Acid Deposition Monitoring Network in East Asia (EANET)

Data Report 2016

December 2017

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 2016, which contains the monitoring data from the participating countries at the Seventeenth Session of Scientific Advisory Committee (SAC17), held in September 2017. The draft Data Report was considered at SAC17 by the experts from the participating countries. Following the comments and guidance at the SAC17, the NC has elaborated and finalized the report.

The Data Report 2016 contains the data obtained from monitoring activities carried out in 2016.

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. Their classification of the monitoring sites is shown 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 2016

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 2016. The data on deposition monitoring were submitted from a total of 62 monitoring sites, including 26 urban, 17 rural, and 19 remote 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 2016

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*2	- Xiang Zhou	Urban	22°16'22"N	113°31'46"E	40
		- Zhuxiandong	Urban	22°12'24"N	113°30'60"E	50
		- Haibin-Park*3	Urban	22°15'40"N	113°34'25"E	30
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°06'07"N	101°38'42"E	51
	Tanah Rata		Rural	04°29'03"N	101°22'17"E	1,545
	Danum Valley		Remote	04°58'53"N	117°50'37"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		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*4				
	- Mae Hia	Rural	18°45'40"N	98°55'54"E	349
	- Chang Phueak	Urban	18°50'26"N	98°58'11"E	329
	- Si Phum	Urban	18°47'27"N	98°59'24"E	313
	Nakhon Ratchasima				
	- 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	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	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 Zhuhai site was divided into three sites, - Xiang Zhou, Zhuxiandong and Haibin-Park.
*3 Automatic monitors (SO_2, NO_2, PM_{10}) were moved to Haibin Park from Xiang Zhou in 2012.
*4 Chiang Mai site was divided into three sites, - Mae Hia, Chang Phueak and Si Phum.

The current situation on basic survey sites for ecological monitoring and their nearest deposition monitoring sites are shown in Table 2.3. Soil and vegetation monitoring and monitoring on inland aquatic environment are conducted at 31 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 their 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 their 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	Chongqing - Jinyunshan	Jinyunshan	Jinyunshan Lake
	Xi'an - Jiwozi	Dabagou	Jiwozi River
	Xiamen - Xiaoping	Xiaoping	Xiaoping Dam
	Zhuhai - Zhuxiandong	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	
		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 their 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	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.

Table 2.4 shows the sites for catchment-scale monitoring, and this table contains 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

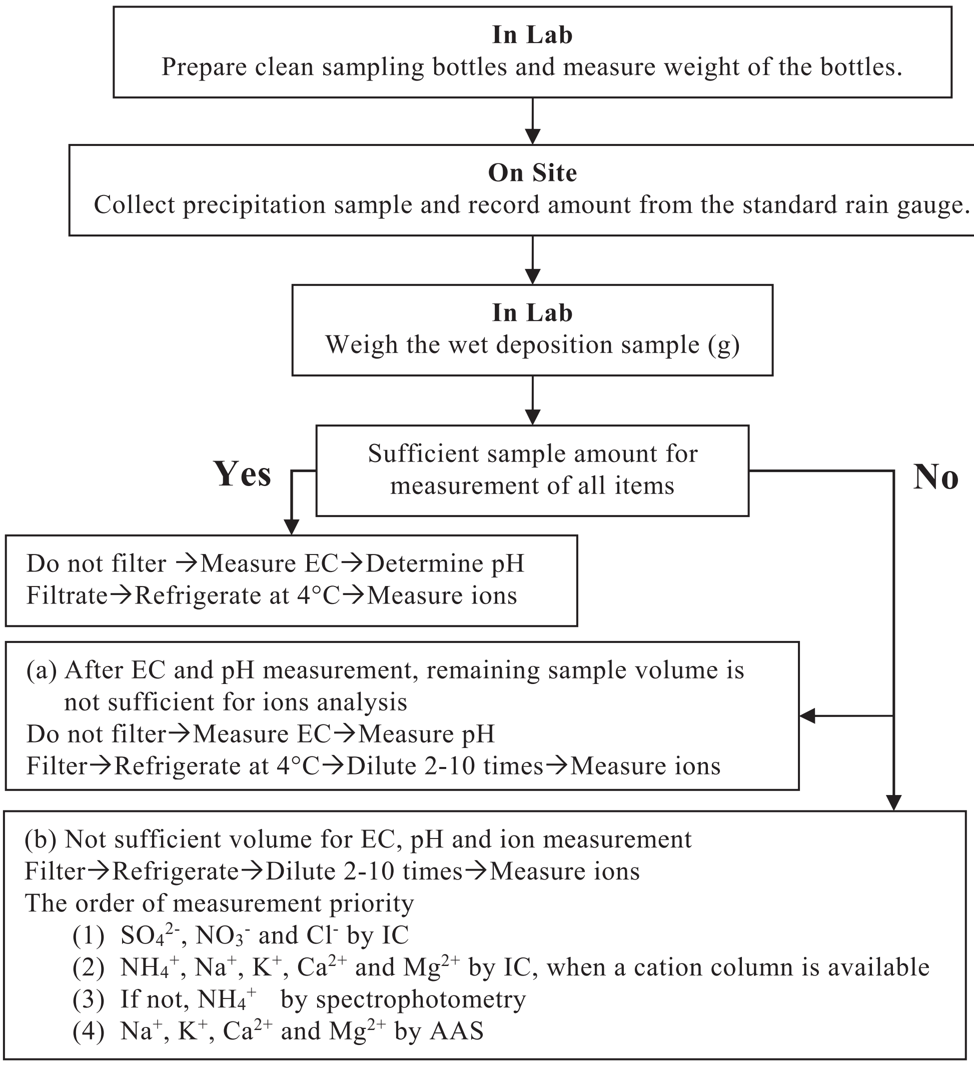
CHAPTER 3

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 "*Guidelines for Acid Deposition Monitoring in East Asia*, *Technical Manual for Wet Deposition Monitoring in East Asia -2010*", which was issued by the 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.



* EC: Electric conductivity, IC: Ion chromatography

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 are shown in Appendix 2 at the end of the 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
NH_4^+	0.8
Na^+	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.

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	$\pm$30
50 – 100	$\pm$15
>100	$\pm$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	$\pm$20
0.5 – 3	$\pm$13
>3	$\pm$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 no measurement
	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 value 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.
In addition, Table 3.7 shows additional items that some sites analyzed. R_1 and R_2 were calculated for these sites including the additional items.

Table 3.6 Sampling Frequencies for Wet Deposition Monitoring in 2016

Country	Site		Classification	Sampling Interval	Starting Month
Cambodia	Phnom Penh		Urban	Weekly	April 2004
China	Chongqing	- Haifu	Urban	Daily	January 2008
		- Jinyunshan	Rural	Daily	April 1999
	Xi'an	- Shizhan	Urban	Daily	April 1999
		- Jiwozi	Remote	Daily	April 1999
	Xiamen	- Hongwen	Urban	Daily	April 1999
		- Xiaoping	Remote	Daily	April 1999
	Zhuhai	- Xiang Zhou	Urban	Daily	April 1999
		- Zhuxiandong	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		Rural	Weekly	January 1999
	Danum Valley		Remote	Weekly	January 2005
	Kuching		Urban	Weekly	January 2008
Mongolia	Ulaanbaatar		Urban	Daily	August 1998
	Terelj		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 2016 (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 - Mae Hia	Rural	Daily	January 2001
	Nakhon Ratchasima - Sakaerat	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

Table 3.7 Analytical methods and additional items in 2016

Country	Site	Analytical methods			Additional items
		Anions	NH_4^+	Other Cations	
Cambodia	Phnom Penh	IC	IC	IC	
China	Chongqing - Haifu	IC, TI	IC	IC	HCO_3^-, F^-
	- Jinyunshan	IC, TI	IC	IC	HCO_3^-, F^-
	Xi'an - Shizhan	IC	IC	IC	
	- Jiwozi	IC	IC	IC	
	Xiamen - Hongwen	IC	IC	IC	F^-
	- Xiaoping	IC	IC	IC	F^-
	Zhuhai - Xiang Zhou	IC	IC	IC	F^-
	- Zhuxiandong	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 2016 (continued)

Country	Site	Analytical methods			Additional items
		Anions	NH_4^+	Other Cations	
Japan	Rishiri	IC	IC	IC	
	Ochiishi	IC	IC	IC	
	Tappi	IC	IC	IC	
	Sado-seki	IC	IC	IC	HCO_3^-
	Happo	IC	IC	IC	
	Ijira	IC	IC	IC	
	Oki	IC	IC	IC	
	Banryu	IC	IC	IC	
	Yusuhara	IC	IC	IC	F^-, NO_2^-, PO_4^{3-}
	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	PO_4^{3-}
	Los Baños	IC	IC	IC	PO_4^{3-}
	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^-, F^-, Br^-, NO_2^-
	Listvyanka	IC	SP	AES	HCO_3^-, F^-, Br^-, NO_2^-
	Irkutsk	IC	SP	AES	HCO_3^-, F^-, 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 - Mae Hia	IC	IC	IC	PO_4^{3-}, Formic, Acetic acid
	Nakhon Ratchasima - Sakaerat	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^-
	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 2016 are shown in Table 3.8 through Table 3.64. The annual summaries of wet deposition monitoring in 2016 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 2000 to 2016 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: **Cambodia**

Precipitation amount-weighted average concentration/ Precipitation amount

2016	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	15.4	14.8	29.9	14.3	55.9	10.9	5.86	24.3	24.1	3.71	0.242	6.62	1.78	80.9
June	3.52	3.28	8.92	6.61	19.4	3.94	2.09	11.7	11.6	1.01	0.359	6.44	0.644	184
July	6.27	5.94	9.64	8.79	20.8	5.34	2.82	18.8	18.6	1.79	0.398	6.40	0.808	177
Aug	6.06	5.48	7.19	8.21	20.5	9.57	3.40	12.4	12.2	2.30	0.495	6.31	1.09	104
Sept	5.70	5.59	4.51	4.20	21.5	1.87	1.90	14.7	14.6	1.17	0.389	6.41	0.643	245
Oct	4.10	4.01	4.74	3.74	12.8	1.51	1.07	13.8	13.8	0.717	0.426	6.37	0.479	398
Nov	2.14	1.60	3.13	10.5	7.10	8.96	1.13	4.67	4.47	2.55	0.269	6.57	0.369	87.8
Dec	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Annual	5.37	5.11	7.66	6.45	19.5	4.23	2.11	14.3	14.2	1.44	0.389	6.41	0.705	1277
Max.	22.1	21.2	32.2	24.6	59.9	21.3	16.1	37.7	37.2	7.99	0.692	6.86	2.67	
Min.	2.14	1.60	2.39	2.37	6.60	<0.3	0.793	4.67	4.47	0.370	0.138	6.16	0.333	

Wet deposition amount

2016	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	1.25	1.20	2.42	1.16	4.52	0.885	0.474	1.97	1.95	0.300	0.0196
June	0.647	0.604	1.64	1.22	3.57	0.725	0.384	2.15	2.13	0.185	0.0661
July	1.11	1.05	1.71	1.56	3.68	0.944	0.499	3.32	3.30	0.316	0.0704
Aug	0.631	0.571	0.750	0.855	2.13	0.998	0.354	1.29	1.27	0.240	0.0516
Sept	1.40	1.37	1.10	1.03	5.26	0.459	0.465	3.59	3.58	0.286	0.0953
Oct	1.63	1.59	1.88	1.49	5.09	0.600	0.424	5.51	5.49	0.285	0.169
Nov	0.188	0.141	0.275	0.924	0.623	0.787	0.0988	0.410	0.393	0.224	0.0236
Dec	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	6.85	6.53	9.78	8.23	24.9	5.40	2.70	18.2	18.1	1.84	0.496

Data completeness

2016	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
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

2016	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	102	102	109	12.6	196	4.98	6.22	79.2	79.1	7.51	2.21	5.65	5.20	52.0
Feb	87.8	87.0	70.6	17.6	155	13.2	12.2	71.0	70.7	11.3	0.726	6.14	4.48	26.5
Mar	51.3	51.0	47.8	7.07	93.1	5.34	5.59	56.3	56.2	5.99	1.29	5.89	2.71	92.6
Apr	63.8	63.5	65.5	8.20	123	5.52	4.55	60.4	60.3	6.56	1.74	5.76	3.52	110
May	47.9	47.6	48.6	6.72	120	4.90	4.13	61.1	61.0	3.83	0.345	6.46	3.12	171
June	20.1	19.8	22.5	3.46	53.9	3.86	2.33	40.7	40.6	2.95	0.361	6.44	1.59	309
July	30.8	30.5	60.4	9.14	76.8	5.70	4.38	67.0	66.8	5.05	0.327	6.48	2.59	145
Aug	98.2	97.1	142	26.0	165	18.3	13.0	216	216	14.1	0.122	6.91	7.17	21.2
Sept	42.9	42.4	42.5	10.2	64.3	8.07	5.57	99.6	99.4	9.32	0.224	6.65	3.34	127
Oct	77.1	76.5	84.0	12.4	170	9.56	6.53	111	111	8.83	0.409	6.39	4.70	119
Nov	28.8	28.4	28.4	9.48	46.3	7.03	3.31	32.3	32.1	3.53	0.794	6.10	1.53	86.1
Dec	210	209	238	23.3	473	12.9	13.8	161	161	12.7	2.13	5.67	10.8	10.5
Annual	46.9	46.5	52.3	8.34	98.7	6.18	4.66	67.3	67.1	5.69	0.655	6.18	3.00	1270
Max.	343	342	403	267	798	283	60.1	706	700	245	13.5	7.88	22.5	
Min.	8.43	8.27	9.51	1.97	8.31	1.30	1.53	16.7	16.7	2.06	0.0132	4.87	0.764	

Wet deposition amount

2016	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	5.31	5.29	5.66	0.653	10.2	0.259	0.323	4.12	4.11	0.390	0.115
Feb	2.33	2.31	1.87	0.466	4.11	0.351	0.325	1.88	1.87	0.298	0.0192
Mar	4.75	4.73	4.43	0.655	8.62	0.495	0.518	5.22	5.21	0.555	0.120
Apr	7.02	6.98	7.20	0.902	13.5	0.607	0.500	6.64	6.63	0.721	0.191
May	8.18	8.13	8.30	1.15	20.4	0.836	0.705	10.4	10.4	0.654	0.0590
June	6.19	6.12	6.96	1.07	16.6	1.19	0.720	12.6	12.5	0.910	0.111
July	4.47	4.42	8.76	1.33	11.1	0.827	0.636	9.72	9.70	0.733	0.0475
Aug	2.08	2.06	3.00	0.550	3.50	0.389	0.277	4.58	4.57	0.299	<0.01
Sept	5.46	5.40	5.40	1.29	8.17	1.03	0.708	12.7	12.6	1.18	0.0285
Oct	9.18	9.11	10.0	1.48	20.3	1.14	0.778	13.2	13.2	1.05	0.0487
Nov	2.48	2.45	2.45	0.816	3.99	0.605	0.285	2.78	2.76	0.304	0.0683
Dec	2.20	2.19	2.50	0.245	4.97	0.135	0.145	1.69	1.69	0.133	0.0224
Annual	59.5	59.1	66.4	10.6	125	7.85	5.91	85.4	85.2	7.22	0.832

Data completeness

2016	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	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	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	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
Sept	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
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	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
Dec	95.2	95.2	95.2	95.2	95.2	95.2	95.2	95.2	95.2	95.2	95.2	95.2	95.2	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

2016	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	115	115	116	12.3	181	5.05	6.71	49.3	49.2	5.90	61.4	4.21	7.21	51.2
Feb	83.4	82.5	71.3	16.5	133	14.3	7.68	58.5	58.1	8.02	5.72	5.24	4.32	17.3
Mar	44.5	44.4	36.3	4.00	64.8	2.35	3.59	19.8	19.7	2.91	9.76	5.01	2.52	88.4
Apr	49.7	49.5	55.0	6.89	89.2	3.79	4.11	75.6	75.5	6.66	5.22	5.28	3.20	98.4
May	36.8	36.6	34.8	4.70	75.7	2.50	4.40	46.4	46.3	3.84	2.34	5.63	2.23	123
June	19.0	18.9	15.9	2.73	36.3	1.57	2.07	31.1	31.1	3.02	1.01	6.00	1.27	298
July	22.2	22.1	20.6	2.96	37.2	1.78	2.06	28.0	27.9	2.83	1.74	5.76	1.26	163
Aug	28.6	28.4	27.2	4.05	53.5	2.41	2.75	37.5	37.5	3.02	2.72	5.57	1.91	67.4
Sept	48.2	48.0	39.1	4.59	66.4	2.26	3.55	40.5	40.4	4.83	9.08	5.04	2.47	104
Oct	57.1	57.0	52.6	5.34	81.3	2.04	3.55	40.1	40.1	4.14	33.2	4.48	3.72	107
Nov	36.0	35.8	31.4	4.23	45.7	2.20	2.96	21.6	21.6	2.94	17.4	4.76	2.19	79.9
Dec	139	138	171	14.9	245	7.86	11.8	65.6	65.4	8.18	66.8	4.17	8.86	20.3
Annual	40.0	39.8	37.5	4.75	65.8	2.55	3.37	38.0	38.0	3.89	10.6	4.97	2.44	1217
Max.	370	369	477	41.5	622	46.1	28.6	211	211	25.9	110	7.48	20.4	
Min.	2.50	2.47	4.52	0.564	2.22	0.435	<0.3	8.23	8.21	1.64	0.0331	3.96	0.432	

Wet deposition amount

2016	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	5.89	5.87	5.92	0.628	9.29	0.258	0.344	2.53	2.52	0.302	3.15
Feb	1.44	1.43	1.23	0.285	2.30	0.247	0.133	1.01	1.01	0.139	0.0989
Mar	3.93	3.92	3.21	0.353	5.73	0.208	0.318	1.75	1.74	0.258	0.863
Apr	4.89	4.87	5.41	0.677	8.78	0.373	0.405	7.44	7.43	0.655	0.513
May	4.53	4.51	4.28	0.579	9.31	0.307	0.541	5.70	5.70	0.472	0.287
June	5.64	5.62	4.73	0.813	10.8	0.468	0.617	9.26	9.25	0.899	0.301
July	3.62	3.60	3.37	0.483	6.08	0.290	0.337	4.57	4.56	0.461	0.284
Aug	1.93	1.92	1.83	0.273	3.60	0.162	0.185	2.53	2.52	0.204	0.183
Sept	4.99	4.98	4.05	0.476	6.88	0.235	0.369	4.20	4.19	0.501	0.941
Oct	6.08	6.07	5.60	0.568	8.66	0.218	0.378	4.27	4.27	0.441	3.54
Nov	2.87	2.86	2.51	0.338	3.65	0.176	0.236	1.73	1.73	0.235	1.39
Dec	2.81	2.80	3.47	0.302	4.98	0.159	0.239	1.33	1.33	0.166	1.36
Annual	48.6	48.5	45.6	5.78	80.1	3.10	4.10	46.3	46.2	4.73	12.9

Data completeness

2016	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 3.11 Monthly results **Site: Shizhan** **Country: China**

Precipitation amount-weighted average concentration/ Precipitation amount

2016	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	164	162	157	68.9	309	36.3	21.2	149	148	8.27	0.0871	7.06	8.70	7.0
Mar	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Apr	79.1	78.3	87.1	22.1	167	12.5	4.14	6.34	6.07	4.98	0.170	6.77	5.35	22.7
May	52.3	51.8	43.4	11.6	85.2	8.37	2.59	39.2	39.0	<0.3	0.178	6.75	3.36	45.0
June	46.3	45.9	45.3	9.63	82.3	6.88	4.73	37.1	36.9	0.358	0.121	6.92	3.50	58.0
July	24.9	17.4	35.3	8.29	46.9	125	3.27	2.42	<0.2	0.784	0.243	6.61	2.02	117
Aug	100	92.7	85.8	16.2	126	121	3.08	54.2	51.6	1.55	0.129	6.89	4.40	48.0
Sept	121	121	119	19.7	236	7.60	6.73	61.9	61.7	2.61	0.129	6.89	6.43	30.1
Oct	56.0	55.9	57.1	10.6	214	1.33	1.30	43.0	43.0	3.24	0.222	6.65	3.74	63.6
Nov	91.8	91.6	110	33.2	36.6	3.10	2.93	64.3	64.3	6.30	0.610	6.21	3.52	20.9
Dec	531	529	324	92.9	736	34.5	23.3	282	282	22.1	0.162	6.79	19.4	2.0
Annual	62.5	59.2	62.8	14.4	118	53.6	3.76	35.0	33.9	1.97	0.206	6.69	3.69	415
Max.	531	529	324	92.9	736	142	23.3	282	282	22.1	0.891	7.08	19.4	
Min.	11.6	3.04	11.9	2.88	22.4	<0.3	<0.3	2.35	<0.2	<0.3	0.0832	6.05	1.39	

Wet deposition amount

2016	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	1.15	1.13	1.10	0.482	2.16	0.254	0.149	1.04	1.04	0.0579	<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	1.79	1.78	1.98	0.502	3.80	0.285	0.0941	0.144	0.138	0.113	<0.01
May	2.35	2.33	1.95	0.521	3.84	0.377	0.117	1.76	1.75	<0.01	<0.01
June	2.69	2.66	2.62	0.558	4.77	0.399	0.275	2.15	2.14	0.0208	<0.01
July	2.92	2.04	4.14	0.972	5.50	14.7	0.384	0.284	<0.01	0.0919	0.0285
Aug	4.80	4.45	4.12	0.779	6.05	5.81	0.148	2.60	2.48	0.0745	<0.01
Sept	3.65	3.64	3.58	0.591	7.11	0.229	0.202	1.86	1.86	0.0786	<0.01
Oct	3.56	3.56	3.63	0.672	13.6	0.0846	0.0828	2.73	2.73	0.206	0.0141
Nov	1.92	1.91	2.29	0.694	0.766	0.0647	0.0612	1.34	1.34	0.132	0.0127
Dec	1.06	1.06	0.648	0.186	1.47	0.0691	0.0467	0.565	0.563	0.0441	<0.01
Annual	25.9	24.6	26.1	5.96	49.0	22.2	1.56	14.5	14.1	0.819	0.0852

