Acid Deposition Monitoring Network
in East Asia (EANET)

Data Report 2015

November 2016

Network Center for EANET

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CHAPTER 1

Introduction

1. Introduction

The Acid Deposition Monitoring Network in East Asia (EANET) was established as an initiative for regional cooperation among the participating countries, creation of a common understanding on the state of acid deposition problems and for providing useful inputs to policy makers at various levels.

Monitoring activities started during the preparatory phase activities of EANET from March 1998 to December 2000. Regular monitoring of acid deposition started from January 2001 with the participation of 10 countries, namely China, Indonesia, Japan, Malaysia, Mongolia, Philippines, Republic of Korea, Russia, Thailand, and Vietnam. Cambodia, Lao PDR and Myanmar joined EANET in 2001, 2002 and 2005, respectively. There are currently 13 countries participating in EANET activities.

Acid deposition monitoring of EANET covers five environmental items – wet deposition, dry deposition (air concentration), soil and vegetation, inland aquatic environment, and catchment-scale monitoring. Monitoring of wet and dry deposition was implemented in order to measure atmospheric concentrations and to evaluate fluxes of acidic substances to the land surface, while monitoring for soil/vegetation, inland aquatic environment and catchment-scale has been carried out to assess adverse impacts on terrestrial and aquatic ecosystems. The monitoring data were used to evaluate the state of acid deposition as well as impacts on ecosystems.

The participating countries are required to submit the data and related information obtained from the monitoring activities conducted at the EANET sites in their respective countries to the Network Center for EANET (NC) by the end of June of each calendar year based on the guidelines of EANET. The NC had prepared and presented a draft Data Report 2015, which contains the monitoring data from the participating countries at the Sixteenth Session of Scientific Advisory Committee (SAC16), held in October 2016. The draft Data Report was considered at SAC16 by the experts from the participating countries. Following the comments and guidance at the SAC16, the NC has elaborated and finalized the report.

The Data Report 2015 contains the data obtained from monitoring activities carried out in 2015.

CHAPTER 2

Network Description

2. Network Description

2.1 Classification of Monitoring Sites

EANET monitoring sites are classified into two basic categories, namely acid deposition monitoring sites and ecological survey sites. Acid deposition monitoring sites are sites for the collection of fundamental data on the temporal and spatial distribution of acid deposition, and they are further classified into 3 sub-categories: remote sites, rural sites and urban sites for specific objectives of the monitoring. Ecological survey sites are those that provide basic data for assessing the effects of acidification on terrestrial ecosystems, and they are further classified into 2 sub-categories: survey sites and ecosystem analysis sites. The criteria used for classification of the sites are presented in Table 2.1.

Table 2.1 Classification of Monitoring Sites

Site Category	Site Classification	Main Purpose and Siting Criteria
Acid Deposition Monitoring Site for wet deposition and dry deposition monitoring	Urban Site	- Assessment of the state of acid deposition in urban areas - Urbanized and industrial areas, and the areas immediately outside the urban area - Data can be used for evaluation of acid deposition effect on buildings and historical monuments or human health
	Rural Site	- 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	- 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 (less than 500 vehicles per day)
Ecological Survey Site for soil and vegetation monitoring and Inland aquatic monitoring	Basic survey site	- 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	- Assessment of acid deposition impacts on whole ecosystem through application of terrestrial ecosystem analysis and/or catchment analysis - Sensitive Areas to changes in atmospheric acidity and ecologically conserved area

2.2 Monitoring activities in 2015

Thirteen EANET countries, namely, Cambodia, China, Indonesia, Japan, Lao PDR, Malaysia, Mongolia, Myanmar, Philippines, Republic of Korea, Russia, Thailand and Vietnam participated in monitoring of acid deposition in 2015. The data on wet deposition monitoring were submitted from a total of 57 monitoring sites, including 20 remote, 15 rural and 22 urban sites. The map showing the location of these sites with the classification information is provided in Figure 2.1. The details on the location of the monitoring sites are presented in Table 2.2 and Table 2.3.

Figure 2.1 Locations of EANET deposition monitoring sites in 2015

Table 2.2 Locations of EANET deposition monitoring sites

Country	Site		Classification	Latitude[*1]	Longitude[*1]	Altitude[*1]/m
Cambodia	Phnom Penh		Urban	11°33'18"N	104°56'20"E	12
China	Chongqing	- Haifu	Urban	29°37'30"N	106°30'34"E	300
		- Jinyunshan	Rural	29°49'42"N	106°22'43"E	403
	Xi'an	- Shizhan	Urban	34°14'33"N	108°57'10"E	419
		- Jiwozi	Remote	33°51'06"N	108°48'52"E	2,198
	Xiamen	- Hongwen	Urban	24°28'47"N	118°09'47"E	39
		- Xiaoping	Remote	24°51'23"N	118°02'55"E	530
	Zhuhai	- Xiang Zhou	Urban	22°16'22"N	113°31'46"E	0
		- Zhuxiandong	Urban	22°12'24"N	113°30'60"E	137
Indonesia	Jakarta		Urban	6°18'09"S	106°45'23"E	47
	Serpong		Rural	6°21'03"S	106°40'03"E	64
	Kototabang		Remote	0°12'14"S	100°19'06"E	850
	Bandung		Urban	6°53'39"S	107°35'13"E	754
	Maros		Rural	4°59'50"S	119°34'17"E	1
Japan	Rishiri		Remote	45°07'30"N	141°14'30"E	40
	Ochiishi		Remote	43°09'43"N	145°29'50"E	49
	Tappi		Remote	41°15'06"N	140°21'01"E	106
	Sado-seki		Remote	38°15'02"N	138°24'01"E	129
	Happo		Remote	36°41'48"N	137°47'53"E	1,850
	Ijira		Rural	35°34'14"N	136°41'51"E	140
	Oki		Remote	36°17'19"N	133°11'06"E	90
	Banryu		Urban	34°40'54"N	131°47'59"E	53
	Yusuhara		Remote	33°22'46"N	132°56'06"E	790
	Hedo		Remote	26°51'58"N	128°14'55"E	60
	Ogasawara		Remote	27°05'32"N	142°13'02"E	212
	Tokyo		Urban	35°41'30"N	139°45'10"E	26
Lao PDR	Vientiane		Urban	17°58'12"N	102°34'14"E	170
Malaysia	Petaling Jaya		Urban	03°06'08"N	101°38'41"E	51
	Tanah Rata		Remote	04°47' N	101°37' E	1,545
	Danum Valley		Remote	04°58'49"N	117°50'39"E	438
	Kuching		Urban	01°29'25"N	110°21'09"E	20
Mongolia	Ulaanbaatar		Urban	47°55'13"N	106°54'43"E	1,303
	Terelj		Remote	47°58'59"N	107°27'04"E	1,557
Myanmar	Yangon		Urban	16°51'53"N	96°09'13"E	21
	Mandalay[*2]		Rural	21°54'46"N	96°03'51"E	70
Philippines	Metro Manila		Urban	14°38'09"N	121°04'43"E	55
	Los Baños		Rural	14°09'53"N	121°15'00"E	25
	Mt. Sto. Tomas		Remote	16°25' N	120°36' E	1,500
Republic of Korea	Kanghwa		Rural	37°42'32"N	126°16'26"E	60
	Cheju (Kosan)		Remote	33°17'32"N	126°09'43"E	37
	Imsil		Rural	35°36'09"N	127°10'53"E	217

Table 2.2 Locations of EANET deposition monitoring sites (continued)

Country	Site	Classification	Latitude*1	Longitude*1	Altitude*1/m
Russia	Mondy	Remote	51°37'18"N	100°55'10"E	1,992
	Listvyanka	Rural	51°50'47"N	104°53'34"E	646
	Irkutsk	Urban	52°14'53"N	104°15'33"E	495
	Primorskaya	Rural	43°37'45"N	132°14'13"E	85
Thailand	Bangkok	Urban	13°47'04"N	100°32'22"E	5
	Samutprakarn	Urban	13°39'58"N	100°36'21"E	4
	Pathumthani	Rural	14°02'46"N	100°42'43"E	6
	Khanchanaburi (Vachiralongkorn Dam)	Remote	14°47'05"N	98°36'05"E	130
	Chiang Mai (Mae Hia)	Rural	18°45'54"N	98°55'42"E	349
	Nakhon Ratchasima*3				
	- Sakaerat	Rural	14°28'04"N	101°54'05"E	409
	- Nai Mueang	Urban	14°58'46"N	102°05'53"E	184
Vietnam	Hanoi*4	Urban	21°01'17"N	105°48'26"E	12
	Hanoi (Relocated)*4	Urban	21°03'24"N	105°43'36"E	8
	Hoa Binh	Rural	20°50'11"N	105°20'36"E	26
	Cuc Phuong	Remote	20°18'01"N	105°41'38"E	272
	Da Nang	Urban	16°02'35"N	108°12'24"E	7
	Can Tho	Rural	10°05'17"N	105°41'45"E	3
	Ho Chi Minh	Urban	10°47'04"N	106°42'00"E	18
	Yen Bai*2	Rural	21°42'28"N	104°52'29"E	36

*1 The latitude and longitude are shown according to the World Geodetic System. The latitude, longitude and altitude of each site indicate the deposition monitoring site.
*2 Mandalay and Yen Bai sites started monitoring in 2015.
*3 Nakhon Ratchasima site was divided into two sites, - Sakaerat and Nai Mueang.
*4 Hanoi site was relocated in May 2015.

The filter pack method is used at 43 sites for measurements of air concentrations of pollutants for determining of dry deposition. Automatic or manual gas monitors is also used for the monitoring of ozone concentration. Concentrations of particulate matter as PM_{10} are measured by automatic or manual instruments at 24 sites.

The current situation on basic survey sites for ecological monitoring and the nearest deposition monitoring sites was shown in Table 2.3. Soil and vegetation monitoring and monitoring on inland aquatic environment are conducted at 30 plots in 10 countries and 19 lakes/rivers in 11 countries, respectively. Most of the ecological monitoring sites are corresponded to the deposition monitoring sites. Moreover, both soil and vegetation monitoring and monitoring on inland aquatic environment are conducted in the vicinity of 4 deposition monitoring sites in China, 2 sites in Japan, 2 sites in Philippines, 2 sites in Russia, 1 site in Thailand, and 1 site in Vietnam. It is expected that the deposition data collected in the nearest monitoring sites will be used for interpretation of the data on ecological monitoring in these sites.

Table 2.3 Basic survey sites for ecological monitoring and the nearest deposition sites

Country	Site for deposition monitoring	Plot for soil and vegetation monitoring	Site for monitoring on inland aquatic environment
Cambodia	-	-	Sras Srang Lake
China	Jinyunshan (Chongqing)	Jinyunshan	Jinyunshan Lake
	Jiwozi (Xi'an)	Dabagou	Jiwozi River
	Xiaoping (Xiamen)	Xiaoping	Xiaoping Dam
	Zhuxiandong (Zhuhai)	Zhuxiandong	Zhuxiandong Stream
Indonesia	Serpong	Bogor Research Forest (Dramaga Experimental Forest)	-
	Bandung	-	Patengang Lake
	-	-	Gunung Lake
Japan	Ijira	Ijira	Ijira Lake
		Yamato	
	Banryu	Banryu-2[*1]	Banryu Lake
		Iwami "rinku" Factory Park[*1]	
Lao PDR	Vientiane	-	Nam Hum Lake
Malaysia	Petaling Jaya	Pasoh Reserve Forest1	Semenyih Dam
		Pasoh Reserve Forest2	
	-	UPMKB Rehabilitated Forest Planted in 1991[*2]	
		UPMKB Rehabilitated Forest Planted in 2008	
	Danum Valley	-	Tembaling River
Mongolia	Ulaanbaatar	Bogdkhan Mountain	-
	Terelj	Terelj Mountain	Terelj River
Philippines	Los Banos	Mt. Makiling	Pandin Lake
		UP Quezon, Land Grant	
	Metro Manila	La Mesa Watershed	-
	Mt. Sto Tomas	Boneco Long Term Ecological Research Site	Ambulalakaw Lake

Table 2.3 Basic survey sites for ecological monitoring and the nearest deposition sites (continued)

Country	Site for deposition monitoring	Plot for soil and vegetation monitoring	Site for monitoring on inland aquatic environment
Republic of Korea	Imsil	Mt. Naejang	-
Russia	Irkutsk	Irkutsk	-
	Listvyanka	Bolshie Koty	Pereemnaya River
		Pereemnaya river catchment	
	Mondy	Ilchir Lake	-
		Okinskoe Lake	
		Solar Observatory	
	Primorskaya	Primorskaya	Komarovka River
Thailand	Khanchanaburi (Vachiralongkorn Dam)	Vachiralongkorn Dam*3	Vachiralongkorn Dam
		Vachiralongkorn Puye	
Vietnam	Hoa Binh	Cave of Heaven	Hoa Binh Reservoir
		Thang Ranh	

*1 The sites around Banryu deposition site were relocated in 2001.
*2 UPMKB (Universiti Putra Malaysia Bintulu Campus) site replaced Sungai Lalang Reserve Forest in 2015 officially.
*3 Kao Lam Dam was renamed to Vachiralongkorn Dam.

The implementation of the catchment scale monitoring at one site in Japan was shown in Table 2.4. This table contained the site information which is under preparation at this moment.

Table 2.4 Site for catchment-scale monitoring

Country	Site	Note
Japan	Lake Ijira catchment	
Philippines	La Mesa Watershed	Under preparation

CHAPTER 3

Wet Deposition Monitoring

3. Wet Deposition Monitoring

3.1 Method

Each participating country is required to carry out acid deposition monitoring using common methodologies as specified in the *Guidelines for Acid Deposition Monitoring in East Asia*, *Technical Manual for Wet Deposition Monitoring in East Asia -2010*, which was issued by Network Center for EANET in November 2010 to obtain comparable, high quality monitoring data. Figure 3.1 shows the flow chart that summarizes the procedures for sampling and chemical analysis by the participating countries.

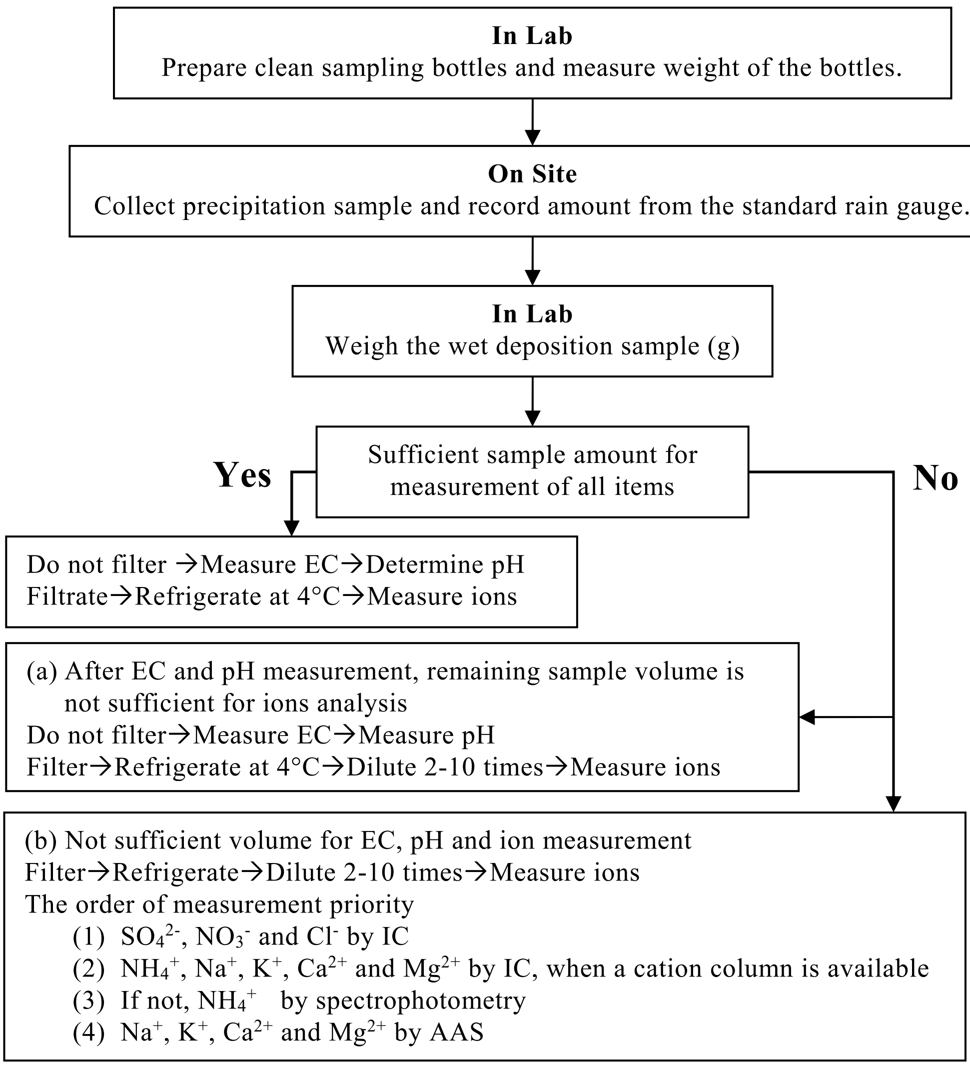


Figure 3.1 Flow chart of sampling and chemical analysis of Wet Deposition

3.1.1 Field Operation

The wet-only sampler is recommended for the collection of the precipitation samples. This instrument is designed to collect precipitation samples during the period of rainfall which is detected by an equipped rain sensor that opens the lid on the collecting bucket or funnel. The lid of this instrument closes to avoid any collection into the collecting bucket or funnel, when no rainfall is detected by the sensor.
On the other hand, when a manual sampler is used to collect the precipitation since an automatic instrument is not available, the sampling shall be done by ensuring the sample collection only during rainfall period.

The collected wet deposition samples in a tropical region have to be prevented from any microbiological degradation. Biocides such as thymol should be used to prevent the microbiological degradation when the storage during sampling, shipping and storage of the samples under the refrigeration is not possible.
Samples without biocides have to be shipped to the laboratories in charge of chemical analysis using a cooling box to keep the sample temperature low enough to preserve the sample chemistry. On the other hand, the special care for the sampling of wet deposition in the higher latitude region during winter seasons should be done. The collection of the wet deposition samples may encounter difficulties due to low ambient temperature particularly when the temperature falls below -10 to -20°C.

3.1.2 Laboratory Operation

Procedures for the analysis of major constituent in wet deposition sample according to the *"Technical Manual for Wet Deposition Monitoring in East Asia -2010"* are shown in Table 3.1. Ion chromatography is recommended as the major analytical method which has been adopted by the participating countries for chemical analysis of both anions and cations contained in precipitation samples. Atomic absorption/emission spectrometry for Na^+, K^+, Ca^{2+}, and Mg^{2+}, and spectrophotometry for NH_4^+ are the secondary methods for the determination of these ions. Laboratories that use other non-recommended methods with insufficient analytical sensitivity, such as titration method, will encounter problems of unsatisfactory detection limit.
The EANET Data quality objective (DQO) values are defined in the *"Technical Documents for Wet Deposition Monitoring in East Asia -2010."* And DQO values about Detection limits are shown in Table 3.2.

3.1.3 Data Management

Each laboratory has to submit the analyzed data of the precipitation samples to the National Center. Each National Center is expected to submit the compiled data in the required format to the Network Center for EANET (NC) by the end of June in the following year. All the data have to be checked by calculating values of 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 should be recorded onto the data sheet. Participating countries can refer to QA/QC part of the EANET document on *“Technical Manual for Wet Deposition Monitoring in East Asia -2010.”*

3.1.4 Meteorological Measurements

It is recommended that monitoring sites incorporate collocated meteorological measurements including wind direction/speed, temperature, humidity, precipitation amount and solar radiation. Meteorological data can also be acquired from the nearest standard meteorological station (meeting the requirements of the national weather service). Local meteorological data is very useful when dealing with the interpretation of unusual precipitation events.

Meteorological statistics at the monitoring sites were shown in Appendix II at the end of report.

Table 3.1 Recommended analytical method for the measurement of major constituent in wet deposition samples

Analysis	Method
Electric conductivity (EC)	Conductivity cell method
pH	Glass electrode
Cl^-, NO_3^-, SO_4^{2-}, NO_2^-, F^-, PO_4^{3-}	Ion chromatography, Spectrophotometry
NH_4^+	Ion chromatography, Spectrophotometry (Indophenol Blue)*
Na^+, K^+, Ca^{2+}, Mg^{2+}	Ion chromatography Atomic absorption/emission spectrometry
HCO_3^-	Ion chromatography, Alkalinity method, HPLC
Organic acids	Ion chromatography

* An alternate analysis method should be used if thymol has been used as a biocide during sample collection.

Table 3.2 DQO values about Detection limits

Items	Detection limits (μmol L^{-1})
SO_4^{2-}	0.3
NO_3^-	0.5
Cl^-	0.5
Na^+	0.8
NH_4^+	0.3
K^+	0.3
Ca^{2+}	0.2
Mg^{2+}	0.3

3.1.5 Overview of the Statistics and Definition

An overview of the statistics and definitions used is given below.

Weighted average: the precipitation amount weighted average concentration (μmol L^{-1}) over the summary period.

Calculated as:

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

where $\hat{C}$: precipitation amount weighted average concentration (μmol L^{-1})

C_i : measured valid concentration for sample i (μmol L^{-1})

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

Deposition amount: the wet deposition amount (mmol m^{-2}) for the summary period.

Calculated as:

Deposition amount = $\hat{C}\times$(total precipitation amount for the summary period)/1000

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 sulfate and non-sea-salt calcium (μmol L^{-1}): Equal to the measured sulfate (calcium) in the sample minus the sulfate (calcium) contributed by sea salt. Sea salt sulfate (calcium) is estimated from the concentration of sodium and the component ratio of sea water.

$$[\text{nss-}SO_4^{2-}] = [SO_4^{2-}] - 0.06028\,[Na^+]$$

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

(Na^+ : 468.3 mmol L^{-1}, SO_4^{2-} : 28.23 mmol L^{-1}, Ca^{2+} : 10.12 mmol L^{-1}; Ref.: *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 ≥ 80%, and %TP ≥ 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. Especially, monitoring sites in Japan treated bulk monitoring as data missing.

Ion balance (R_1):

Calculated as:

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

where C: total cation equivalent concentration (μeq L^{-1})

A: total anion equivalent concentration (μeq L^{-1})

$$C = 10^{(6-pH)} + \Sigma(C_{Ci}V_i)$$

where C_{Ci} : the concentration of i-th cation (μmol L^{-1})

V_i : the valence of the given ion

$$A = \Sigma(C_{Ai}V_i)$$

where C_{Ai} : the concentration of i-th anion (μmol L^{-1})

Required criteria for R_1 :

The required ion balances of precipitation analyses are given in Table 3.3.

Table 3.3 Required criteria for R_1

(C+A) (μeq L^{-1})	R_1 (%)
<50	±30
50 – 100	±15
>100	±8

Conductivity agreement (R_2) :

Calculated as:

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

where Λ_{calc} : the calculated conductivity (mS m^{-1})

Λ_{meas} : the measured conductivity (mS m^{-1})

$$\Lambda_{calc} = \Sigma(C_i\, \Lambda_i^0) \times 10^{-4}$$

where C_i : the ionic concentration of i-th ion (μmol L^{-1})

Λ_i^0 : the molar conductivity at infinite dilution and 25°C (Scm^2 mol^{-1})

$$\Lambda_{calc} = \{349.7 \times 10^{(6-pH)} + 80.0 \times 2c(SO_4^{2-}) + 71.4c(NO_3^-) + 76.3c(Cl^-) + 73.5c(NH_4^+) + 50.1c(Na^+) + 73.5c(K^+) + 59.5 \times 2c(Ca^{2+}) + 53.0 \times 2c(Mg^{2+})\}/10000$$

where c( ) : the ionic concentrations (μmol L^{-1})

Required criteria for R_2 :

The required conductivity comparison criteria are given in Table 3.4.

Table 3.4 Required criteria for R_2

Λ_{meas} (mS m^{-1})	R_2 (%)
<0.5	±20
0.5 – 3	±13
>3	±9

3.1.6 Terms and Abbreviations

Terms and abbreviations are given in Table 3.5.

Table 3.5 Terms and abbreviations

	Terms and abbreviations	Definition
For all data	Data in hatched cell ( )	Rejected monthly (annual) value by the criteria. [%PCL<80% and/or %TP<80%]
	[--]	Precipitation was 0 mm.
	[*]	The constituent was not measured although precipitation was not 0 mm. [%TP=0%]
	[**]	Precipitation was not measured. [%PCL=0%]
	[***]	No data or not measured.
	Black cell ( )	Monitoring was not carried out.
For precipitation amount weighted average concentrations	Max	Maximum monitoring data for a year.
	Min	Minimum monitoring data for a year.
For concentration of ions except for H^+	[<0.2] [<0.3] [<0.5] [<0.8]	The values were lower than each DQO values about Detection limit. nss-SO_4^{2-} and nss-Ca^{2+} refer to Detection limit of SO_4^{2-} and Ca^{2+} respectively.
For deposition	[0.00]	Deposition amount was zero. (Precipitation was 0 mm.)
	[<0.01]	Calculated deposition amount was lower than 0.01mmol m^{-2}.
For results of ion balance (R_1) and conductivity agreement check (R_2)	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.

3.1.7 Monitoring Sites

Precipitation samples are collected on a daily basis at 36 out of 57 sites, while weekly collection are performed at 21 sites, as presented in Table 3.6. The analytical methods used in the laboratories for measuring the precipitation samples are presented in Table 3.7. Some sites analyzed additional items presented in Table 3.7. R_1 and R_2 were calculated for these sites including the additional items.

Table 3.6 Sampling Frequencies for Wet Deposition Monitoring in 2015

Country	Site	Classification	Sampling Interval	Starting Month
Cambodia	Phnom Penh	Urban	Weekly	April 2004
China	Haifu (Chongqing)	Urban	Daily	January 2008
	Jinyunshan (Chongqing)	Rural	Daily	April 1999
	Shizhan (Xi'an)	Urban	Daily	April 1999
	Jiwozi (Xi'an)	Remote	Daily	April 1999
	Hongwen (Xiamen)	Urban	Daily	April 1999
	Xiaoping (Xiamen)	Remote	Daily	April 1999
	Xiang Zhou (Zhuhai)	Urban	Daily	April 1999
	Zhuxiandong (Zhuhai)	Urban	Daily	December 1999
Indonesia	Jakarta	Urban	Weekly	April 1998
	Serpong	Rural	Daily	April 1998
	Kototabang	Remote	Weekly	April 1998
	Bandung	Urban	Daily	January 1999
	Maros	Rural	Weekly	January 2008
Japan	Rishiri	Remote	Daily	April 1998
	Ochiishi	Remote	Daily	January 2003
	Tappi	Remote	Daily	April 1998
	Sado-seki	Remote	Daily	April 1999
	Happo	Remote	Daily	April 1998
	Ijira	Rural	Weekly	June 1999
	Oki	Remote	Daily	April 1998
	Banryu	Urban	Weekly	May 1999
	Yusuhara	Remote	Daily	December 1999
	Hedo	Remote	Daily	December 1999
	Ogasawara	Remote	Daily	May 1999
	Tokyo	Urban	Daily	April 2007
Lao PDR	Vientiane	Urban	Daily	October 2003
Malaysia	Petaling Jaya	Urban	Weekly	April 1998
	Tanah Rata	Remote	Weekly	January 1999
	Danum Valley	Remote	Weekly	January 2005
	Kuching	Urban	Weekly	January 2008
Mongolia	Ulaanbaatar*1	Urban	Daily	August 1998
	Terelj*1	Remote	Daily	September 1998
Myanmar	Yangon	Urban	Weekly	January 2007
Philippines	Metro Manila	Urban	Weekly	April 1999
	Los Baños	Rural	Weekly	April 1999
	Mt. Sto. Tomas	Remote	Weekly	October 2006

Table 3.6 Sampling Frequencies for Wet Deposition Monitoring in 2015 (continued)

Country	Site	Classification	Sampling Interval	Starting Month
Republic of Korea	Kanghwa	Rural	Daily	March 1999
	Cheju	Remote	Daily	April 1999
	Imsil	Rural	Daily	January 2001
Russia	Mondy	Remote	Daily	May 1999
	Listvyanka	Rural	Daily	January 2000
	Irkutsk	Urban	Daily	January 2000
	Primorskaya	Rural	Daily	February 2002
Thailand	Bangkok	Urban	Daily	April 1999
	Samutprakarn	Urban	Daily	January 2004
	Pathumthani	Rural	Daily	March 1999
	Khanchanaburi	Remote	Daily	April 1999
	Chiang Mai	Rural	Daily	January 2001
	Sakaerat (Nakhon Ratchasima)	Rural	Daily	January 2006
Vietnam	Hanoi	Urban	Weekly	August 1999
	Hoa Binh	Rural	Weekly	August 1999
	Cuc Phuong	Remote	Weekly	January 2009
	Da Nang	Urban	Weekly	January 2009
	Can Tho	Rural	Weekly	January 2014
	Ho Chi Minh	Urban	Weekly	January 2014
	Yen Bai	Rural	Weekly	May 2015

*1: The monitoring data of cation in 2015 could not be submitted because of malfunction of the instrument in the laboratory.

Table 3.7 Analytical methods and additional items in 2015

Country	Site	Analytical methods			Additional items
		Anions	NH_4^+	Other Cations	
Cambodia	Phnom Penh	IC	IC	IC	
China	Haifu (Chongqing)	IC	IC	IC	F^-
	Jinyunshan (Chongqing)	IC	IC	IC	F^-
	Shizhan (Xi'an)	IC	IC	IC	
	Jiwozi (Xi'an)	IC	IC	IC	
	Hongwen (Xiamen)	IC	IC	IC	F^-
	Xiaoping (Xiamen)	IC	IC	IC	F^-
	Xiang Zhou (Zhuhai)	IC	IC	IC	F^-
	Zhuxiandong (Zhuhai)	IC	IC	IC	F^-
Indonesia	Jakarta	IC	IC	IC	
	Serpong	IC	IC	IC	
	Kototabang	IC	IC	IC	
	Bandung	IC	IC	IC	
	Maros	IC	IC	IC	

Table 3.7 Analytical methods and additional items in 2015 (continued)

Country	Site	Analytical methods			Additional items
		Anions	NH_4^+	Other Cations	
Japan	Rishiri	IC	IC	IC	HCO_3^-
	Ochiishi	IC	IC	IC	F^-, Br^-, NO_2^-, PO_4^{3-}
	Tappi	IC	IC	IC	
	Sado-seki	IC	IC	IC	
	Happo	IC	IC	IC	
	Ijira	IC	IC	IC	
	Oki	IC	IC	IC	
	Banryu	IC	IC	IC	
	Yusuhara	IC	IC	IC	
	Hedo	IC	IC	IC	
	Ogasawara	IC	IC	IC	F^-, NO_2^-
	Tokyo	IC	IC	IC	F^-, NO_2^-
Lao PDR	Vientiane	IC	IC	IC	
Malaysia	Petaling Jaya	IC	IC	IC	Formic, Acetic, Oxalic acid
	Tanah Rata	IC	IC	IC	Formic, Acetic, Oxalic acid
	Danum Valley	IC	IC	IC	Formic, Acetic, Oxalic acid
	Kuching	IC	IC	IC	Formic, Acetic, Oxalic acid
Mongolia	Ulaanbaatar	IC	IC	IC	
	Terelj	IC	IC	IC	
Myanmar	Yangon	IC	IC	IC	
Philippines	Metro Manila	IC	IC	IC	
	Los Baños	IC	IC	IC	
	Mt. Sto. Tomas	IC	IC	IC	
Republic of Korea	Kanghwa	IC	IC	IC	
	Cheju	IC	IC	IC	
	Imsil	IC	IC	IC	
Russia	Mondy	IC	SP	AES	HCO_3^-, Br^-, NO_2^-
	Listvyanka	IC	SP	AES	HCO_3^-, Br^-, NO_2^-
	Irkutsk	IC	SP	AES	HCO_3^-, Br^-, NO_2^-
	Primorskaya	SP, TI	SP	AAS, AES	
Thailand	Bangkok	IC	IC	IC	PO_4^{3-}, Formic, Acetic acid
	Samutprakarn	IC	IC	IC	PO_4^{3-}, Formic, Acetic acid
	Pathumthani	IC	IC	IC	PO_4^{3-}, Formic, Acetic acid
	Khanchanaburi	IC	IC	IC	PO_4^{3-}, Formic, Acetic acid
	Chiang Mai	IC	IC	IC	PO_4^{3-}, Formic, Acetic acid
	Sakaerat (Nakhon Ratchasima)	IC	IC	IC	PO_4^{3-}, Formic, Acetic acid
Vietnam	Hanoi	IC	IC	IC	F^-
	Hoa Binh	IC	IC	IC	F^-
	Cuc Phuong	IC	IC	IC	HCO_3^-, F^-
	Da Nang	IC	IC	IC	HCO_3^-, F^-
	Can Tho	IC	SP	AAS	F^-
	Ho Chi Minh	IC	SP	AAS	F^-
	Yen Bai	IC	IC	IC	F^-

AAS: Atomic absorption spectrometry, AES: Atomic emission spectrometry,
IC: Ion chromatography, SP: Spectrophotometry, TI: Titration

3.2 Results of Monitoring

The monthly summaries of each monitoring site in 2015 are shown in Table 3.8 through Table 3.64. The annual summaries of wet deposition monitoring in 2015 are shown in Table 3.65 through Table 3.67. The summaries contain the precipitation amount weighted average, data completeness (%PCL, %TP) and the wet deposition amount.

Results of ion balance (R_1) and the conductivity agreement (R_2) of each monitoring site are shown in Table 3.68. The summaries of annual data from 2001 to 2015 are shown in Table 3.69 through Table 3.93. Figure3.2 to Figure 3.58 are plots of R_1 and R_2 for each site. The following information is provided to describe the figures:

(1) Ion Balance (R_1)
- (C + A) is logarithmic scale
- Horizontal bar : The allowable range of R_1 in each concentration range

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

Results of the additional items are shown in Table 3.94 through Table 3.101.
Note that the data in 2000 is obtained during the preparatory-phase activities of EANET.

Table 3.8 Monthly results Site: Phnom Penh Country: Combodia

Precipitation amount-weighted average concentration/ Precipitation amount

2015	SO_4^{2-}	nss-SO_4^{2-}	NO_3^-	Cl^-	NH_4^+	Na^+	K^+	Ca^{2+}	nss-Ca^{2+}	Mg^{2+}	H^+	pH	EC	Precip.
	$\mu mol\ L^{-1}$	$\mu mol\ L^{-1}$	$\mu mol\ L^{-1}$	$\mu mol\ L^{-1}$	$\mu mol\ L^{-1}$	$\mu mol\ L^{-1}$	$\mu mol\ L^{-1}$	$\mu mol\ L^{-1}$	$\mu mol\ L^{-1}$	$\mu mol\ L^{-1}$	$\mu mol\ L^{-1}$		$mS\ m^{-1}$	$mm\ month^{-1}$ or $mm\ year^{-1}$
Jan	6.62	5.61	7.03	9.44	7.76	16.9	6.39	8.73	8.37	4.48	0.417	6.38	0.519	14.9
Feb	8.22	7.98	13.3	7.87	24.2	4.03	1.62	16.1	16.0	1.79	0.359	6.45	0.975	53.3
Mar	10.6	9.91	17.1	15.7	21.6	11.7	5.83	13.9	13.7	4.94	0.417	6.38	1.04	49.8
Apr	8.00	7.28	22.7	15.9	24.2	11.9	2.55	19.6	19.3	2.70	0.616	6.21	1.10	44.4
May	10.7	9.90	18.9	18.1	28.2	12.6	5.14	15.7	15.5	3.01	0.560	6.25	1.13	30.0
June	6.73	6.36	13.5	8.90	21.5	6.14	1.65	17.0	16.9	2.30	0.222	6.65	0.945	42.8
July	7.23	6.53	12.6	11.5	19.0	11.5	1.94	12.2	11.9	3.38	0.354	6.45	0.987	82.9
Aug	7.70	7.51	8.21	7.41	13.1	3.10	1.76	8.89	8.82	2.78	0.801	6.10	0.447	324
Sept	6.11	5.78	7.48	9.23	14.2	5.40	1.08	11.0	10.8	2.27	1.32	5.88	0.632	220
Oct	7.23	7.02	9.17	4.92	17.5	3.55	2.25	13.1	13.1	1.40	0.438	6.36	0.666	80.8
Nov	3.25	2.83	8.17	6.21	25.5	6.96	1.02	8.48	8.33	1.60	0.501	6.30	0.540	139
Dec	12.7	11.8	18.2	15.5	32.7	14.8	3.90	23.9	23.6	4.22	0.275	6.56	1.56	20.9
Annual	7.04	6.66	10.4	9.01	18.1	6.28	1.98	11.6	11.5	2.56	0.717	6.14	0.691	1103
Max.	12.7	11.8	23.1	21.9	32.7	19.1	8.80	23.9	23.6	5.35	2.82	6.75	1.56	
Min.	3.25	2.83	5.14	3.67	7.76	2.17	0.767	7.98	7.57	1.23	0.178	5.55	0.410	

Wet deposition amount

2015	SO_4^{2-}	nss-SO_4^{2-}	NO_3^-	Cl^-	NH_4^+	Na^+	K^+	Ca^{2+}	nss-Ca^{2+}	Mg^{2+}	H^+
	$mmol\ m^{-2}$	$mmol\ m^{-2}$	$mmol\ m^{-2}$	$mmol\ m^{-2}$	$mmol\ m^{-2}$	$mmol\ m^{-2}$	$mmol\ m^{-2}$	$mmol\ m^{-2}$	$mmol\ m^{-2}$	$mmol\ m^{-2}$	$mmol\ m^{-2}$
Jan	0.0988	0.0836	0.105	0.141	0.116	0.252	0.0953	0.130	0.125	0.0669	<0.01
Feb	0.438	0.425	0.709	0.419	1.29	0.215	0.0866	0.859	0.855	0.0954	0.0191
Mar	0.528	0.493	0.851	0.780	1.07	0.581	0.290	0.695	0.682	0.246	0.0208
Apr	0.355	0.323	1.01	0.708	1.07	0.529	0.113	0.869	0.858	0.120	0.0273
May	0.319	0.297	0.567	0.541	0.847	0.377	0.154	0.472	0.464	0.0903	0.0168
June	0.288	0.273	0.578	0.381	0.923	0.263	0.0708	0.729	0.723	0.0985	<0.01
July	0.599	0.542	1.05	0.952	1.57	0.951	0.161	1.01	0.989	0.280	0.0294
Aug	2.49	2.43	2.66	2.40	4.24	1.00	0.570	2.88	2.86	0.898	0.259
Sept	1.35	1.27	1.65	2.03	3.14	1.19	0.238	2.41	2.39	0.501	0.292
Oct	0.584	0.567	0.740	0.397	1.42	0.287	0.182	1.06	1.05	0.113	0.0353
Nov	0.452	0.393	1.14	0.863	3.54	0.967	0.142	1.18	1.16	0.222	0.0697
Dec	0.266	0.247	0.380	0.324	0.683	0.309	0.0816	0.499	0.493	0.0883	<0.01
Annual	7.76	7.35	11.4	9.94	19.9	6.92	2.18	12.8	12.6	2.82	0.791

Data completeness

2015	SO_4^{2-}	nss-SO_4^{2-}	NO_3^-	Cl^-	NH_4^+	Na^+	K^+	Ca^{2+}	nss-Ca^{2+}	Mg^{2+}	H^+	pH	EC	Precip.
	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%PCL
Jan	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Feb	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Mar	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Apr	100	100	100	100	100	100	100	100	100	100	100	100	100	100
May	100	100	100	100	100	100	100	100	100	100	100	100	100	100
June	100	100	100	100	100	100	100	100	100	100	100	100	100	100
July	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Aug	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Sept	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Oct	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Nov	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Dec	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Annual	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Terms and abbreviations are given in Table 3.5.

Table 3.9 Monthly results Site: Haifu Country: China

Precipitation amount-weighted average concentration/ Precipitation amount

2015	SO_4^{2-} µmol L^{-1}	nss-SO_4^{2-} µmol L^{-1}	NO_3^- µmol L^{-1}	Cl^- µmol L^{-1}	NH_4^+ µmol L^{-1}	Na^+ µmol L^{-1}	K^+ µmol L^{-1}	Ca^{2+} µmol L^{-1}	nss-Ca^{2+} µmol L^{-1}	Mg^{2+} µmol L^{-1}	H^+ µmol L^{-1}	pH	EC mS m^{-1}	Precip. mm month^{-1} or mm year^{-1}
Jan	197	196	214	28.6	277	15.3	16.9	135	135	17.6	7.91	5.10	9.45	18.3
Feb	204	203	139	25.0	357	7.82	22.3	117	117	17.0	1.37	5.86	8.05	4.7
Mar	88.4	88.0	74.1	12.6	128	6.81	8.57	81.0	80.8	12.1	1.51	5.82	4.02	19.4
Apr	68.6	68.2	60.8	10.3	113	5.70	8.13	98.4	98.3	8.12	0.354	6.45	3.96	98.0
May	76.8	76.5	57.8	8.26	154	5.07	7.31	60.9	60.8	7.99	0.682	6.17	3.74	115
June	41.5	41.2	39.6	6.86	97.2	4.48	8.10	33.8	33.8	4.97	0.682	6.17	2.34	230
July	29.4	29.3	26.6	5.36	73.5	1.27	3.42	25.2	25.1	2.23	0.943	6.03	1.77	144
Aug	31.1	31.0	25.2	3.57	36.8	1.61	4.98	32.0	32.0	3.73	2.66	5.58	1.45	177
Sept	34.7	34.5	34.5	6.97	65.0	2.35	2.92	21.0	20.9	2.28	7.37	5.13	1.97	280
Oct	66.8	66.5	81.5	12.3	145	4.62	6.06	45.1	45.0	4.43	12.8	4.89	3.83	93.8
Nov	142	141	144	15.8	231	8.70	8.41	152	152	10.3	1.98	5.70	7.28	10.6
Dec	100	99.9	107	14.0	157	4.82	13.2	88.8	88.7	7.53	10.3	4.99	5.40	29.4
Annual	50.3	50.1	47.4	7.78	95.2	3.61	5.99	43.0	43.0	4.79	3.81	5.42	2.70	1220
Max.	779	776	1020	110	1538	81.3	176	595	595	74.8	87.1	7.39	40.4	
Min.	11.1	10.9	12.9	1.13	9.98	0.435	<0.3	9.48	9.43	0.822	0.0407	4.06	0.825	

Wet deposition amount

2015	SO_4^{2-} mmol m^{-2}	nss-SO_4^{2-} mmol m^{-2}	NO_3^- mmol m^{-2}	Cl^- mmol m^{-2}	NH_4^+ mmol m^{-2}	Na^+ mmol m^{-2}	K^+ mmol m^{-2}	Ca^{2+} mmol m^{-2}	nss-Ca^{2+} mmol m^{-2}	Mg^{2+} mmol m^{-2}	H^+ mmol m^{-2}
Jan	3.61	3.59	3.91	0.523	5.07	0.280	0.310	2.47	2.47	0.323	0.145
Feb	0.957	0.955	0.654	0.118	1.68	0.0367	0.105	0.552	0.551	0.0800	<0.01
Mar	1.71	1.71	1.44	0.244	2.48	0.132	0.166	1.57	1.57	0.234	0.0292
Apr	6.72	6.69	5.96	1.01	11.1	0.559	0.797	9.64	9.63	0.796	0.0346
May	8.83	8.80	6.64	0.950	17.7	0.583	0.841	7.00	6.99	0.919	0.0785
June	9.52	9.46	9.10	1.58	22.3	1.03	1.86	7.77	7.75	1.14	0.157
July	4.23	4.22	3.83	0.771	10.6	0.182	0.492	3.62	3.62	0.321	0.136
Aug	5.50	5.48	4.46	0.632	6.52	0.285	0.883	5.67	5.66	0.661	0.470
Sept	9.70	9.66	9.66	1.95	18.2	0.656	0.816	5.86	5.85	0.637	2.06
Oct	6.27	6.24	7.64	1.15	13.6	0.433	0.569	4.23	4.22	0.416	1.20
Nov	1.50	1.50	1.53	0.168	2.45	0.0922	0.0891	1.61	1.61	0.109	0.0210
Dec	2.95	2.94	3.15	0.413	4.61	0.142	0.389	2.61	2.61	0.221	0.304
Annual	61.3	61.1	57.8	9.48	116	4.40	7.30	52.5	52.4	5.85	4.65

Data completeness

2015	SO_4^{2-} %TP	nss-SO_4^{2-} %TP	NO_3^- %TP	Cl^- %TP	NH_4^+ %TP	Na^+ %TP	K^+ %TP	Ca^{2+} %TP	nss-Ca^{2+} %TP	Mg^{2+} %TP	H^+ %TP	pH %TP	EC %TP	Precip. %PCL
Jan	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	100
Feb	87.2	87.2	87.2	87.2	87.2	87.2	87.2	87.2	87.2	87.2	87.2	87.2	87.2	100
Mar	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	100
Apr	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	100
May	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	100
June	100	100	100	100	100	100	100	100	100	100	100	100	100	100
July	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	100
Aug	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	100
Sept	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	100
Oct	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	100
Nov	94.3	94.3	94.3	94.3	94.3	94.3	94.3	94.3	94.3	94.3	94.3	94.3	94.3	100
Dec	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Annual	**99.8**	**99.8**	**99.8**	**99.8**	**99.8**	**99.8**	**99.8**	**99.8**	**99.8**	**99.8**	**99.8**	**99.8**	**99.8**	**100**

Terms and abbreviations are given in Table 3.5.

Table 3.10 Monthly results **Site: Jinyunshan** **Country: China**

Precipitation amount-weighted average concentration/ Precipitation amount

2015	SO_4^{2-} µmol L^{-1}	nss-SO_4^{2-} µmol L^{-1}	NO_3^- µmol L^{-1}	Cl^- µmol L^{-1}	NH_4^+ µmol L^{-1}	Na^+ µmol L^{-1}	K^+ µmol L^{-1}	Ca^{2+} µmol L^{-1}	nss-Ca^{2+} µmol L^{-1}	Mg^{2+} µmol L^{-1}	H^+ µmol L^{-1}	pH	EC mS m^{-1}	Precip. mm $month^{-1}$ or mm $year^{-1}$
Jan	184	183	187	20.4	259	9.92	13.5	84.3	84.1	12.2	92.8	4.03	11.1	29.9
Feb	115	115	74.5	14.6	202	4.08	19.1	39.9	39.8	9.28	36.2	4.44	5.97	12.5
Mar	126	126	85.0	10.3	180	2.91	8.99	52.8	52.7	9.06	68.7	4.16	7.59	26.8
Apr	42.3	42.1	40.4	6.00	56.1	2.68	3.64	28.1	28.0	4.27	17.3	4.76	2.53	102
May	55.3	55.1	39.5	4.69	81.3	3.26	5.60	23.8	23.7	3.65	12.3	4.91	2.51	150
June	30.6	30.5	25.4	3.00	49.9	1.85	2.62	15.4	15.3	2.82	6.28	5.20	1.47	287
July	23.8	23.8	18.9	3.15	38.1	0.871	1.71	12.0	11.9	1.99	5.13	5.29	1.23	139
Aug	22.9	22.8	18.9	3.10	25.2	1.38	1.54	15.3	15.3	1.87	12.8	4.89	1.51	247
Sept	41.7	41.5	27.6	6.38	49.7	1.88	2.40	14.4	14.4	2.18	35.3	4.45	2.68	176
Oct	52.6	52.4	55.8	5.59	71.8	2.35	3.04	24.4	24.4	3.00	48.8	4.31	3.80	69.7
Nov	125	125	130	16.2	219	5.38	6.93	76.9	76.8	8.34	39.2	4.41	6.69	18.7
Dec	83.6	83.4	75.6	9.57	128	3.02	5.19	51.9	51.8	5.60	33.8	4.47	5.03	30.9
Annual	43.9	43.8	36.4	5.09	62.6	2.23	3.40	21.7	21.7	3.24	20.0	4.70	2.50	1288
Max.	626	625	573	59.2	1086	23.1	56.3	372	371	53.5	288	6.86	31.5	
Min.	3.85	3.80	1.94	<0.5	<0.8	<0.3	<0.3	1.75	1.73	0.822	0.138	3.54	0.324	

Wet deposition amount

2015	SO_4^{2-} mmol m^{-2}	nss-SO_4^{2-} mmol m^{-2}	NO_3^- mmol m^{-2}	Cl^- mmol m^{-2}	NH_4^+ mmol m^{-2}	Na^+ mmol m^{-2}	K^+ mmol m^{-2}	Ca^{2+} mmol m^{-2}	nss-Ca^{2+} mmol m^{-2}	Mg^{2+} mmol m^{-2}	H^+ mmol m^{-2}
Jan	5.49	5.47	5.59	0.611	7.76	0.297	0.403	2.52	2.52	0.366	2.77
Feb	1.44	1.44	0.932	0.182	2.52	0.0510	0.239	0.499	0.498	0.116	0.453
Mar	3.37	3.37	2.28	0.275	4.83	0.0779	0.241	1.41	1.41	0.243	1.84
Apr	4.30	4.28	4.10	0.609	5.70	0.272	0.369	2.85	2.85	0.434	1.75
May	8.28	8.25	5.92	0.703	12.2	0.489	0.838	3.56	3.55	0.547	1.85
June	8.78	8.75	7.28	0.861	14.3	0.531	0.750	4.41	4.40	0.807	1.80
July	3.32	3.31	2.63	0.438	5.30	0.121	0.238	1.66	1.66	0.277	0.713
Aug	5.65	5.63	4.67	0.765	6.23	0.341	0.380	3.78	3.77	0.460	3.17
Sept	7.34	7.32	4.86	1.12	8.75	0.331	0.422	2.54	2.54	0.384	6.22
Oct	3.66	3.65	3.89	0.389	5.00	0.164	0.212	1.70	1.70	0.209	3.40
Nov	2.34	2.34	2.43	0.304	4.09	0.101	0.130	1.44	1.44	0.156	0.734
Dec	2.58	2.58	2.34	0.296	3.96	0.0934	0.160	1.60	1.60	0.173	1.05
Annual	56.5	56.4	46.9	6.56	80.6	2.87	4.38	28.0	27.9	4.17	25.7

Data completeness

2015	SO_4^{2-} %TP	nss-SO_4^{2-} %TP	NO_3^- %TP	Cl^- %TP	NH_4^+ %TP	Na^+ %TP	K^+ %TP	Ca^{2+} %TP	nss-Ca^{2+} %TP	Mg^{2+} %TP	H^+ %TP	pH %TP	EC %TP	Precip. %PCL
Jan	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Feb	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Mar	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Apr	100	100	100	100	100	100	100	100	100	100	100	100	100	100
May	100	100	100	100	100	100	100	100	100	100	100	100	100	100
June	100	100	100	100	100	100	100	100	100	100	100	100	100	100
July	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Aug	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Sept	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Oct	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Nov	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Dec	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Annual	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Terms and abbreviations are given in Table 3.5.

Table 3.11 Monthly results **Site: Shizhan** **Country: China**

Precipitation amount-weighted average concentration/ Precipitation amount

2015	SO_4^{2-}	nss-SO_4^{2-}	NO_3^-	Cl^-	NH_4^+	Na^+	K^+	Ca^{2+}	nss-Ca^{2+}	Mg^{2+}	H^+	pH	EC	Precip.
	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}		mS m^{-1}	mm $month^{-1}$ or mm $year^{-1}$
Jan	241	232	41.2	107	334	140	13.0	323	320	28.1	0.0849	7.07	14.0	13.4
Feb	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Mar	126	116	19.0	16.3	219	161	5.40	84.2	80.7	2.50	0.151	6.82	6.69	24.3
Apr	21.4	14.5	10.6	10.4	162	113	5.16	54.4	52.0	6.03	0.0891	7.05	5.32	82.1
May	71.6	62.9	65.0	18.8	159	146	9.28	194	191	34.8	0.0611	7.21	5.09	74.4
June	104	95.3	123	15.8	222	147	3.76	68.2	65.0	8.68	0.193	6.71	3.84	67.3
July	79.0	72.4	67.9	12.8	195	109	6.28	153	151	10.6	0.0433	7.36	5.52	5.8
Aug	81.2	73.5	92.3	19.1	249	128	3.99	54.9	52.1	2.62	0.172	6.76	4.85	112
Sept	65.6	58.0	56.2	13.6	116	126	4.02	79.8	77.1	4.39	0.424	6.37	3.89	104
Oct	86.9	84.4	77.3	14.1	190	42.8	5.40	62.2	61.3	5.04	0.209	6.68	4.41	70.5
Nov	157	156	143	19.6	281	10.2	5.07	90.9	90.7	5.34	0.567	6.25	7.24	39.6
Dec	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Annual	82.8	75.9	71.9	17.8	194	113	5.32	89.7	87.2	9.25	0.220	6.66	5.06	594
Max.	318	317	308	122	493	199	21.5	488	485	57.3	0.832	7.38	14.5	
Min.	11.3	3.59	5.02	3.05	44.9	5.74	0.665	3.52	0.482	<0.3	0.0417	6.08	1.29	

Wet deposition amount

2015	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}
Jan	3.23	3.11	0.552	1.44	4.48	1.87	0.174	4.33	4.29	0.376	<0.01
Feb	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mar	3.07	2.83	0.462	0.395	5.32	3.92	0.131	2.05	1.96	0.0608	<0.01
Apr	1.75	1.19	0.867	0.856	13.3	9.32	0.423	4.47	4.27	0.495	<0.01
May	5.33	4.68	4.84	1.40	11.8	10.8	0.691	14.5	14.2	2.59	<0.01
June	7.01	6.42	8.26	1.06	15.0	9.90	0.253	4.59	4.37	0.584	0.0130
July	0.458	0.420	0.394	0.0741	1.13	0.633	0.0364	0.889	0.875	0.0617	<0.01
Aug	9.08	8.21	10.3	2.14	27.8	14.3	0.446	6.14	5.83	0.293	0.0193
Sept	6.85	6.06	5.86	1.42	12.1	13.1	0.420	8.33	8.05	0.458	0.0443
Oct	6.13	5.95	5.45	0.996	13.4	3.02	0.380	4.39	4.32	0.355	0.0148
Nov	6.22	6.19	5.67	0.777	11.1	0.404	0.201	3.60	3.59	0.211	0.0225
Dec	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	49.1	45.1	42.7	10.6	115	67.3	3.16	53.2	51.8	5.49	0.131

Data completeness

2015	SO_4^{2-}	nss-SO_4^{2-}	NO_3^-	Cl^-	NH_4^+	Na^+	K^+	Ca^{2+}	nss-Ca^{2+}	Mg^{2+}	H^+	pH	EC	Precip.
	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%PCL
Jan	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Feb	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Mar	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Apr	100	100	100	100	100	100	100	100	100	100	100	100	100	100
May	100	100	100	100	100	100	100	100	100	100	100	100	100	100
June	100	100	100	100	100	100	100	100	100	100	100	100	100	100
July	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Aug	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Sept	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Oct	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Nov	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Dec	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Annual	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Terms and abbreviations are given in Table 3.5.

Table 3.12 Monthly results **Site: Jiwozi** **Country: China**

Precipitation amount-weighted average concentration/ Precipitation amount

2015	SO_4^{2-} µmol L^{-1}	nss-SO_4^{2-} µmol L^{-1}	NO_3^- µmol L^{-1}	Cl^- µmol L^{-1}	NH_4^+ µmol L^{-1}	Na^+ µmol L^{-1}	K^+ µmol L^{-1}	Ca^{2+} µmol L^{-1}	nss-Ca^{2+} µmol L^{-1}	Mg^{2+} µmol L^{-1}	H^+ µmol L^{-1}	pH	EC mS m^{-1}	Precip. mm $month^{-1}$ or mm $year^{-1}$
Jan	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Feb	343	292	955	591	321	846	195	495	476	196	0.111	6.96	8.88	4.9
Mar	68.5	63.1	64.3	37.5	110	89.8	13.2	143	141	25.5	0.0956	7.02	4.94	9.3
Apr	34.3	28.0	31.9	8.79	66.5	105	3.98	41.8	39.5	5.15	0.107	6.97	2.22	77.1
May	28.2	19.6	14.8	7.59	31.0	143	4.13	66.2	63.1	19.5	0.0638	7.20	1.82	102
June	18.9	13.9	12.0	3.89	14.2	82.6	3.04	38.5	36.7	3.72	0.150	6.82	1.25	100
July	20.4	13.9	8.33	5.36	12.0	108	3.78	41.4	39.0	3.50	0.183	6.74	3.13	19.8
Aug	27.4	25.5	13.3	5.90	170	30.1	4.33	37.3	36.7	3.33	0.156	6.81	3.12	70.9
Sept	19.9	19.4	9.77	5.40	84.4	8.13	6.06	53.9	53.8	3.61	0.146	6.83	2.24	55.7
Oct	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Nov	131	125	94.1	60.3	14.8	97.6	18.0	244	242	71.2	0.219	6.66	8.20	7.2
Dec	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Annual	31.6	26.0	28.6	14.2	65.7	92.5	6.63	57.7	55.7	11.1	0.124	6.91	2.32	447
Max.	361	309	989	603	383	859	201	501	482	205	0.355	7.61	9.06	
Min.	10.7	4.74	4.87	2.96	<0.8	5.13	2.10	4.19	1.90	2.06	0.0245	6.45	0.789	

Wet deposition amount

2015	SO_4^{2-} mmol m^{-2}	nss-SO_4^{2-} mmol m^{-2}	NO_3^- mmol m^{-2}	Cl^- mmol m^{-2}	NH_4^+ mmol m^{-2}	Na^+ mmol m^{-2}	K^+ mmol m^{-2}	Ca^{2+} mmol m^{-2}	nss-Ca^{2+} mmol m^{-2}	Mg^{2+} mmol m^{-2}	H^+ mmol m^{-2}
Jan	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Feb	1.68	1.43	4.68	2.90	1.58	4.15	0.958	2.42	2.33	0.960	<0.01
Mar	0.637	0.587	0.598	0.348	1.02	0.835	0.123	1.33	1.32	0.237	<0.01
Apr	2.65	2.16	2.46	0.678	5.13	8.10	0.307	3.22	3.05	0.397	<0.01
May	2.87	1.99	1.51	0.774	3.16	14.6	0.421	6.75	6.44	1.99	<0.01
June	1.89	1.39	1.20	0.390	1.43	8.28	0.305	3.86	3.68	0.373	0.0150
July	0.405	0.276	0.165	0.106	0.238	2.14	0.0749	0.819	0.773	0.0693	<0.01
Aug	1.94	1.81	0.945	0.419	12.0	2.14	0.307	2.65	2.60	0.236	0.0111
Sept	1.11	1.08	0.544	0.301	4.70	0.453	0.337	3.00	2.99	0.201	<0.01
Oct	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Nov	0.946	0.903	0.678	0.434	0.106	0.703	0.130	1.76	1.74	0.513	<0.01
Dec	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	14.1	11.6	12.8	6.35	29.4	41.3	2.96	25.8	24.9	4.97	0.0556

Data completeness

2015	SO_4^{2-} %TP	nss-SO_4^{2-} %TP	NO_3^- %TP	Cl^- %TP	NH_4^+ %TP	Na^+ %TP	K^+ %TP	Ca^{2+} %TP	nss-Ca^{2+} %TP	Mg^{2+} %TP	H^+ %TP	pH %TP	EC %TP	Precip. %PCL
Jan	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Feb	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Mar	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Apr	100	100	100	100	100	100	100	100	100	100	100	100	100	100
May	100	100	100	100	100	100	100	100	100	100	100	100	100	100
June	100	100	100	100	100	100	100	100	100	100	100	100	100	100
July	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Aug	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Sept	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Oct	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Nov	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Dec	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Annual	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Terms and abbreviations are given in Table 3.5.

Table 3.13 Monthly results Site: Hongwen Country: China

Precipitation amount-weighted average concentration/ Precipitation amount

2015	SO_4^{2-} μmol L^{-1}	nss-SO_4^{2-} μmol L^{-1}	NO_3^- μmol L^{-1}	Cl^- μmol L^{-1}	NH_4^+ μmol L^{-1}	Na^+ μmol L^{-1}	K^+ μmol L^{-1}	Ca^{2+} μmol L^{-1}	nss-Ca^{2+} μmol L^{-1}	Mg^{2+} μmol L^{-1}	H^+ μmol L^{-1}	pH	EC mS m^{-1}	Precip. mm $month^{-1}$ or mm $year^{-1}$
Jan	28.0	26.4	30.5	35.3	37.1	27.4	1.62	38.0	37.4	7.80	21.4	4.67	2.53	37.0
Feb	18.7	17.5	22.2	20.5	50.3	18.7	1.31	21.3	20.9	4.86	5.37	5.27	1.44	7.1
Mar	20.9	20.2	25.0	29.1	71.2	11.8	10.3	34.1	33.9	2.89	3.35	5.48	1.63	17.2
Apr	35.8	34.2	42.0	51.2	46.9	27.5	21.0	45.3	44.7	8.00	15.4	4.81	2.92	59.8
May	23.6	22.7	34.5	18.1	56.1	14.3	2.62	10.9	10.6	3.08	9.35	5.03	1.80	176
June	18.3	17.0	30.8	26.3	32.8	22.2	1.39	6.71	6.23	2.28	5.30	5.28	1.49	74.2
July	16.0	12.2	19.2	75.8	24.3	62.9	10.8	39.8	38.5	9.82	4.05	5.39	1.54	66.7
Aug	14.7	13.8	23.8	16.6	13.2	14.3	5.40	11.5	11.2	4.32	20.4	4.69	1.46	304
Sept	39.6	38.0	59.5	30.8	72.0	27.1	4.90	13.7	13.2	3.87	52.2	4.28	3.58	36.0
Oct	9.21	8.89	14.9	7.00	10.6	5.26	1.07	6.38	6.26	1.19	2.05	5.69	1.29	31.5
Nov	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Dec	11.6	11.0	14.0	22.1	14.6	9.65	7.01	12.0	11.8	2.71	3.16	5.50	0.811	205
Annual	18.5	17.4	26.2	25.7	29.2	18.6	5.99	16.3	15.9	4.20	12.7	4.90	1.59	1015
Max.	174	164	334	172	256	166	41.5	169	167	40.7	186	6.59	16.4	
Min.	2.03	1.90	3.46	3.76	<0.8	2.17	0.830	2.33	2.08	0.922	0.257	3.73	0.293	

Wet deposition amount

2015	SO_4^{2-} mmol m^{-2}	nss-SO_4^{2-} mmol m^{-2}	NO_3^- mmol m^{-2}	Cl^- mmol m^{-2}	NH_4^+ mmol m^{-2}	Na^+ mmol m^{-2}	K^+ mmol m^{-2}	Ca^{2+} mmol m^{-2}	nss-Ca^{2+} mmol m^{-2}	Mg^{2+} mmol m^{-2}	H^+ mmol m^{-2}
Jan	1.04	0.977	1.13	1.31	1.37	1.01	0.0600	1.41	1.38	0.289	0.792
Feb	0.132	0.124	0.157	0.145	0.356	0.132	<0.01	0.151	0.148	0.0344	0.0380
Mar	0.360	0.348	0.429	0.499	1.22	0.202	0.176	0.586	0.582	0.0497	0.0575
Apr	2.14	2.04	2.51	3.06	2.81	1.64	1.26	2.71	2.67	0.478	0.918
May	4.16	4.01	6.09	3.20	9.90	2.52	0.462	1.93	1.87	0.543	1.65
June	1.36	1.26	2.28	1.96	2.44	1.64	0.103	0.498	0.462	0.169	0.394
July	1.07	0.816	1.28	5.06	1.62	4.20	0.722	2.66	2.57	0.655	0.270
Aug	4.47	4.21	7.24	5.04	4.02	4.35	1.64	3.49	3.40	1.31	6.21
Sept	1.43	1.37	2.14	1.11	2.59	0.974	0.176	0.495	0.474	0.139	1.88
Oct	0.290	0.280	0.469	0.220	0.332	0.165	0.0336	0.201	0.197	0.0373	0.0646
Nov	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec	2.37	2.25	2.87	4.52	2.98	1.98	1.44	2.45	2.41	0.556	0.648
Annual	18.8	17.7	26.6	26.1	29.6	18.8	6.08	16.6	16.2	4.26	12.9

Data completeness

2015	SO_4^{2-} %TP	nss-SO_4^{2-} %TP	NO_3^- %TP	Cl^- %TP	NH_4^+ %TP	Na^+ %TP	K^+ %TP	Ca^{2+} %TP	nss-Ca^{2+} %TP	Mg^{2+} %TP	H^+ %TP	pH %TP	EC %TP	Precip. %PCL
Jan	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Feb	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Mar	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Apr	100	100	100	100	100	100	100	100	100	100	100	100	100	100
May	100	100	100	100	100	100	100	100	100	100	100	100	100	100
June	100	100	100	100	100	100	100	100	100	100	100	100	100	100
July	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Aug	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Sept	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Oct	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Nov	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Dec	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Annual	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Terms and abbreviations are given in Table 3.5.

Table 3.14 Monthly results Site: Xiaoping Country: China

Precipitation amount-weighted average concentration/ Precipitation amount

2015	SO_4^{2-} µmol L^{-1}	nss-SO_4^{2-} µmol L^{-1}	NO_3^- µmol L^{-1}	Cl^- µmol L^{-1}	NH_4^+ µmol L^{-1}	Na^+ µmol L^{-1}	K^+ µmol L^{-1}	Ca^{2+} µmol L^{-1}	nss-Ca^{2+} µmol L^{-1}	Mg^{2+} µmol L^{-1}	H^+ µmol L^{-1}	pH	EC mS m^{-1}	Precip. mm $month^{-1}$ or mm $year^{-1}$
Jan	12.1	11.5	15.6	13.3	11.4	10.6	0.654	16.0	15.8	3.43	12.5	4.90	1.09	37.6
Feb	29.4	27.8	26.9	27.9	49.1	27.0	3.86	22.0	21.4	6.58	3.31	5.48	1.83	28.1
Mar	45.6	44.6	68.4	34.5	114	17.4	16.8	19.0	18.6	5.40	31.4	4.50	3.83	29.5
Apr	27.1	25.5	40.9	37.2	36.2	27.3	19.7	18.5	17.9	4.13	17.9	4.75	2.36	71.0
May	13.5	13.3	19.5	8.23	32.4	3.61	4.28	3.25	3.17	1.05	8.79	5.06	1.14	397
June	16.9	16.0	22.6	37.4	48.0	15.2	24.4	3.90	3.57	1.76	7.01	5.15	1.49	226
July	13.4	12.3	17.8	24.9	27.4	19.5	4.18	7.59	7.16	2.66	7.18	5.14	1.18	257
Aug	19.8	19.2	26.3	14.2	43.4	10.1	7.26	10.2	10.0	3.42	16.6	4.78	1.47	217
Sept	27.6	27.3	41.9	10.2	53.4	6.03	3.14	25.3	25.2	2.30	20.7	4.68	2.13	171
Oct	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Nov	19.8	19.5	35.2	9.30	40.4	5.37	2.80	8.74	8.62	1.76	17.8	4.75	1.75	11.5
Dec	4.79	4.64	9.72	7.31	12.5	2.46	5.62	3.79	3.73	1.04	4.99	5.30	0.524	111
Annual	17.3	16.7	24.4	18.5	37.8	11.0	8.40	9.17	8.94	2.27	11.3	4.95	1.43	1557
Max.	148	127	225	303	341	343	91.7	119	119	36.1	112	6.62	10.4	
Min.	0.607	0.575	2.91	2.78	<0.8	0.415	<0.3	0.287	0.224	<0.3	0.240	3.95	0.156	

Wet deposition amount

2015	SO_4^{2-} mmol m^{-2}	nss-SO_4^{2-} mmol m^{-2}	NO_3^- mmol m^{-2}	Cl^- mmol m^{-2}	NH_4^+ mmol m^{-2}	Na^+ mmol m^{-2}	K^+ mmol m^{-2}	Ca^{2+} mmol m^{-2}	nss-Ca^{2+} mmol m^{-2}	Mg^{2+} mmol m^{-2}	H^+ mmol m^{-2}
Jan	0.455	0.431	0.586	0.501	0.428	0.398	0.0246	0.603	0.595	0.129	0.472
Feb	0.827	0.781	0.755	0.784	1.38	0.758	0.108	0.619	0.602	0.185	0.0931
Mar	1.34	1.31	2.01	1.02	3.37	0.512	0.496	0.560	0.549	0.159	0.925
Apr	1.93	1.81	2.91	2.64	2.57	1.94	1.40	1.31	1.27	0.293	1.27
May	5.37	5.28	7.76	3.27	12.9	1.43	1.70	1.29	1.26	0.417	3.49
June	3.81	3.60	5.09	8.45	10.8	3.43	5.51	0.880	0.806	0.398	1.58
July	3.46	3.16	4.58	6.42	7.04	5.03	1.08	1.95	1.84	0.686	1.85
Aug	4.30	4.17	5.69	3.07	9.40	2.18	1.57	2.22	2.17	0.741	3.59
Sept	4.72	4.66	7.15	1.75	9.11	1.03	0.536	4.32	4.30	0.393	3.53
Oct	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Nov	0.228	0.225	0.406	0.107	0.465	0.0618	0.0322	0.101	0.0993	0.0202	0.205
Dec	0.531	0.515	1.08	0.812	1.39	0.273	0.623	0.420	0.414	0.115	0.554
Annual	27.0	25.9	38.0	28.8	58.8	17.0	13.1	14.3	13.9	3.54	17.6

Data completeness

2015	SO_4^{2-} %TP	nss-SO_4^{2-} %TP	NO_3^- %TP	Cl^- %TP	NH_4^+ %TP	Na^+ %TP	K^+ %TP	Ca^{2+} %TP	nss-Ca^{2+} %TP	Mg^{2+} %TP	H^+ %TP	pH %TP	EC %TP	Precip. %PCL
Jan	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Feb	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Mar	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Apr	100	100	100	100	100	100	100	100	100	100	100	100	100	100
May	100	100	100	100	100	100	100	100	100	100	100	100	100	100
June	100	100	100	100	100	100	100	100	100	100	100	100	100	100
July	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Aug	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Sept	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Oct	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Nov	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Dec	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Annual	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Terms and abbreviations are given in Table 3.5.

Table 3.15 Monthly results **Site: Xiang Zhou** **Country: China**

Precipitation amount-weighted average concentration/ Precipitation amount

2015	SO_4^{2-}	nss-SO_4^{2-}	NO_3^-	Cl^-	NH_4^+	Na^+	K^+	Ca^{2+}	nss-Ca^{2+}	Mg^{2+}	H^+	pH	EC	Precip.
	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}		mS m^{-1}	mm $month^{-1}$ or mm $year^{-1}$
Jan	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Feb	39.2	34.4	37.4	81.1	14.4	80.3	12.5	53.4	51.6	11.7	1.98	5.70	3.07	50.5
Mar	111	90.0	32.2	216	5.99	342	24.9	69.6	62.2	21.0	7.68	5.11	6.40	2.5
Apr	53.2	50.4	30.3	87.4	83.6	46.1	4.09	39.2	38.2	12.8	1.07	5.97	3.87	10.0
May	12.1	10.3	11.4	35.5	16.6	28.9	1.52	11.7	11.1	6.98	3.73	5.43	1.15	385
June	5.33	3.88	5.17	22.5	8.24	24.0	1.80	4.63	4.11	6.06	1.15	5.94	0.748	232
July	3.63	2.07	34.5	89.2	12.1	47.6	4.64	30.1	29.0	8.45	1.20	5.92	1.88	163
Aug	21.1	9.41	35.8	142	17.7	194	9.15	14.3	10.1	7.74	5.74	5.24	3.38	125
Sept	5.56	4.37	6.22	38.8	9.87	19.9	4.08	7.72	7.29	6.10	6.55	5.18	1.20	92.5
Oct	5.91	3.45	17.7	67.0	26.5	43.7	5.71	15.4	14.4	6.20	1.44	5.84	1.50	295
Nov	99.7	80.5	151	226	150	319	22.4	55.5	48.6	35.8	0.941	6.03	9.17	10.5
Dec	21.4	18.1	23.9	57.6	45.1	56.0	5.85	20.6	19.4	4.66	2.68	5.57	2.36	65.5
Annual	11.6	8.60	18.8	60.2	19.1	52.9	4.41	15.9	14.7	7.19	2.77	5.56	1.65	1431
Max.	123	109	158	241	153	353	34.0	78.8	77.3	37.1	79.4	6.97	9.40	
Min.	1.25	<0.3	1.94	8.74	2.22	3.04	0.512	1.75	1.24	1.65	0.107	4.10	0.485	

Wet deposition amount

2015	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}
Jan	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Feb	1.98	1.74	1.89	4.10	0.728	4.06	0.629	2.69	2.61	0.590	0.100
Mar	0.277	0.225	0.0805	0.541	0.0150	0.856	0.0622	0.174	0.156	0.0526	0.0192
Apr	0.532	0.504	0.303	0.874	0.836	0.461	0.0409	0.392	0.382	0.128	0.0107
May	4.65	3.98	4.38	13.7	6.40	11.1	0.584	4.50	4.26	2.69	1.44
June	1.24	0.900	1.20	5.23	1.91	5.58	0.419	1.07	0.953	1.41	0.268
July	0.591	0.338	5.62	14.5	1.98	7.76	0.756	4.90	4.73	1.38	0.196
Aug	2.63	1.17	4.46	17.7	2.21	24.1	1.14	1.78	1.26	0.964	0.715
Sept	0.515	0.404	0.575	3.58	0.913	1.84	0.377	0.714	0.674	0.565	0.606
Oct	1.74	1.02	5.22	19.7	7.81	12.9	1.68	4.53	4.25	1.83	0.423
Nov	1.05	0.845	1.59	2.37	1.58	3.35	0.235	0.583	0.511	0.376	<0.01
Dec	1.40	1.18	1.57	3.77	2.95	3.67	0.383	1.35	1.27	0.305	0.175
Annual	16.6	12.3	26.9	86.1	27.3	75.7	6.31	22.7	21.1	10.3	3.96

Data completeness

2015	SO_4^{2-}	nss-SO_4^{2-}	NO_3^-	Cl^-	NH_4^+	Na^+	K^+	Ca^{2+}	nss-Ca^{2+}	Mg^{2+}	H^+	pH	EC	Precip.
	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%PCL
Jan	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Feb	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Mar	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Apr	100	100	100	100	100	100	100	100	100	100	100	100	100	100
May	100	100	100	100	100	100	100	100	100	100	100	100	100	100
June	100	100	100	100	100	100	100	100	100	100	100	100	100	100
July	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Aug	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Sept	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Oct	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Nov	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Dec	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Annual	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Terms and abbreviations are given in Table 3.5.

Table 3.16 Monthly results Site: Zhuxiandong Country: China

Precipitation amount-weighted average concentration/ Precipitation amount

2015	SO_4^{2-}	nss-SO_4^{2-}	NO_3^-	Cl^-	NH_4^+	Na^+	K^+	Ca^{2+}	nss-Ca^{2+}	Mg^{2+}	H^+	pH	EC	Precip.
	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}		mS m^{-1}	mm $month^{-1}$ or mm $year^{-1}$
Jan	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Feb	34.2	26.3	17.1	123	2.20	131	11.5	32.4	29.6	10.3	0.490	6.31	2.83	9.5
Mar	37.9	25.0	15.7	171	11.4	214	19.8	28.3	23.7	9.93	2.20	5.66	3.85	18.0
Apr	68.1	65.3	29.6	53.2	105	46.1	6.60	39.2	38.2	12.8	4.27	5.37	3.87	18.5
May	18.7	15.5	7.44	59.3	19.2	51.8	10.6	18.1	17.0	7.38	2.72	5.57	1.85	421
June	9.79	8.46	4.80	43.6	6.14	22.0	4.92	17.4	17.0	7.49	3.21	5.49	1.36	239
July	10.9	8.28	58.2	86.2	13.5	43.4	3.51	46.0	45.1	6.64	1.55	5.81	2.46	143
Aug	6.14	3.31	32.8	93.4	13.9	55.2	7.15	29.6	28.4	6.60	2.51	5.60	2.12	117
Sept	57.5	48.4	96.8	96.7	51.7	151	13.5	40.2	36.9	16.2	6.87	5.16	4.07	241
Oct	15.7	12.0	8.65	77.0	21.7	61.2	5.46	13.7	12.3	7.33	2.70	5.57	1.74	283
Nov	48.1	39.5	64.0	149	43.6	143	11.6	55.3	52.2	17.9	1.17	5.93	4.64	18.5
Dec	36.5	33.2	29.9	45.1	46.2	55.5	7.59	25.3	24.1	6.60	2.91	5.54	2.50	91.5
Annual	23.3	19.3	29.4	72.4	24.3	66.9	8.30	25.2	23.7	8.78	3.29	5.48	2.29	1598
Max.	123	103	172	201	132	334	32.5	81.5	81.0	31.1	66.1	6.73	6.67	
Min.	3.10	<0.3	0.900	7.30	<0.8	5.70	1.50	8.20	7.09	2.90	0.186	4.18	0.500	

Wet deposition amount

2015	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}
Jan	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Feb	0.325	0.250	0.162	1.17	0.0209	1.25	0.109	0.308	0.281	0.0979	<0.01
Mar	0.682	0.451	0.282	3.08	0.206	3.84	0.356	0.509	0.426	0.179	0.0395
Apr	1.26	1.21	0.548	0.984	1.94	0.853	0.122	0.725	0.707	0.237	0.0789
May	7.85	6.53	3.13	24.9	8.08	21.8	4.48	7.62	7.15	3.10	1.14
June	2.34	2.02	1.15	10.4	1.47	5.25	1.18	4.17	4.05	1.79	0.767
July	1.55	1.18	8.29	12.3	1.93	6.18	0.500	6.56	6.43	0.947	0.221
Aug	0.715	0.385	3.82	10.9	1.63	6.43	0.833	3.45	3.31	0.769	0.292
Sept	13.8	11.6	23.3	23.3	12.4	36.3	3.24	9.67	8.89	3.90	1.65
Oct	4.44	3.40	2.45	21.8	6.14	17.3	1.54	3.87	3.49	2.08	0.764
Nov	0.890	0.730	1.18	2.76	0.807	2.65	0.215	1.02	0.966	0.331	0.0217
Dec	3.34	3.04	2.74	4.13	4.23	5.08	0.694	2.32	2.21	0.604	0.266
Annual	37.2	30.8	47.0	116	38.9	107	13.3	40.2	37.9	14.0	5.25

Data completeness

2015	SO_4^{2-}	nss-SO_4^{2-}	NO_3^-	Cl^-	NH_4^+	Na^+	K^+	Ca^{2+}	nss-Ca^{2+}	Mg^{2+}	H^+	pH	EC	Precip.
	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%PCL
Jan	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Feb	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Mar	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Apr	100	100	100	100	100	100	100	100	100	100	100	100	100	100
May	100	100	100	100	100	100	100	100	100	100	100	100	100	100
June	100	100	100	100	100	100	100	100	100	100	100	100	100	100
July	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Aug	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Sept	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Oct	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Nov	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Dec	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Annual	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Terms and abbreviations are given in Table 3.5.

Table 3.17 Monthly results Site: Jakarta Country: Indonesia

Precipitation amount-weighted average concentration/ Precipitation amount

	SO_4^{2-}	nss-SO_4^{2-}	NO_3^-	Cl^-	NH_4^+	Na^+	K^+	Ca^{2+}	nss-Ca^{2+}	Mg^{2+}	H^+	pH	EC	Precip.
2015	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}		mS m^{-1}	mm $month^{-1}$ or mm $year^{-1}$
Jan	14.0	13.9	9.43	14.0	20.3	1.96	13.6	6.50	6.46	1.91	10.8	4.97	0.905	646
Feb	10.0	9.87	8.21	10.0	11.8	1.83	13.2	3.26	3.22	1.22	16.2	4.79	1.03	1403
Mar	20.5	20.4	20.3	20.5	21.1	1.47	4.90	7.68	7.65	2.41	12.8	4.89	1.36	403
Apr	25.8	25.7	25.6	25.8	41.1	2.17	10.3	20.5	20.4	1.91	9.35	5.03	1.70	106
May	21.0	20.9	19.0	21.0	47.9	2.28	14.4	8.49	8.44	4.30	2.09	5.68	1.23	71.0
June	31.8	31.4	23.4	31.8	18.3	6.89	37.1	12.9	12.7	1.74	2.02	5.70	2.19	15.0
July	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Aug	12.4	12.1	28.1	12.4	11.0	3.92	21.3	33.3	33.3	2.61	3.47	5.46	1.12	5.0
Sept	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Oct	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Nov	66.3	75.0	80.7	66.3	64.6	5.53	37.2	33.7	33.6	5.12	18.3	4.74	3.77	52.0
Dec	58.3	58.0	58.2	58.3	48.7	5.14	19.6	48.8	48.7	4.30	32.9	4.48	4.15	106
Annual	17.1	16.3	15.3	17.1	18.9	2.01	12.5	7.47	7.43	1.81	14.4	4.84	1.26	2807
Max.	96.4	96.1	98.6	96.4	64.6	11.1	49.9	71.3	71.2	13.2	70.8	6.26	6.56	
Min.	8.35	8.24	6.83	8.35	4.52	0.434	2.26	1.67	1.66	0.691	0.556	4.15	0.651	

Wet deposition amount

	SO_4^{2-}	nss-SO_4^{2-}	NO_3^-	Cl^-	NH_4^+	Na^+	K^+	Ca^{2+}	nss-Ca^{2+}	Mg^{2+}	H^+
2015	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}
Jan	9.03	8.95	6.09	9.03	13.1	1.26	8.76	4.20	4.17	1.24	6.97
Feb	14.0	13.9	11.5	14.0	16.6	2.57	18.6	4.57	4.52	1.71	22.8
Mar	8.24	8.20	8.16	8.24	8.50	0.594	1.97	3.09	3.08	0.970	5.15
Apr	2.74	2.72	2.71	2.74	4.35	0.230	1.09	2.17	2.16	0.202	0.990
May	1.49	1.48	1.35	1.49	3.40	0.162	1.02	0.603	0.599	0.306	0.148
June	0.477	0.471	0.351	0.477	0.274	0.103	0.556	0.193	0.191	0.0261	0.0302
July	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Aug	0.0619	0.0607	0.141	0.0619	0.0550	0.0196	0.107	0.167	0.166	0.0130	0.0173
Sept	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Oct	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Nov	3.45	3.90	4.19	3.45	3.36	0.287	1.94	1.75	1.75	0.266	0.949
Dec	6.16	6.13	6.15	6.16	5.15	0.543	2.07	5.16	5.15	0.455	3.48
Annual	48.0	45.7	42.9	48.0	53.2	5.65	35.2	21.0	20.8	5.07	40.5

Data completeness

	SO_4^{2-}	nss-SO_4^{2-}	NO_3^-	Cl^-	NH_4^+	Na^+	K^+	Ca^{2+}	nss-Ca^{2+}	Mg^{2+}	H^+	pH	EC	Precip.
2015	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%PCL
Jan	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Feb	74.4	74.4	74.4	74.4	100	100	100	100	100	100	100	100	100	100
Mar	82.4	82.4	82.4	82.4	100	100	100	100	100	100	100	100	100	100
Apr	100	100	100	100	100	100	100	100	100	100	100	100	100	100
May	100	100	100	100	100	100	100	100	100	100	100	100	100	100
June	100	100	100	100	100	100	100	100	100	100	100	100	100	100
July	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Aug	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Sept	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Oct	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Nov	100	30.8	100	100	30.8	30.8	30.8	30.8	30.8	30.8	100	100	100	100
Dec	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Annual	**84.6**	**83.4**	**84.6**	**84.6**	**98.7**	**98.7**	**98.7**	**98.7**	**98.7**	**98.7**	**100**	**100**	**100**	**100**

Terms and abbreviations are given in Table 3.5.

Table 3.18 Monthly results **Site: Serpong** **Country: Indonesia**

Precipitation amount-weighted average concentration/ Precipitation amount

2015	SO_4^{2-} µmol L^{-1}	nss-SO_4^{2-} µmol L^{-1}	NO_3^- µmol L^{-1}	Cl^- µmol L^{-1}	NH_4^+ µmol L^{-1}	Na^+ µmol L^{-1}	K^+ µmol L^{-1}	Ca^{2+} µmol L^{-1}	nss-Ca^{2+} µmol L^{-1}	Mg^{2+} µmol L^{-1}	H^+ µmol L^{-1}	pH	EC mS m^{-1}	Precip. mm $month^{-1}$ or mm $year^{-1}$
Jan	16.0	15.5	11.1	20.4	37.4	8.46	2.70	5.66	5.48	2.52	6.31	5.20	1.01	345
Feb	15.8	15.5	12.6	9.14	29.1	5.08	1.33	7.57	7.46	2.01	6.55	5.18	0.988	355
Mar	25.7	25.3	24.5	10.9	43.3	6.01	0.910	9.27	9.14	1.43	23.1	4.64	1.87	312
Apr	30.1	29.5	32.3	12.6	59.4	10.5	3.44	12.3	12.1	1.83	11.8	4.93	1.97	173
May	37.6	36.2	63.2	29.5	81.5	23.7	5.20	27.4	26.9	4.37	4.14	5.38	2.69	144
June	45.8	44.2	62.7	15.5	84.4	26.3	3.62	17.3	16.7	3.42	16.2	4.79	2.46	106
July	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Aug	65.5	60.8	159	64.8	115	77.8	37.8	81.3	79.6	12.9	0.604	6.22	5.05	43.4
Sept	74.5	71.2	277	86.7	146	54.6	34.8	105	104	17.1	24.2	4.62	8.78	41.3
Oct	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Nov	60.2	59.4	80.4	36.1	123	13.5	13.0	46.2	45.9	6.57	5.13	5.29	3.91	160
Dec	62.3	60.0	182	60.6	146	38.2	57.5	45.5	44.7	13.0	24.5	4.61	5.72	91.6
Annual	31.5	30.7	48.1	22.3	63.0	14.6	7.81	19.7	19.4	3.86	11.4	4.94	2.26	1770
Max.	205	204	331	247	333	85.6	224	197	196	24.6	56.2	7.50	11.3	
Min.	2.65	2.34	4.18	6.50	9.76	1.00	<0.3	0.520	0.354	<0.3	0.0316	4.25	0.369	

Wet deposition amount

2015	SO_4^{2-} mmol m^{-2}	nss-SO_4^{2-} mmol m^{-2}	NO_3^- mmol m^{-2}	Cl^- mmol m^{-2}	NH_4^+ mmol m^{-2}	Na^+ mmol m^{-2}	K^+ mmol m^{-2}	Ca^{2+} mmol m^{-2}	nss-Ca^{2+} mmol m^{-2}	Mg^{2+} mmol m^{-2}	H^+ mmol m^{-2}
Jan	5.52	5.35	3.82	7.04	12.9	2.92	0.933	1.96	1.89	0.871	2.18
Feb	5.62	5.52	4.46	3.24	10.3	1.80	0.472	2.69	2.65	0.713	2.32
Mar	8.01	7.89	7.64	3.40	13.5	1.88	0.284	2.89	2.85	0.448	7.20
Apr	5.20	5.09	5.58	2.18	10.3	1.82	0.594	2.13	2.09	0.316	2.04
May	5.41	5.21	9.10	4.24	11.7	3.41	0.748	3.95	3.87	0.629	0.596
June	4.84	4.68	6.63	1.64	8.93	2.78	0.383	1.83	1.77	0.362	1.71
July	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Aug	2.85	2.64	6.93	2.81	5.00	3.38	1.64	3.53	3.46	0.559	0.0263
Sept	3.08	2.94	11.5	3.58	6.02	2.25	1.44	4.35	4.30	0.706	1.00
Oct	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Nov	9.61	9.48	12.8	5.76	19.6	2.15	2.07	7.37	7.32	1.05	0.818
Dec	5.70	5.49	16.6	5.55	13.3	3.50	5.27	4.17	4.09	1.19	2.25
Annual	55.8	54.3	85.1	39.4	112	25.9	13.8	34.9	34.3	6.84	20.1

Data completeness

2015	SO_4^{2-} %TP	nss-SO_4^{2-} %TP	NO_3^- %TP	Cl^- %TP	NH_4^+ %TP	Na^+ %TP	K^+ %TP	Ca^{2+} %TP	nss-Ca^{2+} %TP	Mg^{2+} %TP	H^+ %TP	pH %TP	EC %TP	Precip. %PCL
Jan	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Feb	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Mar	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Apr	100	100	100	100	100	100	100	100	100	100	100	100	100	100
May	100	100	100	100	100	100	100	100	100	100	100	100	100	100
June	100	100	100	100	100	100	100	100	100	100	100	100	100	100
July	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Aug	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Sept	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Oct	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Nov	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Dec	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Annual	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Terms and abbreviations are given in Table 3.5.

Table 3.19 Monthly results **Site: Kototabang** **Country: Indonesia**

Precipitation amount-weighted average concentration/ Precipitation amount

2015	SO_4^{2-}	nss-SO_4^{2-}	NO_3^-	Cl^-	NH_4^+	Na^+	K^+	Ca^{2+}	nss-Ca^{2+}	Mg^{2+}	H^+	pH	EC	Precip.
	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}		mS m^{-1}	mm $month^{-1}$ or mm $year^{-1}$
Jan	6.59	6.54	1.18	6.59	<0.8	0.834	3.90	2.15	2.14	0.946	21.6	4.67	0.928	236
Feb	4.09	*	<0.5	4.09	*	*	*	*	*	*	13.4	4.87	32.7	80.5
Mar	10.1	10.1	*	10.1	*	1.30	24524	5.98	5.95	30.6	18.0	4.75	78.4	230
Apr	15.8	15.7	2.10	15.6	5011	0.721	9195	1.68	1.66	5.31	12.9	4.89	68.5	322
May	4.90	4.88	7.50	4.91	7890	0.449	168	2.37	2.36	5.31	7.07	5.15	2.35	284
June	9.06	9.01	*	9.06	<0.8	0.736	21552	3.13	3.12	21.1	8.77	5.06	28.5	123
July	2.44	2.40	2.20	2.44	5.10	0.725	1556	2.87	2.85	2.67	6.64	5.18	204	101
Aug	8.60	8.51	8.15	8.60	52.3	1.53	1775	2.35	2.32	2.47	1.67	5.78	70.0	202
Sept	3.05	*	4.57	3.05	216	*	871	0.601	*	*	19.8	4.70	132	102
Oct	5.06	5.06	2.82	5.06	9.91	<0.3	373	<0.2	<0.2	127	10.4	4.98	322	260
Nov	9.19	9.15	1.17	9.19	1.39	0.683	2.89	0.563	0.548	2.12	17.9	4.75	166	379
Dec	10.2	10.1	2.24	10.2	2.27	1.19	1.67	1.63	1.61	12.1	4.94	5.31	103	186
Annual	8.30	8.63	3.60	8.28	1903	0.779	4949	1.99	2.03	21.5	12.4	4.91	104	2503
Max.	45.6	45.6	20.5	45.6	48039	2.16	49023	10.3	10.2	542	38.0	6.12	365	
Min.	0.723	0.674	<0.5	0.723	<0.8	<0.3	<0.3	<0.2	<0.2	<0.3	0.759	4.42	0.206	

Wet deposition amount

2015	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}
Jan	1.55	1.54	0.277	1.55	0.120	0.196	0.919	0.507	0.503	0.223	5.09
Feb	0.329	*	<0.01	0.329	*	*	*	*	*	*	1.08
Mar	2.33	2.31	*	2.33	*	0.299	5641	1.38	1.37	7.05	4.13
Apr	5.07	5.06	0.675	5.02	1611	0.232	2956	0.539	0.534	1.71	4.14
May	1.39	1.38	2.12	1.39	2237	0.127	47.5	0.672	0.669	1.51	2.01
June	1.11	1.10	*	1.11	<0.01	0.0902	2640	0.384	0.382	2.59	1.07
July	0.246	0.242	0.222	0.246	0.515	0.0732	157	0.289	0.288	0.269	0.671
Aug	1.74	1.72	1.65	1.74	10.6	0.310	359	0.475	0.469	0.500	0.337
Sept	0.311	*	0.466	0.311	22.1	*	88.9	0.0613	*	*	2.02
Oct	1.31	1.31	0.734	1.31	2.58	<0.01	97.1	<0.01	<0.01	32.9	2.70
Nov	3.48	3.47	0.443	3.48	0.527	0.259	1.10	0.213	0.208	0.805	6.78
Dec	1.89	1.87	0.416	1.89	0.421	0.221	0.311	0.303	0.298	2.24	0.917
Annual	20.8	21.6	9.00	20.7	4764	1.95	12387	4.98	5.09	53.7	30.9

Data completeness

2015	SO_4^{2-}	nss-SO_4^{2-}	NO_3^-	Cl^-	NH_4^+	Na^+	K^+	Ca^{2+}	nss-Ca^{2+}	Mg^{2+}	H^+	pH	EC	Precip.
	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%PCL
Jan	100	100	48.2	100	35.7	100	100	100	100	100	100	100	100	100
Feb	100	0	83.2	100	0	0	0	0	0	0	100	100	100	100
Mar	100	100	0	100	0	100	100	100	100	100	100	100	100	100
Apr	100	100	29.5	100	100	100	100	100	100	100	100	100	100	100
May	100	100	100	100	100	100	100	100	100	100	100	100	100	100
June	100	100	0	100	100	100	100	100	100	100	100	100	100	100
July	100	100	57.4	100	100	100	100	100	100	100	100	100	100	100
Aug	100	100	93.6	100	100	100	100	100	100	100	100	100	100	100
Sept	100	0	100	100	100	0	100	100	0	0	100	100	100	100
Oct	100	100	76.9	100	100	100	100	100	100	100	100	100	100	100
Nov	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Dec	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Annual	**100**	**92.7**	**66.8**	**100**	**81.5**	**92.7**	**96.8**	**96.8**	**92.7**	**92.7**	**100**	**100**	**100**	**100**

Terms and abbreviations are given in Table 3.5.

Table 3.20 Monthly results **Site: Bandung** **Country: Indonesia**

Precipitation amount-weighted average concentration/ Precipitation amount

2015	SO_4^{2-} µmol L^{-1}	nss-SO_4^{2-} µmol L^{-1}	NO_3^- µmol L^{-1}	Cl^- µmol L^{-1}	NH_4^+ µmol L^{-1}	Na^+ µmol L^{-1}	K^+ µmol L^{-1}	Ca^{2+} µmol L^{-1}	nss-Ca^{2+} µmol L^{-1}	Mg^{2+} µmol L^{-1}	H^+ µmol L^{-1}	pH	EC mS m^{-1}	Precip. mm $month^{-1}$ or mm $year^{-1}$
Jan	21.5	21.1	13.4	6.65	34.1	7.90	3.39	18.6	18.4	5.27	0.473	6.33	1.23	129
Feb	37.4	36.9	29.4	9.86	51.6	9.51	4.40	27.0	26.8	7.31	1.95	5.71	1.92	130
Mar	23.8	23.6	17.9	6.11	39.2	4.70	2.13	12.0	11.9	4.23	9.86	5.01	1.52	398
Apr	34.6	34.3	23.6	7.77	50.3	6.25	3.11	19.6	19.5	5.69	5.90	5.23	1.76	289
May	32.6	31.9	24.5	12.4	70.4	12.4	4.69	19.6	19.4	7.44	0.349	6.46	1.92	208
June	40.9	40.3	26.4	12.8	92.3	9.38	4.26	21.5	21.3	7.83	0.274	6.56	2.30	53.8
July	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Aug	47.9	46.5	34.6	27.7	87.4	24.5	11.0	41.2	40.7	18.4	0.105	6.98	3.23	8.5
Sept	45.1	42.5	28.3	19.7	95.4	42.2	6.91	26.0	25.1	4.82	0.141	6.85	2.71	28.8
Oct	81.1	76.8	74.9	44.0	156	70.7	20.0	43.0	41.4	17.4	0.148	6.83	5.25	13.7
Nov	30.3	29.7	27.2	11.9	70.7	9.69	4.10	18.7	18.5	5.26	2.08	5.68	1.79	382
Dec	27.1	26.8	24.0	8.27	55.5	5.78	2.75	13.5	13.4	4.91	5.48	5.26	1.42	371
Annual	30.1	29.6	23.6	9.49	56.7	8.58	3.54	17.6	17.4	5.61	4.41	5.36	1.71	2012
Max.	163	160	120	89.2	221	126	41.2	135	134	54.2	49.0	7.03	8.21	
Min.	6.73	6.41	5.05	2.34	8.67	2.26	1.16	2.12	2.06	1.63	0.0933	4.31	0.670	

Wet deposition amount

2015	SO_4^{2-} mmol m^{-2}	nss-SO_4^{2-} mmol m^{-2}	NO_3^- mmol m^{-2}	Cl^- mmol m^{-2}	NH_4^+ mmol m^{-2}	Na^+ mmol m^{-2}	K^+ mmol m^{-2}	Ca^{2+} mmol m^{-2}	nss-Ca^{2+} mmol m^{-2}	Mg^{2+} mmol m^{-2}	H^+ mmol m^{-2}
Jan	2.77	2.71	1.73	0.856	4.39	1.02	0.437	2.40	2.38	0.679	0.0610
Feb	4.86	4.79	3.82	1.28	6.70	1.23	0.571	3.51	3.48	0.950	0.253
Mar	9.49	9.38	7.14	2.43	15.6	1.87	0.848	4.78	4.74	1.68	3.93
Apr	10.0	9.91	6.83	2.25	14.5	1.81	0.900	5.67	5.63	1.65	1.71
May	6.78	6.62	5.09	2.57	14.6	2.58	0.975	4.08	4.03	1.55	0.0724
June	2.20	2.17	1.42	0.690	4.97	0.505	0.229	1.16	1.14	0.421	0.0147
July	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Aug	0.407	0.395	0.294	0.235	0.743	0.208	0.0933	0.350	0.346	0.156	<0.01
Sept	1.30	1.22	0.815	0.569	2.75	1.21	0.199	0.750	0.724	0.139	<0.01
Oct	1.11	1.05	1.03	0.603	2.13	0.969	0.274	0.588	0.568	0.239	<0.01
Nov	11.6	11.3	10.4	4.55	27.0	3.70	1.57	7.14	7.06	2.01	0.795
Dec	10.1	9.94	8.91	3.07	20.6	2.15	1.02	5.00	4.95	1.82	2.03
Annual	60.6	59.5	47.5	19.1	114	17.3	7.11	35.4	35.1	11.3	8.87

Data completeness

2015	SO_4^{2-} %TP	nss-SO_4^{2-} %TP	NO_3^- %TP	Cl^- %TP	NH_4^+ %TP	Na^+ %TP	K^+ %TP	Ca^{2+} %TP	nss-Ca^{2+} %TP	Mg^{2+} %TP	H^+ %TP	pH %TP	EC %TP	Precip. %PCL
Jan	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Feb	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Mar	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Apr	100	100	100	100	100	100	100	100	100	100	100	100	100	100
May	100	100	100	100	100	100	100	100	100	100	100	100	100	100
June	100	100	100	100	100	100	100	100	100	100	100	100	100	100
July	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Aug	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Sept	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Oct	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Nov	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Dec	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Annual	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Terms and abbreviations are given in Table 3.5.

Table 3.21 Monthly results **Site: Maros** **Country: Indonesia**

Precipitation amount-weighted average concentration/ Precipitation amount

2015	SO_4^{2-} µmol L^{-1}	nss-SO_4^{2-} µmol L^{-1}	NO_3^- µmol L^{-1}	Cl^- µmol L^{-1}	NH_4^+ µmol L^{-1}	Na^+ µmol L^{-1}	K^+ µmol L^{-1}	Ca^{2+} µmol L^{-1}	nss-Ca^{2+} µmol L^{-1}	Mg^{2+} µmol L^{-1}	H^+ µmol L^{-1}	pH	EC mS m^{-1}	Precip. mm $month^{-1}$ or mm $year^{-1}$
Jan	4.47	4.11	4.40	4.52	10.7	6.65	51.6	26.4	26.2	18.0	3.70	5.43	0.996	684
Feb	1.38	1.22	1.53	4.78	9.61	3.22	26.5	11.4	11.3	64.3	5.42	5.27	1.67	388
Mar	4.78	4.69	2.79	5.96	2.72	1.48	9.39	7.06	7.03	61.7	13.2	4.88	1.68	350
Apr	7.01	6.87	6.33	7.01	11.3	2.27	92.8	19.2	19.1	45.5	3.30	5.48	3.07	227
May	2.20	2.25	*	2.24	14.4	0.760	15.9	2.21	3.73	4.81	13.5	4.87	177	7.0
June	8.05	7.92	9.29	8.05	30.2	2.20	11.2	8.29	8.24	1.67	0.871	6.06	0.655	59.0
July	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Aug	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Sept	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Oct	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Nov	21.0	20.8	29.2	21.0	159	4.01	10994	37.5	37.4	8.12	2.02	5.69	1.80	197
Dec	6.81	6.67	4.69	6.81	5.90	2.33	3859	7.73	7.68	6.44	6.63	5.18	1.71	568
Annual	6.19	5.99	6.29	6.90	20.7	3.67	1786	16.8	16.7	30.0	5.77	5.24	2.10	2479
Max.	37.5	36.7	253	37.5	195	46.8	25224	125	125	343	20.4	6.52	215	
Min.	<0.3	<0.3	<0.5	<0.5	<0.8	0.376	6.88	0.252	<0.2	0.430	0.302	4.69	0.375	

Wet deposition amount

2015	SO_4^{2-} mmol m^{-2}	nss-SO_4^{2-} mmol m^{-2}	NO_3^- mmol m^{-2}	Cl^- mmol m^{-2}	NH_4^+ mmol m^{-2}	Na^+ mmol m^{-2}	K^+ mmol m^{-2}	Ca^{2+} mmol m^{-2}	nss-Ca^{2+} mmol m^{-2}	Mg^{2+} mmol m^{-2}	H^+ mmol m^{-2}
Jan	3.06	2.81	3.01	3.09	7.30	4.55	35.3	18.0	17.9	12.3	2.53
Feb	0.535	0.474	0.593	1.85	3.73	1.25	10.3	4.42	4.39	24.9	2.10
Mar	1.67	1.64	0.975	2.08	0.951	0.518	3.28	2.47	2.46	21.6	4.63
Apr	1.59	1.56	1.44	1.59	2.56	0.515	21.1	4.35	4.34	10.3	0.750
May	0.0154	0.0158	*	0.0157	0.101	<0.01	0.111	0.0154	0.0261	0.0337	0.0942
June	0.475	0.467	0.548	0.475	1.78	0.130	0.661	0.489	0.486	0.0987	0.0514
July	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Aug	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sept	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Oct	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Nov	4.13	4.09	5.74	4.13	31.2	0.789	2164	7.38	7.36	1.60	0.398
Dec	3.87	3.79	2.66	3.87	3.36	1.33	2193	4.39	4.36	3.66	3.76
Annual	15.3	14.9	15.6	17.1	51.4	9.10	4427	41.5	41.4	74.5	14.3

Data completeness

2015	SO_4^{2-} %TP	nss-SO_4^{2-} %TP	NO_3^- %TP	Cl^- %TP	NH_4^+ %TP	Na^+ %TP	K^+ %TP	Ca^{2+} %TP	nss-Ca^{2+} %TP	Mg^{2+} %TP	H^+ %TP	pH %TP	EC %TP	Precip. %PCL
Jan	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Feb	100	100	74.0	100	90.0	100	100	100	100	100	100	100	100	100
Mar	100	100	92.4	100	100	100	100	100	100	100	100	100	100	100
Apr	100	100	100	100	100	100	100	100	100	100	100	100	100	100
May	100	42.9	0	100	100	42.9	100	100	42.9	100	100	100	100	75.0
June	100	100	100	100	100	100	100	100	100	100	100	100	100	100
July	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Aug	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Sept	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Oct	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Nov	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Dec	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Annual	**100**	**99.8**	**94.6**	**100**	**98.4**	**99.8**	**100**	**100**	**99.8**	**100**	**100**	**100**	**100**	**98.1**

Terms and abbreviations are given in Table 3.5.

Table 3.22 Monthly results **Site: Rishiri** **Country: Japan**

Precipitation amount-weighted average concentration/ Precipitation amount

2015	SO_4^{2-}	nss-SO_4^{2-}	NO_3^-	Cl^-	NH_4^+	Na^+	K^+	Ca^{2+}	nss-Ca^{2+}	Mg^{2+}	H^+	pH	EC	Precip.
	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}		mS m^{-1}	mm $month^{-1}$ or mm $year^{-1}$
Jan	43.3	13.7	11.4	550	12.4	491	11.9	15.6	5.54	59.6	21.0	4.68	8.47	58.7
Feb	32.7	21.1	12.1	225	17.8	192	5.75	8.62	4.47	22.5	27.6	4.56	4.53	53.4
Mar	30.6	20.0	20.0	200	27.6	175	5.16	12.6	8.78	20.5	14.6	4.83	4.08	73.2
Apr	13.9	9.81	11.4	76.7	14.1	68.3	2.46	6.13	4.65	8.14	10.3	4.99	1.87	60.3
May	11.5	10.5	13.8	19.7	15.8	16.7	1.09	3.20	2.84	2.40	16.4	4.78	1.25	83.3
June	12.6	11.1	14.6	29.2	25.4	24.6	0.902	2.50	1.97	3.01	16.4	4.78	1.47	116
July	6.64	5.67	6.73	17.6	9.30	16.0	0.887	0.827	0.481	1.71	13.8	4.86	0.910	231
Aug	26.9	22.7	35.9	75.4	32.4	68.9	1.89	3.63	2.14	8.12	52.6	4.28	3.76	30.5
Sept	9.59	6.87	8.96	50.3	7.91	45.3	1.37	2.05	1.07	5.48	18.9	4.72	1.63	82.2
Oct	32.8	5.33	5.09	526	4.76	456	9.58	10.1	0.428	51.4	12.3	4.91	8.04	143
Nov	10.7	3.56	3.26	137	3.01	120	2.82	3.17	0.641	13.1	9.62	5.02	2.44	96.3
Dec	23.0	12.4	15.7	202	12.2	176	4.58	5.83	2.03	20.3	25.1	4.60	4.02	64.0
Annual	18.2	9.80	10.8	160	13.3	140	3.62	5.27	2.29	16.2	16.8	4.77	3.16	1092
Max.	324	239	390	2678	543	2296	67.0	220	177	276	182	6.47	39.8	
Min.	1.70	<0.3	<0.5	1.53	<0.8	1.03	<0.3	0.212	<0.2	<0.3	0.339	3.74	0.319	

Wet deposition amount

2015	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}
Jan	2.54	0.805	0.668	32.2	0.730	28.8	0.701	0.917	0.325	3.50	1.23
Feb	1.74	1.13	0.647	12.0	0.951	10.2	0.307	0.460	0.238	1.20	1.47
Mar	2.24	1.47	1.47	14.6	2.02	12.8	0.378	0.919	0.643	1.50	1.07
Apr	0.840	0.592	0.690	4.62	0.853	4.12	0.149	0.370	0.280	0.491	0.624
May	0.961	0.877	1.15	1.64	1.32	1.39	0.0912	0.266	0.236	0.200	1.37
June	1.46	1.28	1.70	3.39	2.94	2.85	0.105	0.290	0.228	0.349	1.90
July	1.53	1.31	1.55	4.06	2.15	3.70	0.205	0.191	0.111	0.396	3.20
Aug	0.819	0.693	1.10	2.30	0.987	2.10	0.0578	0.111	0.0653	0.248	1.60
Sept	0.788	0.565	0.737	4.13	0.650	3.72	0.113	0.168	0.0877	0.451	1.55
Oct	4.71	0.764	0.730	75.4	0.682	65.4	1.37	1.45	0.0614	7.36	1.76
Nov	1.03	0.343	0.314	13.2	0.290	11.5	0.272	0.305	0.0617	1.26	0.926
Dec	1.47	0.794	1.00	12.9	0.779	11.2	0.293	0.373	0.130	1.30	1.61
Annual	19.9	10.7	11.8	175	14.5	153	3.95	5.75	2.51	17.7	18.4

Data completeness

2015	SO_4^{2-}	nss-SO_4^{2-}	NO_3^-	Cl^-	NH_4^+	Na^+	K^+	Ca^{2+}	nss-Ca^{2+}	Mg^{2+}	H^+	pH	EC	Precip.
	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%PCL
Jan	96.5	96.5	96.5	96.5	96.5	96.5	96.5	96.5	96.5	96.5	96.5	96.5	96.5	96.8
Feb	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	100
Mar	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	100
Apr	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	100
May	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.2	97.2	97.2	100
June	96.6	96.6	96.6	96.6	96.6	96.6	96.6	96.6	96.6	96.6	96.6	96.6	96.6	100
July	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	100
Aug	98.1	98.1	98.1	98.1	98.1	98.1	98.1	98.1	98.1	98.1	98.1	98.1	98.1	100
Sept	95.9	95.9	95.9	95.9	95.9	95.9	95.9	95.9	95.9	95.9	95.9	95.9	95.9	100
Oct	87.2	87.2	87.2	87.2	87.2	87.2	87.2	87.2	87.2	87.2	87.2	87.2	87.2	100
Nov	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	100
Dec	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2	96.1	96.1	96.1	100
Annual	**96.5**	**96.5**	**96.5**	**96.5**	**96.5**	**96.5**	**96.5**	**96.5**	**96.5**	**96.5**	**96.4**	**96.4**	**96.4**	**99.7**

Terms and abbreviations are given in Table 3.5.

Table 3.23 Monthly results **Site: Ochiishi** **Country: Japan**

Precipitation amount-weighted average concentration/ Precipitation amount

2015	SO_4^{2-}	nss-SO_4^{2-}	NO_3^-	Cl^-	NH_4^+	Na^+	K^+	Ca^{2+}	nss-Ca^{2+}	Mg^{2+}	H^+	pH	EC	Precip.
	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}		mS m^{-1}	mm $month^{-1}$ or mm $year^{-1}$
Jan	*	*	*	*	*	*	*	*	*	*	*	*	*	42.3
Feb	*	*	*	*	*	*	*	*	*	*	*	*	*	11.3
Mar	165	77.4	102	1663	134	1451	70.6	69.6	38.3	171	0.871	6.06	7.86	4.0
Apr	24.4	11.8	13.7	233	12.5	210	5.08	6.84	2.30	23.9	11.1	4.95	4.20	46.5
May	16.5	12.9	14.8	65.3	16.0	59.7	2.04	6.31	5.02	7.62	8.99	5.05	1.81	85.1
June	13.7	12.5	11.1	23.1	17.6	19.2	0.929	1.79	1.38	2.67	18.4	4.74	1.56	91.0
July	7.73	6.64	14.7	22.9	5.68	18.1	0.722	1.45	1.06	2.66	17.7	4.75	1.24	40.0
Aug	6.40	5.15	15.2	24.6	5.85	20.8	0.650	1.40	0.952	2.50	16.1	4.79	1.38	71.5
Sept	*	*	*	*	*	*	*	*	*	*	*	*	*	181
Oct	*	*	*	*	*	*	*	*	*	*	*	*	*	82.0
Nov	21.3	2.39	3.56	352	1.38	316	6.93	7.70	0.884	35.2	5.65	5.25	5.19	127
Dec	18.9	4.53	4.75	277	3.83	238	5.43	6.06	0.918	26.5	8.05	5.09	4.25	45.8
Annual	20.3	9.53	11.5	201	11.4	178	4.84	6.72	2.87	20.4	9.96	5.00	3.29	827
Max.	560	198	170	6813	515	6001	364	162	84.7	640	52.5	6.06	13.2	
Min.	1.90	<0.3	1.20	3.50	<0.8	2.50	0.300	0.600	<0.2	0.600	0.871	4.28	0.490	

Wet deposition amount

2015	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}
Jan	*	*	*	*	*	*	*	*	*	*	*
Feb	*	*	*	*	*	*	*	*	*	*	*
Mar	0.659	0.310	0.409	6.65	0.535	5.80	0.282	0.279	0.153	0.682	<0.01
Apr	1.14	0.548	0.635	10.8	0.578	9.75	0.236	0.318	0.107	1.11	0.518
May	1.40	1.09	1.26	5.56	1.36	5.08	0.174	0.537	0.427	0.648	0.765
June	1.25	1.14	1.01	2.10	1.60	1.75	0.0845	0.163	0.125	0.243	1.67
July	0.309	0.266	0.587	0.918	0.227	0.723	0.0289	0.0581	0.0425	0.106	0.707
Aug	0.458	0.368	1.09	1.76	0.418	1.48	0.0465	0.100	0.0680	0.179	1.15
Sept	*	*	*	*	*	*	*	*	*	*	*
Oct	*	*	*	*	*	*	*	*	*	*	*
Nov	2.71	0.303	0.452	44.7	0.176	40.1	0.880	0.978	0.112	4.47	0.718
Dec	0.865	0.208	0.218	12.7	0.175	10.9	0.249	0.278	0.0421	1.21	0.369
Annual	16.8	7.88	9.54	166	9.45	147	4.00	5.56	2.38	16.9	8.23

Data completeness

2015	SO_4^{2-}	nss-SO_4^{2-}	NO_3^-	Cl^-	NH_4^+	Na^+	K^+	Ca^{2+}	nss-Ca^{2+}	Mg^{2+}	H^+	pH	EC	Precip.
	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%PCL
Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	90.3
Feb	0	0	0	0	0	0	0	0	0	0	0	0	0	100
Mar	100	100	100	100	100	100	100	100	100	100	62.5	62.5	62.5	100
Apr	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.1	99.1	99.1	100
May	95.8	95.8	95.8	95.8	95.8	95.8	95.8	95.8	95.8	95.8	95.2	95.2	95.2	100
June	30.2	30.2	30.2	30.2	30.2	30.2	30.2	30.2	30.2	30.2	30.2	30.2	30.2	96.8
July	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	38.8	38.8	38.8	100
Aug	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	96.9
Sept	0	0	0	0	0	0	0	0	0	0	0	0	0	30.0
Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	80.6
Nov	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.1	47.1	47.1	100
Dec	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	97.1	97.1	97.1	100
Annual	**34.7**	**34.7**	**34.7**	**34.7**	**34.7**	**34.7**	**34.7**	**34.7**	**34.7**	**34.7**	**34.2**	**34.2**	**34.2**	**91.3**

Terms and abbreviations are given in Table 3.5.

Table 3.24 Monthly results Site: Tappi Country: Japan

Precipitation amount-weighted average concentration/ Precipitation amount

2015	SO_4^{2-} µmol L^{-1}	nss-SO_4^{2-} µmol L^{-1}	NO_3^- µmol L^{-1}	Cl^- µmol L^{-1}	NH_4^+ µmol L^{-1}	Na^+ µmol L^{-1}	K^+ µmol L^{-1}	Ca^{2+} µmol L^{-1}	nss-Ca^{2+} µmol L^{-1}	Mg^{2+} µmol L^{-1}	H^+ µmol L^{-1}	pH	EC mS m^{-1}	Precip. mm $month^{-1}$ or mm $year^{-1}$
Jan	49.1	21.3	19.9	497	21.0	460	9.42	10.7	1.15	51.9	23.7	4.62	7.55	36.7
Feb	88.9	31.2	43.5	1130	28.0	958	17.6	22.7	4.83	104	26.4	4.58	8.70	22.3
Mar	52.8	29.7	27.1	623	34.0	383	12.1	26.1	18.7	41.3	7.76	5.11	6.02	63.4
Apr	29.5	18.4	17.0	210	18.6	184	4.41	8.58	4.60	21.0	24.3	4.61	4.30	123
May	23.5	20.0	32.4	70.6	25.1	58.9	1.69	8.89	7.61	8.09	20.4	4.69	2.35	66.0
June	13.3	4.49	4.68	171	5.46	146	3.55	3.58	0.533	18.2	6.68	5.18	2.74	208
July	14.1	9.96	15.5	71.8	11.1	67.9	1.88	2.49	1.02	6.43	16.2	4.79	2.01	97.4
Aug	14.6	13.0	16.6	31.6	24.2	27.7	0.855	1.59	0.994	3.35	19.0	4.72	1.76	152
Sept	12.1	3.18	6.76	169	2.59	148	3.46	3.76	0.567	16.4	8.29	5.08	2.83	115
Oct	38.9	10.3	14.9	542	12.2	474	11.2	12.9	2.65	52.7	15.4	4.81	7.47	62.2
Nov	26.4	5.61	7.45	398	3.51	345	7.58	7.85	0.417	37.5	11.6	4.94	6.00	125
Dec	28.8	11.6	19.6	838	9.63	742	15.3	19.7	3.62	47.2	15.8	4.80	4.69	43.0
Annual	24.7	11.5	14.3	283	13.0	237	5.56	7.99	3.02	25.2	14.1	4.85	3.97	1114
Max.	4649	3705	416	88482	399	26631	1557	1213	875	2921	129	6.49	110	
Min.	<0.3	<0.3	1.20	4.70	<0.8	3.50	<0.3	0.500	<0.2	<0.3	0.324	3.89	0.440	

Wet deposition amount

2015	SO_4^{2-} mmol m^{-2}	nss-SO_4^{2-} mmol m^{-2}	NO_3^- mmol m^{-2}	Cl^- mmol m^{-2}	NH_4^+ mmol m^{-2}	Na^+ mmol m^{-2}	K^+ mmol m^{-2}	Ca^{2+} mmol m^{-2}	nss-Ca^{2+} mmol m^{-2}	Mg^{2+} mmol m^{-2}	H^+ mmol m^{-2}
Jan	1.80	0.783	0.731	18.2	0.772	16.9	0.345	0.391	0.0420	1.90	0.870
Feb	1.98	0.696	0.970	25.2	0.625	21.4	0.392	0.506	0.108	2.31	0.588
Mar	3.35	1.88	1.72	39.5	2.16	24.3	0.767	1.66	1.19	2.62	0.492
Apr	3.64	2.27	2.10	25.9	2.29	22.7	0.544	1.06	0.567	2.58	2.99
May	1.55	1.32	2.14	4.66	1.66	3.89	0.112	0.586	0.502	0.534	1.35
June	2.76	0.934	0.973	35.6	1.13	30.4	0.739	0.744	0.111	3.78	1.39
July	1.37	0.970	1.51	6.99	1.09	6.61	0.183	0.242	0.0995	0.626	1.58
Aug	2.22	1.97	2.52	4.79	3.66	4.20	0.130	0.241	0.151	0.508	2.88
Sept	1.39	0.366	0.778	19.4	0.298	17.0	0.399	0.433	0.0653	1.89	0.954
Oct	2.42	0.642	0.924	33.7	0.759	29.4	0.696	0.801	0.164	3.28	0.959
Nov	3.29	0.700	0.930	49.7	0.438	43.1	0.945	0.980	0.0520	4.68	1.45
Dec	1.24	0.498	0.842	36.0	0.414	31.9	0.656	0.846	0.156	2.03	0.679
Annual	27.5	12.9	15.9	315	14.5	264	6.20	8.90	3.36	28.0	15.7

Data completeness

2015	SO_4^{2-} %TP	nss-SO_4^{2-} %TP	NO_3^- %TP	Cl^- %TP	NH_4^+ %TP	Na^+ %TP	K^+ %TP	Ca^{2+} %TP	nss-Ca^{2+} %TP	Mg^{2+} %TP	H^+ %TP	pH %TP	EC %TP	Precip. %PCL
Jan	78.9	78.9	78.9	78.9	78.9	78.9	78.9	78.9	78.9	78.9	75.0	75.0	75.0	96.8
Feb	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	91.9	91.9	91.9	100
Mar	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	97.8	97.8	97.8	100
Apr	100	100	100	100	100	100	100	100	100	100	99.3	99.3	99.3	100
May	100	100	100	100	100	100	100	100	100	100	95.5	95.5	95.5	100
June	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.3	99.3	99.3	100
July	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	96.5	96.5	96.5	100
Aug	54.7	54.7	54.7	54.7	54.7	54.7	54.7	54.7	54.7	54.7	54.1	54.1	54.1	87.9
Sept	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.0	99.0	99.0	100
Oct	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	95.8	95.8	95.8	100
Nov	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.0	99.0	99.0	100
Dec	98.4	98.4	98.4	98.4	98.4	98.4	98.4	98.4	98.4	98.4	90.6	90.6	90.6	100
Annual	**92.9**	**92.9**	**92.9**	**92.9**	**92.9**	**92.9**	**92.9**	**92.9**	**92.9**	**92.9**	**91.1**	**91.1**	**91.1**	**98.6**

Terms and abbreviations are given in Table 3.5.

Table 3.25 Monthly results Site: Sado-seki Country: Japan

Precipitation amount-weighted average concentration/ Precipitation amount

2015	SO_4^{2-} μmol L^{-1}	nss-SO_4^{2-} μmol L^{-1}	NO_3^- μmol L^{-1}	Cl^- μmol L^{-1}	NH_4^+ μmol L^{-1}	Na^+ μmol L^{-1}	K^+ μmol L^{-1}	Ca^{2+} μmol L^{-1}	nss-Ca^{2+} μmol L^{-1}	Mg^{2+} μmol L^{-1}	H^+ μmol L^{-1}	pH	EC mS m^{-1}	Precip. mm $month^{-1}$ or mm $year^{-1}$
Jan	80.8	34.4	35.9	860	29.8	770	18.1	22.1	5.45	88.5	44.5	4.35	14.6	59.6
Feb	90.4	35.2	51.8	1019	49.9	920	27.6	27.9	8.11	103	47.9	4.32	17.6	60.3
Mar	72.3	25.5	35.3	837	48.3	776	20.1	26.1	10.2	91.4	24.2	4.62	8.37	53.9
Apr	19.2	13.1	15.1	110	16.8	101	3.16	6.52	4.33	12.2	14.2	4.85	2.52	129
May	21.4	18.8	27.0	51.3	21.4	43.6	2.74	10.5	9.51	7.27	15.5	4.81	2.10	47.7
June	25.9	9.52	13.7	318	13.9	272	10.4	9.66	3.79	31.3	17.0	4.77	5.32	32.8
July	12.3	9.26	13.9	55.2	10.3	50.3	1.64	2.14	1.06	6.31	15.8	4.80	1.85	59.9
Aug	15.7	11.1	18.2	93.2	13.0	76.1	2.27	2.66	1.07	8.30	23.4	4.63	2.39	47.7
Sept	11.7	6.76	10.1	93.7	5.29	82.2	3.03	2.89	1.12	9.59	14.8	4.83	2.05	70.0
Oct	35.5	15.1	27.1	389	26.2	339	13.6	12.7	5.40	38.0	23.4	4.63	6.89	78.0
Nov	26.8	6.91	11.2	377	7.66	330	9.22	11.2	4.02	36.8	16.3	4.79	5.98	120
Dec	31.6	9.88	12.4	419	10.6	362	10.6	9.44	1.61	40.2	18.7	4.73	6.78	108
Annual	34.7	15.1	20.8	367	19.3	327	9.69	11.3	4.33	37.3	21.8	4.66	6.15	867
Max.	1524	251	344	22976	1266	24415	586	593	140	2791	224	5.47	113	
Min.	2.00	<0.3	2.40	4.90	<0.8	3.80	0.300	0.300	<0.2	0.700	3.39	3.65	0.380	

Wet deposition amount

2015	SO_4^{2-} mmol m^{-2}	nss-SO_4^{2-} mmol m^{-2}	NO_3^- mmol m^{-2}	Cl^- mmol m^{-2}	NH_4^+ mmol m^{-2}	Na^+ mmol m^{-2}	K^+ mmol m^{-2}	Ca^{2+} mmol m^{-2}	nss-Ca^{2+} mmol m^{-2}	Mg^{2+} mmol m^{-2}	H^+ mmol m^{-2}
Jan	4.81	2.05	2.14	51.2	1.77	45.8	1.08	1.31	0.324	5.27	2.65
Feb	5.45	2.13	3.12	61.5	3.01	55.5	1.67	1.69	0.489	6.22	2.89
Mar	3.89	1.38	1.90	45.1	2.60	41.8	1.08	1.41	0.550	4.92	1.31
Apr	2.46	1.68	1.94	14.1	2.16	13.0	0.406	0.838	0.557	1.57	1.82
May	1.02	0.897	1.29	2.45	1.02	2.08	0.131	0.498	0.454	0.346	0.741
June	0.850	0.312	0.450	10.4	0.458	8.91	0.340	0.317	0.124	1.03	0.557
July	0.737	0.555	0.834	3.31	0.618	3.01	0.0983	0.128	0.0633	0.378	0.945
Aug	0.747	0.528	0.865	4.44	0.622	3.63	0.108	0.127	0.0512	0.396	1.11
Sept	0.820	0.473	0.705	6.56	0.370	5.75	0.212	0.203	0.0782	0.671	1.03
Oct	2.77	1.18	2.11	30.4	2.05	26.4	1.06	0.992	0.421	2.96	1.82
Nov	3.23	0.832	1.34	45.4	0.923	39.8	1.11	1.34	0.485	4.44	1.96
Dec	3.42	1.07	1.34	45.4	1.15	39.2	1.15	1.02	0.174	4.35	2.03
Annual	30.1	13.1	18.0	318	16.7	283	8.40	9.83	3.76	32.3	18.9

Data completeness

2015	SO_4^{2-} %TP	nss-SO_4^{2-} %TP	NO_3^- %TP	Cl^- %TP	NH_4^+ %TP	Na^+ %TP	K^+ %TP	Ca^{2+} %TP	nss-Ca^{2+} %TP	Mg^{2+} %TP	H^+ %TP	pH %TP	EC %TP	Precip. %PCL
Jan	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	97.8	97.8	97.8	100
Feb	100	100	100	100	100	100	100	100	100	100	97.8	97.8	97.8	100
Mar	92.3	92.3	92.3	92.3	92.3	92.3	92.3	92.3	92.3	92.3	89.1	89.1	89.1	100
Apr	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	98.1	98.1	98.1	100
May	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	98.6	98.6	98.6	100
June	100	100	100	100	100	100	100	100	100	100	100	100	100	96.7
July	100	100	100	100	100	100	100	100	100	100	99.3	99.3	99.3	100
Aug	100	100	100	100	100	100	100	100	100	100	94.4	94.4	94.4	100
Sept	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	96.4	96.4	96.4	100
Oct	100	100	100	100	100	100	100	100	100	100	98.1	98.1	98.1	100
Nov	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	96.8	96.8	96.8	100
Dec	96.1	96.1	96.1	96.1	96.1	96.1	96.1	96.1	96.1	96.1	94.2	94.2	94.2	100
Annual	**98.4**	**98.4**	**98.4**	**98.4**	**98.4**	**98.4**	**98.4**	**98.4**	**98.4**	**98.4**	**96.7**	**96.7**	**96.7**	**99.7**

Terms and abbreviations are given in Table 3.5.

Table 3.26 Monthly results **Site: Happo** **Country: Japan**

Precipitation amount-weighted average concentration/ Precipitation amount

2015	SO_4^{2-} μmol L^{-1}	nss-SO_4^{2-} μmol L^{-1}	NO_3^- μmol L^{-1}	Cl^- μmol L^{-1}	NH_4^+ μmol L^{-1}	Na^+ μmol L^{-1}	K^+ μmol L^{-1}	Ca^{2+} μmol L^{-1}	nss-Ca^{2+} μmol L^{-1}	Mg^{2+} μmol L^{-1}	H^+ μmol L^{-1}	pH	EC mS m^{-1}	Precip. mm $month^{-1}$ or mm $year^{-1}$
Jan	*	*	*	*	*	*	*	*	*	*	*	*	*	137
Feb	19.5	18.1	19.4	25.2	31.5	23.3	2.23	5.17	4.67	4.49	12.0	4.92	1.58	113
Mar	13.2	10.6	8.73	50.9	10.2	44.7	1.55	3.09	2.12	5.15	14.3	4.85	1.62	154
Apr	6.69	6.57	6.35	2.58	5.59	1.97	0.522	2.83	2.79	1.26	7.72	5.11	0.589	275
May	5.84	5.76	7.00	2.19	6.70	1.34	0.384	2.31	2.28	0.852	6.59	5.18	0.531	110
June	11.8	11.7	8.28	2.60	12.5	1.06	0.522	1.50	1.47	0.678	15.4	4.81	0.987	202
July	3.85	3.73	4.46	2.51	5.10	2.00	0.437	0.968	0.925	0.793	4.89	5.31	0.397	273
Aug	4.21	4.14	5.86	1.93	8.63	1.13	0.989	0.880	0.855	0.714	4.40	5.36	0.408	184
Sept	3.80	3.74	4.86	1.32	4.22	0.937	0.311	0.904	0.884	0.700	5.33	5.27	0.385	227
Oct	15.3	14.9	14.0	8.59	19.1	6.34	0.885	2.97	2.83	1.59	13.1	4.88	1.21	168
Nov	3.41	3.15	4.39	4.71	2.16	4.34	0.519	1.33	1.24	1.18	5.02	5.30	0.433	239
Dec	7.95	7.04	6.40	17.2	4.95	15.1	0.821	1.48	1.15	2.11	10.3	4.99	0.896	163
Annual	7.06	6.71	6.78	7.00	7.84	5.84	0.681	1.70	1.58	1.33	8.14	5.09	0.680	2242
Max.	95.3	93.2	146	85.2	186	76.0	7.20	22.9	22.1	9.90	126	5.99	7.83	
Min.	0.796	0.749	1.48	0.768	<0.8	0.546	<0.3	0.401	0.389	0.421	1.02	3.90	0.191	

Wet deposition amount

2015	SO_4^{2-} mmol m^{-2}	nss-SO_4^{2-} mmol m^{-2}	NO_3^- mmol m^{-2}	Cl^- mmol m^{-2}	NH_4^+ mmol m^{-2}	Na^+ mmol m^{-2}	K^+ mmol m^{-2}	Ca^{2+} mmol m^{-2}	nss-Ca^{2+} mmol m^{-2}	Mg^{2+} mmol m^{-2}	H^+ mmol m^{-2}
Jan	*	*	*	*	*	*	*	*	*	*	*
Feb	2.20	2.04	2.19	2.84	3.56	2.63	0.252	0.585	0.528	0.507	1.36
Mar	2.04	1.62	1.34	7.83	1.57	6.88	0.239	0.475	0.326	0.792	2.20
Apr	1.84	1.80	1.74	0.709	1.54	0.540	0.143	0.776	0.765	0.346	2.12
May	0.639	0.630	0.766	0.240	0.733	0.146	0.0420	0.253	0.250	0.0933	0.721
June	2.37	2.36	1.67	0.525	2.52	0.214	0.105	0.302	0.297	0.137	3.11
July	1.05	1.02	1.22	0.684	1.39	0.546	0.119	0.264	0.252	0.216	1.33
Aug	0.774	0.761	1.08	0.355	1.59	0.208	0.182	0.162	0.157	0.131	0.808
Sept	0.861	0.848	1.10	0.300	0.957	0.213	0.0705	0.205	0.200	0.159	1.21
Oct	2.56	2.50	2.35	1.44	3.20	1.06	0.148	0.498	0.475	0.267	2.20
Nov	0.815	0.752	1.05	1.12	0.516	1.04	0.124	0.318	0.296	0.283	1.20
Dec	1.29	1.15	1.04	2.80	0.806	2.46	0.134	0.240	0.187	0.343	1.67
Annual	15.8	15.0	15.2	15.7	17.6	13.1	1.53	3.82	3.54	2.98	18.3

Data completeness

2015	SO_4^{2-} %TP	nss-SO_4^{2-} %TP	NO_3^- %TP	Cl^- %TP	NH_4^+ %TP	Na^+ %TP	K^+ %TP	Ca^{2+} %TP	nss-Ca^{2+} %TP	Mg^{2+} %TP	H^+ %TP	pH %TP	EC %TP	Precip. %PCL
Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	100
Feb	52.2	52.2	52.2	52.2	52.2	52.2	52.2	52.2	52.2	52.2	52.2	52.2	52.2	92.9
Mar	32.2	32.2	32.2	32.2	32.2	32.2	32.2	32.2	32.2	32.2	32.2	32.2	32.2	100
Apr	46.6	46.6	46.6	46.6	46.6	46.6	46.6	46.6	46.6	46.6	46.6	46.6	46.6	100
May	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	100
June	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.3	99.3	99.3	100
July	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.1	99.1	99.1	100
Aug	85.9	85.9	85.9	85.9	85.9	85.9	85.9	85.9	85.9	85.9	83.8	83.8	83.8	96.8
Sept	34.8	34.8	34.8	34.8	34.8	34.8	34.8	34.8	34.8	34.8	34.4	34.4	34.4	96.9
Oct	36.7	36.7	36.7	36.7	36.7	36.7	36.7	36.7	36.7	36.7	36.7	36.7	36.7	100
Nov	100	100	100	100	100	100	100	100	100	100	99.8	99.8	99.8	100
Dec	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	100
Annual	**67.6**	**67.6**	**67.6**	**67.6**	**67.6**	**67.6**	**67.6**	**67.6**	**67.6**	**67.6**	**67.2**	**67.2**	**67.2**	**98.9**

Terms and abbreviations are given in Table 3.5.

Table 3.27 Monthly results Site: Ijira Country: Japan

Precipitation amount-weighted average concentration/ Precipitation amount

2015	SO_4^{2-} µmol L^{-1}	nss-SO_4^{2-} µmol L^{-1}	NO_3^- µmol L^{-1}	Cl^- µmol L^{-1}	NH_4^+ µmol L^{-1}	Na^+ µmol L^{-1}	K^+ µmol L^{-1}	Ca^{2+} µmol L^{-1}	nss-Ca^{2+} µmol L^{-1}	Mg^{2+} µmol L^{-1}	H^+ µmol L^{-1}	pH	EC mS m^{-1}	Precip. mm month^{-1} or mm year^{-1}
Jan	22.2	19.7	32.7	49.6	24.3	40.9	1.76	4.69	3.80	5.29	37.8	4.42	2.97	198
Feb	18.5	16.2	28.2	48.0	21.6	38.2	1.74	6.65	5.83	5.15	24.9	4.60	2.40	154
Mar	12.8	10.9	14.2	40.8	11.6	31.4	1.32	3.30	2.62	4.20	18.0	4.74	1.72	193
Apr	17.7	17.0	22.6	14.0	18.3	11.0	0.858	3.74	3.50	2.05	28.8	4.54	1.96	303
May	9.79	9.36	11.4	9.32	13.1	7.04	0.929	1.63	1.47	1.06	11.4	4.94	0.973	178
June	8.61	8.46	13.2	4.00	10.4	2.64	<0.3	1.31	1.25	0.410	16.9	4.77	1.05	341
July	13.4	12.2	18.0	25.2	19.1	21.1	0.867	1.41	0.950	2.34	18.8	4.72	1.61	538
Aug	9.52	9.21	17.0	6.94	12.1	5.01	0.373	1.07	0.966	0.652	19.7	4.71	1.27	279
Sept	6.33	6.14	10.3	4.84	7.45	3.16	<0.3	0.323	0.283	0.382	13.7	4.86	0.850	390
Oct	11.0	10.2	16.5	17.6	11.7	13.9	0.431	1.26	0.957	1.92	22.1	4.66	1.46	147
Nov	6.58	5.76	10.9	17.8	3.40	13.7	<0.3	1.08	0.779	1.61	16.3	4.79	1.07	203
Dec	8.24	6.75	11.7	30.0	7.58	24.7	0.448	1.03	0.498	2.82	18.0	4.75	1.35	213
Annual	11.7	10.8	16.7	19.9	13.5	15.8	0.699	2.00	1.66	2.04	20.0	4.70	1.49	3135
Max.	38.8	37.4	59.5	107	55.3	89.6	6.90	33.9	33.4	11.8	69.2	5.33	4.49	
Min.	1.10	1.10	2.10	0.600	0.800	<0.3	<0.3	<0.2	<0.2	<0.3	4.68	4.16	0.309	

Wet deposition amount

2015	SO_4^{2-} mmol m^{-2}	nss-SO_4^{2-} mmol m^{-2}	NO_3^- mmol m^{-2}	Cl^- mmol m^{-2}	NH_4^+ mmol m^{-2}	Na^+ mmol m^{-2}	K^+ mmol m^{-2}	Ca^{2+} mmol m^{-2}	nss-Ca^{2+} mmol m^{-2}	Mg^{2+} mmol m^{-2}	H^+ mmol m^{-2}
Jan	4.39	3.91	6.47	9.82	4.82	8.09	0.348	0.928	0.753	1.05	7.49
Feb	2.84	2.49	4.34	7.39	3.33	5.89	0.268	1.02	0.897	0.794	3.84
Mar	2.47	2.11	2.74	7.88	2.23	6.06	0.255	0.636	0.505	0.810	3.48
Apr	5.36	5.16	6.84	4.24	5.53	3.33	0.259	1.13	1.06	0.622	8.72
May	1.74	1.67	2.02	1.66	2.34	1.25	0.165	0.289	0.262	0.189	2.02
June	2.93	2.88	4.49	1.36	3.53	0.898	0.0662	0.447	0.427	0.140	5.77
July	7.23	6.54	9.70	13.5	10.3	11.4	0.467	0.757	0.511	1.26	10.1
Aug	2.65	2.57	4.73	1.94	3.38	1.40	0.104	0.300	0.270	0.182	5.48
Sept	2.47	2.39	4.01	1.89	2.91	1.23	0.0569	0.126	0.110	0.149	5.35
Oct	1.62	1.50	2.41	2.58	1.71	2.04	0.0632	0.184	0.140	0.282	3.24
Nov	1.34	1.17	2.22	3.62	0.689	2.78	0.0435	0.218	0.158	0.327	3.30
Dec	1.75	1.43	2.49	6.38	1.61	5.24	0.0953	0.219	0.106	0.600	3.82
Annual	36.8	33.8	52.5	62.3	42.3	49.6	2.19	6.26	5.20	6.40	62.7

Data completeness

2015	SO_4^{2-} %TP	nss-SO_4^{2-} %TP	NO_3^- %TP	Cl^- %TP	NH_4^+ %TP	Na^+ %TP	K^+ %TP	Ca^{2+} %TP	nss-Ca^{2+} %TP	Mg^{2+} %TP	H^+ %TP	pH %TP	EC %TP	Precip. %PCL
Jan	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Feb	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Mar	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Apr	100	100	100	100	100	100	100	100	100	100	100	100	100	100
May	100	100	100	100	100	100	100	100	100	100	100	100	100	100
June	100	100	100	100	100	100	100	100	100	100	100	100	100	100
July	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Aug	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Sept	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Oct	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Nov	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Dec	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Annual	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Terms and abbreviations are given in Table 3.5.

Table 3.28 Monthly results Site: Oki Country: Japan

Precipitation amount-weighted average concentration/ Precipitation amount

2015	SO_4^{2-} µmol L^{-1}	nss-SO_4^{2-} µmol L^{-1}	NO_3^- µmol L^{-1}	Cl^- µmol L^{-1}	NH_4^+ µmol L^{-1}	Na^+ µmol L^{-1}	K^+ µmol L^{-1}	Ca^{2+} µmol L^{-1}	nss-Ca^{2+} µmol L^{-1}	Mg^{2+} µmol L^{-1}	H^+ µmol L^{-1}	pH	EC mS m^{-1}	Precip. mm month^{-1} or mm year^{-1}
Jan	139	27.4	41.7	2093	22.2	1844	40.7	50.3	10.4	212	32.2	4.49	30.2	51.7
Feb	134	24.2	36.6	2054	19.4	1820	40.4	52.5	13.6	209	26.7	4.57	30.0	44.2
Mar	35.3	15.7	9.18	363	7.79	326	7.36	10.4	3.34	37.9	21.8	4.66	6.23	108
Apr	18.1	14.2	14.0	73.8	14.9	64.5	2.06	4.13	2.74	8.53	23.2	4.64	2.38	122
May	13.5	8.48	10.3	95.6	2.39	83.3	6.40	5.08	3.28	10.9	16.5	4.78	2.29	54.0
June	3.76	2.91	7.00	17.2	3.21	14.1	0.744	1.01	0.706	2.40	10.2	4.99	0.772	82.7
July	26.1	9.19	16.6	338	9.56	280	7.78	9.10	3.04	34.2	19.7	4.71	5.72	52.9
Aug	15.8	5.84	9.06	198	5.35	166	4.16	4.84	1.28	18.7	12.4	4.91	3.36	120
Sept	13.3	7.63	10.7	111	6.65	94.6	2.48	2.44	0.533	10.7	16.0	4.80	2.42	157
Oct	54.8	10.0	22.7	854	14.3	743	18.3	21.9	5.87	85.6	15.1	4.82	12.9	40.1
Nov	31.6	8.70	14.2	436	6.90	380	9.01	9.57	1.35	44.0	19.1	4.72	6.96	113
Dec	63.9	16.2	20.2	924	13.9	792	18.2	21.4	4.26	92.6	23.8	4.62	14.2	116
Annual	36.4	11.5	15.1	473	9.63	412	9.87	12.0	3.15	47.9	19.1	4.72	7.57	1061
Max.	623	209	365	9944	249	8743	196	240	62.2	1014	339	6.48	136	
Min.	1.20	<0.3	1.70	4.00	<0.8	2.50	0.500	<0.2	<0.2	1.10	0.331	3.47	0.300	

Wet deposition amount

2015	SO_4^{2-} mmol m^{-2}	nss-SO_4^{2-} mmol m^{-2}	NO_3^- mmol m^{-2}	Cl^- mmol m^{-2}	NH_4^+ mmol m^{-2}	Na^+ mmol m^{-2}	K^+ mmol m^{-2}	Ca^{2+} mmol m^{-2}	nss-Ca^{2+} mmol m^{-2}	Mg^{2+} mmol m^{-2}	H^+ mmol m^{-2}
Jan	7.17	1.42	2.16	108	1.15	95.4	2.10	2.60	0.539	11.0	1.66
Feb	5.92	1.07	1.62	90.9	0.860	80.5	1.79	2.32	0.601	9.25	1.18
Mar	3.82	1.70	0.992	39.2	0.842	35.2	0.796	1.12	0.361	4.10	2.35
Apr	2.20	1.73	1.70	8.98	1.81	7.85	0.251	0.502	0.333	1.04	2.82
May	0.729	0.458	0.555	5.16	0.129	4.50	0.346	0.274	0.177	0.587	0.893
June	0.311	0.240	0.579	1.42	0.266	1.16	0.0616	0.0836	0.0584	0.199	0.841
July	1.38	0.486	0.878	17.9	0.506	14.8	0.412	0.482	0.161	1.81	1.04
Aug	1.89	0.698	1.08	23.6	0.639	19.8	0.497	0.578	0.153	2.23	1.49
Sept	2.09	1.20	1.67	17.4	1.04	14.9	0.389	0.383	0.0836	1.68	2.51
Oct	2.20	0.402	0.910	34.3	0.576	29.8	0.735	0.881	0.236	3.44	0.607
Nov	3.57	0.982	1.61	49.2	0.779	42.9	1.02	1.08	0.153	4.96	2.16
Dec	7.44	1.89	2.35	108	1.62	92.1	2.12	2.49	0.495	10.8	2.76
Annual	38.6	12.3	16.1	502	10.2	437	10.5	12.8	3.34	50.8	20.3

Data completeness

2015	SO_4^{2-} %TP	nss-SO_4^{2-} %TP	NO_3^- %TP	Cl^- %TP	NH_4^+ %TP	Na^+ %TP	K^+ %TP	Ca^{2+} %TP	nss-Ca^{2+} %TP	Mg^{2+} %TP	H^+ %TP	pH %TP	EC %TP	Precip. %PCL
Jan	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	96.6	100
Feb	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	100
Mar	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	100
Apr	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	100
May	100	100	100	100	100	100	100	100	100	100	100	100	100	100
June	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	100
July	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	100
Aug	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	100
Sept	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Oct	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Nov	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1	100
Dec	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	100
Annual	**99.6**	**99.6**	**99.6**	**99.6**	**99.6**	**99.6**	**99.6**	**99.6**	**99.6**	**99.6**	**99.6**	**99.6**	**99.5**	**100**

Terms and abbreviations are given in Table 3.5.

Table 3.29 Monthly results **Site: Banryu** **Country: Japan**

Precipitation amount-weighted average concentration/ Precipitation amount

2015	SO_4^{2-}	nss-SO_4^{2-}	NO_3^-	Cl^-	NH_4^+	Na^+	K^+	Ca^{2+}	nss-Ca^{2+}	Mg^{2+}	H^+	pH	EC	Precip.
	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}		mS m^{-1}	mm $month^{-1}$ or mm $year^{-1}$
Jan	38.3	26.0	38.0	239	34.6	204	6.03	13.2	8.73	25.0	27.4	4.56	5.55	88.5
Feb	49.6	35.6	77.2	262	59.5	231	6.70	31.2	26.2	29.0	25.0	4.60	6.64	35.4
Mar	38.2	35.6	47.6	53.8	58.9	41.7	2.84	14.8	13.9	7.28	38.2	4.42	3.80	78.5
Apr	15.9	14.3	17.7	30.8	16.7	25.8	1.33	3.89	3.34	3.80	27.1	4.57	2.03	174
May	15.4	14.9	15.4	12.3	11.2	9.19	0.917	5.76	5.56	2.42	23.6	4.63	1.55	83.0
June	9.89	9.02	10.8	17.7	9.30	14.4	0.856	1.22	0.908	2.91	18.1	4.74	1.21	109
July	16.3	7.79	9.68	166	9.22	141	3.12	3.07	0.422	15.2	14.2	4.85	3.08	157
Aug	17.4	8.32	9.46	178	7.11	151	3.51	3.86	0.951	14.9	20.9	4.68	3.49	194
Sept	10.1	6.73	7.60	65.8	3.23	55.8	1.64	3.42	2.21	7.78	14.4	4.84	1.68	187
Oct	7.94	5.68	9.89	46.6	5.79	37.5	0.940	2.43	1.62	4.16	14.7	4.83	1.39	50.9
Nov	11.5	7.17	13.2	87.7	6.00	72.6	1.81	2.58	1.01	8.31	20.8	4.68	2.17	173
Dec	24.6	15.1	26.0	179	18.3	157	3.61	5.20	1.81	18.3	31.7	4.50	4.34	131
Annual	18.3	12.8	18.0	107	14.9	91.1	2.54	5.37	3.49	10.8	22.2	4.65	2.82	1458
Max.	214	213	240	674	152	592	17.0	112	103	71.8	427	5.57	20.9	
Min.	2.90	2.29	2.70	2.90	1.10	1.60	0.500	<0.2	<0.2	1.60	2.69	3.37	0.490	

Wet deposition amount

2015	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}
Jan	3.39	2.30	3.36	21.2	3.06	18.1	0.534	1.16	0.773	2.21	2.43
Feb	1.75	1.26	2.73	9.29	2.11	8.18	0.237	1.10	0.928	1.03	0.885
Mar	3.00	2.80	3.74	4.23	4.62	3.27	0.223	1.16	1.09	0.571	3.00
Apr	2.76	2.49	3.07	5.34	2.90	4.48	0.231	0.676	0.579	0.659	4.71
May	1.28	1.23	1.28	1.02	0.933	0.763	0.0762	0.478	0.461	0.201	1.96
June	1.07	0.979	1.17	1.92	1.01	1.56	0.0929	0.132	0.0985	0.315	1.97
July	2.55	1.22	1.52	25.9	1.44	22.0	0.488	0.480	0.0661	2.39	2.23
Aug	3.37	1.61	1.83	34.4	1.38	29.2	0.678	0.747	0.184	2.88	4.05
Sept	1.89	1.26	1.42	12.3	0.604	10.4	0.307	0.639	0.414	1.46	2.70
Oct	0.404	0.289	0.504	2.38	0.295	1.91	0.0479	0.124	0.0824	0.212	0.750
Nov	1.99	1.24	2.28	15.1	1.04	12.5	0.312	0.445	0.175	1.43	3.59
Dec	3.21	1.97	3.39	23.4	2.39	20.5	0.472	0.679	0.236	2.38	4.15
Annual	26.7	18.6	26.3	157	21.8	133	3.70	7.83	5.09	15.7	32.4

Data completeness

2015	SO_4^{2-}	nss-SO_4^{2-}	NO_3^-	Cl^-	NH_4^+	Na^+	K^+	Ca^{2+}	nss-Ca^{2+}	Mg^{2+}	H^+	pH	EC	Precip.
	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%PCL
Jan	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Feb	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Mar	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Apr	100	100	100	100	100	100	100	100	100	100	100	100	100	100
May	100	100	100	100	100	100	100	100	100	100	100	100	100	100
June	100	100	100	100	100	100	100	100	100	100	100	100	100	100
July	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Aug	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Sept	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Oct	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Nov	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Dec	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Annual	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Terms and abbreviations are given in Table 3.5.

Table 3.30 Monthly results **Site: Yusuhara** **Country: Japan**

Precipitation amount-weighted average concentration/ Precipitation amount

2015	SO_4^{2-} µmol L^{-1}	nss-SO_4^{2-} µmol L^{-1}	NO_3^- µmol L^{-1}	Cl^- µmol L^{-1}	NH_4^+ µmol L^{-1}	Na^+ µmol L^{-1}	K^+ µmol L^{-1}	Ca^{2+} µmol L^{-1}	nss-Ca^{2+} µmol L^{-1}	Mg^{2+} µmol L^{-1}	H^+ µmol L^{-1}	pH	EC mS m^{-1}	Precip. mm $month^{-1}$ or mm $year^{-1}$
Jan	*	*	*	*	*	*	*	*	*	*	*	*	*	155
Feb	*	*	*	*	*	*	*	*	*	*	*	*	*	81.0
Mar	*	*	*	*	*	*	*	*	*	*	*	*	*	235
Apr	*	*	*	*	*	*	*	*	*	*	*	*	*	253
May	*	*	*	*	*	*	*	*	*	*	*	*	*	141
June	*	*	*	*	*	*	*	*	*	*	*	*	*	498
July	*	*	*	*	*	*	*	*	*	*	*	*	*	425
Aug	*	*	*	*	*	*	*	*	*	*	*	*	*	469
Sept	*	*	*	*	*	*	*	*	*	*	*	*	*	290
Oct	11.6	10.4	9.22	22.5	11.4	19.6	0.967	1.20	0.777	2.14	24.0	4.62	1.49	55.5
Nov	4.57	4.13	6.79	15.7	2.49	12.9	0.470	0.595	0.323	1.70	13.4	4.87	0.883	190
Dec	7.79	5.95	8.06	36.3	4.93	30.5	0.965	1.33	0.675	3.60	13.2	4.88	1.27	255
Annual	6.52	5.28	7.55	27.4	4.04	22.9	0.758	1.02	0.530	2.77	13.5	4.87	1.11	3046
Max.	142	92.7	123	1564	91.9	1337	27.6	36.7	9.55	146	148	5.54	27.3	
Min.	<0.3	<0.3	0.695	<0.5	<0.8	0.544	<0.3	<0.2	<0.2	<0.3	2.88	3.83	0.289	

Wet deposition amount

2015	SO_4^{2-} mmol m^{-2}	nss-SO_4^{2-} mmol m^{-2}	NO_3^- mmol m^{-2}	Cl^- mmol m^{-2}	NH_4^+ mmol m^{-2}	Na^+ mmol m^{-2}	K^+ mmol m^{-2}	Ca^{2+} mmol m^{-2}	nss-Ca^{2+} mmol m^{-2}	Mg^{2+} mmol m^{-2}	H^+ mmol m^{-2}
Jan	*	*	*	*	*	*	*	*	*	*	*
Feb	*	*	*	*	*	*	*	*	*	*	*
Mar	*	*	*	*	*	*	*	*	*	*	*
Apr	*	*	*	*	*	*	*	*	*	*	*
May	*	*	*	*	*	*	*	*	*	*	*
June	*	*	*	*	*	*	*	*	*	*	*
July	*	*	*	*	*	*	*	*	*	*	*
Aug	*	*	*	*	*	*	*	*	*	*	*
Sept	*	*	*	*	*	*	*	*	*	*	*
Oct	0.644	0.579	0.512	1.25	0.635	1.09	0.0537	0.0666	0.0431	0.119	1.33
Nov	0.867	0.782	1.29	2.97	0.472	2.45	0.0892	0.113	0.0613	0.321	2.55
Dec	1.98	1.52	2.05	9.25	1.26	7.76	0.246	0.340	0.172	0.917	3.36
Annual	19.9	16.1	23.0	83.4	12.3	69.8	2.31	3.11	1.61	8.45	41.2

Data completeness

2015	SO_4^{2-} %TP	nss-SO_4^{2-} %TP	NO_3^- %TP	Cl^- %TP	NH_4^+ %TP	Na^+ %TP	K^+ %TP	Ca^{2+} %TP	nss-Ca^{2+} %TP	Mg^{2+} %TP	H^+ %TP	pH %TP	EC %TP	Precip. %PCL
Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	100
Feb	0	0	0	0	0	0	0	0	0	0	0	0	0	100
Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	100
Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	100
May	0	0	0	0	0	0	0	0	0	0	0	0	0	100
June	0	0	0	0	0	0	0	0	0	0	0	0	0	100
July	0	0	0	0	0	0	0	0	0	0	0	0	0	100
Aug	0	0	0	0	0	0	0	0	0	0	0	0	0	100
Sept	0	0	0	0	0	0	0	0	0	0	0	0	0	100
Oct	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	100
Nov	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	100
Dec	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	100
Annual	**14.8**	**14.8**	**14.8**	**14.8**	**14.8**	**14.8**	**14.8**	**14.8**	**14.8**	**14.8**	**14.8**	**14.8**	**14.8**	**100**

Terms and abbreviations are given in Table 3.5.

Table 3.31 Monthly results **Site: Hedo** **Country: Japan**

Precipitation amount-weighted average concentration/ Precipitation amount

2015	SO_4^{2-}	nss-SO_4^{2-}	NO_3^-	Cl^-	NH_4^+	Na^+	K^+	Ca^{2+}	nss-Ca^{2+}	Mg^{2+}	H^+	pH	EC	Precip.
	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}		mS m^{-1}	mm $month^{-1}$ or mm $year^{-1}$
Jan	33.5	16.4	19.5	328	12.2	284	6.35	9.33	3.20	31.5	20.9	4.68	4.62	19.3
Feb	26.4	14.2	16.3	230	14.9	201	5.35	7.17	2.83	23.1	9.93	5.00	3.20	43.8
Mar	18.8	13.2	15.1	106	20.0	91.6	3.30	4.98	3.00	10.7	13.0	4.88	2.31	60.6
Apr	18.3	12.3	18.6	116	17.6	99.7	3.15	5.59	3.43	12.1	18.8	4.72	2.43	97.8
May	4.73	3.32	5.40	27.7	5.52	23.4	0.965	1.48	0.972	2.95	6.23	5.21	0.724	323
June	5.91	3.64	10.7	44.7	5.42	37.8	0.934	1.73	0.915	4.65	9.80	5.01	1.10	102
July	42.6	2.42	3.13	787	15.2	667	15.2	16.1	1.71	75.8	2.91	5.54	10.5	554
Aug	36.9	2.48	4.70	666	13.6	570	12.4	13.3	0.970	65.2	4.92	5.31	9.15	182
Sept	21.1	14.5	18.3	124	10.6	109	2.54	3.78	1.43	12.5	25.1	4.60	3.22	61.2
Oct	11.0	5.22	4.40	112	3.98	96.3	2.08	2.96	0.877	11.0	4.48	5.35	1.78	146
Nov	6.29	3.45	4.95	55.8	2.15	47.1	0.672	1.31	0.287	5.27	7.46	5.13	1.10	106
Dec	21.4	10.4	13.3	211	13.8	181	4.21	5.81	1.89	20.7	12.9	4.89	3.48	67.1
Annual	23.9	5.04	7.05	368	11.0	313	7.24	8.24	1.48	35.8	7.17	5.14	5.28	1762
Max.	305	101	164	5959	183	4979	119	121	39.8	567	145	7.91	74.9	
Min.	1.01	0.344	<0.5	5.30	<0.8	4.61	<0.3	0.324	<0.2	0.617	0.0122	3.84	0.275	

Wet deposition amount

2015	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}
Jan	0.645	0.316	0.376	6.32	0.235	5.46	0.122	0.180	0.0617	0.607	0.402
Feb	1.15	0.623	0.713	10.1	0.652	8.80	0.234	0.314	0.124	1.01	0.434
Mar	1.14	0.802	0.916	6.40	1.21	5.55	0.200	0.302	0.182	0.646	0.790
Apr	1.79	1.20	1.82	11.4	1.72	9.75	0.308	0.546	0.335	1.18	1.84
May	1.53	1.07	1.74	8.94	1.78	7.56	0.311	0.477	0.314	0.953	2.01
June	0.603	0.371	1.10	4.56	0.553	3.85	0.0953	0.177	0.0934	0.474	1.00
July	23.6	1.34	1.73	436	8.42	369	8.41	8.93	0.946	42.0	1.61
Aug	6.69	0.450	0.854	121	2.47	104	2.26	2.41	0.176	11.8	0.894
Sept	1.29	0.888	1.12	7.57	0.650	6.65	0.156	0.232	0.0877	0.766	1.53
Oct	1.61	0.763	0.643	16.3	0.582	14.1	0.305	0.432	0.128	1.61	0.655
Nov	0.667	0.366	0.525	5.92	0.228	5.00	0.0713	0.138	0.0305	0.559	0.792
Dec	1.43	0.700	0.895	14.2	0.928	12.2	0.283	0.390	0.127	1.39	0.862
Annual	42.1	8.88	12.4	648	19.4	552	12.8	14.5	2.60	63.0	12.6

Data completeness

2015	SO_4^{2-}	nss-SO_4^{2-}	NO_3^-	Cl^-	NH_4^+	Na^+	K^+	Ca^{2+}	nss-Ca^{2+}	Mg^{2+}	H^+	pH	EC	Precip.
	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%PCL
Jan	97.4	97.4	97.4	97.4	97.4	97.4	97.4	97.4	97.4	97.4	88.3	88.3	88.3	100
Feb	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	89.1	89.1	89.1	100
Mar	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	94.3	94.3	94.3	100
Apr	100	100	100	100	100	100	100	100	100	100	95.1	95.1	95.1	100
May	100	100	100	100	100	100	100	100	100	100	99.0	99.0	99.0	100
June	100	100	100	100	100	100	100	100	100	100	96.6	96.6	96.6	100
July	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.2	99.2	99.2	100
Aug	100	100	100	100	100	100	100	100	100	100	98.6	98.6	98.6	100
Sept	100	100	100	100	100	100	100	100	100	100	90.7	90.7	90.7	100
Oct	100	100	100	100	100	100	100	100	100	100	95.1	95.1	95.1	100
Nov	100	100	100	100	100	100	100	100	100	100	97.1	97.1	97.1	100
Dec	100	100	100	100	100	100	100	100	100	100	96.9	96.9	96.9	100
Annual	**99.9**	**99.9**	**99.9**	**99.9**	**99.9**	**99.9**	**99.9**	**99.9**	**99.9**	**99.9**	**97.3**	**97.3**	**97.3**	**100**

Terms and abbreviations are given in Table 3.5.

Table 3.32 Monthly results **Site: Ogasawara** **Country: Japan**

Precipitation amount-weighted average concentration/ Precipitation amount

2015	SO_4^{2-} µmol L^{-1}	nss-SO_4^{2-} µmol L^{-1}	NO_3^- µmol L^{-1}	Cl^- µmol L^{-1}	NH_4^+ µmol L^{-1}	Na^+ µmol L^{-1}	K^+ µmol L^{-1}	Ca^{2+} µmol L^{-1}	nss-Ca^{2+} µmol L^{-1}	Mg^{2+} µmol L^{-1}	H^+ µmol L^{-1}	pH	EC mS m^{-1}	Precip. mm month^{-1} or mm year^{-1}
Jan	9.64	4.73	2.81	90.3	5.34	81.6	2.91	2.80	1.04	9.32	7.86	5.10	1.63	84.5
Feb	41.9	22.6	14.8	379	12.5	320	7.50	11.2	4.33	36.9	37.9	4.42	6.84	14.5
Mar	22.6	16.4	10.6	125	10.5	103	2.77	4.89	2.67	12.2	30.0	4.52	3.32	20.3
Apr	11.5	7.14	7.91	88.9	3.63	71.9	2.14	2.96	1.40	8.10	20.5	4.69	2.00	59.0
May	26.7	2.14	4.15	506	2.73	407	12.6	11.2	2.39	46.7	7.10	5.15	7.08	186
June	1.90	0.822	1.40	21.7	<0.8	18.0	0.634	1.36	0.976	2.29	5.05	5.30	0.536	64.0
July	14.2	2.59	2.99	231	1.82	193	4.46	5.99	1.82	22.5	7.35	5.13	3.61	22.0
Aug	20.6	1.80	1.33	373	2.65	312	8.02	7.94	1.20	35.0	4.25	5.37	5.44	392
Sept	39.3	0.748	<0.5	784	1.38	646	16.1	16.2	2.27	72.4	2.13	5.67	10.4	335
Oct	14.4	3.24	3.52	217	3.22	185	4.88	5.99	2.00	21.4	4.67	5.33	3.16	115
Nov	4.63	0.989	1.81	70.3	1.97	60.4	1.73	1.78	0.472	6.71	4.34	5.36	1.22	204
Dec	8.71	3.71	4.11	97.2	3.34	82.9	1.91	2.29	0.497	9.65	8.32	5.08	1.68	89.5
Annual	20.8	2.39	2.41	370	2.64	306	8.10	8.13	1.51	34.5	5.89	5.23	5.30	1586
Max.	242	82.4	103	4439	52.9	3759	88.9	99.1	25.8	432	155	6.04	59.4	
Min.	1.00	<0.3	<0.5	3.20	<0.8	2.70	<0.3	0.500	<0.2	0.500	0.912	3.81	0.350	

Wet deposition amount

2015	SO_4^{2-} mmol m^{-2}	nss-SO_4^{2-} mmol m^{-2}	NO_3^- mmol m^{-2}	Cl^- mmol m^{-2}	NH_4^+ mmol m^{-2}	Na^+ mmol m^{-2}	K^+ mmol m^{-2}	Ca^{2+} mmol m^{-2}	nss-Ca^{2+} mmol m^{-2}	Mg^{2+} mmol m^{-2}	H^+ mmol m^{-2}
Jan	0.815	0.399	0.238	7.63	0.451	6.89	0.246	0.237	0.0880	0.787	0.664
Feb	0.606	0.327	0.214	5.48	0.181	4.63	0.108	0.163	0.0626	0.534	0.547
Mar	0.459	0.333	0.216	2.53	0.213	2.08	0.0563	0.0993	0.0542	0.247	0.608
Apr	0.677	0.421	0.467	5.24	0.214	4.24	0.126	0.175	0.0828	0.478	1.21
May	4.96	0.399	0.772	94.2	0.507	75.7	2.34	2.08	0.444	8.69	1.32
June	0.122	0.0526	0.0893	1.39	0.0420	1.15	0.0406	0.0873	0.0624	0.146	0.323
July	0.313	0.0568	0.0658	5.09	0.0400	4.24	0.0981	0.132	0.0401	0.495	0.161
Aug	8.08	0.705	0.524	146	1.04	122	3.15	3.12	0.471	13.7	1.67
Sept	13.2	0.251	0.162	262	0.463	216	5.41	5.44	0.760	24.2	0.713
Oct	1.65	0.372	0.404	24.9	0.371	21.2	0.560	0.689	0.230	2.46	0.537
Nov	0.947	0.202	0.370	14.4	0.402	12.4	0.353	0.363	0.0965	1.37	0.887
Dec	0.779	0.332	0.368	8.69	0.299	7.42	0.171	0.205	0.0445	0.864	0.745
Annual	32.9	3.79	3.82	587	4.19	486	12.8	12.9	2.40	54.8	9.35

Data completeness

2015	SO_4^{2-} %TP	nss-SO_4^{2-} %TP	NO_3^- %TP	Cl^- %TP	NH_4^+ %TP	Na^+ %TP	K^+ %TP	Ca^{2+} %TP	nss-Ca^{2+} %TP	Mg^{2+} %TP	H^+ %TP	pH %TP	EC %TP	Precip. %PCL
Jan	100	100	100	100	100	100	100	100	100	100	96.4	96.4	96.4	100
Feb	96.5	96.5	96.5	96.5	96.5	96.5	96.5	96.5	96.5	96.5	79.6	79.6	79.6	100
Mar	98.5	98.5	98.5	98.5	98.5	98.5	98.5	98.5	98.5	98.5	96.0	96.0	96.0	100
Apr	100	100	100	100	100	100	100	100	100	100	97.5	97.5	97.5	100
May	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.5	99.5	99.5	100
June	100	100	100	100	100	100	100	100	100	100	99.2	99.2	99.2	100
July	88.7	88.7	88.7	88.7	88.7	88.7	88.7	88.7	88.7	88.7	88.7	88.7	88.7	100
Aug	98.4	98.4	98.4	98.4	98.4	98.4	98.4	98.4	98.4	98.4	98.4	98.4	98.4	100
Sept	98.4	98.4	98.4	98.4	98.4	98.4	98.4	98.4	98.4	98.4	98.4	98.4	98.4	100
Oct	41.3	41.3	41.3	41.3	41.3	41.3	41.3	41.3	41.3	41.3	40.9	40.9	40.9	93.5
Nov	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	98.9	98.9	98.9	100
Dec	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	95.9	95.9	95.9	100
Annual	**94.7**	**94.7**	**94.7**	**94.7**	**94.7**	**94.7**	**94.7**	**94.7**	**94.7**	**94.7**	**93.8**	**93.8**	**93.8**	**99.5**

Terms and abbreviations are given in Table 3.5.

