.4 | | |
| | Jinyunshan | CN 11003 | | 710.1 | 1606.6 |
| | Shizhan | CN 11004 | 559.1 | 363.9 | 349.0 |
| | Weishuiyuan | CN 11005 | 447.4 | 69.3 | 232.0 |
| | Dabagou | CN 11006 | 829.3 | | |
| | Jiwozi | CN 11007 | | 208.8 | 141.7 |
| | Hongwen | CN 11008 | 1517.2 | 295.5 | 1567.5 |
| | Xiaoping | CN 11009 | 1566.4 | 4481.9 | 2170.7 |
| | Xiang Zhou | CN 11010 | 2030.5 | 1989.5 | 1731.4 |
| | Zhuxian Cavern | CN 11011 | 1778.8 | 2570.8 | 1581.0 |
| Indonesia | Jakarta | ID 11012 | 1577.4 | 1236.7 | 1572.3 |
| | Serpong | ID 10014 | *** | 1606.7 | 2505.2 |
| | Kototabang | ID 10013 | 2339.8 | 1208.7 | 1797.6 |
| | Bandung | ID 11015 | 893.3 | 2604.7 | 2540.7 |
| Japan | Rishiri | JP 11016 | 769.9 | 614.9 | 957.0 |
| | Tappi | JP 11017 | 1048.8 | 1081.6 | 1329.4 |
| | Sado-seki | JP 11019 | 1067.7 | 970.5 | 1432.9 |
| | Happo | JP 11021 | 2187.9 | 2345.1 | 2607.3 |
| | Oki | JP 11023 | 1209.1 | 1245.8 | 1570.8 |
| | Yusuhara | JP 11025 | 2800.7 | 2080.1 | 2345.9 |
| | Ogasawara | JP 11018 | 1984.9 | 1805.7 | 1330.5 |
| | Hedo | JP 11023 | 2906.8 | 2125.6 | 2032.4 |
| | Ijira | JP 11022 | 2685.2 | 2236.5 | 2648.3 |
| Banryu | JP 11024 | 1565.2 | 1788.0 | 1303.0 | |
| Malaysia | Petaling Jaya | MY 11029 | 3417.4 | 3085.3 | 2660.4 |
| | Tanah Rata | MY 11030 | 3127.4 | 2626.3 | 2782.6 |
| Mongolia | Ulaanbaatar | MN 11031 | 196.3 | 165.8 | 178.5 |
| | Terej | MN 11032 | 207.6 | 88.6 | 246.0 |
| Philippines | Metro Manila | PH 11033 | 4035.6 | 2291.2 | 2974.6 |
| | Los Banos | PH 11034 | 2635.2 | 1816.5 | 1701.6 |
| Republic of Korea | Kanghwa | KR 11035 | 1117.6 | 1139.4 | 824.1 |
| | Cheju | KR 11036 | 1058.4 | 1113.7 | 1016.8 |
| | Imsil | KR 11037 | | 1299.1 | 992.6 |
| Russia | Mondy | RU 11038 | 304.7 | 319.3 | 203.7 |
| | Listvyanka | RU 11039 | 441.6 | 493.6 | 360.3 |
| | Irkutsk | RU 11040 | 534.4 | 468.4 | 302.5 |
| | Primorskaya | RU 11041 | | | 834.7 |
| Thailand | Bangkok | TH 11042 | 1147.9 | 1173.9 | 1300.3 |
| | Samutprakarn | TH 11043 | 977.7 | | |
| | Patumthani | TH 11044 | 955.6 | 1348.5 | 948.0 |
| | Vachiralongkorn Dam *1 | TH 11045 | 881.3 | 1516.0 | 2199.7 |
| | Mae Hia | TH 11046 | | 1083.9 | 1472.6 |
| Vietnam | Hanoi | VN 11047 | 1256.3 | 2254.7 | 1416.1 |
| | Hoa Binh | VN 11048 | 1893.6 | 2223.2 | 1625.9 |

[***]: No data or not measured

Data in hatched column: Rejected annual value by the criteria of EANET (%PCL<80% or %TP<80%)

Black column: Monitoring wasn't carried out.