Data completeness

2016	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
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 3.12 Monthly results **Site: Jiwozi** **Country: China**

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.
2016	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	41.3	40.5	7.59	1.08	9.18	12.8	5.36	71.0	70.7	16.6	0.123	6.91	2.21	57.8
June	19.2	18.7	8.86	0.864	1.60	9.11	5.89	44.1	43.9	16.4	0.153	6.82	1.38	32.3
July	13.1	12.4	3.94	0.727	1.82	10.2	3.50	33.4	33.2	14.8	0.200	6.70	0.669	154
Aug	10.5	10.1	16.5	0.693	3.73	6.17	4.04	25.0	24.9	9.94	0.220	6.66	0.702	21.5
Sept	26.5	26.4	3.16	0.720	<0.8	1.25	5.11	28.0	28.0	5.56	0.574	6.24	1.26	37.8
Oct	14.3	14.0	3.75	0.703	1.40	4.64	5.64	19.9	19.8	7.12	0.278	6.56	0.774	65.6
Nov	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Dec	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Annual	19.5	19.0	5.56	0.787	2.87	8.39	4.58	36.8	36.6	12.6	0.237	6.63	1.05	369
Max.	140	139	24.1	1.64	21.7	27.3	15.7	144	143	33.9	1.05	7.04	4.61	
Min.	1.98	1.45	1.92	0.621	<0.8	<0.3	<0.3	1.65	1.61	0.987	0.0912	5.98	0.304	

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^+
2016	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	2.39	2.34	0.439	0.0622	0.530	0.741	0.310	4.10	4.09	0.959	<0.01
June	0.620	0.602	0.286	0.0279	0.0517	0.294	0.190	1.42	1.42	0.531	<0.01
July	2.01	1.92	0.606	0.112	0.281	1.58	0.539	5.15	5.11	2.28	0.0308
Aug	0.226	0.218	0.355	0.0149	0.0802	0.133	0.0870	0.538	0.535	0.214	<0.01
Sept	1.00	0.999	0.119	0.0272	0.0246	0.0473	0.193	1.06	1.06	0.210	0.0217
Oct	0.935	0.917	0.246	0.0461	0.0916	0.304	0.370	1.31	1.30	0.467	0.0182
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	7.18	6.99	2.05	0.290	1.06	3.09	1.69	13.6	13.5	4.66	0.0875

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.
2016	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%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
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

2016	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	13.5	13.0	14.9	13.6	20.7	7.98	4.38	6.72	6.54	2.21	13.5	4.87	1.05	167
Feb	44.5	41.1	45.9	70.1	91.7	56.4	9.79	29.0	27.8	9.93	1.03	5.99	3.11	23.7
Mar	26.1	25.4	38.4	16.0	65.5	10.9	5.18	8.75	8.51	2.81	17.9	4.75	1.97	233
Apr	24.7	24.3	33.2	13.6	52.7	6.98	3.67	9.20	9.05	2.65	17.4	4.76	1.80	297
May	16.3	15.7	22.5	15.5	32.9	8.90	3.20	5.49	5.30	2.45	14.0	4.85	1.26	229
June	17.9	17.6	37.0	31.1	31.3	5.33	21.0	8.13	8.01	2.59	21.7	4.66	1.72	56.9
July	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Aug	22.4	21.9	33.5	10.4	38.8	7.03	4.12	9.89	9.73	2.23	24.7	4.61	2.35	71.9
Sept	25.4	21.6	38.1	66.9	30.1	70.5	5.68	13.4	11.9	9.15	5.64	5.25	3.93	434
Oct	13.8	13.1	22.1	16.0	22.6	10.4	2.92	13.5	13.3	2.89	8.91	5.05	1.11	118
Nov	11.9	11.5	11.5	13.9	20.2	7.40	1.85	10.2	10.1	2.28	1.60	5.80	0.971	72.9
Dec	57.7	52.5	53.6	83.6	<0.8	85.2	15.4	92.3	90.5	18.9	0.200	6.70	6.41	66.2
Annual	22.8	21.3	31.4	31.2	37.2	27.2	5.34	13.1	12.6	4.89	12.1	4.92	2.33	1771
Max.	76.3	74.7	151	226	222	298	27.0	92.3	90.5	35.0	63.1	6.70	7.14	
Min.	4.36	<0.3	3.53	4.08	<0.8	1.68	1.25	1.05	0.966	0.912	0.200	4.20	0.456	

Wet deposition amount

2016	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	2.26	2.18	2.49	2.28	3.46	1.33	0.733	1.12	1.09	0.369	2.27
Feb	1.06	0.976	1.09	1.66	2.18	1.34	0.232	0.689	0.660	0.236	0.0244
Mar	6.08	5.92	8.96	3.74	15.3	2.55	1.21	2.04	1.99	0.656	4.17
Apr	7.32	7.19	9.85	4.05	15.6	2.07	1.09	2.73	2.69	0.786	5.15
May	3.73	3.61	5.15	3.55	7.56	2.04	0.734	1.26	1.22	0.562	3.22
June	1.02	1.00	2.11	1.77	1.78	0.303	1.20	0.463	0.456	0.148	1.24
July	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Aug	1.61	1.58	2.41	0.751	2.79	0.506	0.297	0.711	0.700	0.161	1.78
Sept	11.0	9.40	16.5	29.0	13.1	30.6	2.47	5.81	5.15	3.97	2.45
Oct	1.63	1.55	2.61	1.89	2.67	1.23	0.344	1.60	1.57	0.341	1.05
Nov	0.869	0.837	0.837	1.01	1.47	0.540	0.135	0.746	0.734	0.166	0.117
Dec	3.82	3.48	3.55	5.53	<0.01	5.64	1.02	6.11	5.99	1.25	0.0132
Annual	40.4	37.7	55.6	55.3	65.9	48.2	9.45	23.3	22.2	8.65	21.5

Data completeness

2016	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 3.14 Monthly results Site: Xiaoping Country: China

Precipitation amount-weighted average concentration/ Precipitation amount

2016	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	8.06	7.76	12.8	8.75	10.2	4.98	3.21	4.41	4.30	1.49	13.5	4.87	0.754	182
Feb	10.2	9.72	13.7	11.4	23.7	7.36	2.87	3.25	3.09	1.67	9.32	5.03	0.899	51.1
Mar	12.1	11.8	21.7	7.05	25.3	5.01	4.75	6.44	6.33	1.87	15.5	4.81	1.10	251
Apr	18.7	18.2	28.3	10.4	36.9	7.65	2.70	5.87	5.71	1.93	36.0	4.44	1.74	179
May	16.1	15.6	20.0	12.4	30.7	8.27	3.06	9.48	9.30	2.93	7.43	5.13	1.22	117
June	20.3	20.0	30.5	10.7	31.3	4.91	2.42	9.30	9.19	2.26	20.2	4.69	1.71	209
July	15.1	14.9	20.9	5.97	32.4	4.15	1.20	4.79	4.70	1.30	25.6	4.59	1.25	156
Aug	10.1	9.65	14.2	8.61	14.6	7.42	1.79	3.52	3.36	1.55	22.0	4.66	1.44	263
Sept	18.6	18.1	19.6	18.6	33.5	8.60	19.7	5.63	5.44	2.75	20.7	4.68	1.49	259
Oct	8.71	7.91	10.2	18.4	14.2	13.4	8.92	12.4	12.1	4.49	1.72	5.76	0.967	101
Nov	3.24	3.22	4.38	3.21	5.78	0.371	5.08	10.2	10.2	2.70	0.466	6.33	0.615	59.2
Dec	1.10	1.10	1.77	5.44	<0.8	<0.3	5.13	5.88	5.88	1.54	22.9	4.64	0.368	22.7
Annual	13.7	13.3	19.3	10.6	24.6	6.54	5.59	6.39	6.24	2.14	18.5	4.73	1.28	1851
Max.	66.6	65.6	85.8	92.3	163	75.7	68.4	29.9	29.5	11.5	102	6.67	4.81	
Min.	1.10	1.10	1.67	1.48	<0.8	<0.3	<0.3	<0.2	<0.2	0.691	0.214	3.99	0.118	

Wet deposition amount

2016	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	1.47	1.41	2.33	1.59	1.85	0.907	0.584	0.803	0.784	0.272	2.46
Feb	0.519	0.497	0.698	0.583	1.21	0.376	0.146	0.166	0.158	0.0855	0.477
Mar	3.04	2.96	5.46	1.77	6.36	1.26	1.19	1.62	1.59	0.469	3.90
Apr	3.35	3.27	5.07	1.86	6.61	1.37	0.485	1.05	1.02	0.346	6.45
May	1.88	1.83	2.34	1.45	3.60	0.971	0.359	1.11	1.09	0.344	0.872
June	4.23	4.17	6.37	2.24	6.55	1.03	0.506	1.94	1.92	0.472	4.22
July	2.35	2.32	3.26	0.930	5.05	0.646	0.187	0.747	0.733	0.202	3.99
Aug	2.65	2.53	3.73	2.26	3.84	1.95	0.471	0.925	0.883	0.408	5.77
Sept	4.81	4.68	5.07	4.81	8.66	2.23	5.10	1.46	1.41	0.713	5.36
Oct	0.882	0.800	1.03	1.87	1.43	1.35	0.903	1.26	1.23	0.455	0.174
Nov	0.192	0.190	0.259	0.190	0.342	0.0220	0.300	0.603	0.603	0.160	0.0276
Dec	0.0250	0.0250	0.0403	0.124	<0.01	<0.01	0.116	0.133	0.133	0.0350	0.520
Annual	25.4	24.7	35.7	19.7	45.5	12.1	10.3	11.8	11.6	3.96	34.2

Data completeness

2016	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 3.15 Monthly results **Site: Xiang Zhou** **Country: China**

Precipitation amount-weighted average concentration/ Precipitation amount

2016	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	14.7	13.5	22.4	16.7	34.1	20.2	5.00	15.2	14.8	3.21	13.0	4.89	1.86	223
Feb	159	147	197	372	149	196	22.3	57.4	53.2	23.9	5.25	5.28	6.70	15.5
Mar	52.9	51.0	79.7	45.5	87.3	31.1	5.57	14.7	14.0	8.67	10.1	4.99	4.95	187
Apr	21.6	20.4	32.4	21.1	61.6	20.7	3.78	13.7	13.2	6.49	11.9	4.93	0.130	134
May	10.9	9.44	15.9	20.8	24.2	23.5	2.45	17.6	17.1	3.15	11.2	4.95	1.22	390
June	8.99	7.70	6.12	17.5	13.3	21.3	5.66	11.2	10.7	2.95	5.66	5.25	0.893	329
July	10.2	8.98	5.02	18.1	28.2	19.7	4.42	10.1	9.69	2.96	3.02	5.52	1.85	309
Aug	9.08	7.69	2.05	21.8	16.0	23.5	1.64	2.30	1.97	3.61	1.14	5.94	0.882	492
Sept	13.0	12.5	20.8	16.2	23.5	9.12	3.42	7.95	7.75	3.11	4.30	5.37	1.00	117
Oct	13.4	8.96	14.7	46.1	11.8	74.1	3.81	17.8	16.2	5.20	3.12	5.51	1.41	17.0
Nov	17.4	17.2	12.4	11.7	10.2	3.01	1.30	3.70	3.64	3.76	6.65	5.18	1.05	125
Dec	42.6	41.6	48.5	31.6	47.7	15.7	2.05	9.48	9.14	5.35	44.7	4.35	2.95	7.5
Annual	16.0	14.7	18.2	23.6	29.6	22.5	3.68	10.8	10.4	4.02	6.78	5.17	1.50	2344
Max.	159	147	231	372	256	340	27.9	65.9	60.9	42.4	97.7	7.86	14.1	
Min.	0.937	<0.3	1.29	2.26	2.77	2.17	1.02	1.50	<0.2	1.65	0.0138	4.01	0.0680	

Wet deposition amount

2016	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	3.28	3.01	4.99	3.71	7.60	4.50	1.11	3.39	3.30	0.715	2.89
Feb	2.47	2.29	3.05	5.77	2.31	3.03	0.345	0.889	0.824	0.370	0.0813
Mar	9.88	9.53	14.9	8.52	16.3	5.82	1.04	2.75	2.62	1.62	1.89
Apr	2.90	2.73	4.34	2.83	8.25	2.77	0.507	1.83	1.77	0.870	1.59
May	4.23	3.68	6.20	8.10	9.41	9.15	0.955	6.87	6.67	1.23	4.36
June	2.95	2.53	2.01	5.74	4.37	7.01	1.86	3.68	3.53	0.968	1.86
July	3.14	2.77	1.55	5.58	8.72	6.10	1.37	3.13	2.99	0.916	0.934
Aug	4.47	3.78	1.01	10.7	7.87	11.6	0.805	1.13	0.969	1.77	0.562
Sept	1.52	1.46	2.42	1.88	2.74	1.06	0.398	0.926	0.903	0.362	0.501
Oct	0.228	0.152	0.250	0.784	0.201	1.26	0.0647	0.303	0.276	0.0884	0.0530
Nov	2.16	2.14	1.55	1.45	1.27	0.374	0.162	0.461	0.453	0.468	0.828
Dec	0.319	0.312	0.364	0.237	0.358	0.117	0.0153	0.0711	0.0686	0.0401	0.335
Annual	37.6	34.4	42.6	55.3	69.4	52.8	8.63	25.4	24.4	9.42	15.9

Data completeness

2016	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 3.16 Monthly results **Site: Zhuxiandong** **Country: China**

Precipitation amount-weighted average concentration/ Precipitation amount

2016	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	24.6	23.1	32.0	31.3	51.2	25.1	4.14	20.0	19.5	4.48	14.9	4.83	2.54	214
Feb	59.0	55.4	81.1	48.4	230	60.3	25.2	49.3	48.0	10.9	1.88	5.73	5.34	125
Mar	39.5	38.8	55.7	45.4	62.2	12.9	2.02	10.9	10.6	3.11	20.4	4.69	2.84	176
Apr	34.3	31.7	55.6	55.0	79.2	44.2	6.76	14.4	13.4	6.64	10.5	4.98	3.24	181
May	10.1	9.17	15.7	23.4	18.1	16.0	2.57	3.42	3.09	2.18	6.45	5.19	1.14	317
June	9.92	9.18	8.22	19.2	12.3	12.2	2.16	7.93	7.67	4.37	3.80	5.42	1.24	317
July	8.69	6.94	6.53	30.4	19.5	28.9	4.62	24.8	24.1	5.73	3.96	5.40	1.39	269
Aug	11.1	7.67	7.66	53.4	24.9	62.2	8.42	16.0	14.7	7.23	1.82	5.74	1.59	466
Sept	0.952	<0.3	3.14	1.21	47.5	20.9	8.50	18.4	18.0	2.76	10.6	4.97	1.74	77.5
Oct	0.891	<0.3	2.28	2.58	17.5	53.4	2.98	14.8	13.6	4.46	8.52	5.07	1.74	133
Nov	1.05	<0.3	3.96	1.28	25.1	24.1	2.15	29.9	29.4	2.62	2.27	5.64	1.60	76.5
Dec	383	373	248	180	100	154	26.1	363	360	19.3	0.200	6.70	11.8	7.0
Annual	18.1	16.2	22.2	33.5	42.4	34.1	5.80	17.3	16.6	5.17	6.88	5.16	2.01	2356
Max.	383	373	248	467	304	413	43.5	363	360	44.4	115	8.04	16.9	
Min.	0.363	<0.3	0.937	<0.5	1.11	<0.3	<0.3	<0.2	<0.2	0.823	0.0090	3.94	0.336	

Wet deposition amount

2016	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	5.27	4.94	6.84	6.69	11.0	5.38	0.885	4.29	4.17	0.959	3.20
Feb	7.35	6.90	10.1	6.02	28.6	7.51	3.14	6.14	5.97	1.36	0.234
Mar	6.96	6.82	9.79	8.00	10.9	2.27	0.355	1.91	1.86	0.547	3.59
Apr	6.20	5.72	10.0	9.92	14.3	7.98	1.22	2.60	2.43	1.20	1.90
May	3.21	2.91	4.97	7.41	5.73	5.08	0.816	1.09	0.978	0.692	2.05
June	3.14	2.90	2.60	6.07	3.88	3.88	0.684	2.51	2.43	1.38	1.20
July	2.33	1.86	1.75	8.16	5.24	7.77	1.24	6.65	6.48	1.54	1.06
Aug	5.19	3.57	3.57	24.8	11.6	29.0	3.92	7.46	6.83	3.37	0.847
Sept	0.0738	<0.01	0.243	0.0938	3.68	1.62	0.659	1.43	1.39	0.214	0.824
Oct	0.118	<0.01	0.302	0.342	2.32	7.07	0.395	1.96	1.81	0.592	1.13
Nov	0.0807	0.0106	0.303	0.0982	1.92	1.84	0.164	2.29	2.25	0.200	0.173
Dec	2.68	2.61	1.74	1.26	0.702	1.07	0.183	2.54	2.52	0.135	<0.01
Annual	42.6	38.3	52.2	78.9	99.8	80.4	13.7	40.9	39.1	12.2	16.2

Data completeness

2016	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 3.17 Monthly results Site: Jakarta Country: Indonesia

Precipitation amount-weighted average concentration/ Precipitation amount

2016	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	32.7	31.5	22.0	24.4	34.5	19.8	3.37	23.5	23.0	3.28	23.8	4.62	2.33	262
Feb	11.6	10.6	11.4	16.4	10.8	15.4	1.71	7.39	7.06	2.05	13.5	4.87	0.916	572
Mar	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Apr	15.9	15.5	16.6	12.3	21.0	7.24	4.62	16.6	16.4	1.62	5.39	5.27	1.11	201
May	103	100	128	123	80.0	43.7	14.8	62.7	61.7	14.0	11.4	4.94	4.60	154
June	21.9	21.3	23.5	18.5	34.8	10.3	28.2	27.5	27.3	4.79	0.914	6.04	1.35	154
July	25.7	24.6	27.2	19.5	57.2	17.8	33.3	21.0	20.6	5.60	0.968	6.01	1.74	150
Aug	49.3	47.2	55.5	56.6	75.5	34.8	9.50	34.5	33.7	6.17	17.9	4.75	3.57	75.0
Sept	45.2	42.8	77.4	40.9	81.9	40.4	11.6	40.6	39.7	6.66	5.68	5.25	3.20	224
Oct	35.1	34.1	<0.5	37.3	<0.8	17.0	26.1	48.7	48.3	5.74	22.4	4.65	2.85	86.9
Nov	35.0	33.8	34.2	21.0	58.4	19.7	13.7	36.9	36.4	5.00	3.14	5.50	3.40	36.0
Dec	29.9	28.7	27.1	19.9	38.1	20.1	3.27	29.4	29.0	2.92	9.44	5.02	1.88	60.9
Annual	31.1	29.8	34.2	31.2	37.5	21.0	10.5	25.2	24.7	4.50	11.3	4.95	2.03	1976
Max.	294	291	347	461	132	96.0	75.4	254	251	27.0	107	6.75	13.1	
Min.	7.34	6.45	<0.5	7.31	<0.8	4.84	<0.3	3.19	2.88	0.520	0.178	3.97	0.740	

Wet deposition amount

2016	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	8.57	8.25	5.76	6.40	9.06	5.20	0.884	6.15	6.04	0.861	6.24
Feb	6.62	6.09	6.54	9.40	6.18	8.80	0.981	4.23	4.04	1.17	7.71
Mar	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Apr	3.20	3.11	3.34	2.48	4.22	1.45	0.928	3.34	3.31	0.326	1.08
May	15.9	15.4	19.8	18.9	12.3	6.74	2.28	9.66	9.51	2.15	1.75
June	3.38	3.28	3.63	2.85	5.36	1.59	4.35	4.25	4.21	0.738	0.141
July	3.86	3.70	4.09	2.93	8.59	2.68	5.01	3.15	3.09	0.842	0.146
Aug	3.70	3.54	4.16	4.25	5.66	2.61	0.713	2.59	2.53	0.463	1.34
Sept	10.1	9.56	17.3	9.15	18.3	9.03	2.59	9.08	8.88	1.49	1.27
Oct	3.05	2.96	<0.01	3.24	<0.01	1.48	2.27	4.23	4.20	0.499	1.95
Nov	1.26	1.22	1.23	0.757	2.10	0.709	0.494	1.33	1.31	0.180	0.113
Dec	1.82	1.75	1.65	1.21	2.32	1.22	0.199	1.79	1.77	0.178	0.575
Annual	61.4	58.9	67.5	61.6	74.1	41.5	20.7	49.8	48.9	8.90	22.3

Data completeness

2016	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	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 3.18 Monthly results **Site: Serpong** **Country: Indonesia**