Table 3.33 Monthly results Site: Tokyo Country: Japan

Precipitation amount-weighted average concentration/ Precipitation amount

2015	SO_4^{2-}	nss-SO_4^{2-}	NO_3^-	Cl^-	NH_4^+	Na^+	K^+	Ca^{2+}	nss-Ca^{2+}	Mg^{2+}	H^+	pH	EC	Precip.
	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}		mS m^{-1}	mm $month^{-1}$ or mm $year^{-1}$
Jan	9.00	8.43	14.4	10.9	18.6	9.42	0.343	3.35	3.15	1.47	13.1	4.88	1.11	83.0
Feb	13.8	12.4	22.8	27.9	34.4	23.0	0.903	5.20	4.71	2.89	12.0	4.92	1.58	57.9
Mar	9.36	8.93	18.1	8.74	19.9	7.07	0.408	3.05	2.89	1.14	17.6	4.76	1.22	85.4
Apr	13.9	13.2	25.8	14.1	32.3	11.2	0.754	5.37	5.12	1.93	15.1	4.82	1.49	119
May	19.7	17.5	17.5	46.3	26.7	36.4	1.02	6.64	5.86	4.77	18.9	4.72	2.00	82.6
June	16.3	15.7	21.2	13.6	25.4	10.5	0.568	4.53	4.30	1.76	25.0	4.60	1.76	169
July	10.3	9.43	14.3	19.2	16.7	15.0	0.435	3.52	3.20	2.06	16.3	4.79	1.32	206
Aug	27.9	27.2	41.7	16.2	42.6	11.8	0.729	4.90	4.65	1.98	52.9	4.28	3.24	94.5
Sept	6.32	5.52	7.87	15.9	10.6	13.2	0.557	2.30	2.01	1.88	9.16	5.04	0.828	488
Oct	24.8	20.1	22.6	90.9	32.4	78.1	1.90	5.35	3.67	9.17	22.9	4.64	2.82	50.0
Nov	7.27	6.59	14.4	13.9	14.7	11.3	0.354	1.74	1.50	1.45	12.5	4.90	1.02	130
Dec	11.0	7.62	11.3	66.5	15.6	55.3	1.20	2.43	1.23	6.30	13.8	4.86	1.80	75.9
Annual	11.7	10.6	16.3	22.2	20.1	18.0	0.641	3.56	3.17	2.45	16.3	4.79	1.40	1641
Max.	160	157	371	231	397	194	7.40	73.4	72.4	22.0	162	5.55	15.4	
Min.	2.20	2.09	1.70	1.20	4.70	0.400	<0.3	0.600	0.328	<0.3	2.82	3.79	0.380	

Wet deposition amount

2015	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}
Jan	0.747	0.700	1.20	0.902	1.54	0.781	0.0284	0.278	0.261	0.122	1.09
Feb	0.800	0.720	1.32	1.62	1.99	1.33	0.0523	0.301	0.273	0.167	0.698
Mar	0.799	0.763	1.55	0.746	1.70	0.604	0.0348	0.260	0.247	0.0978	1.50
Apr	1.65	1.57	3.08	1.68	3.84	1.33	0.0898	0.639	0.610	0.230	1.80
May	1.63	1.45	1.44	3.83	2.21	3.00	0.0843	0.549	0.484	0.394	1.56
June	2.76	2.65	3.59	2.30	4.29	1.77	0.0960	0.766	0.727	0.298	4.23
July	2.13	1.94	2.95	3.96	3.45	3.09	0.0897	0.726	0.660	0.424	3.37
Aug	2.64	2.57	3.94	1.53	4.03	1.12	0.0689	0.464	0.439	0.187	5.00
Sept	3.08	2.69	3.84	7.75	5.15	6.45	0.272	1.12	0.982	0.917	4.47
Oct	1.24	1.00	1.13	4.54	1.62	3.90	0.0949	0.268	0.183	0.459	1.14
Nov	0.942	0.854	1.87	1.80	1.90	1.46	0.0458	0.226	0.194	0.188	1.62
Dec	0.831	0.578	0.859	5.04	1.19	4.20	0.0914	0.184	0.0935	0.478	1.05
Annual	19.2	17.4	26.7	36.4	33.0	29.6	1.05	5.84	5.20	4.02	26.8

Data completeness

2015	SO_4^{2-}	nss-SO_4^{2-}	NO_3^-	Cl^-	NH_4^+	Na^+	K^+	Ca^{2+}	nss-Ca^{2+}	Mg^{2+}	H^+	pH	EC	Precip.
	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%PCL
Jan	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	100
Feb	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	100
Mar	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.4	98.4	98.4	100
Apr	100	100	100	100	100	100	100	100	100	100	99.6	99.6	99.6	100
May	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	100
June	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.5	99.5	99.5	100
July	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	100
Aug	69.3	69.3	69.3	69.3	69.3	69.3	69.3	69.3	69.3	69.3	62.9	62.9	62.9	100
Sept	83.5	83.5	83.5	83.5	83.5	83.5	83.5	83.5	83.5	83.5	83.3	83.3	83.3	100
Oct	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	98.0	98.0	98.0	100
Nov	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	100
Dec	100	100	100	100	100	100	100	100	100	100	98.8	98.8	98.8	100
Annual	**93.1**	**93.1**	**93.1**	**93.1**	**93.1**	**93.1**	**93.1**	**93.1**	**93.1**	**93.1**	**92.5**	**92.5**	**92.5**	**100**

Terms and abbreviations are given in Table 3.5.

Table 3.34 Monthly results Site: Vientiane Country: Lao PDR

Precipitation amount-weighted average concentration/ Precipitation amount

2015	SO_4^{2-} µmol L^{-1}	nss-SO_4^{2-} µmol L^{-1}	NO_3^- µmol L^{-1}	Cl^- µmol L^{-1}	NH_4^+ µmol L^{-1}	Na^+ µmol L^{-1}	K^+ µmol L^{-1}	Ca^{2+} µmol L^{-1}	nss-Ca^{2+} µmol L^{-1}	Mg^{2+} µmol L^{-1}	H^+ µmol L^{-1}	pH	EC mS m^{-1}	Precip. mm month^{-1} or mm year^{-1}
Jan	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Feb	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Mar	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Apr	--	--	--	--	--	--	--	--	--	--	--	--	--	0
May	--	--	--	--	--	--	--	--	--	--	--	--	--	0
June	3.20	3.06	6.50	2.74	6.30	2.21	3.70	6.95	6.90	0.540	2.77	5.56	2.35	38.2
July	3.49	3.26	7.21	3.39	8.06	3.75	2.84	6.74	6.66	1.12	0.725	6.14	1.77	269
Aug	3.05	2.83	3.06	5.53	7.22	3.69	1.35	4.00	3.92	0.627	0.894	6.05	1.25	251
Sept	3.14	3.07	2.34	6.12	9.02	1.29	0.994	2.05	2.02	<0.3	1.99	5.70	0.994	204
Oct	2.97	2.87	2.27	5.79	6.99	1.73	0.999	1.16	1.12	<0.3	0.786	6.10	0.475	159
Nov	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Dec	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Annual	3.19	3.02	4.12	4.97	7.78	2.78	1.74	4.00	3.94	0.613	1.15	5.94	1.26	921
Max.	5.30	4.93	7.90	6.50	10.9	7.20	8.70	8.30	8.21	3.60	6.92	7.23	3.60	
Min.	2.30	2.12	2.10	2.25	5.30	1.00	0.610	1.10	1.07	<0.3	0.0589	5.16	0.400	

Wet deposition amount

2015	SO_4^{2-} mmol m^{-2}	nss-SO_4^{2-} mmol m^{-2}	NO_3^- mmol m^{-2}	Cl^- mmol m^{-2}	NH_4^+ mmol m^{-2}	Na^+ mmol m^{-2}	K^+ mmol m^{-2}	Ca^{2+} mmol m^{-2}	nss-Ca^{2+} mmol m^{-2}	Mg^{2+} mmol m^{-2}	H^+ mmol m^{-2}
Jan	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Feb	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mar	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Apr	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
May	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
June	0.122	0.117	0.248	0.104	0.241	0.0842	0.141	0.265	0.264	0.0206	0.106
July	0.937	0.876	1.94	0.910	2.17	1.01	0.763	1.81	1.79	0.302	0.195
Aug	0.767	0.711	0.769	1.39	1.81	0.926	0.339	1.00	0.984	0.157	0.224
Sept	0.641	0.625	0.477	1.25	1.84	0.262	0.203	0.418	0.412	0.0441	0.406
Oct	0.473	0.456	0.362	0.922	1.11	0.276	0.159	0.184	0.178	0.0400	0.125
Nov	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	2.94	2.79	3.79	4.58	7.17	2.56	1.61	3.68	3.63	0.564	1.06

Data completeness

2015	SO_4^{2-} %TP	nss-SO_4^{2-} %TP	NO_3^- %TP	Cl^- %TP	NH_4^+ %TP	Na^+ %TP	K^+ %TP	Ca^{2+} %TP	nss-Ca^{2+} %TP	Mg^{2+} %TP	H^+ %TP	pH %TP	EC %TP	Precip. %PCL
Jan	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Feb	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Mar	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Apr	--	--	--	--	--	--	--	--	--	--	--	--	--	100
May	--	--	--	--	--	--	--	--	--	--	--	--	--	100
June	100	100	100	100	100	100	100	100	100	100	100	100	100	100
July	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Aug	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Sept	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Oct	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Nov	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Dec	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Annual	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Terms and abbreviations are given in Table 3.5.

Table 3.35 Monthly results **Site: Petaling Jaya** **Country: Malaysia**

Precipitation amount-weighted average concentration/ Precipitation amount

2015	SO_4^{2-}	nss-SO_4^{2-}	NO_3^-	Cl^-	NH_4^+	Na^+	K^+	Ca^{2+}	nss-Ca^{2+}	Mg^{2+}	H^+	pH	EC	Precip.
	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}		mS m^{-1}	mm $month^{-1}$ or mm $year^{-1}$
Jan	20.0	19.5	41.5	11.6	26.2	8.15	2.10	8.41	8.24	1.33	31.6	4.50	2.29	399
Feb	46.4	45.5	84.2	23.3	68.6	15.7	4.42	17.3	17.0	2.89	52.9	4.28	4.41	118
Mar	17.9	17.4	38.3	11.4	24.0	7.36	1.37	6.44	6.28	1.02	31.0	4.51	2.21	405
Apr	13.7	13.4	30.6	7.32	19.4	4.28	1.21	3.58	3.49	0.417	28.8	4.54	1.85	424
May	19.3	19.0	41.5	9.27	22.0	4.48	1.21	6.82	6.72	0.735	42.2	4.37	2.66	544
June	18.6	18.4	34.3	6.66	23.8	3.36	1.60	4.23	4.16	0.329	36.0	4.44	2.26	231
July	23.3	22.8	42.0	14.4	31.1	8.61	2.07	8.71	8.53	1.45	32.9	4.48	2.50	221
Aug	20.5	19.8	36.1	13.1	14.5	11.0	1.35	5.44	5.20	0.830	48.5	4.31	2.83	174
Sept	42.0	41.3	85.4	20.5	43.0	12.5	2.80	9.36	9.09	1.83	88.0	4.06	5.18	125
Oct	46.2	45.9	68.4	11.7	51.5	6.53	2.55	9.17	9.03	1.30	65.5	4.18	4.15	308
Nov	11.0	10.9	35.5	5.07	10.6	2.44	1.13	4.56	4.50	<0.3	35.8	4.45	1.94	421
Dec	16.1	15.8	41.2	8.58	16.7	4.60	1.64	5.56	5.46	0.820	42.5	4.37	2.43	382
Annual	21.4	21.0	43.6	10.3	25.5	6.20	1.70	6.70	6.56	0.922	40.8	4.39	2.61	3751
Max.	74.4	73.8	162	39.5	119	29.2	6.66	28.9	28.5	3.95	155	5.26	9.39	
Min.	0.640	0.595	<0.5	1.94	<0.8	0.740	0.390	<0.2	<0.2	<0.3	5.50	3.81	0.240	

Wet deposition amount

2015	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}
Jan	7.97	7.77	16.6	4.62	10.5	3.25	0.837	3.36	3.29	0.530	12.6
Feb	5.50	5.39	9.97	2.76	8.12	1.86	0.524	2.05	2.01	0.342	6.27
Mar	7.23	7.05	15.5	4.62	9.73	2.98	0.556	2.60	2.54	0.412	12.6
Apr	5.80	5.69	13.0	3.10	8.22	1.81	0.513	1.52	1.48	0.177	12.2
May	10.5	10.4	22.6	5.04	11.9	2.44	0.656	3.71	3.66	0.400	23.0
June	4.31	4.26	7.92	1.54	5.50	0.777	0.370	0.978	0.961	0.0760	8.31
July	5.15	5.03	9.26	3.18	6.85	1.90	0.457	1.92	1.88	0.319	7.26
Aug	3.57	3.45	6.29	2.28	2.54	1.91	0.236	0.948	0.907	0.145	8.46
Sept	5.27	5.17	10.7	2.57	5.39	1.57	0.351	1.17	1.14	0.230	11.0
Oct	14.2	14.1	21.0	3.62	15.8	2.01	0.784	2.82	2.78	0.400	20.2
Nov	4.63	4.57	14.9	2.13	4.45	1.02	0.477	1.92	1.89	0.117	15.1
Dec	6.13	6.03	15.7	3.27	6.39	1.75	0.625	2.12	2.08	0.313	16.2
Annual	80.3	78.9	164	38.7	95.5	23.3	6.39	25.1	24.6	3.46	153

Data completeness

2015	SO_4^{2-}	nss-SO_4^{2-}	NO_3^-	Cl^-	NH_4^+	Na^+	K^+	Ca^{2+}	nss-Ca^{2+}	Mg^{2+}	H^+	pH	EC	Precip.
	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%PCL
Jan	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Feb	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Mar	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Apr	100	100	100	100	100	100	100	100	100	100	100	100	100	100
May	100	100	100	100	100	100	100	100	100	100	100	100	100	100
June	100	100	100	100	100	100	100	100	100	100	100	100	100	100
July	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Aug	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6	100
Sept	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Oct	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Nov	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Dec	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Annual	**99.9**	**99.9**	**99.9**	**99.9**	**99.9**	**99.9**	**99.9**	**99.9**	**99.9**	**99.9**	**99.9**	**99.9**	**99.9**	**100**

Terms and abbreviations are given in Table 3.5.

Table 3.36 Monthly results **Site: Tanah Rata** **Country: Malaysia**

Precipitation amount-weighted average concentration/ Precipitation amount

2015	SO_4^{2-} µmol L^{-1}	nss-SO_4^{2-} µmol L^{-1}	NO_3^- µmol L^{-1}	Cl^- µmol L^{-1}	NH_4^+ µmol L^{-1}	Na^+ µmol L^{-1}	K^+ µmol L^{-1}	Ca^{2+} µmol L^{-1}	nss-Ca^{2+} µmol L^{-1}	Mg^{2+} µmol L^{-1}	H^+ µmol L^{-1}	pH	EC mS m^{-1}	Precip. mm $month^{-1}$ or mm $year^{-1}$
Jan	2.20	2.13	2.92	2.61	<0.8	1.24	0.874	0.395	0.385	<0.3	8.34	5.08	0.508	166
Feb	2.10	1.80	5.19	2.96	9.84	5.01	2.92	1.96	1.85	<0.3	4.68	5.33	0.490	59.4
Mar	5.86	5.68	10.7	3.50	4.03	2.85	1.70	2.42	2.36	<0.3	17.1	4.77	1.05	123
Apr	4.66	4.39	8.61	5.14	2.36	4.41	1.15	0.785	0.733	<0.3	17.8	4.75	0.984	114
May	4.19	4.13	8.93	1.63	5.62	0.962	0.877	2.57	2.55	<0.3	12.0	4.92	0.742	451
June	4.09	4.03	10.1	1.71	1.13	1.00	0.922	3.31	3.29	<0.3	14.3	4.84	1.00	91.0
July	5.84	5.70	5.82	3.73	1.31	2.40	1.26	2.20	2.14	<0.3	20.4	4.69	1.10	377
Aug	12.9	12.3	4.80	8.96	68.0	9.67	24.2	2.69	2.48	0.370	16.3	4.79	1.99	132
Sept	16.7	16.4	19.3	6.16	20.5	3.91	1.17	3.24	3.15	1.52	36.8	4.43	2.03	197
Oct	12.3	12.1	8.86	4.77	4.50	2.98	1.66	1.94	1.89	0.341	33.2	4.48	1.59	536
Nov	1.19	1.08	1.09	2.57	<0.8	1.80	0.762	0.896	0.870	<0.3	7.94	5.10	0.488	330
Dec	1.27	1.09	5.99	2.97	1.10	3.00	1.38	1.38	1.32	<0.3	10.3	4.99	0.561	108
Annual	6.86	6.69	7.63	3.75	7.54	2.74	2.37	2.00	1.94	<0.3	19.1	4.72	1.10	2684
Max.	75.7	72.3	72.2	28.1	538	56.7	153	9.21	8.99	3.35	166	5.48	8.55	
Min.	0.480	0.413	<0.5	0.760	<0.8	0.680	0.400	<0.2	<0.2	<0.3	3.31	3.78	0.360	

Wet deposition amount

2015	SO_4^{2-} mmol m^{-2}	nss-SO_4^{2-} mmol m^{-2}	NO_3^- mmol m^{-2}	Cl^- mmol m^{-2}	NH_4^+ mmol m^{-2}	Na^+ mmol m^{-2}	K^+ mmol m^{-2}	Ca^{2+} mmol m^{-2}	nss-Ca^{2+} mmol m^{-2}	Mg^{2+} mmol m^{-2}	H^+ mmol m^{-2}
Jan	0.366	0.353	0.484	0.433	0.0675	0.205	0.145	0.0655	0.0639	0.0108	1.38
Feb	0.125	0.107	0.308	0.176	0.584	0.298	0.173	0.116	0.110	<0.01	0.278
Mar	0.721	0.700	1.31	0.432	0.497	0.351	0.210	0.298	0.291	0.0218	2.10
Apr	0.531	0.500	0.981	0.586	0.269	0.503	0.131	0.0894	0.0835	<0.01	2.03
May	1.89	1.86	4.03	0.733	2.54	0.434	0.396	1.16	1.15	0.0557	5.43
June	0.372	0.367	0.916	0.156	0.103	0.0911	0.0839	0.301	0.300	<0.01	1.30
July	2.20	2.15	2.19	1.40	0.496	0.906	0.474	0.828	0.808	0.0132	7.69
Aug	1.70	1.63	0.635	1.18	8.99	1.28	3.20	0.356	0.328	0.0489	2.15
Sept	3.28	3.23	3.79	1.21	4.03	0.769	0.231	0.636	0.620	0.299	7.23
Oct	6.59	6.49	4.75	2.56	2.41	1.60	0.888	1.04	1.02	0.183	17.8
Nov	0.392	0.356	0.360	0.848	<0.01	0.595	0.251	0.295	0.287	<0.01	2.62
Dec	0.137	0.118	0.644	0.320	0.118	0.323	0.148	0.149	0.142	<0.01	1.11
Annual	18.4	18.0	20.5	10.1	20.2	7.36	6.35	5.36	5.22	0.636	51.4

Data completeness

2015	SO_4^{2-} %TP	nss-SO_4^{2-} %TP	NO_3^- %TP	Cl^- %TP	NH_4^+ %TP	Na^+ %TP	K^+ %TP	Ca^{2+} %TP	nss-Ca^{2+} %TP	Mg^{2+} %TP	H^+ %TP	pH %TP	EC %TP	Precip. %PCL
Jan	92.8	92.8	92.8	92.8	92.8	92.8	92.8	92.8	92.8	92.8	92.8	92.8	92.8	100
Feb	94.9	94.9	94.9	94.9	94.9	94.9	94.9	94.9	94.9	94.9	94.9	94.9	94.9	100
Mar	97.9	97.9	97.9	97.9	97.9	97.9	97.9	97.9	97.9	97.9	97.9	97.9	97.9	100
Apr	100	100	100	100	100	100	100	100	100	100	100	100	100	100
May	100	100	100	100	100	100	100	100	100	100	100	100	100	100
June	100	100	100	100	100	100	100	100	100	100	100	100	100	100
July	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Aug	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Sept	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Oct	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Nov	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Dec	95.4	95.4	95.4	95.4	95.4	95.4	95.4	95.4	95.4	95.4	95.4	95.4	95.4	100
Annual	**99.2**	**99.2**	**99.2**	**99.2**	**99.2**	**99.2**	**99.2**	**99.2**	**99.2**	**99.2**	**99.2**	**99.2**	**99.2**	**100**

Terms and abbreviations are given in Table 3.5.

Table 3.37 Monthly results Site: Danum Valley Country: Malaysia

Precipitation amount-weighted average concentration/ Precipitation amount

2015	SO_4^{2-} µmol L^{-1}	nss-SO_4^{2-} µmol L^{-1}	NO_3^- µmol L^{-1}	Cl^- µmol L^{-1}	NH_4^+ µmol L^{-1}	Na^+ µmol L^{-1}	K^+ µmol L^{-1}	Ca^{2+} µmol L^{-1}	nss-Ca^{2+} µmol L^{-1}	Mg^{2+} µmol L^{-1}	H^+ µmol L^{-1}	pH	EC mS m^{-1}	Precip. mm month^{-1} or mm year^{-1}
Jan	3.22	2.33	<0.5	15.9	<0.8	15.2	1.21	2.00	1.69	2.49	5.99	5.22	0.545	322
Feb	12.1	6.98	<0.5	100	<0.8	84.4	5.27	5.89	4.07	9.88	3.24	5.49	1.82	4.4
Mar	4.56	4.16	1.71	8.52	2.66	6.58	1.83	2.02	1.88	1.83	6.69	5.17	0.577	64.5
Apr	3.79	3.41	4.44	9.25	6.21	6.36	4.46	2.08	1.94	1.09	5.29	5.28	0.581	71.4
May	0.894	0.740	1.29	3.56	<0.8	2.86	2.84	1.67	1.60	0.792	5.78	5.24	0.374	242
June	2.18	2.03	1.90	4.28	4.80	2.54	1.73	2.30	2.26	0.557	4.06	5.39	0.403	213
July	4.87	4.60	2.55	9.15	15.9	4.44	4.54	2.18	2.08	1.25	2.89	5.54	0.595	74.0
Aug	6.68	6.07	<0.5	13.3	8.02	10.1	7.47	11.7	11.5	2.11	6.25	5.20	0.856	132
Sept	8.29	8.03	6.62	5.39	9.58	4.26	3.04	2.31	2.22	0.859	10.0	5.00	0.802	169
Oct	7.96	7.70	4.67	7.66	10.7	4.41	2.49	1.94	1.87	0.564	11.9	4.93	0.830	213
Nov	1.16	1.01	<0.5	5.87	<0.8	2.43	1.17	0.395	0.372	<0.3	5.60	5.25	0.311	332
Dec	0.617	0.531	0.637	2.34	3.15	1.42	0.740	0.577	0.547	<0.3	1.41	5.85	0.181	187
Annual	3.54	3.22	1.88	7.47	4.21	5.40	2.39	2.28	2.18	0.934	6.15	5.21	0.513	2025
Max.	22.0	21.5	12.1	100	44.1	84.4	11.7	21.7	21.4	9.88	30.2	6.11	1.82	
Min.	<0.3	<0.3	<0.5	1.42	<0.8	0.750	<0.3	<0.2	<0.2	<0.3	0.776	4.52	0.170	

Wet deposition amount

2015	SO_4^{2-} mmol m^{-2}	nss-SO_4^{2-} mmol m^{-2}	NO_3^- mmol m^{-2}	Cl^- mmol m^{-2}	NH_4^+ mmol m^{-2}	Na^+ mmol m^{-2}	K^+ mmol m^{-2}	Ca^{2+} mmol m^{-2}	nss-Ca^{2+} mmol m^{-2}	Mg^{2+} mmol m^{-2}	H^+ mmol m^{-2}
Jan	1.04	0.751	<0.01	5.13	<0.01	4.90	0.389	0.642	0.543	0.800	1.93
Feb	0.0528	0.0305	<0.01	0.439	<0.01	0.369	0.0230	0.0257	0.0178	0.0432	0.0141
Mar	0.294	0.268	0.110	0.549	0.171	0.424	0.118	0.130	0.121	0.118	0.431
Apr	0.271	0.244	0.317	0.660	0.443	0.454	0.319	0.149	0.139	0.0779	0.378
May	0.216	0.179	0.313	0.859	<0.01	0.690	0.686	0.402	0.387	0.191	1.40
June	0.464	0.431	0.404	0.912	1.02	0.540	0.368	0.490	0.482	0.119	0.865
July	0.360	0.340	0.188	0.677	1.18	0.329	0.336	0.161	0.154	0.0922	0.214
Aug	0.884	0.804	0.0333	1.76	1.06	1.33	0.988	1.55	1.52	0.279	0.827
Sept	1.40	1.36	1.12	0.913	1.62	0.720	0.514	0.391	0.376	0.145	1.70
Oct	1.70	1.64	0.995	1.63	2.28	0.940	0.531	0.414	0.398	0.120	2.53
Nov	0.386	0.337	0.121	1.95	<0.01	0.806	0.390	0.131	0.123	0.0322	1.86
Dec	0.115	0.0994	0.119	0.438	0.589	0.265	0.138	0.108	0.102	<0.01	0.263
Annual	7.17	6.52	3.81	15.1	8.53	10.9	4.83	4.62	4.40	1.89	12.4

Data completeness

2015	SO_4^{2-} %TP	nss-SO_4^{2-} %TP	NO_3^- %TP	Cl^- %TP	NH_4^+ %TP	Na^+ %TP	K^+ %TP	Ca^{2+} %TP	nss-Ca^{2+} %TP	Mg^{2+} %TP	H^+ %TP	pH %TP	EC %TP	Precip. %PCL
Jan	75.9	75.9	75.9	75.9	75.9	75.9	75.9	75.9	75.9	75.9	75.9	75.9	75.9	100
Feb	76.6	76.6	76.6	76.6	76.6	76.6	76.6	76.6	76.6	76.6	76.6	76.6	76.6	100
Mar	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Apr	76.9	76.9	76.9	76.9	76.9	76.9	76.9	76.9	76.9	76.9	76.9	76.9	76.9	100
May	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	100
June	100	100	100	100	100	100	100	100	100	100	100	100	100	100
July	87.8	87.8	87.8	87.8	87.8	87.8	87.8	87.8	87.8	87.8	87.8	87.8	87.8	100
Aug	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Sept	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Oct	98.1	98.1	98.1	98.1	98.1	98.1	98.1	98.1	98.1	98.1	98.1	98.1	98.1	100
Nov	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Dec	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Annual	**94.6**	**94.6**	**94.6**	**94.6**	**94.6**	**94.6**	**94.6**	**94.6**	**94.6**	**94.6**	**94.6**	**94.6**	**94.6**	**100**

Terms and abbreviations are given in Table 3.5.

Table 3.38 Monthly results **Site: Kuching** **Country: Malaysia**

Precipitation amount-weighted average concentration/ Precipitation amount

2015	SO_4^{2-} µmol L^{-1}	nss-SO_4^{2-} µmol L^{-1}	NO_3^- µmol L^{-1}	Cl^- µmol L^{-1}	NH_4^+ µmol L^{-1}	Na^+ µmol L^{-1}	K^+ µmol L^{-1}	Ca^{2+} µmol L^{-1}	nss-Ca^{2+} µmol L^{-1}	Mg^{2+} µmol L^{-1}	H^+ µmol L^{-1}	pH	EC mS m^{-1}	Precip. mm $month^{-1}$ or mm $year^{-1}$
Jan	4.23	2.78	1.69	25.9	3.65	24.1	1.03	2.34	1.82	2.40	5.20	5.28	0.740	1110
Feb	3.58	2.53	0.551	19.3	3.63	17.4	1.14	2.18	1.81	1.73	3.55	5.45	0.628	549
Mar	10.2	8.39	7.15	33.8	10.8	29.5	5.05	13.3	12.7	3.86	3.15	5.50	1.09	169
Apr	3.92	3.62	2.39	5.29	2.34	5.01	1.25	7.07	6.96	<0.3	3.63	5.44	0.470	250
May	4.93	4.79	6.72	4.35	1.74	2.31	1.12	7.83	7.78	<0.3	7.28	5.14	0.608	376
June	3.65	3.43	1.22	4.46	<0.8	3.59	1.32	6.35	6.27	<0.3	3.67	5.44	0.424	295
July	2.34	2.14	2.66	3.91	2.59	3.43	0.650	2.64	2.57	<0.3	4.12	5.38	0.342	232
Aug	16.5	16.0	17.3	8.96	44.8	7.71	3.63	13.8	13.6	1.09	2.74	5.56	1.28	128
Sept	11.2	10.8	9.94	7.35	23.6	6.01	1.69	6.46	6.33	0.457	7.90	5.10	1.02	123
Oct	8.01	7.73	7.70	7.76	17.6	4.53	1.47	4.37	4.29	<0.3	4.21	5.38	0.685	252
Nov	1.97	1.72	2.92	3.31	0.980	4.28	1.47	1.17	1.10	<0.3	5.26	5.28	0.357	587
Dec	3.43	2.38	3.90	22.1	2.41	17.5	1.59	4.60	4.22	1.54	6.19	5.21	0.676	356
Annual	4.68	3.91	3.61	14.5	5.49	12.9	1.44	4.35	4.07	1.21	4.88	5.31	0.635	4428
Max.	59.2	57.8	40.9	46.9	155	41.9	10.0	34.1	33.7	4.73	15.1	6.44	3.31	
Min.	1.44	1.37	<0.5	2.25	<0.8	1.07	0.340	<0.2	<0.2	<0.3	0.363	4.82	0.240	

Wet deposition amount

2015	SO_4^{2-} mmol m^{-2}	nss-SO_4^{2-} mmol m^{-2}	NO_3^- mmol m^{-2}	Cl^- mmol m^{-2}	NH_4^+ mmol m^{-2}	Na^+ mmol m^{-2}	K^+ mmol m^{-2}	Ca^{2+} mmol m^{-2}	nss-Ca^{2+} mmol m^{-2}	Mg^{2+} mmol m^{-2}	H^+ mmol m^{-2}
Jan	4.70	3.08	1.88	28.8	4.05	26.8	1.14	2.60	2.02	2.67	5.76
Feb	1.97	1.39	0.302	10.6	1.99	9.53	0.624	1.20	0.993	0.948	1.95
Mar	1.72	1.42	1.21	5.72	1.82	5.00	0.856	2.26	2.15	0.654	0.534
Apr	0.980	0.905	0.598	1.32	0.584	1.25	0.313	1.77	1.74	0.0734	0.908
May	1.85	1.80	2.52	1.63	0.652	0.867	0.422	2.94	2.92	0.0928	2.73
June	1.08	1.01	0.359	1.32	0.0716	1.06	0.390	1.88	1.85	0.0745	1.08
July	0.544	0.496	0.618	0.906	0.601	0.796	0.151	0.613	0.596	0.0385	0.956
Aug	2.12	2.06	2.22	1.15	5.75	0.990	0.467	1.77	1.75	0.140	0.352
Sept	1.38	1.33	1.23	0.908	2.91	0.741	0.208	0.798	0.782	0.0563	0.975
Oct	2.02	1.95	1.94	1.96	4.44	1.14	0.372	1.10	1.08	0.0617	1.06
Nov	1.16	1.01	1.71	1.94	0.575	2.51	0.861	0.687	0.643	<0.01	3.09
Dec	1.22	0.848	1.39	7.88	0.859	6.24	0.568	1.64	1.51	0.547	2.20
Annual	20.7	17.3	16.0	64.1	24.3	56.9	6.37	19.2	18.0	5.35	21.6

Data completeness

2015	SO_4^{2-} %TP	nss-SO_4^{2-} %TP	NO_3^- %TP	Cl^- %TP	NH_4^+ %TP	Na^+ %TP	K^+ %TP	Ca^{2+} %TP	nss-Ca^{2+} %TP	Mg^{2+} %TP	H^+ %TP	pH %TP	EC %TP	Precip. %PCL
Jan	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Feb	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Mar	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Apr	100	100	100	100	100	100	100	100	100	100	100	100	100	100
May	100	100	100	100	100	100	100	100	100	100	100	100	100	100
June	100	100	100	100	100	100	100	100	100	100	100	100	100	100
July	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Aug	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Sept	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Oct	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Nov	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Dec	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Annual	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Terms and abbreviations are given in Table 3.5.

Table 3.39 Monthly results Site: Ulaanbaatar Country: Mongolia

Precipitation amount-weighted average concentration/ Precipitation amount

2015	SO_4^{2-} µmol L^{-1}	nss-SO_4^{2-} µmol L^{-1}	NO_3^- µmol L^{-1}	Cl^- µmol L^{-1}	NH_4^+ µmol L^{-1}	Na^+ µmol L^{-1}	K^+ µmol L^{-1}	Ca^{2+} µmol L^{-1}	nss-Ca^{2+} µmol L^{-1}	Mg^{2+} µmol L^{-1}	H^+ µmol L^{-1}	pH	EC mS m^{-1}	Precip. mm $month^{-1}$ or mm $year^{-1}$
Jan	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Feb	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Mar	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Apr	--	--	--	--	--	--	--	--	--	--	--	--	--	0
May	47.0	*	97.8	10.4	*	*	*	*	*	*	0.501	6.30	3.78	8.5
June	38.6	*	70.7	8.68	*	*	*	*	*	*	0.482	6.32	3.44	13.4
July	116	*	25.7	4.18	*	*	*	*	*	*	0.327	6.48	2.41	75.1
Aug	197	*	39.6	5.44	*	*	*	*	*	*	0.378	6.42	2.95	33.8
Sept	105	*	11.9	3.70	*	*	*	*	*	*	0.457	6.34	3.64	19.5
Oct	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Nov	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Dec	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Annual	122	*	34.6	5.15	*	*	*	*	*	*	0.379	6.42	2.86	150
Max.	466	*	177	16.6	*	*	*	*	*	*	0.933	7.23	6.89	
Min.	15.5	*	1.61	1.69	*	*	*	*	*	*	0.0589	6.03	1.47	

Wet deposition amount

2015	SO_4^{2-} mmol m^{-2}	nss-SO_4^{2-} mmol m^{-2}	NO_3^- mmol m^{-2}	Cl^- mmol m^{-2}	NH_4^+ mmol m^{-2}	Na^+ mmol m^{-2}	K^+ mmol m^{-2}	Ca^{2+} mmol m^{-2}	nss-Ca^{2+} mmol m^{-2}	Mg^{2+} mmol m^{-2}	H^+ mmol m^{-2}
Jan	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Feb	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mar	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Apr	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
May	0.397	*	0.826	0.0879	*	*	*	*	*	*	<0.01
June	0.516	*	0.944	0.116	*	*	*	*	*	*	<0.01
July	8.68	*	1.93	0.314	*	*	*	*	*	*	0.0246
Aug	6.66	*	1.34	0.184	*	*	*	*	*	*	0.0128
Sept	2.05	*	0.232	0.0719	*	*	*	*	*	*	<0.01
Oct	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Nov	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	18.3	*	5.20	0.774	*	*	*	*	*	*	0.0569

Data completeness

2015	SO_4^{2-} %TP	nss-SO_4^{2-} %TP	NO_3^- %TP	Cl^- %TP	NH_4^+ %TP	Na^+ %TP	K^+ %TP	Ca^{2+} %TP	nss-Ca^{2+} %TP	Mg^{2+} %TP	H^+ %TP	pH %TP	EC %TP	Precip. %PCL
Jan	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Feb	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Mar	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Apr	--	--	--	--	--	--	--	--	--	--	--	--	--	100
May	100	0	100	100	0	0	0	0	0	0	100	100	100	100
June	100	0	85.9	100	0	0	0	0	0	0	100	100	100	100
July	100	0	100	100	0	0	0	0	0	0	100	100	100	100
Aug	100	0	100	100	0	0	0	0	0	0	100	100	100	100
Sept	100	0	100	100	0	0	0	0	0	0	100	100	100	100
Oct	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Nov	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Dec	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Annual	**100**	**0**	**98.7**	**100**	**0**	**0**	**0**	**0**	**0**	**0**	**100**	**100**	**100**	**100**

Terms and abbreviations are given in Table 3.5.

Table 3.40 Monthly results **Site: Terelj** **Country: Mongolia**

Precipitation amount-weighted average concentration/ Precipitation amount

2015	SO_4^{2-}	nss-SO_4^{2-}	NO_3^-	Cl^-	NH_4^+	Na^+	K^+	Ca^{2+}	nss-Ca^{2+}	Mg^{2+}	H^+	pH	EC	Precip.
	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}		mS m^{-1}	mm $month^{-1}$ or mm $year^{-1}$
Jan	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Feb	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Mar	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Apr	--	--	--	--	--	--	--	--	--	--	--	--	--	0
May	9.23	*	31.3	4.65	*	*	*	*	*	*	2.17	5.66	1.22	10.0
June	16.5	*	17.6	4.22	*	*	*	*	*	*	7.31	5.14	0.936	16.4
July	42.3	*	27.3	8.09	*	*	*	*	*	*	2.95	5.53	1.96	34.2
Aug	208	*	35.2	11.2	*	*	*	*	*	*	3.50	5.46	7.23	11.3
Sept	218	*	17.1	9.67	*	*	*	*	*	*	1.17	5.93	3.67	28.4
Oct	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Nov	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Dec	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Annual	104	*	24.0	7.91	*	*	*	*	*	*	3.14	5.50	2.80	100
Max.	479	*	165	50.8	*	*	*	*	*	*	17.8	6.63	19.9	
Min.	2.29	*	1.94	<0.5	*	*	*	*	*	*	0.234	4.75	0.246	

Wet deposition amount

2015	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}
Jan	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Feb	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mar	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Apr	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
May	0.0920	*	0.312	0.0463	*	*	*	*	*	*	0.0217
June	0.270	*	0.289	0.0691	*	*	*	*	*	*	0.120
July	1.45	*	0.933	0.277	*	*	*	*	*	*	0.101
Aug	2.34	*	0.397	0.126	*	*	*	*	*	*	0.0394
Sept	6.19	*	0.487	0.275	*	*	*	*	*	*	0.0331
Oct	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Nov	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	10.4	*	2.41	0.793	*	*	*	*	*	*	0.315

Data completeness

2015	SO_4^{2-}	nss-SO_4^{2-}	NO_3^-	Cl^-	NH_4^+	Na^+	K^+	Ca^{2+}	nss-Ca^{2+}	Mg^{2+}	H^+	pH	EC	Precip.
	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%PCL
Jan	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Feb	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Mar	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Apr	--	--	--	--	--	--	--	--	--	--	--	--	--	100
May	100	0	100	100	0	0	0	0	0	0	100	100	100	100
June	100	0	100	100	0	0	0	0	0	0	100	100	100	100
July	91.1	0	91.1	100	0	0	0	0	0	0	100	100	100	100
Aug	88.8	0	100	100	0	0	0	0	0	0	100	100	100	100
Sept	100	0	100	100	0	0	0	0	0	0	100	100	100	100
Oct	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Nov	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Dec	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Annual	**95.7**	**0**	**97.0**	**100**	**0**	**0**	**0**	**0**	**0**	**0**	**100**	**100**	**100**	**100**

Terms and abbreviations are given in Table 3.5.

Table 3.41 Monthly results **Site: Yangon** **Country: Myanmar**

Precipitation amount-weighted average concentration/ Precipitation amount

2015	SO_4^{2-} µmol L^{-1}	nss-SO_4^{2-} µmol L^{-1}	NO_3^- µmol L^{-1}	Cl^- µmol L^{-1}	NH_4^+ µmol L^{-1}	Na^+ µmol L^{-1}	K^+ µmol L^{-1}	Ca^{2+} µmol L^{-1}	nss-Ca^{2+} µmol L^{-1}	Mg^{2+} µmol L^{-1}	H^+ µmol L^{-1}	pH	EC mS m^{-1}	Precip. mm $month^{-1}$ or mm $year^{-1}$
Jan	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Feb	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Mar	49.6	47.8	248	132	83.6	30.5	66.7	1174	1174	39.8	0.148	6.83	9.79	7.0
Apr	18.3	18.0	39.9	49.9	54.4	6.31	91.5	439	439	14.2	0.112	6.95	6.42	37.6
May	7.57	6.97	13.2	39.8	50.7	9.97	50.9	87.4	87.2	8.34	0.139	6.86	2.32	190
June	3.96	3.35	4.85	34.3	22.8	10.2	7.65	62.8	62.6	6.48	0.216	6.66	1.21	530
July	3.62	2.94	4.63	41.5	13.7	11.4	14.1	38.9	38.6	7.03	0.349	6.46	1.14	592
Aug	3.27	2.71	5.41	39.2	17.3	9.31	5.05	28.2	28.0	3.47	0.207	6.68	1.08	434
Sept	5.98	5.61	11.1	29.5	16.8	6.08	8.16	121	121	5.34	0.124	6.91	1.87	312
Oct	3.63	3.46	9.39	12.8	27.4	2.84	4.37	190	190	3.41	0.133	6.88	1.31	322
Nov	7.65	7.52	27.2	16.5	30.7	2.22	9.95	1092	1092	<0.3	0.269	6.57	2.01	6.3
Dec	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Annual	4.62	4.09	8.25	34.4	22.3	8.77	13.3	88.7	88.5	5.87	0.216	6.66	1.46	2432
Max.	49.6	47.8	248	163	144	44.7	302	4731	4731	39.8	0.389	7.09	9.79	
Min.	1.49	1.07	1.42	8.97	5.32	0.478	1.56	0.299	<0.2	<0.3	0.0813	6.41	0.596	

Wet deposition amount

2015	SO_4^{2-} mmol m^{-2}	nss-SO_4^{2-} mmol m^{-2}	NO_3^- mmol m^{-2}	Cl^- mmol m^{-2}	NH_4^+ mmol m^{-2}	Na^+ mmol m^{-2}	K^+ mmol m^{-2}	Ca^{2+} mmol m^{-2}	nss-Ca^{2+} mmol m^{-2}	Mg^{2+} mmol m^{-2}	H^+ mmol m^{-2}
Jan	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Feb	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mar	0.346	0.333	1.73	0.921	0.583	0.213	0.465	8.18	8.18	0.278	<0.01
Apr	0.689	0.675	1.50	1.87	2.04	0.237	3.44	16.5	16.5	0.532	<0.01
May	1.44	1.33	2.51	7.57	9.65	1.90	9.68	16.6	16.6	1.59	0.0264
June	2.10	1.78	2.57	18.2	12.1	5.38	4.06	33.3	33.2	3.43	0.115
July	2.14	1.74	2.74	24.5	8.11	6.73	8.37	23.0	22.9	4.16	0.207
Aug	1.42	1.18	2.35	17.0	7.53	4.04	2.19	12.2	12.2	1.51	0.0899
Sept	1.87	1.75	3.47	9.23	5.26	1.90	2.55	37.7	37.7	1.67	0.0387
Oct	1.17	1.11	3.03	4.14	8.82	0.913	1.41	61.2	61.2	1.10	0.0427
Nov	0.0482	0.0473	0.171	0.104	0.193	0.0140	0.0626	6.87	6.87	<0.01	<0.01
Dec	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	11.2	9.94	20.1	83.6	54.3	21.3	32.2	216	215	14.3	0.526

Data completeness

2015	SO_4^{2-} %TP	nss-SO_4^{2-} %TP	NO_3^- %TP	Cl^- %TP	NH_4^+ %TP	Na^+ %TP	K^+ %TP	Ca^{2+} %TP	nss-Ca^{2+} %TP	Mg^{2+} %TP	H^+ %TP	pH %TP	EC %TP	Precip. %PCL
Jan	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Feb	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Mar	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Apr	100	100	100	100	100	100	100	100	100	100	100	100	100	100
May	100	100	100	100	100	100	100	100	100	100	100	100	100	100
June	100	100	100	100	100	100	100	100	100	100	100	100	100	100
July	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Aug	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Sept	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Oct	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Nov	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Dec	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Annual	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Terms and abbreviations are given in Table 3.5.

Table 3.42 Monthly results Site: **Metro Manila** Country: **Philippines**

Precipitation amount-weighted average concentration/ Precipitation amount

2015	SO_4^{2-}	nss-SO_4^{2-}	NO_3^-	Cl^-	NH_4^+	Na^+	K^+	Ca^{2+}	nss-Ca^{2+}	Mg^{2+}	H^+	pH	EC	Precip.
	$\mu mol\ L^{-1}$	$\mu mol\ L^{-1}$	$\mu mol\ L^{-1}$	$\mu mol\ L^{-1}$	$\mu mol\ L^{-1}$	$\mu mol\ L^{-1}$	$\mu mol\ L^{-1}$	$\mu mol\ L^{-1}$	$\mu mol\ L^{-1}$	$\mu mol\ L^{-1}$	$\mu mol\ L^{-1}$		$mS\ m^{-1}$	$mm\ month^{-1}$ or $mm\ year^{-1}$
Jan	11.7	10.4	4.61	25.6	353	21.7	57.2	33.5	33.0	13.4	0.339	6.47	5.03	22.6
Feb	52.2	38.4	7.72	118	<0.8	229	<0.3	285	280	130	0.0162	7.79	13.6	2.7
Mar	460	447	63.1	419	8254	219	1302	201	196	93.6	0.0842	7.07	114	6.6
Apr	29.5	27.4	14.6	28.8	483	35.2	105	57.2	56.4	17.2	0.0324	7.49	6.66	64.8
May	35.3	34.2	39.2	21.7	229	18.5	17.5	41.4	41.0	8.19	0.200	6.70	5.53	90.8
June	12.4	11.0	7.97	23.7	23.4	23.3	4.53	16.5	16.0	7.36	0.0315	7.50	1.39	801
July	25.9	24.8	11.0	28.9	32.6	19.1	4.26	17.6	17.2	5.70	0.496	6.30	1.85	217
Aug	19.0	17.1	15.1	35.6	58.0	31.3	8.50	14.0	13.3	5.47	1.79	5.75	2.73	502
Sept	16.6	16.2	13.7	13.0	37.5	7.44	4.39	9.46	9.30	2.84	0.313	6.50	1.67	513
Oct	15.5	13.3	14.8	38.6	51.5	36.7	5.49	15.9	15.1	6.60	0.0218	7.66	2.01	271
Nov	30.2	25.5	28.2	84.7	153	77.6	47.2	116	114	29.2	0.0079	8.10	7.35	8.4
Dec	**	**	**	**	**	**	**	**	**	**	**	**	**	**
Annual	19.0	17.6	13.4	27.3	86.1	23.4	13.1	17.4	16.9	6.39	0.528	6.28	2.53	2499
Max.	544	531	76.5	505	11006	229	1538	285	280	130	3.02	8.57	121	
Min.	11.2	9.70	<0.5	7.11	<0.8	<0.3	<0.3	<0.2	<0.2	<0.3	0.0027	5.52	1.24	

Wet deposition amount

2015	SO_4^{2-}	nss-SO_4^{2-}	NO_3^-	Cl^-	NH_4^+	Na^+	K^+	Ca^{2+}	nss-Ca^{2+}	Mg^{2+}	H^+
	$mmol\ m^{-2}$	$mmol\ m^{-2}$	$mmol\ m^{-2}$	$mmol\ m^{-2}$	$mmol\ m^{-2}$	$mmol\ m^{-2}$	$mmol\ m^{-2}$	$mmol\ m^{-2}$	$mmol\ m^{-2}$	$mmol\ m^{-2}$	$mmol\ m^{-2}$
Jan	0.264	0.235	0.104	0.578	7.98	0.492	1.29	0.757	0.746	0.302	<0.01
Feb	0.141	0.104	0.0209	0.319	<0.01	0.619	<0.01	0.769	0.756	0.352	<0.01
Mar	3.04	2.95	0.416	2.77	54.5	1.45	8.59	1.33	1.29	0.618	<0.01
Apr	1.91	1.78	0.944	1.87	31.3	2.28	6.82	3.71	3.66	1.12	<0.01
May	3.21	3.11	3.56	1.97	20.8	1.68	1.59	3.76	3.73	0.744	0.0182
June	9.92	8.80	6.38	19.0	18.8	18.6	3.63	13.2	12.8	5.89	0.0252
July	5.63	5.38	2.38	6.28	7.09	4.16	0.925	3.83	3.74	1.24	0.108
Aug	9.51	8.57	7.58	17.9	29.1	15.7	4.26	7.00	6.67	2.74	0.898
Sept	8.53	8.30	7.04	6.69	19.2	3.82	2.25	4.85	4.77	1.46	0.160
Oct	4.21	3.61	4.02	10.5	14.0	9.95	1.49	4.30	4.08	1.79	<0.01
Nov	0.254	0.214	0.237	0.711	1.29	0.652	0.396	0.973	0.959	0.245	<0.01
Dec	**	**	**	**	**	**	**	**	**	**	**
Annual	47.4	43.9	33.5	68.2	215	58.5	32.7	43.6	42.3	16.0	1.32

Data completeness

2015	SO_4^{2-}	nss-SO_4^{2-}	NO_3^-	Cl^-	NH_4^+	Na^+	K^+	Ca^{2+}	nss-Ca^{2+}	Mg^{2+}	H^+	pH	EC	Precip.
	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%PCL
Jan	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6	100
Feb	25.9	25.9	25.9	25.9	25.9	25.9	25.9	25.9	25.9	25.9	25.9	25.9	25.9	100
Mar	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Apr	100	100	100	100	100	100	100	100	100	100	100	100	100	100
May	100	100	100	100	100	100	100	100	100	100	100	100	100	100
June	81.3	81.3	81.3	81.3	81.3	81.3	81.3	81.3	81.3	81.3	81.3	81.3	81.3	100
July	88.7	88.7	88.7	88.7	88.7	88.7	88.7	88.7	88.7	88.7	88.7	88.7	88.7	100
Aug	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Sept	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Oct	89.4	89.4	89.4	89.4	89.4	89.4	89.4	89.4	89.4	89.4	89.4	89.4	89.4	100
Nov	33.3	33.3	33.3	33.3	33.3	33.3	33.3	33.3	33.3	33.3	33.3	33.3	33.3	80.1
Dec	**	**	**	**	**	**	**	**	**	**	**	**	**	0
Annual	**91.6**	**91.6**	**91.6**	**91.6**	**91.6**	**91.6**	**91.6**	**91.6**	**91.6**	**91.6**	**91.6**	**91.6**	**91.6**	**90.2**

Terms and abbreviations are given in Table 3.5.

Table 3.43 Monthly results **Site: Los Baños** **Country: Philippines**

Precipitation amount-weighted average concentration/ Precipitation amount

2015	SO_4^{2-} µmol L^{-1}	nss-SO_4^{2-} µmol L^{-1}	NO_3^- µmol L^{-1}	Cl^- µmol L^{-1}	NH_4^+ µmol L^{-1}	Na^+ µmol L^{-1}	K^+ µmol L^{-1}	Ca^{2+} µmol L^{-1}	nss-Ca^{2+} µmol L^{-1}	Mg^{2+} µmol L^{-1}	H^+ µmol L^{-1}	pH	EC mS m^{-1}	Precip. mm $month^{-1}$ or mm $year^{-1}$
Jan	15.3	10.7	5.61	77.7	91.4	76.3	9.74	13.8	12.1	8.38	0.816	6.09	2.73	24.4
Feb	10.6	7.79	16.6	46.7	61.1	47.3	13.9	9.71	8.69	10.5	0.0385	7.41	2.72	9.1
Mar	13.8	11.7	11.1	31.0	26.7	36.0	3.65	11.7	10.9	4.50	0.0176	7.75	2.52	95.1
Apr	--	--	--	--	--	--	--	--	--	--	--	--	--	0
May	15.5	14.7	16.8	12.4	48.2	12.0	2.42	15.3	15.0	4.21	0.0560	7.25	1.84	89.1
June	6.40	5.82	5.15	11.0	11.0	9.58	1.03	6.34	6.13	2.67	0.293	6.53	0.758	320
July	12.5	10.9	5.73	1477	28.9	26.7	1362	20.4	19.9	4.10	0.170	6.77	20.3	71.6
Aug	12.7	11.6	8.72	15.6	21.7	18.0	3.28	7.42	7.07	2.48	1.51	5.82	1.83	304
Sept	10.9	10.3	7.71	9.34	14.7	9.33	1.66	2.27	2.16	1.64	0.430	6.37	0.942	345
Oct	15.9	14.5	12.8	29.4	208	24.4	23.7	7.98	7.45	7.85	0.0368	7.43	3.39	184
Nov	48.1	47.1	7.74	78.1	226	17.6	31.4	32.7	32.3	22.7	0.0813	7.09	17.7	116
Dec	**	**	**	**	**	**	**	**	**	**	**	**	**	**
Annual	13.4	12.4	8.81	92.0	54.9	17.6	73.4	8.77	8.42	4.40	0.508	6.29	3.34	1559
Max.	86.2	83.1	50.3	4604	1470	237	4291	36.4	36.2	35.6	5.01	8.45	61.2	
Min.	6.33	5.71	<0.5	6.06	2.16	2.09	<0.3	<0.2	<0.2	<0.3	0.0035	5.30	0.700	

Wet deposition amount

2015	SO_4^{2-} mmol m^{-2}	nss-SO_4^{2-} mmol m^{-2}	NO_3^- mmol m^{-2}	Cl^- mmol m^{-2}	NH_4^+ mmol m^{-2}	Na^+ mmol m^{-2}	K^+ mmol m^{-2}	Ca^{2+} mmol m^{-2}	nss-Ca^{2+} mmol m^{-2}	Mg^{2+} mmol m^{-2}	H^+ mmol m^{-2}
Jan	0.374	0.262	0.137	1.90	2.23	1.86	0.238	0.336	0.296	0.204	0.0199
Feb	0.0969	0.0709	0.151	0.425	0.556	0.430	0.127	0.0883	0.0790	0.0958	<0.01
Mar	1.31	1.11	1.05	2.95	2.54	3.42	0.347	1.11	1.04	0.428	<0.01
Apr	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
May	1.38	1.31	1.50	1.10	4.30	1.07	0.216	1.36	1.34	0.375	<0.01
June	2.05	1.87	1.65	3.53	3.53	3.07	0.331	2.03	1.96	0.856	0.0940
July	0.896	0.781	0.410	106	2.07	1.91	97.5	1.46	1.42	0.293	0.0122
Aug	3.85	3.52	2.65	4.76	6.62	5.48	0.998	2.26	2.15	0.755	0.461
Sept	3.76	3.56	2.66	3.22	5.07	3.22	0.574	0.782	0.744	0.567	0.148
Oct	2.93	2.66	2.37	5.42	38.2	4.49	4.37	1.47	1.37	1.45	<0.01
Nov	5.56	5.44	0.895	9.02	26.1	2.04	3.63	3.78	3.74	2.62	<0.01
Dec	**	**	**	**	**	**	**	**	**	**	**
Annual	21.0	19.3	13.7	143	85.6	27.4	114	13.7	13.1	6.86	0.791

Data completeness

2015	SO_4^{2-} %TP	nss-SO_4^{2-} %TP	NO_3^- %TP	Cl^- %TP	NH_4^+ %TP	Na^+ %TP	K^+ %TP	Ca^{2+} %TP	nss-Ca^{2+} %TP	Mg^{2+} %TP	H^+ %TP	pH %TP	EC %TP	Precip. %PCL
Jan	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Feb	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6	100
Mar	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	100
Apr	--	--	--	--	--	--	--	--	--	--	--	--	--	100
May	100	100	100	100	100	100	100	100	100	100	100	100	100	100
June	82.4	82.4	82.4	82.4	82.4	82.4	82.4	82.4	82.4	82.4	82.4	82.4	82.4	100
July	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Aug	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Sept	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Oct	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Nov	58.7	58.7	58.7	58.7	58.7	58.7	58.7	58.7	58.7	58.7	58.7	58.7	58.7	80.0
Dec	**	**	**	**	**	**	**	**	**	**	**	**	**	0
Annual	**93.3**	**93.3**	**93.3**	**93.3**	**93.3**	**93.3**	**93.3**	**93.3**	**93.3**	**93.3**	**93.3**	**93.3**	**93.3**	**90.2**

Terms and abbreviations are given in Table 3.5.

Table 3.44 Monthly results **Site: Mt. Sto. Tomas** **Country: Philippines**

Precipitation amount-weighted average concentration/ Precipitation amount

2015	SO_4^{2-}	nss-SO_4^{2-}	NO_3^-	Cl^-	NH_4^+	Na^+	K^+	Ca^{2+}	nss-Ca^{2+}	Mg^{2+}	H^+	pH	EC	Precip.
	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}		mS m^{-1}	mm $month^{-1}$ or mm $year^{-1}$
Jan	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Feb	8.51	7.73	12.1	8.16	38.2	13.0	2.81	36.7	36.4	4.70	0.0888	7.05	1.39	23.4
Mar	4.14	3.70	9.01	4.61	18.5	7.23	2.63	23.2	23.1	2.87	0.119	6.92	0.755	47.4
Apr	5.83	5.51	9.65	3.89	29.5	5.36	1.50	10.5	10.4	1.57	0.253	6.60	0.707	270
May	12.9	12.6	13.1	3.71	26.3	5.09	0.971	7.19	7.08	1.20	9.93	5.00	1.18	381
June	3.88	3.56	6.36	2.76	16.8	5.26	0.768	9.12	9.01	1.27	0.413	6.38	0.456	341
July	2.94	2.61	1.72	5.03	6.73	5.50	2.04	5.99	5.87	0.979	0.764	6.12	0.356	2595
Aug	4.73	4.12	4.95	7.87	10.4	10.1	1.04	11.8	11.5	2.19	0.359	6.44	0.476	878
Sept	3.75	3.42	6.07	2.74	15.4	5.36	0.899	8.30	8.18	1.41	0.466	6.33	0.413	244
Oct	2.92	1.77	<0.5	19.8	1.85	19.2	1.79	2.56	2.14	11.3	0.204	6.69	0.425	1171
Nov	*	*	*	*	*	*	*	*	*	*	*	*	*	1.4
Dec	1.07	0.776	1.39	1.61	0.909	4.84	1.15	0.941	0.836	11.0	0.309	6.51	0.199	155
Annual	4.02	3.49	3.49	7.79	9.57	8.71	1.63	6.85	6.66	3.44	1.10	5.96	0.464	6108
Max.	27.5	27.1	24.0	43.8	63.7	19.8	41.0	49.7	49.4	13.0	42.7	7.32	2.69	
Min.	1.07	0.776	<0.5	1.58	0.909	2.83	<0.3	0.941	0.836	0.617	0.0479	4.37	0.199	

Wet deposition amount

2015	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}
Jan	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Feb	0.199	0.181	0.284	0.191	0.894	0.305	0.0658	0.859	0.852	0.110	<0.01
Mar	0.196	0.176	0.427	0.219	0.877	0.343	0.124	1.10	1.09	0.136	<0.01
Apr	1.58	1.49	2.61	1.05	7.96	1.45	0.406	2.83	2.80	0.424	0.0683
May	4.92	4.80	4.98	1.41	10.0	1.94	0.370	2.74	2.69	0.458	3.78
June	1.32	1.22	2.17	0.941	5.74	1.80	0.262	3.11	3.07	0.434	0.141
July	7.64	6.78	4.46	13.1	17.5	14.3	5.30	15.5	15.2	2.54	1.98
Aug	4.15	3.62	4.34	6.91	9.17	8.88	0.912	10.3	10.1	1.92	0.316
Sept	0.915	0.836	1.48	0.669	3.75	1.31	0.220	2.03	2.00	0.344	0.114
Oct	3.42	2.07	0.248	23.2	2.16	22.5	2.09	2.99	2.51	13.2	0.239
Nov	*	*	*	*	*	*	*	*	*	*	*
Dec	0.165	0.120	0.215	0.249	0.141	0.749	0.179	0.146	0.129	1.71	0.0478
Annual	24.5	21.3	21.3	47.6	58.4	53.2	9.93	41.8	40.7	21.0	6.72

Data completeness

2015	SO_4^{2-}	nss-SO_4^{2-}	NO_3^-	Cl^-	NH_4^+	Na^+	K^+	Ca^{2+}	nss-Ca^{2+}	Mg^{2+}	H^+	pH	EC	Precip.
	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%PCL
Jan	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Feb	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Mar	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Apr	100	100	100	100	100	100	100	100	100	100	100	100	100	100
May	100	100	100	100	100	100	100	100	100	100	100	100	100	100
June	100	100	100	100	100	100	100	100	100	100	100	100	100	100
July	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Aug	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Sept	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Oct	97.4	97.4	97.4	97.4	97.4	97.4	97.4	97.4	97.4	97.4	97.4	97.4	97.4	100
Nov	0	0	0	0	0	0	0	0	0	0	0	0	0	100
Dec	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Annual	**99.5**	**99.5**	**99.5**	**99.5**	**99.5**	**99.5**	**99.5**	**99.5**	**99.5**	**99.5**	**99.5**	**99.5**	**99.5**	**100**

Terms and abbreviations are given in Table 3.5.

Table 3.45 Monthly results **Site: Kanghwa** **Country: R of Korea**

Precipitation amount-weighted average concentration/ Precipitation amount

2015	SO_4^{2-}	nss-SO_4^{2-}	NO_3^-	Cl^-	NH_4^+	Na^+	K^+	Ca^{2+}	nss-Ca^{2+}	Mg^{2+}	H^+	pH	EC	Precip.
	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}		mS m^{-1}	mm $month^{-1}$ or mm $year^{-1}$
Jan	116	108	152	179	198	129	34.3	35.8	33.0	17.4	62.3	4.21	9.20	13.5
Feb	51.4	47.6	76.8	191	117	63.3	119	28.3	26.9	7.99	6.10	5.21	5.47	15.0
Mar	187	181	244	204	260	105	82.0	102	99.6	21.9	16.3	4.79	11.4	7.5
Apr	38.7	32.4	53.6	141	157	106	16.6	15.4	13.1	9.78	1.56	5.81	3.40	26.5
May	27.6	25.3	54.6	179	92.6	37.6	134	18.8	18.0	3.76	5.44	5.26	3.88	19.5
June	39.5	38.0	81.1	224	152	24.2	193	16.7	16.2	3.42	17.4	4.76	5.71	81.0
July	10.0	8.55	15.5	205	41.9	24.4	167	1.54	1.01	0.588	8.81	5.05	3.87	188
Aug	54.0	48.6	98.2	152	171	90.0	52.1	12.0	10.0	8.29	65.6	4.18	6.40	22.0
Sept	36.7	33.3	80.4	164	134	57.1	105	7.66	6.43	4.21	50.4	4.30	5.64	52.5
Oct	25.0	19.1	31.1	151	93.6	98.1	45.2	7.54	5.50	5.51	15.7	4.80	3.37	55.5
Nov	15.9	15.2	31.6	22.9	79.4	11.2	5.49	1.58	1.35	0.388	17.0	4.77	1.60	91.5
Dec	57.0	51.6	101	118	151	88.7	11.3	16.9	15.0	8.22	66.0	4.18	6.64	17.0
Annual	29.4	26.7	50.5	161	99.0	45.0	106	9.52	8.55	3.60	20.2	4.69	4.29	589
Max.	221	210	446	476	380	362	418	157	153	42.9	151	6.71	15.8	
Min.	3.80	0.929	4.57	13.9	9.26	4.92	1.51	<0.2	<0.2	<0.3	0.195	3.82	0.485	

Wet deposition amount

2015	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}
Jan	1.57	1.46	2.05	2.42	2.67	1.75	0.463	0.484	0.446	0.235	0.841
Feb	0.771	0.714	1.15	2.87	1.75	0.949	1.79	0.425	0.404	0.120	0.0915
Mar	1.41	1.36	1.83	1.53	1.95	0.788	0.615	0.764	0.747	0.164	0.122
Apr	1.03	0.857	1.42	3.73	4.16	2.81	0.441	0.408	0.348	0.259	0.0414
May	0.537	0.493	1.06	3.49	1.81	0.734	2.62	0.367	0.351	0.0734	0.106
June	3.20	3.08	6.57	18.1	12.3	1.96	15.6	1.35	1.31	0.277	1.41
July	1.88	1.60	2.91	38.4	7.85	4.58	31.3	0.289	0.190	0.110	1.65
Aug	1.19	1.07	2.16	3.35	3.75	1.98	1.15	0.264	0.221	0.182	1.44
Sept	1.93	1.75	4.22	8.60	7.06	3.00	5.49	0.402	0.337	0.221	2.64
Oct	1.39	1.06	1.73	8.37	5.19	5.44	2.51	0.418	0.305	0.306	0.873
Nov	1.45	1.39	2.89	2.09	7.27	1.02	0.503	0.145	0.123	0.0355	1.55
Dec	0.969	0.878	1.72	2.00	2.57	1.51	0.192	0.287	0.255	0.140	1.12
Annual	17.3	15.7	29.7	95.0	58.3	26.5	62.7	5.61	5.04	2.12	11.9

Data completeness

2015	SO_4^{2-}	nss-SO_4^{2-}	NO_3^-	Cl^-	NH_4^+	Na^+	K^+	Ca^{2+}	nss-Ca^{2+}	Mg^{2+}	H^+	pH	EC	Precip.
	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%PCL
Jan	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Feb	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Mar	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Apr	100	100	100	100	100	100	100	100	100	100	100	100	100	100
May	100	100	100	100	100	100	100	100	100	100	100	100	100	100
June	100	100	100	100	100	100	100	100	100	100	100	100	100	100
July	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Aug	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Sept	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Oct	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Nov	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Dec	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Annual	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Terms and abbreviations are given in Table 3.5.

Table 3.46 Monthly results **Site: Cheju** **Country: R of Korea**

Precipitation amount-weighted average concentration/ Precipitation amount

2015	SO_4^{2-} µmol L^{-1}	nss-SO_4^{2-} µmol L^{-1}	NO_3^- µmol L^{-1}	Cl^- µmol L^{-1}	NH_4^+ µmol L^{-1}	Na^+ µmol L^{-1}	K^+ µmol L^{-1}	Ca^{2+} µmol L^{-1}	nss-Ca^{2+} µmol L^{-1}	Mg^{2+} µmol L^{-1}	H^+ µmol L^{-1}	pH	EC mS m^{-1}	Precip. mm month^{-1} or mm year^{-1}
Jan	55.3	21.6	35.4	624	37.8	558	16.2	20.2	8.25	51.0	1.11	5.96	9.64	47.8
Feb	27.2	20.0	24.6	174	31.4	120	65.9	7.51	4.92	7.47	0.214	6.67	3.64	62.3
Mar	21.1	14.4	25.7	102	31.8	111	5.88	3.65	1.25	3.88	0.972	6.01	2.51	89.9
Apr	19.3	15.3	21.6	73.8	26.9	65.0	18.9	2.85	1.71	2.30	2.10	5.68	1.90	162
May	14.6	10.4	11.8	72.6	32.5	68.1	20.2	4.36	2.97	1.11	0.638	6.19	1.40	230
June	8.90	7.10	19.9	14.8	18.1	30.0	0.903	1.43	0.784	<0.3	1.72	5.76	0.888	259
July	6.50	1.77	6.31	93.2	12.3	78.5	7.09	2.54	0.884	3.91	2.03	5.69	1.63	153
Aug	21.8	13.2	22.1	179	25.7	144	19.4	10.7	7.61	8.72	2.40	5.62	3.34	79.6
Sept	11.8	9.39	26.7	32.9	30.8	39.6	8.36	2.60	1.75	2.74	2.39	5.62	1.29	170
Oct	50.4	43.7	137	111	109	112	15.6	34.3	32.3	16.0	5.61	5.25	4.80	6.7
Nov	26.2	16.1	42.5	175	33.1	168	19.2	6.81	3.35	14.3	4.48	5.35	4.02	102
Dec	26.0	12.0	21.8	261	50.1	233	7.14	5.88	0.928	15.1	7.05	5.15	4.48	90.6
Annual	17.3	11.2	21.6	109	28.2	101	13.8	4.64	2.52	5.92	2.15	5.67	2.31	1452
Max.	310	141	440	4651	306	4071	131	146	108	432	65.9	7.19	67.8	
Min.	1.64	0.501	4.81	9.69	4.70	18.9	0.724	0.424	<0.2	<0.3	0.0646	4.18	0.581	

Wet deposition amount

2015	SO_4^{2-} mmol m^{-2}	nss-SO_4^{2-} mmol m^{-2}	NO_3^- mmol m^{-2}	Cl^- mmol m^{-2}	NH_4^+ mmol m^{-2}	Na^+ mmol m^{-2}	K^+ mmol m^{-2}	Ca^{2+} mmol m^{-2}	nss-Ca^{2+} mmol m^{-2}	Mg^{2+} mmol m^{-2}	H^+ mmol m^{-2}
Jan	2.64	1.03	1.69	29.8	1.81	26.7	0.773	0.965	0.394	2.44	0.0530
Feb	1.69	1.24	1.53	10.8	1.96	7.45	4.11	0.468	0.307	0.466	0.0133
Mar	1.90	1.30	2.31	9.18	2.86	9.99	0.529	0.328	0.112	0.348	0.0874
Apr	3.12	2.48	3.50	11.9	4.35	10.5	3.06	0.461	0.276	0.373	0.340
May	3.35	2.41	2.72	16.7	7.49	15.7	4.64	1.00	0.685	0.256	0.147
June	2.30	1.83	5.16	3.82	4.67	7.75	0.234	0.370	0.203	0.0356	0.444
July	0.996	0.271	0.967	14.3	1.89	12.0	1.09	0.390	0.136	0.599	0.312
Aug	1.74	1.05	1.76	14.2	2.05	11.5	1.54	0.854	0.606	0.694	0.191
Sept	2.00	1.60	4.53	5.59	5.24	6.72	1.42	0.442	0.297	0.465	0.406
Oct	0.338	0.292	0.921	0.741	0.728	0.754	0.105	0.230	0.216	0.107	0.0376
Nov	2.67	1.64	4.32	17.8	3.37	17.1	1.95	0.693	0.341	1.45	0.456
Dec	2.35	1.08	1.98	23.6	4.54	21.1	0.647	0.533	0.0840	1.37	0.638
Annual	25.1	16.2	31.4	159	40.9	147	20.1	6.74	3.66	8.60	3.12

Data completeness

2015	SO_4^{2-} %TP	nss-SO_4^{2-} %TP	NO_3^- %TP	Cl^- %TP	NH_4^+ %TP	Na^+ %TP	K^+ %TP	Ca^{2+} %TP	nss-Ca^{2+} %TP	Mg^{2+} %TP	H^+ %TP	pH %TP	EC %TP	Precip. %PCL
Jan	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Feb	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Mar	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Apr	100	100	100	100	100	100	100	100	100	100	100	100	100	100
May	100	100	100	100	100	100	100	100	100	100	100	100	100	100
June	100	100	100	100	100	100	100	100	100	100	100	100	100	100
July	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Aug	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Sept	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Oct	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Nov	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Dec	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Annual	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Terms and abbreviations are given in Table 3.5.

Table 3.47 Monthly results **Site: Imsil** **Country: R of Korea**

Precipitation amount-weighted average concentration/ Precipitation amount

2015	SO_4^{2-} µmol L^{-1}	nss-SO_4^{2-} µmol L^{-1}	NO_3^- µmol L^{-1}	Cl^- µmol L^{-1}	NH_4^+ µmol L^{-1}	Na^+ µmol L^{-1}	K^+ µmol L^{-1}	Ca^{2+} µmol L^{-1}	nss-Ca^{2+} µmol L^{-1}	Mg^{2+} µmol L^{-1}	H^+ µmol L^{-1}	pH	EC mS m^{-1}	Precip. mm $month^{-1}$ or mm $year^{-1}$
Jan	61.5	55.5	109	82.8	96.7	99.7	5.68	14.7	12.5	8.49	69.3	4.16	5.65	28.9
Feb	37.6	34.2	49.4	46.2	72.4	57.4	11.9	7.03	5.79	5.55	12.4	4.91	2.63	15.0
Mar	34.7	31.5	70.4	43.6	84.7	52.7	9.35	9.34	8.20	3.24	3.47	5.46	2.69	33.0
Apr	21.1	18.8	37.4	20.8	51.6	37.3	8.33	4.18	3.42	0.652	1.67	5.78	1.68	90.0
May	25.0	22.9	40.8	28.4	83.8	34.6	9.53	13.2	12.5	1.92	3.34	5.48	2.08	42.0
June	19.1	17.2	34.2	21.0	70.6	32.0	7.63	8.29	7.60	1.16	0.817	6.09	1.69	83.5
July	9.16	7.72	14.9	19.2	24.2	23.9	5.76	1.88	1.36	3.24	0.897	6.05	0.881	118
Aug	9.20	8.03	17.0	18.5	28.2	19.4	5.70	2.19	1.77	3.78	0.332	6.48	1.02	53.0
Sept	8.24	6.87	15.0	21.5	21.2	22.8	7.40	1.46	0.973	1.74	2.38	5.62	0.772	45.0
Oct	19.3	14.3	27.7	95.4	57.0	82.3	3.68	4.42	3.10	4.22	6.09	5.22	2.32	70.0
Nov	16.3	12.9	27.4	77.6	29.3	55.8	19.8	2.95	1.75	3.99	10.8	4.97	2.18	102
Dec	39.5	32.4	54.5	141	86.1	118	14.9	5.98	3.42	8.79	34.7	4.46	4.51	39.0
Annual	20.2	17.3	33.8	46.8	50.6	47.1	9.19	5.16	4.19	3.30	8.04	5.09	1.98	719
Max.	386	364	778	1047	592	549	959	95.9	93.4	59.8	389	7.00	33.9	
Min.	1.51	0.368	4.26	6.84	2.83	7.12	1.34	0.347	<0.2	<0.3	0.100	3.41	0.363	

Wet deposition amount

2015	SO_4^{2-} mmol m^{-2}	nss-SO_4^{2-} mmol m^{-2}	NO_3^- mmol m^{-2}	Cl^- mmol m^{-2}	NH_4^+ mmol m^{-2}	Na^+ mmol m^{-2}	K^+ mmol m^{-2}	Ca^{2+} mmol m^{-2}	nss-Ca^{2+} mmol m^{-2}	Mg^{2+} mmol m^{-2}	H^+ mmol m^{-2}
Jan	1.78	1.60	3.15	2.39	2.79	2.88	0.164	0.424	0.362	0.245	2.00
Feb	0.564	0.512	0.741	0.693	1.09	0.860	0.179	0.105	0.0869	0.0832	0.186
Mar	1.14	1.04	2.32	1.44	2.79	1.74	0.308	0.308	0.270	0.107	0.114
Apr	1.90	1.69	3.37	1.88	4.65	3.36	0.749	0.376	0.308	0.0587	0.151
May	1.05	0.962	1.71	1.19	3.52	1.45	0.400	0.555	0.524	0.0805	0.140
June	1.60	1.43	2.86	1.76	5.90	2.67	0.637	0.693	0.635	0.0970	0.0682
July	1.08	0.907	1.75	2.26	2.84	2.80	0.677	0.221	0.160	0.381	0.105
Aug	0.488	0.426	0.900	0.983	1.50	1.03	0.302	0.116	0.0938	0.200	0.0176
Sept	0.371	0.309	0.675	0.966	0.955	1.02	0.333	0.0659	0.0438	0.0783	0.107
Oct	1.35	1.00	1.94	6.68	3.99	5.76	0.258	0.309	0.217	0.295	0.427
Nov	1.66	1.32	2.79	7.92	2.99	5.69	2.02	0.301	0.178	0.407	1.10
Dec	1.54	1.26	2.13	5.51	3.36	4.62	0.580	0.233	0.133	0.343	1.35
Annual	14.5	12.5	24.3	33.7	36.4	33.9	6.61	3.71	3.01	2.38	5.78

Data completeness

2015	SO_4^{2-} %TP	nss-SO_4^{2-} %TP	NO_3^- %TP	Cl^- %TP	NH_4^+ %TP	Na^+ %TP	K^+ %TP	Ca^{2+} %TP	nss-Ca^{2+} %TP	Mg^{2+} %TP	H^+ %TP	pH %TP	EC %TP	Precip. %PCL
Jan	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Feb	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Mar	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Apr	100	100	100	100	100	100	100	100	100	100	100	100	100	100
May	100	100	100	100	100	100	100	100	100	100	100	100	100	100
June	100	100	100	100	100	100	100	100	100	100	100	100	100	100
July	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Aug	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Sept	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Oct	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Nov	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Dec	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Annual	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Terms and abbreviations are given in Table 3.5.

Table 3.48 Monthly results **Site: Mondy** **Country: Russia**

Precipitation amount-weighted average concentration/ Precipitation amount

2015	SO_4^{2-} µmol L^{-1}	nss-SO_4^{2-} µmol L^{-1}	NO_3^- µmol L^{-1}	Cl^- µmol L^{-1}	NH_4^+ µmol L^{-1}	Na^+ µmol L^{-1}	K^+ µmol L^{-1}	Ca^{2+} µmol L^{-1}	nss-Ca^{2+} µmol L^{-1}	Mg^{2+} µmol L^{-1}	H^+ µmol L^{-1}	pH	EC mS m^{-1}	Precip. mm $month^{-1}$ or mm $year^{-1}$
Jan	8.85	8.67	4.40	6.50	0.900	3.04	3.10	16.0	15.9	2.10	1.12	5.95	0.620	4.8
Feb	5.89	5.75	5.10	2.70	6.70	2.17	1.30	11.0	11.0	1.60	0.631	6.20	0.470	5.4
Mar	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Apr	--	--	--	--	--	--	--	--	--	--	--	--	--	0
May	13.0	12.8	14.0	4.50	32.8	2.91	2.10	11.0	10.9	1.90	1.15	5.94	0.820	8.6
June	--	--	--	--	--	--	--	--	--	--	--	--	--	0
July	5.35	5.29	5.95	2.30	13.1	0.885	1.73	4.78	4.76	1.11	4.33	5.36	0.510	58.5
Aug	2.79	2.76	3.10	1.70	5.00	0.435	<0.3	3.00	2.99	0.400	6.31	5.20	0.330	28.2
Sept	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Oct	14.5	14.3	2.45	11.5	30.1	3.42	18.0	26.1	26.1	10.5	1.09	5.96	1.36	15.3
Nov	6.36	6.26	5.10	4.80	13.9	1.74	1.30	8.00	7.96	1.20	1.74	5.76	0.520	7.9
Dec	3.82	3.51	4.95	2.68	5.91	5.25	4.85	10.8	10.6	1.43	0.893	6.05	0.442	7.2
Annual	6.45	6.35	5.29	3.68	13.5	1.61	3.40	8.36	8.32	2.15	3.58	5.45	0.588	136
Max.	25.2	24.9	14.0	21.0	49.0	6.52	32.0	41.0	40.9	19.0	6.31	6.42	2.17	
Min.	2.34	2.18	1.50	0.800	0.900	<0.3	<0.3	1.70	1.70	0.400	0.380	5.20	0.330	

Wet deposition amount

2015	SO_4^{2-} mmol m^{-2}	nss-SO_4^{2-} mmol m^{-2}	NO_3^- mmol m^{-2}	Cl^- mmol m^{-2}	NH_4^+ mmol m^{-2}	Na^+ mmol m^{-2}	K^+ mmol m^{-2}	Ca^{2+} mmol m^{-2}	nss-Ca^{2+} mmol m^{-2}	Mg^{2+} mmol m^{-2}	H^+ mmol m^{-2}
Jan	0.0425	0.0416	0.0211	0.0312	<0.01	0.0146	0.0149	0.0768	0.0765	0.0101	<0.01
Feb	0.0318	0.0311	0.0275	0.0146	0.0362	0.0117	<0.01	0.0594	0.0591	<0.01	<0.01
Mar	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Apr	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
May	0.112	0.110	0.120	0.0387	0.282	0.0251	0.0181	0.0946	0.0941	0.0163	<0.01
June	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
July	0.313	0.310	0.348	0.135	0.764	0.0518	0.101	0.280	0.278	0.0650	0.253
Aug	0.0786	0.0779	0.0874	0.0479	0.141	0.0123	<0.01	0.0846	0.0843	0.0113	0.178
Sept	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Oct	0.221	0.218	0.0376	0.177	0.461	0.0523	0.276	0.400	0.399	0.161	0.0167
Nov	0.0503	0.0494	0.0403	0.0379	0.110	0.0137	0.0103	0.0632	0.0629	<0.01	0.0137
Dec	0.0275	0.0253	0.0356	0.0193	0.0425	0.0378	0.0349	0.0774	0.0766	0.0103	<0.01
Annual	0.877	0.863	0.718	0.501	1.84	0.219	0.462	1.14	1.13	0.292	0.487

Data completeness

2015	SO_4^{2-} %TP	nss-SO_4^{2-} %TP	NO_3^- %TP	Cl^- %TP	NH_4^+ %TP	Na^+ %TP	K^+ %TP	Ca^{2+} %TP	nss-Ca^{2+} %TP	Mg^{2+} %TP	H^+ %TP	pH %TP	EC %TP	Precip. %PCL
Jan	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Feb	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Mar	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Apr	--	--	--	--	--	--	--	--	--	--	--	--	--	100
May	100	100	100	100	100	100	100	100	100	100	100	100	100	100
June	--	--	--	--	--	--	--	--	--	--	--	--	--	100
July	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Aug	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Sept	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Oct	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Nov	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Dec	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Annual	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Terms and abbreviations are given in Table 3.5.

Table 3.49 Monthly results Site: Listvyanka Country: Russia

Precipitation amount-weighted average concentration/ Precipitation amount

2015	SO_4^{2-} µmol L^{-1}	nss-SO_4^{2-} µmol L^{-1}	NO_3^- µmol L^{-1}	Cl^- µmol L^{-1}	NH_4^+ µmol L^{-1}	Na^+ µmol L^{-1}	K^+ µmol L^{-1}	Ca^{2+} µmol L^{-1}	nss-Ca^{2+} µmol L^{-1}	Mg^{2+} µmol L^{-1}	H^+ µmol L^{-1}	pH	EC mS m^{-1}	Precip. mm month^{-1} or mm year^{-1}
Jan	19.9	19.6	33.2	3.83	17.1	5.90	2.85	23.6	23.5	4.48	2.75	5.56	1.37	8.8
Feb	27.3	26.7	47.5	9.20	24.8	8.87	3.29	28.6	28.4	5.69	3.29	5.48	1.78	7.0
Mar	112	111	63.8	20.8	116	23.5	9.46	34.2	33.7	13.5	22.4	4.65	4.75	1.0
Apr	51.7	51.1	31.4	9.01	50.7	11.4	7.72	37.3	37.1	8.14	2.70	5.57	2.33	6.9
May	16.6	16.5	9.84	9.34	21.0	1.99	2.80	8.84	8.80	1.78	14.5	4.84	1.19	41.1
June	22.5	22.3	11.0	5.25	14.3	3.60	5.20	12.3	12.2	2.76	21.0	4.68	1.63	29.5
July	21.8	21.7	12.3	8.22	37.9	1.15	1.07	6.43	6.40	1.19	15.7	4.80	1.43	63.3
Aug	21.3	21.1	15.1	4.41	64.3	2.18	0.488	10.3	10.3	2.07	18.1	4.74	1.90	75.9
Sept	15.6	15.5	5.58	2.97	21.1	1.72	0.365	5.35	5.31	1.00	12.7	4.90	1.03	48.2
Oct	39.7	39.4	13.9	3.14	84.0	5.23	3.54	14.3	14.2	3.33	1.54	5.81	1.73	7.7
Nov	19.5	19.2	26.7	1.23	33.9	5.68	4.42	7.52	7.39	1.54	14.1	4.85	1.45	27.8
Dec	15.5	15.3	29.3	2.80	20.2	3.85	2.86	8.26	8.18	2.14	13.1	4.88	1.29	17.5
Annual	21.0	20.9	15.5	5.45	36.8	2.96	2.10	9.97	9.91	2.06	14.7	4.83	1.50	335
Max.	252	249	117	31.6	193	50.4	32.5	145	144	38.6	45.7	6.15	9.61	
Min.	7.59	7.53	3.39	0.660	<0.8	0.435	<0.3	3.24	3.22	0.410	0.708	4.34	0.590	

Wet deposition amount

2015	SO_4^{2-} mmol m^{-2}	nss-SO_4^{2-} mmol m^{-2}	NO_3^- mmol m^{-2}	Cl^- mmol m^{-2}	NH_4^+ mmol m^{-2}	Na^+ mmol m^{-2}	K^+ mmol m^{-2}	Ca^{2+} mmol m^{-2}	nss-Ca^{2+} mmol m^{-2}	Mg^{2+} mmol m^{-2}	H^+ mmol m^{-2}
Jan	0.175	0.172	0.292	0.0337	0.150	0.0518	0.0251	0.208	0.206	0.0393	0.0242
Feb	0.191	0.187	0.333	0.0645	0.174	0.0622	0.0231	0.200	0.199	0.0399	0.0231
Mar	0.108	0.106	0.0612	0.0200	0.111	0.0225	<0.01	0.0328	0.0323	0.0130	0.0215
Apr	0.356	0.351	0.216	0.0620	0.348	0.0785	0.0531	0.257	0.255	0.0560	0.0185
May	0.682	0.677	0.404	0.384	0.864	0.0817	0.115	0.364	0.362	0.0731	0.596
June	0.665	0.659	0.325	0.155	0.420	0.106	0.153	0.362	0.360	0.0813	0.620
July	1.38	1.37	0.776	0.520	2.40	0.0727	0.0678	0.407	0.405	0.0755	0.994
Aug	1.61	1.60	1.14	0.335	4.88	0.165	0.0371	0.784	0.781	0.157	1.37
Sept	0.753	0.748	0.269	0.143	1.02	0.0830	0.0176	0.258	0.256	0.0482	0.612
Oct	0.306	0.303	0.107	0.0242	0.647	0.0402	0.0273	0.110	0.110	0.0256	0.0119
Nov	0.542	0.533	0.742	0.0343	0.943	0.158	0.123	0.209	0.206	0.0427	0.391
Dec	0.271	0.267	0.511	0.0490	0.353	0.0674	0.0500	0.144	0.143	0.0375	0.229
Annual	7.04	6.98	5.18	1.82	12.3	0.989	0.702	3.34	3.31	0.689	4.91

Data completeness

2015	SO_4^{2-} %TP	nss-SO_4^{2-} %TP	NO_3^- %TP	Cl^- %TP	NH_4^+ %TP	Na^+ %TP	K^+ %TP	Ca^{2+} %TP	nss-Ca^{2+} %TP	Mg^{2+} %TP	H^+ %TP	pH %TP	EC %TP	Precip. %PCL
Jan	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Feb	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Mar	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Apr	100	100	100	100	100	100	100	100	100	100	100	100	100	100
May	100	100	100	100	100	100	100	100	100	100	100	100	100	100
June	98.3	98.3	98.3	98.3	100	100	100	100	100	100	100	100	100	100
July	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Aug	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Sept	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Oct	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Nov	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Dec	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Annual	**99.9**	**99.9**	**99.9**	**99.9**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Terms and abbreviations are given in Table 3.5.

Table 3.50 Monthly results Site: Irkutsk Country: Russia

Precipitation amount-weighted average concentration/ Precipitation amount

2015	SO_4^{2-} µmol L^{-1}	nss-SO_4^{2-} µmol L^{-1}	NO_3^- µmol L^{-1}	Cl^- µmol L^{-1}	NH_4^+ µmol L^{-1}	Na^+ µmol L^{-1}	K^+ µmol L^{-1}	Ca^{2+} µmol L^{-1}	nss-Ca^{2+} µmol L^{-1}	Mg^{2+} µmol L^{-1}	H^+ µmol L^{-1}	pH	EC mS m^{-1}	Precip. mm $month^{-1}$ or mm $year^{-1}$
Jan	39.2	38.1	20.4	18.3	37.3	17.9	3.91	76.3	75.9	7.70	0.133	6.88	3.04	16.3
Feb	89.0	85.7	28.6	53.6	59.3	54.9	5.49	121	120	11.5	0.493	6.31	4.78	7.4
Mar	272	261	63.0	297	125	191	14.1	227	223	32.9	6.13	5.21	16.5	2.8
Apr	111	108	38.2	88.5	129	50.0	10.7	107	106	14.9	1.63	5.79	5.83	10.0
May	40.9	40.6	14.8	24.9	60.2	5.36	4.81	27.2	27.1	5.92	8.96	5.05	2.21	24.8
June	25.0	24.6	14.7	10.7	31.4	6.23	4.47	16.0	15.9	3.53	4.59	5.34	1.34	16.9
July	49.2	48.3	21.8	33.9	103	15.6	7.45	29.3	29.0	7.38	12.3	4.91	3.25	58.5
Aug	24.2	24.1	25.6	17.0	92.0	2.34	1.35	8.69	8.64	1.65	7.03	5.15	2.06	55.1
Sept	28.1	28.0	12.3	6.95	40.4	2.47	1.54	12.6	12.5	2.68	6.62	5.18	1.46	45.3
Oct	18.1	17.7	11.1	7.90	48.3	6.52	2.05	17.5	17.3	3.21	0.651	6.19	1.39	8.4
Nov	49.8	49.1	16.9	10.2	77.2	10.6	5.03	26.3	26.0	6.14	0.672	6.17	2.14	29.1
Dec	38.0	37.0	29.0	12.1	59.9	15.5	7.51	26.6	26.3	6.06	1.24	5.91	2.00	16.8
Annual	42.2	41.4	20.7	23.9	73.0	12.7	4.51	30.5	30.2	5.51	6.15	5.21	2.55	291
Max.	1228	1173	234	1486	445	918	54.2	1060	1040	132	50.1	9.22	85.5	
Min.	13.5	13.5	4.06	2.21	<0.8	0.435	<0.3	4.99	4.93	0.821	0.0006	4.30	0.755	

Wet deposition amount

2015	SO_4^{2-} mmol m^{-2}	nss-SO_4^{2-} mmol m^{-2}	NO_3^- mmol m^{-2}	Cl^- mmol m^{-2}	NH_4^+ mmol m^{-2}	Na^+ mmol m^{-2}	K^+ mmol m^{-2}	Ca^{2+} mmol m^{-2}	nss-Ca^{2+} mmol m^{-2}	Mg^{2+} mmol m^{-2}	H^+ mmol m^{-2}
Jan	0.638	0.620	0.332	0.297	0.607	0.291	0.0636	1.24	1.23	0.125	<0.01
Feb	0.655	0.631	0.211	0.394	0.436	0.404	0.0404	0.894	0.885	0.0843	<0.01
Mar	0.757	0.725	0.175	0.825	0.348	0.532	0.0393	0.631	0.619	0.0913	0.0170
Apr	1.11	1.08	0.380	0.880	1.29	0.497	0.106	1.07	1.06	0.149	0.0162
May	1.01	1.01	0.368	0.618	1.49	0.133	0.119	0.675	0.672	0.147	0.222
June	0.421	0.415	0.247	0.180	0.529	0.105	0.0755	0.270	0.268	0.0595	0.0775
July	2.88	2.83	1.27	1.99	6.01	0.913	0.436	1.72	1.70	0.432	0.719
Aug	1.34	1.33	1.41	0.938	5.07	0.129	0.0744	0.479	0.476	0.0908	0.387
Sept	1.27	1.27	0.557	0.315	1.83	0.112	0.0696	0.570	0.568	0.122	0.300
Oct	0.152	0.149	0.0926	0.0662	0.405	0.0547	0.0172	0.147	0.145	0.0269	<0.01
Nov	1.45	1.43	0.490	0.296	2.24	0.309	0.146	0.763	0.757	0.178	0.0195
Dec	0.638	0.623	0.487	0.203	1.01	0.261	0.126	0.447	0.442	0.102	0.0209
Annual	12.3	12.1	6.02	6.96	21.3	3.71	1.31	8.88	8.80	1.60	1.79

Data completeness

2015	SO_4^{2-} %TP	nss-SO_4^{2-} %TP	NO_3^- %TP	Cl^- %TP	NH_4^+ %TP	Na^+ %TP	K^+ %TP	Ca^{2+} %TP	nss-Ca^{2+} %TP	Mg^{2+} %TP	H^+ %TP	pH %TP	EC %TP	Precip. %PCL
Jan	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Feb	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Mar	93.2	93.2	93.2	93.2	93.2	93.2	93.2	93.2	93.2	93.2	100	100	100	100
Apr	100	100	100	100	100	100	100	100	100	100	100	100	100	100
May	100	100	100	100	100	100	100	100	100	100	100	100	100	100
June	100	100	100	100	100	100	100	100	100	100	100	100	100	100
July	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Aug	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	100	100	100	100
Sept	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Oct	95.5	95.5	95.5	95.5	95.5	95.5	95.5	95.5	95.5	95.5	100	100	100	100
Nov	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Dec	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Annual	**99.7**	**99.7**	**99.7**	**99.7**	**99.7**	**99.7**	**99.7**	**99.7**	**99.7**	**99.7**	**100**	**100**	**100**	**100**

Terms and abbreviations are given in Table 3.5.

Table 3.51 Monthly results **Site: Primorskaya** **Country: Russia**

Precipitation amount-weighted average concentration/ Precipitation amount

2015	SO_4^{2-} µmol L^{-1}	nss-SO_4^{2-} µmol L^{-1}	NO_3^- µmol L^{-1}	Cl^- µmol L^{-1}	NH_4^+ µmol L^{-1}	Na^+ µmol L^{-1}	K^+ µmol L^{-1}	Ca^{2+} µmol L^{-1}	nss-Ca^{2+} µmol L^{-1}	Mg^{2+} µmol L^{-1}	H^+ µmol L^{-1}	pH	EC mS m^{-1}	Precip. mm month^{-1} or mm year^{-1}
Jan	45.1	44.2	48.5	38.7	72.1	15.7	19.6	31.0	30.6	16.5	3.86	5.41	3.25	14.7
Feb	17.7	17.3	22.2	9.87	25.4	6.87	1.92	12.4	12.3	6.40	6.31	5.20	1.42	22.1
Mar	17.1	16.7	18.5	17.0	20.7	6.71	3.99	15.7	15.6	6.34	3.66	5.44	1.66	46.8
Apr	33.4	32.4	23.1	10.3	35.9	16.6	3.68	16.8	16.5	4.64	8.10	5.09	1.65	66.8
May	48.4	46.8	30.2	19.7	49.7	27.3	7.11	27.0	26.4	7.75	1.82	5.74	2.20	63.7
June	20.9	20.1	23.8	12.0	30.1	12.8	5.65	12.0	11.7	2.89	4.51	5.35	1.40	107
July	14.6	13.6	16.2	14.3	16.0	16.8	3.75	9.98	9.62	3.13	2.09	5.68	0.953	118
Aug	9.62	8.81	21.5	19.6	12.9	13.5	2.69	7.69	7.40	5.93	8.56	5.07	1.06	287
Sept	16.4	15.7	22.2	18.3	21.1	12.2	18.3	6.11	5.85	2.83	11.4	4.94	1.56	23.7
Oct	21.5	17.7	20.8	61.3	22.0	62.6	10.7	10.3	8.91	8.33	6.75	5.17	2.04	95.1
Nov	23.2	20.2	30.1	23.6	14.6	48.9	11.6	12.8	11.7	6.14	6.23	5.21	2.25	96.4
Dec	31.5	29.2	39.2	42.4	42.4	38.0	17.7	19.1	18.3	5.64	10.5	4.98	2.80	216
Annual	21.4	19.9	25.4	25.4	25.7	24.8	7.79	13.1	12.6	5.62	6.90	5.16	1.75	1157
Max.	98.4	94.5	65.3	155	97.5	160	102	72.3	71.5	42.4	57.5	7.00	15.1	
Min.	2.20	1.94	4.40	2.50	<0.8	4.30	<0.3	1.70	1.42	<0.3	0.100	4.24	0.512	

Wet deposition amount

2015	SO_4^{2-} mmol m^{-2}	nss-SO_4^{2-} mmol m^{-2}	NO_3^- mmol m^{-2}	Cl^- mmol m^{-2}	NH_4^+ mmol m^{-2}	Na^+ mmol m^{-2}	K^+ mmol m^{-2}	Ca^{2+} mmol m^{-2}	nss-Ca^{2+} mmol m^{-2}	Mg^{2+} mmol m^{-2}	H^+ mmol m^{-2}
Jan	0.663	0.649	0.712	0.569	1.06	0.231	0.288	0.455	0.450	0.242	0.0568
Feb	0.391	0.382	0.490	0.218	0.562	0.152	0.0425	0.275	0.271	0.141	0.139
Mar	0.803	0.784	0.864	0.795	0.969	0.314	0.187	0.737	0.730	0.297	0.171
Apr	2.23	2.16	1.54	0.690	2.40	1.11	0.246	1.12	1.10	0.310	0.541
May	3.08	2.98	1.92	1.25	3.17	1.74	0.453	1.72	1.68	0.494	0.116
June	2.25	2.16	2.55	1.28	3.23	1.38	0.607	1.29	1.26	0.310	0.484
July	1.71	1.59	1.90	1.68	1.88	1.98	0.441	1.17	1.13	0.368	0.246
Aug	2.76	2.52	6.15	5.63	3.69	3.86	0.770	2.20	2.12	1.70	2.45
Sept	0.389	0.372	0.527	0.434	0.499	0.289	0.434	0.145	0.139	0.0670	0.269
Oct	2.04	1.68	1.98	5.83	2.09	5.95	1.02	0.976	0.847	0.792	0.642
Nov	2.23	1.95	2.90	2.27	1.41	4.72	1.12	1.23	1.13	0.592	0.600
Dec	6.80	6.31	8.46	9.15	9.15	8.20	3.82	4.13	3.95	1.22	2.26
Annual	24.7	23.0	29.4	29.4	29.8	28.7	9.01	15.2	14.5	6.49	7.98

Data completeness

2015	SO_4^{2-} %TP	nss-SO_4^{2-} %TP	NO_3^- %TP	Cl^- %TP	NH_4^+ %TP	Na^+ %TP	K^+ %TP	Ca^{2+} %TP	nss-Ca^{2+} %TP	Mg^{2+} %TP	H^+ %TP	pH %TP	EC %TP	Precip. %PCL
Jan	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Feb	95.5	95.5	95.5	95.5	95.5	95.5	95.5	95.5	95.5	95.5	100	100	100	100
Mar	93.4	93.4	93.4	93.4	93.4	93.4	93.4	93.4	93.4	93.4	100	100	100	100
Apr	94.2	94.2	94.2	94.2	94.2	94.2	94.2	94.2	94.2	94.2	100	100	100	100
May	85.7	85.7	85.7	85.7	85.7	85.7	85.7	85.7	85.7	85.7	100	100	100	100
June	96.8	96.8	96.8	96.8	96.8	96.8	96.8	96.8	96.8	96.8	100	100	100	100
July	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	100	100	100	100
Aug	98.1	98.1	98.1	98.1	98.1	98.1	98.1	98.1	98.1	98.1	100	100	100	100
Sept	96.2	96.2	96.2	96.2	96.2	96.2	96.2	96.2	96.2	96.2	100	100	100	100
Oct	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	100	100	100	100
Nov	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	100	100	100	100
Dec	83.8	83.8	83.8	83.8	83.8	83.8	83.8	83.8	83.8	83.8	100	100	100	100
Annual	**91.2**	**91.2**	**91.2**	**91.2**	**91.2**	**91.2**	**91.2**	**91.2**	**91.2**	**91.2**	**100**	**100**	**100**	**100**

Terms and abbreviations are given in Table 3.5.

Table 3.52 Monthly results **Site: Bangkok** **Country: Thailand**

Precipitation amount-weighted average concentration/ Precipitation amount

2015	SO_4^{2-} µmol L^{-1}	nss-SO_4^{2-} µmol L^{-1}	NO_3^- µmol L^{-1}	Cl^- µmol L^{-1}	NH_4^+ µmol L^{-1}	Na^+ µmol L^{-1}	K^+ µmol L^{-1}	Ca^{2+} µmol L^{-1}	nss-Ca^{2+} µmol L^{-1}	Mg^{2+} µmol L^{-1}	H^+ µmol L^{-1}	pH	EC mS m^{-1}	Precip. mm $month^{-1}$ or mm $year^{-1}$
Jan	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Feb	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Mar	7.04	5.76	13.4	13.2	84.6	21.2	5.09	45.3	44.8	4.14	9.83	5.01	3.09	179
Apr	6.51	6.11	13.3	4.57	85.2	6.77	2.41	11.3	11.2	1.24	5.34	5.27	1.14	152
May	10.7	10.2	29.8	8.89	75.1	8.17	2.34	22.3	22.1	2.70	6.85	5.16	1.77	67.8
June	6.47	6.06	14.4	7.69	35.4	6.76	0.813	11.3	11.2	1.23	4.30	5.37	0.972	288
July	4.64	4.06	10.1	10.7	28.8	9.64	0.776	7.48	7.27	1.78	0.222	6.65	0.828	151
Aug	8.96	8.25	17.3	11.1	78.6	11.9	1.84	32.5	32.3	4.14	0.0335	7.47	1.70	41.7
Sept	10.1	9.78	19.5	7.21	80.3	6.03	1.55	18.9	18.8	2.25	0.307	6.51	1.33	333
Oct	4.53	4.36	9.24	2.54	33.5	2.85	0.731	4.18	4.12	0.479	10.5	4.98	0.719	331
Nov	24.3	23.8	68.3	10.5	161	9.57	3.32	45.8	45.6	4.11	4.68	5.33	2.93	49.1
Dec	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Annual	7.53	7.04	16.2	7.36	60.7	7.97	1.75	16.9	16.8	1.90	5.09	5.29	1.35	1593
Max.	99.4	97.8	223	76.4	317	48.7	9.72	172	172	17.7	34.7	8.45	9.00	
Min.	0.625	<0.3	2.42	1.13	7.76	0.870	<0.3	0.749	0.664	0.411	0.0035	4.46	0.250	

Wet deposition amount

2015	SO_4^{2-} mmol m^{-2}	nss-SO_4^{2-} mmol m^{-2}	NO_3^- mmol m^{-2}	Cl^- mmol m^{-2}	NH_4^+ mmol m^{-2}	Na^+ mmol m^{-2}	K^+ mmol m^{-2}	Ca^{2+} mmol m^{-2}	nss-Ca^{2+} mmol m^{-2}	Mg^{2+} mmol m^{-2}	H^+ mmol m^{-2}
Jan	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Feb	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mar	1.26	1.03	2.39	2.37	15.1	3.80	0.911	8.10	8.02	0.741	1.76
Apr	0.993	0.931	2.02	0.697	13.0	1.03	0.367	1.72	1.70	0.190	0.814
May	0.726	0.693	2.02	0.603	5.09	0.554	0.159	1.51	1.50	0.183	0.465
June	1.86	1.75	4.15	2.22	10.2	1.95	0.234	3.26	3.22	0.354	1.24
July	0.703	0.615	1.53	1.62	4.36	1.46	0.117	1.13	1.10	0.270	0.0336
Aug	0.374	0.344	0.723	0.464	3.28	0.495	0.0767	1.36	1.35	0.173	<0.01
Sept	3.37	3.25	6.49	2.40	26.7	2.01	0.515	6.28	6.24	0.748	0.102
Oct	1.50	1.44	3.06	0.842	11.1	0.942	0.242	1.38	1.36	0.158	3.46
Nov	1.20	1.17	3.36	0.515	7.92	0.470	0.163	2.25	2.24	0.202	0.230
Dec	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	12.0	11.2	25.7	11.7	96.7	12.7	2.78	27.0	26.7	3.02	8.10

Data completeness

2015	SO_4^{2-} %TP	nss-SO_4^{2-} %TP	NO_3^- %TP	Cl^- %TP	NH_4^+ %TP	Na^+ %TP	K^+ %TP	Ca^{2+} %TP	nss-Ca^{2+} %TP	Mg^{2+} %TP	H^+ %TP	pH %TP	EC %TP	Precip. %PCL
Jan	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Feb	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Mar	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Apr	100	100	100	100	100	100	100	100	100	100	100	100	100	100
May	100	100	100	100	100	100	100	100	100	100	100	100	100	100
June	100	100	100	100	100	100	100	100	100	100	100	100	100	100
July	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Aug	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Sept	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Oct	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Nov	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Dec	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Annual	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Terms and abbreviations are given in Table 3.5.

Table 3.53 Monthly results **Site: Samutprakarn** **Country: Thailand**

Precipitation amount-weighted average concentration/ Precipitation amount

2015	SO_4^{2-} µmol L^{-1}	nss-SO_4^{2-} µmol L^{-1}	NO_3^- µmol L^{-1}	Cl^- µmol L^{-1}	NH_4^+ µmol L^{-1}	Na^+ µmol L^{-1}	K^+ µmol L^{-1}	Ca^{2+} µmol L^{-1}	nss-Ca^{2+} µmol L^{-1}	Mg^{2+} µmol L^{-1}	H^+ µmol L^{-1}	pH	EC mS m^{-1}	Precip. mm $month^{-1}$ or mm $year^{-1}$
Jan	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Feb	12.0	9.70	12.3	16.3	70.3	38.0	3.68	8.02	7.20	5.26	0.832	6.08	1.98	14.8
Mar	6.74	5.91	8.54	7.60	71.4	13.9	3.47	10.9	10.6	2.57	0.599	6.22	1.45	34.2
Apr	4.24	3.91	8.35	3.28	63.5	5.67	2.20	6.82	6.69	1.07	5.71	5.24	1.23	69.9
May	8.43	7.59	17.4	17.8	43.2	13.9	1.79	6.99	6.69	2.47	0.933	6.03	0.950	20.7
June	4.72	4.07	8.41	12.4	27.4	10.9	0.869	2.74	2.51	1.36	1.68	5.77	0.668	385
July	5.94	5.24	4.54	14.1	26.7	11.5	0.837	5.69	5.44	1.75	0.784	6.11	0.805	233
Aug	6.96	5.90	5.65	14.2	49.4	17.5	2.39	9.80	9.43	3.25	0.158	6.80	1.06	36.5
Sept	7.71	7.33	9.29	6.66	60.6	6.27	3.21	6.91	6.77	1.39	3.67	5.44	0.857	403
Oct	12.1	11.7	18.6	6.17	56.3	6.62	1.97	8.73	8.59	1.39	3.73	5.43	1.25	235
Nov	15.4	14.5	33.2	13.7	120	13.7	4.81	27.4	27.1	2.97	1.45	5.84	2.04	10.7
Dec	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Annual	7.24	6.68	9.97	9.66	46.0	9.33	1.93	6.23	6.02	1.57	2.53	5.60	0.921	1442
Max.	45.0	43.8	83.4	50.8	231	61.8	16.4	110	109	9.46	28.8	8.53	5.35	
Min.	0.625	<0.3	1.13	1.69	8.31	1.74	<0.3	1.25	1.13	0.411	0.0030	4.54	0.370	

Wet deposition amount

2015	SO_4^{2-} mmol m^{-2}	nss-SO_4^{2-} mmol m^{-2}	NO_3^- mmol m^{-2}	Cl^- mmol m^{-2}	NH_4^+ mmol m^{-2}	Na^+ mmol m^{-2}	K^+ mmol m^{-2}	Ca^{2+} mmol m^{-2}	nss-Ca^{2+} mmol m^{-2}	Mg^{2+} mmol m^{-2}	H^+ mmol m^{-2}
Jan	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Feb	0.177	0.143	0.182	0.241	1.04	0.562	0.0544	0.119	0.107	0.0778	0.0123
Mar	0.231	0.202	0.292	0.260	2.44	0.474	0.119	0.374	0.364	0.0878	0.0205
Apr	0.297	0.273	0.584	0.229	4.44	0.397	0.154	0.476	0.468	0.0746	0.399
May	0.175	0.157	0.361	0.368	0.895	0.288	0.0371	0.145	0.138	0.0511	0.0193
June	1.82	1.57	3.24	4.76	10.5	4.18	0.334	1.06	0.966	0.524	0.646
July	1.38	1.22	1.06	3.28	6.21	2.69	0.195	1.32	1.27	0.407	0.183
Aug	0.254	0.216	0.206	0.517	1.80	0.638	0.0873	0.358	0.344	0.119	<0.01
Sept	3.11	2.95	3.74	2.68	24.4	2.53	1.29	2.78	2.73	0.560	1.48
Oct	2.83	2.74	4.36	1.45	13.2	1.55	0.462	2.05	2.02	0.326	0.875
Nov	0.164	0.156	0.355	0.147	1.29	0.146	0.0515	0.293	0.290	0.0318	0.0156
Dec	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	10.4	9.63	14.4	13.9	66.3	13.5	2.79	8.98	8.69	2.26	3.66

Data completeness

2015	SO_4^{2-} %TP	nss-SO_4^{2-} %TP	NO_3^- %TP	Cl^- %TP	NH_4^+ %TP	Na^+ %TP	K^+ %TP	Ca^{2+} %TP	nss-Ca^{2+} %TP	Mg^{2+} %TP	H^+ %TP	pH %TP	EC %TP	Precip. %PCL
Jan	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Feb	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Mar	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Apr	100	100	100	100	100	100	100	100	100	100	100	100	100	100
May	100	100	100	100	100	100	100	100	100	100	100	100	100	100
June	100	100	100	100	100	100	100	100	100	100	100	100	100	100
July	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Aug	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Sept	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Oct	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Nov	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Dec	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Annual	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Terms and abbreviations are given in Table 3.5.

Table 3.54 Monthly results Site: Pathumthani Country: Thailand

Precipitation amount-weighted average concentration/ Precipitation amount

2015	SO_4^{2-} µmol L^{-1}	nss-SO_4^{2-} µmol L^{-1}	NO_3^- µmol L^{-1}	Cl^- µmol L^{-1}	NH_4^+ µmol L^{-1}	Na^+ µmol L^{-1}	K^+ µmol L^{-1}	Ca^{2+} µmol L^{-1}	nss-Ca^{2+} µmol L^{-1}	Mg^{2+} µmol L^{-1}	H^+ µmol L^{-1}	pH	EC mS m^{-1}	Precip. mm month^{-1} or mm year^{-1}
Jan	34.1	33.3	111	31.4	163	12.9	11.5	28.5	28.2	2.82	4.90	5.31	3.51	3.4
Feb	17.5	16.9	46.7	14.3	65.0	10.1	3.28	19.9	19.7	2.28	8.94	5.05	2.00	136
Mar	12.3	11.9	31.2	11.9	42.8	5.96	3.48	10.8	10.6	0.345	5.21	5.28	1.40	62.6
Apr	20.1	19.2	83.0	18.9	83.6	14.4	3.30	21.8	21.5	0.888	7.12	5.15	2.50	60.0
May	16.9	16.1	31.2	14.4	76.8	13.0	5.91	22.2	21.9	2.94	1.21	5.92	1.86	21.7
June	6.60	6.28	13.4	7.42	39.1	5.30	0.934	14.5	14.4	1.53	2.14	5.67	0.913	126
July	9.68	9.08	14.5	12.5	45.0	9.86	1.78	22.2	21.9	3.24	1.79	5.75	1.19	116
Aug	12.6	11.8	29.5	17.2	64.0	13.4	2.12	29.9	29.6	4.04	8.77	5.06	2.04	93.5
Sept	7.74	7.53	18.7	5.20	31.2	3.50	0.888	11.8	11.8	1.52	4.40	5.36	0.962	265
Oct	12.9	12.7	31.1	5.58	26.5	2.55	0.905	10.9	10.9	1.04	5.82	5.23	0.902	169
Nov	12.2	12.0	27.5	6.33	53.2	3.48	1.91	21.8	21.7	1.88	1.39	5.86	1.26	18.1
Dec	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Annual	11.6	11.2	29.1	9.96	45.3	6.92	1.84	16.6	16.5	1.88	5.12	5.29	1.34	1071
Max.	40.7	40.1	288	83.7	171	68.3	19.8	139	138	11.3	107	6.73	5.92	
Min.	1.06	0.564	2.25	0.691	6.26	0.405	<0.3	2.34	2.31	<0.3	0.186	3.97	0.306	

Wet deposition amount

2015	SO_4^{2-} mmol m^{-2}	nss-SO_4^{2-} mmol m^{-2}	NO_3^- mmol m^{-2}	Cl^- mmol m^{-2}	NH_4^+ mmol m^{-2}	Na^+ mmol m^{-2}	K^+ mmol m^{-2}	Ca^{2+} mmol m^{-2}	nss-Ca^{2+} mmol m^{-2}	Mg^{2+} mmol m^{-2}	H^+ mmol m^{-2}
Jan	0.115	0.113	0.375	0.106	0.551	0.0438	0.0391	0.0965	0.0955	<0.01	0.0166
Feb	2.37	2.29	6.33	1.93	8.81	1.37	0.445	2.70	2.67	0.309	1.21
Mar	0.770	0.748	1.95	0.745	2.68	0.373	0.218	0.674	0.666	0.0216	0.326
Apr	1.21	1.15	4.98	1.14	5.01	0.865	0.198	1.31	1.29	0.0533	0.427
May	0.367	0.350	0.677	0.313	1.67	0.283	0.128	0.481	0.475	0.0639	0.0262
June	0.834	0.793	1.69	0.937	4.94	0.670	0.118	1.83	1.82	0.194	0.271
July	1.12	1.05	1.68	1.45	5.22	1.14	0.206	2.57	2.54	0.375	0.207
Aug	1.18	1.10	2.76	1.61	5.98	1.25	0.198	2.79	2.77	0.377	0.820
Sept	2.06	2.00	4.96	1.38	8.28	0.930	0.236	3.14	3.12	0.404	1.17
Oct	2.17	2.15	5.25	0.942	4.47	0.431	0.153	1.84	1.83	0.176	0.982
Nov	0.220	0.216	0.497	0.114	0.963	0.0629	0.0346	0.394	0.393	0.0340	0.0252
Dec	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	12.4	12.0	31.2	10.7	48.6	7.42	1.97	17.8	17.7	2.02	5.48

Data completeness

2015	SO_4^{2-} %TP	nss-SO_4^{2-} %TP	NO_3^- %TP	Cl^- %TP	NH_4^+ %TP	Na^+ %TP	K^+ %TP	Ca^{2+} %TP	nss-Ca^{2+} %TP	Mg^{2+} %TP	H^+ %TP	pH %TP	EC %TP	Precip. %PCL
Jan	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Feb	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Mar	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Apr	100	100	100	100	100	100	100	100	100	100	100	100	100	100
May	100	100	100	100	100	100	100	100	100	100	100	100	100	100
June	100	100	100	100	100	100	100	100	100	100	100	100	100	100
July	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Aug	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Sept	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Oct	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Nov	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Dec	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Annual	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Terms and abbreviations are given in Table 3.5.

Table 3.55 Monthly results **Site: Khanchanaburi** **Country: Thailand**

Precipitation amount-weighted average concentration/ Precipitation amount

2015	SO_4^{2-}	nss-SO_4^{2-}	NO_3^-	Cl^-	NH_4^+	Na^+	K^+	Ca^{2+}	nss-Ca^{2+}	Mg^{2+}	H^+	pH	EC	Precip.
	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}		mS m^{-1}	mm $month^{-1}$ or mm $year^{-1}$
Jan	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Feb	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Mar	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Apr	3.96	3.85	5.84	2.34	52.7	1.74	2.24	2.19	2.15	0.728	6.91	5.16	0.908	114
May	1.96	1.69	6.66	6.55	3.52	4.51	0.810	2.45	2.35	0.823	4.83	5.32	0.483	17.3
June	2.62	2.34	5.24	5.26	3.20	4.53	0.644	4.86	4.76	1.12	1.57	5.80	0.373	319
July	3.74	2.99	8.96	12.9	10.8	12.4	0.811	7.74	7.47	2.18	0.493	6.31	0.552	195
Aug	1.24	0.934	0.566	4.41	1.45	5.05	0.507	1.23	1.12	0.706	3.54	5.45	0.299	179
Sept	1.15	0.931	1.30	2.72	6.74	3.64	0.618	1.31	1.23	0.603	6.68	5.18	0.313	229
Oct	0.521	0.494	1.29	0.564	4.43	0.435	<0.3	0.499	0.490	<0.3	8.13	5.09	0.230	15.5
Nov	0.833	<0.3	2.55	9.35	26.7	22.9	1.89	3.74	3.24	0.823	0.0506	7.30	0.494	24.8
Dec	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Annual	2.34	2.00	4.28	5.69	10.7	5.91	0.838	3.63	3.50	1.06	3.44	5.46	0.438	1093
Max.	9.47	7.61	18.7	35.5	80.4	30.9	2.56	19.7	19.0	5.35	9.33	7.42	1.24	
Min.	0.521	<0.3	<0.5	0.564	<0.8	0.435	<0.3	0.499	0.490	<0.3	0.0380	5.03	0.160	

Wet deposition amount

2015	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}
Jan	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Feb	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mar	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Apr	0.451	0.439	0.665	0.267	6.01	0.198	0.255	0.249	0.245	0.0829	0.786
May	0.0339	0.0292	0.115	0.113	0.0609	0.0779	0.0140	0.0423	0.0407	0.0142	0.0835
June	0.834	0.747	1.67	1.68	1.02	1.44	0.205	1.55	1.52	0.356	0.502
July	0.729	0.583	1.75	2.51	2.10	2.43	0.158	1.51	1.46	0.426	0.0961
Aug	0.222	0.167	0.101	0.790	0.260	0.904	0.0908	0.220	0.200	0.126	0.634
Sept	0.263	0.213	0.299	0.623	1.54	0.833	0.142	0.300	0.282	0.138	1.53
Oct	<0.01	<0.01	0.0200	<0.01	0.0687	<0.01	<0.01	<0.01	<0.01	<0.01	0.126
Nov	0.0207	<0.01	0.0632	0.232	0.663	0.568	0.0470	0.0927	0.0804	0.0204	<0.01
Dec	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	2.56	2.19	4.68	6.22	11.7	6.46	0.916	3.97	3.83	1.16	3.76

Data completeness

2015	SO_4^{2-}	nss-SO_4^{2-}	NO_3^-	Cl^-	NH_4^+	Na^+	K^+	Ca^{2+}	nss-Ca^{2+}	Mg^{2+}	H^+	pH	EC	Precip.
	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%PCL
Jan	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Feb	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Mar	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Apr	100	100	100	100	100	100	100	100	100	100	100	100	100	100
May	100	100	100	100	100	100	100	100	100	100	100	100	100	100
June	100	100	100	100	100	100	100	100	100	100	100	100	100	100
July	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Aug	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Sept	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Oct	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Nov	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Dec	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Annual	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Terms and abbreviations are given in Table 3.5.

Table 3.56 Monthly results **Site: Chiang Mai** **Country: Thailand**

Precipitation amount-weighted average concentration/ Precipitation amount

2015	SO_4^{2-} µmol L^{-1}	nss-SO_4^{2-} µmol L^{-1}	NO_3^- µmol L^{-1}	Cl^- µmol L^{-1}	NH_4^+ µmol L^{-1}	Na^+ µmol L^{-1}	K^+ µmol L^{-1}	Ca^{2+} µmol L^{-1}	nss-Ca^{2+} µmol L^{-1}	Mg^{2+} µmol L^{-1}	H^+ µmol L^{-1}	pH	EC mS m^{-1}	Precip. mm $month^{-1}$ or mm $year^{-1}$
Jan	2.02	1.74	4.64	4.51	7.75	4.65	<0.3	0.630	0.530	2.91	2.23	5.65	0.470	84.6
Feb	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Mar	16.1	15.8	36.6	7.69	76.5	5.22	2.02	10.6	10.5	4.81	0.895	6.05	1.89	24.2
Apr	12.6	12.3	22.0	6.20	52.8	5.29	3.00	11.7	11.5	2.34	0.935	6.03	1.32	72.2
May	2.90	2.64	5.49	3.01	20.9	4.35	0.595	1.59	1.51	<0.3	0.537	6.27	0.402	85.3
June	3.17	2.91	5.70	2.60	14.3	4.33	0.646	3.69	3.62	0.980	0.629	6.20	0.455	25.1
July	2.32	2.03	3.93	4.70	7.89	4.74	1.22	3.89	3.79	0.801	1.05	5.98	0.417	127
Aug	2.41	2.21	6.89	4.16	14.8	3.47	0.536	4.63	4.55	0.730	2.30	5.64	0.421	131
Sept	3.03	2.75	6.72	1.93	8.61	4.64	1.76	2.88	2.78	1.44	3.77	5.42	0.398	190
Oct	11.7	11.5	11.6	5.45	12.2	3.29	1.75	5.16	5.09	1.76	28.0	4.55	1.14	7.5
Nov	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Dec	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Annual	4.12	3.85	8.36	3.87	17.6	4.48	1.24	4.11	4.01	1.41	2.28	5.64	0.561	747
Max.	54.8	53.6	116	39.4	246	39.0	27.4	38.0	37.6	12.3	31.6	6.77	5.78	
Min.	0.366	<0.3	0.976	<0.5	1.93	<0.3	<0.3	<0.2	<0.2	<0.3	0.170	4.50	0.190	

Wet deposition amount

2015	SO_4^{2-} mmol m^{-2}	nss-SO_4^{2-} mmol m^{-2}	NO_3^- mmol m^{-2}	Cl^- mmol m^{-2}	NH_4^+ mmol m^{-2}	Na^+ mmol m^{-2}	K^+ mmol m^{-2}	Ca^{2+} mmol m^{-2}	nss-Ca^{2+} mmol m^{-2}	Mg^{2+} mmol m^{-2}	H^+ mmol m^{-2}
Jan	0.170	0.147	0.393	0.381	0.656	0.393	0.0189	0.0533	0.0448	0.246	0.189
Feb	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mar	0.390	0.383	0.885	0.186	1.85	0.126	0.0489	0.257	0.254	0.116	0.0216
Apr	0.911	0.888	1.59	0.448	3.81	0.382	0.217	0.842	0.834	0.169	0.0676
May	0.248	0.225	0.468	0.257	1.78	0.371	0.0507	0.135	0.129	0.0104	0.0458
June	0.0796	0.0730	0.143	0.0652	0.360	0.109	0.0162	0.0925	0.0907	0.0246	0.0158
July	0.294	0.257	0.498	0.596	1.00	0.601	0.155	0.494	0.481	0.102	0.133
Aug	0.316	0.289	0.902	0.545	1.94	0.455	0.0702	0.606	0.596	0.0955	0.302
Sept	0.576	0.523	1.28	0.368	1.64	0.883	0.334	0.547	0.528	0.273	0.717
Oct	0.0876	0.0861	0.0874	0.0409	0.0912	0.0247	0.0132	0.0387	0.0382	0.0132	0.210
Nov	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	3.07	2.87	6.24	2.89	13.1	3.34	0.924	3.07	3.00	1.05	1.70

Data completeness

2015	SO_4^{2-} %TP	nss-SO_4^{2-} %TP	NO_3^- %TP	Cl^- %TP	NH_4^+ %TP	Na^+ %TP	K^+ %TP	Ca^{2+} %TP	nss-Ca^{2+} %TP	Mg^{2+} %TP	H^+ %TP	pH %TP	EC %TP	Precip. %PCL
Jan	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Feb	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Mar	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Apr	100	100	100	100	100	100	100	100	100	100	100	100	100	100
May	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.6	99.6	99.6	100
June	100	100	100	100	100	100	100	100	100	100	98.9	98.9	98.9	100
July	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.6	99.6	99.6	100
Aug	100	100	100	100	100	100	100	100	100	100	99.8	99.8	99.8	100
Sept	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Oct	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Nov	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Dec	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Annual	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**99.8**	**99.8**	**99.8**	**100**

Terms and abbreviations are given in Table 3.5.

Table 3.57 Monthly results **Site: Sakaerat** **Country: Thailand**

Precipitation amount-weighted average concentration/ Precipitation amount

2015	SO_4^{2-} µmol L^{-1}	nss-SO_4^{2-} µmol L^{-1}	NO_3^- µmol L^{-1}	Cl^- µmol L^{-1}	NH_4^+ µmol L^{-1}	Na^+ µmol L^{-1}	K^+ µmol L^{-1}	Ca^{2+} µmol L^{-1}	nss-Ca^{2+} µmol L^{-1}	Mg^{2+} µmol L^{-1}	H^+ µmol L^{-1}	pH	EC mS m^{-1}	Precip. mm $month^{-1}$ or mm $year^{-1}$
Jan	9.11	8.81	23.5	12.7	64.6	5.09	5.61	7.63	7.52	0.914	38.0	4.42	2.50	22.5
Feb	26.6	25.6	43.4	19.5	74.5	17.1	5.75	9.18	8.81	4.78	57.3	4.24	3.31	24.2
Mar	13.7	13.1	39.0	15.4	104	11.1	6.29	8.41	8.17	3.45	41.6	4.38	2.90	30.5
Apr	10.9	10.4	26.6	8.73	66.2	8.05	2.86	4.45	4.27	3.80	9.17	5.04	1.41	154
May	10.5	10.1	22.7	6.93	33.4	6.02	1.90	4.76	4.63	<0.3	22.2	4.65	1.45	53.3
June	5.78	5.56	14.8	4.98	27.7	3.65	1.61	4.40	4.33	1.19	20.6	4.69	1.15	118
July	5.30	4.86	8.09	11.1	14.4	7.45	0.865	6.61	6.45	0.606	2.48	5.61	0.511	153
Aug	5.78	5.57	10.5	8.96	22.1	3.46	0.973	7.00	6.93	3.57	4.48	5.35	0.500	233
Sept	3.78	3.65	6.65	3.08	21.2	2.22	0.818	11.4	11.4	3.00	3.45	5.46	0.483	350
Oct	5.56	5.37	7.92	5.25	27.9	3.18	1.09	2.84	2.77	<0.3	6.76	5.17	0.675	247
Nov	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Dec	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Annual	6.53	6.25	12.8	6.99	31.3	4.59	1.52	6.83	6.73	2.17	9.26	5.03	0.856	1385
Max.	41.7	40.0	118	62.1	248	43.9	36.3	56.6	56.6	12.3	95.5	6.56	7.44	
Min.	1.35	1.33	1.77	1.97	<0.8	<0.3	<0.3	<0.2	<0.2	<0.3	0.275	4.02	0.180	

Wet deposition amount

2015	SO_4^{2-} mmol m^{-2}	nss-SO_4^{2-} mmol m^{-2}	NO_3^- mmol m^{-2}	Cl^- mmol m^{-2}	NH_4^+ mmol m^{-2}	Na^+ mmol m^{-2}	K^+ mmol m^{-2}	Ca^{2+} mmol m^{-2}	nss-Ca^{2+} mmol m^{-2}	Mg^{2+} mmol m^{-2}	H^+ mmol m^{-2}
Jan	0.205	0.198	0.528	0.285	1.45	0.115	0.126	0.172	0.169	0.0206	0.855
Feb	0.645	0.620	1.05	0.471	1.80	0.413	0.139	0.222	0.213	0.116	1.39
Mar	0.419	0.398	1.19	0.470	3.18	0.338	0.192	0.257	0.249	0.105	1.27
Apr	1.67	1.60	4.08	1.34	10.2	1.24	0.438	0.683	0.656	0.583	1.41
May	0.560	0.541	1.21	0.369	1.78	0.321	0.101	0.254	0.247	0.0129	1.18
June	0.684	0.658	1.76	0.589	3.28	0.432	0.191	0.521	0.512	0.141	2.44
July	0.810	0.741	1.24	1.70	2.20	1.14	0.132	1.01	0.984	0.0926	0.378
Aug	1.35	1.30	2.45	2.08	5.14	0.806	0.226	1.63	1.61	0.830	1.04
Sept	1.33	1.28	2.33	1.08	7.44	0.777	0.287	4.01	3.99	1.05	1.21
Oct	1.37	1.33	1.96	1.30	6.88	0.786	0.269	0.701	0.684	0.0558	1.67
Nov	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	9.04	8.66	17.8	9.68	43.3	6.36	2.10	9.46	9.32	3.01	12.8

Data completeness

2015	SO_4^{2-} %TP	nss-SO_4^{2-} %TP	NO_3^- %TP	Cl^- %TP	NH_4^+ %TP	Na^+ %TP	K^+ %TP	Ca^{2+} %TP	nss-Ca^{2+} %TP	Mg^{2+} %TP	H^+ %TP	pH %TP	EC %TP	Precip. %PCL
Jan	100	100	100	100	100	100	100	100	100	100	97.8	97.8	97.8	100
Feb	100	100	100	100	100	100	100	100	100	100	95.5	95.5	95.5	100
Mar	100	100	100	100	100	100	100	100	100	100	99.3	99.3	99.3	100
Apr	100	100	100	100	100	100	100	100	100	100	99.6	99.6	99.6	100
May	100	100	100	100	100	100	100	100	100	100	99.4	99.4	99.4	100
June	100	100	100	100	100	100	100	100	100	100	98.8	98.8	98.8	100
July	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Aug	100	100	100	100	100	100	100	100	100	100	93.2	93.2	93.2	100
Sept	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Oct	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Nov	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Dec	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Annual	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**98.6**	**98.6**	**98.6**	**100**

Terms and abbreviations are given in Table 3.5.

Table 3.58 Monthly results Site: Hanoi Country: Vietnam

Precipitation amount-weighted average concentration/ Precipitation amount

2015	SO_4^{2-} µmol L⁻¹	nss-SO_4^{2-} µmol L⁻¹	NO_3^- µmol L⁻¹	Cl^- µmol L⁻¹	NH_4^+ µmol L⁻¹	Na^+ µmol L⁻¹	K^+ µmol L⁻¹	Ca^{2+} µmol L⁻¹	nss-Ca^{2+} µmol L⁻¹	Mg^{2+} µmol L⁻¹	H^+ µmol L⁻¹	pH	EC mS m⁻¹	Precip. mm month⁻¹ or mm year⁻¹
Jan	49.0	48.6	27.5	13.1	83.6	7.72	6.06	23.0	22.8	3.53	2.94	5.53	2.28	33.6
Feb	368	363	334	111	548	76.9	24.5	290	289	32.2	0.344	6.46	18.5	20.2
Mar	115	112	93.4	81.4	173	48.8	11.5	111	110	18.3	0.309	6.51	6.60	34.9
Apr	177	174	152	67.8	123	48.2	20.3	216	215	22.4	0.376	6.42	9.01	21.7
May	73.1	72.4	47.1	17.4	46.8	11.2	7.31	103	102	8.51	0.116	6.93	3.76	97.1
June	16.3	16.1	17.1	6.87	37.8	3.55	2.51	15.5	15.4	2.66	0.363	6.44	1.07	239
July	28.8	28.3	26.9	15.7	74.2	7.98	3.63	27.7	27.6	3.11	0.264	6.58	1.97	136
Aug	24.8	24.7	28.1	7.58	57.7	2.39	1.99	20.9	20.9	2.95	0.556	6.25	1.52	118
Sept	22.5	22.1	23.0	7.39	54.7	5.37	1.79	13.1	13.0	2.05	0.536	6.27	1.33	295
Oct	38.3	38.2	35.7	4.77	76.2	2.00	2.15	23.5	23.4	2.74	1.66	5.78	1.97	79.0
Nov	39.3	38.5	34.6	18.6	49.6	13.3	3.09	37.9	37.6	5.39	1.15	5.94	2.14	160
Dec	76.8	76.0	65.2	27.7	91.8	13.7	6.30	73.8	73.5	9.38	1.02	5.99	3.81	40.0
Annual	39.5	39.0	35.1	14.8	64.9	9.00	3.72	36.7	36.5	4.59	0.649	6.19	2.21	1273
Max.	368	363	334	247	548	150	49.7	563	560	75.6	2.94	7.26	18.5	
Min.	5.00	4.93	6.85	3.15	17.3	0.678	0.691	6.22	6.20	1.01	0.0546	5.53	0.469	

Wet deposition amount

2015	SO_4^{2-} mmol m⁻²	nss-SO_4^{2-} mmol m⁻²	NO_3^- mmol m⁻²	Cl^- mmol m⁻²	NH_4^+ mmol m⁻²	Na^+ mmol m⁻²	K^+ mmol m⁻²	Ca^{2+} mmol m⁻²	nss-Ca^{2+} mmol m⁻²	Mg^{2+} mmol m⁻²	H^+ mmol m⁻²
Jan	1.65	1.63	0.925	0.440	2.81	0.260	0.204	0.772	0.766	0.119	0.0990
Feb	7.44	7.35	6.77	2.25	11.1	1.56	0.495	5.88	5.84	0.653	<0.01
Mar	4.01	3.91	3.26	2.84	6.04	1.70	0.400	3.87	3.84	0.638	0.0108
Apr	3.85	3.78	3.28	1.47	2.67	1.04	0.439	4.69	4.67	0.486	<0.01
May	7.10	7.04	4.57	1.69	4.55	1.08	0.710	9.96	9.94	0.827	0.0113
June	3.90	3.85	4.09	1.64	9.01	0.848	0.600	3.70	3.68	0.635	0.0867
July	3.91	3.84	3.65	2.14	10.1	1.08	0.492	3.77	3.74	0.423	0.0358
Aug	2.92	2.91	3.31	0.892	6.79	0.281	0.235	2.47	2.46	0.347	0.0655
Sept	6.63	6.53	6.80	2.18	16.1	1.59	0.530	3.87	3.83	0.606	0.158
Oct	3.02	3.01	2.82	0.377	6.02	0.158	0.170	1.86	1.85	0.216	0.131
Nov	6.27	6.14	5.52	2.97	7.92	2.12	0.493	6.05	6.00	0.859	0.183
Dec	3.07	3.04	2.61	1.11	3.67	0.547	0.252	2.95	2.94	0.375	0.0408
Annual	50.3	49.6	44.7	18.8	82.6	11.5	4.73	46.8	46.5	5.85	0.826

Data completeness

2015	SO_4^{2-} %TP	nss-SO_4^{2-} %TP	NO_3^- %TP	Cl^- %TP	NH_4^+ %TP	Na^+ %TP	K^+ %TP	Ca^{2+} %TP	nss-Ca^{2+} %TP	Mg^{2+} %TP	H^+ %TP	pH %TP	EC %TP	Precip. %PCL
Jan	80.1	80.1	80.1	80.1	80.1	80.1	80.1	80.1	80.1	80.1	80.1	80.1	80.1	100
Feb	65.4	65.4	65.4	65.4	65.4	65.4	65.4	65.4	65.4	65.4	65.4	65.4	65.4	100
Mar	93.4	93.4	93.4	93.4	93.4	93.4	93.4	93.4	93.4	93.4	93.4	93.4	93.4	100
Apr	69.1	69.1	69.1	69.1	69.1	69.1	69.1	69.1	69.1	69.1	69.1	69.1	69.1	100
May	100	100	100	100	100	100	100	100	100	100	100	100	100	100
June	100	100	100	100	100	100	100	100	100	100	100	100	100	100
July	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Aug	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Sept	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Oct	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	100
Nov	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Dec	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Annual	**98.2**	**98.2**	**98.2**	**98.2**	**98.2**	**98.2**	**98.2**	**98.2**	**98.2**	**98.2**	**98.2**	**98.2**	**98.2**	**100**

Terms and abbreviations are given in Table 3.5.

Table 3.59 Monthly results Site: **Hoa Binh** Country: **Vietnam**

Precipitation amount-weighted average concentration/ Precipitation amount

2015	SO_4^{2-} µmol L^{-1}	nss-SO_4^{2-} µmol L^{-1}	NO_3^- µmol L^{-1}	Cl^- µmol L^{-1}	NH_4^+ µmol L^{-1}	Na^+ µmol L^{-1}	K^+ µmol L^{-1}	Ca^{2+} µmol L^{-1}	nss-Ca^{2+} µmol L^{-1}	Mg^{2+} µmol L^{-1}	H^+ µmol L^{-1}	pH	EC mS m^{-1}	Precip. mm $month^{-1}$ or mm $year^{-1}$
Jan	77.0	76.5	53.4	8.86	95.5	7.72	11.4	31.1	31.0	7.49	33.8	4.47	4.22	40.1
Feb	216	214	390	57.9	594	34.9	31.1	111	110	25.8	3.48	5.46	13.3	8.9
Mar	60.4	59.2	79.8	27.0	128	19.3	19.9	21.2	20.8	5.15	17.9	4.75	4.08	47.9
Apr	20.4	20.2	25.1	3.90	33.2	4.10	4.68	12.6	12.5	2.94	3.71	5.43	1.23	126
May	31.8	31.3	31.4	8.74	49.9	8.74	4.90	24.0	23.8	4.11	0.957	6.02	1.67	124
June	9.24	9.14	17.5	3.03	25.4	1.52	1.47	6.17	6.14	1.83	1.50	5.82	0.700	281
July	14.1	14.1	14.8	3.17	33.3	1.48	1.14	6.68	6.65	1.41	1.65	5.78	0.803	189
Aug	12.8	12.8	12.2	2.31	24.9	1.07	1.32	6.98	6.96	1.31	2.17	5.66	0.706	103
Sept	7.46	7.42	6.20	1.16	13.1	0.605	0.879	2.26	2.24	1.17	4.18	5.38	0.495	486
Oct	35.7	35.4	30.3	5.78	59.0	4.50	3.37	14.9	14.8	3.34	11.2	4.95	1.95	105
Nov	35.3	34.0	44.2	25.2	73.0	21.7	3.31	13.4	13.0	5.32	21.0	4.68	2.72	56.7
Dec	46.4	46.0	47.9	13.4	91.0	6.29	3.25	30.0	29.9	3.68	2.71	5.57	2.54	48.8
Annual	20.0	19.8	22.3	5.25	38.3	3.80	2.87	10.1	10.0	2.44	5.07	5.29	1.22	1616
Max.	261	259	479	152	740	45.5	34.9	136	135	34.3	33.8	6.59	16.4	
Min.	5.10	4.97	5.38	0.952	10.8	<0.3	0.663	0.976	0.971	0.546	0.256	4.47	0.440	

Wet deposition amount

2015	SO_4^{2-} mmol m^{-2}	nss-SO_4^{2-} mmol m^{-2}	NO_3^- mmol m^{-2}	Cl^- mmol m^{-2}	NH_4^+ mmol m^{-2}	Na^+ mmol m^{-2}	K^+ mmol m^{-2}	Ca^{2+} mmol m^{-2}	nss-Ca^{2+} mmol m^{-2}	Mg^{2+} mmol m^{-2}	H^+ mmol m^{-2}
Jan	3.09	3.07	2.14	0.355	3.83	0.310	0.458	1.25	1.24	0.300	1.36
Feb	1.92	1.90	3.47	0.515	5.29	0.311	0.276	0.989	0.982	0.229	0.0310
Mar	2.89	2.84	3.82	1.29	6.14	0.927	0.955	1.02	0.995	0.247	0.856
Apr	2.58	2.55	3.17	0.493	4.20	0.518	0.592	1.59	1.58	0.371	0.468
May	3.96	3.89	3.90	1.09	6.20	1.09	0.610	2.98	2.96	0.511	0.119
June	2.60	2.57	4.93	0.852	7.14	0.429	0.414	1.74	1.73	0.514	0.421
July	2.67	2.65	2.80	0.597	6.28	0.278	0.215	1.26	1.25	0.265	0.310
Aug	1.33	1.32	1.26	0.239	2.57	0.111	0.137	0.721	0.719	0.136	0.224
Sept	3.62	3.60	3.01	0.561	6.36	0.294	0.427	1.10	1.09	0.568	2.03
Oct	3.73	3.70	3.17	0.605	6.17	0.471	0.353	1.56	1.55	0.349	1.17
Nov	2.00	1.93	2.51	1.43	4.14	1.23	0.188	0.761	0.735	0.301	1.19
Dec	2.26	2.24	2.34	0.655	4.44	0.307	0.159	1.46	1.46	0.180	0.132
Annual	32.3	31.9	36.0	8.49	62.0	6.14	4.63	16.3	16.2	3.95	8.20

Data completeness

2015	SO_4^{2-} %TP	nss-SO_4^{2-} %TP	NO_3^- %TP	Cl^- %TP	NH_4^+ %TP	Na^+ %TP	K^+ %TP	Ca^{2+} %TP	nss-Ca^{2+} %TP	Mg^{2+} %TP	H^+ %TP	pH %TP	EC %TP	Precip. %PCL
Jan	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Feb	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Mar	81.6	81.6	81.6	81.6	81.6	81.6	81.6	81.6	81.6	81.6	81.6	81.6	81.6	100
Apr	100	100	100	100	100	100	100	100	100	100	100	100	100	100
May	100	100	100	100	100	100	100	100	100	100	100	100	100	100
June	100	100	100	100	100	100	100	100	100	100	100	100	100	100
July	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Aug	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Sept	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Oct	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Nov	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Dec	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Annual	**99.5**	**99.5**	**99.5**	**99.5**	**99.5**	**99.5**	**99.5**	**99.5**	**99.5**	**99.5**	**99.5**	**99.5**	**99.5**	**100**

Terms and abbreviations are given in Table 3.5.

Table 3.60 Monthly results Site: **Cuc Phuong** Country: **Vietnam**

Precipitation amount-weighted average concentration/ Precipitation amount

2015	SO_4^{2-}	nss-SO_4^{2-}	NO_3^-	Cl^-	NH_4^+	Na^+	K^+	Ca^{2+}	nss-Ca^{2+}	Mg^{2+}	H^+	pH	EC	Precip.
	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}		mS m^{-1}	mm $month^{-1}$ or mm $year^{-1}$
Jan	71.4	70.9	36.1	23.4	90.6	8.31	3.73	37.1	36.9	5.67	21.4	4.67	3.50	36.6
Feb	34.0	33.2	47.4	25.3	80.0	12.6	3.31	27.2	26.9	7.18	4.80	5.32	2.48	74.8
Mar	86.3	84.0	70.3	61.5	161	38.8	5.95	42.2	41.3	9.25	15.5	4.81	4.97	68.7
Apr	90.1	87.4	39.0	49.3	36.3	44.3	4.34	91.3	90.4	17.6	3.69	5.43	4.30	40.6
May	13.0	12.6	14.5	43.1	24.4	6.05	3.71	23.0	22.9	4.22	8.01	5.10	1.49	67.0
June	11.7	11.5	9.98	18.7	17.6	3.48	9.80	14.9	14.9	1.94	3.37	5.47	1.04	89.9
July	10.3	10.1	7.05	13.4	22.1	3.94	4.87	3.39	3.30	2.88	5.19	5.28	0.851	305
Aug	5.96	5.70	1.44	11.8	12.7	4.25	2.82	8.31	8.21	2.33	1.87	5.73	0.541	178
Sept	7.99	7.57	7.18	19.4	6.35	7.04	2.36	18.9	18.8	7.64	3.98	5.40	0.985	425
Oct	33.1	32.3	11.1	20.6	39.3	14.0	15.5	42.8	42.5	5.44	2.14	5.67	2.25	37.3
Nov	10.5	10.1	4.19	15.9	35.5	5.29	9.44	8.01	7.90	3.49	1.02	5.99	1.03	110
Dec	42.2	41.6	11.6	19.4	85.8	10.3	5.60	89.6	89.4	9.21	1.21	5.92	3.64	28.5
Annual	18.8	18.3	13.4	21.3	30.0	8.76	4.68	19.4	19.2	5.44	4.78	5.32	1.42	1461
Max.	213	208	132	120	285	140	30.1	199	197	61.1	24.0	6.54	8.99	
Min.	2.68	2.47	<0.5	2.34	<0.8	1.52	1.41	2.02	1.95	1.19	0.288	4.62	0.350	

Wet deposition amount

2015	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}
Jan	2.61	2.59	1.32	0.858	3.32	0.304	0.137	1.36	1.35	0.208	0.782
Feb	2.54	2.49	3.54	1.89	5.99	0.943	0.248	2.03	2.01	0.537	0.359
Mar	5.93	5.77	4.83	4.22	11.1	2.67	0.409	2.90	2.84	0.635	1.07
Apr	3.66	3.55	1.58	2.00	1.47	1.80	0.176	3.71	3.67	0.714	0.150
May	0.870	0.845	0.970	2.89	1.63	0.406	0.248	1.54	1.53	0.283	0.536
June	1.05	1.03	0.897	1.68	1.59	0.312	0.881	1.34	1.34	0.175	0.303
July	3.15	3.07	2.15	4.10	6.74	1.20	1.49	1.03	1.01	0.878	1.58
Aug	1.06	1.01	0.256	2.09	2.26	0.755	0.501	1.48	1.46	0.414	0.333
Sept	3.40	3.22	3.05	8.26	2.70	2.99	1.00	8.05	7.99	3.25	1.69
Oct	1.24	1.20	0.412	0.768	1.47	0.524	0.579	1.60	1.59	0.203	0.0796
Nov	1.15	1.11	0.460	1.74	3.89	0.580	1.04	0.879	0.866	0.382	0.112
Dec	1.20	1.19	0.329	0.554	2.44	0.295	0.160	2.55	2.55	0.263	0.0344
Annual	27.5	26.8	19.6	31.1	43.8	12.8	6.83	28.3	28.0	7.94	6.99

Data completeness

2015	SO_4^{2-}	nss-SO_4^{2-}	NO_3^-	Cl^-	NH_4^+	Na^+	K^+	Ca^{2+}	nss-Ca^{2+}	Mg^{2+}	H^+	pH	EC	Precip.
	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%PCL
Jan	87.2	87.2	87.2	87.2	87.2	87.2	87.2	87.2	87.2	87.2	87.2	87.2	87.2	100
Feb	92.1	92.1	92.1	92.1	92.1	92.1	92.1	92.1	92.1	92.1	92.1	92.1	92.1	100
Mar	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	100
Apr	100	100	100	100	100	100	100	100	100	100	100	100	100	100
May	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	100
June	100	100	100	100	100	100	100	100	100	100	100	100	100	100
July	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	100
Aug	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Sept	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Oct	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	100
Nov	92.9	92.9	92.9	92.9	92.9	92.9	92.9	92.9	92.9	92.9	92.9	92.9	92.9	100
Dec	88.8	88.8	88.8	88.8	88.8	88.8	88.8	88.8	88.8	88.8	88.8	88.8	88.8	100
Annual	**98.0**	**98.0**	**98.0**	**98.0**	**98.0**	**98.0**	**98.0**	**98.0**	**98.0**	**98.0**	**98.0**	**98.0**	**98.0**	**100**

Terms and abbreviations are given in Table 3.5.

Table 3.61 Monthly results **Site: Da Nang** **Country: Vietnam**

Precipitation amount-weighted average concentration/ Precipitation amount

2015	SO_4^{2-} µmol L^{-1}	nss-SO_4^{2-} µmol L^{-1}	NO_3^- µmol L^{-1}	Cl^- µmol L^{-1}	NH_4^+ µmol L^{-1}	Na^+ µmol L^{-1}	K^+ µmol L^{-1}	Ca^{2+} µmol L^{-1}	nss-Ca^{2+} µmol L^{-1}	Mg^{2+} µmol L^{-1}	H^+ µmol L^{-1}	pH	EC mS m^{-1}	Precip. mm $month^{-1}$ or mm $year^{-1}$
Jan	20.1	7.39	6.91	185	5.62	211	10.8	36.3	31.8	46.3	0.812	6.09	3.07	23.9
Feb	59.4	53.4	12.0	92.5	92.3	98.9	12.5	34.7	32.6	15.3	0.321	6.49	2.59	12.0
Mar	8.34	3.03	<0.5	85.4	6.78	96.7	<0.3	30.3	28.4	<0.3	1.50	5.82	1.16	179
Apr	14.3	11.2	<0.5	43.4	31.6	50.9	28.4	33.2	32.1	<0.3	1.40	5.85	2.24	89.7
May	48.4	43.2	<0.5	153	170	86.6	50.4	94.3	92.4	23.0	0.442	6.35	4.72	34.6
June	4.48	1.72	<0.5	29.6	14.4	46.7	2.71	36.8	35.8	5.89	0.588	6.23	1.87	24.9
July	9.36	5.84	<0.5	40.0	13.4	58.4	6.70	80.9	79.6	9.73	0.549	6.26	2.19	73.3
Aug	5.48	2.31	<0.5	27.9	7.41	52.5	28.6	27.6	26.5	7.10	0.739	6.13	1.74	154
Sept	5.84	1.12	<0.5	73.5	<0.8	78.3	8.65	12.2	10.5	9.31	1.76	5.75	1.15	429
Oct	8.42	5.39	<0.5	44.3	2.52	50.4	13.3	24.9	23.8	7.11	0.891	6.05	1.39	409
Nov	9.62	4.31	0.752	68.6	5.73	88.0	2.89	45.3	43.4	9.52	0.612	6.21	2.07	276
Dec	30.5	21.6	1.87	167	<0.8	147	16.2	70.3	67.2	16.2	0.485	6.31	3.52	186
Annual	11.4	6.65	<0.5	72.8	8.73	79.6	11.9	34.4	32.7	8.77	1.05	5.98	1.82	1891
Max.	74.7	68.7	14.4	317	231	301	54.0	168	164	59.7	2.82	6.60	6.16	
Min.	<0.3	<0.3	<0.5	4.74	<0.8	17.4	<0.3	<0.2	<0.2	<0.3	0.251	5.55	0.430	

Wet deposition amount

2015	SO_4^{2-} mmol m^{-2}	nss-SO_4^{2-} mmol m^{-2}	NO_3^- mmol m^{-2}	Cl^- mmol m^{-2}	NH_4^+ mmol m^{-2}	Na^+ mmol m^{-2}	K^+ mmol m^{-2}	Ca^{2+} mmol m^{-2}	nss-Ca^{2+} mmol m^{-2}	Mg^{2+} mmol m^{-2}	H^+ mmol m^{-2}
Jan	0.480	0.177	0.165	4.41	0.134	5.04	0.259	0.869	0.760	1.11	0.0194
Feb	0.712	0.641	0.145	1.11	1.11	1.19	0.150	0.417	0.391	0.183	<0.01
Mar	1.50	0.543	0.0707	15.3	1.22	17.3	<0.01	5.43	5.09	<0.01	0.269
Apr	1.28	1.00	<0.01	3.89	2.83	4.56	2.54	2.97	2.88	<0.01	0.126
May	1.68	1.49	<0.01	5.30	5.88	3.00	1.74	3.26	3.20	0.794	0.0153
June	0.111	0.0428	<0.01	0.736	0.358	1.16	0.0674	0.916	0.891	0.147	0.0146
July	0.686	0.428	<0.01	2.93	0.981	4.28	0.491	5.93	5.83	0.713	0.0402
Aug	0.846	0.357	<0.01	4.31	1.14	8.11	4.42	4.26	4.09	1.10	0.114
Sept	2.51	0.482	<0.01	31.5	0.252	33.6	3.71	5.25	4.53	4.00	0.755
Oct	3.44	2.20	<0.01	18.1	1.03	20.6	5.44	10.2	9.72	2.90	0.364
Nov	2.65	1.19	0.207	18.9	1.58	24.3	0.795	12.5	12.0	2.62	0.169
Dec	5.66	4.01	0.346	31.0	<0.01	27.4	3.01	13.1	12.5	3.01	0.0902
Annual	21.6	12.6	0.941	138	16.5	151	22.6	65.0	61.8	16.6	1.98

Data completeness

2015	SO_4^{2-} %TP	nss-SO_4^{2-} %TP	NO_3^- %TP	Cl^- %TP	NH_4^+ %TP	Na^+ %TP	K^+ %TP	Ca^{2+} %TP	nss-Ca^{2+} %TP	Mg^{2+} %TP	H^+ %TP	pH %TP	EC %TP	Precip. %PCL
Jan	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Feb	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Mar	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Apr	100	100	100	100	100	100	100	100	100	100	100	100	100	100
May	100	100	100	100	100	100	100	100	100	100	100	100	100	100
June	100	100	100	100	100	100	100	100	100	100	100	100	100	100
July	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Aug	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2	100
Sept	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Oct	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Nov	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Dec	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Annual	**99.9**	**99.9**	**99.9**	**99.9**	**99.9**	**99.9**	**99.9**	**99.9**	**99.9**	**99.9**	**99.9**	**99.9**	**99.9**	**100**

Terms and abbreviations are given in Table 3.5.

Table 3.62 Monthly results **Site: Can Tho** **Country: Vietnam**

Precipitation amount-weighted average concentration/ Precipitation amount

2015	SO_4^{2-} µmol L^{-1}	nss-SO_4^{2-} µmol L^{-1}	NO_3^- µmol L^{-1}	Cl^- µmol L^{-1}	NH_4^+ µmol L^{-1}	Na^+ µmol L^{-1}	K^+ µmol L^{-1}	Ca^{2+} µmol L^{-1}	nss-Ca^{2+} µmol L^{-1}	Mg^{2+} µmol L^{-1}	H^+ µmol L^{-1}	pH	EC mS m^{-1}	Precip. mm $month^{-1}$ or mm $year^{-1}$
Jan	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Feb	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Mar	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Apr	--	--	--	--	--	--	--	--	--	--	--	--	--	0
May	39.1	36.2	13.5	48.2	19.4	47.9	9.85	28.7	27.7	10.3	1.11	5.95	2.24	116
June	14.5	13.5	6.42	28.5	19.7	16.0	6.36	12.4	12.0	5.87	1.27	5.89	1.23	307
July	23.3	22.0	11.4	41.0	19.4	22.0	8.05	26.9	26.5	7.96	1.03	5.99	1.62	243
Aug	29.3	27.8	12.3	48.7	17.7	25.1	10.7	30.4	29.8	12.5	1.73	5.76	2.11	94.9
Sept	34.9	32.6	11.9	42.0	15.8	38.8	6.45	29.0	28.2	8.50	2.63	5.58	2.14	729
Oct	35.8	34.2	13.3	41.8	29.9	26.5	5.94	31.1	30.6	10.1	1.28	5.89	1.98	556
Nov	30.1	28.7	13.0	49.3	24.8	23.0	11.0	26.5	26.0	14.6	0.918	6.04	2.16	136
Dec	35.5	34.3	21.0	57.3	31.9	20.6	11.0	22.6	22.1	13.3	0.980	6.01	2.47	23.4
Annual	30.7	28.9	11.7	41.2	21.3	29.4	7.17	26.8	26.2	9.17	1.68	5.77	1.92	2205
Max.	52.0	50.1	33.0	88.0	50.0	68.0	18.0	72.0	71.5	26.0	3.72	6.30	3.70	
Min.	9.80	9.11	3.20	18.0	5.00	10.6	3.00	10.0	9.72	3.00	0.501	5.43	0.800	

Wet deposition amount

2015	SO_4^{2-} mmol m^{-2}	nss-SO_4^{2-} mmol m^{-2}	NO_3^- mmol m^{-2}	Cl^- mmol m^{-2}	NH_4^+ mmol m^{-2}	Na^+ mmol m^{-2}	K^+ mmol m^{-2}	Ca^{2+} mmol m^{-2}	nss-Ca^{2+} mmol m^{-2}	Mg^{2+} mmol m^{-2}	H^+ mmol m^{-2}
Jan	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Feb	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mar	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Apr	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
May	4.53	4.20	1.56	5.58	2.25	5.55	1.14	3.33	3.21	1.19	0.129
June	4.44	4.15	1.97	8.75	6.03	4.91	1.95	3.80	3.70	1.80	0.391
July	5.67	5.35	2.77	9.97	4.72	5.35	1.96	6.55	6.44	1.94	0.250
Aug	2.78	2.64	1.17	4.63	1.68	2.39	1.02	2.88	2.83	1.18	0.164
Sept	25.5	23.7	8.68	30.6	11.5	28.3	4.70	21.2	20.6	6.20	1.92
Oct	19.9	19.0	7.41	23.2	16.6	14.7	3.30	17.3	17.0	5.62	0.712
Nov	4.08	3.89	1.76	6.70	3.37	3.13	1.49	3.60	3.53	1.98	0.125
Dec	0.833	0.804	0.492	1.34	0.747	0.483	0.257	0.529	0.518	0.312	0.0230
Annual	67.7	63.8	25.8	90.8	46.9	64.8	15.8	59.1	57.7	20.2	3.71

Data completeness

2015	SO_4^{2-} %TP	nss-SO_4^{2-} %TP	NO_3^- %TP	Cl^- %TP	NH_4^+ %TP	Na^+ %TP	K^+ %TP	Ca^{2+} %TP	nss-Ca^{2+} %TP	Mg^{2+} %TP	H^+ %TP	pH %TP	EC %TP	Precip. %PCL
Jan	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Feb	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Mar	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Apr	--	--	--	--	--	--	--	--	--	--	--	--	--	100
May	100	100	100	100	100	100	100	100	100	100	100	100	100	100
June	100	100	100	100	100	100	100	100	100	100	100	100	100	100
July	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Aug	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Sept	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Oct	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Nov	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Dec	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Annual	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Terms and abbreviations are given in Table 3.5.

Table 3.63 Monthly results **Site: Ho Chi Minh** **Country: Vietnam**

Precipitation amount-weighted average concentration/ Precipitation amount

2015	SO_4^{2-} µmol L^{-1}	nss-SO_4^{2-} µmol L^{-1}	NO_3^- µmol L^{-1}	Cl^- µmol L^{-1}	NH_4^+ µmol L^{-1}	Na^+ µmol L^{-1}	K^+ µmol L^{-1}	Ca^{2+} µmol L^{-1}	nss-Ca^{2+} µmol L^{-1}	Mg^{2+} µmol L^{-1}	H^+ µmol L^{-1}	pH	EC mS m^{-1}	Precip. mm $month^{-1}$ or mm $year^{-1}$
Jan	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Feb	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Mar	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Apr	50.3	47.1	18.5	93.2	21.0	52.8	7.19	58.9	57.8	23.2	0.607	6.22	2.63	36.1
May	47.0	44.4	18.4	55.6	33.8	42.4	9.53	38.1	37.2	13.9	0.424	6.37	2.80	81.7
June	112	109	29.0	82.5	38.9	43.4	31.1	102	101	40.0	0.803	6.10	5.85	148
July	41.7	40.4	15.7	37.3	25.4	22.4	8.88	38.2	37.7	14.3	0.560	6.25	2.56	167
Aug	68.1	64.4	25.8	81.4	47.4	61.7	24.3	64.9	63.5	18.6	0.590	6.23	4.37	117
Sept	43.0	41.0	15.8	47.3	21.9	33.2	7.13	40.1	39.4	16.9	1.21	5.92	2.35	434
Oct	29.5	27.5	13.1	38.3	32.9	32.5	8.94	27.0	26.3	13.2	0.423	6.37	2.14	314
Nov	19.4	18.6	19.7	43.9	23.5	13.7	9.59	21.7	21.4	11.7	0.836	6.08	1.79	119
Dec	60.1	58.1	29.5	77.2	38.4	32.4	19.1	38.7	38.0	16.8	1.00	6.00	3.50	3.8
Annual	47.6	45.5	18.0	52.0	29.4	34.6	12.0	44.3	43.5	17.9	0.775	6.11	2.85	1420
Max.	324	319	63.4	187	115	110	87.0	298	296	112	1.58	7.20	15.9	
Min.	8.90	8.39	4.50	27.3	10.7	8.40	2.60	13.9	13.4	3.90	0.0631	5.80	1.00	

Wet deposition amount

2015	SO_4^{2-} mmol m^{-2}	nss-SO_4^{2-} mmol m^{-2}	NO_3^- mmol m^{-2}	Cl^- mmol m^{-2}	NH_4^+ mmol m^{-2}	Na^+ mmol m^{-2}	K^+ mmol m^{-2}	Ca^{2+} mmol m^{-2}	nss-Ca^{2+} mmol m^{-2}	Mg^{2+} mmol m^{-2}	H^+ mmol m^{-2}
Jan	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Feb	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mar	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Apr	1.81	1.70	0.668	3.37	0.759	1.90	0.260	2.13	2.09	0.837	0.0219
May	3.84	3.63	1.50	4.54	2.76	3.46	0.778	3.11	3.04	1.13	0.0346
June	16.6	16.2	4.30	12.2	5.75	6.42	4.60	15.0	14.9	5.93	0.119
July	6.97	6.74	2.62	6.23	4.25	3.75	1.48	6.37	6.29	2.39	0.0936
Aug	7.93	7.50	3.00	9.48	5.52	7.19	2.83	7.56	7.40	2.17	0.0688
Sept	18.7	17.8	6.87	20.5	9.50	14.4	3.09	17.4	17.1	7.36	0.527
Oct	9.25	8.63	4.10	12.0	10.3	10.2	2.81	8.47	8.25	4.14	0.133
Nov	2.31	2.21	2.34	5.22	2.80	1.63	1.14	2.58	2.55	1.39	0.0995
Dec	0.228	0.221	0.112	0.293	0.146	0.123	0.0726	0.147	0.144	0.0638	<0.01
Annual	67.6	64.6	25.5	73.9	41.8	49.1	17.1	62.8	61.8	25.4	1.10

Data completeness

2015	SO_4^{2-} %TP	nss-SO_4^{2-} %TP	NO_3^- %TP	Cl^- %TP	NH_4^+ %TP	Na^+ %TP	K^+ %TP	Ca^{2+} %TP	nss-Ca^{2+} %TP	Mg^{2+} %TP	H^+ %TP	pH %TP	EC %TP	Precip. %PCL
Jan	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Feb	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Mar	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Apr	100	100	100	100	100	100	100	100	100	100	100	100	100	100
May	100	100	100	100	100	100	100	100	100	100	100	100	100	100
June	100	100	100	100	100	100	100	100	100	100	100	100	100	100
July	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Aug	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Sept	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Oct	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Nov	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Dec	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Annual	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Terms and abbreviations are given in Table 3.5.

Table 3.64 Monthly results Site: Yen Bai Country: Vietnam

Precipitation amount-weighted average concentration/ Precipitation amount

2015	SO_4^{2-} µmol L^{-1}	nss-SO_4^{2-} µmol L^{-1}	NO_3^- µmol L^{-1}	Cl^- µmol L^{-1}	NH_4^+ µmol L^{-1}	Na^+ µmol L^{-1}	K^+ µmol L^{-1}	Ca^{2+} µmol L^{-1}	nss-Ca^{2+} µmol L^{-1}	Mg^{2+} µmol L^{-1}	H^+ µmol L^{-1}	pH	EC mS m^{-1}	Precip. mm month^{-1} or mm year^{-1}
Jan	**	**	**	**	**	**	**	**	**	**	**	**	**	**
Feb	**	**	**	**	**	**	**	**	**	**	**	**	**	**
Mar	**	**	**	**	**	**	**	**	**	**	**	**	**	**
Apr	**	**	**	**	**	**	**	**	**	**	**	**	**	**
May	53.1	52.5	45.3	10.4	84.1	8.81	6.38	35.0	34.8	4.87	1.62	5.79	2.65	16.9
June	32.1	31.1	22.6	24.3	26.8	16.2	14.0	29.7	29.4	9.04	5.99	5.22	1.97	136
July	13.0	12.8	10.8	5.26	14.1	3.12	1.77	6.85	6.78	1.58	13.2	4.88	1.04	341
Aug	22.5	22.2	18.7	5.64	31.8	4.13	2.46	13.5	13.4	2.21	7.55	5.12	1.29	243
Sept	19.3	19.0	14.3	4.97	32.9	4.45	3.43	10.2	10.1	2.17	1.71	5.77	1.01	371
Oct	34.9	34.6	28.0	7.18	50.5	4.82	4.82	27.3	27.1	2.53	4.98	5.30	1.83	113
Nov	21.1	20.8	17.1	7.05	27.8	4.56	2.70	22.0	21.9	1.37	1.36	5.87	1.20	178
Dec	36.3	36.0	29.8	6.67	49.8	6.53	4.97	26.8	26.7	2.92	2.61	5.58	1.82	114
Annual	22.6	22.2	17.8	7.48	30.5	5.40	4.03	15.9	15.8	2.68	5.90	5.23	1.31	1514
Max.	126	125	103	43.9	188	57.8	38.5	91.0	90.8	34.0	15.1	7.24	5.90	
Min.	9.32	9.20	6.52	2.51	8.86	0.768	1.10	3.60	3.58	0.588	0.0575	4.82	0.630	

Wet deposition amount

2015	SO_4^{2-} mmol m^{-2}	nss-SO_4^{2-} mmol m^{-2}	NO_3^- mmol m^{-2}	Cl^- mmol m^{-2}	NH_4^+ mmol m^{-2}	Na^+ mmol m^{-2}	K^+ mmol m^{-2}	Ca^{2+} mmol m^{-2}	nss-Ca^{2+} mmol m^{-2}	Mg^{2+} mmol m^{-2}	H^+ mmol m^{-2}
Jan	**	**	**	**	**	**	**	**	**	**	**
Feb	**	**	**	**	**	**	**	**	**	**	**
Mar	**	**	**	**	**	**	**	**	**	**	**
Apr	**	**	**	**	**	**	**	**	**	**	**
May	0.897	0.888	0.765	0.177	1.42	0.149	0.108	0.591	0.588	0.0824	0.0274
June	4.37	4.24	3.08	3.31	3.65	2.21	1.92	4.05	4.00	1.23	0.818
July	4.44	4.38	3.69	1.80	4.80	1.07	0.604	2.34	2.32	0.538	4.51
Aug	5.45	5.39	4.54	1.37	7.72	1.00	0.598	3.27	3.25	0.536	1.83
Sept	7.17	7.07	5.33	1.84	12.2	1.65	1.27	3.78	3.75	0.807	0.634
Oct	3.94	3.91	3.16	0.811	5.70	0.544	0.544	3.08	3.07	0.285	0.562
Nov	3.76	3.71	3.05	1.26	4.95	0.814	0.481	3.93	3.91	0.244	0.242
Dec	4.14	4.09	3.39	0.759	5.67	0.743	0.566	3.05	3.04	0.333	0.297
Annual	34.2	33.7	27.0	11.3	46.1	8.18	6.09	24.1	23.9	4.06	8.93

Data completeness

2015	SO_4^{2-} %TP	nss-SO_4^{2-} %TP	NO_3^- %TP	Cl^- %TP	NH_4^+ %TP	Na^+ %TP	K^+ %TP	Ca^{2+} %TP	nss-Ca^{2+} %TP	Mg^{2+} %TP	H^+ %TP	pH %TP	EC %TP	Precip. %PCL
Jan	**	**	**	**	**	**	**	**	**	**	**	**	**	0
Feb	**	**	**	**	**	**	**	**	**	**	**	**	**	0
Mar	**	**	**	**	**	**	**	**	**	**	**	**	**	0
Apr	**	**	**	**	**	**	**	**	**	**	**	**	**	0
May	100	100	100	100	100	100	100	100	100	100	100	100	100	25.0
June	100	100	100	100	100	100	100	100	100	100	100	100	100	100
July	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Aug	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Sept	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Oct	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Nov	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	100
Dec	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Annual	**99.9**	**99.9**	**99.9**	**99.9**	**99.9**	**99.9**	**99.9**	**99.9**	**99.9**	**99.9**	**99.9**	**99.9**	**99.9**	**60.4**

Terms and abbreviations are given in Table 3.5.

Table 3.65 Annual precipitation amount and precipitation amount-weighted average concentration in 2015

Country	Name of sites	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 y^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}		mS m^{-1}
Cambodia	Phnom Penh	1103	7.04	6.66	10.4	9.01	18.1	6.28	1.98	11.6	11.5	2.56	0.717	6.14	0.691
China	Haifu	1220	50.3	50.1	47.4	7.78	95.2	3.61	5.99	43.0	43.0	4.79	3.81	5.42	2.70
	Jinyunshan	1288	43.9	43.8	36.4	5.09	62.6	2.23	3.40	21.7	21.7	3.24	20.0	4.70	2.50
	Shizhan	594	82.8	75.9	71.9	17.8	194	113	5.32	89.7	87.2	9.25	0.220	6.66	5.06
	Jiwozi	447	31.6	26.0	28.6	14.2	65.7	92.5	6.63	57.7	55.7	11.1	0.124	6.91	2.32
	Hongwen	1015	18.5	17.4	26.2	25.7	29.2	18.6	5.99	16.3	15.9	4.20	12.7	4.90	1.59
	Xiaoping	1557	17.3	16.7	24.4	18.5	37.8	11.0	8.40	9.17	8.94	2.27	11.3	4.95	1.43
	Xiang Zhou	1431	11.6	8.60	18.8	60.2	19.1	52.9	4.41	15.9	14.7	7.19	2.77	5.56	1.65
	Zhuxiandong	1598	23.3	19.3	29.4	72.4	24.3	66.9	8.30	25.2	23.7	8.78	3.29	5.48	2.29
Indonesia	Jakarta	2807	17.1	16.3	15.3	17.1	18.9	2.01	12.5	7.47	7.43	1.81	14.4	4.84	1.26
	Serpong	1770	31.5	30.7	48.1	22.3	63.0	14.6	7.81	19.7	19.4	3.86	11.4	4.94	2.26
	Kototabang	2503	8.30	8.63	3.60	8.28	1903	0.779	4949	1.99	2.03	21.5	12.4	4.91	104
	Bandung	2012	30.1	29.6	23.6	9.49	56.7	8.58	3.54	17.6	17.4	5.61	4.41	5.36	1.71
	Maros	2479	6.19	5.99	6.29	6.90	20.7	3.67	1786	16.8	16.7	30.0	5.77	5.24	2.10
Japan	Rishiri	1092	18.2	9.80	10.8	160	13.3	140	3.62	5.27	2.29	16.2	16.8	4.77	3.16
	Ochiishi	827	20.3	9.53	11.5	201	11.4	178	4.84	6.72	2.87	20.4	9.96	5.00	3.29
	Tappi	1114	24.7	11.5	14.3	283	13.0	237	5.56	7.99	3.02	25.2	14.1	4.85	3.97
	Sado-seki	867	34.7	15.1	20.8	367	19.3	327	9.69	11.3	4.33	37.3	21.8	4.66	6.15
	Happo	2242	7.06	6.71	6.78	7.00	7.84	5.84	0.681	1.70	1.58	1.33	8.14	5.09	0.680
	Ijira	3135	11.7	10.8	16.7	19.9	13.5	15.8	0.699	2.00	1.66	2.04	20.0	4.70	1.49
	Oki	1061	36.4	11.5	15.1	473	9.63	412	9.87	12.0	3.15	47.9	19.1	4.72	7.57
	Banryu	1458	18.3	12.8	18.0	107	14.9	91.1	2.54	5.37	3.49	10.8	22.2	4.65	2.82
	Yusuhara	3046	6.52	5.28	7.55	27.4	4.04	22.9	0.758	1.02	0.530	2.77	13.5	4.87	1.11
	Hedo	1762	23.9	5.04	7.05	368	11.0	313	7.24	8.24	1.48	35.8	7.17	5.14	5.28
	Ogasawara	1586	20.8	2.39	2.41	370	2.64	306	8.10	8.13	1.51	34.5	5.89	5.23	5.30
	Tokyo	1641	11.7	10.6	16.3	22.2	20.1	18.0	0.641	3.56	3.17	2.45	16.3	4.79	1.40
Lao PDR	Vientiane	921	3.19	3.02	4.12	4.97	7.78	2.78	1.74	4.00	3.94	0.613	1.15	5.94	1.26
Malaysia	Petaling Jaya	3751	21.4	21.0	43.6	10.3	25.5	6.20	1.70	6.70	6.56	0.922	40.8	4.39	2.61
	Tanah Rata	2684	6.86	6.69	7.63	3.75	7.54	2.74	2.37	2.00	1.94	<0.3	19.1	4.72	1.10
	Danum Valley	2025	3.54	3.22	1.88	7.47	4.21	5.40	2.39	2.28	2.18	0.934	6.15	5.21	0.513
	Kuching	4428	4.68	3.91	3.61	14.5	5.49	12.9	1.44	4.35	4.07	1.21	4.88	5.31	0.635
Mongolia	Ulaanbaatar	150	122	***	34.6	5.15	***	***	***	***	***	***	0.379	6.42	2.86
	Terelj	100	104	***	24.0	7.91	***	***	***	***	***	***	3.14	5.50	2.80
Myanmar	Yangon	2432	4.62	4.09	8.25	34.4	22.3	8.77	13.3	88.7	88.5	5.87	0.216	6.66	1.46
Philippines	Metro Manila	2499	19.0	17.6	13.4	27.3	86.1	23.4	13.1	17.4	16.9	6.39	0.528	6.28	2.53
	Los Baños	1559	13.4	12.4	8.81	92.0	54.9	17.6	73.4	8.77	8.42	4.40	0.508	6.29	3.34
	Mt. Sto. Tomas	6108	4.02	3.49	3.49	7.79	9.57	8.71	1.63	6.85	6.66	3.44	1.10	5.96	0.464
R of Korea	Kanghwa	589	29.4	26.7	50.5	161	99.0	45.0	106	9.52	8.55	3.60	20.2	4.69	4.29
	Cheju	1452	17.3	11.2	21.6	109	28.2	101	13.8	4.64	2.52	5.92	2.15	5.67	2.31
	Imsil	719	20.2	17.3	33.8	46.8	50.6	47.1	9.19	5.16	4.19	3.30	8.04	5.09	1.98
Russia	Mondy	136	6.45	6.35	5.29	3.68	13.5	1.61	3.40	8.36	8.32	2.15	3.58	5.45	0.588
	Listvyanka	335	21.0	20.9	15.5	5.45	36.8	2.96	2.10	9.97	9.91	2.06	14.7	4.83	1.50
	Irkutsk	291	42.2	41.4	20.7	23.9	73.0	12.7	4.51	30.5	30.2	5.51	6.15	5.21	2.55
	Primorskaya	1157	21.4	19.9	25.4	25.4	25.7	24.8	7.79	13.1	12.6	5.62	6.90	5.16	1.75
Thailand	Bangkok	1593	7.53	7.04	16.2	7.36	60.7	7.97	1.75	16.9	16.8	1.90	5.09	5.29	1.35
	Samutprakarn	1442	7.24	6.68	9.97	9.66	46.0	9.33	1.93	6.23	6.02	1.57	2.53	5.60	0.921
	Pathumthani	1071	11.6	11.2	29.1	9.96	45.3	6.92	1.84	16.6	16.5	1.88	5.12	5.29	1.34
	Khanchanaburi	1093	2.34	2.00	4.28	5.69	10.7	5.91	0.838	3.63	3.50	1.06	3.44	5.46	0.438
	Chiang Mai	747	4.12	3.85	8.36	3.87	17.6	4.48	1.24	4.11	4.01	1.41	2.28	5.64	0.561
	Sakaerat	1385	6.53	6.25	12.8	6.99	31.3	4.59	1.52	6.83	6.73	2.17	9.26	5.03	0.856
Vietnam	Hanoi	1273	39.5	39.0	35.1	14.8	64.9	9.00	3.72	36.7	36.5	4.59	0.649	6.19	2.21
	Hoa Binh	1616	20.0	19.8	22.3	5.25	38.3	3.80	2.87	10.1	10.0	2.44	5.07	5.29	1.22
	Cuc Phuong	1461	18.8	18.3	13.4	21.3	30.0	8.76	4.68	19.4	19.2	5.44	4.78	5.32	1.42
	Da Nang	1891	11.4	6.65	<0.5	72.8	8.73	79.6	11.9	34.4	32.7	8.77	1.05	5.98	1.82
	Can Tho	2205	30.7	28.9	11.7	41.2	21.3	29.4	7.17	26.8	26.2	9.17	1.68	5.77	1.92
	Ho Chi Minh	1420	47.6	45.5	18.0	52.0	29.4	34.6	12.0	44.3	43.5	17.9	0.775	6.11	2.85
	Yen Bai	1514	22.6	22.2	17.8	7.48	30.5	5.40	4.03	15.9	15.8	2.68	5.90	5.23	1.31

Terms and abbreviations are given in Table 3.5.

Table 3.66 Annual wet depositions in 2015

Country	Name of sites	SO_4^{2-} mmol m^{-2}y^{-1}	nss-SO_4^{2-} mmol m^{-2}y^{-1}	NO_3^- mmol m^{-2}y^{-1}	Cl^- mmol m^{-2}y^{-1}	NH_4^+ mmol m^{-2}y^{-1}	Na^+ mmol m^{-2}y^{-1}	K^+ mmol m^{-2}y^{-1}	Ca^{2+} mmol m^{-2}y^{-1}	nss-Ca^{2+} mmol m^{-2}y^{-1}	Mg^{2+} mmol m^{-2}y^{-1}	H^+ mmol m^{-2}y^{-1}
Cambodia	Phnom Penh	7.76	7.35	11.4	9.94	19.9	6.92	2.18	12.8	12.6	2.82	0.791
China	Haifu	61.3	61.1	57.8	9.48	116	4.40	7.30	52.5	52.4	5.85	4.65
	Jinyunshan	56.5	56.4	46.9	6.56	80.6	2.87	4.38	28.0	27.9	4.17	25.7
	Shizhan	49.1	45.1	42.7	10.6	115	67.3	3.16	53.2	51.8	5.49	0.131
	Jiwozi	14.1	11.6	12.8	6.35	29.4	41.3	2.96	25.8	24.9	4.97	0.06
	Hongwen	18.8	17.7	26.6	26.1	29.6	18.8	6.08	16.6	16.2	4.26	12.9
	Xiaoping	27.0	25.9	38.0	28.8	58.8	17.0	13.1	14.3	13.9	3.54	17.6
	Xiang Zhou	16.6	12.3	26.9	86.1	27.3	75.7	6.31	22.7	21.1	10.3	3.96
	Zhuxiandong	37.2	30.8	47.0	116	38.9	107	13.3	40.2	37.9	14.0	5.25
Indonesia	Jakarta	48.0	45.7	42.9	48.0	53.2	5.65	35.2	21.0	20.8	5.07	40.5
	Serpong	55.8	54.3	85.1	39.4	112	25.9	13.8	34.9	34.3	6.84	20.1
	Kototabang	20.8	21.6	9.00	20.7	4764	1.95	12387	4.98	5.09	53.7	30.9
	Bandung	60.6	59.5	47.5	19.1	114	17.3	7.11	35.4	35.1	11.3	8.87
	Maros	15.3	14.9	15.6	17.1	51.4	9.10	4427	41.5	41.4	74.5	14.3
Japan	Rishiri	19.9	10.7	11.8	175	14.5	153	3.95	5.75	2.51	17.7	18.4
	Ochiishi	16.8	7.88	9.54	166	9.45	147	4.00	5.56	2.38	16.9	8.23
	Tappi	27.5	12.9	15.9	315	14.5	264	6.20	8.90	3.36	28.0	15.7
	Sado-seki	30.1	13.1	18.0	318	16.7	283	8.40	9.83	3.76	32.3	18.9
	Happo	15.8	15.0	15.2	15.7	17.6	13.1	1.53	3.82	3.54	2.98	18.3
	Ijira	36.8	33.8	52.5	62.3	42.3	49.6	2.19	6.26	5.20	6.40	62.7
	Oki	38.6	12.3	16.1	502	10.2	437	10.5	12.8	3.34	50.8	20.3
	Banryu	26.7	18.6	26.3	157	21.8	133	3.70	7.83	5.09	15.7	32.4
	Yusuhara	19.9	16.1	23.0	83.4	12.3	69.8	2.31	3.11	1.61	8.45	41.2
	Hedo	42.1	8.88	12.4	648	19.4	552	12.8	14.5	2.60	63.0	12.6
	Ogasawara	32.9	3.79	3.82	587	4.19	486	12.8	12.9	2.40	54.8	9.35
	Tokyo	19.2	17.4	26.7	36.4	33.0	29.6	1.05	5.84	5.20	4.02	26.8
Lao PDR	Vientiane	2.94	2.79	3.79	4.58	7.17	2.56	1.61	3.68	3.63	0.564	1.06
Malaysia	Petaling Jaya	80.3	78.9	164	38.7	95.5	23.3	6.39	25.1	24.6	3.46	153
	Tanah Rata	18.4	18.0	20.5	10.1	20.2	7.36	6.35	5.36	5.22	0.636	51.4
	Danum Valley	7.17	6.52	3.81	15.1	8.53	10.9	4.83	4.62	4.40	1.89	12.4
	Kuching	20.7	17.3	16.0	64.1	24.3	56.9	6.37	19.2	18.0	5.35	21.6
Mongolia	Ulaanbaatar	18.3	***	5.20	0.774	***	***	***	***	***	***	0.0569
	Terelj	10.4	***	2.41	0.793	***	***	***	***	***	***	0.315
Myanmar	Yangon	11.2	9.94	20.1	83.6	54.3	21.3	32.2	216	215	14.3	0.526
Philippines	Metro Manila	47.4	43.9	33.5	68.2	215	58.5	32.7	43.6	42.3	16.0	1.32
	Los Baños	21.0	19.3	13.7	143	85.6	27.4	114	13.7	13.1	6.86	0.791
	Mt. Sto. Tomas	24.5	21.3	21.3	47.6	58.4	53.2	9.93	41.8	40.7	21.0	6.72
R of Korea	Kanghwa	17.3	15.7	29.7	95.0	58.3	26.5	62.7	5.61	5.04	2.12	11.9
	Cheju	25.1	16.2	31.4	159	40.9	147	20.1	6.74	3.66	8.60	3.12
	Imsil	14.5	12.5	24.3	33.7	36.4	33.9	6.61	3.71	3.01	2.38	5.78
Russia	Mondy	0.877	0.863	0.718	0.501	1.84	0.219	0.462	1.14	1.13	0.292	0.487
	Listvyanka	7.04	6.98	5.18	1.82	12.3	0.989	0.702	3.34	3.31	0.689	4.91
	Irkutsk	12.3	12.1	6.02	6.96	21.3	3.71	1.31	8.88	8.80	1.60	1.79
	Primorskaya	24.7	23.0	29.4	29.4	29.8	28.7	9.01	15.2	14.5	6.49	7.98
Thailand	Bangkok	12.0	11.2	25.7	11.7	96.7	12.7	2.78	27.0	26.7	3.02	8.10
	Samutprakarn	10.4	9.63	14.4	13.9	66.3	13.5	2.79	8.98	8.69	2.26	3.66
	Pathumthani	12.4	12.0	31.2	10.7	48.6	7.42	1.97	17.8	17.7	2.02	5.48
	Khanchanaburi	2.56	2.19	4.68	6.22	11.7	6.46	0.916	3.97	3.83	1.16	3.76
	Chiang Mai	3.07	2.87	6.24	2.89	13.1	3.34	0.924	3.07	3.00	1.05	1.70
	Sakaerat	9.04	8.66	17.8	9.68	43.3	6.36	2.10	9.46	9.32	3.01	12.8
Vietnam	Hanoi	50.3	49.6	44.7	18.8	82.6	11.5	4.73	46.8	46.5	5.85	0.826
	Hoa Binh	32.3	31.9	36.0	8.49	62.0	6.14	4.63	16.3	16.2	3.95	8.20
	Cuc Phuong	27.5	26.8	19.6	31.1	43.8	12.8	6.83	28.3	28.0	7.94	6.99
	Da Nang	21.6	12.6	0.941	138	16.5	151	22.6	65.0	61.8	16.6	1.98
	Can Tho	67.7	63.8	25.8	90.8	46.9	64.8	15.8	59.1	57.7	20.2	3.71
	Ho Chi Minh	67.6	64.6	25.5	73.9	41.8	49.1	17.1	62.8	61.8	25.4	1.10
	Yen Bai	34.2	33.7	27.0	11.3	46.1	8.18	6.09	24.1	23.9	4.06	8.93

Terms and abbreviations are given in Table 3.5.

Table 3.67 Data completeness for annual summaries in 2015 (%PCL, %TP)

		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
Country	Name of sites	%PCL	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP
Cambodia	Phnom Penh	100	100	100	100	100	100	100	100	100	100	100	100	100	100
China	Haifu	100	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
	Jinyunshan	100	100	100	100	100	100	100	100	100	100	100	100	100	100
	Shizhan	100	100	100	100	100	100	100	100	100	100	100	100	100	100
	Jiwozi	100	100	100	100	100	100	100	100	100	100	100	100	100	100
	Hongwen	100	100	100	100	100	100	100	100	100	100	100	100	100	100
	Xiaoping	100	100	100	100	100	100	100	100	100	100	100	100	100	100
	Xiang Zhou	100	100	100	100	100	100	100	100	100	100	100	100	100	100
	Zhuxiandong	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Indonesia	Jakarta	100	84.6	83.4	84.6	84.6	98.7	98.7	98.7	98.7	98.7	98.7	100	100	100
	Serpong	100	100	100	100	100	100	100	100	100	100	100	100	100	100
	Kototabang	100	100	92.7	66.8	100	81.5	92.7	96.8	96.8	92.7	92.7	100	100	100
	Bandung	100	100	100	100	100	100	100	100	100	100	100	100	100	100
	Maros	98.1	100	99.8	94.6	100	98.4	99.8	100	100	99.8	100	100	100	100
Japan	Rishiri	99.7	96.5	96.5	96.5	96.5	96.5	96.5	96.5	96.5	96.5	96.5	96.4	96.4	96.4
	Ochiishi	91.3	34.7	34.7	34.7	34.7	34.7	34.7	34.7	34.7	34.7	34.7	34.2	34.2	34.2
	Tappi	98.6	92.9	92.9	92.9	92.9	92.9	92.9	92.9	92.9	92.9	92.9	91.1	91.1	91.1
	Sado-seki	99.7	98.4	98.4	98.4	98.4	98.4	98.4	98.4	98.4	98.4	98.4	96.7	96.7	96.7
	Happo	98.9	67.6	67.6	67.6	67.6	67.6	67.6	67.6	67.6	67.6	67.6	67.2	67.2	67.2
	Ijira	100	100	100	100	100	100	100	100	100	100	100	100	100	100
	Oki	100	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.5
	Banryu	100	100	100	100	100	100	100	100	100	100	100	100	100	100
	Yusuhara	100	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8
	Hedo	100	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	97.3	97.3	97.3
	Ogasawara	99.5	94.7	94.7	94.7	94.7	94.7	94.7	94.7	94.7	94.7	94.7	93.8	93.8	93.8
	Tokyo	100	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1	92.5	92.5	92.5
Lao PDR	Vientiane	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Malaysia	Petaling Jaya	100	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
	Tanah Rata	100	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2
	Danum Valley	100	94.6	94.6	94.6	94.6	94.6	94.6	94.6	94.6	94.6	94.6	94.6	94.6	94.6
	Kuching	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Mongolia	Ulaanbaatar	100	100	0.0	98.7	100	0.0	0.0	0.0	0.0	0.0	0.0	100	100	100
	Terelj	100	95.7	0.0	97.0	100	0.0	0.0	0.0	0.0	0.0	0.0	100	100	100
Myanmar	Yangon	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Philippines	Metro Manila	90.2	91.6	91.6	91.6	91.6	91.6	91.6	91.6	91.6	91.6	91.6	91.6	91.6	91.6
	Los Baños	90.2	93.3	93.3	93.3	93.3	93.3	93.3	93.3	93.3	93.3	93.3	93.3	93.3	93.3
	Mt. Sto. Tomas	100	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5
R of Korea	Kanghwa	100	100	100	100	100	100	100	100	100	100	100	100	100	100
	Cheju	100	100	100	100	100	100	100	100	100	100	100	100	100	100
	Imsil	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Russia	Mondy	100	100	100	100	100	100	100	100	100	100	100	100	100	100
	Listvyanka	100	99.9	99.9	99.9	99.9	100	100	100	100	100	100	100	100	100
	Irkutsk	100	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	100	100	100
	Primorskaya	100	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	100	100	100
Thailand	Bangkok	100	100	100	100	100	100	100	100	100	100	100	100	100	100
	Samutprakarn	100	100	100	100	100	100	100	100	100	100	100	100	100	100
	Pathumthani	100	100	100	100	100	100	100	100	100	100	100	100	100	100
	Khanchanaburi	100	100	100	100	100	100	100	100	100	100	100	100	100	100
	Chiang Mai	100	100	100	100	100	100	100	100	100	100	100	99.8	99.8	99.8
	Sakaerat	100	100	100	100	100	100	100	100	100	100	100	98.6	98.6	98.6
Vietnam	Hanoi	100	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2
	Hoa Binh	100	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5
	Cuc Phuong	100	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0
	Da Nang	100	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
	Can Tho	100	100	100	100	100	100	100	100	100	100	100	100	100	100
	Ho Chi Minh	100	100	100	100	100	100	100	100	100	100	100	100	100	100
	Yen Bai	60.4	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9

Terms and abbreviations are given in Table 3.5.

Table 3.68 Results of ion balance and conductivity agreement check in 2015

Country	Name of sites	Sample (N)	R_1 (N)	R_1 (AA)	%	R_2 (N)	R_2 (AA)	%	R_1&R_2 (N)	R_1&R_2 (AA)	%
Cambodia	Phnom Penh	28	28	2	7.1	28	19	67.9	28	2	7.1
China	Haifu*	120	120	51	42.5	120	118	98.3	120	51	42.5
	Jinyunshan*	127	127	113	89.0	127	124	97.6	127	110	86.6
	Shizhan	47	47	3	6.4	47	27	57.4	47	2	4.3
	Jiwozi	59	59	0	0	59	41	69.5	59	0	0
	Hongwen*	55	55	38	69.1	55	50	90.9	55	34	61.8
	Xiaoping*	85	85	62	72.9	85	81	95.3	85	61	71.8
	Xiang Zhou*	57	57	42	73.7	57	50	87.7	57	40	70.2
	Zhuxiandong*	49	49	41	83.7	49	47	95.9	49	40	81.6
Indonesia	Jakarta	28	23	7	30.4	23	17	73.9	23	5	21.7
	Serpong	61	61	52	85.2	61	60	98.4	61	52	85.2
	Kototabang	41	20	10	50.0	20	2	10.0	20	2	10.0
	Bandung	91	91	26	28.6	91	86	94.5	91	26	28.6
	Maros	28	23	0	0	23	9	39.1	23	0	0
Japan	Rishiri*	199	141	140	99.3	141	141	100	141	140	99.3
	Ochiishi*	84	40	40	100	40	40	100	40	40	100
	Tappi	178	110	110	100	110	108	98.2	110	108	98.2
	Sado-seki	158	121	121	100	121	121	100	121	121	100
	Happo	168	113	111	98.2	113	112	99.1	113	110	97.3
	Ijira	50	50	50	100	50	50	100	50	50	100
	Oki	149	135	135	100	133	133	100	133	133	100
	Banryu	50	50	50	100	50	50	100	50	50	100
	Yusuhara	33	29	28	96.6	29	29	100	29	28	96.6
	Hedo	152	96	96	100	96	96	100	96	96	100
	Ogasawara*	140	96	95	99.0	96	96	100	96	95	99.0
	Tokyo*	144	113	113	100	113	113	100	113	113	100
Lao PDR	Vientiane	23	23	16	69.6	23	1	4.3	23	0	0
Malaysia	Petaling Jaya*	50	49	46	93.9	49	49	100	49	46	93.9
	Tanah Rata*	46	41	30	73.2	41	37	90.2	41	27	65.9
	Danum Valley*	45	40	29	72.5	40	36	90.0	40	28	70.0
	Kuching*	49	49	29	59.2	49	48	98.0	49	28	57.1
Mongolia	Ulaanbaatar	27	***	***	***	***	***	***	***	***	***
	Terelj	32	***	***	***	***	***	***	***	***	***
Myanmar	Yangon	27	27	1	3.7	27	20	74.1	27	0	0
Philippines	Metro Manila	26	26	1	3.8	26	9	34.6	26	1	3.8
	Los Baños	30	30	10	33.3	30	8	26.7	30	3	10.0
	Mt. Sto. Tomas	33	33	2	6.1	33	31	93.9	33	1	3.0
R of Korea	Kanghwa	46	46	24	52.2	46	41	89.1	46	24	52.2
	Cheju	65	65	55	84.6	65	61	93.8	65	51	78.5
	Imsil	83	83	59	71.1	83	78	94.0	83	56	67.5
Russia	Mondy*	13	13	13	100	13	13	100	13	13	100
	Listvyanka*	52	51	49	96.1	51	48	94.1	51	48	94.1
	Irkutsk*	74	71	68	95.8	71	70	98.6	71	68	95.8
	Primorskaya	103	54	53	98.1	54	54	100	54	53	98.1
Thailand	Bangkok*	51	51	4	7.8	51	36	70.6	51	1	2.0
	Samutprakarn*	68	68	5	7.4	68	48	70.6	68	4	5.9
	Pathumthani*	84	84	11	13.1	84	73	86.9	84	9	10.7
	Khanchanaburi*	62	62	26	41.9	62	46	74.2	62	12	19.4
	Chiang Mai*	85	78	48	61.5	78	58	74.4	78	39	50.0
	Sakaerat*	99	89	40	44.9	89	78	87.6	89	39	43.8
Vietnam	Hanoi*	37	37	22	59.5	37	37	100	37	22	59.5
	Hoa Binh*	36	36	36	100	36	36	100	36	36	100
	Cuc Phuong*	44	36	36	100	36	36	100	36	36	100
	Da Nang*	36	34	32	94.1	34	17	50.0	34	16	47.1
	Can Tho*	30	30	15	50.0	30	26	86.7	30	13	43.3
	Ho Chi Minh*	32	32	18	56.3	32	29	90.6	32	17	53.1
	Yen Bai*	27	27	23	85.2	27	27	100	27	23	85.2

Sites marked with * : R1 and R2, calculated including concentrations of additional measured constituent
Terms and abbreviations are given in Table 3.5.

Table 3.69 Annual precipitation from 2001 to 2015

unit: mm y^{-1}

Country	Name of sites	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Cambodia	PhnomPenh				419	1308	949	1374	1834	1326	1851	1277	1617	1345	1561	1103
China	Guanyinqiao	752	1445	987	1387	1077	842	1299								
	Haifu								1010	1066	977	810	1010	1026	1417	1220
	Jinyunshan	710	1607	1233	1518	1461	1196	1645	1213	1098	979	848	1005	1127	1490	1288
	Shizhan	364	349	1273	601	509	483	527	385	592	459	659	393	441	623	594
	Weishuiyuan	69.3	232	1302	466	439	316									
	Jiwozi	209	142	611	1020	362	234	100	438	628	1155	971	390	649	568	447
	Hongwen	296	1568	1301	1065	1702	2134	1347	945	737	1530	843	924	1403	1129	1015
	Xiaoping	2682	2171	1768	1958	2921	2352	1044	2000	1134	1518	1531	1291	1979	1364	1557
	Xiang Zhou	1990	1731	1726	1340	1179	1529	1442	2815	2010	1857	1259	1518	2421	1673	1431
	Zhuxiandong	2571	1581	1755	1277	1062	887	***	2311	1580	1853	1146	***	***	***	1598
Indonesia	Jakarta	1237	1572	1617	1469	2125	1481	2171	1717	1557	2120	990	2722	2331	3168	2807
	Serpong	1607	2505	2143	1462	824	1603	2015	2370	1344	1426	830	894	2324	2882	1770
	Kototabang	1209	1798	3127	2111	2194	1248	2772	2481	2656	2370	2193	2639	2120	2496	2503
	Bandung	2605	2541	1606	894	1749	1311	1969	2334	2683	2606	1530	2084	2346	2033	2012
	Maros								3037	3237	2663	3632	2451	4033	2763	2479
Japan	Rishiri	615	957	709	945	961	1294	883	828	1054	1072	1232	1172	1170	1033	1092
	Ochiishi			782	648	822	997	866	730	1580	1085	818	871	1059	838	827
	Tappi	1082	1329	1150	1473	1240	964	1055	824	1337	1555	1144	1178	1070	1194	1114
	Sado-seki	971	1433	1126	1539	1143	1264	1163	1021	1037	1368	1387	1296	1576	1409	867
	Happo	2345	2607	2461	3088	2997	2755	2329	1645	2352	2621	3076	2002	2658	2453	2242
	Ijira	2237	2648	2967	3424	2569	2829	2263	2250	2876	3847	3068	2862	2724	3044	3135
	Oki	1246	1571	1597	1409	1313	1396	1160	1110	1123	1452	1534	1296	1395	1053	1061
	Banryu	1788	1303	1752	1738	1290	1960	1273	1268	1735	1471	1432	1208	2024	1516	1458
	Yusuhara	2080	2346	2839	3970	2321	3160	2373	2189	2068	2476	3401	3048	2485	3529	3046
	Hedo	2126	2032	1393	1778	1780	1863	2701	1961	1975	2643	1766	2837	1612	2442	1762
	Ogasawara	1806	1331	1398	1171	2050	1585	1567	1674	1675	1856	1297	1572	1265	1532	1586
	Tokyo							1080	1860	1727	1656	1388	1635	1609	1807	1641
Lao PDR	Vientiane			88.6	442	665	709	1399	1668	181	***	***	1322	***	1273	921
Malaysia	Petaling Jaya	3085	2660	3041	2996	2848	4009	3021	3747	2968	3517	3607	3412	3570	3708	3751
	Tanah Rata	2626	2783	3010	2415	2886	2785	2968	3925	3077	2451	3293	2846	2771	2895	2684
	Danum Valley					1256	3005	2988	2999	3391	2370	3787	2958	3202	2848	2025
	Kuching								4286	4671	4645	4632	3796	4110	3656	4428
Mongolia	Ulaanbaatar	166	179	297	83.4	150	188	126	155	228	153	163	170	154	***	150
	Terelj	88.6	246	312	207	246	215	185	206	111	130	144	117	90.8	***	100
Myanmar	Yangon							3981	6375	3010	2280	3151	2570	2692	2872	2432
Philippines	Metro Manila	2291	2975	2205	2164	2377	2696	3505	2381	3782	2676	3657	4461	3516	2628	2499
	Los Baños	1817	1702	1608	1743	1643	2222	3097	1894	2900	2068	2384	2102	2394	2073	1559
	Mt.Sto.Tomas						431	3379	5078	4727	3610	4608	5730	4392	3641	6108
Republic of Korea	Kanghwa	1139	824	1573	878	811	1092	883	1546	1266	1570	1476	748	898	427	589
	Cheju	1114	1017	1291	1124	699	1127	1244	843	1039	1003	1076	1199	636	1195	1452
	Imsil	1299	993	1876	1207	1248	709	1344	854	1069	1642	1493	1400	1220	1101	719
Russia	Mondy	319	204	409	360	286	410	351	206	119	90.2	73.5	105	330	123	136
	Listvyanka	494	360	540	551	452	311	408	391	312	327	478	343	278	279	335
	Irkutsk	468	303	457	553	442	357	478	527	430	375	329	443	277	388	291
	Primorskaya		835	323	692	737	623	989	553	864	673	621	922	723	643	1157
Thailand	Bangkok	1174	1300	1385	1211	2006	1589	1579	1776	2072	2023	2171	1799	1330	1011	1593
	Samutprakarn				1260	1625	1420	1871	1734	1989	1880	2103	953	1115	991	1442
	Pathumthani	1349	948	1658	976	1268	1608	1381	1670	1314	1763	1562	1563	1181	1059	1071
	Khanchanaburi	1516	2200	1627	1392	2043	2518	1704	1962	1998	1626	1941	2390	1501	979	1093
	Chiang Mai	1084	1473	808	1151	1430	1420	937	1286	1052	1167	1614	1111	1433	527	747
	Sakaerat						1190	1386	1722	1259	1627	1509	1126	1443	427	1385
Vietnam	Hanoi	2255	1416	1586	1575	1761	1231	1659	2267	1609	1236	1817	1798	1945	1661	1273
	HoaBinh	2223	1626	1691	1831	2279	1546	1949	1978	1357	1370	1760	1915	2008	1303	1616
	Cuc Phuong									2266	1654	1853	2018	1898	1702	1461
	Da Nang									2966	1690	3639	1682	2315	2219	1891
	Can Tho														1840	2205
	Ho Chi Minh														1916	1420
	Yen Bai															1514

Terms and abbreviations are given in Table 3.5.

Table 3.70 Precipitation amount-weighted annual average concentrations of SO_4^{2-} from 2001 to 2015

unit: $\mu mol\ L^{-1}$

Country	Name of sites	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Cambodia	PhnomPenh				***	5.68	5.31	22.5	11.6	11.6	7.37	9.04	10.5	7.99	6.27	7.04
China	Guanyinqiao	205	114	110	165	186	177	130								
	Haifu								144	99.3	139	142	102	106	84.4	50.3
	Jinyunshan	124	78.3	83.2	109	102	141	90.4	120	114	151	141	124	81.4	60.4	43.9
	Shizhan	470	850	203	173	126	274	183	191	136	100.0	110	109	141	113	82.8
	Weishuiyuan	1510	1010	143	202	107	330									
	Jiwozi	326	305	90.6	55.2	118	128	182	145	93.5	31.8	62.6	94.5	52.6	69.3	31.6
	Hongwen	56.5	42.8	36.9	69.1	47.2	28.6	75.5	31.7	26.1	26.7	31.3	32.2	21.9	27.0	18.5
	Xiaoping	18.3	16.7	23.6	27.2	20.2	16.9	28.0	29.2	28.2	27.3	24.9	23.4	22.7	29.6	17.3
	Xiang Zhou	15.7	27.9	20.5	18.7	23.8	29.2	21.7	16.5	18.2	19.8	15.5	14.9	19.1	14.3	11.6
	Zhuxiandong	19.3	32.0	18.5	26.9	29.5	19.3	***	21.5	21.0	17.1	20.4	***	***	***	23.3
Indonesia	Jakarta	62.7	38.5	66.7	48.6	40.3	26.2	27.9	22.7	19.4	21.9	28.7	20.6	21.9	22.2	17.1
	Serpong	38.2	25.7	23.1	28.1	33.3	28.2	30.5	27.8	23.1	24.4	33.6	29.0	26.5	23.2	31.5
	Kototabang	4.68	7.47	9.18	5.23	5.50	7.65	6.99	2.91	4.72	6.33	7.77	6.04	6.22	8.52	8.30
	Bandung	33.7	27.7	20.4	27.7	35.3	26.8	26.4	28.0	29.2	27.0	30.8	26.5	30.7	38.8	30.1
	Maros								5.38	6.96	10.8	8.26	8.77	6.44	7.56	6.19
Japan	Rishiri	31.0	27.3	23.5	28.6	27.9	22.9	28.3	29.4	25.9	23.4	21.2	27.8	23.2	20.0	18.2
	Ochiishi			19.1	34.5	22.6	27.7	21.3	18.7	16.7	23.0	15.2	25.3	32.5	13.0	20.3
	Tappi	22.9	22.7	21.8	26.2	29.6	35.8	29.6	28.3	23.1	21.3	27.5	22.3	33.1	26.5	24.7
	Sado-seki	41.0	28.2	16.5	17.7	34.2	28.3	34.9	31.0	33.0	32.3	24.5	29.8	33.5	32.0	34.7
	Happo	11.7	7.59	7.53	9.13	12.0	10.3	12.2	10.9	10.1	6.11	7.00	11.6	8.88	8.00	7.06
	Ijira	22.0	19.7	19.1	14.0	18.9	20.6	19.0	18.2	15.4	11.1	13.0	13.6	12.3	12.0	11.7
	Oki	33.8	35.3	21.5	29.3	55.7	29.5	36.3	35.6	37.8	40.8	45.6	37.9	47.0	47.8	36.4
	Banryu	19.0	19.0	17.4	19.8	26.9	22.0	27.9	25.8	20.9	21.0	21.1	25.9	17.3	21.6	18.3
	Yusuhara	9.16	11.2	9.33	6.72	12.1	10.1	9.50	10.2	11.7	9.64	7.02	10.7	9.07	6.92	6.52
	Hedo	15.9	36.9	35.2	77.0	36.0	19.2	14.4	14.2	13.1	20.9	20.5	31.2	22.2	14.3	23.9
	Ogasawara	11.4	18.1	18.0	10.7	13.1	10.2	12.7	8.97	16.5	15.0	15.7	10.2	13.5	12.1	20.8
	Tokyo							17.1	19.6	16.0	10.9	15.9	15.6	12.2	13.9	11.7
Lao PDR	Vientiane			***	***	***	3.46	4.67	5.06	4.05	***	***	2.41	***	***	3.19
Malaysia	Petaling Jaya	22.2	23.7	21.0	18.2	23.3	20.6	13.8	17.5	13.2	17.1	22.5	17.0	17.8	21.4	21.4
	Tanah Rata	3.73	4.62	3.79	4.03	5.58	4.43	3.52	3.28	3.27	3.25	5.05	4.59	4.77	6.19	6.86
	Danum Valley					4.40	3.41	2.29	2.49	2.82	5.08	1.96	2.28	3.17	2.58	3.54
	Kuching								4.14	3.78	3.57	4.07	4.67	5.01	7.14	4.68
Mongolia	Ulaanbaatar	25.2	24.7	19.5	22.1	26.7	25.4	37.1	27.9	19.9	22.2	28.1	***	56.6	***	122
	Terelj	9.72	15.1	8.26	13.3	17.5	23.8	25.0	16.5	16.5	30.5	23.6	***	48.5	***	104
Myanmar	Yangon							***	***	8.01	4.52	6.63	7.48	7.96	4.55	4.62
Philippines	Metro Manila	37.3	26.3	17.1	20.4	24.0	17.6	22.3	24.9	13.6	20.3	18.7	24.1	15.1	18.0	19.0
	Los Baños	15.6	16.1	7.08	8.42	9.86	10.8	8.38	18.0	8.82	7.39	8.57	12.6	6.60	9.13	13.4
	Mt.Sto.Tomas						1.37	5.74	3.47	5.04	4.94	4.69	7.26	7.71	4.62	4.02
Republic of Korea	Kanghwa	25.0	34.5	26.1	44.8	46.8	37.0	41.2	27.9	29.2	26.3	27.2	27.2	36.1	29.3	29.4
	Cheju	20.7	28.0	22.7	23.8	34.3	28.1	37.9	26.2	25.3	19.3	25.5	36.7	40.6	17.2	17.3
	Imsil	16.4	22.9	16.3	16.5	22.8	26.8	28.8	21.0	19.6	19.5	20.7	19.4	18.5	15.2	20.2
Russia	Mondy	11.0	10.8	8.51	6.85	5.37	4.70	9.31	7.13	7.82	6.80	4.53	7.16	3.58	5.47	6.45
	Listvyanka	13.4	18.2	19.1	19.2	17.3	19.0	17.1	21.3	19.3	20.7	22.1	21.4	18.1	17.4	21.0
	Irkutsk	29.6	34.2	26.3	26.6	27.8	26.0	33.6	38.5	31.2	33.5	34.4	37.9	36.6	23.2	42.2
	Primorskaya		29.0	43.1	37.2	38.2	46.0	30.8	40.6	22.6	31.9	14.0	20.8	29.2	32.1	21.4
Thailand	Bangkok	18.2	18.6	18.5	16.3	19.5	22.3	17.2	18.0	12.7	12.0	10.7	10.7	7.09	8.43	7.53
	Samutprakarn				16.5	19.1	20.7	14.8	15.7	15.1	15.6	7.67	10.2	7.67	9.61	7.24
	Pathumthani	17.2	15.0	12.4	17.5	13.2	13.4	12.0	10.6	8.89	8.01	9.45	7.93	9.41	8.23	11.6
	Khanchanaburi	5.22	5.62	3.56	3.39	2.80	4.04	2.47	3.78	3.60	1.79	5.11	3.72	1.23	3.59	2.34
	Chiang Mai	2.79	4.46	4.13	6.90	5.90	4.54	6.00	4.96	4.30	3.32	3.24	4.76	4.13	8.39	4.12
	Sakaerat						8.24	6.44	7.36	6.44	7.04	5.30	6.64	7.49	10.8	6.53
Vietnam	Hanoi	14.0	33.7	30.1	37.0	51.4	46.9	33.6	20.2	27.4	35.4	30.7	28.8	25.9	39.3	39.5
	HoaBinh	14.7	18.8	22.5	29.4	17.8	24.9	17.0	13.6	16.1	26.3	18.0	17.1	19.7	25.2	20.0
	Cuc Phuong									18.5	20.3	37.6	24.3	26.9	18.5	18.8
	Da Nang									18.8	16.4	21.1	19.6	24.2	15.8	11.4
	Can Tho														8.73	30.7
	Ho Chi Minh														24.2	47.6
	Yen Bai															22.6

Terms and abbreviations are given in Table 3.5.

Table 3.71 Precipitation amount-weighted annual average concentrations of nss-SO_4^{2-} from 2001 to 2015

unit: μmol L^{-1}

Country	Name of sites	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Cambodia	PhnomPenh				***	***	5.08	22.0	8.67	11.2	7.18	8.83	10.3	7.80	5.81	6.66
China	Guanyinqiao	205	114	109	165	185	177	130								
	Haifu								144	99.0	138	142	101	106	84.0	50.1
	Jinyunshan	123	78.0	82.9	109	101	140	90.0	120	113	151	140	124	81.2	60.1	43.8
	Shizhan	460	835	199	171	125	271	182	190	135	99.5	109	109	132	105	75.9
	Weishuiyuan	1500	994	136	201	106	326									
	Jiwozi	316	295	84.5	53.7	115	124	177	140	92.0	31.4	62.1	91.8	45.8	61.8	26.0
	Hongwen	55.9	39.4	34.8	66.0	44.1	27.0	74.0	30.3	24.6	25.5	30.2	31.2	21.0	25.8	17.4
	Xiaoping	17.6	15.7	22.1	26.4	19.6	16.1	27.2	27.8	27.3	26.2	24.2	22.9	22.0	29.0	16.7
	Xiang Zhou	14.6	25.4	18.3	16.7	21.5	27.0	20.5	14.4	15.8	18.6	13.5	12.1	15.9	12.5	8.60
	Zhuxiandong	18.0	29.3	16.4	23.8	26.1	18.0	***	19.0	18.3	15.9	17.7	***	***	***	19.3
Indonesia	Jakarta	60.3	36.4	65.1	46.4	38.9	25.4	27.0	22.1	18.8	21.4	28.0	19.8	20.9	20.9	16.3
	Serpong	36.8	24.2	22.4	26.9	32.3	27.7	29.8	27.2	22.5	23.9	33.0	28.4	25.6	22.1	30.7
	Kototabang	4.41	7.09	8.59	4.58	5.16	7.28	6.47	2.61	4.38	6.04	7.38	5.47	5.71	8.18	8.63
	Bandung	32.5	27.2	20.0	27.0	34.6	25.7	26.0	27.5	28.5	26.4	30.1	25.8	29.9	38.0	29.6
	Maros								4.43	6.18	10.0	7.36	7.65	5.28	6.24	5.99
Japan	Rishiri	18.2	15.6	12.9	14.7	15.7	16.3	19.7	14.5	15.3	13.6	12.9	10.5	11.3	10.2	9.80
	Ochiishi			7.47	12.9	10.1	11.3	10.1	8.41	5.88	9.65	6.73	8.81	7.18	7.15	9.53
	Tappi	14.8	12.9	13.4	14.2	16.6	18.4	15.7	16.4	11.5	14.5	18.5	13.8	17.6	17.1	11.5
	Sado-seki	19.5	13.1	10.9	9.53	16.8	14.8	21.3	18.3	13.7	13.4	15.3	15.3	13.9	15.0	15.1
	Happo	11.3	7.39	7.24	8.78	11.5	10.1	12.0	10.7	9.82	5.88	6.80	11.0	8.63	7.68	6.71
	Ijira	20.2	18.0	18.3	12.7	18.0	20.0	17.7	17.3	14.6	10.3	12.1	12.4	11.4	11.1	10.8
	Oki	14.8	13.5	10.3	11.9	19.3	15.8	19.7	16.4	15.2	16.2	16.7	16.4	16.5	15.0	11.5
	Banryu	14.3	14.2	12.5	13.0	21.3	18.0	23.1	21.4	15.0	15.3	14.6	20.3	13.1	16.4	12.8
	Yusuhara	8.45	9.44	8.46	5.27	10.6	9.39	8.69	9.69	10.9	9.11	6.28	9.66	8.47	6.61	5.28
	Hedo	6.49	7.44	11.3	24.4	13.0	7.86	6.58	6.73	5.55	5.79	8.26	6.30	8.58	6.03	5.04
	Ogasawara	5.11	3.94	4.08	3.44	7.32	4.15	4.85	3.81	5.21	3.02	3.56	3.35	4.99	4.20	2.39
	Tokyo							15.0	18.4	14.5	9.86	13.6	13.8	10.8	12.8	10.6
Lao PDR	Vientiane			***	***	***	3.03	4.53	4.88	3.50	***	***	***	***	***	3.02
Malaysia	Petaling Jaya	22.0	23.4	20.7	17.9	22.9	20.3	13.6	17.2	12.9	16.8	22.2	16.8	17.5	21.1	21.0
	Tanah Rata	3.61	4.52	3.68	3.92	5.18	4.34	3.43	3.21	3.19	3.17	4.93	4.50	4.64	6.02	6.69
	Danum Valley					4.13	3.07	2.04	2.30	2.47	4.32	1.72	2.11	2.86	2.25	3.22
	Kuching								3.82	3.33	3.17	3.53	4.35	4.56	6.58	3.91
Mongolia	Ulaanbaatar	24.6	24.3	19.3	21.8	26.3	24.9	36.8	27.3	19.6	22.0	27.7	***	52.0	***	***
	Terelj	8.77	14.3	7.99	12.9	16.8	23.0	24.5	15.8	16.0	29.8	23.2	***	47.7	***	***
Myanmar	Yangon							***	***	6.90	3.90	5.72	6.15	7.33	3.51	4.09
Philippines	Metro Manila	22.7	25.4	16.0	19.4	23.0	16.5	21.1	23.4	12.6	18.9	17.4	23.1	13.4	16.5	17.6
	Los Baños	13.2	14.8	6.25	7.70	8.83	9.44	7.32	16.9	7.77	6.02	7.40	11.3	5.22	8.20	12.4
	Mt.Sto.Tomas						1.20	5.40	3.17	4.54	4.56	4.43	6.64	7.31	4.24	3.49
Republic of Korea	Kanghwa	22.5	31.5	24.6	42.9	44.7	35.2	38.5	25.6	26.5	24.7	25.0	24.4	34.3	26.7	26.7
	Cheju	16.2	24.5	19.9	20.3	29.2	22.9	31.8	18.2	22.1	13.1	16.4	14.1	23.2	10.2	11.2
	Imsil	15.5	20.5	14.9	15.4	21.5	24.9	27.9	19.0	16.6	16.6	18.4	16.3	16.7	13.4	17.3
Russia	Mondy	10.8	10.7	8.37	6.75	5.28	4.60	9.12	7.02	7.69	6.63	4.30	6.90	3.49	5.34	6.35
	Listvyanka	13.2	18.0	18.8	18.9	17.1	18.8	17.0	21.2	19.1	20.5	21.8	21.1	17.7	17.1	20.9
	Irkutsk	29.1	33.6	25.9	26.2	27.4	25.4	33.0	37.9	30.1	32.4	33.4	37.3	35.8	22.7	41.4
	Primorskaya		27.6	41.1	35.8	36.9	45.0	29.6	39.3	21.8	30.4	13.2	19.4	27.6	31.1	19.9
Thailand	Bangkok	17.7	17.6	18.0	15.7	18.7	21.8	16.8	17.4	12.1	11.5	10.3	10.3	6.36	7.88	7.04
	Samutprakarn				15.5	17.9	19.7	14.1	14.8	14.5	14.5	7.33	9.74	6.22	8.85	6.68
	Pathumthani	16.7	14.4	12.1	17.0	12.8	13.0	11.7	10.3	8.56	7.67	9.10	7.10	9.04	7.91	11.2
	Khanchanaburi	4.54	5.11	2.96	2.84	2.40	3.67	2.04	3.22	3.03	1.60	4.66	3.14	<1.0	3.20	2.00
	Chiang Mai	2.56	3.92	3.97	6.72	5.84	4.34	5.82	4.81	4.14	3.16	3.05	4.53	3.83	8.17	3.85
	Sakaerat						7.97	6.18	7.11	6.27	6.85	5.05	6.42	7.31	10.3	6.25
Vietnam	Hanoi	13.3	33.4	29.6	36.5	50.4	46.1	33.1	19.6	26.8	35.0	30.3	28.6	25.4	38.9	39.0
	HoaBinh	14.1	18.6	22.3	29.2	17.4	24.6	16.8	13.4	15.9	26.0	17.9	16.9	19.5	25.1	19.8
	Cuc Phuong									17.8	19.6	36.8	23.1	25.3	17.9	18.3
	Da Nang									13.1	13.9	16.8	16.1	15.6	10.8	6.65
	Can Tho														7.80	28.9
	Ho Chi Minh														22.7	45.5
	Yen Bai															22.2

Terms and abbreviations are given in Table 3.5.

Table 3.72 Precipitation amount-weighted annual average concentrations of NO_3^- from 2001 to 2015

unit: μmol L^{-1}

Country	Name of sites	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Cambodia	PhnomPenh				7.68	***	9.05	8.26	9.40	10.3	8.37	8.85	10.7	7.65	8.51	10.4
China	Guanyinqiao	52.8	34.4	38.9	43.9	41.3	60.7	48.8								
	Haifu								65.0	53.2	77.6	83.1	73.9	73.9	64.1	47.4
	Jinyunshan	40.3	29.4	34.4	36.8	34.4	46.1	31.5	46.5	54.4	75.0	77.5	70.4	53.1	45.6	36.4
	Shizhan	153	150	68.0	61.7	12.1	81.7	75.9	40.2	57.7	41.0	17.5	49.4	35.6	98.0	71.9
	Weishuiyuan	210	168	54.1	69.6	11.4	104									
	Jiwozi	140	89.8	42.8	26.4	9.31	50.7	66.8	103	27.4	12.2	8.24	47.4	8.77	13.8	28.6
	Hongwen	37.9	30.7	33.6	49.8	37.3	22.4	37.6	22.9	23.4	29.0	23.6	35.2	20.9	26.4	26.2
	Xiaoping	18.7	14.8	22.6	19.6	18.1	16.0	26.2	24.6	29.3	30.3	22.6	26.7	20.7	34.0	24.4
	Xiang Zhou	14.1	17.8	20.9	22.1	17.2	21.8	16.6	12.3	17.7	23.9	15.7	15.2	20.4	20.9	18.8
	Zhuxiandong	22.2	20.8	11.5	25.0	21.5	13.2	***	14.7	19.8	19.7	18.8	***	***	***	29.4
Indonesia	Jakarta	53.7	28.2	58.4	77.6	53.9	20.5	31.1	14.1	15.3	17.1	29.8	16.2	21.8	20.0	15.3
	Serpong	50.7	32.6	30.8	39.7	39.4	28.3	30.4	30.3	25.4	29.8	35.5	31.5	39.5	36.2	48.1
	Kototabang	2.74	5.64	49.3	4.71	1.58	1.40	3.57	2.79	<1.0	2.37	5.05	4.65	2.86	7.48	3.60
	Bandung	26.9	26.3	20.4	28.2	19.2	23.1	21.6	20.7	22.8	17.9	28.0	21.6	22.0	27.2	23.6
	Maros								3.51	5.36	6.35	7.51	9.05	3.65	6.10	6.29
Japan	Rishiri	18.0	13.5	12.2	11.6	12.6	14.0	15.6	14.7	17.3	14.3	14.1	13.4	13.4	10.2	10.8
	Ochiishi			7.95	13.5	9.31	11.4	9.57	8.44	5.42	9.47	9.58	9.80	8.83	8.71	11.5
	Tappi	15.3	16.9	16.9	16.3	18.2	22.5	21.6	22.4	13.4	17.5	19.8	17.4	25.2	24.1	14.3
	Sado-seki	22.2	15.0	13.9	11.2	18.6	18.9	25.8	23.9	16.6	18.1	19.7	20.0	19.4	19.3	20.8
	Happo	8.88	6.97	6.57	8.01	9.53	8.25	9.82	11.0	8.56	6.51	8.17	11.6	8.32	7.80	6.78
	Ijira	21.7	21.8	21.7	15.4	24.1	24.2	21.8	24.1	18.4	15.1	15.1	16.7	14.8	14.7	16.7
	Oki	15.7	15.1	12.9	17.0	21.8	18.2	23.8	19.3	20.2	24.2	21.2	21.6	24.2	20.3	15.1
	Banryu	17.4	19.1	15.9	15.6	25.5	19.5	29.2	24.6	20.0	22.6	19.5	27.8	16.2	21.7	18.0
	Yusuhara	6.85	8.45	6.95	5.27	9.41	7.56	7.19	8.98	7.83	7.70	5.75	8.57	7.03	4.87	7.55
	Hedo	6.57	9.49	9.48	13.4	11.0	8.09	6.41	6.90	6.43	6.38	7.69	7.17	8.58	6.88	7.05
	Ogasawara	3.69	2.71	4.69	3.67	3.21	4.78	4.88	3.75	3.39	3.07	2.93	2.88	3.82	3.11	2.41
	Tokyo							19.5	24.4	18.1	15.3	21.7	18.8	16.1	16.8	16.3
Lao PDR	Vientiane			***	***	***	6.94	6.90	5.96	9.73	***	***	5.55	***	***	4.12
Malaysia	Petaling Jaya	23.7	36.8	32.9	29.8	35.9	30.0	26.6	36.1	46.4	49.5	52.8	43.8	33.5	35.8	43.6
	Tanah Rata	3.39	5.99	4.70	4.61	6.04	5.34	4.17	4.53	5.19	4.40	2.21	3.78	3.78	4.82	7.63
	Danum Valley					2.50	1.41	<1.0	1.37	1.65	1.42	1.05	<1.0	1.97	0.738	1.88
	Kuching								4.98	4.55	4.91	5.00	3.82	4.52	5.29	3.61
Mongolia	Ulaanbaatar	20.7	23.7	15.5	15.8	18.8	18.6	26.0	20.1	19.1	21.4	16.8	***	30.9	***	34.6
	Terelj	9.20	18.1	12.4	16.1	11.8	15.5	18.3	18.3	21.0	27.6	18.0	***	31.8	***	24.0
Myanmar	Yangon							***	***	7.23	4.96	6.30	8.31	6.72	4.80	8.25
Philippines	Metro Manila	18.5	17.6	13.1	15.4	21.5	12.3	14.1	21.1	8.68	50.5	14.4	18.2	13.9	16.0	13.4
	Los Baños	13.9	8.21	4.87	6.10	9.83	8.13	6.25	7.97	8.01	31.4	8.35	11.9	7.80	8.22	8.81
	Mt.Sto.Tomas						1.87	5.47	3.92	3.94	4.29	2.56	6.10	8.47	5.07	3.49
Republic of Korea	Kanghwa	28.6	32.7	27.3	41.1	45.0	33.0	39.0	31.0	18.9	31.8	27.7	36.4	43.2	36.9	50.5
	Cheju	18.4	24.0	23.0	24.8	27.5	25.5	15.1	26.5	18.6	22.7	27.9	19.3	30.3	18.2	21.6
	Imsil	15.6	32.0	16.9	20.5	26.4	27.7	18.1	22.6	22.3	29.0	27.7	26.2	26.2	28.0	33.8
Russia	Mondy	10.6	13.5	6.80	6.78	5.03	5.10	8.51	7.48	7.90	8.11	4.30	7.99	5.03	4.65	5.29
	Listvyanka	14.7	25.0	29.8	19.8	11.8	14.6	20.4	15.4	16.4	20.2	30.6	19.3	15.7	13.2	15.5
	Irkutsk	18.4	21.8	17.8	17.1	16.4	16.5	18.3	17.1	16.8	22.3	20.7	18.3	16.3	12.3	20.7
	Primorskaya		10.2	15.4	21.4	21.6	29.2	19.1	33.1	18.6	21.9	37.8	23.4	18.5	7.66	25.4
Thailand	Bangkok	17.9	24.6	23.1	15.9	23.2	33.0	28.0	31.2	28.1	26.8	20.6	27.6	12.9	15.3	16.2
	Samutprakarn				9.79	17.9	14.1	16.6	17.4	20.0	15.4	9.81	12.5	5.07	13.0	9.97
	Pathumthani	19.6	18.5	17.2	24.0	19.6	22.0	22.8	21.5	16.6	20.4	19.2	18.8	18.6	14.8	29.1
	Khanchanaburi	6.75	6.06	4.89	4.78	2.50	6.15	2.94	5.02	4.55	3.76	7.27	6.86	1.93	4.68	4.28
	Chiang Mai	4.13	6.64	6.53	6.12	8.36	7.87	7.97	9.11	8.44	7.30	7.26	7.91	9.89	11.7	8.36
	Sakaerat						11.3	11.4	11.5	12.7	14.6	9.97	11.2	10.4	24.5	12.8
Vietnam	Hanoi	5.06	15.1	24.8	25.2	30.8	24.9	15.6	9.76	16.6	20.8	21.7	25.2	26.3	30.6	35.1
	HoaBinh	8.77	20.2	13.4	19.9	12.9	16.1	10.5	10.2	12.9	15.5	14.4	15.4	18.8	25.2	22.3
	Cuc Phuong									10.9	23.2	27.8	20.1	16.7	10.2	13.4
	Da Nang									11.4	7.02	15.8	4.79	5.41	5.29	<0.5
	Can Tho														8.38	11.7
	Ho Chi Minh														17.9	18.0
	Yen Bai															17.8

Terms and abbreviations are given in Table 3.5.

Table 3.73 Precipitation amount-weighted annual average concentrations of Cl^- from 2001 to 2015

unit: $\mu mol\ L^{-1}$

Country	Name of sites	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Cambodia	PhnomPenh				***	6.21	6.20	12.6	8.68	10.3	4.93	5.89	6.67	7.53	9.08	9.01
China	Guanyinqiao	29.8	15.6	16.2	14.7	18.3	19.3	13.8								
	Haifu								13.8	11.0	16.2	14.3	11.4	12.7	11.1	7.78
	Jinyunshan	56.8	12.9	10.3	12.8	15.5	13.6	8.70	15.4	16.1	16.1	11.9	11.6	7.21	5.70	5.09
	Shizhan	81.3	349	83.3	36.1	34.4	35.8	39.9	33.6	26.2	22.9	10.7	16.0	50.8	21.1	17.8
	Weishuiyuan	278	285	99.4	39.4	36.5	51.1									
	Jiwozi	98.9	185	70.1	14.8	38.4	33.2	44.1	33.8	27.9	14.6	11.1	31.3	33.9	23.0	14.2
	Hongwen	35.8	42.9	51.3	60.2	66.0	45.9	39.0	31.2	32.3	15.0	25.4	23.9	19.3	28.6	25.7
	Xiaoping	28.8	9.15	23.5	16.6	11.9	22.3	14.6	18.6	20.1	13.9	17.1	14.5	13.0	13.8	18.5
	Xiang Zhou	37.8	68.9	47.4	36.4	65.8	44.6	30.9	34.8	44.9	22.4	29.8	43.4	46.1	23.8	60.2
	Zhuxiandong	27.7	59.5	40.2	58.8	52.6	29.3	***	45.6	51.4	21.7	18.8	***	***	***	72.4
Indonesia	Jakarta	38.9	28.1	52.2	39.1	41.6	15.6	18.7	11.4	12.0	15.4	19.4	13.0	19.3	28.8	17.1
	Serpong	32.3	23.0	27.2	23.8	19.8	10.9	14.3	17.0	17.6	22.4	15.1	24.1	22.7	25.5	22.3
	Kototabang	6.60	16.8	27.8	11.8	7.13	7.80	13.8	3.88	10.7	9.91	13.9	9.72	27.3	10.6	8.28
	Bandung	25.0	20.3	13.0	17.4	14.6	14.1	7.53	8.33	11.8	8.60	12.4	10.6	15.6	14.7	9.49
	Maros								20.1	15.3	21.1	16.1	20.0	36.3	36.2	6.90
Japan	Rishiri	235	217	201	256	233	126	161	268	193	184	156	332	222	184	160
	Ochiishi			227	410	232	317	219	194	205	266	180	307	486	112	201
	Tappi	156	191	154	231	250	326	262	226	217	124	167	162	289	176	283
	Sado-seki	378	307	107	154	337	256	257	236	364	351	182	293	355	317	367
	Happo	8.84	4.97	7.26	8.74	8.69	5.68	4.36	5.60	6.64	4.99	4.43	11.6	4.89	6.21	7.00
	Ijira	32.7	33.3	19.1	27.5	16.8	14.4	24.8	18.9	16.5	16.2	17.2	24.5	19.5	19.7	19.9
	Oki	359	419	201	321	696	253	312	371	436	471	552	411	579	617	473
	Banryu	86.5	88.9	92.5	133	110	76.0	89.2	82.5	114	107	125	103	80.8	102	107
	Yusuhara	12.3	31.8	16.0	28.1	29.9	14.0	16.2	10.0	13.9	11.0	14.7	21.8	13.4	6.95	27.4
	Hedo	175	593	451	982	488	217	146	138	141	284	232	496	263	157	368
	Ogasawara	123	278	286	139	115	119	154	98.8	227	211	241	134	166	154	370
	Tokyo							41.1	23.7	27.8	19.4	45.9	35.8	27.7	23.1	22.2
Lao PDR	Vientiane			***	***	***	4.77	7.42	7.41	6.19	***	***	4.46	***	***	4.97
Malaysia	Petaling Jaya	7.50	7.33	9.24	7.42	8.78	6.94	5.70	7.50	7.89	9.26	8.36	7.98	7.66	8.89	10.3
	Tanah Rata	3.00	2.26	2.39	2.43	2.64	2.10	1.70	1.47	2.26	1.91	2.95	3.19	2.96	3.49	3.75
	Danum Valley					6.00	7.15	4.90	6.10	6.79	17.1	5.70	4.16	7.52	6.50	7.47
	Kuching								6.35	8.41	8.04	11.5	6.78	8.82	11.0	14.5
Mongolia	Ulaanbaatar	9.65	7.69	7.64	8.03	7.75	7.77	9.38	10.1	9.63	8.49	7.46	***	4.08	***	5.15
	Terelj	8.66	11.4	6.59	8.96	9.92	9.28	10.3	9.22	9.95	10.6	9.81	***	6.94	***	7.91
Myanmar	Yangon							***	***	25.0	13.2	15.8	26.6	27.1	19.5	34.4
Philippines	Metro Manila	115	18.8	24.3	24.0	14.2	23.1	27.9	28.7	24.6	20.6	29.8	20.2	28.7	26.1	27.3
	Los Baños	34.5	24.6	16.2	14.3	18.1	21.0	24.4	18.8	25.0	25.3	26.2	21.6	25.8	18.3	92.0
	Mt.Sto.Tomas						1.57	7.38	5.24	8.31	5.07	4.41	6.50	7.11	4.21	7.79
Republic of Korea	Kanghwa	42.6	43.0	61.3	55.8	56.1	36.0	57.7	45.6	60.2	43.9	48.5	67.5	36.3	61.6	161
	Cheju	112	83.8	68.5	79.1	105	102	104	136	63.7	114	147	455	344	124	109
	Imsil	28.7	36.9	38.1	26.7	44.0	77.5	22.4	36.6	51.9	44.4	25.3	88.8	22.8	30.7	46.8
Russia	Mondy	1.45	8.87	3.07	2.75	5.92	4.47	3.94	4.22	3.29	3.39	5.28	5.95	3.69	3.57	3.68
	Listvyanka	2.16	6.81	4.13	4.94	5.38	3.50	4.29	5.13	3.02	3.43	6.63	3.28	5.85	3.65	5.45
	Irkutsk	12.2	18.0	17.7	8.52	12.4	12.5	13.2	15.9	24.9	23.8	22.0	15.1	19.2	9.86	23.9
	Primorskaya		33.9	35.6	21.3	21.7	18.0	18.6	25.6	14.7	29.4	67.4	29.9	42.7	25.0	25.4
Thailand	Bangkok	9.41	13.9	8.67	11.3	12.3	10.8	8.23	11.3	7.65	9.33	7.98	8.33	7.24	9.22	7.36
	Samutprakarn				12.8	19.0	12.5	11.2	12.8	8.45	16.2	7.61	9.92	9.16	11.3	9.66
	Pathumthani	7.75	11.6	6.39	14.3	7.13	6.83	6.64	6.61	6.23	5.77	6.82	15.9	6.85	7.88	9.96
	Khanchanaburi	9.96	14.1	8.80	9.96	7.79	6.30	6.62	10.3	8.84	3.30	8.86	11.6	2.89	6.90	5.69
	Chiang Mai	4.53	10.1	4.71	3.82	4.21	3.73	5.85	4.59	4.91	3.58	2.88	4.14	5.94	5.39	3.87
	Sakaerat						5.52	5.11	5.93	4.62	4.81	4.80	6.36	6.34	11.1	6.99
Vietnam	Hanoi	27.1	9.53	21.3	14.7	27.2	15.6	11.8	8.74	9.65	10.9	8.56	6.58	9.93	10.4	14.8
	HoaBinh	22.1	6.95	6.92	11.8	13.5	6.46	6.30	4.22	5.38	6.35	4.30	4.65	6.18	4.24	5.25
	Cuc Phuong									44.2	24.3	15.5	20.3	25.2	11.7	21.3
	Da Nang									110	50.4	93.5	83.1	174	92.9	72.8
	Can Tho														27.4	41.2
	Ho Chi Minh														44.8	52.0
	Yen Bai															7.48

Terms and abbreviations are given in Table 3.5.

Table 3.74 Precipitation amount-weighted annual average concentrations of NH_4^+ from 2001 to 2015

unit: μmol L^{-1}

Country	Name of sites	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Cambodia	PhnomPenh				10.8	16.3	17.9	19.7	11.8	13.1	22.6	21.9	21.6	13.5	13.9	18.1
China	Guanyinqiao	211	120	132	137	157	179	140								
	Haifu								148	105	141	145	116	142	116	95.2
	Jinyunshan	111	83.5	85.6	105	105	121	75.2	98.8	110	124	117	124	90.1	70.6	62.6
	Shizhan	255	203	144	146	77.2	167	206	164	169	187	60.8	109	238	170	194
	Weishuiyuan	354	319	144	151	64.4	239									
	Jiwozi	171	71.2	82.7	37.1	37.8	48.6	11.2	31.6	52.0	17.3	23.1	26.6	55.5	32.8	65.7
	Hongwen	64.9	44.2	29.4	45.8	35.4	29.1	38.5	34.7	46.6	39.8	42.3	43.2	18.3	25.7	29.2
	Xiaoping	33.2	31.1	38.2	38.0	32.2	21.5	52.7	33.0	45.8	42.9	38.9	30.4	25.3	38.9	37.8
	Xiang Zhou	25.0	95.8	34.0	50.7	103	56.7	19.4	19.5	22.1	24.4	20.7	29.1	17.7	23.8	19.1
	Zhuxiandong	30.3	48.4	29.9	59.5	26.1	27.4	***	18.6	25.6	22.7	24.8	***	***	***	24.3
Indonesia	Jakarta	66.2	31.7	20.8	22.4	12.4	17.4	24.2	25.4	17.7	23.0	33.7	23.1	17.2	17.6	18.9
	Serpong	67.6	46.0	45.0	42.3	44.6	40.3	44.3	47.2	43.0	52.3	62.2	71.1	83.0	65.5	63.0
	Kototabang	2.38	5.12	1.85	12.3	9.46	9.88	18.2	7.55	2.69	2.83	10.0	8.47	6.93	12.1	1903
	Bandung	37.9	29.9	32.7	36.8	35.8	46.5	47.9	44.8	48.3	32.1	60.8	53.8	47.4	55.4	56.7
	Maros								8.85	12.7	10.1	9.30	14.1	6.75	7.19	20.7
Japan	Rishiri	26.0	20.1	18.3	17.1	18.9	17.5	25.9	23.6	17.7	15.7	14.0	11.4	12.9	12.5	13.3
	Ochiishi			7.65	11.8	7.51	15.6	7.84	6.45	8.40	10.7	11.0	12.3	9.68	10.8	11.4
	Tappi	12.7	14.7	16.2	15.6	15.8	18.9	17.7	18.2	10.5	15.0	16.9	13.8	19.1	22.7	13.0
	Sado-seki	19.7	14.5	15.6	10.1	18.3	16.6	25.2	21.7	12.5	11.9	14.6	15.5	18.1	18.2	19.3
	Happo	10.8	7.74	6.37	8.30	10.8	8.96	11.1	10.1	9.73	5.88	6.06	10.7	8.94	8.08	7.84
	Ijira	17.6	22.8	18.1	14.7	20.3	22.8	20.7	18.0	18.2	12.2	14.1	14.7	13.4	13.4	13.5
	Oki	14.7	12.4	8.82	10.9	15.8	12.8	15.7	15.7	17.0	17.8	18.6	17.0	17.5	14.0	9.63
	Banryu	13.8	17.9	12.5	11.2	21.8	14.9	22.3	19.2	16.3	21.6	15.7	21.5	13.8	17.3	14.9
	Yusuhara	5.17	7.57	6.02	4.78	8.88	7.52	7.45	7.52	8.25	6.60	4.83	7.55	7.16	4.91	4.04
	Hedo	4.48	18.5	10.9	17.2	13.3	8.55	7.49	6.11	6.43	9.31	9.13	18.8	9.94	8.28	11.0
	Ogasawara	4.82	5.40	3.63	5.09	3.46	4.59	7.70	3.43	4.82	5.29	4.54	5.18	6.04	3.88	2.64
	Tokyo							27.7	29.9	26.2	19.2	25.4	24.3	22.9	23.1	20.1
Lao PDR	Vientiane			***	***	***	7.72	10.9	8.39	17.3	***	***	***	***	***	7.78
Malaysia	Petaling Jaya	58.1	16.2	12.2	13.1	20.1	23.3	19.1	20.8	7.57	4.60	4.86	1.29	16.2	27.4	25.5
	Tanah Rata	35.4	4.02	2.30	2.39	2.82	3.53	3.91	3.10	5.41	4.05	14.3	5.67	2.42	3.44	7.54
	Danum Valley					2.03	2.05	1.32	9.76	3.44	4.89	1.90	<1.0	<1.0	0.915	4.21
	Kuching								4.61	4.94	1.94	5.03	6.16	2.87	9.38	5.49
Mongolia	Ulaanbaatar	49.9	72.8	47.5	46.2	54.4	53.7	87.1	53.3	46.7	54.7	45.9	***	62.2	***	***
	Terelj	30.5	65.7	31.6	35.6	36.1	54.6	38.8	51.1	41.0	35.0	39.4	***	5.37	***	***
Myanmar	Yangon							***	***	16.2	14.6	14.9	17.7	17.0	16.6	22.3
Philippines	Metro Manila	77.1	46.2	23.7	35.4	29.9	40.5	33.6	62.2	21.1	53.1	183	273	41.2	61.6	86.1
	Los Baños	22.4	34.5	14.5	13.9	15.0	16.3	16.8	19.6	11.7	38.2	29.4	67.8	22.3	55.9	54.9
	Mt.Sto.Tomas						<1.0	8.69	10.5	14.1	4.65	<1.0	3.42	4.71	13.5	9.57
Republic of Korea	Kanghwa	37.5	40.1	57.6	75.6	66.4	53.0	58.4	35.4	30.5	26.5	43.3	49.4	78.5	60.2	99.0
	Cheju	32.3	43.3	41.9	36.0	30.9	26.1	28.8	26.2	45.2	26.8	28.0	33.4	35.9	25.5	28.2
	Imsil	42.3	42.2	32.5	28.2	32.4	50.2	40.0	29.9	35.2	31.2	37.7	39.5	40.5	33.4	50.6
Russia	Mondy	22.2	33.8	14.7	11.2	9.76	3.70	30.1	9.86	20.2	17.5	9.14	19.0	2.71	3.60	13.5
	Listvyanka	10.8	26.8	20.8	12.2	16.6	15.5	15.6	18.9	13.4	18.3	17.2	26.7	9.85	13.7	36.8
	Irkutsk	25.1	43.0	42.1	27.2	35.3	24.9	33.9	34.4	36.4	34.5	32.7	34.1	29.5	23.9	73.0
	Primorskaya		35.9	39.1	30.4	41.6	49.8	29.6	50.6	28.8	42.7	54.1	27.0	39.6	42.3	25.7
Thailand	Bangkok	36.2	46.8	37.5	37.8	43.4	56.1	57.8	53.8	64.9	37.8	40.2	44.1	46.3	52.3	60.7
	Samutprakarn				34.5	37.4	49.9	47.1	56.4	41.0	28.1	27.8	34.1	37.7	48.6	46.0
	Pathumthani	35.5	34.2	29.1	34.0	31.2	33.5	34.4	29.7	33.0	28.0	38.1	37.9	44.9	35.3	45.3
	Khanchanaburi	11.0	10.9	12.5	8.40	4.96	17.5	13.9	10.1	26.1	8.90	13.0	8.95	6.80	14.0	10.7
	Chiang Mai	15.8	18.5	15.8	15.7	21.0	15.2	18.8	19.9	20.2	19.3	13.5	19.6	19.3	26.8	17.6
	Sakaerat						23.1	18.3	21.1	22.9	24.6	24.3	25.7	23.8	42.3	31.3
Vietnam	Hanoi	20.3	55.5	55.1	52.7	98.8	45.7	48.3	30.6	50.6	52.4	52.8	60.2	53.4	68.0	64.9
	HoaBinh	12.5	28.2	28.7	41.0	30.1	27.6	21.3	17.1	31.4	28.3	27.8	30.0	25.3	45.6	38.3
	Cuc Phuong									6.30	9.90	19.2	23.9	25.5	20.5	30.0
	Da Nang									13.5	8.67	21.5	21.3	24.6	14.5	8.73
	Can Tho														18.3	21.3
	Ho Chi Minh														24.3	29.4
	Yen Bai															30.5

Terms and abbreviations are given in Table 3.5.

Table 3.75 Precipitation amount-weighted annual average concentrations of Na^+ from 2001 to 2015

unit: $\mu mol\ L^{-1}$

Country	Name of sites	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Cambodia	PhnomPenh				***	***	1.85	8.25	10.3	6.95	3.10	3.55	3.65	3.10	7.60	6.28
China	Guanyinqiao	10.8	5.54	4.91	7.28	8.35	7.92	5.92								
	Haifu								6.99	4.20	7.56	9.87	6.04	7.29	6.36	3.61
	Jinyunshan	10.2	5.90	4.99	12.3	15.3	6.65	6.20	10.3	7.70	8.17	6.12	6.28	3.92	4.50	2.23
	Shizhan	164	246	69.2	19.1	16.1	45.2	15.6	24.4	13.4	7.30	17.7	5.59	138	126	113
	Weishuiyuan	219	207	113	23.3	20.5	66.9									
	Jiwozi	158	171	102	25.1	59.6	65.6	85.8	81.1	25.2	6.47	7.86	44.5	112	125	92.5
	Hongwen	10.8	55.6	34.8	50.4	51.4	30.8	24.1	22.9	24.5	19.4	18.1	16.3	14.3	19.8	18.6
	Xiaoping	11.8	16.4	24.7	13.0	9.67	23.2	12.4	22.5	16.4	18.8	10.9	8.45	12.1	8.77	11.0
	Xiang Zhou	24.6	41.5	39.1	72.1	44.1	35.5	19.4	34.6	40.2	19.8	32.3	45.9	54.2	30.7	52.9
	Zhuxiandong	27.5	45.2	36.0	94.4	60.9	22.6	***	40.7	45.3	19.9	45.0	***	***	***	66.9
Indonesia	Jakarta	39.4	35.3	27.1	37.2	23.2	13.1	15.8	9.95	9.31	7.92	11.7	12.7	16.2	21.4	2.01
	Serpong	23.8	25.2	11.3	19.6	16.0	7.46	11.7	10.5	10.2	8.32	10.1	10.9	14.0	18.8	14.6
	Kototabang	4.52	6.29	9.65	10.9	5.69	6.21	8.65	5.33	6.12	5.25	6.54	9.63	8.51	5.67	0.779
	Bandung	20.2	8.64	7.10	10.8	11.9	18.3	6.65	8.62	11.8	9.74	12.2	10.8	13.6	12.9	8.58
	Maros								15.7	13.3	13.2	14.9	19.9	19.3	29.1	3.67
Japan	Rishiri	212	197	176	229	203	110	143	247	176	162	139	292	200	162	140
	Ochiishi			198	360	208	278	186	171	182	232	155	274	421	97.2	178
	Tappi	134	165	141	199	218	289	234	197	199	114	150	141	257	156	237
	Sado-seki	355	268	93.8	135	290	224	227	215	321	320	153	246	328	282	327
	Happo	6.22	3.39	4.78	5.94	7.04	4.13	3.13	4.12	5.14	3.76	3.34	9.57	4.07	5.31	5.84
	Ijira	29.7	28.5	13.3	21.6	13.6	10.8	20.8	15.4	13.5	13.0	13.8	19.3	15.1	15.6	15.8
	Oki	316	363	185	295	602	225	275	324	376	409	480	357	505	545	412
	Banryu	78.2	79.4	80.9	113	92.1	66.4	78.6	72.2	98.8	94.2	108	92.2	69.1	86.9	91.1
	Yusuhara	11.8	28.9	14.4	24.1	25.2	11.9	13.5	8.61	12.0	8.82	12.3	18.1	9.90	5.19	22.9
	Hedo	160	515	430	873	449	189	129	124	127	254	204	418	227	137	313
	Ogasawara	104	236	251	125	97.3	103	133	86.2	188	208	202	114	141	131	306
	Tokyo							34.5	19.5	23.5	17.3	37.7	29.5	22.8	18.9	18.0
Lao PDR	Vientiane			***	***	***	7.10	2.38	2.91	9.14	***	***	***	***	***	2.78
Malaysia	Petaling Jaya	3.70	5.08	5.60	5.69	6.64	4.27	3.61	4.22	4.59	4.99	4.56	3.85	4.29	5.04	6.20
	Tanah Rata	1.92	1.64	1.89	1.83	6.64	1.41	1.54	1.20	1.58	1.29	1.99	1.51	2.17	2.82	2.74
	Danum Valley					4.45	5.64	4.15	3.22	5.83	13.8	5.52	2.87	5.14	5.42	5.40
	Kuching								5.39	7.35	6.67	9.08	5.21	7.54	9.25	12.9
Mongolia	Ulaanbaatar	9.09	6.29	3.84	5.79	7.16	8.43	5.25	3.59	4.88	3.50	5.65	***	78.8	***	***
	Terelj	15.9	16.9	4.50	6.32	11.5	12.5	9.42	5.47	7.60	11.1	6.07	***	17.0	***	***
Myanmar	Yangon							***	***	18.5	12.9	15.0	22.1	15.8	17.3	8.77
Philippines	Metro Manila	205	14.6	18.4	16.3	15.9	17.2	20.2	24.6	20.2	22.3	21.4	16.7	28.0	24.5	23.4
	Los Baños	37.2	21.1	15.3	12.0	17.2	22.7	17.6	19.1	17.4	22.7	19.4	22.2	22.8	15.4	17.6
	Mt.Sto.Tomas						2.81	5.68	5.11	8.26	6.30	4.31	10.3	6.70	6.30	8.71
Republic of Korea	Kanghwa	41.7	49.2	25.4	32.5	33.7	28.8	44.3	39.3	45.1	27.0	35.8	50.7	29.6	43.2	45.0
	Cheju	74.7	58.3	46.7	57.8	84.8	85.0	101	133	53.6	103	152	375	290	116	101
	Imsil	15.4	38.6	22.8	17.9	21.7	31.1	15.0	32.0	50.3	48.2	37.4	51.8	30.3	29.8	47.1
Russia	Mondy	2.27	1.93	2.27	1.93	1.52	1.57	3.13	1.84	2.28	2.81	3.86	4.32	1.36	2.25	1.61
	Listvyanka	3.38	3.80	5.10	4.66	3.01	2.80	2.57	2.49	3.82	3.60	5.42	4.20	6.68	4.80	2.96
	Irkutsk	8.27	9.19	6.59	6.65	6.89	10.0	9.94	10.0	18.7	18.4	16.8	9.96	12.8	8.62	12.7
	Primorskaya		23.1	33.7	22.5	21.7	16.8	19.8	22.9	12.8	23.9	13.7	23.1	25.5	15.8	24.8
Thailand	Bangkok	8.33	16.1	7.65	10.2	12.8	8.72	7.08	9.77	9.79	8.79	6.46	6.07	12.0	9.17	7.97
	Samutprakarn				16.5	19.8	14.6	12.2	15.4	10.0	18.6	5.70	7.89	25.3	12.6	9.33
	Pathumthani	8.06	9.65	4.73	8.94	6.56	7.49	5.77	5.96	5.58	7.46	5.87	14.1	5.96	5.31	6.92
	Khanchanaburi	11.3	8.34	10.3	8.99	6.70	6.86	7.05	9.23	9.49	3.11	7.45	9.71	5.46	6.41	5.91
	Chiang Mai	3.94	9.66	3.21	3.05	<1.0	3.53	2.93	2.61	2.69	2.72	3.21	3.80	5.63	3.65	4.48
	Sakaerat						4.45	4.45	4.20	2.73	3.21	4.04	3.71	2.96	8.85	4.59
Vietnam	Hanoi	11.5	5.94	8.96	8.05	17.7	13.5	8.20	9.59	9.17	7.28	6.17	4.19	7.69	7.24	9.00
	HoaBinh	9.80	2.06	2.36	3.91	7.47	4.49	3.20	3.07	3.39	4.86	2.46	3.03	4.13	3.16	3.80
	Cuc Phuong									11.2	12.0	13.6	20.0	26.7	10.7	8.76
	Da Nang									94.6	41.3	70.2	63.2	144	82.1	79.6
	Can Tho														15.4	29.4
	Ho Chi Minh														25.0	34.6
	Yen Bai															5.40

Terms and abbreviations are given in Table 3.5.

Table 3.76 Precipitation amount-weighted annual average concentrations of K^+ from 2001 to 2015

unit: μmol L^{-1}

Country	Name of sites	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Cambodia	PhnomPenh				1.63	***	1.48	3.64	10.3	1.50	0.861	1.15	0.761	1.06	2.69	1.98
China	Guanyinqiao	18.7	10.6	11.0	10.9	12.4	12.6	8.81								
	Haifu								11.5	7.72	10.0	9.38	6.57	12.8	9.28	5.99
	Jinyunshan	44.4	10.3	8.60	11.7	11.4	11.4	6.78	9.54	8.71	10.4	10.4	7.64	5.49	4.42	3.40
	Shizhan	42.2	40.5	18.7	9.57	15.4	18.0	19.3	13.3	10.2	32.4	13.4	5.69	28.1	251	5.32
	Weishuiyuan	74.9	76.6	20.3	11.3	12.6	33.6									
	Jiwozi	43.6	42.2	21.3	8.48	27.7	20.8	28.0	29.0	13.7	4.89	7.28	9.74	10.2	16.4	6.63
	Hongwen	10.4	4.30	4.33	7.23	5.08	3.35	3.73	2.12	2.26	2.24	1.99	2.86	1.90	1.42	5.99
	Xiaoping	4.20	3.76	4.75	5.09	2.76	13.5	7.31	10.2	2.33	1.94	2.80	3.47	1.66	1.45	8.40
	Xiang Zhou	4.02	17.6	5.74	7.65	2.66	8.16	8.27	1.65	2.10	2.21	3.74	9.20	8.24	6.89	4.41
	Zhuxiandong	5.86	13.2	6.62	22.7	5.60	2.62	***	4.50	2.56	3.29	5.92	***	***	***	8.30
Indonesia	Jakarta	24.3	11.3	9.28	10.3	5.73	8.01	11.2	3.51	2.22	2.23	2.28	2.86	2.83	3.62	12.5
	Serpong	7.04	3.95	7.96	5.65	6.18	4.46	2.76	2.21	1.75	3.20	3.15	4.33	4.91	5.64	7.81
	Kototabang	1.32	5.10	20.0	6.27	4.36	4.56	8.40	3.40	9.35	4.43	3.96	5.52	19.3	10.4	4949
	Bandung	12.6	2.04	4.13	3.29	4.66	4.81	2.03	2.31	4.08	4.22	4.77	3.36	7.97	5.63	3.54
	Maros								5.76	3.89	2.52	1.86	3.50	1.84	19.1	1786
Japan	Rishiri	6.04	5.08	4.90	6.01	5.09	3.75	4.13	6.58	4.31	4.28	3.44	6.41	4.61	4.10	3.62
	Ochiishi			4.63	8.08	5.28	7.66	4.58	3.81	4.09	6.16	3.70	6.76	9.35	2.55	4.84
	Tappi	3.28	4.07	3.45	4.95	4.99	7.12	5.66	5.36	4.95	3.50	4.34	3.96	6.21	3.97	5.56
	Sado-seki	8.19	6.49	2.46	3.56	6.65	5.69	5.88	7.16	7.96	8.08	4.45	6.62	7.69	7.51	9.69
	Happo	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.356	0.447	0.865	0.581	0.746	0.681
	Ijira	4.06	2.10	1.24	1.10	<1.0	<1.0	1.15	<1.0	<1.0	0.426	0.535	0.609	0.589	0.611	0.699
	Oki	8.77	9.53	5.45	9.62	15.5	6.56	9.12	11.9	10.1	10.1	12.7	9.16	12.8	13.1	9.87
	Banryu	2.73	2.89	2.49	3.02	3.69	2.23	3.06	2.54	3.00	5.43	3.39	3.26	2.33	2.65	2.54
	Yusuhara	<1.0	1.01	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.613	0.465	1.07	0.387	0.701	0.758
	Hedo	3.56	12.0	10.1	24.6	11.3	4.71	3.31	3.18	3.29	6.19	4.94	10.6	5.48	3.31	7.24
	Ogasawara	4.08	6.17	5.60	3.07	2.28	2.53	3.17	2.61	4.55	5.02	4.95	2.71	3.64	3.12	8.10
	Tokyo							1.40	1.14	1.10	0.989	1.29	0.888	0.711	0.628	0.641
Lao PDR	Vientiane			***	***	***	3.51	1.69	1.69	<1.0	***	***	***	***	***	1.74
Malaysia	Petaling Jaya	1.42	1.27	3.04	1.64	2.46	1.55	<1.0	1.19	1.51	1.50	1.31	1.33	1.14	1.47	1.70
	Tanah Rata	<1.0	<1.0	<1.0	1.52	<1.0	<1.0	<1.0	<1.0	<1.0	1.06	2.03	1.68	1.75	1.62	2.37
	Danum Valley					1.17	1.01	1.08	2.53	1.59	3.24	1.73	1.21	1.01	2.16	2.39
	Kuching								<1.0	<1.0	0.650	0.854	0.924	0.695	3.26	1.44
Mongolia	Ulaanbaatar	4.64	3.81	3.39	2.84	4.33	5.15	1.28	2.81	2.53	2.72	3.98	***	3.88	***	***
	Terelj	3.81	10.2	4.11	4.68	6.48	8.98	3.80	6.46	4.10	5.43	5.00	***	7.98	***	***
Myanmar	Yangon							***	***	6.46	2.07	1.66	6.78	2.66	4.69	13.3
Philippines	Metro Manila	23.2	9.87	2.52	3.93	3.90	12.6	5.38	15.6	3.99	17.0	23.5	26.3	6.45	9.79	13.1
	Los Baños	9.51	6.38	1.83	2.14	2.20	2.49	4.92	2.91	9.08	7.43	6.82	8.14	6.37	8.18	73.4
	Mt.Sto.Tomas						1.32	2.29	<1.0	1.95	1.41	0.821	0.885	0.752	1.26	1.63
Republic of Korea	Kanghwa	4.74	8.83	9.39	11.4	6.49	4.86	10.8	5.40	8.97	7.78	3.62	6.39	3.27	13.4	106
	Cheju	9.38	6.45	8.16	8.11	8.61	6.04	7.18	10.4	9.75	7.96	6.54	15.7	12.0	11.3	13.8
	Imsil	14.8	6.55	11.2	5.72	48.6	42.1	14.3	5.61	10.9	10.3	3.89	47.5	6.33	9.82	9.19
Russia	Mondy	2.07	2.32	1.61	2.68	1.05	1.11	2.47	2.02	3.29	2.62	4.98	9.05	2.30	2.01	3.40
	Listvyanka	1.73	2.22	2.64	2.36	1.15	1.54	1.28	3.38	2.07	1.66	2.42	2.00	4.36	3.11	2.10
	Irkutsk	7.37	2.32	2.63	2.72	3.39	7.64	7.77	8.99	26.6	5.52	4.59	4.99	5.19	2.97	4.51
	Primorskaya		5.35	10.1	7.24	7.07	5.47	6.18	8.99	4.40	5.84	6.75	5.09	5.55	5.14	7.79
Thailand	Bangkok	4.11	3.35	2.62	1.62	2.17	2.83	1.57	2.03	1.98	2.58	1.82	1.52	1.91	1.38	1.75
	Samutprakarn				4.88	4.92	4.31	2.88	6.12	2.77	17.0	1.11	1.52	5.23	2.33	1.93
	Pathumthani	1.68	1.49	1.17	1.19	1.20	1.66	1.61	1.50	1.61	1.85	1.96	1.64	2.13	1.87	1.84
	Khanchanaburi	4.98	2.38	2.02	1.09	<1.0	2.44	<1.0	1.15	1.21	0.710	2.21	1.57	0.955	1.22	0.838
	Chiang Mai	2.94	4.41	3.95	1.41	<1.0	1.70	2.87	2.63	1.47	1.21	1.45	1.26	1.48	1.77	1.24
	Sakaerat						<1.0	1.38	1.24	1.31	0.940	1.20	1.26	0.813	2.63	1.52
Vietnam	Hanoi	3.81	2.07	2.57	2.95	5.22	3.78	2.70	2.77	1.57	2.78	2.27	3.00	2.64	3.75	3.72
	HoaBinh	2.33	1.48	1.48	1.67	3.64	2.43	2.24	3.24	2.72	2.88	2.40	1.50	7.10	2.77	2.87
	Cuc Phuong									14.0	5.61	3.31	6.06	8.57	4.72	4.68
	Da Nang									6.27	3.41	14.0	11.5	17.9	13.8	11.9
	Can Tho														7.45	7.17
	Ho Chi Minh														10.6	12.0
	Yen Bai															4.03

Terms and abbreviations are given in Table 3.5.

Table 3.77 Precipitation amount-weighted annual average concentrations of Ca^{2+} from 2001 to 2015

unit: $\mu mol\ L^{-1}$

Country	Name of sites	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Cambodia	PhnomPenh				<0.2	***	9.11	19.2	32.6	20.4	8.33	9.30	10.7	9.57	9.47	11.6
China	Guanyinqiao	137	65.4	65.4	110	156	143	75.2								
	Haifu								65.3	43.2	69.2	68.5	57.9	69.5	54.6	43.0
	Jinyunshan	44.9	29.7	30.7	70.5	57.7	98.3	55.1	68.3	66.7	68.7	65.1	59.2	31.2	26.0	21.7
	Shizhan	675	479	258	147	107	301	116	150	138	105	91.2	128	325	92.7	89.7
	Weishuiyuan	1160	617	241	190	91.0	330									
	Jiwozi	429	276	230	88.0	129	221	347	266	93.7	40.7	91.6	203	133	149	57.7
	Hongwen	36.3	49.1	30.7	83.7	37.4	25.5	54.9	14.1	13.2	9.11	14.1	17.5	21.9	25.5	16.3
	Xiaoping	5.10	10.6	17.3	6.41	10.6	10.5	16.7	15.6	9.04	8.37	11.7	20.0	22.7	42.4	9.17
	Xiang Zhou	7.96	15.5	22.8	18.0	7.31	14.1	4.71	5.43	4.91	7.40	17.5	10.8	43.4	17.0	15.9
	Zhuxiandong	14.3	20.7	20.2	24.7	17.0	17.1	***	13.6	7.40	16.4	19.1	***	***	***	25.2
Indonesia	Jakarta	64.4	42.9	101	50.9	17.4	18.8	13.9	4.36	12.6	10.3	11.1	12.0	14.1	15.0	7.47
	Serpong	13.6	9.93	6.60	10.5	12.0	7.19	7.37	7.97	5.17	9.25	10.9	9.29	14.0	13.0	19.7
	Kototabang	1.43	4.92	5.53	6.98	3.38	5.19	4.70	4.86	5.47	4.77	5.90	7.85	9.55	3.93	1.99
	Bandung	24.2	17.1	10.9	18.3	15.9	14.8	9.50	11.3	15.3	13.5	20.9	13.3	19.6	22.8	17.6
	Maros								8.39	8.11	9.58	6.49	16.1	10.4	27.9	16.8
Japan	Rishiri	10.1	10.2	7.74	8.60	7.62	5.33	5.83	8.72	10.1	6.89	5.63	8.44	7.33	5.78	5.27
	Ochiishi			5.74	12.2	8.96	10.2	6.96	5.29	5.20	8.25	5.42	7.35	11.5	4.06	6.72
	Tappi	5.78	9.01	6.98	7.76	10.7	12.7	11.0	10.3	6.41	8.54	8.01	8.02	14.1	7.45	7.99
	Sado-seki	15.8	9.08	5.08	4.70	10.2	12.1	11.8	10.3	11.1	12.7	8.28	11.4	10.4	9.49	11.3
	Happo	4.31	2.00	1.92	2.36	4.15	6.28	2.91	2.70	4.66	2.40	2.57	4.14	2.77	2.31	1.70
	Ijira	5.62	4.18	2.88	2.31	2.82	2.89	3.63	2.20	2.74	2.48	1.97	2.50	2.74	1.65	2.00
	Oki	12.9	11.5	6.91	11.9	18.6	11.4	13.6	10.9	14.6	16.1	17.1	12.1	17.0	16.4	12.0
	Banryu	5.97	5.37	3.39	5.29	5.87	9.51	7.36	7.41	5.45	8.02	5.85	6.65	3.92	4.75	5.37
	Yusuhara	3.41	1.78	1.42	1.84	2.39	2.61	1.96	1.69	1.97	1.79	2.27	2.39	2.16	1.60	1.02
	Hedo	4.88	14.0	10.9	22.7	14.1	9.21	4.92	4.18	4.47	7.98	6.04	11.5	6.89	4.25	8.24
	Ogasawara	5.43	8.61	8.00	3.36	2.56	3.58	4.36	2.55	5.20	5.82	5.56	3.46	4.60	3.98	8.13
	Tokyo							4.99	4.09	3.42	3.98	4.84	4.21	4.35	3.81	3.56
Lao PDR	Vientiane			***	***	***	8.75	3.04	5.77	5.50	***	***	***	***	***	4.00
Malaysia	Petaling Jaya	6.30	7.44	7.83	5.05	6.07	3.80	3.94	3.94	4.97	5.40	3.97	3.96	6.13	6.02	6.70
	Tanah Rata	3.10	3.08	3.35	2.32	1.83	1.15	1.05	0.772	1.03	1.22	2.08	2.37	2.91	2.68	2.00
	Danum Valley					1.35	1.26	0.513	0.353	1.01	3.82	0.887	0.800	1.44	1.41	2.28
	Kuching								1.91	1.79	2.60	3.15	3.42	4.20	6.12	4.35
Mongolia	Ulaanbaatar	47.4	49.9	26.5	43.2	49.8	45.9	41.2	42.9	42.2	34.3	33.9	***	95.3	***	***
	Terelj	15.0	27.3	10.7	16.2	13.6	24.8	13.6	17.9	35.8	42.3	20.4	***	69.1	***	***
Myanmar	Yangon							***	***	9.66	6.37	6.89	7.79	1.07	14.1	88.7
Philippines	Metro Manila	71.6	8.71	8.76	11.1	10.6	13.7	10.4	13.7	6.41	12.8	12.9	13.9	11.5	14.5	17.4
	Los Baños	65.3	7.23	7.75	5.40	3.54	6.92	5.19	3.75	5.08	20.1	6.38	9.40	6.40	6.99	8.77
	Mt.Sto.Tomas						5.64	23.4	3.09	5.87	22.7	7.84	14.0	8.58	8.06	6.85
Republic of Korea	Kanghwa	14.0	11.1	11.3	14.0	11.1	15.8	12.4	10.8	5.19	7.02	4.39	8.64	8.72	8.94	9.52
	Cheju	5.89	9.37	8.10	7.70	11.3	9.05	10.6	10.5	4.08	6.72	6.60	11.2	13.6	4.12	4.64
	Imsil	5.85	9.84	5.39	6.76	5.00	14.7	13.7	6.92	3.88	5.74	6.81	4.31	2.95	3.50	5.16
Russia	Mondy	7.00	8.54	3.80	5.33	4.17	5.46	6.91	7.97	5.19	9.20	9.02	12.1	4.61	7.02	8.36
	Listvyanka	7.25	11.4	14.3	14.1	8.23	8.81	9.02	8.18	12.6	12.6	16.1	11.7	11.9	12.8	9.97
	Irkutsk	34.8	31.5	23.9	21.9	21.6	29.9	26.5	29.5	29.2	32.2	34.7	31.3	33.0	26.5	30.5
	Primorskaya		18.1	25.3	21.5	21.1	25.0	14.0	19.4	11.7	16.9	13.7	12.2	18.0	18.1	13.1
Thailand	Bangkok	12.0	15.7	11.9	11.0	18.6	18.4	13.6	16.1	10.0	11.2	10.5	13.5	25.2	14.5	16.9
	Samutprakarn				7.84	9.68	14.8	11.0	13.8	13.2	7.78	5.95	8.39	19.9	14.6	6.23
	Pathumthani	13.0	17.4	6.30	11.4	8.48	12.8	8.50	11.6	9.19	9.17	12.1	20.6	27.1	22.5	16.6
	Khanchanaburi	9.05	4.92	8.45	4.78	2.45	2.71	3.03	4.59	4.93	1.80	4.04	17.5	3.26	4.07	3.63
	Chiang Mai	6.95	18.0	5.72	4.77	3.75	4.74	8.03	6.68	5.69	4.40	2.60	7.77	10.6	9.72	4.11
	Sakaerat						9.54	3.75	3.35	2.53	2.21	1.88	3.74	1.96	8.73	6.83
Vietnam	Hanoi	10.7	16.8	17.8	25.0	26.1	35.2	18.1	11.8	12.0	23.7	14.6	15.0	16.2	24.8	36.7
	HoaBinh	10.4	12.6	12.0	19.9	14.3	17.8	9.33	14.5	9.44	21.1	12.5	11.1	16.9	13.4	10.1
	Cuc Phuong									24.8	38.3	32.2	30.6	24.4	23.1	19.4
	Da Nang									6.35	8.87	10.0	16.9	21.5	27.3	34.4
	Can Tho														12.8	26.8
	Ho Chi Minh														26.0	44.3
	Yen Bai															15.9

Terms and abbreviations are given in Table 3.5.

Table 3.78 Precipitation amount-weighted annual average concentrations of nss-Ca^{2+} from 2001 to 2015

unit: µmol L^{-1}

Country	Name of sites	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Cambodia	PhnomPenh				***	***	9.07	19.1	32.5	20.3	8.26	9.23	10.7	9.50	9.31	11.5
China	Guanyinqiao	137	65.3	65.3	110	156	143	75.1								
	Haifu								65.2	43.2	69.0	68.2	57.7	69.3	54.5	43.0
	Jinyunshan	44.7	29.6	30.6	70.2	57.4	98.2	55.0	68.1	66.5	68.6	64.9	59.0	31.1	25.9	21.7
	Shizhan	672	474	257	147	107	300	116	149	138	105	90.8	128	322	90.0	87.2
	Weishuiyuan	1150	612	238	189	90.6	328									
	Jiwozi	425	273	227	87.4	128	220	345	264	93.2	40.6	91.4	202	130	146	55.7
	Hongwen	36.1	47.9	30.0	82.6	36.3	24.8	54.4	13.6	12.7	8.70	13.7	17.1	21.6	25.1	15.9
	Xiaoping	4.90	10.3	16.8	6.13	10.4	9.99	16.4	15.1	8.69	7.96	11.5	19.9	22.4	42.2	8.94
	Xiang Zhou	7.43	14.6	21.9	16.4	6.46	13.3	4.33	4.68	4.04	6.97	16.8	9.76	42.2	16.4	14.7
	Zhuxiandong	13.7	19.7	19.4	22.7	15.7	16.7	***	12.7	6.44	15.9	18.1	***	***	***	23.7
Indonesia	Jakarta	63.5	42.2	101	50.2	16.9	18.5	13.6	4.14	12.4	10.2	10.8	11.7	13.8	14.5	7.43
	Serpong	13.1	9.40	6.38	10.1	11.7	7.03	7.19	7.75	5.03	9.07	10.7	9.05	13.7	12.6	19.4
	Kototabang	1.36	4.78	5.32	6.75	3.26	5.06	4.51	4.76	5.34	4.65	5.76	7.64	9.37	3.81	2.03
	Bandung	23.7	16.9	10.7	18.0	15.4	14.4	9.36	11.1	15.1	13.3	20.6	13.1	19.3	22.6	17.4
	Maros								8.05	7.83	9.30	6.17	15.7	9.98	27.2	16.7
Japan	Rishiri	5.53	5.91	3.98	3.66	3.27	2.99	2.76	3.40	6.39	3.44	2.63	2.20	3.06	2.31	2.29
	Ochiishi			1.60	4.48	4.44	4.30	2.96	1.66	1.38	3.25	2.11	1.50	2.42	1.96	2.87
	Tappi	3.01	5.49	3.94	3.52	6.15	6.50	6.01	6.09	2.26	6.16	4.87	4.44	8.53	4.17	3.02
	Sado-seki	8.32	3.39	3.06	1.88	3.90	7.28	6.87	5.67	4.20	5.94	4.99	6.19	3.83	3.47	4.33
	Happo	4.18	1.92	1.81	2.24	4.00	6.19	2.85	2.61	4.55	2.32	2.49	3.93	2.69	2.20	1.58
	Ijira	4.97	3.57	2.60	1.87	2.53	2.65	3.18	1.87	2.46	2.21	1.70	2.09	2.43	1.34	1.66
	Oki	6.10	3.91	2.85	5.51	5.51	6.85	7.68	3.94	6.44	7.24	6.73	4.40	6.12	4.63	3.15
	Banryu	4.29	3.66	1.65	2.86	3.89	8.08	5.66	5.85	3.32	5.99	3.52	4.66	2.42	2.87	3.49
	Yusuhara	3.21	1.24	1.14	1.32	1.85	2.35	1.67	1.51	1.71	1.65	2.04	2.00	1.95	1.49	0.530
	Hedo	1.71	2.89	3.48	4.30	4.39	5.15	2.13	1.50	1.75	2.50	1.63	2.44	1.99	1.29	1.48
	Ogasawara	3.19	3.58	2.63	1.04	0.575	1.37	1.50	0.862	1.16	1.35	1.20	1.01	1.56	1.15	1.51
	Tokyo							4.24	3.67	2.91	3.60	4.03	3.57	3.86	3.40	3.17
Lao PDR	Vientiane			***	***	***	8.59	2.99	5.70	5.30	***	***	***	***	***	3.94
Malaysia	Petaling Jaya	6.22	7.33	7.71	4.93	5.93	3.71	3.86	3.85	4.87	5.29	3.87	3.88	6.04	5.91	6.56
	Tanah Rata	3.06	3.04	3.31	2.28	1.70	1.12	1.02	0.753	1.01	1.19	2.04	2.33	2.87	2.63	1.94
	Danum Valley					1.26	1.16	0.453	0.315	0.919	3.59	0.794	0.750	1.34	1.32	2.18
	Kuching								1.81	1.66	2.45	2.95	3.32	4.04	5.93	4.07
Mongolia	Ulaanbaatar	47.2	49.8	26.4	43.0	49.6	45.7	41.1	42.9	42.1	34.2	33.8	***	93.6	***	***
	Terelj	14.6	26.3	10.6	16.1	13.3	24.5	13.4	17.7	35.6	42.1	20.2	***	68.8	***	***
Myanmar	Yangon							***	***	9.26	6.09	6.57	7.32	0.792	13.8	88.5
Philippines	Metro Manila	67.2	8.40	8.40	10.8	10.3	13.3	9.96	13.2	5.98	12.3	12.4	13.5	10.9	14.0	16.9
	Los Baños	64.5	6.77	7.46	5.14	3.18	6.43	4.82	3.34	4.71	19.7	5.96	8.92	5.94	6.67	8.42
	Mt.Sto.Tomas						5.58	23.3	2.98	5.69	22.5	7.75	13.8	8.43	7.92	6.66
Republic of Korea	Kanghwa	13.1	10.0	10.8	13.3	10.3	15.2	11.5	10.0	4.23	6.44	3.66	7.54	8.09	8.13	8.55
	Cheju	4.30	8.15	7.09	6.45	9.45	7.21	8.43	7.63	3.03	4.70	3.72	3.15	7.33	1.79	2.52
	Imsil	5.51	9.00	4.89	6.37	4.53	14.0	13.3	6.23	2.83	4.79	6.02	3.40	2.29	2.90	4.19
Russia	Mondy	6.95	8.50	3.75	5.29	4.14	5.43	6.84	7.93	5.14	9.14	8.94	12.1	4.58	6.97	8.32
	Listvyanka	7.18	11.3	14.1	14.0	8.16	8.76	8.96	8.12	12.5	12.5	16.0	11.7	11.7	12.7	9.91
	Irkutsk	34.6	31.3	23.7	21.7	21.4	29.7	26.3	29.2	28.8	31.8	34.4	31.1	32.7	26.3	30.2
	Primorskaya		17.6	24.6	21.0	20.7	24.7	13.5	18.9	11.4	16.3	13.4	11.7	17.4	17.7	12.6
Thailand	Bangkok	11.8	15.4	11.7	10.7	18.4	18.2	13.5	15.9	9.81	11.1	10.4	13.3	25.0	14.3	16.8
	Samutprakarn				7.48	9.25	14.5	10.7	13.5	13.0	7.38	5.83	8.22	19.3	14.3	6.02
	Pathumthani	12.8	17.2	6.20	11.2	8.34	12.7	8.38	11.5	9.07	9.03	12.0	20.3	27.0	22.4	16.5
	Khanchanaburi	8.81	4.74	8.22	4.59	2.31	2.56	2.88	4.39	4.72	1.73	3.88	17.3	3.14	3.93	3.50
	Chiang Mai	6.86	17.8	5.65	4.71	3.73	4.68	7.97	6.63	5.63	4.36	2.54	7.69	10.4	9.64	4.01
	Sakaerat						9.45	3.66	3.26	2.48	2.15	1.81	3.66	1.90	8.57	6.73
Vietnam	Hanoi	10.4	16.7	17.6	24.8	25.7	35.0	17.9	11.6	11.8	23.5	14.5	15.0	16.1	24.6	36.5
	HoaBinh	10.2	12.6	11.9	19.8	14.1	17.7	9.26	14.4	9.37	21.0	12.5	11.0	16.9	13.3	10.0
	Cuc Phuong									24.6	38.0	32.0	30.2	23.8	22.8	19.2
	Da Nang									4.31	7.98	8.50	15.5	18.4	25.5	32.7
	Can Tho														12.4	26.2
	Ho Chi Minh														25.4	43.5
	Yen Bai															15.8

Terms and abbreviations are given in Table 3.5.

Table 3.79 Precipitation amount-weighted annual average concentrations of Mg^{2+} from 2001 to 2015

unit: μmol L^{-1}

Country	Name of sites	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Cambodia	PhnomPenh				<0.4	***	0.661	3.27	3.45	2.00	0.717	1.22	1.22	1.12	1.63	2.56
China	Guanyinqiao	11.6	6.00	4.46	9.12	12.7	12.6	8.04								
	Haifu								7.08	5.45	8.95	8.61	6.87	8.23	7.00	4.79
	Jinyunshan	5.76	3.37	2.89	3.55	3.17	4.00	2.81	4.64	5.56	5.76	6.13	5.82	4.42	4.37	3.24
	Shizhan	48.5	67.9	33.5	15.3	13.2	28.3	21.4	45.4	12.4	11.0	9.94	3.47	54.5	11.8	9.25
	Weishuiyuan	88.4	91.1	40.0	19.3	10.9	42.0									
	Jiwozi	41.1	50.1	33.9	16.6	30.9	40.6	48.8	77.3	20.2	7.17	9.65	44.4	22.3	21.6	11.1
	Hongwen	6.30	9.64	5.96	11.4	9.04	5.44	6.18	4.92	4.08	2.00	4.22	4.69	3.36	4.27	4.20
	Xiaoping	2.50	1.61	4.04	1.44	1.15	2.77	2.06	3.39	3.24	1.89	2.21	3.45	4.03	3.65	2.27
	Xiang Zhou	2.93	5.52	7.15	6.35	6.87	12.0	2.38	3.97	4.52	2.57	4.39	6.90	14.0	7.21	7.19
	Zhuxiandong	3.33	7.08	7.37	8.49	9.08	4.99	***	5.70	6.15	2.86	6.75	***	***	***	8.78
Indonesia	Jakarta	69.0	13.1	12.7	6.30	3.63	8.59	2.21	1.67	1.97	2.23	3.45	2.96	2.62	3.64	1.81
	Serpong	3.53	4.52	2.69	3.99	3.74	1.73	2.65	4.12	1.36	3.09	3.12	2.01	3.86	3.23	3.86
	Kototabang	1.04	2.58	6.76	1.78	0.939	2.26	3.81	1.000	1.10	1.55	0.950	1.40	2.40	0.908	21.5
	Bandung	4.07	1.64	1.70	3.28	2.45	3.26	1.68	4.40	4.13	4.43	5.78	3.17	6.33	7.51	5.61
	Maros								2.56	1.86	2.17	2.50	7.03	2.81	13.6	30.0
Japan	Rishiri	24.8	22.3	20.3	26.4	23.3	12.6	17.0	30.0	19.9	18.6	15.4	32.3	22.5	18.1	16.2
	Ochiishi			22.1	42.2	22.2	31.2	21.5	19.8	19.9	28.6	18.5	30.6	48.2	11.1	20.4
	Tappi	15.5	19.6	16.8	23.4	24.2	33.3	26.4	23.1	21.1	12.9	17.4	15.4	30.0	18.1	25.2
	Sado-seki	40.5	30.7	11.3	15.6	33.0	25.9	26.1	23.5	36.2	37.7	19.0	29.4	36.9	32.5	37.3
	Happo	1.59	0.926	1.25	1.26	1.20	0.958	0.676	0.697	1.16	0.810	0.896	2.30	1.37	1.27	1.33
	Ijira	3.99	3.53	2.16	2.75	1.75	1.64	2.75	1.74	1.67	1.62	1.69	2.54	2.09	1.97	2.04
	Oki	36.6	40.6	21.2	34.4	69.9	26.9	31.7	36.7	43.1	48.1	55.5	41.2	56.1	60.6	47.9
	Banryu	9.11	9.30	9.29	13.2	10.8	8.34	9.85	8.91	11.8	12.1	12.8	11.2	8.50	10.8	10.8
	Yusuhara	1.83	3.55	1.83	2.86	3.04	1.66	1.80	1.11	1.61	1.56	2.56	2.84	2.40	1.82	2.77
	Hedo	16.9	59.0	49.3	91.0	47.3	21.8	14.8	14.2	14.5	29.2	23.2	47.9	25.7	15.6	35.8
	Ogasawara	13.3	32.4	31.1	13.0	10.7	11.4	15.0	10.6	21.9	24.5	23.6	13.6	17.0	15.2	34.5
	Tokyo							4.22	2.78	2.97	2.40	4.79	3.78	3.04	2.54	2.45
Lao PDR	Vientiane			***	***	***	3.49	0.698	1.31	0.722	***	***	***	***	***	0.613
Malaysia	Petaling Jaya	1.30	1.43	0.707	0.888	0.842	0.710	<0.4	0.520	0.467	0.698	0.579	0.497	0.686	1.10	0.922
	Tanah Rata	0.406	0.422	0.451	<0.4	0.492	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	0.333	<0.3
	Danum Valley					<0.4	0.481	0.402	0.528	0.549	1.48	0.541	<0.4	0.430	0.552	0.934
	Kuching								<0.4	<0.4	0.457	0.745	<0.4	0.588	1.12	1.21
Mongolia	Ulaanbaatar	5.41	3.56	3.69	5.86	5.21	4.39	4.75	3.67	5.32	2.98	9.23	***	3.74	***	***
	Terelj	2.53	4.09	2.26	5.15	3.67	4.85	2.07	3.00	5.45	5.54	7.35	***	4.97	***	***
Myanmar	Yangon							***	***	2.84	1.80	3.02	6.56	12.3	3.41	5.87
Philippines	Metro Manila	15.0	3.27	2.99	4.38	2.46	5.46	4.13	4.64	2.56	9.12	7.13	6.53	4.54	4.64	6.39
	Los Baños	11.1	2.94	2.60	3.59	2.34	3.44	3.46	4.65	3.73	8.20	4.76	4.26	3.25	3.32	4.40
	Mt.Sto.Tomas						0.971	2.08	<0.4	1.53	3.34	1.61	2.90	1.69	1.35	3.44
Republic of Korea	Kanghwa	5.26	6.34	2.86	5.49	6.20	5.10	6.74	2.75	5.27	3.64	3.18	5.50	3.30	3.27	3.60
	Cheju	9.96	7.48	5.86	7.27	15.0	9.59	7.30	9.68	6.02	6.90	10.5	34.5	25.6	7.85	5.92
	Imsil	1.92	3.31	1.60	2.39	1.82	3.99	3.57	1.99	3.88	4.68	2.02	3.05	1.87	1.77	3.30
Russia	Mondy	1.46	2.20	0.775	1.27	0.961	0.986	1.78	1.98	1.17	1.81	2.60	4.06	0.877	1.18	2.15
	Listvyanka	1.78	3.04	3.65	3.20	1.58	1.71	1.85	1.76	2.84	2.97	3.12	2.53	2.92	2.37	2.06
	Irkutsk	5.55	5.66	4.32	4.77	5.08	5.76	6.27	6.44	7.55	6.75	7.29	6.49	6.38	3.68	5.51
	Primorskaya		5.66	11.2	7.05	5.67	5.50	4.30	6.26	3.11	4.27	4.29	4.43	4.89	6.21	5.62
Thailand	Bangkok	3.16	3.54	2.33	2.13	3.78	2.34	1.68	2.34	1.49	1.52	1.25	1.35	2.63	2.37	1.90
	Samutprakarn				1.87	3.43	4.63	2.69	3.99	2.80	2.20	1.20	1.53	4.46	3.12	1.57
	Pathumthani	2.17	2.77	1.06	1.58	1.31	1.76	1.28	1.70	1.24	1.38	1.57	3.14	2.59	1.91	1.88
	Khanchanaburi	2.52	1.75	2.23	1.64	1.13	0.983	0.997	1.61	1.44	0.575	1.27	2.76	1.03	1.32	1.06
	Chiang Mai	1.10	3.54	2.08	1.82	1.00	2.42	1.24	1.78	2.73	0.451	<0.4	0.842	1.50	1.91	1.41
	Sakaerat						1.98	1.78	1.22	1.27	0.703	<0.4	0.423	<0.4	1.31	2.17
Vietnam	Hanoi	3.97	2.95	3.64	3.80	8.64	8.55	4.17	3.65	4.78	5.68	4.08	2.15	2.79	3.51	4.59
	HoaBinh	3.71	1.42	2.14	2.52	4.21	5.28	2.76	1.60	1.85	5.56	2.39	2.17	2.69	2.72	2.44
	Cuc Phuong									4.37	4.41	4.78	7.07	12.2	4.88	5.44
	Da Nang									10.2	8.52	9.42	9.19	18.8	10.8	8.77
	Can Tho														4.45	9.17
	Ho Chi Minh														8.73	17.9
	Yen Bai															2.68

Terms and abbreviations are given in Table 3.5.

Table 3.80 Precipitation amount-weighted annual average concentrations of H^+ from 2001 to 2015

unit: μmol L^{-1}

Country	Name of sites	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Cambodia	PhnomPenh				4.79	0.478	0.191	0.203	1.45	0.649	1.07	1.10	0.694	0.662	0.621	0.717
China	Guanyinqiao	16.1	25.2	32.2	25.9	11.2	13.7	22.6								
	Haifu								63.5	60.3	71.0	65.9	57.5	30.1	12.1	3.81
	Jinyunshan	65.4	43.6	50.3	25.9	23.7	20.4	30.0	44.0	47.1	115	90.9	81.5	63.3	41.2	20.0
	Shizhan	0.420	0.576	1.00	0.505	3.86	2.75	3.03	0.402	0.297	0.211	0.535	0.552	0.117	0.247	0.220
	Weishuiyuan	0.484	0.931	0.784	1.05	7.04	1.46									
	Jiwozi	0.573	0.999	0.890	0.776	0.627	1.36	0.143	0.114	0.794	2.91	1.13	0.076	0.635	0.104	0.124
	Hongwen	29.6	16.2	34.4	19.4	19.9	14.7	16.2	25.7	30.2	26.6	22.5	30.9	13.2	8.39	12.7
	Xiaoping	12.6	33.6	41.4	24.6	16.5	16.5	25.4	27.9	34.1	26.5	15.3	15.7	9.92	19.6	11.3
	Xiang Zhou	11.4	7.83	7.87	16.5	27.3	13.4	23.3	11.7	13.4	14.1	8.81	7.73	5.83	9.91	2.77
	Zhuxiandong	16.7	12.8	7.88	23.2	24.4	15.0	***	13.1	17.7	11.3	16.7	***	***	***	3.29
Indonesia	Jakarta	3.79	16.9	6.96	20.4	49.1	41.5	27.5	22.5	23.5	18.6	28.2	17.4	16.9	19.6	14.4
	Serpong	23.7	22.6	24.1	20.8	25.6	25.0	25.8	23.9	19.3	17.5	19.7	12.4	8.63	7.23	11.4
	Kototabang	8.53	4.89	5.00	18.5	20.9	29.4	5.31	6.00	22.6	16.0	9.22	9.75	10.6	15.2	12.4
	Bandung	10.1	34.9	10.0	9.30	9.33	7.00	11.8	6.81	4.99	7.99	4.00	3.48	4.01	6.14	4.41
	Maros								2.35	4.64	6.16	4.43	2.41	3.41	5.88	5.77
Japan	Rishiri	16.8	15.0	13.3	14.4	18.4	21.5	26.3	12.3	18.3	18.7	20.1	20.2	21.2	18.6	16.8
	Ochiishi			12.2	20.7	14.6	13.8	16.7	13.5	9.64	14.8	13.1	15.2	9.38	7.82	9.96
	Tappi	23.0	20.9	27.0	25.4	24.9	26.5	23.8	26.0	18.2	20.4	24.6	20.5	16.0	21.9	14.1
	Sado-seki	23.2	22.7	21.5	19.7	27.6	19.7	31.4	27.9	17.7	19.8	20.8	18.6	18.2	19.7	21.8
	Happo	14.6	11.8	12.4	13.9	15.9	10.7	16.2	14.7	10.7	8.00	9.15	13.3	10.0	9.77	8.14
	Ijira	37.1	30.4	38.7	22.1	30.9	31.0	29.3	35.7	23.0	17.3	18.0	20.5	17.9	19.3	20.0
	Oki	17.0	18.6	17.5	15.9	27.4	18.7	23.1	25.0	19.4	21.8	18.8	26.4	24.6	22.2	19.1
	Banryu	21.9	20.4	23.3	19.9	32.7	20.5	32.3	29.3	22.1	19.8	21.8	33.5	22.8	27.9	22.2
	Yusuhara	14.9	17.4	18.4	10.6	22.8	14.4	15.3	21.6	17.2	16.2	11.7	16.8	16.7	13.2	13.5
	Hedo	10.9	11.3	12.5	16.5	14.7	10.1	10.2	10.0	7.81	6.34	12.5	7.49	10.9	9.55	7.17
	Ogasawara	8.07	8.21	9.10	7.48	15.4	10.1	9.38	10.0	6.79	5.68	4.98	4.63	5.65	8.38	5.89
	Tokyo							16.3	24.8	17.7	11.2	14.9	14.4	8.83	14.8	16.3
Lao PDR	Vientiane			0.313	2.26	0.481	0.325	2.16	0.987	3.31	***	***	0.351	***	0.288	1.15
Malaysia	Petaling Jaya	56.0	58.8	52.1	47.3	43.1	37.8	27.6	37.2	45.2	54.4	69.4	61.4	38.0	38.2	40.8
	Tanah Rata	12.7	10.8	12.7	13.7	14.3	11.3	11.1	8.01	8.31	8.64	9.76	10.9	11.2	13.9	19.1
	Danum Valley					10.5	8.93	8.03	6.02	6.00	5.99	6.20	6.58	5.33	4.87	6.15
	Kuching								5.55	5.47	5.25	3.73	4.84	5.17	4.60	4.88
Mongolia	Ulaanbaatar	0.643	0.419	1.90	0.347	1.02	0.354	0.550	0.521	0.777	1.33	3.64	1.31	1.04	***	0.379
	Terelj	0.913	1.77	3.96	1.64	5.44	6.89	6.04	3.72	0.608	2.44	5.47	1.81	12.3	***	3.14
Myanmar	Yangon							2.66	0.392	0.346	0.384	0.347	0.323	0.352	0.199	0.216
Philippines	Metro Manila	3.87	8.11	36.2	6.64	11.3	5.01	5.33	2.84	5.87	2.25	2.27	6.03	2.85	0.736	0.528
	Los Baños	2.98	1.81	32.5	5.47	7.27	2.44	2.91	11.2	2.64	1.32	2.70	2.19	1.41	1.61	0.508
	Mt.Sto.Tomas						0.475	2.97	3.22	1.47	0.201	4.46	1.12	5.18	0.724	1.10
Republic of Korea	Kanghwa	10.2	22.2	21.3	27.2	56.9	21.0	24.0	28.4	25.9	39.0	23.0	24.4	26.3	13.4	20.2
	Cheju	12.9	24.3	15.0	18.2	28.5	45.9	30.7	21.5	7.79	9.19	6.80	4.95	4.18	1.61	2.15
	Imsil	8.05	2.02	8.34	11.8	0.997	6.45	1.85	13.1	8.06	13.5	5.42	7.82	6.01	5.17	8.04
Russia	Mondy	3.15	4.06	4.47	4.57	4.34	4.08	3.03	6.72	3.33	2.80	2.90	2.37	4.83	4.65	3.58
	Listvyanka	11.0	13.2	9.71	12.1	14.7	22.8	21.6	23.2	14.4	17.6	18.8	16.7	15.9	12.6	14.7
	Irkutsk	5.31	9.44	4.24	12.2	7.61	7.04	11.7	17.1	3.89	7.41	9.51	11.6	9.81	8.65	6.15
	Primorskaya		6.30	13.2	14.5	8.67	15.0	14.5	16.3	10.5	10.7	23.4	8.55	8.80	3.41	6.90
Thailand	Bangkok	10.7	7.90	29.5	6.49	12.7	6.91	8.96	5.29	8.07	8.48	8.97	2.08	2.52	0	5.09
	Samutprakarn				3.41	3.42	1.36	2.46	5.08	7.40	4.82	1.27	0.679	1.06	0.310	2.53
	Pathumthani	7.42	4.64	13.7	13.6	12.9	13.0	15.6	9.24	7.05	5.82	9.99	3.60	3.90	3.09	5.12
	Khanchanaburi	5.47	2.30	3.47	0.847	2.87	1.78	1.66	2.19	2.18	2.03	3.21	0.964	4.72	1.61	3.44
	Chiang Mai	1.94	1.89	2.47	2.54	5.94	2.00	1.12	1.04	1.20	0.676	5.14	0.789	0.909	0.527	2.28
	Sakaerat						7.61	8.30	9.31	13.6	17.8	9.95	8.58	5.70	15.0	9.26
Vietnam	Hanoi	1.47	2.79	1.55	2.26	0.710	1.85	2.61	1.43	2.15	1.16	5.03	2.39	2.21	1.83	0.649
	HoaBinh	9.09	6.50	4.15	2.52	2.03	2.57	8.71	3.25	5.13	4.26	3.65	2.35	0.911	3.60	5.07
	Cuc Phuong									10.3	5.88	9.09	3.68	3.77	3.00	4.78
	Da Nang									16.8	7.71	10.4	3.66	2.62	3.01	1.05
	Can Tho														0.550	1.68
	Ho Chi Minh														1.42	0.775
	Yen Bai															5.90

Terms and abbreviations are given in Table 3.5.

Table 3.81 Precipitation amount-weighted annual average pH from 2001 to 2015

Country	Name of sites	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Cambodia	PhnomPenh				5.32	6.32	6.72	6.69	5.84	6.19	5.97	5.96	6.16	6.18	6.21	6.14
China	Guanyinqiao	4.79	4.60	4.49	4.59	4.95	4.86	4.65								
	Haifu								4.20	4.22	4.15	4.18	4.24	4.52	4.92	5.42
	Jinyunshan	4.18	4.36	4.30	4.59	4.62	4.69	4.52	4.36	4.33	3.94	4.04	4.09	4.20	4.39	4.70
	Shizhan	6.38	6.24	6.00	6.30	5.41	5.56	5.52	6.40	6.53	6.68	6.27	6.26	6.93	6.61	6.66
	Weishuiyuan	6.32	6.03	6.11	5.98	5.15	5.84									
	Jiwozi	6.24	6.00	6.05	6.11	6.20	5.87	6.85	6.94	6.10	5.54	5.95	7.12	6.20	6.98	6.91
	Hongwen	4.53	4.79	4.46	4.71	4.70	4.83	4.79	4.59	4.52	4.57	4.65	4.51	4.88	5.08	4.90
	Xiaoping	4.90	4.47	4.38	4.61	4.78	4.78	4.60	4.55	4.47	4.58	4.82	4.80	5.00	4.71	4.95
	Xiang Zhou	4.94	5.11	5.10	4.78	4.56	4.87	4.63	4.93	4.87	4.85	5.05	5.11	5.23	5.00	5.56
	Zhuxiandong	4.78	4.89	5.10	4.63	4.61	4.82	***	4.88	4.75	4.95	4.78	***	***	***	5.48
Indonesia	Jakarta	5.42	4.77	5.16	4.69	4.31	4.38	4.56	4.65	4.63	4.73	4.55	4.76	4.77	4.71	4.84
	Serpong	4.63	4.65	4.62	4.68	4.59	4.60	4.59	4.62	4.71	4.76	4.70	4.91	5.06	5.14	4.94
	Kototabang	5.07	5.31	5.30	4.73	4.68	4.53	5.27	5.22	4.65	4.80	5.04	5.01	4.97	4.82	4.91
	Bandung	4.99	4.46	5.00	5.03	5.03	5.15	4.93	5.17	5.30	5.10	5.40	5.46	5.40	5.21	5.36
	Maros								5.63	5.33	5.21	5.35	5.62	5.47	5.23	5.24
Japan	Rishiri	4.77	4.82	4.88	4.84	4.74	4.67	4.58	4.91	4.74	4.73	4.70	4.70	4.67	4.73	4.77
	Ochiishi			4.91	4.68	4.84	4.86	4.78	4.87	5.02	4.83	4.88	4.82	5.03	5.11	5.00
	Tappi	4.64	4.68	4.57	4.59	4.60	4.58	4.62	4.59	4.74	4.69	4.61	4.69	4.80	4.66	4.85
	Sado-seki	4.63	4.64	4.67	4.70	4.56	4.70	4.50	4.55	4.75	4.70	4.68	4.73	4.74	4.70	4.66
	Happo	4.84	4.93	4.91	4.86	4.80	4.97	4.79	4.83	4.97	5.10	5.04	4.88	5.00	5.01	5.09
	Ijira	4.43	4.52	4.41	4.65	4.51	4.51	4.53	4.45	4.64	4.76	4.75	4.69	4.75	4.71	4.70
	Oki	4.77	4.73	4.76	4.80	4.56	4.73	4.64	4.60	4.71	4.66	4.73	4.58	4.61	4.65	4.72
	Banryu	4.66	4.69	4.63	4.70	4.49	4.69	4.49	4.53	4.66	4.70	4.66	4.48	4.64	4.55	4.65
	Yusuhara	4.83	4.76	4.73	4.97	4.64	4.84	4.81	4.67	4.77	4.79	4.93	4.77	4.78	4.88	4.87
	Hedo	4.96	4.95	4.90	4.78	4.83	4.99	4.99	5.00	5.11	5.20	4.90	5.13	4.96	5.02	5.14
	Ogasawara	5.09	5.09	5.04	5.13	4.81	4.99	5.03	5.00	5.17	5.25	5.30	5.33	5.25	5.08	5.23
	Tokyo							4.79	4.60	4.75	4.95	4.83	4.84	5.05	4.83	4.79
Lao PDR	Vientiane			6.51	5.65	6.32	6.49	5.67	6.01	5.48	***	***	6.46	***	6.54	5.94
Malaysia	Petaling Jaya	4.25	4.23	4.28	4.33	4.37	4.42	4.56	4.43	4.35	4.26	4.16	4.21	4.42	4.42	4.39
	Tanah Rata	4.90	4.97	4.90	4.86	4.84	4.95	4.95	5.10	5.08	5.06	5.01	4.96	4.95	4.86	4.72
	Danum Valley					4.98	5.05	5.10	5.22	5.22	5.22	5.21	5.18	5.27	5.31	5.21
	Kuching								5.26	5.26	5.28	5.43	5.32	5.29	5.34	5.31
Mongolia	Ulaanbaatar	6.19	6.38	5.72	6.46	5.99	6.45	6.26	6.28	6.11	5.88	5.44	5.88	5.98	***	6.42
	Terelj	6.04	5.75	5.40	5.78	5.26	5.16	5.22	5.43	6.22	5.61	5.26	5.74	4.91	***	5.50
Myanmar	Yangon							5.57	6.41	6.46	6.42	6.46	6.49	6.45	6.70	6.66
Philippines	Metro Manila	5.41	5.09	4.44	5.18	4.95	5.30	5.27	5.55	5.23	5.65	5.64	5.22	5.55	6.13	6.28
	Los Baños	5.53	5.74	4.49	5.26	5.14	5.61	5.54	4.95	5.58	5.88	5.57	5.66	5.85	5.79	6.29
	Mt.Sto.Tomas						6.32	5.53	5.49	5.83	6.70	5.35	5.95	5.29	6.14	5.96
Republic of Korea	Kanghwa	4.99	4.65	4.67	4.57	4.25	4.68	4.62	4.55	4.59	4.41	4.64	4.61	4.58	4.87	4.69
	Cheju	4.89	4.61	4.83	4.74	4.55	4.34	4.51	4.67	5.11	5.04	5.17	5.31	5.38	5.79	5.67
	Imsil	5.09	5.69	5.08	4.93	6.00	5.19	5.73	4.88	5.09	4.87	5.27	5.11	5.22	5.29	5.09
Russia	Mondy	5.50	5.39	5.35	5.34	5.36	5.39	5.52	5.17	5.48	5.55	5.54	5.62	5.32	5.33	5.45
	Listvyanka	4.96	4.88	5.01	4.92	4.83	4.64	4.67	4.63	4.84	4.76	4.73	4.78	4.80	4.90	4.83
	Irkutsk	5.28	5.02	5.37	4.91	5.12	5.15	4.93	4.77	5.41	5.13	5.02	4.93	5.01	5.06	5.21
	Primorskaya		5.20	4.88	4.84	5.06	4.83	4.84	4.79	4.98	4.97	4.63	5.07	5.06	5.47	5.16
Thailand	Bangkok	4.97	5.10	4.53	5.19	4.89	5.16	5.05	5.28	5.09	5.07	5.05	5.68	5.60	7.03	5.29
	Samutprakarn				5.47	5.47	5.87	5.61	5.29	5.13	5.32	5.90	6.17	5.98	6.51	5.60
	Pathumthani	5.13	5.33	4.86	4.87	4.89	4.89	4.81	5.03	5.15	5.24	5.00	5.44	5.41	5.51	5.29
	Khanchanaburi	5.26	5.64	5.46	6.07	5.54	5.75	5.78	5.66	5.66	5.69	5.49	6.02	5.33	5.79	5.46
	Chiang Mai	5.71	5.72	5.61	5.59	5.23	5.70	5.95	5.98	5.92	6.17	5.29	6.10	6.04	6.28	5.64
	Sakaerat						5.12	5.08	5.03	4.87	4.75	5.00	5.07	5.24	4.82	5.03
Vietnam	Hanoi	5.83	5.55	5.81	5.65	6.15	5.73	5.58	5.84	5.67	5.93	5.30	5.62	5.66	5.74	6.19
	HoaBinh	5.04	5.19	5.38	5.60	5.69	5.59	5.06	5.49	5.29	5.37	5.44	5.63	6.04	5.44	5.29
	Cuc Phuong									4.99	5.23	5.04	5.43	5.42	5.52	5.32
	Da Nang									4.77	5.11	4.98	5.44	5.58	5.52	5.98
	Can Tho														6.26	5.77
	Ho Chi Minh														5.85	6.11
	Yen Bai															5.23

Terms and abbreviations are given in Table 3.5.

Table 3.82 Precipitation amount-weighted annual average EC from 2001 to 2015

unit: mS m^{-1}

Country	Name of sites	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Cambodia	PhnomPenh				1.17	0.807	1.17	1.37	1.53	0.880	0.747	0.820	0.704	0.665	0.676	0.691
China	Guanyinqiao	7.00	4.36	4.89	5.82	6.70	6.70	5.01								
	Haifu								6.46	5.14	6.71	6.55	5.33	5.26	3.94	2.70
	Jinyunshan	6.23	3.69	4.19	4.35	4.23	5.45	3.76	5.13	5.27	8.07	7.09	6.56	4.81	3.65	2.50
	Shizhan	19.5	16.1	7.50	6.47	5.18	9.81	7.21	7.96	5.80	5.63	4.31	6.51	6.97	4.37	5.06
	Weishuiyuan	27.7	21.7	7.80	8.55	4.61	13.4									
	Jiwozi	9.65	4.02	5.19	2.91	5.82	6.95	10.3	8.46	3.73	1.67	3.04	5.39	3.61	4.29	2.32
	Hongwen	3.87	2.64	2.88	3.41	2.63	2.31	2.68	2.15	2.25	2.05	2.18	2.67	1.63	1.89	1.59
	Xiaoping	1.44	1.60	2.15	1.97	1.91	2.19	2.01	2.09	2.26	2.06	1.82	1.67	1.46	2.15	1.43
	Xiang Zhou	1.95	3.20	2.19	2.37	2.41	2.20	1.99	1.84	1.99	1.74	1.84	1.76	1.15	1.94	1.65
	Zhuxiandong	2.08	3.63	2.42	3.15	2.49	2.67	***	1.94	2.15	1.37	1.99	***	***	***	2.29
Indonesia	Jakarta	26.4	2.97	4.78	3.69	3.37	1.92	2.23	1.78	1.66	1.90	2.17	1.39	1.59	1.67	1.26
	Serpong	2.94	1.87	2.26	2.25	2.63	2.10	2.14	2.10	1.66	1.95	2.31	2.05	2.16	1.89	2.26
	Kototabang	0.427	4.94	1.96	1.11	0.843	0.881	0.816	0.556	0.766	0.903	0.742	0.791	0.927	1.10	104
	Bandung	2.08	1.68	1.50	1.80	1.75	1.69	1.64	1.58	1.62	1.43	1.90	1.60	1.86	2.14	1.71
	Maros								0.623	1.06	0.718	0.576	0.885	0.970	1.00	2.10
Japan	Rishiri	4.51	4.23	3.80	4.72	4.46	3.04	3.72	4.86	4.10	3.77	3.50	5.54	4.25	3.56	3.16
	Ochiishi			3.45	6.72	4.01	5.00	3.69	3.33	3.31	4.65	3.28	4.96	7.10	2.14	3.29
	Tappi	3.52	3.89	3.74	4.57	4.18	5.98	4.92	4.32	3.78	2.80	3.64	3.45	4.76	3.62	3.97
	Sado-seki	5.64	4.99	2.65	3.10	5.05	3.81	4.92	4.28	5.65	5.08	3.57	4.88	5.98	5.58	6.15
	Happo	0.965	0.667	0.692	0.915	1.10	0.840	1.08	1.03	0.860	0.597	0.666	1.07	0.764	0.744	0.680
	Ijira	2.44	2.18	2.12	1.62	2.11	2.15	2.05	2.18	1.65	1.33	1.46	1.65	1.42	1.47	1.49
	Oki	5.90	6.59	3.82	5.86	11.3	4.77	5.91	6.60	7.16	7.56	8.76	6.72	9.41	9.58	7.57
	Banryu	2.52	2.56	2.56	3.02	3.50	2.54	3.36	3.10	3.02	2.88	3.13	3.44	2.48	3.11	2.82
	Yusuhara	0.981	1.42	1.16	1.03	1.59	1.08	1.06	1.14	1.15	1.06	0.870	1.24	1.06	0.789	1.11
	Hedo	2.95	8.85	7.10	14.2	7.10	3.58	2.54	2.61	2.44	4.59	3.87	7.27	4.24	2.68	5.28
	Ogasawara	2.20	3.95	4.31	2.29	2.33	2.14	2.59	1.86	3.27	3.58	3.70	2.26	2.86	2.62	5.30
	Tokyo							1.80	1.96	1.66	1.18	1.88	1.75	1.33	1.46	1.40
Lao PDR	Vientiane			2.07	2.65	1.01	0.764	0.396	0.644	0.534	***	***	0.411	***	0.867	1.26
Malaysia	Petaling Jaya	2.13	2.81	2.32	2.26	2.12	1.81	1.40	1.98	2.46	2.90	3.43	3.10	2.43	2.50	2.61
	Tanah Rata	0.543	0.594	0.613	0.763	0.684	0.510	0.506	0.471	0.544	0.550	0.822	0.780	0.734	0.875	1.10
	Danum Valley					0.562	0.465	0.347	0.461	0.445	0.552	0.440	0.416	0.410	0.419	0.513
	Kuching								0.443	0.521	0.500	0.547	0.489	0.549	1.02	0.635
Mongolia	Ulaanbaatar	1.91	2.20	1.56	1.68	1.87	1.92	2.18	1.92	1.76	1.53	1.74	1.71	2.54	***	2.86
	Terelj	0.933	1.93	1.05	1.12	1.18	1.95	2.02	1.34	2.06	1.88	1.54	1.33	1.94	***	2.80
Myanmar	Yangon							0.595	0.949	1.54	1.34	0.682	1.30	0.813	0.914	1.46
Philippines	Metro Manila	6.49	1.85	1.36	1.48	1.66	1.66	1.40	2.88	1.24	1.89	3.76	4.81	1.53	1.92	2.53
	Los Baños	2.08	1.22	1.99	0.801	1.01	1.08	0.859	1.76	0.802	1.22	1.18	1.74	1.02	1.45	3.34
	Mt.Sto.Tomas						0.221	1.03	0.347	0.495	0.533	0.355	0.500	0.558	0.460	0.464
Republic of Korea	Kanghwa	1.98	2.68	2.54	3.25	4.14	2.75	3.49	2.72	2.88	2.46	2.34	2.76	2.66	2.41	4.29
	Cheju	2.56	3.03	2.22	2.45	3.43	3.64	3.43	3.47	2.20	2.32	3.07	7.05	5.55	2.42	2.31
	Imsil	1.31	1.80	1.42	1.42	1.72	2.51	1.58	1.75	1.98	1.89	1.58	2.58	1.47	1.39	1.98
Russia	Mondy	0.680	0.964	0.586	0.536	0.485	0.428	0.799	0.727	0.621	0.653	0.566	0.864	0.420	0.480	0.588
	Listvyanka	0.945	1.39	1.36	1.30	1.19	1.51	1.38	1.58	1.31	1.41	1.63	1.51	1.25	1.20	1.50
	Irkutsk	1.79	2.10	1.67	1.80	1.66	1.76	2.02	2.48	2.18	2.05	2.16	2.16	2.08	1.59	2.55
	Primorskaya		1.77	2.66	2.20	2.03	2.47	1.90	2.58	1.48	1.96	2.64	1.56	1.89	1.63	1.75
Thailand	Bangkok	1.50	1.32	1.67	1.25	1.66	1.94	1.41	1.54	1.38	1.31	1.24	1.26	1.35	1.10	1.35
	Samutprakarn				1.01	1.30	1.56	1.34	1.66	1.48	1.13	0.667	0.902	1.20	1.00	0.921
	Pathumthani	1.80	1.07	1.24	1.47	1.31	1.42	1.50	1.19	1.07	0.975	1.27	1.17	1.08	0.998	1.34
	Khanchanaburi	0.559	0.508	0.352	0.406	0.315	0.462	0.292	0.496	0.511	0.249	0.585	0.817	0.326	0.506	0.438
	Chiang Mai	0.885	0.476	0.458	0.486	0.812	0.593	0.630	0.622	0.608	0.519	0.442	0.512	0.682	0.803	0.561
	Sakaerat						0.918	0.775	0.833	0.981	0.992	0.796	0.756	0.789	1.46	0.856
Vietnam	Hanoi	0.917	1.52	1.70	1.85	2.75	2.18	1.57	1.11	1.41	1.72	1.60	1.56	1.52	1.99	2.21
	HoaBinh	1.04	1.06	1.12	1.48	1.15	1.22	1.08	0.918	1.10	1.39	1.02	0.940	1.10	1.35	1.22
	Cuc Phuong									1.74	1.71	1.98	1.73	1.80	1.28	1.42
	Da Nang									2.53	1.46	2.37	2.10	3.46	1.85	1.82
	Can Tho														1.10	1.92
	Ho Chi Minh														2.00	2.85
	Yen Bai															1.31

Terms and abbreviations are given in Table 3.5.

Table 3.83 Annual SO_4^{2-} deposition amount from 2001 to 2015

unit: mmol $m^{-2}y^{-1}$

Country	Name of sites	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Cambodia	Phnom Penh				***	7.43	5.04	30.9	21.3	15.4	13.6	11.5	17.0	10.7	9.78	7.76
China	Guanyinqiao	154	165	108	229	200	149	169								
	Haifu								145	106	136	115	103	109	120	61.3
	Jinyunshan	87.7	126	103	166	149	169	149	146	125	148	119	125	91.7	90.0	56.5
	Shizhan	171	297	258	104	63.9	132	96.7	73.6	80.5	45.8	72.5	42.9	62.0	70.1	49.1
	Weishuiyuan	105	234	186	94.2	47.1	104									
	Jiwozi	68.0	43.2	55.3	56.3	42.8	30.0	18.2	63.6	58.7	36.8	60.7	36.9	34.1	39.4	14.1
	Hongwen	16.7	67.0	48.0	73.6	80.4	61.1	102	29.9	19.2	40.8	26.4	29.7	30.7	30.4	18.8
	Xiaoping	49.1	36.3	41.7	53.3	59.0	39.7	29.2	58.3	32.0	41.4	38.1	30.2	44.9	40.3	27.0
	Xiang Zhou	31.2	48.3	35.3	25.0	28.0	44.6	31.2	46.5	36.6	36.7	19.5	22.6	46.3	23.9	16.6
	Zhuxiandong	49.5	50.6	32.4	34.3	31.3	17.1	***	49.6	33.2	31.6	23.4	***	***	***	37.2
Indonesia	Jakarta	77.5	60.5	108	71.4	85.6	38.7	60.6	38.9	30.2	46.4	28.4	56.0	51.0	70.4	48.0
	Serpong	61.4	64.3	49.5	41.0	27.5	45.2	61.5	65.9	31.0	34.8	27.9	26.0	61.6	66.9	55.8
	Kototabang	5.66	13.4	28.7	11.0	12.1	9.55	19.4	7.21	12.5	15.0	17.1	16.0	13.2	21.3	20.8
	Bandung	87.8	70.4	32.8	24.8	61.7	35.1	52.0	65.4	78.3	70.3	47.1	55.2	72.1	78.8	60.6
	Maros								16.3	22.5	28.9	30.0	21.5	26.0	20.9	15.3
Japan	Rishiri	19.1	26.1	16.6	27.0	26.8	29.6	24.9	24.3	27.4	25.1	26.1	32.6	27.1	20.7	19.9
	Ochiishi			14.9	22.3	18.6	27.6	18.4	13.7	26.3	24.9	12.4	22.0	34.4	10.9	16.8
	Tappi	24.7	30.2	25.1	38.6	36.8	34.5	31.2	23.3	30.9	33.1	31.5	26.2	35.4	31.7	27.5
	Sado-seki	39.8	40.4	18.6	27.2	39.1	35.7	40.6	31.6	34.2	44.2	34.0	38.6	52.7	45.1	30.1
	Happo	27.4	19.8	18.5	28.2	35.8	28.4	28.4	18.0	23.8	16.0	21.5	23.2	23.6	19.6	15.8
	Ijira	49.1	52.2	56.7	48.0	48.5	58.3	43.0	41.0	44.2	42.6	39.8	38.9	33.6	36.6	36.8
	Oki	42.1	55.4	34.3	41.3	73.2	41.1	42.1	39.5	42.4	59.3	70.0	49.1	65.6	50.4	38.6
	Banryu	33.9	24.8	30.5	34.4	34.6	43.1	35.5	32.7	36.3	30.8	30.1	31.2	35.0	32.7	26.7
	Yusuhara	19.0	26.2	26.5	26.7	28.0	31.9	22.5	22.4	24.1	23.9	23.9	32.8	22.5	24.4	19.9
	Hedo	33.9	75.0	49.0	137	64.1	35.8	38.8	27.8	25.9	55.3	36.3	88.5	35.8	34.9	42.1
	Ogasawara	20.7	24.1	25.2	12.5	26.9	16.2	19.9	15.0	27.7	27.9	20.4	16.0	17.1	18.5	32.9
	Tokyo							18.4	36.5	27.6	18.1	22.0	25.5	19.7	25.1	19.2
Lao PDR	Vientiane			***	***	***	2.45	6.54	8.43	0.733	***	***	3.19	***	***	2.94
Malaysia	Petaling Jaya	68.4	63.1	63.9	54.5	66.4	82.5	41.8	65.6	39.2	60.3	81.2	58.0	63.6	79.2	80.3
	Tanah Rata	9.79	12.8	11.4	9.74	16.1	12.3	10.4	12.9	10.0	7.96	16.6	13.1	13.2	17.9	18.4
	Danum Valley					5.53	10.2	6.85	7.46	9.56	12.0	7.42	6.75	10.1	7.35	7.17
	Kuching								17.8	17.6	16.6	18.9	17.7	20.6	26.1	20.7
Mongolia	Ulaanbaatar	4.17	4.41	5.80	1.84	4.01	4.78	4.67	4.33	4.53	3.39	4.59	***	8.71	***	18.3
	Terelj	0.861	3.72	2.57	2.75	4.29	5.10	4.63	3.40	1.83	3.96	3.40	***	4.40	***	10.4
Myanmar	Yangon							***	***	24.1	10.3	20.9	19.2	21.4	13.1	11.2
Philippines	Metro Manila	85.5	78.2	37.6	44.0	57.1	47.4	78.1	59.2	51.3	54.2	68.3	108	52.9	47.3	47.4
	Los Baños	28.4	27.3	11.4	14.7	16.2	23.9	26.0	34.2	25.6	15.3	20.4	26.5	15.8	18.9	21.0
	Mt.Sto.Tomas						0.592	19.4	17.6	23.8	17.8	21.6	41.6	33.8	16.8	24.5
Republic of Korea	Kanghwa	28.5	28.4	41.1	39.3	37.9	40.3	36.4	43.2	37.0	41.3	40.1	20.3	32.4	12.5	17.3
	Cheju	23.0	28.5	29.3	26.8	24.0	31.6	47.1	22.1	26.3	19.4	27.4	43.9	25.9	20.5	25.1
	Imsil	21.3	22.7	30.6	19.9	28.4	19.0	38.8	17.9	21.0	32.0	30.9	27.2	22.6	16.7	14.5
Russia	Mondy	3.51	2.20	3.48	2.46	1.54	1.93	3.26	1.47	0.929	0.613	0.333	0.753	1.18	0.675	0.877
	Listvyanka	6.60	6.56	10.3	10.6	7.80	5.90	6.99	8.33	6.02	6.76	10.6	7.33	5.02	4.85	7.04
	Irkutsk	13.9	10.3	12.0	14.7	12.3	9.28	16.0	20.3	13.4	12.6	11.3	16.8	10.1	9.02	12.3
	Primorskaya		24.2	13.9	25.7	28.2	28.6	30.4	22.5	19.5	21.5	8.70	19.1	21.1	20.6	24.7
Thailand	Bangkok	21.3	24.2	25.6	19.8	39.1	35.5	27.2	32.0	26.3	24.3	23.2	19.3	9.42	8.52	12.0
	Samutprakarn				20.7	31.1	29.4	27.7	27.2	30.0	29.3	16.1	9.73	8.55	9.52	10.4
	Pathumthani	23.2	14.2	20.5	17.1	16.7	21.6	16.6	17.8	11.7	14.1	14.8	12.4	11.1	8.71	12.4
	Khanchanaburi	7.91	12.4	5.78	4.71	5.72	10.2	4.20	7.41	7.19	2.91	9.93	8.89	1.84	3.51	2.56
	Chiang Mai	3.02	6.57	3.34	7.95	8.43	6.44	5.62	6.38	4.52	3.88	5.23	5.28	5.92	4.42	3.07
	Sakaerat						9.80	8.93	12.7	8.11	11.5	7.99	7.48	10.8	4.61	9.04
Vietnam	Hanoi	31.5	47.8	47.7	58.3	90.6	57.7	55.8	45.8	44.1	43.8	55.7	51.8	50.4	65.3	50.3
	Hoa Binh	32.6	30.5	38.0	53.9	40.6	38.5	33.1	26.9	21.8	36.1	31.7	32.7	39.6	32.9	32.3
	Cuc Phuong									41.9	33.7	69.7	49.0	51.1	31.5	27.5
	Da Nang									55.6	27.6	76.7	32.9	56.1	35.0	21.6
	Can Tho														16.1	67.7
	Ho Chi Minh														46.3	67.6
	Yen Bai															34.2

Terms and abbreviations are given in Table 3.5.

Table 3.84 Annual nss-SO_4^{2-} deposition amount from 2001 to 2015

unit: mmol $m^{-2}y^{-1}$

Country	Name of sites	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Cambodia	Phnom Penh				***	***	4.82	30.2	15.9	14.9	13.3	11.3	16.6	10.5	9.07	7.35
China	Guanyinqiao	154	164	108	228	200	149	169								
	Haifu								145	106	135	115	102	108	119	61.1
	Jinyunshan	87.3	125	102	165	148	168	148	145	124	148	119	125	91.5	89.6	56.4
	Shizhan	167	291	253	103	63.4	131	96.2	73.0	80.1	45.6	71.8	42.8	58.3	65.4	45.1
	Weishuiyuan	104	231	177	93.5	46.6	103									
	Jiwozi	66.0	41.7	51.6	54.7	41.5	29.1	17.7	61.5	57.8	36.3	60.3	35.8	29.7	35.1	11.6
	Hongwen	16.5	61.8	45.3	70.3	75.1	57.7	99.7	28.6	18.1	39.0	25.5	28.8	29.5	29.1	17.7
	Xiaoping	47.2	34.1	39.0	51.8	57.3	37.9	28.4	55.6	30.9	39.7	37.1	29.5	43.5	39.6	25.9
	Xiang Zhou	29.1	44.0	31.6	22.4	25.3	41.3	29.5	40.6	31.7	34.5	17.0	18.4	38.4	20.9	12.3
	Zhuxiandong	46.2	46.3	28.8	30.4	27.7	15.9	***	44.0	28.9	29.4	20.3	***	***	***	30.8
Indonesia	Jakarta	74.6	57.3	105	68.2	82.7	37.6	58.5	37.9	29.3	45.4	27.7	53.9	48.8	66.3	45.7
	Serpong	59.1	60.5	48.0	39.3	26.7	44.4	60.1	64.5	30.2	34.1	27.4	25.4	59.6	63.7	54.3
	Kototabang	5.33	12.7	26.9	9.66	11.3	9.08	17.9	6.47	11.6	14.3	16.2	14.4	12.1	20.4	21.6
	Bandung	84.6	69.1	32.1	24.2	60.5	33.7	51.2	64.2	76.4	68.8	46.0	53.8	70.2	77.2	59.5
	Maros								13.5	20.0	26.7	26.7	18.7	21.3	17.2	14.9
Japan	Rishiri	11.2	14.9	9.12	13.9	15.0	21.0	17.4	12.0	16.2	14.6	15.8	12.3	13.2	10.6	10.7
	Ochiishi			5.84	8.33	8.28	11.3	8.73	6.14	9.29	10.5	5.51	7.68	7.60	5.99	7.88
	Tappi	16.0	17.1	15.4	21.0	20.6	17.8	16.6	13.5	15.4	22.5	21.2	16.3	18.9	20.4	12.9
	Sado-seki	18.9	18.8	12.3	14.7	19.2	18.7	24.7	18.7	14.2	18.3	21.2	19.9	22.0	21.2	13.1
	Happo	26.6	19.3	17.8	27.1	34.5	27.8	28.0	17.6	23.1	15.4	20.9	22.0	22.9	18.8	15.0
	Ijira	45.1	47.6	54.3	43.6	46.3	56.5	40.1	39.0	41.9	39.6	37.2	35.5	31.1	33.8	33.8
	Oki	18.4	21.2	16.4	16.8	25.3	22.0	22.8	18.2	17.0	23.6	25.6	21.2	23.1	15.8	12.3
	Banryu	25.5	18.6	22.0	22.5	27.5	35.3	29.5	27.2	25.9	22.5	20.8	24.5	26.5	24.8	18.6
	Yusuhara	17.6	22.1	24.0	20.9	24.5	29.7	20.6	21.2	22.6	22.6	21.3	29.4	21.1	23.3	16.1
	Hedo	13.8	15.1	15.7	43.4	23.1	14.7	17.8	13.2	11.0	15.3	14.6	17.9	13.8	14.7	8.88
	Ogasawara	9.23	5.25	5.71	4.02	15.0	6.58	7.61	6.38	8.72	5.60	4.62	5.27	6.31	6.44	3.79
	Tokyo							16.2	34.3	25.1	16.3	18.9	22.6	17.4	23.1	17.4
Lao PDR	Vientiane			***	***	***	2.15	6.34	8.14	0.633	***	***	***	***	***	2.79
Malaysia	Petaling Jaya	67.7	62.3	62.9	53.5	65.3	81.4	41.2	64.6	38.4	59.3	80.2	57.3	62.6	78.1	78.9
	Tanah Rata	9.49	12.6	11.1	9.48	14.9	12.1	10.2	12.6	9.80	7.78	16.2	12.8	12.8	17.4	18.0
	Danum Valley					5.19	9.23	6.11	6.89	8.36	10.2	6.51	6.24	9.15	6.42	6.52
	Kuching								16.4	15.6	14.7	16.3	16.5	18.7	24.1	17.3
Mongolia	Ulaanbaatar	4.08	4.34	5.73	1.81	3.95	4.68	4.63	4.22	4.47	3.36	4.53	***	8.00	***	***
	Terelj	0.776	3.51	2.49	2.67	4.12	4.93	4.53	3.26	1.78	3.86	3.34	***	4.33	***	***
Myanmar	Yangon							***	***	20.8	8.88	18.0	15.8	19.7	10.1	9.94
Philippines	Metro Manila	52.0	75.6	35.2	41.9	54.8	44.6	73.9	55.7	47.7	50.6	63.6	103	47.0	43.5	43.9
	Los Baños	23.9	25.1	10.0	13.4	14.5	21.0	22.7	32.0	22.5	12.5	17.6	23.7	12.5	17.0	19.3
	Mt.Sto.Tomas						0.519	18.2	16.1	21.5	16.5	20.4	38.1	32.1	15.4	21.3
Republic of Korea	Kanghwa	25.6	26.0	38.6	37.6	36.3	38.5	34.0	39.5	33.6	38.8	36.9	18.3	30.8	11.4	15.7
	Cheju	18.0	24.9	25.6	22.9	20.4	25.9	39.5	15.3	23.0	13.1	17.6	16.9	14.8	12.1	16.2
	Imsil	20.1	20.4	28.0	18.6	26.8	17.6	37.5	16.3	17.7	27.2	27.5	22.8	20.4	14.7	12.5
Russia	Mondy	3.46	2.17	3.42	2.43	1.51	1.89	3.20	1.45	0.912	0.598	0.316	0.726	1.15	0.658	0.863
	Listvyanka	6.50	6.47	10.1	10.4	7.72	5.85	6.93	8.27	5.94	6.69	10.4	7.25	4.91	4.77	6.98
	Irkutsk	13.6	10.2	11.8	14.5	12.1	9.07	15.8	20.0	12.9	12.2	11.0	16.5	9.90	8.82	12.1
	Primorskaya		23.0	13.3	24.8	27.2	28.0	29.2	21.7	18.8	20.5	8.19	17.9	20.0	20.0	23.0
Thailand	Bangkok	20.7	22.9	24.9	19.1	37.6	34.6	26.5	31.0	25.1	23.3	22.4	18.6	8.46	7.96	11.2
	Samutprakarn				19.5	29.1	28.0	26.3	25.6	28.8	27.2	15.4	9.28	6.94	8.77	9.63
	Pathumthani	22.5	13.7	20.1	16.6	16.2	20.8	16.1	17.2	11.2	13.5	14.2	11.1	10.7	8.37	12.0
	Khanchanaburi	6.89	11.2	4.81	3.96	4.89	9.24	3.48	6.33	6.05	2.61	9.06	7.49	1.40	3.13	2.19
	Chiang Mai	2.78	5.78	3.21	7.74	8.36	6.16	5.46	6.18	4.36	3.69	4.93	5.04	5.49	4.31	2.87
	Sakaerat						9.48	8.56	12.2	7.90	11.1	7.63	7.23	10.5	4.39	8.66
Vietnam	Hanoi	30.0	47.3	46.9	57.5	88.7	56.7	55.0	44.5	43.2	43.3	55.0	51.4	49.5	64.6	49.6
	Hoa Binh	31.3	30.3	37.8	53.5	39.6	38.1	32.7	26.5	21.5	35.7	31.5	32.4	39.1	32.7	31.9
	Cuc Phuong									40.4	32.5	68.2	46.5	48.0	30.4	26.8
	Da Nang									38.7	23.4	61.3	27.1	36.0	24.0	12.6
	Can Tho														14.4	63.8
	Ho Chi Minh														43.5	64.6
	Yen Bai															33.7

Terms and abbreviations are given in Table 3.5.

Table 3.85 Annual NO_3^- deposition amount from 2001 to 2015

unit: mmol $m^{-2}y^{-1}$

Country	Name of sites	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Cambodia	Phnom Penh				3.22	***	8.59	11.3	17.2	13.7	15.5	11.3	17.4	10.3	13.3	11.4
China	Guanyinqiao	39.7	49.7	38.4	60.9	44.5	51.1	63.3								
	Haifu								65.6	56.7	75.9	67.4	74.6	75.8	90.8	57.8
	Jinyunshan	28.6	47.3	42.5	55.9	50.2	55.2	51.8	56.4	59.7	73.4	65.8	70.8	59.9	68.0	46.9
	Shizhan	55.8	52.2	86.6	37.1	6.16	39.4	40.0	15.5	34.1	18.8	11.5	19.4	15.7	61.0	42.7
	Weishuiyuan	14.5	39.0	70.5	32.4	5.01	32.8									
	Jiwozi	29.3	12.7	26.2	26.9	3.37	11.9	6.68	44.9	17.2	14.1	8.01	18.5	5.69	7.84	12.8
	Hongwen	11.2	48.2	43.7	53.1	63.4	47.7	50.6	21.6	17.2	44.3	19.9	32.5	29.3	29.8	26.6
	Xiaoping	50.1	32.0	39.9	38.5	52.9	37.7	27.3	49.2	33.2	46.0	34.6	34.4	40.9	46.3	38.0
	Xiang Zhou	28.0	30.9	36.0	29.6	20.3	33.3	23.9	34.7	35.5	44.3	19.8	23.1	49.3	34.9	26.9
	Zhuxiandong	57.1	32.9	20.2	31.9	22.8	11.7	***	33.9	31.3	36.6	21.5	***	***	***	47.0
Indonesia	Jakarta	66.4	44.3	94.5	114	115	30.4	67.4	24.1	23.8	36.2	29.5	44.2	50.8	63.4	42.9
	Serpong	81.4	81.6	66.1	58.0	32.5	45.4	61.3	71.8	34.2	42.4	29.5	28.2	91.9	104	85.1
	Kototabang	3.32	10.1	154	9.94	3.46	1.74	9.88	6.93	0.679	5.61	11.1	12.3	6.06	18.7	9.00
	Bandung	70.0	66.7	32.7	25.2	33.5	30.3	42.4	48.4	61.3	46.8	42.8	45.0	51.7	55.3	47.5
	Maros								10.7	17.4	16.9	27.3	22.2	14.7	16.8	15.6
Japan	Rishiri	11.1	12.9	8.65	11.0	12.1	18.2	13.8	12.1	18.3	15.4	17.4	15.7	15.7	10.6	11.8
	Ochiishi			6.22	8.78	7.65	11.3	8.29	6.16	8.57	10.3	7.83	8.54	9.36	7.29	9.54
	Tappi	16.5	22.5	19.4	24.0	22.5	21.7	22.8	18.5	18.0	27.2	22.7	20.4	27.0	28.8	15.9
	Sado-seki	21.6	21.4	15.7	17.3	21.3	23.9	30.0	24.4	17.2	24.8	27.3	26.0	30.6	27.1	18.0
	Happo	20.8	18.2	16.2	24.7	28.6	22.7	22.9	18.2	20.1	17.1	25.1	23.3	22.1	19.1	15.2
	Ijira	48.5	57.8	64.5	52.6	61.9	68.5	49.4	54.3	52.9	57.9	46.4	47.7	40.2	44.7	52.5
	Oki	19.5	23.7	20.7	24.0	28.7	25.4	27.6	21.5	22.7	35.2	32.6	28.0	33.7	21.4	16.1
	Banryu	31.1	25.0	27.9	27.0	32.8	38.3	37.1	31.2	34.8	33.2	27.9	33.6	32.8	32.9	26.3
	Yusuhara	14.2	19.8	19.7	20.9	21.8	23.9	17.1	19.7	16.2	19.1	19.6	26.1	17.5	17.2	23.0
	Hedo	14.0	19.3	13.2	23.8	19.6	15.1	17.3	13.5	12.7	16.9	13.6	20.3	13.8	16.8	12.4
	Ogasawara	6.67	3.61	6.55	4.30	6.58	7.57	7.64	6.27	5.67	5.70	3.80	4.53	4.83	4.76	3.82
	Tokyo							21.0	45.5	31.3	25.4	30.1	30.7	25.9	30.4	26.7
Lao PDR	Vientiane			***	***	***	4.92	9.65	9.95	1.76	***	***	7.34	***	***	3.79
Malaysia	Petaling Jaya	73.2	97.9	100	89.4	102	120	80.5	135	138	174	190	150	119	133	164
	Tanah Rata	8.90	16.7	14.1	11.1	17.4	14.9	12.4	17.8	16.0	10.8	7.29	10.8	10.5	13.9	20.5
	Danum Valley					3.14	4.24	2.02	4.11	5.61	3.36	3.99	2.83	6.32	2.10	3.81
	Kuching								21.3	21.2	22.8	23.1	14.5	18.6	19.4	16.0
Mongolia	Ulaanbaatar	3.43	4.23	4.62	1.32	2.83	3.50	3.27	3.12	4.35	3.26	2.75	***	4.76	***	5.20
	Terelj	0.815	4.45	3.87	3.34	2.89	3.32	3.39	3.77	2.33	3.58	2.59	***	2.89	***	2.41
Myanmar	Yangon							***	***	21.8	11.3	19.8	21.4	18.1	13.8	20.1
Philippines	Metro Manila	42.5	52.3	28.8	33.4	51.1	33.1	49.4	50.2	32.8	135	52.7	81.4	49.0	42.0	33.5
	Los Baños	25.3	14.0	7.84	10.6	16.2	18.1	19.4	15.1	23.2	64.9	19.9	25.0	18.7	17.0	13.7
	Mt.Sto.Tomas						0.804	18.5	19.9	18.6	15.5	11.8	34.9	37.2	18.5	21.3
Republic of Korea	Kanghwa	32.6	27.0	42.9	36.1	36.5	36.1	34.5	48.0	23.9	49.8	40.9	27.2	38.8	15.7	29.7
	Cheju	20.5	24.4	29.7	27.9	19.2	28.8	18.7	22.3	19.3	22.7	30.0	23.1	19.3	21.8	31.4
	Imsil	20.2	31.8	31.7	24.8	32.9	19.6	24.4	19.3	23.9	47.6	41.3	36.7	32.0	30.8	24.3
Russia	Mondy	3.38	2.75	2.78	2.44	1.44	2.09	2.99	1.54	0.938	0.732	0.316	0.841	1.66	0.573	0.718
	Listvyanka	7.26	8.99	16.1	10.9	5.34	4.54	8.33	6.02	5.10	6.59	14.6	6.64	4.37	3.68	5.18
	Irkutsk	8.61	6.59	8.15	9.48	7.25	5.89	8.76	9.02	7.23	8.36	6.81	8.09	4.52	4.77	6.02
	Primorskaya		8.51	4.97	14.8	15.9	18.2	18.9	18.3	16.1	14.7	23.5	21.6	13.4	4.93	29.4
Thailand	Bangkok	21.0	32.0	31.9	19.3	46.6	52.4	44.1	55.4	58.2	54.1	44.7	49.7	17.2	15.5	25.7
	Samutprakarn				12.3	29.1	20.0	31.0	30.2	39.7	28.9	20.6	11.9	5.65	12.9	14.4
	Pathumthani	26.5	17.6	28.4	23.4	24.8	35.4	31.4	35.9	21.8	36.0	30.0	29.3	22.0	15.6	31.2
	Khanchanaburi	10.2	13.3	7.96	6.65	5.11	15.5	5.01	9.85	9.10	6.11	14.1	16.4	2.90	4.58	4.68
	Chiang Mai	4.47	9.78	5.27	7.04	12.0	11.2	7.47	11.7	8.88	8.52	11.7	8.78	14.2	6.19	6.24
	Sakaerat						13.5	15.7	19.8	16.0	23.7	15.0	12.6	15.0	10.5	17.8
Vietnam	Hanoi	11.4	21.4	39.4	39.7	54.3	30.6	25.8	22.1	26.7	25.7	39.5	45.3	51.2	50.9	44.7
	Hoa Binh	19.5	32.8	22.6	36.4	29.5	25.0	20.4	20.2	17.5	21.3	25.4	29.5	37.7	32.8	36.0
	Cuc Phuong									24.6	38.4	51.5	40.5	31.6	17.4	19.6
	Da Nang									33.7	11.9	57.5	8.06	12.5	11.7	0.941
	Can Tho														15.4	25.8
	Ho Chi Minh														34.2	25.5
	Yen Bai															27.0

Terms and abbreviations are given in Table 3.5.