Precipitation amount-weighted average concentration/ Precipitation amount

2016	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	23.8	23.2	33.2	20.6	71.6	10.0	9.97	15.5	15.3	4.34	2.81	5.55	2.00	311
Feb	26.3	25.4	24.9	16.1	50.1	14.2	8.03	11.5	11.1	3.71	9.61	5.02	1.64	352
Mar	37.8	37.2	36.4	13.5	69.0	9.97	4.12	12.2	12.0	3.22	18.8	4.72	2.40	318
Apr	22.1	21.6	38.1	16.0	74.7	8.68	4.37	9.46	9.27	2.41	3.40	5.47	1.81	234
May	24.1	23.8	33.2	11.4	57.9	5.45	2.36	19.3	19.2	2.22	1.42	5.85	1.62	190
June	29.2	26.4	44.2	18.9	26.8	46.8	4.41	20.2	19.2	3.27	9.69	5.01	2.20	218
July	28.7	28.3	33.5	11.6	57.2	7.63	2.25	13.4	13.2	3.30	8.90	5.05	2.03	112
Aug	26.3	25.4	27.6	17.9	48.3	15.4	3.83	13.3	13.0	3.36	7.39	5.13	1.91	361
Sept	21.0	19.9	22.0	18.7	56.9	18.0	3.70	14.6	14.2	3.23	0.690	6.16	1.61	281
Oct	21.5	21.2	31.8	10.3	46.7	5.44	1.50	12.0	11.9	1.26	5.92	5.23	1.60	253
Nov	32.5	32.0	39.3	16.6	62.4	8.46	4.40	18.8	18.7	2.32	1.08	5.97	1.91	122
Dec	17.9	16.6	25.6	15.1	42.7	20.4	5.32	10.7	10.2	2.77	1.77	5.75	1.32	176
Annual	25.9	25.1	31.7	16.0	55.6	14.4	4.85	13.9	13.6	3.06	6.56	5.18	1.85	2929
Max.	77.9	77.1	126	99.6	186	175	45.9	61.4	57.6	16.2	42.7	7.23	4.79	
Min.	9.10	8.37	7.50	6.65	5.47	1.80	1.06	5.18	5.01	0.951	0.0589	4.37	0.820	

Wet deposition amount

2016	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	7.41	7.22	10.3	6.43	22.3	3.11	3.10	4.82	4.76	1.35	0.874
Feb	9.25	8.95	8.76	5.68	17.6	5.01	2.82	4.03	3.92	1.30	3.38
Mar	12.0	11.8	11.6	4.28	21.9	3.16	1.31	3.89	3.82	1.02	5.98
Apr	5.17	5.05	8.92	3.74	17.5	2.03	1.02	2.21	2.17	0.565	0.795
May	4.59	4.52	6.32	2.16	11.0	1.04	0.450	3.68	3.66	0.424	0.270
June	6.37	5.76	9.64	4.12	5.84	10.2	0.962	4.41	4.19	0.712	2.11
July	3.22	3.17	3.76	1.30	6.42	0.856	0.252	1.50	1.49	0.370	0.999
Aug	9.49	9.16	9.98	6.48	17.4	5.55	1.38	4.81	4.69	1.21	2.67
Sept	5.89	5.59	6.18	5.24	16.0	5.07	1.04	4.10	3.99	0.907	0.194
Oct	5.46	5.38	8.06	2.62	11.8	1.38	0.380	3.05	3.02	0.319	1.50
Nov	3.97	3.91	4.81	2.03	7.62	1.03	0.538	2.30	2.28	0.283	0.132
Dec	3.15	2.93	4.52	2.67	7.54	3.61	0.939	1.88	1.80	0.489	0.313
Annual	76.0	73.5	92.8	46.8	163	42.1	14.2	40.7	39.8	8.96	19.2

Data completeness

2016	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 3.19 Monthly results **Site: Kototabang** **Country: Indonesia**

Precipitation amount-weighted average concentration/ Precipitation amount

2016	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	8.51	<0.3	8.85	461	5.71	403	2.97	2.99	<0.2	<0.3	10.7	4.97	5.06	61.5
Feb	3.35	<0.3	2.80	25.7	<0.8	88.4	6.29	5.38	3.47	0.717	7.08	5.15	0.702	92.0
Mar	8.86	8.41	7.60	9.64	9.53	7.51	3.36	3.21	3.04	0.791	6.07	5.22	0.662	237
Apr	6.56	6.39	4.14	59.0	8.63	2.82	56.8	2.40	2.34	0.626	5.25	5.28	1.27	142
May	5.52	5.45	4.23	75.7	4.16	1.17	38.8	<0.2	<0.2	<0.3	5.24	5.28	1.49	279
June	10.6	9.69	3.17	25.0	6.77	15.0	16.2	6.18	5.85	2.42	3.10	5.51	0.793	133
July	7.70	6.88	9.59	8.36	16.1	13.6	3.21	8.38	8.09	2.15	3.52	5.45	0.738	98.5
Aug	11.1	10.5	12.1	51.1	23.8	10.1	2.47	5.37	5.16	2.35	11.5	4.94	0.610	7.0
Sept	5.45	4.91	1.52	4.36	3.64	8.92	2.38	2.50	2.31	1.38	2.73	5.56	0.392	154
Oct	4.14	3.79	1.90	5.48	2.30	5.89	1.34	3.05	2.92	1.42	0.508	6.29	0.345	121
Nov	2.77	2.62	3.14	2.63	1.29	2.52	0.838	5.98	5.93	0.970	4.76	5.32	0.259	480
Dec	5.62	5.03	3.36	7.74	4.42	9.78	3.06	3.23	3.02	2.28	6.56	5.18	0.485	359
Annual	5.70	4.96	4.16	33.4	4.94	21.1	11.5	3.83	3.53	1.19	5.04	5.30	0.790	2163
Max.	21.0	19.1	14.6	471	30.4	403	384	17.9	17.3	8.20	12.6	6.72	7.06	
Min.	2.17	<0.3	<0.5	<0.5	<0.8	<0.3	<0.3	<0.2	<0.2	<0.3	0.191	4.90	0.219	

Wet deposition amount

2016	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	0.523	<0.01	0.544	28.3	0.351	24.8	0.183	0.184	<0.01	<0.01	0.659
Feb	0.308	<0.01	0.257	2.36	<0.01	8.13	0.579	0.495	0.319	0.0659	0.651
Mar	2.10	1.99	1.80	2.28	2.26	1.78	0.796	0.760	0.721	0.187	1.44
Apr	0.932	0.908	0.588	8.39	1.23	0.400	8.08	0.341	0.333	0.0890	0.747
May	1.54	1.52	1.18	21.1	1.16	0.327	10.8	0.0266	0.0199	<0.01	1.46
June	1.41	1.29	0.421	3.32	0.900	1.99	2.15	0.821	0.778	0.322	0.411
July	0.759	0.678	0.944	0.823	1.58	1.34	0.316	0.826	0.797	0.211	0.346
Aug	0.0774	0.0732	0.0845	0.358	0.167	0.0705	0.0173	0.0376	0.0361	0.0165	0.0804
Sept	0.838	0.755	0.233	0.670	0.560	1.37	0.366	0.384	0.355	0.212	0.420
Oct	0.502	0.459	0.230	0.664	0.278	0.714	0.162	0.370	0.354	0.172	0.0616
Nov	1.33	1.26	1.51	1.26	0.621	1.21	0.402	2.87	2.85	0.466	2.29
Dec	2.02	1.81	1.21	2.78	1.59	3.51	1.10	1.16	1.08	0.819	2.35
Annual	12.3	10.7	8.99	72.3	10.7	45.7	24.9	8.28	7.64	2.57	10.9

Data completeness

2016	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 3.20 Monthly results **Site: Bandung** **Country: Indonesia**

Precipitation amount-weighted average concentration/ Precipitation amount

2016	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	36.1	35.6	26.3	7.71	54.6	7.51	3.23	22.6	22.4	6.48	4.19	5.38	1.62	366
Feb	34.0	33.6	23.9	9.98	48.6	6.82	2.60	22.1	21.9	4.64	11.1	4.95	2.08	152
Mar	29.4	29.2	20.6	5.90	43.4	2.87	1.46	10.8	10.7	2.53	20.1	4.70	1.98	419
Apr	37.7	36.2	23.6	11.9	56.3	24.4	4.11	10.7	10.1	3.05	13.5	4.87	2.08	287
May	34.2	32.8	24.2	12.4	56.8	23.6	3.98	9.37	8.86	2.70	13.0	4.89	1.82	260
June	52.4	50.6	42.0	16.1	96.9	29.3	5.11	18.5	17.9	4.46	9.07	5.04	2.85	56.3
July	49.5	47.8	45.2	24.6	120	26.9	6.03	25.0	24.4	5.70	0.354	6.45	2.54	92.9
Aug	33.6	32.9	26.1	16.5	99.0	12.4	4.29	20.6	20.3	3.70	1.25	5.90	2.27	134
Sept	33.0	32.6	21.2	8.90	80.3	7.93	2.35	15.5	15.4	2.95	0.465	6.33	1.79	289
Oct	22.0	21.5	18.1	6.69	53.2	7.56	1.86	14.8	14.7	2.73	1.55	5.81	1.25	275
Nov	22.4	22.1	14.0	7.23	34.0	5.45	2.21	12.2	12.1	2.35	6.94	5.16	1.30	316
Dec	18.7	18.4	9.47	8.39	37.0	5.27	1.70	16.8	16.7	2.29	0.162	6.79	1.05	52.3
Annual	31.9	31.2	22.6	9.63	58.1	11.2	2.89	15.2	15.0	3.50	8.29	5.08	1.79	2699
Max.	198	192	261	133	394	94.7	24.6	134	132	26.4	58.2	6.99	10.4	
Min.	10.4	10.1	5.57	2.88	9.61	1.28	0.669	4.51	4.47	1.38	0.102	4.24	0.720	

Wet deposition amount

2016	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	13.2	13.0	9.62	2.82	20.0	2.74	1.18	8.25	8.19	2.37	1.53
Feb	5.15	5.09	3.63	1.51	7.37	1.03	0.394	3.35	3.33	0.704	1.69
Mar	12.3	12.3	8.63	2.47	18.2	1.20	0.611	4.52	4.49	1.06	8.43
Apr	10.8	10.4	6.78	3.43	16.2	7.00	1.18	3.06	2.91	0.877	3.89
May	8.88	8.51	6.29	3.22	14.8	6.12	1.03	2.43	2.30	0.702	3.37
June	2.95	2.85	2.37	0.907	5.46	1.65	0.288	1.04	1.01	0.251	0.510
July	4.59	4.44	4.20	2.28	11.1	2.50	0.559	2.32	2.27	0.530	0.0329
Aug	4.51	4.40	3.50	2.22	13.3	1.66	0.575	2.76	2.72	0.496	0.167
Sept	9.56	9.42	6.13	2.57	23.2	2.30	0.679	4.50	4.45	0.852	0.134
Oct	6.03	5.91	4.97	1.84	14.6	2.08	0.510	4.08	4.03	0.750	0.425
Nov	7.09	6.99	4.44	2.29	10.7	1.72	0.698	3.85	3.82	0.743	2.19
Dec	0.977	0.961	0.495	0.439	1.93	0.275	0.0889	0.877	0.871	0.119	<0.01
Annual	86.1	84.3	61.0	26.0	157	30.3	7.79	41.0	40.4	9.45	22.4

Data completeness

2016	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 3.21 Monthly results **Site: Maros** **Country: Indonesia**

Precipitation amount-weighted average concentration/ Precipitation amount

2016	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	8.71	0.575	12.7	265	<0.8	229	14.6	8.21	3.27	1.90	7.43	5.13	3.42	366
Mar	8.58	3.27	3.79	299	<0.8	159	38.8	3.54	1.66	1.24	6.09	5.22	2.84	289
Apr	88.1	86.1	77.8	145	16.1	33.1	8.27	5.04	4.33	1.40	1.66	5.78	0.612	9.0
May	7.91	7.03	9.24	21.6	13.8	14.7	1.77	5.24	4.93	0.706	1.97	5.71	0.800	114
June	14.0	10.2	15.0	297	12.9	244	16.2	35.4	32.6	3.91	1.13	5.95	3.91	54.4
July	8.42	6.76	2.61	23.3	152	27.5	9.98	17.3	16.7	4.08	7.07	5.15	1.08	101
Aug	46.6	42.8	16.3	92.6	38.1	63.9	119	353	351	19.8	0.0182	7.74	8.59	4.7
Sept	11.4	9.98	15.9	22.6	35.8	23.0	5.99	33.4	32.9	3.89	0.305	6.52	1.39	63.2
Oct	6.52	5.91	10.3	51.9	19.3	10.1	3.40	18.4	18.2	1.83	6.20	5.21	1.03	316
Nov	8.39	6.85	16.5	17.8	15.0	26.4	9.64	12.9	12.3	2.58	3.09	5.51	0.925	221
Dec	15.6	6.49	1.77	175	176	172	15.9	14.8	11.1	5.77	7.42	5.13	6.50	434
Annual	10.4	5.58	8.79	154	53.7	118	15.1	13.8	11.5	2.92	5.77	5.24	3.03	1973
Max.	88.1	86.1	77.8	1628	371	1300	182	353	351	19.8	38.9	7.74	16.2	
Min.	0.541	<0.3	<0.5	5.81	<0.8	5.20	1.66	1.09	<0.2	0.420	0.0182	4.41	0.518	

Wet deposition amount

2016	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	3.19	0.211	4.66	97.0	<0.01	83.9	5.33	3.01	1.20	0.694	2.72
Mar	2.48	0.945	1.09	86.4	0.0539	45.9	11.2	1.02	0.480	0.359	1.76
Apr	0.793	0.775	0.700	1.30	0.145	0.298	0.0744	0.0454	0.0390	0.0126	0.0149
May	0.900	0.799	1.05	2.45	1.57	1.67	0.201	0.596	0.560	0.0802	0.224
June	0.762	0.556	0.814	16.2	0.704	13.3	0.880	1.93	1.77	0.213	0.0614
July	0.852	0.684	0.264	2.36	15.4	2.79	1.01	1.75	1.69	0.413	0.716
Aug	0.219	0.201	0.0766	0.435	0.179	0.300	0.558	1.66	1.65	0.0932	<0.01
Sept	0.718	0.630	1.00	1.43	2.26	1.45	0.379	2.11	2.08	0.246	0.0193
Oct	2.06	1.87	3.26	16.4	6.10	3.19	1.08	5.81	5.74	0.579	1.96
Nov	1.86	1.52	3.66	3.94	3.32	5.84	2.13	2.85	2.73	0.570	0.683
Dec	6.76	2.82	0.766	75.9	76.3	74.6	6.88	6.43	4.82	2.50	3.22
Annual	20.6	11.0	17.3	304	106	233	29.7	27.2	22.8	5.76	11.4

Data completeness

2016	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	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 3.22 Monthly results **Site: Rishiri** **Country: Japan**

Precipitation amount-weighted average concentration/ Precipitation amount

2016	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	20.6	8.21	9.54	233	8.23	205	4.92	5.69	1.26	23.0	18.0	4.74	4.22	68.8
Feb	36.8	21.5	21.7	295	21.7	254	6.76	11.2	5.72	28.9	30.4	4.52	5.89	45.4
Mar	38.1	26.1	55.4	232	49.4	199	6.51	16.5	12.2	24.6	36.6	4.44	5.40	22.6
Apr	23.7	19.2	26.1	86.4	35.7	74.6	3.40	13.8	12.2	9.86	15.2	4.82	2.72	71.7
May	14.4	10.3	15.7	77.7	15.5	67.4	2.14	6.04	4.59	8.31	17.4	4.76	2.13	56.5
June	5.83	4.98	5.55	15.1	5.90	14.2	0.616	0.959	0.652	1.67	9.52	5.02	0.836	159
July	7.19	5.84	7.56	25.9	10.6	22.4	0.973	1.08	0.598	2.40	11.1	4.96	1.03	195
Aug	4.08	2.74	4.68	26.2	2.74	22.1	0.491	0.847	0.369	2.49	9.59	5.02	0.879	105
Sept	2.99	2.40	2.99	11.5	1.73	9.81	0.421	0.391	<0.2	0.979	5.91	5.23	0.538	366
Oct	18.6	7.02	14.2	220	13.7	193	4.95	7.25	3.08	21.8	12.4	4.91	4.02	68.7
Nov	27.5	17.7	23.9	187	22.6	163	4.95	7.83	4.31	18.6	24.6	4.61	4.23	110
Dec	44.5	20.6	25.8	440	23.3	396	9.11	12.3	3.74	44.4	31.0	4.51	7.82	30.6
Annual	11.8	7.61	10.2	79.8	10.4	69.7	2.07	3.60	2.10	7.96	12.6	4.90	1.92	1299
Max.	172	80.5	221	2334	210	2032	48.7	53.1	41.1	235	107	6.54	23.6	
Min.	0.600	<0.3	<0.5	1.30	<0.8	0.800	<0.3	<0.2	<0.2	<0.3	0.288	3.97	0.220	

Wet deposition amount

2016	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	1.41	0.564	0.656	16.0	0.566	14.1	0.338	0.391	0.0865	1.58	1.24
Feb	1.67	0.979	0.985	13.4	0.984	11.5	0.307	0.509	0.260	1.31	1.38
Mar	0.862	0.591	1.25	5.24	1.12	4.50	0.147	0.373	0.276	0.555	0.828
Apr	1.70	1.38	1.87	6.20	2.56	5.35	0.244	0.988	0.873	0.707	1.09
May	0.814	0.584	0.889	4.39	0.875	3.81	0.121	0.342	0.259	0.470	0.985
June	0.926	0.791	0.881	2.40	0.937	2.25	0.0978	0.152	0.104	0.266	1.51
July	1.40	1.14	1.48	5.06	2.06	4.37	0.190	0.211	0.117	0.469	2.16
Aug	0.429	0.289	0.493	2.75	0.289	2.33	0.0517	0.0892	0.0389	0.262	1.01
Sept	1.09	0.878	1.10	4.20	0.635	3.59	0.154	0.143	0.0656	0.359	2.16
Oct	1.28	0.482	0.978	15.2	0.940	13.3	0.341	0.499	0.211	1.50	0.852
Nov	3.02	1.94	2.62	20.4	2.48	17.8	0.543	0.858	0.472	2.04	2.69
Dec	1.36	0.631	0.790	13.5	0.712	12.1	0.279	0.376	0.115	1.36	0.948
Annual	15.3	9.89	13.3	104	13.5	90.6	2.69	4.68	2.72	10.3	16.4

Data completeness

2016	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	97.9	97.9	97.9	97.9	97.9	97.9	97.9	97.9	97.9	97.9	97.4	97.4	97.4	100
Feb	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5	96.8	96.8	96.8	100
Mar	42.6	42.6	42.6	42.6	42.6	42.6	42.6	42.6	42.6	42.6	42.6	42.6	42.6	100
Apr	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
May	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
June	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
July	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
Aug	98.3	98.3	98.3	98.3	98.3	98.3	98.3	98.3	98.3	98.3	98.3	98.3	98.3	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	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
Nov	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
Dec	73.5	73.5	73.5	73.5	73.5	73.5	73.5	73.5	73.5	73.5	71.0	71.0	71.0	100
Annual	**97.3**	**97.3**	**97.3**	**97.3**	**97.3**	**97.3**	**97.3**	**97.3**	**97.3**	**97.3**	**97.2**	**97.2**	**97.2**	**100**

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

2016	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	84.7	3.54	5.77	1593	3.12	1354	30.2	32.3	3.05	154	4.08	5.39	27.5	27.4
Feb	14.2	4.33	4.79	190	3.94	163	4.28	5.12	1.59	18.9	6.24	5.20	2.39	31.6
Mar	*	*	*	*	*	*	*	*	*	*	*	*	*	13.0
Apr	27.3	15.0	17.1	236	15.4	205	5.03	13.1	8.68	22.4	14.5	4.84	4.69	49.2
May	13.1	8.81	12.8	82.0	14.7	70.8	1.93	4.91	3.38	8.58	10.3	4.99	1.93	71.7
June	8.55	5.24	6.46	63.6	5.13	54.9	1.69	2.16	0.971	6.67	8.92	5.05	1.51	167
July	8.33	6.68	9.48	31.8	10.1	27.3	1.48	2.06	1.48	3.88	9.48	5.02	1.17	81.8
Aug	5.17	1.41	2.00	73.7	<0.8	62.3	1.53	1.63	0.279	7.00	3.41	5.47	1.19	423
Sept	11.9	2.77	3.50	178	4.78	151	3.61	3.84	0.571	16.7	3.87	5.41	2.69	142
Oct	17.8	6.58	8.89	213	8.50	186	4.39	6.68	2.66	21.1	7.97	5.10	3.53	54.9
Nov	55.7	20.1	18.2	670	19.1	591	14.9	17.2	4.38	66.7	21.6	4.67	10.4	27.8
Dec	27.2	5.61	8.47	409	6.08	358	8.55	9.19	1.46	40.3	7.57	5.12	5.91	48.9
Annual	12.7	4.37	5.62	161	5.01	138	3.43	4.27	1.28	15.8	6.39	5.19	2.42	1138
Max.	252	47.7	69.0	4209	68.9	3633	78.8	84.7	39.2	405	40.7	5.77	55.9	
Min.	1.00	<0.3	<0.5	6.30	<0.8	5.50	0.300	0.300	<0.2	1.00	1.70	4.39	0.240	