Table 3.86 Annual Cl^- deposition amount from 2001 to 2015

unit: mmol $m^{-2}y^{-1}$

Country	Name of sites	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Cambodia	Phnom Penh				***	8.12	5.88	17.4	15.9	13.6	9.12	7.52	10.8	10.1	14.2	9.94
China	Guanyinqiao	22.4	22.5	16.0	20.3	19.7	16.2	17.9								
	Haifu								13.9	11.7	15.8	11.6	11.5	13.1	15.7	9.48
	Jinyunshan	40.3	20.8	12.6	19.5	22.6	16.2	14.3	18.6	17.7	15.7	10.1	11.7	8.13	8.50	6.56
	Shizhan	29.6	122	106	21.7	17.5	17.3	21.0	12.9	15.5	10.5	7.07	6.28	22.4	13.1	10.6
	Weishuiyuan	19.3	66.0	129	18.3	16.0	16.1									
	Jiwozi	20.7	26.2	42.8	15.1	13.9	7.77	4.41	14.8	17.5	16.9	10.8	12.2	22.0	13.1	6.35
	Hongwen	10.6	67.3	66.7	64.1	112	98.0	52.6	29.5	23.8	23.0	21.5	22.1	27.1	32.3	26.1
	Xiaoping	77.3	19.9	41.6	32.5	34.9	52.4	15.2	37.1	22.8	21.1	26.1	18.8	25.7	18.8	28.8
	Xiang Zhou	75.2	119	81.8	48.8	77.6	68.1	44.5	98.1	90.2	41.6	37.5	65.8	112	39.8	86.1
	Zhuxiandong	71.2	94.1	70.5	75.1	55.9	25.9	***	105	81.2	40.2	21.5	***	***	***	116
Indonesia	Jakarta	48.2	44.2	84.4	57.4	88.4	23.0	40.7	19.6	18.7	32.7	19.2	35.3	45.1	91.1	48.0
	Serpong	51.8	57.6	58.2	34.8	16.3	17.4	28.8	40.3	23.6	31.9	12.5	21.6	52.8	73.3	39.4
	Kototabang	7.97	30.1	87.0	24.8	15.6	9.74	38.2	9.62	28.4	23.5	30.5	25.7	57.8	26.4	20.7
	Bandung	65.1	51.5	20.9	15.6	25.5	18.6	14.8	19.4	31.6	22.4	18.9	22.1	36.5	29.8	19.1
	Maros								60.9	49.7	56.2	58.4	48.9	146	99.9	17.1
Japan	Rishiri	145	207	142	242	224	163	142	222	203	197	192	389	260	190	175
	Ochiishi			178	266	191	316	189	142	323	288	147	267	514	93.8	166
	Tappi	169	253	178	341	310	314	276	186	290	192	191	191	309	210	315
	Sado-seki	367	439	121	236	385	324	298	241	377	481	252	380	559	447	318
	Happo	20.7	13.0	17.9	27.0	26.1	15.6	10.1	9.21	15.6	13.1	13.6	23.3	13.0	15.2	15.7
	Ijira	73.0	88.2	56.6	94.2	43.3	40.8	56.1	42.5	47.4	62.4	52.8	70.2	53.2	59.8	62.3
	Oki	448	658	321	453	914	353	362	412	489	684	847	532	807	649	502
	Banryu	155	116	162	232	142	149	114	105	197	157	179	125	164	155	157
	Yusuhara	25.6	74.6	45.4	112	69.4	44.4	38.5	22.0	28.8	27.3	49.8	66.5	33.4	24.5	83.4
	Hedo	373	1200	628	1750	869	404	394	270	278	751	410	1407	424	383	648
	Ogasawara	222	370	400	162	235	188	241	165	379	391	313	210	210	236	587
	Tokyo							44.4	44.0	48.0	32.1	63.8	58.5	44.5	41.8	36.4
Lao PDR	Vientiane			***	***	***	3.38	10.4	12.4	1.12	***	***	5.89	***	***	4.58
Malaysia	Petaling Jaya	23.2	19.5	28.1	22.2	25.0	27.8	17.2	28.1	23.4	32.6	30.2	27.2	27.3	33.0	38.7
	Tanah Rata	7.87	6.29	7.19	5.86	7.61	5.85	5.05	5.78	6.96	4.67	9.70	9.07	8.19	10.1	10.1
	Danum Valley					7.54	21.5	14.6	18.3	23.0	40.5	21.6	12.3	24.1	18.5	15.1
	Kuching								27.2	39.3	37.3	53.2	25.7	36.2	40.4	64.1
Mongolia	Ulaanbaatar	1.60	1.37	2.27	0.670	1.17	1.46	1.18	1.56	2.20	1.30	1.22	***	0.628	***	0.774
	Terelj	0.767	2.80	2.06	1.85	2.44	1.99	1.91	1.90	1.10	1.37	1.41	***	0.630	***	0.793
Myanmar	Yangon							***	***	75.3	30.0	49.6	68.3	72.9	56.0	83.6
Philippines	Metro Manila	264	55.9	53.5	52.0	33.7	62.3	97.8	68.4	92.9	55.2	109	90.1	101	68.6	68.2
	Los Baños	62.7	41.9	26.1	24.9	29.7	46.7	75.5	35.5	72.6	52.3	62.5	45.4	61.7	38.0	143
	Mt.Sto.Tomas						0.677	24.9	26.6	39.3	18.3	20.3	37.2	31.2	15.3	47.6
Republic of Korea	Kanghwa	48.6	35.5	96.4	48.9	45.5	39.2	50.9	70.5	76.2	68.9	71.6	50.5	32.6	26.3	95.0
	Cheju	125	85.3	88.4	88.9	73.1	116	130	114	66.1	114	158	545	219	148	159
	Imsil	37.3	36.7	71.5	32.2	54.9	54.9	30.1	31.2	55.5	72.9	37.9	124	27.8	33.8	33.7
Russia	Mondy	0.463	1.81	1.25	0.991	1.69	1.83	1.38	0.869	0.391	0.306	0.388	0.626	1.22	0.440	0.501
	Listvyanka	1.07	2.45	2.23	2.72	2.43	1.09	1.75	2.00	0.942	1.12	3.17	1.13	1.62	1.02	1.82
	Irkutsk	5.72	5.45	8.07	4.71	5.47	4.48	6.30	8.39	10.7	8.95	7.23	6.69	5.30	3.82	6.96
	Primorskaya		28.3	11.5	14.7	16.0	11.2	18.3	14.2	12.7	19.8	41.9	27.5	30.9	16.1	29.4
Thailand	Bangkok	11.1	18.0	12.0	13.7	24.7	17.1	13.0	20.1	15.9	18.9	17.3	15.0	9.63	9.32	11.7
	Samutprakarn				16.2	30.9	17.7	21.0	22.1	16.8	30.4	16.0	9.45	10.2	11.2	13.9
	Pathumthani	10.5	11.0	10.6	13.9	9.04	11.0	9.17	11.0	8.18	10.2	10.6	24.9	8.08	8.34	10.7
	Khanchanaburi	15.1	30.9	14.3	13.9	15.9	15.9	11.3	20.1	17.6	5.37	17.2	27.8	4.34	6.75	6.22
	Chiang Mai	4.91	14.8	3.81	4.40	6.01	5.29	5.48	5.90	5.16	4.17	4.65	4.59	8.51	2.84	2.89
	Sakaerat						6.56	7.08	10.2	5.81	7.82	7.24	7.17	9.14	4.76	9.68
Vietnam	Hanoi	61.2	13.5	33.7	23.2	47.9	19.2	19.5	19.8	15.5	13.4	15.6	11.8	19.3	17.2	18.8
	Hoa Binh	49.2	11.3	11.7	21.6	30.9	9.99	12.3	8.35	7.30	8.70	7.58	8.91	12.4	5.53	8.49
	Cuc Phuong									100	40.2	28.7	41.0	47.9	19.8	31.1
	Da Nang									325	85.2	340	140	403	206	138
	Can Tho														50.4	90.8
	Ho Chi Minh														85.8	73.9
	Yen Bai															11.3

Terms and abbreviations are given in Table 3.5.

Table 3.87 Annual NH_4^+ deposition amount from 2001 to 2015

unit: mmol $m^{-2}y^{-1}$

Country	Name of sites	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Cambodia	Phnom Penh				4.51	21.3	17.0	27.0	21.6	17.3	41.9	28.0	34.9	18.1	21.7	19.9
China	Guanyinqiao	158	173	131	189	169	151	181								
	Haifu								149	112	137	117	118	145	164	116
	Jinyunshan	79.1	134	106	160	154	145	124	120	121	121	98.8	125	102	105	80.6
	Shizhan	92.8	70.7	183	87.5	39.3	80.7	109	63.3	99.7	85.6	40.0	42.7	105	106	115
	Weishuiyuan	24.5	74.1	188	70.5	28.2	75.4									
	Jiwozi	35.7	10.1	50.5	37.8	13.7	11.4	1.12	13.8	32.7	20.0	22.5	10.4	36.0	18.6	29.4
	Hongwen	19.2	69.3	38.3	48.8	60.2	62.0	51.8	32.8	34.4	60.9	35.7	39.9	25.7	29.1	29.6
	Xiaoping	88.9	67.5	67.5	74.4	94.0	50.5	55.0	65.9	52.0	65.1	59.6	39.2	50.0	53.0	58.8
	Xiang Zhou	49.8	166	58.7	67.9	121	86.6	28.0	55.0	44.4	45.4	26.1	44.2	42.9	39.9	27.3
	Zhuxiandong	77.8	76.5	52.5	75.9	27.8	24.3	***	42.9	40.5	42.1	28.4	***	***	***	38.9
Indonesia	Jakarta	81.9	49.8	33.6	32.8	26.4	25.7	52.6	43.6	27.6	48.8	33.4	62.9	40.0	55.7	53.2
	Serpong	109	115	96.4	61.9	36.8	64.6	89.2	112	57.7	74.6	51.6	63.6	193	189	112
	Kototabang	2.88	9.21	5.78	25.9	20.7	12.3	50.5	18.7	7.15	6.72	21.9	22.4	14.7	30.2	4764
	Bandung	98.8	75.9	52.6	32.9	62.6	61.0	94.3	104	130	83.7	93.0	112	111	113	114
	Maros								26.9	41.2	27.0	33.8	34.5	27.2	19.9	51.4
Japan	Rishiri	16.0	19.2	12.9	16.2	18.1	22.6	22.9	19.5	18.7	16.8	17.3	13.3	15.1	12.9	14.5
	Ochiishi			5.98	7.64	6.17	15.6	6.79	4.71	13.3	11.6	8.98	10.7	10.3	9.05	9.45
	Tappi	13.8	19.6	18.6	22.9	19.6	18.2	18.7	15.0	14.0	23.3	19.4	16.3	20.4	27.2	14.5
	Sado-seki	19.2	20.7	17.6	15.5	20.9	21.0	29.3	22.2	12.9	16.2	20.2	20.1	28.6	25.6	16.7
	Happo	25.3	20.2	15.7	25.6	32.3	24.7	25.8	16.6	22.9	15.4	18.6	21.5	23.8	19.8	17.6
	Ijira	39.4	60.4	53.6	50.2	52.1	64.5	46.8	40.6	52.4	46.9	43.4	42.2	36.6	40.8	42.3
	Oki	18.4	19.5	14.1	15.3	20.8	17.8	18.3	17.4	19.1	25.8	28.6	22.0	24.4	14.7	10.2
	Banryu	24.6	23.4	21.9	19.5	28.1	29.1	28.4	24.3	28.3	31.8	22.5	25.9	27.9	26.2	21.8
	Yusuhara	10.7	17.8	17.1	19.0	20.6	23.8	17.7	16.5	17.1	16.3	16.4	23.0	17.8	17.3	12.3
	Hedo	9.52	37.6	15.2	30.6	23.6	15.9	20.2	12.0	12.7	24.6	16.1	53.5	16.0	20.2	19.4
	Ogasawara	8.70	7.18	5.07	5.96	7.10	7.27	12.1	5.74	8.07	9.82	5.88	8.14	7.64	5.94	4.19
	Tokyo							29.9	55.6	45.3	31.8	35.3	39.8	36.9	41.8	33.0
Lao PDR	Vientiane			***	***	***	5.47	15.3	14.0	3.13	***	***	***	***	***	7.17
Malaysia	Petaling Jaya	179	43.0	37.1	39.4	57.3	93.3	57.7	77.9	22.5	16.2	17.5	4.40	57.8	102	95.5
	Tanah Rata	93.0	11.2	6.92	5.77	8.13	9.84	11.6	12.2	16.7	9.92	47.2	16.1	6.69	9.97	20.2
	Danum Valley					2.55	6.15	3.95	29.3	11.7	11.6	7.19	1.90	2.48	2.60	8.53
	Kuching								19.7	23.1	9.03	23.3	23.4	11.8	34.3	24.3
Mongolia	Ulaanbaatar	8.28	13.0	14.1	3.86	8.18	10.1	11.0	8.26	10.6	8.35	7.50	***	9.58	***	***
	Terelj	2.70	16.2	9.86	7.37	8.87	11.7	7.19	10.5	4.54	4.53	5.66	***	0.487	***	***
Myanmar	Yangon							***	***	48.9	33.3	46.9	45.6	45.8	47.6	54.3
Philippines	Metro Manila	177	137	52.2	76.6	71.0	109	118	148	79.7	142	667	1218	145	162	215
	Los Baños	40.7	58.8	23.3	24.3	24.7	36.2	52.1	37.1	33.9	79.1	70.1	142	53.3	116	85.6
	Mt.Sto.Tomas						0.293	29.4	53.3	66.7	16.8	3.79	19.6	20.7	49.0	58.4
Republic of Korea	Kanghwa	42.7	33.0	90.6	66.4	53.8	57.9	51.5	54.8	38.6	41.6	63.8	36.9	70.5	25.7	58.3
	Cheju	36.0	44.0	54.1	40.4	21.6	29.5	35.9	22.1	47.0	26.8	30.2	40.1	22.9	30.4	40.9
	Imsil	54.9	41.9	61.0	34.0	40.5	35.5	53.7	25.5	37.6	51.2	56.3	55.4	49.4	36.7	36.4
Russia	Mondy	7.08	6.89	6.00	4.03	2.79	1.52	10.6	2.03	2.40	1.58	0.672	2.00	0.894	0.444	1.84
	Listvyanka	5.34	9.66	11.3	6.74	7.50	4.82	6.35	7.40	4.18	5.99	8.22	9.17	2.74	3.83	12.3
	Irkutsk	11.7	13.0	19.2	15.1	15.6	8.89	16.2	18.1	15.7	12.9	10.8	15.1	8.15	9.28	21.3
	Primorskaya		30.0	12.6	21.0	30.7	31.0	29.2	28.0	24.9	28.8	33.6	24.9	28.6	27.2	29.8
Thailand	Bangkok	42.5	60.9	51.9	45.8	87.1	89.0	91.3	95.5	134	76.5	87.3	79.4	61.6	52.9	96.7
	Samutprakarn				43.5	60.8	70.8	88.1	97.8	81.5	52.9	58.5	32.5	42.1	48.2	66.3
	Pathumthani	47.9	32.4	48.2	33.2	39.6	53.9	47.5	49.6	43.3	49.4	59.5	59.2	53.1	37.4	48.6
	Khanchanaburi	16.7	24.0	20.3	11.7	10.1	44.1	23.7	19.8	52.1	14.5	25.2	21.4	10.2	13.7	11.7
	Chiang Mai	17.1	27.3	12.8	18.1	30.1	21.6	17.7	25.6	21.2	22.5	21.9	21.8	27.7	14.1	13.1
	Sakaerat						27.5	25.4	36.4	28.8	40.0	36.7	29.0	34.4	18.0	43.3
Vietnam	Hanoi	45.7	78.6	87.4	83.0	174	56.2	80.1	69.4	81.4	64.8	95.9	108	104	113	82.6
	Hoa Binh	27.8	45.9	48.5	75.0	68.5	42.7	41.4	33.8	42.6	38.8	48.9	57.4	50.7	59.5	62.0
	Cuc Phuong									14.3	16.4	35.5	48.3	48.5	34.9	43.8
	Da Nang									40.0	14.6	78.3	35.8	57.0	32.2	16.5
	Can Tho														33.7	46.9
	Ho Chi Minh														46.6	41.8
	Yen Bai															46.1

Terms and abbreviations are given in Table 3.5.

Table 3.88 Annual Na^+ deposition amount from 2001 to 2015

unit: mmol $m^{-2}y^{-1}$

Country	Name of sites	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Cambodia	Phnom Penh				***	***	1.75	11.3	18.8	9.22	5.74	4.54	5.90	4.16	11.9	6.92
China	Guanyinqiao	8.11	8.01	4.85	10.1	8.99	6.66	7.69								
	Haifu								7.06	4.48	7.38	7.99	6.10	7.48	9.01	4.40
	Jinyunshan	7.25	9.48	6.15	18.7	22.3	7.95	10.2	12.5	8.45	8.00	5.19	6.32	4.41	6.70	2.87
	Shizhan	59.8	85.7	88.1	11.5	8.18	21.8	8.22	9.41	7.91	3.35	11.7	2.20	60.9	78.1	67.3
	Weishuiyuan	15.1	48.0	147	10.9	9.01	21.1									
	Jiwozi	33.1	24.2	62.2	25.5	21.6	15.4	8.58	35.5	15.8	7.47	7.63	17.3	72.8	70.9	41.3
	Hongwen	3.20	87.2	45.2	53.7	87.4	65.6	32.4	21.7	18.1	29.6	15.2	15.0	20.1	22.3	18.8
	Xiaoping	31.7	35.6	43.6	25.5	28.3	54.5	13.0	44.9	18.5	28.6	16.6	10.9	23.9	12.0	17.0
	Xiang Zhou	49.0	71.9	67.5	96.6	52.0	54.3	27.9	97.5	80.7	36.8	40.7	69.7	131	51.4	75.7
	Zhuxiandong	70.7	71.4	63.2	120	64.7	20.0	***	94.1	71.5	37.0	51.5	***	***	***	107
Indonesia	Jakarta	48.8	55.6	43.8	54.6	49.4	19.3	34.4	17.1	14.5	16.8	11.6	34.5	37.7	67.8	5.65
	Serpong	38.2	63.2	24.2	28.7	13.2	12.0	23.7	24.8	13.7	11.9	8.36	9.71	32.5	54.1	25.9
	Kototabang	5.46	11.3	30.2	23.0	12.5	7.75	24.0	13.2	16.3	12.4	14.3	25.4	18.0	14.2	1.95
	Bandung	52.7	22.0	11.4	9.66	20.9	24.0	13.1	20.1	31.6	25.4	18.7	22.5	31.9	26.3	17.3
	Maros								47.5	43.0	35.3	54.1	48.8	77.7	80.5	9.10
Japan	Rishiri	130	188	125	217	195	142	126	204	185	173	171	343	234	168	153
	Ochiishi			155	233	171	277	161	125	287	252	126	239	446	81.5	147
	Tappi	145	219	162	292	270	278	247	162	266	177	171	166	275	187	264
	Sado-seki	345	384	106	208	332	283	264	219	333	437	213	319	517	397	283
	Happo	14.6	8.85	11.8	18.4	21.1	11.4	7.29	6.77	12.1	9.86	10.3	19.2	10.8	13.0	13.1
	Ijira	66.4	75.6	39.4	74.0	34.9	30.7	47.1	34.5	39.0	50.0	42.3	55.2	41.3	47.5	49.6
	Oki	394	570	296	416	791	315	319	360	422	594	737	462	705	574	437
	Banryu	140	104	142	197	119	130	100	91.6	171	139	155	111	140	132	133
	Yusuhara	24.5	67.8	40.7	95.8	58.5	37.5	32.1	18.8	24.9	21.8	41.8	55.1	24.6	18.3	69.8
	Hedo	341	1050	599	1550	800	351	349	243	250	670	360	1186	366	335	552
	Ogasawara	189	314	351	146	199	163	209	144	315	386	262	179	178	201	486
	Tokyo							37.3	36.2	40.7	28.7	52.3	48.2	36.7	34.2	29.6
Lao PDR	Vientiane			***	***	***	5.04	3.32	4.86	1.66	***	***	***	***	***	2.56
Malaysia	Petaling Jaya	11.4	13.5	17.0	17.0	18.9	17.1	10.9	15.8	13.6	17.6	16.5	13.1	15.3	18.7	23.3
	Tanah Rata	5.05	4.56	5.70	4.42	19.2	3.93	4.57	4.73	4.87	3.15	6.56	4.29	6.02	8.17	7.36
	Danum Valley					5.59	16.9	12.4	9.65	19.8	32.7	20.9	8.49	16.5	15.4	10.9
	Kuching								23.1	34.3	31.0	42.1	19.8	31.0	33.8	56.9
Mongolia	Ulaanbaatar	1.51	1.12	1.14	0.483	1.08	1.58	0.660	0.556	1.11	0.535	0.924	***	12.1	***	***
	Terelj	1.41	4.15	1.40	1.31	2.83	2.68	1.74	1.13	0.843	1.44	0.873	***	1.54	***	***
Myanmar	Yangon							***	***	55.7	29.3	47.2	56.7	42.6	49.6	21.3
Philippines	Metro Manila	470	43.3	40.5	35.3	37.9	46.3	70.8	58.7	76.5	59.7	78.2	74.6	98.3	64.4	58.5
	Los Baños	67.6	35.9	24.6	20.9	28.3	50.5	54.4	36.2	50.5	46.9	46.3	46.7	54.5	32.0	27.4
	Mt.Sto.Tomas						1.21	19.2	25.9	39.1	22.7	19.9	58.9	29.4	23.0	53.2
Republic of Korea	Kanghwa	47.5	40.6	40.0	28.5	27.3	31.5	39.1	60.8	57.1	42.4	52.8	37.9	26.6	18.4	26.5
	Cheju	83.2	59.3	60.3	64.9	59.3	95.8	126	112	55.7	103	163	449	184	139	147
	Imsil	20.0	38.3	42.7	21.6	27.0	22.0	20.2	27.3	53.7	79.2	55.9	72.6	36.9	32.8	33.9
Russia	Mondy	0.726	0.392	0.927	0.693	0.436	0.643	1.10	0.379	0.270	0.253	0.283	0.455	0.449	0.277	0.219
	Listvyanka	1.67	1.37	2.76	2.57	1.36	0.870	1.05	0.972	1.19	1.18	2.59	1.44	1.86	1.34	0.989
	Irkutsk	3.88	2.78	3.01	3.68	3.04	3.58	4.75	5.29	8.06	6.91	5.52	4.41	3.55	3.35	3.71
	Primorskaya		19.3	10.9	15.6	16.0	10.5	19.6	12.7	11.0	16.1	8.48	21.3	18.4	10.1	28.7
Thailand	Bangkok	9.78	20.9	10.6	12.3	25.6	13.8	11.2	17.3	20.3	17.8	14.0	10.9	16.0	9.26	12.7
	Samutprakarn				20.8	32.2	20.8	22.8	26.8	19.9	35.0	12.0	7.51	28.2	12.5	13.5
	Pathumthani	10.9	9.15	7.84	8.72	8.32	12.0	7.97	9.95	7.34	13.1	9.16	22.0	7.04	5.62	7.42
	Khanchanaburi	17.1	18.3	16.7	12.5	13.7	17.3	12.0	18.1	19.0	5.05	14.5	23.2	8.19	6.28	6.46
	Chiang Mai	4.27	14.2	2.60	3.52	1.31	5.02	2.75	3.35	2.83	3.17	5.17	4.22	8.07	1.93	3.34
	Sakaerat						5.30	6.17	7.24	3.44	5.22	6.10	4.18	4.27	3.78	6.36
Vietnam	Hanoi	25.9	8.41	14.2	12.7	31.2	16.6	13.6	21.7	14.8	9.00	11.2	7.54	15.0	12.0	11.5
	Hoa Binh	21.8	3.34	3.98	7.16	17.0	6.94	6.23	6.08	4.60	6.65	4.32	5.81	8.29	4.12	6.14
	Cuc Phuong									25.5	19.8	25.2	40.4	50.7	18.2	12.8
	Da Nang									281	69.9	255	106	333	182	151
	Can Tho														28.4	64.8
	Ho Chi Minh														47.9	49.1
	Yen Bai															8.18

Terms and abbreviations are given in Table 3.5.

Table 3.89 Annual K^+ deposition amount from 2001 to 2015

unit: mmol $m^{-2}y^{-1}$

Country	Name of sites	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Cambodia	Phnom Penh				0.682	***	1.41	5.00	19.0	1.98	1.59	1.47	1.23	1.42	4.20	2.18
China	Guanyinqiao	14.0	15.3	10.9	15.1	13.4	10.6	11.4								
	Haifu								11.6	8.23	9.78	7.60	6.64	13.1	13.2	7.30
	Jinyunshan	31.6	16.5	10.6	17.8	16.6	13.6	11.1	11.6	9.56	10.2	8.80	7.69	6.19	6.59	4.38
	Shizhan	15.3	14.1	23.9	5.75	7.85	8.67	10.2	5.11	6.03	14.9	8.83	2.23	12.4	156	3.16
	Weishuiyuan	5.19	17.8	26.5	5.25	5.52	10.6									
	Jiwozi	9.11	5.99	13.0	8.65	10.0	4.88	2.80	12.7	8.58	5.64	7.07	3.80	6.64	9.33	2.96
	Hongwen	3.06	6.73	5.63	7.70	8.65	7.14	5.03	2.00	1.66	3.42	1.68	2.64	2.67	1.60	6.08
	Xiaoping	11.3	8.17	8.39	9.96	8.06	31.7	7.63	20.3	2.64	2.94	4.29	4.48	3.29	1.98	13.1
	Xiang Zhou	8.00	30.4	9.91	10.3	3.13	12.5	11.9	4.65	4.23	4.10	4.71	14.0	20.0	11.5	6.31
	Zhuxiandong	15.1	20.8	11.6	28.9	5.95	2.32	***	10.4	4.04	6.10	6.78	***	***	***	13.3
Indonesia	Jakarta	30.1	17.8	15.0	15.2	12.2	11.9	24.3	6.03	3.46	4.72	2.26	7.79	6.61	11.5	35.2
	Serpong	11.3	9.89	17.0	8.26	5.09	7.14	5.56	5.24	2.36	4.57	2.61	3.87	11.4	16.3	13.8
	Kototabang	1.59	9.16	62.6	13.2	9.57	5.69	23.3	8.42	24.8	10.5	8.69	14.6	40.9	25.8	12387
	Bandung	32.7	5.19	6.63	2.95	8.15	6.31	4.01	5.38	11.0	11.0	7.30	7.01	18.7	11.4	7.11
	Maros								17.5	12.6	6.71	6.74	8.57	7.41	52.7	4427
Japan	Rishiri	3.71	4.86	3.47	5.68	4.89	4.85	3.65	5.44	4.54	4.59	4.24	7.51	5.40	4.23	3.95
	Ochiishi			3.62	5.23	4.34	7.64	3.97	2.78	6.47	6.68	3.02	5.89	9.91	2.14	4.00
	Tappi	3.55	5.41	3.97	7.28	6.19	6.86	5.97	4.42	6.62	5.45	4.96	4.66	6.65	4.74	6.20
	Sado-seki	7.95	9.30	2.78	5.48	7.60	7.20	6.84	7.31	8.26	11.1	6.18	8.58	12.1	10.6	8.40
	Happo	1.50	1.03	0.942	1.55	2.14	1.42	1.41	0.962	1.58	0.934	1.38	1.73	1.54	1.83	1.53
	Ijira	9.09	5.57	3.69	3.75	2.39	2.77	2.60	1.43	1.95	1.64	1.64	1.74	1.60	1.86	2.19
	Oki	10.9	15.0	8.70	13.6	20.4	9.16	10.6	13.2	11.3	14.7	19.5	11.9	17.8	13.8	10.5
	Banryu	4.89	3.76	4.36	5.25	4.76	4.37	3.89	3.22	5.20	7.98	4.85	3.93	4.71	4.02	3.70
	Yusuhara	1.05	2.37	1.30	3.72	2.27	2.15	1.51	0.928	1.59	1.52	1.58	3.25	0.962	2.47	2.31
	Hedo	7.57	24.3	14.0	43.7	20.2	8.77	8.95	6.23	6.49	16.4	8.73	30.2	8.82	8.08	12.8
	Ogasawara	7.37	8.21	7.82	3.59	4.68	4.01	4.97	4.36	7.61	9.32	6.42	4.26	4.60	4.79	12.8
	Tokyo							1.51	2.12	1.90	1.64	1.79	1.45	1.14	1.13	1.05
Lao PDR	Vientiane			***	***	***	2.49	2.37	2.82	0.168	***	***	***	***	***	1.61
Malaysia	Petaling Jaya	4.39	3.37	9.25	4.91	6.99	6.23	2.97	4.45	4.47	5.26	4.71	4.53	4.07	5.46	6.39
	Tanah Rata	2.40	2.21	2.15	3.68	2.57	1.74	1.92	1.70	3.05	2.60	6.70	4.78	4.85	4.69	6.35
	Danum Valley					1.47	3.05	3.22	7.58	5.39	7.67	6.56	3.59	3.22	6.15	4.83
	Kuching								2.77	3.24	3.02	3.95	3.51	2.85	11.9	6.37
Mongolia	Ulaanbaatar	0.770	0.679	1.01	0.237	0.651	0.968	0.161	0.435	0.577	0.416	0.650	***	0.598	***	***
	Terelj	0.337	2.50	1.28	0.970	1.59	1.93	0.703	1.33	0.455	0.703	0.719	***	0.725	***	***
Myanmar	Yangon							***	***	19.4	4.71	5.21	17.4	7.17	13.5	32.2
Philippines	Metro Manila	53.1	29.4	5.55	8.50	9.28	34.0	18.9	37.1	15.1	45.6	85.9	117	22.7	25.7	32.7
	Los Baños	17.3	10.9	2.94	3.74	3.62	5.53	15.2	5.51	26.3	15.4	16.3	17.1	15.3	17.0	114
	Mt.Sto.Tomas						0.569	7.73	3.57	9.24	5.09	3.78	5.07	3.30	4.57	9.93
Republic of Korea	Kanghwa	5.40	7.28	14.8	10.00	5.26	5.31	9.51	8.35	11.3	12.2	5.34	4.78	2.94	5.73	62.7
	Cheju	10.4	6.55	10.5	9.11	6.02	6.80	8.94	8.78	10.1	7.98	7.04	18.8	7.65	13.5	20.1
	Imsil	19.3	6.50	21.0	6.90	60.6	29.9	19.2	4.79	11.7	16.8	5.81	66.5	7.72	10.8	6.61
Russia	Mondy	0.661	0.473	0.659	0.965	0.300	0.455	0.867	0.416	0.390	0.237	0.366	0.952	0.759	0.248	0.462
	Listvyanka	0.855	0.800	1.42	1.30	0.520	0.479	0.521	1.32	0.646	0.543	1.16	0.686	1.21	0.868	0.702
	Irkutsk	3.45	0.703	1.20	1.50	1.50	2.73	3.72	4.74	11.4	2.07	1.51	2.21	1.44	1.15	1.31
	Primorskaya		4.47	3.25	5.01	5.21	3.41	6.11	4.97	3.81	3.93	4.19	4.69	4.01	3.30	9.01
Thailand	Bangkok	4.83	4.36	3.63	1.96	4.34	4.50	2.48	3.61	4.10	5.22	3.95	2.74	2.54	1.40	2.78
	Samutprakarn				6.15	7.99	6.12	5.38	10.6	5.51	31.9	2.33	1.45	5.83	2.30	2.79
	Pathumthani	2.27	1.41	1.93	1.16	1.52	2.67	2.23	2.51	2.12	3.26	3.06	2.57	2.51	1.98	1.97
	Khanchanaburi	7.54	5.23	3.29	1.52	1.40	6.16	1.21	2.26	2.41	1.15	4.30	3.75	1.43	1.19	0.916
	Chiang Mai	3.19	6.49	3.19	1.62	1.02	2.41	2.69	3.38	1.55	1.41	2.33	1.40	2.12	0.935	0.924
	Sakaerat						0.791	1.91	2.13	1.65	1.53	1.81	1.42	1.17	1.12	2.10
Vietnam	Hanoi	8.59	2.93	4.08	4.65	9.19	4.65	4.48	6.28	2.53	3.43	4.12	5.39	5.13	6.23	4.73
	Hoa Binh	5.19	2.40	2.50	3.06	8.29	3.76	4.36	6.40	3.69	3.94	4.23	2.88	14.3	3.61	4.63
	Cuc Phuong									31.7	9.28	6.14	12.2	16.3	8.04	6.83
	Da Nang									18.6	5.76	50.9	19.3	41.5	30.5	22.6
	Can Tho														13.7	15.8
	Ho Chi Minh														20.3	17.1
	Yen Bai															6.09

Terms and abbreviations are given in Table 3.5.

Table 3.90 Annual Ca^{2+} deposition amount from 2001 to 2015

unit: mmol $m^{-2}y^{-1}$

Country	Name of sites	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Cambodia	Phnom Penh				0	***	8.64	26.4	59.9	27.1	15.4	11.9	17.4	12.9	14.8	12.8
China	Guanyinqiao	103	94.5	64.5	153	168	120	97.7								
	Haifu								66.0	46.1	67.6	55.5	58.5	71.2	77.4	52.5
	Jinyunshan	31.9	47.7	37.8	107	84.3	118	90.7	82.9	73.2	67.3	55.2	59.5	35.1	38.8	28.0
	Shizhan	246	167	329	88.5	54.4	145	61.3	57.6	81.7	48.1	60.1	50.1	143	57.7	53.2
	Weishuiyuan	80.0	143	313	88.3	39.9	104									
	Jiwozi	89.5	39.1	140	89.7	46.7	51.9	34.7	116	58.9	47.0	88.9	79.3	86.2	84.4	25.8
	Hongwen	10.7	77.0	40.0	89.1	63.7	54.4	74.0	13.3	9.71	13.9	11.9	16.1	30.8	28.8	16.6
	Xiaoping	13.8	23.0	30.6	12.5	30.9	24.7	17.4	31.2	10.2	12.7	17.9	25.9	44.9	57.8	14.3
	Xiang Zhou	15.8	26.9	39.3	24.1	8.62	21.6	6.78	15.3	9.87	13.7	22.1	16.3	105	28.5	22.7
	Zhuxiandong	36.8	32.7	35.5	31.5	18.1	15.2	***	31.4	11.7	30.3	21.8	***	***	***	40.2
Indonesia	Jakarta	79.6	67.5	164	74.8	36.9	27.9	30.2	7.48	19.6	21.9	11.0	32.6	33.0	47.4	21.0
	Serpong	21.8	24.9	14.1	15.4	9.89	11.5	14.9	18.9	6.95	13.2	9.08	8.31	32.5	37.4	34.9
	Kototabang	1.73	8.84	17.3	14.7	7.42	6.48	13.0	12.1	14.5	11.3	12.9	20.7	20.2	9.82	4.98
	Bandung	63.0	43.4	17.5	16.3	27.7	19.4	18.7	26.4	41.1	35.1	32.0	27.8	45.9	46.4	35.4
	Maros								25.5	26.3	25.5	23.6	39.4	41.9	77.0	41.5
Japan	Rishiri	6.21	9.73	5.49	8.13	7.32	6.90	5.15	7.22	10.6	7.39	6.93	9.89	8.58	5.97	5.75
	Ochiishi			4.49	7.92	7.37	10.2	6.03	3.86	8.21	8.95	4.44	6.41	12.2	3.40	5.56
	Tappi	6.25	12.0	8.02	11.4	13.3	12.3	11.7	8.52	8.58	13.3	9.17	9.45	15.0	8.89	8.90
	Sado-seki	15.4	13.0	5.72	7.23	11.6	15.3	13.7	10.5	11.5	17.4	11.5	14.8	16.4	13.4	9.83
	Happo	10.1	5.21	4.72	7.29	12.4	17.3	6.77	4.44	11.0	6.30	7.89	8.29	7.37	5.67	3.82
	Ijira	12.6	11.1	8.55	7.92	7.25	8.17	8.23	4.94	7.89	9.55	6.05	7.16	7.45	5.02	6.26
	Oki	16.1	18.1	11.0	16.7	24.4	15.9	15.8	12.1	16.3	23.3	26.2	15.7	23.8	17.3	12.8
	Banryu	10.7	6.99	5.95	9.20	7.57	18.6	9.37	9.40	9.46	11.8	8.38	8.03	7.92	7.20	7.83
	Yusuhara	7.09	4.17	4.04	7.32	5.55	8.25	4.66	3.71	4.07	4.44	7.71	7.28	5.37	5.64	3.11
	Hedo	10.4	28.5	15.1	40.3	25.1	17.2	13.3	8.19	8.83	21.1	10.7	32.6	11.1	10.4	14.5
	Ogasawara	9.81	11.5	11.2	3.93	5.25	5.68	6.83	4.27	8.71	10.8	7.21	5.44	5.82	6.10	12.9
	Tokyo							5.38	7.61	5.91	6.59	6.72	6.88	7.00	6.88	5.84
Lao PDR	Vientiane			***	***	***	6.20	4.25	9.62	0.996	***	***	***	***	***	3.68
Malaysia	Petaling Jaya	19.4	19.8	23.8	15.1	17.3	15.2	11.9	14.7	14.8	19.0	14.3	13.5	21.9	22.3	25.1
	Tanah Rata	8.13	8.56	10.1	5.60	5.28	3.20	3.11	3.03	3.17	2.99	6.84	6.73	8.06	7.75	5.36
	Danum Valley					1.70	3.79	1.53	1.06	3.43	9.05	3.36	2.37	4.59	4.02	4.62
	Kuching								8.19	8.35	12.1	14.6	13.0	17.2	22.4	19.2
Mongolia	Ulaanbaatar	7.86	8.91	7.88	3.60	7.49	8.63	5.19	6.66	9.63	5.23	5.54	***	14.7	***	***
	Terelj	1.33	6.72	3.32	3.36	3.33	5.32	2.52	3.68	3.97	5.48	2.93	***	6.28	***	***
Myanmar	Yangon							***	***	29.1	14.5	21.7	20.0	2.87	40.6	216
Philippines	Metro Manila	164	25.9	19.3	24.1	25.2	36.8	36.4	32.7	24.2	34.2	47.0	61.8	40.5	38.2	43.6
	Los Baños	119	12.3	12.5	9.41	5.82	15.4	16.1	7.10	14.7	41.6	15.2	19.8	15.3	14.5	13.7
	Mt.Sto.Tomas						2.43	79.0	15.7	27.8	81.8	36.1	80.4	37.7	29.3	41.8
Republic of Korea	Kanghwa	15.9	9.14	17.9	12.3	8.98	17.2	11.0	16.8	6.57	11.0	6.48	6.46	7.83	3.81	5.61
	Cheju	6.56	9.53	10.5	8.66	7.89	10.2	13.2	8.86	4.23	6.74	7.10	13.4	8.64	4.92	6.74
	Imsil	7.60	9.76	10.1	8.16	6.24	10.4	18.4	5.91	4.14	9.42	10.2	6.03	3.59	3.85	3.71
Russia	Mondy	2.24	1.74	1.55	1.92	1.19	2.24	2.42	1.64	0.616	0.830	0.663	1.28	1.52	0.866	1.14
	Listvyanka	3.58	4.11	7.70	7.80	3.72	2.74	3.68	3.19	3.92	4.12	7.72	4.03	3.30	3.56	3.34
	Irkutsk	16.3	9.53	10.9	12.1	9.53	10.7	12.7	15.5	12.6	12.1	11.4	13.9	9.12	10.3	8.88
	Primorskaya		15.1	8.16	14.9	15.6	15.6	13.8	10.7	10.1	11.3	8.52	11.2	13.0	11.6	15.2
Thailand	Bangkok	14.1	20.5	16.5	13.3	37.4	29.2	21.5	28.7	20.8	22.8	22.9	24.2	33.5	14.6	27.0
	Samutprakarn				9.88	15.7	21.0	20.5	24.0	26.2	14.6	12.5	7.99	22.2	14.5	8.98
	Pathumthani	17.5	16.5	10.5	11.1	10.8	20.6	11.7	19.4	12.1	16.2	18.9	32.2	32.0	23.8	17.8
	Khanchanaburi	13.7	10.8	13.7	6.65	5.01	6.82	5.16	9.00	9.85	2.93	7.84	41.7	4.90	3.98	3.97
	Chiang Mai	7.53	26.5	4.62	5.50	5.36	6.72	7.53	8.60	5.98	5.14	4.20	8.64	15.1	5.13	3.07
	Sakaerat						11.4	5.20	5.78	3.19	3.60	2.83	4.21	2.83	3.73	9.46
Vietnam	Hanoi	24.1	23.8	28.2	39.3	45.9	43.4	30.0	26.7	19.3	29.2	26.6	27.0	31.6	41.2	46.8
	Hoa Binh	23.1	20.5	20.2	36.4	32.6	27.5	18.2	28.7	12.8	28.9	22.1	21.2	34.0	17.4	16.3
	Cuc Phuong									56.2	63.3	59.8	61.8	46.2	39.2	28.3
	Da Nang									18.8	15.0	36.4	28.4	49.7	60.6	65.0
	Can Tho														23.5	59.1
	Ho Chi Minh														49.7	62.8
	Yen Bai															24.1

Terms and abbreviations are given in Table 3.5.

Table 3.91 Annual nss-Ca^{2+} deposition amount from 2001 to 2015

unit: mmol $m^{-2}y^{-1}$

Country	Name of sites	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Cambodia	Phnom Penh				***	***	8.61	26.2	59.5	26.9	15.3	11.8	17.3	12.8	14.5	12.6
China	Guanyinqiao	103	94.3	64.4	153	168	120	97.5								
	Haifu								65.8	46.0	67.5	55.3	58.3	71.1	77.2	52.4
	Jinyunshan	31.7	47.5	37.7	107	83.9	117	90.4	82.6	73.0	67.1	55.1	59.4	35.0	38.6	27.9
	Shizhan	244	165	327	88.3	54.3	145	61.2	57.4	81.5	48.0	59.8	50.1	142	56.0	51.8
	Weishuiyuan	79.7	142	310	88.1	39.8	104									
	Jiwozi	88.8	38.6	139	89.1	46.2	51.6	34.5	116	58.5	46.9	88.8	78.9	84.6	82.9	24.9
	Hongwen	10.7	75.1	39.0	88.0	61.8	53.0	73.3	12.8	9.32	13.3	11.5	15.8	30.3	28.4	16.2
	Xiaoping	13.1	22.3	29.6	12.0	30.3	23.5	17.1	30.2	9.85	12.1	17.6	25.6	44.4	57.6	13.9
	Xiang Zhou	14.8	25.3	37.9	22.0	7.62	20.4	6.25	13.2	8.13	13.0	21.2	14.8	102	27.4	21.1
	Zhuxiandong	35.3	31.1	34.1	28.9	16.7	14.8	***	29.3	10.2	29.5	20.7	***	***	***	37.9
Indonesia	Jakarta	78.5	66.3	163	73.8	35.9	27.5	29.5	7.11	19.2	21.6	10.7	31.9	32.2	46.0	20.8
	Serpong	21.0	23.5	13.7	14.7	9.60	11.3	14.5	18.4	6.76	12.9	8.91	8.10	31.8	36.2	34.3
	Kototabang	1.65	8.60	16.6	14.2	7.15	6.31	12.5	11.8	14.2	11.0	12.6	20.2	19.9	9.51	5.09
	Bandung	61.8	42.9	17.2	16.1	26.9	18.9	18.4	25.9	40.4	34.6	31.6	27.4	45.2	45.9	35.1
	Maros								24.4	25.3	24.8	22.4	38.4	40.3	75.2	41.4
Japan	Rishiri	3.40	5.66	2.82	3.46	3.15	3.87	2.44	2.81	6.74	3.69	3.24	2.58	3.58	2.39	2.51
	Ochiishi			1.25	2.90	3.65	4.29	2.56	1.21	2.18	3.52	1.73	1.31	2.57	1.64	2.38
	Tappi	3.25	7.30	4.53	5.19	7.62	6.26	6.34	5.02	3.02	9.58	5.57	5.23	9.14	4.98	3.36
	Sado-seki	8.08	4.86	3.44	2.90	4.46	9.20	7.99	5.79	4.36	8.12	6.92	8.03	6.04	4.88	3.76
	Happo	9.80	5.02	4.46	6.91	12.0	17.0	6.63	4.30	10.7	6.09	7.67	7.87	7.14	5.39	3.54
	Ijira	11.1	9.45	7.71	6.39	6.49	7.51	7.21	4.21	7.06	8.49	5.23	5.99	6.61	4.07	5.20
	Oki	7.60	6.14	4.55	7.76	7.24	9.57	8.91	4.37	7.23	10.5	10.3	5.71	8.53	4.88	3.34
	Banryu	7.68	4.76	2.89	4.97	5.02	15.8	7.21	7.42	5.76	8.80	5.04	5.62	4.90	4.35	5.09
	Yusuhara	6.68	2.91	3.23	5.25	4.28	7.44	3.97	3.30	3.53	4.07	6.94	6.09	4.84	5.25	1.61
	Hedo	3.64	5.87	4.84	7.64	7.81	9.59	5.75	2.95	3.46	6.61	2.88	6.93	3.21	3.14	2.60
	Ogasawara	5.77	4.77	3.68	1.22	1.18	2.17	2.34	1.44	1.95	2.51	1.56	1.58	1.97	1.76	2.40
	Tokyo							4.58	6.83	5.03	5.97	5.59	5.84	6.21	6.14	5.20
Lao PDR	Vientiane			***	***	***	6.09	4.18	9.51	0.960	***	***	***	***	***	3.63
Malaysia	Petaling Jaya	19.2	19.5	23.4	14.8	16.9	14.9	11.7	14.4	14.5	18.6	14.0	13.2	21.6	21.9	24.6
	Tanah Rata	8.02	8.46	9.95	5.51	4.92	3.13	3.02	2.95	3.10	2.93	6.71	6.64	7.95	7.60	5.22
	Danum Valley					1.58	3.49	1.36	0.944	3.12	8.51	3.01	2.22	4.30	3.76	4.40
	Kuching								7.77	7.76	11.4	13.7	12.6	16.6	21.7	18.0
Mongolia	Ulaanbaatar	7.83	8.88	7.85	3.59	7.46	8.59	5.17	6.64	9.60	5.22	5.53	***	14.4	***	***
	Terelj	1.30	6.46	3.29	3.33	3.27	5.26	2.48	3.66	3.95	5.45	2.91	***	6.25	***	***
Myanmar	Yangon							***	***	27.9	13.9	20.7	18.8	2.13	39.6	215
Philippines	Metro Manila	154	25.0	18.5	23.4	24.4	35.8	34.9	31.4	22.6	32.9	45.4	60.2	38.4	36.8	42.3
	Los Baños	117	11.5	12.0	8.95	5.22	14.3	14.9	6.32	13.7	40.7	14.2	18.7	14.2	13.8	13.1
	Mt.Sto.Tomas						2.40	78.7	15.1	26.9	81.4	35.7	79.1	37.0	28.8	40.7
Republic of Korea	Kanghwa	14.9	8.27	17.0	11.7	8.39	16.6	10.1	15.5	5.35	10.1	5.40	5.64	7.26	3.47	5.04
	Cheju	4.79	8.28	9.16	7.25	6.61	8.13	10.5	6.43	3.15	4.72	4.00	3.78	4.66	2.13	3.66
	Imsil	7.16	8.93	9.18	7.70	5.65	9.93	17.9	5.32	3.02	7.87	8.99	4.76	2.80	3.19	3.01
Russia	Mondy	2.22	1.73	1.53	1.90	1.18	2.23	2.40	1.63	0.610	0.824	0.657	1.27	1.51	0.860	1.13
	Listvyanka	3.54	4.08	7.64	7.74	3.69	2.72	3.66	3.17	3.89	4.09	7.67	4.00	3.26	3.53	3.31
	Irkutsk	16.2	9.47	10.8	12.0	9.46	10.6	12.6	15.4	12.4	11.9	11.3	13.8	9.04	10.2	8.80
	Primorskaya		14.7	7.92	14.5	15.2	15.4	13.4	10.4	9.86	11.0	8.34	10.8	12.6	11.4	14.5
Thailand	Bangkok	13.9	20.0	16.2	13.0	36.8	28.9	21.3	28.3	20.3	22.4	22.6	24.0	33.2	14.4	26.7
	Samutprakarn				9.43	15.0	20.6	20.0	23.4	25.8	13.9	12.3	7.83	21.6	14.2	8.69
	Pathumthani	17.3	16.3	10.3	11.0	10.6	20.4	11.6	19.2	11.9	15.9	18.7	31.8	31.9	23.7	17.7
	Khanchanaburi	13.4	10.4	13.4	6.38	4.72	6.44	4.90	8.61	9.44	2.82	7.53	41.2	4.72	3.85	3.83
	Chiang Mai	7.44	26.2	4.57	5.42	5.33	6.64	7.47	8.52	5.92	5.09	4.10	8.54	15.0	5.09	3.00
	Sakaerat						11.2	5.07	5.62	3.12	3.50	2.73	4.13	2.75	3.66	9.32
Vietnam	Hanoi	23.5	23.6	27.8	39.1	45.2	43.0	29.7	26.2	19.0	29.0	26.3	26.9	31.2	40.9	46.5
	Hoa Binh	22.6	20.4	20.1	36.2	32.2	27.4	18.0	28.5	12.7	28.7	22.0	21.0	33.8	17.3	16.2
	Cuc Phuong									55.7	62.9	59.2	60.9	45.2	38.8	28.0
	Da Nang									12.8	13.5	30.9	26.1	42.5	56.7	61.8
	Can Tho														22.9	57.7
	Ho Chi Minh														48.7	61.8
	Yen Bai															23.9

Terms and abbreviations are given in Table 3.5.

Table 3.92 Annual Mg^{2+} deposition amount from 2001 to 2015

unit: $mmol\ m^{-2}y^{-1}$

Country	Name of sites	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Cambodia	Phnom Penh				0.00	***	0.627	4.49	6.33	2.66	1.33	1.55	1.98	1.50	2.54	2.82
China	Guanyinqiao	8.73	8.67	4.40	12.7	13.7	10.6	10.4								
	Haifu								7.15	5.81	8.75	6.98	6.94	8.44	9.92	5.85
	Jinyunshan	4.09	5.41	3.56	5.39	4.63	4.78	4.61	5.62	6.10	5.64	5.20	5.85	4.99	6.52	4.17
	Shizhan	17.6	23.7	42.7	9.18	6.69	13.6	11.3	17.5	7.34	5.04	6.55	1.36	24.0	7.34	5.49
	Weishuiyuan	6.13	21.1	52.0	8.99	4.77	13.3									
	Jiwozi	8.58	7.09	20.7	16.9	11.2	9.51	4.88	33.8	12.7	8.28	9.37	17.3	14.5	12.3	4.97
	Hongwen	1.86	15.1	7.76	12.2	15.4	11.6	8.32	4.65	3.01	3.06	3.56	4.34	4.71	4.82	4.26
	Xiaoping	6.77	3.50	7.15	2.81	3.35	6.52	2.16	6.78	3.67	2.88	3.39	4.46	7.97	4.98	3.54
	Xiang Zhou	5.83	9.56	12.3	8.51	8.10	18.3	3.43	11.2	9.08	4.77	5.53	10.5	33.9	12.1	10.3
	Zhuxiandong	8.56	11.2	12.9	10.8	9.65	4.43	***	13.2	9.71	5.30	7.74	***	***	***	14.0
Indonesia	Jakarta	85.3	20.7	20.6	9.25	7.72	12.7	4.79	2.87	3.06	4.72	3.42	8.06	6.11	11.5	5.07
	Serpong	5.67	11.3	5.76	5.84	3.09	2.78	5.33	9.76	1.83	4.40	2.59	1.80	8.97	9.31	6.84
	Kototabang	1.25	4.63	21.1	3.76	2.06	2.82	10.6	2.48	2.92	3.67	2.08	3.69	5.09	2.27	53.7
	Bandung	10.6	4.16	2.73	2.93	4.29	4.27	3.31	10.3	11.1	11.6	8.85	6.61	14.8	15.3	11.3
	Maros								7.77	6.02	5.79	9.07	17.2	11.3	37.7	74.5
Japan	Rishiri	15.2	21.4	14.4	25.0	22.4	16.3	15.0	24.8	21.0	20.0	18.9	37.8	26.3	18.7	17.7
	Ochiishi			17.3	27.3	18.2	31.1	18.6	14.5	31.4	31.0	15.1	26.6	51.0	9.28	16.9
	Tappi	16.7	26.1	19.3	34.5	30.0	32.1	27.9	19.1	28.2	20.1	19.9	18.2	32.1	21.6	28.0
	Sado-seki	39.3	44.0	12.7	24.1	37.7	32.7	30.3	24.0	37.6	51.6	26.4	38.1	58.2	45.8	32.3
	Happo	3.73	2.42	3.06	3.90	3.59	2.64	1.57	1.15	2.73	2.12	2.76	4.60	3.63	3.11	2.98
	Ijira	8.93	9.34	6.42	9.43	4.51	4.63	6.23	3.92	4.80	6.22	5.19	7.27	5.70	6.00	6.40
	Oki	45.6	63.8	33.9	48.4	91.8	37.6	36.8	40.8	48.3	69.9	85.2	53.4	78.3	63.9	50.8
	Banryu	16.3	12.1	16.3	23.0	13.9	16.3	12.5	11.3	20.4	17.7	18.3	13.5	17.2	16.4	15.7
	Yusuhara	3.80	8.34	5.21	11.4	7.07	5.25	4.27	2.42	3.33	3.86	8.71	8.65	5.98	6.43	8.45
	Hedo	35.8	120	68.7	162	84.3	40.7	40.0	27.9	28.6	77.2	40.9	136	41.5	38.2	63.0
	Ogasawara	23.9	43.1	43.5	15.3	21.8	18.1	23.4	17.7	36.6	45.4	30.5	21.3	21.5	23.2	54.8
	Tokyo							4.56	5.17	5.13	3.98	6.65	6.18	4.89	4.58	4.02
Lao PDR	Vientiane			***	***	***	2.47	0.977	2.18	0.131	***	***	***	***	***	0.564
Malaysia	Petaling Jaya	4.02	3.79	2.15	2.66	2.40	2.85	1.16	1.95	1.39	2.46	2.09	1.69	2.45	4.07	3.46
	Tanah Rata	1.07	1.17	1.36	0.749	1.42	0.452	0.329	0.192	0.0927	0.210	0.869	0.528	0.835	0.964	0.636
	Danum Valley					0.406	1.45	1.20	1.58	1.86	3.51	2.05	0.830	1.38	1.57	1.89
	Kuching								1.24	1.84	2.12	3.45	1.04	2.42	4.10	5.35
Mongolia	Ulaanbaatar	0.897	0.636	1.10	0.488	0.783	0.825	0.597	0.568	1.21	0.455	1.51	***	0.576	***	***
	Terelj	0.224	1.01	0.706	1.07	0.901	1.04	0.384	0.619	0.604	0.718	1.06	***	0.451	***	***
Myanmar	Yangon							***	***	8.54	4.11	9.52	16.9	33.1	9.79	14.3
Philippines	Metro Manila	34.4	9.72	6.60	9.47	5.86	14.7	14.5	11.1	9.69	24.4	26.1	29.1	16.0	12.2	16.0
	Los Baños	20.1	5.00	4.18	6.25	3.84	7.65	10.7	8.80	10.8	17.0	11.3	8.96	7.77	6.88	6.86
	Mt.Sto.Tomas						0.418	7.03	1.76	7.23	12.1	7.41	16.6	7.41	4.92	21.0
Republic of Korea	Kanghwa	6.00	5.22	4.50	4.82	5.03	5.57	5.95	4.26	6.67	5.71	4.70	4.11	2.96	1.39	2.12
	Cheju	11.1	7.60	7.57	8.17	10.5	10.8	9.09	8.16	6.25	6.91	11.3	41.4	16.3	9.38	8.60
	Imsil	2.49	3.28	3.00	2.89	2.27	2.83	4.80	1.70	4.14	7.69	3.02	4.27	2.28	1.95	2.38
Russia	Mondy	0.467	0.447	0.316	0.456	0.275	0.405	0.623	0.408	0.138	0.163	0.191	0.427	0.290	0.146	0.292
	Listvyanka	0.881	1.10	1.97	1.76	0.715	0.532	0.755	0.687	0.884	0.970	1.49	0.867	0.810	0.662	0.689
	Irkutsk	2.60	1.71	1.97	2.64	2.24	2.06	3.00	3.40	3.25	2.53	2.40	2.88	1.77	1.43	1.60
	Primorskaya		4.73	3.60	4.87	4.18	3.43	4.25	3.46	2.68	2.88	2.66	4.08	3.53	3.99	6.49
Thailand	Bangkok	3.71	4.61	3.22	2.59	7.58	3.72	2.65	4.15	3.09	3.07	2.72	2.43	3.50	2.40	3.02
	Samutprakarn				2.36	5.57	6.57	5.03	6.91	5.57	4.14	2.52	1.46	4.97	3.09	2.26
	Pathumthani	2.93	2.63	1.76	1.55	1.66	2.82	1.77	2.84	1.62	2.43	2.46	4.91	3.06	2.03	2.02
	Khanchanaburi	3.82	3.85	3.63	2.29	2.30	2.47	1.70	3.16	2.87	0.935	2.47	6.59	1.55	1.30	1.16
	Chiang Mai	1.19	5.22	1.68	2.10	1.43	3.44	1.16	2.29	2.87	0.526	0.367	0.936	2.15	1.01	1.05
	Sakaerat						2.36	2.47	2.11	1.60	1.14	0.410	0.477	0.289	0.557	3.01
Vietnam	Hanoi	8.94	4.18	5.77	5.98	15.2	10.5	6.91	8.27	7.70	7.02	7.41	3.87	5.42	5.83	5.85
	Hoa Binh	8.25	2.31	3.62	4.62	9.59	8.17	5.38	3.17	2.51	7.61	4.21	4.15	5.40	3.54	3.95
	Cuc Phuong									9.89	7.30	8.86	14.3	23.1	8.30	7.94
	Da Nang									30.1	14.4	34.3	15.4	43.4	23.9	16.6
	Can Tho														8.19	20.2
	Ho Chi Minh														16.7	25.4
	Yen Bai															4.06

Terms and abbreviations are given in Table 3.5.

Table 3.93 Annual H^+ deposition amount from 2001 to 2015

unit: mmol $m^{-2}y^{-1}$

Country	Name of sites	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Cambodia	Phnom Penh				2.01	0.625	0.181	0.279	2.65	0.861	1.98	1.41	1.12	0.890	0.969	0.791
China	Guanyinqiao	12.1	36.4	31.7	36.0	12.1	11.6	29.3								
	Haifu								64.1	64.3	69.3	53.4	58.1	30.8	17.1	4.65
	Jinyunshan	46.5	70.1	62.0	39.3	34.7	24.4	49.4	53.3	51.7	112	77.1	82.0	71.4	61.3	25.7
	Shizhan	0.153	0.201	1.27	0.304	1.96	1.33	1.60	0.155	0.176	0.0965	0.352	0.217	0.0514	0.154	0.131
	Weishuiyuan	0.0335	0.216	1.02	0.489	3.09	0.460									
	Jiwozi	0.120	0.142	0.543	0.791	0.227	0.318	0.0143	0.0498	0.498	3.36	1.10	0.0295	0.412	0.0591	0.0556
	Hongwen	8.75	25.4	44.8	20.6	33.8	31.4	21.8	24.3	22.2	40.7	19.0	28.6	18.5	9.48	12.9
	Xiaoping	33.8	72.9	73.2	48.3	48.1	38.9	26.5	55.8	38.7	40.2	23.4	20.3	19.6	26.7	17.6
	Xiang Zhou	22.7	13.5	13.6	22.1	32.2	20.4	33.7	33.0	26.9	26.2	11.1	11.7	14.1	16.6	3.96
	Zhuxiandong	43.0	20.3	13.8	29.6	25.9	13.3	***	30.2	28.0	21.0	19.1	***	***	***	5.25
Indonesia	Jakarta	4.68	26.5	11.3	30.0	104	61.4	59.7	38.6	36.6	39.5	27.9	47.4	39.3	62.2	40.5
	Serpong	38.0	56.6	51.6	30.5	21.1	40.1	52.0	56.7	25.9	25.0	16.4	11.1	20.1	20.8	20.1
	Kototabang	10.3	8.78	15.6	39.0	46.0	36.6	14.7	14.9	59.9	37.9	20.2	25.7	22.5	38.0	30.9
	Bandung	26.4	88.7	16.1	8.31	16.3	9.18	23.2	15.9	13.4	20.8	6.12	7.25	9.42	12.5	8.87
	Maros								7.15	15.0	16.4	16.1	5.90	13.7	16.2	14.3
Japan	Rishiri	10.3	14.4	9.43	13.6	17.7	27.8	23.3	10.2	19.3	20.1	24.8	23.6	24.8	19.2	18.4
	Ochiishi			9.53	13.4	12.0	13.8	14.5	9.86	15.2	16.0	10.7	13.3	9.94	6.55	8.23
	Tappi	24.9	27.8	31.0	37.5	30.9	25.5	25.1	21.4	24.4	31.7	28.2	24.1	17.1	26.1	15.7
	Sado-seki	22.5	32.5	24.2	30.4	31.5	24.9	36.5	28.5	18.4	27.0	28.8	24.1	28.7	27.8	18.9
	Happo	34.1	30.7	30.5	43.0	47.6	29.4	37.8	24.2	25.2	21.0	28.2	26.6	26.7	24.0	18.3
	Ijira	82.9	80.5	115	75.8	79.4	87.6	66.3	80.2	66.0	66.6	55.2	58.7	48.8	58.8	62.7
	Oki	21.1	29.2	27.9	22.4	36.0	26.1	26.8	27.7	21.8	31.7	28.8	34.2	34.3	23.4	20.3
	Banryu	39.1	26.5	40.7	34.7	42.2	40.1	41.1	37.2	38.3	29.2	31.3	40.5	46.2	42.3	32.4
	Yusuhara	31.1	40.8	52.3	42.1	52.9	45.4	36.4	47.3	35.5	40.1	39.7	51.3	41.4	46.5	41.2
	Hedo	23.1	22.9	17.4	29.4	26.2	18.9	27.7	19.6	15.4	16.8	22.1	21.3	17.6	23.3	12.6
	Ogasawara	14.6	10.9	12.7	8.75	31.5	16.1	14.7	16.8	11.4	10.5	6.46	7.28	7.15	12.8	9.35
	Tokyo							17.6	46.2	30.6	18.6	20.7	23.5	14.2	26.7	26.8
Lao PDR	Vientiane			0.0277	0.999	0.320	0.231	3.02	1.65	0.600	***	***	0.463	***	0.366	1.06
Malaysia	Petaling Jaya	173	157	158	142	123	151	83.2	140	134	191	250	210	136	142	153
	Tanah Rata	33.4	30.1	38.3	33.1	41.4	31.3	33.0	31.4	25.6	21.2	32.1	31.0	31.1	40.3	51.4
	Danum Valley					13.1	26.8	24.0	18.1	20.4	14.2	23.5	19.5	17.1	13.9	12.4
	Kuching								23.8	25.5	24.4	17.3	18.4	21.2	16.8	21.6
Mongolia	Ulaanbaatar	0.107	0.0749	0.564	0.0289	0.153	0.0666	0.0692	0.0807	0.177	0.202	0.595	0.224	0.161	***	0.0569
	Terelj	0.0809	0.436	1.24	0.340	1.34	1.48	1.12	0.768	0.0675	0.316	0.786	0.211	1.11	***	0.315
Myanmar	Yangon							10.6	2.50	1.04	0.875	1.09	0.831	0.948	0.571	0.526
Philippines	Metro Manila	8.86	24.1	79.8	14.4	26.8	13.5	18.7	6.75	22.2	6.01	8.29	26.9	10.0	1.93	1.32
	Los Baños	5.41	3.07	52.2	9.54	11.9	5.42	9.01	21.2	7.64	2.73	6.43	4.61	3.37	3.34	0.791
	Mt.Sto.Tomas						0.204	10.0	16.3	6.96	0.726	20.6	6.41	22.7	2.64	6.72
Republic of Korea	Kanghwa	11.6	18.3	33.5	23.8	46.1	23.0	21.2	43.9	32.7	61.2	33.9	18.3	23.6	5.72	11.9
	Cheju	14.4	24.8	19.3	20.5	19.9	51.8	38.2	18.1	8.09	9.21	7.32	5.93	2.66	1.93	3.12
	Imsil	10.5	2.00	15.7	14.2	1.24	4.57	2.49	11.2	8.62	22.1	8.09	10.9	7.33	5.69	5.78
Russia	Mondy	1.00	0.828	1.83	1.64	1.24	1.67	1.06	1.38	0.395	0.253	0.213	0.250	1.60	0.573	0.487
	Listvyanka	5.42	4.74	5.24	6.67	6.62	7.10	8.82	9.06	4.49	5.74	9.00	5.73	4.41	3.53	4.91
	Irkutsk	2.49	2.86	1.94	6.74	3.36	2.52	5.59	9.01	1.67	2.78	3.13	5.15	2.71	3.35	1.79
	Primorskaya		5.26	4.27	10.0	6.39	9.32	14.4	9.02	9.11	7.23	14.6	7.88	6.36	2.19	7.98
Thailand	Bangkok	12.6	10.3	40.8	7.86	25.6	11.0	14.1	9.39	16.7	17.2	19.5	3.74	3.35	0.0953	8.10
	Samutprakarn				4.29	5.55	1.93	4.60	8.81	14.7	9.06	2.66	0.647	1.18	0.307	3.66
	Pathumthani	10.0	4.39	22.7	13.3	16.4	20.9	21.5	15.4	9.26	10.3	15.6	5.62	4.60	3.27	5.48
	Khanchanaburi	8.29	5.05	5.65	1.18	5.86	4.48	2.83	4.30	4.35	3.30	6.24	2.30	7.08	1.58	3.76
	Chiang Mai	2.10	2.79	2.00	2.93	8.50	2.83	1.05	1.34	1.26	0.789	8.29	0.876	1.30	0.278	1.70
	Sakaerat						9.06	11.5	16.0	17.1	29.0	15.0	9.66	8.23	6.42	12.8
Vietnam	Hanoi	3.31	3.95	2.45	3.56	1.25	2.28	4.32	3.24	3.46	1.44	9.13	4.29	4.29	3.04	0.826
	Hoa Binh	20.2	10.6	7.02	4.61	4.63	3.98	17.0	6.42	6.96	5.84	6.42	4.50	1.83	4.69	8.20
	Cuc Phuong									23.4	9.73	16.8	7.42	7.16	5.10	6.99
	Da Nang									49.9	13.0	38.0	6.16	6.07	6.69	1.98
	Can Tho														1.01	3.71
	Ho Chi Minh														2.72	1.10
	Yen Bai															8.93

Terms and abbreviations are given in Table 3.5.

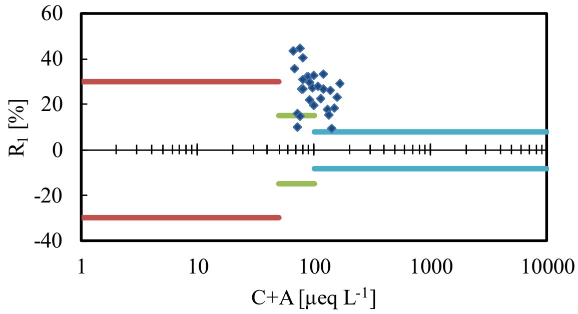


Fig. 3.2 a) Phnom Penh Ion Balance (R_1)

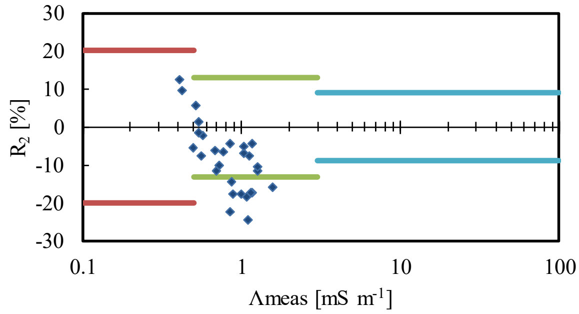


Fig. 3.2 b) Phnom Penh Conductivity Agreement (R_2)

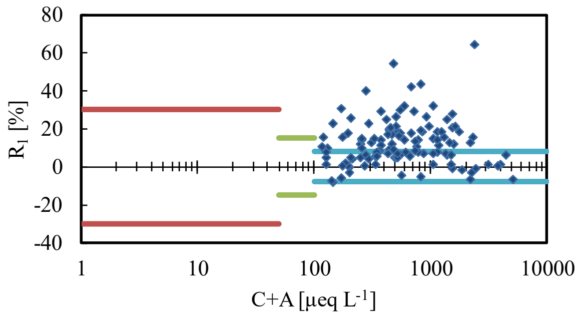


Fig. 3.3 a) Haifu Ion Balance (R_1)

Calculated including F^-

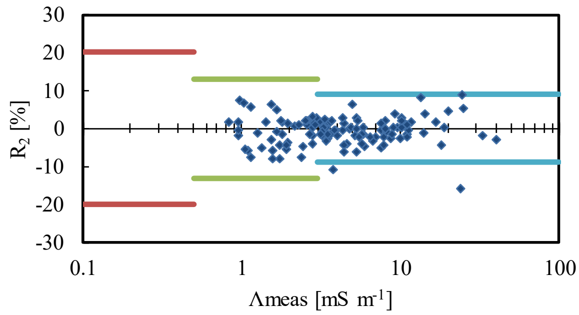


Fig. 3.3 b) Haifu Conductivity Agreement (R_2)

Calculated including F^-

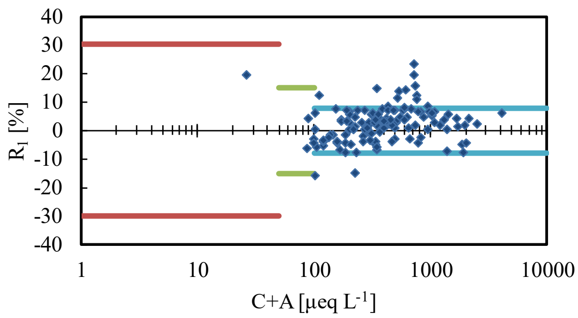


Fig. 3.4 a) Jinyunshan Ion Balance (R_1)

Calculated including F^-

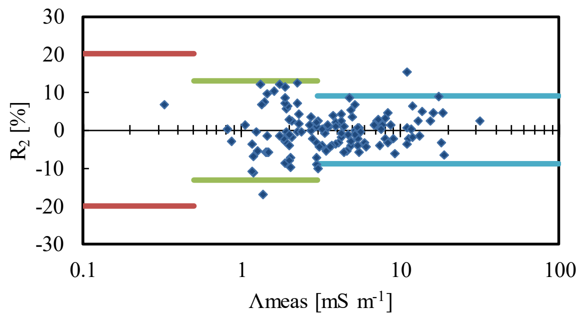


Fig. 3.4 b) Jinyunshan Conductivity Agreement (R_2)

Calculated including F^-

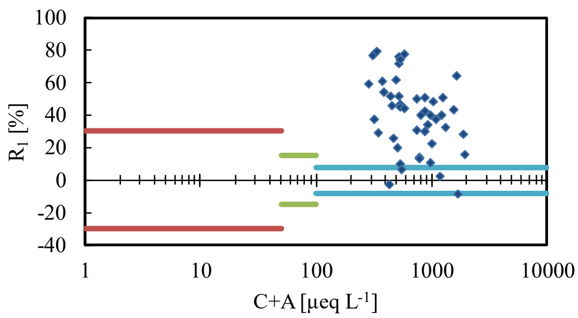


Fig. 3.5 a) Shizhan Ion Balance (R_1)

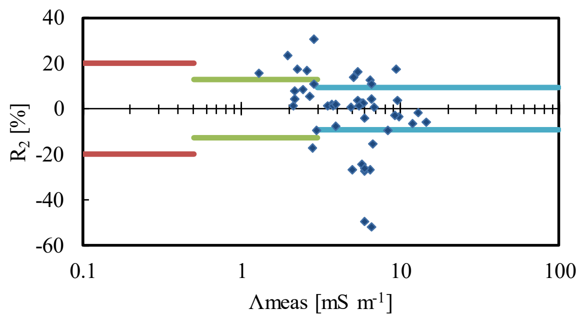


Fig. 3.5 b) Shizhan Conductivity Agreement (R_2)

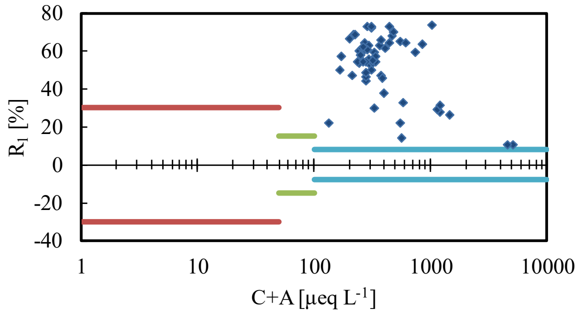


Fig. 3.6 a) Jiwozi Ion Balance (R_1)

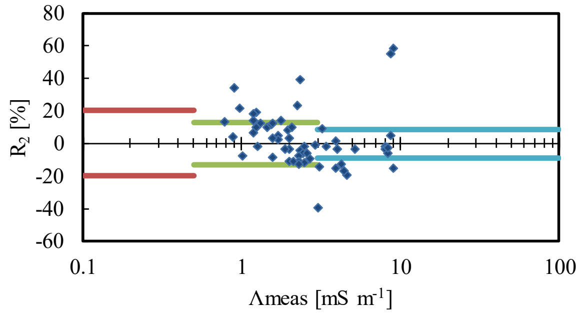


Fig. 3.6 b) Jiwozi Conductivity Agreement (R_2)

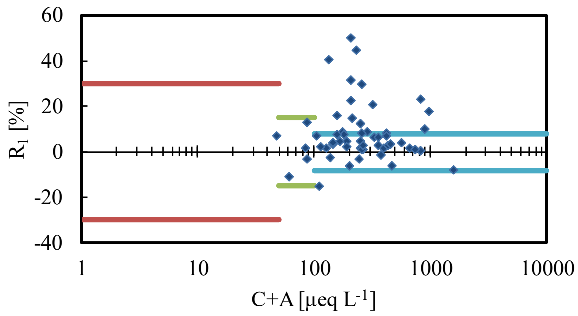


Fig. 3.7 a) Hongwen Ion Balance (R_1)

Calculated including F^-

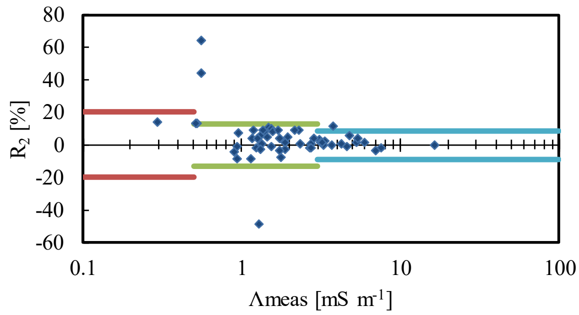


Fig. 3.7 b) Hongwen Conductivity Agreement (R_2)

Calculated including F^-

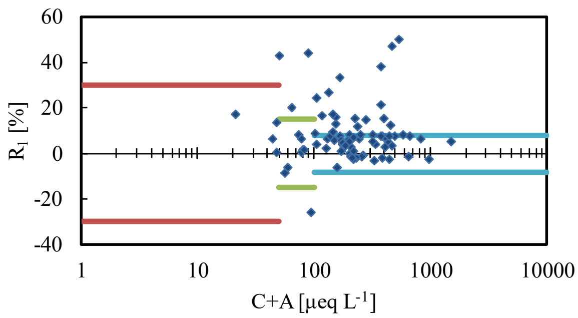


Fig. 3.8 a) Xiaoping Ion Balance (R_1)

Calculated including F^-

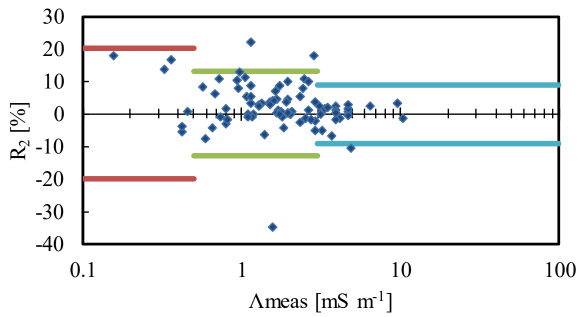


Fig. 3.8 b) Xiaoping Conductivity Agreement (R_2)

Calculated including F^-

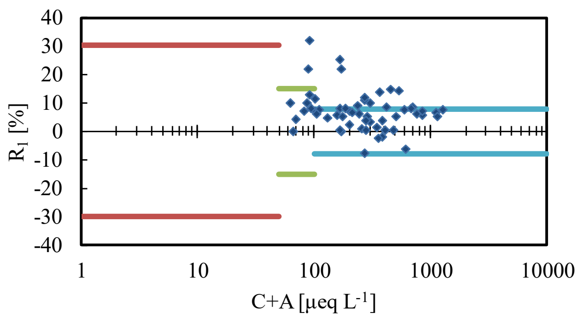


Fig. 3.9 a) Xiang Zhou Ion Balance (R_1)

Calculated including F^-

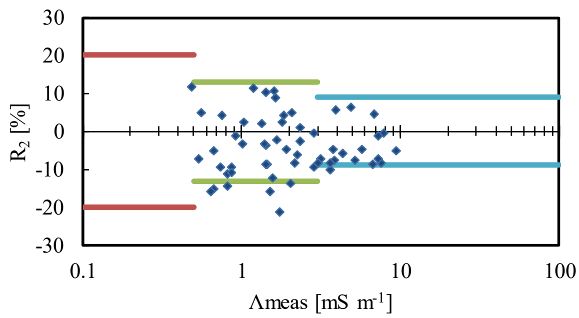


Fig. 3.9 b) Xiang Zhou Conductivity Agreement (R_2)

Calculated including F^-

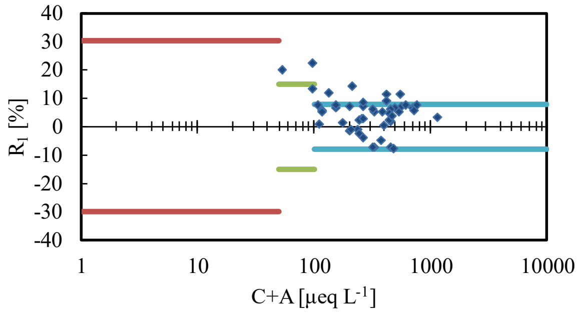


Fig. 3.10 a) Zhuxiandong Ion Balance (R_1)

Calculated including F^-

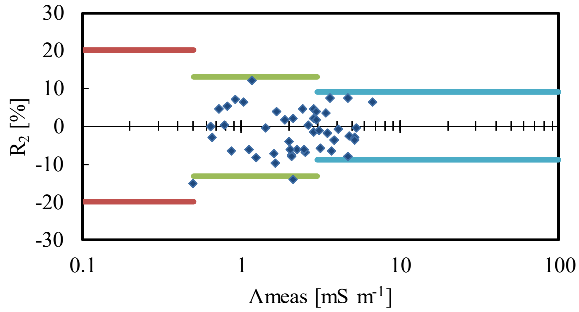


Fig. 3.10 b) Zhuxiandong

Conductivity Agreement (R_2)

Calculated including F^-

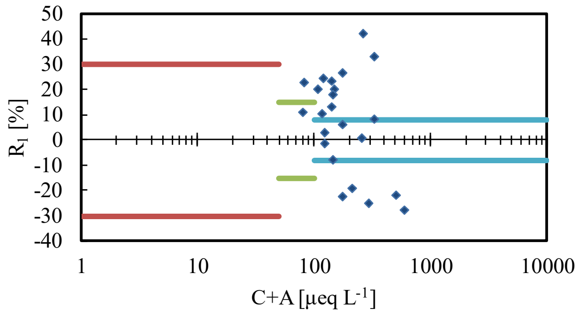


Fig. 3.11 a) Jakarta Ion Balance (R_1)

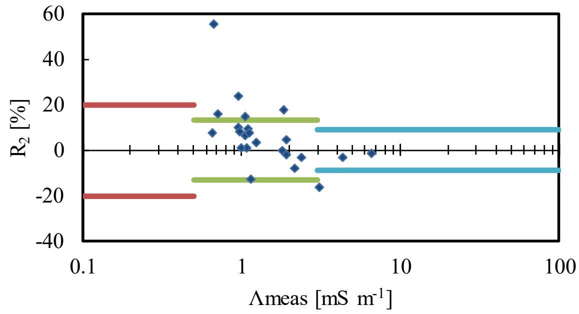


Fig. 3.11 b) Jakarta Conductivity Agreement (R_2)

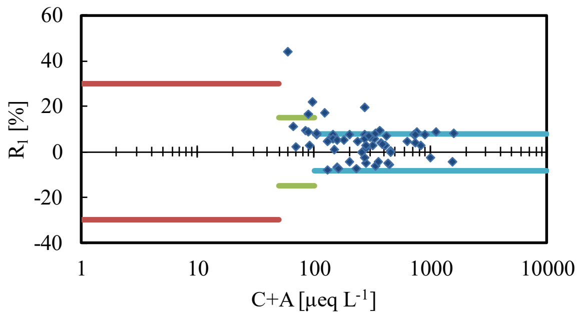


Fig. 3.12 a) Serpong Ion Balance (R_1)

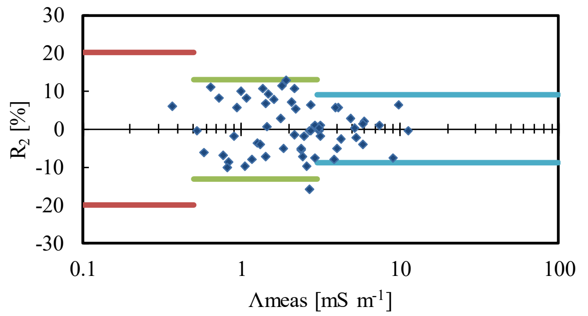


Fig. 3.12 b) Serpong Conductivity Agreement (R_2)

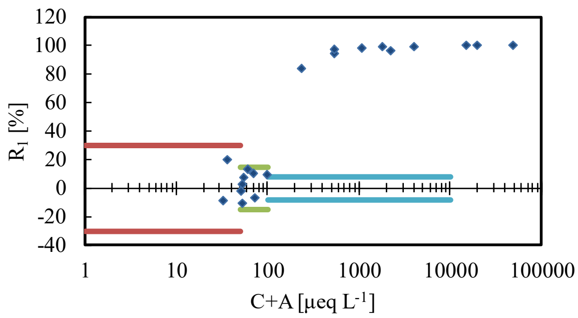


Fig. 3.13 a) Kototabang Ion Balance (R_1)

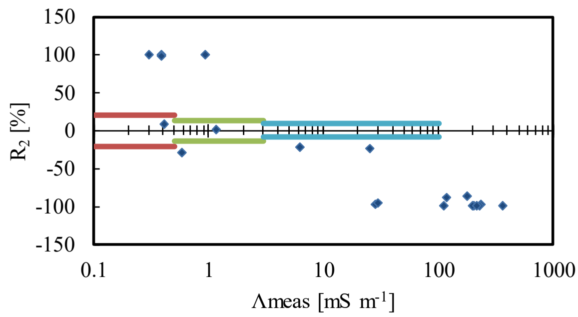


Fig. 3.13 b) Kototabang Conductivity Agreement (R_2)

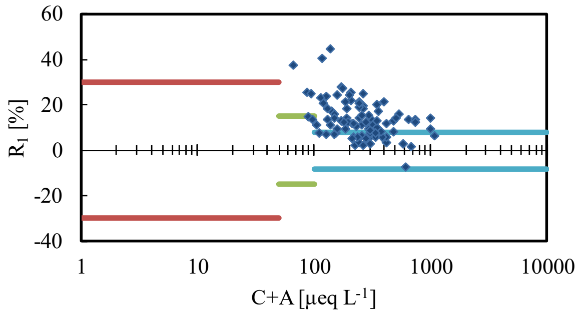


Fig. 3.14 a) Bandung Ion Balance (R_1)

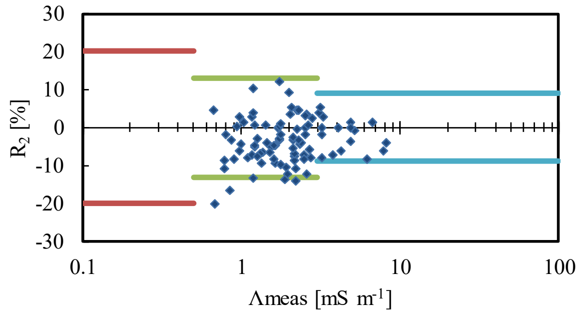


Fig. 3.14 b) Bandung Conductivity Agreement (R_2)

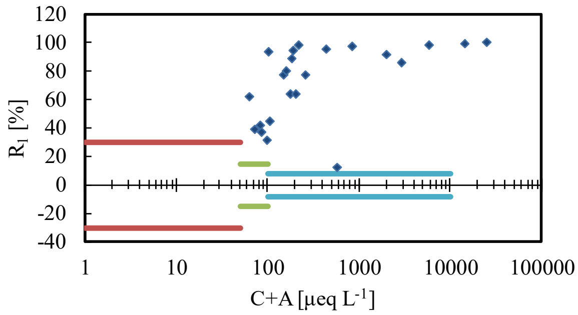


Fig. 3.15 a) Maros Ion Balance (R_1)

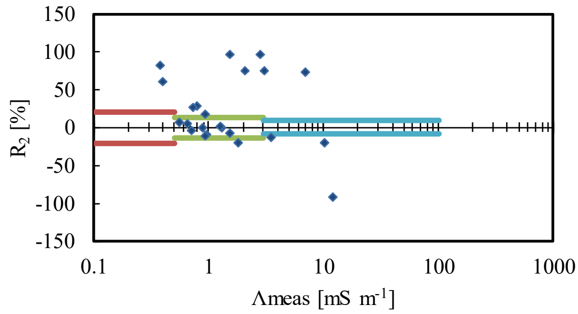


Fig. 3.15 b) Maros Conductivity Agreement (R_2)

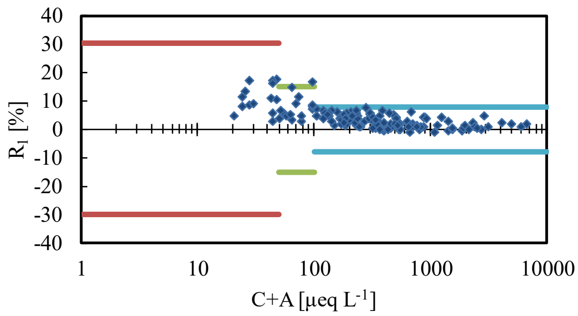


Fig. 3.16 a) Rishiri Ion Balance (R_1)

Calculated including HCO_3^-

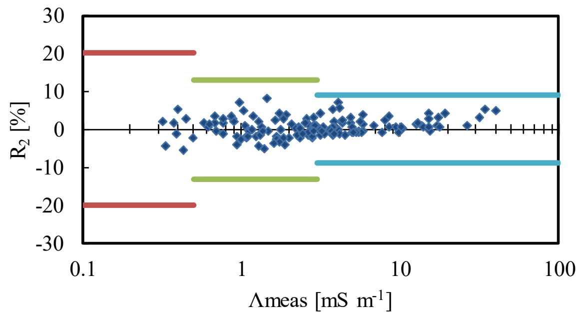


Fig. 3.16 b) Rishiri Conductivity Agreement (R_2)

Calculated including HCO_3^-

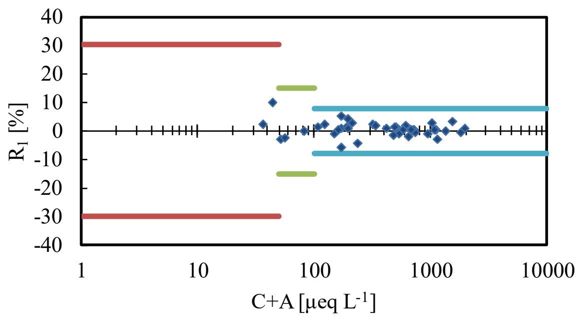


Fig. 3.17 a) Ochiishi Ion Balance (R_1)

Calculated including F^-, Br^-, NO_2^- and PO_4^{3-}

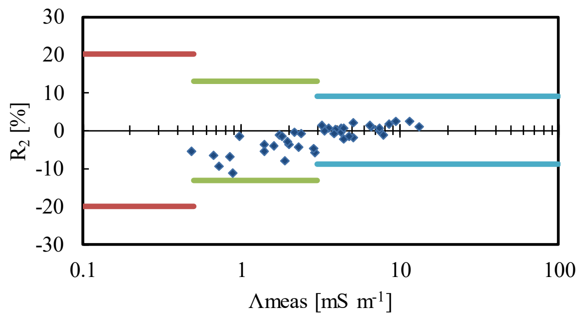


Fig. 3.17 b) Ochiishi Conductivity Agreement (R_2)

Calculated including F^-, Br^-, NO_2^- and PO_4^{3-}

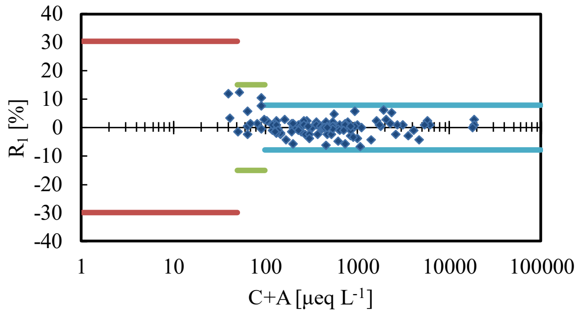


Fig. 3.18 a) Tappi Ion Balance (R_1)

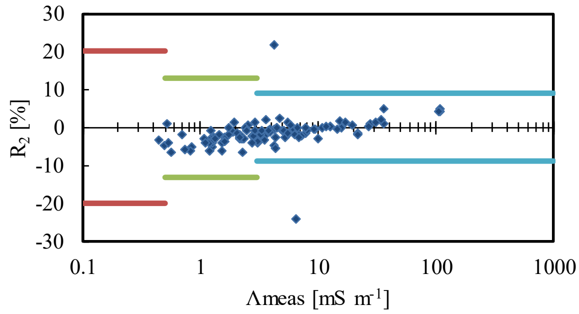


Fig. 3.18 b) Tappi Conductivity Agreement (R_2)

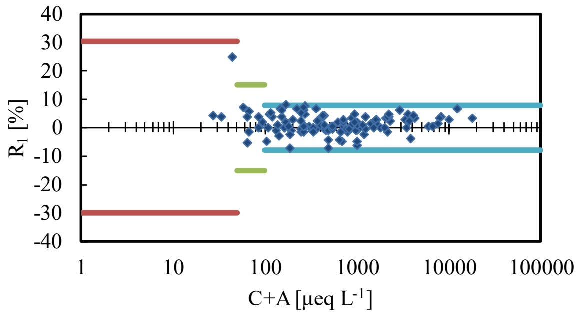


Fig. 3.19 a) Sado-seki Ion Balance (R_1)

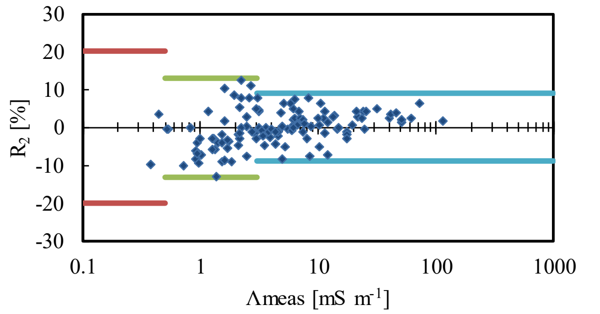


Fig. 3.19 b) Sado-seki Conductivity Agreement (R_2)

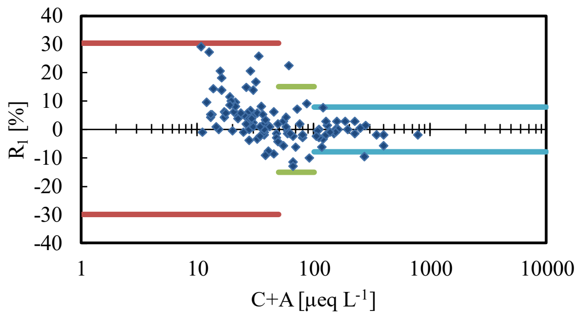


Fig. 3.20 a) Happo Ion Balance (R_1)

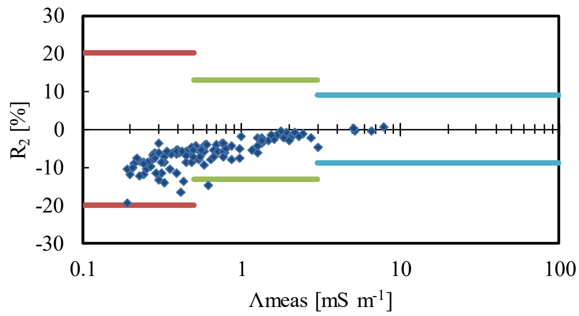


Fig. 3.20 b) Happo Conductivity Agreement (R_2)

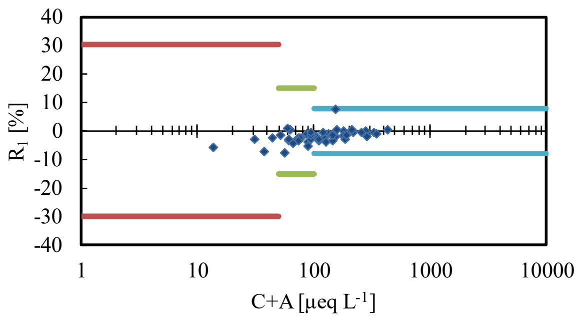


Fig. 3.21 a) Ijira Ion Balance (R_1)

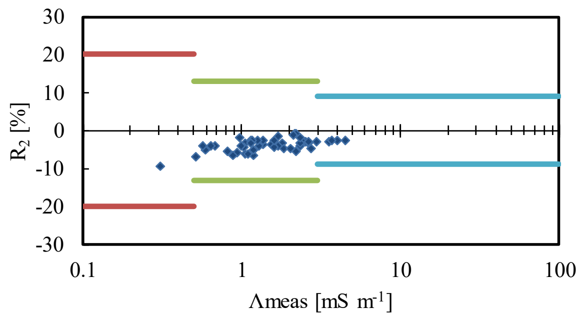


Fig. 3.21 b) Ijira Conductivity Agreement (R_2)

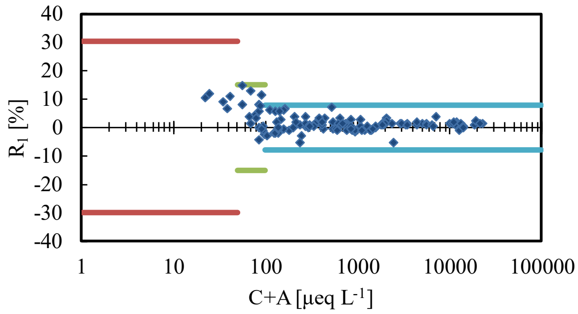


Fig. 3.22 a) Oki Ion Balance (R_1)

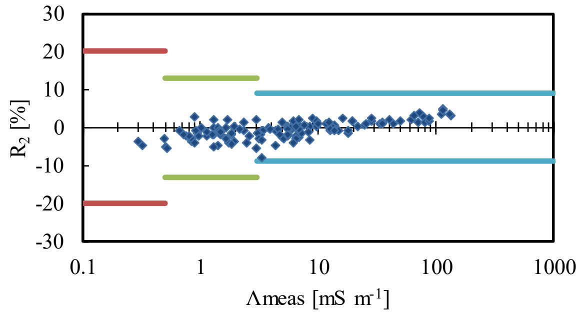


Fig. 3.22 b) Oki Conductivity Agreement (R_2)

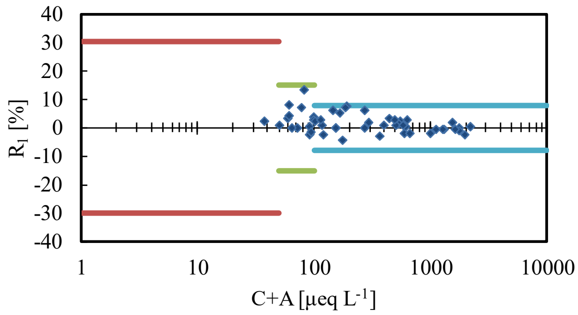


Fig. 3.23 a) Banryu Ion Balance (R_1)

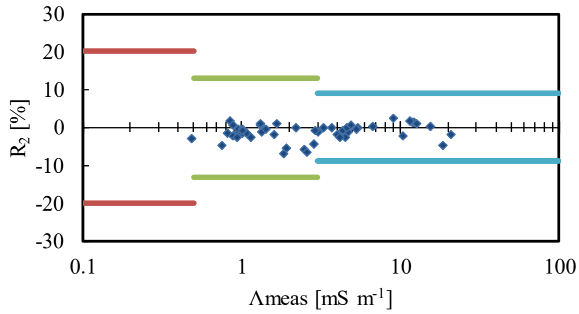


Fig. 3.23 b) Banryu Conductivity Agreement (R_2)

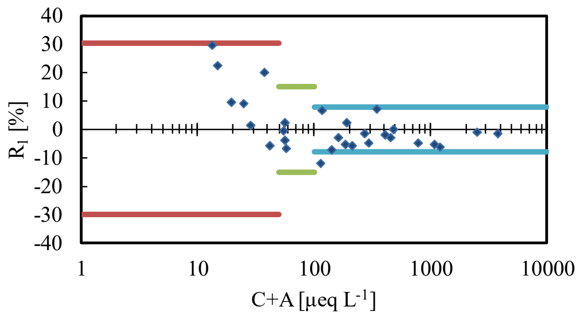


Fig. 3.24 a) Yusuhara Ion Balance (R_1)

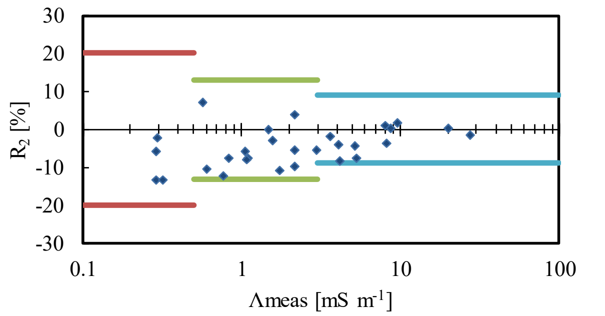


Fig. 3.24 b) Yusuhara Conductivity Agreement (R_2)

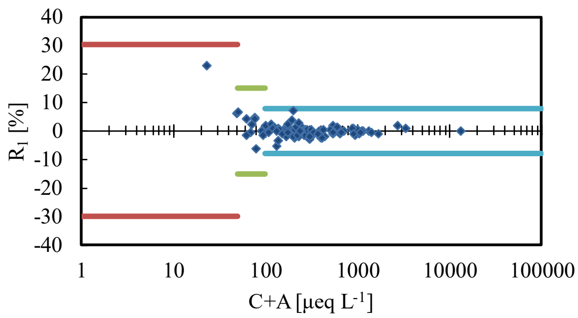


Fig. 3.25 a) Hedo Ion Balance (R_1)

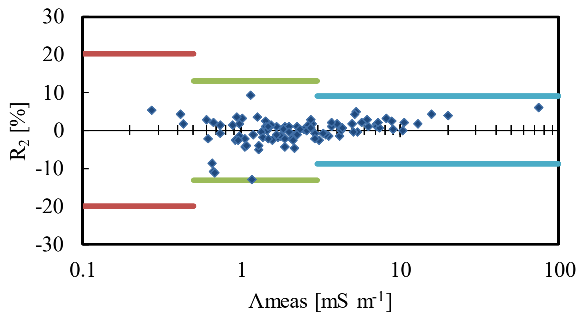


Fig. 3.25 b) Hedo Conductivity Agreement (R_2)

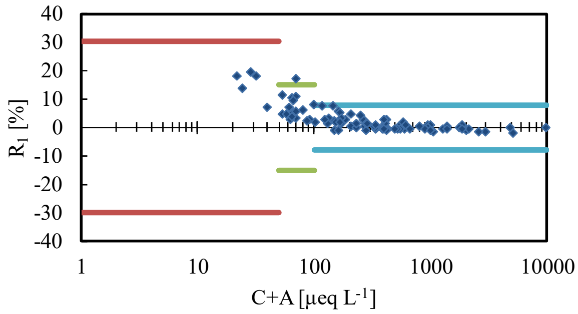


Fig. 3.26 a) Ogasawara Ion Balance (R_1)

Calculated including F^- and NO_2^-

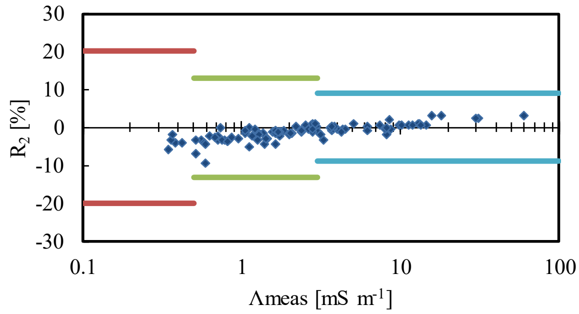


Fig. 3.26 b) Ogasawara Conductivity Agreement (R_2)

Calculated including F^- and NO_2^-

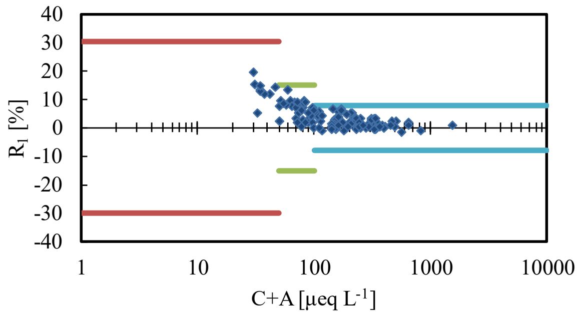


Fig. 3.27 a) Tokyo Ion Balance (R_1)

Calculated including F^- and NO_2^-

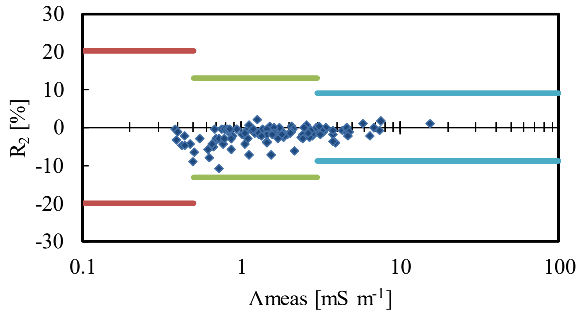


Fig. 3.27 b) Tokyo Conductivity Agreement (R_2)

Calculated including F^- and NO_2^-

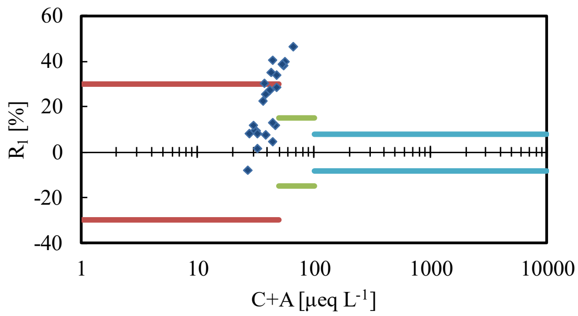


Fig. 3.28 a) Vientiane Ion Balance (R_1)

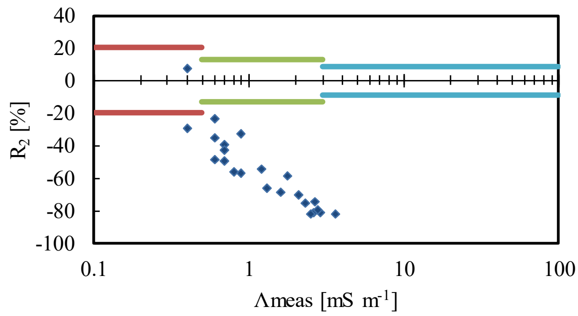


Fig. 3.28 b) Vientiane Conductivity Agreement (R_2)

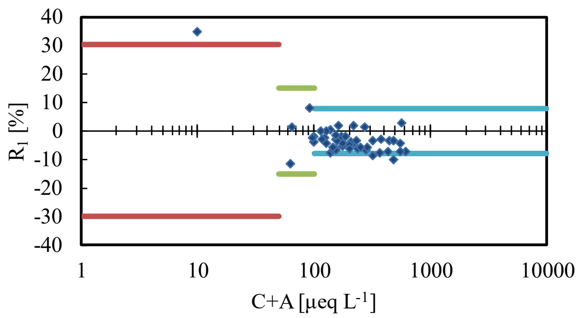


Fig. 3.29 a) Petaling Jaya Ion Balance (R_1)

Calculated including Formic, Acetic and Oxialic acid

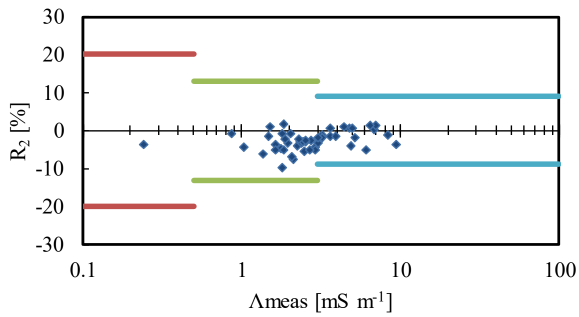


Fig. 3.29 b) Petaling Jaya Conductivity Agreement (R_2)

Calculated including Formic, Acetic and Oxialic acid

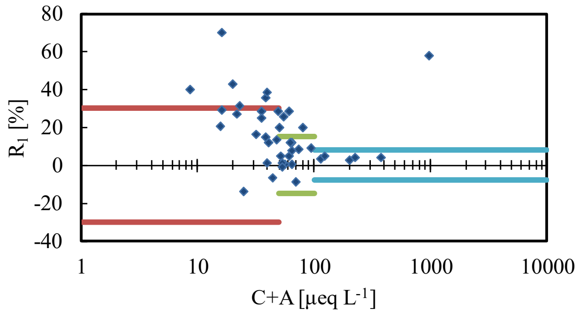


Fig. 3.30 a) Tanah Rata Ion Balance (R_1)

Calculated including Formic, Acetic and Oxialic acid

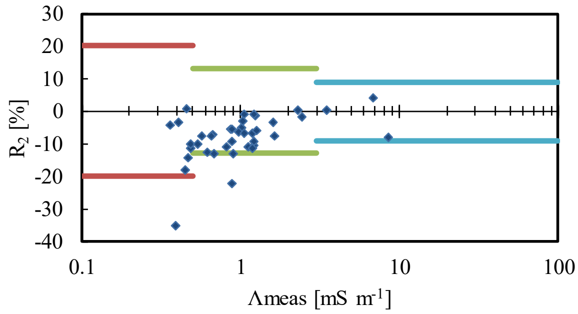


Fig. 3.30 b) Tanah Rata Conductivity Agreement (R_2)

Calculated including Formic, Acetic and Oxialic acid

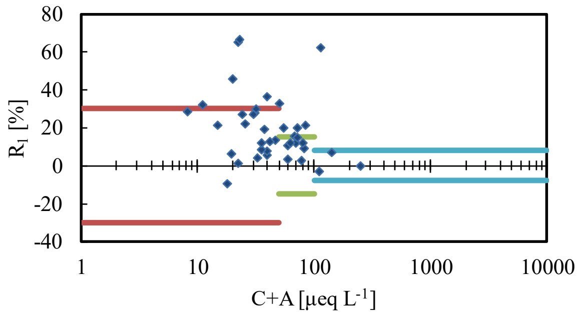


Fig. 3.31 a) Danum Valley Ion Balance (R_1)

Calculated including Formic, Acetic and Oxialic acid

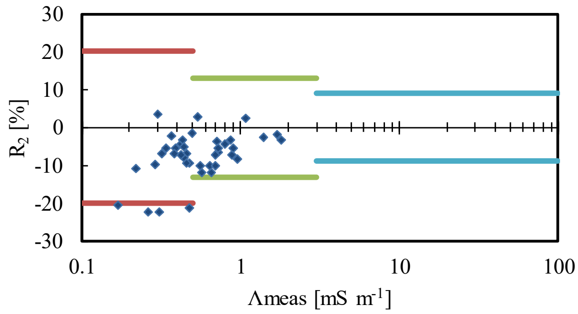


Fig. 3.31 b) Danum Valley Conductivity Agreement (R_2)

Calculated including Formic, Acetic and Oxialic acid

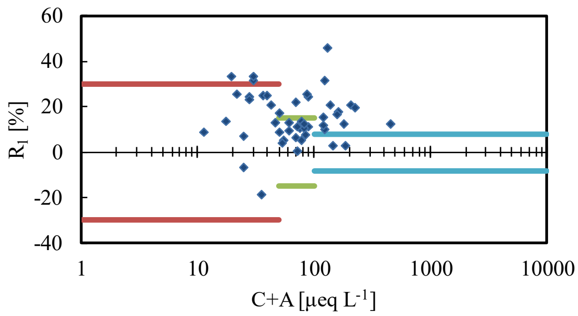


Fig. 3.32 a) Kuching Ion Balance (R_1)

Calculated including Formic, Acetic and Oxialic acid

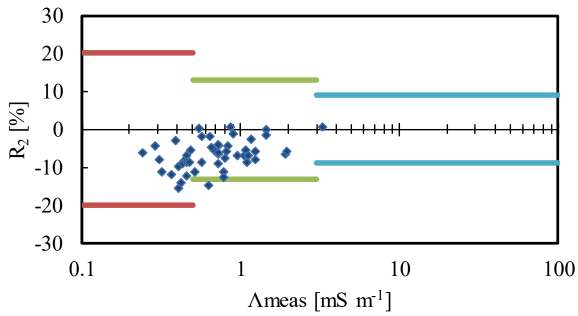


Fig. 3.32 b) Kuching Conductivity Agreement (R_2)

Calculated including Formic, Acetic and Oxialic acid

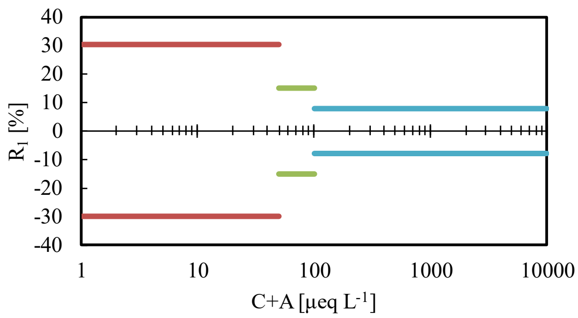


Fig. 3.33 a) Ulaanbaatar Ion Balance (R_1)

Not calculated

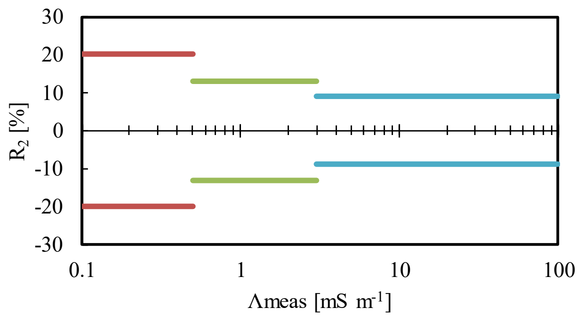


Fig. 3.33 b) Ulaanbaatar Conductivity Agreement (R_2)

Not calculated

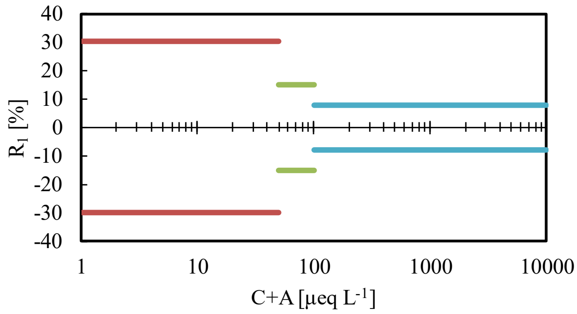


Fig. 3.34 a) Terelj Ion Balance (R_1)

Not calculated

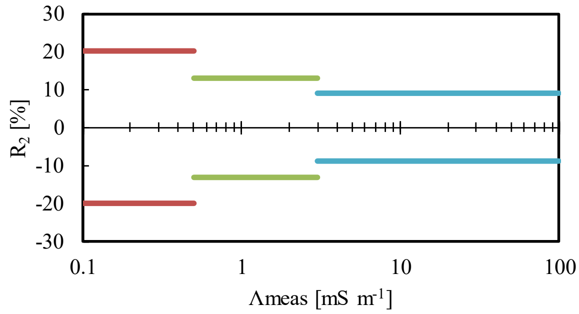


Fig. 3.34 b) Terelj Conductivity Agreement (R_2)

Not calculated

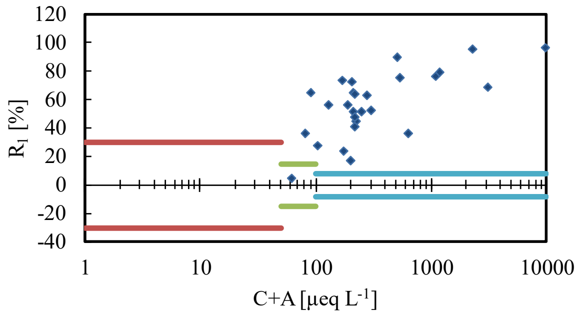


Fig. 3.35 a) Yangon Ion Balance (R_1)

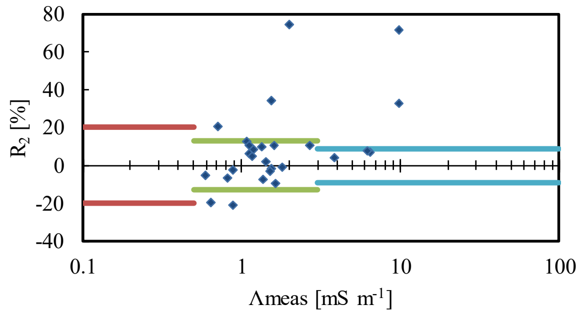


Fig. 3.35 b) Yangon Conductivity Agreement (R_2)

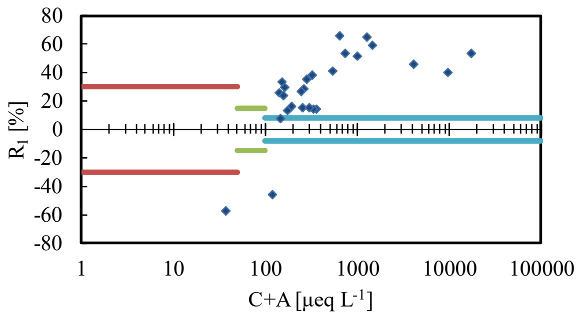


Fig. 3.36 a) Metro Manila Ion Balance (R_1)

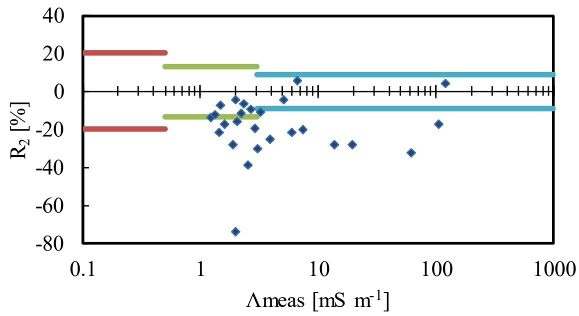


Fig. 3.36 b) Metro Manila Conductivity Agreement (R_2)

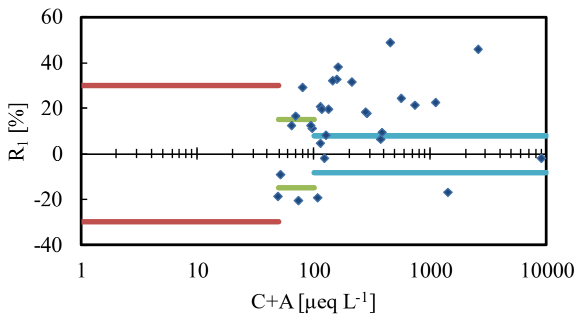


Fig. 3.37 a) Los Baños Ion Balance (R_1)

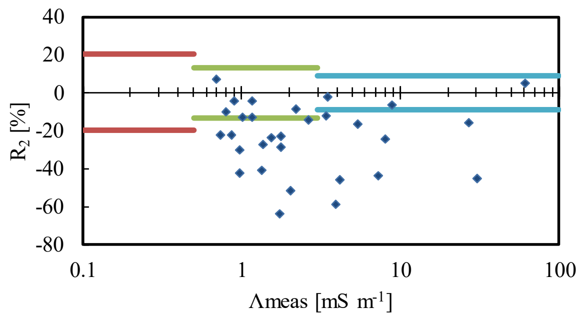


Fig. 3.37 b) Los Baños Conductivity Agreement (R_2)

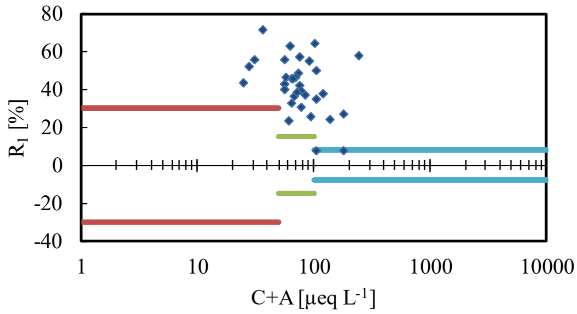


Fig. 3.38 a) Mt. Sto. Tomas Ion Balance (R_1)

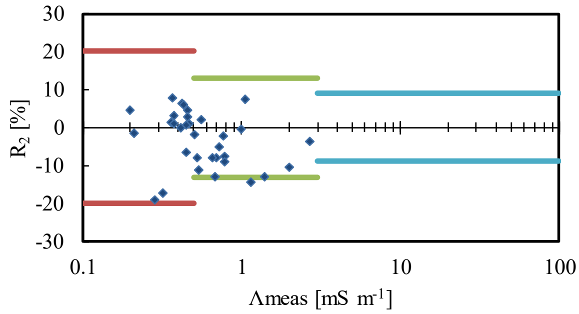


Fig. 3.38 b) Mt. Sto. Tomas Conductivity Agreement (R_2)

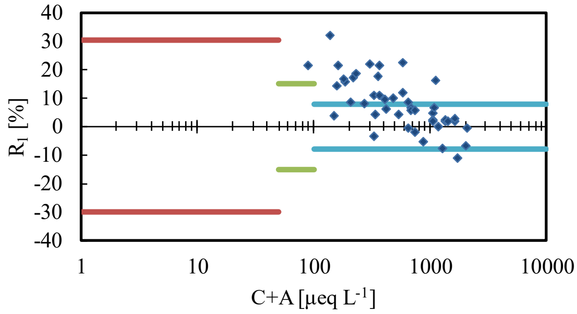


Fig. 3.39 a) Kanghwa Ion Balance (R_1)

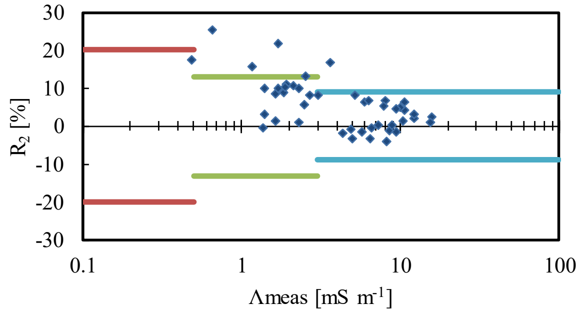


Fig. 3.39 b) Kanghwa Conductivity Agreement (R_2)

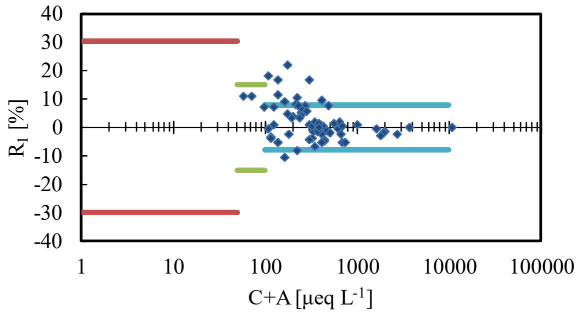


Fig. 3.40 a) Cheju Ion Balance (R_1)

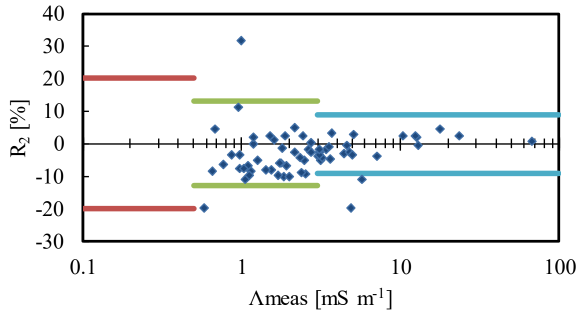


Fig. 3.40 b) Cheju Conductivity Agreement (R_2)

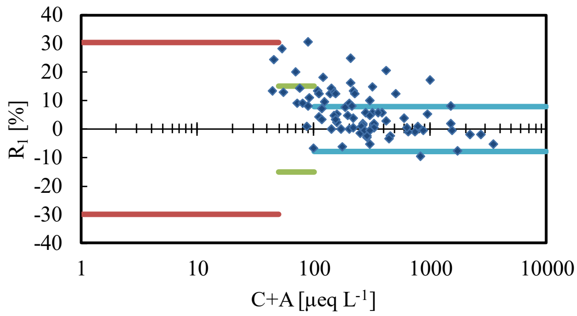


Fig. 3.41 a) Imsil Ion Balance (R_1)

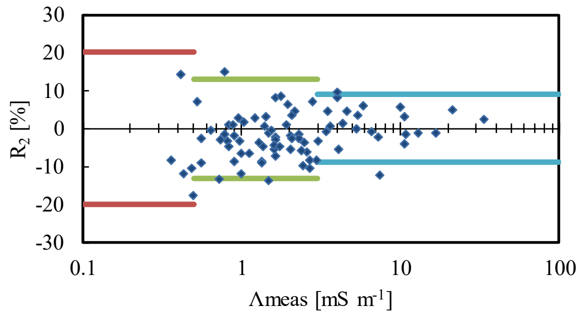


Fig. 3.41 b) Imsil Conductivity Agreement (R_2)

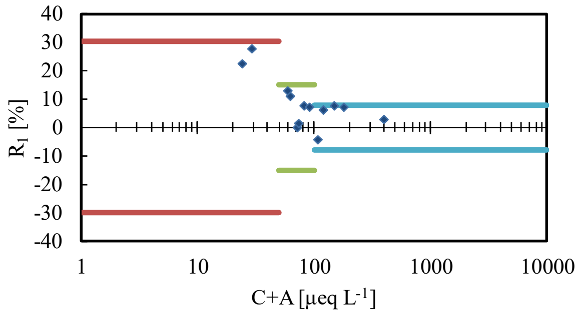


Fig. 3.42 a) Mondy Ion Balance (R_1)

Calculated including HCO_3^-, Br^- and NO_2^-

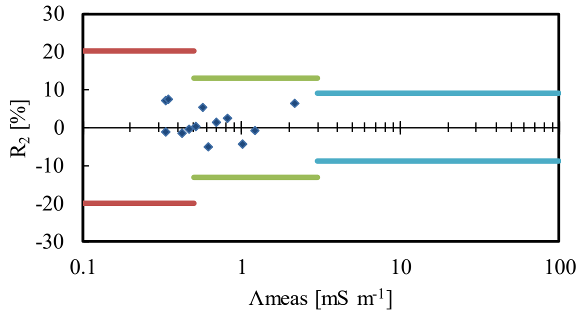


Fig. 3.42 b) Mondy Conductivity Agreement (R_2)

Calculated including HCO_3^-, Br^- and NO_2^-

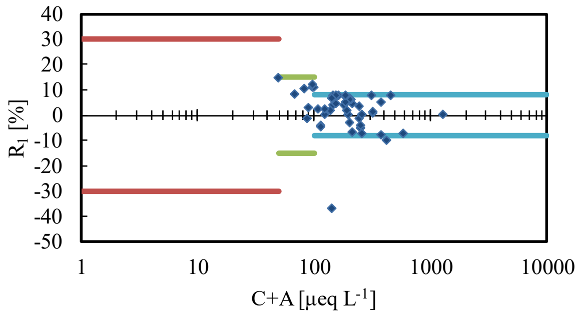


Fig. 3.43 a) Listvyanka Ion Balance (R_1)

Calculated including HCO_3^-, Br^- and NO_2^-

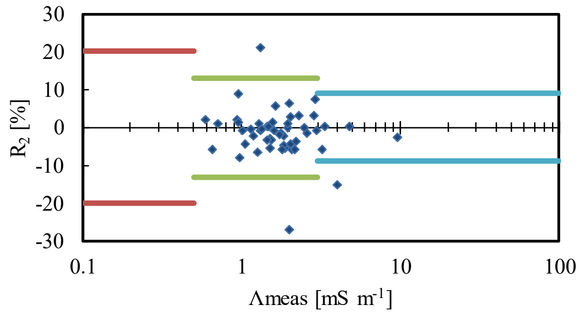


Fig. 3.43 b) Listvyanka Conductivity Agreement (R_2)

Calculated including HCO_3^-, Br^- and NO_2^-

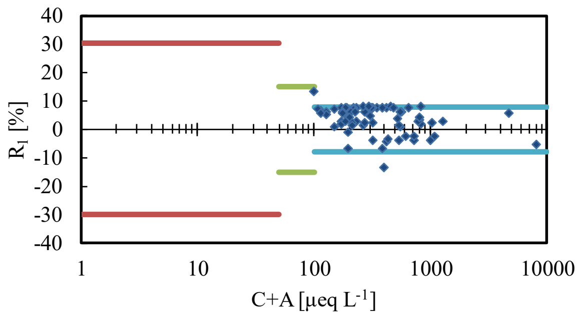


Fig. 3.44 a) Irkutsk Ion Balance (R_1)

Calculated including HCO_3^-, Br^- and NO_2^-

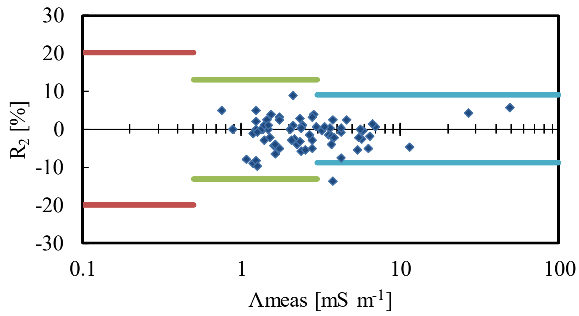


Fig. 3.44 b) Irkutsk Conductivity Agreement (R_2)

Calculated including HCO_3^-, Br^- and NO_2^-

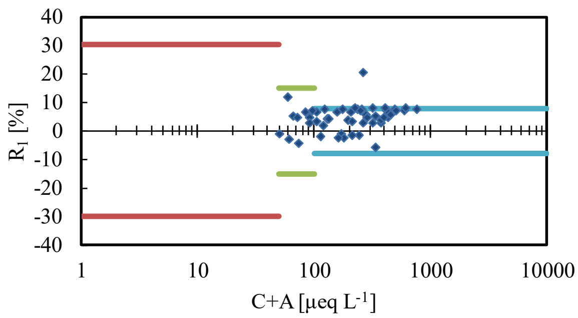


Fig. 3.45 a) Primorskaya Ion Balance (R_1)

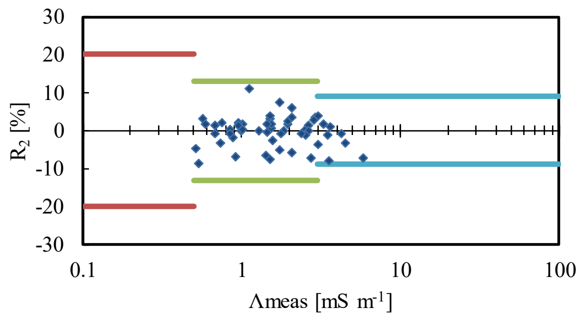


Fig. 3.45 b) Primorskaya Conductivity Agreement (R_2)

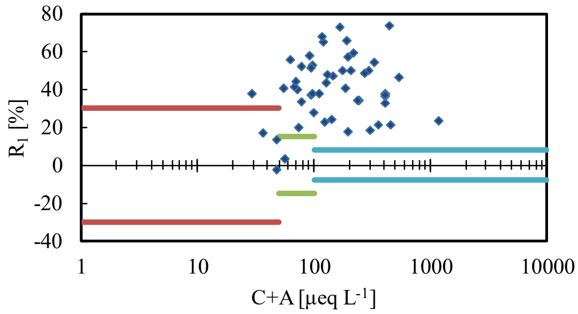


Fig. 3.46 a) Bangkok Ion Balance (R_1)

Calculated including PO_4^{3-}, Formic and Acetic acid

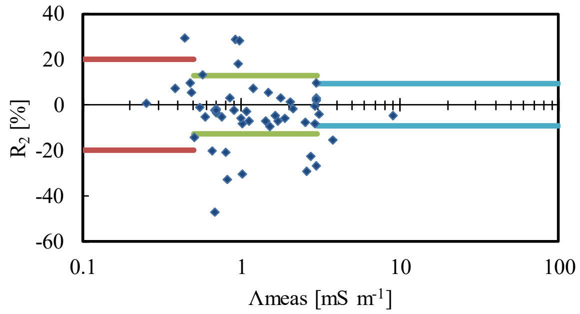


Fig. 3.46 b) Bangkok Conductivity Agreement (R_2)

Calculated including PO_4^{3-}, Formic and Acetic acid

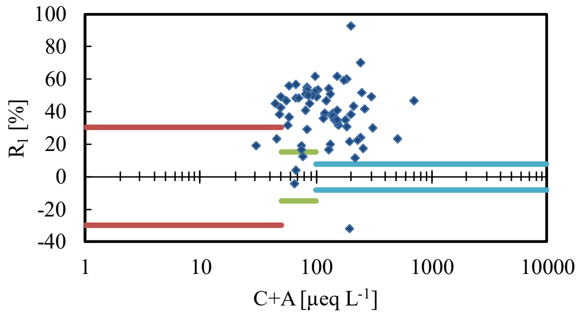


Fig. 3.47 a) Samutprakarn Ion Balance (R_1)

Calculated including PO_4^{3-}, Formic and Acetic acid

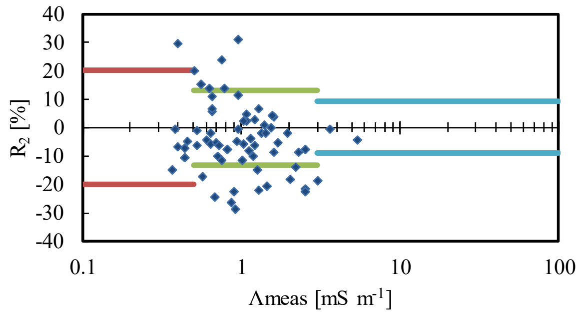


Fig. 3.47 b) Samutprakarn

Conductivity Agreement (R_2)

Calculated including PO_4^{3-}, Formic and Acetic acid

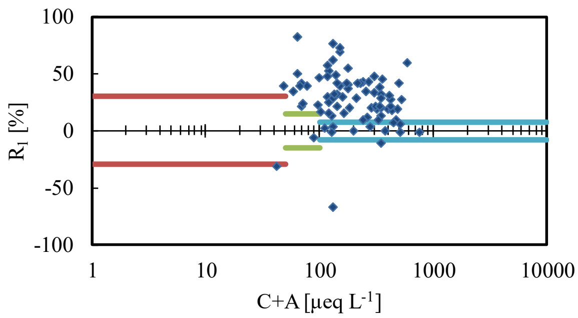


Fig. 3.48 a) Pathumthani Ion Balance (R_1)

Calculated including PO_4^{3-}, Formic and Acetic acid

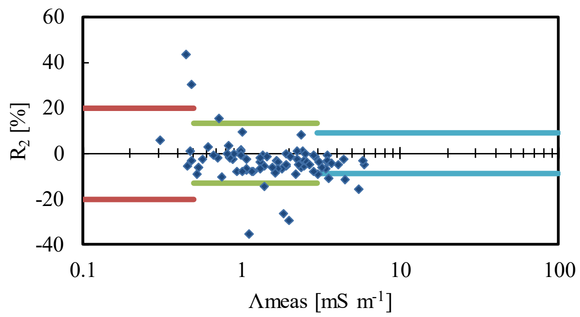


Fig. 3.48 b) Pathumthani

Conductivity Agreement (R_2)

Calculated including PO_4^{3-}, Formic and Acetic acid

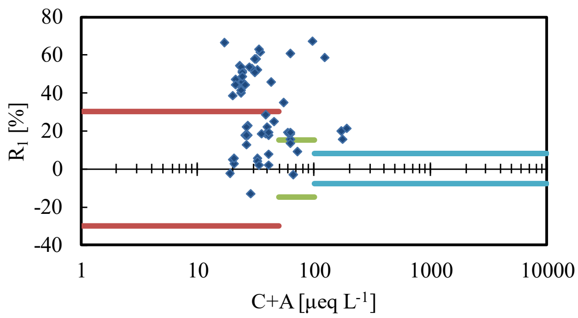


Fig. 3.49 a) Khanchanaburi Ion Balance (R_1)

Calculated including PO_4^{3-}, Formic and Acetic acid

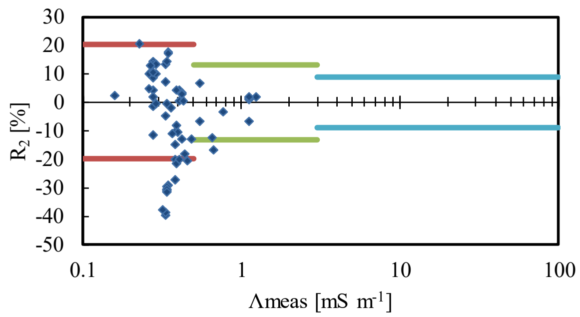


Fig. 3.49 b) Khanchanaburi

Conductivity Agreement (R_2)

Calculated including PO_4^{3-}, Formic and Acetic acid

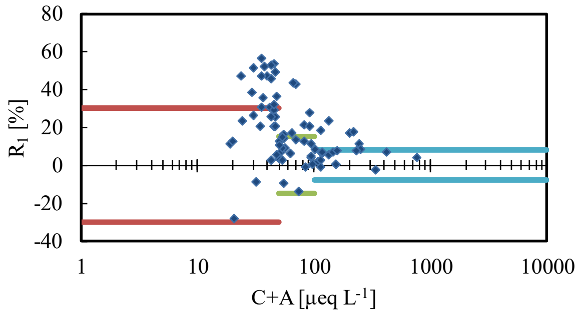


Fig. 3.50 a) Chiang Mai Ion Balance (R_1)

Calculated including PO_4^{3-}, Formic and Acetic acid

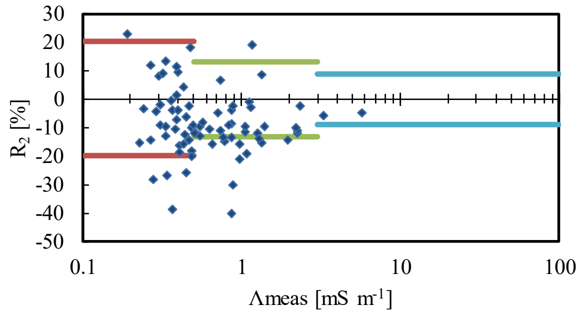


Fig. 3.50 b) Chiang Mai Conductivity Agreement (R_2)

Calculated including PO_4^{3-}, Formic and Acetic acid

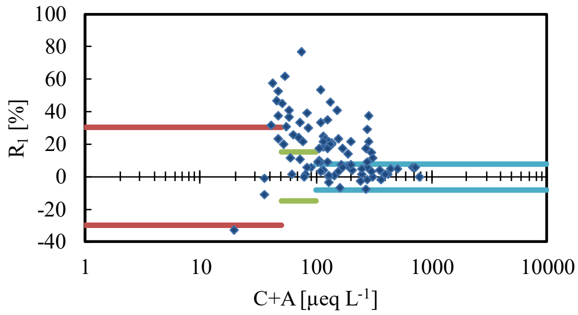


Fig. 3.51 a) Sakaerat Ion Balance (R_1)

Calculated including PO_4^{3-}, Formic and Acetic acid

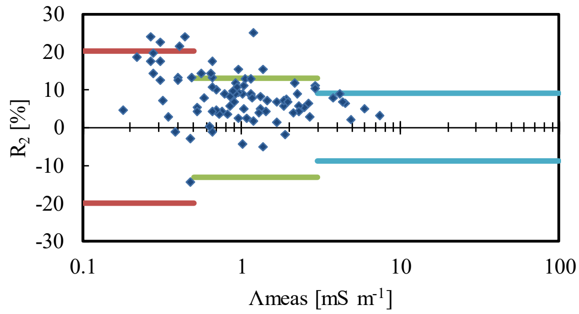


Fig. 3.51 b) Sakaerat Conductivity Agreement (R_2)

Calculated including PO_4^{3-}, Formic and Acetic acid

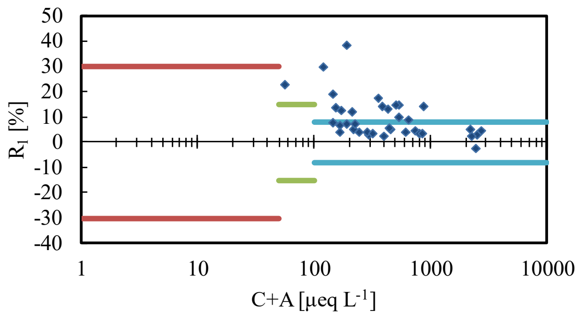


Fig. 3.52 a) Hanoi Ion Balance (R_1)

Calculated including F^-

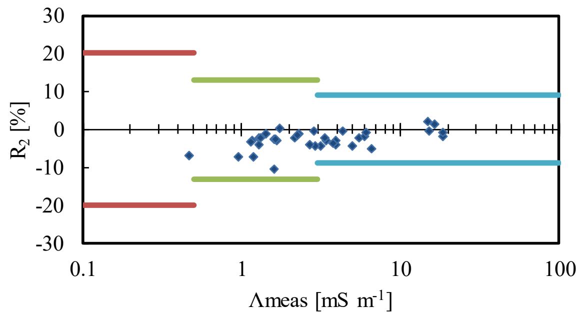


Fig. 3.52 b) Hanoi Conductivity Agreement (R_2)

Calculated including F^-

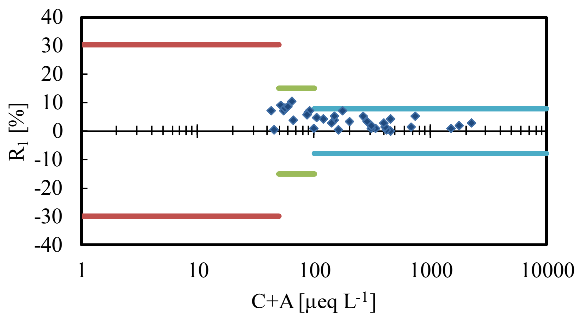


Fig. 3.53 a) Hoa Binh Ion Balance (R_1)

Calculated including F^-

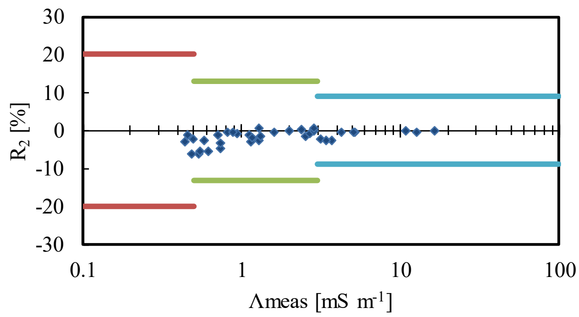


Fig. 3.53 b) Hoa Binh Conductivity Agreement (R_2)

Calculated including F^-

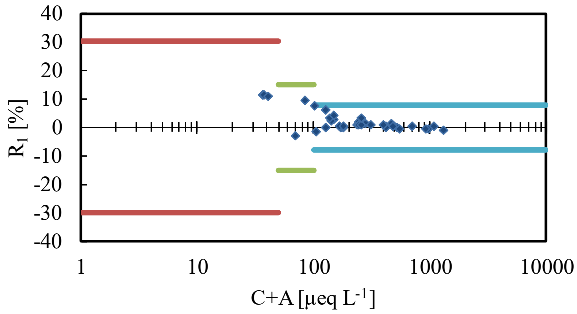


Fig. 3.54 a) Cuc Phuong Ion Balance (R_1)

Calculated including HCO_3^- and F^-

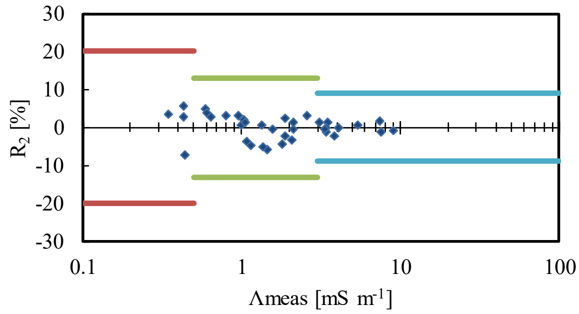


Fig. 3.54 b) Cuc Phuong Conductivity Agreement (R_2)

Calculated including HCO_3^- and F^-

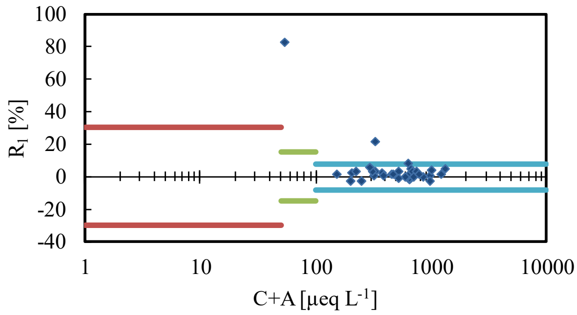


Fig. 3.55 a) Da Nang Ion Balance (R_1)

Calculated including HCO_3^- and F^-

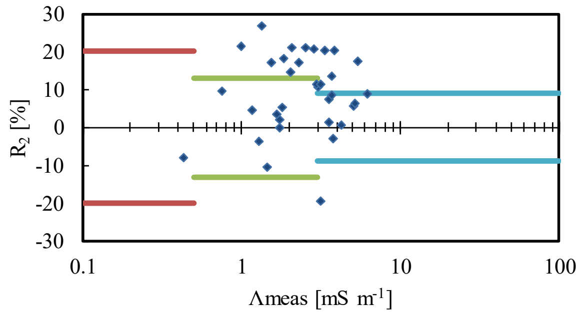


Fig. 3.55 b) Da Nang Conductivity Agreement (R_2)

Calculated including HCO_3^- and F^-

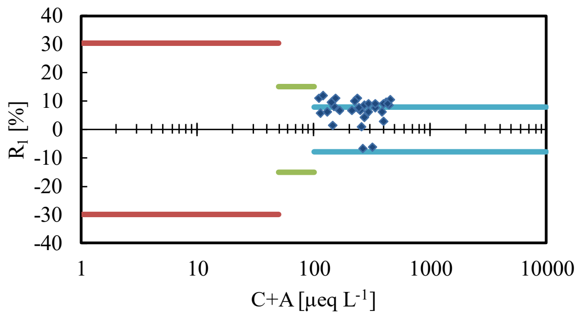


Fig. 3.56 a) Can Tho Ion Balance (R_1)

Calculated including F^-

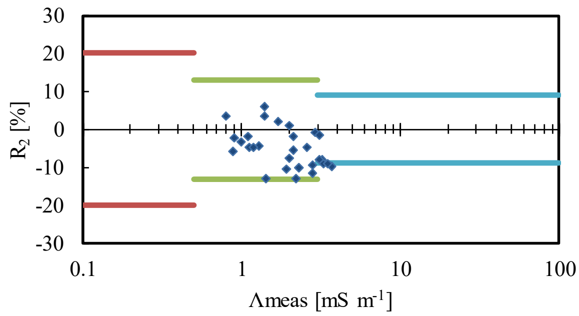


Fig. 3.56 b) Can Tho Conductivity Agreement (R_2)

Calculated including F^-

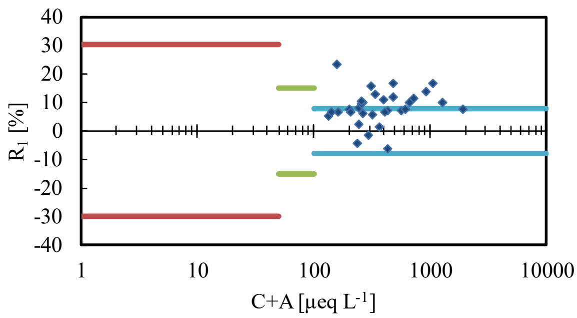


Fig. 3.57 a) Ho Chi Minh Ion Balance (R_1)

Calculated including F^-

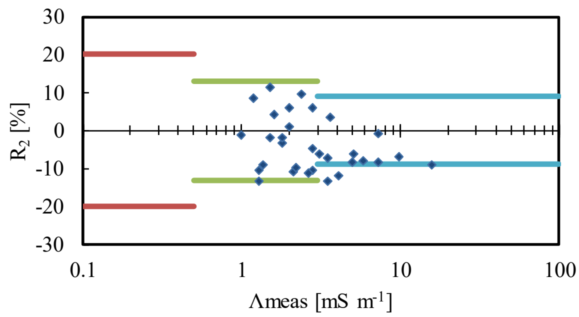


Fig. 3.57 b) Ho Chi Minh Conductivity Agreement (R_2)

Calculated including F^-

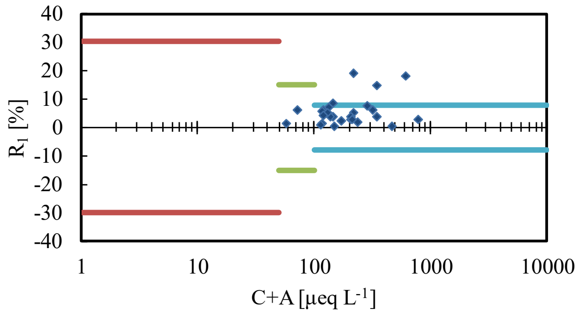


Fig. 3.58 a) Yen Bai Ion Balance (R_1)

Calculated including F^-

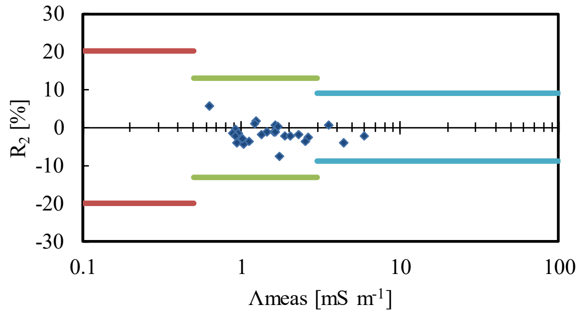


Fig. 3.58 b) Yen Bai Conductivity Agreement (R_2)

Calculated including F^-

Table 3.94 Concentration, deposition and data completeness of HCO_3^-

Precipitation amount-weighted average concentration/ Precipitation amount		unit : µmol L^{-1}											
Country	Name of sites	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	**Annual**
Japan	Rishiri	*	*	89.3	*	*	*	*	*	*	*	*	*	89.3
Russia	Mondy	9.34	16.6	--	--	12.5	--	6.03	<1	--	72.8	13.4	23.4	14.6
	Listvyanka	2.05	<1	<1	8.44	<1	<1	<1	<1	<1	15.6	1.53	<1	<1
	Irkutsk	90.0	89.9	10.6	59.4	5.21	<1	48.5	24.1	<1	35.0	30.9	20.4	29.6
Vietnam	Cuc Phuong	<1	2.09	<1	17.9	<1	6.36	<1	9.74	17.9	63.5	23.5	181	14.0
	Da Nang	161	80.0	48.9	76.7	272	97.7	193	113	49.0	71.7	107	109	86.7

Wet deposition amount		unit: mmol $m^{-2}month^{-1}$ or mmol $m^{-2}year^{-1}$											
Country	Name of sites	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	**Annual**
Japan	Rishiri	*	*	6.54	*	*	*	*	*	*	*	*	*	97.5
Russia	Mondy	0.0448	0.0894	0.00	0.00	0.108	0.00	0.353	<0.01	0.00	1.11	0.106	0.168	1.98
	Listvyanka	0.0180	<0.01	<0.01	0.0581	<0.01	<0.01	<0.01	0.0736	<0.01	0.120	0.0425	<0.01	0.312
	Irkutsk	1.46	0.662	0.0296	0.591	0.129	<0.01	2.84	1.33	0.0421	0.293	0.896	0.344	8.62
Vietnam	Cuc Phuong	<0.01	0.156	<0.01	0.726	<0.01	0.572	<0.01	1.73	7.60	2.37	2.58	5.17	20.5
	Da Nang	3.85	0.960	8.77	6.88	9.41	2.43	14.2	17.4	21.0	29.3	29.6	20.3	164

Data completeness		%TP											
Country	Name of sites	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	**Annual**
Japan	Rishiri	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Russia	Mondy	100	100	--	--	100	--	100	100	--	100	100	100	100
	Listvyanka	100	100	100	100	100	98.3	100	100	100	100	100	100	99.9
	Irkutsk	100	100	93.2	100	100	100	100	99.5	100	95.5	100	100	99.7
Vietnam	Cuc Phuong	87.2	92.1	99.6	100	99.3	100	98.0	100	100	99.7	92.9	88.8	98.0
	Da Nang	100	100	100	100	100	100	100	98.2	100	100	100	100	99.9

Terms and abbreviations are given in Table 3.5.

Table 3.95 Concentration, deposition and data completeness of F^-

Precipitation amount-weighted average concentration/ Precipitation amount									unit : µmol L^{-1}					
Country	Name of sites	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	**Annual**
China	Haifu	12.6	9.86	4.64	5.80	3.93	3.28	1.49	1.81	1.70	3.93	9.11	6.04	3.10
	Jinyunshan	10.8	5.50	5.75	4.49	2.20	1.91	1.39	1.09	1.87	2.66	7.13	3.38	2.40
	Hongwen	3.38	1.11	2.90	11.1	3.84	<1	2.32	<1	2.35	<1	--	1.24	2.02
	Xiaoping	<1	1.89	5.91	2.10	<1	1.10	<1	2.71	2.30	--	1.63	<1	1.27
	Xiang Zhou	--	6.29	24.2	11.7	5.72	7.65	12.1	6.46	4.73	5.69	8.95	2.93	6.74
	Zhuxiandong	--	14.1	19.1	14.3	16.4	6.66	4.32	12.6	7.66	3.82	3.98	2.74	9.12
Japan	Ochiishi	*	*	3.98	*	*	*	*	*	*	*	*	*	3.98
	Ogasawara	<1	1.35	<1	<1	<1	<1	<1	1.17	<1	<1	<1	<1	<1
	Tokyo	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Russia	Listvyanka	23.7	*	*	*	*	*	*	53.4	*	*	*	*	51.7
	Irkutsk	28.2	*	*	*	*	*	*	*	*	*	*	*	28.2
Vietnam	Hanoi	5.68	39.5	49.1	38.6	6.88	1.99	5.82	5.30	4.35	5.46	9.02	18.6	7.45
	Hoa Binh	8.89	19.5	7.33	2.66	3.39	1.20	2.02	<1	<1	3.38	8.03	7.50	2.42
	Cuc Phuong	6.16	23.0	21.4	20.4	11.7	6.05	5.24	4.03	9.69	4.80	4.90	5.04	8.80
	Can Tho	--	--	--	--	1.63	1.01	1.25	1.30	1.09	1.01	1.10	1.00	1.12
	Ho Chi Minh	--	--	--	1.08	1.12	2.11	1.63	2.67	1.29	1.17	1.21	1.10	1.48
	Yen Bai	**	**	**	**	5.16	3.78	2.46	2.36	1.80	5.43	5.06	6.49	3.26

Wet deposition amount						unit: mmol $m^{-2}month^{-1}$ or mmol $m^{-2}year^{-1}$								
Country	Name of sites	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	**Annual**
China	Haifu	0.230	0.0463	0.0900	0.568	0.452	0.753	0.215	0.320	0.476	0.369	0.0965	0.178	3.78
	Jinyunshan	0.323	0.0687	0.154	0.456	0.329	0.549	0.193	0.270	0.329	0.185	0.133	0.104	3.09
	Hongwen	0.125	<0.01	0.0499	0.664	0.678	<0.01	0.155	0.0371	0.0845	<0.01	0.00	0.253	2.05
	Xiaoping	0.0159	0.0531	0.174	0.149	0.175	0.249	0.162	0.587	0.393	0.00	0.0188	<0.01	1.98
	Xiang Zhou	0.00	0.318	0.0605	0.117	2.20	1.78	1.97	0.805	0.437	1.67	0.0939	0.192	9.65
	Zhuxiandong	0.00	0.134	0.344	0.265	6.91	1.59	0.615	1.47	1.84	1.08	0.0736	0.251	14.6
Japan	Ochiishi	*	*	0.0159	*	*	*	*	*	*	*	*	*	3.29
	Ogasawara	<0.01	0.0196	0.0112	0.0232	0.0145	<0.01	<0.01	0.459	0.0413	0.0251	<0.01	<0.01	0.611
	Tokyo	0.0160	0.0151	<0.01	0.0429	0.0289	0.113	0.0388	0.0590	0.0421	0.0253	0.0339	0.0202	0.450
Russia	Listvyanka	0.208	*	*	*	*	*	*	4.05	*	*	*	*	17.3
	Irkutsk	0.459	*	*	*	*	*	*	*	*	*	*	*	8.22
Vietnam	Hanoi	0.191	0.800	1.71	0.837	0.668	0.476	0.790	0.623	1.28	0.431	1.44	0.744	9.48
	Hoa Binh	0.357	0.173	0.351	0.336	0.422	0.337	0.381	0.0945	0.332	0.353	0.455	0.366	3.91
	Cuc Phuong	0.225	1.72	1.47	0.828	0.785	0.544	1.60	0.717	4.12	0.179	0.538	0.144	12.9
	Can Tho	0.00	0.00	0.00	0.00	0.188	0.311	0.305	0.123	0.795	0.563	0.149	0.0234	2.46
	Ho Chi Minh	0.00	0.00	0.00	0.0388	0.0912	0.313	0.272	0.311	0.562	0.368	0.144	<0.01	2.11
	Yen Bai	**	**	**	**	0.0872	0.516	0.838	0.572	0.668	0.613	0.903	0.739	4.93

Data completeness										%TP				
Country	Name of sites	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	**Annual**
China	Haifu	98.9	87.2	99.0	99.9	99.8	100	99.9	99.9	99.9	99.8	94.3	100	99.8
	Jinyunshan	100	100	100	100	100	100	100	100	100	100	100	100	100
	Hongwen	100	100	100	100	100	100	100	100	100	100	--	100	100
	Xiaoping	100	100	100	100	100	100	100	100	100	--	100	100	100
	Xiang Zhou	--	100	100	100	100	100	100	100	100	100	100	100	100
	Zhuxiandong	--	100	100	100	100	100	100	100	100	100	100	100	100
Japan	Ochiishi	0.0	0.0	100	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5
	Ogasawara	100	96.5	98.5	100	99.8	100	88.7	98.4	98.4	41.3	99.9	98.9	94.7
	Tokyo	99.4	99.3	98.9	100	99.3	99.8	99.9	69.3	83.5	99.0	99.2	100	93.1
Russia	Listvyanka	33.8	0.0	0.0	0.0	0.0	0.0	0.0	64.7	0.0	0.0	0.0	0.0	15.6
	Irkutsk	89.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0
Vietnam	Hanoi	80.1	65.4	93.4	69.1	100	100	100	100	100	99.0	100	100	98.2
	Hoa Binh	100	100	81.6	100	100	100	100	100	100	100	100	100	99.5
	Cuc Phuong	87.2	92.1	99.6	100	99.3	100	98.0	100	100	99.7	92.9	88.8	98.0
	Can Tho	--	--	--	--	100	100	100	100	100	100	100	100	100
	Ho Chi Minh	--	--	--	100	100	100	100	100	100	100	100	100	100
	Yen Bai	**	**	**	**	100	100	100	100	100	100	99.2	100	99.9

Terms and abbreviations are given in Table 3.5.

Table 3.96 Concentration, deposition and data completeness of Br^-

Precipitation amount-weighted average concentration/ Precipitation amount unit : $\mu mol\ L^{-1}$

Country	Name of sites	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Japan	Ochiishi	*	*	1.29	*	*	*	*	*	*	*	*	*	1.29
Russia	Mondy	<1	<1	--	--	<1	--	<1	<1	--	<1	<1	<1	<1
	Listvyanka	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Irkutsk	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1

Wet deposition amount unit: $mmol\ m^{-2}month^{-1}$ or $mmol\ m^{-2}year^{-1}$

Country	Name of sites	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Japan	Ochiishi	*	*	<0.01	*	*	*	*	*	*	*	*	*	1.06
Russia	Mondy	<0.01	<0.01	0.00	0.00	<0.01	0.00	<0.01	<0.01	0.00	<0.01	<0.01	<0.01	<0.01
	Listvyanka	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	Irkutsk	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01

Data completeness %TP

Country	Name of sites	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Japan	Ochiishi	0.0	0.0	100	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5
Russia	Mondy	100	100	--	--	100	--	100	100	--	100	100	100	100
	Listvyanka	100	100	100	100	100	98.3	100	100	100	100	100	100	99.9
	Irkutsk	100	100	93.2	100	100	100	100	98.6	100	95.5	100	100	99.5

Terms and abbreviations are given in Table 3.5.

Table 3.97 Concentration, deposition and data completeness of NO_2^-

Precipitation amount-weighted average concentration/ Precipitation amount unit : $\mu mol\ L^{-1}$

Country	Name of sites	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	**Annual**
Japan	Ochiishi	*	*	<1	*	*	*	*	*	*	*	*	*	<1
	Ogasawara	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Tokyo	1.36	2.32	1.25	1.19	1.40	1.01	1.29	1.12	<1	<1	1.40	2.19	1.18
Russia	Mondy	<1	<1	--	--	<1	--	<1	<1	--	<1	<1	<1	<1
	Listvyanka	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Irkutsk	<1	<1	<1	<1	<1	<1	3.10	<1	<1	<1	<1	<1	<1

Wet deposition amount unit: $mmol\ m^{-2}month^{-1}$ or $mmol\ m^{-2}year^{-1}$

Country	Name of sites	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	**Annual**
Japan	Ochiishi	*	*	<0.01	*	*	*	*	*	*	*	*	*	<0.01
	Ogasawara	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	Tokyo	0.113	0.134	0.107	0.142	0.116	0.171	0.266	0.106	0.370	0.0368	0.181	0.166	1.94
Russia	Mondy	<0.01	<0.01	0.00	0.00	<0.01	0.00	<0.01	<0.01	0.00	<0.01	<0.01	<0.01	0.0160
	Listvyanka	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.0262
	Irkutsk	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.182	<0.01	0.0118	<0.01	0.0230	<0.01	0.269

Data completeness %TP

Country	Name of sites	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	**Annual**
Japan	Ochiishi	0.0	0.0	100	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5
	Ogasawara	100	96.5	98.5	100	99.8	100	88.7	98.4	98.4	41.3	99.9	98.9	94.7
	Tokyo	99.4	99.3	98.9	100	99.3	99.8	99.9	69.3	83.5	99.0	99.2	100	93.1
Russia	Mondy	100	100	--	--	100	--	100	100	--	100	100	100	100
	Listvyanka	100	100	100	100	100	98.3	100	100	100	100	100	100	99.9
	Irkutsk	100	100	93.2	100	100	100	100	98.6	100	95.5	100	100	99.5

Terms and abbreviations are given in Table 3.5.