Wet deposition amount

2016	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	2.32	0.0969	0.158	43.7	0.0855	37.1	0.828	0.886	0.0836	4.22	0.112
Feb	0.448	0.137	0.151	6.00	0.124	5.16	0.135	0.162	0.0502	0.596	0.197
Mar	*	*	*	*	*	*	*	*	*	*	*
Apr	1.34	0.736	0.841	11.6	0.758	10.1	0.247	0.644	0.427	1.10	0.714
May	0.937	0.631	0.917	5.88	1.05	5.07	0.138	0.352	0.242	0.615	0.738
June	1.43	0.874	1.08	10.6	0.855	9.15	0.282	0.359	0.162	1.11	1.49
July	0.681	0.547	0.776	2.60	0.826	2.23	0.121	0.169	0.121	0.317	0.776
Aug	2.19	0.598	0.845	31.2	0.252	26.4	0.646	0.688	0.118	2.96	1.44
Sept	1.69	0.395	0.498	25.4	0.680	21.5	0.513	0.546	0.0813	2.38	0.551
Oct	0.978	0.361	0.488	11.7	0.467	10.2	0.241	0.367	0.146	1.16	0.438
Nov	1.55	0.559	0.505	18.6	0.532	16.4	0.414	0.477	0.122	1.85	0.600
Dec	1.33	0.274	0.414	20.0	0.297	17.5	0.418	0.449	0.0715	1.97	0.370
Annual	14.5	4.98	6.40	184	5.70	158	3.91	4.86	1.45	18.0	7.28

Data completeness

2016	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	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	47.4	47.4	47.4	100
Feb	93.5	93.5	93.5	93.5	93.5	93.5	93.5	93.5	93.5	93.5	87.0	87.0	87.0	100
Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	100
Apr	51.8	51.8	51.8	51.8	51.8	51.8	51.8	51.8	51.8	51.8	48.8	48.8	48.8	100
May	96.1	96.1	96.1	96.1	96.1	96.1	96.1	96.1	96.1	96.1	93.5	93.5	93.5	100
June	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.1	98.1	98.1	100
July	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	96.5	96.5	96.5	100
Aug	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	98.8	98.8	98.8	100
Sept	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
Oct	98.3	98.3	98.3	98.3	98.3	98.3	98.3	98.3	98.3	98.3	97.4	97.4	97.4	100
Nov	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	95.4	95.4	95.4	100
Dec	66.5	66.5	66.5	66.5	66.5	66.5	66.5	66.5	66.5	66.5	63.5	63.5	63.5	100
Annual	**94.5**	**94.5**	**94.5**	**94.5**	**94.5**	**94.5**	**94.5**	**94.5**	**94.5**	**94.5**	**91.7**	**91.7**	**91.7**	**100**

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

2016	SO_4^{2-} $\mu mol\ L^{-1}$	nss-SO_4^{2-} $\mu mol\ L^{-1}$	NO_3^- $\mu mol\ L^{-1}$	Cl^- $\mu mol\ L^{-1}$	NH_4^+ $\mu mol\ L^{-1}$	Na^+ $\mu mol\ L^{-1}$	K^+ $\mu mol\ L^{-1}$	Ca^{2+} $\mu mol\ L^{-1}$	nss-Ca^{2+} $\mu mol\ L^{-1}$	Mg^{2+} $\mu mol\ L^{-1}$	H^+ $\mu mol\ L^{-1}$	pH	EC $mS\ m^{-1}$	Precip. $mm\ month^{-1}$ or $mm\ year^{-1}$
Jan	70.5	20.4	22.6	924	9.12	831	18.2	20.0	2.06	92.1	17.7	4.75	12.0	33.5
Feb	29.7	17.3	22.6	239	17.8	206	6.96	14.9	10.5	24.0	8.41	5.07	3.30	59.9
Mar	46.2	33.8	41.0	244	55.8	206	7.62	13.5	9.07	24.5	27.0	4.57	4.37	52.5
Apr	45.5	26.4	32.3	369	29.3	317	7.66	21.4	14.5	37.5	22.5	4.65	3.69	89.9
May	15.5	7.47	10.9	155	9.47	132	3.03	5.91	3.05	14.6	8.74	5.06	2.78	109
June	16.1	13.0	24.0	58.4	22.9	52.0	1.72	4.12	3.00	6.59	18.2	4.74	2.16	97.8
July	13.5	11.8	19.7	33.7	17.2	28.5	2.44	1.76	1.16	3.49	20.2	4.70	1.76	156
Aug	14.2	3.21	4.39	209	2.11	183	4.08	4.39	0.432	20.9	8.37	5.08	3.37	185
Sept	12.4	3.78	6.31	166	3.60	143	3.38	3.84	0.743	16.3	8.33	5.08	2.83	119
Oct	16.4	9.84	9.23	126	7.56	109	2.64	4.38	2.02	12.7	15.0	4.82	2.36	93.7
Nov	43.2	29.5	47.9	262	43.8	227	6.43	14.4	9.45	27.2	34.7	4.46	6.18	76.5
Dec	18.6	8.13	11.7	203	8.04	173	4.07	6.36	2.61	19.7	10.9	4.96	3.34	149
Annual	22.5	12.3	17.6	195	15.4	169	4.47	7.45	3.80	19.5	15.2	4.82	3.32	1222
Max.	5910	316	471	108513	279	92813	2000	2315	310	10573	124	6.50	25.2	
Min.	3.40	<0.3	1.20	3.30	<0.8	3.40	<0.3	0.500	<0.2	0.700	0.317	3.91	0.464	

Wet deposition amount

2016	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	2.36	0.683	0.758	30.9	0.305	27.8	0.608	0.668	0.0690	3.08	0.593
Feb	1.78	1.03	1.35	14.3	1.07	12.4	0.417	0.890	0.626	1.44	0.504
Mar	2.43	1.77	2.15	12.8	2.93	10.8	0.400	0.710	0.476	1.29	1.42
Apr	4.09	2.37	2.90	33.1	2.63	28.5	0.689	1.92	1.30	3.37	2.02
May	1.69	0.817	1.20	16.9	1.04	14.5	0.331	0.646	0.333	1.59	0.956
June	1.57	1.27	2.34	5.71	2.24	5.09	0.168	0.403	0.293	0.644	1.78
July	2.11	1.84	3.08	5.26	2.68	4.44	0.381	0.274	0.181	0.545	3.15
Aug	2.63	0.594	0.812	38.7	0.391	33.9	0.754	0.813	0.0798	3.87	1.55
Sept	1.48	0.449	0.751	19.8	0.428	17.1	0.403	0.457	0.0884	1.94	0.991
Oct	1.54	0.922	0.865	11.8	0.708	10.2	0.247	0.410	0.190	1.19	1.40
Nov	3.30	2.26	3.66	20.0	3.35	17.4	0.491	1.10	0.723	2.08	2.66
Dec	2.77	1.21	1.75	30.2	1.20	25.9	0.608	0.949	0.390	2.95	1.63
Annual	27.5	15.1	21.5	238	18.8	206	5.46	9.10	4.65	23.8	18.5

Data completeness

2016	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	83.7	83.7	83.7	100
Feb	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	93.5	93.5	93.5	100
Mar	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	95.2	95.2	95.2	100
Apr	89.5	89.5	89.5	89.5	89.5	89.5	89.5	89.5	89.5	89.5	87.3	87.3	87.3	100
May	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2	96.0	96.0	96.0	100
June	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	96.7	96.7	96.7	96.7
July	100	100	100	100	100	100	100	100	100	100	98.6	98.6	98.6	100
Aug	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.8	99.8	99.8	100
Sept	100	100	100	100	100	100	100	100	100	100	99.2	99.2	99.2	100
Oct	100	100	100	100	100	100	100	100	100	100	96.1	96.1	96.1	100
Nov	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	98.1	98.1	98.1	100
Dec	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	98.5	98.5	98.5	100
Annual	**98.8**	**98.8**	**98.8**	**98.8**	**98.8**	**98.8**	**98.8**	**98.8**	**98.8**	**98.8**	**96.6**	**96.6**	**96.6**	**99.7**

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

2016	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	65.0	21.5	41.7	829	27.8	722	19.6	23.3	7.76	81.5	32.0	4.49	12.3	90.0
Feb	55.1	22.0	35.5	619	36.2	548	14.8	31.4	19.5	62.5	17.3	4.76	8.93	43.1
Mar	30.5	20.5	31.9	186	34.3	165	5.49	14.1	10.5	20.9	15.4	4.81	3.97	26.8
Apr	19.3	13.9	24.9	107	25.5	90.8	3.44	8.17	6.23	11.3	12.5	4.90	1.89	106
May	11.9	9.26	15.5	48.7	13.1	43.2	1.91	4.36	3.42	5.53	12.4	4.91	1.75	78.1
June	11.4	10.6	21.2	16.2	20.9	12.6	1.11	5.03	4.75	3.07	14.8	4.83	1.47	61.3
July	6.58	4.98	7.73	30.6	6.15	26.6	1.73	1.75	1.17	3.51	8.30	5.08	1.07	148
Aug	5.97	2.51	5.78	65.3	3.05	57.4	1.47	1.90	0.659	6.67	5.75	5.24	1.35	96.7
Sept	12.3	9.02	11.5	64.2	14.9	53.9	25.0	34.6	33.5	10.5	6.73	5.17	2.54	89.8
Oct	2.30	1.62	2.30	17.5	<0.8	11.2	1.80	17.2	17.0	3.10	0.309	6.51	0.680	88.8
Nov	19.7	11.8	12.1	148	8.57	130	3.20	4.80	1.98	15.0	21.4	4.67	3.20	60.8
Dec	27.3	11.2	20.0	294	12.5	267	6.63	8.91	3.14	30.4	21.3	4.67	5.07	110
Annual	21.4	10.9	18.7	199	16.0	175	7.55	11.4	7.67	20.8	13.9	4.86	3.47	999
Max.	350	178	595	4617	378	3936	170	203	203	432	162	7.00	48.4	
Min.	1.50	<0.3	2.30	3.00	<0.8	2.20	0.400	0.600	<0.2	1.00	0.100	3.79	0.330	

Wet deposition amount

2016	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	5.85	1.93	3.75	74.6	2.50	65.0	1.76	2.10	0.698	7.34	2.88
Feb	2.37	0.949	1.53	26.7	1.56	23.6	0.637	1.35	0.841	2.70	0.747
Mar	0.818	0.551	0.856	4.99	0.920	4.43	0.147	0.378	0.282	0.560	0.412
Apr	2.05	1.47	2.65	11.4	2.71	9.65	0.365	0.868	0.662	1.20	1.33
May	0.927	0.723	1.21	3.80	1.02	3.38	0.149	0.340	0.267	0.432	0.972
June	0.698	0.651	1.30	0.992	1.28	0.772	0.0680	0.308	0.291	0.188	0.905
July	0.973	0.736	1.14	4.52	0.909	3.93	0.255	0.259	0.174	0.519	1.23
Aug	0.577	0.243	0.559	6.31	0.295	5.55	0.142	0.184	0.0637	0.645	0.556
Sept	1.10	0.811	1.04	5.77	1.34	4.85	2.25	3.11	3.01	0.943	0.605
Oct	0.204	0.144	0.204	1.55	<0.01	0.994	0.160	1.53	1.51	0.275	0.0274
Nov	1.19	0.717	0.733	9.01	0.521	7.92	0.195	0.292	0.120	0.913	1.30
Dec	2.99	1.23	2.19	32.3	1.38	29.3	0.728	0.978	0.345	3.33	2.34
Annual	21.4	10.9	18.7	199	16.0	175	7.54	11.4	7.66	20.8	13.9

Data completeness

2016	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	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2	82.5	82.5	82.5	100
Feb	93.6	93.6	93.6	93.6	93.6	93.6	93.6	93.6	93.6	93.6	87.6	87.6	87.6	100
Mar	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	91.9	91.9	91.9	100
Apr	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1	96.0	96.0	96.0	96.7
May	98.1	98.1	98.1	98.1	98.1	98.1	98.1	98.1	98.1	98.1	97.3	97.3	97.3	96.8
June	86.1	86.1	86.1	86.1	86.1	86.1	86.1	86.1	86.1	86.1	85.6	85.6	85.6	100
July	100	100	100	100	100	100	100	100	100	100	99.1	99.1	99.1	100
Aug	100	100	100	100	100	100	100	100	100	100	99.3	99.3	99.3	100
Sept	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	96.9	96.9	96.9	100
Oct	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	100
Nov	39.1	39.1	39.1	39.1	39.1	39.1	39.1	39.1	39.1	39.1	37.8	37.8	37.8	100
Dec	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	96.1	96.1	96.1	100
Annual	**85.9**	**85.9**	**85.9**	**85.9**	**85.9**	**85.9**	**85.9**	**85.9**	**85.9**	**85.9**	**82.8**	**82.8**	**82.8**	**99.5**

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

2016	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	12.8	11.2	12.1	27.1	11.4	25.6	1.42	2.26	1.71	3.24	15.3	4.81	1.40	144
Feb	15.2	14.0	16.6	25.7	15.3	20.9	2.74	2.11	1.65	2.96	19.7	4.71	1.65	149
Mar	*	*	*	*	*	*	*	*	*	*	*	*	*	45.5
Apr	*	*	*	*	*	*	*	*	*	*	*	*	*	263
May	*	*	*	*	*	*	*	*	*	*	*	*	*	124
June	*	*	*	*	*	*	*	*	*	*	*	*	*	216
July	5.99	5.94	7.09	1.84	8.71	0.864	<0.3	0.710	0.691	0.551	7.44	5.13	0.590	412
Aug	3.93	3.86	4.66	1.98	3.96	1.15	<0.3	0.489	0.465	0.681	6.31	5.20	0.450	194
Sept	2.30	2.26	3.53	1.12	1.77	0.604	<0.3	0.235	0.223	<0.3	4.59	5.34	0.330	401
Oct	3.09	2.97	3.20	6.20	1.07	1.92	0.313	0.644	0.603	0.465	9.26	5.03	0.547	209
Nov	12.1	11.3	11.2	15.8	8.57	13.0	0.664	1.64	1.36	1.85	19.5	4.71	1.31	91.5
Dec	*	*	*	*	*	*	*	*	*	*	*	*	*	198
Annual	5.12	4.83	5.79	6.42	4.77	4.83	0.457	0.750	0.646	0.861	8.18	5.09	0.616	2446
Max.	60.4	57.5	58.2	204	79.3	188	14.5	7.63	7.45	20.2	74.1	5.94	5.53	
Min.	0.600	0.576	1.40	0.500	<0.8	0.400	<0.3	<0.2	<0.2	<0.3	1.15	4.13	0.150	

Wet deposition amount

2016	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	1.84	1.62	1.74	3.90	1.64	3.69	0.205	0.326	0.247	0.467	2.21
Feb	2.27	2.08	2.48	3.83	2.28	3.12	0.409	0.314	0.247	0.442	2.94
Mar	*	*	*	*	*	*	*	*	*	*	*
Apr	*	*	*	*	*	*	*	*	*	*	*
May	*	*	*	*	*	*	*	*	*	*	*
June	*	*	*	*	*	*	*	*	*	*	*
July	2.46	2.44	2.92	0.758	3.58	0.356	0.111	0.292	0.284	0.227	3.06
Aug	0.764	0.750	0.906	0.386	0.770	0.223	0.0403	0.0951	0.0903	0.132	1.23
Sept	0.921	0.907	1.42	0.449	0.710	0.242	0.0710	0.0942	0.0893	0.0814	1.84
Oct	0.646	0.622	0.669	1.30	0.223	0.402	0.0656	0.135	0.126	0.0973	1.94
Nov	1.10	1.03	1.02	1.45	0.784	1.19	0.0608	0.150	0.125	0.169	1.78
Dec	*	*	*	*	*	*	*	*	*	*	*
Annual	12.5	11.8	14.2	15.7	11.7	11.8	1.12	1.84	1.58	2.11	20.0

Data completeness

2016	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	97.5	97.5	97.5	100
Feb	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	23.4	23.4	23.4	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	44.2	44.2	44.2	44.2	44.2	44.2	44.2	44.2	44.2	44.2	44.2	44.2	44.2	100
Aug	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
Sept	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.4	99.4	99.4	100
Oct	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	98.7	98.7	98.7	100
Nov	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	41.9
Dec	0	0	0	0	0	0	0	0	0	0	0	0	0	100
Annual	**48.5**	**48.5**	**48.5**	**48.5**	**48.5**	**48.5**	**48.5**	**48.5**	**48.5**	**48.5**	**48.3**	**48.3**	**48.3**	**95.1**

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

2016	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	5.55	4.01	8.36	31.2	4.12	25.5	0.405	0.827	0.278	2.84	12.7	4.90	1.06	118
Feb	16.4	14.4	25.1	41.7	19.5	33.1	2.41	6.14	5.42	4.67	22.6	4.65	2.01	132
Mar	10.7	9.47	13.6	25.3	12.9	20.2	0.545	3.99	3.56	2.83	12.5	4.90	1.20	190
Apr	9.18	7.52	11.3	31.4	11.8	27.5	0.882	2.34	1.74	3.19	10.2	4.99	1.16	388
May	14.5	13.6	19.8	16.3	21.6	14.8	0.995	2.30	1.98	1.85	17.5	4.76	1.53	351
June	12.2	12.0	20.3	4.59	18.6	3.27	<0.3	0.988	0.917	0.481	22.7	4.64	1.50	412
July	13.0	12.8	20.8	4.48	17.5	3.01	<0.3	0.917	0.852	0.430	24.9	4.60	1.59	223
Aug	29.3	28.6	49.4	14.7	52.5	12.1	0.848	8.14	7.88	2.09	37.1	4.43	2.99	49.0
Sept	9.90	9.61	14.0	7.14	12.1	4.68	<0.3	0.824	0.723	0.659	17.6	4.75	1.18	705
Oct	6.42	5.76	11.4	13.4	8.32	10.9	0.451	1.20	0.962	1.21	12.1	4.92	0.940	276
Nov	8.22	7.68	13.3	10.8	8.41	8.96	0.377	2.26	2.06	1.16	15.9	4.80	1.08	142
Dec	9.50	8.58	20.4	18.7	8.67	15.2	<0.3	2.64	2.31	1.86	22.3	4.65	1.50	169
Annual	10.8	10.1	16.4	15.2	14.3	12.4	0.498	1.88	1.61	1.57	17.5	4.76	1.33	3151
Max.	75.6	72.3	174	234	110	192	4.30	60.3	59.1	23.3	138	5.84	8.85	
Min.	1.80	1.14	2.20	1.20	1.60	<0.3	<0.3	<0.2	<0.2	<0.3	1.46	3.86	0.439	

Wet deposition amount

2016	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	0.652	0.471	0.982	3.66	0.485	3.00	0.0476	0.0972	0.0327	0.334	1.49
Feb	2.15	1.89	3.30	5.48	2.56	4.36	0.317	0.807	0.713	0.613	2.97
Mar	2.03	1.79	2.59	4.79	2.45	3.84	0.103	0.757	0.674	0.536	2.36
Apr	3.56	2.92	4.38	12.2	4.56	10.7	0.342	0.907	0.677	1.24	3.94
May	5.07	4.76	6.94	5.70	7.57	5.18	0.349	0.806	0.694	0.649	6.15
June	5.04	4.96	8.36	1.89	7.64	1.35	0.0593	0.407	0.377	0.198	9.36
July	2.89	2.85	4.62	0.996	3.89	0.671	0.0650	0.204	0.190	0.0957	5.54
Aug	1.44	1.40	2.42	0.718	2.57	0.594	0.0416	0.399	0.386	0.102	1.82
Sept	6.97	6.77	9.86	5.03	8.56	3.30	0.0801	0.580	0.509	0.464	12.4
Oct	1.77	1.59	3.14	3.70	2.30	3.01	0.124	0.331	0.265	0.334	3.33
Nov	1.16	1.09	1.89	1.52	1.19	1.27	0.0534	0.319	0.292	0.165	2.25
Dec	1.60	1.45	3.45	3.16	1.46	2.57	0.0492	0.445	0.390	0.314	3.75
Annual	34.1	31.8	51.6	48.0	45.1	39.1	1.57	5.92	5.08	4.94	55.2

Data completeness

2016	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	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	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	**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**

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

2016	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	91.3	11.2	14.3	1539	8.96	1330	29.2	31.8	3.04	152	18.3	4.74	21.4	113
Feb	60.5	30.1	40.1	595	46.9	505	12.7	25.8	14.9	60.7	19.5	4.71	9.99	69.8
Mar	28.9	23.1	28.3	109	28.2	97.0	4.13	13.0	10.9	13.0	18.2	4.74	2.34	30.9
Apr	12.3	5.96	7.77	121	8.52	106	3.48	4.69	2.40	11.1	5.85	5.23	2.10	137
May	16.0	8.87	12.0	135	7.63	118	3.79	4.82	2.27	13.4	14.3	4.85	2.69	85.5
June	13.7	12.5	14.4	22.1	16.9	19.6	1.07	4.22	3.80	3.57	14.5	4.84	1.45	103
July	8.72	7.06	11.6	30.4	11.0	27.6	0.821	0.590	0.297	2.91	9.93	5.00	1.17	251
Aug	15.1	6.32	8.92	153	8.19	145	4.03	4.18	1.04	15.3	8.12	5.09	2.82	128
Sept	*	*	*	*	*	*	*	*	*	*	*	*	*	325
Oct	*	*	*	*	*	*	*	*	*	*	*	*	*	52.0
Nov	88.9	14.0	23.8	1305	22.4	1242	28.4	24.7	<0.2	132	*	*	*	84.5
Dec	69.5	21.3	32.9	940	19.6	799	18.7	24.2	6.97	95.5	23.1	4.64	14.3	139
Annual	31.7	11.7	16.4	384	14.4	332	8.06	10.6	3.55	38.5	13.4	4.87	6.08	1519
Max.	1481	166	308	28545	388	23953	517	536	68.5	2727	95.5	6.79	350	
Min.	2.10	1.35	2.20	3.40	<0.8	2.90	<0.3	<0.2	<0.2	0.900	0.162	4.02	0.330	