Table 3.98 Concentration, deposition and data completeness of PO_4^{3-}

Precipitation amount-weighted average concentration/ Precipitation amount									**unit : μmol L^{-1}**					
Country	Name of sites	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	**Annual**
Japan	Ochiishi	*	*	6.92	*	*	*	*	*	*	*	*	*	6.92
Philippines	Metro Manila	18.7	<1	705	48.2	6.99	<1	<1	2.01	1.62	1.70	<1	**	4.84
	Los Baños	5.72	2.83	<1	--	<1	<1	<1	<1	1.13	13.8	98.6	**	6.89
Thailand	Bangkok	--	--	<1	<1	<1	<1	<1	<1	<1	<1	<1	--	<1
	Samutprakarn	--	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	--	<1
	Pathumthani	<1	<1	<1	<1	1.14	<1	<1	<1	<1	<1	<1	--	<1
	Khanchanaburi	--	--	--	<1	<1	<1	<1	<1	<1	<1	<1	--	<1
	Chiang Mai	<1	--	<1	<1	<1	<1	<1	1.42	<1	2.08	--	--	<1
	Sakaerat	<1	1.71	1.57	<1	<1	<1	<1	<1	<1	<1	--	--	<1

Wet deposition amount						**unit: mmol $m^{-2}month^{-1}$ or mmol $m^{-2}year^{-1}$**								
Country	Name of sites	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	**Annual**
Japan	Ochiishi	*	*	0.0277	*	*	*	*	*	*	*	*	*	5.72
Philippines	Metro Manila	0.423	<0.01	4.65	3.13	0.634	<0.01	<0.01	1.01	0.832	0.461	<0.01	**	12.1
	Los Baños	0.140	0.0257	0.0672	0.00	0.0348	<0.01	0.0571	0.0749	0.388	2.54	11.4	**	10.7
Thailand	Bangkok	0.00	0.00	0.0624	0.0272	0.0164	<0.01	0.140	<0.01	0.0435	0.0152	<0.01	0.00	0.314
	Samutprakarn	0.00	<0.01	<0.01	0.0372	<0.01	0.0185	0.0239	<0.01	0.0231	<0.01	<0.01	0.00	0.113
	Pathumthani	<0.01	0.0266	<0.01	<0.01	0.0247	<0.01	0.0695	<0.01	0.0170	<0.01	<0.01	0.00	0.161
	Khanchanaburi	0.00	0.00	0.00	0.0212	<0.01	0.0308	<0.01	<0.01	<0.01	<0.01	<0.01	0.00	0.0645
	Chiang Mai	<0.01	0.00	<0.01	0.0290	<0.01	<0.01	0.0252	0.186	0.0592	0.0156	0.00	0.00	0.319
	Sakaerat	<0.01	0.0413	0.0478	0.0114	0.0365	0.0454	0.0275	0.0155	0.0129	0.0664	0.00	0.00	0.305

Data completeness										**%TP**				
Country	Name of sites	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	**Annual**
Japan	Ochiishi	0.0	0.0	100	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5
Philippines	Metro Manila	95.6	25.9	100	100	100	81.3	88.7	100	100	89.4	33.3	**	91.6
	Los Baños	100	95.6	99.8	--	100	82.4	100	100	100	100	58.7	**	93.3
Thailand	Bangkok	--	--	100	100	100	100	100	100	100	100	100	--	100
	Samutprakarn	--	100	100	100	100	100	100	100	100	100	100	--	100
	Pathumthani	100	100	100	100	100	100	100	100	100	100	100	--	100
	Khanchanaburi	--	--	--	100	100	100	100	100	100	100	100	--	100
	Chiang Mai	100	--	100	100	99.9	100	99.9	100	100	100	--	--	100
	Sakaerat	100	100	100	100	100	100	100	100	100	100	--	--	100

Terms and abbreviations are given in Table 3.5.

Table 3.99 Concentration, deposition and data completeness of Formic Acid

Precipitation amount-weighted average concentration/ Precipitation amount								unit : µmol L^{-1}					
Country	Name of sites	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	**Annual**
Malaysia	Petaling Jaya	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Tanah Rata	<1	<1	<1	<1	<1	1.00	<1	<1	1.80	<1	<1	<1	<1
	Danum Valley	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Kuching	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Thailand	Bangkok	--	--	<1	<1	<1	3.44	3.22	<1	4.33	2.08	<1	--	2.40
	Samutprakarn	--	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	--	<1
	Pathumthani	<1	6.31	<1	<1	<1	<1	6.54	16.2	<1	<1	<1	--	2.92
	Khanchanaburi	--	--	--	<1	<1	<1	<1	<1	<1	<1	<1	--	<1
	Chiang Mai	<1	--	2.57	21.2	<1	<1	2.45	<1	1.63	1.72	--	--	3.23
	Sakaerat	56.9	33.7	44.0	31.0	8.71	13.2	<1	4.93	2.56	4.15	--	--	9.70

Wet deposition amount						unit: mmol $m^{-2}month^{-1}$ or mmol $m^{-2}year^{-1}$							
Country	Name of sites	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	**Annual**
Malaysia	Petaling Jaya	<0.01	<0.01	<0.01	<0.01	0.0204	<0.01	0.0202	0.0130	0.0230	<0.01	<0.01	0.0162	0.0978
	Tanah Rata	<0.01	<0.01	0.0203	0.0546	0.111	0.0914	0.116	0.123	0.353	0.128	<0.01	0.0670	1.08
	Danum Valley	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.0461	0.0213	0.0228	0.0336	<0.01	0.132
	Kuching	<0.01	<0.01	<0.01	<0.01	0.0132	0.0312	<0.01	0.0598	<0.01	<0.01	<0.01	<0.01	0.110
Thailand	Bangkok	0.00	0.00	0.0885	0.0561	0.0221	0.992	0.487	0.0185	1.44	0.688	0.0369	0.00	3.83
	Samutprakarn	0.00	<0.01	0.0140	0.0155	<0.01	0.0623	0.0466	0.0109	0.369	0.119	<0.01	0.00	0.647
	Pathumthani	<0.01	0.855	<0.01	<0.01	<0.01	<0.01	0.757	1.52	<0.01	<0.01	<0.01	0.00	3.13
	Khanchanaburi	0.00	0.00	0.00	0.0350	<0.01	0.0204	0.0856	0.0143	0.0401	<0.01	<0.01	0.00	0.204
	Chiang Mai	0.0202	0.00	0.0622	1.53	0.0304	<0.01	0.311	0.123	0.310	0.0129	0.00	0.00	2.41
	Sakaerat	1.28	0.815	1.34	4.75	0.464	1.56	0.150	1.15	0.897	1.03	0.00	0.00	13.4

Data completeness									%TP				
Country	Name of sites	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	**Annual**
Malaysia	Petaling Jaya	100	100	100	100	100	100	100	97.6	100	100	100	100	99.9
	Tanah Rata	92.8	94.9	97.9	100	100	100	100	100	100	100	100	95.4	99.2
	Danum Valley	75.9	76.6	100	76.9	99.5	100	87.8	100	100	98.1	100	100	94.6
	Kuching	100	100	100	100	100	100	100	100	100	100	100	100	100
Thailand	Bangkok	--	--	100	100	100	100	100	100	100	100	100	--	100
	Samutprakarn	--	100	100	100	100	100	100	100	100	100	100	--	100
	Pathumthani	100	100	100	100	100	100	100	100	100	100	100	--	100
	Khanchanaburi	--	--	--	100	100	100	100	100	100	100	100	--	100
	Chiang Mai	100	--	100	100	99.9	100	99.9	100	100	100	--	--	100
	Sakaerat	100	100	100	100	100	100	100	100	100	100	--	--	100

Terms and abbreviations are given in Table 3.5.

Table 3.100 Concentration, deposition and data completeness of Acetic Acid

Precipitation amount-weighted average concentration/ Precipitation amount **unit : µmol L^{-1}**

Country	Name of sites	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	**Annual**
Malaysia	Petaling Jaya	<1	<1	<1	<1	<1	<1	<1	<1	2.00	<1	<1	<1	<1
	Tanah Rata	<1	<1	<1	<1	<1	1.08	<1	2.37	1.35	<1	<1	<1	<1
	Danum Valley	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Kuching	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Thailand	Bangkok	--	--	<1	<1	1.02	2.44	1.27	<1	5.32	2.30	<1	--	2.20
	Samutprakarn	--	<1	<1	<1	<1	<1	<1	<1	1.18	<1	<1	--	<1
	Pathumthani	1.20	<1	<1	<1	1.84	1.70	8.40	8.03	<1	<1	<1	--	2.13
	Khanchanaburi	--	--	--	<1	<1	<1	<1	<1	<1	<1	<1	--	<1
	Chiang Mai	<1	--	5.35	10.2	<1	<1	<1	1.08	<1	3.20	--	--	1.77
	Sakaerat	38.2	24.2	37.3	10.2	7.53	9.42	<1	2.68	2.22	3.52	--	--	5.82

Wet deposition amount **unit: mmol $m^{-2}month^{-1}$ or mmol $m^{-2}year^{-1}$**

Country	Name of sites	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	**Annual**
Malaysia	Petaling Jaya	0.0131	<0.01	<0.01	0.0102	<0.01	<0.01	<0.01	0.0298	0.250	<0.01	<0.01	0.0150	0.327
	Tanah Rata	0.0269	<0.01	<0.01	0.0200	0.112	0.0984	0.126	0.314	0.266	0.361	0.0465	0.0863	1.47
	Danum Valley	0.124	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.0235	<0.01	0.0569	<0.01	<0.01	0.196
	Kuching	0.0406	0.330	<0.01	0.0470	0.0206	0.0555	<0.01	0.0233	0.0327	0.0132	0.0958	0.0346	0.695
Thailand	Bangkok	0.00	0.00	<0.01	<0.01	0.0688	0.702	0.193	<0.01	1.77	0.760	<0.01	0.00	3.50
	Samutprakarn	0.00	<0.01	<0.01	<0.01	0.0105	<0.01	<0.01	<0.01	0.476	0.0846	<0.01	0.00	0.582
	Pathumthani	<0.01	0.0566	0.0301	0.0527	0.0401	0.214	0.972	0.751	0.123	0.0318	<0.01	0.00	2.28
	Khanchanaburi	0.00	0.00	0.00	0.0815	<0.01	<0.01	0.0220	<0.01	0.0209	<0.01	<0.01	0.00	0.139
	Chiang Mai	0.0360	0.00	0.129	0.734	0.0399	<0.01	0.0252	0.142	0.190	0.0240	0.00	0.00	1.32
	Sakaerat	0.859	0.586	1.14	1.57	0.401	1.12	0.115	0.624	0.778	0.870	0.00	0.00	8.06

Data completeness **%TP**

Country	Name of sites	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	**Annual**
Malaysia	Petaling Jaya	100	100	100	100	100	100	100	97.6	100	100	100	100	99.9
	Tanah Rata	92.8	94.9	97.9	100	100	100	100	100	100	100	100	95.4	99.2
	Danum Valley	75.9	76.6	100	76.9	99.5	100	87.8	100	100	98.1	100	100	94.6
	Kuching	100	100	100	100	100	100	100	100	100	100	100	100	100
Thailand	Bangkok	--	--	100	100	100	100	100	100	100	100	100	--	100
	Samutprakarn	--	100	100	100	100	100	100	100	100	100	100	--	100
	Pathumthani	100	100	100	100	100	100	100	100	100	100	100	--	100
	Khanchanaburi	--	--	--	100	100	100	100	100	100	100	100	--	100
	Chiang Mai	100	--	100	100	99.9	100	99.9	100	100	100	--	--	100
	Sakaerat	100	100	100	100	100	100	100	100	100	100	--	--	100

Terms and abbreviations are given in Table 3.5.

Table 3.101 Concentration, deposition and data completeness of Oxalic Acid

Precipitation amount-weighted average concentration/ Precipitation amount								unit : µmol L^{-1}						
Country	Name of sites	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	**Annual**
Malaysia	Petaling Jaya	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Tanah Rata	<1	<1	<1	<1	<1	<1	<1	1.08	<1	<1	<1	<1	<1
	Danum Valley	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Kuching	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1

Wet deposition amount					unit: mmol $m^{-2}month^{-1}$ or mmol $m^{-2}year^{-1}$									
Country	Name of sites	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	**Annual**
Malaysia	Petaling Jaya	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.0190	<0.01	<0.01	<0.01	<0.01	0.0338
	Tanah Rata	<0.01	<0.01	0.0102	<0.01	<0.01	<0.01	0.129	0.143	0.101	0.0621	<0.01	0.0199	0.494
	Danum Valley	0.0142	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.0234	<0.01	<0.01	<0.01	<0.01	0.0476
	Kuching	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.0120	<0.01	<0.01	<0.01	<0.01	0.0231

Data completeness										%TP				
Country	Name of sites	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	**Annual**
Malaysia	Petaling Jaya	100	100	100	100	100	100	100	97.6	100	100	100	100	99.9
	Tanah Rata	92.8	94.9	97.9	100	100	100	100	100	100	100	100	95.4	99.2
	Danum Valley	75.9	76.6	100	76.9	99.5	100	87.8	100	100	98.1	100	100	94.6
	Kuching	100	100	100	100	100	100	100	100	100	100	100	100	100

Terms and abbreviations are given in Table 3.5.

CHAPTER 4

Dry Deposition Monitoring

(Air Concentration)

4. Dry Deposition (Air Concentration) Monitoring

4.1 Method

Automatic monitoring and manual monitoring methods were used to implement the dry deposition (air concentration) monitoring in 2015. The monitoring items were selected, taking into account the priority chemical species defined in the "*Strategy Paper for Future Direction of Dry Deposition Monitoring of EANET (Second Edition, 2005; 2011-2015 Edition, 2010)*".

4.1.1 Automatic Monitoring Method

In the "Strategy Paper for Future Direction of Dry Deposition Monitoring of EANET (Second Edition and 2011-2015 Edition)", it was mentioned that the first priority chemical species of SO_2, NO, NO_2 (at urban sites), O_3, and PM_{10} and the second priority chemical species of NO_2 (at rural and remote sites) and $PM_{2.5}$ are monitored by automatic monitoring methods. The criteria and quality assurance/quality control (QA/QC) for automatic monitoring methods is described in the Chapter 3 of "*Technical Manual for Air Concentration Monitoring in East Asia (Technical Manual)*".

4.1.2 Manual Monitoring Method

Filter pack and passive sampler are used for manual monitoring in EANET. The filter pack method are used to determine gaseous substances (SO_2, HNO_3, HCl, NH_3) and particulate matter components (SO_4^{2-}, NO_3^-, Cl^-, NH_4^+, Na^+, K^+, Mg^{2+}, Ca^{2+}), which are identified as the first priority chemical species in EANET. The passive sampler method are used to determine gaseous species of SO_2, O_3, NO_2 in EANET. The recommended monitoring method by means of the four-stage filter pack was explained in the *Technical Manual*. Basic specifications of the four-stage filter pack method are shown in Fig. 4.1. The QA/QC for manual monitoring methods is described in the Chapter 4 of *Technical Manual*.

4.1.3 Monitoring Sites

The measurement methods and parameters at each monitoring site for dry deposition (air concentration) monitoring in 2015 are shown in Table 4.1. Automatic monitors were used in China, Indonesia, Japan, Mongolia, Myanmar, Philippines, Republic of Korea, Russia, Thailand and Vietnam. The individual methods adopted at each site are shown in Table 4.2.
The filter pack methods were used in Cambodia, Indonesia, Japan, Lao PDR, Malaysia, Mongolia, Myanmar, Philippines, Republic of Korea, Russia, Thailand and Vietnam in 2015.

Preparation of filter pack

Stage	Specification of filter	Collected species
1st (F0)	PTFE filter (pore size: 0.8 μm, diameter: 47 mm)	Aerosols
2nd (F1)	Polyamide filter (pore size: 0.45 μm, diameter: 47 mm)	HNO_3, SO_2, HCl, NH_3
3rd (F2)	Impregnated cellulose filter Solution: 6% K_2CO_3 + 2% glycerin	SO_2, HCl
4th (F3)	Impregnated cellulose filter Solution: 5% H_3PO_4 + 2% glycerin	NH_3

↓

Sampling on site

Air flow rate: approximately 1 or 2 liter/minute
Sampling period: one week or two weeks

↓

Pretreatment of filter pack

Stage	Solvent	Extracted species
F0	Extracted with 20 mL of deionized water	SO_4^{2-}, NO_3^-, Cl^-, NH_4^+, Na^+, K^+, Mg^{2+}, Ca^{2+}
F1	Extracted with 20 mL of deionized water	SO_4^{2-}, NO_3^-, Cl^-, NH_4^+
F2	Extracted with 20mL of 0.05% H_2O_2	SO_4^{2-}, Cl^-
F3	Extracted with 20mL of deionized water	NH_4^+

↓

Chemical analysis

By ion chromatography or other suitable analytical methods

Fig. 4.1 Specification of the four-stage filter pack method

Table 4.1.1 Sampling methods and parameters for dry deposition (air concentration) monitoring in 2015

Country	Site	Method	Parameter
Cambodia	Phnom Penh	FP	SO_2, HNO_3, HCl, NH_3, PMC
China	Chongqing		
	- Jinyunshan	AT	SO_2, NO, NO_x*, PM_{10}
	Xiamen		
	- Hongwen	AT	SO_2, NO_2, PM_{10}
	Zhuhai		
	- Xiang Zhou	AT	SO_2, NO_2, PM_{10}
Indonesia	Jakarta	FP	SO_2, HNO_3, HCl, NH_3, PMC
		PS	NO_2
	Serpong	FP	SO_2, HNO_3, HCl, NH_3, PMC
	Kototabang	PS	SO_2, NO_2
	Bandung*1	AT	O_3
		FP	SO_2, HNO_3, HCl, NH_3, PMC
		PS	NO_2
Japan	Rishiri	AT	SO_2, NO, NO_x*, O_3, $PM_{10/2.5}$
		FP	HNO_3, HCl, NH_3, PMC
	Ochiichi	AT	SO_2, NO, NO_x*, O_3, $PM_{10/2.5}$
		FP	HNO_3, HCl, NH_3, PMC
	Tappi*2	AT	SO_2, NO, NO_x*, O_3, $PM_{10/2.5}$
		FP	HNO_3, HCl, NH_3, PMC
	Sado-seki	AT	SO_2, NO, NO_x*, O_3, $PM_{10/2.5}$
		FP	HNO_3, HCl, NH_3, PMC
	Happo*2	AT	SO_2, NO, NO_x*, O_3, $PM_{10/2.5}$
		FP	HNO_3, HCl, NH_3, PMC
	Ijira*2	AT	SO_2, NO, NO_x*, O_3, $PM_{10/2.5}$
		FP	HNO_3, HCl, NH_3, PMC
	Oki	AT	SO_2, NO, NO_x*, O_3, $PM_{10/2.5}$
		FP	HNO_3, HCl, NH_3, PMC
	Banryu*2	AT	SO_2, NO, NO_2, NO_x, O_3, $PM_{10/2.5}$
		FP	HNO_3, HCl, NH_3, PMC
	Yusuhara*2	AT	SO_2, NO, NO_x*, O_3, $PM_{10/2.5}$
		FP	HNO_3, HCl, NH_3, PMC
	Hedo*2	AT	SO_2, NO, NO_x*, O_3, $PM_{10/2.5}$
		FP	HNO_3, HCl, NH_3, PMC
	Ogasawara*2	AT	SO_2, NO, NO_x*, O_3, $PM_{10/2.5}$
		FP	HNO_3, HCl, NH_3, PMC
	Tokyo	FP	SO_2, HNO_3, HCl, NH_3, PMC
Lao PDR	Vientiane	FP	SO_2, HNO_3, HCl, NH_3, PMC
Malaysia	Petaling Jaya	FP	SO_2, HNO_3, HCl, NH_3, PMC
	Tanah Rata	FP	SO_2, HNO_3, HCl, NH_3, PMC
	Danum Valley	FP	SO_2, HNO_3, HCl, NH_3, PMC

Table 4.1.1 Sampling methods and parameters for dry deposition (air concentration) monitoring in 2015 (continued)

Country	Site	Method	Parameter
Mongolia	Ulaanbaatar[*3]	AT	SO_2, NO, NO_2, NO_x, O_3, PM_{10}/$_{2.5}$
		FP	HNO_3, HCl, NH_3, PMC
	Terelj[*6]	FP	SO_2, HNO_3, HCl, NH_3, PMC
Myanmar	Yangon	FP	SO_2, HNO_3, HCl, NH_3, PMC
	Mandalay[*2]	AT	$PM_{2.5}$
Philippines	Metro Manila[*3,*6]	AT	NO, NO_2, NO_x, O_3, PM_{10}/$_{2.5}$
		FP	SO_2, HNO_3, HCl, NH_3, PMC
	Los Baños[*6]	FP	SO_2, HNO_3, HCl, NH_3, PMC
	Mt. Sto. Tomas	FP	SO_2, HNO_3, HCl, NH_3, PMC
Republic of Korea	Kanghwa	AT	SO_2, NO_2, O_3, PM_{10}
		FP	HNO_3, HCl, NH_3, PMC in $PM_{2.5}$
	Cheju	AT	SO_2, NO_2, O_3, PM_{10}
	(Kosan)	FP	HNO_3, HCl, NH_3, PMC in $PM_{2.5}$
	Imsil	AT	SO_2, NO_2, O_3, PM_{10}
		FP	HNO_3, HCl, NH_3, PMC in $PM_{2.5}$
Russia	Mondy	AT	O_3
		FP	SO_2, HNO_3, HCl, NH_3, PMC
	Listvyanka	FP	SO_2, HNO_3, HCl, NH_3, PMC
		PS	O_3
	Irkutsk	FP	SO_2, HNO_3, HCl, NH_3, PMC
	Primorskaya	FP	SO_2, HNO_3, HCl, NH_3, PMC
Thailand	Bangkok[*2]	AT	NO, NO_2, NO_x, O_3, $PM_{10/2.5}$
		FP	SO_2, HNO_3, HCl, NH_3, PMC
	Samutprakarn	AT	SO_2, NO, NO_2, NO_x, O_3, PM_{10}
	Pathumthani[*6]	FP	SO_2, HNO_3, HCl, NH_3, PMC
	Khanchanaburi [*5]	AT	SO_2, NO, NO_x*, O_3, $PM_{10/2.5}$
	(Vachiralongkorn Dam)	FP	HNO_3, HCl, NH_3, PMC
	Chiang Mai[*2]	AT	SO_2, NO, NO_x*, O_3, $PM_{10/2.5}$
	(Mae Hia)	FP	HNO_3, HCl, NH_3, PMC
	Nakhon Ratchasima[*4]		
	- Sakaerat	FP	SO_2, HNO_3, HCl, NH_3, PMC
	- Nai Mueang	AT	SO_2, NO, NO_2, NO_x, O_3, PM_{10}
Vietnam	Hanoi	FP	SO_2, HNO_3, HCl, NH_3, PMC
	Hoa Binh[*2]	AT	$PM_{2.5}$
		FP	SO_2, HNO_3, HCl, NH_3, PMC
	Can Tho	FP	SO_2, HNO_3, HCl, NH_3, PMC
	Ho Chi Minh	FP	SO_2, HNO_3, HCl, NH_3, PMC
	Yen Bai	FP	SO_2, HNO_3, HCl, NH_3, PMC

AT: Automatic monitor, PS: Passive sampler, FP: Filter pack, PMC: particulate matter components.
NOx*: NOx measured by CLD in remote or rural sites.

Note:

*1 O_3 monitoring at Jakarta started in 2015.

*2 $PM_{2.5}$ monitoring at Tappi, Happo, Ijira, Banryu, Yusuhara, Hedo, Ogasawara, Mandalay, Bangkok, Chiang Mai and Hoa Binh started in 2015.

*3 Auto data of Metro Manila and Ulaanbaatar were provided and the results of Ulaanbaatar 2014 are shown in Appendix 3.

*4 Nakhon Ratchasima site was divided into two sites: Sakaerat and Nai Mueang.

*5 Two week Intensive monitoring at Khanchanaburi was implemented 3 times per year due to availability of monitoring in remote area.

*6 FP monitoring at Terelj, Metro Manila, Los Banos, and Pathumthani were not submitted in 2015.

Table 4.1.2 Methods of automatic monitors in 2015

Country	Site	Parameter				
		SO_2	NO_x	O_3	PM_{10}	$PM_{2.5}$
China	Jinyunshan	UVF	CLD	–	β–ray	–
	Hongwen	DOAS	DOAS	–	TEOM	–
	Xianzhou	DOAS	DOAS	–	TEOM	–
Indonesia	Bandung	–	–	UVP	–	–
Japan	Rishiri	UVF	CLD	UVP	β–ray	β–ray
	Ochiishi	UVF	CLD	UVP	β–ray	β–ray
	Tappi	UVF	CLD	UVP	β–ray	β–ray
	Sado-seki	UVF	CLD	UVP	β–ray	β–ray
	Happo	UVF	CLD	UVP	β–ray	β–ray
	Ijira	UVF	CLD	UVP	β–ray	β–ray
	Oki	UVF	CLD	UVP	β–ray	β–ray
	Banryu	UVF	CLD	UVP	β–ray	β–ray
	Yusuhara	UVF	CLD	UVP	β–ray	β–ray
	Hedo	UVF	CLD	UVP	β–ray	β–ray
	Ogasawara	UVF	CLD	UVP	β–ray	β–ray
Mongolia	Ulaanbaatar	UVF	CLD	UVP	β–ray	β–ray
Myanmar	Mandalay	–	–	–	–	β–ray
Philippines	Metro Manila	–	CLD	UVP	LS	LS
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	Bangkok	–	CLD	UVP	β–ray	β–ray
	Samutprakarn	UVF	CLD	UVP	β–ray	–
	Khanchanaburi	UVF	CLD	UVP	β–ray	β–ray
	Chiang Mai (Mae Hia)	UVF	CLD	UVP	TEOM	β–ray
	Nakhon Ratchasima -Nai Mueang	UVF	CLD	UVP	β–ray	–
Vietnam	Hoa Binh	–	–	–	–	β–ray

UVF: Ultraviolet fluorescent method, CLD: Chemiluminescence detection method, UVP: Ultraviolet photometric method, β–ray: β–ray absorption method, TEOM: Tapered element oscillating microbalance method, LS: Light scattering method, DOAS: Differential optical absorption spectroscopy method.

4.2 Results of Monitoring

Monitoring data were summarized into monthly averaged values accompanied with maximum, minimum and data completeness on monthly basis. Summarized data in 2015 are presented in Table 4.3 through Table 4.20.

The terms and abbreviations are given in Table 4.2.

Table 4.2. Terms and abbreviations

Term/Abbreviation	Definition
Mean	Monthly or annual arithmetic average values
Max-d	Maximum values of daily data
Min-d	Minimum values of daily data
Max-10d	Maximum values of 10 days term data
Min-10d	Minimum values of 10 days term data
Max-w	Maximum values of weekly data
Min-w	Minimum values of weekly data
Max-2w	Maximum values of biweekly data
Min-2w	Minimum values of biweekly data
Max-m	Maximum values of monthly data
Min-m	Minimum values of monthly data
%	Monthly or annual percentages of period of available data
( )	Reference data
[***]	No data or not measured
Data in hatched cell ( )	Annual data completeness was not satisfied with EANET criteria. (<70%)
Black cell ( )	Monitoring was not carried out

For information on long-term trends of air concentrations, annual averages of gases and particulate matter concentrations from 2001 to 2015 are summarized in Table 4.21 through Table 4.38.

Monthly and annual dry deposition amounts of gaseous and particulate substances in 2015 were summarized in Table 4.39 through Table 4.49. The Inferential Method is adopted to estimate the dry depositions of EANET priority chemical species. Dry deposition amounts of gaseous and particulate substances are estimated by the product of an atmospheric concentration and a deposition velocity expressed as, $F_{dry} = V_d \times C$, where F_{dry}, V_d, and C denote the dry deposition flux, calculated deposition velocity, and the measured atmospheric concentrations, respectively for each specie and type of surface. The V_d was calculated by meteorological parameters at the site and parameterization described in the Technical Manual on Dry Deposition Flux Estimation in East Asia (Network Center for EANET, 2010). Since V_d of gases and particulate matter are different in different types of land surfaces, the V_d at each site was first calculated for forest and grass surfaces, and the weighted-average of V_d was then estimated according to the land-use ratio of forest and grass within 1 km square from the site. The estimation of dry deposition flux was made only for the sites in which hourly meteorological data and land use data are available.

In the Table 4.3 through Table 4.38, ppb unit is used for gases and $\mu g/m^3$ unit for particulate matter concentrations. In the Table 4.39 through Table 4.49, mmol m^{-2}/month or mmol m^{-2}/year units are used for dry deposition amounts. For comparing the other networks' data, conversion ratios from ppb to $\mu g/m^3$, which are based on 20 ^{o}C, 1 atm, are provided in Table 4.50.

Reporting limits for individual species depend on specification of instrument or procedures of sampling and analysis. The NC sets up the reporting limits as shown in Table 4.51 taking into account methods adopted by each country. The data that air concentrations were less than the reporting limit are specified in the summarized tables. Regarding the particulate matter components measured by filter pack method, the detection limits for particulate matter components were determined as 0.01 $\mu g/m^3$ for sampled air volume of 20.16 m^3 considering the value of 3σ, where σ is the standard deviation of blank values obtained at Japan sites since 2003.

Table 4.3 SO_2

Unit : ppb			2015												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Cambodia	Phnom Penh	Mean	0.6	0.7	0.8	0.5	0.4	0.7	0.5	0.5	0.5	0.5	0.4	0.4	0.5
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.6	0.7	0.9	0.5	0.5	0.8	0.6	0.6	0.6	0.6	0.6	0.5	0.9
		Min-2w	0.6	0.6	0.7	0.5	0.3	0.6	0.4	0.4	0.5	0.5	0.3	0.4	0.3
China	Jinyunshan	Mean	9.1	6.8	5.4	5.4	4.7	3.7	5.5	4.4	2.9	5.4	5.0	5.3	5.3
		%	100	100	100	100	100	100	100	100	93	97	100	90	98
		Max-d	17.3	16.5	9.4	10.9	9.4	6.4	9.0	6.8	6.8	9.4	7.5	11.6	17.3
		Min-d	1.9	1.9	2.3	1.9	2.6	2.3	2.6	1.9	1.1	1.9	3.4	2.3	1.1
	Hongwen	Mean	3.3	1.5	2.6	3.1	3.2	2.5	2.9	2.5	2.1	1.9	1.6	1.9	2.4
		%	100	100	97	90	87	100	100	100	100	100	100	100	98
		Max-d	8.6	3.0	4.5	6.8	6.0	4.9	5.6	5.6	3.0	3.0	2.6	3.8	8.6
		Min-d	1.1	1.1	1.1	1.5	1.5	1.1	1.5	0.8	0.8	0.8	0.4	0.8	0.4
	Xiang Zhou	Mean	4.7	3.3	1.5	2.2	1.5	1.5	2.3	3.1	3.0	4.3	4.8	5.1	3.1
		%	97	89	100	100	97	100	100	94	97	100	97	100	98
		Max-d	10.9	8.3	3.0	5.6	3.4	3.0	4.9	5.6	6.4	8.3	8.3	8.3	10.9
		Min-d	0.8	0.8	0.8	1.1	0.8	0.8	0.8	1.1	1.5	1.1	2.3	2.6	0.8
Indonesia	Jakarta	Mean	-	-	-	-	-	-	-	-	1.3	12.2	3.3	2.7	5.4
		%	0	0	0	0	0	0	0	0	47	85	100	100	27
		Max-2w	-	-	-	-	-	-	-	-	1.3	19.4	5.1	3.1	19.4
		Min-2w	-	-	-	-	-	-	-	-	1.3	4.9	1.5	2.2	1.3
	Serpong	Mean	0.6	1.5	1.2	0.8	0.8	1.5	1.0	0.9	2.1	3.1	3.0	-	1.5
		%	100	100	100	100	100	100	100	100	100	100	82	0	90
		Max-m	0.9	2.2	1.4	1.0	0.8	1.9	1.1	0.9	3.3	3.5	3.9	-	3.9
		Min-m	0.3	0.7	1.1	0.5	0.8	1.1	1.0	0.9	0.9	2.7	2.0	-	0.3
	Kototabang	Mean	4.6	11.3	6.2	1.8	9.1	12.9	9.2	-	9.5	5.1	1.1	2.1	6.7
		%	100	100	100	75	100	86	100	0	90	100	100	100	87
		Max-w	6.4	31.5	10.0	2.3	10.9	22.2	10.3	-	25.0	7.4	1.8	3.5	31.5
		Min-w	2.4	1.3	3.0	0.8	7.0	5.1	8.2	-	1.9	1.3	0.7	1.0	0.7
	Bandung	Mean	1.1	1.5	1.3	1.4	0.9	1.4	0.9	1.4	1.3	1.3	1.6	1.5	1.3
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	1.4	1.8	1.7	1.7	1.4	1.5	1.1	1.7	1.3	1.3	1.6	1.7	1.8
		Min-2w	0.8	1.3	0.9	1.0	0.4	1.4	0.6	1.2	1.2	1.2	1.5	1.3	0.4
Japan	Rishiri	Mean	0.3	0.2	0.2	0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	0.5	0.1
		%	99	98	92	98	99	98	97	98	87	96	99	98	97
		Max-d	1.2	0.5	1.0	0.7	0.6	0.2	0.3	<0.1	<0.1	0.2	0.5	3.1	3.1
		Min-d	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Ochiishi	Mean	0.2	0.2	0.2	0.1	0.1	<0.1	0.1	0.2	<0.1	0.2	<0.1	0.3	0.1
		%	96	96	95	95	90	96	93	96	94	95	79	95	93
		Max-d	0.6	1.2	1.4	0.4	0.3	0.3	0.5	0.5	0.4	0.5	0.4	0.6	1.4
		Min-d	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Tappi	Mean	0.5	0.5	0.4	0.4	0.5	0.3	0.3	0.3	0.2	0.2	0.2	0.3	0.3
		%	99	99	99	99	99	98	99	98	99	99	90	99	98
		Max-d	2.3	1.0	1.1	1.3	1.7	0.7	0.6	1.5	0.5	0.5	0.5	0.7	2.3
		Min-d	0.2	0.2	0.1	0.1	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.1
	Sado-seki	Mean	0.6	0.4	0.5	0.5	0.6	0.2	0.1	0.1	<0.1	0.2	0.2	0.2	0.3
		%	97	96	98	98	98	98	98	88	98	98	98	98	97
		Max-d	3.5	1.3	2.0	2.7	2.6	1.0	1.1	1.1	0.5	0.7	0.6	1.5	3.5
		Min-d	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Happo	Mean	0.5	0.4	0.5	0.4	0.5	0.3	0.1	0.2	0.2	0.2	0.4	0.2	0.3
		%	98	98	98	98	98	98	98	81	92	94	98	98	96
		Max-d	1.3	1.8	1.8	1.1	1.7	3.5	0.6	0.9	1.9	0.6	8.1	0.4	8.1
		Min-d	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Ijira	Mean	0.2	<0.1	0.3	0.2	0.3	0.2	0.2	0.2	<0.1	0.1	0.1	<0.1	0.2
		%	99	99	99	98	98	98	98	98	98	98	77	99	97
		Max-d	0.6	0.6	1.4	0.7	0.7	0.6	0.4	0.8	0.5	0.4	0.4	0.2	1.4
		Min-d	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Oki	Mean	0.8	0.7	0.7	0.4	0.7	0.2	0.3	0.3	0.1	0.3	0.2	0.4	0.4
		%	99	100	100	100	100	99	100	98	97	95	86	98	98
		Max-d	1.9	4.9	2.6	3.2	2.3	0.9	1.3	0.8	0.3	0.8	0.8	2.5	4.9
		Min-d	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Banryu	Mean	0.8	0.6	0.6	0.3	0.3	0.2	0.2	0.2	0.2	0.3	0.2	0.3	0.3
		%	98	98	98	98	98	97	98	97	99	97	98	87	97
		Max-d	2.2	2.1	2.2	1.0	0.9	0.7	0.5	0.5	0.8	1.6	0.5	1.0	2.2
		Min-d	0.2	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Yusuhara	Mean	1.1	1.2	1.3	0.9	0.7	0.2	0.1	0.3	0.3	0.7	0.3	0.6	0.6
		%	98	98	98	98	94	98	98	98	85	98	98	98	97
		Max-d	2.8	2.8	7.9	4.3	4.1	1.1	0.6	0.7	1.6	2.7	1.1	2.4	7.9
		Min-d	0.2	0.3	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	0.1	<0.1
	Hedo	Mean	0.6	0.7	0.2	0.5	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	0.2	0.2	0.2
		%	98	78	96	97	95	97	66	96	78	97	98	98	91
		Max-d	2.1	3.5	1.0	5.8	0.3	0.4	0.1	0.1	0.5	0.5	0.6	0.7	5.8
		Min-d	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Ogasawara	Mean	0.4	0.3	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
		%	97	91	98	98	98	98	98	96	81	93	98	96	95
		Max-d	2.1	1.9	1.4	1.4	0.3	<0.1	<0.1	0.2	0.2	0.2	0.1	0.3	2.1
		Min-d	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Tokyo	Mean	1.0	1.0	1.2	1.5	1.8	2.0	1.9	1.7	1.1	1.0	0.7	0.9	1.3
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	1.2	1.2	1.6	2.1	1.9	2.1	2.4	2.7	1.3	1.1	0.8	0.9	2.7
		Min-2w	0.9	0.7	0.6	1.0	1.6	1.8	1.5	0.7	0.9	0.9	0.7	0.8	0.6

Table 4.3 SO_2 (continued)

Unit : ppb			2015												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Lao PDR	Vientiane	Mean	0.5	0.6	0.5	0.4	0.4	0.5	0.2	0.2	0.3	0.2	0.5	0.1	0.4
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.5	0.6	0.5	0.4	0.4	0.5	0.2	0.2	0.3	0.2	0.5	0.1	0.6
		Min-2w	0.5	0.6	0.5	0.4	0.4	0.5	0.2	0.2	0.3	0.2	0.5	0.1	0.1
Malaysia	Petaling Jaya	Mean	0.8	1.3	1.4	1.0	1.5	1.3	1.7	-	-	1.0	1.2	0.9	1.2
		%	80	100	100	100	100	75	80	0	0	20	50	75	65
		Max-w	1.1	1.7	1.9	1.3	2.0	1.9	2.3	-	-	1.0	1.3	1.2	2.3
		Min-w	0.6	0.4	0.9	0.7	0.9	1.0	1.3	-	-	1.0	1.1	0.5	0.4
	Tanah Rata	Mean	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
		%	60	100	100	100	100	100	80	100	100	100	100	100	94
		Max-w	<0.1	0.1	<0.1	<0.1	<0.1	0.2	0.3	<0.1	<0.1	0.2	<0.1	<0.1	0.3
		Min-w	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Danum Valley	Mean	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.3	0.2	<0.1	<0.1
		%	100	50	100	50	100	100	100	100	100	100	100	67	88
		Max-2w	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	0.6	0.4	<0.1	0.6
		Min-2w	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Mongolia	Ulaanbaatar[*1]	Mean	23.5	17.2	11.8	7.0	4.2	2.9	2.7	1.9	2.0	4.6	14.3	21.8	9.8
		%	97	100	99	88	100	100	89	66	99	82	100	100	93
		Max-d	40.8	32.5	20.0	14.1	9.7	6.7	7.6	13.7	5.2	10.5	36.9	55.7	55.7
		Min-d	7.2	3.4	3.3	2.0	1.2	1.2	0.2	<0.1	0.1	0.4	1.8	4.8	<0.1
Myanmar	Yangon	Mean	0.6	1.0	0.4	0.6	0.3	0.5	0.5	0.3	0.3	0.4	0.3	0.5	0.5
		%	100	50	50	100	100	100	100	100	100	100	100	100	92
		Max-2w	1.0	1.0	0.4	0.7	0.3	0.8	0.6	0.3	0.5	0.5	0.4	0.8	1.0
		Min-2w	0.2	1.0	0.4	0.5	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2
Philippines	Mt. Sto. Tomas	Mean	0.2	0.1	0.0	0.1	0.0	0.0	0.1	0.2	0.1	0.1	0.4	0.3	0.1
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.2	0.2	0.1	0.1	0.0	0.0	0.2	0.5	0.2	0.2	0.8	0.6	0.8
		Min-w	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.1	0.0
Republic of Korea	Kanghwa	Mean	3.0	3.0	2.1	2.0	2.1	2.1	2.3	2.0	1.3	1.6	2.1	2.6	2.2
		%	98	97	99	98	99	93	97	98	99	97	96	97	97
		Max-d	4.7	9.3	5.1	4.3	4.3	3.6	3.8	4.2	3.5	2.9	4.6	6.2	9.3
		Min-d	1.8	0.8	0.6	1.0	1.2	1.2	1.6	0.7	0.5	0.9	0.8	1.1	0.5
	Cheju (Kosan)	Mean	0.7	0.4	0.6	0.4	0.6	0.6	0.7	0.7	0.3	0.4	0.3	0.6	0.5
		%	15	33	95	99	99	99	69	42	99	96	92	99	78
		Max-d	1.3	1.0	2.3	1.1	1.2	1.1	1.3	1.1	0.4	0.8	1.0	2.2	2.3
		Min-d	0.3	0.1	0.1	0.1	0.1	0.5	0.5	0.3	0.2	0.2	0.2	0.2	0.1
	Imsil	Mean	3.0	3.4	2.4	1.3	1.4	1.6	1.8	0.8	1.0	0.9	0.9	1.7	1.7
		%	98	98	92	91	98	98	96	97	98	97	97	95	96
		Max-d	5.3	7.4	4.7	3.1	2.4	3.3	2.4	1.2	1.9	1.9	1.6	3.7	7.4
		Min-d	1.8	1.9	0.4	0.5	1.0	1.1	0.3	0.4	0.4	0.2	0.5	0.8	0.2
Russia	Mondy	Mean	<0.1	<0.1	<0.1	0.2	<0.1	<0.1	0.5	0.2	<0.1	<0.1	<0.1	<0.1	0.1
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-m	0.1	<0.1	<0.1	0.4	<0.1	<0.1	1.0	0.2	<0.1	<0.1	<0.1	<0.1	1.0
		Min-m	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.2	<0.1	<0.1	<0.1	<0.1	<0.1
	Listvyanka	Mean	9.0	5.5	3.2	1.5	1.0	1.1	0.9	0.5	0.3	0.3	5.4	4.2	2.8
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	19.0	8.1	3.6	2.8	1.6	1.4	1.3	0.6	0.3	0.4	12.7	9.2	19.0
		Min-w	3.2	3.0	2.7	0.6	0.6	0.9	0.4	0.3	0.3	0.2	0.3	2.4	0.2
	Irkutsk	Mean	2.1	4.6	9.5	3.4	1.3	3.1	1.9	0.2	0.1	0.9	6.3	6.0	3.5
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	3.4	6.9	17.4	5.3	1.5	8.7	2.9	0.3	0.2	2.8	10.8	10.7	17.4
		Min-w	0.9	2.9	3.8	0.2	1.0	0.5	1.3	<0.1	0.1	<0.1	3.7	2.6	<0.1
	Primorskaya	Mean	2.0	1.3	0.8	0.6	0.3	0.2	0.2	<0.1	0.1	0.5	1.0	1.5	0.7
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	2.0	2.3	0.9	0.7	0.4	0.2	0.2	<0.1	0.3	0.7	1.2	1.9	2.3
		Min-2w	1.9	0.2	0.7	0.5	0.1	0.2	<0.1	<0.1	<0.1	0.2	0.7	1.0	<0.1

Table 4.3 SO_2 (continued)

Unit : ppb			2015												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Thailand	Bangkok*2	Mean	1.4	0.4	0.9	1.0	1.0	0.3	0.3	0.2	0.5	0.3	0.5	0.4	0.6
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-10d	2.3	0.5	1.1	1.1	2.6	0.3	0.4	0.3	0.6	0.6	0.9	0.7	2.6
		Min-10d	0.7	0.3	0.8	0.7	0.1	0.3	0.2	0.1	0.4	<0.1	0.1	0.2	<0.1
	Samutprakarn	Mean	2.7	4.1	2.3	2.3	2.7	2.3	3.0	4.3	2.0	2.5	3.2	4.4	3.0
		%	61	96	96	96	83	96	95	96	95	96	95	89	91
		Max-d	5.9	8.4	3.6	4.2	6.0	5.7	8.7	6.3	4.3	3.9	5.5	8.2	8.7
		Min-d	<0.1	1.4	<0.1	1.1	<0.1	<0.1	0.5	2.3	0.9	1.5	1.0	1.2	<0.1
	Khanchanaburi (Vachiralongkorn Dam)	Mean	-	-	-	1.5	-	-	1.3	1.1	-	-	0.8	-	1.2
		%	0	0	0	62	0	0	31	49	0	0	44	0	15
		Max-d	-	-	-	1.9	-	-	1.4	1.5	-	-	2.6	-	2.6
		Min-d	-	-	-	1.2	-	-	1.2	0.9	-	-	<0.1	-	<0.1
	Chiang Mai (Mae Hia)	Mean	3.2	2.1	2.5	2.0	0.5	1.0	0.9	0.8	0.8	0.8	0.6	1.0	1.3
		%	95	94	95	94	93	93	96	96	96	96	95	95	95
		Max-d	7.1	5.0	6.0	6.7	2.0	2.8	3.9	1.1	4.9	1.3	1.7	1.7	7.1
		Min-d	0.5	0.1	<0.1	<0.1	<0.1	<0.1	0.3	<0.1	<0.1	0.3	<0.1	0.3	<0.1
	Sakaerat	Mean	0.7	0.3	0.4	0.3	0.6	0.4	0.3	0.2	0.1	0.2	-	-	0.4
		%	100	100	100	100	100	100	100	100	100	32	0	0	78
		Max-10d	1.2	0.3	0.4	0.3	1.0	0.5	0.3	0.3	0.2	0.2	-	-	1.2
		Min-10d	0.3	0.3	0.3	0.2	0.4	0.2	0.2	0.2	<0.1	0.2	-	-	<0.1
	Nai Mueang	Mean	2.5	1.1	0.8	1.2	4.5	2.2	0.3	0.3	1.9	5.3	5.4	5.8	2.9
		%	36	91	70	13	20	89	31	63	98	96	96	96	66
		Max-d	3.7	2.6	1.2	1.6	5.0	5.3	0.8	1.3	5.5	6.0	5.8	6.7	6.7
		Min-d	1.0	0.5	0.4	<0.1	2.7	0.1	<0.1	<0.1	0.2	4.7	4.8	5.3	<0.1
Vietnam	Hanoi	Mean	4.8	5.6	3.4	4.2	4.4	4.5	4.5	4.5	4.6	5.1	4.1	3.9	4.5
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	5.4	7.3	3.5	6.6	5.4	4.9	5.1	5.0	5.0	6.3	4.6	4.4	7.3
		Min-w	4.0	4.3	3.1	3.3	3.1	4.1	3.7	3.9	4.1	3.7	3.3	3.5	3.1
	Hoa Binh	Mean	4.5	3.9	2.6	3.2	3.8	4.5	4.1	3.7	3.3	3.6	2.9	2.9	3.6
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	5.8	4.9	3.5	3.6	5.4	5.2	4.7	4.5	3.7	4.2	3.1	3.1	5.8
		Min-w	3.4	3.0	1.9	2.5	2.8	3.7	3.6	2.6	2.8	2.6	2.7	2.5	1.9
	Can Tho	Mean	1.2	0.9	1.0	1.0	0.9	1.0	1.1	0.9	1.0	1.0	0.7	0.8	1.0
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	1.6	1.2	1.5	1.2	1.6	1.3	1.6	1.3	1.4	1.1	1.0	1.0	1.6
		Min-w	1.0	0.5	0.4	0.8	0.5	0.7	0.5	0.5	0.8	0.8	0.4	0.6	0.4
	Ho Chi Minh	Mean	1.6	1.7	1.9	1.7	1.5	1.5	1.5	1.2	1.3	1.2	1.1	1.3	1.5
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	1.9	1.8	1.9	2.1	1.6	1.9	1.9	1.3	1.7	1.7	1.5	1.6	2.1
		Min-w	1.1	1.6	1.7	1.5	1.3	1.3	1.1	1.0	1.1	0.8	0.8	1.1	0.8
	Yen Bai *3	Mean								3.4	3.7	4.9	3.2	4.6	4.2
		%								25	100	100	100	100	36
		Max-w								3.4	5.7	6.1	3.8	8.1	8.1
		Min-w								3.4	2.9	3.5	2.6	2.9	2.6

*1 SO_2 results of Ulaanbaatar site are changed from FP monitoring to automatic monitoring

*2 SO_2 results of Bangkok site are changed from automatic monitoring to FP monitoring

*3 Yen Bai started FP monitoring in August, 2015.

Terms and abbreviations are given in Table 4.2.

Table 4.4 HNO_3

Unit : ppb			2015												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Cambodia	Phnom Penh	Mean	0.6	0.8	0.8	0.8	0.4	0.7	0.4	0.3	0.3	0.3	0.3	0.4	0.5
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.9	0.8	0.8	0.8	0.5	0.8	0.5	0.3	0.4	0.4	0.3	0.4	0.9
		Min-2w	0.4	0.7	0.7	0.8	0.3	0.6	0.3	0.3	0.2	0.3	0.3	0.4	0.2
Indonesia	Jakarta	Mean	-	-	-	-	-	-	-	-	1.6	0.6	2.6	1.0	1.4
		%	0	0	0	0	0	0	0	0	47	85	100	100	27
		Max-2w	-	-	-	-	-	-	-	-	1.6	1.1	2.7	1.6	2.7
		Min-2w	-	-	-	-	-	-	-	-	1.6	<0.1	2.6	0.4	<0.1
	Serpong	Mean	0.2	0.5	0.7	0.7	1.2	1.0	0.8	1.3	1.7	1.7	2.3	-	1.1
		%	100	100	100	100	100	100	100	100	100	100	82	0	90
		Max-2w	0.4	0.7	0.8	1.2	1.4	1.0	0.9	1.4	1.8	1.8	4.3	-	4.3
		Min-2w	<0.1	0.3	0.5	0.1	1.0	1.0	0.7	1.2	1.7	1.7	0.4	-	<0.1
	Bandung	Mean	0.3	0.5	0.4	0.4	0.5	0.3	0.4	0.6	0.5	0.6	0.6	0.4	0.5
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.5	0.5	0.6	0.6	0.7	0.4	0.5	0.6	0.5	0.7	0.7	0.5	0.7
		Min-2w	0.1	0.5	0.2	0.2	0.4	0.2	0.4	0.6	0.4	0.6	0.5	0.4	0.1
Japan	Rishiri	Mean	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.2	<0.1	<0.1	<0.1	<0.1	<0.1
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	0.3	<0.1	<0.1	<0.1	<0.1	0.3
		Min-2w	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Ochiishi	Mean	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
		%	100	100	30	100	100	100	100	100	100	100	100	100	92
		Max-2w	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	0.1	0.1	<0.1	<0.1	<0.1	<0.1	0.1
		Min-2w	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Tappi	Mean	<0.1	<0.1	<0.1	0.1	0.1	0.1	<0.1	0.3	<0.1	<0.1	<0.1	<0.1	<0.1
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	<0.1	<0.1	<0.1	0.2	0.2	0.2	0.2	0.6	<0.1	<0.1	<0.1	<0.1	0.6
		Min-2w	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Sado-seki	Mean	<0.1	<0.1	0.2	0.5	0.5	0.4	0.5	0.5	<0.1	<0.1	<0.1	<0.1	0.3
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	<0.1	<0.1	0.3	0.9	0.7	0.5	0.6	1.2	0.1	<0.1	<0.1	<0.1	1.2
		Min-2w	<0.1	<0.1	0.1	0.1	0.4	0.4	0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Happo	Mean	0.1	0.2	0.2	0.4	0.6	0.4	0.2	0.4	0.2	0.3	0.1	<0.1	0.3
		%	100	100	100	100	100	100	50	100	100	100	100	100	96
		Max-2w	0.2	0.2	0.2	0.6	0.8	0.4	0.2	0.6	0.2	0.4	0.1	<0.1	0.8
		Min-2w	<0.1	0.1	0.1	0.2	0.5	0.4	0.2	0.2	0.1	0.2	0.1	<0.1	<0.1
	Ijira	Mean	<0.1	<0.1	0.2	0.4	0.4	0.3	0.3	0.4	0.1	0.2	<0.1	<0.1	0.2
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	<0.1	0.1	0.2	0.6	0.4	0.4	0.5	0.7	0.2	0.3	0.1	<0.1	0.7
		Min-2w	<0.1	<0.1	<0.1	0.2	0.3	0.3	0.2	0.2	<0.1	0.2	<0.1	<0.1	<0.1
	Oki	Mean	0.2	<0.1	0.1	0.3	0.5	0.3	0.3	0.3	<0.1	0.1	<0.1	<0.1	0.2
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.2	0.1	0.2	0.3	0.7	0.3	0.3	0.5	<0.1	0.1	<0.1	<0.1	0.7
		Min-2w	0.2	<0.1	<0.1	0.3	0.2	0.2	0.2	0.2	<0.1	0.1	<0.1	<0.1	<0.1
	Banryu	Mean	<0.1	0.1	0.2	0.3	0.6	0.5	0.3	0.5	<0.1	0.2	0.2	0.1	0.3
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.1	0.2	0.2	0.6	0.6	0.5	0.5	0.8	0.1	0.2	0.2	0.1	0.8
		Min-2w	<0.1	<0.1	<0.1	0.1	0.5	0.4	0.1	0.2	<0.1	0.2	<0.1	0.1	<0.1
	Yusuhara	Mean	0.3	0.3	0.3	0.7	0.3	0.2	0.1	0.4	0.3	0.3	0.2	0.2	0.3
		%	100	100	67	55	100	100	100	100	100	100	100	100	92
		Max-2w	0.4	0.3	0.4	0.7	0.4	0.2	0.1	0.5	0.3	0.3	0.2	0.2	0.7
		Min-2w	0.3	0.2	0.2	0.7	0.2	<0.1	<0.1	0.3	0.3	0.3	0.1	0.1	<0.1
	Hedo	Mean	0.4	0.3	<0.1	0.2	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	0.1
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.5	0.3	<0.1	0.3	<0.1	<0.1	<0.1	0.2	<0.1	0.1	<0.1	<0.1	0.5
		Min-2w	0.3	0.2	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Ogasawara	Mean	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
		%	100	100	100	100	100	50	100	100	100	100	100	100	96
		Max-2w	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	0.1
		Min-2w	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Tokyo	Mean	0.2	0.2	0.4	0.9	1.6	1.2	1.3	1.2	0.6	0.5	0.4	0.3	0.7
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.2	0.2	0.5	1.2	1.8	1.5	2.0	2.6	0.7	0.5	0.5	0.3	2.6
		Min-2w	0.1	0.2	0.2	0.6	1.4	0.9	0.5	0.3	0.6	0.4	0.2	0.2	0.1
Lao PDR	Vientiane	Mean	0.4	0.6	0.8	0.4	0.2	0.2	0.1	0.1	0.2	0.1	0.3	0.2	0.3
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.4	0.6	0.8	0.4	0.2	0.2	0.1	0.1	0.2	0.1	0.3	0.2	0.8
		Min-2w	0.4	0.6	0.8	0.4	0.2	0.2	0.1	0.1	0.2	0.1	0.3	0.2	0.1
Malaysia	Petaling Jaya	Mean	0.5	1.1	0.9	0.8	0.8	0.6	0.6	-	-	1.1	0.6	0.4	0.7
		%	80	100	100	100	100	75	80	0	0	20	50	75	65
		Max-w	0.9	1.8	1.3	1.0	1.0	0.9	0.7	-	-	1.1	0.8	0.5	1.8
		Min-w	0.2	0.2	0.6	0.6	0.5	0.3	0.5	-	-	1.1	0.4	0.2	0.2
	Tanah Rata	Mean	<0.1	0.2	0.2	0.1	0.1	0.1	0.2	<0.1	0.1	0.1	<0.1	<0.1	0.1
		%	60	100	100	100	100	100	80	100	100	100	100	100	94
		Max-w	<0.1	0.3	0.4	0.2	0.2	0.3	0.4	0.1	0.3	0.3	<0.1	<0.1	0.4
		Min-w	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Danum Valley	Mean	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	0.2	0.2	0.2	<0.1	<0.1	<0.1
		%	100	50	100	50	100	100	100	100	100	100	100	67	88
		Max-2w	<0.1	<0.1	<0.1	<0.1	<0.1	0.2	0.2	0.2	0.2	0.2	<0.1	<0.1	0.2
		Min-2w	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	0.1	0.1	0.2	<0.1	<0.1	<0.1

Table 4.4 HNO_3 (continued)

Unit : ppb			2015												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Myanmar	Yangon	Mean	<0.1	<0.1	1.0	0.7	0.2	0.2	0.2	<0.1	<0.1	0.2	<0.1	<0.1	0.2
		%	100	50	50	100	100	100	100	100	100	100	100	100	92
		Max-2w	<0.1	<0.1	1.0	1.2	0.2	0.4	0.4	<0.1	0.1	0.3	<0.1	<0.1	1.2
		Min-2w	<0.1	<0.1	1.0	0.2	0.1	<0.1	<0.1	<0.1	<0.1	0.2	<0.1	<0.1	<0.1
Philippines	Mt. Sto. Tomas	Mean	<0.1	0.1	0.2	0.2	0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
		%	80	100	100	100	100	100	100	100	100	41	50	100	89
		Max-w	0.2	0.3	0.2	0.3	0.3	0.2	0.1	0.2	<0.1	<0.1	<0.1	<0.1	0.3
		Min-w	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Republic of Korea	Kanghwa	Mean	0.1	0.2	0.3	0.5	0.3	0.8	0.5	0.5	0.2	0.4	0.2	0.2	0.3
		%	16	18	16	17	13	17	16	16	17	16	13	19	16
		Max-d	0.2	0.3	0.5	0.9	0.5	1.4	1.0	1.6	0.4	1.0	0.3	0.3	1.6
		Min-d	<0.1	0.1	<0.1	0.2	0.2	0.1	0.3	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Cheju (Kosan)	Mean	0.4	1.5	0.7	0.6	0.5	0.5	0.5	0.5	0.2	0.7	0.4	0.5	0.5
		%	16	4	16	17	10	17	10	16	10	16	17	13	13
		Max-d	0.9	1.5	1.7	1.5	1.2	0.8	0.9	0.8	0.2	1.9	1.2	1.0	1.9
		Min-d	0.2	1.5	0.2	0.2	0.2	0.3	0.2	0.3	0.2	0.1	0.1	0.2	0.1
	Imsil	Mean	0.2	0.3	0.3	0.6	0.7	0.8	0.3	0.4	0.5	0.5	0.2	0.3	0.4
		%	16	18	16	17	16	17	16	16	17	16	17	19	17
		Max-d	0.2	0.4	0.7	1.2	2.0	1.6	0.4	0.6	1.3	1.0	0.3	0.4	2.0
		Min-d	<0.1	0.2	0.2	0.3	0.3	0.3	0.1	0.2	0.1	0.2	<0.1	0.1	<0.1
Russia	Mondy	Mean	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.2	0.2	<0.1	<0.1	<0.1	<0.1	<0.1
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-m	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.4	0.2	<0.1	<0.1	<0.1	<0.1	0.4
		Min-m	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.2	<0.1	<0.1	<0.1	<0.1	<0.1
	Listvyanka	Mean	<0.1	<0.1	0.1	<0.1	0.1	0.1	<0.1	0.2	<0.1	<0.1	<0.1	<0.1	<0.1
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.2	<0.1	0.1	0.1	0.2	0.2	0.1	0.4	<0.1	0.1	0.1	0.1	0.4
		Min-w	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Irkutsk	Mean	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	<0.1	<0.1	0.1	<0.1	0.1	0.1	0.2	<0.1	<0.1	<0.1	0.1	<0.1	0.2
		Min-w	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Primorskaya	Mean	0.1	0.1	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.1	0.2	0.2	0.4	0.3	0.3	0.3	0.2	0.2	0.3	0.4	0.4	0.4
		Min-2w	0.1	0.1	0.1	0.2	0.3	0.2	0.2	0.2	0.1	0.2	<0.1	<0.1	<0.1
Thailand	Bangkok	Mean	1.2	0.5	0.8	1.4	0.9	0.6	0.1	<0.1	0.2	0.4	0.7	1.1	0.7
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-10d	1.7	0.8	1.4	1.6	1.9	0.7	0.2	<0.1	0.3	0.6	0.9	2.1	2.1
		Min-10d	0.7	0.2	0.4	1.2	0.3	0.4	<0.1	<0.1	0.1	0.1	0.4	0.5	<0.1
	Khanchanaburi (Vachiralongkorn Dam)	Mean	-	-	-	0.9	-	-	-	<0.1	-	-	<0.1	-	0.3
		%	0	0	0	67	0	0	0	63	0	0	47	0	16
		Max-2w	-	-	-	0.9	-	-	-	<0.1	-	-	<0.1	-	0.9
		Min-2w	-	-	-	0.9	-	-	-	<0.1	-	-	<0.1	-	<0.1
	Chiang Mai (Mae Hia)	Mean	<0.1	<0.1	0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	<0.1
		%	97	100	97	97	97	97	97	90	97	19	0	0	74
		Max-10d	<0.1	<0.1	0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	0.1
		Min-10d	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	<0.1
	Sakaerat	Mean	0.5	0.4	0.6	0.3	0.4	0.3	0.2	0.1	0.1	0.2	-	-	0.3
		%	100	100	100	100	100	100	100	100	100	32	0	0	78
		Max-10d	0.6	0.5	0.6	0.5	0.6	0.3	0.2	0.1	0.2	0.2	-	-	0.6
		Min-10d	0.2	0.3	0.4	<0.1	0.3	0.2	0.2	0.1	0.1	0.2	-	-	<0.1
Vietnam	Hanoi	Mean	0.5	0.5	0.3	0.8	0.8	0.8	0.7	0.7	0.6	1.1	0.6	0.4	0.7
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.7	0.7	0.4	1.0	0.8	1.1	1.0	0.8	0.6	1.7	1.0	0.6	1.7
		Min-w	0.2	0.4	0.2	0.2	0.8	0.6	0.4	0.6	0.5	0.5	0.4	0.3	0.2
	Hoa Binh	Mean	0.9	0.6	0.3	0.5	0.8	0.5	0.5	0.4	0.3	0.6	0.4	0.4	0.5
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	1.7	0.7	0.4	0.9	1.0	0.6	0.7	0.9	0.4	0.8	0.5	0.5	1.7
		Min-w	0.4	0.4	0.1	0.3	0.4	0.5	0.3	0.2	0.2	0.2	0.3	0.3	0.1
	Can Tho	Mean	0.5	0.6	0.3	0.5	0.4	0.4	0.2	0.4	0.5	0.2	0.5	0.5	0.4
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.8	0.9	0.5	0.7	0.7	0.5	0.3	0.6	0.7	0.3	0.7	0.6	0.9
		Min-w	0.3	0.5	0.1	0.3	0.3	0.2	<0.1	0.2	0.2	<0.1	0.3	0.5	<0.1
	Ho Chi Minh	Mean	0.5	0.6	0.6	0.7	0.5	0.6	0.5	0.4	0.6	0.6	0.6	0.5	0.6
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.8	0.7	0.8	0.8	0.6	0.7	0.6	0.5	0.7	0.8	0.7	0.6	0.8
		Min-w	0.4	0.5	0.5	0.5	0.4	0.5	0.4	0.4	0.5	0.5	0.5	0.4	0.4
	Yen Bai*1	Mean								0.8	0.5	1.0	0.5	0.6	0.7
		%								25	100	100	100	100	36
		Max-w								0.8	0.8	1.3	0.6	1.4	1.4
		Min-w								0.8	0.2	0.7	0.4	0.3	0.2

*1 Yen Bai started FP monitoring in August, 2015.

Terms and abbreviations are given in Table 4.2.

Table 4.5 HCl

Unit : ppb			2015												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Cambodia	Phnom Penh	Mean	1.7	1.7	1.7	1.5	1.1	1.4	1.7	1.4	1.0	1.2	1.1	0.9	1.3
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	1.7	1.7	1.7	1.5	1.2	1.6	1.8	1.5	1.1	1.4	1.1	1.1	1.8
		Min-2w	1.6	1.7	1.6	1.4	1.0	1.3	1.6	1.3	1.0	1.1	1.0	0.7	0.7
Indonesia	Jakarta	Mean	-	-	-	-	-	-	-	-	3.3	2.9	1.3	0.8	1.9
		%	0	0	0	0	0	0	0	0	47	85	100	100	27
		Max-2w	-	-	-	-	-	-	-	-	3.3	4.7	1.4	0.8	4.7
		Min-2w	-	-	-	-	-	-	-	-	3.3	1.1	1.3	0.7	0.7
	Serpong	Mean	0.5	0.9	0.6	0.6	0.9	0.9	1.0	1.5	1.7	1.7	0.9	-	1.0
		%	100	100	100	100	100	100	100	100	100	100	82	0	90
		Max-2w	0.9	0.9	0.7	0.7	1.0	1.0	1.1	1.7	1.8	2.0	1.0	-	2.0
		Min-2w	0.2	0.8	0.5	0.4	0.9	0.7	1.0	1.4	1.7	1.4	0.7	-	0.2
	Bandung	Mean	0.5	0.4	0.3	0.3	0.3	0.4	0.5	0.6	0.8	1.1	0.4	0.2	0.5
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.7	0.4	0.4	0.3	0.5	0.5	0.6	0.7	0.8	1.3	0.5	0.3	1.3
		Min-2w	0.2	0.4	0.3	0.3	<0.1	0.2	0.4	0.6	0.8	1.0	0.3	0.1	<0.1
Japan	Rishiri	Mean	0.4	0.4	0.3	0.7	0.5	0.2	0.4	0.5	0.3	0.5	0.2	0.5	0.4
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.4	0.4	0.4	0.9	0.6	0.3	0.5	0.9	0.3	0.6	0.3	0.5	0.9
		Min-2w	0.3	0.3	0.3	0.4	0.3	0.2	0.2	0.2	0.2	0.3	0.1	0.4	0.1
	Ochiishi	Mean	0.8	0.4	0.1	2.1	0.4	0.6	0.7	0.6	0.6	0.3	2.6	0.2	0.8
		%	100	100	30	100	100	100	100	100	100	53	100	100	88
		Max-2w	1.3	0.5	0.1	3.7	0.5	0.8	1.0	0.7	0.6	0.3	5.2	0.2	5.2
		Min-2w	0.2	0.2	0.1	0.4	0.3	0.5	0.5	0.5	0.6	0.3	0.1	0.2	0.1
	Tappi	Mean	0.6	0.5	0.5	0.9	0.8	0.5	0.6	0.7	0.4	0.6	0.4	0.2	0.5
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.6	0.5	0.7	1.2	1.2	0.9	0.9	1.0	0.5	0.6	0.4	0.3	1.2
		Min-2w	0.6	0.5	0.4	0.6	0.3	0.2	0.2	0.5	0.2	0.5	0.3	0.1	0.1
	Sado-seki	Mean	0.9	0.7	3.4	1.2	1.5	1.0	1.5	0.8	0.4	0.8	0.5	0.6	1.2
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	1.0	0.7	8.4	1.5	1.7	1.3	2.1	1.0	0.5	0.8	0.5	0.8	8.4
		Min-2w	0.7	0.6	0.6	0.8	1.3	0.6	1.0	0.5	0.4	0.7	0.5	0.4	0.4
	Happo	Mean	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.1	0.3	0.1	0.1	0.2
		%	100	100	100	100	100	100	50	100	100	100	100	100	96
		Max-2w	0.2	0.2	0.2	0.2	0.3	0.1	0.2	0.2	0.2	0.3	0.1	0.1	0.3
		Min-2w	0.1	0.1	0.2	0.1	0.2	0.1	0.2	<0.1	<0.1	0.3	0.1	0.1	<0.1
	Ijira	Mean	<0.1	0.2	0.2	0.3	0.3	0.3	0.4	0.2	0.2	0.3	0.1	0.2	0.2
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.1	0.2	0.2	0.4	0.4	0.3	0.6	0.3	0.2	0.4	0.1	0.2	0.6
		Min-2w	<0.1	0.1	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.1	0.2	<0.1
	Oki	Mean	0.9	0.7	0.9	1.0	1.1	1.0	1.1	0.9	0.8	1.0	0.7	0.6	0.9
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	1.0	0.9	1.2	1.1	1.2	1.0	1.4	1.1	1.0	1.0	0.8	0.6	1.4
		Min-2w	0.8	0.6	0.6	0.9	1.1	0.9	0.8	0.7	0.6	0.9	0.6	0.6	0.6
	Banryu	Mean	1.0	0.7	0.7	0.8	0.5	0.5	0.8	0.8	0.6	0.8	0.5	0.6	0.7
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	1.1	0.8	0.8	1.0	0.6	0.6	1.0	1.0	0.6	0.9	0.5	0.6	1.1
		Min-2w	1.0	0.6	0.5	0.6	0.5	0.5	0.7	0.6	0.6	0.6	0.5	0.6	0.5
	Yusuhara	Mean	0.5	0.5	0.4	0.5	0.3	0.2	0.3	0.2	0.2	0.5	0.3	0.4	0.3
		%	100	100	67	55	100	100	100	100	100	100	100	100	92
		Max-2w	0.5	0.6	0.4	0.5	0.4	0.2	0.3	0.3	0.3	0.5	0.3	0.4	0.6
		Min-2w	0.5	0.3	0.4	0.5	0.2	0.2	0.2	0.1	0.2	0.4	0.2	0.3	0.1
	Hedo	Mean	2.2	1.6	0.9	1.5	0.9	0.5	0.4	0.8	1.2	1.3	1.0	1.2	1.1
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	2.3	1.7	1.0	2.0	1.0	0.5	0.5	1.2	1.5	1.4	1.1	1.4	2.3
		Min-2w	2.2	1.4	0.9	1.0	0.8	0.4	0.4	0.5	0.8	1.3	0.8	1.0	0.4
	Ogasawara	Mean	0.9	0.7	0.9	0.6	0.6	0.2	0.2	0.7	0.3	0.4	0.2	0.5	0.5
		%	100	100	100	100	100	50	100	100	100	100	100	100	96
		Max-2w	1.0	0.9	1.4	0.8	0.9	0.2	0.2	1.0	0.3	0.4	0.2	0.5	1.4
		Min-2w	0.8	0.6	0.6	0.4	0.3	0.2	0.2	0.4	0.2	0.3	0.2	0.4	0.2
	Tokyo	Mean	0.3	0.4	0.6	1.0	1.3	0.9	1.2	1.0	0.8	1.1	0.6	0.6	0.8
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.4	0.4	0.8	1.2	1.3	1.1	1.8	1.1	0.9	1.3	0.6	0.6	1.8
		Min-2w	0.3	0.3	0.4	0.7	1.2	0.8	0.7	0.8	0.8	0.9	0.6	0.5	0.3
Lao PDR	Vientiane	Mean	0.3	0.3	0.4	0.4	0.4	0.2	0.3	0.3	0.2	0.3	0.2	0.3	0.3
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.3	0.3	0.4	0.4	0.4	0.2	0.3	0.3	0.2	0.3	0.2	0.3	0.4
		Min-2w	0.3	0.3	0.4	0.4	0.4	0.2	0.3	0.3	0.2	0.3	0.2	0.3	0.2
Malaysia	Petaling Jaya	Mean	0.7	0.8	0.9	0.5	0.4	0.7	1.0	-	-	0.6	0.7	0.5	0.7
		%	80	100	100	100	100	75	80	0	0	20	50	75	65
		Max-w	0.9	0.9	1.1	0.6	0.5	1.0	1.2	-	-	0.6	0.9	0.6	1.2
		Min-w	0.5	0.6	0.5	0.4	0.3	0.3	0.8	-	-	0.6	0.4	0.4	0.3
	Tanah Rata	Mean	0.3	0.2	0.2	0.3	<0.1	0.2	0.5	0.7	0.9	1.0	0.3	0.2	0.4
		%	60	100	100	100	100	100	80	100	100	100	100	100	94
		Max-w	0.5	0.4	0.2	0.4	0.1	0.3	0.7	1.1	0.9	2.2	0.4	0.3	2.2
		Min-w	0.1	<0.1	0.2	0.1	<0.1	<0.1	0.4	0.2	0.8	0.2	0.1	0.2	<0.1
	Danum Valley	Mean	0.2	0.7	0.2	<0.1	0.2	0.1	0.5	0.5	0.5	0.2	0.2	0.3	0.3
		%	100	50	100	50	100	100	100	100	100	100	100	67	88
		Max-2w	0.3	0.7	0.3	<0.1	0.2	0.2	0.6	0.5	0.5	0.2	0.2	0.4	0.7
		Min-2w	0.1	0.7	<0.1	<0.1	0.2	<0.1	0.4	0.5	0.5	0.2	0.2	0.3	<0.1

Table 4.5 HCl (continued)

Unit : ppb			2015												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Myanmar	Yangon	Mean	1.6	<0.1	1.0	1.8	0.4	0.7	0.9	0.6	0.6	0.2	<0.1	0.2	0.7
		%	100	50	50	100	100	100	100	100	100	100	100	100	92
		Max-2w	1.9	<0.1	1.0	2.4	0.5	0.8	1.1	0.7	0.7	0.3	<0.1	0.6	2.4
		Min-2w	1.4	<0.1	1.0	1.2	0.3	0.5	0.6	0.6	0.5	<0.1	<0.1	<0.1	<0.1
Philippines	Mt. Sto. Tomas	Mean	0.2	0.2	0.3	0.3	0.2	0.2	1.4	2.4	0.8	1.5	0.7	0.7	0.7
		%	80	100	100	100	100	100	100	100	100	41	50	100	89
		Max-w	0.2	0.3	0.4	0.6	0.4	0.3	3.1	5.7	0.9	2.4	0.8	1.3	5.7
		Min-w	<0.1	0.2	0.2	0.1	0.1	<0.1	0.2	0.7	0.6	0.7	0.6	0.1	<0.1
Republic of Korea	Kanghwa	Mean	0.1	0.2	0.2	0.2	0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	0.1	0.1
		%	16	18	16	17	13	17	16	16	17	16	13	19	16
		Max-d	0.2	0.2	0.2	0.3	0.2	0.2	0.1	0.2	0.1	0.2	0.2	0.2	0.3
		Min-d	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Cheju (Kosan)	Mean	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
		%	16	4	16	17	10	17	10	16	10	16	17	13	13
		Max-d	0.4	0.3	0.4	0.3	0.2	0.3	0.2	0.3	0.3	0.4	0.2	0.3	0.4
		Min-d	0.2	0.3	0.2	0.1	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1
	Imsil	Mean	0.3	0.4	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.1	<0.1	0.2
		%	16	18	16	17	16	17	16	16	17	16	17	19	17
		Max-d	0.3	0.6	0.4	0.2	0.3	0.2	0.1	0.2	0.2	0.2	0.2	0.1	0.6
		Min-d	0.1	0.1	<0.1	0.1	0.1	<0.1	<0.1	0.1	<0.1	0.1	<0.1	<0.1	<0.1
Russia	Mondy	Mean	0.8	1.9	2.3	1.9	3.1	2.3	1.7	1.3	1.1	2.7	2.5	2.3	1.9
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-m	1.4	3.0	2.3	2.5	3.1	2.4	2.0	1.3	1.1	2.7	4.3	2.3	4.3
		Min-m	0.2	0.8	2.3	1.2	3.1	2.1	1.4	1.3	1.1	2.7	0.8	2.3	0.2
	Listvyanka	Mean	4.0	8.0	5.5	10.1	12.9	8.1	8.9	6.3	9.8	6.3	4.4	5.1	7.4
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	5.0	10.8	8.4	14.9	18.2	12.0	11.6	9.3	13.6	9.5	5.5	6.6	18.2
		Min-w	3.3	4.0	2.7	8.1	8.7	4.7	7.1	1.4	3.3	3.3	3.4	3.5	1.4
	Irkutsk	Mean	1.6	5.3	15.1	11.6	5.1	11.9	6.0	5.6	3.4	8.7	3.9	2.7	7.0
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	2.3	7.1	33.4	31.8	7.8	26.6	8.1	10.9	5.6	24.2	7.2	4.1	33.4
		Min-w	0.8	2.9	3.8	0.3	1.7	6.5	3.5	0.6	1.8	1.9	1.5	1.4	0.3
	Primorskaya	Mean	0.3	0.3	0.5	0.7	0.5	0.4	0.4	0.4	0.4	0.6	0.7	0.3	0.4
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.3	0.3	0.5	0.7	0.5	0.4	0.4	0.4	0.5	0.8	1.1	0.3	1.1
		Min-2w	0.3	0.3	0.4	0.6	0.5	0.4	0.3	0.4	0.3	0.5	0.3	0.2	0.2
Thailand	Bangkok	Mean	0.6	0.8	1.1	1.0	0.9	0.5	0.3	0.2	1.0	0.2	1.5	0.5	0.7
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-10d	0.6	0.9	1.3	1.1	2.1	0.6	0.6	0.2	1.1	0.2	2.1	0.7	2.1
		Min-10d	0.5	0.8	1.0	0.8	0.2	0.4	0.2	<0.1	0.8	0.1	0.8	0.2	<0.1
	Khanchanaburi (Vachiralongkorn Dam)	Mean	-	-	-	0.5	-	-	-	0.1	-	-	<0.1	-	0.2
		%	0	0	0	67	0	0	0	63	0	0	47	0	16
		Max-2w	-	-	-	0.5	-	-	-	0.1	-	-	<0.1	-	0.5
		Min-2w	-	-	-	0.5	-	-	-	0.1	-	-	<0.1	-	<0.1
	Chiang Mai (Mae Hia)	Mean	0.1	0.1	0.2	0.2	0.3	0.2	0.3	0.2	0.2	0.2	-	-	0.2
		%	97	100	97	97	97	97	97	90	97	19	0	0	74
		Max-10d	0.2	0.2	0.3	0.2	0.3	0.3	0.3	0.2	0.3	0.2	-	-	0.3
		Min-10d	0.1	<0.1	0.2	<0.1	0.2	0.1	0.2	<0.1	0.2	0.2	-	-	<0.1
	Sakaerat	Mean	1.4	0.5	0.5	0.5	0.5	0.3	0.3	0.1	0.3	0.2	-	-	0.5
		%	100	100	100	100	100	100	100	100	100	32	0	0	78
		Max-10d	3.5	0.6	0.8	0.6	0.9	0.4	0.4	0.3	0.4	0.2	-	-	3.5
		Min-10d	0.2	0.5	0.3	0.4	0.2	0.3	0.3	<0.1	0.2	0.2	-	-	<0.1
Vietnam	Hanoi	Mean	1.8	2.0	1.3	1.7	2.3	2.0	2.4	2.5	2.1	1.9	2.2	1.7	2.0
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	2.4	2.3	1.5	1.9	3.3	2.3	2.9	3.0	2.7	2.2	3.1	2.1	3.3
		Min-w	1.1	1.3	1.0	1.4	1.5	1.8	1.8	2.2	1.9	1.6	1.7	1.3	1.0
	Hoa Binh	Mean	2.8	1.3	1.5	1.6	1.7	1.5	2.4	1.7	1.5	1.8	1.9	2.1	1.8
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	5.3	1.7	1.7	1.8	1.8	1.7	3.4	2.0	1.6	2.1	2.1	2.5	5.3
		Min-w	1.4	1.0	1.0	1.5	1.5	1.4	1.8	1.6	1.3	1.6	1.8	1.6	1.0
	Can Tho	Mean	1.6	1.2	1.3	1.4	1.4	1.3	1.3	1.5	1.4	1.4	1.6	1.3	1.4
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	2.0	1.4	1.5	1.7	1.7	1.3	1.4	1.6	1.7	1.7	1.7	1.6	2.0
		Min-w	1.3	1.0	0.9	1.2	1.0	1.2	1.2	1.2	1.2	1.1	1.4	0.9	0.9
	Ho Chi Minh	Mean	0.9	1.1	1.0	1.2	1.3	1.0	1.2	1.3	1.1	1.2	1.2	1.1	1.1
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	1.2	1.3	1.1	1.4	1.6	1.4	1.4	1.3	1.3	1.3	1.3	1.4	1.6
		Min-w	0.7	0.9	0.8	0.9	1.1	0.8	1.1	1.2	0.8	1.0	1.0	1.0	0.7
	Yen Bai*1	Mean								2.7	3.1	1.9	3.0	2.0	2.4
		%								25	100	100	100	100	36
		Max-w								2.7	3.3	2.8	6.1	2.7	6.1
		Min-w								2.7	2.9	1.5	1.7	1.4	1.4

*1 Yen Bai started FP monitoring in August, 2015.
Terms and abbreviations are given in Table 4.2.

Table 4.6 NH_3

Unit : ppb			2015												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Cambodia	Phnom Penh	Mean	9.6	10.3	8.4	7.6	6.1	7.3	8.1	6.7	5.4	7.1	6.4	4.9	7.3
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	10.4	11.0	9.9	8.7	7.5	8.1	8.4	8.7	6.5	7.7	6.8	5.4	11.0
		Min-2w	8.9	9.6	6.8	6.5	5.3	6.4	7.9	4.8	4.4	6.5	6.0	4.3	4.3
Indonesia	Jakarta	Mean	-	-	-	-	-	-	-	-	21.9	8.1	15.3	13.5	13.7
		%	0	0	0	0	0	0	0	0	47	85	100	100	27
		Max-2w	-	-	-	-	-	-	-	-	21.9	14.3	15.8	14.0	21.9
		Min-2w	-	-	-	-	-	-	-	-	21.9	1.9	14.8	12.9	1.9
	Serpong	Mean	6.3	13.3	10.3	16.9	16.6	20.4	20.0	16.8	20.0	26.8	34.7	-	18.3
		%	100	100	100	100	100	100	100	100	100	100	82	0	90
		Max-2w	7.6	13.9	13.9	21.2	20.3	27.6	30.8	17.4	22.1	31.9	40.7	-	40.7
		Min-2w	4.9	12.8	6.7	11.8	13.0	13.1	9.3	16.1	17.9	21.8	28.7	-	4.9
	Bandung	Mean	7.1	9.0	7.6	8.3	12.4	10.7	11.6	12.1	8.5	10.0	8.5	7.0	9.4
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	8.3	9.5	8.9	8.4	12.6	11.2	11.7	12.7	9.3	10.6	9.2	7.1	12.7
		Min-2w	5.8	8.5	6.3	8.2	12.1	10.3	11.4	11.5	7.7	9.4	7.9	6.9	5.8
Japan	Rishiri	Mean	<0.1	<0.1	0.3	0.8	0.5	0.3	0.6	1.0	0.6	0.5	0.2	0.2	0.4
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	<0.1	<0.1	0.5	1.3	0.5	0.4	0.6	1.3	0.7	0.6	0.3	0.2	1.3
		Min-2w	<0.1	<0.1	0.1	0.3	0.5	0.3	0.5	0.7	0.5	0.3	0.1	0.2	<0.1
	Ochiishi	Mean	0.2	0.1	0.2	<0.1	0.6	0.4	0.4	0.3	0.4	0.6	0.3	0.2	0.3
		%	100	100	30	100	100	100	100	100	100	100	100	100	92
		Max-2w	0.2	0.1	0.2	0.1	0.6	0.5	0.5	0.4	0.5	0.6	0.5	0.2	0.6
		Min-2w	0.1	<0.1	0.2	<0.1	0.5	0.3	0.3	0.3	0.4	0.5	<0.1	0.2	<0.1
	Tappi	Mean	0.2	0.2	0.3	0.7	0.7	0.3	0.7	0.8	0.5	0.5	0.4	0.2	0.5
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.2	0.2	0.4	1.1	0.7	0.4	1.0	1.2	0.6	0.5	0.5	0.2	1.2
		Min-2w	0.2	0.1	0.1	0.4	0.6	0.2	0.4	0.5	0.4	0.4	0.2	0.2	0.1
	Sado-seki	Mean	0.1	0.2	0.7	1.6	1.4	1.2	1.8	0.8	0.5	0.6	0.3	0.1	0.8
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.2	0.2	1.0	2.4	1.5	1.6	2.0	1.1	0.5	0.6	0.4	0.2	2.4
		Min-2w	0.1	0.1	0.3	0.8	1.3	0.8	1.5	0.5	0.4	0.6	0.2	<0.1	<0.1
	Happo	Mean	0.1	0.2	0.5	0.7	1.0	0.7	0.6	0.4	0.2	0.4	0.2	0.1	0.4
		%	100	100	100	100	100	100	50	100	100	100	100	100	96
		Max-2w	0.2	0.2	0.8	1.1	1.1	0.9	0.6	0.7	0.3	0.4	0.2	0.1	1.1
		Min-2w	0.1	0.2	0.3	0.4	0.9	0.5	0.6	0.3	0.2	0.4	0.2	0.1	0.1
	Ijira	Mean	0.4	0.2	0.7	0.9	1.5	2.3	1.5	1.4	0.8	0.9	0.6	0.4	1.0
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.4	0.2	0.9	1.2	1.8	3.1	1.8	2.2	0.8	1.1	0.6	0.4	3.1
		Min-2w	0.3	0.2	0.5	0.5	1.2	1.5	1.3	0.9	0.8	0.8	0.6	0.4	0.2
	Oki	Mean	0.5	0.4	0.7	1.1	1.2	1.0	1.1	0.4	0.6	0.8	0.4	0.1	0.7
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.6	0.6	1.1	1.4	1.3	1.3	1.1	0.5	0.6	0.8	0.5	0.2	1.4
		Min-2w	0.4	<0.1	0.3	0.9	1.1	0.8	1.0	0.2	0.4	0.7	0.2	<0.1	<0.1
	Banryu	Mean	0.2	0.5	0.7	1.1	1.0	1.0	1.1	0.9	0.6	0.8	0.5	0.4	0.7
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.2	0.7	1.0	1.6	1.0	1.2	1.2	1.0	0.6	1.0	0.7	0.4	1.6
		Min-2w	0.2	0.2	0.5	0.7	1.0	0.8	1.1	0.9	0.6	0.7	0.3	0.3	0.2
	Yusuhara	Mean	0.2	0.2	0.4	1.0	0.7	0.6	0.4	0.7	0.5	0.7	0.2	0.2	0.5
		%	100	100	67	55	100	100	100	100	100	100	100	100	92
		Max-2w	0.2	0.3	0.5	1.0	0.8	0.7	0.5	1.0	0.5	0.8	0.3	0.2	1.0
		Min-2w	0.2	0.1	0.3	1.0	0.5	0.5	0.4	0.5	0.4	0.6	0.1	0.2	0.1
	Hedo	Mean	2.8	3.2	1.1	1.2	1.3	1.1	0.9	1.2	0.9	0.9	0.8	0.8	1.3
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	4.4	4.6	1.3	1.3	1.3	1.2	1.0	1.3	1.0	1.0	1.0	0.9	4.6
		Min-2w	1.1	1.8	1.0	1.2	1.3	1.1	0.8	1.1	0.7	0.8	0.5	0.7	0.5
	Ogasawara	Mean	0.3	0.3	0.7	0.7	0.8	0.6	0.5	0.7	0.5	0.5	0.4	0.4	0.5
		%	100	100	100	100	100	50	100	100	100	100	100	100	96
		Max-2w	0.3	0.4	0.9	0.9	1.1	0.6	0.6	0.9	0.5	0.5	0.4	0.5	1.1
		Min-2w	0.2	0.3	0.5	0.5	0.5	0.6	0.4	0.5	0.4	0.5	0.4	0.4	0.2
	Tokyo	Mean	2.7	2.4	3.0	4.0	5.3	4.9	5.3	5.3	4.1	4.4	4.1	4.6	4.2
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	2.8	2.7	3.6	5.0	5.3	5.1	5.5	6.8	4.2	4.7	4.6	4.9	6.8
		Min-2w	2.6	2.0	2.7	2.9	5.3	4.7	5.1	4.0	4.0	4.2	3.6	4.3	2.0
Lao PDR	Vientiane	Mean	2.7	3.5	3.6	3.4	2.9	2.8	2.4	2.4	2.0	1.5	1.7	2.7	2.6
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	2.7	3.5	3.6	3.4	2.9	2.8	2.4	2.4	2.0	1.5	1.7	2.7	3.6
		Min-2w	2.7	3.5	3.6	3.4	2.9	2.8	2.4	2.4	2.0	1.5	1.7	2.7	1.5
Malaysia	Petaling Jaya	Mean	8.1	8.4	10.3	9.3	9.4	6.8	10.4	-	-	10.7	8.7	9.7	9.2
		%	80	100	100	100	100	75	80	0	0	20	50	75	65
		Max-w	8.6	9.6	11.5	10.0	11.5	8.4	11.2	-	-	10.7	9.6	11.2	11.5
		Min-w	7.6	7.0	9.2	8.2	7.9	4.5	8.6	-	-	10.7	7.9	8.2	4.5
	Tanah Rata	Mean	1.8	2.2	1.9	2.4	1.2	1.6	2.8	3.1	4.9	8.7	1.9	2.2	3.0
		%	60	100	100	100	100	100	80	100	100	100	100	100	94
		Max-w	2.7	3.0	2.3	3.4	1.4	2.0	3.3	4.6	5.9	18.8	2.3	3.0	18.8
		Min-w	1.3	1.4	1.4	1.6	0.9	1.1	1.8	1.9	3.8	2.4	1.6	1.9	0.9
	Danum Valley	Mean	1.3	1.5	1.1	0.8	0.7	0.5	1.7	2.0	2.6	2.1	1.3	1.1	1.4
		%	100	50	100	50	100	100	100	100	100	100	100	67	88
		Max-2w	1.5	1.5	1.4	0.8	1.3	1.5	2.0	2.2	2.8	2.3	1.4	1.2	2.8
		Min-2w	1.1	1.5	0.8	0.8	<0.1	<0.1	1.4	1.8	2.4	1.8	1.2	1.0	<0.1

Table 4.6 NH_3 (continued)

Unit : ppb			2015												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Myanmar	Yangon	Mean	23.4	30.5	2.7	7.1	0.3	2.4	6.4	2.5	3.7	8.0	6.5	8.5	7.6
		%	100	50	50	100	100	100	100	100	100	100	100	100	92
		Max-2w	25.7	30.5	2.7	11.5	0.3	7.2	8.9	3.7	7.0	10.7	13.0	25.5	30.5
		Min-2w	21.2	30.5	2.7	2.7	0.3	<0.1	3.9	1.2	0.4	5.4	<0.1	<0.1	<0.1
Philippines	Mt. Sto. Tomas	Mean	0.3	0.5	2.5	2.6	2.1	1.6	1.1	1.9	1.7	6.7	1.9	1.8	1.9
		%	80	100	100	100	100	100	100	100	100	41	50	100	89
		Max-w	1.1	1.8	3.2	4.5	3.5	2.4	2.2	4.1	2.8	11.1	2.2	2.6	11.1
		Min-w	<0.1	<0.1	1.3	1.1	<0.1	0.7	<0.1	<0.1	1.0	2.2	1.7	0.4	<0.1
Republic of Korea	Kanghwa	Mean	1.2	0.5	1.2	5.2	5.7	8.3	6.0	6.0	3.9	10.0	3.5	0.9	4.3
		%	16	18	16	17	13	17	16	16	17	16	13	19	16
		Max-d	2.7	0.8	2.3	6.9	8.0	9.2	7.3	9.4	4.8	10.8	10.3	1.3	10.8
		Min-d	<0.1	<0.1	<0.1	4.4	3.1	7.2	4.9	3.7	3.1	9.5	0.8	0.3	<0.1
	Cheju (Kosan)	Mean	5.5	5.7	5.1	6.5	7.3	8.0	9.7	10.3	11.2	7.3	7.5	6.4	7.5
		%	16	4	16	17	10	17	10	16	10	16	17	13	13
		Max-d	9.9	5.7	6.9	10.1	8.1	8.7	11.9	12.5	12.5	9.7	10.0	8.9	12.5
		Min-d	2.9	5.7	3.6	4.8	6.9	6.7	8.0	8.5	8.5	5.5	4.2	4.5	2.9
	Imsil	Mean	4.0	3.2	5.3	6.9	7.0	9.1	7.5	7.6	7.6	3.6	2.5	3.2	5.6
		%	16	18	16	17	16	17	16	16	17	16	17	19	17
		Max-d	5.1	3.4	7.9	8.9	8.9	13.7	9.3	9.8	9.8	4.4	3.1	4.1	13.7
		Min-d	2.8	2.9	3.4	4.9	5.5	7.3	5.6	5.3	5.3	2.6	1.8	2.5	1.8
Russia	Mondy	Mean	0.7	1.2	0.7	0.5	1.1	1.0	0.9	0.3	0.5	0.7	0.7	0.3	0.8
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-m	1.2	1.6	0.7	1.0	1.1	1.3	1.6	0.3	0.5	0.7	1.2	0.3	1.6
		Min-m	0.3	0.8	0.7	<0.1	1.1	0.6	0.1	0.3	0.5	0.7	0.2	0.3	<0.1
	Listvyanka	Mean	4.3	2.2	2.6	3.7	5.0	3.8	2.7	4.1	1.9	1.4	0.8	0.7	2.8
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	8.8	3.3	4.1	5.3	7.4	4.5	3.5	5.2	2.9	1.7	1.2	1.2	8.8
		Min-w	1.8	0.9	1.1	1.8	3.7	2.8	1.2	2.3	1.1	1.0	0.4	0.2	0.2
	Irkutsk	Mean	1.8	2.0	3.9	5.2	1.3	1.2	2.2	3.7	3.1	4.2	2.8	1.1	2.8
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	2.3	3.2	4.6	7.3	1.6	1.9	2.6	5.6	5.4	6.7	6.1	2.1	7.3
		Min-w	1.5	1.3	3.4	3.4	1.0	0.7	1.9	1.5	1.6	1.0	0.4	0.6	0.4
	Primorskaya	Mean	0.2	0.3	0.8	1.6	2.1	2.0	1.8	1.7	1.9	1.7	1.3	1.2	1.4
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.2	0.4	1.3	2.0	2.5	2.4	1.9	1.8	2.2	2.0	1.9	1.8	2.5
		Min-2w	0.1	0.2	0.3	1.2	1.6	1.6	1.7	1.6	1.6	1.5	0.6	0.6	0.1
Thailand	Bangkok	Mean	13.4	9.3	10.1	12.0	11.8	5.0	9.4	7.3	10.7	4.8	11.2	5.5	9.2
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-10d	15.2	11.4	12.2	13.7	28.3	5.7	11.8	8.8	14.7	13.2	15.9	13.0	28.3
		Min-10d	12.0	6.9	8.5	11.0	2.7	3.6	6.9	6.2	8.4	0.2	2.6	0.5	0.2
	Khanchanaburi (Vachiralongkorn Dam)	Mean	-	-	-	4.8	-	-	-	2.1	-	-	2.2	-	3.0
		%	0	0	0	67	0	0	0	63	0	0	47	0	16
		Max-2w	-	-	-	4.8	-	-	-	2.1	-	-	2.2	-	4.8
		Min-2w	-	-	-	4.8	-	-	-	2.1	-	-	2.2	-	2.1
	Chiang Mai (Mae Hia)	Mean	0.5	0.7	1.5	0.8	0.8	0.9	0.9	1.1	1.0	1.3	-	-	0.9
		%	97	100	97	97	97	97	97	90	97	19	0	0	74
		Max-10d	0.6	1.0	1.8	1.0	0.9	1.0	0.9	1.2	1.5	1.3	-	-	1.8
		Min-10d	0.3	0.5	1.4	0.8	0.7	0.7	0.8	1.0	0.7	1.3	-	-	0.3
	Sakaerat	Mean	3.4	3.8	5.0	4.3	3.9	3.5	3.9	2.9	3.9	4.6	-	-	3.9
		%	100	100	100	100	100	100	100	100	100	32	0	0	78
		Max-10d	4.0	4.1	5.5	4.7	4.8	4.2	4.6	3.5	4.7	4.6	-	-	5.5
		Min-10d	2.9	3.6	4.7	3.3	3.3	2.8	2.5	2.5	3.4	4.6	-	-	2.5
Vietnam	Hanoi	Mean	1.7	3.3	1.5	1.4	1.9	3.0	3.0	2.9	3.2	3.3	3.3	3.2	2.6
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	1.9	7.3	1.6	1.4	3.4	3.4	3.1	3.1	3.4	3.6	3.4	3.6	7.3
		Min-w	1.5	1.8	1.4	1.3	1.4	2.5	2.9	2.9	3.1	3.1	3.1	3.0	1.3
	Hoa Binh	Mean	1.5	1.4	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.3	1.2
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	1.6	1.6	1.4	1.2	1.2	1.2	1.3	1.2	1.2	1.3	1.3	1.4	1.6
		Min-w	1.2	1.1	1.1	1.1	1.1	1.1	1.2	1.1	1.2	1.2	1.2	1.2	1.1
	Can Tho	Mean	2.6	3.3	3.2	2.7	2.5	2.2	2.2	2.0	2.4	2.1	2.9	2.0	2.5
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	3.3	3.6	3.5	3.1	2.8	3.0	2.5	2.9	2.8	2.8	3.4	2.8	3.6
		Min-w	2.1	2.8	2.9	2.3	2.3	1.8	1.9	1.5	1.9	1.5	2.2	1.6	1.5
	Ho Chi Minh	Mean	3.1	3.4	3.7	3.4	3.5	3.0	2.4	2.5	2.1	2.4	2.2	2.0	2.8
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	3.3	3.9	4.1	4.1	4.2	3.5	3.1	2.9	2.4	2.8	2.5	2.4	4.2
		Min-w	2.9	2.9	3.3	2.9	2.5	2.4	2.2	1.8	1.8	2.2	1.8	1.4	1.4
	Yen Bai*1	Mean								1.8	2.3	2.9	2.5	4.0	2.9
		%								25	100	100	100	100	36
		Max-w								1.8	3.3	3.4	2.9	7.1	7.1
		Min-w								1.8	1.9	2.0	2.1	2.3	1.8

*1 Yen Bai started FP monitoring in August, 2015.

Terms and abbreviations are given in Table 4.2.

Table 4.7 NO

Unit : ppb			2015												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
China	Jinyunshan	Mean	2.6	1.2	1.5	0.9	0.9	1.2	0.9	1.3	1.3	1.2	1.8	3.0	1.5
		%	100	100	100	100	100	100	100	100	100	100	100	90	99
		Max-d	8.0	3.2	2.4	1.6	1.6	1.6	1.6	2.4	3.2	3.2	5.6	8.0	8.0
		Min-d	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Japan	Rishiri	Mean	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
		%	98	98	91	97	98	98	97	98	87	94	98	97	96
		Max-d	<0.1	0.3	0.1	0.2	0.1	<0.1	0.1	<0.1	0.6	<0.1	0.1	0.1	0.6
		Min-d	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Ochiishi	Mean	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	0.2	0.1	0.1	<0.1	<0.1	<0.1	<0.1
		%	96	96	95	95	86	96	93	96	95	95	79	95	93
		Max-d	<0.1	<0.1	0.2	0.2	0.2	0.4	0.5	0.4	0.6	0.4	0.1	<0.1	0.6
		Min-d	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Tappi	Mean	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
		%	98	98	98	98	98	97	97	97	98	98	90	98	97
		Max-d	<0.1	<0.1	<0.1	<0.1	0.1	0.1	0.7	0.5	0.2	<0.1	<0.1	0.2	0.7
		Min-d	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Sado-seki	Mean	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
		%	95	97	82	98	98	97	93	79	98	97	97	97	94
		Max-d	<0.1	0.1	0.3	0.2	0.2	0.2	0.1	0.4	<0.1	0.2	0.1	<0.1	0.4
		Min-d	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Happo	Mean	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
		%	98	98	98	98	97	97	97	98	92	93	97	98	97
		Max-d	0.2	0.1	0.3	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	0.2	0.2	0.2	0.3
		Min-d	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Ijira	Mean	<0.1	<0.1	0.2	0.3	0.8	0.7	1.5	1.0	0.3	<0.1	0.2	0.2	0.5
		%	98	99	98	98	98	98	98	98	98	98	77	99	97
		Max-d	0.4	0.3	0.6	1.3	1.7	1.9	4.1	3.3	1.7	0.4	1.0	1.0	4.1
		Min-d	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Oki	Mean	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	0.1	0.1	0.2	<0.1	<0.1	<0.1	<0.1
		%	98	98	97	98	98	97	73	96	96	93	98	98	95
		Max-d	0.2	0.1	<0.1	<0.1	0.1	0.3	0.3	0.3	0.3	0.3	0.2	0.3	0.3
		Min-d	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Banryu	Mean	0.2	0.3	0.2	0.1	0.2	0.1	0.2	0.1	0.1	0.1	0.3	0.3	0.2
		%	98	98	98	98	98	71	98	97	99	97	97	61	93
		Max-d	0.4	0.5	0.6	0.3	0.3	0.3	0.8	0.4	0.4	0.2	0.5	0.4	0.8
		Min-d	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.2	<0.1
	Yusuhara	Mean	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
		%	98	97	95	98	94	97	98	97	85	98	97	98	96
		Max-d	0.2	0.2	<0.1	<0.1	<0.1	<0.1	0.2	0.1	0.1	0.1	0.2	<0.1	0.2
		Min-d	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Hedo	Mean	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
		%	98	77	96	95	96	95	95	96	78	97	97	98	93
		Max-d	<0.1	0.3	0.4	<0.1	<0.1	0.8	0.3	0.2	0.2	0.1	<0.1	<0.1	0.8
		Min-d	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Ogasawara	Mean	0.1	0.2	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
		%	97	89	98	98	98	98	97	96	80	93	98	98	95
		Max-d	0.3	0.6	0.3	0.2	0.3	1.0	0.3	0.3	0.4	0.2	0.2	0.3	1.0
		Min-d	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Mongolia	Ulaanbaatar	Mean	57.0	46.8	35.4	20.4	13.8	9.5	8.7	11.7	19.8	32.6	31.6	41.6	27.8
		%	97	100	99	100	100	100	92	66	99	99	100	100	96
		Max-d	107.9	95.2	73.7	44.0	22.7	21.9	17.5	20.9	35.1	67.8	68.1	134.5	134.5
		Min-d	23.7	8.3	17.8	10.6	8.4	2.6	3.2	4.1	9.1	9.4	14.7	17.3	2.6
Philippines	Metro Manila*1	Mean							15.8	15.3	15.6	19.2	18.3	19.9	17.6
		%							48	23	80	58	93	68	31
		Max-d							48.1	38.2	27.5	34.9	50.2	39.7	50.2
		Min-d							4.6	7.5	8.3	7.4	6.6	7.0	4.6
Thailand	Bangkok	Mean	-	-	-	4.6	2.7	3.9	3.2	6.4	7.8	10.4	11.1	5.4	6.2
		%	0	0	0	66	96	96	96	95	94	94	95	95	69
		Max-d	-	-	-	16.5	8.0	8.2	8.6	13.8	25.0	51.8	25.6	14.1	51.8
		Min-d	-	-	-	1.0	1.3	1.5	1.3	3.2	3.0	1.3	1.9	1.3	1.0
	Samutprakarn	Mean	9.2	11.8	1.7	3.7	4.6	5.5	13.0	18.8	12.3	11.8	10.3	10.7	9.5
		%	95	96	96	96	78	96	95	96	95	96	96	96	94
		Max-d	43.6	48.6	8.3	19.0	11.9	17.0	22.7	29.4	21.7	45.9	19.9	31.2	48.6
		Min-d	0.7	1.5	0.1	0.3	0.9	0.8	2.3	12.8	3.3	2.6	2.4	3.1	0.1
	Khanchanaburi	Mean	-	-	-	1.3	-	-	1.1	1.1	-	-	0.4	-	1.0
	(Vachiralongkorn Dam)	%	0	0	0	62	0	0	31	49	0	0	44	0	15
		Max-d	-	-	-	1.5	-	-	1.3	1.4	-	-	0.7	-	1.5
		Min-d	-	-	-	1.1	-	-	0.9	1.0	-	-	<0.1	-	<0.1
	Chiang Mai	Mean	4.4	3.9	3.2	1.1	1.1	1.9	3.5	3.8	5.3	4.8	4.4	4.6	3.5
	(Mae Hia)	%	95	95	95	90	92	94	96	96	96	96	93	73	93
		Max-d	8.7	9.0	10.2	3.2	2.4	4.3	7.3	7.2	9.7	10.0	6.9	8.0	10.2
		Min-d	0.6	0.7	0.4	<0.1	<0.1	0.4	1.9	1.9	2.7	2.6	2.3	2.3	<0.1
	Nai Mueang	Mean	22.8	11.9	5.4	8.1	5.6	7.8	6.4	13.6	14.5	14.1	13.4	15.3	11.3
		%	69	95	71	64	96	76	74	65	71	11	96	96	73
		Max-d	61.8	23.0	18.0	17.3	10.3	17.7	21.4	21.1	22.1	20.6	27.9	38.3	61.8
		Min-d	6.1	2.1	1.3	1.9	0.7	<0.1	<0.1	2.4	3.3	6.4	5.9	5.0	<0.1

*1 Metro Manila started automatic monitoring in July, 2015.

Terms and abbreviations are given in Table 4.2.

Table 4.8 NO_2

Unit : ppb			2015												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
China	Hongwen	Mean	21.9	15.2	15.7	14.3	16.0	11.8	11.9	13.8	11.9	12.0	14.4	18.5	14.8
		%	100	100	97	97	94	100	100	100	100	100	100	100	99
		Max-d	58.6	33.5	26.7	24.1	25.1	24.6	24.1	22.0	17.8	17.3	20.9	33.0	58.6
		Min-d	10.5	7.3	9.9	7.3	8.9	7.3	4.2	7.9	8.4	8.4	9.9	11.0	4.2
	Xiang Zhou	Mean	25.6	17.1	19.2	12.6	12.1	6.0	8.2	12.1	12.1	19.3	18.4	24.3	15.6
		%	97	89	100	100	97	100	97	97	97	100	97	100	98
		Max-d	45.0	30.4	27.7	19.9	36.6	8.9	16.2	17.3	18.8	31.9	38.2	42.4	45.0
		Min-d	9.9	6.3	8.4	4.7	1.6	3.1	2.6	7.3	8.4	2.1	7.9	11.5	1.6
Indonesia	Jakarta	Mean	18.6	21.3	21.6	21.3	25.2	34.6	19.2	30.6	22.9	30.1	33.9	-	25.7
		%	100	100	83	57	100	100	87	85	64	100	81	0	80
		Max-w	29.7	26.6	24.8	27.8	42.1	58.4	22.7	42.0	24.7	59.7	43.8	-	59.7
		Min-w	11.2	17.7	18.7	13.2	16.3	16.9	13.2	20.5	21.9	19.1	28.2	-	11.2
	Kototabang	Mean	0.8	2.2	1.6	0.4	0.6	1.2	1.3	-	1.5	1.4	-	-	1.2
		%	100	100	71	75	100	61	100	0	90	100	0	0	65
		Max-w	1.1	3.9	3.7	0.7	1.1	1.6	1.5	-	2.9	1.7	-	-	3.9
		Min-w	0.5	1.5	0.5	<0.1	0.1	0.9	1.0	-	0.7	0.8	-	-	<0.1
	Bandung	Mean	37.9	50.0	47.8	54.2	62.0	53.6	50.9	50.0	48.6	62.1	80.4	55.2	54.4
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-m	37.9	50.0	47.8	54.2	62.0	53.6	50.9	50.0	48.6	62.1	80.4	55.2	80.4
		Min-m	37.9	50.0	47.8	54.2	62.0	53.6	50.9	50.0	48.6	62.1	80.4	55.2	37.9
Japan	Banryu	Mean	2.2	2.3	2.3	1.4	1.3	1.0	1.1	1.0	1.1	1.5	1.6	2.3	1.6
		%	98	98	98	98	98	71	98	97	99	97	97	61	93
		Max-d	4.0	4.5	3.9	2.9	2.3	2.6	2.4	1.8	2.0	2.1	3.3	3.8	4.5
		Min-d	0.8	0.4	1.1	0.5	0.4	0.2	0.2	0.4	<0.1	0.7	0.8	1.2	<0.1
Mongolia	Ulaanbaatar	Mean	35.8	30.6	31.6	33.9	29.0	22.1	24.4	26.3	29.9	35.1	28.1	35.2	30.3
		%	97	100	99	100	100	100	92	66	99	99	100	100	96
		Max-d	53.9	40.1	41.0	43.4	36.4	28.7	32.3	33.4	38.0	44.1	45.6	64.7	64.7
		Min-d	21.7	13.8	24.7	22.7	21.7	15.6	15.2	19.4	22.3	24.3	18.3	24.2	13.8
Philippines	Metro Manila[*1]	Mean							16.8	15.5	19.3	16.9	11.8	14.2	15.5
		%							48	23	80	58	93	68	31
		Max-d							26.3	19.4	27.3	26.2	21.9	31.7	31.7
		Min-d							5.6	6.8	12.8	9.6	6.8	9.8	5.6
Republic of Korea	Kanghwa	Mean	6.2	6.2	13.7	14.4	5.6	4.8	4.4	3.6	5.1	5.6	8.2	11.6	7.4
		%	98	95	92	97	96	93	96	97	99	97	96	97	96
		Max-d	22.8	33.9	46.5	29.7	13.7	7.8	10.2	6.9	12.2	13.7	33.0	37.0	46.5
		Min-d	1.7	1.4	4.6	5.7	2.5	2.3	2.0	1.8	2.3	2.3	2.5	1.9	1.4
	Cheju (Kosan)	Mean	3.8	3.1	4.9	4.2	4.0	2.9	3.1	2.5	3.7	4.0	3.7	3.6	3.7
		%	99	99	99	99	99	99	69	42	99	96	92	99	91
		Max-d	9.6	5.3	10.0	6.3	7.8	5.4	6.9	4.4	6.3	6.9	6.2	6.2	10.0
		Min-d	1.3	1.3	1.1	2.2	1.6	1.6	0.9	0.8	1.6	2.4	1.8	1.7	0.8
	Imsil	Mean	5.9	4.0	5.2	5.4	4.8	3.7	2.0	2.6	2.7	4.5	4.7	6.8	4.4
		%	98	98	94	87	98	98	95	92	98	96	96	94	95
		Max-d	22.1	9.6	10.9	8.9	7.2	5.2	4.1	3.9	3.7	8.9	11.2	13.2	22.1
		Min-d	1.8	1.7	1.5	3.3	3.5	2.3	0.6	1.3	1.1	1.9	1.4	2.6	0.6
Thailand	Bangkok	Mean	-	-	-	12.3	10.3	10.0	8.0	11.3	13.3	20.5	22.5	21.0	14.4
		%	0	0	0	66	96	96	96	95	94	94	95	95	69
		Max-d	-	-	-	25.6	17.4	18.4	10.7	19.1	25.2	35.3	33.5	37.4	37.4
		Min-d	-	-	-	5.4	5.6	6.5	5.5	7.5	5.2	12.6	12.0	12.1	5.2
	Samutprakarn	Mean	18.3	10.1	5.5	10.2	5.7	4.5	4.8	6.9	8.8	13.9	17.4	18.5	10.5
		%	95	96	96	96	78	96	95	96	95	96	96	96	94
		Max-d	43.3	30.3	19.0	22.0	9.5	8.5	8.3	10.3	19.7	23.6	26.8	37.9	43.3
		Min-d	6.5	1.0	0.7	3.3	2.1	0.1	1.4	3.6	3.7	5.9	8.7	7.5	0.1
	Nai Mueang	Mean	27.0	17.5	7.2	6.0	15.9	17.3	11.1	16.0	16.7	7.9	10.2	20.1	15.0
		%	69	95	71	64	96	76	74	65	71	11	96	96	73
		Max-d	49.3	31.4	15.8	31.3	21.5	24.2	23.7	20.3	23.9	9.8	17.9	38.5	49.3
		Min-d	7.1	8.9	2.4	<0.1	8.7	2.3	<0.1	5.9	<0.1	5.9	3.8	7.1	<0.1

*1 Metro Manila started automatic monitoring in July, 2015.

Terms and abbreviations are given in Table 4.2.

Table 4.9 NOx

Unit : ppb			2015												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
China	Jinyunshan	Mean	17.7	11.9	10.8	7.8	7.8	5.7	7.6	5.9	6.2	8.8	11.7	14.0	9.6
	(NOx*)	%	100	100	100	100	100	100	100	100	93	97	100	84	98
		Max-d	32.1	20.5	19.7	11.8	12.1	8.9	15.5	10.7	18.1	18.6	17.9	24.2	32.1
		Min-d	7.1	6.0	7.1	3.4	3.9	2.9	2.9	2.6	1.8	3.9	7.6	5.0	1.8
Japan	Rishiri	Mean	0.5	0.6	0.7	0.6	0.7	0.5	0.3	0.4	0.5	0.5	0.4	0.7	0.5
	(NOx*)	%	98	98	91	97	98	98	97	98	87	94	98	97	96
		Max-d	1.4	1.3	1.8	1.2	1.4	1.1	1.5	0.6	1.2	1.1	1.5	2.2	2.2
		Min-d	0.1	0.2	0.2	0.1	0.3	<0.1	<0.1	0.1	0.1	0.1	<0.1	0.3	<0.1
	Ochiishi	Mean	0.6	0.7	1.2	1.1	1.2	0.8	1.2	0.9	0.9	0.9	0.6	0.8	0.9
	(NOx*)	%	96	96	95	95	86	96	93	96	95	95	79	95	93
		Max-d	1.3	1.4	3.0	2.2	2.4	1.8	2.5	1.6	3.2	1.5	1.6	1.9	3.2
		Min-d	0.2	0.3	0.4	0.5	0.5	0.2	0.4	0.4	0.2	0.3	0.3	0.5	0.2
	Tappi	Mean	0.9	1.1	1.4	1.7	2.3	2.0	2.4	1.4	0.9	1.2	1.1	0.8	1.4
	(NOx*)	%	98	98	98	98	98	97	97	97	98	98	90	98	97
		Max-d	2.4	2.1	2.8	3.0	5.6	5.2	7.2	3.9	1.5	2.0	2.7	1.5	7.2
		Min-d	0.5	0.4	0.4	0.8	0.9	0.6	1.2	<0.1	0.3	0.5	0.2	0.4	<0.1
	Sado-seki	Mean	0.6	0.6	1.2	1.0	0.9	0.7	0.5	0.4	0.4	0.6	0.7	0.7	0.7
	(NOx*)	%	95	97	82	98	98	97	95	79	98	97	97	97	94
		Max-d	1.8	1.4	3.2	1.9	1.6	1.8	1.1	1.0	1.4	1.2	1.2	1.3	3.2
		Min-d	<0.1	<0.1	0.5	0.2	0.3	0.1	<0.1	<0.1	<0.1	0.2	0.2	0.2	<0.1
	Happo	Mean	1.0	1.1	1.0	1.2	1.3	1.1	0.8	0.9	0.6	0.6	0.7	0.7	0.9
	(NOx*)	%	98	98	98	98	97	97	97	98	92	93	97	98	97
		Max-d	1.5	2.1	2.2	2.5	2.8	2.4	1.5	1.6	1.2	1.2	1.2	1.3	2.8
		Min-d	0.5	0.5	<0.1	0.4	0.5	0.2	0.2	0.3	0.4	<0.1	0.2	0.2	<0.1
	Ijira	Mean	1.0	1.2	2.0	2.6	3.6	3.3	4.0	4.2	1.9	1.6	1.6	1.4	2.4
	(NOx*)	%	98	99	98	98	98	98	98	98	98	98	77	99	97
		Max-d	2.9	4.5	5.3	7.0	8.4	6.9	7.4	7.5	4.5	5.0	4.3	3.4	8.4
		Min-d	0.2	<0.1	<0.1	0.2	0.7	0.5	1.8	1.4	0.4	<0.1	0.3	0.2	<0.1
	Oki	Mean	1.4	1.5	1.7	1.1	1.3	1.1	0.7	0.7	0.7	1.1	1.0	1.1	1.1
	(NOx*)	%	98	98	97	98	98	97	73	96	96	93	98	98	95
		Max-d	2.6	4.8	4.1	2.0	2.2	1.8	1.1	1.6	1.3	2.1	1.5	2.4	4.8
		Min-d	0.3	0.2	0.6	0.3	0.5	0.4	0.3	0.1	0.4	0.5	0.2	0.2	0.1
	Banryu	Mean	2.4	2.6	2.5	1.5	1.5	1.1	1.3	1.1	1.2	1.6	1.9	2.6	1.8
		%	98	98	98	98	98	71	98	97	99	97	97	61	93
		Max-d	4.4	5.0	4.5	3.1	2.6	2.9	3.2	2.1	2.3	2.3	3.7	4.2	5.0
		Min-d	1.0	0.6	1.1	0.4	0.7	0.3	0.2	0.4	0.1	0.8	0.8	1.4	0.1
	Yusuhara	Mean	2.1	2.1	1.9	1.4	0.9	0.9	0.5	0.8	0.9	1.4	1.2	1.8	1.3
	(NOx*)	%	98	97	95	98	94	97	98	97	85	98	97	98	96
		Max-d	4.0	3.7	5.1	3.1	2.0	2.1	1.4	2.0	3.4	3.5	2.0	3.3	5.1
		Min-d	0.9	0.5	0.5	0.4	0.3	0.3	0.1	0.1	0.3	0.6	0.1	0.8	0.1
	Hedo	Mean	1.3	1.3	0.6	0.7	0.5	1.2	0.4	0.5	0.4	0.4	0.6	0.7	0.7
	(NOx*)	%	98	77	96	95	96	94	95	96	78	97	97	98	93
		Max-d	2.8	3.6	1.1	1.8	1.0	3.7	1.3	1.2	0.7	0.7	1.3	1.4	3.7
		Min-d	0.6	0.1	0.2	0.2	0.2	0.2	<0.1	0.2	<0.1	<0.1	0.2	0.3	<0.1
	Ogasawara	Mean	0.7	0.7	0.8	0.3	0.2	0.3	<0.1	0.3	0.2	0.2	0.3	0.5	0.4
	(NOx*)	%	97	89	98	98	98	98	97	96	80	93	98	98	95
		Max-d	1.8	2.7	2.9	1.8	1.1	1.8	0.8	1.9	1.9	0.9	2.6	2.1	2.9
		Min-d	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Mongolia	Ulaanbaatar	Mean	92.8	77.3	67.1	54.3	42.8	31.6	33.1	38.0	49.7	67.7	59.7	76.8	58.2
		%	97	100	99	100	100	100	92	66	99	99	100	100	96
		Max-d	158.0	135.3	102.2	87.4	56.0	46.4	46.0	50.8	72.1	109.4	113.7	199.2	199.2
		Min-d	49.4	22.1	43.6	38.5	32.2	19.4	18.4	24.1	34.8	35.6	33.0	44.4	18.4
Philippines	Metro Manila[*1]	Mean							32.6	31.0	34.9	36.1	30.1	34.2	33.2
		%							48	23	80	58	93	68	31
		Max-d							62.9	54.2	48.3	49.8	72.1	71.6	72.1
		Min-d							10.2	18.3	21.1	20.9	17.4	16.8	10.2
Thailand	Bangkok	Mean	-	-	-	17.0	13.1	13.9	11.1	17.7	21.1	31.0	33.5	26.3	20.6
		%	0	0	0	66	96	96	96	95	94	94	95	95	69
		Max-d	-	-	-	36.3	25.2	25.6	18.8	30.7	42.2	87.1	55.1	51.4	87.1
		Min-d	-	-	-	6.5	7.0	8.1	7.0	11.0	8.9	15.5	13.9	13.9	6.5
	Samutprakarn	Mean	27.4	22.0	7.2	13.9	10.3	10.0	17.8	25.7	21.1	25.6	27.7	29.2	20.0
		%	95	96	96	96	78	96	95	96	95	96	96	96	94
		Max-d	86.9	79.0	24.9	38.3	19.7	23.8	29.3	38.9	34.1	68.7	45.8	69.0	86.9
		Min-d	11.7	3.3	1.7	4.0	4.8	1.7	5.4	16.9	7.6	13.3	13.2	10.7	1.7
	Khanchanaburi	Mean	-	-	-	5.1	-	-	1.8	2.1	-	-	2.1	-	3.0
	(Vachiralongkorn Dam)	%	0	0	0	62	0	0	31	49	0	0	44	0	15
	(NOx*)	Max-d	-	-	-	8.0	-	-	2.2	3.2	-	-	2.9	-	8.0
		Min-d	-	-	-	3.1	-	-	1.3	1.2	-	-	1.6	-	1.2
	Chiang Mai (NOx*)	Mean	17.3	19.8	24.4	13.5	9.6	9.3	8.9	10.3	12.3	11.4	12.5	15.3	13.7
	(Mae Hia)	%	95	95	95	90	92	94	96	96	96	96	93	73	93
		Max-d	26.5	32.0	45.9	22.7	15.3	12.7	13.3	15.3	17.7	16.1	19.0	21.2	45.9
		Min-d	8.2	8.4	9.2	6.9	5.2	6.1	5.9	5.4	8.2	6.7	7.5	7.3	5.2
	Nai Mueang	Mean	49.8	29.2	12.4	12.2	21.4	25.0	17.5	29.6	31.1	21.8	23.4	35.3	26.2
		%	69	95	71	64	96	76	74	65	71	11	96	96	73
		Max-d	109.2	44.4	34.0	41.0	29.3	41.0	45.0	39.2	41.3	30.1	40.8	76.8	109.2
		Min-d	13.1	10.9	3.5	0.4	13.6	8.4	<0.1	8.3	0.7	12.2	9.5	12.0	<0.1

*1 Metro Manila started automatic monitoring in July, 2015.
NOx* : NOx measured by CLD in remote or rural sites
Terms and abbreviations are given in Table 4.2.

Table 4.10 O_3

Unit : ppb			2015												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Indonesia	Bandung[*1]	Mean	6	9	16	28	38	27	19	27	24	23	16	18	21
		%	100	100	71	100	98	98	88	94	93	100	94	94	94
		Max-d	14	19	43	55	88	52	29	59	42	33	26	55	88
		Min-d	1	1	2	12	17	12	10	13	<1	12	9	7	<1
Japan	Rishiri	Mean	40	43	51	53	47	33	27	24	30	44	45	44	40
		%	100	99	93	99	100	99	99	99	88	98	100	99	98
		Max-d	48	48	71	77	69	52	44	36	40	67	65	55	77
		Min-d	36	37	44	41	31	17	17	14	20	28	37	36	14
	Ochiishi	Mean	39	43	51	53	48	38	31	31	37	40	38	36	40
		%	100	100	99	99	94	100	98	100	99	100	83	99	98
		Max-d	44	50	76	71	69	55	49	49	50	55	45	43	76
		Min-d	34	35	43	44	32	26	20	24	28	27	34	30	20
	Tappi	Mean	36	37	46	46	45	32	28	27	39	41	39	39	38
		%	99	99	99	99	99	96	99	97	99	99	91	99	98
		Max-d	44	45	66	79	75	59	43	48	51	52	50	43	79
		Min-d	27	26	29	32	29	16	16	14	26	31	32	34	14
	Sado-seki	Mean	40	44	52	57	64	47	36	38	41	43	41	39	45
		%	97	99	98	99	99	99	99	89	99	99	99	99	98
		Max-d	46	51	73	92	88	77	55	49	55	55	52	43	92
		Min-d	36	37	43	42	46	28	21	28	31	37	35	35	21
	Hapo	Mean	42	48	53	60	68	56	35	40	43	49	41	43	48
		%	99	99	99	99	99	99	99	99	93	93	99	99	98
		Max-d	52	56	68	78	81	76	56	53	57	62	48	50	81
		Min-d	25	37	45	44	56	35	17	29	25	41	31	35	17
	Ijira	Mean	27	31	36	28	31	28	16	23	23	29	18	22	26
		%	99	100	99	99	99	99	99	99	99	99	85	100	98
		Max-d	35	42	46	43	59	44	30	38	32	38	30	33	59
		Min-d	17	16	22	11	11	16	5	8	7	17	5	11	5
	Oki	Mean	41	46	54	59	65	50	34	39	42	48	-	40	47
		%	100	100	99	100	100	99	100	99	99	85	0	65	87
		Max-d	48	58	73	88	87	89	58	50	53	63	-	46	89
		Min-d	37	40	43	43	46	33	22	26	32	37	-	34	22
	Banryu	Mean	33	38	41	46	48	37	21	25	27	32	25	26	33
		%	99	100	100	100	100	100	100	99	97	99	99	89	98
		Max-d	43	51	56	66	68	62	39	36	44	44	36	39	68
		Min-d	21	27	21	28	29	22	8	11	18	21	15	13	8
	Yusuhara	Mean	38	44	46	46	54	44	24	33	37	47	33	37	40
		%	99	99	99	99	95	99	99	99	87	99	99	99	98
		Max-d	47	56	77	81	87	77	51	55	59	60	45	49	87
		Min-d	32	38	32	25	32	32	7	11	19	36	22	31	7
	Hedo	Mean	50	53	46	41	37	16	17	22	37	51	46	48	39
		%	99	77	98	97	98	96	97	98	79	99	99	99	95
		Max-d	62	75	71	72	62	50	27	69	67	68	59	55	75
		Min-d	44	32	33	8	13	8	10	9	11	14	23	38	8
	Ogasawara	Mean	42	43	44	31	29	-	-	-	13	27	32	36	35
		%	98	91	99	99	6	0	0	0	54	94	98	99	61
		Max-d	48	54	55	55	34	-	-	-	26	52	42	47	55
		Min-d	35	28	27	20	25	-	-	-	4	5	19	23	4
Mongolia	Ulaanbaatar	Mean	3	8	8	13	16	18	21	21	16	9	6	-	13
		%	58	63	100	100	100	100	81	40	42	30	40	0	63
		Max-d	13	18	15	19	22	28	47	34	25	15	12	-	47
		Min-d	<1	2	4	5	10	10	7	13	7	2	1	-	<1

Table 4.10 O_3 (continued)

Unit : ppb			2015												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Philippines	Metro Manila*2	Mean							9	9	-	12	6	7	7
		%							48	23	0	19	93	100	24
		Max-d							16	15	-	16	13	19	19
		Min-d							<1	2	-	6	<1	<1	<1
Republic of Korea	Kanghwa	Mean	33	42	50	58	60	69	44	47	51	46	36	29	47
		%	98	98	99	98	98	93	97	98	99	97	96	97	97
		Max-d	41	49	66	82	91	98	71	74	77	66	61	39	98
		Min-d	15	33	42	37	42	38	18	23	36	31	15	11	11
	Cheju (Kosan)	Mean	40	50	57	63	51	50	39	36	44	48	35	28	46
		%	99	99	99	99	99	99	69	42	99	96	92	99	91
		Max-d	52	68	82	104	66	84	63	64	63	61	50	42	104
		Min-d	30	42	37	41	40	33	12	18	28	27	24	17	12
	Imsil	Mean	25	35	44	42	47	54	27	32	36	38	24	28	36
		%	98	98	94	91	98	96	96	94	98	95	97	96	96
		Max-d	36	47	101	62	61	119	57	53	54	50	47	55	119
		Min-d	12	21	31	22	28	36	13	17	13	19	11	11	11
Russia	Mondy	Mean	38	41	45	49	46	40	40	37	31	39	-	-	40
		%	100	97	100	50	100	100	100	100	100	71	0	0	77
		Max-d	41	45	50	58	55	57	54	49	45	45	-	-	58
		Min-d	33	36	38	43	37	24	24	19	22	31	-	-	19
	Listvyanka	Mean	36	45	53	58	52	41	37	36	24	30	29	31	39
		%	100	100	100	100	100	94	100	100	100	100	100	100	99
		Max-2w	37	46	53	59	55	43	38	39	25	31	30	36	59
		Min-2w	36	44	53	57	50	38	37	32	23	29	27	27	23
Thailand	Bangkok	Mean	46	75	120	63	45	22	22	21	22	23	23	34	43
		%	100	100	100	100	99	99	97	100	100	100	100	96	99
		Max-d	71	91	258	129	82	34	38	29	33	43	38	49	258
		Min-d	9	57	24	20	14	14	11	11	10	7	12	16	7
	Samutprakarn	Mean	33	34	27	34	23	18	16	17	14	16	21	28	23
		%	96	96	91	96	83	96	95	96	95	96	96	96	94
		Max-d	46	53	46	53	33	30	24	24	22	33	34	44	53
		Min-d	13	14	14	20	16	11	9	10	7	5	12	18	5
	Khanchanaburi (Vachiralongkorn Dam)	Mean	-	-	-	36	-	-	11	12	-	-	12	-	20
		%	0	0	0	62	0	0	31	49	0	0	43	0	15
		Max-d	-	-	-	49	-	-	13	16	-	-	15	-	49
		Min-d	-	-	-	24	-	-	9	7	-	-	4	-	4
	Chiang Mai (Mae Hia)	Mean	24	28	30	31	21	14	15	15	14	20	21	28	22
		%	95	90	96	95	95	94	96	96	96	96	96	96	95
		Max-d	32	41	39	40	32	23	22	22	26	29	33	36	41
		Min-d	17	21	22	23	10	9	9	7	8	9	9	18	7
	Nai Mueang	Mean	30	26	39	30	24	8	15	14	15	20	17	24	21
		%	32	95	51	11	96	49	35	65	99	96	96	96	68
		Max-d	34	36	49	43	33	15	22	21	28	29	29	31	49
		Min-d	24	19	32	24	11	2	10	9	8	10	11	18	2

*1 Bandung started automatic monitoring in January, 2015.
*2 Metro Manila started automatic monitoring in July, 2015.
Terms and abbreviations are given in Table 4.2.

Table 4.11 PM_{10}

Unit : μg/m³			2015												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
China	Jinyunshan	Mean	87	73	58	48	43	30	40	37	34	44	30	55	48
		%	100	100	100	100	100	100	100	100	93	94	97	90	98
		Max-d	191	126	111	108	76	66	71	65	71	89	47	148	191
		Min-d	15	12	14	6	11	6	12	6	8	11	10	13	6
	Hongwen	Mean	74	52	38	45	40	27	32	31	39	45	44	46	43
		%	100	97	97	100	87	100	97	84	100	100	97	90	96
		Max-d	125	92	73	82	95	54	60	51	63	80	65	91	125
		Min-d	14	14	16	16	11	15	15	11	16	21	28	14	11
	Xiang Zhou	Mean	69	78	36	45	29	29	44	54	51	64	51	55	50
		%	97	100	97	100	94	97	97	84	97	100	93	100	96
		Max-d	131	143	84	96	52	39	103	127	118	135	111	112	143
		Min-d	14	23	13	21	18	20	14	16	19	27	18	19	13
Japan	Rishiri	Mean	14	17	29	34	29	12	12	12	11	26	16	15	19
		%	93	100	100	100	100	100	99	100	93	98	100	100	99
		Max-d	39	80	99	101	157	49	59	41	46	67	81	54	157
		Min-d	5	5	4	9	4	4	2	3	4	6	2	4	2
	Ochiishi	Mean	12	21	30	27	28	14	16	18	25	30	22	15	22
		%	96	100	99	96	91	93	99	100	99	100	96	99	97
		Max-d	24	70	83	87	117	30	37	37	88	76	62	30	117
		Min-d	6	4	13	9	5	7	5	6	9	10	7	8	4
	Tappi	Mean	14	19	25	30	30	16	20	22	15	19	12	13	20
		%	97	100	96	99	99	100	99	99	100	99	100	100	99
		Max-d	32	110	65	85	147	29	64	65	27	39	36	19	147
		Min-d	8	6	9	11	9	6	6	9	7	8	5	7	5
	Sado-seki	Mean	24	30	31	33	28	22	20	19	14	27	19	21	24
		%	100	100	100	100	100	100	100	99	96	100	100	99	99
		Max-d	51	157	56	98	45	72	53	45	33	62	46	41	157
		Min-d	8	4	3	2	12	7	6	2	5	6	5	2	2
	Happo	Mean	6	8	16	13	17	12	9	11	6	12	4	5	10
		%	87	94	95	96	100	100	99	99	99	100	99	87	96
		Max-d	15	31	96	48	28	35	24	25	15	28	10	19	96
		Min-d	<1	<1	<1	1	6	2	1	1	1	4	1	<1	<1
	Ijira	Mean	10	15	20	21	22	20	20	20	14	20	11	9	17
		%	100	100	96	100	99	99	100	99	100	100	99	100	99
		Max-d	23	68	58	67	35	44	36	47	24	46	24	16	68
		Min-d	4	4	5	5	10	6	8	9	7	10	5	3	3
	Oki	Mean	37	44	40	38	33	28	29	25	27	31	26	26	32
		%	100	100	99	100	99	99	100	99	97	97	99	100	99
		Max-d	62	153	76	112	71	95	67	60	62	56	56	52	153
		Min-d	16	11	14	15	16	7	10	12	12	11	7	6	6
	Banryu	Mean	23	34	32	28	27	25	23	28	21	23	12	15	24
		%	99	100	96	99	100	100	99	99	100	100	99	100	99
		Max-d	47	111	98	96	47	68	65	56	34	46	21	44	111
		Min-d	9	4	12	7	11	6	5	8	13	10	6	3	3
	Yusuhara	Mean	13	15	27	21	20	17	12	20	13	21	9	14	16
		%	88	67	27	99	99	100	100	99	100	100	100	100	90
		Max-d	34	33	46	46	42	56	51	51	35	47	18	55	56
		Min-d	<1	1	18	5	8	<1	<1	6	<1	10	2	3	<1
	Hedo	Mean	35	34	27	32	30	25	36	36	31	37	26	27	31
		%	100	100	99	90	100	99	100	100	100	100	100	100	99
		Max-d	66	81	56	72	60	51	99	84	82	56	42	57	99
		Min-d	16	12	10	13	6	12	17	13	16	18	12	13	6
	Ogasawara	Mean	14	13	16	20	22	13	23	28	17	18	13	20	18
		%	99	99	97	100	100	99	100	99	82	98	64	99	95
		Max-d	28	29	33	37	41	24	50	56	34	32	24	41	56
		Min-d	8	4	4	5	6	5	8	10	8	6	6	6	4
Mongolia	Ulaanbaatar	Mean	196	168	115	105	72	75	88	67	49	89	110	123	106
		%	97	100	95	95	100	99	54	66	99	99	100	100	92
		Max-d	398	316	217	366	165	208	252	106	96	168	167	333	398
		Min-d	61	66	29	37	29	27	37	31	20	24	49	29	20

Table 4.11 PM_{10} (continued)

Unit : µg/m^3			2015												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Philippines	Metro Manila*1	Mean							26	31	30	38	33	32	33
		%							48	23	80	97	100	100	38
		Max-d							36	50	48	67	49	53	67
		Min-d							12	14	16	11	18	10	10
Republic of Korea	Kanghwa	Mean	50	80	67	55	54	48	-	35	38	49	41	53	52
		%	98	98	99	98	99	79	0	83	98	97	96	96	87
		Max-d	91	546	155	91	89	90	-	86	71	109	97	99	546
		Min-d	28	20	29	21	34	33	-	8	12	19	8	20	8
	Cheju (Kosan)	Mean	47	57	55	54	46	40	35	-	34	45	34	41	45
		%	92	98	98	90	95	95	66	0	86	94	97	97	84
		Max-d	107	269	191	102	99	141	74	-	60	85	75	99	269
		Min-d	17	17	21	20	20	5	7	-	24	24	17	15	5
	Imsil	Mean	44	61	66	41	41	42	26	27	-	51	31	45	43
		%	98	98	94	86	98	98	88	74	0	73	96	96	83
		Max-d	90	265	176	85	111	89	85	58	-	132	109	88	265
		Min-d	24	15	20	11	20	8	6	9	-	13	7	19	6
Thailand	Bangkok	Mean	-	-	-	39	22	19	26	18	22	44	55	51	32
		%	0	0	0	70	100	100	100	99	99	88	88	98	71
		Max-d	-	-	-	72	34	27	57	25	62	69	104	89	104
		Min-d	-	-	-	25	12	14	14	13	13	24	31	29	12
	Samutprakarn	Mean	52	-	-	-	22	20	27	29	31	38	40	48	35
		%	33	0	0	0	17	47	63	99	99	100	100	99	55
		Max-d	85	-	-	-	27	33	56	36	84	68	59	108	108
		Min-d	26	-	-	-	18	8	10	21	21	22	23	22	8
	Khanchanaburi (Vachiralongkorn Dam)	Mean	-	-	-	52	-	-	6	6	-	-	12	-	23
		%	0	0	0	65	0	0	29	46	0	0	45	0	15
		Max-d	-	-	-	89	-	-	7	9	-	-	14	-	89
		Min-d	-	-	-	25	-	-	5	4	-	-	10	-	4
	Chiang Mai (Mae Hia)	Mean	46	75	120	63	45	22	22	21	22	23	23	34	43
		%	100	100	100	100	99	99	97	100	100	100	100	96	99
		Max-d	71	91	258	129	82	34	38	29	33	43	38	49	258
		Min-d	9	57	24	20	14	14	11	11	10	7	12	16	7
	Nai Mueang	Mean	133	78	58	57	30	27	34	29	31	43	39	57	45
		%	34	81	20	73	99	99	99	66	99	100	100	100	81
		Max-d	168	144	85	94	39	38	59	38	50	74	53	102	168
		Min-d	93	45	50	39	18	19	18	13	15	20	24	32	13

*1 Metro Manila started automatic monitoring in July, 2015.

Terms and abbreviations are given in Table 4.2.

Table 4.12 $PM_{2.5}$

Unit : μg/m^3			2015												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Japan	Rishiri	Mean	8	8	13	14	11	5	5	5	4	10	7	8	8
		%	100	100	100	100	100	100	99	100	93	98	100	100	99
		Max-d	20	32	41	39	38	14	17	18	12	42	31	34	42
		Min-d	4	3	<1	4	2	1	<1	<1	1	2	<1	2	<1
	Ochiishi	Mean	5	8	13	11	9	6	8	9	10	11	9	7	9
		%	96	100	99	96	91	93	99	100	99	100	96	99	97
		Max-d	9	26	34	29	23	12	16	23	37	27	32	19	37
		Min-d	2	1	4	5	<1	2	3	2	2	2	2	2	<1
	Tappi*1	Mean				15	15	9	8	9	6	10	7	8	10
		%				99	99	100	99	99	100	99	100	100	75
		Max-d				36	33	17	22	23	12	23	25	14	36
		Min-d				7	5	3	3	4	2	4	2	4	2
	Sado-seki	Mean	10	10	14	13	15	12	11	11	5	9	6	7	10
		%	100	100	100	100	100	100	100	99	96	100	100	99	99
		Max-d	24	39	33	39	27	33	30	32	12	16	16	18	39
		Min-d	4	2	2	2	6	3	1	<1	<1	3	1	2	<1
	Happo*1	Mean				12	11	9	7	8	4	8	3	2	7
		%				51	100	100	99	99	99	100	99	88	70
		Max-d				19	21	25	20	21	12	19	8	4	25
		Min-d				3	4	<1	<1	<1	<1	2	<1	<1	<1
	Ijira*1	Mean				13	14	12	11	13	8	13	7	7	11
		%				100	99	99	100	99	100	100	99	100	75
		Max-d				33	27	27	23	37	15	34	19	13	37
		Min-d				2	4	2	3	4	2	5	2	<1	<1
	Oki	Mean	14	16	17	14	17	13	12	13	8	11	9	10	13
		%	100	100	99	100	99	99	100	99	97	97	99	100	99
		Max-d	24	39	41	29	28	45	27	36	14	28	24	27	45
		Min-d	5	3	6	2	6	3	3	3	4	3	3	3	2
	Banryu*1	Mean				16	17	15	12	14	10	13	7	9	13
		%				99	100	100	99	99	100	100	99	100	75
		Max-d				35	27	33	28	33	16	34	14	21	35
		Min-d				4	7	4	3	2	4	5	1	2	1
	Yusuhara*1	Mean				14	13	10	6	12	9	15	8	11	11
		%				99	99	100	100	99	100	100	100	100	75
		Max-d				32	22	29	27	28	24	37	15	34	37
		Min-d				4	5	<1	<1	3	<1	5	2	2	<1
	Hedo*1	Mean				14	11	7	8	9	10	13	9	11	10
		%				90	100	99	100	100	100	100	100	100	74
		Max-d				39	22	17	21	23	19	27	26	25	39
		Min-d				5	2	4	4	4	5	4	3	3	2
	Ogasawara*1	Mean				8	8	4	6	10	6	8	4	8	7
		%				100	100	99	100	99	82	98	64	99	70
		Max-d				19	15	5	14	18	12	14	8	19	19
		Min-d				2	2	2	2	4	4	3	<1	2	<1
Mongolia	Ulaanbaatar*2	Mean	104	72	44	27	33	29	23	28	24	33	67	99	49
		%	97	100	95	95	100	100	91	66	99	56	100	100	92
		Max-d	197	154	125	69	78	86	82	76	73	80	114	254	254
		Min-d	23	11	15	11	11	7	8	14	12	13	24	25	7
Myanmar	Mandalay*1	Mean				40	107	-	15	17	-	-	-	-	47
		%				14	53	0	78	18	0	0	0	0	14
		Max-d				50	245	-	26	27	-	-	-	-	245
		Min-d				31	27	-	5	10	-	-	-	-	5
Philippines	Metro Manila*1	Mean							18	21	21	26	21	22	22
		%							48	23	80	97	100	100	38
		Max-d							24	34	35	49	30	33	49
		Min-d							8	11	12	9	10	8	8
Thailand	Bangkok	Mean	-	-	-	28	13	12	15	11	15	23	25	29	18
		%	0	0	0	70	100	99	99	99	99	96	98	99	72
		Max-d	-	-	-	57	19	18	30	15	51	43	42	52	57
		Min-d	-	-	-	15	5	8	7	7	7	10	14	14	5
	Khanchanaburi	Mean	-	-	-	43	-	-	4	4	-	-	-	-	24
		%	0	0	0	65	0	0	24	40	0	0	0	0	11
		Max-d	-	-	-	83	-	-	5	6	-	-	-	-	83
		Min-d	-	-	-	14	-	-	2	2	-	-	-	-	2
	Chiang Mai *1 (Mae Hia)	Mean	38	61	110	49	24	12	13	12	14	17	18	27	33
		%	97	100	96	100	97	92	99	96	98	99	98	95	97
		Max-d	62	96	266	115	60	16	22	16	23	36	27	41	266
		Min-d	10	45	18	8	9	8	9	6	6	7	9	11	6
Vietnam	Hoa Binh*1	Mean	-	64	44	55	34	24	15	24	29	51	34	57	40
		%	0	64	96	94	94	66	37	95	96	91	88	99	77
		Max-d	-	265	116	165	54	65	52	56	62	149	87	167	265
		Min-d	-	22	16	13	16	14	8	4	14	9	11	12	4

*1 Tappi, Happo, Ijira, Banryu, Yusuhara, Hedo, Ogasawara, Mandalay, Metro Manila, Chiang Mai and Hoa Binh started $PM_{2.5}$ monitoring in 2015.

*2 $PM_{2.5}$ monitoring site of Ulaanbaatar was relocated in October

Terms and abbreviations are given in Table 4.2.

Table 4.13 Particulate matter component: SO_4^{2-}

Unit : μg/m^3			2015												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Cambodia	Phnom Penh	Mean	2.61	2.77	3.18	2.53	2.12	2.73	1.49	1.22	1.28	2.32	2.28	1.87	2.20
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	2.68	3.19	3.28	2.83	2.30	2.83	1.69	1.27	1.53	2.56	2.41	1.96	3.28
		Min-2w	2.54	2.36	3.08	2.23	1.76	2.64	1.29	1.17	1.03	2.13	2.14	1.78	1.03
Indonesia	Jakarta	Mean	-	-	-	-	-	-	-	-	12.01	2.69	10.37	4.59	6.76
		%	0	0	0	0	0	0	0	0	47	85	100	100	27
		Max-2w	-	-	-	-	-	-	-	-	12.01	4.50	11.41	6.53	12.01
		Min-2w	-	-	-	-	-	-	-	-	12.01	0.87	9.33	2.66	0.87
	Serpong	Mean	1.89	2.41	2.73	3.28	7.19	4.81	4.53	8.46	4.57	8.40	9.50	-	5.16
		%	100	100	100	100	100	100	100	100	100	100	82	0	90
		Max-2w	2.84	3.82	3.75	4.93	7.59	8.23	5.37	9.04	8.81	8.52	18.75	-	18.75
		Min-2w	0.94	0.99	1.71	1.74	6.78	1.38	3.70	7.88	0.32	8.29	0.26	-	0.26
	Bandung	Mean	1.6	3.0	2.1	2.32	3.06	2.79	2.51	3.46	2.53	3.34	3.14	2.53	2.69
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	2.5	3.2	2.8	3.00	3.59	2.95	2.58	3.82	2.90	3.47	3.44	2.87	3.82
		Min-2w	0.7	2.7	1.3	1.64	2.54	2.62	2.45	3.10	2.15	3.21	2.84	2.19	0.74
Japan	Rishiri	Mean	1.76	2.12	3.42	4.67	2.31	1.52	1.64	3.01	2.39	2.91	1.01	3.07	2.52
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	1.87	2.28	4.35	6.14	2.83	1.66	1.88	4.17	4.62	2.99	1.39	3.09	6.14
		Min-2w	1.65	1.95	2.45	3.20	1.78	1.37	1.39	1.85	1.17	2.83	0.64	3.05	0.64
	Ochiishi	Mean	1.21	1.64	1.87	3.18	2.68	2.36	2.51	2.58	1.67	1.27	1.80	1.73	2.05
		%	100	100	30	100	100	100	100	100	100	100	100	100	92
		Max-2w	1.45	2.72	1.87	3.63	2.71	3.00	2.94	2.75	2.95	1.42	2.10	1.85	3.63
		Min-2w	0.97	0.56	1.87	2.74	2.64	1.71	2.09	2.42	0.38	1.12	1.50	1.61	0.38
	Tappi	Mean	3.49	2.99	3.45	5.31	4.57	2.43	2.05	4.19	10.24	3.27	1.94	8.18	4.30
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	3.95	3.05	6.05	7.03	5.11	4.78	3.95	7.49	18.55	3.49	1.99	12.32	18.55
		Min-2w	3.02	2.93	1.02	3.59	4.03	0.07	0.15	2.51	1.93	3.05	1.90	4.05	0.07
	Sado-seki	Mean	3.96	3.99	4.65	4.81	6.60	4.26	4.51	5.60	1.65	3.14	1.74	2.38	4.03
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	4.44	5.37	7.67	5.91	7.21	5.95	4.62	11.29	2.03	3.58	2.63	2.95	11.29
		Min-2w	3.49	2.60	2.73	3.71	6.00	2.57	4.41	2.01	1.28	2.69	0.85	1.81	0.85
	Happo	Mean	1.36	1.62	1.80	2.61	3.76	2.59	1.10	3.66	1.19	3.16	0.60	0.56	2.16
		%	100	100	100	100	100	100	50	100	100	100	100	100	96
		Max-2w	1.53	1.90	2.97	3.19	4.93	3.64	1.10	7.22	1.74	3.36	0.60	0.75	7.22
		Min-2w	1.20	1.33	0.53	2.03	2.60	1.54	1.10	1.19	0.64	2.96	0.60	0.38	0.38
	Ijira	Mean	1.51	2.11	2.93	3.68	3.44	2.01	3.29	4.42	2.25	4.18	1.43	1.99	2.84
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	1.58	2.34	3.64	4.39	4.57	3.67	4.28	8.08	2.31	4.94	1.60	2.06	8.08
		Min-2w	1.44	1.89	2.23	2.96	2.31	0.35	2.29	2.31	2.19	3.42	1.27	1.91	0.35
	Oki	Mean	5.49	4.52	5.33	5.12	7.41	5.37	3.72	6.25	2.44	4.21	3.31	3.92	4.69
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	5.49	5.91	6.32	5.67	7.99	5.69	4.79	9.61	2.79	4.78	4.61	4.63	9.61
		Min-2w	5.49	3.13	4.70	4.57	6.83	5.06	2.66	2.90	2.18	3.64	2.01	3.20	2.01
	Banryu	Mean	5.07	4.93	5.07	4.75	5.54	5.55	4.08	6.23	2.63	4.51	2.32	3.41	4.60
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	5.45	6.22	5.46	5.20	5.99	6.17	4.74	8.99	2.66	5.70	2.41	3.65	8.99
		Min-2w	4.69	3.65	4.51	4.29	5.10	4.93	3.42	4.27	2.59	3.32	2.23	3.17	2.23
	Yusuhara	Mean	4.22	4.19	3.99	5.01	3.63	4.26	1.51	5.44	3.34	4.47	2.05	2.71	3.75
		%	100	100	67	55	100	100	100	100	100	100	100	100	92
		Max-2w	4.28	4.89	4.17	5.01	5.16	5.22	1.77	8.59	3.98	5.34	2.39	3.03	8.59
		Min-2w	4.17	3.49	3.82	5.01	2.09	3.31	1.25	3.74	2.71	3.60	1.70	2.39	1.25
	Hedo	Mean	9.96	8.90	5.14	6.58	4.21	2.43	1.02	3.59	4.91	6.09	4.02	5.35	5.12
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	10.62	9.07	5.67	7.61	4.33	2.65	1.05	5.58	5.61	6.24	4.09	5.99	10.62
		Min-2w	9.30	8.74	4.16	5.55	4.09	2.20	0.99	1.54	4.21	5.93	3.95	4.72	0.99
	Ogasawara	Mean	3.95	3.53	5.41	2.77	2.41	0.83	1.08	2.99	1.22	1.86	1.09	2.73	2.69
		%	100	100	100	100	100	50	100	100	100	100	100	100	96
		Max-2w	4.70	4.41	8.11	3.85	3.25	0.83	1.14	4.44	1.59	2.20	1.19	2.74	8.11
		Min-2w	3.19	2.65	2.43	1.68	1.56	0.83	1.01	1.94	0.84	1.52	0.98	2.73	0.83
	Tokyo	Mean	2.35	2.50	4.25	4.29	5.34	4.51	4.12	5.72	2.92	3.81	2.04	2.40	3.79
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	2.41	3.04	5.30	4.77	5.73	4.81	4.22	9.89	3.38	4.01	2.07	2.40	9.89
		Min-2w	2.30	1.96	3.32	3.80	4.95	4.22	4.02	2.94	2.45	3.60	2.00	2.39	1.96
Lao PDR	Vientiane	Mean	7.96	7.05	6.09	3.92	2.15	2.61	2.34	1.95	4.00	5.35	10.19	3.34	4.75
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	7.96	7.05	6.09	3.92	2.15	2.61	2.34	1.95	4.00	5.35	10.19	3.34	10.19
		Min-2w	7.96	7.05	6.09	3.92	2.15	2.61	2.34	1.95	4.00	5.35	10.19	3.34	1.95
Malaysia	Petaling Jaya	Mean	3.65	6.24	5.22	2.81	4.48	4.00	4.95	-	-	4.08	3.76	1.81	4.19
		%	100	100	100	100	100	75	80	0	0	20	50	75	67
		Max-w	5.53	9.03	7.66	4.27	5.28	5.22	6.06	-	-	4.08	4.07	2.21	9.03
		Min-w	1.57	2.34	3.78	1.48	2.77	2.28	4.20	-	-	4.08	3.44	1.50	1.48
	Tanah Rata	Mean	1.05	3.21	2.68	2.00	1.61	2.74	3.21	2.91	6.54	10.22	0.45	0.94	3.29
		%	60	100	100	100	100	100	80	100	100	100	100	100	94
		Max-w	1.31	5.26	4.80	2.32	2.90	4.54	4.58	5.48	9.96	17.51	0.78	1.83	17.51
		Min-w	0.65	2.07	1.75	1.57	0.14	1.33	1.90	1.73	3.80	0.94	0.01	0.49	0.01
	Danum Valley	Mean	0.78	1.86	0.51	0.82	1.10	1.89	1.62	2.54	4.11	4.75	0.80	0.81	1.80
		%	100	100	100	100	100	100	100	100	100	100	100	67	96
		Max-2w	1.15	1.95	0.96	1.64	1.11	3.14	2.68	3.44	5.07	6.47	1.12	1.00	6.47
		Min-2w	0.40	1.77	0.05	<0.01	1.10	0.57	0.56	1.64	3.15	3.02	0.48	0.61	<0.01

Table 4.13 Particulate matter component: SO_4^{2-} (continued)

Unit : µg/m³			2015												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Myanmar	Yangon	Mean	0.31	0.58	3.64	3.40	1.04	0.26	0.15	0.54	0.82	0.01	0.81	0.84	0.90
		%	100	50	50	100	100	100	100	100	100	100	100	100	92
		Max-2w	0.63	0.58	3.64	4.50	1.79	0.69	0.19	1.02	1.18	0.03	1.49	2.24	4.50
		Min-2w	<0.01	0.58	3.64	2.29	0.28	0.03	0.11	0.07	0.46	<0.01	0.13	0.11	<0.01
Philippines	Mt. Sto. Tomas	Mean	0.22	0.22	0.69	0.27	0.28	0.26	0.21	0.17	0.23	0.54	0.16	0.13	0.27
		%	80	100	100	100	100	100	100	100	100	41	50	100	89
		Max-w	0.49	0.48	1.52	0.71	0.79	0.83	0.59	0.39	0.45	0.80	0.17	0.20	1.52
		Min-w	<0.01	<0.01	0.16	<0.01	<0.01	<0.01	<0.01	0.05	0.01	0.28	0.15	0.03	<0.01
Republic of Korea	Kanghwa	Mean	5.59	8.47	6.53	5.30	5.89	8.48	3.58	9.97	4.55	6.27	2.10	5.95	6.12
		%	16	18	16	17	13	17	16	16	17	16	13	19	16
		Max-d	10.09	12.30	15.03	13.81	11.28	13.58	6.60	30.19	7.90	18.93	3.91	11.94	30.19
		Min-d	1.71	4.54	2.07	1.50	2.78	2.89	0.45	1.10	0.53	<0.01	0.36	1.74	<0.01
	Cheju (Kosan)	Mean	3.36	15.11	5.06	5.74	3.02	6.70	7.07	9.56	4.09	6.61	2.76	4.70	5.62
		%	16	4	16	17	10	17	10	16	10	16	17	13	13
		Max-d	4.42	15.11	12.01	11.94	4.73	12.77	12.99	16.76	7.68	18.41	3.75	6.23	18.41
		Min-d	2.34	15.11	2.13	1.53	1.62	3.68	2.48	3.06	2.29	2.43	1.73	2.99	1.53
	Imsil	Mean	3.25	9.79	5.19	3.96	4.04	4.69	2.66	5.61	3.87	7.44	3.03	2.73	4.66
		%	16	18	16	17	16	17	16	16	17	16	17	19	17
		Max-d	6.04	14.67	14.85	10.70	7.35	7.94	5.89	13.53	8.81	20.17	5.55	5.93	20.17
		Min-d	0.77	5.33	1.00	1.36	1.39	1.96	1.38	2.88	0.81	1.23	0.61	1.03	0.61
Russia	Mondy	Mean	0.04	0.08	0.08	0.05	0.05	0.29	0.80	0.91	0.54	0.09	0.41	0.18	0.29
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-m	0.07	0.09	0.08	0.06	0.05	0.55	1.23	0.91	0.54	0.09	0.62	0.18	1.23
		Min-m	0.01	0.08	0.08	0.03	0.05	0.02	0.38	0.91	0.54	0.09	0.21	0.18	0.01
	Listvyanka	Mean	1.20	1.07	0.80	0.91	0.58	0.56	0.66	1.00	0.69	0.51	1.28	0.88	0.86
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	2.28	1.35	0.85	1.53	0.92	0.90	0.93	1.56	1.01	0.81	3.46	1.83	3.46
		Min-w	0.66	0.55	0.74	0.32	0.35	0.20	0.39	0.52	0.31	0.22	0.15	0.35	0.15
	Irkutsk	Mean	1.61	1.23	1.93	1.57	0.79	0.95	1.37	1.45	1.16	1.88	6.65	4.00	2.18
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	1.69	1.59	3.63	2.24	0.99	1.79	1.73	2.14	1.45	2.72	10.03	6.17	10.03
		Min-w	1.49	0.98	0.97	1.27	0.59	0.56	1.09	0.34	0.79	1.12	3.04	2.28	0.34
	Primorskaya	Mean	4.74	3.59	4.60	3.62	3.11	3.36	2.72	3.15	2.50	3.04	3.62	0.97	3.24
		%	100	100	100	100	100	100	100	100	100	100	50	100	96
		Max-2w	4.85	4.58	4.86	3.77	3.21	4.61	3.81	4.00	3.22	3.49	3.62	1.21	4.86
		Min-2w	4.64	2.60	4.34	3.46	3.01	2.12	1.62	2.30	1.79	2.59	3.62	0.73	0.73
Thailand	Bangkok	Mean	3.47	4.15	5.28	5.09	1.43	0.80	0.40	0.80	1.16	2.94	2.75	3.37	2.64
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-10d	6.06	5.84	6.08	6.73	3.03	0.85	0.90	1.28	2.04	4.05	3.13	6.01	6.73
		Min-10d	0.77	3.09	4.61	3.87	0.56	0.77	<0.01	0.55	0.59	1.24	2.03	1.52	<0.01
	Khanchanaburi (Vachiralongkorn Dam)	Mean	-	-	-	5.03	-	-	-	0.89	-	-	<0.01	-	1.97
		%	0	0	0	67	0	0	0	63	0	0	47	0	16
		Max-2w	-	-	-	5.03	-	-	-	0.89	-	-	<0.01	-	5.03
		Min-2w	-	-	-	5.03	-	-	-	0.89	-	-	<0.01	-	<0.01
	Chiang Mai (Mae Hia)	Mean	0.03	0.06	0.09	0.10	0.04	0.07	0.07	0.14	0.10	0.11	-	-	0.08
		%	97	100	97	97	97	97	97	90	97	19	0	0	74
		Max-10d	0.05	0.09	0.10	0.10	0.04	0.07	0.07	0.17	0.11	0.11	-	-	0.17
		Min-10d	0.02	0.03	0.08	0.09	0.03	0.07	0.07	0.11	0.08	0.11	-	-	0.02
	Sakaerat	Mean	3.84	4.65	5.38	3.03	1.83	1.38	2.41	1.01	1.20	1.27	-	-	2.70
		%	100	100	100	100	100	100	100	100	100	32	0	0	78
		Max-10d	8.60	6.67	7.11	5.07	3.23	2.27	2.89	1.41	1.50	1.27	-	-	8.60
		Min-10d	0.27	2.44	3.40	1.56	0.13	0.42	2.10	0.65	0.83	1.27	-	-	0.13
Vietnam	Hanoi	Mean	18.56	14.27	11.03	9.39	6.66	5.28	7.58	8.26	9.41	16.28	9.49	11.49	10.83
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	28.66	28.30	14.09	15.60	7.92	6.41	11.53	10.07	12.24	28.20	14.25	15.55	28.66
		Min-w	13.34	2.15	9.16	1.91	5.01	4.15	4.19	7.37	7.92	9.52	5.53	8.59	1.91
	Hoa Binh	Mean	11.71	11.22	5.94	8.05	4.67	2.06	4.07	2.96	4.41	7.19	5.00	7.61	6.38
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	24.56	18.12	10.37	12.86	7.45	4.30	6.64	3.78	6.59	11.94	7.29	8.74	24.56
		Min-w	2.04	4.35	1.70	1.77	2.78	0.92	2.15	1.98	2.54	2.37	2.76	5.19	0.92
	Can Tho	Mean	1.01	1.00	1.95	0.90	1.58	1.29	0.76	0.72	0.93	1.74	1.25	1.56	1.22
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	1.52	1.56	2.65	1.66	2.46	1.62	1.35	1.35	1.56	2.45	1.75	2.02	2.65
		Min-w	0.35	0.22	1.22	0.35	1.14	1.02	0.25	0.35	0.56	0.89	0.36	1.25	0.22
	Ho Chi Minh	Mean	3.52	3.84	2.88	3.02	2.65	2.24	1.52	1.24	1.35	1.63	1.98	3.02	2.42
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	4.02	4.56	3.05	3.52	3.02	2.65	2.31	1.38	1.59	1.93	2.54	3.52	4.56
		Min-w	2.98	2.98	2.65	2.06	2.34	2.04	1.21	1.02	1.22	1.28	1.36	2.56	1.02
	Yen Bai*1	Mean								9.23	7.75	12.45	6.32	7.43	8.68
		%								25	100	100	100	100	36
		Max-w								9.23	11.37	21.26	7.23	12.30	21.26
		Min-w								9.23	5.19	7.42	5.75	2.16	2.16

*1 Yen Bai started FP monitoring in August, 2015.

Terms and abbreviations are given in Table 4.2.