Wet deposition amount

2016	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	10.4	1.27	1.62	175	1.02	151	3.31	3.61	0.344	17.2	2.08
Feb	4.22	2.10	2.80	41.5	3.27	35.2	0.884	1.80	1.04	4.24	1.36
Mar	0.895	0.714	0.876	3.37	0.871	3.00	0.128	0.400	0.336	0.402	0.562
Apr	1.69	0.818	1.07	16.6	1.17	14.5	0.477	0.642	0.329	1.52	0.802
May	1.37	0.758	1.02	11.5	0.652	10.1	0.324	0.412	0.194	1.15	1.22
June	1.42	1.29	1.49	2.28	1.75	2.02	0.111	0.436	0.392	0.369	1.49
July	2.19	1.77	2.90	7.64	2.78	6.94	0.206	0.148	0.0746	0.732	2.50
Aug	1.93	0.808	1.14	19.5	1.05	18.5	0.514	0.534	0.133	1.96	1.04
Sept	*	*	*	*	*	*	*	*	*	*	*
Oct	*	*	*	*	*	*	*	*	*	*	*
Nov	7.51	1.19	2.01	110	1.89	105	2.40	2.09	<0.01	11.1	*
Dec	9.63	2.95	4.56	130	2.72	111	2.59	3.36	0.966	13.2	3.21
Annual	48.2	17.8	24.9	583	21.9	505	12.2	16.2	5.39	58.5	20.3

Data completeness

2016	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	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.2	100
Feb	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	98.9	100
Mar	98.4	98.4	98.4	98.4	98.4	98.4	98.4	98.4	98.4	98.4	89.0	89.0	89.0	100
Apr	95.9	95.9	95.9	95.9	95.9	95.9	95.9	95.9	95.9	95.9	94.8	94.8	94.8	100
May	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	97.7	97.7	97.7	100
June	96.1	96.1	96.1	96.1	96.1	96.1	96.1	96.1	96.1	96.1	95.3	95.3	95.3	100
July	100	100	100	100	100	100	100	100	100	100	99.7	99.7	99.7	100
Aug	100	100	100	100	100	100	100	100	100	100	99.4	99.4	99.4	100
Sept	0	0	0	0	0	0	0	0	0	0	0	0	0	100
Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	100
Nov	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	0	0	0	80.0
Dec	90.6	90.6	90.6	90.6	90.6	90.6	90.6	90.6	90.6	90.6	89.4	89.4	89.4	90.3
Annual	**68.2**	**68.2**	**68.2**	**68.2**	**68.2**	**68.2**	**68.2**	**68.2**	**68.2**	**68.2**	**67.4**	**67.4**	**67.3**	**97.5**

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

2016	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	40.8	25.6	59.7	284	36.9	252	6.49	11.3	5.84	30.0	52.3	4.28	7.10	113
Feb	27.0	20.1	29.6	135	29.0	116	3.62	15.3	12.8	15.1	10.1	5.00	3.17	105
Mar	28.0	24.3	36.2	70.4	33.9	62.0	2.93	10.2	8.89	8.54	24.7	4.61	3.02	126
Apr	7.37	5.64	8.16	30.6	5.68	28.6	1.54	3.10	2.48	3.47	7.06	5.15	0.956	130
May	10.9	9.21	9.67	31.1	8.36	28.2	1.29	3.36	2.75	3.54	12.1	4.92	1.26	123
June	7.07	6.72	8.78	6.01	11.5	5.85	0.495	1.65	1.53	1.32	5.71	5.24	0.713	253
July	6.40	5.92	11.5	7.60	13.2	8.09	0.337	0.801	0.627	1.18	7.43	5.13	0.790	67.0
Aug	15.0	11.4	10.9	67.9	11.1	60.7	0.858	1.97	0.657	5.43	18.3	4.74	2.08	150
Sept	11.6	6.78	6.55	88.2	4.10	79.2	1.67	1.86	0.408	8.26	10.9	4.96	1.83	319
Oct	7.80	5.80	6.36	34.6	3.02	33.2	0.798	1.72	0.999	3.70	10.9	4.96	1.18	163
Nov	20.5	14.9	21.0	98.5	18.3	93.0	3.12	7.81	5.80	10.6	16.3	4.79	2.71	99.0
Dec	30.1	17.0	29.7	250	22.8	217	5.35	9.88	5.19	24.2	21.1	4.68	4.91	183
Annual	16.9	11.9	17.9	92.1	15.0	81.9	2.28	5.17	3.45	9.45	15.4	4.81	2.39	1829
Max.	124	89.2	197	1298	160	1152	28.2	83.1	76.8	134	141	5.52	25.6	
Min.	4.50	2.98	2.50	3.40	0.900	3.40	<0.3	<0.2	<0.2	<0.3	3.02	3.85	0.460	

Wet deposition amount

2016	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	4.59	2.88	6.72	31.9	4.15	28.4	0.731	1.27	0.657	3.38	5.88
Feb	2.83	2.10	3.10	14.1	3.03	12.1	0.378	1.60	1.34	1.58	1.05
Mar	3.52	3.05	4.55	8.83	4.26	7.78	0.367	1.28	1.12	1.07	3.10
Apr	0.954	0.731	1.06	3.96	0.736	3.70	0.199	0.402	0.322	0.449	0.914
May	1.34	1.13	1.19	3.83	1.03	3.47	0.158	0.414	0.339	0.436	1.49
June	1.79	1.70	2.22	1.52	2.92	1.48	0.125	0.417	0.387	0.334	1.45
July	0.429	0.396	0.773	0.509	0.885	0.542	0.0226	0.0537	0.0420	0.0792	0.498
Aug	2.26	1.71	1.64	10.2	1.68	9.14	0.129	0.296	0.0988	0.817	2.75
Sept	3.69	2.16	2.09	28.2	1.31	25.3	0.532	0.594	0.130	2.64	3.49
Oct	1.27	0.942	1.03	5.62	0.491	5.39	0.130	0.279	0.162	0.602	1.76
Nov	2.03	1.47	2.08	9.75	1.82	9.20	0.309	0.773	0.574	1.05	1.61
Dec	5.49	3.10	5.42	45.7	4.17	39.6	0.977	1.80	0.948	4.42	3.85
Annual	30.9	21.8	32.8	168	27.4	150	4.17	9.45	6.31	17.3	28.2

Data completeness

2016	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	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	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	**95.8**	**95.8**	**95.8**	**95.8**	**95.8**	**95.8**	**95.8**	**95.8**	**95.8**	**95.8**	**95.8**	**95.8**	**95.8**	**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

2016	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	18.8	15.7	30.4	64.3	17.8	52.2	1.84	4.61	3.48	6.32	35.7	4.45	4.61	132
Feb	*	*	*	*	*	*	*	*	*	*	*	*	*	132
Mar	9.77	9.24	7.94	10.4	8.95	8.73	0.645	2.58	2.39	2.02	9.64	5.02	0.983	137
Apr	6.40	5.80	6.92	11.7	7.22	9.90	0.698	1.46	1.25	1.59	9.35	5.03	0.843	265
May	6.68	6.46	5.57	4.53	6.03	3.60	0.499	1.33	1.26	0.702	10.9	4.96	0.727	341
June	6.25	6.15	5.36	2.20	5.41	1.62	0.322	0.488	0.458	0.317	12.1	4.92	0.716	534
July	4.30	4.17	2.91	2.56	3.02	2.19	0.360	0.637	0.592	0.540	8.96	5.05	0.524	181
Aug	19.9	19.4	18.7	8.80	20.4	8.13	0.609	1.27	1.09	1.17	38.1	4.42	2.08	128
Sept	6.10	5.77	3.42	7.68	1.80	5.52	0.390	0.501	0.381	0.845	14.6	4.84	0.773	450
Oct	3.93	3.52	4.07	8.26	1.96	6.80	0.357	0.778	0.631	0.957	9.91	5.00	0.603	162
Nov	8.90	8.48	9.06	8.45	5.84	7.04	0.488	1.60	1.45	1.10	18.8	4.73	1.14	101
Dec	10.2	8.16	11.9	42.3	6.40	33.1	0.878	2.13	1.41	4.22	18.7	4.73	1.73	182
Annual	7.58	7.10	6.96	9.97	6.04	7.97	0.508	1.14	0.969	1.21	14.2	4.85	0.972	2744
Max.	169	169	192	966	95.8	759	26.2	49.7	49.5	98.3	282	5.98	20.0	
Min.	<0.3	<0.3	0.613	<0.5	<0.8	<0.3	<0.3	<0.2	<0.2	<0.3	1.05	3.55	0.180	

Wet deposition amount

2016	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	2.48	2.07	4.02	8.48	2.35	6.89	0.243	0.608	0.459	0.834	4.71
Feb	*	*	*	*	*	*	*	*	*	*	*
Mar	1.33	1.26	1.08	1.42	1.22	1.19	0.0880	0.352	0.326	0.276	1.32
Apr	1.70	1.54	1.84	3.10	1.92	2.63	0.185	0.388	0.331	0.422	2.48
May	2.27	2.20	1.90	1.54	2.05	1.23	0.170	0.454	0.427	0.239	3.70
June	3.34	3.29	2.86	1.18	2.89	0.863	0.172	0.260	0.244	0.169	6.46
July	0.777	0.753	0.526	0.462	0.545	0.396	0.0651	0.115	0.107	0.0975	1.62
Aug	2.55	2.47	2.38	1.13	2.61	1.04	0.0779	0.162	0.139	0.150	4.88
Sept	2.75	2.60	1.54	3.46	0.812	2.48	0.175	0.225	0.172	0.380	6.57
Oct	0.639	0.572	0.661	1.34	0.319	1.10	0.0580	0.126	0.103	0.156	1.61
Nov	0.900	0.857	0.916	0.855	0.590	0.711	0.0493	0.162	0.146	0.111	1.90
Dec	1.84	1.48	2.16	7.69	1.16	6.00	0.159	0.386	0.256	0.766	3.40
Annual	20.8	19.5	19.1	27.4	16.6	21.9	1.39	3.13	2.66	3.33	38.9

Data completeness

2016	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	34.4	34.4	34.4	34.4	34.4	34.4	34.4	34.4	34.4	34.4	34.1	34.1	34.1	100
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	100	100	100	100
Apr	79.3	79.3	79.3	79.3	79.3	79.3	79.3	79.3	79.3	79.3	79.3	79.3	79.3	100
May	100	100	100	100	100	100	100	100	100	100	100	100	100	100
June	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.8	99.8	99.8	100
July	100	100	100	100	100	100	100	100	100	100	99.4	99.4	99.4	100
Aug	100	99.9	100	100	99.9	99.9	99.9	99.9	99.9	99.9	99.7	99.7	99.7	100
Sept	80.2	80.2	80.2	80.2	80.2	80.2	80.2	80.2	80.2	80.2	80.2	80.2	80.2	100
Oct	100	100	100	100	100	100	100	100	100	100	99.7	99.7	99.7	100
Nov	100	100	100	100	100	100	100	100	100	100	99.5	99.5	99.5	100
Dec	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
Annual	**86.8**	**86.8**	**86.8**	**86.8**	**86.8**	**86.8**	**86.8**	**86.8**	**86.8**	**86.8**	**86.6**	**86.6**	**86.6**	**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

2016	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	56.8	6.92	8.40	980	8.69	828	16.8	19.0	1.61	92.8	10.3	4.99	12.7	217
Feb	36.7	17.7	13.1	369	16.3	315	7.54	9.78	2.98	36.5	21.8	4.66	6.00	112
Mar	12.4	7.02	7.80	105	15.6	89.4	2.82	3.17	1.24	10.6	6.14	5.21	1.93	229
Apr	9.78	6.40	11.1	65.8	14.9	56.1	1.84	2.02	0.806	6.43	8.89	5.05	1.64	276
May	10.3	5.29	11.9	95.8	7.90	82.9	2.07	3.74	1.95	9.49	7.33	5.13	1.95	95.0
June	6.19	2.54	5.07	71.0	2.49	60.5	1.11	1.67	0.362	7.22	3.42	5.47	1.31	192
July	9.41	2.01	3.26	141	1.57	123	2.72	3.75	1.10	16.9	1.05	5.98	2.20	74.5
Aug	6.32	1.86	3.52	86.8	1.85	74.1	1.74	2.11	0.523	9.86	3.25	5.49	1.33	142
Sept	6.67	2.03	3.00	89.4	1.57	77.2	1.93	2.09	0.429	10.1	2.84	5.55	1.48	245
Oct	14.8	2.37	2.91	240	2.62	207	4.27	5.20	0.855	25.5	1.71	5.77	3.35	92.8
Nov	22.8	7.94	14.6	286	8.18	247	6.33	7.88	2.54	29.9	8.64	5.06	2.94	90.5
Dec	24.6	7.24	10.3	349	4.94	302	6.50	8.23	2.02	34.1	3.72	5.43	1.64	57.4
Annual	17.5	5.47	7.40	236	8.05	201	4.51	5.37	1.12	23.3	6.72	5.17	3.41	1822
Max.	2887	152	236	56626	188	47739	934	986	66.4	5276	132	7.86	664	
Min.	1.20	<0.3	0.600	12.3	<0.8	10.1	<0.3	<0.2	<0.2	1.40	0.0138	3.88	0.400	

Wet deposition amount

2016	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	12.3	1.50	1.82	213	1.89	180	3.66	4.12	0.350	20.1	2.23
Feb	4.11	1.99	1.46	41.4	1.82	35.3	0.844	1.10	0.334	4.08	2.44
Mar	2.83	1.60	1.78	24.1	3.57	20.4	0.644	0.725	0.283	2.43	1.40
Apr	2.70	1.77	3.07	18.2	4.11	15.5	0.507	0.557	0.222	1.77	2.45
May	0.977	0.502	1.13	9.10	0.750	7.87	0.196	0.356	0.186	0.902	0.696
June	1.19	0.489	0.973	13.6	0.479	11.6	0.213	0.321	0.0695	1.39	0.656
July	0.701	0.150	0.243	10.5	0.117	9.15	0.202	0.279	0.0816	1.26	0.0786
Aug	0.895	0.263	0.498	12.3	0.262	10.5	0.247	0.298	0.0741	1.40	0.460
Sept	1.63	0.497	0.733	21.9	0.384	18.9	0.472	0.512	0.105	2.48	0.694
Oct	1.38	0.220	0.270	22.3	0.244	19.2	0.396	0.483	0.0794	2.36	0.158
Nov	2.07	0.719	1.32	25.9	0.741	22.4	0.573	0.713	0.230	2.70	0.782
Dec	1.41	0.415	0.593	20.0	0.283	17.3	0.373	0.472	0.116	1.96	0.213
Annual	31.9	9.97	13.5	429	14.7	365	8.22	9.79	2.05	42.5	12.2

Data completeness

2016	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	99.0	99.0	99.0	100
Feb	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	98.7	98.7	98.7	100
Mar	100	100	100	100	100	100	100	100	100	100	98.9	98.9	98.9	100
Apr	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.7	99.7	99.7	100
May	100	100	100	100	100	100	100	100	100	100	98.4	98.4	98.4	100
June	100	100	100	100	100	100	100	100	100	100	97.9	97.9	97.9	100
July	100	100	100	100	100	100	100	100	100	100	98.7	98.7	98.7	100
Aug	100	100	100	100	100	100	100	100	100	100	93.4	93.4	93.4	100
Sept	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	96.9	96.9	96.9	100
Oct	96.8	96.8	96.8	96.8	96.8	96.8	96.8	96.8	96.8	96.8	92.6	92.6	92.6	100
Nov	32.0	32.0	32.0	32.0	32.0	32.0	32.0	32.0	32.0	32.0	29.3	29.3	29.3	100
Dec	100	100	100	100	100	100	100	100	100	100	91.5	91.5	91.5	100
Annual	**96.2**	**96.2**	**96.2**	**96.2**	**96.2**	**96.2**	**96.2**	**96.2**	**96.2**	**96.2**	**94.2**	**94.2**	**94.2**	**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

2016	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	11.9	6.76	3.81	99.6	4.75	85.7	1.93	2.23	0.378	9.74	11.9	4.93	2.02	180
Feb	7.36	2.40	2.46	94.1	2.68	82.3	2.01	2.27	0.493	9.22	5.82	5.23	1.64	135
Mar	15.5	8.30	5.30	138	11.7	119	3.04	3.60	1.03	13.7	10.3	4.99	2.52	176
Apr	7.78	3.81	5.09	76.8	7.18	65.7	1.85	2.40	0.983	7.84	6.09	5.22	1.42	227
May	4.40	2.72	3.79	32.4	2.09	27.9	0.833	1.04	0.432	3.25	7.53	5.12	0.870	60.6
June	6.97	1.54	4.03	108	1.47	90.1	2.30	2.31	0.363	9.84	7.94	5.10	1.91	19.5
July	7.54	5.49	9.54	42.9	1.82	34.1	1.13	2.11	1.38	4.31	16.5	4.78	1.44	24.2
Aug	10.2	1.36	1.93	174	0.880	147	3.20	3.46	0.300	16.7	6.26	5.20	2.74	71.5
Sept	5.99	1.92	2.16	79.1	1.48	67.4	1.46	2.12	0.664	7.56	6.40	5.19	1.34	14.3
Oct	8.31	1.26	2.11	134	0.902	117	2.66	2.81	0.277	13.5	6.93	5.16	2.18	87.5
Nov	7.50	1.23	2.36	121	<0.8	105	2.40	2.55	0.292	12.1	5.65	5.25	1.89	87.8
Dec	8.01	1.31	3.78	128	2.49	112	2.60	3.21	0.803	13.0	4.67	5.33	1.29	70.0
Annual	9.57	4.09	3.87	106	4.85	90.9	2.22	2.60	0.638	10.5	7.98	5.10	1.87	1153
Max.	183	18.3	44.1	3484	36.6	3036	65.4	66.2	7.44	345	35.5	5.57	49.1	
Min.	0.800	<0.3	<0.5	6.60	<0.8	5.60	0.300	0.200	<0.2	0.700	2.69	4.45	0.270	

Wet deposition amount

2016	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	2.15	1.22	0.686	17.9	0.855	15.4	0.348	0.401	0.0680	1.75	2.14
Feb	0.997	0.325	0.333	12.7	0.363	11.1	0.273	0.308	0.0668	1.25	0.788
Mar	2.72	1.46	0.930	24.3	2.06	20.9	0.533	0.631	0.180	2.41	1.81
Apr	1.77	0.866	1.16	17.4	1.63	14.9	0.420	0.546	0.223	1.78	1.38
May	0.267	0.165	0.230	1.97	0.127	1.69	0.0505	0.0627	0.0262	0.197	0.456
June	0.136	0.0300	0.0787	2.11	0.0287	1.76	0.0449	0.0451	<0.01	0.192	0.155
July	0.183	0.133	0.231	1.04	0.0441	0.825	0.0273	0.0512	0.0334	0.105	0.401
Aug	0.729	0.0969	0.138	12.4	0.0629	10.5	0.229	0.247	0.0214	1.19	0.447
Sept	0.0856	0.0275	0.0309	1.13	0.0211	0.964	0.0209	0.0303	<0.01	0.108	0.0916
Oct	0.726	0.110	0.184	11.7	0.0789	10.3	0.232	0.246	0.0242	1.18	0.606
Nov	0.659	0.108	0.207	10.6	0.0698	9.19	0.211	0.224	0.0256	1.06	0.496
Dec	0.561	0.0918	0.264	8.98	0.174	7.80	0.182	0.225	0.0562	0.911	0.327
Annual	11.0	4.72	4.47	122	5.59	105	2.56	3.00	0.736	12.1	9.21

Data completeness

2016	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	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.4	99.4	99.4	100
Mar	100	100	100	100	100	100	100	100	100	100	99.7	99.7	99.7	100
Apr	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	98.8	98.8	98.8	100
May	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
June	100	100	100	100	100	100	100	100	100	100	100	100	100	100
July	94.9	94.9	94.9	94.9	94.9	94.9	94.9	94.9	94.9	94.9	90.8	90.8	90.8	100
Aug	100	100	100	100	100	100	100	100	100	100	96.5	96.5	96.5	100
Sept	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	90.9	90.9	90.9	100
Oct	98.3	98.3	98.3	98.3	98.3	98.3	98.3	98.3	98.3	98.3	97.4	97.4	97.4	96.8
Nov	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	98.5	98.5	98.5	100
Dec	57.1	57.1	57.1	57.1	57.1	57.1	57.1	57.1	57.1	57.1	54.3	54.3	54.3	77.4
Annual	**96.9**	**96.9**	**96.9**	**96.9**	**96.9**	**96.9**	**96.9**	**96.9**	**96.9**	**96.9**	**96.0**	**96.0**	**96.0**	**97.8**

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

2016	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	4.55	4.41	6.71	3.41	10.8	2.40	<0.3	0.763	0.711	0.328	6.68	5.18	0.512	82.0
Feb	11.6	9.67	18.8	36.7	23.5	31.4	0.951	5.78	5.11	3.99	6.70	5.17	0.989	53.0
Mar	12.5	11.2	14.2	24.5	24.0	21.1	0.832	3.41	2.95	2.83	11.3	4.95	1.25	99.0
Apr	16.0	13.9	21.1	39.7	26.1	35.1	1.17	5.45	4.69	4.61	15.0	4.82	1.73	110
May	11.2	10.2	12.0	19.6	18.3	16.5	0.519	2.91	2.55	2.15	11.6	4.94	1.14	132
June	10.8	10.5	13.5	6.43	20.7	5.15	0.345	2.31	2.20	0.813	13.4	4.87	1.04	163
July	22.3	21.8	33.9	11.6	37.4	8.28	0.433	4.82	4.65	1.34	36.2	4.44	2.43	72.2
Aug	8.84	7.83	6.50	20.5	14.1	16.7	0.631	1.66	1.30	1.92	9.45	5.02	0.962	378
Sept	5.34	4.95	9.34	7.87	11.9	6.36	<0.3	1.18	1.04	0.887	10.4	4.98	0.737	260
Oct	7.18	6.10	10.2	21.2	15.1	18.0	0.541	2.43	2.04	2.28	8.83	5.05	0.909	84.1
Nov	5.22	4.66	10.2	10.1	12.2	9.40	0.359	2.37	2.17	1.20	8.05	5.09	0.764	115
Dec	4.90	3.68	10.2	23.5	11.7	20.1	0.618	2.77	2.34	2.45	7.35	5.13	0.907	61.5
Annual	9.36	8.49	11.8	17.2	17.2	14.4	0.539	2.48	2.17	1.85	11.4	4.94	1.04	1609
Max.	131	102	257	538	191	483	13.8	71.5	61.1	62.9	75.9	5.86	7.36	
Min.	0.500	0.458	1.00	0.600	2.30	0.400	<0.3	<0.2	<0.2	<0.3	1.38	4.12	0.210	

Wet deposition amount

2016	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	0.373	0.361	0.550	0.279	0.885	0.196	0.0140	0.0626	0.0583	0.0269	0.547
Feb	0.613	0.513	0.997	1.95	1.25	1.66	0.0504	0.307	0.271	0.212	0.355
Mar	1.24	1.11	1.41	2.42	2.38	2.09	0.0824	0.337	0.292	0.281	1.12
Apr	1.76	1.52	2.31	4.35	2.86	3.84	0.128	0.597	0.514	0.504	1.64
May	1.48	1.34	1.57	2.58	2.40	2.17	0.0683	0.383	0.336	0.283	1.53
June	1.76	1.71	2.20	1.05	3.37	0.838	0.0562	0.377	0.358	0.132	2.18
July	1.61	1.58	2.44	0.839	2.70	0.598	0.0312	0.348	0.335	0.0970	2.62
Aug	3.34	2.96	2.46	7.75	5.35	6.33	0.239	0.629	0.492	0.725	3.57
Sept	1.39	1.29	2.43	2.05	3.11	1.65	0.0735	0.307	0.272	0.231	2.70
Oct	0.604	0.513	0.862	1.78	1.27	1.51	0.0455	0.204	0.171	0.192	0.743
Nov	0.601	0.536	1.18	1.17	1.40	1.08	0.0413	0.273	0.249	0.138	0.926
Dec	0.301	0.227	0.625	1.45	0.721	1.24	0.0380	0.171	0.144	0.150	0.452
Annual	15.1	13.7	19.0	27.6	27.7	23.2	0.868	3.99	3.49	2.97	18.4

Data completeness

2016	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	95.3	95.3	95.3	100
Mar	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.0	99.0	99.0	100
Apr	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
May	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.2	99.2	99.2	100
June	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	97.7	97.7	97.7	100
July	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	97.7	97.7	97.7	100
Aug	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
Sept	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
Oct	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	98.6	98.6	98.6	100
Nov	100	100	100	100	100	100	100	100	100	100	98.3	98.3	98.3	100
Dec	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	98.4	98.4	98.4	100
Annual	**99.6**	**99.6**	**99.6**	**99.6**	**99.6**	**99.6**	**99.6**	**99.6**	**99.6**	**99.6**	**98.9**	**98.9**	**98.9**	**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

2016	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	4.09	3.95	7.92	5.90	5.80	2.40	1.58	2.60	2.55	0.700	0.525	6.28	0.800	57.3
June	3.54	3.45	5.14	4.61	9.01	1.40	1.06	1.69	1.66	<0.3	0.146	6.83	0.668	190
July	3.64	3.56	2.18	5.68	6.66	1.38	0.713	2.55	2.52	<0.3	0.102	6.99	0.766	223
Aug	2.95	2.83	2.81	4.26	6.78	1.87	1.28	3.85	3.81	0.590	0.725	6.14	0.543	131
Sept	5.41	5.21	5.86	4.96	5.56	3.37	3.27	2.89	2.81	2.39	0.134	6.87	0.608	112
Oct	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Nov	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Dec	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Annual	3.80	3.69	4.12	5.04	7.07	1.87	1.38	2.62	2.58	0.666	0.267	6.57	0.677	713
Max.	6.50	6.36	7.92	6.50	10.2	4.30	5.60	5.50	5.49	2.60	1.66	7.76	2.77	
Min.	2.30	2.23	2.10	2.25	4.60	0.460	<0.3	1.10	1.07	<0.3	0.0174	5.78	0.250	

Wet deposition amount

2016	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	0.234	0.226	0.454	0.338	0.332	0.138	0.0905	0.149	0.146	0.0401	0.0301
June	0.674	0.657	0.978	0.878	1.71	0.267	0.201	0.321	0.315	0.0469	0.0278
July	0.813	0.794	0.486	1.27	1.49	0.309	0.159	0.570	0.564	0.0434	0.0228
Aug	0.385	0.370	0.367	0.556	0.885	0.244	0.167	0.503	0.497	0.0770	0.0946
Sept	0.603	0.580	0.653	0.553	0.620	0.376	0.364	0.322	0.314	0.267	0.0149
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	2.71	2.63	2.94	3.59	5.04	1.33	0.982	1.86	1.84	0.474	0.190

Data completeness

2016	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
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

2016	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	23.8	23.2	63.6	13.3	27.3	10.4	2.12	9.95	9.72	1.25	54.8	4.26	3.22	447
Feb	14.6	14.0	55.2	11.3	8.00	9.89	2.44	7.39	7.18	1.01	49.4	4.31	2.64	176
Mar	55.2	54.6	97.2	17.0	26.6	9.09	2.75	9.88	9.68	1.55	145	3.84	7.05	184
Apr	35.3	34.9	69.2	10.9	26.1	7.04	2.70	11.6	11.4	1.41	86.3	4.06	4.35	351
May	18.9	18.7	37.5	5.55	8.79	3.15	1.74	5.13	5.06	0.559	56.8	4.25	3.09	362
June	23.1	22.7	38.1	14.1	8.67	5.49	1.63	5.28	5.16	0.912	58.1	4.24	3.17	288
July	26.7	26.2	58.1	14.2	15.3	8.78	2.62	9.18	8.99	1.61	69.7	4.16	3.91	252
Aug	21.2	20.9	50.0	12.1	7.43	6.08	1.67	7.88	7.75	1.08	55.1	4.26	3.20	105
Sept	8.90	8.53	18.2	9.14	1.70	6.12	2.07	4.23	4.10	0.301	32.8	4.48	1.78	298
Oct	9.09	8.69	17.7	10.6	<0.8	6.75	1.41	2.78	2.64	0.456	33.4	4.48	1.64	172
Nov	11.0	10.9	29.2	6.74	6.80	2.01	0.792	3.17	3.12	<0.3	36.6	4.44	1.97	475
Dec	5.31	5.12	12.7	5.42	8.41	3.17	0.843	2.53	2.46	<0.3	14.8	4.83	0.929	322
Annual	20.2	19.9	44.1	10.3	13.0	6.14	1.83	6.48	6.34	0.819	54.9	4.26	2.95	3432
Max.	89.2	88.4	138	49.3	53.6	35.4	7.52	29.2	29.0	5.25	195	5.38	9.80	
Min.	1.66	1.50	<0.5	2.93	<0.8	0.820	0.300	0.960	0.904	<0.3	4.17	3.71	0.360	

Wet deposition amount

2016	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	10.6	10.3	28.4	5.95	12.2	4.65	0.947	4.44	4.34	0.556	24.5
Feb	2.56	2.45	9.69	1.99	1.40	1.74	0.428	1.30	1.26	0.177	8.67
Mar	10.1	10.0	17.9	3.12	4.89	1.67	0.505	1.82	1.78	0.284	26.6
Apr	12.4	12.2	24.3	3.82	9.17	2.47	0.946	4.06	4.01	0.494	30.3
May	6.86	6.79	13.6	2.01	3.19	1.14	0.629	1.86	1.84	0.202	20.6
June	6.66	6.56	11.0	4.05	2.50	1.58	0.471	1.52	1.49	0.263	16.8
July	6.75	6.61	14.7	3.59	3.85	2.22	0.661	2.32	2.27	0.407	17.6
Aug	2.22	2.18	5.23	1.27	0.777	0.636	0.175	0.824	0.810	0.113	5.76
Sept	2.65	2.54	5.42	2.72	0.506	1.82	0.615	1.26	1.22	0.0896	9.75
Oct	1.56	1.49	3.04	1.83	0.0353	1.16	0.241	0.477	0.452	0.0783	5.73
Nov	5.22	5.17	13.9	3.20	3.23	0.956	0.377	1.51	1.49	0.0631	17.4
Dec	1.71	1.65	4.11	1.75	2.71	1.02	0.272	0.816	0.794	0.0798	4.78
Annual	69.4	68.1	151	35.3	44.6	21.1	6.27	22.2	21.8	2.81	189

Data completeness

2016	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	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
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	99.8	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
Sept	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Oct	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.0	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	**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**

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

2016	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	2.29	1.79	5.72	6.91	1.32	8.28	1.30	3.59	3.41	0.546	15.7	4.80	0.803	59.8
Feb	0.678	0.563	2.58	2.98	<0.8	1.91	0.462	1.13	1.09	<0.3	7.87	5.10	0.386	81.4
Mar	12.8	12.2	9.70	14.4	14.8	11.0	3.99	9.38	9.14	0.540	44.2	4.35	2.39	62.6
Apr	19.3	19.0	47.8	6.55	2.47	4.02	4.63	10.1	9.98	1.07	63.5	4.20	2.87	55.4
May	2.83	2.73	3.11	2.47	0.957	3.29	1.75	1.93	1.86	0.464	13.2	4.88	0.777	361
June	8.48	8.38	5.87	3.91	16.8	1.77	0.696	2.52	2.48	0.405	9.67	5.01	0.921	271
July	4.90	4.77	6.27	3.28	2.06	2.01	0.854	1.19	1.15	<0.3	17.1	4.77	0.926	191
Aug	9.54	9.39	11.3	4.18	11.6	2.49	1.37	2.50	2.45	0.339	17.1	4.77	1.21	139
Sept	2.70	2.44	10.1	5.53	1.86	4.30	1.25	2.27	2.18	<0.3	16.0	4.79	0.944	178
Oct	2.73	2.54	6.60	4.29	<0.8	3.22	0.763	2.72	2.65	<0.3	12.8	4.89	0.685	277
Nov	1.09	0.954	0.814	1.84	<0.8	2.34	1.01	1.35	1.30	<0.3	11.0	4.96	0.549	341
Dec	1.24	1.17	3.15	1.29	0.821	1.17	1.22	1.29	1.27	<0.3	10.4	4.98	0.535	349
Annual	3.92	3.77	5.97	3.30	3.51	2.72	1.22	2.18	2.12	<0.3	14.1	4.85	0.813	2366
Max.	20.6	20.3	75.1	21.6	43.4	25.5	4.81	15.9	15.7	1.85	70.8	5.41	3.99	
Min.	<0.3	<0.3	<0.5	<0.5	<0.8	<0.3	<0.3	<0.2	<0.2	<0.3	3.89	4.15	0.260	

Wet deposition amount

2016	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	0.137	0.107	0.342	0.413	0.0788	0.495	0.0776	0.215	0.204	0.0327	0.937
Feb	0.0552	0.0458	0.210	0.243	<0.01	0.156	0.0376	0.0918	0.0884	<0.01	0.641
Mar	0.802	0.761	0.607	0.898	0.924	0.687	0.250	0.587	0.572	0.0338	2.77
Apr	1.07	1.05	2.65	0.363	0.137	0.223	0.256	0.558	0.553	0.0591	3.52
May	1.02	0.985	1.12	0.891	0.345	1.19	0.632	0.697	0.671	0.167	4.74
June	2.30	2.27	1.59	1.06	4.55	0.479	0.189	0.684	0.673	0.110	2.62
July	0.934	0.911	1.20	0.626	0.393	0.383	0.163	0.226	0.220	0.0546	3.26
Aug	1.33	1.31	1.57	0.580	1.61	0.346	0.191	0.348	0.340	0.0471	2.37
Sept	0.482	0.435	1.81	0.986	0.331	0.767	0.223	0.406	0.389	0.0401	2.86
Oct	0.758	0.704	1.83	1.19	0.180	0.894	0.212	0.754	0.735	0.0695	3.56
Nov	0.373	0.325	0.277	0.625	<0.01	0.795	0.344	0.460	0.443	<0.01	3.75
Dec	0.434	0.410	1.10	0.449	0.286	0.409	0.426	0.450	0.442	0.0451	3.62
Annual	9.28	8.93	14.1	7.82	8.31	6.44	2.88	5.15	5.01	0.647	33.3

Data completeness

2016	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	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.0	100
Feb	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
Mar	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4	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	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	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Aug	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	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	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	**97.8**	**97.8**	**97.8**	**97.8**	**97.8**	**97.8**	**97.8**	**97.8**	**97.8**	**97.8**	**97.8**	**97.8**	**97.8**	**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

2016	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	2.19	1.56	<0.5	11.8	<0.8	10.5	1.05	2.03	1.80	0.959	5.24	5.28	0.426	163
Feb	3.06	2.21	2.24	16.9	<0.8	14.1	0.928	1.32	1.01	0.998	8.60	5.07	0.674	139
Mar	*	*	*	*	*	*	*	*	*	*	*	*	*	103
Apr	3.68	3.36	<0.5	7.29	<0.8	5.20	1.71	2.60	2.49	0.771	4.62	5.34	0.382	113
May	<0.3	<0.3	2.60	2.93	1.68	1.86	1.34	1.32	1.28	<0.3	4.72	5.33	0.407	240
June	2.06	2.02	1.16	2.56	<0.8	0.688	1.16	0.438	0.424	<0.3	4.97	5.30	0.306	173
July	1.31	1.23	<0.5	2.11	<0.8	1.40	0.699	0.658	0.642	<0.3	4.44	5.35	0.277	235
Aug	3.15	3.07	1.23	2.92	<0.8	1.33	0.958	1.09	1.06	<0.3	7.53	5.12	0.361	320
Sept	1.51	1.45	0.506	2.58	<0.8	1.15	1.01	1.01	0.984	<0.3	6.37	5.20	0.385	334
Oct	0.587	0.529	<0.5	2.77	<0.8	1.30	0.954	0.298	0.291	<0.3	4.22	5.38	0.247	436
Nov	1.85	1.48	1.45	8.42	<0.8	6.11	0.600	0.772	0.640	0.566	5.73	5.24	0.406	351
Dec	0.625	0.549	<0.5	2.59	<0.8	1.27	1.40	1.19	1.16	<0.3	5.03	5.30	0.273	380
Annual	1.65	1.46	0.888	4.90	<0.8	3.30	1.01	0.987	0.920	0.320	5.56	5.25	0.360	2987
Max.	5.19	4.43	4.25	31.9	6.17	27.3	3.05	5.90	5.63	2.67	10.5	5.93	0.860	
Min.	<0.3	<0.3	<0.5	<0.5	<0.8	<0.3	<0.3	<0.2	<0.2	<0.3	1.17	4.98	0.130	

Wet deposition amount

2016	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	0.357	0.254	<0.01	1.92	<0.01	1.71	0.171	0.331	0.294	0.156	0.855
Feb	0.424	0.306	0.310	2.35	0.0128	1.95	0.129	0.182	0.140	0.138	1.19
Mar	*	*	*	*	*	*	*	*	*	*	*
Apr	0.417	0.381	0.0101	0.826	0.0195	0.589	0.194	0.295	0.282	0.0873	0.523
May	0.0578	0.0482	0.625	0.702	0.403	0.447	0.321	0.316	0.307	0.0590	1.13
June	0.356	0.349	0.201	0.444	0.0322	0.119	0.201	0.0759	0.0734	0.0182	0.860
July	0.309	0.290	0.0157	0.496	<0.01	0.330	0.165	0.155	0.151	0.0299	1.05
Aug	1.01	0.983	0.394	0.934	0.0766	0.426	0.307	0.348	0.339	0.0242	2.41
Sept	0.504	0.483	0.169	0.860	0.0237	0.385	0.337	0.337	0.328	0.0902	2.13
Oct	0.256	0.231	0.124	1.21	0.0917	0.567	0.416	0.130	0.127	0.0396	1.84
Nov	0.651	0.521	0.508	2.96	0.0131	2.15	0.211	0.271	0.225	0.199	2.01
Dec	0.237	0.208	<0.01	0.981	0.119	0.483	0.531	0.451	0.441	0.0444	1.91
Annual	4.92	4.36	2.65	14.6	0.827	9.87	3.02	2.95	2.75	0.956	16.6

Data completeness

2016	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	95.1	95.1	95.1	95.1	95.1	95.1	95.1	95.1	95.1	95.1	95.1	95.1	95.1	100
Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	100
Apr	89.5	89.5	89.5	89.5	89.5	89.5	89.5	89.5	89.5	89.5	89.5	89.5	89.5	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	81.8	81.8	81.8	81.8	81.8	81.8	81.8	81.8	81.8	81.8	81.8	81.8	81.8	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	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	50.4	50.4	50.4	50.4	50.4	50.4	50.4	50.4	50.4	50.4	50.4	50.4	50.4	100
Annual	**88.2**	**88.2**	**88.2**	**88.2**	**88.2**	**88.2**	**88.2**	**88.2**	**88.2**	**88.2**	**88.2**	**88.2**	**88.2**	**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

2016	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	3.94	2.42	2.78	30.6	0.918	25.2	1.89	2.85	2.30	2.25	7.27	5.14	0.793	456
Feb	4.95	3.40	2.71	29.8	<0.8	25.8	0.932	1.70	1.14	1.87	10.3	4.99	0.940	1406
Mar	4.71	3.69	4.10	17.8	1.86	17.0	1.12	2.11	1.75	1.20	6.86	5.16	0.710	469
Apr	3.64	3.18	4.42	8.73	<0.8	7.66	1.07	2.77	2.61	0.477	6.12	5.21	0.545	718
May	2.08	1.81	3.69	4.16	<0.8	4.78	1.57	3.07	2.97	<0.3	7.32	5.14	0.508	327
June	4.61	4.53	6.21	2.86	1.86	1.35	0.412	3.29	3.26	<0.3	6.89	5.16	0.554	442
July	4.40	4.12	5.77	4.30	1.79	4.63	1.28	4.77	4.67	0.337	6.05	5.22	0.553	174
Aug	8.36	8.03	7.36	5.80	12.0	5.48	1.21	5.95	5.84	0.628	6.15	5.21	0.791	302
Sept	2.10	2.04	8.45	6.25	6.01	4.61	1.54	8.31	8.21	0.476	6.57	5.18	0.753	315
Oct	1.63	1.47	2.76	2.50	8.18	5.62	2.04	6.30	6.18	<0.3	4.75	5.32	0.560	301
Nov	3.01	2.78	4.02	5.53	2.40	3.75	0.799	3.70	3.62	<0.3	5.70	5.24	0.462	319
Dec	3.07	2.85	3.24	4.02	4.85	3.64	0.697	3.47	3.39	0.320	3.14	5.50	0.368	426
Annual	4.07	3.33	4.16	14.5	2.45	12.7	1.13	3.35	3.07	0.949	7.14	5.15	0.683	5655
Max.	20.9	20.0	20.5	60.6	87.4	52.8	6.50	28.1	27.7	4.98	12.9	6.41	1.52	
Min.	<0.3	<0.3	<0.5	<0.5	<0.8	0.810	<0.3	0.580	0.381	<0.3	0.389	4.89	0.290	

Wet deposition amount

2016	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	1.10	1.27	13.9	0.419	11.5	0.860	1.30	1.05	1.02	3.32
Feb	6.96	4.78	3.80	41.9	<0.01	36.2	1.31	2.38	1.60	2.63	14.5
Mar	2.21	1.73	1.92	8.37	0.873	7.96	0.526	0.992	0.819	0.564	3.22
Apr	2.61	2.28	3.17	6.26	0.512	5.49	0.765	1.99	1.87	0.343	4.39
May	0.681	0.591	1.21	1.36	0.108	1.56	0.514	1.00	0.971	0.0406	2.39
June	2.04	2.00	2.75	1.27	0.823	0.596	0.182	1.46	1.44	0.109	3.05
July	0.764	0.715	1.00	0.746	0.311	0.803	0.223	0.828	0.810	0.0584	1.05
Aug	2.53	2.43	2.23	1.75	3.64	1.66	0.367	1.80	1.76	0.190	1.86
Sept	0.662	0.642	2.66	1.97	1.89	1.45	0.483	2.62	2.58	0.150	2.07
Oct	0.490	0.441	0.831	0.753	2.46	1.69	0.614	1.90	1.86	0.0709	1.43
Nov	0.961	0.889	1.29	1.77	0.766	1.20	0.255	1.18	1.16	0.0493	1.82
Dec	1.31	1.21	1.38	1.72	2.07	1.55	0.297	1.48	1.44	0.136	1.34
Annual	23.0	18.8	23.5	81.8	13.9	71.7	6.40	18.9	17.4	5.37	40.4

Data completeness

2016	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

2016	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	350	320	16.0	7.30	<0.8	500	<0.3	17.2	6.41	<0.3	1.78	5.75	5.27	5.7
June	97.8	88.6	10.8	2.97	29.1	151	0.307	15.9	12.6	1.71	1.51	5.82	2.95	36.7
July	167	153	41.6	3.38	38.6	239	0.469	23.4	18.2	7.10	16.0	4.80	4.25	66.4
Aug	99.9	94.3	69.3	9.13	72.2	92.4	1.27	57.6	55.6	10.6	1.41	5.85	3.53	35.0
Sept	29.2	29.1	10.9	2.78	20.5	1.78	0.752	24.4	24.3	3.68	21.9	4.66	1.17	16.0
Oct	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Nov	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Dec	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Annual	129	119	36.7	4.63	40.7	172	0.620	29.1	25.4	6.06	9.54	5.02	3.52	160
Max.	454	405	146	17.5	177	813	3.33	108	108	25.5	57.5	6.54	18.4	
Min.	0.310	<0.3	<0.5	<0.5	<0.8	1.30	<0.3	1.75	<0.2	<0.3	0.288	4.24	0.170	