Table 4.14 Particulate matter component: NO_3^-

Unit : µg/m³			2015												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Cambodia	Phnom Penh	Mean	2.92	4.35	4.41	1.99	1.60	2.15	1.14	0.86	1.23	1.17	1.49	1.71	2.03
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	3.75	4.77	4.72	2.27	1.84	2.39	1.24	0.95	1.43	1.41	1.99	1.95	4.77
		Min-2w	2.08	3.92	4.10	1.71	1.32	1.91	1.04	0.77	1.03	0.92	0.99	1.47	0.77
Indonesia	Jakarta	Mean	-	-	-	-	-	-	-	-	6.95	1.28	1.68	1.85	2.37
		%	0	0	0	0	0	0	0	0	47	85	100	100	27
		Max-2w	-	-	-	-	-	-	-	-	6.95	2.07	2.29	1.97	6.95
		Min-2w	-	-	-	-	-	-	-	-	6.95	0.48	1.07	1.72	0.48
	Serpong	Mean	0.49	0.32	0.39	0.71	1.45	1.11	1.20	1.84	1.52	2.67	0.78	-	1.12
		%	100	100	100	100	100	100	100	100	100	100	82	0	90
		Max-2w	0.60	0.54	0.46	1.01	1.56	1.44	1.49	2.00	2.86	3.38	1.57	-	3.38
		Min-2w	0.38	0.10	0.32	0.43	1.34	0.79	0.91	1.69	0.18	1.96	<0.01	-	<0.01
	Bandung	Mean	0.7	1.3	0.9	0.89	1.37	1.59	1.23	1.47	1.39	1.51	1.02	0.99	1.19
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.8	1.3	0.9	0.94	1.49	2.12	1.42	1.55	1.61	1.65	1.10	1.13	2.12
		Min-2w	0.6	1.2	0.8	0.83	1.25	1.05	1.04	1.38	1.17	1.37	0.95	0.86	0.58
Japan	Rishiri	Mean	0.39	0.35	1.34	1.81	1.08	0.31	0.39	0.29	0.36	1.33	0.31	0.92	0.75
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.45	0.45	2.26	2.71	1.43	0.46	0.40	0.49	0.48	1.90	0.51	0.96	2.71
		Min-2w	0.34	0.25	0.58	0.90	0.74	0.17	0.38	0.09	0.19	0.77	0.11	0.88	0.09
	Ochiishi	Mean	0.23	0.26	0.35	1.12	1.58	0.43	0.90	0.46	0.42	0.28	0.27	0.37	0.57
		%	100	100	30	100	100	100	100	100	100	100	100	100	92
		Max-2w	0.30	0.45	0.35	1.41	1.65	0.53	1.38	0.49	0.80	0.29	0.46	0.38	1.65
		Min-2w	0.17	0.07	0.35	0.83	1.51	0.33	0.42	0.44	0.04	0.26	0.07	0.36	0.04
	Tappi	Mean	1.19	0.79	1.16	3.21	3.11	1.12	0.76	0.83	0.73	1.43	0.68	0.77	1.29
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	1.23	0.96	2.39	4.63	3.65	2.22	1.33	1.05	0.99	1.44	1.24	0.79	4.63
		Min-2w	1.15	0.62	0.35	1.78	2.58	0.02	0.19	0.43	0.47	1.42	0.12	0.76	0.02
	Sado-seki	Mean	1.40	0.70	2.25	1.73	2.31	1.40	1.27	0.59	0.60	1.28	0.40	0.57	1.23
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	1.79	0.93	4.32	1.90	2.46	2.39	1.57	0.83	0.79	1.54	0.47	0.84	4.32
		Min-2w	1.02	0.47	0.65	1.57	2.15	0.42	0.97	0.24	0.41	1.03	0.32	0.31	0.24
	Happo	Mean	0.09	0.12	0.72	0.74	0.48	0.53	0.11	0.09	0.19	0.55	0.05	0.11	0.34
		%	100	100	100	100	100	100	50	100	100	100	100	100	96
		Max-2w	0.10	0.13	1.68	0.91	0.51	0.98	0.11	0.11	0.29	0.67	0.05	0.12	1.68
		Min-2w	0.08	0.11	0.12	0.57	0.46	0.08	0.11	0.08	0.08	0.43	0.05	0.09	0.05
	Ijira	Mean	0.17	0.39	0.73	0.62	0.41	0.22	0.33	0.13	0.40	0.61	0.29	0.29	0.39
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.17	0.48	0.96	0.63	0.60	0.36	0.49	0.22	0.48	0.83	0.31	0.34	0.96
		Min-2w	0.17	0.30	0.54	0.62	0.22	0.07	0.16	0.06	0.32	0.40	0.27	0.25	0.06
	Oki	Mean	2.45	2.69	2.43	2.00	1.92	1.36	1.12	0.61	0.86	2.20	1.07	1.25	1.66
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	2.77	4.35	3.56	2.13	2.62	1.90	1.47	0.67	0.94	2.55	1.46	1.32	4.35
		Min-2w	2.13	1.02	1.43	1.87	1.22	0.83	0.77	0.56	0.78	1.85	0.69	1.19	0.56
	Banryu	Mean	2.84	2.92	2.38	1.54	1.14	0.85	0.58	0.51	0.99	1.64	0.69	1.56	1.47
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	2.87	3.93	3.01	1.67	1.45	1.02	0.82	1.09	1.00	1.88	0.72	2.06	3.93
		Min-2w	2.81	1.91	1.30	1.40	0.83	0.68	0.35	0.13	0.98	1.39	0.67	1.06	0.13
	Yusuhara	Mean	1.35	1.20	0.89	0.28	0.17	0.17	0.11	0.07	0.34	0.89	0.24	0.45	0.50
		%	100	100	67	55	100	100	100	100	100	100	100	100	92
		Max-2w	1.41	1.78	1.50	0.28	0.29	0.32	0.18	0.11	0.62	1.08	0.24	0.59	1.78
		Min-2w	1.30	0.63	0.27	0.28	0.05	0.03	0.03	0.03	0.07	0.69	0.24	0.31	0.03
	Hedo	Mean	4.07	3.23	1.83	2.21	1.63	0.98	0.19	0.98	1.78	2.38	1.57	2.08	1.87
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	4.43	3.67	2.67	2.48	1.68	1.04	0.26	1.65	1.88	2.57	1.67	2.59	4.43
		Min-2w	3.70	2.78	1.27	1.94	1.59	0.93	0.11	0.41	1.69	2.20	1.47	1.56	0.11
	Ogasawara	Mean	0.96	0.73	2.30	0.60	0.41	0.19	0.19	0.37	0.26	0.43	0.33	0.84	0.71
		%	100	100	100	100	100	50	100	100	100	100	100	100	96
		Max-2w	1.11	0.87	5.02	0.82	0.60	0.19	0.22	0.63	0.35	0.46	0.44	1.00	5.02
		Min-2w	0.80	0.58	0.58	0.37	0.23	0.19	0.16	0.20	0.17	0.41	0.23	0.68	0.16
	Tokyo	Mean	2.84	4.44	5.35	4.25	3.64	2.90	3.18	2.31	2.36	4.08	3.15	3.86	3.55
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	3.08	5.44	7.93	4.46	4.43	3.45	5.06	2.61	2.61	4.71	3.41	4.30	7.93
		Min-2w	2.60	3.44	3.20	4.04	2.86	2.36	1.30	1.79	2.11	3.44	2.89	3.41	1.30
Lao PDR	Vientiane	Mean	0.33	0.15	0.53	0.49	0.59	0.51	0.70	0.76	0.16	0.41	0.71	0.27	0.47
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.33	0.15	0.53	0.49	0.59	0.51	0.70	0.76	0.16	0.41	0.71	0.27	0.76
		Min-2w	0.33	0.15	0.53	0.49	0.59	0.51	0.70	0.76	0.16	0.41	0.71	0.27	0.15
Malaysia	Petaling Jaya	Mean	2.13	2.00	2.16	1.25	1.46	1.31	2.04	-	-	1.17	1.39	1.23	1.70
		%	100	100	100	100	100	75	80	0	0	20	50	75	67
		Max-w	2.46	2.65	2.85	1.64	1.86	1.64	2.54	-	-	1.17	1.98	1.27	2.85
		Min-w	1.54	1.47	1.68	0.71	1.20	1.08	1.60	-	-	1.17	0.79	1.16	0.71
	Tanah Rata	Mean	0.30	0.58	0.75	0.28	0.10	0.47	0.33	0.35	1.24	1.51	0.06	0.31	0.54
		%	60	100	100	100	100	100	80	100	100	100	100	100	94
		Max-w	0.56	1.07	1.00	0.38	0.19	0.78	0.71	0.63	2.89	3.01	0.11	0.55	3.01
		Min-w	0.12	0.25	0.46	0.21	0.02	0.08	0.16	0.15	0.23	0.04	0.01	0.21	0.01
	Danum Valley	Mean	0.16	0.50	0.18	0.09	0.06	0.03	0.03	0.03	0.02	0.01	0.04	0.22	0.11
		%	100	100	100	100	100	100	100	100	100	100	100	67	96
		Max-2w	0.26	0.57	0.35	0.16	0.09	0.04	0.04	0.05	0.03	0.01	0.08	0.24	0.57
		Min-2w	0.07	0.42	<0.01	0.01	0.04	0.03	<0.01	0.02	0.02	<0.01	<0.01	0.20	<0.01

Table 4.14 Particulate matter component: NO_3^- (contined)

Unit : μg/m^3			2015												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Myanmar	Yangon	Mean	<0.01	<0.01	1.69	1.59	0.81	0.25	0.26	<0.01	0.16	0.04	0.38	0.53	0.44
		%	100	50	50	100	100	100	100	100	100	100	100	100	92
		Max-2w	<0.01	<0.01	1.69	2.04	1.35	0.63	0.34	<0.01	0.29	0.08	0.64	1.36	2.04
		Min-2w	<0.01	<0.01	1.69	1.14	0.27	0.01	0.18	<0.01	0.03	<0.01	0.12	0.09	<0.01
Philippines	Mt. Sto. Tomas	Mean	0.19	0.22	0.51	0.19	0.18	0.32	0.30	0.14	0.27	0.81	0.37	0.12	0.27
		%	80	100	100	100	100	100	100	100	100	41	50	100	89
		Max-w	0.37	0.33	1.18	0.30	0.54	0.80	0.61	0.33	0.48	1.28	0.52	0.24	1.28
		Min-w	0.07	0.13	0.15	<0.01	<0.01	0.11	0.16	<0.01	0.02	0.35	0.22	<0.01	<0.01
Republic of Korea	Kanghwa	Mean	7.77	10.74	4.86	2.78	0.53	0.91	0.18	0.76	0.17	2.90	1.79	5.96	3.40
		%	16	18	16	17	13	17	16	16	17	16	13	19	16
		Max-d	23.60	23.93	15.45	7.36	1.57	2.93	0.24	3.38	0.45	6.12	3.89	13.84	23.93
		Min-d	1.14	3.23	1.12	0.42	0.15	0.06	0.07	0.02	0.01	<0.01	0.10	1.15	<0.01
	Cheju (Kosan)	Mean	0.87	5.76	0.84	1.81	0.29	0.45	0.28	0.42	0.95	0.76	0.25	0.40	0.79
		%	16	4	16	17	10	17	10	16	10	16	17	13	13
		Max-d	2.94	5.76	1.92	7.04	0.34	0.80	0.37	0.66	2.19	2.06	0.34	0.89	7.04
		Min-d	0.34	5.76	0.13	0.28	0.23	0.22	0.20	0.24	0.31	0.32	0.21	0.19	0.13
	Imsil	Mean	3.21	6.76	5.16	2.13	0.31	0.30	0.20	0.28	0.32	1.33	1.84	1.37	1.93
		%	16	18	16	17	16	17	16	16	17	16	17	19	17
		Max-d	8.49	17.79	10.74	7.50	0.40	0.45	0.31	0.34	0.54	3.62	3.99	2.62	17.79
		Min-d	0.39	0.82	0.44	0.24	0.25	0.19	0.15	0.22	0.17	0.31	0.38	0.26	0.15
Russia	Mondy	Mean	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	0.04	0.27	0.02	<0.01	0.01	<0.01	0.03
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-m	<0.01	<0.01	<0.01	<0.01	<0.01	0.03	0.06	0.27	0.02	<0.01	0.02	<0.01	0.27
		Min-m	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	0.02	0.27	0.02	<0.01	<0.01	<0.01	<0.01
	Listvyanka	Mean	1.16	0.91	0.04	0.09	0.03	0.03	0.04	0.15	0.03	0.03	0.22	0.15	0.27
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	1.73	1.46	0.06	0.23	0.06	0.04	0.11	0.52	0.07	0.05	0.72	0.45	1.73
		Min-w	0.71	0.04	0.02	<0.01	0.02	0.01	0.01	0.02	<0.01	<0.01	0.03	0.04	<0.01
	Irkutsk	Mean	0.55	0.33	0.84	0.54	0.24	0.16	0.24	0.19	0.18	0.48	1.79	1.84	0.66
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.82	0.56	1.63	0.92	0.31	0.26	0.28	0.32	0.25	0.84	2.12	3.37	3.37
		Min-w	0.30	0.03	0.32	0.29	0.13	0.10	0.17	0.02	0.13	0.15	1.08	0.82	0.02
	Primorskaya	Mean	2.60	1.57	2.40	1.36	0.90	0.36	0.21	0.18	0.34	0.88	4.65	0.03	1.15
		%	100	100	100	100	100	100	100	100	100	100	50	100	96
		Max-2w	2.61	2.35	3.38	1.47	1.27	0.40	0.21	0.25	0.44	0.88	4.65	0.03	4.65
		Min-2w	2.59	0.78	1.42	1.25	0.53	0.32	0.21	0.12	0.24	0.88	4.65	0.03	0.03
Thailand	Bangkok	Mean	2.04	2.51	3.87	3.58	2.00	1.41	0.41	0.71	1.18	1.16	3.73	3.75	2.20
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-10d	3.29	3.82	5.14	3.97	4.61	1.48	0.94	1.05	1.80	1.74	4.27	6.14	6.14
		Min-10d	1.00	1.64	2.41	2.93	0.51	1.37	<0.01	0.46	0.74	0.85	3.25	1.98	<0.01
	Khanchanaburi (Vachiralongkorn Dam)	Mean	-	-	-	0.43	-	-	-	0.18	-	-	<0.01	-	0.20
		%	0	0	0	67	0	0	0	63	0	0	47	0	16
		Max-2w	-	-	-	0.43	-	-	-	0.18	-	-	<0.01	-	0.43
		Min-2w	-	-	-	0.43	-	-	-	0.18	-	-	<0.01	-	<0.01
	Chiang Mai (Mae Hia)	Mean	0.08	0.11	0.16	0.22	0.11	0.05	0.06	0.25	0.11	0.16	-	-	0.13
		%	97	100	97	97	97	97	97	90	97	19	0	0	74
		Max-10d	0.08	0.18	0.20	0.23	0.13	0.08	0.10	0.28	0.13	0.16	-	-	0.28
		Min-10d	0.07	0.07	0.14	0.20	0.09	0.03	0.04	0.23	0.09	0.16	-	-	0.03
	Sakaerat	Mean	0.43	0.33	0.30	0.08	0.16	0.31	0.91	0.23	0.15	0.25	-	-	0.32
		%	100	100	100	100	100	100	100	100	100	32	0	0	78
		Max-10d	0.83	0.53	0.38	0.12	0.21	0.37	1.48	0.32	0.24	0.25	-	-	1.48
		Min-10d	0.20	0.05	0.26	0.06	0.08	0.27	0.28	0.12	0.10	0.25	-	-	0.05
Vietnam	Hanoi	Mean	14.32	10.24	8.34	6.65	5.50	4.53	3.70	3.82	4.30	7.42	7.14	9.82	7.26
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	20.59	23.72	11.17	8.99	6.73	5.33	4.89	5.03	4.71	13.26	9.96	15.10	23.72
		Min-w	7.69	1.51	5.59	1.32	4.16	2.53	2.71	2.54	3.85	4.11	4.34	6.32	1.32
	Hoa Binh	Mean	5.88	7.18	4.39	3.97	1.76	1.08	0.82	0.86	1.15	0.83	2.29	4.79	2.95
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	10.44	12.22	7.87	6.58	3.41	1.93	0.99	1.00	1.31	1.32	2.80	6.68	12.22
		Min-w	2.37	1.98	0.84	0.75	1.07	0.45	0.69	0.67	0.83	0.15	1.80	3.73	0.15
	Can Tho	Mean	0.32	0.38	0.67	0.86	0.75	1.09	0.50	0.33	0.52	0.48	0.23	0.56	0.55
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.63	0.52	0.96	1.36	1.12	1.32	1.05	0.35	0.72	0.96	0.33	0.86	1.36
		Min-w	0.18	0.28	0.35	0.42	0.35	0.86	0.18	0.28	0.35	0.25	0.15	0.23	0.15
	Ho Chi Minh	Mean	2.83	1.44	1.65	1.10	0.82	0.46	0.51	0.48	0.60	0.59	0.89	1.26	1.07
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	3.56	1.98	1.75	1.45	0.97	0.56	0.63	0.82	0.98	0.98	0.98	1.52	3.56
		Min-w	2.31	0.56	1.56	0.86	0.68	0.34	0.37	0.24	0.23	0.34	0.76	1.10	0.23
	Yen Bai*1	Mean								1.75	1.93	3.44	3.37	4.09	3.19
		%								25	100	100	100	100	36
		Max-w								1.75	2.44	6.64	3.59	7.60	7.60
		Min-w								1.75	1.48	2.00	3.27	1.10	1.10

*1 Yen Bai started FP monitoring in August, 2015.

Terms and abbreviations are given in Table 4.2.

Table 4.15 Particulate matter component: Cl^-

Unit : µg/m³			2015												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Cambodia	Phnom Penh	Mean	0.47	0.88	1.13	0.64	0.52	0.64	0.41	0.32	0.35	0.41	0.38	0.44	0.54
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.49	1.06	1.20	0.72	0.55	0.76	0.57	0.37	0.35	0.51	0.50	0.47	1.20
		Min-2w	0.44	0.71	1.05	0.57	0.49	0.53	0.25	0.27	0.35	0.25	0.26	0.41	0.25
Indonesia	Jakarta	Mean	-	-	-	-	-	-	-	-	1.19	0.55	0.12	0.51	0.51
		%	0	0	0	0	0	0	0	0	47	85	100	100	27
		Max-2w	-	-	-	-	-	-	-	-	1.19	0.99	0.16	0.82	1.19
		Min-2w	-	-	-	-	-	-	-	-	1.19	0.12	0.08	0.20	0.08
	Serpong	Mean	0.49	0.13	0.22	0.18	0.16	0.28	0.54	0.27	0.16	0.49	0.17	-	0.28
		%	100	100	100	100	100	100	100	100	100	100	82	0	90
		Max-2w	0.70	0.19	0.33	0.35	0.16	0.47	0.60	0.33	0.24	0.76	0.34	-	0.76
		Min-2w	0.28	0.07	0.11	0.06	0.16	0.09	0.48	0.21	0.08	0.22	<0.01	-	<0.01
	Bandung	Mean	0.4	0.3	0.2	0.2	0.3	0.4	0.31	0.26	0.25	0.27	0.15	0.21	0.27
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.6	0.3	0.3	0.3	0.3	0.6	0.43	0.27	0.30	0.30	0.16	0.31	0.59
		Min-2w	0.3	0.2	0.1	0.1	0.3	0.1	0.18	0.26	0.21	0.24	0.14	0.12	0.09
Japan	Rishiri	Mean	1.44	2.49	3.19	5.74	2.61	0.54	0.75	0.34	10.46	7.88	1.33	2.75	3.57
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	1.83	2.80	5.11	8.69	2.77	0.68	0.99	0.50	29.32	7.91	1.87	3.43	29.32
		Min-2w	1.05	2.19	1.18	2.79	2.45	0.39	0.52	0.17	0.95	7.85	0.79	2.07	0.17
	Ochiishi	Mean	3.88	4.72	6.52	4.12	4.96	1.51	1.57	1.98	4.84	6.75	9.94	3.81	4.46
		%	100	100	30	100	100	100	100	100	100	100	100	100	92
		Max-2w	4.22	5.61	6.52	5.30	5.50	2.13	2.53	3.15	7.63	7.15	14.68	4.32	14.68
		Min-2w	3.53	3.82	6.52	2.95	4.42	0.89	0.60	0.81	2.04	6.34	5.20	3.29	0.60
	Tappi	Mean	6.99	4.72	8.10	3.80	3.94	1.59	0.59	1.04	67.12	9.70	6.85	49.63	12.97
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	7.99	6.16	12.13	4.43	5.31	3.04	1.10	2.06	132.45	9.95	11.43	86.62	132.45
		Min-2w	6.00	3.28	3.70	3.16	2.57	0.14	0.08	0.35	1.80	9.45	2.27	12.64	0.08
	Sado-seki	Mean	4.97	13.18	5.63	1.76	2.45	1.59	0.62	1.47	4.45	5.66	6.76	4.95	4.39
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	6.04	23.35	11.46	3.33	4.62	2.11	1.23	2.67	6.09	5.95	11.74	5.80	23.35
		Min-2w	3.91	3.01	1.65	0.19	0.29	1.07	0.02	0.01	2.80	5.37	1.78	4.09	0.01
	Happo	Mean	<0.01	<0.01	0.05	0.02	<0.01	0.02	<0.01	<0.01	0.06	0.06	<0.01	0.02	0.02
		%	100	100	100	100	100	100	50	100	100	100	100	100	96
		Max-2w	<0.01	<0.01	0.14	0.02	0.01	0.03	<0.01	0.01	0.12	0.07	<0.01	0.03	0.14
		Min-2w	<0.01	<0.01	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	0.05	<0.01	<0.01	<0.01
	Ijira	Mean	0.03	0.06	0.07	0.06	0.01	0.01	0.02	<0.01	0.09	0.09	0.05	0.06	0.05
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.04	0.08	0.09	0.07	0.02	0.01	0.03	0.01	0.17	0.16	0.07	0.08	0.17
		Min-2w	0.02	0.05	0.05	0.05	<0.01	<0.01	0.02	<0.01	0.02	0.02	0.04	0.03	<0.01
	Oki	Mean	10.27	7.70	6.23	1.93	1.73	0.93	1.06	0.51	3.66	4.08	5.71	10.76	4.58
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	10.75	8.21	10.99	3.65	3.41	1.51	1.53	0.88	4.27	4.94	8.91	17.43	17.43
		Min-2w	9.79	7.18	1.96	0.22	0.04	0.35	0.59	0.13	2.94	3.22	2.51	4.08	0.04
	Banryu	Mean	2.56	3.06	2.03	0.88	0.04	0.62	1.09	0.36	1.95	1.02	1.43	1.99	1.40
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	2.86	3.20	2.81	1.76	0.07	1.22	2.11	0.93	2.59	1.67	2.00	2.95	3.20
		Min-2w	2.27	2.91	1.19	<0.01	<0.01	0.02	0.07	0.01	1.31	0.37	0.85	1.03	<0.01
	Yusuhara	Mean	0.14	0.14	0.10	0.03	0.02	0.02	0.09	<0.01	0.06	0.07	0.02	0.12	0.07
		%	100	100	67	55	100	100	100	100	100	100	100	100	92
		Max-2w	0.17	0.21	0.16	0.03	0.03	0.04	0.14	0.02	0.11	0.11	0.04	0.18	0.21
		Min-2w	0.12	0.07	0.05	0.03	0.01	<0.01	0.04	<0.01	0.01	0.02	0.01	0.06	<0.01
	Hedo	Mean	7.00	4.27	5.88	3.62	3.06	5.27	4.07	4.18	6.82	9.84	7.87	9.24	5.86
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	9.64	5.34	6.62	5.22	3.56	7.43	4.48	5.42	8.31	10.26	9.71	11.10	11.10
		Min-2w	4.36	3.19	4.66	2.02	2.57	3.11	3.65	2.92	5.32	9.43	6.04	7.39	2.02
	Ogasawara	Mean	4.82	4.43	5.08	2.65	3.73	2.81	5.15	3.50	3.77	5.34	4.19	5.71	4.32
		%	100	100	100	100	100	50	100	100	100	100	100	100	96
		Max-2w	4.86	4.87	9.74	3.35	4.69	2.81	5.53	3.84	4.46	6.49	4.79	6.06	9.74
		Min-2w	4.78	3.99	2.66	1.95	2.76	2.81	4.77	2.89	3.09	4.20	3.59	5.35	1.95
	Tokyo	Mean	0.56	0.81	0.75	0.41	0.19	0.16	0.21	0.21	0.56	0.84	0.66	1.01	0.53
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.73	1.18	1.06	0.53	0.31	0.25	0.38	0.29	0.96	1.29	0.68	1.26	1.29
		Min-2w	0.40	0.43	0.51	0.29	0.08	0.06	0.03	0.13	0.15	0.39	0.65	0.76	0.03
Lao PDR	Vientiane	Mean	0.03	0.02	0.03	0.02	0.08	0.08	0.14	0.14	0.02	0.07	0.08	0.03	0.06
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.03	0.02	0.03	0.02	0.08	0.08	0.14	0.14	0.02	0.07	0.08	0.03	0.14
		Min-2w	0.03	0.02	0.03	0.02	0.08	0.08	0.14	0.14	0.02	0.07	0.08	0.03	0.02
Malaysia	Petaling Jaya	Mean	0.21	0.20	0.15	0.09	0.10	0.11	0.19	-	-	0.12	0.12	0.12	0.15
		%	100	100	100	100	100	75	80	0	0	20	50	75	67
		Max-w	0.39	0.47	0.25	0.11	0.14	0.14	0.24	-	-	0.12	0.17	0.17	0.47
		Min-w	0.08	0.09	0.09	0.07	0.06	0.07	0.12	-	-	0.12	0.08	0.07	0.06
	Tanah Rata	Mean	0.11	0.10	0.12	0.05	0.01	0.16	0.06	0.05	0.19	0.22	0.03	0.18	0.11
		%	60	100	100	100	100	100	80	100	100	100	100	100	94
		Max-w	0.18	0.24	0.26	0.06	0.02	0.47	0.09	0.07	0.50	0.57	0.05	0.25	0.57
		Min-w	0.06	0.02	0.05	0.02	<0.01	<0.01	0.02	0.03	0.01	<0.01	<0.01	0.13	<0.01
	Danum Valley	Mean	0.39	0.46	0.13	0.02	<0.01	0.01	<0.01	<0.01	0.01	0.01	0.03	0.22	0.11
		%	100	100	100	100	100	100	100	100	100	100	100	67	96
		Max-2w	0.59	0.72	0.26	0.04	0.01	0.01	0.01	0.01	0.01	0.02	0.06	0.37	0.72
		Min-2w	0.19	0.20	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.08	<0.01

Table 4.15 Particulate matter component: Cl^- (continued)

Unit : $\mu g/m^3$			2015												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Myanmar	Yangon	Mean	0.60	4.94	0.60	0.46	0.76	0.37	0.43	0.83	0.60	<0.01	0.02	0.39	0.63
		%	100	50	50	100	100	100	100	100	100	100	100	100	92
		Max-2w	1.13	4.94	0.60	0.53	1.30	1.11	0.63	1.56	1.21	<0.01	0.04	1.16	4.94
		Min-2w	0.06	4.94	0.60	0.40	0.22	<0.01	0.22	0.10	<0.01	<0.01	<0.01	<0.01	<0.01
Philippines	Mt. Sto. Tomas	Mean	0.04	0.06	0.15	0.06	0.09	0.12	0.09	0.05	0.10	0.14	0.08	0.06	0.08
		%	80	100	100	100	100	100	100	100	100	41	50	100	89
		Max-w	0.07	0.08	0.25	0.19	0.35	0.36	0.27	0.16	0.15	0.20	0.10	0.08	0.36
		Min-w	<0.01	<0.01	0.05	<0.01	<0.01	<0.01	<0.01	<0.01	0.03	0.09	0.06	0.05	<0.01
Republic of Korea	Kanghwa	Mean	0.30	0.50	0.10	0.08	0.07	0.04	0.06	0.02	0.02	0.04	0.03	0.23	0.13
		%	16	18	16	17	13	17	16	16	17	16	13	19	16
		Max-d	1.10	1.83	0.27	0.12	0.15	0.05	0.08	0.04	0.04	0.09	0.03	0.51	1.83
		Min-d	0.02	0.08	0.05	0.05	0.02	0.04	0.02	0.01	<0.01	<0.01	0.02	0.03	<0.01
	Cheju (Kosan)	Mean	0.37	0.62	0.42	0.45	0.26	0.36	0.29	0.31	0.48	0.44	0.36	0.27	0.37
		%	16	4	16	17	10	17	10	16	10	16	17	13	13
		Max-d	0.74	0.62	0.60	0.63	0.34	0.56	0.32	0.39	1.00	0.69	0.50	0.47	1.00
		Min-d	0.22	0.62	0.24	0.27	0.21	0.26	0.24	0.27	0.22	0.31	0.27	0.14	0.14
	Imsil	Mean	0.34	0.38	1.16	0.34	0.29	0.27	0.29	0.35	0.22	0.41	0.36	0.16	0.38
		%	16	18	16	17	16	17	16	16	17	16	17	19	17
		Max-d	0.62	0.90	4.19	0.38	0.33	0.34	0.36	0.46	0.24	0.57	0.40	0.19	4.19
		Min-d	0.22	0.23	0.21	0.31	0.26	0.22	0.25	0.28	0.20	0.37	0.29	0.14	0.14
Russia	Mondy	Mean	<0.01	0.03	0.02	0.02	0.03	0.02	0.14	0.29	0.03	0.01	<0.01	<0.01	0.05
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-m	<0.01	0.03	0.02	0.02	0.03	0.02	0.27	0.29	0.03	0.01	<0.01	<0.01	0.29
		Min-m	<0.01	0.03	0.02	0.01	0.03	0.02	0.02	0.29	0.03	0.01	<0.01	<0.01	<0.01
	Listvyanka	Mean	0.52	0.47	0.01	0.05	0.04	0.04	0.02	0.02	0.02	0.01	<0.01	0.03	0.12
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.68	0.63	0.01	0.08	0.07	0.09	0.04	0.03	0.04	0.02	0.02	0.05	0.68
		Min-w	0.37	0.13	0.01	0.02	0.02	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	Irkutsk	Mean	0.07	0.11	0.52	0.22	0.08	0.05	0.05	0.03	0.04	0.10	0.32	0.28	0.17
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.08	0.13	0.87	0.32	0.10	0.09	0.08	0.05	0.07	0.19	0.67	0.44	0.87
		Min-w	0.06	0.10	0.17	0.13	0.04	0.03	0.03	<0.01	0.02	0.03	0.11	0.09	<0.01
	Primorskaya	Mean	0.10	0.15	0.22	0.12	0.36	0.06	0.08	0.03	0.08	0.09	0.89	0.02	0.15
		%	100	100	100	100	100	100	100	100	100	100	50	100	96
		Max-2w	0.12	0.16	0.24	0.17	0.70	0.10	0.15	0.05	0.12	0.10	0.89	0.02	0.89
		Min-2w	0.08	0.15	0.19	0.08	0.02	0.03	<0.01	0.02	0.03	0.08	0.89	0.02	<0.01
Thailand	Bangkok	Mean	0.14	0.29	0.62	0.19	0.19	0.08	0.10	0.20	0.09	0.05	0.14	0.14	0.19
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-10d	0.26	0.45	0.88	0.31	0.49	0.12	0.20	0.37	0.11	0.10	0.21	0.17	0.88
		Min-10d	0.08	0.13	0.16	0.09	0.03	0.06	<0.01	0.11	0.07	0.01	0.05	0.09	<0.01
	Khanchanaburi (Vachiralongkorn Dam)	Mean	-	-	-	0.03	-	-	-	0.21	-	-	<0.01	-	0.08
		%	0	0	0	67	0	0	0	63	0	0	47	0	16
		Max-2w	-	-	-	0.03	-	-	-	0.21	-	-	<0.01	-	0.21
		Min-2w	-	-	-	0.03	-	-	-	0.21	-	-	<0.01	-	<0.01
	Chiang Mai (Mae Hia)	Mean	0.04	0.04	0.13	0.08	0.05	0.04	0.05	0.09	<0.01	<0.01	-	-	0.06
		%	97	100	97	97	97	97	97	90	97	19	0	0	74
		Max-10d	0.05	0.05	0.20	0.09	0.06	0.05	0.07	0.11	0.01	<0.01	-	-	0.20
		Min-10d	0.04	0.04	0.08	0.07	0.04	0.04	0.04	0.06	<0.01	<0.01	-	-	<0.01
	Sakaerat	Mean	0.11	0.11	0.01	0.03	0.09	0.02	0.29	0.04	0.04	0.13	-	-	0.08
		%	100	100	100	100	100	100	100	100	100	32	0	0	78
		Max-10d	0.24	0.33	0.04	0.10	0.10	0.07	0.53	0.09	0.06	0.13	-	-	0.53
		Min-10d	<0.01	<0.01	<0.01	<0.01	0.08	<0.01	<0.01	<0.01	0.02	0.13	-	-	<0.01
Vietnam	Hanoi	Mean	3.20	2.59	2.53	1.63	1.24	1.11	1.30	2.79	1.76	1.44	2.05	1.77	1.94
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	4.12	4.22	4.49	2.69	1.99	1.33	2.15	3.88	2.15	2.00	2.80	2.07	4.49
		Min-w	2.11	0.51	1.19	0.27	0.72	0.80	0.76	1.75	1.45	0.87	1.17	1.51	0.27
	Hoa Binh	Mean	1.36	0.70	0.53	0.43	0.73	1.01	1.08	0.86	1.01	0.54	0.56	0.62	0.79
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	2.61	1.21	1.21	0.73	2.15	2.90	2.33	1.29	1.69	1.44	0.74	0.78	2.90
		Min-w	0.47	0.18	0.17	0.16	0.10	0.18	0.22	0.56	0.51	0.14	0.26	0.50	0.10
	Can Tho	Mean	0.66	0.40	0.51	0.90	0.59	0.53	0.33	0.23	0.44	0.18	0.24	0.45	0.46
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	1.06	0.65	0.62	1.25	0.75	0.68	0.46	0.35	0.88	0.35	0.35	0.62	1.25
		Min-w	0.35	0.25	0.32	0.65	0.42	0.25	0.24	0.15	0.15	0.05	0.14	0.26	0.05
	Ho Chi Minh	Mean	1.28	0.72	0.24	0.28	0.24	0.22	0.32	0.42	0.53	0.90	1.00	0.76	0.59
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	2.05	1.02	0.35	0.53	0.34	0.42	0.56	0.62	0.98	1.25	1.42	1.25	2.05
		Min-w	0.34	0.42	0.12	0.14	0.16	0.10	0.14	0.18	0.26	0.24	0.65	0.49	0.10
	Yen Bai*1	Mean								0.87	1.27	0.95	1.04	0.86	1.01
		%								25	100	100	100	100	36
		Max-w								0.87	2.37	2.13	1.17	1.20	2.37
		Min-w								0.87	0.43	0.52	0.75	0.54	0.43

*1 Yen Bai started FP monitoring in August, 2015.

Terms and abbreviations are given in Table 4.2.

Table 4.16 Particulate matter component: NH_4^+

Unit : µg/m³			2015												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Cambodia	Phnom Penh	Mean	0.72	1.24	1.02	0.44	0.43	0.28	0.33	0.47	0.26	0.44	0.49	0.39	0.54
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	1.01	1.36	1.03	0.46	0.52	0.32	0.38	0.55	0.26	0.68	0.57	0.43	1.36
		Min-2w	0.44	1.13	1.01	0.42	0.30	0.24	0.28	0.40	0.26	0.21	0.41	0.35	0.21
Indonesia	Jakarta	Mean	-	-	-	-	-	-	-	-	0.90	0.31	1.01	0.72	0.71
		%	0	0	0	0	0	0	0	0	47	85	100	100	27
		Max-2w	-	-	-	-	-	-	-	-	0.90	0.62	1.15	1.06	1.15
		Min-2w	-	-	-	-	-	-	-	-	0.90	<0.01	0.87	0.39	<0.01
	Serpong	Mean	0.26	0.20	0.37	0.53	1.63	0.92	0.78	0.41	0.50	0.66	1.12	-	0.67
		%	100	100	100	100	100	100	100	100	100	100	82	0	90
		Max-2w	0.47	0.37	0.40	0.83	1.90	1.37	0.96	0.63	0.89	0.77	2.21	-	2.21
		Min-2w	0.05	0.04	0.35	0.21	1.37	0.47	0.60	0.20	0.12	0.55	0.02	-	0.02
	Bandung	Mean	0.7	1.4	1.0	1.16	1.84	1.31	0.83	1.10	1.00	0.77	1.64	1.24	1.17
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	1.1	1.6	1.5	1.68	2.44	1.86	0.94	1.27	1.15	0.82	1.77	1.70	2.44
		Min-2w	0.3	1.2	0.5	0.64	1.25	0.77	0.73	0.92	0.84	0.73	1.51	0.78	0.29
Japan	Rishiri	Mean	0.32	0.25	0.87	0.80	0.42	0.32	0.29	0.59	0.18	0.53	0.20	0.69	0.46
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.32	0.25	1.13	0.89	0.56	0.32	0.33	0.78	0.23	0.64	0.27	0.78	1.13
		Min-2w	0.32	0.24	0.63	0.70	0.29	0.31	0.25	0.39	0.13	0.43	0.13	0.60	0.13
	Ochiishi	Mean	0.18	0.18	0.25	0.48	0.29	0.25	0.30	0.28	0.09	0.09	0.12	0.33	0.24
		%	100	100	30	100	100	100	100	100	100	100	100	100	92
		Max-2w	0.20	0.29	0.25	0.60	0.33	0.31	0.33	0.31	0.17	0.10	0.19	0.37	0.60
		Min-2w	0.17	0.08	0.25	0.37	0.24	0.20	0.26	0.24	0.01	0.09	0.05	0.29	0.01
	Tappi	Mean	0.46	0.47	0.47	0.84	0.59	0.34	0.25	0.80	0.22	0.42	0.18	0.35	0.46
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.52	0.50	0.71	1.13	0.75	0.67	0.46	1.52	0.34	0.47	0.29	0.37	1.52
		Min-2w	0.41	0.44	0.13	0.56	0.42	0.02	0.04	0.42	0.10	0.36	0.07	0.34	0.02
	Sado-seki	Mean	0.68	0.38	1.08	0.77	1.31	0.92	0.55	1.17	0.20	0.42	0.12	0.31	0.69
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.86	0.45	2.19	0.94	1.73	1.30	0.86	2.62	0.31	0.58	0.20	0.45	2.62
		Min-2w	0.49	0.31	0.35	0.60	0.89	0.55	0.24	0.32	0.09	0.26	0.04	0.17	0.04
	Happo	Mean	0.27	0.40	0.38	0.79	1.16	0.89	0.25	1.09	0.31	0.81	0.15	0.11	0.59
		%	100	100	100	100	100	100	50	100	100	100	100	100	96
		Max-2w	0.33	0.54	0.61	1.02	1.63	1.32	0.25	2.23	0.47	0.92	0.15	0.14	2.23
		Min-2w	0.22	0.26	0.14	0.55	0.69	0.46	0.25	0.32	0.14	0.70	0.15	0.08	0.08
	Ijira	Mean	0.47	0.64	0.82	0.95	0.95	0.56	0.73	1.18	0.54	1.05	0.43	0.56	0.76
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.52	0.79	1.01	1.03	1.21	1.06	1.20	2.29	0.55	1.27	0.50	0.61	2.29
		Min-2w	0.42	0.49	0.54	0.86	0.68	0.06	0.27	0.55	0.53	0.84	0.36	0.51	0.06
	Oki	Mean	0.99	0.98	1.06	0.97	1.70	1.12	0.69	1.37	0.28	0.74	0.48	0.60	0.90
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	1.03	1.47	1.35	1.03	2.01	1.41	0.72	2.18	0.34	1.01	0.68	0.71	2.18
		Min-2w	0.94	0.48	0.71	0.91	1.39	0.82	0.66	0.55	0.19	0.48	0.29	0.49	0.19
	Banryu	Mean	1.53	1.59	1.25	0.95	1.52	1.34	0.63	1.40	0.47	1.01	0.44	0.96	1.11
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	1.59	2.05	1.37	0.98	1.54	1.46	0.91	2.19	0.51	1.27	0.53	1.22	2.19
		Min-2w	1.48	1.13	1.08	0.91	1.50	1.23	0.35	0.73	0.43	0.75	0.35	0.70	0.35
	Yusuhara	Mean	1.38	1.22	0.90	1.17	0.88	1.02	0.24	1.30	0.72	1.04	0.39	0.60	0.91
		%	100	100	67	55	100	100	100	100	100	100	100	100	92
		Max-2w	1.39	1.43	0.93	1.17	1.19	1.18	0.35	2.13	0.90	1.32	0.45	0.68	2.13
		Min-2w	1.37	1.01	0.88	1.17	0.58	0.86	0.13	0.88	0.54	0.77	0.33	0.52	0.13
	Hedo	Mean	1.62	1.61	0.64	0.84	0.48	0.23	0.07	0.39	0.50	0.66	0.41	0.62	0.66
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	1.94	1.91	0.80	0.90	0.48	0.24	0.08	0.58	0.63	0.77	0.41	0.62	1.94
		Min-2w	1.29	1.31	0.44	0.79	0.47	0.23	0.07	0.10	0.36	0.56	0.41	0.62	0.07
	Ogasawara	Mean	0.46	0.46	0.40	0.38	0.19	0.06	0.05	0.30	0.10	0.10	0.07	0.29	0.25
		%	100	100	100	100	100	50	100	100	100	100	100	100	96
		Max-2w	0.63	0.63	0.54	0.55	0.25	0.06	0.05	0.53	0.13	0.14	0.10	0.42	0.63
		Min-2w	0.28	0.28	0.16	0.21	0.13	0.06	0.05	0.16	0.07	0.06	0.04	0.16	0.04
	Tokyo	Mean	1.41	1.84	2.14	1.52	1.42	1.33	1.02	1.44	0.64	1.18	1.06	1.44	1.40
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	1.41	2.20	3.11	1.81	1.61	1.48	1.13	2.54	0.65	1.21	1.08	1.45	3.11
		Min-2w	1.41	1.48	1.48	1.23	1.23	1.17	0.90	0.79	0.63	1.15	1.04	1.43	0.63
Lao PDR	Vientiane	Mean	0.19	1.76	1.64	1.24	0.60	0.86	0.71	0.59	1.26	1.65	3.09	1.09	1.22
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.19	1.76	1.64	1.24	0.60	0.86	0.71	0.59	1.26	1.65	3.09	1.09	3.09
		Min-2w	0.19	1.76	1.64	1.24	0.60	0.86	0.71	0.59	1.26	1.65	3.09	1.09	0.19
Malaysia	Petaling Jaya	Mean	0.95	1.73	1.46	1.17	1.40	1.25	1.08	-	-	0.82	0.73	0.55	1.18
		%	100	100	100	100	100	75	80	0	0	20	50	75	67
		Max-w	1.55	2.44	2.31	1.31	1.72	1.66	1.51	-	-	0.82	0.89	0.57	2.44
		Min-w	0.44	0.65	0.89	1.05	0.80	0.74	0.85	-	-	0.82	0.58	0.54	0.44
	Tanah Rata	Mean	0.24	0.68	0.79	0.53	0.65	0.71	0.81	0.93	2.80	3.96	0.14	0.24	1.11
		%	60	100	100	100	100	100	80	100	100	100	100	100	94
		Max-w	0.27	1.36	1.88	0.68	0.87	1.03	1.34	1.88	5.13	6.12	0.21	0.34	6.12
		Min-w	0.19	0.29	0.40	0.37	0.20	0.41	0.41	0.53	1.23	0.12	<0.01	0.17	<0.01
	Danum Valley	Mean	0.03	0.05	0.02	0.05	0.12	0.28	0.19	0.39	0.95	0.82	0.06	0.03	0.25
		%	100	100	100	100	100	100	100	100	100	100	100	67	96
		Max-2w	0.04	0.05	0.03	0.10	0.12	0.38	0.20	0.57	1.22	1.23	0.07	0.04	1.23
		Min-2w	0.03	0.05	0.01	<0.01	0.12	0.09	0.18	0.21	0.67	0.41	0.06	<0.01	<0.01

Table 4.16 Particulate matter component: NH_4^+ (continued)

Unit : μg/m^3			2015												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Myanmar	Yangon	Mean	1.52	3.37	0.44	0.62	0.14	0.08	<0.01	0.09	0.45	<0.01	<0.01	0.33	0.45
		%	100	50	50	100	100	100	100	100	100	100	100	100	92
		Max-2w	2.65	3.37	0.44	0.78	0.18	0.18	<0.01	0.19	0.88	0.02	<0.01	0.96	3.37
		Min-2w	0.38	3.37	0.44	0.45	0.10	0.01	<0.01	<0.01	0.02	<0.01	<0.01	<0.01	<0.01
Philippines	Mt. Sto. Tomas	Mean	0.08	0.07	0.28	0.08	0.04	<0.01	<0.01	0.03	<0.01	<0.01	<0.01	<0.01	0.05
		%	80	100	100	100	100	100	100	100	100	41	50	100	89
		Max-w	0.22	0.18	0.77	0.22	0.08	0.01	0.02	0.05	<0.01	<0.01	<0.01	<0.01	0.77
		Min-w	0.02	0.02	0.03	0.03	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Republic of Korea	Kanghwa	Mean	3.84	5.41	4.35	3.29	2.75	4.61	1.52	4.40	1.96	3.07	1.37	4.45	3.48
		%	16	18	16	17	13	17	16	16	17	16	13	19	16
		Max-d	9.36	9.77	11.49	8.26	4.97	7.27	2.89	13.39	3.63	8.42	2.18	7.17	13.39
		Min-d	0.75	2.75	1.07	0.84	1.18	1.34	0.07	0.50	0.12	1.18	0.16	1.23	0.07
	Cheju (Kosan)	Mean	1.55	6.68	2.32	3.03	1.31	2.62	2.49	3.15	1.72	2.65	0.93	2.01	2.30
		%	16	4	16	17	10	17	10	16	10	16	17	13	13
		Max-d	2.11	6.68	4.97	7.94	2.17	4.78	4.50	5.69	3.36	6.95	1.19	2.73	7.94
		Min-d	0.85	6.68	1.06	0.61	0.76	1.26	0.82	0.98	0.85	1.11	0.58	1.26	0.58
	Imsil	Mean	2.29	5.22	3.82	2.45	1.54	1.72	1.00	2.37	1.52	3.19	1.77	1.53	2.36
		%	16	18	16	17	16	17	16	16	17	16	17	19	17
		Max-d	4.02	10.24	8.78	6.94	2.72	2.82	1.93	4.91	3.19	8.82	2.78	3.06	10.24
		Min-d	0.25	2.35	0.42	0.62	0.50	0.64	0.56	1.48	0.29	0.40	0.28	0.49	0.25
Russia	Mondy	Mean	0.01	0.02	0.01	<0.01	<0.01	0.05	0.03	<0.01	0.04	<0.01	0.05	0.04	0.03
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-m	0.01	0.02	0.01	0.02	<0.01	0.10	0.06	<0.01	0.04	<0.01	0.10	0.04	0.10
		Min-m	0.01	0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.04	<0.01	<0.01	0.04	<0.01
	Listvyanka	Mean	0.64	0.39	0.15	0.11	0.10	0.12	0.14	0.14	0.02	0.02	0.31	0.13	0.20
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	1.00	0.62	0.23	0.21	0.21	0.21	0.30	0.32	0.06	0.04	1.11	0.30	1.11
		Min-w	0.46	0.09	0.07	<0.01	0.03	0.04	0.08	<0.01	<0.01	<0.01	<0.01	0.02	<0.01
	Irkutsk	Mean	0.53	0.31	0.70	0.42	0.18	0.26	0.43	0.27	0.15	0.31	2.46	1.74	0.70
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.75	0.50	1.56	0.65	0.32	0.52	0.57	0.46	0.25	0.59	3.75	2.76	3.75
		Min-w	0.27	0.15	0.25	0.26	0.11	0.15	0.29	0.04	0.11	0.17	1.21	0.96	0.04
	Primorskaya	Mean	1.96	1.26	1.64	1.16	0.82	0.77	0.68	0.77	0.66	1.09	2.18	0.08	1.04
		%	100	100	100	100	100	100	100	100	100	100	50	100	96
		Max-2w	1.97	1.96	1.89	1.31	0.87	1.09	1.16	1.06	0.99	1.19	2.18	0.11	2.18
		Min-2w	1.95	0.57	1.39	1.02	0.77	0.44	0.20	0.47	0.32	0.99	2.18	0.05	0.05
Thailand	Bangkok	Mean	0.97	1.03	1.04	0.93	0.05	0.39	0.12	0.04	0.49	1.11	0.87	0.79	0.65
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-10d	1.62	1.37	1.41	1.56	0.13	0.95	0.35	0.07	0.99	1.83	1.04	1.17	1.83
		Min-10d	0.40	0.75	0.46	0.33	<0.01	0.10	<0.01	<0.01	0.23	0.33	0.68	0.54	<0.01
	Khanchanaburi (Vachiralongkorn Dam)	Mean	-	-	-	1.55	-	-	-	0.25	-	-	<0.01	-	0.60
		%	0	0	0	67	0	0	0	63	0	0	47	0	16
		Max-2w	-	-	-	1.55	-	-	-	0.25	-	-	<0.01	-	1.55
		Min-2w	-	-	-	1.55	-	-	-	0.25	-	-	<0.01	-	<0.01
	Chiang Mai (Mae Hia)	Mean	0.02	0.09	0.25	0.06	0.07	0.02	<0.01	0.21	0.23	0.31	-	-	0.11
		%	97	100	97	97	97	97	97	90	97	19	0	0	74
		Max-10d	0.02	0.12	0.32	0.06	0.09	0.02	0.02	0.24	0.25	0.31	-	-	0.32
		Min-10d	0.02	0.07	0.19	0.06	0.05	<0.01	<0.01	0.18	0.21	0.31	-	-	<0.01
	Sakaerat	Mean	1.12	1.52	1.89	0.93	0.62	0.43	0.57	0.40	0.56	0.44	-	-	0.88
		%	100	100	100	100	100	100	100	100	100	32	0	0	78
		Max-10d	2.51	2.29	2.56	1.67	1.04	0.79	0.62	0.57	0.69	0.44	-	-	2.56
		Min-10d	0.03	0.70	1.02	0.41	<0.01	0.04	0.50	0.27	0.40	0.44	-	-	<0.01
Vietnam	Hanoi	Mean	4.41	5.33	2.62	1.20	0.74	0.55	1.17	0.99	0.70	2.68	1.57	2.41	2.06
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	7.09	12.03	3.07	3.02	0.95	0.68	2.28	1.13	0.88	6.93	2.23	3.33	12.03
		Min-w	2.20	0.34	2.36	0.43	0.26	0.36	0.29	0.82	0.47	1.16	0.93	1.44	0.26
	Hoa Binh	Mean	3.73	4.65	2.54	2.10	1.07	0.51	1.08	0.84	1.10	1.65	1.07	3.13	1.99
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	9.15	7.92	4.01	5.43	1.68	1.18	2.56	1.22	1.73	2.75	1.36	4.55	9.15
		Min-w	0.45	1.49	0.57	0.44	0.68	0.19	0.49	0.24	0.68	0.52	0.77	1.97	0.19
	Can Tho	Mean	0.53	0.86	1.07	1.65	1.36	1.76	0.88	0.57	0.77	1.18	1.12	1.26	1.08
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	1.35	2.56	2.23	2.38	2.36	2.68	1.35	0.78	1.25	1.35	1.35	1.52	2.68
		Min-w	0.12	0.18	0.46	0.60	0.56	0.65	0.35	0.35	0.36	0.98	0.88	1.06	0.12
	Ho Chi Minh	Mean	2.03	1.66	0.78	1.20	1.15	1.57	1.21	1.28	0.95	0.86	1.24	2.14	1.35
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	2.88	2.54	1.24	1.36	1.56	2.26	1.42	1.75	1.24	1.26	1.34	2.53	2.88
		Min-w	1.24	1.24	0.45	0.78	0.56	0.86	0.98	1.02	0.65	0.27	1.14	1.45	0.27
	Yen Bai*1	Mean								2.14	1.50	2.51	1.79	2.02	2.00
		%								25	100	100	100	100	36
		Max-w								2.14	2.25	4.49	2.01	2.85	4.49
		Min-w								2.14	0.95	1.46	1.65	0.75	0.75

*1 Yen Bai started FP monitoring in August, 2015.

Terms and abbreviations are given in Table 4.2.

Table 4.17 Particulate matter component: Na^+

Unit : $\mu g/m^3$			2015												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Cambodia	Phnom Penh	Mean	1.19	1.93	2.04	0.82	0.69	0.63	0.31	0.29	0.47	0.38	0.54	0.72	0.81
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	1.64	2.25	2.08	0.95	0.80	0.70	0.32	0.30	0.63	0.65	0.88	0.77	2.25
		Min-2w	0.74	1.61	2.00	0.68	0.54	0.56	0.30	0.28	0.32	0.19	0.20	0.67	0.19
Indonesia	Jakarta	Mean	-	-	-	-	-	-	-	-	2.68	0.68	0.74	0.62	0.97
		%	0	0	0	0	0	0	0	0	47	85	100	100	27
		Max-2w	-	-	-	-	-	-	-	-	2.7	1.0	0.9	0.8	2.7
		Min-2w	-	-	-	-	-	-	-	-	2.68	0.33	0.62	0.44	0.33
	Serpong	Mean	0.45	0.71	0.31	0.18	0.56	0.71	0.94	1.52	0.50	1.68	0.36	-	0.69
		%	100	100	100	100	100	100	100	100	100	100	82	0	90
		Max-2w	0.76	0.96	0.49	0.28	0.63	1.28	0.99	1.53	0.94	2.18	0.71	-	2.18
		Min-2w	0.13	0.46	0.13	0.07	0.49	0.14	0.88	1.52	0.06	1.17	<0.01	-	<0.01
	Bandung	Mean	0.4	0.7	0.3	0.16	0.51	0.83	0.84	1.04	0.91	1.16	0.47	0.38	0.64
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.4	1.0	0.3	0.16	0.55	0.95	0.94	1.07	1.07	1.42	0.51	0.46	1.42
		Min-2w	0.3	0.4	0.2	0.16	0.48	0.72	0.74	1.02	0.74	0.91	0.42	0.29	0.16
Japan	Rishiri	Mean	1.15	1.68	2.27	4.07	2.01	0.57	0.80	0.68	6.28	4.92	0.94	2.05	2.44
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	1.44	1.85	3.46	6.04	2.29	0.64	0.81	1.13	16.95	5.02	1.34	2.53	16.95
		Min-2w	0.86	1.50	1.15	2.10	1.73	0.49	0.78	0.23	0.89	4.82	0.54	1.56	0.23
	Ochiishi	Mean	2.22	2.87	3.96	2.93	3.42	1.55	1.65	1.76	3.04	3.83	5.32	2.35	2.86
		%	100	100	30	100	100	100	100	100	100	100	100	100	92
		Max-2w	2.39	3.67	3.96	3.42	3.52	1.82	2.39	2.46	4.94	4.07	7.55	2.62	7.55
		Min-2w	2.06	2.07	3.96	2.44	3.33	1.28	0.91	1.06	1.14	3.59	3.08	2.08	0.91
	Tappi	Mean	4.51	3.25	4.94	3.35	3.28	1.33	1.03	1.47	38.04	6.06	4.16	28.35	7.92
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	5.40	4.01	7.54	4.13	3.62	2.61	1.94	1.88	74.54	6.14	6.43	49.09	74.54
		Min-2w	3.62	2.49	2.19	2.58	2.95	0.06	0.11	1.03	1.54	5.97	1.89	7.61	0.06
	Sado-seki	Mean	3.60	7.85	3.69	1.99	2.62	1.61	1.74	1.55	2.81	3.85	4.07	3.16	3.17
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	4.12	13.45	6.81	2.75	3.91	1.72	2.51	2.02	3.56	3.96	6.89	3.42	13.45
		Min-2w	3.08	2.25	1.54	1.24	1.32	1.50	0.97	0.87	2.05	3.74	1.26	2.91	0.87
	Happo	Mean	0.06	0.07	0.14	0.11	0.08	0.04	0.11	0.04	0.08	0.28	0.02	0.03	0.09
		%	100	100	100	100	100	100	50	100	100	100	100	100	96
		Max-2w	0.07	0.07	0.28	0.16	0.09	0.07	0.11	0.07	0.11	0.28	0.02	0.04	0.28
		Min-2w	0.05	0.07	<0.01	0.07	0.08	<0.01	0.11	0.02	0.06	0.27	0.02	0.03	<0.01
	Ijira	Mean	0.11	0.18	0.23	0.31	0.19	0.09	0.34	0.18	0.29	0.45	0.12	0.23	0.23
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.13	0.20	0.25	0.43	0.32	0.17	0.55	0.28	0.33	0.64	0.15	0.26	0.64
		Min-2w	0.09	0.17	0.21	0.18	0.07	0.01	0.13	0.11	0.25	0.27	0.10	0.20	0.01
	Oki	Mean	6.76	5.05	4.37	2.18	2.17	1.41	1.35	1.01	2.68	3.33	3.86	6.45	3.40
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	7.02	5.56	6.81	3.02	3.32	1.90	2.00	1.02	3.03	3.75	5.81	10.02	10.02
		Min-2w	6.51	4.54	2.00	1.34	1.02	0.93	0.69	1.00	2.20	2.91	1.90	2.88	0.69
	Banryu	Mean	2.31	2.50	1.84	1.36	0.50	0.96	1.37	0.91	1.64	1.36	1.23	1.67	1.46
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	2.36	2.60	2.28	1.74	0.64	1.47	2.02	1.46	2.06	1.91	1.50	2.22	2.60
		Min-2w	2.25	2.39	1.22	0.98	0.35	0.46	0.71	0.58	1.22	0.81	0.97	1.12	0.35
	Yusuhara	Mean	0.46	0.41	0.35	0.30	0.19	0.08	0.28	0.23	0.30	0.46	0.22	0.40	0.30
		%	100	100	67	55	100	100	100	100	100	100	100	100	92
		Max-2w	0.46	0.53	0.45	0.30	0.30	0.10	0.37	0.27	0.34	0.57	0.24	0.47	0.57
		Min-2w	0.45	0.28	0.25	0.30	0.08	0.06	0.19	0.18	0.26	0.34	0.21	0.33	0.06
	Hedo	Mean	6.11	3.96	4.34	3.63	2.86	3.48	2.36	3.23	5.21	6.92	5.41	6.36	4.43
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	7.61	4.67	4.73	4.01	3.18	4.64	2.54	3.71	5.79	7.08	6.29	7.56	7.61
		Min-2w	4.60	3.24	3.59	3.26	2.54	2.31	2.19	2.68	4.64	6.76	4.52	5.17	2.19
	Ogasawara	Mean	3.61	3.15	4.70	2.04	2.63	1.60	2.93	2.63	2.30	3.37	2.55	3.89	3.06
		%	100	100	100	100	100	50	100	100	100	100	100	100	96
		Max-2w	3.62	3.47	9.18	2.66	2.87	1.60	3.14	3.02	2.79	4.04	2.82	4.11	9.18
		Min-2w	3.59	2.83	2.17	1.41	2.40	1.60	2.73	2.34	1.81	2.70	2.29	3.67	1.41
	Tokyo	Mean	0.33	0.48	0.78	1.04	1.16	0.78	1.16	0.95	0.99	1.34	0.67	0.74	0.87
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.37	0.72	0.99	1.28	1.31	0.94	1.84	1.14	1.33	1.81	0.70	0.91	1.84
		Min-2w	0.29	0.24	0.63	0.80	1.02	0.62	0.47	0.82	0.65	0.86	0.64	0.57	0.24
Lao PDR	Vientiane	Mean	0.29	0.60	0.36	0.27	0.22	0.24	0.26	0.36	0.12	0.17	0.23	0.22	0.28
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.29	0.60	0.36	0.27	0.22	0.24	0.26	0.36	0.12	0.17	0.23	0.22	0.60
		Min-2w	0.29	0.60	0.36	0.27	0.22	0.24	0.26	0.36	0.12	0.17	0.23	0.22	0.12
Malaysia	Petaling Jaya	Mean	1.28	0.77	0.49	0.48	0.25	0.28	0.55	-	-	0.10	0.09	0.25	0.53
		%	100	100	100	100	100	75	80	0	0	20	50	75	67
		Max-w	1.74	1.03	0.68	0.67	0.29	0.51	0.81	-	-	0.10	0.11	0.31	1.74
		Min-w	0.65	0.54	0.31	0.36	0.20	0.11	0.38	-	-	0.10	0.07	0.17	0.07
	Tanah Rata	Mean	0.53	0.46	0.38	0.26	0.05	0.15	0.18	0.06	0.24	0.28	0.06	0.30	0.24
		%	60	100	100	100	100	100	80	100	100	100	100	100	94
		Max-w	0.82	0.77	0.50	0.31	0.07	0.37	0.27	0.25	0.39	0.63	0.12	0.55	0.82
		Min-w	0.29	0.20	0.24	0.17	0.03	0.02	<0.01	<0.01	0.12	0.05	<0.01	0.19	<0.01
	Danum Valley	Mean	0.88	0.95	0.29	0.21	0.15	0.15	0.37	0.41	0.11	0.32	0.13	0.33	0.35
		%	100	100	100	100	100	100	100	100	100	100	100	67	96
		Max-2w	1.53	1.09	0.55	0.39	0.19	0.27	0.50	0.45	0.23	0.37	0.16	0.39	1.53
		Min-2w	0.23	0.81	0.03	0.02	0.11	0.05	0.24	0.38	<0.01	0.27	0.11	0.28	<0.01

Table 4.17 Particulate matter component: Na^{+} (continued)

Unit : μg/m^3			2015												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Myanmar	Yangon	Mean	0.09	0.08	0.30	0.20	0.17	0.06	0.05	0.13	0.18	<0.01	0.03	0.24	0.12
		%	100	50	50	100	100	100	100	100	100	100	100	100	92
		Max-2w	0.14	0.08	0.30	0.25	0.30	0.17	0.08	0.24	0.35	<0.01	0.06	0.72	0.72
		Min-2w	0.03	0.08	0.30	0.14	0.05	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Philippines	Mt. Sto. Tomas	Mean	0.45	0.35	0.47	0.39	0.55	0.68	0.60	0.46	0.68	2.47	0.57	0.32	0.58
		%	80	100	100	100	100	100	100	100	100	41	50	100	89
		Max-w	0.75	0.42	0.59	0.46	1.04	1.55	1.08	0.69	0.84	4.24	0.59	0.66	4.24
		Min-w	0.31	0.27	0.36	0.28	0.15	0.24	0.35	0.32	0.40	0.69	0.55	0.10	0.10
Republic of Korea	Kanghwa	Mean	0.25	0.32	0.28	0.24	0.32	0.24	0.25	0.31	0.20	0.28	0.15	0.28	0.26
		%	16	18	16	17	13	17	16	16	17	16	13	19	16
		Max-d	0.36	0.62	0.39	0.48	0.46	0.36	0.31	0.63	0.29	0.43	0.20	0.35	0.63
		Min-d	0.14	0.17	0.21	0.12	0.22	0.16	0.18	0.04	0.06	0.17	0.06	0.16	0.04
	Cheju (Kosan)	Mean	0.31	0.72	0.27	0.30	0.19	0.21	0.31	0.34	0.33	0.30	0.22	0.23	0.28
		%	16	4	16	17	10	17	10	16	10	16	17	13	13
		Max-d	0.49	0.72	0.35	0.42	0.24	0.32	0.41	0.52	0.54	0.45	0.33	0.34	0.72
		Min-d	0.22	0.72	0.13	0.14	0.15	0.15	0.19	0.21	0.21	0.21	0.16	0.17	0.13
	Imsil	Mean	0.20	0.47	0.22	0.17	0.19	0.16	0.17	0.18	0.18	0.26	0.20	0.15	0.21
		%	16	18	16	17	16	17	16	16	17	16	17	19	17
		Max-d	0.34	0.97	0.30	0.25	0.24	0.20	0.19	0.23	0.23	0.45	0.27	0.17	0.97
		Min-d	0.14	0.26	0.10	0.10	0.15	0.14	0.16	0.16	0.13	0.17	0.10	0.09	0.09
Russia	Mondy	Mean	<0.01	0.01	<0.01	<0.01	0.01	<0.01	0.13	0.67	0.07	<0.01	0.02	0.01	0.06
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-m	<0.01	0.02	<0.01	<0.01	0.01	<0.01	0.25	0.67	0.07	<0.01	0.02	0.01	0.67
		Min-m	<0.01	<0.01	<0.01	<0.01	0.01	<0.01	0.01	0.67	0.07	<0.01	0.01	0.01	<0.01
	Listvyanka	Mean	0.17	0.17	0.04	0.06	0.02	0.08	0.03	0.04	0.03	0.02	0.04	0.05	0.06
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.20	0.24	0.05	0.10	0.03	0.20	0.04	0.05	0.06	0.03	0.07	0.10	0.24
		Min-w	0.13	0.10	0.03	<0.01	<0.01	<0.01	0.02	0.02	<0.01	<0.01	0.02	0.03	<0.01
	Irkutsk	Mean	0.08	0.14	0.40	0.17	0.06	0.04	0.06	0.05	0.06	0.13	0.14	0.14	0.13
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.09	0.15	0.73	0.25	0.07	0.06	0.07	0.08	0.09	0.20	0.27	0.25	0.73
		Min-w	0.07	0.12	0.13	0.12	0.04	0.03	0.05	0.01	0.04	0.05	0.06	0.05	0.01
	Primorskaya	Mean	0.15	0.15	0.22	0.22	0.24	0.22	0.09	0.17	0.19	0.22	0.22	0.03	0.18
		%	100	100	100	100	100	100	100	100	100	100	50	100	96
		Max-2w	0.16	0.17	0.33	0.23	0.32	0.24	0.14	0.23	0.31	0.26	0.22	0.03	0.33
		Min-2w	0.15	0.13	0.10	0.22	0.16	0.20	0.05	0.11	0.08	0.19	0.22	0.02	0.02
Thailand	Bangkok	Mean	0.38	1.19	1.54	0.91	0.06	0.15	0.20	0.31	0.33	0.26	0.48	0.53	0.53
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-10d	0.52	1.64	2.02	1.29	0.10	0.16	0.39	0.37	0.51	0.30	0.68	0.86	2.02
		Min-10d	0.15	0.66	1.02	0.36	0.03	0.13	<0.01	0.29	0.17	0.23	0.35	0.13	<0.01
	Khanchanaburi (Vachiralongkorn Dam)	Mean	-	-	-	0.20	-	-	-	0.35	-	-	0.02	-	0.19
		%	0	0	0	67	0	0	0	63	0	0	47	0	16
		Max-2w	-	-	-	0.20	-	-	-	0.35	-	-	0.02	-	0.35
		Min-2w	-	-	-	0.20	-	-	-	0.35	-	-	0.02	-	0.02
	Chiang Mai (Mae Hia)	Mean	0.08	0.11	0.03	0.09	0.08	0.11	0.11	0.09	0.06	0.01	-	-	0.08
		%	97	100	97	97	97	97	97	90	97	19	0	0	74
		Max-10d	0.10	0.12	0.04	0.12	0.11	0.14	0.14	0.16	0.12	0.01	-	-	0.16
		Min-10d	0.05	0.11	0.02	0.08	0.04	0.07	0.07	0.04	0.02	0.01	-	-	0.01
	Sakaerat	Mean	0.24	0.35	0.46	0.33	0.33	0.26	0.49	0.09	1.40	0.08	-	-	0.43
		%	100	100	100	100	100	100	100	100	100	32	0	0	78
		Max-10d	0.39	0.43	0.55	0.66	0.42	0.55	0.81	0.14	4.06	0.08	-	-	4.06
		Min-10d	0.03	0.22	0.38	<0.01	0.25	<0.01	0.19	<0.01	0.03	0.08	-	-	<0.01
Vietnam	Hanoi	Mean	1.42	1.28	1.45	1.62	1.32	0.88	0.86	2.16	1.12	0.68	1.29	0.82	1.23
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	2.47	2.20	3.37	2.86	2.15	1.08	1.36	3.21	1.45	1.32	1.57	1.27	3.37
		Min-w	0.55	0.38	0.51	0.13	0.54	0.65	0.41	1.19	0.96	0.31	0.89	0.54	0.13
	Hoa Binh	Mean	1.21	0.60	0.54	1.12	0.84	0.74	0.95	0.48	1.07	0.40	0.59	0.67	0.78
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	2.45	0.90	1.11	2.10	2.08	2.22	2.48	0.78	2.43	1.11	0.74	0.90	2.48
		Min-w	0.35	0.31	0.19	0.31	0.28	0.16	0.24	0.23	0.38	0.11	0.30	0.41	0.11
	Can Tho	Mean	0.26	0.64	0.49	0.19	0.15	0.21	0.15	0.24	0.40	0.21	0.23	0.64	0.31
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.33	1.25	0.89	0.32	0.24	0.31	0.21	0.52	0.87	0.32	0.32	0.85	1.25
		Min-w	0.18	0.08	0.12	0.08	0.09	0.14	0.05	0.09	0.14	0.14	0.16	0.46	0.05
	Ho Chi Minh	Mean	0.23	0.26	0.17	0.47	0.43	0.25	0.44	0.29	0.53	0.33	0.31	0.69	0.37
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.35	0.37	0.26	0.95	0.62	0.30	0.90	0.50	1.04	0.45	0.41	0.76	1.04
		Min-w	0.12	0.18	0.09	0.18	0.10	0.18	0.09	0.12	0.15	0.16	0.14	0.61	0.09
	Yen Bai[*1]	Mean								0.75	1.00	0.80	0.89	0.68	0.83
		%								25	100	100	100	100	36
		Max-w								0.75	1.90	1.75	1.18	0.86	1.90
		Min-w								0.75	0.26	0.06	0.59	0.37	0.06

*1 Yen Bai started FP monitoring in August, 2015.

Terms and abbreviations are given in Table 4.2.

Table 4.18 Particulate matter component: K^+

Unit : μg/m³			2015												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Cambodia	Phnom Penh	Mean	1.06	1.34	1.55	0.98	0.68	0.78	0.26	0.27	0.41	0.66	0.52	0.50	0.75
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	1.38	1.47	1.58	0.98	0.78	0.87	0.29	0.29	0.49	0.79	0.68	0.59	1.58
		Min-2w	0.75	1.22	1.52	0.98	0.57	0.70	0.23	0.25	0.33	0.55	0.37	0.42	0.23
Indonesia	Jakarta	Mean	-	-	-	-	-	-	-	-	1.08	0.23	0.56	0.35	0.48
		%	0	0	0	0	0	0	0	0	47	85	100	100	27
		Max-2w	-	-	-	-	-	-	-	-	1.08	0.38	0.63	0.41	1.08
		Min-2w	-	-	-	-	-	-	-	-	1.08	0.08	0.49	0.28	0.08
	Serpong	Mean	0.16	0.26	0.26	0.31	0.71	0.58	0.67	0.07	0.48	0.96	0.56	-	0.45
		%	100	100	100	100	100	100	100	100	100	100	82	0	90
		Max-2w	0.26	0.41	0.39	0.44	0.75	0.99	0.79	0.08	0.92	1.04	1.11	-	1.11
		Min-2w	0.07	0.12	0.14	0.19	0.68	0.17	0.55	0.07	0.05	0.89	0.02	-	0.02
	Bandung	Mean	0.4	0.7	0.6	0.59	0.89	0.85	0.78	1.01	0.91	0.95	0.58	0.54	0.74
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.7	0.7	0.7	0.70	1.00	0.98	0.80	1.01	0.99	1.07	0.60	0.58	1.07
		Min-2w	0.2	0.7	0.4	0.48	0.78	0.72	0.75	1.00	0.82	0.84	0.55	0.51	0.22
Japan	Rishiri	Mean	0.08	0.10	0.20	0.27	0.11	0.05	0.06	0.07	0.28	0.39	0.07	0.16	0.16
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.10	0.10	0.30	0.39	0.13	0.05	0.06	0.10	0.69	0.52	0.11	0.17	0.69
		Min-2w	0.07	0.09	0.11	0.15	0.09	0.05	0.06	0.05	0.06	0.26	0.04	0.15	0.04
	Ochiishi	Mean	0.08	0.12	0.17	0.15	0.42	0.06	0.07	0.07	0.12	0.16	0.22	0.10	0.15
		%	100	100	30	100	100	100	100	100	100	100	100	100	92
		Max-2w	0.09	0.18	0.17	0.16	0.68	0.07	0.10	0.09	0.20	0.17	0.27	0.10	0.68
		Min-2w	0.08	0.07	0.17	0.15	0.15	0.06	0.04	0.05	0.04	0.16	0.16	0.09	0.04
	Tappi	Mean	0.21	0.14	0.24	0.20	0.06	0.16	0.03	0.09	1.26	0.33	0.19	0.91	0.31
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.25	0.16	0.47	0.25	0.07	0.32	0.07	0.11	2.44	0.40	0.22	1.55	2.44
		Min-2w	0.16	0.11	0.08	0.14	0.05	<0.01	<0.01	0.09	0.09	0.26	0.17	0.28	<0.01
	Sado-seki	Mean	0.21	0.31	0.20	0.18	0.21	0.17	0.13	0.13	0.12	0.23	0.15	0.14	0.18
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.22	0.53	0.26	0.18	0.25	0.22	0.15	0.14	0.13	0.25	0.24	0.14	0.53
		Min-2w	0.19	0.10	0.17	0.17	0.17	0.12	0.11	0.11	0.11	0.21	0.06	0.13	0.06
	Happo	Mean	0.02	0.02	0.04	0.05	0.06	0.05	0.02	0.03	0.01	0.06	<0.01	<0.01	0.03
		%	100	100	100	100	100	100	50	100	100	100	100	100	96
		Max-2w	0.02	0.03	0.09	0.06	0.06	0.07	0.02	0.05	0.02	0.06	<0.01	<0.01	0.09
		Min-2w	0.02	0.02	<0.01	0.04	0.05	0.02	0.02	<0.01	0.01	0.06	<0.01	<0.01	<0.01
	Ijira	Mean	0.04	0.05	0.10	0.10	0.08	0.07	0.12	0.12	0.08	0.13	0.06	0.06	0.09
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.04	0.06	0.11	0.11	0.12	0.12	0.13	0.15	0.08	0.14	0.06	0.08	0.15
		Min-2w	0.03	0.04	0.07	0.09	0.05	0.01	0.12	0.10	0.08	0.13	0.05	0.04	0.01
	Oki	Mean	0.33	0.28	0.29	0.17	0.16	0.20	0.09	0.10	0.13	0.22	0.21	0.28	0.20
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.34	0.38	0.36	0.18	0.19	0.24	0.12	0.11	0.14	0.23	0.25	0.40	0.40
		Min-2w	0.32	0.18	0.19	0.16	0.12	0.17	0.07	0.08	0.11	0.21	0.16	0.15	0.07
	Banryu	Mean	0.20	0.20	0.18	0.16	0.11	0.18	0.11	0.13	0.13	0.17	0.10	0.12	0.15
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.21	0.27	0.23	0.16	0.12	0.19	0.12	0.13	0.14	0.22	0.11	0.13	0.27
		Min-2w	0.20	0.14	0.11	0.16	0.10	0.16	0.10	0.13	0.11	0.13	0.10	0.12	0.10
	Yusuhara	Mean	0.11	0.06	0.19	0.03	<0.01	<0.01	<0.01	<0.01	0.35	0.27	0.03	0.04	0.09
		%	100	100	67	55	100	100	100	100	100	100	100	100	92
		Max-2w	0.11	0.07	0.35	0.03	<0.01	<0.01	<0.01	<0.01	0.46	0.41	0.03	0.05	0.46
		Min-2w	0.10	0.06	0.04	0.03	<0.01	<0.01	<0.01	<0.01	0.24	0.14	0.03	0.04	<0.01
	Hedo	Mean	0.42	0.33	0.24	0.23	0.17	0.18	0.10	0.16	0.23	0.33	0.25	0.29	0.24
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.45	0.39	0.29	0.24	0.19	0.21	0.11	0.17	0.26	0.33	0.26	0.33	0.45
		Min-2w	0.39	0.27	0.19	0.22	0.16	0.15	0.09	0.14	0.20	0.32	0.25	0.24	0.09
	Ogasawara	Mean	0.17	0.14	0.60	0.11	0.12	0.08	0.11	0.12	0.10	0.15	0.11	0.16	0.18
		%	100	100	100	100	100	50	100	100	100	100	100	100	96
		Max-2w	0.18	0.17	1.53	0.14	0.14	0.08	0.12	0.13	0.12	0.20	0.12	0.17	1.53
		Min-2w	0.15	0.12	0.10	0.07	0.11	0.08	0.10	0.10	0.08	0.11	0.10	0.16	0.07
	Tokyo	Mean	0.11	0.10	0.16	0.16	0.16	0.13	0.14	0.14	0.37	0.21	0.12	0.16	0.16
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.11	0.12	0.18	0.18	0.16	0.14	0.18	0.19	0.65	0.25	0.13	0.18	0.65
		Min-2w	0.11	0.07	0.15	0.14	0.15	0.13	0.10	0.11	0.10	0.16	0.10	0.14	0.07
Lao PDR	Vientiane	Mean	0.84	0.72	0.60	0.42	0.18	0.13	0.12	0.14	0.17	0.21	0.46	0.30	0.36
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.84	0.72	0.60	0.42	0.18	0.13	0.12	0.14	0.17	0.21	0.46	0.30	0.84
		Min-2w	0.84	0.72	0.60	0.42	0.18	0.13	0.12	0.14	0.17	0.21	0.46	0.30	0.12
Malaysia	Petaling Jaya	Mean	0.61	0.53	0.43	0.43	0.28	0.29	0.45	-	-	0.28	0.34	0.19	0.41
		%	100	100	100	100	100	75	80	0	0	20	50	75	67
		Max-w	0.78	0.90	0.54	0.48	0.32	0.40	0.56	-	-	0.28	0.36	0.21	0.90
		Min-w	0.38	0.22	0.32	0.36	0.22	0.20	0.40	-	-	0.28	0.32	0.18	0.18
	Tanah Rata	Mean	0.19	0.24	0.30	0.19	0.15	0.19	0.17	0.15	0.36	0.47	0.05	0.08	0.22
		%	60	100	100	100	100	100	80	100	100	100	100	100	94
		Max-w	0.25	0.40	0.59	0.22	0.23	0.34	0.26	0.38	0.47	1.05	0.08	0.13	1.05
		Min-w	0.13	0.13	0.16	0.14	0.08	0.11	0.08	0.08	0.25	0.03	<0.01	0.05	<0.01
	Danum Valley	Mean	0.23	0.24	0.09	0.12	0.20	0.22	0.23	0.35	0.21	0.41	0.14	0.13	0.21
		%	100	100	100	100	100	100	100	100	100	100	100	67	96
		Max-2w	0.41	0.24	0.16	0.22	0.22	0.29	0.24	0.39	0.43	0.49	0.14	0.19	0.49
		Min-2w	0.05	0.23	0.02	0.02	0.18	0.16	0.23	0.31	<0.01	0.32	0.13	0.08	<0.01

Table 4.18 Particulate matter component: K^+ (continued)

Unit : μg/m^3			2015												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Myanmar	Yangon	Mean	1.81	0.72	3.78	2.63	0.83	1.07	0.03	0.05	0.11	<0.01	0.62	0.91	0.94
		%	100	50	50	100	100	100	100	100	100	100	100	100	92
		Max-2w	3.31	0.72	3.78	4.04	1.43	2.68	0.07	0.10	0.21	<0.01	1.23	2.73	4.04
		Min-2w	0.32	0.72	3.78	1.21	0.23	0.07	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Philippines	Mt. Sto. Tomas	Mean	0.03	0.06	0.13	0.04	0.03	0.03	0.22	0.03	0.06	<0.01	<0.01	<0.01	0.06
		%	80	100	100	100	100	100	100	100	100	41	50	100	89
		Max-w	0.04	0.09	0.30	0.07	0.07	0.06	1.00	0.04	0.23	<0.01	<0.01	<0.01	1.00
		Min-w	0.03	0.01	0.02	<0.01	<0.01	<0.01	0.02	0.02	<0.01	<0.01	<0.01	<0.01	<0.01
Republic of Korea	Kanghwa	Mean	0.33	0.62	0.22	0.16	0.11	0.15	0.05	0.11	0.10	0.24	0.09	0.25	0.21
		%	16	18	16	17	13	17	16	16	17	16	13	19	16
		Max-d	0.66	1.03	0.35	0.41	0.16	0.35	0.10	0.36	0.18	0.45	0.21	0.42	1.03
		Min-d	0.15	0.31	0.09	0.08	0.06	0.03	0.01	0.02	0.01	0.10	<0.01	0.16	<0.01
	Cheju (Kosan)	Mean	0.07	0.63	0.13	0.10	0.06	0.08	0.05	0.09	0.14	0.21	0.04	0.15	0.11
		%	16	4	16	17	10	17	10	16	10	16	17	13	13
		Max-d	0.09	0.63	0.19	0.36	0.07	0.15	0.06	0.16	0.17	0.36	0.11	0.18	0.63
		Min-d	0.04	0.63	0.07	<0.01	0.05	0.03	0.04	0.05	0.11	0.08	0.01	0.10	<0.01
	Imsil	Mean	0.07	0.39	0.17	0.08	0.08	0.08	0.06	0.08	0.12	0.19	0.05	0.14	0.13
		%	16	18	16	17	16	17	16	16	17	16	17	19	17
		Max-d	0.11	0.74	0.39	0.19	0.10	0.17	0.13	0.13	0.20	0.44	0.08	0.16	0.74
		Min-d	0.04	0.15	0.01	<0.01	0.05	0.03	0.04	0.06	0.08	0.08	<0.01	0.11	<0.01
Russia	Mondy	Mean	<0.01	<0.01	<0.01	<0.01	0.01	0.03	0.03	0.21	0.07	<0.01	0.04	0.03	0.03
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-m	<0.01	0.01	<0.01	0.01	0.01	0.03	0.05	0.21	0.07	<0.01	0.04	0.03	0.21
		Min-m	<0.01	<0.01	<0.01	<0.01	0.01	0.02	0.01	0.21	0.07	<0.01	0.03	0.03	<0.01
	Listvyanka	Mean	0.08	0.08	0.02	0.06	0.03	0.06	0.05	0.06	0.03	0.02	0.02	0.01	0.05
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.09	0.12	0.02	0.08	0.03	0.15	0.08	0.10	0.07	0.02	0.04	0.02	0.15
		Min-w	0.06	0.03	0.02	0.04	0.02	0.02	0.03	0.03	<0.01	<0.01	<0.01	<0.01	<0.01
	Irkutsk	Mean	0.08	0.08	0.11	0.11	0.09	0.09	0.10	0.05	0.04	0.05	0.13	0.10	0.09
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.08	0.08	0.17	0.18	0.11	0.13	0.15	0.07	0.04	0.08	0.27	0.16	0.27
		Min-w	0.07	0.08	0.07	0.08	0.08	0.04	0.07	0.01	0.03	0.02	0.05	0.03	0.01
	Primorskaya	Mean	0.60	0.39	0.31	0.23	0.13	0.10	0.05	0.07	0.13	0.22	0.85	0.01	0.23
		%	100	100	100	100	100	100	100	100	100	100	50	100	96
		Max-2w	0.64	0.54	0.32	0.27	0.17	0.10	0.08	0.08	0.18	0.28	0.85	0.01	0.85
		Min-2w	0.55	0.24	0.30	0.19	0.09	0.09	0.03	0.06	0.07	0.17	0.85	0.01	0.01
Thailand	Bangkok	Mean	0.79	0.83	0.55	0.44	0.06	0.10	0.39	0.27	0.38	0.43	0.64	0.96	0.49
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-10d	1.27	1.52	0.60	0.64	0.08	0.12	0.73	0.35	0.65	0.52	0.66	1.50	1.52
		Min-10d	0.13	0.35	0.45	0.10	0.02	0.08	<0.01	0.21	0.19	0.36	0.59	0.48	<0.01
	Khanchanaburi (Vachiralongkorn Dam)	Mean	-	-	-	0.64	-	-	-	0.14	-	-	0.02	-	0.27
		%	0	0	0	67	0	0	0	63	0	0	47	0	16
		Max-2w	-	-	-	0.64	-	-	-	0.14	-	-	0.02	-	0.64
		Min-2w	-	-	-	0.64	-	-	-	0.14	-	-	0.02	-	0.02
	Chiang Mai (Mae Hia)	Mean	0.02	0.04	0.10	0.10	0.06	0.10	0.08	0.02	0.12	0.13	-	-	0.07
		%	97	100	97	97	97	97	97	90	97	19	0	0	74
		Max-10d	0.03	0.05	0.15	0.14	0.07	0.11	0.10	0.02	0.18	0.13	-	-	0.18
		Min-10d	0.01	0.03	0.05	0.07	0.05	0.09	0.06	0.01	0.09	0.13	-	-	0.01
	Sakaerat	Mean	0.64	0.62	0.58	0.31	0.18	0.14	0.16	0.05	0.10	0.17	-	-	0.30
		%	100	100	100	100	100	100	100	100	100	32	0	0	78
		Max-10d	1.35	0.70	0.69	0.44	0.25	0.17	0.19	0.08	0.13	0.17	-	-	1.35
		Min-10d	0.04	0.50	0.51	0.12	0.12	0.11	0.13	0.02	0.08	0.17	-	-	0.02
Vietnam	Hanoi	Mean	1.08	1.04	0.83	0.70	0.86	0.92	0.79	1.16	0.86	1.33	0.98	1.18	0.98
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	1.78	2.08	1.12	1.05	1.12	1.06	0.96	1.38	1.13	2.46	1.26	1.53	2.46
		Min-w	0.11	0.25	0.60	0.13	0.66	0.68	0.69	0.84	0.76	0.67	0.75	0.81	0.11
	Hoa Binh	Mean	1.30	0.80	0.59	0.95	0.71	0.50	0.61	0.59	0.63	0.51	0.44	0.66	0.70
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	2.21	1.09	0.78	1.88	1.45	1.15	0.95	0.73	0.89	0.69	0.48	0.86	2.21
		Min-w	0.46	0.49	0.36	0.43	0.32	0.25	0.39	0.37	0.43	0.17	0.41	0.52	0.17
	Can Tho	Mean	0.19	0.42	0.24	0.11	0.12	0.20	0.11	0.15	0.21	0.14	0.14	0.25	0.19
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.28	0.85	0.54	0.15	0.20	0.34	0.18	0.24	0.42	0.19	0.18	0.35	0.85
		Min-w	0.12	0.12	0.05	0.02	0.05	0.11	0.06	0.05	0.10	0.10	0.10	0.13	0.02
	Ho Chi Minh	Mean	0.09	0.09	0.08	0.42	0.31	0.16	0.63	0.23	0.23	0.32	0.18	1.13	0.34
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.12	0.12	0.10	0.88	0.45	0.28	0.88	0.42	0.45	0.56	0.25	1.26	1.26
		Min-w	0.05	0.04	0.06	0.15	0.09	0.05	0.52	0.08	0.09	0.25	0.12	0.97	0.04
	Yen Bai*1	Mean								0.91	0.82	1.38	1.13	1.12	1.11
		%								25	100	100	100	100	36
		Max-w								0.91	1.28	2.40	1.30	1.82	2.40
		Min-w								0.91	0.50	0.69	0.97	0.63	0.50

*1 Yen Bai started FP monitoring in August, 2015.

Terms and abbreviations are given in Table 4.2.

Table 4.19 Particulate matter component: Mg^{2+}

Unit : μg/m³			2015												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Cambodia	Phnom Penh	Mean	0.25	0.30	0.31	0.17	0.12	0.14	0.07	0.03	0.07	0.14	0.23	0.21	0.17
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.30	0.35	0.32	0.20	0.14	0.16	0.08	0.04	0.08	0.18	0.26	0.27	0.35
		Min-2w	0.20	0.26	0.30	0.14	0.10	0.12	0.06	0.02	0.06	0.11	0.19	0.16	0.02
Indonesia	Jakarta	Mean	-	-	-	-	-	-	-	-	0.39	0.11	0.14	0.11	0.16
		%	0	0	0	0	0	0	0	0	47	85	100	100	27
		Max-2w	-	-	-	-	-	-	-	-	0.39	0.18	0.14	0.11	0.39
		Min-2w	-	-	-	-	-	-	-	-	0.39	0.04	0.14	0.11	0.04
	Serpong	Mean	0.07	0.04	0.04	0.02	0.08	0.09	0.08	0.17	<0.01	0.17	0.05	-	0.07
		%	100	100	100	100	100	100	100	100	100	100	82	0	90
		Max-2w	0.07	0.08	0.06	0.04	0.10	0.17	0.11	0.20	<0.01	0.18	0.09	-	0.20
		Min-2w	0.06	<0.01	0.02	<0.01	0.06	0.02	0.05	0.15	<0.01	0.16	<0.01	-	<0.01
	Bandung	Mean	0.1	0.3	0.2	0.15	0.24	0.27	0.21	0.29	0.23	0.28	0.17	0.15	0.21
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.2	0.3	0.2	0.18	0.27	0.31	0.22	0.29	0.27	0.32	0.19	0.16	0.32
		Min-2w	0.1	0.3	0.2	0.13	0.21	0.24	0.21	0.28	0.20	0.23	0.15	0.14	0.09
Japan	Rishiri	Mean	0.14	0.20	0.29	0.50	0.24	0.06	0.10	0.08	0.72	0.59	0.11	0.24	0.29
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.17	0.21	0.44	0.74	0.28	0.07	0.10	0.14	1.93	0.62	0.16	0.30	1.93
		Min-2w	0.10	0.18	0.14	0.26	0.21	0.06	0.09	0.03	0.10	0.57	0.06	0.19	0.03
	Ochiishi	Mean	0.26	0.35	0.46	0.36	0.41	0.17	0.19	0.20	0.36	0.45	0.64	0.26	0.34
		%	100	100	30	100	100	100	100	100	100	100	100	100	92
		Max-2w	0.28	0.44	0.46	0.42	0.42	0.19	0.28	0.28	0.59	0.47	0.91	0.29	0.91
		Min-2w	0.24	0.25	0.46	0.31	0.40	0.15	0.10	0.12	0.13	0.43	0.38	0.22	0.10
	Tappi	Mean	0.53	0.37	0.56	0.45	0.44	0.17	0.12	0.17	4.24	0.68	0.44	3.11	0.90
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.63	0.47	0.89	0.56	0.48	0.33	0.23	0.21	8.30	0.69	0.66	5.41	8.30
		Min-2w	0.43	0.28	0.23	0.34	0.40	<0.01	0.01	0.12	0.17	0.67	0.21	0.81	<0.01
	Sado-seki	Mean	0.44	0.92	0.40	0.27	0.35	0.22	0.23	0.20	0.35	0.47	0.44	0.39	0.38
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.49	1.58	0.59	0.35	0.51	0.24	0.31	0.25	0.44	0.48	0.73	0.42	1.58
		Min-2w	0.39	0.26	0.28	0.19	0.19	0.19	0.14	0.12	0.25	0.47	0.16	0.36	0.12
	Happo	Mean	<0.01	<0.01	0.04	0.03	0.03	0.02	0.02	0.01	0.01	0.04	<0.01	<0.01	0.02
		%	100	100	100	100	100	100	50	100	100	100	100	100	96
		Max-2w	<0.01	<0.01	0.10	0.04	0.03	0.03	0.02	0.02	0.01	0.05	<0.01	<0.01	0.10
		Min-2w	<0.01	<0.01	<0.01	0.03	0.03	<0.01	0.02	<0.01	<0.01	0.04	<0.01	<0.01	<0.01
	Ijira	Mean	<0.01	0.01	0.05	0.06	0.03	0.01	0.04	0.02	0.04	0.07	0.02	0.02	0.03
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	<0.01	0.02	0.07	0.08	0.06	0.03	0.06	0.03	0.05	0.08	0.02	0.03	0.08
		Min-2w	<0.01	0.01	0.04	0.05	<0.01	<0.01	0.02	0.01	0.03	0.05	0.01	0.02	<0.01
	Oki	Mean	0.78	0.55	0.53	0.25	0.27	0.15	0.13	0.09	0.33	0.40	0.47	0.80	0.40
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.78	0.69	0.74	0.30	0.37	0.18	0.21	0.12	0.38	0.46	0.72	1.21	1.21
		Min-2w	0.77	0.42	0.26	0.21	0.17	0.12	0.04	0.06	0.27	0.34	0.22	0.38	0.04
	Banryu	Mean	0.31	0.33	0.27	0.17	0.09	0.15	0.14	0.13	0.21	0.20	0.16	0.22	0.20
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.32	0.38	0.34	0.20	0.12	0.16	0.18	0.15	0.26	0.25	0.18	0.29	0.38
		Min-2w	0.30	0.27	0.18	0.15	0.07	0.13	0.10	0.08	0.16	0.14	0.13	0.16	0.07
	Yusuhara	Mean	0.07	0.06	0.07	0.06	0.04	0.03	0.03	0.03	0.04	0.07	0.02	0.04	0.05
		%	100	100	67	55	100	100	100	100	100	100	100	100	92
		Max-2w	0.07	0.09	0.10	0.06	0.07	0.04	0.04	0.04	0.05	0.09	0.02	0.05	0.10
		Min-2w	0.06	0.03	0.05	0.06	0.02	0.02	0.02	0.02	0.03	0.05	0.02	0.03	0.02
	Hedo	Mean	0.76	0.55	0.56	0.48	0.36	0.42	0.29	0.39	0.64	0.85	0.66	0.78	0.55
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.92	0.70	0.64	0.52	0.39	0.56	0.31	0.45	0.70	0.87	0.76	0.92	0.92
		Min-2w	0.59	0.41	0.45	0.44	0.32	0.29	0.27	0.32	0.57	0.83	0.55	0.63	0.27
	Ogasawara	Mean	0.42	0.38	0.52	0.25	0.32	0.18	0.35	0.31	0.27	0.41	0.31	0.47	0.36
		%	100	100	100	100	100	50	100	100	100	100	100	100	96
		Max-2w	0.43	0.42	0.89	0.33	0.35	0.18	0.37	0.36	0.33	0.49	0.34	0.50	0.89
		Min-2w	0.41	0.35	0.28	0.18	0.28	0.18	0.33	0.28	0.21	0.33	0.28	0.45	0.18
	Tokyo	Mean	0.06	0.08	0.14	0.17	0.20	0.13	0.16	0.14	0.13	0.19	0.10	0.11	0.13
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.08	0.11	0.16	0.20	0.23	0.14	0.24	0.16	0.18	0.25	0.10	0.13	0.25
		Min-2w	0.04	0.04	0.11	0.14	0.16	0.11	0.08	0.11	0.09	0.13	0.09	0.09	0.04
Lao PDR	Vientiane	Mean	0.08	0.07	0.08	0.03	0.09	0.06	0.06	0.04	0.02	0.03	0.05	0.04	0.05
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.08	0.07	0.08	0.03	0.09	0.06	0.06	0.04	0.02	0.03	0.05	0.04	0.09
		Min-2w	0.08	0.07	0.08	0.03	0.09	0.06	0.06	0.04	0.02	0.03	0.05	0.04	0.02
Malaysia	Petaling Jaya	Mean	0.19	0.12	0.07	0.08	0.04	0.05	0.10	-	-	0.03	0.03	0.04	0.08
		%	100	100	100	100	100	75	80	0	0	20	50	75	67
		Max-w	0.24	0.14	0.08	0.10	0.05	0.07	0.13	-	-	0.03	0.04	0.04	0.24
		Min-w	0.10	0.08	0.05	0.06	0.04	0.02	0.09	-	-	0.03	0.03	0.03	0.02
	Tanah Rata	Mean	0.07	0.06	0.05	0.04	0.01	0.04	0.04	0.03	0.02	0.04	<0.01	0.03	0.04
		%	60	100	100	100	100	100	80	100	100	100	100	100	94
		Max-w	0.10	0.11	0.07	0.04	0.02	0.09	0.08	0.04	0.03	0.11	<0.01	0.06	0.11
		Min-w	0.04	0.03	0.04	0.03	<0.01	<0.01	0.02	0.03	0.01	<0.01	<0.01	0.02	<0.01
	Danum Valley	Mean	0.10	0.11	0.03	0.03	0.02	0.03	0.05	0.06	0.02	0.05	0.01	0.03	0.05
		%	100	100	100	100	100	100	100	100	100	100	100	67	96
		Max-2w	0.18	0.13	0.06	0.05	0.03	0.06	0.07	0.06	0.04	0.06	0.01	0.04	0.18
		Min-2w	0.03	0.10	<0.01	<0.01	0.02	0.01	0.03	0.06	<0.01	0.05	0.01	0.03	<0.01

Table 4.19 Particulate matter component: Mg^{2+} (continued)

Unit : μg/m^3			2015												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Myanmar	Yangon	Mean	1.14	0.44	0.14	0.09	0.07	0.02	<0.01	0.02	0.16	<0.01	<0.01	<0.01	0.15
		%	100	50	50	100	100	100	100	100	100	100	100	100	92
		Max-2w	2.19	0.44	0.14	0.11	0.12	0.02	<0.01	0.05	0.23	<0.01	<0.01	<0.01	2.19
		Min-2w	0.09	0.44	0.14	0.07	0.02	<0.01	<0.01	<0.01	0.09	<0.01	<0.01	<0.01	<0.01
Philippines	Mt. Sto. Tomas	Mean	0.02	0.03	0.04	0.02	0.06	0.05	0.04	0.03	0.05	0.02	0.05	0.04	0.04
		%	80	100	100	100	100	100	100	100	100	41	50	100	89
		Max-w	0.04	0.03	0.07	0.04	0.18	0.10	0.09	0.05	0.07	0.05	0.05	0.05	0.18
		Min-w	<0.01	0.02	0.02	<0.01	<0.01	0.02	0.02	0.02	0.03	<0.01	0.05	0.02	<0.01
Republic of Korea	Kanghwa	Mean	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
		%	16	18	16	17	13	17	16	16	17	16	13	19	16
		Max-d	0.01	0.05	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	<0.01	<0.01	0.01	0.01	0.05
		Min-d	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	Cheju (Kosan)	Mean	<0.01	0.02	0.02	<0.01	<0.01	0.02	0.02	0.06	0.07	0.04	0.06	0.08	0.03
		%	16	4	16	17	10	17	10	16	10	16	17	13	13
		Max-d	<0.01	0.02	0.08	0.01	0.01	0.05	0.03	0.10	0.07	0.04	0.06	0.08	0.10
		Min-d	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	0.01	0.04	0.07	0.04	0.06	0.08	<0.01
	Imsil	Mean	0.03	0.03	0.01	<0.01	<0.01	0.02	0.03	0.04	0.07	0.04	0.06	0.03	0.03
		%	16	18	16	17	16	17	16	16	17	16	17	19	17
		Max-d	0.07	0.10	0.02	<0.01	0.02	0.07	0.06	0.04	0.07	0.04	0.06	0.08	0.10
		Min-d	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	0.04	0.07	0.04	0.06	<0.01	<0.01
Russia	Mondy	Mean	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-m	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	0.02	0.01	<0.01	<0.01	<0.01	<0.01	0.02
		Min-m	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	Listvyanka	Mean	<0.01	0.01	<0.01	0.01	0.01	0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.01	0.02	<0.01	0.02	0.02	0.01	0.02	<0.01	<0.01	<0.01	<0.01	0.02	0.02
		Min-w	<0.01	<0.01	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	Irkutsk	Mean	0.01	0.02	0.06	0.07	0.04	0.03	0.04	0.03	0.02	0.03	0.04	0.03	0.04
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.02	0.03	0.09	0.10	0.05	0.04	0.04	0.05	0.03	0.06	0.07	0.04	0.10
		Min-w	0.01	0.02	0.02	0.06	0.02	0.02	0.03	<0.01	0.01	0.02	0.02	0.02	<0.01
	Primorskaya	Mean	0.06	0.05	0.07	0.07	0.06	0.03	0.02	0.02	0.03	0.03	0.05	0.04	0.05
		%	100	100	100	100	100	100	100	100	100	100	50	100	96
		Max-2w	0.06	0.05	0.08	0.09	0.09	0.04	0.03	0.03	0.03	0.03	0.05	0.04	0.09
		Min-2w	0.06	0.05	0.07	0.05	0.03	0.02	0.02	0.02	0.03	0.03	0.05	0.04	0.02
Thailand	Bangkok	Mean	0.10	0.19	0.21	0.13	<0.01	0.03	0.03	0.40	0.09	0.08	0.13	0.14	0.13
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-10d	0.14	0.24	0.27	0.18	0.02	0.05	0.08	0.88	0.15	0.08	0.14	0.23	0.88
		Min-10d	0.04	0.17	0.16	0.05	<0.01	0.02	<0.01	0.07	0.04	0.07	0.12	0.06	<0.01
	Khanchanaburi (Vachiralongkorn Dam)	Mean	-	-	-	0.07	-	-	-	0.06	-	-	<0.01	-	0.05
		%	0	0	0	67	0	0	0	63	0	0	47	0	16
		Max-2w	-	-	-	0.07	-	-	-	0.06	-	-	<0.01	-	0.07
		Min-2w	-	-	-	0.07	-	-	-	0.06	-	-	<0.01	-	<0.01
	Chiang Mai (Mae Hia)	Mean	0.01	0.01	0.01	0.03	0.01	<0.01	0.04	<0.01	<0.01	<0.01	-	-	0.02
		%	97	100	97	97	97	97	97	90	97	19	0	0	74
		Max-10d	0.01	0.01	0.02	0.03	0.02	0.01	0.07	0.02	0.01	<0.01	-	-	0.07
		Min-10d	<0.01	<0.01	<0.01	0.03	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	-	-	<0.01
	Sakaerat	Mean	0.03	0.06	0.04	0.03	0.02	0.04	0.09	<0.01	<0.01	<0.01	-	-	0.03
		%	100	100	100	100	100	100	100	100	100	32	0	0	78
		Max-10d	0.07	0.09	0.04	0.07	0.02	0.07	0.15	<0.01	<0.01	<0.01	-	-	0.15
		Min-10d	<0.01	0.04	0.04	<0.01	0.02	0.02	0.03	<0.01	<0.01	<0.01	-	-	<0.01
Vietnam	Hanoi	Mean	0.83	0.48	0.56	0.72	0.65	0.40	0.38	0.53	0.53	0.64	0.53	0.51	0.57
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	1.09	0.88	1.19	1.11	0.75	0.45	0.52	0.65	0.58	0.86	0.57	0.58	1.19
		Min-w	0.52	0.09	0.23	0.07	0.41	0.31	0.27	0.41	0.42	0.41	0.46	0.46	0.07
	Hoa Binh	Mean	0.43	0.27	0.17	0.33	0.22	0.11	0.15	0.13	0.13	0.13	0.18	0.18	0.21
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.69	0.35	0.42	0.51	0.35	0.22	0.18	0.22	0.15	0.26	0.22	0.28	0.69
		Min-w	0.25	0.11	0.05	0.07	0.10	0.08	0.10	0.05	0.12	0.04	0.11	0.12	0.04
	Can Tho	Mean	0.19	0.23	0.28	0.38	0.19	0.10	0.10	0.18	0.16	0.05	0.17	0.40	0.20
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.34	0.35	0.62	0.63	0.32	0.16	0.16	0.32	0.31	0.15	0.31	0.76	0.76
		Min-w	0.09	0.09	0.08	0.18	0.09	0.02	0.04	0.04	0.01	0.01	0.09	0.20	0.01
	Ho Chi Minh	Mean	0.13	0.27	0.65	0.61	0.57	0.44	0.37	0.20	0.71	0.44	0.55	0.59	0.46
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.24	0.36	1.02	0.88	0.99	0.91	0.85	0.30	0.96	0.68	0.63	0.98	1.02
		Min-w	0.09	0.15	0.42	0.39	0.23	0.12	0.10	0.14	0.16	0.28	0.42	0.29	0.09
	Yen Bai*1	Mean								0.20	0.13	0.25	0.17	0.18	0.19
		%								25	100	100	100	100	36
		Max-w								0.20	0.20	0.40	0.22	0.35	0.40
		Min-w								0.20	0.09	0.09	0.13	0.08	0.08

*1 Yen Bai started FP monitoring in August, 2015.

Terms and abbreviations are given in Table 4.2.

Table 4.20 Particulate matter component: Ca^{2+}

Unit : µg/m^3			2015												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Cambodia	Phnom Penh	Mean	1.67	2.03	2.20	1.24	1.18	1.87	1.07	0.59	0.89	1.36	1.01	0.82	1.32
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	2.08	2.24	2.21	1.41	1.31	2.06	1.17	0.68	1.13	1.56	1.10	1.03	2.24
		Min-2w	1.27	1.81	2.20	1.07	1.06	1.68	0.97	0.51	0.64	1.21	0.91	0.61	0.51
Indonesia	Jakarta	Mean	-	-	-	-	-	-	-	-	2.61	0.21	1.33	1.13	1.14
		%	0	0	0	0	0	0	0	0	47	85	100	100	27
		Max-2w	-	-	-	-	-	-	-	-	2.61	0.31	1.50	1.30	2.61
		Min-2w	-	-	-	-	-	-	-	-	2.61	0.12	1.17	0.96	0.12
	Serpong	Mean	0.23	0.25	0.45	0.40	0.82	0.56	0.56	1.53	0.74	1.41	0.71	-	0.68
		%	100	100	100	100	100	100	100	100	100	100	82	0	90
		Max-2w	0.26	0.45	0.64	0.61	0.87	0.94	0.59	1.53	1.47	1.64	1.42	-	1.64
		Min-2w	0.20	0.05	0.27	0.27	0.76	0.18	0.52	1.52	<0.01	1.19	<0.01	-	<0.01
	Bandung	Mean	1.2	1.8	1.4	1.54	1.56	1.49	1.33	1.86	2.14	2.40	1.37	1.22	1.61
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	1.4	2.0	1.5	1.65	1.58	1.52	1.50	1.89	2.46	2.51	1.47	1.25	2.51
		Min-2w	1.1	1.6	1.3	1.44	1.54	1.46	1.16	1.82	1.82	2.28	1.28	1.19	1.10
Japan	Rishiri	Mean	0.08	0.14	0.25	0.51	0.19	0.04	0.04	0.05	0.29	0.29	0.05	0.11	0.18
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.09	0.20	0.34	0.86	0.22	0.04	0.04	0.08	0.74	0.30	0.07	0.13	0.86
		Min-2w	0.07	0.08	0.14	0.16	0.16	0.03	0.04	0.02	0.05	0.27	0.03	0.09	0.02
	Ochiishi	Mean	0.09	0.13	0.18	0.19	0.33	0.07	0.07	0.07	0.13	0.16	0.22	0.10	0.14
		%	100	100	30	100	100	100	100	100	100	100	100	100	92
		Max-2w	0.10	0.20	0.18	0.19	0.49	0.08	0.10	0.09	0.20	0.17	0.30	0.12	0.49
		Min-2w	0.09	0.06	0.18	0.18	0.17	0.05	0.03	0.04	0.05	0.14	0.14	0.09	0.03
	Tappi	Mean	0.23	0.16	0.30	0.73	0.67	0.12	0.06	0.09	1.30	0.33	0.18	0.99	0.41
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.28	0.21	0.60	1.04	1.03	0.23	0.11	0.12	2.49	0.36	0.24	1.72	2.49
		Min-2w	0.18	0.11	0.09	0.43	0.31	<0.01	<0.01	0.06	0.11	0.31	0.12	0.26	<0.01
	Sado-seki	Mean	0.26	0.37	0.60	0.52	0.51	0.32	0.13	0.12	0.16	0.28	0.19	0.15	0.31
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.26	0.61	1.15	0.53	0.68	0.47	0.16	0.17	0.20	0.31	0.31	0.16	1.15
		Min-2w	0.25	0.14	0.30	0.52	0.35	0.17	0.10	0.09	0.13	0.25	0.06	0.15	0.06
	Happo	Mean	0.03	0.03	0.40	0.29	0.25	0.13	0.02	0.04	0.02	0.15	0.02	<0.01	0.13
		%	100	100	100	100	100	100	50	100	100	100	100	100	96
		Max-2w	0.04	0.04	1.03	0.30	0.31	0.22	0.02	0.08	0.03	0.19	0.02	<0.01	1.03
		Min-2w	0.02	0.02	0.03	0.28	0.19	0.03	0.02	0.01	0.02	0.11	0.02	<0.01	<0.01
	Ijira	Mean	0.03	0.05	0.23	0.25	0.18	0.07	0.07	0.08	0.07	0.18	0.05	0.03	0.11
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.03	0.06	0.38	0.28	0.29	0.14	0.07	0.13	0.08	0.18	0.05	0.05	0.38
		Min-2w	0.02	0.05	0.13	0.22	0.07	<0.01	0.07	0.05	0.06	0.17	0.05	0.02	<0.01
	Oki	Mean	0.36	0.42	0.47	0.40	0.39	0.24	0.10	0.10	0.12	0.30	0.16	0.30	0.28
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.36	0.66	0.74	0.44	0.50	0.34	0.13	0.17	0.18	0.31	0.25	0.46	0.74
		Min-2w	0.35	0.18	0.28	0.35	0.28	0.14	0.07	0.02	0.08	0.29	0.07	0.15	0.02
	Banryu	Mean	0.22	0.28	0.49	0.29	0.26	0.19	0.07	0.08	0.11	0.21	0.07	0.16	0.21
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.23	0.35	0.62	0.29	0.32	0.23	0.08	0.12	0.12	0.27	0.07	0.19	0.62
		Min-2w	0.21	0.20	0.29	0.28	0.20	0.16	0.06	0.05	0.10	0.16	0.06	0.12	0.05
	Yusuhara	Mean	0.15	0.12	0.24	0.23	0.17	0.16	0.02	0.06	0.09	0.21	0.03	0.05	0.12
		%	100	100	67	55	100	100	100	100	100	100	100	100	92
		Max-2w	0.15	0.18	0.31	0.23	0.29	0.27	0.02	0.11	0.13	0.24	0.04	0.06	0.31
		Min-2w	0.14	0.06	0.17	0.23	0.06	0.05	0.02	0.03	0.05	0.19	0.03	0.04	0.02
	Hedo	Mean	0.84	0.89	0.52	0.43	0.24	0.23	0.12	0.18	0.25	0.49	0.28	0.43	0.40
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	1.00	1.15	0.78	0.44	0.26	0.31	0.13	0.21	0.28	0.50	0.31	0.54	1.15
		Min-2w	0.68	0.63	0.33	0.43	0.22	0.15	0.10	0.15	0.23	0.48	0.24	0.31	0.10
	Ogasawara	Mean	0.17	0.23	1.33	0.19	0.16	0.08	0.13	0.13	0.10	0.18	0.07	0.19	0.29
		%	100	100	100	100	100	50	100	100	100	100	100	100	96
		Max-2w	0.19	0.29	3.33	0.26	0.17	0.08	0.15	0.15	0.12	0.19	0.08	0.21	3.33
		Min-2w	0.15	0.17	0.18	0.11	0.15	0.08	0.12	0.11	0.09	0.18	0.07	0.17	0.07
	Tokyo	Mean	0.27	0.37	0.54	0.55	0.67	0.46	0.41	0.44	0.37	0.56	0.28	0.42	0.45
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.33	0.50	0.59	0.72	0.76	0.46	0.54	0.63	0.42	0.60	0.30	0.46	0.76
		Min-2w	0.21	0.24	0.44	0.38	0.59	0.45	0.29	0.33	0.31	0.52	0.27	0.38	0.21
Lao PDR	Vientiane	Mean	0.35	0.20	0.23	0.09	0.16	0.25	0.33	0.25	0.18	0.17	0.33	0.15	0.22
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.35	0.20	0.23	0.09	0.16	0.25	0.33	0.25	0.18	0.17	0.33	0.15	0.35
		Min-2w	0.35	0.20	0.23	0.09	0.16	0.25	0.33	0.25	0.18	0.17	0.33	0.15	0.09
Malaysia	Petaling Jaya	Mean	1.44	0.66	0.84	0.91	0.65	0.54	1.09	-	-	0.42	0.32	0.40	0.81
		%	100	100	100	100	100	75	80	0	0	20	50	75	67
		Max-w	1.59	0.99	0.99	1.13	0.90	0.64	2.23	-	-	0.42	0.40	0.55	2.23
		Min-w	1.19	0.42	0.71	0.76	0.40	0.48	0.36	-	-	0.42	0.24	0.30	0.24
	Tanah Rata	Mean	0.24	0.31	0.29	0.19	0.12	0.30	0.27	0.09	0.08	0.15	0.12	0.09	0.18
		%	60	100	100	100	100	100	80	100	100	100	100	100	94
		Max-w	0.37	0.56	0.31	0.23	0.17	0.66	0.57	0.11	0.10	0.33	0.31	0.22	0.66
		Min-w	0.11	0.15	0.27	0.17	0.09	0.08	0.10	0.06	0.06	0.07	<0.01	0.03	<0.01
	Danum Valley	Mean	0.05	0.09	0.03	0.06	0.04	0.06	0.05	0.05	0.02	0.04	0.01	0.01	0.04
		%	100	100	100	100	100	100	100	100	100	100	100	67	96
		Max-2w	0.07	0.10	0.05	0.07	0.05	0.14	0.07	0.05	0.05	0.04	0.01	0.02	0.14
		Min-2w	0.02	0.07	0.02	0.05	0.03	0.02	0.03	0.05	<0.01	0.03	<0.01	<0.01	<0.01

Table 4.20 Particulate matter component: Ca^{2+} (continued)

Unit : μg/m³			2015												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Myanmar	Yangon	Mean	0.03	<0.01	8.46	6.33	3.06	1.56	<0.01	0.85	1.04	2.55	12.88	2.67	3.11
		%	100	50	50	100	100	100	100	100	100	100	100	100	92
		Max-2w	0.06	<0.01	8.46	10.00	5.39	4.44	<0.01	1.70	1.79	5.10	25.77	7.99	25.77
		Min-2w	<0.01	<0.01	8.46	2.66	0.73	<0.01	<0.01	<0.01	0.30	<0.01	<0.01	<0.01	<0.01
Philippines	Mt. Sto. Tomas	Mean	0.38	0.45	0.50	0.31	0.60	0.52	0.60	0.48	0.36	1.46	0.37	0.23	0.48
		%	80	100	100	100	100	100	100	100	100	41	50	100	89
		Max-w	0.62	0.62	0.68	0.40	1.54	0.78	1.01	0.67	0.43	2.65	0.41	0.37	2.65
		Min-w	0.04	0.32	0.35	0.24	0.13	0.25	0.36	0.40	0.27	0.28	0.34	0.05	0.04
Republic of Korea	Kanghwa	Mean	0.02	0.07	0.03	0.01	0.02	0.01	0.01	0.02	0.02	0.02	0.03	0.02	0.02
		%	16	18	16	17	13	17	16	16	17	16	13	19	16
		Max-d	0.07	0.14	0.08	0.04	0.03	0.02	0.02	0.06	0.05	0.04	0.05	0.03	0.14
		Min-d	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	Cheju (Kosan)	Mean	0.05	0.08	0.09	0.05	0.05	0.11	0.11	0.14	0.09	0.05	0.07	0.07	0.08
		%	16	4	16	17	10	17	10	16	10	16	17	13	13
		Max-d	0.09	0.08	0.27	0.06	0.08	0.19	0.17	0.28	0.10	0.08	0.07	0.07	0.28
		Min-d	0.03	0.08	0.02	0.03	0.03	0.08	0.05	0.07	0.08	0.04	0.06	0.06	0.02
	Imsil	Mean	0.08	0.25	0.06	0.03	0.06	0.10	0.11	0.07	0.08	0.06	0.07	0.07	0.09
		%	16	18	16	17	16	17	16	16	17	16	17	19	17
		Max-d	0.15	0.79	0.13	0.06	0.12	0.19	0.20	0.09	0.09	0.12	0.08	0.07	0.79
		Min-d	0.03	0.03	0.01	0.01	0.03	0.05	0.05	0.07	0.08	0.04	0.06	0.06	0.01
Russia	Mondy	Mean	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	0.05	0.16	0.07	0.02	0.07	0.01	0.03
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-m	<0.01	<0.01	<0.01	<0.01	<0.01	0.03	0.05	0.16	0.07	0.02	0.09	0.01	0.16
		Min-m	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.04	0.16	0.07	0.02	0.04	0.01	<0.01
	Listvyanka	Mean	0.16	0.13	0.04	0.07	0.03	0.02	0.07	0.24	0.13	0.11	0.39	0.28	0.15
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.18	0.20	0.07	0.11	0.03	0.03	0.21	0.53	0.23	0.17	0.82	0.57	0.82
		Min-w	0.14	0.04	0.01	0.03	0.02	0.02	0.02	0.10	0.06	0.05	0.11	0.09	0.01
	Irkutsk	Mean	0.11	0.18	0.30	0.35	0.15	0.14	0.21	0.47	0.52	0.87	1.01	0.74	0.44
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.13	0.21	0.52	0.50	0.23	0.23	0.24	0.64	0.71	1.43	1.44	1.27	1.44
		Min-w	0.08	0.14	0.13	0.21	0.10	0.08	0.17	0.16	0.33	0.46	0.68	0.24	0.08
	Primorskaya	Mean	0.28	0.32	0.36	0.32	0.60	0.62	0.48	0.48	0.36	0.31	0.58	0.19	0.40
		%	100	100	100	100	100	100	100	100	100	100	50	100	96
		Max-2w	0.30	0.35	0.45	0.44	0.70	0.71	0.66	0.59	0.47	0.35	0.58	0.20	0.71
		Min-2w	0.26	0.29	0.27	0.20	0.50	0.54	0.30	0.38	0.26	0.28	0.58	0.19	0.19
Thailand	Bangkok	Mean	1.57	1.26	0.99	0.72	0.13	0.31	0.24	0.63	0.83	1.34	1.73	1.93	0.97
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-10d	2.67	1.95	1.08	1.06	0.17	0.31	0.51	1.08	1.13	1.72	1.91	3.14	3.14
		Min-10d	0.58	0.79	0.94	0.33	0.05	0.30	<0.01	0.38	0.61	0.88	1.51	1.15	<0.01
	Khanchanaburi (Vachiralongkorn Dam)	Mean	-	-	-	0.24	-	-	-	0.16	-	-	0.02	-	0.14
		%	0	0	0	67	0	0	0	63	0	0	47	0	16
		Max-2w	-	-	-	0.24	-	-	-	0.16	-	-	0.02	-	0.24
		Min-2w	-	-	-	0.24	-	-	-	0.16	-	-	0.02	-	0.02
	Chiang Mai (Mae Hia)	Mean	0.04	0.08	0.05	0.08	0.06	0.11	0.34	0.16	0.34	0.30	-	-	0.15
		%	97	100	97	97	97	97	97	90	97	19	0	0	74
		Max-10d	0.07	0.11	0.07	0.10	0.11	0.14	0.37	0.24	0.39	0.30	-	-	0.39
		Min-10d	0.02	0.04	0.02	0.08	0.02	0.07	0.30	0.10	0.29	0.30	-	-	0.02
	Sakaerat	Mean	0.18	0.19	0.04	0.06	0.30	0.35	0.68	0.09	0.10	0.08	-	-	0.22
		%	100	100	100	100	100	100	100	100	100	32	0	0	78
		Max-10d	0.29	0.48	0.08	0.19	0.35	0.79	1.24	0.12	0.31	0.08	-	-	1.24
		Min-10d	0.01	<0.01	<0.01	<0.01	0.23	0.06	0.31	0.05	<0.01	0.08	-	-	<0.01
Vietnam	Hanoi	Mean	8.89	4.06	4.33	5.81	5.87	4.09	4.67	6.08	5.98	7.75	5.72	7.44	5.99
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	12.25	8.30	6.88	8.75	6.24	5.10	5.98	6.82	7.02	9.68	7.13	8.71	12.25
		Min-w	5.29	1.11	2.42	0.61	5.66	3.39	3.11	4.38	4.93	5.94	4.86	6.59	0.61
	Hoa Binh	Mean	3.34	2.30	1.55	2.91	1.96	1.05	1.25	1.06	1.11	1.23	1.69	2.21	1.84
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	5.07	2.84	3.09	4.01	3.10	2.13	1.45	1.74	1.31	2.36	2.35	2.69	5.07
		Min-w	2.06	1.10	0.68	0.86	1.08	0.59	0.87	0.49	0.93	0.35	1.33	1.71	0.35
	Can Tho	Mean	1.13	1.21	1.87	1.86	2.30	1.68	1.28	1.45	1.96	1.42	1.33	1.14	1.53
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	1.42	1.56	2.35	2.36	2.67	2.36	1.36	1.68	3.24	2.56	1.56	1.56	3.24
		Min-w	0.65	0.96	0.65	1.52	1.56	0.98	1.14	0.89	0.89	0.93	0.96	0.97	0.65
	Ho Chi Minh	Mean	0.37	0.58	1.54	1.20	1.30	0.87	0.75	0.48	1.25	0.91	1.21	2.09	1.05
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.62	0.81	3.01	1.42	2.04	1.63	1.24	0.75	1.98	1.25	1.56	2.56	3.01
		Min-w	0.25	0.34	0.88	1.02	0.98	0.35	0.29	0.35	0.38	0.69	0.68	1.53	0.25
	Yen Bai[*1]	Mean								4.23	2.61	4.87	3.03	5.29	4.08
		%								25	100	100	100	100	36
		Max-w								4.23	3.98	7.84	4.17	12.04	12.04
		Min-w								4.23	1.85	1.89	2.01	1.79	1.79

*1 Yen Bai started FP monitoring in August, 2015.

Terms and abbreviations are given in Table 4.2.

Table 4.21 Annual SO_2 concentration from 2001 to 2015

unit: ppb

Country	Site	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Cambodia	Phnom Penh										1.8	1.5	1.3	1.1	0.8	0.5
China	Jinyunshan	10.0	11.0	16.3	15.8	17.8	17.2	12.2	13.3	12.5	12.9	9.3	9.8	8.6	7.5	5.3
	Weishuiyuan	5.1	4.6	3.8	8.9	11.7	15.4									
	Hongwen	8.5	10.2	10.0	7.2	8.2	9.4	10.9	9.1	5.2	4.9	5.8	7.2	5.6	6.3	2.4
	Xiang Zhou	10.0	9.4	10.1	8.2	6.3	8.2	6.3	6.6	5.9	5.9	5.6	3.2	3.9	3.9	3.1
Indonesia	Jakarta							11.0	7.4	8.3	6.3	5.0	5.7	5.3	5.6	5.4
	Serpong	0.9	1.0	1.7	1.0	1.4	0.5	1.5	1.6	1.1	0.8	1.4	0.9	0.8	0.7	1.5
	Kototabang							3.3	6.3	7.9	11.7	2.2	***	1.8	3.5	6.7
	Bandung								2.7	4.7	4.2	4.0	4.0	4.0	4.4	1.3
Japan	Rishiri	0.2	0.1	0.2	0.2	0.1	0.2	0.3	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.1
	Ochiishi								0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.1
	Tappi [3)]	0.5	0.3	0.5	0.5	0.5	0.5	0.5	0.6	***	***	0.4	0.4	0.5	0.5	0.3
	Sado-seki	0.6	0.5	0.4	0.7	0.6	0.5	0.6	0.4	0.4	0.3	0.4	0.3	0.4	0.4	0.3
	Happo [3)]	0.9	0.5	0.4	0.7	0.7	0.6	(0.8)	0.6	0.4	0.8	0.4	0.4	0.4	0.4	0.3
	Ijira	0.9	0.5	0.4	0.6	0.4	0.2	0.4	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2
	Oki	0.6	0.4	0.4	0.7	0.7	0.7	0.9	0.8	0.6	0.6	0.6	0.5	0.6	0.5	0.4
	Banryu	1.0	0.9	1.0	0.9	1.0	0.6	1.1	1.0	0.6	0.6	0.5	0.6	0.5	0.4	0.3
	Yusuhara [3)]	1.1	0.8	0.9	1.0	1.1	0.9	1.2	1.0	0.9	1.6	0.9	0.9	0.9	1.0	0.6
	Hedo	0.3	0.3	0.3	0.2	0.4	0.3	0.4	0.3	0.2	0.3	0.3	0.2	0.3	0.2	0.2
	Ogasawara	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Tokyo							2.2	2.2	2.0	1.8	1.6	1.4	1.6	1.5	1.3
Lao PDR	Vientiane															0.4
Malaysia	Petaling Jaya	5.3	5.0	4.0	1.3	3.8	6.3	2.0	1.9	1.8	1.4	2.0	1.8	1.3	1.6	1.2
	Tanah Rata	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	3.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.2	<0.1
	Danum Valley						0.1	0.1	<0.1	0.1	<0.1	<0.1	0.1	0.2	<0.1	<0.1
Mongolia	Ulaanbaatar	1.7	1.0	1.7	2.9	4.3	4.8	4.3	1.8	4.3	9.1	6.1	***	***	8.9	9.8
	Terelj	0.5	0.3	0.4	0.5	0.5	0.5	1.4	0.5	0.7	0.6	0.7	***	***	***	***
Myanmar	Yangon											1.6	2.9	1.3	1.2	0.5
Philippines	Metro Manila	4.2	4.3	4.4	3.4	3.1	2.1	2.7	1.2	***	2.2	***	***	***	***	***
	Los Banos	0.7	0.9	0.9	0.4	0.2	0.3	0.4	0.3	***	***	***	***	***	***	***
	Mt. Sto. Tomas						<0.1	<0.1	0.4	<0.1	1.1	***	0.2	0.1	0.1	0.1
Republic of Korea	Kanghwa		3.6	1.9	3.6	2.8	3.4	2.8	2.9	3.2	2.9	4.1	4.4	3.4	2.8	2.2
	Cheju (Kosan)		1.3	3.9	1.8	2.2	3.4	2.3	2.2	2.7	2.5	2.5	0.9	0.6	0.5	0.5
	Imsil		2.3	1.5	1.2	2.5	1.8	2.1	2.3	1.4	2.7	4.8	1.3	1.8	2.3	1.7
Russia	Mondy	0.2	<0.1	0.2	0.2	1.2	0.7	0.4	0.3	0.1	0.6	0.1	0.6	0.1	0.1	0.1
	Listvyanka	2.1	1.1	1.0	0.7	6.0	3.5	1.1	1.2	4.0	4.5	2.8	5.2	2.6	1.1	2.8
	Irkutsk	3.0	0.7	1.0	1.4	5.1	4.0	2.4	2.2	4.6	7.3	5.6	7.2	4.2	1.6	3.5
	Primorskaya		0.5	0.4	0.5	1.6	1.2	0.7	0.9	1.0	1.7	1.2	1.2	0.7	0.4	0.7
Thailand	Bangkok	2.8	2.5	2.4	3.3	7.3	4.1	0.8	2.1	1.9	1.6	1.6	1.5	1.9	1.4	0.6
	Samutprakarn	4.7	4.4	5.5	5.9	6.6	6.5	5.8	4.8	4.9	4.6	2.6	2.5	3.0	3.7	3.0
	Pathumthani			2.4	1.3	1.6	2.7	1.8	0.5	1.1	1.2	0.6	***	***	***	***
	Khanchanaburi	0.5	1.4	***	1.7	1.2	1.3	1.3	1.6	1.2	1.6	1.3	0.6	1.0	1.8	1.2
	Chiang Mai (Mae Hia)	0.5	0.5	1.4	1.5	1.0	0.8	0.9	0.8	0.6	0.8	0.6	0.9	1.3	0.9	1.3
	Sakaerat						0.3	0.4	0.2	0.2	0.2	0.2	0.3	0.2	0.4	0.4
	Nai Mueang															2.9
Vietnam	Hanoi	3.5	2.7	2.2	4.8	2.4	3.9	1.7	1.3	1.3	1.4	1.9	2.2	2.1	3.2	4.5
	Hoa Binh	2.6	2.4	1.3	2.1	2.7	2.0	1.2	1.0	0.9	0.7	1.2	1.2	1.1	2.8	3.6
	Can Tho														1.2	1.0
	Ho Chi Minh														1.6	1.5
	Yen Bai															4.2

Terms and abbreviations are given in Table 4.2.

Table 4.22 Annual HNO_3 concentration from 2001 to 2015

unit: ppb

Country	Site	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Cambodia	Phnom Penh										0.3	0.3	0.3	0.5	0.4	0.5
China	Hongwen							0.9	1.7	1.1	1.0	2.1	***	***	***	***
Indonesia	Jakarta														3.1	1.4
	Serpong	0.4	1.3	0.7	0.6	0.5	0.2	0.4	0.2	0.3	0.3	0.8	0.9	0.6	0.9	1.1
	Bandung														0.7	0.5
Japan	Rishiri		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Ochiishi								<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Tappi			0.2	0.2	0.1	0.1	0.2	0.2	<0.1	0.2	0.2	0.2	0.1	0.2	<0.1
	Sado-seki			0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3
	Happo			0.4	0.3	0.2	0.3	0.4	0.4	<0.1	<0.1	<0.1	0.3	0.3	0.3	0.3
	Ijira			0.3	0.4	0.4	0.4	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2
	Oki		0.1	<0.1	<0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2
	Banryu			0.2	0.3	0.4	0.3	0.4	0.3	0.3	0.2	0.2	0.3	0.3	0.3	0.3
	Yusuhara			0.3	0.4	0.5	0.5	0.5	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.3
	Hedo			<0.1	0.1	<0.1	<0.1	0.1	0.1	<0.1	<0.1	<0.1	<0.1	0.1	0.1	0.1
	Ogasawara			<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Tokyo							1.1	1.0	0.8	0.8	0.6	0.6	0.8	0.8	0.7
Lao PDR	Vientiane															0.3
Malaysia	Petaling Jaya	1.4	1.8	2.3	0.5	0.7	1.8	0.7	0.8	1.0	0.7	0.7	0.5	0.7	0.8	0.7
	Tanah Rata	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	0.2	0.1	0.1	<0.1	<0.1	<0.1	0.1	0.1	0.1
	Danum Valley						<0.1	<0.1	<0.1	0.2	<0.1	<0.1	<0.1	0.3	<0.1	<0.1
Mongolia	Ulaanbaatar	0.1	<0.1	0.2	<0.1	<0.1	0.1	0.2	0.2	0.2	0.3	0.2	***	***	***	***
	Terelj	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	0.1	<0.1	<0.1	0.1	***	***	***	***
Myanmar	Yangon											0.4	0.4	0.3	0.2	0.2
Philippines	Metro Manila	0.3	0.2	0.4	0.5	0.4	0.3	0.4	0.4	***	0.2	***	***	***	***	***
	Los Banos	0.2	0.1	0.2	0.2	<0.1	<0.1	0.2	<0.1	***	***	***	***	***	***	***
	Mt. Sto. Tomas						<0.1	<0.1	0.3	<0.1	0.4	***	0.2	<0.1	0.1	<0.1
Republic of Korea	Kanghwa			0.2	0.3	***	0.4	0.7	0.5	0.5	0.4	***	***	0.4	0.5	<0.1
	Cheju (Kosan)			0.2	0.9	***	0.5	***	0.7	0.6	0.5	***	***	0.4	0.8	0.5
	Imsil	0.5	***	1.7	0.4	***	0.6	0.4	0.4	0.5	0.3	***	***	0.6	0.6	0.4
Russia	Mondy	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	2.9	<0.1	<0.1	<0.1	<0.1	<0.1
	Listvyanka	0.2	0.4	0.1	0.1	<0.1	0.2	<0.1	<0.1	<0.1	0.4	0.1	<0.1	<0.1	<0.1	<0.1
	Irkutsk	0.4	0.1	0.2	<0.1	0.4	<0.1	0.2	0.2	0.2	1.9	0.1	<0.1	<0.1	<0.1	<0.1
	Primorskaya	0.2	0.1	<0.1	<0.1	<0.1	0.5	<0.1	0.1	0.1	0.7	<0.1	0.1	0.3	0.2	0.2
Thailand	Bangkok			0.7	0.9	0.5	1.0	0.5	0.5	0.5	0.6	0.5	0.6	0.4	0.9	0.7
	Pathumthani			0.6	1.3	0.3	0.6	0.8	0.3	0.7	0.9	0.3	***	***	***	***
	Khanchanaburi		0.2	***	0.6	<0.1	0.2	<0.1	0.2	0.5	<0.1	<0.1	0.3	0.1	0.2	0.3
	Chiang Mai (Mae Hia)	0.2	0.2	0.1	0.4	0.4	0.2	0.5	0.4	0.7	1.9	0.1	0.2	0.2	<0.1	<0.1
	Sakaerat						0.3	0.3	0.2	0.2	0.2	<0.1	0.2	<0.1	0.3	0.3
Vietnam	Hanoi	0.5	1.9	0.7	1.5	1.0	0.9	1.0	0.5	0.9	0.8	0.9	1.0	0.7	0.5	0.7
	Hoa Binh	0.2	1.8	0.4	0.5	0.8	0.3	0.4	0.4	0.3	0.3	0.3	0.4	0.3	0.4	0.5
	Can Tho														0.5	0.4
	Ho Chi Minh														0.6	0.6
	Yen Bai															0.7

Terms and abbreviations are given in Table 4.2.

Table 4.23 Annual HCl concentration from 2001 to 2015

unit: ppb

Country	Site	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Cambodia	Phnom Penh										0.5	0.4	0.7	1.3	1.1	1.3
China	Hongwen							1.5	1.2	1.5	14.5	13.3	***	***	***	***
Indonesia	Jakarta														3.2	1.9
	Serpong	0.4	2.6	1.8	1.5	1.1	0.5	1.7	0.5	0.4	0.8	0.7	0.8	0.7	0.8	1.0
	Bandung														0.8	0.5
Japan	Rishiri		0.3	0.4	0.5	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.4	0.5	0.4	0.4
	Ochiishi								0.4	0.4	0.4	0.6	0.6	0.5	0.4	0.8
	Tappi			0.7	0.6	0.5	0.5	0.6	0.6	0.5	1.5	0.7	0.6	0.6	0.7	0.5
	Sado-seki			0.9	1.0	1.1	0.9	0.9	0.8	0.9	0.7	0.8	0.9	0.8	0.9	1.2
	Happo			0.2	0.2	0.2	0.2	0.2	0.2	<0.1	<0.1	<0.1	0.2	0.2	0.2	0.2
	Ijira			0.2	0.3	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2
	Oki		0.2	0.3	0.5	0.9	0.9	1.1	0.9	0.8	0.8	1.0	0.9	1.0	0.9	0.9
	Banryu			0.2	0.6	0.9	0.8	0.9	0.7	0.8	0.7	0.8	0.7	0.8	0.7	0.7
	Yusuhara			0.3	0.3	0.4	0.4	0.4	0.3	0.3	0.3	0.4	0.3	0.4	0.3	0.3
	Hedo			0.9	1.0	0.9	0.9	1.0	0.9	0.9	0.5	0.4	0.6	1.0	1.1	1.1
	Ogasawara			0.3	0.5	0.5	0.4	0.7	0.6	0.5	0.4	0.4	0.4	0.6	0.6	0.5
	Tokyo							1.0	0.8	0.8	0.7	0.8	0.7	0.8	0.7	0.8
Lao PDR	Vientiane															0.3
Malaysia	Petaling Jaya	1.4	***	***	0.7	0.9	1.6	0.7	1.1	0.7	0.5	0.8	1.2	1.3	1.1	0.7
	Tanah Rata	<0.1	***	***	0.3	0.1	<0.1	0.1	0.4	0.1	<0.1	0.2	0.4	0.3	0.3	0.4
	Danum Valley						0.2	0.2	0.3	0.5	0.3	0.2	0.5	1.0	0.4	0.3
Mongolia	Ulaanbaatar	0.1	0.4	1.0	0.9	0.7	1.0	0.9	0.7	0.7	1.7	1.1	***	***	***	***
	Terelj	<0.1	0.3	0.7	0.6	0.4	0.4	0.5	0.4	0.3	0.5	0.5	***	***	***	***
Myanmar	Yangon											1.5	1.5	0.6	0.7	0.7
Philippines	Metro Manila	0.3	0.9	1.2	1.0	0.9	0.5	0.7	0.7	***	0.8	***	***	***	***	***
	Los Banos	0.2	0.6	1.2	0.5	0.3	0.3	0.8	0.4	***	***	***	***	***	***	***
	Mt. Sto. Tomas						0.2	<0.1	0.6	0.2	1.2	***	0.2	0.2	0.2	0.7
Republic of Korea	Kanghwa			0.3	0.1	***	0.2	0.2	<0.1	0.1	0.2	***	***	0.3	0.2	<0.1
	Cheju (Kosan)			0.1	0.9	***	0.2	***	0.2	0.2	0.2	***	***	0.2	0.2	0.2
	Imsil	0.5	***	0.2	2.0	***	0.3	0.2	0.1	0.2	0.1	***	***	0.2	0.2	0.2
Russia	Mondy	<0.1	<0.1	0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.5	0.4	0.7	0.7	0.8	1.9
	Listvyanka	0.2	0.4	0.3	0.2	<0.1	0.2	<0.1	0.1	0.2	0.6	1.8	9.8	2.1	2.6	7.4
	Irkutsk	0.4	0.3	0.4	0.1	0.2	0.1	0.2	0.2	0.2	0.5	1.4	2.6	1.7	1.4	7.0
	Primorskaya	0.2	0.5	0.5	0.3	0.1	0.2	0.2	0.2	0.2	0.7	1.1	1.0	0.5	0.4	0.4
Thailand	Bangkok			0.7	0.9	1.5	1.5	0.7	0.8	0.9	0.7	0.7	0.7	0.6	1.2	0.7
	Pathumthani			0.5	0.8	0.6	1.1	1.2	0.4	0.9	0.7	0.5	***	***	***	***
	Khanchanaburi		0.7	***	0.5	0.1	0.3	0.2	0.3	0.2	<0.1	0.2	0.2	0.2	0.3	0.2
	Chiang Mai (Mae Hia)	0.2	0.3	0.2	0.4	0.4	0.5	0.2	0.2	0.3	0.4	0.3	0.3	0.2	0.2	0.2
	Sakaerat						0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.4	0.5
Vietnam	Hanoi	0.5	4.1	2.2	2.2	2.9	2.5	2.5	1.8	1.5	2.0	2.0	2.1	1.6	3.0	2.0
	Hoa Binh	0.2	4.4	3.3	1.5	2.3	1.5	2.1	1.8	1.2	1.5	1.6	1.7	1.6	3.2	1.8
	Can Tho														1.7	1.4
	Ho Chi Minh														1.6	1.1
	Yen Bai															2.4

Terms and abbreviations are given in Table 4.2.

Table 4.24 Annual NH_3 concentration from 2001 to 2015

unit: ppb

Country	Site	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Cambodia	Phnom Penh										14.3	11.5	9.9	9.4	6.9	7.3
China	Hongwen							7.9	8.1	11.2	12.2	9.5	***	***	***	***
Indonesia	Jakarta														38.3	13.7
	Serpong	4.6	5.1	12.9	10.2	11.2	6.2	8.5	6.3	5.9	5.4	11.0	16.1	11.7	11.8	18.3
	Bandung														8.4	9.4
Japan	Rishiri		0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.4
	Ochiishi								0.6	1.0	0.4	0.4	0.4	0.3	0.4	0.3
	Tappi			0.6	0.5	0.3	0.3	0.4	0.5	0.5	0.5	0.4	0.4	0.4	0.5	0.5
	Sado-seki			0.6	0.7	0.6	0.6	0.6	0.7	0.6	0.6	0.6	0.6	0.6	0.7	0.8
	Happo			0.5	0.3	0.6	0.4	0.3	0.4	0.2	0.3	0.2	0.4	0.4	0.4	0.4
	Ijira			1.2	1.2	1.1	1.3	1.2	1.1	1.0	1.1	1.0	1.0	1.3	0.9	1.0
	Oki		1.1	0.6	0.8	0.8	0.7	0.8	1.0	1.0	0.8	0.7	0.5	0.6	0.6	0.7
	Banryu			1.1	1.3	1.2	1.1	1.0	1.0	1.0	1.0	0.9	0.8	0.7	0.7	0.7
	Yusuhara			0.7	0.5	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.5
	Hedo			0.8	0.9	0.8	0.9	1.0	1.2	1.2	1.2	0.9	1.3	1.1	1.1	1.3
	Ogasawara			0.2	0.5	0.9	0.5	0.5	0.5	0.5	0.5	0.7	0.5	0.6	0.6	0.5
	Tokyo							6.1	5.2	5.0	4.9	4.4	3.9	4.6	4.6	4.2
Lao PDR	Vientiane															2.6
Malaysia	Petaling Jaya	10.1	***	***	3.5	10.4	16.9	7.5	6.1	7.3	6.7	6.7	6.5	8.6	10.0	9.2
	Tanah Rata	0.2	***	0.3	0.7	1.3	1.2	0.9	1.0	0.8	0.9	1.2	0.9	1.2	2.2	3.0
	Danum Valley						1.2	0.9	0.9	1.9	1.5	0.9	0.7	3.8	1.2	1.4
Mongolia	Ulaanbaatar	7.3	9.8	11.3	9.2	9.2	10.3	10.4	10.7	7.4	14.8	8.7	***	***	***	***
	Terelj	0.7	1.5	1.7	1.3	1.4	1.6	1.3	1.2	1.9	1.4	1.5	***	***	***	***
Myanmar	Yangon											15.5	10.2	6.2	8.9	7.6
Philippines	Metro Manila	7.1	10.0	9.3	9.1	12.5	3.8	6.6	9.2	***	7.5	***	***	***	***	***
	Los Banos	4.2	6.2	5.0	4.1	4.5	2.0	2.7	3.1	***	***	***	***	***	***	***
	Mt. Sto. Tomas						0.2	0.9	6.4	0.4	2.5	***	1.0	1.1	2.2	1.9
Republic of Korea	Kanghwa			14.1	13.7	***	4.8	9.7	3.4	3.2	4.6	***	***	7.4	3.7	<0.1
	Cheju (Kosan)			1.4	1.1	***	***	***	3.7	4.9	7.0	***	***	3.2	6.9	7.5
	Imsil	4.9	***	4.6	6.0	***	5.9	5.0	5.0	6.0	6.5	***	***	3.0	6.3	5.6
Russia	Mondy	0.2	0.7	0.7	0.5	0.8	1.9	0.8	0.7	0.4	0.4	0.4	0.7	0.6	0.4	0.8
	Listvyanka	0.2	0.8	1.7	1.6	0.8	4.4	2.5	2.7	2.4	2.8	0.8	0.6	1.3	2.4	2.8
	Irkutsk	0.5	1.3	2.2	4.4	1.8	3.7	3.8	3.3	2.9	2.2	1.7	1.4	1.5	4.8	2.8
	Primorskaya		12.0	10.8	7.8	1.2	2.7	3.6	2.9	1.8	2.2	4.2	1.3	1.1	1.3	1.4
Thailand	Bangkok			5.8	11.1	7.8	10.1	10.2	8.2	8.7	7.9	8.8	8.3	8.7	14.6	9.2
	Pathumthani			6.5	8.5	6.3	7.0	9.2	3.1	8.1	7.8	5.2	***	***	***	***
	Khanchanaburi		6.5	***	6.2	1.9	2.1	3.2	2.3	2.6	1.6	1.5	2.4	3.4	4.8	3.0
	Chiang Mai (Mae Hia)	6.5	3.9	6.9	5.5	3.0	3.2	4.7	3.8	5.8	9.0	5.3	4.4	3.5	1.5	0.9
	Sakaerat						2.8	2.4	2.6	2.3	2.0	1.8	3.3	2.9	3.5	3.9
Vietnam	Hanoi	5.8	4.1	5.4	13.9	4.0	2.8	4.1	5.0	4.8	5.7	6.4	4.8	1.4	1.6	2.6
	Hoa Binh	2.7	2.8	7.5	8.9	3.8	2.7	2.3	4.0	3.9	2.1	2.4	2.6	1.7	1.4	1.2
	Can Tho														2.6	2.5
	Ho Chi Minh														3.0	2.8
	Yen Bai															2.9

Terms and abbreviations are given in Table 4.2.

Table 4.25 Annual NO concentration from 2001 to 2015

unit: ppb

Country	Site	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
China	Jinyunshan					1.0	2.6	1.5	6.7	3.3	2.0	1.6	2.1	1.6	1.7	1.5
	Weishuiyuan					5.1	9.8									
Japan	Rishiri	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Ochiishi								<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Tappi [1)]	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	***	***	0.2	0.1	0.1	<0.1	<0.1
	Sado-seki	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	<0.1
	Happo [1)]	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	(<0.1)	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Ijira	0.3	0.5	0.4	0.4	0.3	0.3	0.3	0.2	0.2	0.3	0.2	0.1	0.2	0.2	0.5
	Oki	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	0.2	<0.1
	Banryu	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	<0.1	0.2	0.2	0.2	0.2
	Yusuhara [1)]	0.1	<0.1	0.1	0.2	0.3	0.1	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Hedo	0.1	0.2	<0.1	<0.1	0.2	<0.1	<0.1	0.1	<0.1	<0.1	0.2	<0.1	0.1	<0.1	<0.1
	Ogasawara	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Malaysia	Tanah Rata							10.1	***	***	***	***	***	***	***	***
Mongolia	Ulannbaatar														21.8	27.8
Philippines	Metro Manila															17.6
Thailand	Bangkok	25.0	21.6	***	15.3	11.2	11.1	11.5	13.6	11.6	8.8	10.3	9.5	8.5	6.5	6.2
	Samutprakarn	18.9	18.0	14.5	15.5	14.4	16.4	16.7	15.3	15.2	13.3	15.1	17.1	12.6	11.6	9.5
	Khanchanaburi	1.2	0.3	***	1.0	1.0	0.6	1.8	0.7	0.2	0.3	1.1	0.5	3.3	7.0	1.0
	Chiang Mai (Mae Hia)			7.1	3.0	2.9	2.5	3.1	2.0	2.1	3.0	2.0	4.3	1.9	2.3	3.5
	Nai Mueang								5.9	***	***	***	***	***	***	11.3

Terms and abbreviations are given in Table 4.2.

Table 4.26 Annual NO_2 concentration from 2001 to 2015

unit: ppb

Country	Site	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
China	Hongwen	11.3	12.6	13.6	13.8	16.4	23.8	22.9	19.9	18.8	21.1	20.2	20.0	19.5	18.6	14.7
	Xiang Zhou	18.6	24.2	22.1	21.0	18.8	20.7	19.5	21.1	15.4	17.0	18.6	13.8	17.6	18.7	15.5
Indonesia	Jakarta							4.2	32.8	48.5	31.2	***	16.3	26.5	25.9	25.7
	Serpong															
	Kototabang							0.7	1.9	3.5	0.5	***	***	2.5	0.7	1.2
	Bandung								11.3	13.3	31.5	39.0	42.8	41.0	40.6	54.4
Japan	Banryu	3.9	3.7	3.8	3.5	3.4	2.5	3.3	3.4	2.8	2.6	2.5	1.9	1.7	1.8	1.6
Malaysia	Petaling Jaya	26.6	29.4	30.9												
Mongolia	Ulannbaatar														26.9	30.3
Philippines	Metro Manila															15.5
Republic of Korea	Kanghwa							5.3	6.9	7.1	6.4	5.4	5.0	5.7	5.9	7.4
	Cheju (Kosan)							4.3	2.9	3.1	4.1	4.4	3.0	3.4	3.3	3.7
	Imsil							4.2	4.1	4.5	5.1	5.0	4.6	5.1	4.0	4.4
Thailand	Bangkok	25.3	28.5	***	23.8	21.5	23.6	16.4	20.5	23.6	21.2	24.5	24.7	25.3	20.3	14.4
	Samutprakarn	21.0	15.2	17.6	13.8	16.9	19.3	19.5	16.4	19.0	15.5	21.5	17.1	15.1	12.4	10.5

Terms and abbreviations are given in Table 4.2.

Table 4.27 Annual NOx concentration from 2001 to 2015

unit: ppb

Country	Site	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
China	Jinyunshan (NOx*)					7.2	8.7	8.1	11.8	8.2	11.4	10.0	8.4	9.1	8.9	9.6
	Weishuiyuan (NOx*)					14.7	26.8									
Japan	Rishiri (NOx*)	0.7	0.8	1.0	0.9	0.9	1.0	1.0	1.0	0.9	0.8	0.6	0.7	0.6	0.7	0.5
	Ochiishi (NOx*)								1.0	1.1	1.0	1.1	1.0	0.8	0.9	0.9
	Tappi (NOx*) 1)	1.2	1.3	1.4	1.5	1.4	1.2	1.3	1.6	***	***	1.1	1.2	1.4	1.5	1.4
	Sado-seki (NOx*)	1.2	1.6	1.9	1.7	1.3	1.3	1.2	1.1	0.9	0.8	0.7	0.7	0.8	0.7	0.7
	Happo (NOx*) 1)	1.7	2.3	2.2	2.1	2.2	1.9	(2.3)	2.1	1.3	1.2	1.1	1.1	0.9	1.1	0.9
	Ijira (NOx*)	3.4	3.2	2.9	3.6	3.5	3.1	3.2	2.2	2.5	2.3	2.0	2.2	1.7	1.7	2.4
	Oki (NOx*)	1.3	1.6	1.3	1.5	1.6	1.5	1.5	1.5	1.3	1.3	1.3	1.0	1.1	1.3	1.1
	Banryu	4.3	4.0	4.3	3.7	4.0	2.8	3.5	3.6	3.0	2.8	2.5	2.0	1.9	2.0	1.8
	Yusuhara (NOx*) 1)	1.8	1.7	1.7	1.4	1.8	1.5	1.3	1.3	1.1	1.8	1.3	1.4	1.4	1.2	1.3
	Hedo (NOx*)	0.9	0.9	0.8	0.9	0.7	0.8	0.5	0.7	0.7	0.7	0.7	0.5	0.9	0.7	0.7
	Ogasawara (NOx*)	0.7	0.5	0.5	0.4	0.6	0.5	0.5	0.5	0.5	0.5	0.4	0.5	0.4	0.3	0.4
Malaysia	Tanah Rata (NOx*)							12.2	***	***	***	***	***	***	***	***
Mongolia	Ulannbaatar														48.7	58.2
Philippines	Metro Manila															33.2
Thailand	Bangkok	50.7	50.3	43.7	37.9	32.7	34.6	28.1	34.4	35.2	30.2	35.0	34.5	34.0	27.0	20.6
	Samutprakarn	38.9	32.7	***	29.0	30.7	35.6	36.2	31.5	34.1	28.7	36.7	34.1	27.7	24.0	20.0
	Khanchanaburi (NOx*)	2.2	4.2	***	3.4	5.5	2.8	3.0	1.2	1.4	3.1	4.1	2.0	4.7	11.6	3.0
	Chiang Mai (Mae Hia) (NOx*)				14.0	8.8	10.4	12.6	10.4	10.8	12.5	11.6	15.5	14.2	13.5	13.7
	Nai Mueang (NOx*)								16.9	***	***	***	***	***	***	26.2

Terms and abbreviations are given in Table 4.2.

Table 4.28 Annual O_3 concentration from 2001 to 2015

unit: ppb

Country	Site	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Indonesia	Bandung															21
Japan	Rishiri	39	41	43	43	42	43	46	42	42	40	37	34	37	39	40
	Ochiishi								38	37	38	35	39	39	42	40
	Tappi [1)]	46	46	45	47	51	51	54	60	***	***	38	41	40	39	38
	Sado-seki	41	43	49	49	48	48	48	47	49	53	49	46	46	47	45
	Happo [1)]	54	55	56	56	58	59	(63)	50	52	48	53	49	49	48	48
	Ijira	30	24	30	27	23	17	35	20	21	19	20	24	26	28	26
	Oki	44	40	39	45	45	44	45	45	46	45	46	46	48	47	47
	Banryu	36	37	36	37	37	34	34	35	36	35	33	33	33	33	33
	Yusuhara [1)]	29	29	33	39	43	42	40	40	41	36	33	34	39	40	40
	Hedo	41	42	39	32	35	40	38	39	39	38	33	35	38	40	39
	Ogasawara	27	29	30	30	33	31	32	28	30	38	29	32	37	33	35
Malaysia	Tanah Rata							15	***	***	***	***	***	***	***	***
Mongolia	Ulannbaatar														12	13
Philippines	Metro Manila															7
Republic of Korea	Kanghwa		42	43	40	41	27	43	41	43	43	39	44	46	50	47
	Cheju (Kosan)		41	28	38	40	35	38	42	44	42	35	39	41	45	46
	Imsil		31	22	24	30	30	30	20	33	30	30	33	31	31	36
Russia	Mondy		44	42	45	42	45	39	35	45	44	40	38	38	35	40
	Listvyanka														39	39
Thailand	Bangkok								10	17	17	19	17	21	19	43
	Samutprakarn	4	12	17	13	14	14	14	18	18	15	17	19	20	22	23
	Khanchanaburi	10	14	***	15	17	10	7	16	14	23	12	16	13	22	20
	Chiang Mai (Mae Hia)			13	22	20	19	23	22	26	24	25	21	21	20	22
	Nai Mueang								22	***	***	***	***	***	***	21

Terms and abbreviations are given in Table 4.2.

Table 4.29 Annual PM_{10} concentration from 2001 to 2015

unit: $\mu g/m^3$

Country	Site	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
China	Jinyunshan	96	73	70	64	60	78	65	50	40	51	45	43	64	57	48
	Weishuiyuan	123	138	112	128	118	121									
	Hongwen	61	62	68	64	66	97	71	59	60	63	61	59	58	54	43
	Xiang Zhou	51	48	56	48	40	47	50	51	48	48	49	44	54	46	50
Japan	Rishiri	18	18	16	17	14	15	14	16	16	18	15	13	12	26	19
	Ochiishi								30	24	22	23	20	16	26	22
	Tappi	19	26	16	20	19	18	17	22	16	28	18	17	18	20	20
	Sado-seki	25	27	22	28	24	24	22	23	22	21	21	19	20	23	24
	Happo	14	12	10	15	15	13	12	14	12	12	12	11	11	12	10
	Ijira	22	24	20	21	21	22	22	20	18	18	19	16	18	17	17
	Oki	29	31	23	27	28	30	29	26	26	29	25	23	27	31	32
	Banryu	31	35	25	29	29	31	31	27	26	28	24	22	25	25	24
	Yusuhara	22	22	18	20	20	20	19	18	18	18	16	15	17	15	16
	Hedo	46	48	26	34	35	37	29	27	28	31	28	27	26	27	31
	Ogasawara	12	13	11	13	12	13	13	10	12	12	10	11	12	11	18
Malaysia	Petaling Jaya	***	39	41												
Mongolia	Ulannbaatar														211	106
Philippines	Metro Manila															33
Republic	Kanghwa		53	56	54	58	46	52	48	51	51	44	45	48	49	52
of Korea	Cheju (Kosan)		43	41	36	39	51	54	50	43	47	42	37	45	47	45
	Imsil		57	42	44	54	57	43	59	34	40	38	36	39	44	43
Thailand	Bangkok	49	***	***	51	42	44	45	43	39	38	38	37	41	37	32
	Samutprakarn								45	43	38	54	39	44	41	35
	Khanchanaburi	21	79	***	41	60	37	31	37	28	46	23	10	28	90	23
	Chiang Mai (Mae Hia)			48	59	52	41	52	38	42	45	33	42	41	45	43
	Nai Mueang								47	***	***	***	***	***	***	45

Terms and abbreviations are given in Table 4.2.

Table 4.30 Annual $PM_{2.5}$ concentration from 2001 to 2015

unit: $\mu g/m^3$

Country	Site	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Japan	Rishiri	9	8	10	8	8	8	8	9	8	9	8	8	7	8	8
	Ochiishi								16	12	12	10	9	7	7	9
	Tappi															10
	Sadoseki														11	10
	Happo															7
	Ijira															11
	Oki	12	14	12	13	15	15	15	14	12	12	14	13	15	13	13
	Banryu															13
	Yuahara															11
	Hedo															10
	Ogasawara															7
Myanmar	Mandalay															47
Mongoloa	Ulaanbaatar														50	49
Philippines	Metro Manila															22
Thailand	Bangkok															18
	Khanchanaburi															24
	Chiang Mai (Mae Hia)															33
Vietnam	Hoa Binh															40

Terms and abbreviations are given in Table 4.2.

Table 4.31 Annual SO_4^{2-} in PM concentration from 2001 to 2015

unit: μg/m³

Country	Site	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Cambodia	Phnom Penh										2.85	2.95	2.63	2.91	2.11	2.20
China	Hongwen							10.58	13.38	12.72	14.10	17.60	***	***	***	***
Indonesia	Jakarta														11.44	6.76
	Serpong	1.8	1.5	0.53	0.82	1.50	0.56	0.50	0.71	0.79	0.50	0.65	4.03	3.54	3.69	5.16
	Bandung														6.93	2.69
Japan	Rishiri		1.8	2.55	2.40	2.61	2.39	2.44	2.94	2.50	2.74	2.71	2.32	2.72	2.21	2.52
	Ochiishi								2.73	2.61	2.31	2.13	1.95	2.19	2.52	2.05
	Tappi			3.32	3.89	3.92	4.10	4.02	4.67	4.29	4.12	3.99	3.76	3.83	5.38	4.30
	Sado-seki			3.11	3.55	4.08	3.07	3.64	4.17	3.58	3.20	3.50	3.53	3.71	3.54	4.03
	Happo			2.11	2.30	2.59	2.79	2.58	2.52	0.59	0.86	1.02	2.36	2.50	2.49	2.16
	Ijira			3.72	4.10	5.07	4.89	4.76	4.78	3.88	3.25	3.55	2.52	2.88	3.84	2.84
	Oki		4.4	3.91	3.94	6.29	5.73	5.21	4.54	4.29	4.43	4.76	4.90	5.56	5.25	4.69
	Banryu			3.82	4.43	6.33	6.55	6.41	5.11	5.44	4.37	4.55	5.05	5.56	4.99	4.60
	Yusuhara			4.09	5.16	6.15	5.81	6.44	4.54	5.16	4.46	4.03	4.44	5.28	4.72	3.75
	Hedo			4.01	3.40	5.32	6.51	5.95	5.69	5.62	3.53	2.48	4.28	5.43	5.39	5.12
	Ogasawara			1.26	1.36	0.87	1.65	3.91	2.72	2.64	2.17	2.46	2.41	3.10	2.58	2.69
	Tokyo							5.36	5.15	4.62	4.28	4.06	3.14	4.38	4.11	3.79
Lao PDR	Vientiane															4.75
Malaysia	Petaling Jaya	3.6	3.9	3.36	1.42	2.26	2.60	3.00	3.32	3.01	2.94	4.22	3.24	3.17	4.81	4.19
	Tanah Rata	0.7	0.5	0.50	0.81	1.07	1.38	1.37	1.59	1.39	0.95	1.18	1.52	1.48	2.59	3.29
	Danum Valley						0.69	0.76	1.12	3.64	1.73	0.86	0.38	0.78	1.11	1.80
Mongolia	Ulaanbaatar	2.5	1.8	3.59	3.63	5.10	5.68	4.20	1.33	2.24	4.70	4.11	***	***	***	***
	Terelj	1.5	0.7	0.78	1.24	0.85	1.40	1.41	1.42	1.07	0.61	1.06	***	***	***	***
Myanmar	Yangon											3.77	3.59	1.40	1.56	0.90
Philippines	Metro Manila	1.9	2.3	3.74	3.19	3.31	2.63	3.15	2.37	***	1.43	***	***	***	***	***
	Los Banos	0.9	1.5	2.59	1.64	1.71	1.52	2.29	1.86	***	***	***	***	***	***	***
	Mt. Sto. Tomas						0.14	0.22	0.91	0.16	1.40	***	0.15	0.17	0.38	0.27
Republic of Korea	Kanghwa	4.9	6.9	5.65	4.26	6.56	3.43	2.35	3.11	6.04	6.19	***	***	7.43	7.17	6.12
	Cheju (Kosan)	2.7	6.7	6.99	8.90	7.11	8.05	6.75	5.51	4.68	3.82	***	***	4.37	7.81	5.62
	Imsil	2.1	5.1	8.23	10.12	9.29	10.31	5.90	4.18	4.66	5.03	***	***	5.61	5.86	4.66
Russia	Mondy	0.8	0.5	0.99	0.66	0.34	0.49	0.22	0.38	0.39	0.14	0.19	0.22	0.22	0.05	0.29
	Listvyanka	2.5	1.7	2.75	1.79	0.79	1.16	1.57	1.02	1.58	0.89	1.00	1.09	0.67	1.00	0.86
	Irkutsk	3.8	3.9	2.51	1.70	2.67	2.13	2.91	2.55	2.36	2.29	2.28	3.07	1.71	2.14	2.18
	Primorskaya	3.9	2.1	2.59	3.32	3.77	4.11	4.89	3.59	3.71	4.04	3.60	3.27	3.66	3.62	3.24
Thailand	Bangkok			3.63	4.02	2.13	4.71	2.97	2.65	2.71	3.63	3.31	2.26	2.80	4.38	2.64
	Pathumthani			2.34	3.46	1.39	3.14	4.69	1.41	3.12	3.78	1.64	***	***	***	***
	Khanchanaburi		<0.1	***	5.59	0.15	2.74	3.24	2.54	1.32	0.29	2.08	2.34	1.40	3.19	1.97
	Chiang Mai (Mae Hia)	0.9	2.0	2.11	3.93	1.11	2.22	2.60	1.75	1.97	1.29	1.34	1.12	0.39	0.10	0.08
	Sakaerat						3.64	4.80	3.78	3.44	2.12	2.74	2.44	2.89	3.31	2.70
Vietnam	Hanoi	1.4	8.6	16.19	19.30	20.33	16.46	20.35	9.53	8.77	15.63	14.40	7.82	11.54	8.47	10.83
	Hoa Binh	2.6	4.2	2.34	2.13	12.41	7.80	8.38	4.51	2.49	2.26	3.81	1.59	2.58	4.95	6.38
	Can Tho														1.40	1.22
	Ho Chi Minh														2.08	2.42
	Yen Bai															8.68

The reporting limits for the components in the particulate matters for the descriptive purposes defined by the Network Center were changed from 0.1 μg/m³ to 0.01 μg/m³ in 2003.

Terms and abbreviations are given in Table 4.2.

Table 4.32 Annual NO_3^- in PM concentration from 2001 to 2015

unit: μg/m³

Country	Site	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Cambodia	Phnom Penh										1.32	1.27	1.20	1.18	1.22	2.03
China	Hongwen							5.81	8.10	7.98	11.66	11.66	***	***	***	***
Indonesia	Jakarta														4.67	2.37
	Serpong	0.7	1.4	0.61	0.81	1.55	0.37	0.17	0.18	0.13	0.21	0.57	1.09	0.53	0.86	1.12
	Bandung														1.92	1.19
Japan	Rishiri		0.3	0.59	0.66	0.53	0.58	0.60	0.76	0.64	0.77	0.66	0.63	0.60	0.51	0.75
	Ochiishi								0.71	0.67	0.55	0.67	0.43	0.42	0.71	0.57
	Tappi			1.24	1.13	0.92	1.17	1.18	1.23	1.29	1.24	1.27	0.98	1.04	1.45	1.29
	Sado-seki			0.77	0.89	0.68	0.80	0.96	1.07	1.05	0.82	1.13	0.90	0.92	1.06	1.23
	Happo			0.27	0.36	0.27	0.25	0.20	0.22	0.10	0.11	0.14	0.31	0.36	0.58	0.34
	Ijira			0.41	0.49	0.48	0.54	0.49	0.39	0.40	0.40	0.47	0.25	0.30	0.42	0.39
	Oki		0.9	0.71	1.03	1.26	1.28	1.34	1.22	1.31	1.50	1.85	1.51	1.82	1.79	1.66
	Banryu			0.69	1.09	1.43	1.54	1.57	1.35	1.43	1.53	1.68	1.51	1.65	1.45	1.47
	Yusuhara			0.30	0.59	0.59	0.59	0.55	0.29	0.52	0.66	0.61	0.41	0.66	0.55	0.50
	Hedo			1.50	1.16	1.11	1.65	1.48	1.52	1.63	1.09	0.80	1.27	1.62	1.72	1.87
	Ogasawara			0.32	0.29	0.12	0.36	0.74	0.57	0.60	0.53	0.53	0.53	0.60	0.48	0.71
	Tokyo							3.86	4.03	3.85	3.80	3.76	2.73	3.13	3.13	3.55
Lao PDR	Vientiane															0.47
Malaysia	Petaling Jaya	0.6	0.2	0.10	0.56	0.97	0.81	1.18	1.17	1.22	1.25	1.14	1.23	1.65	1.53	1.70
	Tanah Rata	<0.1	0.1	0.11	0.18	0.18	0.18	0.13	0.16	0.15	0.12	0.13	0.18	0.34	0.40	0.54
	Danum Valley						0.05	0.04	0.06	0.21	0.36	0.04	0.08	0.09	0.11	0.11
Mongolia	Ulaanbaatar	1.4	1.0	1.71	1.53	1.61	1.74	1.66	0.90	0.93	1.25	1.81	***	***	***	***
	Terelj	0.2	0.2	0.16	0.15	0.18	0.19	0.71	0.65	0.24	0.11	0.29	***	***	***	***
Myanmar	Yangon											0.31	0.92	0.54	0.33	0.44
Philippines	Metro Manila	1.1	0.9	2.26	1.77	1.11	1.03	1.27	0.99	***	0.85	***	***	***	***	***
	Los Banos	0.8	0.5	1.18	0.64	0.42	0.29	0.39	0.27	***	***	***	***	***	***	***
	Mt. Sto. Tomas						0.02	0.07	1.15	0.12	0.78	***	0.19	0.14	0.26	0.27
Republic of Korea	Kanghwa	0.5	2.3	4.19	1.12	1.85	2.03	1.03	1.92	2.38	3.50	***	***	3.51	2.54	3.40
	Cheju (Kosan)	<0.1	0.3	0.53	1.44	0.27	0.39	0.57	0.34	0.49	0.67	***	***	0.74	1.10	0.79
	Imsil	0.3	0.6	0.51	1.23	1.56	3.99	3.05	2.86	2.67	3.82	***	***	2.95	2.82	1.93
Russia	Mondy	0.1	0.1	0.11	0.02	0.02	0.06	0.01	0.13	0.02	0.19	0.02	0.03	0.02	<0.01	0.03
	Listvyanka	0.4	0.2	0.68	0.19	0.17	0.19	0.19	0.20	0.25	0.17	0.25	0.12	0.09	0.18	0.27
	Irkutsk	1.2	1.5	0.96	0.53	0.68	0.69	0.61	0.89	0.83	0.91	0.88	0.92	0.49	0.80	0.66
	Primorskaya	1.8	0.3	0.39	0.57	1.24	1.18	1.04	1.03	1.10	0.79	0.27	0.68	1.17	1.37	1.15
Thailand	Bangkok			1.51	2.07	2.83	1.60	1.51	1.44	1.62	1.86	2.00	1.91	1.41	2.77	2.20
	Pathumthani			0.63	1.11	1.13	0.81	2.02	0.77	1.73	1.93	0.92	***	***	***	***
	Khanchanaburi		<0.1	***	0.58	0.06	0.09	0.10	0.15	3.55	0.06	0.04	0.10	0.11	0.17	0.20
	Chiang Mai (Mae Hia)	0.6	0.2	0.28	0.64	0.33	0.67	0.62	0.36	0.66	10.25	0.24	0.31	0.30	0.11	0.13
	Sakaerat						0.52	0.48	0.41	0.34	0.18	0.31	0.28	0.41	0.58	0.32
Vietnam	Hanoi	0.3	1.9	5.33	8.74	10.52	5.34	6.21	2.89	3.52	7.81	6.82	5.57	6.73	5.86	7.26
	Hoa Binh	0.4	0.9	0.54	0.69	1.71	1.09	1.46	1.24	0.49	0.61	1.14	0.92	1.11	1.88	2.95
	Can Tho														0.67	0.55
	Ho Chi Minh														1.09	1.07
	Yen Bai															3.19

The reporting limits for the components in the particulate matters for the descriptive purposes defined by the Network Center were changed from 0.1 μg/m³ to 0.01 μg/m³ in 2003.

Terms and abbreviations are given in Table 4.2.