Wet deposition amount

2016	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	2.00	1.82	0.0912	0.0416	<0.01	2.85	<0.01	0.0981	0.0365	<0.01	0.0101
June	3.59	3.25	0.395	0.109	1.07	5.55	0.0113	0.581	0.461	0.0626	0.0552
July	11.1	10.2	2.76	0.224	2.56	15.9	0.0312	1.55	1.21	0.472	1.06
Aug	3.50	3.30	2.43	0.320	2.53	3.24	0.0443	2.02	1.95	0.372	0.0493
Sept	0.467	0.466	0.174	0.0446	0.329	0.0285	0.0121	0.390	0.390	0.0589	0.350
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	20.7	19.0	5.87	0.740	6.50	27.6	0.0990	4.65	4.05	0.968	1.52

Data completeness

2016	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	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	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
Dec	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Annual	**99.5**	**99.5**	**99.5**	**99.5**	**99.5**	**99.5**	**99.5**	**99.5**	**99.5**	**99.5**	**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

2016	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	56.3	51.0	38.0	7.21	5.08	87.9	3.72	24.0	22.1	3.21	6.50	5.19	1.46	8.6
June	196	178	14.1	6.94	31.9	306	3.61	5.55	1.61	0.851	5.96	5.22	3.76	42.8
July	149	136	65.4	11.6	125	211	12.5	14.6	11.5	2.09	2.48	5.61	3.97	20.8
Aug	114	93.7	114	15.6	93.9	124	9.20	39.5	36.9	4.80	2.81	5.55	3.20	25.3
Sept	32.5	29.5	5.14	4.64	8.65	51.5	8.83	5.53	4.42	0.594	28.4	4.55	1.21	9.0
Oct	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Nov	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Dec	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Annual	142	127	48.9	9.71	60.2	206	7.09	16.8	13.7	2.19	6.47	5.19	3.27	106
Max.	1351	1237	747	99.0	337	1885	86.1	131	125	20.2	100	7.43	13.6	
Min.	0.310	<0.3	0.970	1.10	<0.8	1.74	<0.3	0.750	<0.2	<0.3	0.0372	4.00	0.235	

Wet deposition amount

2016	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	0.482	0.437	0.326	0.0618	0.0435	0.753	0.0319	0.205	0.189	0.0275	0.0557
June	8.40	7.61	0.603	0.297	1.37	13.1	0.155	0.238	0.0691	0.0365	0.255
July	3.09	2.83	1.36	0.240	2.60	4.39	0.260	0.304	0.238	0.0435	0.0515
Aug	2.87	2.37	2.87	0.394	2.37	3.12	0.232	0.998	0.931	0.121	0.0711
Sept	0.292	0.265	0.0462	0.0417	0.0777	0.463	0.0793	0.0497	0.0397	<0.01	0.255
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	15.1	13.5	5.20	1.03	6.41	21.9	0.754	1.78	1.46	0.233	0.689

Data completeness

2016	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	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	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6	100	100	100	100
Aug	100	97.9	100	100	97.9	97.9	97.9	97.9	97.9	97.9	100	100	100	100
Sept	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Oct	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Nov	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Dec	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Annual	**99.5**	**99.0**	**99.5**	**99.5**	**99.0**	**99.0**	**99.0**	**99.0**	**99.0**	**99.0**	**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

2016	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	13.3	12.3	21.8	42.0	16.6	17.8	10.9	1.27	0.886	0.330	0.251	6.60	3.90	19.5
Feb	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Mar	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Apr	--	--	--	--	--	--	--	--	--	--	--	--	--	0
May	11.0	9.71	19.7	34.3	24.2	21.6	3.38	4.33	3.87	3.64	0.143	6.85	1.46	232
June	11.6	10.3	15.3	35.7	29.8	22.6	3.20	7.47	7.02	10.1	0.121	6.92	1.81	231
July	9.72	8.40	18.4	37.1	9.98	21.9	4.65	3.71	3.24	2.71	0.179	6.75	0.876	497
Aug	6.04	5.41	10.3	21.6	13.1	10.5	2.11	5.32	5.10	8.04	0.242	6.62	2.85	487
Sept	8.76	8.18	13.5	28.7	18.3	9.60	2.88	6.15	5.95	1.79	0.180	6.75	0.424	452
Oct	10.7	10.1	14.1	35.0	19.0	12.7	3.52	8.48	8.20	2.58	0.129	6.89	0.483	263
Nov	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Dec	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Annual	9.19	8.24	14.9	31.3	17.1	15.7	3.35	5.55	5.22	4.58	0.178	6.75	1.37	2180
Max.	14.6	13.6	28.4	56.4	56.2	88.0	18.2	30.0	29.6	21.4	0.468	6.99	7.79	
Min.	2.13	1.55	<0.5	7.76	6.87	4.26	1.48	<0.2	<0.2	0.330	0.102	6.33	0.230	

Wet deposition amount

2016	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	0.260	0.239	0.425	0.821	0.325	0.347	0.213	0.0248	0.0173	<0.01	<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	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	2.55	2.25	4.56	7.96	5.60	5.00	0.784	1.00	0.896	0.843	0.0331
June	2.68	2.37	3.53	8.24	6.87	5.21	0.737	1.72	1.62	2.33	0.0280
July	4.83	4.17	9.16	18.5	4.96	10.9	2.31	1.84	1.61	1.34	0.0887
Aug	2.94	2.63	5.03	10.5	6.39	5.12	1.03	2.59	2.48	3.92	0.118
Sept	3.96	3.70	6.11	13.0	8.28	4.34	1.30	2.78	2.69	0.809	0.0812
Oct	2.82	2.66	3.71	9.19	4.98	3.34	0.924	2.23	2.15	0.678	0.0338
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	20.0	18.0	32.5	68.2	37.4	34.3	7.30	12.1	11.4	9.98	0.387

Data completeness

2016	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
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	88.9	100	100	88.9	88.9	88.9	88.9	88.9	88.9	100	100	100	100
Nov	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Dec	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Annual	**100**	**98.7**	**100**	**100**	**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 3.42 Monthly results Site: Metro Manila Country: Philippines

Precipitation amount-weighted average concentration/ Precipitation amount

2016	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	482	470	72.7	461	2093	199	563	408	403	85.2	0.0095	8.02	73.0	7.9
Feb	330	311	152	398	3238	310	929	408	401	150	0.0080	8.10	78.3	9.3
Mar	102	95.4	61.6	130	1716	115	174	182	180	43.4	0.0098	8.01	31.9	19.4
Apr	*	*	*	*	*	*	*	*	*	*	*	*	*	3.8
May	29.5	28.5	36.2	16.6	36.3	17.5	5.36	40.5	40.1	5.51	2.34	5.63	2.28	217
June	25.8	25.0	64.3	16.4	73.9	13.7	14.7	36.7	36.4	5.97	3.87	5.41	2.01	157
July	22.2	20.7	21.5	32.3	54.0	25.1	9.13	26.2	25.6	6.58	2.42	5.62	1.45	324
Aug	11.8	11.1	4.92	45.8	4.66	13.0	1.04	13.1	12.9	4.18	1.10	5.96	2.22	756
Sept	19.8	19.1	30.9	15.3	110	12.3	9.23	8.48	8.35	2.73	6.30	5.20	2.16	496
Oct	25.6	24.9	20.5	20.5	224	12.0	16.4	4.27	4.01	1.03	4.39	5.36	3.35	339
Nov	29.4	27.9	386	30.0	353	25.0	42.7	30.0	29.5	13.5	0.452	6.34	7.02	71.9
Dec	24.5	20.9	426	78.5	1149	59.0	178	65.8	64.6	26.6	0.0575	7.24	22.0	117
Annual	21.7	20.7	36.4	31.4	112	17.4	14.2	20.5	20.2	5.29	3.05	5.52	3.02	2519
Max.	482	470	521	461	3276	330	975	439	432	155	25.1	8.44	86.5	
Min.	10.0	9.67	<0.5	7.98	<0.8	5.87	0.537	<0.2	<0.2	<0.3	0.0036	4.60	0.776	

Wet deposition amount

2016	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	3.81	3.72	0.574	3.65	16.5	1.57	4.45	3.22	3.19	0.673	<0.01
Feb	3.07	2.89	1.41	3.70	30.1	2.88	8.64	3.79	3.73	1.39	<0.01
Mar	1.98	1.85	1.20	2.52	33.3	2.24	3.37	3.53	3.49	0.842	<0.01
Apr	*	*	*	*	*	*	*	*	*	*	*
May	6.41	6.18	7.87	3.60	7.88	3.80	1.16	8.80	8.72	1.20	0.508
June	4.06	3.93	10.1	2.58	11.6	2.16	2.31	5.78	5.73	0.939	0.609
July	7.19	6.70	6.97	10.5	17.5	8.13	2.96	8.47	8.29	2.13	0.782
Aug	8.96	8.36	3.72	34.7	3.52	9.80	0.787	9.94	9.73	3.16	0.829
Sept	9.84	9.47	15.3	7.58	54.6	6.10	4.58	4.21	4.14	1.35	3.12
Oct	8.67	8.43	6.95	6.94	75.9	4.06	5.56	1.45	1.36	0.348	1.49
Nov	2.11	2.01	27.8	2.16	25.4	1.80	3.07	2.16	2.12	0.974	0.0325
Dec	2.87	2.46	50.0	9.22	135	6.92	20.9	7.73	7.58	3.12	<0.01
Annual	54.7	52.0	91.8	79.0	283	43.7	35.8	51.6	50.8	13.3	7.68

Data completeness

2016	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	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	100
Feb	87.1	87.1	87.1	87.1	87.1	87.1	87.1	87.1	87.1	87.1	87.1	87.1	87.1	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	0	0	0	0	0	0	0	0	0	0	0	0	0	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	89.5	89.5	89.5	89.5	89.5	89.5	89.5	89.5	89.5	89.5	89.5	89.5	89.5	100
Nov	96.0	96.0	96.0	96.0	96.0	96.0	96.0	96.0	96.0	96.0	96.0	96.0	96.0	100
Dec	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	100
Annual	**94.0**	**94.0**	**94.0**	**94.0**	**94.0**	**94.0**	**94.0**	**94.0**	**94.0**	**94.0**	**94.0**	**94.0**	**94.0**	**100**

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

2016	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	375	357	32.3	914	1277	302	148	29.7	23.2	38.1	0.0036	8.44	88.3	31.8
Feb	37.3	31.4	11.7	139	568	98.3	72.5	22.9	20.8	13.4	0.0791	7.10	11.1	37.5
Mar	127	123	15.1	223	405	56.7	93.9	29.4	28.2	21.1	0.0095	8.02	35.2	3.3
Apr	37.4	29.4	33.3	133	309	133	23.8	42.4	39.5	23.8	0.417	6.38	5.17	14.2
May	13.5	13.0	15.9	9.78	23.2	9.43	2.62	11.5	11.3	2.66	5.47	5.26	1.04	79.5
June	24.5	24.0	17.0	14.6	50.4	8.82	3.25	8.93	8.74	2.18	59.9	4.22	1.48	114
July	12.7	12.1	10.2	12.6	50.4	11.0	3.78	12.8	12.6	1.40	0.209	6.68	1.25	135
Aug	17.9	15.7	94.8	31.5	77.9	35.5	27.9	17.6	16.8	6.11	3.86	5.41	0.935	250
Sept	11.4	11.1	15.5	7.58	43.5	5.60	7.82	6.44	6.32	2.82	46.7	4.33	1.51	302
Oct	11.1	10.0	52.4	17.5	120	18.5	13.8	8.16	7.76	4.15	13.0	4.89	3.07	351
Nov	7.22	5.06	3.73	38.2	<0.8	35.9	3.61	22.0	21.2	4.61	0.107	6.97	1.13	211
Dec	8.62	3.96	3.35	72.4	3.66	77.3	0.588	20.3	18.6	4.61	3.16	5.50	1.41	228
Annual	15.4	14.0	38.5	25.2	84.8	22.4	13.8	11.8	11.3	4.14	19.3	4.71	2.25	1756
Max.	375	357	393	914	1518	302	202	97.0	94.4	60.5	107	8.44	88.3	
Min.	5.56	3.96	<0.5	6.06	<0.8	4.26	<0.3	1.40	1.31	<0.3	0.0036	3.97	0.500	

Wet deposition amount

2016	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	11.9	11.4	1.03	29.1	40.6	9.60	4.71	0.946	0.738	1.21	<0.01
Feb	1.40	1.18	0.438	5.20	21.3	3.69	2.72	0.859	0.779	0.501	<0.01
Mar	0.418	0.407	0.0497	0.735	1.34	0.187	0.310	0.0970	0.0929	0.0696	<0.01
Apr	0.532	0.417	0.473	1.89	4.39	1.89	0.338	0.602	0.561	0.338	<0.01
May	1.07	1.03	1.26	0.777	1.85	0.750	0.208	0.914	0.898	0.212	0.435
June	2.80	2.73	1.94	1.66	5.74	1.01	0.370	1.02	0.996	0.249	6.83
July	1.71	1.62	1.37	1.69	6.79	1.49	0.510	1.73	1.69	0.188	0.0281
Aug	4.47	3.93	23.7	7.88	19.5	8.88	6.98	4.40	4.21	1.53	0.965
Sept	3.44	3.34	4.66	2.29	13.1	1.69	2.36	1.94	1.91	0.852	14.1
Oct	3.91	3.51	18.4	6.13	42.3	6.51	4.85	2.87	2.73	1.46	4.55
Nov	1.52	1.07	0.785	8.04	<0.01	7.56	0.759	4.63	4.47	0.970	0.0226
Dec	1.96	0.901	0.763	16.5	0.833	17.6	0.134	4.61	4.23	1.05	0.720
Annual	27.0	24.7	67.7	44.3	149	39.3	24.3	20.7	19.9	7.28	33.9

Data completeness

2016	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	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.7	100
Feb	95.2	95.2	95.2	95.2	95.2	95.2	95.2	95.2	95.2	95.2	95.2	95.2	95.2	100
Mar	39.4	39.4	39.4	39.4	39.4	39.4	39.4	39.4	39.4	39.4	39.4	39.4	39.4	100
Apr	21.1	21.1	21.1	21.1	21.1	21.1	21.1	21.1	21.1	21.1	21.1	21.1	21.1	100
May	96.7	96.7	96.7	96.7	96.7	96.7	96.7	96.7	96.7	96.7	96.7	96.7	96.7	100
June	100	100	100	100	100	100	100	100	100	100	100	100	100	100
July	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	100
Aug	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Sept	93.0	93.0	93.0	93.0	93.0	93.0	93.0	93.0	93.0	93.0	93.0	93.0	93.0	100
Oct	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Nov	31.2	31.2	31.2	31.2	31.2	31.2	31.2	31.2	31.2	31.2	31.2	31.2	31.2	100
Dec	15.2	15.2	15.2	15.2	15.2	15.2	15.2	15.2	15.2	15.2	15.2	15.2	15.2	100
Annual	**76.7**	**76.7**	**76.7**	**76.7**	**76.7**	**76.7**	**76.7**	**76.7**	**76.7**	**76.7**	**76.7**	**76.7**	**76.7**	**100**

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

2016	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	*	*	*	*	*	*	*	*	*	*	*	*	*	7.2
Feb	*	*	*	*	*	*	*	*	*	*	*	*	*	7.0
Mar	4.61	3.76	10.3	6.82	10.2	14.1	2.27	22.4	22.1	3.58	0.135	6.87	0.806	17.8
Apr	16.6	16.0	24.8	7.78	58.1	10.4	3.75	25.2	24.9	2.86	0.135	6.87	1.22	188
May	10.9	10.2	13.6	4.22	19.5	11.9	1.06	17.2	17.0	2.07	0.638	6.20	0.796	235
June	6.36	5.41	7.31	3.69	4.89	15.8	<0.3	11.9	11.5	2.55	0.356	6.45	0.489	445
July	4.06	3.33	4.53	2.73	7.05	12.1	<0.3	13.8	13.6	2.72	0.173	6.76	0.402	515
Aug	5.47	4.34	4.67	9.05	2.96	18.8	<0.3	14.4	14.0	3.52	0.318	6.50	0.553	1404
Sept	4.33	3.62	3.75	3.71	10.4	11.7	0.626	11.2	11.0	1.97	0.473	6.33	0.517	774
Oct	2.91	2.04	2.61	3.71	<0.8	14.4	1.87	10.6	10.3	2.19	0.355	6.45	0.352	706
Nov	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Dec	4.41	3.70	4.28	2.01	1.56	11.9	5.88	10.7	10.4	4.81	0.244	6.61	0.366	127
Annual	5.52	4.62	5.76	5.46	7.79	14.8	0.889	13.4	13.1	2.78	0.345	6.46	0.527	4426
Max.	25.1	24.4	25.2	11.7	59.5	25.2	5.91	29.6	29.3	7.05	0.977	7.25	1.39	
Min.	1.77	1.25	2.03	<0.5	<0.8	7.70	<0.3	6.72	6.47	1.15	0.0562	6.01	0.291	

Wet deposition amount

2016	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	0.0821	0.0669	0.184	0.121	0.182	0.251	0.0403	0.398	0.393	0.0637	<0.01
Apr	3.13	3.01	4.65	1.46	10.9	1.95	0.704	4.73	4.69	0.538	0.0254
May	2.57	2.40	3.20	0.994	4.59	2.81	0.250	4.05	3.99	0.486	0.150
June	2.83	2.41	3.25	1.64	2.17	7.02	<0.01	5.28	5.13	1.14	0.158
July	2.09	1.72	2.33	1.41	3.63	6.25	0.0230	7.12	6.98	1.40	0.0890
Aug	7.69	6.09	6.55	12.7	4.15	26.5	0.362	20.2	19.6	4.94	0.446
Sept	3.35	2.80	2.90	2.87	8.05	9.04	0.485	8.68	8.48	1.53	0.366
Oct	2.05	1.44	1.84	2.62	0.516	10.2	1.32	7.50	7.28	1.54	0.250
Nov	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec	0.561	0.470	0.543	0.255	0.198	1.51	0.747	1.35	1.32	0.611	0.0310
Annual	24.4	20.5	25.5	24.1	34.5	65.7	3.93	59.5	58.0	12.3	1.52

Data completeness

2016	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	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	100
Apr	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
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	99.9	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
Nov	--	--	--	--	--	--	--	--	--	--	--	--	--	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

2016	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	31.7	29.6	27.8	101	91.6	34.4	38.5	5.61	4.86	2.27	15.1	4.82	2.00	35.0
Mar	18.7	17.4	18.3	39.3	58.9	22.3	8.48	5.10	4.61	0.679	5.25	5.28	1.39	51.5
Apr	14.2	12.7	23.2	42.3	38.5	24.2	17.5	3.33	2.80	0.747	6.58	5.18	1.37	84.0
May	12.7	10.6	22.6	52.5	48.9	34.7	8.88	1.96	1.21	1.01	11.5	4.94	1.54	118
June	46.6	44.7	99.3	58.4	155	31.9	17.1	12.7	12.1	3.04	9.15	5.04	3.76	13.5
July	22.5	21.1	37.0	46.3	69.8	23.8	11.1	4.11	3.60	1.00	23.3	4.63	2.07	285
Aug	16.5	15.3	29.2	33.3	34.1	19.5	9.00	0.948	0.526	<0.3	34.7	4.46	2.02	13.0
Sept	15.0	14.0	25.5	60.6	74.7	16.2	27.6	1.96	1.61	<0.3	1.05	5.98	2.64	18.0
Oct	8.48	7.24	14.7	30.7	28.2	20.7	9.91	2.10	1.65	<0.3	13.8	4.86	1.04	144
Nov	69.8	57.7	156	283	118	200	54.9	27.7	23.4	20.4	75.3	4.12	8.98	9.5
Dec	24.4	21.8	28.6	60.9	67.5	41.7	13.9	4.55	3.65	2.13	16.5	4.78	1.85	65.0
Annual	18.8	17.1	29.6	50.1	58.1	28.5	13.3	3.85	3.24	1.19	16.4	4.79	1.80	837
Max.	120	108	241	336	299	265	95.0	42.6	38.5	28.0	123	6.67	12.2	
Min.	3.93	2.86	5.08	17.5	10.2	6.81	2.70	0.948	0.450	<0.3	0.214	3.91	0.381	

Wet deposition amount

2016	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	1.11	1.04	0.973	3.52	3.20	1.20	1.35	0.196	0.170	0.0793	0.530
Mar	0.963	0.894	0.944	2.03	3.04	1.15	0.437	0.262	0.238	0.0350	0.270
Apr	1.19	1.07	1.95	3.55	3.23	2.03	1.47	0.279	0.236	0.0627	0.553
May	1.50	1.25	2.67	6.20	5.77	4.09	1.05	0.232	0.143	0.120	1.35
June	0.630	0.604	1.34	0.788	2.09	0.430	0.230	0.172	0.163	0.0411	0.124
July	6.42	6.01	10.6	13.2	19.9	6.77	3.17	1.17	1.03	0.286	6.64
Aug	0.215	0.199	0.379	0.433	0.443	0.254	0.117	0.0123	<0.01	<0.01	0.451
Sept	0.269	0.252	0.459	1.09	1.34	0.292	0.497	0.0352	0.0289	<0.01	0.0188
Oct	1.22	1.04	2.12	4.42	4.05	2.98	1.43	0.302	0.237	0.0345	1.99
Nov	0.663	0.548	1.49	2.68	1.12	1.90	0.522	0.264	0.222	0.194	0.715
Dec	1.58	1.42	1.86	3.96	4.39	2.71	0.903	0.295	0.237	0.138	1.07
Annual	15.8	14.3	24.7	41.9	48.6	23.8	11.2	3.22	2.71	0.994	13.7