Table 4.33 Annual Cl^- in PM concentration from 2001 to 2015

unit: $\mu g/m^3$

Country	Site	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Cambodia	Phnom Penh										0.20	0.24	0.24	0.40	0.26	0.54
China	Hongwen							2.07	1.85	1.73	2.28	1.51	***	***	***	***
Indonesia	Jakarta														1.35	0.51
	Serpong	0.1	1.5	1.24	0.79	1.07	0.21	0.46	0.10	0.09	0.25	0.10	0.16	0.20	0.18	0.28
	Bandung														0.31	0.27
Japan	Rishiri		2.4	2.04	2.73	2.35	2.03	2.25	2.20	2.42	2.79	2.31	1.94	2.00	2.95	3.57
	Ochiishi								4.44	6.88	4.34	3.28	3.06	4.58	4.12	4.46
	Tappi			3.38	7.64	6.02	8.08	6.51	8.26	8.97	6.01	5.93	8.15	5.91	15.78	12.97
	Sado-seki			3.08	3.88	3.08	3.56	3.30	4.61	3.38	3.78	3.06	3.02	3.43	3.00	4.39
	Happo			0.02	0.03	0.02	0.03	0.02	0.01	0.02	0.03	0.02	0.02	0.02	0.03	0.02
	Ijira			0.05	0.05	0.04	0.05	0.05	0.04	0.06	0.05	0.04	0.02	0.03	0.06	0.05
	Oki		1.4	1.30	2.12	2.55	2.42	2.36	2.71	3.69	4.54	4.29	4.20	4.98	4.96	4.58
	Banryu			0.41	1.31	1.43	1.47	0.97	1.13	1.59	1.38	1.53	0.99	1.52	1.60	1.40
	Yusuhara			0.03	0.07	0.07	0.08	0.04	0.03	0.21	0.10	0.08	0.17	0.06	0.06	0.07
	Hedo			6.12	4.60	7.29	6.35	5.79	4.40	6.02	4.62	3.09	6.02	7.27	7.61	5.86
	Ogasawara			2.86	1.66	0.94	2.69	3.82	3.04	3.93	3.44	3.79	3.55	3.51	3.50	4.32
	Tokyo							0.62	0.63	0.68	0.66	0.70	0.49	0.59	0.53	0.53
Lao PDR	Vientiane															0.06
Malaysia	Petaling Jaya	<0.1	<0.1	0.02	0.10	0.18	0.10	0.13	0.09	0.11	0.19	0.11	0.13	0.16	0.23	0.15
	Tanah Rata	<0.1	<0.1	0.08	0.03	0.03	0.04	0.03	0.02	0.03	0.05	0.03	0.03	0.07	0.10	0.11
	Danum Valley						0.04	0.02	0.04	0.15	0.33	0.04	0.02	0.11	0.13	0.11
Mongolia	Ulaanbaatar	0.7	0.4	0.82	1.02	1.06	1.25	0.87	0.47	1.84	1.06	1.18	***	***	***	***
	Terelj	0.2	<0.1	0.20	0.18	0.30	0.19	0.36	0.24	0.22	0.18	0.23	***	***	***	***
Myanmar	Yangon											0.59	0.56	0.21	0.27	0.63
Philippines	Metro Manila	0.5	0.5	0.86	0.77	0.39	0.62	0.62	0.59	***	0.66	***	***	***	***	***
	Los Banos	0.9	0.9	1.09	0.65	0.58	0.67	1.15	0.82	***	***	***	***	***	***	***
	Mt. Sto. Tomas						0.03	0.07	0.35	0.05	0.32	***	0.05	0.04	0.10	0.08
Republic of Korea	Kanghwa	0.3	0.3	0.24	0.16	0.18	0.15	0.19	0.19	0.64	0.44	***	***	0.47	0.13	0.13
	Cheju (Kosan)	0.3	0.3	0.41	0.53	0.14	0.13	0.30	0.32	0.29	0.46	***	***	1.12	0.72	0.37
	Imsil	0.3	0.3	0.31	0.14	0.12	0.29	0.38	0.50	0.45	0.61	***	***	0.48	0.25	0.38
Russia	Mondy	<0.1	<0.1	0.12	0.02	<0.01	0.03	0.01	<0.01	<0.01	0.33	0.04	0.24	0.14	0.04	0.05
	Listvyanka	0.8	0.3	0.13	0.26	0.03	0.08	0.12	0.11	0.11	0.11	0.04	0.26	0.06	0.09	0.12
	Irkutsk	0.4	0.4	0.24	0.15	0.12	0.19	0.30	0.32	0.40	0.31	0.43	0.46	0.24	0.26	0.17
	Primorskaya	0.5	0.2	0.25	0.18	0.21	0.12	0.19	0.17	0.14	0.20	0.09	0.29	0.28	0.14	0.15
Thailand	Bangkok			0.22	1.06	0.59	0.19	0.29	0.18	0.26	0.28	0.32	0.26	0.16	0.31	0.19
	Pathumthani			0.07	0.11	0.31	0.09	0.39	0.07	0.20	0.14	0.15	***	***	***	***
	Khanchanaburi		<0.1	***	0.06	0.02	0.08	0.02	0.06	0.04	0.10	0.05	<0.01	0.05	0.04	0.08
	Chiang Mai (Mae Hia)	<0.1	0.1	0.03	0.30	0.08	0.29	0.11	0.05	0.09	0.16	0.12	0.13	0.12	0.08	0.06
	Sakaerat						0.09	0.06	0.06	0.07	0.02	0.06	0.10	0.12	0.16	0.08
Vietnam	Hanoi	1.5	1.8	1.22	1.67	3.10	2.90	2.81	0.79	0.58	1.66	1.33	1.11	1.75	1.34	1.94
	Hoa Binh	0.1	1.7	1.17	0.94	1.41	0.65	0.58	0.64	0.11	0.35	0.27	0.43	0.59	1.18	0.79
	Can Tho														0.56	0.46
	Ho Chi Minh														0.74	0.59
	Yen Bai															1.01

The reporting limits for the components in the particulate matters for the descriptive purposes defined by the Network Center were changed from 0.1 $\mu g/m^3$ to 0.01 $\mu g/m^3$ in 2003.

Terms and abbreviations are given in Table 4.2.

Table 4.34 Annual NH_4^+ in PM concentration from 2001 to 2015

unit: μg/m^3

Country	Site	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Cambodia	Phnom Penh										0.61	0.50	0.34	0.57	0.52	0.54
China	Hongwen							3.66	5.55	5.48	6.72	5.85	***	***	***	***
Indonesia	Jakarta														0.57	0.71
	Serpong	0.4	0.6	0.09	0.18	0.25	0.08	0.24	0.08	0.11	0.14	0.32	0.78	0.38	0.47	0.67
	Bandung														1.20	1.17
Japan	Rishiri		0.3	0.48	0.35	0.44	0.41	0.39	0.53	0.45	0.47	0.47	0.41	0.45	0.35	0.46
	Ochiishi								0.40	0.40	0.29	0.37	0.32	0.28	0.38	0.24
	Tappi			0.60	0.67	0.57	0.63	0.64	0.77	0.66	0.68	0.64	0.53	0.58	0.69	0.46
	Sado-seki			0.45	0.49	0.83	0.48	0.54	0.68	0.53	0.50	0.56	0.54	0.62	0.61	0.69
	Happo			0.58	0.57	0.69	0.64	0.65	0.66	0.15	0.22	0.26	0.64	0.63	0.80	0.59
	Ijira			1.24	1.17	1.45	1.39	1.32	1.36	1.06	0.87	0.95	0.69	0.81	1.11	0.76
	Oki		0.8	0.60	0.68	1.27	1.19	1.07	0.97	0.86	0.92	0.93	0.94	1.10	1.05	0.90
	Banryu			0.62	0.97	1.43	1.51	1.60	1.32	1.30	1.02	1.06	1.24	1.40	1.22	1.11
	Yusuhara			0.88	1.15	1.40	1.41	1.53	1.12	1.25	1.00	0.96	1.06	1.25	1.10	0.91
	Hedo			0.56	0.46	0.67	0.80	0.88	0.98	0.86	0.42	0.43	0.71	0.69	0.61	0.66
	Ogasawara			0.10	0.15	0.08	0.17	0.46	0.24	0.21	0.17	0.22	0.22	0.31	0.23	0.25
	Tokyo							1.82	1.96	1.83	1.71	1.57	1.10	1.44	1.42	1.40
Lao PDR	Vientiane															1.22
Malaysia	Petaling Jaya	0.9	1.3	1.01	0.30	0.59	0.76	0.76	0.82	0.73	0.80	1.12	0.75	0.94	1.37	1.18
	Tanah Rata	0.3	0.3	0.13	0.23	0.23	0.40	0.32	0.35	0.29	0.25	0.49	0.46	0.39	0.63	1.11
	Danum Valley						0.10	0.08	0.12	0.39	0.12	0.13	0.08	0.13	0.12	0.25
Mongolia	Ulaanbaatar	0.4	0.5	0.67	0.92	1.60	1.95	1.96	0.23	0.95	1.69	1.80	***	***	***	***
	Terelj	0.4	0.3	0.29	0.33	0.28	0.43	0.40	0.37	0.28	0.12	0.43	***	***	***	***
Myanmar	Yangon											0.34	0.38	0.30	0.50	0.45
Philippines	Metro Manila	0.3	0.9	1.09	0.48	0.73	0.25	0.43	0.42	***	0.14	***	***	***	***	***
	Los Banos	0.4	0.3	0.70	0.21	0.67	0.23	0.28	0.34	***	***	***	***	***	***	***
	Mt. Sto. Tomas						0.03	0.09	0.33	0.03	0.10	***	<0.01	0.01	0.10	0.05
Republic of Korea	Kanghwa	2.0	2.6	2.69	1.59	2.23	1.38	0.85	1.34	2.51	2.93	***	***	3.54	3.58	3.48
	Cheju (Kosan)	0.7	2.0	2.44	2.98	2.05	2.39	2.15	1.61	1.54	1.32	***	***	1.80	2.83	2.30
	Imsil	0.5	1.4	2.59	2.85	2.66	3.67	2.37	1.82	2.34	2.54	***	***	2.82	2.87	2.36
Russia	Mondy	0.2	0.2	0.36	0.17	0.12	0.09	0.02	0.09	0.07	0.01	0.02	0.04	<0.01	0.02	0.03
	Listvyanka	1.2	0.8	0.92	0.63	0.37	0.27	0.33	0.21	0.24	0.15	0.22	0.22	0.10	0.35	0.20
	Irkutsk	1.6	1.5	0.76	0.59	0.69	0.46	0.93	0.80	0.66	0.49	0.62	0.80	0.40	0.55	0.70
	Primorskaya	1.2	1.1	0.78	0.74	1.10	1.32	1.43	0.94	0.99	0.75	0.77	0.70	1.06	0.88	1.04
Thailand	Bangkok			1.08	0.71	0.42	1.30	1.29	1.15	0.70	0.69	0.60	0.53	0.79	1.27	0.65
	Pathumthani			0.46	0.73	0.38	0.86	1.37	0.71	1.50	0.84	0.26	***	***	***	***
	Khanchanaburi		<0.1	***	1.41	0.04	0.65	0.91	1.10	0.83	0.18	0.46	0.07	0.30	0.67	0.60
	Chiang Mai (Mae Hia)	0.6	0.3	1.23	0.72	0.59	0.67	0.74	0.49	0.58	3.70	0.31	0.23	0.09	0.09	0.11
	Sakaerat						1.13	1.37	1.13	0.87	0.73	0.96	0.84	0.90	1.01	0.88
Vietnam	Hanoi	1.5	2.1	3.86	4.97	7.30	3.18	3.99	2.20	1.68	3.28	4.50	2.83	3.32	2.46	2.06
	Hoa Binh	0.8	2.1	6.25	1.46	4.27	2.29	2.24	0.84	0.90	0.64	1.55	0.66	0.90	1.76	1.99
	Can Tho														0.63	1.08
	Ho Chi Minh														1.00	1.35
	Yen Bai															2.00

The reporting limits for the components in the particulate matters for the descriptive purposes defined by the Network Center were changed from 0.1 μg/m^3 to 0.01 μg/m^3 in 2003.

Terms and abbreviations are given in Table 4.2.

Table 4.35 Annual Na^+ in PM concentration from 2001 to 2015

unit: μg/m³

Country	Site	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Cambodia	Phnom Penh										0.53	0.63	0.57	0.67	0.59	0.81
China	Hongwen							1.39	1.40	1.55	1.76	1.62	***	***	***	***
Indonesia	Jakarta														1.84	0.97
	Serpong	0.4	1.0	0.47	0.63	0.22	0.32	0.11	0.06	0.10	0.09	0.16	0.45	0.37	0.40	0.69
	Bandung														0.57	0.64
Japan	Rishiri		1.7	1.65	2.02	1.76	1.62	1.78	1.82	1.91	2.14	1.84	1.58	1.64	2.13	2.44
	Ochiishi								3.09	4.37	2.87	2.45	2.15	3.00	2.72	2.86
	Tappi			2.99	4.99	4.18	5.23	4.30	5.31	6.01	4.24	3.97	5.12	4.05	9.88	7.92
	Sado-seki			2.39	2.92	2.22	2.52	2.53	3.32	2.56	2.67	2.43	2.38	2.56	2.34	3.17
	Happo			0.09	0.14	0.08	0.08	0.08	0.10	0.03	0.03	0.05	0.09	0.09	0.09	0.09
	Ijira			0.26	0.27	0.27	0.26	0.29	0.25	0.25	0.22	0.25	0.16	0.16	0.21	0.23
	Oki		2.3	2.00	1.59	2.38	2.26	2.21	2.26	2.75	3.35	3.28	3.25	3.80	3.74	3.40
	Banryu			1.18	1.42	1.61	1.68	1.33	1.32	1.64	1.41	1.59	1.29	1.62	1.60	1.46
	Yusuhara			0.34	0.44	0.43	0.45	0.43	0.26	0.54	0.41	0.42	0.39	0.45	0.34	0.30
	Hedo			4.85	3.18	5.22	4.85	4.54	3.77	4.63	3.38	2.28	4.34	5.27	4.79	4.43
	Ogasawara			1.86	1.24	0.68	1.78	2.95	2.38	2.80	2.38	2.61	2.45	2.65	2.54	3.06
	Tokyo							0.99	0.80	0.94	0.91	0.89	0.71	0.87	0.77	0.87
Lao PDR	Vientiane															0.28
Malaysia	Petaling Jaya	0.3	0.2	0.17	0.24	0.18	0.21	0.32	0.34	0.24	0.26	0.32	0.27	0.42	0.47	0.53
	Tanah Rata	0.1	0.1	0.09	0.08	0.09	0.13	0.14	0.13	0.10	0.10	0.12	0.12	0.16	0.21	0.24
	Danum Valley						0.13	0.13	0.16	0.59	0.72	0.17	0.05	0.16	0.32	0.35
Mongolia	Ulaanbaatar	0.3	0.2	0.60	0.49	0.47	0.38	0.32	0.09	0.08	0.21	0.20	***	***	***	***
	Terelj	0.1	<0.1	0.09	0.17	0.14	0.11	0.12	0.08	0.11	0.02	0.09	***	***	***	***
Myanmar	Yangon											0.59	0.74	0.21	0.34	0.12
Philippines	Metro Manila	1.1	0.3	0.92	0.89	0.62	0.61	0.79	0.97	***	0.54	***	***	***	***	***
	Los Banos	1.4	0.8	0.72	0.64	0.65	0.70	0.98	0.67	***	***	***	***	***	***	***
	Mt. Sto. Tomas						0.05	0.05	0.38	0.16	0.52	***	0.07	0.10	0.31	0.58
Republic of Korea	Kanghwa	0.3	0.6	0.33	0.19	0.33	0.25	0.26	0.34	0.52	0.40	***	***	0.51	0.30	0.26
	Cheju (Kosan)	<0.1	0.4	0.52	0.72	0.35	0.40	0.39	0.41	0.51	0.45	***	***	0.64	0.57	0.28
	Imsil	0.3	0.4	0.52	0.52	0.44	0.39	0.42	0.46	0.54	0.40	***	***	0.24	0.20	0.21
Russia	Mondy	<0.1	<0.1	0.04	0.04	0.02	0.04	<0.01	0.02	0.03	0.36	<0.01	0.08	0.06	0.01	0.06
	Listvyanka	0.2	<0.1	0.18	0.20	0.05	0.06	0.07	0.12	0.16	0.08	0.04	0.24	0.05	0.06	0.06
	Irkutsk	<0.1	0.1	0.19	0.13	0.21	0.17	0.12	0.23	0.50	0.26	0.28	0.28	0.14	0.16	0.13
	Primorskaya	0.3	0.2	0.21	0.26	0.22	0.22	0.25	0.26	0.25	0.26	0.11	0.22	0.27	0.79	0.18
Thailand	Bangkok			0.46	1.53	0.48	0.68	0.38	0.33	0.57	0.54	0.54	0.43	0.47	1.03	0.53
	Pathumthani			0.23	0.54	0.27	0.34	0.40	0.27	0.38	0.30	0.22	***	***	***	***
	Khanchanaburi		<0.1	***	0.38	0.01	0.17	0.12	0.17	0.09	0.06	0.09	0.07	0.13	0.25	0.19
	Chiang Mai (Mae Hia)	0.1	0.1	0.12	0.33	0.08	0.21	0.23	0.15	0.48	0.17	0.10	0.16	0.11	0.07	0.08
	Sakaerat						0.17	0.28	0.24	0.21	0.16	0.17	0.18	0.13	0.27	0.43
Vietnam	Hanoi	0.5	0.5	0.57	1.21	1.95	1.99	1.64	0.56	0.58	1.03	0.67	0.70	0.75	0.58	1.23
	Hoa Binh	0.2	0.5	0.12	0.61	0.92	0.52	0.25	0.24	0.13	0.28	0.23	0.31	0.44	0.26	0.78
	Can Tho														0.24	0.31
	Ho Chi Minh														0.26	0.37
	Yen Bai															0.83

The reporting limits for the components in the particulate matters for the descriptive purposes defined by the Network Center were changed from 0.1 μg/m³ to 0.01 μg/m³ in 2003.

Terms and abbreviations are given in Table 4.2.

Table 4.36 Annual K^+ in PM concentration from 2001 to 2015

unit: μg/m^3

Country	Site	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Cambodia	Phnom Penh										0.63	0.59	0.46	0.73	0.67	0.75
China	Hongwen							0.57	0.62	0.68	3.46	0.72	***	***	***	***
Indonesia	Jakarta														0.96	0.48
	Serpong	0.4	0.5	0.28	0.15	0.25	0.11	0.05	0.07	0.08	0.14	0.37	0.45	0.37	0.40	0.45
	Bandung														0.55	0.74
Japan	Rishiri		<0.1	0.13	0.14	0.13	0.15	0.13	0.16	0.14	0.15	0.14	0.10	0.10	0.15	0.16
	Ochiishi								0.16	0.18	0.13	0.12	0.10	0.12	0.13	0.15
	Tappi			0.19	0.27	0.21	0.28	0.25	0.26	0.31	0.28	0.23	0.24	0.19	0.38	0.31
	Sado-seki			0.11	0.17	0.14	0.15	0.16	0.19	0.18	0.17	0.17	0.14	0.15	0.16	0.18
	Happo			0.05	0.06	0.06	0.06	0.05	0.05	0.02	0.01	0.02	0.04	0.04	0.05	0.03
	Ijira			0.16	0.14	0.18	0.17	0.15	0.14	0.13	0.09	0.11	0.06	0.07	0.11	0.09
	Oki		0.2	0.19	0.22	0.26	0.23	0.21	0.18	0.20	0.22	0.24	0.22	0.24	0.24	0.20
	Banryu			0.18	0.19	0.21	0.25	0.21	0.19	0.21	0.16	0.19	0.16	0.18	0.17	0.15
	Yusuhara			0.11	0.18	0.21	0.21	0.18	0.11	0.16	0.12	0.15	0.09	0.12	0.13	0.09
	Hedo			0.23	0.19	0.29	0.32	0.31	0.27	0.29	0.21	0.12	0.25	0.26	0.28	0.24
	Ogasawara			0.10	0.07	0.03	0.08	0.16	0.16	0.16	0.13	0.13	0.12	0.13	0.12	0.18
	Tokyo							0.20	0.19	0.21	0.18	0.17	0.12	0.16	0.16	0.16
Lao PDR	Vientiane															0.36
Malaysia	Petaling Jaya	0.3	0.4	0.25	0.24	0.23	0.19	0.25	0.23	0.23	0.27	0.34	0.27	0.37	0.45	0.41
	Tanah Rata	0.1	0.3	0.07	0.09	0.21	0.10	0.08	0.09	0.08	0.08	0.12	0.11	0.13	0.18	0.22
	Danum Valley						0.09	0.09	0.12	0.43	0.29	0.16	0.06	0.14	0.20	0.21
Mongolia	Ulaanbaatar	0.3	0.2	0.53	0.42	0.61	0.60	0.25	0.12	0.16	0.22	0.29	***	***	***	***
	Terelj	0.2	0.2	0.24	0.24	0.20	0.13	0.14	0.09	0.16	0.04	0.08	***	***	***	***
Myanmar	Yangon											1.24	0.76	0.24	0.55	0.94
Philippines	Metro Manila	1.0	0.3	0.74	0.33	0.26	0.46	0.41	0.43	***	0.22	***	***	***	***	***
	Los Banos	1.0	0.2	0.26	0.17	0.22	0.22	0.28	0.17	***	***	***	***	***	***	***
	Mt. Sto. Tomas						0.03	0.06	0.39	0.14	0.15	***	0.01	0.01	0.07	0.06
Republic of Korea	Kanghwa	0.5	0.5	0.61	0.27	0.48	0.33	0.30	0.25	0.49	0.20	***	***	0.29	0.29	0.21
	Cheju (Kosan)	0.2	0.4	1.29	0.72	0.45	0.46	0.40	0.33	0.21	0.12	***	***	0.15	0.25	0.11
	Imsil	0.3	0.5	1.17	0.84	0.55	0.50	0.32	0.37	0.35	0.25	***	***	0.16	0.16	0.13
Russia	Mondy	<0.1	<0.1	0.08	0.05	0.02	0.04	0.01	0.02	0.02	0.04	0.02	0.08	0.08	0.01	0.03
	Listvyanka	0.2	<0.1	0.23	0.15	0.09	0.05	0.06	0.09	0.11	0.07	0.06	0.28	0.06	0.05	0.05
	Irkutsk	0.2	0.1	0.21	0.09	0.18	0.10	0.11	0.21	0.16	0.13	0.25	0.32	0.15	0.16	0.09
	Primorskaya	0.5	0.2	0.38	0.35	0.28	0.37	0.44	0.37	0.37	0.44	0.27	0.30	0.40	0.20	0.23
Thailand	Bangkok			0.59	0.98	0.28	0.65	0.43	0.36	0.43	0.39	0.41	0.37	0.47	0.85	0.49
	Pathumthani			0.49	0.61	0.47	0.48	1.82	0.26	0.54	0.47	0.24	***	***	***	***
	Khanchanaburi		<0.1	***	0.88	0.99	0.34	0.16	0.19	0.27	0.06	0.13	0.06	0.19	0.43	0.27
	Chiang Mai (Mae Hia)	0.5	0.5	0.4	0.54	0.29	0.86	0.58	0.37	0.47	0.42	0.27	0.21	0.17	0.05	0.07
	Sakaerat						0.25	0.37	0.34	0.31	0.18	0.64	0.51	0.16	0.33	0.30
Vietnam	Hanoi	0.2	0.8	0.8	1.90	2.61	1.70	2.04	1.00	0.79	1.15	0.85	1.36	2.34	0.64	0.98
	Hoa Binh	0.4	1.2	0.4	0.61	2.37	1.19	1.41	0.94	0.70	0.65	0.32	0.56	1.30	0.83	0.70
	Can Tho														0.89	0.19
	Ho Chi Minh														0.53	0.34
	Yen Bai															1.11

The reporting limits for the components in the particulate matters for the descriptive purposes defined by the Network Center were changed from 0.1 μg/m^3 to 0.01 μg/m^3 in 2003.

Terms and abbreviations are given in Table 4.2.

Table 4.37 Annual Mg^{2+} in PM concentration from 2001 to 2015

unit: $\mu g/m^3$

Country	Site	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Cambodia	Phnom Penh										0.12	0.14	0.11	0.14	0.13	0.17
China	Hongwen							0.28	0.31	0.33	0.48	0.31	***	***	***	***
Indonesia	Jakarta														0.34	0.16
	Serpong	0.2	<0.1	0.04	0.12	0.08	0.04	0.05	0.03	0.02	0.02	0.05	0.09	0.08	0.09	0.07
	Bandung														0.14	0.21
Japan	Rishiri		0.2	0.20	0.24	0.21	0.20	0.22	0.24	0.24	0.26	0.22	0.19	0.19	0.25	0.29
	Ochiishi								0.44	0.56	0.34	0.30	0.25	0.35	0.33	0.34
	Tappi			0.39	0.61	0.49	0.63	0.52	0.56	0.68	0.48	0.46	0.60	0.49	1.11	0.90
	Sado-seki			0.30	0.36	0.31	0.28	0.31	0.39	0.31	0.32	0.30	0.29	0.31	0.29	0.38
	Happo			0.02	0.03	0.02	0.02	0.03	0.03	<0.01	<0.01	0.01	0.02	0.03	0.03	0.02
	Ijira			0.05	0.04	0.04	0.04	0.05	0.04	0.04	0.04	0.04	0.02	0.02	0.04	0.03
	Oki		0.2	0.23	0.27	0.31	0.30	0.29	0.28	0.34	0.44	0.36	0.39	0.46	0.44	0.40
	Banryu			0.15	0.19	0.23	0.26	0.22	0.17	0.20	0.20	0.21	0.17	0.22	0.22	0.20
	Yusuhara			0.07	0.08	0.08	0.09	0.09	0.05	0.08	0.08	0.07	0.06	0.08	0.06	0.05
	Hedo			0.61	0.38	0.67	0.60	0.58	0.47	0.58	0.44	0.29	0.53	0.63	0.67	0.55
	Ogasawara			0.25	0.14	0.08	0.22	0.37	0.33	0.36	0.30	0.32	0.31	0.33	0.31	0.36
	Tokyo							0.15	0.12	0.13	0.12	0.13	0.11	0.14	0.13	0.13
Lao PDR	Vientiane															0.05
Malaysia	Petaling Jaya	<0.1	<0.1	0.02	0.03	0.03	0.03	0.09	0.05	0.03	0.05	0.04	0.03	0.07	0.08	0.08
	Tanah Rata	<0.1	<0.1	0.01	0.01	0.01	0.02	0.04	0.02	0.01	0.02	0.02	0.02	0.03	0.04	0.04
	Danum Valley						0.01	0.04	0.05	0.07	0.10	0.02	<0.01	0.01	0.04	0.05
Mongolia	Ulaanbaatar	0.3	0.1	0.40	0.33	0.35	0.26	0.19	0.11	0.04	0.18	0.38	***	***	***	***
	Terelj	<0.1	<0.1	0.04	0.06	0.06	0.06	0.02	0.02	0.04	0.04	0.05	***	***	***	***
Myanmar	Yangon											0.18	0.13	0.04	0.09	0.15
Philippines	Metro Manila	<0.1	<0.1	0.15	0.10	0.11	0.24	0.14	0.17	***	0.10	***	***	***	***	***
	Los Banos	<0.1	0.1	0.10	0.07	0.06	0.09	0.14	0.11	***	***	***	***	***	***	***
	Mt. Sto. Tomas						0.01	<0.01	0.07	<0.01	0.06	***	0.03	0.04	0.03	0.04
Republic of Korea	Kanghwa	<0.1	<0.1	0.07	0.01	0.01	0.01	<0.01	0.01	0.03	0.04	***	***	0.08	0.02	<0.01
	Cheju (Kosan)	<0.1	<0.1	0.05	0.04	0.01	0.02	0.09	0.02	<0.01	0.04	***	***	0.04	0.04	0.03
	Imsil	<0.1	<0.1	0.06	0.05	0.03	0.04	0.03	0.01	0.02	0.05	***	***	0.03	0.03	0.03
Russia	Mondy	<0.1	<0.1	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	<0.01	<0.01	<0.01
	Listvyanka	<0.1	<0.1	0.04	0.04	0.02	0.02	0.03	0.02	0.03	0.02	0.02	0.01	<0.01	<0.01	<0.01
	Irkutsk	<0.1	<0.1	0.08	0.06	0.07	0.08	0.09	0.13	0.08	0.08	0.09	0.06	0.04	0.05	0.04
	Primorskaya	<0.1	<0.1	0.03	0.19	0.08	0.07	0.07	0.08	0.07	0.08	0.07	0.06	0.08	0.20	0.05
Thailand	Bangkok			0.12	0.43	0.10	0.13	0.09	0.08	0.09	0.14	0.09	0.07	0.11	0.20	0.13
	Pathumthani			0.05	0.80	0.05	0.05	0.08	0.06	0.07	0.05	0.04	***	***	***	***
	Khanchanaburi		<0.1	***	0.14	<0.01	0.04	0.04	0.10	0.03	<0.01	0.03	0.03	0.03	0.06	0.05
	Chiang Mai (Mae Hia)	<0.1	<0.1	0.32	0.03	0.02	0.22	0.07	0.04	0.04	0.04	0.02	0.03	0.03	0.01	0.02
	Sakaerat						0.05	0.06	0.05	0.04	0.02	0.01	0.01	<0.01	0.02	0.03
Vietnam	Hanoi	0.2	0.4	0.16	0.51	0.67	0.52	0.44	0.18	0.32	0.48	0.35	0.41	0.46	0.41	0.57
	Hoa Binh	<0.1	0.2	0.04	0.66	0.49	0.13	0.15	0.09	0.11	0.11	0.08	0.14	0.28	0.19	0.21
	Can Tho														0.15	0.20
	Ho Chi Minh														0.23	0.46
	Yen Bai															0.19

The reporting limits for the components in the particulate matters for the descriptive purposes defined by the Network Center were changed from 0.1 $\mu g/m^3$ to 0.01 $\mu g/m^3$ in 2003.

Terms and abbreviations are given in Table 4.2.

Table 4.38 Annual Ca^{2+} in PM concentration from 2001 to 2015

unit: μg/m³

Country	Site	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Cambodia	Phnom Penh										0.87	0.82	0.76	0.87	0.71	1.32
China	Hongwen							2.84	2.79	2.73	9.44	1.59	***	***	***	***
Indonesia	Jakarta														3.18	1.14
	Serpong	0.4	0.3	0.22	0.61	0.28	0.36	0.26	0.13	0.07	0.09	0.18	0.59	0.51	0.54	0.68
	Bandung														1.32	1.61
Japan	Rishiri		<0.1	0.13	0.16	0.14	0.13	0.14	0.17	0.16	0.18	0.13	0.13	0.14	0.13	0.18
	Ochiishi								0.15	0.24	0.14	0.14	0.10	0.17	0.24	0.14
	Tappi			0.22	0.38	0.27	0.35	0.30	0.30	0.39	0.36	0.29	0.27	0.26	0.45	0.41
	Sado-seki			0.16	0.31	0.22	0.23	0.25	0.29	0.25	0.24	0.25	0.19	0.25	0.25	0.31
	Happo			0.06	0.16	0.15	0.17	0.14	0.12	0.07	0.05	0.04	0.11	0.19	0.18	0.13
	Ijira			0.12	0.16	0.16	0.18	0.17	0.13	0.14	0.15	0.17	0.08	0.09	0.13	0.11
	Oki		0.2	0.19	0.28	0.33	0.29	0.28	0.22	0.30	0.47	0.38	0.25	0.30	0.30	0.28
	Banryu			0.17	0.22	0.27	0.31	0.30	0.22	0.29	0.44	0.26	0.20	0.25	0.21	0.21
	Yusuhara			0.16	0.27	0.25	0.27	0.28	0.14	0.36	0.33	0.21	0.15	0.26	0.19	0.12
	Hedo			0.32	0.36	0.37	0.48	0.43	0.34	0.43	0.48	0.18	0.32	0.42	0.41	0.40
	Ogasawara			0.11	0.10	0.04	0.13	0.22	0.16	0.20	0.23	0.17	0.15	0.16	0.14	0.29
	Tokyo							0.56	0.52	0.51	0.59	0.49	0.36	0.52	0.49	0.45
Lao PDR	Vientiane															0.22
Malaysia	Petaling Jaya	0.5	0.2	0.07	0.76	0.20	0.39	0.68	0.47	0.34	0.46	0.37	0.38	0.47	0.81	0.81
	Tanah Rata	0.2	<0.1	0.02	0.18	0.06	0.07	0.10	0.08	0.07	0.07	0.07	0.09	0.28	0.42	0.18
	Danum Valley						0.02	0.03	0.02	0.04	0.07	0.02	0.02	0.04	0.07	0.04
Mongolia	Ulaanbaatar	4.4	3.6	6.76	4.76	4.86	4.64	3.69	3.38	1.43	1.45	3.35	***	***	***	***
	Terelj	0.4	0.3	0.26	0.30	0.27	0.30	0.43	0.42	0.32	0.16	0.32	***	***	***	***
Myanmar	Yangon											1.82	1.03	0.29	0.51	3.11
Philippines	Metro Manila	0.8	0.6	1.37	1.00	0.75	1.09	1.18	0.87	***	0.66	***	***	***	***	***
	Los Banos	0.6	1.8	0.69	0.38	0.14	0.13	0.23	0.27	***	***	***	***	***	***	***
	Mt. Sto. Tomas						0.02	0.07	0.77	0.22	0.50	***	0.35	0.29	0.39	0.48
Republic of Korea	Kanghwa	0.2	0.2	0.34	0.09	0.10	0.04	0.05	0.07	0.17	0.07	***	***	0.14	0.11	0.02
	Cheju (Kosan)	<0.1	0.2	0.25	0.20	0.08	0.05	0.09	0.11	0.08	0.07	***	***	0.09	0.10	0.08
	Imsil	<0.1	0.3	0.42	0.13	0.11	0.12	0.28	0.11	0.08	0.09	***	***	0.08	0.07	0.09
Russia	Mondy	<0.1	<0.1	0.08	0.08	0.03	0.07	0.03	0.05	0.05	0.04	0.04	0.05	<0.01	<0.01	0.03
	Listvyanka	0.3	0.1	0.26	0.19	0.07	0.13	0.22	0.15	0.19	0.12	0.10	0.14	0.06	0.08	0.15
	Irkutsk	0.5	0.5	0.45	0.29	0.46	0.47	0.62	0.82	0.49	0.59	0.35	0.49	0.36	0.42	0.44
	Primorskaya	0.6	0.2	0.23	0.25	0.36	0.38	0.40	0.45	0.37	0.41	0.28	0.41	0.35	0.35	0.44
Thailand	Bangkok			1.17	1.03	1.20	1.39	1.07	0.80	0.88	0.94	1.03	0.74	1.29	2.09	0.97
	Pathumthani			0.77	0.80	0.47	0.65	0.93	0.36	0.90	0.98	0.50	***	***	***	***
	Khanchanaburi		0.1	***	0.65	0.06	0.18	0.12	0.22	0.12	0.04	0.12	0.28	0.12	0.23	0.14
	Chiang Mai (Mae Hia)	0.5	0.4	1.17	0.42	0.29	0.61	0.57	0.44	0.72	0.53	0.22	0.47	0.46	0.12	0.15
	Sakaerat						0.17	0.23	0.28	0.22	0.09	0.16	0.14	0.11	0.16	0.22
Vietnam	Hanoi	2.3	3.2	4.43	7.58	8.47	8.97	7.59	2.83	2.87	7.75	8.67	4.07	6.23	4.11	5.99
	Hoa Binh	0.8	1.5	0.95	3.25	4.51	2.39	2.19	1.27	1.27	1.24	1.62	1.50	3.12	1.62	1.84
	Can Tho														1.52	1.53
	Ho Chi Minh														1.18	1.05
	Yen Bai															4.08

The reporting limits for the components in the particulate matters for the descriptive purposes defined by the Network Center were changed from 0.1 μg/m³ to 0.01 μg/m³ in 2003.

Terms and abbreviations are given in Table 4.2.

Table 4.39 Monthly and annual dry deposition amounts of gaseous and particulate substances

Site: Rishiri Country: Japan

	Gases				Particulate matter components							
	SO_2	HNO_3	NH_3	NO_2 *1	nss-SO_4^{2-}	NO_3^-	Cl^-	NH_4^+	Na^+	K^+	Mg^{2+}	Ca^{2+}
2014	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}	mmol m^{-2}
Jan	0.31	0.05	0.03	0.01	0.07	0.03	1.59	0.08	1.92	0.08	0.22	0.07
Feb	0.16	0.04	0.04	0.01	0.09	0.04	2.09	0.08	2.32	0.09	0.26	0.12
Mar	0.18	0.12	0.35	0.08	0.16	0.13	3.47	0.26	3.71	0.19	0.45	0.25
Apr	0.09	0.14	0.50	0.10	0.17	0.16	2.84	0.24	3.11	0.14	0.36	0.19
May	0.07	0.11	0.48	0.12	0.11	0.12	2.77	0.13	3.11	0.11	0.36	0.21
June	0.02	0.05	0.28	0.13	0.05	0.03	0.35	0.07	0.53	0.02	0.06	0.02
July	0.03	0.05	0.50	0.08	0.05	0.02	0.31	0.05	0.51	0.02	0.06	0.02
Aug	0.02	0.15	0.66	0.11	0.07	0.02	0.16	0.08	0.36	0.02	0.04	0.01
Sept	0.00	0.03	0.42	0.07	0.04	0.03	4.14	0.05	3.87	0.11	0.42	0.11
Oct	0.07	0.11	0.23	0.05	0.10	0.14	14.57	0.17	13.54	0.48	1.50	0.41
Nov	0.07	0.06	0.16	0.04	0.04	0.05	1.34	0.07	1.39	0.07	0.15	0.04
Dec	0.32	0.06	0.09	0.04	0.11	0.07	2.11	0.15	2.44	0.11	0.27	0.07
Annual	1.35	0.96	3.74	0.84	1.06	0.84	35.73	1.43	36.81	1.45	4.16	1.53

Table 4.40 Monthly and annual dry deposition amounts of gaseous and particulate substances

Site: Ochiishi Country: Japan

	Gases				Particulate matter components							
	SO_2	HNO_3	NH_3	NO_2 *1	nss-SO_4^{2-}	NO_3^-	Cl^-	NH_4^+	Na^+	K^+	Mg^{2+}	Ca^{2+}
2014	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}	mmol m^{-2}
Jan	0.18	0.09	0.11	0.01	0.03	0.02	2.38	0.05	2.07	0.04	0.23	0.05
Feb	0.19	0.10	0.08	0.01	0.07	0.04	2.95	0.08	2.80	0.07	0.32	0.08
Mar	0.25	0.02	0.04	0.11	0.02	0.01	1.20	0.02	1.13	0.03	0.13	0.03
Apr	0.21	0.09	0.15	0.14	0.14	0.10	1.81	0.14	1.96	0.06	0.23	0.07
May	0.28	0.13	1.03	0.16	0.13	0.17	2.30	0.11	2.42	0.20	0.28	0.15
June	0.12	0.22	0.77	0.14	0.09	0.05	0.68	0.07	0.96	0.02	0.10	0.03
July	0.26	0.32	0.83	0.18	0.11	0.08	0.49	0.08	0.79	0.02	0.09	0.02
Aug	0.34	0.28	0.61	0.16	0.08	0.03	0.62	0.05	0.81	0.02	0.09	0.02
Sept	0.14	0.05	0.55	0.11	0.05	0.04	2.01	0.03	1.95	0.05	0.22	0.05
Oct	0.21	0.16	0.48	0.06	0.03	0.04	5.07	0.05	4.45	0.11	0.50	0.11
Nov	0.10	0.14	0.43	0.03	0.03	0.03	7.88	0.05	6.53	0.16	0.74	0.15
Dec	0.28	0.08	0.16	0.05	0.07	0.04	1.74	0.10	1.66	0.04	0.17	0.04
Annual	2.56	1.68	5.25	1.14	0.84	0.65	29.14	0.84	27.52	0.82	3.09	0.78

Table 4.41 Monthly and annual dry deposition amounts of gaseous and particulate substances

Site: Tappi Country: Japan

	Gases				Particulate matter components							
	SO_2	HNO_3	NH_3	NO_2 *1	nss-SO_4^{2-}	NO_3^-	Cl^-	NH_4^+	Na^+	K^+	Mg^{2+}	Ca^{2+}
2014	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}	mmol m^{-2}
Jan	1.27	0.66	0.27	0.01	1.51	1.29	64.72	1.48	65.39	1.75	7.23	1.87
Feb	0.95	0.33	0.23	0.02	0.89	0.66	45.35	1.05	45.23	1.03	4.88	1.25
Mar	1.51	0.43	0.63	0.16	1.56	1.59	105.46	1.47	100.05	3.22	10.91	3.94
Apr	1.43	0.96	1.28	0.21	1.48	1.93	31.72	1.42	38.83	1.23	4.72	3.89
May	2.15	1.07	1.78	0.34	1.77	2.71	33.15	1.50	43.49	0.74	5.56	5.41
June	1.74	0.94	0.71	0.42	0.80	0.85	9.98	0.68	13.02	0.83	1.58	0.66
July	1.29	0.94	1.62	0.46	0.79	0.53	4.15	0.64	11.85	0.24	1.35	0.40
Aug	2.32	1.73	1.69	0.28	1.31	0.53	7.52	1.40	15.85	0.72	1.70	0.54
Sept	0.75	0.35	0.82	0.16	0.57	0.81	262.06	0.75	235.96	4.87	24.83	4.91
Oct	0.43	0.70	0.38	0.08	0.72	1.29	448.59	1.00	396.89	8.67	41.85	8.54
Nov	0.64	0.39	0.61	0.06	0.38	0.57	147.09	0.43	131.84	3.00	13.24	2.96
Dec	1.17	1.04	0.37	0.03	0.59	1.38	635.31	3.71	559.31	22.39	58.25	12.40
Annual	15.64	9.54	10.39	2.23	12.38	14.14	1795.09	15.53	1657.72	48.68	176.09	46.79

1 NO_2 = NOx- NO

Table 4.42 Monthly and annual dry deposition amounts of gaseous and particulate substances

Site: Sado-seki **Country: Japan**

2014	Gases				Particulate matter components							
	SO_2	HNO_3	NH_3	NO_2 *1	nss-SO_4^{2-}	NO_3^-	Cl^-	NH_4^+	Na^+	K^+	Mg^{2+}	Ca^{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}	mmol m^{-2}	mmol m^{-2}
Jan	1.58	0.60	0.11	0.01	1.22	0.96	49.38	1.23	55.68	1.89	6.44	2.29
Feb	0.98	0.48	0.13	0.01	0.57	0.45	123.27	0.61	111.38	2.49	11.97	2.95
Mar	0.70	1.27	0.44	0.12	0.70	0.79	71.19	1.03	66.70	1.30	5.79	2.49
Apr	0.28	1.85	0.92	0.13	0.72	0.63	11.37	0.69	15.59	0.69	1.93	1.80
May	0.33	2.86	0.94	0.13	1.08	0.73	6.40	1.15	11.49	0.58	1.47	1.47
June	0.19	1.75	0.91	0.14	0.67	0.42	6.42	0.79	8.88	0.51	1.11	0.86
July	0.14	1.98	1.45	0.11	0.78	0.37	2.71	0.57	10.13	0.41	1.22	0.43
Aug	0.16	1.58	0.49	0.07	0.67	0.18	6.46	0.74	9.39	0.41	1.12	0.32
Sept	0.10	0.23	0.34	0.08	0.26	0.27	14.39	0.27	15.73	0.48	1.84	0.53
Oct	0.30	0.55	0.19	0.05	0.54	0.60	43.36	0.51	43.94	1.44	5.11	1.72
Nov	0.35	0.37	0.17	0.05	0.22	0.23	68.27	0.20	62.73	1.34	6.38	1.64
Dec	0.61	0.36	0.09	0.04	0.57	0.38	51.24	0.53	50.01	1.25	5.84	1.38
Annual	5.72	13.88	6.17	0.92	8.01	6.01	454.47	8.31	461.64	12.79	50.22	17.88

Table 4.43 Monthly and annual dry deposition amounts of gaseous and particulate substances

Site: Happo **Country: Japan**

2014	Gases				Particulate matter components							
	SO_2	HNO_3	NH_3	NO_2 *1	nss-SO_4^{2-}	NO_3^-	Cl^-	NH_4^+	Na^+	K^+	Mg^{2+}	Ca^{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}	mmol m^{-2}	mmol m^{-2}
Jan	0.29	0.87	0.05	0.01	0.52	0.07	0.00	0.51	0.83	0.16	0.10	0.21
Feb	0.22	0.92	0.07	0.01	0.50	0.09	0.00	0.60	1.08	0.19	0.15	0.44
Mar	0.37	0.97	0.26	0.07	0.58	0.48	0.55	0.59	2.06	0.39	0.67	3.77
Apr	0.53	1.28	0.61	0.15	0.37	0.19	0.09	0.52	0.58	0.19	0.20	1.09
May	0.43	1.67	0.79	0.23	0.36	0.12	0.02	0.54	0.33	0.11	0.11	0.57
June	0.64	1.02	0.98	0.20	0.30	0.11	0.04	0.51	0.13	0.10	0.06	0.25
July	0.29	0.74	0.93	0.15	0.23	0.02	0.01	0.36	0.32	0.07	0.05	0.07
Aug	0.37	0.75	0.58	0.19	0.33	0.02	0.01	0.51	0.12	0.04	0.03	0.05
Sept	0.53	0.39	0.38	0.09	0.15	0.02	0.04	0.20	0.21	0.03	0.03	0.04
Oct	0.29	0.91	0.52	0.03	0.37	0.13	0.24	0.49	1.08	0.13	0.15	0.30
Nov	0.20	0.34	0.21	0.04	0.07	0.01	0.01	0.09	0.11	0.02	0.02	0.05
Dec	0.13	0.34	0.09	0.03	0.14	0.04	0.09	0.13	0.35	0.03	0.04	0.04
Annual	4.30	10.20	5.48	1.20	3.90	1.29	1.10	5.06	7.21	1.46	1.61	6.89

Table 4.44 Monthly and annual dry deposition amounts of gaseous and particulate substances

Site: Ijira **Country: Japan**

2014	Gases				Particulate matter components							
	SO_2	HNO_3	NH_3	NO_2 *1	nss-SO_4^{2-}	NO_3^-	Cl^-	NH_4^+	Na^+	K^+	Mg^{2+}	Ca^{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}	mmol m^{-2}	mmol m^{-2}
Jan	0.11	0.04	0.17	0.02	0.03	0.01	0.02	0.05	0.09	0.01	0.01	0.01
Feb	0.07	0.07	0.12	0.02	0.05	0.02	0.03	0.09	0.16	0.03	0.02	0.04
Mar	0.14	0.21	0.37	0.17	0.10	0.05	0.05	0.16	0.25	0.06	0.05	0.15
Apr	0.10	0.44	0.31	0.20	0.11	0.04	0.04	0.15	0.27	0.05	0.05	0.13
May	0.11	0.42	0.45	0.30	0.09	0.02	0.01	0.13	0.17	0.04	0.03	0.08
June	0.10	0.21	0.76	0.31	0.03	0.01	0.00	0.04	0.04	0.02	0.01	0.02
July	0.10	0.20	0.63	0.31	0.06	0.01	0.01	0.08	0.21	0.04	0.02	0.02
Aug	0.12	0.30	0.52	0.31	0.09	0.00	0.00	0.14	0.11	0.04	0.01	0.03
Sept	0.04	0.11	0.29	0.15	0.04	0.01	0.02	0.05	0.13	0.03	0.02	0.02
Oct	0.07	0.17	0.28	0.08	0.08	0.02	0.04	0.11	0.25	0.04	0.04	0.06
Nov	0.04	0.05	0.22	0.05	0.02	0.01	0.02	0.03	0.06	0.01	0.01	0.01
Dec	0.05	0.07	0.17	0.05	0.04	0.01	0.03	0.07	0.18	0.03	0.02	0.01
Annual	1.05	2.28	4.30	1.98	0.75	0.21	0.26	1.10	1.92	0.41	0.28	0.58

1 NO_2 = NOx- NO

Table 4.45 Monthly and annual dry deposition amounts of gaseous and particulate substances

Site: Oki Country: Japan

	Gases				Particulate matter components							
	SO_2	HNO_3	NH_3	NO_2 *1	nss-SO_4^{2-}	NO_3^-	Cl^-	NH_4^+	Na^+	K^+	Mg^{2+}	Ca^{2+}
2014	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}	mmol m^{-2}
Jan	2.91	1.41	0.72	0.03	1.96	2.20	143.84	2.41	144.97	3.98	15.17	4.21
Feb	0.94	0.79	0.45	0.03	1.54	2.25	79.48	2.19	80.05	2.60	8.29	3.74
Mar	1.46	1.20	0.95	0.22	1.68	1.81	48.39	2.07	50.96	1.91	5.89	3.18
Apr	0.99	2.35	1.59	0.16	1.99	1.76	33.60	2.25	46.53	1.89	4.74	3.50
May	1.19	2.99	1.32	0.20	2.22	1.37	12.74	2.63	23.20	0.96	2.68	2.40
June	0.72	1.55	1.64	0.21	1.30	0.62	4.99	1.47	11.18	0.84	1.07	0.91
July	1.14	1.90	1.85	0.10	1.56	0.86	9.02	1.56	18.25	0.70	1.73	0.74
Aug	0.93	1.43	0.70	0.11	1.24	0.38	10.68	1.39	15.06	0.55	1.52	0.42
Sept	0.55	0.42	0.86	0.10	0.73	0.67	33.32	0.61	37.93	1.08	4.39	0.93
Oct	0.64	1.00	0.52	0.07	1.10	1.25	34.23	1.10	40.58	1.37	4.67	1.80
Nov	0.54	0.66	0.64	0.05	0.94	0.82	48.46	0.93	52.22	1.90	5.96	1.27
Dec	1.08	0.48	0.19	0.05	1.17	1.25	179.80	1.48	163.91	4.04	19.01	4.39
Annual	13.09	16.20	11.42	1.33	17.43	15.24	638.55	20.09	684.84	21.82	75.13	27.49

Table 4.46 Monthly and annual dry deposition amounts of gaseous and particulate substances

Site: Banryu Country: Japan

	Gases				Particulate matter components							
	SO_2	HNO_3	NH_3	NO_2	nss-SO_4^{2-}	NO_3^-	Cl^-	NH_4^+	Na^+	K^+	Mg^{2+}	Ca^{2+}
2014	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}	mmol m^{-2}
Jan	1.55	0.38	0.29	0.05	0.82	1.01	12.38	1.48	17.13	0.84	2.09	0.94
Feb	0.76	0.48	0.45	0.05	0.62	0.82	9.38	1.18	11.90	0.60	1.51	0.87
Mar	0.48	0.61	0.66	0.26	0.57	0.64	4.68	0.87	6.53	0.38	0.91	1.02
Apr	0.29	0.96	0.93	0.18	0.57	0.40	3.95	0.69	7.15	0.43	0.85	0.82
May	0.23	1.71	0.84	0.20	0.51	0.23	0.05	0.78	1.53	0.18	0.25	0.39
June	0.21	1.19	0.91	0.11	0.44	0.14	1.29	0.64	2.88	0.28	0.38	0.28
July	0.31	1.06	1.05	0.20	0.42	0.13	3.28	0.45	5.67	0.23	0.54	0.16
Aug	0.22	1.30	0.92	0.19	0.60	0.10	0.99	0.80	3.37	0.28	0.41	0.14
Sept	0.31	0.27	0.68	0.18	0.32	0.27	7.52	0.36	9.84	0.41	1.15	0.29
Oct	0.20	0.59	0.59	0.10	0.39	0.32	1.86	0.55	3.44	0.24	0.46	0.28
Nov	0.21	0.41	0.55	0.09	0.21	0.16	3.93	0.27	5.07	0.24	0.61	0.16
Dec	0.47	0.46	0.55	0.08	0.42	0.45	6.80	0.77	8.80	0.39	1.11	0.45
Annual	5.23	9.43	8.42	1.67	5.87	4.68	56.10	8.83	83.32	4.51	10.25	5.80

Table 4.47 Monthly and annual dry deposition amounts of gaseous and particulate substances

Site: Yusuhara Country: Japan

	Gases				Particulate matter components							
	SO_2	HNO_3	NH_3	NO_2 *1	nss-SO_4^{2-}	NO_3^-	Cl^-	NH_4^+	Na^+	K^+	Mg^{2+}	Ca^{2+}
2014	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}	mmol m^{-2}
Jan	1.21	1.26	0.17	0.05	0.59	0.36	0.45	1.03	2.30	0.32	0.31	0.41
Feb	0.83	0.86	0.14	0.04	0.51	0.32	0.39	0.79	1.72	0.15	0.27	0.35
Mar	0.80	0.43	0.17	0.22	0.22	0.11	0.14	0.27	0.71	0.15	0.14	0.28
Apr	0.69	0.59	0.32	0.15	0.15	0.02	0.03	0.19	0.30	0.12	0.06	0.12
May	0.31	0.80	0.43	0.13	0.25	0.03	0.03	0.35	0.46	0.01	0.10	0.23
June	0.18	0.27	0.53	0.14	0.25	0.03	0.04	0.35	0.20	0.01	0.06	0.24
July	0.17	0.39	0.45	0.08	0.20	0.02	0.22	0.22	1.05	>0.01	0.10	0.06
Aug	0.20	0.71	0.47	0.13	0.30	0.01	0.01	0.41	0.47	>0.01	0.06	0.07
Sept	0.11	0.62	0.33	0.10	0.19	0.02	0.03	0.23	0.53	0.26	0.07	0.06
Oct	0.15	0.81	0.11	0.09	0.32	0.12	0.11	0.42	0.92	0.38	0.14	0.24
Nov	0.17	0.37	0.15	0.06	0.15	0.04	0.05	0.17	0.60	0.05	0.06	0.07
Dec	0.73	0.69	0.16	0.10	0.34	0.16	0.27	0.51	1.47	0.12	0.15	0.14
Annual	5.55	7.80	3.43	1.28	3.46	1.23	1.77	4.94	10.75	1.58	1.51	2.26

1 NO_2 = NOx- NO

Table 4.48 Monthly and annual dry deposition amounts of gaseous and particulate substances

Site: Hedo **Country: Japan**

	Gases				Particulate matter components							
	SO_2	HNO_3	NH_3	NO_2 *1	nss-SO_4^{2-}	NO_3^-	Cl^-	NH_4^+	Na^+	K^+	Mg^{2+}	Ca^{2+}
2014	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}	mmol m^{-2}
Jan	0.64	2.03	1.53	0.03	1.37	1.19	13.56	1.50	19.70	0.88	2.34	1.93
Feb	0.53	0.94	1.23	0.02	0.92	0.73	10.73	0.96	14.36	0.64	1.88	1.62
Mar	0.34	0.28	1.05	0.10	0.62	0.57	17.52	0.56	19.94	0.66	2.44	1.31
Apr	0.67	0.64	1.26	0.11	0.63	0.51	12.65	0.56	16.74	0.57	2.07	1.08
May	0.16	0.45	1.67	0.09	0.50	0.47	7.55	0.39	11.59	0.46	1.40	0.60
June	0.28	0.12	1.62	0.22	0.17	0.25	9.63	0.17	9.80	0.29	1.13	0.37
July	0.04	0.14	1.39	0.07	0.15	0.10	26.60	0.13	24.04	0.59	2.77	0.70
Aug	0.11	0.45	1.66	0.07	0.38	0.28	13.79	0.33	15.58	0.44	1.79	0.48
Sept	0.22	0.26	1.05	0.06	0.43	0.44	12.41	0.37	15.06	0.40	1.74	0.43
Oct	0.28	0.48	0.75	0.03	0.75	0.83	34.67	0.63	37.42	1.03	4.34	1.48
Nov	0.36	0.25	0.68	0.04	0.37	0.47	17.87	0.34	19.01	0.53	2.19	0.57
Dec	0.30	0.44	0.67	0.05	0.73	0.78	35.67	0.66	38.38	1.03	4.45	1.50
Annual	3.93	6.49	14.56	0.88	7.03	6.66	212.65	6.60	241.62	7.54	28.53	12.08

Table 4.49 Monthly and annual dry deposition amounts of gaseous and particulate substances

Site: Ogasawara **Country: Japan**

	Gases				Particulate matter components							
	SO_2	HNO_3	NH_3	NO_2 *1	nss-SO_4^{2-}	NO_3^-	Cl^-	NH_4^+	Na^+	K^+	Mg^{2+}	Ca^{2+}
2014	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}	mmol m^{-2}
Jan	0.34	0.06	0.17	0.02	0.16	0.11	5.06	0.15	5.80	0.15	0.65	0.16
Feb	0.38	0.06	0.20	0.01	0.18	0.17	5.01	0.16	6.06	0.33	0.64	0.64
Mar	0.16	0.08	0.55	0.08	0.23	0.27	4.05	0.15	5.85	0.43	0.62	0.94
Apr	0.08	0.05	0.66	0.02	0.11	0.07	2.32	0.12	2.73	0.08	0.32	0.14
May	0.05	0.05	0.88	0.02	0.11	0.06	6.70	0.09	6.73	0.19	0.78	0.22
June	0.01	0.01	0.37	0.04	0.01	0.01	1.42	0.01	1.25	0.04	0.14	0.04
July	0.01	0.01	0.57	0.01	0.02	0.03	5.28	0.02	4.67	0.10	0.52	0.12
Aug	0.07	0.16	0.85	0.04	0.25	0.06	9.91	0.20	11.05	0.27	1.20	0.31
Sept	0.08	0.02	0.52	0.03	0.04	0.04	3.87	0.04	3.69	0.10	0.41	0.10
Oct	0.11	0.01	0.57	0.01	0.07	0.07	8.08	0.05	7.82	0.21	0.90	0.22
Nov	0.02	0.01	0.40	0.01	0.05	0.08	11.69	0.04	10.88	0.26	1.23	0.19
Dec	0.05	0.03	0.33	0.02	0.09	0.09	5.79	0.09	6.15	0.15	0.71	0.18
Annual	1.36	0.55	6.05	0.32	1.34	1.07	69.19	1.12	72.67	2.32	8.12	3.25

1 NO_2 = NOx- NO

Table 4.50 Conversion ratios from ppb to μg/m^3 (20^{o}C, 1 atm)

Species	SO_2	HNO_3	HCl	NH_3	NO	NO_2	O_3
Ratio	x 2.66	x 2.62	x 1.52	x 0.71	x 1.25	x 1.91	x 2.00

Table 4.51 Reporting limits for summarizing air concentration data

Species	Reporting limit
SO_2	0.1 ppb
HNO_3	0.1 ppb
HCl	0.1 ppb
NH_3	0.1 ppb
NO, NO_2, NO_x	0.1 ppb
O_3	1 ppb
PM	1 μg/m^3
Particulate matter components	0.01 μg/m^3

CHAPTER 5

Soil and Vegetation Monitoring

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 in accordance with the Technical Manual on Soil and Vegetation Monitoring in East Asia. General items are described in the Table 5.1 but actual implementation of item sets was dependent on respective site.

Table 5.1 Basic survey for soil and forest

Item	Parameters
Soil	- pH(H_2O), pH(KCl), Exchangeable base cations (Na, K, Ca, and Mg), Exchangeable acidity, Effective cation exchange capacity (ECEC), Carbonate content (if pH > 7) - 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	- 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)

5.1.1 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) of areas from 5m x 5m to 10m x 10m should be chosen randomly at each forest area (each soil type). Five subplots with 1m x 1m square of each are set up for soil sampling at the center and along the diagonal lines of the plot (Figure 5.1).

Three coaxial round plots are established for general description of trees with areas of 1000, 400 and 200 square meters respectively (Figure 5.2). Observation of tree decline is carried out basically for selected twenty dominant trees in four directions. The Sub-Manual on Forest Vegetation Monitoring, which was endorsed in 2006, recommended that the observation should be done at least once a year to detect possible effects of meteorological events. Decline symptoms of the observation trees were recorded according to the decline scale shown in Table 5.2.

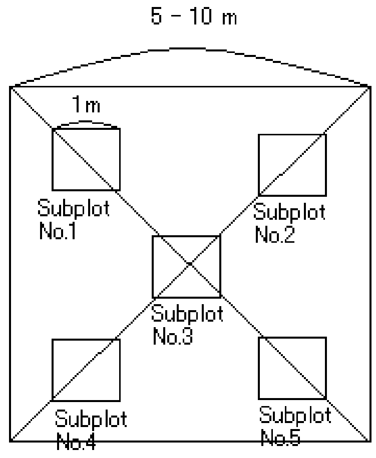


Figure 5.1 Plot for soil sampling

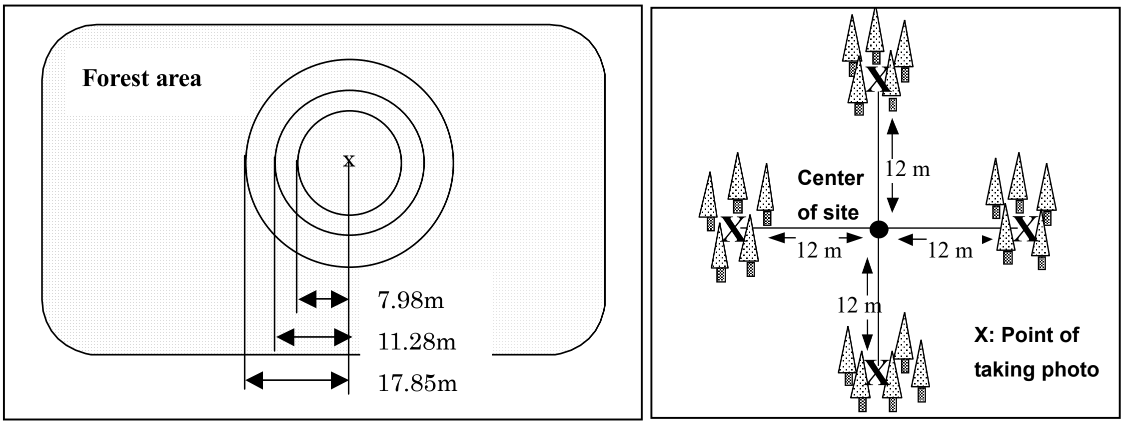


Figure 5.2 Plots for description of trees (Left) and selection of observation trees (Right)

Table 5.2 Observation items and decline scale

Items	Decline scale and observations
Vitality of tree	0. No damage, 1. Slightly damaged, 2. Evidently damaged, 3. Severely damaged, 4. Dead
Form of tree	0. Normal, 1. Some branches lacking, 2. Evidently wanting, 3. Severely wanting, 4. Dead or almost dead
Branch growth	0. Normal growth, 1. Somewhat reduced, 2. Short and slender, 3. Extremely short
Dieback of stem	0. Not found, 1. Slightly dieback, 2. Evidently dieback, 3. Severe dieback if found, 4. Completely dead
Defoliation of crown*1	0.Not defoliated (0–10%), 1.Slightly defoliated (>10–25%), 2. Moderately defoliated (>25–60%), 3.Severely defoliated (>60%), 4.Dead
Deformation of leaves	0. Normal, 1. Slightly deformed, 2. Evidently deformed, 3. Completely deformed
Size of leaves	0. Normal, 1. Somewhat small, 2. Evidently small, 3. Very small
Discoloration of leaves*1	0. None (0–10%), 1. Slight (>10–25%), 2. Moderate (>25–60%), 3. Severe (>60%)
Injury of leaves	0. No symptoms, 1. Slightly injured, 2. Evidently injured, 3. Severely injured

*1. Definition of the scale was updated in the Sub-Manual on Forest Vegetation Monitoring (2006).

5.1.2 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_2O) and pH (KCl)	Glass electrode
c) Exchangeable Base Cations (Ca, Mg, K and Na)	AAS, ICP-AES or ICP-MS (CH_3COONH_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

5.1.3 Monitoring Sites

Soil and vegetation monitoring data of 7 areas of 5 countries were submitted this year. The list of monitoring site and reported items in 2015 were shown in Table 5.4.1 Observation of the tree decline was conducted in 7 plots. The survey on soil monitoring were carried out in China. Soil survey in 2012 was reported from Malaysia and that in 2014 was reported from Russia. The number of soil and vegetation plots in each monitoring site were shown in Table 5.4.2 with the number of survey until 2015.

Table 5.4.1 Outline of the Monitoring Sites in 2015

Country	Nearest deposition monitoring site	Site: Name of forests	Soil type	Items*1
China	**Jinyunshan (Chongqing)**	**Jinyunshan**	**Acidi-Udic Argosols**	**S, F_1, F_2**
	Jiwozi (Xi'an)	**Dabagou**	**Brown soil**	**S, F_1, F_2**
Indonesia	**Serpong**	**Research Forest Station of Center and Development of Forestry Research in Bogor**	**Typic Dystrudepts**	**F_1**
Japan	**Ijira**	**Lake Ijira**	**Dystric Cambisols**	**F_1**
		Yamato	**Andosols**	**F_1**
	Banryu	**Banryu-2**	**Cambisols**	**F_1**
		Iwami Rinku Factory Park	**Acrisols**	**F_1**
Malaysia	**(Bintulu)**	**UPM Bintulu Campus Rehabilitation Forest Planted in 1991**	**Typic Tualemkuts*2**	**S (in 2012)**
		UPM Bintulu Campus Rehabilitation Forest Planted in 2008	**Typic Tualemkuts*2**	**S (in 2012)**
Russia	**Mondy**	**Solar Observatory**	**Calcic Gleysol**	**S (in 2014)**

*1 S, Soil chemical analysis; F_1, Observation of tree decline; F_2, Description of trees and understory vegetation survey

*2 Typic Tualemkuts corresponds to Haplic Acrisols by FAO/WRB soil classification.

Table 5.4.2 Site information about the number of plots and surveys conducted until 2015

Country	Area (Name of nearest deposition monitoring site)	Name of individual monitoring site	The number of plots			Repeat of soil analysis	Start year	Latest year	The number of surveys until 2015		
			Forest Plot	Soil Main-plot	Soil Sub-plot				Tree decline	Tree survey (DBH, hight, Understory)	Soil survey (pH, Cations, Acidity)
China	Jinyunshan (Chongqing)	Jinyunshan	2	2	5	1	2000	**2015**	**10**	**5**	**6**
	Jiwozi (Xi'an)	Dabagou	1	2	5	1	2001	**2015**	**10**	**5**	**6**
	Xiaoping (Xiamen)	Xiaoping	1	1	5	1	2000	2014	10	5	5
	Zhuxiandong (Zhuhai)	Zhuxiandong	3	3	5	1	2001	2014	8	5	4
Indonesia	EMC	Bogor Research Forest (Dramaga Experimental Forest)	1	1	5	1	2001	**2015**	**7**	1	4
Japan	Ijira	Ijira	1	2	5	2	2000	**2015**	**12**	3	3
		Yamato	1	2	5	2	2003	**2015**	**12**	2	2
	Banryu	Banryu-2	1	2	5	2	2000	**2015**	**13**	3	3
		Iwami Rinku Factory Park	1	2	5	2	2001	**2015**	**12**	3	3
Malaysia	Petaling Jaya	Pasoh Reserve Forest 1	0	1	5	1	2000	2014	1	0	2
		Pasoh Reserve Forest 2	0	1	5	1	2000	2014	0	0	2
	Petaling Jaya	Sungi Lalang Forest researves***	**	**	**	**	**	**	0	0	0
	(Bintulu)	UPMKB Rehabilitated Forest Planted in 1991	0	2	5	1	2009	**2012**	0	0	**2**
		UPMKB Rehabilitated Forest Planted in 2008	0	2	5	1	2009	**2012**	0	0	**2**
Mongolia	Ulaanbaatar	Bogdkhan Mountain	1	2	5	1	2005	2014	0	1	1
	Terelj	Terelj Mountain	0	2	5	1	2014	2014	0	1	1
Philippines	Los Banos	Mt. Makiling	1	2	5	2	2000	2008	3	3	3
		UP Quezon, Land Grant	1	2	5	2	2000	2008	3	3	4
	Metro Manila	La Mesa Watershed	1	2	5	2	2007	2010	2	2	2
	Mt. Sto Tomas	Boneco Long Term Ecological Research Site	1	2	5	2	2008	**	1	1	1
Republic of Korea	Imsil	Mt. Naejang	1	2	5	1	2001	2004	1	1	2
Russia	Irkutsk	Irkutsk	1	1	2	1	2001	2013	2	2	2
	Listvyanka	Bolshie Koty	1	2	1	2	2000	2013	1	1	2
		Pereemnaya river catchment	1	2	5	1	2005	**	1	1	1
	Mondy	Ilchir Lake	0	2	5	1	1999	**	0	0	1
		Okinskoe Lake	0	1	5	1	1999	**	0	0	1
		Solar Observatory	1	2	5	2	1999	**2014**	1	1	**2**
	Primorskaya	Primorskaya	1	1	2	3	2006	2013	1	1	2
Thailand	Vachiralongkorn Dam (old name: Kao Lam Dam)	Vachiralongkorn Dam	1	2	5	2	2000	2012	5	5	6
		Vachiralongkorn Puye	1	1	5	2	2002	2012	5	5	4
Vietnam	Hoa Binh	Cave of Heaven	0	2	5	2	1999	**	0	0	1
		Thang Ranh	0	2	5	2	1999	**	0	0	1

Bold letters show the values updated in 2015.

** Soil and vegetation monitoring have not been conducted.

*** Sungai Lalang Forest Researves was officially replaced by Bintulu site.

5.2 Results of Monitoring

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

Table 5.5: Soil chemical analysis

Table 5.6: Observation of tree decline

Table 5.7: Description of trees

Table 5.8: Understory vegetation survey

Table 5.5.1) Soil chemical analysis: Jinyunshan

Soil sampling year: 2015

Name of analysis laboratory: Chongqing environmental monitoring center

Location	Soil type	Plot No.	Subplot No.	Layer analyzed (cm)	Repeat analysis	Water contents (%)	pH		Exchangeable base cations (B)				Ex-acidity (A)	Ex-acid cations		ECEC (A) + (B)	Total C	Total N	Base saturation
							H_2O	KCl	Ca	Mg	K	Na		Al	H				
									(cmol$_c$ kg^{-1})								%		%
Jinyunshan	Acidi-Udic Argosols	1	1	0-10	-	4.8	3.8	3.0	0.66	0.10	0.090	0.010	10	8.3	1.8	11	-	-	7.9
			2		-	4.8	3.8	2.9	0.37	0.11	0.080	0.010	12	9.2	2.3	12	-	-	4.7
			3		-	4.6	3.9	3.2	0.31	0.090	0.10	0.010	9.7	7.8	1.9	10	-	-	5.0
			4		-	5.5	3.9	3.1	0.18	0.070	0.080	0.010	11	8.8	2.0	11	-	-	3.1
			5		-	6.1	3.9	3.1	0.48	0.13	0.10	0.010	10	8.3	1.9	11	-	-	6.6
			1	10-20	-	4.1	3.8	3.1	0.33	0.070	0.070	0.010	8.0	6.4	1.7	8.5	-	-	5.6
			2		-	4.3	3.9	3.1	0.15	0.060	0.060	0.010	9.2	7.5	1.7	9.5	-	-	3.0
			3		-	4.3	4.0	3.3	0.17	0.060	0.060	0.010	8.8	7.4	1.4	9.1	-	-	3.3
			4		-	4.0	4.0	3.2	0.050	0.040	0.040	0.010	7.7	6.3	1.4	7.8	-	-	1.8
			5		-	4.6	4.1	3.3	0.21	0.050	0.070	0.010	7.4	5.7	1.8	7.8	-	-	4.4
	Acidi-Udic Argosols	2	1	0-10	-	5.2	3.8	3.2	0.080	0.040	0.040	0.010	11	8.9	1.6	11	-	-	1.6
			2		-	3.7	4.0	3.2	0.99	0.15	0.14	0.010	6.8	5.2	1.6	8.1	-	-	16
			3		-	6.8	4.1	3.5	0.28	0.13	0.12	0.020	10.0	8.2	1.8	11	-	-	5.2
			4		-	4.6	3.9	3.1	0.42	0.13	0.10	0.010	9.0	7.2	1.8	9.7	-	-	6.8
			5		-	4.2	3.9	3.2	0.99	0.17	0.12	0.010	7.0	5.4	1.6	8.3	-	-	16
			1	10-20	-	4.1	4.0	3.2	0.090	0.050	0.090	0.010	8.1	6.5	1.6	8.3	-	-	2.9
			2		-	3.0	4.2	3.4	0.34	0.060	0.080	0.010	5.0	3.9	1.1	5.5	-	-	8.9
			3		-	3.8	4.1	3.3	0.12	0.040	0.050	0.010	8.0	6.7	1.3	8.2	-	-	2.7
			4		-	3.5	4.0	3.3	0.11	0.040	0.060	0.010	6.9	5.7	1.2	7.2	-	-	3.1
			5		-	2.9	4.2	3.4	0.32	0.050	0.070	0.010	4.8	3.7	1.1	5.2	-	-	8.6

Table 5.5.2) Soil chemical analysis: Dabagou
Soil sampling year: 2015
Name of analysis laboratory: Xi'an environmental monitoring station

Location	Soil type	Plot No.	Subplot No.	Layer analyzed (cm)	Repeat analysis	Water contents (%)	pH		Exchangeable base cations (B)				Ex-acidity (A)	Ex-acid cations		ECEC (A) + (B)	Total C	Total N	Base saturation
							H_2O	KCl	Ca	Mg	K	Na		Al	H				
									(cmol$_c$ kg^{-1})								%		%
Dabagou	Brown Soil	1	1	0-10	-	9.6	5.3	4.7	2.5	0.43	0.38	0.078	1.1	0.33	0.79	5.6	-	-	60
			2		-	10	5.6	5.0	3.1	0.25	0.30	0.14	1.1	0.42	0.72	6.1	-	-	63
			3		-	10	5.7	5.1	3.5	0.36	0.39	0.38	1.1	0.33	0.75	6.8	-	-	68
			4		-	12	6.0	5.3	5.0	0.41	0.41	0.39	0.88	0.36	0.52	7.9	-	-	78
			5		-	11	5.8	5.2	2.8	0.28	0.84	0.27	1.0	0.34	0.68	6.3	-	-	68
			1	10-20	-	8.7	5.8	5.0	2.4	0.57	0.31	0.083	1.0	0.38	0.66	5.4	-	-	61
			2		-	7.3	6.0	5.2	3.0	0.36	0.60	0.42	1.1	0.46	0.62	6.5	-	-	67
			3		-	4.7	6.0	5.2	4.6	0.47	0.75	0.42	1.0	0.44	0.58	8.3	-	-	75
			4		-	7.3	6.1	5.4	4.4	0.33	0.49	0.35	0.81	0.39	0.42	7.2	-	-	78
			5		-	7.6	6.0	5.3	2.8	0.22	0.18	0.13	0.88	0.28	0.60	5.1	-	-	65
	Brown Soil	2	1	0-10	-	13	5.8	5.2	2.6	0.33	0.71	0.10	1.2	0.45	0.72	6.1	-	-	62
			2		-	10	5.8	5.1	3.2	0.55	0.84	0.48	1.2	0.50	0.65	7.4	-	-	69
			3		-	13	5.8	5.2	3.5	0.54	0.94	0.26	1.1	0.33	0.79	7.4	-	-	70
			4		-	12	5.9	5.3	3.7	0.59	0.94	0.17	0.96	0.33	0.63	7.3	-	-	74
			5		-	10	5.7	5.0	4.7	0.95	0.71	0.13	1.0	0.36	0.65	8.5	-	-	76
			1	10-20	-	5.9	5.9	5.4	2.5	0.53	0.38	0.088	0.97	0.43	0.54	5.4	-	-	64
			2		-	13	6.0	5.4	3.7	0.64	0.72	0.19	0.99	0.40	0.59	7.2	-	-	72
			3		-	7.5	6.2	5.4	4.0	0.64	0.59	0.12	0.92	0.31	0.61	7.2	-	-	75
			4		-	11	6.2	5.4	2.4	0.71	0.51	0.081	0.84	0.36	0.48	5.4	-	-	69
			5		-	6.9	5.8	5.1	3.1	0.87	0.39	0.12	0.87	0.41	0.46	6.3	-	-	72

Table 5.5.3) Soil chemical analysis: University Putra Malaysia (UPM) Bintulu Campus Rehabilitation Forest Planted in 1991
Soil sampling year: **2012**
Name of analysis laboratory: **UPM Bintulu Campus, Bintulu, Sarawak, Malaysia**

Location	Soil type	Plot No.	Subplot No.	Layer analyzed (cm)	Repeat analysis	Water contents (%)	pH H_2O	pH KCl	Exchangeable base cations (B) Ca	Mg	K	Na	Ex-acidity (A)	Ex-acid cations Al	H	ECEC (A) + (B)	Total C	Total N	Base saturation
									($cmol_c\ kg^{-1}$)								%		%
UPM Bintulu Campus Rehabilitated Forest Planted in 1991	Typic Tualemkuts	1	1	0-10	-	-	4.6	3.4	0.68	0.89	0.090	1.5	3.8	2.0	1.8	7.0	-	-	46
			2		-	-	5.0	3.7	1.4	0.98	0.060	1.1	3.8	1.9	2.0	7.4	-	-	48
			3		-	-	5.0	4.0	0.86	0.78	0.090	1.3	3.5	1.6	1.9	6.6	-	-	46
			4		-	-	5.0	3.6	1.1	0.97	0.050	1.1	3.7	1.8	2.0	7.0	-	-	47
			5		-	-	5.0	3.8	1.6	0.94	0.090	1.2	3.9	1.9	2.0	7.7	-	-	50
			1	10-20	-	-	5.0	3.7	1.3	0.97	0.060	1.7	3.5	1.7	1.9	7.5	-	-	53
			2		-	-	5.0	3.9	1.6	0.94	0.090	1.2	3.1	1.5	1.7	6.9	-	-	55
			3		-	-	5.0	3.9	1.0	0.93	0.080	1.2	3.7	1.9	1.8	6.9	-	-	47
			4		-	-	5.0	3.7	1.2	0.89	0.070	1.2	3.5	1.9	1.7	7.0	-	-	49
			5		-	-	5.0	3.8	2.0	0.87	0.090	1.2	3.9	1.9	2.0	8.0	-	-	52
	Typic Tualemkuts	2	1	0-10	-	-	5.0	3.9	1.2	0.99	0.050	1.4	3.6	1.6	2.0	7.2	-	-	50
			2		-	-	5.7	4.1	1.6	1.0	0.060	1.5	3.6	1.5	2.1	7.8	-	-	53
			3		-	-	6.0	5.1	1.3	0.78	0.070	1.4	4.1	2.0	2.1	7.7	-	-	47
			4		-	-	5.9	5.4	1.4	0.98	0.040	1.1	4.3	2.0	2.4	7.9	-	-	45
			5		-	-	6.0	4.7	1.8	0.79	0.080	0.36	3.8	1.8	2.0	6.7	-	-	44
			1	10-20	-	-	5.1	4.0	1.3	1.2	0.060	1.7	3.6	1.7	1.9	7.8	-	-	54
			2		-	-	5.1	3.5	1.3	1.0	0.060	1.6	3.4	1.8	1.6	7.3	-	-	54
			3		-	-	5.1	3.9	1.3	1.2	0.080	1.5	4.2	2.1	2.1	8.4	-	-	50
			4		-	-	5.9	4.6	1.2	1.2	0.050	1.2	4.6	2.1	2.5	8.2	-	-	45
			5		-	-	6.0	3.9	1.8	1.2	0.060	1.4	4.2	1.6	2.6	8.7	-	-	52

Typic Tualemkuts correponds to Haplic Acrisols by FAO/WRB soil classification.

Table 5.5.4) Soil chemical analysis: University Putra Malaysia (UPM) Bintulu Campus Rehabilitation Forest Planted in 2008
Soil sampling year: **2012**
Name of analysis laboratory: **UPM Bintulu Campus, Bintulu, Sarawak, Malaysia**

Location	Soil type	Plot No.	Subplot No.	Layer analyzed (cm)	Repeat analysis	Water contents (%)	pH H_2O	pH KCl	Exchangeable base cations (B) Ca	Mg	K	Na	Ex-acidity (A)	Ex-acid cations Al	H	ECEC (A) + (B)	Total C	Total N	Base saturation
									($cmol_c\ kg^{-1}$)								%		%
UPM Bintulu Campus Rehabilitated Forest Planted in 2008	Typic Tualemkuts	1	1	0-10	-	-	5.7	3.7	0.89	0.90	0.070	1.4	4.0	1.9	2.1	7.3	-	-	45
			2		-	-	4.8	3.8	1.0	0.86	0.080	1.3	3.7	1.6	2.2	7.0	-	-	47
			3		-	-	4.7	3.7	1.2	0.90	0.060	1.4	3.9	1.8	2.1	7.5	-	-	48
			4		-	-	4.8	3.7	1.2	0.88	0.040	1.7	3.7	1.6	2.2	7.5	-	-	50
			5		-	-	5.1	4.0	0.89	0.98	0.060	1.6	3.7	1.8	1.9	7.2	-	-	49
			1	10-20	-	-	5.4	3.9	1.3	0.87	0.060	1.7	3.0	1.7	1.4	7.0	-	-	56
			2		-	-	5.1	3.9	1.2	0.94	0.010	1.3	3.2	1.6	1.6	6.7	-	-	52
			3		-	-	4.9	3.7	1.0	0.79	0.010	1.3	3.1	1.3	1.8	6.3	-	-	50
			4		-	-	4.7	3.7	0.89	0.90	0.050	1.4	3.4	1.9	1.6	6.7	-	-	49
			5		-	-	4.8	3.5	0.76	0.87	0.040	1.2	2.7	1.2	1.4	5.6	-	-	52
	Typic Tualemkuts	2	1	0-10	-	-	5.1	3.6	0.79	0.98	0.040	1.5	3.7	1.8	1.9	7.0	-	-	48
			2		-	-	4.9	3.8	1.0	0.89	0.040	1.2	3.0	1.7	1.4	6.2	-	-	51
			3		-	-	5.0	4.0	0.89	1.0	0.060	1.5	3.6	1.9	1.7	7.1	-	-	50
			4		-	-	4.8	3.7	0.89	1.3	0.050	1.5	3.5	1.7	1.9	7.3	-	-	52
			5		-	-	5.1	3.8	0.77	1.0	0.040	1.6	3.5	1.7	1.9	7.0	-	-	50
			1	10-20	-	-	4.7	3.9	1.2	1.0	0.040	1.3	3.7	2.0	1.8	7.3	-	-	49
			2		-	-	4.9	3.9	1.0	0.77	0.040	1.2	3.2	1.6	1.7	6.3	-	-	49
			3		-	-	4.8	3.7	1.3	1.1	0.040	1.5	3.5	1.7	1.8	7.5	-	-	54
			4		-	-	4.9	3.9	1.3	1.0	0.050	1.3	3.7	1.6	2.1	7.5	-	-	50
			5		-	-	4.8	4.0	0.98	0.85	0.040	1.5	3.4	1.3	2.1	6.7	-	-	50

Typic Tualemkuts correponds to Haplic Acrisols by FAO/WRB soil classification.

Table 5.5.5) Soil chemical analysis: Mondy Solar Observatory

Soil sampling yea: **2014**

Name of analysis laboratory: **Laboratory of the hydrochemistry and chemistry of atmosphere, Limnological Institute, Russia**

Repeat analysis: 1

Location	Soil type	Plot No.	Subplot No.	Layer analyzed	Repeat analysis	Water contents	pH		Exchangeable base cations (B) Ca	Mg	K	Na	Ex-acidity (A)	Ex-acid cations Al	H	ECEC (A) + (B)	Total C	Total N	Base saturation
				(cm)		(%)	H_2O	KCl	($cmol_c\ kg^{-1}$)								(%)		(%)
Mondy Solar Observatory	Calcic Gleysol	1	1	0-10	1	10	7.6	6.9	90	3.5	4.2	0.020	0.0	-	-	97	-	-	100
			2			11	7.8	6.9	92	3.4	3.5	0.020	0.0	-	-	99	-	-	100
			3			10	7.8	6.9	82	3.7	2.4	0.010	0.0	-	-	88	-	-	100
			4			11	7.8	6.9	85	4.6	2.4	0.038	0.0	-	-	92	-	-	100
			5			11	7.2	6.9	80	5.0	3.6	0.030	0.0	-	-	89	-	-	100
			1	10-20	1	6.8	7.5	7.1	120	7.6	0.56	0.010	0.0	-	-	130	-	-	100
			2			7.6	7.5	7.1	130	7.2	0.87	0.010	0.0	-	-	130	-	-	100
			3			7.2	7.6	7.1	110	9.0	0.91	0.000	0.0	-	-	120	-	-	100
			4			9.1	7.6	7.0	110	4.6	0.43	0.030	0.0	-	-	110	-	-	100
			5			10	7.8	7.1	110	6.5	0.65	0.030	0.0	-	-	120	-	-	100
	Calcic Gleysol	2	1	0-10	1	12	7.1	6.9	92	4.5	2.3	0.010	0.0	-	-	99	-	-	100
			2			15	7.2	6.9	82	2.4	2.1	0.010	0.0	-	-	86	-	-	100
			3			16	7.1	6.8	79	5.1	3.5	0.040	0.0	-	-	88	-	-	100
			4			15	7.0	6.8	91	4.2	1.1	0.050	0.0	-	-	96	-	-	100
			5			15	7.3	6.9	85	6.0	3.6	0.010	0.0	-	-	95	-	-	100
			1	10-20	1	10	7.4	7.1	110	7.9	0.67	0.000	0.0	-	-	120	-	-	100
			2			11	7.3	7.1	110	8.0	0.81	0.040	0.0	-	-	120	-	-	100
			3			12	7.4	7.0	120	8.6	0.54	0.030	0.0	-	-	120	-	-	100
			4			9.6	7.3	7.0	130	7.9	0.90	0.020	0.0	-	-	140	-	-	100
			5			12	7.2	6.9	120	8.7	0.45	0.020	0.0	-	-	130	-	-	100

Repeat analysis: 2

Location	Soil type	Plot No.	Subplot No.	Layer analyzed	Repeat analysis	Water contents	pH		Exchangeable base cations (B) Ca	Mg	K	Na	Ex-acidity (A)	Ex-acid cations Al	H	ECEC (A) + (B)	Total C	Total N	Base saturation
				(cm)		(%)	H_2O	KCl	($cmol_c\ kg^{-1}$)								(%)		(%)
Mondy Solar Observatory	Calcic Gleysol	1	1	0-10	2	10	7.6	6.9	77	3.4	4.2	0.000	0.0	-	-	84	-	-	100
			2			11	7.8	6.8	82	3.6	3.3	0.020	0.0	-	-	89	-	-	100
			3			10	7.7	6.8	73	3.0	3.8	0.000	0.0	-	-	79	-	-	100
			4			11	7.6	6.8	80	4.1	2.6	0.050	0.0	-	-	87	-	-	100
			5			11	7.2	6.8	79	4.9	4.6	0.040	0.0	-	-	88	-	-	100
			1	10-20	2	6.8	7.5	7.0	120	7.7	0.87	0.013	0.0	-	-	130	-	-	100
			2			7.6	7.5	7.0	120	7.5	0.69	0.010	0.0	-	-	130	-	-	100
			3			7.2	7.6	7.0	110	8.6	0.54	0.020	0.0	-	-	120	-	-	100
			4			9.1	7.6	7.0	100	5.7	0.68	0.050	0.0	-	-	110	-	-	100
			5			10	7.8	7.1	120	7.1	0.97	0.000	0.0	-	-	130	-	-	100
	Calcic Gleysol	2	1	0-10	2	12	7.1	6.9	96	4.9	3.7	0.000	0.0	-	-	100	-	-	100
			2			15	7.2	6.9	94	3.6	4.0	0.010	0.0	-	-	100	-	-	100
			3			16	7.2	6.8	76	6.0	3.0	0.010	0.0	-	-	85	-	-	100
			4			15	7.1	6.8	87	5.1	4.0	0.020	0.0	-	-	96	-	-	100
			5			15	7.0	6.9	82	6.1	3.1	0.030	0.0	-	-	91	-	-	100
			1	10-20	2	10	7.4	6.9	120	7.6	0.59	0.000	0.0	-	-	120	-	-	100
			2			11	7.4	7.0	120	7.9	0.83	0.040	0.0	-	-	130	-	-	100
			3			12	7.5	7.0	110	8.3	0.91	0.050	0.0	-	-	120	-	-	100
			4			9.6	7.4	7.0	130	6.7	0.82	0.010	0.0	-	-	130	-	-	100
			5			12	7.2	6.9	110	6.5	0.64	0.020	0.0	-	-	120	-	-	100

Gray cell: a difference between results of the repeat analysis was more than 25% of the average value.

Table 5.6.1) Observation of tree decline: Chongqing (China)
Plot name: Jinyunshan-1
Date: 28 October 2015
Surveyor: Li xianyuan

Individual No.	1（3）	2（2）	3（58）	4（101）	5（105）	6（70）	7（102）	8（72）	9（103）	10（104）
Direction (E, W, S, or N)	E	E	E	S	S	W	S	W	N	N
Plant Name	*Cunninghamia lanceolata*	*Symplocos setchuenensis*	*Symplocos setchuenensis*	*Symplocos setchuenensis*	*Symplocos setchuenensis*	*Symplocos setchuenensis*	*Symplocos setchuenensis*	*Symplocos setchuenensis*	*Symplocos setchuenensis*	*Symplocos setchuenensis*
Relative height										
Tree height (m)	18.4	9.9	7.0	13.5	13.0	8.4	10.6	10.3	12.3	12.1
DBH (cm)	19.2	13.8	11.7	13.5	14.3	9.2	9.3	12.2	12.4	10.5
Vitality of tree										
Form of tree	1									
Branch growth										
Dieback of stem										
Defoliation of crown										
Deformation of leaves	1									
Celastrus orbiculatus Thunb										
Discoloration of leaves										
Injury of leaves										
Damage class										

*1. Damage class will be decided based on combination of defoliation and discoloration classes

Table 5.6.2) Observation of tree decline: Chongqing (China)
Plot name: Jinyunshan-2
Date: 28 October 2015
Surveyor: Meng xiaoxing

Individual No.	1(67)	2(68)	3(74)	4(76)	6(41)	8(71)	9(70)	10(69)
Direction (E, W, S, or N)	E	E	S	S	W	N	N	N
Plant Name	*Symplocos setchuenensis*	*Symplocos setchuenensis*	*Adinandra bockiana*	*Symplocos setchuenensis*	*Adinandra bockiana*	*Symplocos lancifolia*	*Elaeocarpus japonecus*	*Michilus pingii*
Relative height								Dead
Tree height (m)	10.9	9.9	15.9	16.8	19.9	14.5	18.0	
DBH (cm)	11.1	14.6	15.8	25.4	21.2	16.7	39.5	
Vitality of tree								
Form of tree				1				
Branch growth								
Dieback of stem								
Defoliation of crown								
Deformation of leaves								
Celastrus orbiculatus Thunb								
Discoloration of leaves								
Injury of leaves						1		
Damage class								

*1. Damage class will be decided based on combination of defoliation and discoloration classes

Table 5.6.3) Observation of tree decline: Xi'an (China)

Plot name: Dabagou

Date: 22 October 2015

Surveyor: Zhu Jian (Xi'an environmental monitoring station)

Individual No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Direction (E, W, S, or N)	E	E	E	E	E	S	S	S	S	S	W	W	W	W	W	N	N	N	N	N
Plant Name	*Pinus armandii Franch*	*Pinus armandii Franch*	*Pinus armandii Franch*	*Pinus armandii Franch*	*Pinus armandii Franch*	*Pinus armandii Franch*	*Pinus armandii Franch*	*Pinus armandii Franch*	*Pinus armandii Franch*	*Pinus armandii Franch*	*Pinus armandii Franch*	*Pinus armandii Franch*	*Pinus armandii Franch*	*Pinus armandii Franch*	*Pinus armandii Franch*	*Pinus armandii Franch*	*Pinus armandii Franch*	*Pinus armandii Franch*	*Pinus armandii Franch*	*Pinus armandii Franch*
Relative height																				
Tree height (m)	17.0	14.3	11.9	14.8	12.0	11.9	9.8	8.9	10.9	14.7	14.6	12.5	10.9	15.4	11.2	13.2	11.9	13.7	11.2	8.7
DBH (cm)	25.4	25.7	16.2	21.6	24.8	16.8	12.7	18.7	15.9	19.2	28.7	23.8	15.0	24.0	16.5	24.1	16.3	24.3	15.8	9.2
Vitality of tree	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Form of tree	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Branch growth	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Dieback of stem	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Defoliation of crown	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Deformation of leaves																				
Celastrus orbiculatus Thunb																				
Discoloration of leaves																				
Injury of leaves																				
Damage class	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

Estimated cause of decline: Trees are too much.

Table 5.6.4) Observation of tree decline: Bogor (Indonesia)
Plot name: Dramaga Experimental Forest (Block 12), Bogor
Date: 12 August 2015
Surveyor: I.Wayan, S. Dharmawan, Iskandar, U. Sopian

Individual No.	1 (71)	4 (27)	5 (279)	6 (280)	8 (282)	12 (269)	16 (113)	21 (83)	23 (146)	27 (175)	28 (232)	31 (264)	33 (266)	34 (267)	39 (275)	42 (278)	44 (287)	46 (289)	49 (292)	51 (294)
Direction	N	N	N	N	N	E	E	E	E	E	S	S	S	S	S	W	W	W	W	W
Plant Name	*Hopea mengarawan*	*Hopea mengarawan*	*Hopea mengarawan*	*Hopea mengarawan*	*Hopea mengarawan*	*Hopea mengarawan*	*Hopea mengarawan*	*Hopea mengarawan*	*Hopea mengarawan*	*Hopea mengarawan*	*Hopea mengarawan*	*Hopea mengarawan*	*Melia excelsa*	*Maesopsis emenii*	*Hopea mengarawan*	*Hopea odorata*	*Khaya grandifolia*	*Hopea mengarawan*	*Hopea mengarawan*	*Hopea mengarawan*
Relative height																				
Tree height (m)	28.0	33.0	40.0	43.0	45.0	30.0	24.0	47.0	31.0	7.5	42.0	10.0	6.5	5.8	43.0	30.0	45.0	42.0	35.0	40.0
DBH (cm)																				
Vitality of tree				1								1	2	1						
Form of tree		2		2	2			3	1	1	1		3	1	1	1	2	1	1	
Branch growth		2		1	2			3	2	2	2		2	2	2	2	1	2	2	
Dieback of stem	Dead	1				Dead	Dead		1					1	1	1		1	1	Dead
Defoliation of crown		1		1					1	1		1	1	1	1	1		1	1	
Deformation of leaves										1		1								
Size of leaves									1	1		1								
Discoloration of leaves		1		1					1	1		1	1	1	1	1		1	1	
Injury of leaves		1		2					1	1		1	1	2	1	1		1	1	
Damage class		1		1					1	1		1	1	1	1	1		1	1	

Estimated cause of decline: pest and very dense. Tree No. 1 (71), 12 (269), 16 (113) and 51 (294) was felt due to hard rain and strong wind.

Table 5.6.5) Observation of tree decline: Lake Ijira (Japan)
Plot name: Ijira, Ijira
Date: 25 November 2015
Surveyor: Shinji Tanaka

Individual No.	1	2	3-2	4	5-2	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Direction	N	N	N	N	N	E	E	E	E	E	S	S	S	S	S	W	W	W	W	W
Plant Name	*Chamaecyparis obtusa*	*Chamaecyparis obtusa*	*Chamaecyparis obtusa*	*Chamaecyparis obtusa*	*Chamaecyparis obtusa*	*Chamaecyparis obtusa*	*Cryptomeria japonica*	*Chamaecyparis obtusa*	*Chamaecyparis obtusa*	*Chamaecyparis obtusa*	*Chamaecyparis obtusa*	*Chamaecyparis obtusa*	*Chamaecyparis obtusa*	*Chamaecyparis obtusa*	*Chamaecyparis obtusa*	*Chamaecyparis obtusa*	*Chamaecyparis obtusa*	*Chamaecyparis obtusa*	*Chamaecyparis obtusa*	*Chamaecyparis obtusa*
Relative height				−			+					−	−	+				−	−	−
Tree height (m)	14.3	13.3	15.2	12.2	15.5	16.4	17.2	16.5	16.1	15.2	15.9	14.7	14.8	17.0	16.2	12.5	14.7	12.1	12.8	13.0
DBH (cm)	20.8	16.0	18.0	15.0	17.6	24.2	27.0	22.3	17.7	19.2	15.2	16.3	16.2	20.9	19.1	22.0	17.3	11.4	12.1	18.3
Vitality of tree																		1	1	1
Form of tree		1		1	1			1		1	1	1	1	1	1		1	1	1	1
Branch growth																				
Dieback of stem	1			1						1		1								
Defoliation of crown																				
Deformation of leaves																				
Size of leaves																				
Discoloration of leaves																				
Injury of leaves																				
Damage class																				

Estimated cause of decline: No.2, 4, 5-2, 8, 10, 11, 12, 13, 14, 15 and 17, bent stem; No. 18, 19 and 20, suppression by other surrounding trees.

Table 5.6.6) Observation of tree decline: Lake Ijira-2 (Japan)
Plot name: Yamato, Ijira
Date: 24 November 2015
Surveyor: Shinji Tanaka

Individual No.	1	2	3	4	5	6	7	8	9	10	11-2	12-2	13-2	14-2	15	16	17	18	19	20
Direction	N	N	N	N	N	E	E	E	E	E	S	S	S	S	S	W	W	W	W	W
Plant Name	*Chamaecyparis obtusa*	*Chamaecyparis obtusa*	*Chamaecyparis obtusa*	*Chamaecyparis obtusa*	*Chamaecyparis obtusa*	*Chamaecyparis obtusa*	*Chamaecyparis obtusa*	*Chamaecyparis obtusa*	*Chamaecyparis obtusa*	*Chamaecyparis obtusa*	*Chamaecyparis obtusa*	*Chamaecyparis obtusa*	*Chamaecyparis obtusa*	*Chamaecyparis obtusa*	*Chamaecyparis obtusa*	*Chamaecyparis obtusa*	*Chamaecyparis obtusa*	*Chamaecyparis obtusa*	*Chamaecyparis obtusa*	*Chamaecyparis obtusa*
Relative height											−						−			−
Tree height (m)	30.0	28.4	30.7	28.7	28.2	31.8	28.4	30.2	30.1	28.6	26.1	30.0	29.0	28.7	28.7	29.3	27.6	29.7	30.4	24.6
DBH (cm)	39.1	39.1	43.5	43.7	42.2	44.9	38.5	37.0	41.7	39.4	34.4	44.5	45.6	35.2	42.5	32.7	34.5	44.6	40.4	34.4
Vitality of tree																				1
Form of tree								1								1	1			1
Branch growth																				
Dieback of stem			1	1			1	1	1		1		1							
Defoliation of crown																				
Deformation of leaves																				
Size of leaves																				
Discoloration of leaves																				
Injury of leaves																				
Damage class																				

Estimated cause of decline: No. 8, 16, 17 and 20, bent stem.

Table 5.6.7) Observation of tree decline: Lake Banryu-1 (Japan)
Plot name: Banryu-2, Banryu
Date: 30 September 2015
Surveyor: Ryoji Yanai

Individual No.	72	82	76	63	64	65	83	34	35	8	9	80
Direction (E, W, S, or N)	N	N	N	E	E	E	N	W	W	W	W	W
Plant Name	*Castanopsis cuspidata* var. *sieboldii*	*Machilus Thunbergii*	*Symplocos lucida*	*Machilus Thunbergii*	*Styrax japonicus*	*Machilus Thunbergii*	*Quercus serrata*	*Machilus Thunbergii*	*Machilus Thunbergii*	*Symplocos lucida*	*Symplocos lucida*	*Ilex integra*
Relative height	+	+	+	+	+	+	+	+	+	+	+	+
Tree height (m)	14.0	14.8	13.8	12.9	11.0	14.7	13.7	16.4	14.7	14.7	16.7	14.5
DBH (cm)	28.8	28.8	12.5	29.0	16.1	23.5	23.9	25.7	21.8	16.7	21.6	34.5
Vitality of tree					2							
Form of tree												
Branch growth					2							
Dieback of stem					2							
Defoliation of crown												
Deformation of leaves												
Size of leaves												
Discoloration of leaves												
Injury of leaves												
Damage class												

Table 5.6.8) Observation of tree decline: Lake Banryu-2 (Japan)
Plot name: Iwamirinku-FP, Banryu
Date: 30 September 2015
Surveyor: Ryoji Yanai

Individual No.	92	93	122	100	104	108	127	128	63	138	112	113	114	142	141
Direction	N	N	N	E	E	E	E	E	S	S	W	W	W	W	W
Plant Name	*Machilus Thunbergii*	*Machilus Thunbergii*	*Ilex micrococca*	*Quercus serrata*	*Castanopsis cuspidata* var. *sieboldii*	*Castanopsis cuspidata* var. *sieboldii*	*Castanopsis cuspidata* var. *sieboldii*	*Castanopsis cuspidata* var. *sieboldii*	*Castanopsis cuspidata* var. *sieboldii*	*Machilus Thunbergii*	*Machilus Thunbergii*	*Machilus Thunbergii*	*Machilus Thunbergii*	*Castanea crenata*	*Machilus Thunbergii*
Relative height			+		+					−					−
Tree height (m)	15.9	16.3	18.6	18.5	17.8	17.3	18.4	18.4	18.4	13.0	18.9	20.0	15.7	12.8	14.9
DBH (cm)	25.5	29.8	29.8	31.7	29.5	26.8	32.2	37.4	33.8	26.0	23.0	22.5	30.0	35.8	27.5
Vitality of tree														3	
Form of tree					1	1			1					3	
Branch growth					1	1			1					3	
Dieback of stem					1	1			1					3	
Defoliation of crown														2	
Deformation of leaves															
Size of leaves															
Discoloration of leaves														2	
Injury of leaves														2	
Damage class														3	

Estimated cause of decline: 100, 137, 140, 142, by specific disease for Fagaceae tree species (infection of *Raffaelea quercivora* through the beetle, *Platypus quercivorus*)

Table 5.7.1) Description of trees: Chongqing (China)
Plot name: Jinyunshan-1
Date: 28 October 2015
Surveyor: Li xianyuan

Survey area 1: radius 7.98 m
(Height > 1.3 m)

Tree No.	Scientific name (Local name)	DBH (cm)	Tree Height (m)	Remarks
1	*Michilus pingii*	17.6	17.5	
2	*Symplocos setchuenensis*	13.8	9.9	
3	*Cunninghamia lanceolata*	19.2	18.4	
5	*Michilus pingii*	20.2	15.9	
6	*Symplocos setchuenensis*	14.4	9.0	
7	*Pinus massoniana*	44.2	23.5	
8	*Randia cochinchinensis*	4.0	4.2	
11	*Symplocos setchuenensis*	2.6	4.0	
12	*Randia cochinchinensis*	3.3	5.1	
13	*Randia cochinchinensis*	3.1	4.3	
15	*Symplocos setchuenensis*	12.8	10.7	
17	*Symplocos setchuenensis*	12.3	10.9	
18	*Symplocos setchuenensis*	6.7	10.7	
20	*Elaeocarpus japonecus*	7.1	10.8	
22	*Symplocos setchuenensis*	9.7	10.1	
24	*Symplocos setchuenensis*	8.0	11.6	
25	*Symplocos setchuenensis*	8.4	11.8	
26	*Pinus massoniana*	27.7	20.5	
27	*Castanopsis carlesii* var. *spinulosa*	4.4	7.2	
28	*Diospyros morrisiana*	2.4	3.9	
31	*Elaeocarpus japonecus*	25.6	16.5	
32	*Symplocos setchuenensis*	4.0	6.2	
33	*Castanopsis carlesii* var. *spinulosa*	40.9	22.8	
34	*Symplocos setchuenensis*	11.5	13.5	
35	*Symplocos setchuenensis*	10.0	11.5	
36	*Symplocos lancifolia*	11.4	9.2	
39	*Randia cochinchinensis*	2.6	3.7	
40	*Symplocos setchuenensis*	8.9	10.0	
41	*Symplocos setchuenensis*	dead	dead	
43	*Castanopsis carlesii* var. *spinulosa*	3.1	5.4	
44	*Eurya nitida*	4.1	6.2	
45	*Castanopsis carlesii* var. *spinulosa*	dead	dead	
46	*Castanopsis carlesii* var. *spinulosa*	26.1	21.6	
48	*Symplocos setchuenensis*	17.1	14.9	
49	*Castanopsis carlesii* var. *spinulosa*	3.0	5.4	
51	*Castanopsis carlesii* var. *spinulosa*	3.0	3.7	
52	*Castanopsis carlesii* var. *spinulosa*	2.6	3.5	
53	*Castanopsis carlesii* var. *spinulosa*	5.0	5.6	
54	*Randia cochinchinensis*	dead	dead	
57	*Michilus pingii*	22.0	19.7	

Survey area 2: radius 11.28 m
(DBH > 4 cm)

Tree No.	Scientific name (Local name)	DBH (cm)	Tree Height (m)	Remarks
58	*Symplocos setchuenensis*	11.7	7.0	
59	*Pinus massoniana*	49.0	26.1	
60	*Randia cochinchinensis*	7.2	6.8	
61	*Pinus massoniana*	31.5	21.4	
62	*Symplocos setchuenensis*	8.3	5.4	
63	*Adinandra bockiana*	7.4	6.8	
64	*Castanopsis carlesii* var. *spinulosa*	39.9	18.4	
65	*Symplocos setchuenensis*	12.0	9.4	
66	*Cunninghamia lanceolata*	20.6	17.9	
67	*Michilus pingii*	30.8	23.5	
68	*Michilus pingii*	26.0	19.5	
70	*Symplocos setchuenensis*	9.2	8.4	
71	*Symplocos setchuenensis*	dead	dead	
72	*Symplocos setchuenensis*	12.2	10.3	
73	*Symplocos setchuenensis*	7.1	7.7	
74	*Symplocos setchuenensis*	14.2	12.7	
75	*Michilus pingii*	13.9	15.0	
76	*Symplocos setchuenensis*	15.2	13.8	
77	*Symplocos setchuenensis*	8.2	10.2	
78	*Symplocos setchuenensis*	21.3	14.8	
79	*Symplocos lancifolia*	6.7	8.8	
80	*Michilus pingii*	28.5	21.0	
81	*Michilus pingii*	21.9	21.1	
82	*Castanopsis carlesii* var. *spinulosa*	21.0	18.1	
83	*Cunninghamia lanceolata*	19.3	15.5	
84	*Symplocos setchuenensis*	7.2	6.9	
85	*Symplocos setchuenensis*	13.0	8.9	

Survey area 3: radius 17.85 m
(DBH > 18 cm)

Tree No.	Scientific name (Local name)	DBH (cm)	Tree Height (m)	Remarks
87	*Castanopsis carlesii* var. *spinulosa*	40.1	24.5	
88	*Castanopsis carlesii* var. *spinulosa*	32.0	21.8	
90	*Castanopsis fargesii*	42.6	25.7	
91	*Michilus pingii*	24.0	24.1	
92	*Michilus pingii*	25.8	21.7	
93	*Pinus massoniana*	61.1	28.7	
94	*Cunninghamia lanceolata*	26.6	23.7	
95	*Castanopsis carlesii* var. *spinulosa*	33.2	19.8	
96	*Castanopsis carlesii* var. *spinulosa*	dead	dead	
99	*Castanopsis carlesii* var. *spinulosa*	40.5	23.7	
100	*Cunninghamia lanceolata*	28.0	16.8	
101	*Symplocos setchuenensis*	13.5	13.5	
102	*Symplocos setchuenensis*	9.3	10.6	
103	*Symplocos setchuenensis*	12.4	12.3	
104	*Symplocos setchuenensis*	10.5	12.1	
105	*Symplocos setchuenensis*	14.3	13.0	

Table 5.7.2) Description of trees: Chongqing (China)
Plot name: Jinyunshan-2
Date: 28 October 2015
Surveyor: Li xianyuan

Survey area 1: radius 7.98 m
(Height > 1.3 m)

Tree No.	Scientific name (Local name)	DBH (cm)	Tree Height (m)	Remarks
2	*Eurya loquaniana*	3.8	4.3	
3	*Eurya loquaniana*	4.7	3.6	
6	*Michilus pingii*	35.7	26.1	
7	*Michilus pingii*	28.0	27.9	
8	*Michilus pingii*	cut	cut	
12	*Michilus pingii*	34.5	24.4	
13	*Michilus pingii*	41.5	28.0	
15	*Symplocos botryantha*	dead	dead	
18	*Symplocos setchuenensis*	7.5	5.7	
20	*Symplocos lancifolia*	5.0	8.4	
21	*Symplocos setchuenensis*	6.0	6.6	
23	*Symplocos lancifolia*	5.0	6.4	
24	*Quercus fabri*	cut	cut	
25	*Elaeocarpus japonecus*	32.0	22.5	
26	*Symplocos setchuenensis*	3.7	4.3	
27	*Stranvaesia tomentosa*	2.0	4.0	
28	*Symplocos setchuenensis*	7.0	7.4	
32	*Eurya loquaniana*	3.7	5.4	
33	*Symplocos setchuenensis*	8.0	5.7	
35	*Symplocos setchuenensis*	8.0	7.4	
37	*Eurya loquaniana*	4.7	5.8	

Survey area 2: radius 11.28 m
(DBH > 4 cm)

Tree No.	Scientific name (Local name)	DBH (cm)	Tree Height (m)	Remarks
39	*Michilus pingii*	14.5	17.5	
40	*Michilus pingii*	32.5	26.4	
41	*Adinandra bockiana*	21.2	19.9	
42	*Symplocos lancifolia*	16.4	15.8	
43	*Symplocos setchuenensis*	10.5	15.5	
44	*Symplocos setchuenensis*	22.6	21.8	
45	*Elaeocarpus japonecus*	44.6	18.5	
46	*Symplocos setchuenensis*	8.8	14.5	
48	*Castanopsis carlesii* var. *spinulosa*	7.0	11.1	
49	*Viburnum sambucinum* var. *tomentosum*	10.0	11.4	

Survey area 3: radius 17.85 m
(DBH > 18 cm)

Tree No.	Scientific name (Local name)	DBH (cm)	Tree Height (m)	Remarks
50	*Elaeocarpus japonecus*	46.1	20.5	
51	*Castanopsis carlesii* var. *spinulosa*	36.9	25.4	
52	*Michilus pingii*	31.4	24.8	
53	*Michilus pingii*	31.4	28.3	
54	*Michilus pingii*	29.8	28.4	
55	*Michilus pingii*	34.3	29.9	
56	*Michilus pingii*	28.0	25.9	
57	*Michilus pingii*	32.2	26.4	
58	*Elaeocarpus japonecus*	cut	cut	
59	*Castanopsis fargesii*	55.4	26.8	
61	*Symplocos setchuenensis*	24.0	15.9	
62	*Michilus pingii*	36.6	30.0	
63	*Michilus pingii*	42.0	29.9	
65	*Michilus pingii*	cut	cut	
66	*Michilus pingii*	cut	cut	
67	*Symplocos setchuenensis*	11.1	10.9	
68	*Symplocos setchuenensis*	14.6	9.9	
69	*Michilus pingii*	22.0	15.5	
70	*Elaeocarpus japonecus*	39.5	18.0	
71	*Symplocos lancifolia*	16.7	14.5	
74	*Adinandra bockiana*	15.8	15.9	
76	*Symplocos setchuenensis*	25.4	16.8	
77	*Symplocos lancifolia*	15.5	13.9	

Table 5.7.3) Description of trees: Xi'an (China)
Plot name: DaBaGou
Date: 22 October 2015

Surveyor: Zhu Jian, Song Xue Juan, Fu Ge Juan

Survey area 1: radius 7.98 m
(Height > 1.3 m)

Tree No.	Scientific name (Local name)	DBH (cm)	Tree Height (m)	Remarks
0	*Pinus armandii Franch*	22.9	12.1	
1	*Pinus armandii Franch*	21.7	15.3	
2	*Larix gmelinii Rupr.*	10.8	13.3	
3	*Larix gmelinii Rupr.*	18.2	14.8	
4	*Crataegus hupehensis*	3.0	3.8	
5	*Viburnum kansuense*	2.5	2.9	
6	*Viburnum betulifolium*	2.2	4.8	
7	*Rosa omeiensis*	2.2	3.0	
8	*Quercus aliena* var. *acuteserrata*	5.6	5.9	
9	*Pinus armandii Franch*	26.4	16.0	
10	*Carpinus cordata*	2.6	3.9	
11	*Quercus aliena* var. *acuteserrata*	5.1	6.9	
12	*Lespedeza formosa*	2.5	3.8	
13	*Pinus armandii Franch*	27.7	10.9	
14	*Pinus armandii Franch*	23.2	14.0	
15	*Pinus armandii Franch*	23.9	11.0	
16	*Pinus armandii Franch*	14.6	18.3	
17	*Quercus aliena* var. *acuteserrata*	4.7	6.4	
18	*Elaeagnus henryi*	5.7	7.9	
19	*Pinus armandii Franch*	11.8	12.5	
20	*Larix gmelinii Rupr.*	10.2	8.7	
21	*Acer grosseri*	8.0	7.5	
22	*Carpinus cordata*	4.5	5.3	
23	*Larix gmelinii Rupr.*	22.1	13.2	
24	*Larix gmelinii Rupr.*	24.7	14.9	
25	*Larix gmelinii Rupr.*	17.0	14.0	
26	*Quercus aliena* var. *acuteserrata*	5.4	8.2	
27	*Quercus aliena* var. *acuteserrata*	6.7	7.0	
28	*Larix gmelinii Rupr.*	19.5	14.7	
29	*Berberis*	2.1	3.8	
30	*Larix gmelinii Rupr.*	12.0	11.0	
31	*Acer grosseri*	3.9	7.2	
32	*Prunus venosa*	3.5	7.2	
33	*Celastrus orbiculatus Thunb*	dead	dead	
34	*Quercus aliena* var. *acuteserrata*	6.7	6.9	
35	*Pinus armandii Franch*	28.0	15.0	

Survey area 2: radius 11.28 m
(DBH > 4 cm)

Tree No.	Scientific name (Local name)	DBH (cm)	Tree Height (m)	Remarks
36	*Pinus armandii Franch*	10.4	7.1	
37	*Pinus armandii Franch*	9.9	9.5	
38	*Larix gmelinii Rupr.*	9.1	7.8	
39	*Larix gmelinii Rupr.*	9.5	10.0	
40	*Larix gmelinii Rupr.*	13.0	10.0	
41	*Quercus aliena* var. *acuteserrata*	9.6	11.5	
42	*Larix gmelinii Rupr.*	13.4	8.4	
43	*Larix gmelinii Rupr.*	12.5	11.0	
44	*Larix gmelinii Rupr.*	10.9	12.3	
45	*Larix gmelinii Rupr.*	6.8	9.6	
46	*Larix gmelinii Rupr.*	10.8	9.7	
47	*Larix gmelinii Rupr.*	15.4	13.2	
48	*Larix gmelinii Rupr.*	12.0	11.0	
49	*Larix gmelinii Rupr.*	17.1	14.3	
50	*Larix gmelinii Rupr.*	7.3	9.8	
51	*Pinus armandii Franch*	15.9	16.0	
52	*Larix gmelinii Rupr.*	6.5	7.9	
53	*Larix gmelinii Rupr.*	7.0	9.5	
54	*Larix gmelinii Rupr.*	6.1	8.1	
55	*Larix gmelinii Rupr.*	6.5	7.8	
56	*Pinus armandii Franch*	27.7	19.0	
57	*Larix gmelinii Rupr.*	8.9	8.7	
58	*Larix gmelinii Rupr.*	24.0	17.0	
59	*Pinus armandii Franch*	26.5	16.2	

Survey area 3: radius 17.85 m
(DBH > 18 cm)

Tree No.	Scientific name (Local name)	DBH (cm)	Tree Height (m)	Remarks
60	*Pinus armandii Franch*	26.1	16.0	
61	*Pinus armandii Franch*	25.8	16.0	
62	*Larix gmelinii Rupr.*	28.3	16.3	
63	*Pinus armandii Franch*	30.6	17.3	
64	*Pinus armandii Franch*	27.5	14.5	
65	*Pinus armandii Franch*	26.4	19.5	
66	*Pinus armandii Franch*	23.9	14.9	

Table 5.8.1) Understory vegetation survey: Chongqing (China)

Date: 28 October 2015

Plot name: Jinyunshan-1

Surveyor: Li xianyuan

Number of Species: 33

Scientific name (Local name)	Abundance
Sarcandra glabra	2
Ardisia crenata	1
Castanopsis carlesii var. *spinulosa*	1
Diplopterygium chinensis	1
Measa japonica	1
Michilus pingii	1
Neolitea aurata var. *glauca*	1
Randia cochinchinensis	1
Simplocos setchuenensis	1
Smilax china	1
Alpinia japonica	+
Antidesma decicatalum	+
Arachniodes chinensis	+
Ardisia crispa var. *dielsii*	+
Balanophora henryi	+
Camellia tsofuii	+
Castanopsis fargesii	+
Cunninghamia lanceolata	+
Diospyros morrisiana	+
Dryopteris erythrosora	+
Elaeocarpus duclowxii	+
Elaeocarpus japonecus	+
Embelia rudis	+
Eurya loquaniana	+
Gordonia acuminata	+
Laurocerasus spinulosa (Sieb. et zucc.) Schneid.	+
Lindera kwantungensis	+
Lophatherum gracile	+
Lysimachia paridiformis	+
Stranvaesia tomentosa	+
Symplocos lancifolia	+
Toxicodendron succedaneum	+
Vaccinium sprengelii	+

Table 5.8.2) Understory vegetation survey: Chongqing (China)
Date: 28 October 2015
Plot name: Jinyunshan-2
Surveyor: Li xianyuan

Number of Species: 45

Scientific name (Local name)	Abundance
Michilus pingii	4
Diplopterygium chinensis	3
Sarcandra glabra	3
Symplocos setchuenensis	3
Caesalpinia crista	2
Castanopsis carlesii var. *spinulosa*	2
Smilax china	1
Adinandra bockiana	+
Aidia cochinchinensis Lour.	+
Aleurites fordii Hemsl.	+
Arachniodea omaena	+
Ardisia crispa var. *dielsii*	+
Ardisia sp.	+
Balanophora henryi	+
Camellia sinensis	+
Castanopsis fargesii	+
Cinnamomum appelianum	+
Daphniphyllum oldhami	+
Dichroa febrifuga	+
Diospyros morrisiana	+
Disporum cantoniense	+
Elaeocarpus japonecus	+
Embelia rudis	+
Eurya loquaniana	+
Ilex viridis var. *brevipedicelata*	+
Liriope sp.	+
Litsea mollifolia	+
Lophatherum gracile	+
Lysimachia paridifermis	+
Mahonia eurybracteata	+
Measa japonica	+
Neolitsea aurata var. *glauca*	+
Photinia glabra (Thunb.) Maxim.	+
Rubus assamensis	+
Rubus buergeri	+
Sapium discolor	+
Schefflera delavayi	+
Stranvaesia tomentosa	+
Symplocos botryantha	+
Symplocos lancifolia	+
Symplocos laurina	+
Toxicodendron succedaneum	+
Trachycarpa fortunei	+
Woodiwardia japonica	+
Woodwardia unigemmata	+

Table 5.8.3) Understory vegetation survey: Xi'an (China)
Date: 22 October 2015
Plot name: DaBaGou
Surveyor: Zhu Jian

Number of Species: 13

Scientific name (Local name)	Abundance
Equisetum hiemale	1
Agrimonia pilosa	+
Aquilegia ecalcarata	+
Cardamina leucantha	+
Celastrus orbiculatus Thunb	+
Chimaphila japonica	+
Euonymus alatus	+
Fargesia spathacea	+
Glechoma lonituba	+
Reineckea carnea	+
Rubia ovatifolia	+
Rubus masogaeus	+
Sanguisorba offiinalis	+

CHAPTER 6

Inland Aquatic Environment Monitoring

6. Inland Aquatic Environment Monitoring

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 noted as a results of this decrease, include 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.

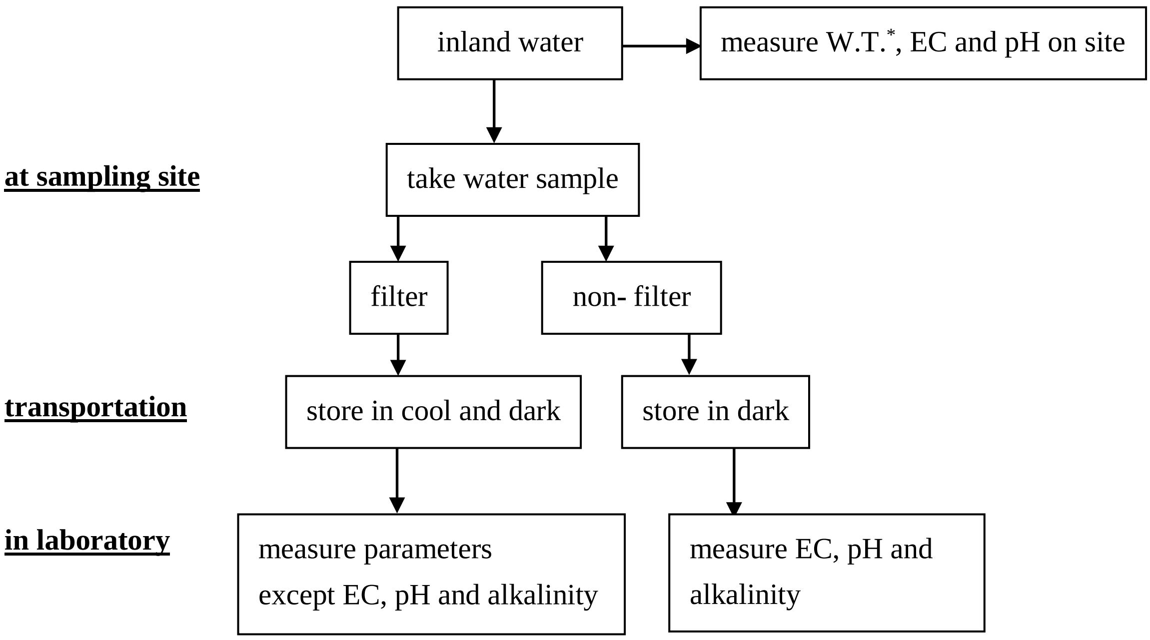
Items specified in the technical manual (2000) include water temperature, pH, electric conductivity (EC), alkalinity and concentration of SO_4^{2-}, NO_3^-, Cl^-, NH_4^+, Na^+, K^+, Ca^{2+}, and Mg^{2+} of targeted lakes/rivers at least four times a year (seasonally), and transparency, water color, DOC (if impossible, COD), NO_2^-, PO_4^{3-} more than once a year while some other optional items are specified to be monitored. In near future, it is expected that some additional items (*i.e.* Chlorophyll a, T-P, T-N, DO) will be adopted as mandatory parameters according to the new manual (2010) at each laboratory.

6.1.1 Selection of Sampling Sites

According to the technical manual (2000), the lakes chosen for monitoring should be harmonic type lakes, preferably with depths of approximately 10 m 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 sites, it is desirable to locate in nature protection areas, and human activities such as deforestation, and cultivation should be few and far between in the upstream area.

6.1.2 Field Operation

Surface water is sampled at one location at the center of the lake or river. In principle, measurements of pH and electric conductivity (EC) are conducted at the site before a more precise measurement is taken in the laboratory. Water samples for further analyses are kept in a tightly stoppered polyethylene bottle and stored in a cool dark place. The samples are shipped to the laboratory for chemical analysis. The water samples for analysis of chemical components other than pH, EC and alkalinity are filtered at the sampling site with a glass fiber filter. An example of treatment procedure is described in Figure 6.1.



W.T.* : Water Temperature

Figure 6.1 Example of treatment procedure of inland water sample

6.1.3 Laboratory Operation

Collected samples are analyzed by analytical methods specified in Table 6.1 immediately, otherwise they are stored in a refrigerator. In addition, with regard to alkalinity, the Gran's plot titration method is adopted newly and recommended as a measurement parallel to the end-point pH 4.8 method in the latest version of the manual 2010.

Table 6.1 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

6.1.4 Monitoring Sites

As described in Table 6.2, 11 countries (Cambodia, China, Indonesia, Japan, Lao PDR, Malaysia, Mongolia, Philippines, Russia, Thailand and Vietnam) carried out inland aquatic environment monitoring. The monitoring sites were established in 13 lakes/reservoirs and 6 streams. Properties of all the monitoring sites are shown on Table 6.3. However, more information should be appended to these tables in the future.

Table 6.2 Outline of Inland Aquatic Environment Monitoring of 2015

Country	Name of site	Distance from the site	Nearest deposition monitoring site	Start year	Interval
Cambodia	Sras Srang Lake (Kampong Speu province)	-	Remote	2012	2 times/yr.
China	Jinyunshan Lake (Chongqing)	-	Rural	2001	4 times/yr.
	Xiaoping Dam (Xiamen)	-	Remote	2001	4 times/yr.
	Jiwozi River (Xi’an)	-	Remote	2001	4 times/yr.
	Zhuxiandong Stream (Zhuhai)	-	Urban	2004	4 times/yr.
Indonesia	Patengang Lake (Bandung)	47 km	Urban	2001	5 times/yr.
	Gunung Lake (Sukabumi)	-	-	2008	5 times/yr.
Japan	Ijira Lake (Gifu Pref.)	1.1 km	Rural/Ecolog. (Ijira)	2001	3 times/yr.
	Banryu Lake (Shimane Pref.)	0.5 km	Urban/Ecolog. (Banryu)	2001	4 times/yr.
Lao PDR	Nam Hum Lake (Vientiane province)	-	Vientiane	2009	4 times/yr.

Malaysia	Semenyih Dam	26 km	Urban (Petaling Jaya)	2005	2 times/yr.
	Tembaling River (Sabah)	-	Remote (Danum Valley)	2007	4 times/yr.
Mongolia	Terelj River	-	Remote (Terelj)	2002	6 times/yr.
Philippines	Pandin Lake	30 km	Rural (Mt. Makiling)	2004	4 times/yr.
	Ambulalakaw Lake	-	Remote (Mt. Sto. Tomas)	2005	4 times/yr.
Russia	Pereemnaya River (Listvyanka)	48 km	Rural (Listvyanka)	2004	4 times/yr.
	Komarovka River (Primorskaya)	0.5 km	Rural (Primorskaya)	2005	5 times/yr.
Thailand	Vachiralongkorn Dam (Kanchanaburi Province)	-	Remote	2002	4 times/yr.
Vietnam	Hoa Binh Reservoir	-	Rural	2001	4 times/yr.

6.2 Results of Monitoring

The results of monitoring of each parameter are shown in Table 6.4(1) to (12). Data within or exceeded the criteria of R_1 and R_2 are judged and marked as "O" or "×" in these tables respectively according to the QA/QC Program for Monitoring on Inland Aquatic Environment in East Asia. The annual mean values of each monitoring sites are summarized in Table 6.4 (13).

There were eight sites (Sras Srang Lake in Cambodia, Jiwozi River in China, Patengang Lake and Gunung Lake in Indonesia, Nam Hum Lake in Lao PDR, Pandin Lake and Ambulalakaw Lake in Philippines and Vachiralongkorn Dam in Thailand) which have results exceeding allowable range of R_1 and/or R_2. However, those main reasons could not be identified.

The annual mean values of each parameter from 2000 to 2015 are shown in Table 6.5(1) to (20).

Table 6.3(1) Properties of lakes or streams

Lake/Stream: Sras Srang Lake

Country	Cambodia
Location	KIRIRUM national Park, Kampong Speu province
Latitude and longitude	11° 19’ 69.29” N, 104° 2’ 22.97” E
Altitude	800 m
Origin	-
Area and shape	10,403 m^2
Shore line length	-
Lake hydrologic type	-
Lake trophic type	-
Water depth	-
Water volume	-
Annual water level fluctuation	-
Annual air temperature	-
Precipitation	-
Sunshine duration	-
Solar radiation	-
Wind speed	-
Wind direction	-
Residence time of water	-
Lake utilization	-
Watershed area	-
River (inflow)	-

- : no information

Table 6.3(2) Properties of lakes or streams

Lake Name: Jinyunshan Lake

Country	China
Location	Chongqing Prefecture
Altitude	-
Origin	Artificial lake
Area and shape	0.999 ha
Shore line length	About 2 km
Lake hydrologic type	Reservoir
Lake trophic type	Oligotrophic to Mesotrophic
Water depth	6-13 m
Water volume	60,000 m^3
Annual water level fluctuation	2-4 m
Annual air temperature	-
Precipitation	-
Sunshine duration	-
Solar radiation	-
Wind speed	-
Wind direction	-
Residence time of water	-
Lake utilization	For drink, Irrigation water
Watershed area	-
River (inflow)	-

- : no information

Table 6.3(3) Properties of lakes or streams

Lake Name: Xiaoping Dam

Country	China
Location	Xiaoping, Xiamen
Altitude	595 m
Origin	Artificial lake
Area and shape	26.4 ha
Shore line length	100 m
Lake hydrologic type	Natural
Lake trophic type	Normal
Water depth	57.5 m
Water volume	4,080,000 m^3
Annual water level fluctuation	-
Annual air temperature	21.3°C (mean) *1
Precipitation	1,084.5 mm/year *1
Sunshine duration	164.3 hrs/month (mean) *1
Solar radiation	-
Wind speed	Mean 2.4 m/s *1
Wind direction	E and ENE (dominant) *1
Residence time of water	15 days
Lake utilization	Water power
Watershed area	18.1 km^2
River (flows into)	Dingxi lake

- : no information

*1 Xiamen, 2014

Table 6.3(4) Properties of lakes or streams

Lake Name: Jiwozi River

Country	China
Location	Xi’an
Origin	Natural stream
River length	-
Drainage area	-
The mean height of the river basin	-
Annual air temperature	15.2°C (mean) *1
Precipitation	660.2 mm/year *1
Sunshine duration	161.8 hrs/month (mean) *1
Solar radiation	-
Wind speed	Mean 2.3 m/s *1
Wind direction	NE(dominant) *1
Lake (flows into)	-

- : no information

*1 Xi’an, 2014

Table 6.3(5) Properties of lakes or streams

Lake Name: Zhuxiandong Stream

Country	China
Location	Zhuhai
Origin	Natural stream
River length	-
Drainage area	-
The mean height of the river basin	-
Annual air temperature	23.9°C (mean) *1
Precipitation	1,719.5 mm *1
Sunshine duration	165.6 hrs/month (mean) *1
Solar radiation	-
Wind speed	Mean 2.5 m/s *1
Wind direction	ESE (dominant) *1
Lake (flows into)	-

- : no information
*1 Zhuhai, 2015

The monitoring had conducted between 2001 and 2003 at Zhuxiandong reservoir, after that, Zhuxiandong Stream was selected as a new site for inland water monitoring in 2004. This site is located in the upper stream of Zhuxiandong Reservoir. Therefore continuous monitoring has been conducted from 2004 at Zhuxiandong Stream.

Table 6.3(6) Properties of lakes or streams

Lake Name: Patengang Lake

Country	Indonesia
Location	Bandung
Altitude(including watershed)	1600-1700 m
Origin	Natural lake
Area and shape	65 km^2
Shore line length	-
Lake hydrologic type	-
Lake trophic type	-
Water depth	7 m (max)
Water volume	4.98 x 10^6 m^3
Annual water level fluctuation	1.42 m-4.20 m
Annual air temperature	24.6°C (mean) *1
Precipitation	1,645.8 mm *1
Sunshine duration	-
Solar radiation	450.8 MJ/m^2/month (mean) *1
Wind speed	Mean 1.1 m/s *1
Wind direction	WSW (dominant) *1
Residence time of water	-
Lake utilization	Sightseeing
River (inflow)	-

Watershed area	650 km^2
Vegetation (dominant plants)	Strawberry, tea

- : no information

*1 Bandung, 2015

Table 6.3(7) Properties of lakes or streams

Lake Name: Gunung Lake

Country	Indonesia
Location	Sukabumi, West Java
Altitude (including watershed)	950-1036 m
Origin	Natural lake
Area and shape	9.5 ha
Shore line length	-
Lake hydrologic type	Reservoir
Lake trophic type	Eutrophic
Water depth	Ave 2.75 m (< 10 m)
Water volume	-
Annual water level fluctuation	-
Precipitation	-
Sunshine duration	-
Solar radiation	-
Wind speed	-
Wind direction	-
Residence time of water	-
Lake utilization	Irrigation
River (inflow)	1

Watershed area	120 ha
Vegetation (dominant plants)	Pine Tree, *Agathis Damara*
Land uses	Agricultural area (5%), Residential area (1%, population <500)

- : no information

Table 6.3(8) Properties of lakes or streams

Lake Name: Ijira Lake

Country	Japan
Location	Gifu prefecture
Altitude	110 m
Origin	Artificial (dam-made lake)
Area and shape	0.1 km^2
Shore line length	1.8 km
Lake hydrologic type	Reservoir
Lake trophic type	Oligotrophic or mesotrophic
Water depth	Ave. 5.4 m (Max 10.9 m)
Water volume	0.00054 km^3
Annual water level fluctuation	0-0.74 m (Ave. 0.22 m)
Annual air temperature	16.5°C (mean) *1
Precipitation	2,266.5 mm/year *1
Sunshine duration	176.3 hrs/month (mean) *1
Solar radiation	-
Wind speed	Mean 2.6 m/s *1
Wind direction	WNW(dominant) *1
Residence time of water	23 days
Lake utilization	Irrigation and fishing
River (inflow)	Kamagatani River, Kobora River

Watershed area	5.4 km^2
Surface geology	Chert
Vegetation (dominant plants)	*Pinus densiflora*, *Chamaecyparis obtuse*, *Cryptomeria japonica*

*1 Gifu Local Meteorological Observatory, 2014

Table 6.3(9) Properties of lakes or streams

Lake Name: Banryu Lake

Country	Japan
Location	Shimane prefecture
Altitude	25 m
Origin	Natural damming lake
Area and shape	0.13 km^2
Shore line length	5.7 km
Lake hydrologic type	Reservoir
Lake trophic type	Mesotrophic
Water depth	Ave. 8-8.5 m
Water volume	Unknown (Max 500,000 m^3)
Annual water level fluctuation	0-1.1 m
Annual air temperature	15.9°C (mean) *1
Precipitation	1,497.5 mm/year *1
Sunshine duration	146.9 hrs/month (mean) *1
Solar radiation	-
Wind speed	Mean 1.7 m/s *1
Wind direction	SSE (dominant) *1
Residence time of water	222 days (2004)
Lake utilization	Irrigation and sightseeing
River (inflow)	None

- : no information

*1 Masuda AMeDAS of Japan Meteorological Agency, 2015

Watershed area	0.73 km^2
Surface geology	Grave, sand, clay
Vegetation (dominant plants)	*Pinus thunbergii, Pinus densiflora*

Table 6.3(10) Properties of lakes or streams

Lake Name: Semenyih Dam

Country	Malaysia
Location	
Altitude	30 m
Origin	Dam
Area and shape	3.6 km^2
Shore line length	800 m
Lake hydrologic type	Reservoir
Lake trophic type	-
Water depth	Mean: 110 m
Water volume	-
Annual water level fluctuation	-
Annual air temperature	-
Precipitation	-
Sunshine duration	-
Solar radiation	-
Wind speed	-
Wind direction	-
Residence time of water	More than 1 year
Lake utilization	-
Watershed area	-
River (inflow)	-

- : no information

Table 6.3(11) Properties of lakes or streams

Lake Name: Tembaling River

Country	Malaysia
Location	Danum Valley, Sabah
Latitude and longitude	04° 57’ N, 117° 48’ E
Altitude	-
Origin	Natural stream
Water depth	-
Water Volume	-
Watershed area	-
River length	-
Drainage area	-
The mean height of the river basin	-
Annual air temperature	-
Precipitation	-
Sunshine duration	-
Solar radiation	-
Wind speed	-
Wind direction	-
River (meet in 10m from sampling point)	Segama river

- : no information

Table 6.3(12) Properties of lakes or streams

Lake Name: Terelj River

Country	Mongolia
Location	Terelj
Origin	Natural stream
River length	65 km
Drainage area	1220 km^2
The mean height of the river basin	-
Annual air temperature	-
Precipitation	-
Sunshine duration	-
Solar radiation	-
Wind speed	-
Wind direction	-
Lake (flows into)	-

- : no information

Table 6.3(13) Properties of lakes or streams

Lake Name: Pandin Lake

Country	Philippines
Location	San Pablo City
Altitude	200m
Origin	Natural lake
Area and shape	0.24km^2
Shore line length	-
Lake hydrologic type	-
Lake trophic type	oligatrophic
Water depth	61.75m(mean), 63m(max)
Water volume	6600 m^3
Annual water level fluctuation	-
Precipitation	-
Solar radiation	-
Wind speed	-
Wind direction	-
Residence time of water	-
Lake utilization	domestic, electric power and tourism
Watershed area	-
River (inflow)	-

- : no information

Table 6.3(14) Properties of lakes or streams

Lake Name: Ambulalakao Lake

Country	Philippines
Location	Kabayan, Benguet
Altitude	2400 m
Origin	Natural lake
Area and shape	0.006087 km^2
Shore line length	-
Lake hydrologic type	-
Lake trophic type	-
Water depth	1.5 m (mean), 4.0 m (max), 0.2 m (min)
Water volume	11476 m^3
Annual water level fluctuation	-
Annual air temperature	-
Precipitation	-
Sunshine duration	-
Solar radiation	-
Wind speed	-
Wind direction	-
Residence time of water	-
Lake utilization	Tourism
Watershed area	-
River (inflow)	-

- : no information

Table 6.3(15) Properties of lakes or streams

Stream Name: Pereemnaya River

Country	Russia
Location	Southern Baikal
Origin	Natural stream
Altitude(including watershed)	460 m-1500 m
Water depth	0.9 m (mean), 2 m (max)
River length	42 km
Drainage area	About 360 km^2
The mean height of the river basin	1,260 m
Annual air temperature	-
Precipitation	About 800 mm/year
Sunshine duration	-
Solar radiation	-
Wind speed	-
Wind direction	-
Lake (flows into)	Kholodnoe lake

Watershed area	About 360 km^2
Surface geology	Archaean rocks, presented mainly by gneisses, crystal schists, andpegmatites
Vegetation (dominant plants)	The larger part of the basin belongs to the zone of mountain-taiga soils. The lower taiga border begins from the lake’s shore, and the upper border rises up to 900-1800 m depending on the slopes exposition. Above, within loach zone, waste-mountain landscapes with undersized motley grass and lichens prevail. Coniferous forest

- : no information

Table 6.3(16) Properties of lakes or streams

Stream Name: Komarovka River

Country	Russia
Location	Primorskli Kray, Ussuriyskii district, near Kamenushka settlement
Latitude	43º42’ N
Altitude	386 m
Origin	Natural stream
Water depth	Mean 0.8 m Maximum 1.5 m
Water discharge	0.14 m^3/sec
River length	66 km
Drainage area	-
Annual air temperature	-
Precipitation	737 mm/year (2005)
Sunshine duration	-
Solar radiation	-
Wind speed	1.1-2.2 (mean 1.7) m/s (2005)
Wind direction	E, NE
Lake (flows into)	River Razdolnaya, Amurskiy Bay

Watershed area	About 1490 km^2
Surface geology Rocks, sandstones, clayey schist	Rocks, sandstones, clayey schist
Soil type Mountain	Mountain- forest brown type of soil
Vegetation (dominant plants)	Komarovka valley is situated near Komarovskiy reserve surrounded by hills which protect the site from winds. The valley is covered by the mixed forest from broad-leaves to conifer.
Population	About 2000

- : no information

Table 6.3(17) Properties of lakes or streams

Lake Name: Vachiralongkorn Dam

Country	Thailand
Location	Kanchanaburi Province
Latitude	14°46’ N
Altitude	170 m
Origin	Artificial (Dam made lake)
Area and shape	388 km^2
Shore line length	-
Lake hydrologic type	Reservoir
Lake trophic type	-
Water depth	138.8-150.5 m (mean: 143.8 m) (2014)
Water volume	3.836-7.219 km^3 (mean: 5.155 km^3) (2014)
Annual water level fluctuation	Depth: 4.2 m (2010)
Annual air temperature	-
Precipitation	-
Sunshine duration	-
Solar radiation	-
Wind speed	0.02-0.26 (Ave. 0.07) m/s (2011)
Wind direction	-
Residence time of water	165 days
Lake utilization	Irrigation, Electric power, Fishery, Flooding protection and Sight seeing
Watershed area	3,720 km^2
River (inflow)	

- : no information

Table 6.3(18) Properties of lakes or streams

Lake Name: Hoa Binh Reservoir

Country	Vietnam
Location	Hoa Binh Province
Altitude	23 m
Origin	Artificial (dam-made lake)
Area and shape	208 km^2 -25 km^2 *1
Shore line length	208 km-16.7 km *1
Lake hydrologic type	Reservoir
Lake trophic type	Mesotrophic
Water depth	60 m (max: 120 m)
Water volume	9.45 km^3-2.5 km^3 *1
Annual water level fluctuation	80 m-120 m (Ave.100 m)
Annual air temperature	24.2°C (mean) *2
Precipitation	1,616.2 mm *2
Sunshine duration	152.5 hrs/month (mean) *2
Solar radiation	-
Wind speed	Mean 2.0 m/s *2
Wind direction	N (dominant) *2
Residence time of water	365 days
Lake utilization	Electric power and flood control
Watershed area	51,700 km^2-13,700 km^2 *1
River (inflow)	Da River

- : no information

*1 Second value is in affected area of reservoir.

*2 Hoa Binh, 2014

Table 6.4(1) Result of Inland Aquatic Environment Monitoring

Duration: 2015.3.-2015.10.
Country: Cambodia
Lake/Stream: Sras Srang Lake

		Mandatory Parameters: 4 times/year												Mandatory Parameters: Once/year				Optional Parameters
Site	Sampling Date	Temp. (°C)	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)	PO_4^{3-} (mg/L)	NO_2^- (mg/L)	COD (mg/L)	DO (mg/L)
Sras Srang Lake	Mar-15	30.1	5.88	0.98	0.050	0.08	0.28	1.25	0.12	0.78	0.31	0.34	0.24	0.8	-	-	-	7.1
	Oct-15	29.8	5.75	0.99	0.030	0.09	0.16	1.08	0.02	0.83	0.07	0.41	0.20	0.8	-	-	-	7.0
	mean*1	29.9	5.81	0.98	0.040	0.09	0.22	1.17	0.07	0.80	0.19	0.37	0.22	0.8	-	-	-	7.0

note
- : Items were not analyzed.
*1: Mean of pH takes an average of hydrogen ion.

		Anion	Cation	R1	Judge
Sras Srang Lake	Mar-15	91.5	86.5	-2.8	O
	Oct-15	65.0	77.5	8.8	×

Λcalc	R2	Judge
1.07	4.4	O
0.87	-6.1	O

Table 6.4(2) Result of Inland Aquatic Environment Monitoring

Duration: 2015.3.-2015.12.
Country: China
Lake/Stream: (See below)

		Mandatory Parameters : 4 times/year												Mandatory Parameters : Once /year				
Site	Sampling Date	Temp. (°C)	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	PO_4^{3-} (mg/l)	NO_2^- (mg/l)	COD (mg/l)
Chongqing -Jinyunshan Lake	30-Mar-15	24.0	6.58	12.02	0.278	29.21	5.47	2.29	0.95	1.99	1.83	11.48	4.00	1.4	-	-	-	-
	29-Jun-15	28.0	6.38	11.70	0.060	30.66	14.47	2.15	0.02	2.10	2.09	11.96	3.22	0.2	-	-	-	-
	13-Sep-15	22.5	6.86	10.80	0.116	28.10	11.02	2.31	0.02	2.39	2.20	11.81	3.19	0.8	-	-	-	-
	28-Nov-15	16.5	6.29	10.88	0.125	29.67	9.40	2.22	0.02	2.50	1.91	11.22	3.42	1.2	-	*1	*1	<10*1
	mean*2	22.8	6.48	11.35	0.145	29.41	10.09	2.24	0.25	2.25	2.01	11.62	3.46	0.9	-	*1	*1	<10*1
Xiamen -Xiaoping Dam	02-Mar-15	10.6	7.27	5.86	0.187	3.36	2.94	3.61	0.05	3.62	2.34	3.21	0.61	0.8	-	-	0.018	1.5
	04-May-15	21.3	7.26	7.27	0.182	6.05	3.89	3.91	0.07	4.56	3.03	4.07	0.72	0.5	-	-	0.008	0.8
	02-Jul-15	26.8	7.01	5.22	0.152	3.21	2.97	3.43	0.03	3.03	2.74	3.39	0.64	0.3	-	-	0.019	1.7
	04-Nov-15	23.7	6.73	5.70	0.195	3.33	2.89	2.75	0.06	3.37	2.43	3.76	0.67	1.3	-	0.05	0.011	1.0
	mean*2	20.6	7.01	6.01	0.179	3.99	3.17	3.43	0.05	3.65	2.64	3.61	0.66	0.7	-	0.05	0.014	1.2
Xi'an -Jiwozi River	31-Mar-15	-	7.04	7.63	0.200	11.60	14.28	3.00	*1	3.69	1.30	6.95	1.74	-	-	-	-	-
	29-Jun-15	-	7.08	7.97	0.320	11.61	4.03	1.38	*1	3.64	0.97	11.29	1.35	-	-	-	-	-
	15-Sep-15	-	7.26	6.52	0.230	11.42	3.97	1.04	*1	4.01	0.77	9.09	0.99	-	-	-	-	-
	02-Nov-15	-	7.03	6.96	0.300	10.66	3.50	0.78	*1	5.14	0.77	9.44	1.05	-	-	<0.01*1	<0.003*1	3.0
	mean*2	-	7.09	7.27	0.263	11.32	6.45	1.55	*1	4.12	0.95	9.19	1.28	-	-	<0.01*1	<0.003*1	3.0
Zhuhai -Zhuxiandong Stream	02-Mar-15	18.8	6.03	7.23	0.511	3.49	2.15	3.07	0.10	8.36	1.96	4.78	1.57	-	-	-	-	-
	01-Jun-15	23.2	7.13	6.07	0.488	1.50	0.12	1.50	0.07	5.65	1.63	2.66	0.91	-	-	-	-	-
	03-Aug-15	24.9	6.89	6.24	0.483	2.44	1.60	1.02	0.76	8.30	0.48	1.34	0.26	-	-	-	-	-
	01-Dec-15	16.7	6.26	7.38	0.502	2.46	1.37	4.39	0.83	7.60	3.29	2.57	1.83	-	-	-	-	-
	mean*2	20.9	6.38	6.73	0.496	2.47	1.31	2.50	0.44	7.48	1.84	2.84	1.14	-	-	-	-	-

note
- : Items were not analyzed.
*1: Less than determination limit.
*2: Mean of pH takes an average of hydrogen ion.
When the value is under detection limit, it considers "0". Then the average and R1R2 were calculated by using

		Anion	Cation	R1	Judge	Acalc	R2	Judge
Chongqing -Jinyunshan Lake	30-Mar-15	1038.8	1088.1	2.3	O	13.58	6.1	O
	29-Jun-15	992.5	1007.7	0.8	O	13.36	6.6	O
	13-Sep-15	943.9	1012.9	3.5	O	12.83	8.6	O
	28-Nov-15	957.0	1000.1	2.2	O	12.83	8.2	O
Xiamen -Xiaoping	2-Mar-15	406.6	430.5	2.9	O	4.99	-8.0	O
	4-May-15	481.2	541.9	5.9	O	6.23	-7.7	O
	2-Jul-15	363.9	425.4	7.8	O	4.78	-4.4	O
	4-Nov-15	390.2	455.0	7.7	O	5.00	-6.6	O
Xi'an -Jiwozi	31-Mar-15	756.5	683.8	-5.0	O	9.00	8.3	O
	29-Jun-15	665.6	857.9	12.6	×	9.06	6.4	O
	15-Sep-15	561.1	728.8	13.0	×	7.77	8.8	O
	2-Nov-15	600.5	800.2	14.3	×	8.23	8.3	O
Zhuhai -Zhuxiandong Stream	2-Mar-15	704.9	787.9	5.6	O	8.14	5.9	O
	1-Jun-15	563.5	499.0	-6.1	O	5.52	-4.7	O
	3-Aug-15	588.4	503.8	-7.7	O	5.69	-4.6	O
	1-Dec-15	699.1	740.0	2.8	O	7.95	3.7	O

Table 6.4(3) Result of Inland Aquatic Environment Monitoring

Duration: 2015.2.-2015.12.
Country: Indonesia
Lake/Stream: (See below)

		Mandatory Parameters: 4 times/year												Mandatory Parameters: Once/year				
Site	Sampling Date	Temp. (°C)	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 (PtCo unit)	PO_4^{3-} (mg/L)	NO_2^- (mg/L)	DOC (mg/L)
Patengang Lake	26-Feb-15	-	7.70	6.80	0.134	9.40	0.09	3.80	0.03	1.80	1.40	5.10	0.50	-	-	-	-	-
	7-May-15	-	7.90	6.70	0.220	17.80	0.09	1.00	0.25	2.40	1.40	4.70	3.00	-	-	-	-	-
	8-Jul-15	-	7.30	7.50	0.560	6.90	0.35	2.00	0.00	3.50	1.50	6.90	2.90	-	-	-	-	-
	10-Sep-15	-	8.75	8.10	0.640	4.30	0.04	2.00	0.00	4.10	1.40	7.40	2.60	-	-	-	-	-
	7-Dec-15	-	8.42	6.06	0.320	11.40	0.04	1.50	0.04	3.80	1.80	4.60	2.10	-	-	-	-	-
	mean*1	-	7.75	7.03	0.375	9.96	0.12	2.06	0.06	3.12	1.50	5.74	2.22	-	-	-	-	-
Gunung Lake	25-Feb-15	-	7.15	4.58	0.134	5.90	0.06	3.00	0.10	1.40	0.45	3.20	1.50	-	-	-	-	-
	6-May-15	-	7.78	6.95	0.242	15.60	0.04	3.80	0.03	1.40	0.51	6.90	3.10	-	-	-	-	-
	9-Jul-15	-	7.30	4.45	0.344	4.20	0.09	1.00	0.00	1.90	0.45	5.00	1.50	-	-	-	-	-
	8-Sep-15	-	7.17	4.80	0.370	4.00	0.04	1.00	0.00	2.10	0.55	4.00	2.20	-	-	-	-	-
	11-Nov-15	-	7.54	3.77	0.280	4.00	0.04	1.00	0.04	1.90	0.47	3.20	1.70	-	-	-	-	-
	mean*1	-	7.33	4.91	0.274	6.74	0.05	1.96	0.03	1.74	0.49	4.46	2.00	-	-	-	-	-

note
- : Items were not analyzed.
*1: Mean of pH takes an average of hydrogen ion.

		Anion	Cation	R1	Judge
Patengang Lake	26-Feb-15	438.4	411.4	-3.2	O
	7-May-15	620.3	635.3	1.2	O
	8-Jul-15	765.7	773.5	0.5	O
	10-Sep-15	786.6	797.2	0.7	O
	7-Dec-15	600.3	615.8	1.3	O
Gunung Lake	25-Feb-15	342.4	361.1	2.6	O
	6-May-15	674.6	674.9	0.0	O
	9-Jul-15	461.1	467.1	0.6	O
	11-Nov-15	392.1	396.4	0.5	O

Λcalc	R2	Judge
5.40	-11.5	×
7.78	7.4	O
8.49	6.2	O
8.50	2.4	O
7.13	8.1	O
4.28	-3.4	O
8.33	9.03	×
5.11	6.9	O
4.35	7.2	O

Table 6.4(4) Result of Inland Aquatic Environment Monitoring

Duration: 2015.4.-2016.1.
Country: Japan
Lake/Stream: Ijira Lake

		Mandatory Parameters : 4times/year											
Site	Sampling Date	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)
Center (Surface)	16-Apr-15	13.5	7.28	3.85	0.156	5.08	0.72	1.94	<0.01*1	1.84	0.22	2.42	1.11
	27-Jul-15	24.1	7.03	3.31	0.139	4.09	0.96	1.88	<0.01*1	1.73	0.29	1.83	0.99
	15-Sep-15	21.6	7.19	3.54	0.152	3.97	1.51	1.78	0.02	1.80	0.30	2.11	1.07
	06-Jan-16	-	-	-	-	-	-	-	-	-	-	-	-
	mean*2	19.7	7.16	3.57	0.149	4.38	1.06	1.87	<0.01*1	1.79	0.27	2.12	1.05
Center (near bottom)	16-Apr-15	10.1	6.74	3.94	0.155	5.25	0.75	2.02	0.03	1.86	0.22	2.47	1.13
	27-Jul-15	17.0	6.71	4.64	0.291	3.12	0.58	1.87	0.32	1.75	0.37	2.99	1.79
	15-Sep-15	18.8	6.74	3.86	0.179	3.96	1.57	1.78	0.08	1.78	0.31	2.44	1.27
	06-Jan-16	-	-	-	-	-	-	-	-	-	-	-	-
	mean*2	15.3	6.73	4.14	0.208	4.11	0.96	1.89	0.14	1.79	0.30	2.63	1.40
Kamagatani River (Input)	16-Apr-15	12.1	7.13	3.98	0.139	5.80	1.50	1.88	<0.01*1	1.83	0.25	2.41	1.23
	27-Jul-15	20.0	7.09	3.56	0.134	4.72	1.36	1.92	<0.01*1	1.78	0.27	1.97	1.08
	15-Sep-15	18.3	7.13	3.64	0.137	4.83	1.44	1.89	<0.01*1	1.82	0.26	2.07	1.10
	06-Jan-16	8.3	7.19	4.00	0.131	6.64	1.15	1.90	<0.01*1	1.93	0.22	2.46	1.30
	mean*2	14.7	7.13	3.79	0.135	5.49	1.36	1.90	<0.01*1	1.84	0.25	2.23	1.18
Kobora River (Input)	16-Apr-15	12.3	7.05	3.46	0.136	4.41	0.79	1.99	<0.01*1	2.02	0.24	1.70	1.10
	27-Jul-15	21.1	7.00	3.20	0.118	3.93	1.05	2.06	<0.01*1	2.05	0.31	1.35	0.99
	15-Sep-15	19.0	7.02	3.25	0.118	3.95	1.23	2.03	<0.01*1	2.07	0.28	1.47	1.03
	06-Jan-16	-	-	-	-	-	-	-	-	-	-	-	-
	mean*2	17.5	7.02	3.30	0.124	4.09	1.02	2.03	<0.01*1	2.05	0.27	1.51	1.04
Ijira River (Output)	16-Apr-15	13.1	7.14	3.89	0.158	5.13	0.76	1.96	<0.01*1	1.87	0.23	2.51	1.12
	27-Jul-15	24.0	7.13	3.40	0.142	4.15	1.02	1.88	<0.01*1	1.74	0.29	2.01	1.01
	15-Sep-15	21.5	7.32	3.56	0.153	3.98	1.51	1.76	<0.01*1	1.80	0.29	2.24	1.07
	06-Jan-16	-	-	-	-	-	-	-	-	-	-	-	-
	mean*2	19.5	7.19	3.62	0.151	4.42	1.10	1.87	<0.01*1	1.80	0.27	2.25	1.07
Discharge	16-Apr-15	10.5	7.00	3.87	0.155	5.17	0.74	2.02	<0.01*1	1.86	0.23	2.38	1.11
	27-Jul-15	-	-	-	-	-	-	-	-	-	-	-	-
	15-Sep-15	18.9	6.77	3.68	0.152	4.07	1.76	1.77	<0.01*1	1.79	0.29	2.35	1.16
	06-Jan-16	-	-	-	-	-	-	-	-	-	-	-	-
	mean*2	14.7	6.87	3.78	0.154	4.62	1.25	1.89	<0.01*1	1.82	0.26	2.36	1.13

		Mandatory Parameters : Once/year						Optional Parameters
Site	Sampling Date	Transparency (m)	Water Color (Forel-Ule Scale)	Water Color (sample)	PO_4^{3-} (mg/L)	NO_2^- (mg/L)	DOC (mg/L)	Chl-a (μg/L)
Center (Surface)	16-Apr-15	1.8	15	clear, colorless	<0.1*1	<0.01*1	0.6	2.8
	27-Jul-15	2.7	14	clear, colorless	-	<0.01*1	-	7.0
	15-Sep-15	2.3	15	clear, colorless	-	<0.01*1	-	1.9
	06-Jan-16	-	-	-	-	-	-	-
	mean	2.2	-	-	<0.1*1	<0.01*1	0.6	3.9
Center (near bottom)	16-Apr-15	-	-	clear, colorless	<0.1*1	<0.01*1	0.5	7.1
	27-Jul-15	-	-	clear, colorless	-	0.06	-	1.5
	15-Sep-15	-	-	clear, colorless	-	<0.01*1	-	3.0
	06-Jan-16	-	-	-	-	-	-	-
	mean	-	-	-	<0.1*1	0.02	0.5	3.9
Kamagatani River (Input)	16-Apr-15	-	-	clear, colorless	<0.1*1	<0.01*1	0.4	-
	27-Jul-15	-	-	clear, colorless	-	<0.01*1	-	-
	15-Sep-15	-	-	clear, colorless	-	<0.01*1	-	-
	06-Jan-16	-	-	clear, colorless	-	<0.01*1	-	-
	mean	-	-	-	<0.1*1	<0.01*1	0.4	-
Kobora River (Input)	16-Apr-15	-	-	clear, colorless	<0.1*1	<0.01*1	0.6	-
	27-Jul-15	-	-	clear, colorless	-	<0.01*1	-	-
	15-Sep-15	-	-	clear, colorless	-	<0.01*1	-	-
	06-Jan-16	-	-	-	-	-	-	-
	mean	-	-	-	<0.1*1	<0.01*1	0.6	-
Ijira River (Output)	16-Apr-15	-	-	clear, colorless	<0.1*1	<0.01*1	0.6	-
	27-Jul-15	-	-	clear, colorless	-	<0.01*1	-	-
	15-Sep-15	-	-	clear, colorless	-	<0.01*1	-	-
	06-Jan-16	-	-	-	-	-	-	-
	mean	-	-	-	<0.1*1	<0.01*1	0.6	-
Discharge	16-Apr-15	-	-	clear, colorless	<0.1*1	<0.01*1	0.5	-
	27-Jul-15	-	-	-	-	-	-	-
	15-Sep-15	-	-	clear, colorless	-	<0.01*1	-	-
	06-Jan-16	-	-	-	-	-	-	-
	mean	-	-	-	<0.1*1	<0.01*1	0.5	-

note
- : Items were not analyzed.
*1: Less than detection limit.
*2: Mean of pH takes an average of hydrogen ion.
When the value is under detection limit, it considers "0". Then the average and R1R2 were calculated by using
Annual precipitation is 2266.5 mm/year in 2015 (Gifu pref. Meteorological observatory
Data missing of discharge in July was caused by water stagnation
Data missing in January was caused by dam reinforcement work

Table 6.4(4) Result of Inland Aquatic Environment Monitoring - continued

		Anion	Cation	R1	Judge	Acalc	R2	Judge
Center (Surface)	16-Apr-15	328.0	297.5	-4.9	O	3.69	-2.1	O
	27-Jul-15	292.0	254.7	-6.8	O	3.22	-1.4	O
	15-Sep-15	309.1	279.4	-5.1	O	3.45	-1.3	O
	06-Jan-16	-	-	-	-	-	-	-
Center (near bottom)	16-Apr-15	333.2	304.1	-4.6	O	3.78	-2.0	O
	27-Jul-15	419.1	399.1	-2.5	O	4.55	-1.0	O
	15-Sep-15	336.4	315.6	-3.2	O	3.78	-0.9	O
	06-Jan-16	-	-	-	-	-	-	-
Kamagatani River (Input)	16-Apr-15	336.7	306.7	-4.7	O	3.86	-1.5	O
	27-Jul-15	308.2	271.4	-6.3	O	3.45	-1.5	O
	15-Sep-15	313.6	279.4	-5.8	O	3.53	-1.5	O
	06-Jan-16	341.5	318.7	-3.5	O	4.00	0.0	O
Kobora River (Input)	16-Apr-15	295.9	269.4	-4.7	O	3.33	-1.9	O
	27-Jul-15	274.8	245.2	-5.7	O	3.08	-1.8	O
	15-Sep-15	276.8	254.6	-4.2	O	3.15	-1.5	O
	06-Jan-16	-	-	-	-	-	-	-
Ijira River (Output)	16-Apr-15	331.7	304.4	-4.3	O	3.76	-1.7	O
	27-Jul-15	297.7	265.8	-5.7	O	3.32	-1.2	O
	15-Sep-15	309.4	285.1	-4.1	O	3.48	-1.2	O
	06-Jan-16	-	-	-	-	-	-	-
Discharge	16-Apr-15	331.2	296.6	-5.5	O	3.71	-2.0	O
	27-Jul-15	-	-	-	-	-	-	-
	15-Sep-15	315.0	297.2	-2.9	O	3.59	-1.2	O
	06-Jan-16	-	-	-	-	-	-	-

Table 6.4(5) Result of Inland Aquatic Environment Monitoring

Duration: 2015.5.-2016.1.
Country: Japan
Lake/Stream: Banryu Lake

		Mandatory Parameters : 4 times/year											
Site	Sampling Date	Temp. (°C)	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)
NO.2 (center) surface	26-May-15	23.4	6.78	10.22	0.129	5.33	<0.08*1	24.25	<0.05*1	13.47	1.65	1.64	1.72
	22-Jul-15	28.1	7.09	9.78	0.140	4.48	<0.08*1	23.60	<0.05*1	14.03	1.85	1.84	1.80
	21-Oct-15	19.2	6.97	10.65	0.207	4.14	<0.08*1	23.54	<0.05*1	14.35	1.88	1.75	2.07
	06-Jan-16	9.0	6.85	10.57	0.175	4.54	0.26	24.53	0.10	15.15	1.75	1.78	2.02
	mean*2	19.9	6.91	10.30	0.163	4.62	<0.08*1	23.98	<0.05*1	14.25	1.78	1.75	1.90
NO.2 (center) near bottom	26-May-15	10.2	6.42	11.51	0.215	5.94	0.21	24.82	0.19	13.99	1.78	2.31	2.20
	22-Jul-15	11.5	6.39	12.74	0.485	2.80	<0.08*1	23.92	<0.05*1	14.85	1.90	4.13	3.49
	21-Oct-15	17.7	6.47	12.75	0.435	3.10	<0.08*1	23.94	0.25	15.04	2.09	3.54	3.04
	06-Jan-16	8.6	6.82	10.58	0.178	4.55	0.25	24.52	0.11	15.38	1.80	1.81	2.04
	mean*2	12.0	6.50	11.89	0.328	4.10	0.11	24.30	0.14	14.81	1.89	2.95	2.69
NO.3 surface	26-May-15	-	-	-	-	-	-	-	-	-	-	-	-
	22-Jul-15	-	-	-	-	-	-	-	-	-	-	-	-
	21-Oct-15	-	-	-	-	-	-	-	-	-	-	-	-
	06-Jan-16	-	-	-	-	-	-	-	-	-	-	-	-
	mean*2	-	-	-	-	-	-	-	-	-	-	-	-

note
- : Items were not analyzed.
*1: Less than determination limit.
*2: Mean of pH takes an average of hydrogen ion.
When the value is under detection limit, it considers "0". Then the average and R1R2 were calculated by using it.
Annual precipitation is 1463.0 mm/year in 2015 (Lake Banryu national acid rain monitoring station).
Monitring of site No.3 was finished in JFY2015.

Table 6.4(5) Result of Inland Aquatic Environment Monitoring - continued

		Mandatory Parameters : Once/year						Optional Parameters	
Site	Sampling Date	Transparency (m)	Water Color (Forel-Ule Scale)	PO_4^{3-} (mg/L)	NO_2^- (mg/L)	DOC (mg/L)	COD (mg/L)	D-Al (mg/L)	Chl-a (μg/L)
NO.2 (center) surface	26-May-15	3.2	15	<0.003*1	<0.01*1	2.2	-	-	3.7
	22-Jul-15	3.2	14	-	-	-	-	-	4.3
	21-Oct-15	5.1	14	-	-	-	-	-	3.5
	06-Jan-16	2.3	15	-	-	-	-	-	9.3
	mean	3.5	-	<0.003*1	<0.01*1	2.2	-	-	5.2
NO.2 (center) near bottom	26-May-15	-	-	<0.003*1	<0.01*1	2.0	-	-	3.8
	22-Jul-15	-	-	-	-	-	-	-	52.9
	21-Oct-15	-	-	-	-	-	-	-	38.8
	06-Jan-16	-	-	-	-	-	-	-	8.4
	mean	-	-	<0.003*1	<0.01*1	2.0	-	-	26.0
NO.3 surface	26-May-15	-	-	-	-	-	-	-	-
	22-Jul-15	-	-	-	-	-	-	-	-
	21-Oct-15	-	-	-	-	-	-	-	-
	06-Jan-16	-	-	-	-	-	-	-	-
	mean	-	-	-	-	-	-	-	-

Table 6.4(5) Result of Inland Aquatic Environment Monitoring - continued

		Anion	Cation	R1	Judge	Λcalc	R2	Judge
NO.2 (center) surface	26-May-15	923.4	851.4	-4.1	O	11.17	4.4	O
	22-Jul-15	898.9	897.0	-0.1	O	11.19	6.7	O
	21-Oct-15	957.1	929.7	-1.5	O	11.59	4.2	O
	06-Jan-16	965.6	963.7	-0.1	O	11.93	6.1	O
NO.2 (center) near bottom	26-May-15	1042.0	960.7	-4.1	O	12.44	3.9	O
	22-Jul-15	1217.9	1187.9	-1.2	O	14.14	5.2	O
	21-Oct-15	1174.7	1147.5	-1.2	O	13.77	3.8	O
	06-Jan-16	968.2	978.8	0.5	O	12.03	6.4	O
NO.3 surface	26-May-15	-	-	-	-	-	-	-
	22-Jul-15	-	-	-	-	-	-	-
	21-Oct-15	-	-	-	-	-	-	-
	06-Jan-16	-	-	-	-	-	-	-

Table 6.4(6) Result of Inland Aquatic Environment Monitoring

Duration: 2015.3.-2015.12.
Country: Lao PDR
Lake/Stream: Nam Hum Lake

		Mandatory Parameters: 4 times/year												Mandatory Parameters: Once/year					Optional Parameters
Site	Sampling Date	Temp. (°C)	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 (PtCo unit)	PO_4^{3-} (mg/L)	NO_2^- (mg/L)	COD (mg/L)	DO (mg/L)
Nam Hum Lake	31-Mar-15	28.2	7.24	3.60	0.440	2.30	0.01	0.96	0.01	1.40	0.43	0.77	3.10	0.5	-	0.010	-	19.0	6.8
	30-Jun-15	29.7	7.18	3.40	0.450	4.34	0.02	0.48	0.02	1.60	0.78	1.65	3.18	0.5	-	0.010	-	25.9	6.4
	30-Sep-15	30.0	6.76	3.58	0.440	3.22	0.01	0.25	0.01	0.01	0.16	1.04	1.22	0.5	-	0.010	-	26.0	6.2
	29-Dec-15	25.7	7.13	4.12	0.480	2.23	0.06	1.40	0.01	0.19	0.35	1.90	1.60	1.0	-	0.010	-	20.0	6.6
	mean*1	-	7.03	3.68	0.453	3.02	0.03	0.77	0.01	0.80	0.43	1.34	2.28	0.6	-	0.010	-	22.7	6.5

note
- : Items were not analyzed.
*1 : Mean of pH takes an average of hydrogen ion.

		Anion	Cation	R1	Judge
Nam Hum Lake	17-Mar-15	515.4	365.9	-17.0	×
	16-Jun-15	554.5	434.6	-12.1	×
	17-Sep-15	514.6	157.5	-53.1	×
	8-Dec-15	567.2	244.2	-39.8	×

Acalc	R2	Judge
4.53	11.5	×
5.23	21.2	×
3.44	-2.0	O
4.20	1.0	O

Table 6.4(7) Result of Inland Aquatic Environment Monitoring

Duration: 2015.3.-2015.12.
Country: Malaysia
Lake/Stream: (See below)

		Mandatory Parameters: 4 times/year												Mandatory Parameters: Once/year	
Site	Sampling Date	Temp. (°C)	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)	PO_4^{3-} (mg/L)	COD (mg/L)
Semenyih Dam	16-Apr-15	-	6.92	3.30	0.252	1.38	0.29	1.54	0.068	3.50	1.80	2.60	0.66	<0.10*1	6.5
	24-Nov-15	-	7.09	3.10	0.234	1.26	<0.05*1	1.67	<0.003*1	3.90	1.40	1.82	0.62	<0.10*1	8.8
	mean*2	-	6.99	3.20	0.243	1.32	0.14	1.61	0.034	3.70	1.60	2.21	0.64	<0.10*1	7.6
Tembaling River	17-Mar-15	25.3	8.11	29.25	2.792	13.14	0.59	1.72	0.113	8.84	0.61	32.01	15.88	<0.10*1	6.0
	16-Jun-15	23.3	8.07	20.80	2.038	9.85	0.42	2.18	<0.003*1	9.66	0.64	21.74	11.06	<0.10*1	7.3
	17-Sep-15	24.2	8.01	21.42	2.007	11.08	0.40	2.77	0.006	9.98	0.71	20.62	11.07	<0.10*1	6.1
	8-Dec-15	26.7	7.93	22.03	2.005	11.24	0.75	2.64	0.015	9.01	0.60	21.74	10.22	<0.10*1	-
	mean*2	24.9	8.02	23.37	2.210	11.33	0.54	2.33	0.034	9.37	0.64	24.03	12.06	<0.10*1	4.8

note
- : Items were not analyzed.
*1: Less than determination limit
*2: Mean of pH takes an average of hydrogen ion.
When the value is under detection limit, it considers "0". Then the average and R1R2 were calculated by using it.
Data missing of Tembaling River in December was caused by technical problem on instrument.

		Anion	Cation	R1	Judge	Acalc	R2	Judge
Semenyih Dam	16-Apr-15	329.3	386.1	7.9	O	3.92	8.5	O
	24-Nov-15	307.7	347.1	6.0	O	3.54	6.6	O
Tembaling River	17-Mar-15	3123.6	3309.6	2.9	O	33.65	7.0	O
	16-Jun-15	2310.9	2430.8	2.5	O	24.79	8.7	O
	17-Sep-15	2322.6	2392.0	1.5	O	24.74	7.2	O
	8-Dec-15	2325.5	2333.5	0.2	O	24.50	5.3	O

Table 6.4(8) Result of Inland Aquatic Environment Monitoring

Duration: 2015.5.-2015.10.
Country: Mongolia
Lake/Stream: Terelj River

		Mandatory Parameters: 4 times/year													Mandatory Parameters : Once/year	
Site	Sampling Date	Temp. (°C)	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)	PO_4^{3-} (mg/L)	NO_2^- (mg/L)
Terelj River	20-May-15	-	7.07	6.11	0.398	6.12	0.92	0.44	-	-	-	-	-	-	-
	10-Jun-15	-	7.22	5.18	0.316	5.26	0.90	0.40	-	-	-	-	-	-	-
	1-Jul-15	-	7.23	5.50	0.326	4.12	1.04	0.61	-	-	-	-	-	-	-
	5-Aug-15	-	7.19	4.61	0.296	3.71	0.84	0.23	-	-	-	-	-	-	-
	9-Sep-15	-	7.40	5.02	0.357	3.38	0.43	0.25	-	-	-	-	-	-	-
	14-Oct-15	-	7.33	5.79	0.408	3.96	0.81	0.32	-	-	-	-	-	-	-
	mean*1	-	7.23	5.37	0.350	4.43	0.82	0.38	-	-	-	-	-	-	-

note
- : Items were not analyzed.
*1: Mean of pH takes an average of hydrogen ion.
Data missing of cation was caused by technical problem on instrument.

		Anion	Cation	R1	Judge
Terelj River	20-May-15	552.7	-	-	-
	10-Jun-15	451.3	-	-	-
	1-Jul-15	445.8	-	-	-
	5-Aug-15	393.3	-	-	-
	9-Sep-15	441.4	-	-	-
	14-Oct-15	512.5	-	-	-

Acalc	R2	Judge
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-

Table 6.4(9) Result of Inland Aquatic Environment Monitoring

Duration: 2015.2.-2015.11.
Country: Philippines
Lake/Stream: (See below)

		Mandatory Parameters: 4 times/year												Mandatory Parameters: Once/year			Optional Parameters
Site	Sampling Date	Temp. (°C)	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)	PO_4^{3-} (mg/L)	NO_2^- (mg/L)	DO (mg/L)
Pandin Lake	25-Feb-15	27.0	7.58	20.90	2.52	0.324	1.738	2.90	0.290	10.03	6.32	18.6	8.2	-	0.449	*1	-
	13-May-15	30.6	7.87	19.05	2.42	1.190	0.491	4.02	0.060	10.96	7.51	18.0	3.3	-	0.490	*1	-
	26-Aug-15	30.7	7.42	18.76	1.74	0.606	0.029	2.73	0.095	7.63	11.80	23.8	2.06	-	-	*1	-
	04-Nov-15	26.9	7.93	19.19	1.73	1.293	0.420	3.40	0.016	14.46	8.20	23.7	1.99	-	-	*1	-
	mean*2	28.80	7.65	19.48	2.10	0.853	0.670	3.26	0.115	10.77	8.46	21.0	3.91	-	0.470	*1	-
Ambulalakaw Lake	18-Mar-15	-	5.96	0.514	0.025	0.268	0.076	0.19	0.061	0.49	0.11	0.6	0.12	-	-	-	-
	16-Jun-15	-	5.92	0.598	0.040	0.171	0.000	0.25	0.017	0.37	0.21	0.6	0.15	-	-	-	-
	29-Sep-15	-	5.77	0.470	0.040	0.153	1.159	0.20	0.099	0.52	0.16	0.2	0.50	-	-	-	-
	18-Nov-15	-	5.83	0.416	0.020	0.262	0.211	0.26	0.017	0.55	0.09	0.1	0.47	-	-	-	-
	mean*2	-	5.86	0.500	0.031	0.213	0.361	0.22	0.049	0.48	0.14	0.4	0.31	-	-	-	-

note
- : Items were not analyzed.
*1: The item was not detected.
*2: Mean of pH takes an average of hydrogen ion.

		Anion	Cation	R1	Judge	Acalc	R2	Judge
Pandin Lake	25-Feb-15	2647.9	2218.9	-8.8	×	24.83	8.6	O
	13-May-15	2585.2	1846.8	-16.7	×	22.68	8.7	O
	26-Aug-15	1830.4	1995.7	4.3	O	20.36	4.1	O
	04-Nov-15	1864.2	2187.3	8.0	O	21.37	5.4	O
Ambulalakaw Lake	18-Mar-15	37.0	67.0	28.8	×	0.62	9.3	O
	16-Jun-15	50.6	67.0	14.0	×	0.68	6.4	O
	29-Sep-15	67.6	83.6	10.6	×	0.89	31.1	×
	18-Nov-15	36.2	73.0	33.8	×	0.65	21.8	×

note
Concerning "×" judging, it was not able to specify the main reasons.

Table 6.4(10) Result of Inland Aquatic Environment Monitoring

Duration: 2015.2.-2015.11.
Country: Russian Federation
Lake/Stream: (See below)

		Mandatory Parameters: 4 times/year												Mandatory Parameters: Once/year					Optional Parameters			
Site	Sampling Date	Temp. (°C)	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	PO_4^{3-} (mg/L)	NO_2^- (mg/L)	COD (mg/L)	Fe (mg/L)	TP (mg/L)	O_2 (mg/L)	Si (mg/L)
Pereemnaya River	16-Feb-15	0.2	6.74	4.94	0.143	12.30	0.89	0.26	0.020	1.24	0.73	5.33	0.82	1.5	colorless	0.012	0.003	0.3	-	0.050	12.91	2.58
	13-May-15	6.5	6.41	3.21	0.113	6.88	0.18	0.22	0.004	0.76	0.52	3.54	0.54	2.0	colorless	0.001	0.003	1.1	-	0.010	11.61	2.06
	8-Jul-15	14.5	6.88	4.55	0.124	11.63	0.39	0.16	0.018	1.03	0.73	4.69	0.86	2.0	colorless	0.003	0.002	0.7	-	0.004	9.83	2.63
	4-Oct-15	6.1	6.62	4.46	0.115	11.06	0.46	0.18	0.002	1.02	0.64	4.70	0.81	2.0	colorless	0.009	0.003	1.3	-	0.004	12.32	2.92
	mean*1	6.8	6.63	4.29	0.124	10.47	0.48	0.20	0.011	1.01	0.66	4.57	0.76	1.9	-	0.006	0.003	0.8	-	0.017	11.66	2.54
Komarovka River	9-Feb-15	0.1	7.01	8.68	0.350	14.83	1.99	2.82	0.03	3.27	0.30	8.23	2.33	-	colorless	0.005	0.020	1.6	0.22	-	12.62	5.90
	21-Apr-15	4.2	6.66	8.24	0.321	12.55	1.31	2.53	0.03	3.02	0.50	6.72	2.55	-	colorless	0.007	0.048	5.2	0.51	-	13.20	5.12
	23-Jun-15	18.8	7.06	8.75	0.430	13.15	2.14	2.82	0.21	3.60	0.80	8.73	2.15	-	colorless	0.005	0.023	4.8	0.17	-	11.17	6.80
	22-Sep-15	17.5	7.25	9.17	0.420	14.20	0.45	3.90	0.28	3.18	0.60	10.20	2.20	-	colorless	0.005	0.030	4.4	0.22	-	9.50	7.50
	17-Nov-15	1.5	7.20	8.92	0.501	12.55	0.48	3.22	0.05	4.18	0.70	9.77	1.75	-	colorless	0.005	0.007	5.8	0.34	-	14.12	6.63
	mean*1	8.4	6.98	8.75	0.404	13.46	1.27	3.06	0.12	3.45	0.58	8.73	2.20	-	-	0.005	0.026	4.4	0.29	-	12.12	6.39

note
- : Items were not analyzed.
*1: Mean of pH takes an average of hydrogen ion.

		Anion	Cation	R1	Judge
Pereemnaya River	16-Feb-15	420.6	406.8	-1.7	O
	13-May-15	266.0	268.1	0.4	O
	8-Jul-15	377.4	369.5	-1.1	O
	4-Oct-15	358.5	362.0	0.5	O
Komarovka River	9-Feb-15	771.2	754.3	-1.1	O
	21-Apr-15	675.7	690.8	1.1	O
	23-Jun-15	818.8	801.5	-1.1	O
	22-Sep-15	833.6	859.3	1.5	O
	17-Nov-15	861.0	834.0	-1.6	O

Acalc	R2	Judge
5.21	2.7	O
3.29	1.2	O
4.72	1.9	O
4.56	1.1	O
9.13	2.6	O
8.12	-0.8	O
9.54	4.3	O
10.06	4.6	O
9.82	4.8	O

Table 6.4(11) Result of Inland Aquatic Environment Monitoring

Duration: 2015.2.-2015.11.
Country: Thailand
Lake/Stream: Vachiralongkorn Dam

		Mandatory Parameters : 4 times/year												Mandatory Parameters : Once/year				
Site	Sampling Date	Temp. (°C)	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	PO_4^{3-} (mg/L)	NO_2^- (mg/L)	COD (mg/L)
Station1 (Ban Pong Chang)	19-Feb-15	27.5	7.30	5.40	1.065	1.23	0.10	0.83	0.01	1.25	0.90	15.5	2.86	3.0	-	0.01	-	-
	7-May-15	32.3	7.50	5.40	1.075	1.90	0.10	1.15	-	0.90	0.64	14.5	2.98	3.0	-	0.01	-	-
	9-Jul-15	29.5	7.50	5.20	1.040	1.36	0.12	0.87	0.11	1.27	1.00	16.6	3.09	2.5	-	0.01	-	-
	26-Nov-15	30.8	7.90	5.33	1.085	1.28	0.11	0.86	0.01	1.33	0.92	16.5	3.48	3.5	-	0.01	-	-
	mean*1	30.0	7.50	5.33	1.066	1.44	0.11	0.93	0.04	1.18	0.86	15.8	3.10	3.0	-	0.01	-	-
Station2 (Ban Pang Pueng)	19-Feb-15	26.7	7.50	7.00	1.075	1.24	0.10	1.32	0.01	1.68	0.95	16.4	2.58	3.5	-	0.01	-	-
	7-May-15	31.0	8.30	7.00	1.100	1.70	0.10	1.15	-	1.45	0.74	14.8	2.60	3.0	-	0.01	-	-
	9-Jul-15	28.9	8.10	6.50	1.040	1.60	0.10	0.89	0.02	1.21	0.91	17.3	2.75	3.0	-	0.01	-	-
	26-Nov-15	30.6	8.00	6.92	1.090	1.10	0.10	0.67	0.01	1.27	0.87	16.8	2.97	4.0	-	0.01	-	-
	mean*1	29.3	7.87	6.86	1.076	1.41	0.10	1.01	0.01	1.40	0.87	16.3	2.72	3.4	-	0.01	-	-

note
- : Items were not analyzed.
*1: Mean of pH takes an average of hydrogen ion.

	Date	Anion	Cation	R1	Judge	Acalc	R2	Judge
Station1 (Ban Pong Chang)	27-Feb-14	1116.0	1086.0	-1.4	O	11.46	35.9	×
	27-May-14	1148.9	1023.8	-5.8	O	11.31	35.4	×
	30-Jul-14	1094.9	1168.8	3.3	O	11.87	39.1	×
	5-Nov-14	1137.9	1191.5	2.3	O	12.16	39.0	×
Station2 (Ban Pang Pueng)	27-Feb-14	1139.7	1128.1	-0.5	O	11.86	25.8	×
	27-May-14	1169.8	1034.0	-6.2	O	11.45	24.1	×
	30-Jul-14	1100.2	1163.5	2.8	O	11.89	29.3	×
	5-Nov-14	1133.7	1160.0	1.1	O	11.95	26.6	×

Table 6.4(12) Result of Inland Aquatic Environment Monitoring

Duration: 2015.3.-2015.12.
Country: Vietnam
Lake/Stream: Hoa Binh Reservoir

		Mandatory Parameters: 4 times/year												Mandatory Parameters: Once/year				
Site	Sampling Date	Temp. (°C)	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 (PtCo unit)	PO_4^{3-} (mg/L)	NO_2^- (mg/L)	COD (mg/L)
Hoa Binh Reservoir	15-Mar-15	23.2	7.52	16.50	1.34	7.04	1.91	0.94	0.01	2.77	1.16	22.76	3.27	1.2	-	0.034	0.009	3.6
	15-Jun-15	29.3	7.95	18.74	1.44	7.53	0.87	0.98	0.01	3.78	1.02	24.43	3.91	1.2	-	0.031	0.008	3.0
	15-Sep-15	30.2	7.78	20.20	1.58	7.49	0.71	1.05	0.02	3.38	1.01	27.27	4.50	1.2	-	0.083	0.007	3.9
	15-Dec-15	25.5	7.37	16.32	1.36	5.99	2.39	0.83	0.02	1.80	1.05	23.21	2.91	1.2	3	0.031	0.010	3.3
	mean*1	27.1	7.60	17.94	1.43	7.01	1.47	0.95	0.02	2.93	1.06	24.42	3.65	1.2	-	0.045	0.009	3.5

note
- : Items were not analyzed.
*1 : Mean of pH takes an average of hydrogen ion.
PO_4^{3-} was survayed four times a year in this attempt. It was survayed once a year until last attemp

		Anion	Cation	R1	Judge
Hoa Binh Reservoir	15-Mar-15	1545.2	1555.4	0.3	O
	15-Jun-15	1639.6	1731.7	2.7	O
	15-Sep-15	1779.8	1904.8	3.4	O
	15-Dec-15	1547.9	1503.8	-1.4	O

Λcalc	R2	Judge
16.6	0.4	O
18.0	-2.0	O
19.7	-1.4	O
16.3	0.0	O

Table 6.4 (13) Summary of Inland Aquatic Environment Monitoring

			Mandatory Parameters : 4 times/year											Mandatory Parameters : Once/year				
Country	Location	Site	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)	PO_4^{3-} (mg/L)	NO_2^- (mg/L)	DOC (mg/L)	COD (mg/L)
Cambodia	Kampong Speu province	Sras Srang Lake*2	5.81	0.98	0.040	0.09	0.22	1.17	0.07	0.80	0.19	0.37	0.22	0.8	-	-	-	-
China	Chongqing	Jinyunshan Lake	6.48	11.35	0.145	29.41	10.09	2.24	0.25	2.25	2.01	11.62	3.46	0.9	*1	*1	-	<10*1
	Xiamen	Xiaoping Dam	7.01	6.01	0.179	3.99	3.17	3.43	0.05	3.65	2.64	3.61	0.66	0.7	0.045	0.014	-	1.2
	Xi'an	Jiwozi River	7.09	7.27	0.263	11.32	6.45	1.55	*1	4.12	0.95	9.19	1.28	-	<0.01*1	<0.003*1	-	3.0
	Zhuhai	Zhuxiandong Stream	6.38	6.73	0.496	2.47	1.31	2.50	0.44	7.48	1.84	2.84	1.14	-	-	-	-	-
Indonesia	Bandung	Patengang Lake*3	7.75	7.03	0.375	9.96	0.12	2.06	0.06	3.12	1.50	5.74	2.22	-	-	-	-	-
	Sukabumi, West Java	Gunung Lake	7.33	4.91	0.274	6.74	0.05	1.96	0.03	1.74	0.49	4.46	2.00	-	-	-	-	-
Japan	Gifu pref.	Ijira Lake (Center, surface)*4	7.16	3.57	0.149	4.38	1.06	1.87	<0.01*1	1.79	0.27	2.12	1.05	2.2	<0.1*1	<0.01*1	0.6	-
	Shimane pref.	Banryu Lake (Center, surface)	6.91	10.30	0.163	4.62	<0.08*1	23.98	<0.05*1	14.25	1.78	1.75	1.90	3.5	<0.003*1	<0.01*1	2.2	-
Lao PDR	Vientiane province	Nam Hum Lake	7.03	3.68	0.453	3.02	0.03	0.77	0.01	0.80	0.43	1.34	2.28	0.6	0.010	-	-	22.7
Malaysia	Selangor	Semenyih Dam*2	6.99	3.20	0.243	1.32	0.14	1.61	0.03	3.70	1.60	2.21	0.64	-	<0.10*1	-	-	7.6
	Sabah	Tembaling river	8.02	23.37	2.210	11.33	0.54	2.33	0.03	9.37	0.64	24.03	12.06	-	<0.10*1	-	-	4.8
Mongolia	Terelj	Terelj River*5	7.23	5.37	0.350	4.43	0.82	0.38	-	-	-	-	-	-	-	-	-	-
Philippines	San Pablo City	Pandin Lake	7.65	19.48	2.104	0.85	0.67	3.26	0.12	10.77	8.46	21.04	3.91	-	0.470	*1	-	-
	Benguet	Ambulalakaw Lake	5.86	0.50	0.031	0.21	0.36	0.22	0.05	0.48	0.14	0.37	0.31	-	-	-	-	-
Russia	Southern Baikal	Pereemnaya River	6.63	4.29	0.124	10.47	0.48	0.20	0.01	1.01	0.66	4.57	0.76	1.9	0.006	0.003	-	0.8
	Primorskaya	Komarovka River*3	6.98	8.75	0.404	13.46	1.27	3.06	0.12	3.45	0.58	8.73	2.20	-	0.005	0.026	-	4.4
Thailand	Kanchanaburi Province	Vachiralongkorn Dam (Ban Pong Chang)	7.50	5.33	1.066	1.44	0.11	0.93	0.04	1.18	0.86	15.8	3.10	3.0	0.01	-	-	-
		Vachiralongkorn Dam (Ban Pang Pueng)	7.87	6.86	1.076	1.41	0.10	1.01	0.01	1.40	0.87	16.3	2.72	3.4	0.01	-	-	-
Vietnam	Hoa Binh Province	Hoa Binh Reservoir	7.60	17.94	1.430	7.01	1.47	0.95	0.02	2.93	1.06	24.42	3.65	1.2	0.045	0.009	-	3.5

note
- : Items were not analyzed.
*1: Less than determination/detection limit.
*2: Surveyed twice a year.
*3: Surveyed five times a year.
*4: Surveyed three times a year.
*5: Surveyed six times a year.

Table 6.5(1) Annual mean values of each parameters of 2012 to 2015 at Sras Srang Lake (Cambodia)

	Mandatory Parameters : 4 times/year											Mandatory Parameters : Once/year				
	pH	EC	Alkalinity	SO_4^{2-}	NO_3^-	Cl^-	NH_4^+	Na^+	K^+	Ca^{2+}	Mg^{2+}	Transparency	PO_4^{3-}	NO_2^-	DOC	COD
		mS/m	meq/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	m	mg/L	mg/L	mg/L	mg/L
2012	6.46	0.88	0.037	0.08	0.06	1.65	0.04	0.94	0.13	0.27	0.16	0.7	-	-	-	-
2013	5.74	0.93	0.034	0.05	0.28	1.39	0.02	0.94	0.12	0.29	0.13	0.7	-	-	-	-
2014	5.84	0.96	0.035	0.06	0.60	1.38	0.12	1.03	0.31	0.26	0.12	0.7	-	-	-	-
2015	5.81	0.98	0.040	0.09	0.22	1.17	0.07	0.80	0.19	0.37	0.22	0.8	-	-	-	-

Table 6.5(2) Annual mean values of each parameters from 2001 to 2015 at Jinyushan Lake (China)

	Mandatory Parameters : 4 times/year											Mandatory Parameters : Once/year				
	pH	EC	Alkalinity	SO_4^{2-}	NO_3^-	Cl^-	NH_4^+	Na^+	K^+	Ca^{2+}	Mg^{2+}	Transparency	PO_4^{3-}	NO_2^-	DOC	COD
		mS/m	meq/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	m	mg/L	mg/L	mg/L	mg/L
2001	7.50	9.05	-	26.1	7.68	2.58	0.65	1.78	1.58	6.63	2.63	-	-	-	-	-
2002	6.12	9.52	-	26.4	7.99	2.53	0.09	2.50	1.79	9.08	3.28	-	-	-	-	-
2003	6.55	9.79	0.210	23.2	5.16	2.68	0.21	2.60	1.72	9.03	3.30	0.9	-	-	-	-
2004	6.34	9.61	0.075	25.7	7.94	1.74	0.30	1.98	1.65	9.66	2.71	2.6	-	-	-	7.6
2005	6.04	10.2	0.073	28.1	8.16	2.63	0.04	2.70	1.82	9.36	3.22	3.7	*1	*1	-	2.9
2006	6.36	11.9	0.113	32.7	9.53	3.05	0.11	2.96	2.27	11.1	3.82	5.0	*1	*1	-	3.2
2007	6.24	12.4	0.086	37.2	10.2	3.12	0.12	2.81	2.18	11.2	3.81	3.0	*1	*1	-	4.4
2008	5.42	12.2	0.066	33.3	12.8	2.77	0.16	2.65	1.98	11.3	3.77	3.7	*1	*1	-	2.9
2009	5.84	11.2	0.048	29.3	8.29	2.95	0.23	2.59	1.96	10.1	3.63	2.3	*1	*1	-	<10*1
2010	5.76	12.8	0.157	34.5	10.6	3.00	0.14	2.90	2.07	11.7	3.98	3.4	*1	*1	-	<10*1
2011	5.25	14.2	0.064	39.6	15.2	3.76	0.12	2.71	2.27	12.8	3.90	4.5	*1	*1	-	<10*1
2012	5.47	13.5	0.052	40.8	9.88	3.71	0.14	3.08	2.38	12.8	3.98	3.1	*1	*1	-	<10*1
2013	6.03	7.12	0.082	20.7	3.93	0.68	0.12	0.75	0.77	8.75	0.98	3.5	*1	*1	-	<10*1
2014	5.41	12.39	0.040	34.9	14.30	2.65	0.09	2.54	2.14	11.84	3.77	6.3	*1	*1	-	-
2015	6.48	11.35	0.145	29.4	10.09	2.24	0.25	2.25	2.01	11.62	3.46	0.9	*1	*1	-	<10*1

Table 6.5(3) Annual mean values of each parameters from 2001 to 2015 at Xiaoping Dam (China)

	Mandatory Parameters : 4 times/year											Mandatory Parameters : Once/year				
	pH	EC	Alkalinity	SO_4^{2-}	NO_3^-	Cl^-	NH_4^+	Na^+	K^+	Ca^{2+}	Mg^{2+}	Transparency	PO_4^{3-}	NO_2^-	DOC	COD
		mS/m	meq/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	m	mg/L	mg/L	mg/L	mg/L
2001	7.21	-	-	1.43	1.30	2.18	-	-	-	-	-	-	-	-	-	-
2002	7.39	7.00	-	4.67	6.66	2.82	0.20	7.29	2.14	2.29	0.82	-	-	-	-	-
2003	6.73	7.19	0.193	2.68	5.02	5.91	0.17	6.53	2.06	2.35	0.86	-	-	-	-	1.8
2004	7.34	5.57	0.242	2.68	7.83	4.35	0.18	6.70	2.18	2.92	0.64	-	0.02	0.008	-	2.1
2005	6.73	4.62	0.232	2.07	2.83	3.94	0.05	4.77	2.37	2.95	0.61	0.9	0.02	0.008	-	1.3
2006	6.81	5.27	0.190	2.46	2.52	5.13	0.19	6.02	2.33	3.19	0.66	0.9	0.02	0.008	-	0.7
2007	7.07	7.32	0.110	2.67	2.67	5.13	0.15	3.64	1.63	2.82	0.54	-	-	0.006	-	1.8
2008	6.73	5.66	0.124	4.49	2.67	12.9	0.14	4.97	2.46	3.90	0.56	-	0.01	0.007	-	1.9
2009	6.72	7.53	0.193	3.14	2.67	7.44	0.10	6.91	3.52	2.43	0.82	-	0.01	0.008	-	3.5
2010	6.63	6.19	0.190	2.70	3.70	5.54	0.11	5.80	2.53	2.51	0.69	1.1	0.02	0.015	-	1.9
2011	6.78	4.85	0.168	2.60	2.89	3.14	0.09	3.50	2.10	2.57	0.52	0.7	0.05	0.022	-	1.8
2012	6.94	5.08	0.155	2.92	3.46	3.10	0.06	3.78	2.50	2.51	0.68	1.2	0.03	0.031	-	2.5
2013	6.80	5.52	0.220	2.71	3.42	2.77	0.05	3.80	2.83	3.20	0.76	0.9	0.02	0.029	-	1.7
2014	7.18	5.79	0.219	3.71	3.53	2.64	0.05	3.09	2.61	3.70	0.84	0.9	0.04	0.020	-	1.5
2015	7.01	6.01	0.179	3.99	3.17	3.43	0.05	3.65	2.64	3.61	0.66	0.7	0.05	0.014	-	1.2

- : Items were not analyzed.

*1: Less than determination/detection limit.

Table 6.5(4) Annual mean values of each parameters from 2001 to 2015 at Jiwozi River (China)

	Mandatory Parameters : 4 times/year											Mandatory Parameters : Once/year				
	pH	EC	Alkalinity	SO_4^{2-}	NO_3^-	Cl^-	NH_4^+	Na^+	K^+	Ca^{2+}	Mg^{2+}	Transparency	PO_4^{3-}	NO_2^-	DOC	COD
		mS/m	meq/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	m	mg/L	mg/L	mg/L	mg/L
2001	7.11	4.50	0.225	10.03	1.47	1.06	0.04	1.90	0.70	8.83	1.38	-	-	-	-	-
2002	7.60	8.47	0.110	12.16	1.70	1.80	*1	2.80	1.20	12.73	1.72	-	-	-	-	-
2003	7.54	7.83	0.140	11.44	2.01	1.63	*1	2.08	0.95	12.03	1.59	-	-	-	-	-
2004	7.20	6.63	0.243	11.68	2.30	1.06	*1	1.79	0.68	9.04	1.35	-	*1	*1	-	3.2
2005	6.99	7.99	0.208	15.31	0.81	1.74	0.06	1.77	0.72	7.44	1.35	-	*1	0.090	-	1.6
2006	6.80	7.59	0.238	11.80	1.87	1.21	0.07	1.93	0.65	7.64	1.11	-	0.03	0.003	-	2.8
2007	7.32	8.86	0.250	16.68	3.46	1.31	0.13	2.09	0.96	11.00	0.96	-	*1	*1	-	2.2
2008	7.05	8.42	0.248	13.92	1.89	1.51	0.30	1.43	1.05	9.38	1.20	-	<0.01*1	<0.003*1	-	2.5
2009	6.98	8.28	0.278	15.51	2.07	1.34	0.14	1.88	1.04	9.85	1.38	-	<0.01*1	<0.003*1	-	2.5
2010	7.33	8.11	0.280	13.92	2.83	1.27	*1	1.22	0.81	10.49	1.35	-	<0.01*1	<0.003*1	-	3.0
2011	6.85	6.83	0.275	12.89	0.87	0.51	*1	0.74	0.84	8.09	2.01	-	<0.01*1	<0.003*1	-	3.0
2012	6.83	6.95	0.275	12.97	0.96	0.57	*1	0.70	0.83	7.80	2.01	-	<0.01*1	<0.003*1	-	4.0
2013	6.86	8.92	0.333	15.01	2.39	3.16	*1	3.50	1.37	11.07	1.69	-	<0.01*1	<0.003*1	-	5.0
2014	7.05	8.24	0.273	15.85	1.28	1.32	0.27	1.93	1.06	9.15	1.61	-	<0.01*1	<0.003*1	-	4.0
2015	7.09	7.27	0.263	11.32	6.45	1.55	*1	4.12	0.95	9.19	1.28	-	<0.01*1	<0.003*1	-	3.0

Table 6.5(5) Annual mean values of each parameters from 2004 to 2015 at Zhuxiandong stream and from 2001 to 2003 at Zhuxiandong resorvoir(China

	Mandatory Parameters : 4 times/year											Mandatory Parameters : Once/year				
	pH	EC	Alkalinity	SO_4^{2-}	NO_3^-	Cl^-	NH_4^+	Na^+	K^+	Ca^{2+}	Mg^{2+}	Transparency	PO_4^{3-}	NO_2^-	DOC	COD
		mS/m	meq/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	m	mg/L	mg/L	mg/L	mg/L
2001	7.62	-	-	17.70	0.63	43.1	0.20	-	-	-	-	-	-	-	-	-
2002	7.93	6.70	0.963	19.89	0.83	23.8	0.23	7.27	1.57	17.0	2.50	-	-	-	-	-
2003	7.82	7.54	1.603	17.50	0.29	19.6	0.17	7.34	1.96	16.8	2.36	-	-	0.029	-	1.7
2004	7.12	8.49	0.645	5.47	1.90	6.03	*1	8.95	1.88	5.41	2.84	-		*1	-	1.1
2005	6.97	9.53	0.133	5.83	1.70	6.73	*1	8.90	1.60	4.63	2.65	1.3	*1	*1	-	0.9
2006	7.18	7.35	0.225	2.60	1.15	4.50	1.10	5.40	1.13	4.38	1.58	1.3	*1	*1		1.0
2007	7.28	7.80	0.240	3.61	1.77	5.09	0.10	6.01	1.22	3.65	1.38	1.3	*1	*1	-	1.1
2008	7.18	7.58	0.165	2.95	2.36	4.90	0.05	6.83	1.31	4.40	1.76	1.3	*1	*1	-	1.1
2009	7.16	7.74	0.367	2.97	4.20	6.30	0.06	7.86	1.57	2.77	1.96	1.1	*1	*1	-	1.3
2010	7.22	6.86	0.393	2.49	2.50	5.15	0.08	6.98	1.23	4.30	1.72	1.1	*1	*1	-	1.4
2011	7.16	7.42	0.467	1.95	1.00	4.33	0.09	7.70	1.15	4.68	1.69	1.1	*1	*1	-	1.3
2012	7.26	7.62	0.499	2.98	2.00	5.38	0.09	7.50	1.69	4.81	1.88	1.1	*1	*1	-	1.2
2013	7.20	7.87	0.500	3.81	4.11	4.66	0.07	6.95	1.77	4.91	1.91	1.2	*1	*1	-	1.1
2014	7.19	8.27	0.502	4.64	4.80	3.75	0.02	6.42	1.69	5.22	2.53	-	-	-	-	-
2015	6.38	6.73	0.496	2.47	1.31	2.50	0.44	7.48	1.84	2.84	1.14	-	-	-	-	-

Table 6.5(6) Annual mean values of each parameters from 2001 to 2015 at Patenggang Lake (Indonesia)

	Mandatory Parameters : 4 times/year											Mandatory Parameters : Once/year				
	pH	EC	Alkalinity	SO_4^{2-}	NO_3^-	Cl^-	NH_4^+	Na^+	K^+	Ca^{2+}	Mg^{2+}	Transparency	PO_4^{3-}	NO_2^-	DOC	COD
		mS/m	meq/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	m	mg/L	mg/L	mg/L	mg/L
2001	7.90	7.28	0.488	4.33	0.07	8.19	0.13	4.90	0.54	6.32	2.18	-	-	-	-	-
2002	8.46	5.83	0.255	7.33	0.06	6.30	0.17	4.60	0.71	4.03	1.93	-	-	-	-	-
2003	7.34	6.58	0.460	7.76	0.19	7.50	0.53	4.30	0.49	5.17	2.53	0.6	0.207	*1	12.4	-
2004	7.29	5.89	0.340	2.65	0.03	3.85	0.02	2.10	0.85	5.75	2.20	0.6	0.014	*1	7.3	-
2005	7.19	6.71	0.459	8.83	0.23	2.30	0.43	4.04	1.87	5.70	2.70	0.1	0.010	*1	10.9	-
2006	7.49	5.74	0.414	3.80	0.47	2.58	0.39	2.87	1.70	5.70	1.43	0.1	0.085	0.016	8.1	-
2007	7.17	6.75	0.420	7.45	0.32	2.59	0.41	3.40	1.53	5.75	1.47	0.1	0.038	0.012	3.8	-
2008	6.76	6.43	0.448	7.89	0.07	2.18	0.05	2.84	1.29	6.18	2.39	0.9	0.202	0.019	10.2	-
2009	6.99	6.96	0.490	5.16	0.58	2.24	0.19	3.68	2.33	6.66	1.09	1.1	0.011	0.007	8.6	-
2010	6.66	6.75	0.512	4.93	0.01	2.33	0.17	3.43	1.52	6.87	2.12	1.1	0.031	0.006	7.5	-
2011	7.84	7.40	0.522	8.08	0.02	2.48	0.34	3.18	1.38	6.46	2.61	0.7	0.292	0.006	6.9	-
2012	7.72	6.09	0.403	7.40	*1	1.80	0.43	3.50	1.47	5.26	2.06	0.8	0.133	*1	7.6	-
2013	7.41	6.64	0.442	8.23	0.06	1.50	0.09	4.83	2.03	4.60	1.97	0.9	*1	0.009	12.1	-
2014	7.48	6.19	0.357	7.15	0.12	2.44	0.47	3.00	1.15	4.90	2.06	1.6	0.010	0.007	6.8	-
2015	7.75	7.03	0.375	9.96	0.12	2.06	0.06	3.12	1.50	5.74	2.22	-	-	-	-	-

- : Items were not analyzed.

*1: Less than determination/detection limit.

Table 6.5(7) Annual mean values of each parameters from 2008 to 2015 at Gunung Lake (Indonesia)

	Mandatory Parameters : 4 times/year											Mandatory Parameters : Once/year				
	pH	EC	Alkalinity	SO_4^{2-}	NO_3^-	Cl^-	NH_4^+	Na^+	K^+	Ca^{2+}	Mg^{2+}	Transparency	PO_4^{3-}	NO_2^-	DOC	COD
		mS/m	meq/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	m	mg/L	mg/L	mg/L	mg/L
2008	6.73	5.90	0.438	5.59	0.03	2.01	0.57	2.24	0.71	5.09	1.87	1.1	0.040	0.007	6.7	-
2009	6.69	5.54	0.460	3.48	0.06	1.30	0.16	3.14	1.02	4.62	2.20	1.0	0.014	0.005	10.8	-
2010	6.24	5.14	0.442	1.70	0.00	1.15	0.11	2.01	0.87	5.35	1.66	1.1	0.125	0.002	5.0	-
2011	7.38	5.15	0.414	4.04	0.07	1.00	0.12	2.36	0.84	5.04	2.02	0.7	0.037	0.004	10.2	-
2012	6.56	5.86	0.450	4.04	*1	1.10	*1	1.74	0.88	5.30	2.54	0.5	0.710	*1	9.5	-
2013	7.38	4.15	0.321	3.05	0.04	0.75	0.08	2.75	0.76	2.92	1.18	1.0	*1	0.002	5.3	-
2014	6.97	3.96	0.248	4.05	0.04	1.68	0.13	2.74	0.87	2.65	0.92	1.0	0.020	0.004	8.8	4.8
2015	7.33	4.91	0.274	6.74	0.05	1.96	0.03	1.74	0.49	4.46	2.00	-	-	-	-	-

Table 6.5(8) Annual mean values of each parameters from 2001 to 2015 at Ijira Lake (Japan)

	Mandatory Parameters : 4 times/year											Mandatory Parameters : Once/year				
	pH	EC	Alkalinity	SO_4^{2-}	NO_3^-	Cl^-	NH_4^+	Na^+	K^+	Ca^{2+}	Mg^{2+}	Transparency	PO_4^{3-}	NO_2^-	DOC	COD
		mS/m	meq/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	m	mg/L	mg/L	mg/L	mg/L
2001	6.85	4.33	0.138	4.66	2.31	2.19	0.07	2.37	0.40	3.51	1.61	-	<0.01*1	-	-	-
2002	6.72	4.52	0.173	5.63	2.01	2.27	0.09	2.23	0.38	3.39	1.37	2.2	<0.066*1	<0.01*1	3.2	-
2003	6.75	4.10	0.146	5.14	2.07	2.40	0.08	1.86	0.30	2.94	1.36	3.0	<0.01*1	<0.03*1	1.4	-
2004	7.17	4.05	0.145	4.79	1.88	2.34	0.12	2.15	0.23	2.71	1.23	2.8	<0.03*1	<0.02*1	1.1	-
2005	6.94	4.47	0.153	5.73	2.37	2.32	0.08	2.29	0.39	3.27	1.42	3.0	<0.03*1	0.07	0.7	-
2006	6.81	3.94	0.164	4.53	2.11	2.09	0.03	2.00	0.33	2.80	1.23	2.4	<0.1*1	<0.02*1	0.6	-
2007	7.09	4.58	0.206	5.77	1.22	2.27	0.03	2.24	0.30	3.57	1.46	2.7	<0.1*1	<0.02*1	1.0	-
2008	7.19	4.36	0.183	5.37	1.78	2.16	0.04	2.10	0.28	3.24	1.45	2.7	<0.1*1	<0.01*1	0.8	-
2009	7.04	4.26	0.176	5.18	1.47	2.13	0.01	2.08	0.26	3.03	1.35	2.7	<0.1*1	<0.01*1	0.7	-
2010	7.01	3.74	0.158	4.58	1.10	1.96	<0.01*1	1.88	0.25	2.61	1.18	2.3	<0.1*1	<0.01*1	0.5	-
2011	7.11	3.85	0.159	4.77	1.34	1.86	<0.01*1	1.89	0.23	3.05	1.22	1.8	<0.1*1	<0.01*1	0.8	-
2012	7.11	3.76	0.154	4.66	1.31	1.89	<0.01*1	1.85	0.23	2.78	1.23	2.3	<0.1*1	<0.01*1	0.5	-
2013	7.17	3.94	0.165	5.02	1.06	1.97	<0.01*1	1.97	0.24	2.73	1.25	2.4	<0.1*1	<0.01*1	0.5	-
2014	7.06	3.73	0.140	4.67	1.21	1.86	<0.01*1	1.82	0.27	2.34	1.12	1.9	<0.1*1	<0.01*1	0.5	-
2015	7.16	3.57	0.149	4.38	1.06	1.87	<0.01*1	1.79	0.27	2.12	1.05	2.2	<0.1*1	<0.01*1	0.6	-

Table 6.5(9) Annual mean values of each parameters from 2001 to 2015 at Banryu Lake (Japan)

	Mandatory Parameters : 4 times/year											Mandatory Parameters : Once/year				
	pH	EC	Alkalinity	SO_4^{2-}	NO_3^-	Cl^-	NH_4^+	Na^+	K^+	Ca^{2+}	Mg^{2+}	Transparency	PO_4^{3-}	NO_2^-	DOC	COD
		mS/m	meq/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	m	mg/L	mg/L	mg/L	mg/L
2001	6.98	9.43	0.174	4.07	0.11	19.7	0.15	12.2	1.75	1.23	1.60	-	<0.003*1	-	-	5.3
2002	7.07	10.1	0.176	3.93	0.30	21.9	0.12	13.0	1.80	1.21	1.76	1.6	<0.003*1	<0.003*1	2.5	5.7
2003	6.98	10.9	0.170	3.96	0.14	22.3	0.19	13.4	1.78	1.09	1.69	1.5	<0.003*1	<0.003*1	2.6	5.6
2004	7.10	10.7	0.165	3.96	0.21	23.0	0.09	14.0	1.84	1.05	1.69	2.5	<0.003*1	<0.003*1	3.3	4.8
2005	7.09	10.7	0.156	4.31	0.14	23.1	0.04	14.2	1.91	1.47	1.82	2.2	0.003	<0.003*1	2.6	5.0
2006	7.01	10.3	0.162	4.44	0.13	21.6	0.11	13.8	1.83	1.49	1.77	2.5	<0.003*1	0.003	2.7	4.8
2007	7.02	10.8	0.176	4.49	0.10	22.5	0.02	14.3	1.94	1.52	1.62	2.5	<0.003*1	<0.003*1	2.6	5.0
2008	7.05	10.7	0.175	4.24	0.14	22.8	0.03	14.3	1.87	1.37	1.65	3.0	<0.003*1	<0.003*1	2.5	-
2009	7.02	10.1	0.171	4.14	0.10	22.0	0.03	13.7	1.79	1.52	1.81	2.7	<0.003*1	<0.003*1	2.9	-
2010	7.03	10.1	0.144	4.00	0.16	21.9	0.04	13.5	1.77	1.67	1.88	2.9	<0.003*1	<0.003*1	2.9	5.5
2011	6.97	10.9	0.168	4.08	0.21	23.6	0.04	14.3	1.90	1.85	2.07	3.2	<0.003*1	<0.003*1	2.4	5.0
2012	7.00	11.0	0.178	4.02	0.15	24.3	0.04	14.7	1.92	1.88	2.04	2.7	<0.003*1	0.004	2.2	4.7
2013	7.01	9.89	0.165	4.15	0.13	21.5	0.03	13.2	1.78	1.76	1.89	2.5	<0.003*1	<0.003*1	2.5	5.0
2014	7.06	10.54	0.160	3.99	0.14	21.7	0.04	12.8	1.70	1.64	1.83	3.1	<0.003*1	<0.003*1	2.1	4.8
2015	6.91	10.30	0.163	4.62	<0.08*1	24.0	<0.05*1	14.3	1.78	1.75	1.90	3.5	<0.003*1	<0.01*1	2.2	-

- : Items were not analyzed.

*1: Less than determination/detection limit.

Table 6.5(10) Annual mean values of each parameters of 2009 and 2015 at Nam Hum Lake (Lao PDR)

	Mandatory Parameters : 4 times/year											Mandatory Parameters : Once/year				
	pH	EC	Alkalinity	SO_4^{2-}	NO_3^-	Cl^-	NH_4^+	Na^+	K^+	Ca^{2+}	Mg^{2+}	Transparency	PO_4^{3-}	NO_2^-	DOC	COD
		mS/m	meq/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	m	mg/L	mg/L	mg/L	mg/L
2009	7.55	3.90	0.411	1.83	0.65	1.45	0.15	0.94	1.75	4.43	0.86	-	0.001	-	-	10.2
2014	7.18	4.12	0.438	-	-	-	-	-	-	-	-	0.8	0.013	-	-	23.1
2015	7.03	3.68	0.453	3.02	0.03	0.77	0.01	0.80	0.43	1.34	2.28	0.6	0.010	-	-	22.7

Table 6.5(11) Annual mean values of each parameters from 2005 to 2015 at Semenyih Dam (Malaysia)

	Mandatory Parameters : 4 times/year											Mandatory Parameters : Once/year				
	pH	EC	Alkalinity	SO_4^{2-}	NO_3^-	Cl^-	NH_4^+	Na^+	K^+	Ca^{2+}	Mg^{2+}	Transparency	PO_4^{3-}	NO_2^-	DOC	COD
		mS/m	meq/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	m	mg/L	mg/L	mg/L	mg/L
2005	7.08	2.27	0.226	0.75	1.07	1.41	0.11	2.34	2.01	4.93	1.40	-	-	-	-	-
2006	7.24	3.03	0.688	5.04	0.87	7.03	0.29	14.5	16.8	14.4	2.70	-	-	-	-	-
2007	7.02	2.67	0.266	1.22	0.10	0.75	0.04	2.35	2.05	2.30	0.69	-	-	-	-	-
2008	6.94	1.53	0.265	1.73	0.18	0.83	0.06	2.46	2.08	2.54	0.66	-	-	-	-	-
2009	6.91	3.30	0.229	1.80	0.22	0.83	0.02	2.13	1.90	1.83	0.55	-	-	-	-	-
2010	6.92	2.77	0.225	2.40	0.05	0.81	0.02	2.18	2.00	2.43	0.65	-	<0.10*1	-	-	-
2011	6.99	2.69	0.270	2.85	0.54	0.96	0.05	2.15	2.01	2.53	0.60	-	-	-	-	-
2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2013	6.63	2.96	0.230	2.98	0.25	0.77	0.06	2.12	1.94	2.55	0.61	-	<0.10*1	-	-	5.3
2014	7.06	3.63	0.234	3.16	0.42	0.78	0.15	2.18	2.07	3.24	0.68	-	<0.10*1	-	-	4.9
2015	6.99	3.20	0.243	1.32	0.14	1.61	0.03	3.70	1.60	2.21	0.64	-	<0.10*1	-	-	7.6

Table 6.5(12) Annual mean values of each parameters from 2007 to 2015 at Tembaling River (Malaysia)

	Mandatory Parameters : 4 times/year											Mandatory Parameters : Once/year				
	pH	EC	Alkalinity	SO_4^{2-}	NO_3^-	Cl^-	NH_4^+	Na^+	K^+	Ca^{2+}	Mg^{2+}	Transparency	PO_4^{3-}	NO_2^-	DOC	COD
		mS/m	meq/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	m	mg/L	mg/L	mg/L	mg/L
2007	6.80	13.9	1.640	7.03	0.63	2.20	0.05	3.01	3.37	16.5	8.68	-	-	-	-	-
2008	7.07	18.6	1.850	8.10	0.75	1.20	0.01	5.83	0.40	22.0	10.4	-	-	-	-	-
2009	7.97	20.3	1.975	9.38	0.72	1.33	0.01	6.25	0.53	20.5	10.2	-	-	-	-	-
2010	8.11	21.8	2.070	9.94	0.59	1.55	0.03	6.99	0.81	18.4	16.0	-	<0.10*1	-	-	4.0
2011	8.18	17.4	1.626	7.23	1.19	1.35	0.01	4.99	0.40	16.3	7.50	-	<0.10*1	-	-	7.8
2012	8.06	17.8	1.796	6.11	0.29	1.18	0.01	4.71	0.25	19.4	9.20	-	<0.10*1	-	-	4.5
2013	8.05	19.2	1.905	5.50	0.38	1.20	0.04	5.73	0.38	20.4	10.7	-	<0.10*1	-	-	4.6
2014	7.82	20.8	1.996	7.79	0.47	1.02	0.04	6.39	0.57	21.5	11.0	-	<0.10*1	-	-	4.8
2015	8.02	23.4	2.210	11.33	0.54	2.33	0.03	9.37	0.64	24.0	12.1	-	<0.10*1	-	-	4.8

- : Items were not analyzed.

*1: Less than determination/detection limit.

Table 6.5(13) Annual mean values of each parameters from 2002 to 2015 at Terelj River (Mongolia)

	Mandatory Parameters : 4 times/year											Mandatory Parameters : Once/year				
	pH	EC	Alkalinity	SO_4^{2-}	NO_3^-	Cl^-	NH_4^+	Na^+	K^+	Ca^{2+}	Mg^{2+}	Transparency	PO_4^{3-}	NO_2^-	DOC	COD
		mS/m	meq/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	m	mg/L	mg/L	mg/L	mg/L
2002	7.23	4.84	0.098	3.47	1.11	0.43	0.04	1.87	0.52	7.17	0.87	-	-	-	-	-
2003	6.75	4.60	0.266	3.16	0.74	0.36	0.04	1.65	0.48	5.88	0.83	-	-	-	-	-
2004	6.80	4.44	0.296	2.76	0.70	0.54	0.06	1.60	0.72	5.93	0.89	-	-	-	-	-
2005	6.90	4.84	0.367	3.18	0.82	0.56	0.05	1.95	0.68	8.90	1.04	-	-	0.003	-	-
2006	6.99	5.07	0.327	3.60	0.79	0.46	0.11	2.07	0.62	9.04	1.07	-	-	0.003	-	-
2007	6.89	5.06	0.339	3.18	0.79	0.57	0.07	2.22	0.55	8.63	1.03	-	<0.005*1	0.003	-	-
2008	6.36	6.59	0.282	3.82	1.33	0.73	<0.01*1	1.93	0.60	13.7	1.00	-	0.007	<0.005*1	-	-
2009	7.13	4.70	0.331	3.47	0.49	0.41	<0.01*1	1.66	0.58	5.41	0.76	-	-	<0.005*1	-	-
2010	6.67	5.57	0.380	4.47	0.86	0.78	0.13	2.17	1.19	7.52	1.15	-	0.011	<0.005*1	-	-
2011	6.28	5.33	0.327	3.73	0.76	0.79	0.06	1.57	0.68	5.80	0.87	-	0.008	0.002	-	-
2012	7.24	4.55	0.318	-	-	-	-	-	-	-	-	-	0.008	0.006	-	-
2013	6.84	4.32	0.294	2.81	0.46	0.37	*1	1.46	1.01	6.13	0.83	-	-	-	-	-
2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2015	7.23	5.37	0.350	4.43	0.82	0.38	-	-	-	-	-	-	-	-	-	-

Table 6.5(14) Annual mean values of each parameters from 2004 to 2015 at Pandin Lake (Philippines)

	Mandatory Parameters : 4 times/year											Mandatory Parameters : Once/year				
	pH	EC	Alkalinity	SO_4^{2-}	NO_3^-	Cl^-	NH_4^+	Na^+	K^+	Ca^{2+}	Mg^{2+}	Transparency	PO_4^{3-}	NO_2^-	DOC	COD
		mS/m	meq/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	m	mg/L	mg/L	mg/L	mg/L
2004	8.08	18.2	1.808	0.33	0.08	3.16	0.02	8.91	5.81	12.1	6.91	-	0.014	0.072	-	-
2005	7.96	18.1	1.723	1.11	0.58	3.76	0.69	8.18	4.89	14.3	7.84	-	0.005	0.295	-	-
2006	7.72	17.3	1.758	0.43	0.19	2.40	0.22	8.08	5.08	15.1	7.30	2.2	0.004	0.012	-	-
2007	7.76	17.6	1.708	0.52	0.10	3.37	0.26	7.28	6.29	12.1	9.03	-	0.002	0.013	-	-
2008	7.48	18.0	1.627	0.76	5.23	3.70	0.02	7.33	4.92	12.6	7.97	-	0.013	-	-	-
2009	7.68	18.7	1.813	0.66	5.72	3.78	1.02	8.61	4.35	14.1	7.32	1.8	0.087	-	-	-
2010	8.25	18.4	1.837	0.34	3.36	3.28	*1	8.79	5.59	13.1	8.49	-	0.060	-	-	-
2011	7.67	20.5	1.738	0.49	2.08	3.29	0.17	7.99	4.14	14.9	7.58	-	0.086	-	-	-
2012	7.95	17.6	1.683	1.53	0.48	3.45	0.06	8.19	4.43	14.1	7.59	-	*1	-	-	-
2013	7.29	17.7	1.725	0.56	0.16	3.19	0.10	8.17	4.24	15.6	7.89	-	0.004	*1	-	-
2014	7.64	20.5	2.145	0.22	0.14	2.54	0.04	7.00	3.70	19.1	9.09	-	-	*1	-	-
2015	7.65	19.5	2.104	0.85	0.67	3.26	0.12	10.77	8.46	21.0	3.91	-	0.470	*1	-	-

Table 6.5(15) Annual mean values of each parameters from 2005 to 2014 at Ambulalakao Lake (Philippines)

	Mandatory Parameters : 4 times/year											Mandatory Parameters : Once/year				
	pH	EC	Alkalinity	SO_4^{2-}	NO_3^-	Cl^-	NH_4^+	Na^+	K^+	Ca^{2+}	Mg^{2+}	Transparency	PO_4^{3-}	NO_2^-	DOC	COD
		mS/m	meq/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	m	mg/L	mg/L	mg/L	mg/L
2005	5.82	0.44	0.020	0.15	0.11	0.06	-	0.22	0.15	0.15	0.04	-	-	0.100	-	-
2007	5.49	0.53	0.031	0.46	0.12	0.25	0.02	0.37	0.13	0.40	0.10	-	*1	*1	-	-
2008	5.74	0.38	0.081	0.27	0.12	0.17	0.10	0.19	0.07	0.26	0.15	-	0.001	-	-	-
2009	5.72	30.3	0.275	23.1	14.8	9.27	0.13	6.54	0.33	32.6	2.84	-	-	-	-	-
2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2013	5.75	0.52	0.060	*1	*1	0.39	*1	0.56	0.13	0.49	0.11	-	-	-	-	-
2014	5.69	0.52	0.023	0.11	*1	0.20	0.21	0.46	0.35	0.59	0.12	-	-	-	-	-
2015	5.86	0.50	0.031	0.21	0.36	0.22	0.05	0.48	0.14	0.37	0.31	-	-	-	-	-

- : Items were not analyzed.

*1: Less than determination/detection limit.

Table 6.5(16) Annual mean values of each parameters from 2004 to 2015 at Pereemnaya River (Russia)

	Mandatory Parameters : 4 times/year											Mandatory Parameters : Once/year				
	pH	EC	Alkalinity	SO_4^{2-}	NO_3^-	Cl^-	NH_4^+	Na^+	K^+	Ca^{2+}	Mg^{2+}	Transparency	PO_4^{3-}	NO_2^-	DOC	COD
		mS/m	meq/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	m	mg/L	mg/L	mg/L	mg/L
2004	6.55	3.93	0.135	7.18	0.76	0.23	0.03	1.10	0.77	3.23	0.94	2.0	0.008	0.002	-	-
2005	6.80	4.03	0.135	7.84	0.66	0.20	0.03	0.96	0.71	3.29	1.04	-	0.002	0.005	-	0.8
2006	6.74	3.95	0.140	7.49	0.81	0.20	0.04	1.07	0.75	3.36	1.02	-	0.004	0.002	1.5	1.1
2007	6.59	4.21	0.135	8.98	0.91	0.18	0.11	1.06	0.76	3.92	0.85	-	0.004	0.003	1.6	1.0
2008	6.68	4.87	0.155	9.77	1.03	0.13	0.03	0.93	0.60	4.78	1.05	-	0.007	0.002	1.0	0.8
2009	6.66	4.87	0.128	11.7	0.85	0.14	0.02	1.00	0.60	4.94	0.97	-	0.005	0.002	-	0.6
2010	6.88	5.14	0.127	12.9	0.79	0.20	0.03	0.99	0.66	5.18	1.05	-	0.007	0.002	-	1.1
2011	6.85	4.79	0.138	11.4	0.67	0.16	0.02	1.02	0.68	4.97	0.83	-	0.004	0.003	-	0.9
2012	6.61	4.21	0.139	9.49	0.38	0.17	0.09	0.95	0.63	4.42	0.67	-	0.005	0.002	-	1.2
2013	6.76	4.61	0.134	11.1	0.57	0.13	0.02	1.00	0.65	4.92	0.82	1.9	0.008	0.002	-	1.0
2014	6.69	4.66	0.142	11.2	0.58	0.19	0.01	1.30	0.78	4.87	0.78	1.9	0.009	0.002	-	1.2
2015	6.63	4.29	0.124	10.5	0.48	0.20	0.01	1.01	0.66	4.57	0.76	1.9	0.006	0.003	-	0.8

Table 6.5(17) Annual mean values of each parameters from 2005 to 2015 at Komarovka River (Russia)

	Mandatory Parameters : 4 times/year											Mandatory Parameters : Once/year				
	pH	EC	Alkalinity	SO_4^{2-}	NO_3^-	Cl^-	NH_4^+	Na^+	K^+	Ca^{2+}	Mg^{2+}	Transparency	PO_4^{3-}	NO_2^-	DOC	COD
		mS/m	meq/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	m	mg/L	mg/L	mg/L	mg/L
2005	7.24	8.75	0.495	11.18	0.33	3.09	0.15	3.34	0.60	9.07	2.25	-	*1	*1	-	-
2006	7.08	8.37	0.428	9.02	0.26	3.12	0.08	3.10	0.57	8.51	2.27	-	0.014	0.003	-	-
2007	7.15	8.68	0.395	10.51	0.26	4.03	0.09	3.39	0.65	8.04	2.34	-	0.010	0.025	-	4.3
2008	7.22	8.68	0.391	12.08	0.52	3.06	0.09	3.80	0.62	8.14	2.08	-	0.030	0.053	-	3.6
2009	7.02	8.64	0.351	12.59	1.11	3.69	0.22	3.57	0.60	8.21	2.07	-	0.041	0.067	-	4.4
2010	6.99	8.32	0.445	8.62	0.99	3.33	0.19	3.21	0.46	8.29	2.12	-	0.013	0.036	-	4.0
2011	7.09	8.86	0.405	12.67	1.63	3.11	0.27	3.88	0.74	8.58	2.22	-	0.010	0.018	-	4.4
2012	6.99	8.54	0.384	9.61	1.33	3.88	0.45	3.53	0.79	7.88	2.37	-	0.015	0.038	-	5.1
2013	6.84	8.45	0.372	11.87	1.27	3.61	0.16	3.44	0.64	7.71	2.66	-	0.006	0.027	-	4.1
2014	6.91	8.45	0.368	11.76	2.81	3.16	0.14	3.52	0.72	8.29	2.27	-	0.005	0.033	-	4.6
2015	6.98	8.75	0.404	13.46	1.27	3.06	0.12	3.45	0.58	8.73	2.20	-	0.005	0.026	-	4.4

Table 6.5(18) Annual mean values of each parameters from 2002 to 2015 at Vachiralongkorn Dam (Ban Pong Chang) (Thailand

	Mandatory Parameters : 4 times/year											Mandatory Parameters : Once/year				
	pH	EC	Alkalinity	SO_4^{2-}	NO_3^-	Cl^-	NH_4^+	Na^+	K^+	Ca^{2+}	Mg^{2+}	Transparency	PO_4^{3-}	NO_2^-	DOC	COD
		mS/m	meq/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	m	mg/L	mg/L	mg/L	mg/L
2002	7.52	12.1	0.625	1.15	0.04	0.89	*1	1.14	1.01	13.3	2.98	5.3	0.02	*1	-	4.0
2003	7.45	10.8	0.625	1.29	0.01	0.84	*1	1.14	0.97	16.2	3.52	5.0	*1	*1	-	5.8
2004	7.77	11.5	1.050	1.27	0.20	0.98	0.05	1.18	0.97	15.7	3.26	5.6	0.02	0.010	-	7.5
2005	7.33	11.2	1.276	1.47	0.11	1.05	0.01	1.26	1.02	15.8	3.12	3.6	0.01	0.010	-	<4.0*1
2006	7.21	10.4	1.125	1.31	0.20	0.85	0.06	1.14	1.03	16.2	3.17	4.6	<0.01*1	<0.01*1		10.0
2007	7.80	10.4	1.090	1.17	0.20	0.75	0.01	1.21	0.96	16.5	3.26	5.1	0.01	0.010	-	5.2
2008	7.71	10.6	1.178	1.11	0.05	0.75	<0.01*1	1.16	0.97	16.3	3.23	4.4	<0.01*1	0.010	-	6.8
2009	7.79	10.8	1.111	1.33	0.06	0.74	-	1.16	0.95	16.1	3.39	4.4	0.01	<0.01*1	-	-
2010	7.70	11.8	1.176	1.55	0.06	0.83	0.01	1.24	1.01	16.6	3.62	3.6	0.01	0.010	-	4.7
2011	7.38	12.8	1.178	1.43	0.07	0.82	0.01	1.22	1.04	17.9	3.70	3.0	0.01	<0.01*1	-	5.7
2012	7.32	11.8	1.150	1.22	0.19	0.94	0.03	1.21	1.12	16.8	3.53	3.2	0.01	-	-	8.5
2013	7.67	13.5	1.186	1.10	0.10	0.87	0.01	1.21	1.02	17.0	3.81	2.8	0.01	-	-	-
2014	7.55	5.6	1.138	1.64	0.09	0.88	0.04	1.20	0.95	16.7	3.29	3.8	0.01	-	-	-
2015	7.50	5.3	1.066	1.44	0.11	0.93	0.04	1.18	0.86	15.8	3.10	3.0	0.01	-	-	-

- : Items were not analyzed.

*1: Less than determination/detection limit.

Table 6.5(19) Annual mean values of each parameters from 2002 to 2015 at Vachiralongkorn Dam (Ban Pang Pueng) (Thailand)

	Mandatory Parameters : 4 times/year											Mandatory Parameters : Once/year				
	pH	EC	Alkalinity	SO_4^{2-}	NO_3^-	Cl^-	NH_4^+	Na^+	K^+	Ca^{2+}	Mg^{2+}	Transparency	PO_4^{3-}	NO_2^-	DOC	COD
		mS/m	meq/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	m	mg/L	mg/L	mg/L	mg/L
2002	7.31	12.0	0.633	1.24	0.06	0.90	*1	1.19	0.99	13.3	2.90	5.5	0.03	*1	-	3.0
2003	7.87	10.5	0.590	1.41	0.01	0.84	*1	1.17	0.98	16.2	2.94	5.8	*1	*1	-	7.3
2004	7.24	11.1	1.005	1.54	0.20	0.95	0.05	1.21	1.03	16.0	2.83	8.1	0.02	0.010	-	5.0
2005	6.98	11.2	1.015	1.29	0.11	1.15	0.03	1.52	1.02	16.2	2.98	4.4	0.14	0.010	-	*1
2006	7.12	10.0	1.046	1.44	0.20	0.83	0.03	1.14	1.04	16.2	2.64	5.0	<0.01*1	<0.01*1		11.0
2007	7.84	10.2	1.050	1.25	0.20	0.70	0.01	1.13	0.98	16.8	2.98	5.3	0.01	0.010	-	4.0
2008	7.78	9.88	1.104	1.49	<0.06*1	0.75	<0.01*1	1.17	1.00	15.7	2.49	4.4	<0.01*1	0.010	-	4.7
2009	7.93	10.3	1.065	1.42	0.06	0.73	-	1.14	2.04	15.9	2.79	4.6	0.01	<0.01*1	-	-
2010	7.79	11.2	1.113	1.61	0.06	0.76	0.01	1.16	0.99	16.4	2.86	4.1	0.01	0.010	-	7.1
2011	7.41	11.8	1.098	1.51	0.07	0.79	0.02	1.18	0.98	16.9	2.92	3.5	0.01	<0.01*1	-	8.4
2012	7.30	9.41	1.048	1.85	0.08	0.86	0.03	1.17	1.08	16.3	2.80	3.8	0.01	-	-	6.9
2013	7.90	11.1	1.093	1.26	0.10	0.83	0.01	1.14	1.01	16.8	2.88	4.0	0.01	-	-	-
2014	7.75	5.5	1.091	1.46	0.07	0.89	0.03	1.22	0.96	16.5	2.70	4.0	0.01	-	-	-
2015	7.87	6.9	1.076	1.41	0.10	1.01	0.01	1.40	0.87	16.3	2.72	3.4	0.01	-	-	-

Table 6.5(20) Annual mean values of each parameters from 2001 to 2015 at Hoa Binh Reservoir (Vietnam)

	Mandatory Parameters : 4 times/year											Mandatory Parameters : Once/year				
	pH	EC	Alkalinity	SO_4^{2-}	NO_3^-	Cl^-	NH_4^+	Na^+	K^+	Ca^{2+}	Mg^{2+}	Transparency	PO_4^{3-}	NO_2^-	DOC	COD
		mS/m	meq/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	m	mg/L	mg/L	mg/L	mg/L
2001	7.59	17.4	1.575	5.44	0.59	1.16	0.15	1.97	1.22	21.8	6.12	-	-	-	-	-
2002	7.88	17.1	1.613	3.90	0.46	1.35	0.21	1.70	1.16	22.5	5.49	-	-	-	-	-
2003	7.29	18.4	1.595	6.13	0.63	1.33	0.08	2.14	1.36	24.5	4.78	-	-	-	-	-
2004	6.55	19.3	1.675	4.51	1.16	1.38	0.17	2.45	1.11	27.2	4.11	-	-	-	-	-
2005	7.58	19.0	1.605	5.62	1.04	1.62	0.16	4.40	1.31	23.1	4.77	-	-	-	-	-
2006	7.22	19.1	1.605	7.71	0.87	1.41	0.12	3.62	1.46	25.2	4.87	0.7	0.005	0.006*2	-	2.2
2007	7.62	19.1	1.613	8.14	1.44	1.54	0.11	3.53	1.48	24.9	4.64	0.9	0.015	0.016*2	-	1.9*2
2008	7.73	18.3	1.533	7.36	1.04	1.65	0.04	2.33	0.91	22.9	5.01	1.5	0.021	0.025*2	-	2.2*2
2009	7.98	16.7	1.390	6.55	0.67	2.05	0.02	3.10	0.84	20.8	4.49	1.1	0.019	0.010*2	-	1.4*2
2010	7.80	17.7	1.420	7.26	1.66	2.07	0.11	4.20	1.56	23.3	2.94	1.0	0.013	0.014*2	-	0.9*2
2011	7.43	18.5	1.540	7.36	1.59	2.26	0.07	3.51	1.26	23.2	4.55	1.1	0.010	0.012*2	-	3.4*2
2012	7.10	17.7	1.518	4.67	1.52	2.13	0.12	3.59	1.39	23.1	4.25	1.0	0.010	0.016*2	-	4.3*2
2013	7.54	17.2	1.435	6.92	1.04	2.41	0.14	4.96	1.58	20.0	5.31	1.1	0.008	0.006*2	-	3.7*2
2014	7.65	17.2	1.500	5.13	0.80	1.64	0.02	3.05	1.31	22.3	4.50	1.1	0.019	0.012*2	-	3.5*2
2015	7.60	17.9	1.430	7.01	1.47	0.95	0.02	2.93	1.06	24.4	3.65	1.2	0.045*2	0.009*2	-	3.5*2

- : Items were not analyzed.

*1: Less than determination/detection limit.

*2: Survayed four times a year.

CHAPTER 7

Catchment-scale Monitoring

7. Catchment-scale Monitoring

7.1 Method

The Guideline for Catchment-scale Monitoring in East Asia (2010) recommended to measure input from atmosphere (total deposition), output from the catchment (discharge from the stream), and some biogeochemical processes in selected small forest catchments to discuss relationship between seasonal or annual changes in stream water chemistry and those in atmospheric deposition. Material/elemental input-output budget in the catchment can be calculated based on the atmospheric deposition chemistry, stream water chemistry, and water balance. Based on the catchment-scale dataset, the simulation model on biogeochemical cycles is expected to be developed.

7.1.1 Field Operation

Recommended methods and proposed frequency of major monitoring items in the field are summarized in Table 7.1. The existing EANET technical documents can be referred in the field operation for the items. Moreover, the existing EAENET data on wet and dry deposition collected at the nearest the monitoring sites can be used to calculate total deposition. Similarly, the existing EANET data on soil and vegetation can be referred as the relevant information on biogeochemical processes.

Table 7.1 Methods and frequency of major monitoring items

Items to be monitored		Recommended methods	Proposed frequency
Input (total deposition)	Precipitation amount	Rain gauge	Continuously or daily
	Wet deposition[*1]	Wet-only sampling	Daily or weekly
		Bulk sampling (when electricity is not available)	Weekly or biweekly
	Dry deposition[*1]	Inferential method: based on Filter pack data and Meteorological data	Weekly (for filter pack method)
		Automatic monitors (alternative for air concentration)	Continuously
	Total deposition	Wet + Dry	Biweekly or monthly
		Throughfall–Stemflow method (when electricity is not available)	Biweekly

Output (discharge from the stream)	Water discharge	Weir	Continuously or biweekly
		H-Q curve method (when a weir is not available)	
	Stream water chemistry	Periodical collection of stream water	Weekly or biweekly
		Intensive sampling	During heavy-rain or snow-melting events
	Chemical discharge	Calculation based on the water flux and the chemical concentration	Biweekly, monthly or annual
Soil	Soil chemistry[*1]	Collection from the permanent plots	Once for several years
Vegetation	Plant growth[*1]	Measurement of tree size (diameter at breast height, height of tree and name of species)	Once for several years

Note. *1, The relevant EANET data can be referred.

7.1.2 Laboratory Operation

Table 7.2 Chemical parameters for the respective items

Items	Parameters to be measured
Rainwater samples	<u>Mandatory:</u> SO_4^{2-}, NO_3^-, Cl^-, NH_4^+, Ca^{2+}, Mg^{2+}, Na^+, K^+, Electric conductivity (EC), and pH <u>Optional:</u> Total organic nitrogen (TON), Total organic carbon (TOC)
Stream water samples	<u>Mandatory:</u> SO_4^{2-}, NO_3^-, Cl^-, NH_4^+, Ca^{2+}, Mg^{2+}, Na^+, K^+, Electric conductivity (EC), pH, and Alkalinity (Gran's ANC and/or pH 4.8 endpoint) <u>Optional:</u> SiO_2, TON, TOC, Total dissolved Al
Air concentrations (by filter pack method)	Cations: NH_4^+, Ca^{2+}, Mg^{2+}, Na^+, and K^+, Anions: SO_4^{2-}, NO_3^-, and Cl^-, Gasses: SO_2, HNO_3, HCl, and NH_3
Soil chemistry	pH (H_2O), pH (KCl), Exchangeable Base Cations (Ca, Mg, K and Na), Exchangeable Acidity, Al and H, Effective Cation Exchangeable Capacity

Chemical parameters to be measured for the respective monitoring items were shown in Table 7.2. Basically, the parameters are same as those for other EANET monitoring items. The existing EANET technical documents can also be referred in the laboratory operation.

7.1.3 Data Management

Data quality was controlled and assured according to the EANET QA/QC program. In particular, for rainwater and stream water samples, ion balance (R_1) and conductivity check (R_2) can be applied to check the analytical results as same as monitoring on wet deposition and inland aquatic environment.

The data should be evaluated on a catchment scale. The input- output budget should be calculated based on the atmospheric deposition chemistry, stream water chemistry, and water balance to outline the material/elemental cycles in the catchment. The standard units should be used for the input and output. Recommended basic units for evaluation is as follows:

- Water flux (precipitation amount and stream water discharge): mm
- Chemical concentration: $mol_c\ L^{-1}$ (ex. $\mu mol_c\ L^{-1}$ or $mmol_c\ L^{-1}$)
- Ion flux (deposition, discharge or soil/vegetation flux): $mol_c\ ha^{-1}$ or $mol_c\ m^{-2}$
- Elemental flux for N and S: $kg\ ha^{-1}\ y^{-1}$ or $g\ m^{-2}\ y^{-1}$

Based on the compiled data with the standard units on a water-year basis, initial evaluations should be done for the following items:

- Water balance on a catchment-scale: input, output and possible evapotranspiration
- Material/elemental balance on a catchment-scale: input-output budget

Dataset should be submitted to Network Center after an initial evaluation is done by the national center. Since the catchment-scale data should be evaluated based on the water year, the dataset should be compiled on a water-year basis of the respective catchment sites.

7.1.4 Monitoring sites

Several EANET countries have the experience on catchment-scale analysis as research activities and/or national monitoring activities. Many research projects were conducted by universities and institutes in China and Japan. The case studies have been conducted in Japan, Malaysia and Thailand as the EANET joint research projects. Moreover, the new site in the Philippines is under preparation. Some countries may have an intention to start the regular catchment-scale monitoring as a part of the EANET activities.

Japan submitted the data of the water year 2014-2015, based on the regular catchment-scale monitoring in the Lake Ijira Catchment, which was started in 2007. Site characteristics and the survey outline were shown in Table 7.3 and 7.4, respectively. Map of the Lake Ijira catchment site is shown in Figure 7.1.

Table 7.3 Site for the catchment-scale monitoring

Country	Site name (and name of river/stream)	Catchment area (km^2)	Geology and soil type	Coverage of forest (%) and major species	Start year
Japan	Lake Ijira Catchment (Kamagatani River)	2.98	Chert Cambisols (brown forest soils)	99.6%, Japanese cedar (*Cryptomeria japonica),* Japanese cypress (*Chamaecyparis obtusa),* and Japanese red pine (*Pinus densiflora)*	November 2007 (the water year here: from November to the next October)

Table 7.4 Survey outline for the catchment-scale monitoring

Site	Items	Detailed items
Lake Ijira Catchment	Input (total deposition)	1. Precipitation amount (at 3 points)[*1] 2. Wet deposition[*1] 3. Dry deposition (Air concentration measurement for Inferential method)[*1] 4. Total deposition (calculated as wet+dry)
	Output (chemical discharge from the stream)	1. Water discharge (by H-Q curve method) 2. Stream water chemistry: biweekly 3. Chemical discharge
	Soil[*2]	Soil chemical properties
	Vegetation[*2]	1. Plant growth (field measurement) 2. Species composition (field measurement)

Note: [*1], The EANET data collected at the Ijira deposition monitoring site will be used; *2, The EANET data collected in the Lake Ijira soil and vegetation monitoring plots will be referred.

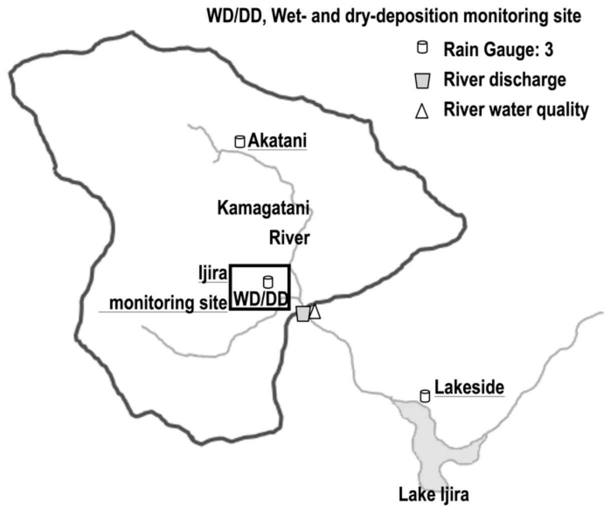


Figure 7.1 Sampling design at the Lake Ijira catchment site

The area surrounded by a bold line indicates the catchment area for calculation of the material budget.

7.2 Results of Monitoring

The list of the dataset submitted to NC was shown in Table 7.5.

Table 7.5 List of the dataset submitted for Data Report 2015

Site	Items	Detailed items	Water year
Lake Ijira Catchment	Input (total deposition) *1	1. Precipitation amount (at 3 points) *2 Calculation of total deposition is still under discussion for precise estimation.	2014-2015*3
	Output (chemical discharge from the stream)	1. Water discharge 2. Stream water chemistry: biweekly 3. Chemical discharge	2014-2015*3

Note. *1, The data of wet deposition and dry deposition (air concentration) in the Ijira deposition monitoring site for the same period can be found in Data Reports 2014 and 2015; *2, Precipitation data at 3 points (approx. 260, 140 and 110 m above sea level) including the Ijira deposition monitoring site were submitted; *3, The water year was defined as the period from November to October in the following year. Soil chemical properties, plant growth and understory-species composition are surveyed in 2011 as a part of soil and vegetation monitoring.

The submitted data above were summarized in the following tables.

Table 7.6: Water balance in the catchment

Table 7.7: Stream water chemistry

Table 7.8: Periodic chemical discharges from the stream

Table 7.9: Annual chemical discharges from the stream

Table 7.6 Water balance in the catchment: Lake Ijira Catchment

Fluxes[*1]	Points	Water year[*2]
		2014-2015
Input by precipitation, mm y^{-1}	Akatani (260 m)	3458
	Ijira monitoring site (140 m)	3161
	Lakeside (110 m)	3131
	Mean	3250
Output by the stream, mm y^{-1}	Outlet of Kamagatani River	2364
Runoff rate, %		73

Note. [*1], Fluxes were calculated based on the catchment area, 2.98 km^{-2}, at the outlet of Kamagatani River; [*2], The water year: from November to the next October.

Table 7.7 Stream water chemistry: Lake Ijira Catchment (Water year 2014-2015)

Collection date	pH	EC	Gran's ANC*1	SO_4^{2-}	NO_3^-	Cl^-	Na^+	Ca^{2+}	Mg^{2+}	K^+	NH_4^+*2,	TOC	SiO_2	Water level, m
		mS m^{-1}	$\mu mol_c\ L^{-1}$									mg-C L^{-1}	mg-SiO_2 L^{-1}	
2014/11/14	7.05	4.04	131	138	21.6	61.2	90.1	122	115	5.9	< 3.0	0.2	9.5	0.21
2014/11/28	7.00	4.27	136	149	20.4	57.9	94.3	131	122	6.1	< 3.0	0.2	9.5	0.20
2014/12/15	6.99	3.78	113	129	27.0	54.1	80.9	117	108	5.3	< 3.0	0.3	8.4	0.27
2014/12/24	6.97	3.75	107	131	26.1	58.3	84.3	111	104	5.3	< 3.0	0.2	9.0	0.28
2014/1/15	7.06	3.76	115	128	23.5	59.9	86.8	114	108	5.1	< 3.0	0.3	9.0	0.30
2014/1/30	7.03	3.74	109	125	23.8	55.5	81.0	111	105	5.0	< 3.0	0.3	8.8	0.34
2014/2/13	7.02	4.01	116	145	23.1	61.1	86.0	122	115	5.0	< 3.0	0.3	8.8	0.28
2014/2/27	7.03	3.96	119	141	25.1	59.6	86.0	117	112	5.1	< 3.0	0.2	8.9	0.23
2015/3/13	6.97	3.94	115	143	24.0	62.3	87.1	121	115	5.1	< 3.0	0.7	8.0	0.25
2015/3/25	7.02	3.72	115	130	22.2	59.8	82.6	109	104	5.2	< 3.0	0.4	8.4	0.25
2015/4/14	7.06	3.99	136	127	22.4	53.0	83.0	122	114	5.9	< 3.0	0.6	8.1	0.24
2015/4/30	7.11	3.91	132	122	20.5	55.6	84.3	118	109	6.0	< 3.0	0.4	8.7	0.20
2015/5/15	7.09	4.04	138	128	24.7	54.1	86.3	127	117	6.8	< 3.0	0.4	8.5	0.20
2015/5/29	7.07	4.26	158	139	18.7	55.9	97.0	134	122	10.2	4.3	0.5	8.8	0.17
2015/6/15	7.09	4.24	160	136	21.1	55.0	87.4	133	121	7.5	< 3.0	0.4	8.7	0.20
2015/6/29	7.03	3.75	132	113	26.6	54.5	79.0	113	105	6.9	< 3.0	0.4	8.5	0.27
2015/7/15	7.11	4.05	139	125	25.3	55.1	92	134	122	8.2	< 3.0	0.4	9.2	0.23
2015/7/31	6.91	3.62	126	112	17.3	57.6	81.5	106	98	7.2	< 3.0	0.7	9.3	0.20
2015/8/10	6.99	4.07	137	131	24.9	58.0	89.2	122	112	8.0	< 3.0	0.4	9.3	0.16
2015/8/31	6.92	3.96	127	120	38.6	50.5	86.9	126	112	7.5	< 3.0	0.4	8.8	0.22
2015/9/15	7.08	3.57	119	104	23.5	53.3	85.5	111	103	6.5	< 3.0	0.3	8.9	0.22
2015/9/30	7.06	3.89	133	124	23.0	53.5	92.5	126	116	6.9	< 3.0	0.3	9.0	0.19
2015/10/15	7.07	3.93	131	137	23.2	57.2	91.8	124	114	6.0	< 3.0	0.2	8.8	0.20
2015/10/29	6.98	4.25	137	156	22.8	60.8	99.4	136	125	6.8	< 3.0	0.4	8.8	0.17

Note. The water year was difined as the period from November to October in the following year. *1, The data of the pH 4.8 endpoint alkalinity are also available. *2, The data was processed according to the determination limit decided by the data quality objectives (DQO) of EANET.

Table 7.8 Periodic chemical discharges from the stream: Lake Ijira Catchment (Water year 2014-2015)

Start date	End date	pH4.8	Gran's ANC	SO_4^{2-}	NO_3^-	Cl^-	Na^+	Ca^{2+}	Mg^{2+}	K^+	NH_4^+	H^+	TOC	SiO_2	Periodic discharge,
						kmol$_c$ ha^{-1}							kg-C ha^{-1}	kg-SiO_2 ha^{-1}	mm
2014/10/30	2014/11/14	0.09	0.08	0.08	0.01	0.04	0.05	0.07	0.07	0.004	ND	5.72E-05	0.16	5.76	60
2014/11/14	2014/11/28	0.07	0.06	0.07	0.01	0.03	0.04	0.06	0.06	0.003	ND	4.45E-05	0.10	4.45	47
2014/11/28	2014/12/15	0.13	0.11	0.13	0.02	0.05	0.08	0.11	0.11	0.005	ND	9.20E-05	0.25	8.24	92
2014/12/15	2014/12/24	0.12	0.10	0.12	0.02	0.05	0.08	0.11	0.10	0.005	ND	9.88E-05	0.22	8.18	94
2014/12/24	2015/1/15	0.14	0.12	0.14	0.03	0.07	0.09	0.12	0.12	0.006	ND	1.10E-04	0.24	9.89	110
2015/1/15	2015/1/30	0.19	0.17	0.19	0.04	0.09	0.13	0.17	0.16	0.008	ND	1.36E-04	0.40	13.41	151
2015/1/30	2015/2/13	0.25	0.21	0.25	0.04	0.11	0.16	0.22	0.21	0.009	ND	1.77E-04	0.53	16.33	186
2015/2/13	2015/2/27	0.14	0.12	0.14	0.02	0.06	0.08	0.12	0.11	0.005	ND	9.37E-05	0.25	8.72	99
2015/2/27	2015/3/13	0.12	0.11	0.13	0.02	0.06	0.08	0.11	0.10	0.005	ND	9.08E-05	0.40	7.68	91
2015/3/13	2015/3/25	0.15	0.13	0.16	0.03	0.07	0.10	0.13	0.13	0.006	ND	1.23E-04	0.62	9.59	117
2015/3/25	2015/4/14	0.15	0.13	0.14	0.02	0.06	0.09	0.12	0.12	0.006	ND	1.02E-04	0.49	8.87	107
2015/4/14	2015/4/30	0.21	0.19	0.17	0.03	0.08	0.12	0.17	0.16	0.008	ND	1.18E-04	0.63	11.72	139
2015/4/30	2015/5/15	0.07	0.06	0.06	0.01	0.03	0.04	0.06	0.05	0.003	ND	3.65E-05	0.17	3.9	46
2015/5/15	2015/5/29	0.07	0.06	0.06	0.01	0.02	0.04	0.05	0.05	0.004	0	3.57E-05	0.17	3.63	42
2015/5/29	2015/6/15	0.10	0.09	0.08	0.01	0.03	0.05	0.07	0.07	0.005	0	4.71E-05	0.23	4.9	55
2015/6/15	2015/6/29	0.13	0.12	0.10	0.02	0.05	0.07	0.10	0.09	0.006	ND	7.12E-05	0.31	7.24	84
2015/6/29	2015/7/15	0.23	0.21	0.18	0.04	0.08	0.13	0.19	0.18	0.012	ND	1.31E-04	0.61	13.7	154
2015/7/15	2015/7/31	0.43	0.37	0.33	0.06	0.16	0.24	0.34	0.31	0.022	ND	2.82E-04	1.55	26.0	282
2015/7/31	2015/8/10	0.03	0.03	0.03	0.00	0.01	0.02	0.02	0.02	0.002	ND	2.40E-05	0.11	2.0	22
2015/8/10	2015/8/31	0.11	0.10	0.09	0.02	0.04	0.07	0.09	0.08	0.006	ND	8.19E-05	0.30	6.73	74
2015/8/31	2015/9/15	0.19	0.16	0.15	0.04	0.07	0.11	0.16	0.14	0.009	ND	1.31E-04	0.48	11.6	131
2015/9/15	2015/9/30	0.10	0.09	0.08	0.02	0.04	0.06	0.08	0.08	0.005	ND	6.07E-05	0.21	6.40	71
2015/9/30	2015/10/15	0.11	0.10	0.10	0.02	0.04	0.07	0.10	0.09	0.005	ND	6.84E-05	0.21	6.8	76
2015/10/15	2015/10/29	0.05	0.04	0.05	0.01	0.02	0.03	0.04	0.04	0.002	ND	3.10E-05	0.10	2.89	33

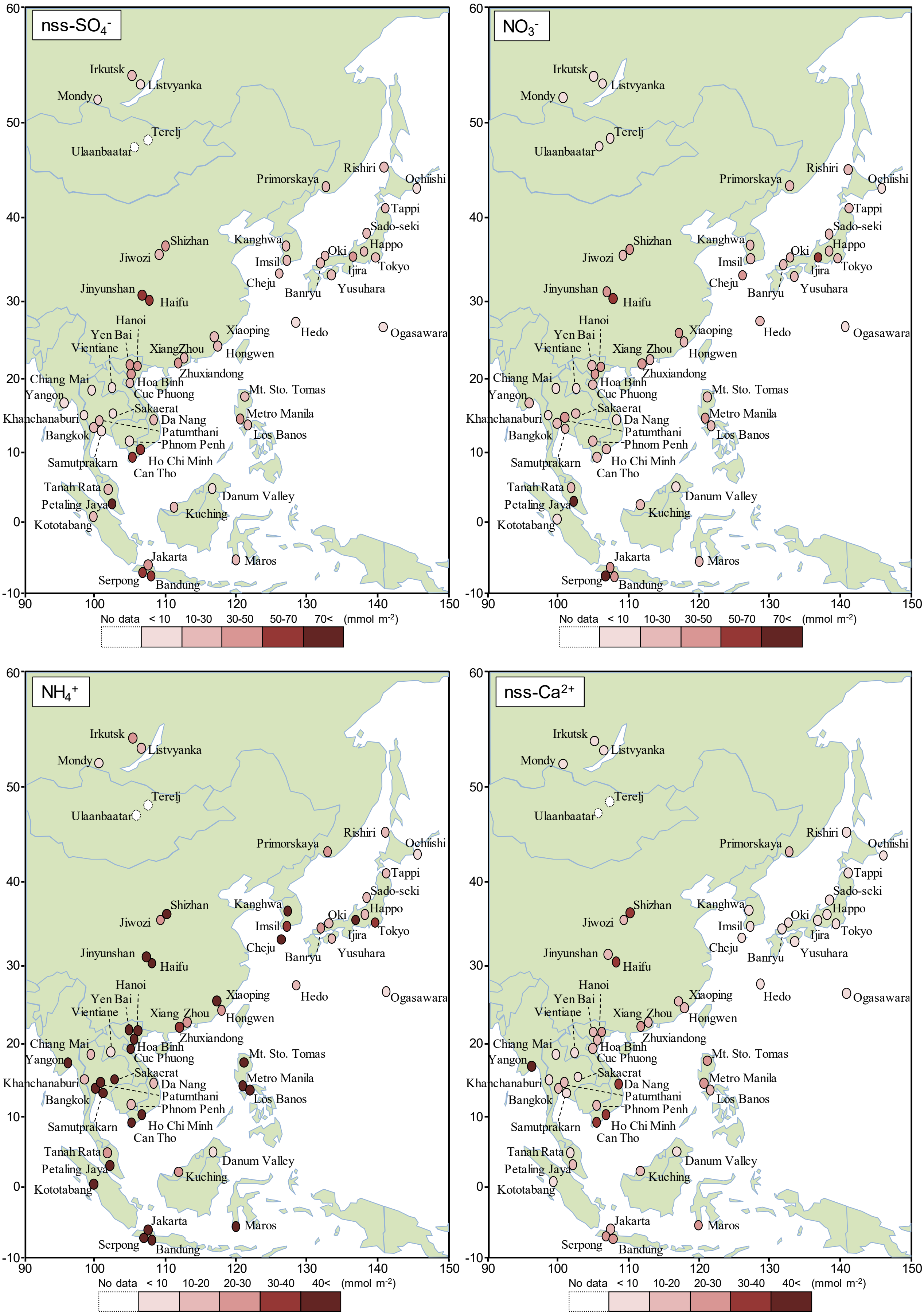
Note. Periodic chemical discharges were calculated based on the mean concentrations and the water discharge for the respective sampling intervals.

Table 7.9 Annual chemical discharges from the stream: Lake Ijira Catchment (Water year 2014-2015)

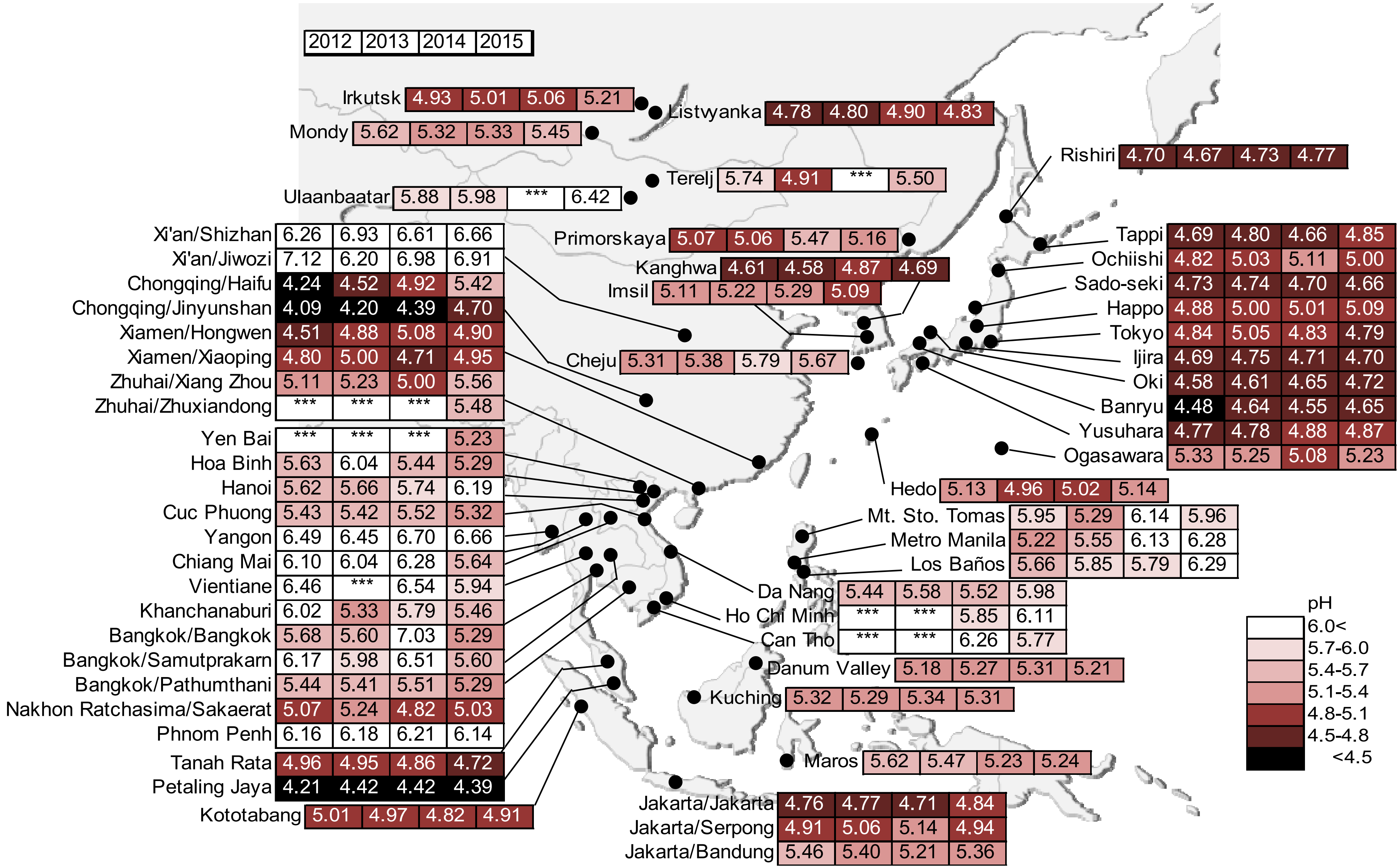
	alkalinity												
Water year	pH4.8	Gran's ANC	SO_4^{2-}	NO_3^-	Cl^-	Na^+	Ca^{2+}	Mg^{2+}	K^+	NH_4^+	H^+	TOC	SiO_2
						kmol$_c$ ha^{-1}						kg-C ha^{-1}	kg-SiO_2 ha^{-1}
2014 - 2015	3.4	3.0	3.0	0.6	1.3	2.0	2.8	2.6	0.1	0.002	0.002	8.8	209

Appendix I

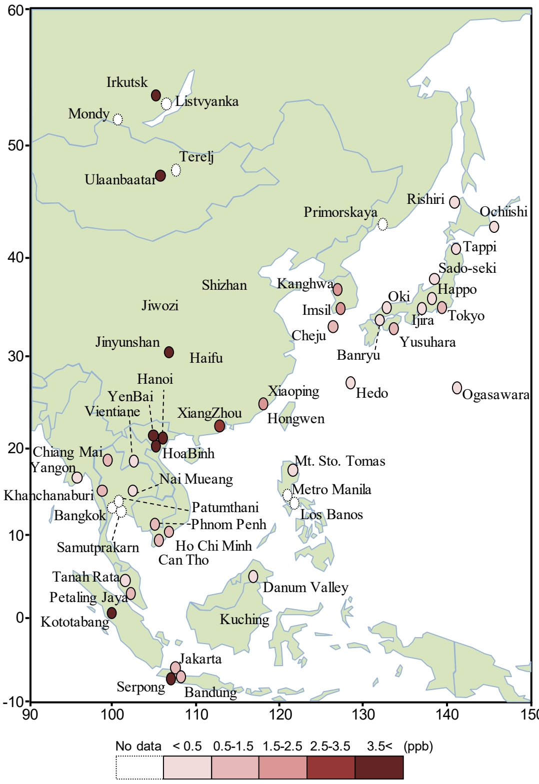
Overview of Data Report 2015



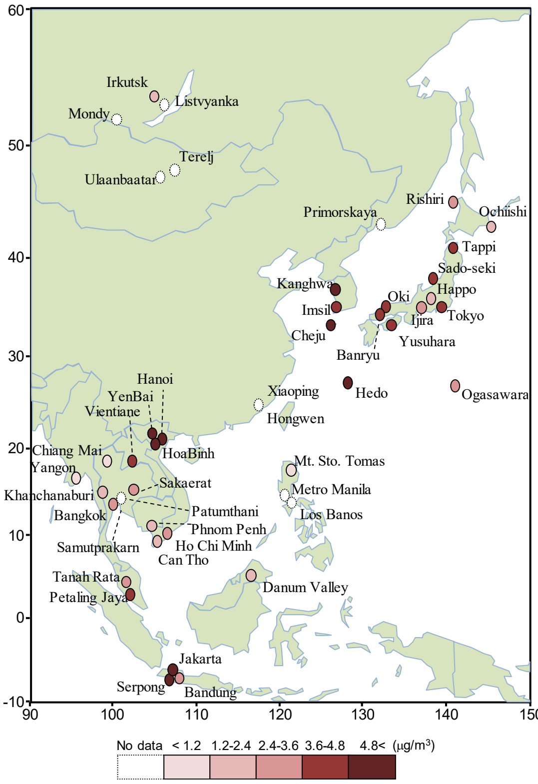
Appendix Fig. 1-1 Annual wet deposition levels of nss-SO_4^{2-}, NO_3^-, NH_4^+ and nss-Ca^{2+} in 2015



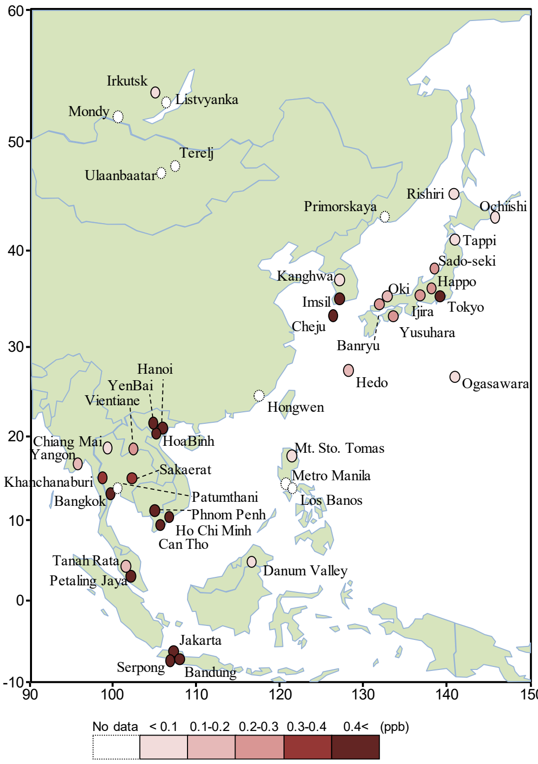
Appendix Fig. 1-2 Trends of pH in each EANET site from 2012 to 2015



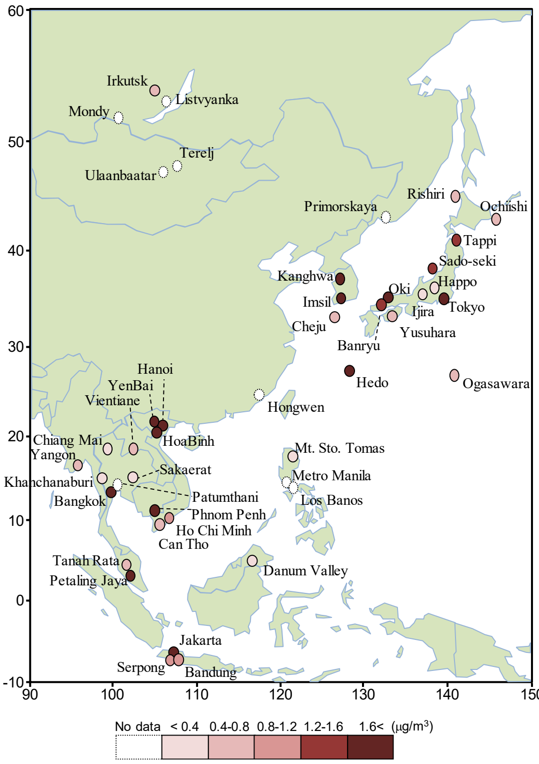
Appendix Fig. 1-3 Levels of annual SO_2 concentrations at EANET monitoring sites in 2015.



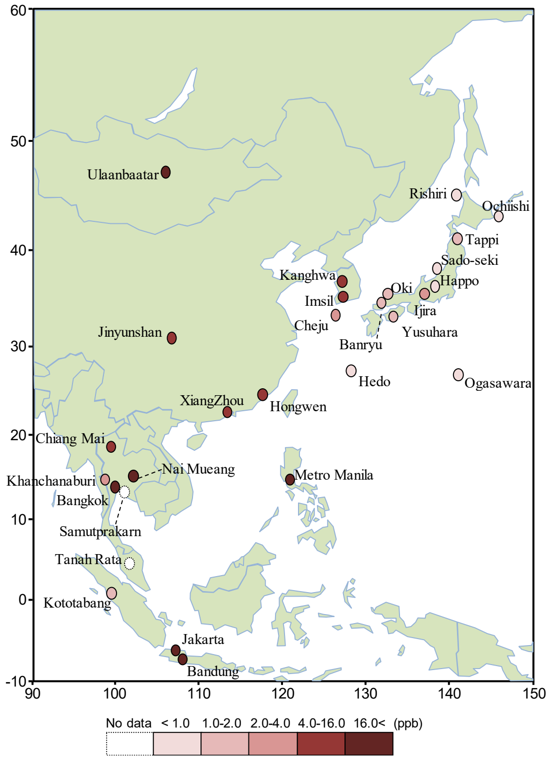
Appendix Fig. 1-4 Levels of annual particulate SO_4^{2-} concentrations at EANET monitoring sites in 2015.



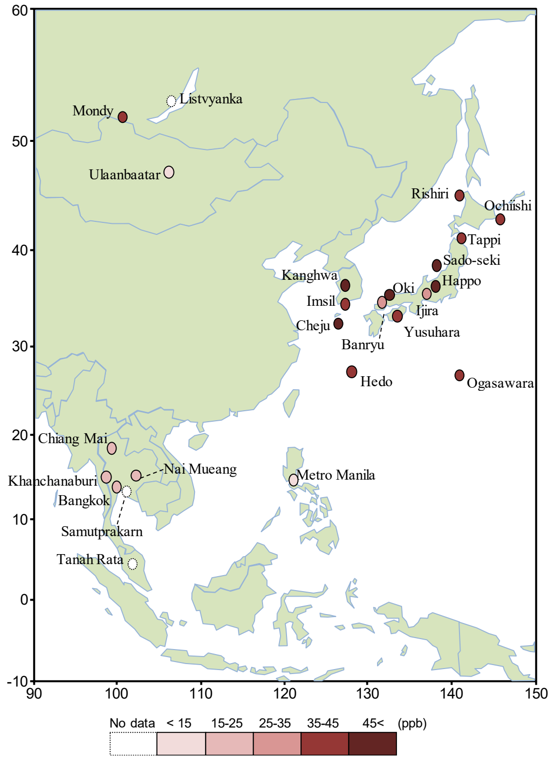
Appendix Fig. 1-5 Levels of annual HNO_3 concentrations at EANET monitoring sites in 2015.



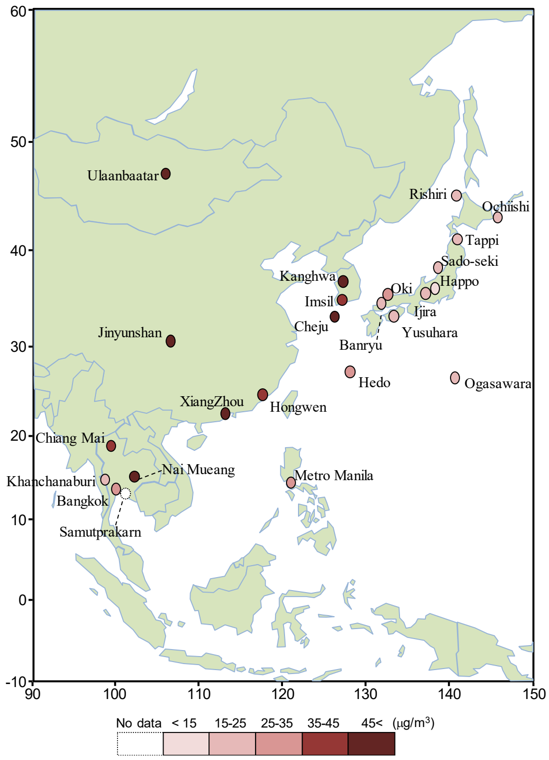
Appendix Fig. 1-6 Levels of annual particulate NO_3^- concentrations at EANET monitoring sites in 2015.



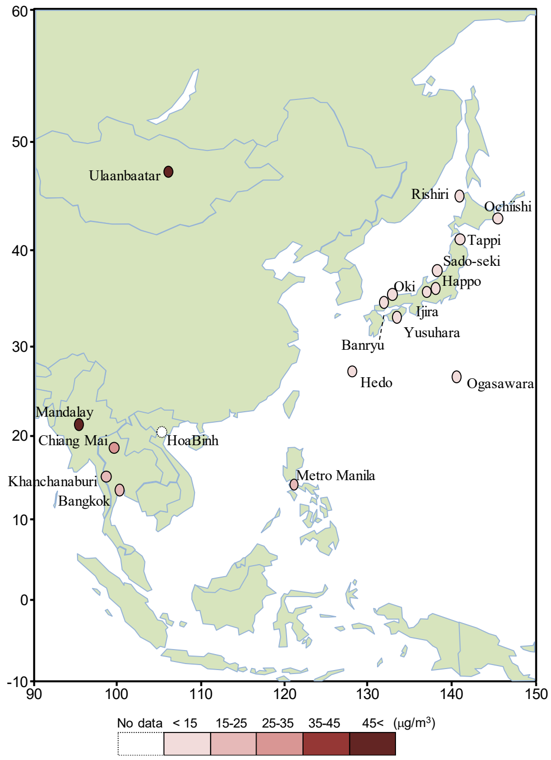
Appendix Fig. 1-7 Levels of annual NOx or NO_2 concentrations at EANET monitoring sites in 2015.



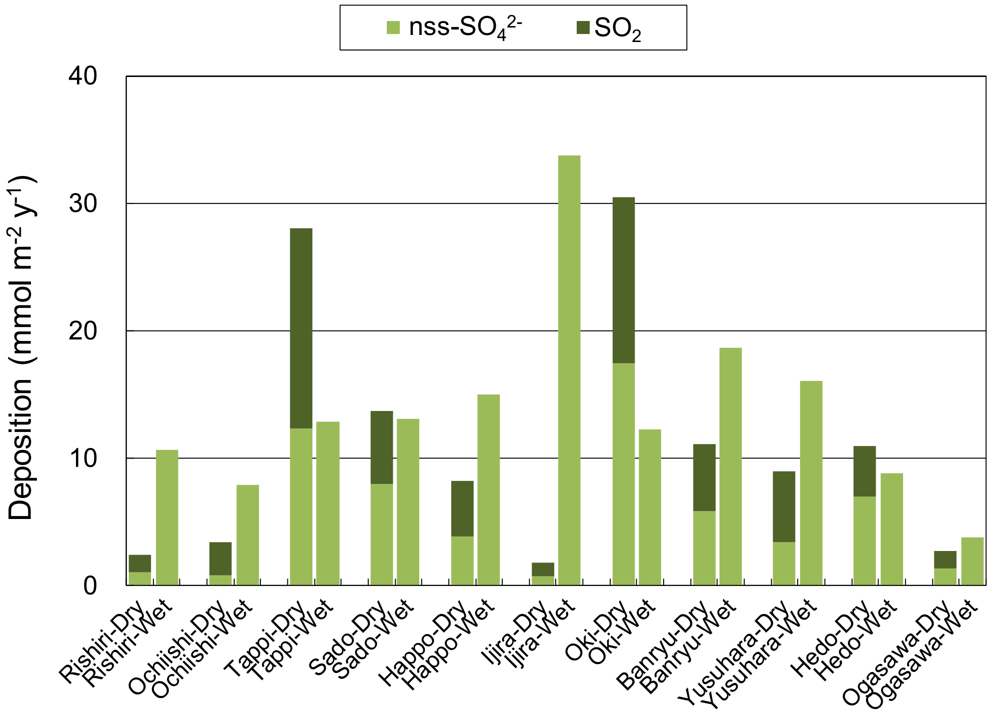
Appendix Fig. 1-8 Levels of annual O_3 concentrations at EANET monitoring sites in 2015.



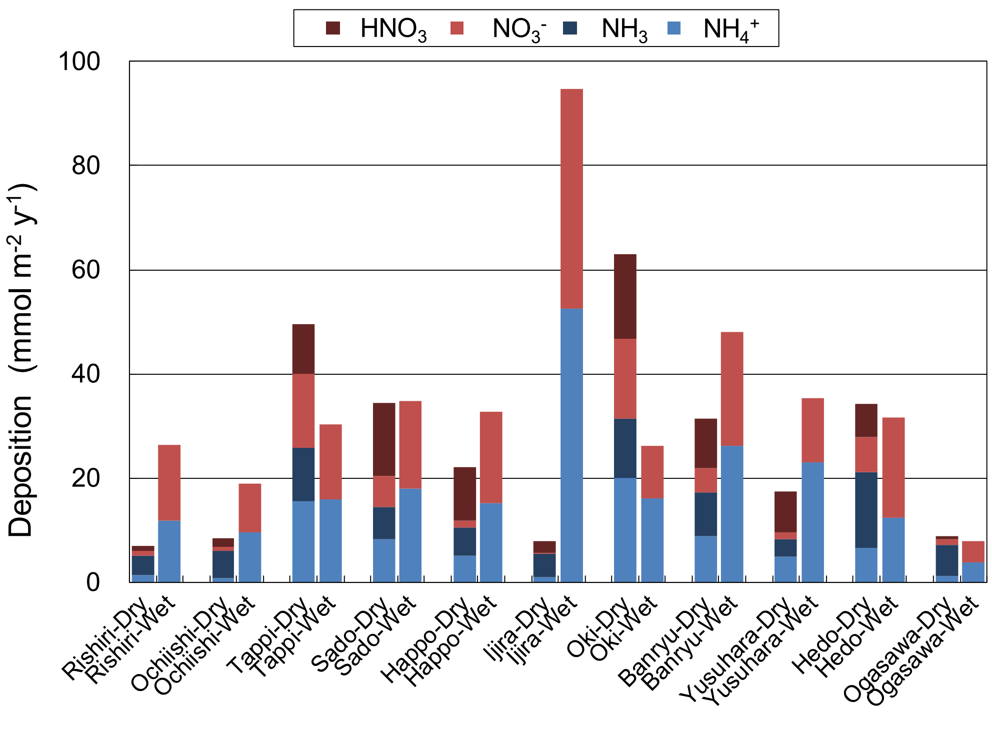
Appendix Fig. 1-9 Levels of annual PM_{10} concentrations at EANET monitoring sites in 2015.



Appendix Fig. 1-10 Levels of annual $PM_{2.5}$ concentrations at EANET monitoring sites in 2015.



Appendix Fig. 1-10 Annual dry and wet deposition amount of sulfur compounds at EANET sites in 2015.



Appendix Fig. 1-11 Annual dry and wet deposition amount of nitrogen compounds at EANET sites in 2015.

Appendix II

Meteorological Statistics at the Monitoring Sites

Appendix Table 2-1 Meteorological statistics at the monitoring site
Site : Zhuhai, China

2015

Items		1	2	3	4	5	6	7	8	9	10	11	12
Temperature (ºC)	monthly mean	15.9	17.3	19.7	23.0	27.4	29.9	29.2	29.5	28.5	26.0	23.6	17.3
	max.daily mean	19.3	19.9	22.0	26.4	30.5	33.3	32.3	33.0	31.5	29.0	26.4	20.1
	min.daily mean	13.6	15.5	18.1	20.8	25.5	27.5	26.9	27.1	26.4	23.6	21.7	15.4
Relative humidity (%)	monthly mean	71	79	89	80	87	80	80	78	80	76	77	78
	max.daily mean	--	--	--	--	--	--	--	--	--	--	--	--
	min.daily mean	27	25	57	20	46	46	48	38	43	32	32	30
Mean wind speed (m/s)		2.1	2.5	2.4	2.5	2.7	2.9	2.6	2.3	2.7	2.6	2.6	2.4
Most frequent wind direction (bearings)		ENE	ESE	ESE	SE	SW	SW	SW	ESE	ESE	ESE	ESE	NNW
Precipitation amount (mm/month)		39	34	23	51	458	248	258	133	114	286	7	70
Sunshine duration (hours/month)		208	81	49	184	129	263	201	231	219	184	155	83
Solar radiation (MJ/m^2/month)		--	--	--	--	--	--	--	--	--	--	--	--

Appendix Table 2-2 Meteorological statistics at the monitoring site
Site : Serpong, Indonesia

2015

Items		1	2	3	4	5	6	7	8	9	10	11	12
Temperature (ºC)	monthly mean	26.2	26.1	26.7	27.1	27.6	27.7	27.5	28.1	27.7	28.7	27.8	27.1
	max.daily mean	34.2	35.0	35.8	35.9	35.9	35.9	35.4	36.2	35.7	39.7	34.4	35.9
	min.daily mean	22.1	20.7	22.2	22.7	22.0	20.9	20.2	21.6	20.6	21.3	23.4	22.0
Relative humidity (%)	monthly mean	87	88	86	85	82	80	74	67	70	70	81	84
	max.daily mean	98	99	98	97	97	98	96	95	94	97	98	98
	min.daily mean	51	47	50	50	39	42	34	41	36	33	54	42
Mean wind speed (m/s)		0.2	0.1	0.2	0.2	0.1	0.2	0.3	0.3	0.3	0.5	0.2	0.0
Most frequent wind direction (bearings)		W	WSW	WSW	WSW	E	ENE	W	ENE	E	ENE	W	W
Precipitation amount (mm/month)		345	355	312	173	144	106	--	43	41	--	160	92
Sunshine duration (hours/month)		--	--	--	--	--	--	--	--	--	--	--	--
Solar radiation (MJ/m^2/month)		--	--	--	--	--	--	--	--	--	--	--	--

Appendix Table 2-3 Meteorological statistics at the monitoring site
Site : Bandung, Indonesia

2015

Items		1	2	3	4	5	6	7	8	9	10	11	12
Temperature (ºC)	monthly mean	23.5	26.8	23.7	24.1	24.5	24.5	24.4	24.6	24.9	25.5	24.4	24.1
	max.daily mean	29.8	32.6	30.4	30.7	32.3	33.3	31.8	33.7	33.2	34.3	33.3	30.8
	min.daily mean	19.7	22.2	19.6	19.7	18.4	18.3	17.8	17.7	18.3	19.3	20.2	20.2
Relative humidity (%)	monthly mean	88	88	89	89	85	82	79	77	74	72	88	90
	max.daily mean	100	96	100	100	100	100	96	97	99	97	100	100
	min.daily mean	62	65	63	63	52	52	48	34	36	33	46	59
Mean wind speed (m/s)		2.2	0.5	1.5	1.3	0.9	1.0	1.0	1.2	1.3	1.0	0.5	1.1
Most frequent wind direction (bearings)		--	WSW	--	--	--	--	--	--	--	--	--	--
Precipitation amount (mm/month)		140	330	308	175	198	52	2	6	26	12	223	174
Sunshine duration (hours/month)		4	5	6	5	6	8	8	7	8	7	4	4
Solar radiation (MJ/m^2/month)		472	460	460	380	404	410	450	502	503	520	409	440

Appendix Table 2-4 Meteorological statistics at the monitoring site
Site : Rishiri, Japan

2015

Items		1	2	3	4	5	6	7	8	9	10	11	12
Temperature (ºC)	monthly mean	-3.3	-1.8	2.1	5.4	10.1	12.6	17.1	19.2	16.5	9.7	3.1	-0.5
	max.daily mean	2.6	3.1	5.9	9.8	16.5	15.9	22.9	22.5	20.5	15.5	12.2	6.1
	min.daily mean	-7.7	-6.2	-2.0	0.2	5.4	6.9	11.2	16.1	12.0	2.1	-2.7	-9.1
Relative humidity (%)	monthly mean	76	75	81	77	78	90	94	87	83	71	76	74
	max.daily mean	92	94	95	93	97	100	100	100	96	94	94	91
	min.daily mean	63	62	57	48	52	52	82	60	64	49	48	60
Mean wind speed (m/s)		3.1	3.6	3.1	3.0	2.3	1.9	1.5	2.0	2.2	4.1	3.2	3.4
Most frequent wind direction (bearings)		NNW	NNW	W	WNW	E	E	WNW	E	E	W	NNW	NW
Precipitation amount (mm/month)		56	53	73	60	83	116	233	30	80	142	77	63
Sunshine duration (hours/month)		--	--	--	--	--	--	--	--	--	--	--	--
Solar radiation (MJ/m^2/month)		130	202	319	452	551	435	366	492	395	225	174	101

Appendix Table 2-5 Meteorological statistics at the monitoring site
Site : Ochiishi, Japan

2015

Items		1	2	3	4	5	6	7	8	9	10	11	12
Temperature (ºC)	monthly mean	-3.7	-3.6	-0.6	2.0	6.5	8.8	12.9	14.3	13.3	9.7	4.5	-0.3
	max.daily mean	0.5	0.0	4.3	5.8	10.4	11.2	17.0	17.5	15.6	14.6	10.5	5.9
	min.daily mean	-8.0	-9.2	-3.4	-0.9	3.0	4.7	9.1	10.9	10.1	3.1	-1.1	-6.3
Relative humidity (%)	monthly mean	74	82	88	87	88	93	97	94	92	72	77	68
	max.daily mean	100	100	100	100	100	100	100	100	100	100	100	100
	min.daily mean	54	61	63	58	68	68	83	72	69	53	52	48
Mean wind speed (m/s)		8.3	9.7	8.7	7.4	7.2	6.4	5.3	5.0	5.9	10.2	8.4	7.6
Most frequent wind direction (bearings)		NNW	NNW	WSW	WSW	WSW	WSW	WSW	E	E	WSW	E	WNW
Precipitation amount (mm/month)		45	19	27	46	39	46	36	62	122	130	119	45
Sunshine duration (hours/month)		--	--	--	--	--	--	--	--	--	--	--	--
Solar radiation (MJ/m^2/month)		188	239	361	457	542	451	513	450	247	353	185	188

Appendix Table 2-6 Meteorological statistics at the monitoring site
Site : Tappi, Japan

2015

Items		1	2	3	4	5	6	7	8	9	10	11	12
Temperature (ºC)	monthly mean	0.3	0.9	4.1	8.1	12.2	15.4	19.9	21.4	18.4	12.2	8.4	3.4
	max.daily mean	4.4	4.8	9.7	16.0	15.4	18.3	24.3	25.7	20.9	16.7	14.9	10.1
	min.daily mean	-4.8	-5.4	-2.2	2.0	9.0	11.1	16.2	17.8	14.3	6.7	2.8	-4.1
Relative humidity (%)	monthly mean	83	80	86	84	90	94	95	95	90	78	85	84
	max.daily mean	93	94	97	98	98	99	100	100	99	94	98	96
	min.daily mean	71	64	69	53	69	70	77	86	71	67	70	72
Mean wind speed (m/s)		9.0	7.1	7.4	6.3	5.9	5.7	4.8	5.4	6.4	8.4	6.3	9.6
Most frequent wind direction (bearings)		W	W	W	W	E	W	W	E	W	W	W	W
Precipitation amount (mm/month)		29	21	63	123	66	207	96	154	114	59	123	41
Sunshine duration (hours/month)		--	--	--	--	--	--	--	--	--	--	--	--
Solar radiation (MJ/m^2/month)		103	201	326	444	541	516	499	480	386	270	150	83

Appendix Table 2-7 Meteorological statistics at the monitoring site
Site : Sado-seki, Japan

2015

Items		1	2	3	4	5	6	7	8	9	10	11	12
Tempera-ture (ºC)	monthly mean	2.5	3.3	6.3	11.6	16.9	19.6	23.5	24.7	20.0	14.8	11.6	6.6
	max.daily mean	9.0	11.8	13.0	19.2	23.0	23.0	30.9	28.9	22.5	20.7	17.3	12.3
	min.daily mean	-1.7	-4.0	0.0	3.2	11.7	15.0	19.0	21.1	17.1	8.9	5.6	-0.2
Relative humidity (%)	monthly mean	71	71	68	67	64	76	79	79	79	68	75	70
	max.daily mean	85	91	93	97	95	95	98	92	94	84	96	89
	min.daily mean	49	50	41	27	37	53	41	62	55	46	53	56
Mean wind speed (m/s)		7.6	6.7	6.8	4.1	4.0	3.7	3.3	3.1	3.9	5.8	5.4	6.6
Most frequent wind direction (bearings)		W	W	W	WSW	WSW	WSW	WSW	WSW	ENE	W	ENE	W
Precipitation amount (mm/month)		21	58	54	131	48	26	67	48	70	78	120	108
Sunshine duration (hours/month)		--	--	--	--	--	--	--	--	--	--	--	--
Solar radiation (MJ/m^2/month)		94	174	335	462	681	552	594	543	387	356	155	152

Appendix Table 2-8 Meteorological statistics at the monitoring site
Site : Happo, Japan

2015

Items		1	2	3	4	5	6	7	8	9	10	11	12
Tempera-ture (ºC)	monthly mean	-8.0	-8.0	-3.4	4.2	9.1	10.6	15.4	15.7	10.8	5.7	2.6	-3.5
	max.daily mean	2.1	0.3	7.0	10.2	14.5	13.2	19.6	19.4	16.0	10.9	9.6	3.0
	min.daily mean	-13.3	-15.7	-12.5	-4.9	3.1	5.7	10.4	12.2	6.7	-2.0	-6.8	-10.0
Relative humidity (%)	monthly mean	85	86	75	75	70	93	96	97	95	83	91	84
	max.daily mean	98	98	99	99	97	99	100	100	100	99	100	99
	min.daily mean	18	35	21	39	37	65	77	87	75	39	42	33
Mean wind speed (m/s)		6.5	4.8	4.7	3.4	2.6	2.4	2.0	1.7	2.1	2.9	2.3	3.7
Most frequent wind direction (bearings)		NW	S	S	S	S	SSE	SSE	SSE	SSE	SSE	SSE	NW
Precipitation amount (mm/month)		141	114	149	279	110	172	302	181	232	168	239	158
Sunshine duration (hours/month)		--	--	--	--	--	--	--	--	--	--	--	--
Solar radiation (MJ/m^2/month)		283	356	560	592	776	440	439	407	312	471	236	241

Appendix Table 2-9 Meteorological statistics at the monitoring site
Site : Ijira, Japan

2015

Items		1	2	3	4	5	6	7	8	9	10	11	12
Temperature (ºC)	monthly mean	1.9	2.6	6.5	12.8	17.8	19.4	23.5	24.8	19.9	14.6	11.3	6.3
	max.daily mean	5.0	8.6	12.4	18.1	22.4	22.6	26.9	27.9	22.9	17.3	16.0	14.6
	min.daily mean	-1.5	-1.7	-0.8	7.3	14.2	13.4	18.5	21.3	15.4	9.9	3.4	2.4
Relative humidity (%)	monthly mean	93	91	87	86	79	90	95	90	92	88	95	94
	max.daily mean	99	99	99	99	98	98	99	99	99	99	99	99
	min.daily mean	74	74	61	51	59	76	86	76	80	68	80	82
Mean wind speed (m/s)		0.4	0.4	0.5	0.5	0.5	0.3	0.3	0.3	0.3	0.4	0.3	0.4
Most frequent wind direction (bearings)		Calm	Calm	Calm	Calm	Calm	Calm	Calm	Calm	Calm	Calm	Calm	Calm
Precipitation amount (mm/month)		186	107	242	294	187	349	530	284	386	140	210	212
Sunshine duration (hours/month)		--	--	--	--	--	--	--	--	--	--	--	--
Solar radiation (MJ/m^2/month)		186	239	378	368	523	365	330	400	299	317	169	174

Appendix Table 2-10 Meteorological statistics at the monitoring site
Site : Oki, Japan

2015

Items		1	2	3	4	5	6	7	8	9	10	11	12
Temperature (ºC)	monthly mean	5.5	5.2	7.9	12.5	17.6	20.1	23.4	24.7	20.4	16.9	13.6	8.5
	max.daily mean	10.0	11.3	15.6	18.6	20.8	22.4	27.9	27.6	23.3	20.5	17.9	12.8
	min.daily mean	1.0	-0.5	0.9	5.8	13.2	16.0	18.9	21.0	18.1	11.4	8.0	4.1
Relative humidity (%)	monthly mean	81	79	79	82	81	90	93	93	91	79	86	79
	max.daily mean	98	95	99	98	98	98	99	99	99	93	98	95
	min.daily mean	70	69	63	56	62	73	80	84	71	66	72	61
Mean wind speed (m/s)		6.7	6.5	5.7	5.9	4.9	3.7	5.0	3.9	5.0	5.5	5.4	6.1
Most frequent wind direction (bearings)		N	NNW	S	S	S	S	S	S	NNE	NNE, ENE	NNE	NNE
Precipitation amount (mm/month)		55	40	97	137	54	76	59	103	174	40	113	115
Sunshine duration (hours/month)		--	--	--	--	--	--	--	--	--	--	--	--
Solar radiation (MJ/m^2/month)		--	--	--	--	--	--	--	0	99	414	190	137

Appendix Table 2-11 Meteorological statistics at the monitoring site
Site : Banryu, Japan

2015

Items	Month	1	2	3	4	5	6	7	8	9	10	11	12
Tempera-ture (ºC)	monthly mean	5.7	5.5	8.3	13.4	17.9	20.4	24.3	24.7	20.5	15.9	13.3	8.2
	max.daily mean	11.2	12.6	15.1	18.3	21.4	24.1	28.6	27.5	23.3	21.6	18.8	12.1
	min.daily mean	0.9	0.3	1.2	8.4	15.2	15.4	19.6	20.2	17.6	10.1	6.6	3.3
Relative humidity (%)	monthly mean	83	79	75	82	81	88	87	90	89	81	88	90
	max.daily mean	97	91	96	98	95	96	98	98	98	89	98	99
	min.daily mean	69	65	49	44	54	73	69	86	80	66	70	61
Mean wind speed (m/s)		3.6	3.3	2.9	2.7	2.2	2.0	2.2	2.0	2.7	2.6	2.3	2.8
Most frequent wind direction (bearings)		S	S	S	S	S	N	SSE	S	S	S	S	S
Precipitation amount (mm/month)		75	40	97	163	93	119	147	201	178	41	183	129
Sunshine duration (hours/month)		--	--	--	--	--	--	--	--	--	--	--	--
Solar radiation (MJ/m^2/month)		188	225	467	475	637	535	532	556	457	452	213	168

Appendix Table 2-12 Meteorological statistics at the monitoring site
Site : Yusuhara, Japan

2015

Items	Month	1	2	3	4	5	6	7	8	9	10	11	12
Tempera-ture (ºC)	monthly mean	1.4	1.3	5.8	12.1	16.0	17.3	20.8	22.0	18.2	13.8	10.9	5.2
	max.daily mean	5.9	7.6	12.2	17.3	20.9	21.2	25.4	25.3	20.7	16.9	16.0	11.4
	min.daily mean	-5.5	-6.2	-4.0	5.5	12.1	12.7	15.8	19.1	15.8	8.9	0.7	-1.5
Relative humidity (%)	monthly mean	72	64	65	77	62	85	86	73	71	40	71	73
	max.daily mean	96	98	98	99	94	98	98	98	98	87	98	98
	min.daily mean	37	40	15	18	19	20	53	39	35	19	41	26
Mean wind speed (m/s)		2.7	2.6	2.1	1.4	1.5	1.2	1.3	1.2	1.4	1.8	1.5	2.2
Most frequent wind direction (bearings)		N	N	NNW	NNW	NNW	SSE	SSE	NNW	NNW	NNW	NNW	N
Precipitation amount (mm/month)		166	75	236	259	141	433	490	425	328	62	189	254
Sunshine duration (hours/month)		--	--	--	--	--	--	--	--	--	--	--	--
Solar radiation (MJ/m^2/month)		283	301	433	389	604	372	420	508	430	460	214	258

Appendix Table 2-13 Meteorological statistics at the monitoring site
Site : Hedo, Japan

2015

Month / Items		1	2	3	4	5	6	7	8	9	10	11	12
Temperature (ºC)	monthly mean	15.8	15.8	18.0	21.0	23.5	27.3	27.7	27.5	26.6	24.3	22.5	18.9
	max.daily mean	19.7	20.1	21.7	24.4	26.7	29.3	29.6	28.8	27.9	27.6	24.7	22.3
	min.daily mean	13.4	11.1	12.7	17.4	20.2	22.4	25.3	25.7	24.9	20.3	16.8	15.1
Relative humidity (%)	monthly mean	73	77	83	88	93	95	94	95	91	84	87	83
	max.daily mean	91	98	99	99	100	99	100	99	98	100	99	99
	min.daily mean	63	60	62	63	78	92	89	90	78	68	68	65
Mean wind speed (m/s)		5.6	4.7	4.9	3.9	3.7	4.1	4.9	4.2	3.7	5.5	4.8	5.4
Most frequent wind direction (bearings)		NNW	NNW	N	S	SSW	SW	SSW	E	NNW	NE	NE	N
Precipitation amount (mm/month)		19	23	77	97	322	95	664	180	60	146	106	67
Sunshine duration (hours/month)		--	--	--	--	--	--	--	--	--	--	--	--
Solar radiation (MJ/m^2/month)		240	311	403	419	533	609	617	589	551	420	297	243

Appendix Table 2-14 Meteorological statistics at the monitoring site
Site : Ogasawara, Japan

2015

Month / Items		1	2	3	4	5	6	7	8	9	10	11	12
Temperature (ºC)	monthly mean	15.4	14.4	16.7	20.5	22.9	25.6	26.1	25.5	25.3	23.1	22.0	19.3
	max.daily mean	18.1	18.8	20.9	23.1	24.7	27.1	27.0	26.7	26.5	25.1	23.9	23.1
	min.daily mean	13.1	10.9	12.4	18.1	19.7	24.6	24.8	23.9	23.6	19.7	18.7	15.4
Relative humidity (%)	monthly mean	83	84	90	96	98	98	98	98	97	96	96	92
	max.daily mean	98	98	99	99	99	99	99	99	99	99	99	99
	min.daily mean	71	71	70	86	92	95	95	95	93	75	82	79
Mean wind speed (m/s)		1.6	1.4	1.2	1.4	1.8	1.4	1.5	1.9	1.5	1.6	1.4	1.4
Most frequent wind direction (bearings)		WSW	WSW	SW	SSW	SSW	SW	NE	NE	NE	NE	NE	WSW
Precipitation amount (mm/month)		83	13	20	36	209	64	22	382	328	114	184	91
Sunshine duration (hours/month)		--	--	--	--	--	--	--	--	--	--	--	--
Solar radiation (MJ/m^2/month)		338	391	545	527	496	629	635	552	429	365	328	286

Appendix Table 2-15 Meteorological statistics at the monitoring site
Site : Mondy, Russia

2015

Month / Items		1	2	3	4	5	6	7	8	9	10	11	12
Tempera-ture (ºC)	monthly mean	-16.5	-15.0	-8.3	2.0	6.4	14.0	17.0	14.7	6.0	-0.7	-16.4	-15.1
	max.daily mean	-6.5	-4.3	0.3	10.3	15.4	23.1	25.3	23.0	13.2	9.1	-5.5	-6.5
	min.daily mean	-23.6	-23.2	-16.8	-6.3	-2.3	4.5	8.9	7.2	0.6	-8.3	-23.9	-21.5
Relative humidity (%)	monthly mean	73	68	58	48	52	53	62	69	73	60	69	68
	max.daily mean	90	88	84	77	81	85	90	93	94	85	81	79
	min.daily mean	48	41	34	26	28	27	35	43	43	29	43	50
Mean wind speed (m/s)		1.9	2.0	2.4	3.2	2.8	2.4	2.3	2.1	1.9	2.1	1.2	1.4
Most frequent wind direction (bearings)		W	W	W	W	W	E	ESE	E	E	W	W	W
Precipitation amount (mm/month)		2	6	3	1	28	12	81	52	41	5	6	3
Sunshine duration (hours/month)		158	207	252	259	281	316	257	242	174	196	186	122
Solar radiation (MJ/m^2/month)		--	--	--	--	--	--	--	--	--	--	--	--

Appendix Table 2-16 Meteorological statistics at the monitoring site
Site : Listvyanka, Russia

2015

Month / Items		1	2	3	4	5	6	7	8	9	10	11	12
Tempera-ture (ºC)	monthly mean	-9.9	-12.4	-6.3	1.6	6.9	11.5	16.3	16.0	9.6	3.4	-9.2	-7.2
	max.daily mean	-4.7	-5.8	-0.3	7.9	13.9	18.3	22.3	20.3	14.9	8.8	-5.1	-3.6
	min.daily mean	-14.0	-17.5	-10.5	.2.3	1.8	6.2	11.8	12.5	5.6	-0.8	-12.4	-9.9
Relative humidity (%)	monthly mean	77	73	71	66	66	75	80	82	80	73	83	86
	max.daily mean	--	--	--	--	--	--	--	--	--	--	--	--
	min.daily mean	65	56	51	48	43	55	64	70	60	56	68	75
Mean wind speed (m/s)		4.3	3.5	2.7	3.2	3.4	2.4	2.1	2.7	3.3	3.7	4.1	4.4
Most frequent wind direction (bearings)		N, NNE	N, NNE	N, NNE	N, NNE	N	N	N	N	N	N, NNE	NNE	N
Precipitation amount (mm/month)		10	14	4	16	66	34	61	65	51	15	27	15
Sunshine duration (hours/month)		--	--	--	--	--	--	--	--	--	--	--	--
Solar radiation (MJ/m^2/month)		--	--	--	--	--	--	--	--	--	--	--	--

Appendix Table 2-17 Meteorological statistics at the monitoring site
Site : Irkutsk, Russia

2015

Month / Items		1	2	3	4	5	6	7	8	9	10	11	12
Tempera-ture (ºC)	monthly mean	-11.6	-12.8	-4.4	5.3	10.9	17.3	21.0	18.8	10.0	3.3	-11.7	-10.0
	max.daily mean	-6.5	-6.0	2.4	12.0	18.3	24.9	27.6	25.7	16.3	10.3	-6.9	-6.6
	min.daily mean	-15.5	-17.8	-9.9	-0.4	4.0	10.3	15.6	13.5	5.3	-1.6	-15.6	-13.2
Relative humidity (%)	monthly mean	86	76	63	51	53	60	68	68	74	65	80	84
	max.daily mean	--	--	--	--	--	--	--	--	--	--	--	--
	min.daily mean	73	56	41	29	29	36	46	46	51	42	68	76
Mean wind speed (m/s)		1.9	2.3	2.1	2.6	2.5	2.1	1.9	1.9	1.8	2.0	1.5	1.4
Most frequent wind direction (bearings)		SE	SE	SE	SE	WNW	WNW	W	WNW	WNW	SE	NW	SE
Precipitation amount (mm/month)		17	12	6	9	46	43	63	77	39	18	34	18
Sunshine duration (hours/month)		113	171	229	241	311	335	255	249	148	176	109	59
Solar radiation (MJ/m^2/month)		--	--	--	--	--	--	--	--	--	--	--	--

Appendix Table 2-18 Meteorological statistics at the monitoring site
Site : Primorskaya, Russia

2015

Month / Items		1	2	3	4	5	6	7	8	9	10	11	12
Tempera-ture (ºC)	monthly mean	-15.6	-10.1	-0.7	6.5	12.0	16.8	20.6	20.9	15.5	6.2	-4.5	-9.2
	max.daily mean	-6.6	-2.0	6.0	14.5	19.7	23.4	27.5	26.1	22.8	13.6	1.6	-2.1
	min.daily mean	-22.5	-17.1	-6.4	-0.4	6.0	12.1	15.6	17.3	10.1	0.8	-8.8	-14.4
Relative humidity (%)	monthly mean	67	64	62	60	69	78	77	84	79	71	68	71
	max.daily mean	78	84	81	91	91	95	94	96	97	94	86	84
	min.daily mean	48	45	40	33	45	59	57	67	51	40	48	50
Mean wind speed (m/s)		1.0	1.1	1.4	1.3	1.1	1.0	0.8	0.6	0.9	1.3	0.9	1.1
Most frequent wind direction (bearings)		E	Calm, E	E	Calm, E	Calm, E	Calm, E	Calm, E	Calm, E, SE	E	E	Calm, E	E
Precipitation amount (mm/month)		15	27	47	67	64	107	118	287	24	96	18	32
Sunshine duration (hours/month)		--	--	--	--	--	--	--	--	--	--	--	--
Solar radiation (MJ/m^2/month)		238	311	477	539	559	587	623	424	498	354	212	191

Appendix Table 2-19 Meteorological statistics at the monitoring site
Site : Bangkok, Thailand

2015

Month / Items		1	2	3	4	5	6	7	8	9	10	11	12
Tempera-ture (ºC)	monthly mean	--	--	--	29.8	30.8	29.9	29.5	29.3	28.0	27.8	28.7	28.0
	max.daily mean	--	--	--	32.6	32.1	32.5	31.3	31.6	30.9	30.0	29.9	30.0
	min.daily mean	--	--	--	26.2	28.7	27.5	25.7	26.3	24.9	25.2	27.3	24.6
Relative humidity (%)	monthly mean	--	--	--	67	67	68	68	67	77	78	70	64
	max.daily mean	--	--	--	86	83	84	88	85	95	97	84	74
	min.daily mean	--	--	--	46	58	57	56	55	59	58	59	53
Mean wind speed (m/s)		--	--	--	0.5	0.6	0.6	0.7	--	--	0.4	0.5	0.6
Most frequent wind direction (bearings)		--	--	--	SSW	SSW	SW	SW	--	--	--	N	NNW
Precipitation amount (mm/month)		--	--	--	114	93	257	152	72	329	360	45	10
Sunshine duration (hours/month)		--	--	--	--	--	--	--	--	--	--	--	--
Solar radiation (MJ/m^2/month)		--	--	--	--	--	--	--	--	--	--	--	--

Appendix Table 2-20 Meteorological statistics at the monitoring site
Site : Samutprakarn, Thailand

2015

Month / Items		1	2	3	4	5	6	7	8	9	10	11	12
Tempera-ture (ºC)	monthly mean	26.2	28.1	30.1	31.2	32.4	31.2	30.4	30.7	29.5	28.9	29.7	28.7
	max.daily mean	29.3	30.6	31.8	34.1	33.7	34.0	32.6	32.6	32.6	30.8	30.7	31.2
	min.daily mean	23.5	26.0	27.9	27.3	30.0	27.8	27.2	27.4	26.2	26.2	28.1	25.1
Relative humidity (%)	monthly mean	67	70	75	70	69	71	73	71	79	82	75	71
	max.daily mean	83	81	85	84	79	87	86	88	94	94	88	86
	min.daily mean	50	51	69	49	62	61	61	61	61	68	66	57
Mean wind speed (m/s)		3.8	--	--	--	1.7	1.9	2.7	2.8	2.0	2.3	3.3	3.9
Most frequent wind direction (bearings)		--	--	--	--	--	--	--	--	--	--	--	--
Precipitation amount (mm/month)		30	18	113	80	30	384	241	53	399	247	32	38
Sunshine duration (hours/month)		--	--	--	--	--	--	--	--	--	--	--	--
Solar radiation (MJ/m^2/month)		--	--	--	--	--	--	--	--	--	--	--	--

Appendix Table 2-21 Meteorological statistics at the monitoring site
Site : Pathumthani, Thailand

2015

Items		1	2	3	4	5	6	7	8	9	10	11	12
Tempera-ture (ºC)	monthly mean	24.6	27.0	29.0	29.6	30.8	30.0	29.6	29.0	28.4	28.2	29.0	31.2
	max.daily mean	28.2	29.4	30.7	32.6	32.3	32.6	31.4	30.9	30.8	29.9	30.3	36.0
	min.daily mean	21.9	25.2	26.9	26.5	29.4	27.9	25.4	25.5	25.5	26.0	27.2	26.7
Relative humidity (%)	monthly mean	59	59	64	61	61	63	65	66	71	72	67	63
	max.daily mean	72	69	73	71	70	75	78	82	83	82	75	69
	min.daily mean	48	46	58	48	53	52	55	57	58	61	61	56
Mean wind speed (m/s)		1.1	1.7	2.2	1.7	2.0	1.9	2.1	1.6	1.4	1.2	1.1	1.2
Most frequent wind direction (bearings)		SE	ESE	S	S	SSW	W	W	W	W	ESE	E	ESE
Precipitation amount (mm/month)		4	93	84	51	29	119	112	93	249	164	15	0
Sunshine duration (hours/month)		--	--	--	--	--	--	--	--	--	--	--	--
Solar radiation (MJ/m^2/month)		--	--	--	--	--	--	--	--	--	--	--	--

Appendix Table 2-22 Meteorological statistics at the monitoring site
Site : Khanchanaburi, Thailand

2015

Items		1	2	3	4	5	6	7	8	9	10	11	12
Tempera-ture (ºC)	monthly mean	--	--	--	29.6	--	--	26.6	27.0	--	--	26.5	--
	max.daily mean	--	--	--	31.7	--	--	27.6	28.7	--	--	27.9	--
	min.daily mean	--	--	--	27.0	--	--	25.8	25.2	--	--	25.4	--
Relative humidity (%)	monthly mean	--	--	--	67	--	--	87	87	--	--	--	--
	max.daily mean	--	--	--	83	--	--	92	94	--	--	--	--
	min.daily mean	--	--	--	56	--	--	79	79	--	--	--	--
Mean wind speed (m/s)		--	--	--	1.0	--	--	0.5	0.7	--	--	0.4	--
Most frequent wind direction (bearings)		--	--	--	NNW	--	--	N	NNW	--	--	SSW	--
Precipitation amount (mm/month)		--	--	--	123	--	--	103	91	--	--	0	--
Sunshine duration (hours/month)		--	--	--	--	--	--	--	--	--	--	--	--
Solar radiation (MJ/m^2/month)		--	--	--	--	--	--	--	--	--	--	--	--

Appendix Table 2-23 Meteorological statistics at the monitoring site
Site : Chang Phueak, Thailand

2015

Month / Items		1	2	3	4	5	6	7	8	9	10	11	12
Temperature (ºC)	monthly mean	22.3	24.7	29.2	31.4	32.1	30.8	28.5	28.2	28.3	27.3	26.9	24.2
	max.daily mean	25.7	26.5	33.0	35.1	35.0	33.8	31.5	31.4	30.6	29.2	28.5	26.8
	min.daily mean	19.4	21.9	25.8	27.2	26.4	27.0	24.7	25.3	25.3	20.7	25.3	21.2
Relative humidity (%)	monthly mean	68	56	52	57	65	69	77	80	80	76	72	70
	max.daily mean	95	68	73	79	91	80	94	91	92	84	85	75
	min.daily mean	59	44	39	41	50	58	64	70	71	69	60	60
Mean wind speed (m/s)		1.8	1.7	2.0	2.2	2.0	1.9	2.0	1.5	1.7	1.9	1.8	2.0
Most frequent wind direction (bearings)		WNW	NW	NW	SE	ESE	SE	SE	SE	SE	NW	WNW	NW
Precipitation amount (mm/month)		75	0	8	42	70	54	90	180	122	24	31	5
Sunshine duration (hours/month)		--	--	--	--	--	--	--	--	--	--	--	--
Solar radiation (MJ/m^2/month)		--	--	--	--	--	--	--	--	--	--	--	--

Appendix Table 2-24 Meteorological statistics at the monitoring site
Site : Nai Mueang, Thailand

2015

Month / Items		1	2	3	4	5	6	7	8	9	10	11	12
Temperature (ºC)	monthly mean	26.7	26.0	28.8	30.7	31.6	30.8	30.1	29.5	28.7	27.8	28.3	27.2
	max.daily mean	27.8	28.9	29.9	33.5	33.7	33.7	33.4	32.1	31.5	29.4	30.5	30.6
	min.daily mean	23.9	23.5	27.7	27.5	28.3	27.4	25.8	27.1	25.1	24.8	26.0	22.0
Relative humidity (%)	monthly mean	27	44	44	38	43	46	49	55	65	63	52	40
	max.daily mean	28	76	74	75	84	86	90	78	98	88	85	53
	min.daily mean	26	23	31	14	26	25	23	29	37	43	40	30
Mean wind speed (m/s)		0.7	1.0	0.7	0.6	0.7	0.7	0.8	0.7	0.6	0.5	0.6	0.6
Most frequent wind direction (bearings)		E	E	E	SW, WSW	SW	W	W	WNW	WNW	E	E	E
Precipitation amount (mm/month)		0	24	--	--	35	98	231	178	272	85	3	0
Sunshine duration (hours/month)		--	--	--	--	--	--	--	--	--	--	--	--
Solar radiation (MJ/m^2/month)		--	--	--	--	--	--	--	--	--	--	--	--

Appendix Table 2-25 Meteorological statistics at the monitoring site
Site : Hanoi, Vietnam

2015

Month / Items		1	2	3	4	5	6	7	8	9	10	11	12
Tempera-ture (ºC)	monthly mean	18.1	19.2	21.6	25.4	30.6	29.9	29.6	29.4	28.1	26.5	24.3	18,2
	max.daily mean	22.3	25.0	26.8	30.1	34.9	35.0	33.8	33.7	31.9	30.7	27.8	21,3
	min.daily mean	12.1	12.6	16.0	17.5	26.9	27.0	26.7	27.0	25.9	23.8	22.6	16,3
Relative humidity (%)	monthly mean	78	82	88	78	76	82	79	84	83	77	83	82,2
	max.daily mean	93	96	96	90	83	92	90	95	91	91	91	90
	min.daily mean	61	54	79	56	57	66	64	71	72	58	93	71,1
Mean wind speed (m/s)		1.0	1.0	1.0	1.0	1.0	1.2	1.1	1.1	1.2	0.8	1.3	1.1
Most frequent wind direction (bearings)		SE	SE	N	SE	SE	SE	NW, SE	NE, NW	SE,N	N,SE	NE,S	N,NE
Precipitation amount (mm/month)		26	13	59	22	74	236	68	214	296	61	164	41
Sunshine duration (hours/month)		98,9	44	32	114	205	197	144	181	114	146	86	49
Solar radiation (MJ/m^2/month)		--	--	--	--	--	--	--	--	--	--	--	--

Appendix Table 2-26 Meteorological statistics at the monitoring site
Site : Hoa Binh, Vietnam

2015

Month / Items		1	2	3	4	5	6	7	8	9	10	11	12
Tempera-ture (ºC)	monthly mean	17.7	19.6	22.0	25.4	30.7	30.3	29.3	28.6	18.1	26.2	24.6	18.4
	max.daily mean	18.2	20.0	22.3	25.9	31.3	31.2	30.5	29.1	29.2	27.4	25.8	19.4
	min.daily mean	17.2	19.3	21.7	24.9	30.2	29.5	28.2	28.1	26.9	25.0	23.7	17.5
Relative humidity (%)	monthly mean	75	77	80	72	69	71	72	73	79	74	78	77
	max.daily mean	84	86	87	86	85	86	85	87	89	87	60	63
	min.daily mean	60	61	67	51	54	51	54	54	62	51	87	88
Mean wind speed (m/s)		1.1	1.1	1.7	2.2	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.2
Most frequent wind direction (bearings)		N	N	N	N	N	E	SE	SSW	SSW	SW	NE	NE
Precipitation amount (mm/month)		40	9	48	46	204	281	151	140	514	63	71	49
Sunshine duration (hours/month)		148	84	68	154	256	238	151	209	138	203	123	58
Solar radiation (MJ/m^2/month)		--	--	--	--	--	--	--	--	--	--	--	--

Appendix Table 2-27 Meteorological statistics at the monitoring site
Site : Cuc Phuong, Vietnam

2015

Month / Items		1	2	3	4	5	6	7	8	9	10	11	12
Tempera-ture (ºC)	monthly mean	16.1	18.2	21.0	23.5	29.2	29.2	27.8	27.8	26.7	24.4	23.2	17.4
	max.daily mean	21.2	24.1	25.5	28.3	33.0	32.5	32.9	30.9	29.7	27.4	27.4	25.6
	min.daily mean	10.8	11.1	15.9	16.7	25.6	27.3	24.7	24.4	23.4	19.0	15.7	12.9
Relative humidity (%)	monthly mean	85	88	93	84	80	79	81	85	89	84	88	85
	max.daily mean	97	95	99	96	94	93	96	97	97	95	95	97
	min.daily mean	75	69	84	65	59	61	59	70	76	69	64	67
Mean wind speed (m/s)		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Most frequent wind direction (bearings)		NW	NNE	ESE	SW	SW	SW	SW	SW	NE	NW	NE	NE
Precipitation amount (mm/month)		36	77	39	29	71	99	274	211	437	42	110	30
Sunshine duration (hours/month)		107	39	71	131	234	219	121	188	131	159	92	58
Solar radiation (MJ/m^2/month)		--	--	--	--	--	--	--	--	--	--	--	--

Appendix Table 2-28 Meteorological statistics at the monitoring site
Site : DaNang, Vietnam

2015

Month / Items		1	2	3	4	5	6	7	8	9	10	11	12
Tempera-ture (ºC)	monthly mean	21.2	23.0	25.4	26.2	29.9	29.8	29.7	29.2	28.9	26.6	26.7	23.9
	max.daily mean	25.0	26.8	29.0	30.2	35.8	34.8	34.1	34.1	33.4	30.7	29.8	27.0
	min.daily mean	18.6	20.6	23.1	23.5	26.3	26.5	26.5	25.6	25.5	23.6	24.4	21.9
Relative humidity (%)	monthly mean	82	84	86	83	75	75	74	78	80	82	84	87
	max.daily mean	91	89	95	88	84	89	91	88	94	95	96	93
	min.daily mean	70	80	79	74	65	65	63	69	73	74	74	82
Mean wind speed (m/s)		1.0	1.0	1.0	1.0	2.0	1.0	2.0	1.0	2.0	1.0	1.0	1.0
Most frequent wind direction (bearings)		ESE	ENE	ESE	ESE	E	E	SSW	E	E	ENE	ENE	N
Precipitation amount (mm/month)		24	12	179	90	35	25	37	191	416	356	329	180
Sunshine duration (hours/month)		149	163	191	231	283	263	143	262	230	193	1739	136
Solar radiation (MJ/m^2/month)		--	--	--	--	--	--	--	--	--	--	--	--

Appendix Table 2-29 Meteorological statistics at the monitoring site
Site : Can Tho, Vietnam

2015

Month / Items		1	2	3	4	5	6	7	8	9	10	11	12
Tempera-ture (ºC)	monthly mean	24.2	24.6	27.0	28.4	28.6	27.4	27.8	27.4	27.1	27.6	27.9	26.8
	max.daily mean	29.1	30.3	32.5	33.4	34.0	32.8	32.1	32.1	31.8	32.1	32.0	30.8
	min.daily mean	21.3	21.1	23.6	25.3	25.5	24.7	25.4	25.1	24.8	25.7	25.7	24.4
Relative humidity (%)	monthly mean	85	81	79	79	84	87	87	88	89	86	83	82
	max.daily mean	97	97	95	94	95	97	95	97	98	96	94	93
	min.daily mean	66	60	56	59	64	69	73	72	75	67	66	67
Mean wind speed (m/s)		1.0	1.3	1.0	1.3	1.0	1.0	2.0	2.0	1.0	1.0	1.3	1.3
Most frequent wind direction (bearings)		N	SE	SE	E	WSW	SW	WSW	WSW	WSW	W	E	E
Precipitation amount (mm/month)		3	--	--	74	116	257	206	132	702	556	136	23
Sunshine duration (hours/month)		214	234	262	252	257	168	184	226	181	193	223	227
Solar radiation (MJ/m^2/month)		--	--	--	--	--	--	--	--	--	--	--	--

Appendix Table 2-30 Meteorological statistics at the monitoring site
Site : Ho Chi Minh, Vietnam

2015

Month / Items		1	2	3	4	5	6	7	8	9	10	11	12
Tempera-ture (ºC)	monthly mean	26.5	26.9	29.0	29.9	30.7	29.2	28.9	29.0	28.6	28.7	29.1	28.6
	max.daily mean	32.2	33.0	34.9	35.4	36.0	34.4	34.1	34.6	34.1	34.1	34.5	33.8
	min.daily mean	23.0	23.5	26.1	27.0	27.9	26.4	25.9	26.0	25.5	25.5	25.8	25.2
Relative humidity (%)	monthly mean	70	68	67	69	70	74	76	75	77	76	72	67
	max.daily mean	98	97	93	94	95	92	95	96	98	94	94	95
	min.daily mean	51	47	46	49	52	58	59	57	58	57	51	50
Mean wind speed (m/s)		1.0	1.2	1.0	1.3	1.0	1.0	2.3	2.0	1.0	1.0	1.3	1.2
Most frequent wind direction (bearings)		SE	E	SE	SE	W	W	W	W	W	W	SE	SE
Precipitation amount (mm/month)		--	--	--	36	80	148	107	177	435	312	123	4
Sunshine duration (hours/month)		184	204	267	219	209	170	183	216	177	179	183	176
Solar radiation (MJ/m^2/month)		--	--	--	--	--	--	--	--	--	--	--	--

Appendix Table 2-31 Meteorological statistics at the monitoring site
Site : Yen Bai, Vietnam

2015

Month / Items		1	2	3	4	5	6	7	8	9	10	11	12
Tempera-ture (ºC)	monthly mean	16.1	17.0	18.8	21.5	24.3	29.3	29.5	29.1	28.5	27.9	25.5	23.4
	max.daily mean	24.1	27.2	29.6	30.8	36.6	38.1	37.9	38.3	36.8	34.8	33.2	31.0
	min.daily mean	7.2	9.1	11.2	15.3	14.1	22.5	24.5	22.6	23.8	22.9	18.5	16.0
Relative humidity (%)	monthly mean	86	88	89	93	85	84	84	82	86	87	84	88
	max.daily mean	97	97	97	98	94	93	93	98	97	98	97	98
	min.daily mean	33	51	61	65	39	51	50	36	58	53	49	59
Mean wind speed (m/s)		2.0	2.0	2.0	2.0	1.0	3.0	1.0	1.0	1.0	2.0	1.0	2.0
Most frequent wind direction (bearings)		SE	SE	SE	SE	SE	SE	NW	NW	NE	NW	SE	NW
Precipitation amount (mm/month)		94	28	102	83	185	135	167	365	376	91	196	114
Sunshine duration (hours/month)		79	81	47	35	109	196	183	168	177	146	167	79
Solar radiation (MJ/m^2/month)		--	--	--	--	--	--	--	--	--	--	--	--

Appendix III

Supplemental Data in 2014

Appendix 3 Auto data monitored at Ulaanbaater site in 2014 were provided.

Appendix Table 3-1 SO_2

Unit : ppb			2014												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Mongolia	Ulaanbaatar	Mean	21.5	18.0	11.9	5.9	2.8	2.0	1.4	1.9	3.1	5.9	11.7	19.5	8.9
		%	98	78	100	99	99	97	98	55	97	100	100	100	93
		Max-w	36.0	35.8	19.9	14.5	6.0	3.9	4.4	31.0	7.3	12.2	19.9	32.0	36.0
		Min-w	8.7	6.2	5.2	1.9	0.5	0.4	0.2	<0.1	0.6	1.9	2.6	8.3	<0.1

Appendix Table 3-2 NO

Unit : ppb			2014												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Mongolia	Ulaanbaatar	Mean	48.2	20.4	15.5	12.6	8.4	7.1	6.5	7.2	16.5	27.6	35.3	49.6	21.8
		%	98	78	100	100	100	98	99	62	97	100	100	100	94
		Max-w	98.0	58.4	30.0	25.9	18.1	16.0	12.1	11.1	35.0	57.7	74.6	99.5	99.5
		Min-w	16.0	7.4	6.8	4.4	4.7	2.5	2.8	2.4	7.2	9.0	8.8	12.5	2.4

Appendix Table 3-3 NO_2

Unit : ppb			2014												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Mongolia	Ulaanbaatar	Mean	40.3	27.5	27.6	26.6	22.7	19.0	18.3	19.6	23.1	27.7	30.5	37.2	26.9
		%	98	78	100	100	100	98	99	62	97	100	100	100	94
		Max-w	60.6	50.9	37.0	38.0	29.2	25.5	24.2	26.7	42.6	40.0	39.3	53.3	60.6
		Min-w	26.7	15.1	18.1	13.7	14.4	12.0	13.5	11.3	11.6	16.1	15.9	21.3	11.3

Appendix Table 3-4 NOx

Unit : ppb			2014												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Mongolia	Ulaanbaatar	Mean	88.5	47.9	43.2	39.1	31.2	26.0	24.8	26.8	39.6	55.3	65.8	86.8	48.7
		%	98	78	100	100	100	98	99	62	97	100	100	100	94
		Max-w	147.9	109.4	66.2	60.5	44.3	39.5	33.4	37.7	77.7	95.3	113.2	152.8	152.8
		Min-w	44.2	22.5	27.0	18.3	21.0	14.8	17.0	13.7	19.0	25.2	26.3	35.6	13.7

Appendix Table 3-5 O_3

Unit : ppb			2014												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Mongolia	Ulaanbaatar	Mean	4	9	13	16	19	16	16	16	13	9	5	3	12
		%	98	64	100	100	65	95	99	63	97	97	68	23	81
		Max-d	13	22	21	25	26	24	24	28	21	18	16	8	28
		Min-d	1	4	7	11	13	12	9	6	8	2	<1	<1	<1

Appendix Table 3-6 PM_{10}

Unit : μg/m^3			2014												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Mongolia	Ulaanbaatar	Mean	358	303	293	237	128	192	208	158	90	137	200	217	211
		%	98	88	100	100	100	96	99	61	98	100	100	100	95
		Max-d	773	644	539	484	333	356	409	342	186	253	322	421	773
		Min-d	89	68	137	64	15	31	60	40	26	44	88	74	15

Appendix Table 3.7 $PM_{2.5}$

Unit : μg/m^3			2014												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Mongolia	Ulaanbaatar	Mean	130	79	47	33	16	12	15	16	28	43	59	109	50
		%	98	89	100	100	99	97	99	62	98	100	100	100	95
		Max-d	253	146	90	83	57	27	51	43	45	77	93	176	253
		Min-d	46	24	20	11	2	4	7	2	9	13	21	36	2

Corrigenda to Data Report 2014

The FP results sampled at Chiang Mai and Nakhon Rachasima sites were submitted after publishing Data Report 2014.
Their page number and table number corespond to those of Data Report 2014.

Page 142, Table 4.3 SO_2 (continued)

Unit : ppb			Error		Correction	
Country	Site		Dec	Annual	Dec	Annual
Thailand	Nakhon Ratchasima	Mean	-	0.4	0.3	0.4
		%	0	60	68	66
		Max-10d	-	1.0	0.4	1.0
		Min-10d	-	0.2	0.1	0.1

Page 144, Table 4.4 HNO_3 (continued)

Unit : ppb			Error		Correction	
Country	Site		Dec	Annual	Dec	Annual
Thailand	Chiang Mai (Mae Hia)	Mean	-	<0.1	<0.1	<0.1
		%	0	58	61	63
		Max-10d	-	<0.1	<0.1	<0.1
		Min-10d	-	<0.1	<0.1	<0.1
	Nakhon Ratchasima	Mean	-	0.3	0.2	0.3
		%	0	60	68	66
		Max-10d	-	0.7	0.3	0.7
		Min-10d	-	<0.1	<0.1	<0.1

Page 146, Table 4.5 HCl (continued)

Unit : ppb			Error		Correction	
Country	Site		Dec	Annual	Dec	Annual
Thailand	Chiang Mai (Mae Hia)	Mean	-	0.2	0.2	0.2
		%	0	58	61	63
		Max-10d	-	0.6	0.2	0.6
		Min-10d	-	<0.1	0.2	<0.1
	Nakhon Ratchasima	Mean	-	0.5	0.2	0.4
		%	0	60	68	66
		Max-10d	-	2.6	0.2	2.6
		Min-10d	-	0.1	0.2	0.1

Page 148, Table 4.6 NH3 (continued)

Unit : ppb			Error		Correction	
Country	Site		Dec	Annual	Dec	Annual
Thailand	Chiang Mai (Mae Hia)	Mean	-	1.6	0.5	1.5
		%	0	58	61	63
		Max-10d	-	3.0	0.6	3.0
		Min-10d	-	0.6	0.3	0.3
	Nakhon Ratchasima	Mean	-	3.6	1.6	3.5
		%	0	60	68	66
		Max-10d	-	5.7	1.8	5.7
		Min-10d	-	1.7	1.4	1.4

Corrigenda to Data Report 2014 (continued)
Their page number and table number corespond to those of Data Report 2014.

Page 156, Table 4.13 Particulate matter component: SO_4^{2-} (continued)

Unit : $\mu g/m^3$			Error		Correction	
Country	Site		Dec	Annual	Dec	Annual
Thailand	Chiang Mai (Mae Hia)	Mean	-	0.11	0.01	0.10
		%	0	58	61	63
		Max-10d	-	0.46	0.02	0.46
		Min-10d	-	0.04	<0.01	<0.01
	Nakhon Ratchasima	Mean	-	3.40	2.27	3.31
		%	0	60	68	66
		Max-10d	-	7.97	2.27	7.97
		Min-10d	-	0.11	2.26	0.11

Page 158, Table 4.14 Particulate matter component: NO_3^- (continued)

Unit : $\mu g/m^3$			Error		Correction	
Country	Site		Dec	Annual	Dec	Annual
Thailand	Chiang Mai (Mae Hia)	Mean	-	0.11	0.10	0.11
		%	0	58	61	63
		Max-10d	-	0.49	0.11	0.49
		Min-10d	-	0.04	0.09	0.04
	Nakhon Ratchasima	Mean	-	0.61	0.29	0.58
		%	0	60	68	66
		Max-10d	-	2.48	0.32	2.48
		Min-10d	-	<0.01	0.25	<0.01

Page 160, Table 4.15 Particulate matter component: Cl^- (continued)

Unit : $\mu g/m^3$			Error		Correction	
Country	Site		Dec	Annual	Dec	Annual
Thailand	Chiang Mai (Mae Hia)	Mean	-	0.08	0.09	0.08
		%	0	58	61	63
		Max-10d	-	0.15	0.09	0.15
		Min-10d	-	0.02	0.09	0.02
	Nakhon Ratchasima	Mean	-	0.17	0.05	0.16
		%	0	60	68	66
		Max-10d	-	0.89	0.10	0.89
		Min-10d	-	<0.01	<0.01	<0.01

Page 162, Table 4.16 Particulate matter component: NH_4^+ (continued)

Unit : $\mu g/m^3$			Error		Correction	
Country	Site		Dec	Annual	Dec	Annual
Thailand	Chiang Mai (Mae Hia)	Mean	-	0.10	<0.01	0.09
		%	0	58	61	63
		Max-10d	-	0.15	0.01	0.15
		Min-10d	-	0.03	<0.01	<0.01
	Nakhon Ratchasima	Mean	-	1.03	0.84	1.01
		%	0	60	68	66
		Max-10d	-	2.39	0.88	2.39
		Min-10d	-	<0.01	0.79	<0.01

Corrigenda to Data Report 2014 (continued)
Their page number and table number corespond to those of Data Report 2014.

Page 164, Table 4.17 Particulate matter component: Na^+ (continued)

Unit : µg/m³			Error Dec	Error Annual	Correction Dec	Correction Annual
Country	Site		Dec	Annual	Dec	Annual
Thailand	Chiang Mai (Mae Hia)	Mean	-	0.07	0.06	0.07
		%	0	58	61	63
		Max-10d	-	0.16	0.09	0.16
		Min-10d	-	0.02	0.03	0.02
	Nakhon Ratchasima	Mean	-	0.30	0.03	0.27
		%	0	60	68	66
		Max-10d	-	0.78	0.06	0.78
		Min-10d	-	<0.01	<0.01	<0.01

Page 166, Table 4.18 Particulate matter component: K^+ (continued)

Unit : µg/m³			Error Dec	Error Annual	Correction Dec	Correction Annual
Country	Site		Dec	Annual	Dec	Annual
Thailand	Chiang Mai (Mae Hia)	Mean	-	0.05	0.01	0.05
		%	0	58	61	63
		Max-10d	-	0.13	0.02	0.13
		Min-10d	-	<0.01	0.01	<0.01
	Nakhon Ratchasima	Mean	-	0.34	0.25	0.33
		%	0	60	68	66
		Max-10d	-	0.85	0.26	0.85
		Min-10d	-	<0.01	0.24	<0.01

Page 168, Table 4.19 Particulate matter component: Mg^{2+} (continued)

Unit : µg/m³			Error Dec	Error Annual	Correction Dec	Correction Annual
Country	Site		Dec	Annual	Dec	Annual
Thailand	Chiang Mai (Mae Hia)	Mean	-	0.02	<0.01	0.01
		%	0	58	61	63
		Max-10d	-	0.05	<0.01	0.05
		Min-10d	-	<0.01	<0.01	<0.01
	Nakhon Ratchasima	Mean	-	0.02	<0.01	0.02
		%	0	60	68	66
		Max-10d	-	0.13	0.01	0.13
		Min-10d	-	<0.01	<0.01	<0.01

Page 170, Table 4.20 Particulate matter component: Ca^{2+} (continued)

Unit : µg/m³			Error Dec	Error Annual	Correction Dec	Correction Annual
Country	Site		Dec	Annual	Dec	Annual
Thailand	Chiang Mai (Mae Hia)	Mean	-	0.12	0.12	0.12
		%	0	58	61	63
		Max-10d	-	0.25	0.12	0.25
		Min-10d	-	0.01	0.11	0.01
	Nakhon Ratchasima	Mean	-	0.17	<0.01	0.16
		%	0	60	68	66
		Max-10d	-	1.05	0.01	1.05
		Min-10d	-	<0.01	<0.01	<0.01

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