Data completeness

2016	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	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

2016	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	169	57.4	80.8	2208	53.9	1859	43.2	58.8	18.7	188	1.94	5.71	29.1	33.0
Feb	32.9	16.7	30.6	308	32.3	269	13.5	10.9	5.13	19.9	0.997	6.00	5.36	76.6
Mar	111	98.8	91.4	240	114	208	23.2	56.0	51.5	31.0	83.6	4.08	8.81	83.9
Apr	23.7	16.8	27.0	124	32.9	115	4.90	6.64	4.15	6.51	4.28	5.37	2.75	147
May	21.9	15.7	35.9	101	61.5	101	8.89	4.13	1.96	3.63	2.71	5.57	2.78	143
June	7.56	5.81	16.6	37.0	27.0	29.1	3.71	0.999	0.396	<0.3	1.13	5.95	0.717	184
July	9.77	6.08	14.7	53.0	17.7	61.3	4.00	2.92	1.62	2.56	2.32	5.63	1.34	117
Aug	10.5	7.77	14.8	34.2	18.0	45.3	14.2	0.837	0.239	<0.3	0.499	6.30	1.17	74.8
Sept	20.8	13.7	33.1	120	50.0	117	4.77	5.86	3.42	5.68	0.540	6.27	2.83	94.2
Oct	172	4.26	19.5	3168	17.1	2798	66.4	76.2	15.8	298	0.355	6.45	41.9	95.2
Nov	35.0	20.8	45.2	264	47.4	234	16.1	10.9	5.79	17.3	2.39	5.62	5.36	49.4
Dec	32.7	16.7	32.4	316	28.1	266	34.1	7.42	1.68	11.0	0.245	6.61	5.35	23.9
Annual	43.1	19.3	31.8	444	40.3	394	15.2	16.2	7.72	37.7	7.94	5.10	7.07	1121
Max.	577	161	450	10930	232	9559	211	257	135	1037	128	7.12	142	
Min.	2.60	<0.3	4.23	10.3	3.27	16.2	0.913	<0.2	<0.2	<0.3	0.0759	3.89	0.476	

Wet deposition amount

2016	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	5.59	1.89	2.67	72.8	1.78	61.3	1.43	1.94	0.617	6.21	0.0640
Feb	2.52	1.28	2.35	23.6	2.47	20.6	1.03	0.839	0.393	1.53	0.0763
Mar	9.34	8.29	7.67	20.1	9.59	17.5	1.95	4.70	4.32	2.60	7.02
Apr	3.48	2.46	3.96	18.2	4.82	16.9	0.719	0.974	0.609	0.956	0.628
May	3.12	2.25	5.12	14.4	8.77	14.5	1.27	0.589	0.280	0.518	0.387
June	1.39	1.07	3.05	6.80	4.96	5.34	0.681	0.183	0.0726	0.0477	0.207
July	1.14	0.712	1.73	6.21	2.08	7.18	0.469	0.341	0.189	0.299	0.272
Aug	0.785	0.581	1.11	2.56	1.34	3.39	1.06	0.0626	0.0179	<0.01	0.0373
Sept	1.96	1.29	3.12	11.3	4.71	11.0	0.449	0.552	0.322	0.535	0.0509
Oct	16.4	0.405	1.86	302	1.62	266	6.32	7.25	1.50	28.4	0.0338
Nov	1.73	1.03	2.23	13.0	2.34	11.6	0.795	0.536	0.286	0.853	0.118
Dec	0.782	0.399	0.775	7.55	0.672	6.35	0.814	0.177	0.0400	0.263	<0.01
Annual	48.3	21.7	35.6	498	45.2	442	17.0	18.1	8.65	42.2	8.90

Data completeness

2016	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

2016	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	22.6	15.9	45.7	118	43.6	111	4.37	3.35	1.38	3.59	16.6	4.78	2.88	36.0
Feb	48.6	42.9	70.9	96.3	109	94.4	8.24	19.6	17.8	6.35	4.53	5.34	4.11	35.0
Mar	13.6	12.1	15.6	15.6	18.9	25.5	1.67	1.68	1.13	1.65	0.615	6.21	0.926	42.5
Apr	10.7	8.94	13.9	34.2	41.0	28.7	3.44	1.35	0.734	1.09	4.15	5.38	1.06	141
May	10.5	9.07	17.1	18.2	25.7	23.4	2.83	1.53	1.03	1.12	3.51	5.46	0.917	76.2
June	15.8	14.5	29.2	18.5	45.0	21.6	1.58	2.05	1.59	0.791	0.546	6.26	0.990	44.6
July	10.7	9.12	18.2	21.4	28.6	27.0	4.68	2.55	1.97	1.97	1.76	5.75	0.898	114
Aug	28.6	26.5	42.5	14.2	79.8	34.3	2.73	2.66	1.93	1.04	1.88	5.73	2.02	75.5
Sept	3.67	2.52	9.29	16.3	7.15	19.2	2.66	1.38	0.977	<0.3	1.59	5.80	0.504	152
Oct	4.32	3.14	8.39	13.4	11.3	19.7	1.94	1.01	0.615	1.36	0.586	6.23	0.487	73.1
Nov	27.1	23.8	51.6	35.2	58.0	54.4	7.81	3.87	2.69	3.60	3.29	5.48	2.13	14.0
Dec	25.5	21.1	48.4	68.1	67.9	71.6	4.51	4.58	3.27	3.39	9.09	5.04	2.52	33.5
Annual	13.8	11.8	22.7	29.9	36.1	33.8	3.39	2.70	2.01	1.55	3.15	5.50	1.23	838
Max.	132	125	256	689	361	608	30.3	67.0	64.8	45.9	66.2	6.64	13.3	
Min.	1.61	0.596	5.34	7.61	2.40	11.8	<0.3	0.277	<0.2	<0.3	0.229	4.18	0.332	

Wet deposition amount

2016	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	0.812	0.572	1.65	4.26	1.57	3.99	0.157	0.121	0.0496	0.129	0.597
Feb	1.70	1.50	2.48	3.37	3.80	3.30	0.289	0.688	0.622	0.222	0.159
Mar	0.579	0.514	0.663	0.664	0.804	1.08	0.0711	0.0714	0.0479	0.0699	0.0261
Apr	1.51	1.26	1.97	4.83	5.79	4.05	0.486	0.191	0.104	0.155	0.586
May	0.799	0.691	1.31	1.39	1.96	1.79	0.215	0.117	0.0782	0.0854	0.267
June	0.705	0.647	1.30	0.827	2.01	0.963	0.0706	0.0916	0.0708	0.0353	0.0243
July	1.23	1.04	2.07	2.44	3.26	3.08	0.535	0.291	0.224	0.224	0.201
Aug	2.16	2.00	3.21	1.07	6.03	2.59	0.206	0.201	0.145	0.0781	0.142
Sept	0.559	0.383	1.41	2.48	1.09	2.92	0.405	0.211	0.149	0.0363	0.242
Oct	0.316	0.229	0.614	0.978	0.825	1.44	0.142	0.0736	0.0450	0.0992	0.0428
Nov	0.379	0.333	0.722	0.493	0.811	0.762	0.109	0.0541	0.0377	0.0504	0.0460
Dec	0.853	0.708	1.62	2.28	2.28	2.40	0.151	0.153	0.110	0.114	0.305
Annual	11.6	9.88	19.0	25.1	30.2	28.4	2.84	2.26	1.68	1.30	2.64

Data completeness

2016	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

2016	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	9.44	9.28	2.10	4.60	4.70	2.61	3.30	65.9	65.8	4.10	0.0209	7.68	1.60	5.5
Mar	16.7	16.2	25.0	7.30	21.8	8.70	3.10	43.2	43.0	7.40	0.251	6.60	1.64	1.7
Apr	7.11	7.01	7.68	1.70	14.6	1.70	0.892	16.8	16.7	2.65	1.61	5.79	0.745	7.2
May	9.62	9.57	10.9	3.50	21.5	0.800	1.17	10.2	10.2	2.02	2.50	5.60	0.725	17.6
June	2.53	2.51	3.95	1.66	6.96	0.362	0.473	2.46	2.45	0.678	4.51	5.35	0.323	45.4
July	1.61	1.50	6.36	1.27	1.49	1.82	1.08	1.96	1.92	0.481	4.53	5.34	0.323	87.6
Aug	1.20	1.18	3.21	0.557	1.17	0.435	<0.3	0.942	0.933	<0.3	6.97	5.16	0.251	33.8
Sept	2.60	2.52	5.20	2.00	3.00	1.30	1.28	4.99	4.96	0.820	5.37	5.27	0.380	5.9
Oct	2.64	2.48	4.09	1.87	1.83	2.55	2.13	3.45	3.40	0.542	2.42	5.62	0.349	8.7
Nov	3.63	3.39	6.21	2.73	2.03	3.97	2.93	8.82	8.73	1.58	1.26	5.90	0.443	5.8
Dec	13.3	13.2	9.40	2.80	8.80	2.17	5.40	14.0	13.9	2.46	1.35	5.87	0.650	3.0
Annual	3.13	3.05	5.75	1.66	4.97	1.38	1.05	5.42	5.39	0.864	4.31	5.37	0.409	222
Max.	16.7	16.2	25.0	13.0	25.0	8.70	5.40	65.9	65.8	7.40	7.08	7.68	1.64	
Min.	1.04	0.983	2.10	<0.5	<0.8	<0.3	<0.3	0.750	0.741	<0.3	0.0209	5.15	0.240	

Wet deposition amount

2016	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	0.0519	0.0511	0.0116	0.0253	0.0259	0.0143	0.0182	0.362	0.362	0.0226	<0.01
Mar	0.0285	0.0276	0.0425	0.0124	0.0371	0.0148	<0.01	0.0734	0.0731	0.0126	<0.01
Apr	0.0512	0.0505	0.0553	0.0122	0.105	0.0123	<0.01	0.121	0.120	0.0191	0.0116
May	0.169	0.169	0.192	0.0616	0.378	0.0141	0.0207	0.180	0.179	0.0356	0.0439
June	0.115	0.114	0.179	0.0752	0.316	0.0164	0.0215	0.112	0.111	0.0308	0.205
July	0.141	0.131	0.557	0.111	0.131	0.160	0.0947	0.172	0.168	0.0421	0.397
Aug	0.0406	0.0398	0.109	0.0188	0.0395	0.0147	<0.01	0.0318	0.0315	<0.01	0.236
Sept	0.0154	0.0149	0.0307	0.0118	0.0177	<0.01	<0.01	0.0294	0.0293	<0.01	0.0317
Oct	0.0230	0.0216	0.0355	0.0163	0.0159	0.0222	0.0185	0.0300	0.0295	<0.01	0.0211
Nov	0.0211	0.0197	0.0360	0.0158	0.0118	0.0230	0.0170	0.0511	0.0506	<0.01	<0.01
Dec	0.0400	0.0396	0.0282	<0.01	0.0264	<0.01	0.0162	0.0419	0.0418	<0.01	<0.01
Annual	0.696	0.678	1.28	0.369	1.10	0.306	0.233	1.20	1.20	0.192	0.957

Data completeness

2016	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	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

2016	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	24.6	23.9	46.0	3.75	17.9	10.7	3.39	16.4	16.2	3.55	15.5	4.81	1.96	12.9
Feb	31.4	30.7	51.3	5.21	18.6	10.8	3.98	29.1	28.8	6.12	6.24	5.21	1.84	9.4
Mar	22.6	17.9	37.4	5.58	17.2	9.01	2.06	18.2	18.0	3.92	7.67	5.12	1.55	14.2
Apr	43.2	42.5	31.4	5.22	29.4	11.3	3.80	28.7	28.5	7.80	10.7	4.97	2.22	3.4
May	17.0	16.9	7.51	1.87	15.8	1.77	1.15	7.90	7.86	1.66	13.2	4.88	1.02	33.7
June	15.2	15.2	15.9	7.93	35.6	1.06	2.10	5.53	5.51	1.58	10.0	5.00	1.20	35.7
July	16.9	16.8	17.2	2.56	16.0	1.11	1.61	7.11	7.08	1.67	21.6	4.67	1.27	47.6
Aug	10.1	10.0	7.71	1.83	8.67	1.42	0.959	3.19	3.16	1.01	11.3	4.95	0.814	98.8
Sept	8.95	8.83	2.62	1.16	2.75	1.84	0.635	2.40	2.36	0.588	11.3	4.95	0.763	45.3
Oct	29.2	28.9	20.1	4.32	19.7	4.78	3.54	43.4	43.3	6.20	9.98	5.00	1.97	3.5
Nov	21.4	20.9	36.5	6.50	16.9	8.53	8.11	29.3	29.1	8.50	1.47	5.83	1.60	5.9
Dec	20.0	19.6	40.3	4.82	17.1	7.49	8.00	22.5	22.3	5.75	6.46	5.19	1.61	5.3
Annual	15.0	14.7	15.0	3.09	14.4	2.80	1.71	7.94	7.88	1.91	12.5	4.90	1.11	316
Max.	124	60.4	132	14.4	152	16.5	10.2	112	112	14.0	40.7	7.34	6.71	
Min.	1.98	1.93	<0.5	1.02	<0.8	<0.3	<0.3	0.250	0.231	0.410	0.0457	4.39	0.282	

Wet deposition amount

2016	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	0.318	0.310	0.595	0.0485	0.232	0.138	0.0438	0.212	0.209	0.0459	0.200
Feb	0.296	0.289	0.484	0.0491	0.176	0.102	0.0375	0.274	0.272	0.0577	0.0588
Mar	0.319	0.253	0.529	0.0789	0.244	0.127	0.0291	0.257	0.254	0.0554	0.108
Apr	0.147	0.145	0.107	0.0177	0.100	0.0384	0.0129	0.0976	0.0967	0.0265	0.0364
May	0.574	0.571	0.253	0.0630	0.534	0.0598	0.0386	0.266	0.265	0.0558	0.445
June	0.544	0.541	0.566	0.283	1.27	0.0377	0.0748	0.198	0.197	0.0563	0.358
July	0.805	0.801	0.818	0.122	0.761	0.0528	0.0766	0.338	0.337	0.0793	1.03
Aug	1.00	0.992	0.762	0.180	0.856	0.140	0.0947	0.315	0.312	0.0994	1.12
Sept	0.405	0.400	0.119	0.0527	0.125	0.0832	0.0288	0.109	0.107	0.0266	0.513
Oct	0.103	0.102	0.0708	0.0152	0.0692	0.0168	0.0125	0.153	0.152	0.0218	0.0351
Nov	0.126	0.123	0.215	0.0383	0.0995	0.0503	0.0479	0.173	0.172	0.0502	<0.01
Dec	0.107	0.104	0.214	0.0256	0.0909	0.0399	0.0426	0.120	0.119	0.0306	0.0344
Annual	4.74	4.63	4.73	0.975	4.56	0.883	0.540	2.51	2.49	0.604	3.94

Data completeness

2016	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	96.1	100	100	100	96.1	96.1	96.1	96.1	96.1	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**	**99.8**	**100**	**100**	**100**	**99.8**	**99.8**	**99.8**	**99.8**	**99.8**	**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

2016	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	36.1	35.0	34.8	27.9	42.0	18.8	4.12	31.9	31.5	7.94	1.68	5.77	1.99	15.9
Feb	80.7	79.1	33.7	22.7	48.6	27.4	5.51	84.9	84.3	13.7	0.472	6.33	3.41	12.5
Mar	132	125	59.1	93.2	85.8	107	44.7	95.2	92.9	31.1	1.29	5.89	6.04	7.8
Apr	145	140	55.4	112	99.0	91.9	23.9	178	176	28.2	3.04	5.52	7.63	6.0
May	35.7	35.4	15.1	17.9	37.8	6.07	4.19	26.4	26.3	5.94	7.67	5.11	1.87	24.2
June	23.4	23.3	14.6	5.61	34.5	2.06	1.99	11.6	11.6	3.70	9.70	5.01	1.40	40.2
July	26.0	25.9	13.1	3.98	23.4	1.56	1.88	9.79	9.76	2.66	23.8	4.62	1.82	91.8
Aug	8.63	8.56	6.18	3.17	8.56	1.14	<0.3	3.01	2.99	0.742	11.8	4.93	0.702	211
Sept	5.96	5.87	7.56	2.36	11.1	1.48	0.912	2.24	2.21	0.710	10.1	5.00	0.657	34.1
Oct	27.5	26.6	17.1	14.4	41.1	15.8	14.3	35.6	35.2	14.5	0.458	6.34	2.20	11.0
Nov	42.3	40.3	25.1	23.1	31.1	22.5	7.73	58.8	58.3	10.9	0.392	6.41	2.53	17.6
Dec	69.1	67.0	37.5	32.3	55.9	34.6	14.7	73.2	72.4	14.6	0.903	6.04	3.56	9.0
Annual	23.6	23.2	13.4	9.90	22.2	7.42	3.10	17.0	16.8	3.97	11.8	4.93	1.47	481
Max.	906	874	266	443	569	535	394	661	655	215	46.8	7.70	36.5	
Min.	2.25	2.15	2.26	1.05	1.00	0.435	<0.3	0.700	0.691	<0.3	0.0200	4.33	0.310	

Wet deposition amount

2016	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	0.575	0.557	0.553	0.444	0.669	0.299	0.0656	0.507	0.501	0.126	0.0268
Feb	1.01	0.988	0.421	0.284	0.608	0.342	0.0689	1.06	1.05	0.171	<0.01
Mar	1.03	0.979	0.461	0.727	0.670	0.834	0.349	0.743	0.725	0.243	0.0100
Apr	0.868	0.835	0.331	0.672	0.592	0.550	0.143	1.07	1.05	0.168	0.0182
May	0.864	0.855	0.365	0.434	0.913	0.147	0.101	0.639	0.636	0.144	0.186
June	0.941	0.936	0.589	0.225	1.39	0.0828	0.0802	0.466	0.465	0.149	0.390
July	2.39	2.38	1.21	0.365	2.15	0.143	0.173	0.898	0.895	0.244	2.18
Aug	1.82	1.80	1.30	0.669	1.80	0.241	0.0517	0.635	0.630	0.156	2.50
Sept	0.203	0.200	0.258	0.0804	0.378	0.0505	0.0311	0.0766	0.0755	0.0242	0.344
Oct	0.304	0.293	0.189	0.159	0.454	0.175	0.158	0.393	0.389	0.160	<0.01
Nov	0.746	0.710	0.442	0.408	0.549	0.397	0.136	1.04	1.03	0.193	<0.01
Dec	0.622	0.603	0.337	0.291	0.503	0.311	0.132	0.658	0.652	0.131	<0.01
Annual	11.4	11.1	6.46	4.76	10.7	3.57	1.49	8.18	8.10	1.91	5.68

Data completeness

2016	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	93.3	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	99.4	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	99.2	100	100	99.2	99.2	99.2	99.2	99.2	99.2	100	100	100	100
Dec	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Annual	**100**	**100**	**100**	**100**	**99.6**	**100**	**100**	**100**	**100**	**100**	**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

2016	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	25.6	23.9	13.9	19.6	19.2	27.9	7.65	14.7	14.1	3.60	2.55	5.59	1.31	27.0
Feb	36.1	33.2	24.9	53.3	26.7	48.7	15.8	23.1	22.0	8.74	3.96	5.40	2.22	20.9
Mar	47.4	44.1	27.0	43.6	33.2	54.2	19.6	30.2	29.0	9.22	1.23	5.91	2.43	30.6
Apr	53.4	50.4	48.7	26.7	54.3	49.5	15.1	23.8	22.7	9.80	2.00	5.70	2.58	82.8
May	35.6	33.9	22.7	18.0	26.2	28.1	9.70	16.0	15.4	8.86	2.50	5.60	1.68	88.8
June	19.3	17.8	15.0	24.2	17.1	25.2	5.53	11.3	10.8	3.51	2.74	5.56	1.16	146
July	21.0	20.3	19.9	12.6	14.4	11.7	4.74	15.3	15.1	4.76	3.86	5.41	1.13	100
Aug	10.5	9.63	14.5	44.9	13.0	14.8	31.8	6.33	6.01	3.49	4.91	5.31	1.28	223
Sept	19.4	18.3	26.1	62.8	27.0	18.8	57.5	7.94	7.53	3.25	8.60	5.07	2.16	71.8
Oct	21.6	20.1	22.0	24.3	20.9	25.5	10.5	9.55	9.00	6.45	3.79	5.42	1.38	81.2
Nov	26.4	24.1	33.3	56.4	31.2	37.6	21.6	17.6	16.8	7.15	6.36	5.20	2.05	41.2
Dec	25.9	24.4	35.8	50.5	32.2	23.6	12.7	27.2	26.7	10.1	2.60	5.59	1.94	11.6
Annual	24.0	22.5	22.3	33.4	22.7	25.2	19.1	13.1	12.6	5.51	3.97	5.40	1.58	925
Max.	167	162	122	197	261	113	81.3	89.3	86.9	38.7	28.2	7.20	8.16	
Min.	6.20	5.83	<0.5	8.40	<0.8	3.50	<0.3	2.70	2.57	1.20	0.0631	4.55	0.450	

Wet deposition amount

2016	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	0.691	0.646	0.376	0.528	0.517	0.753	0.206	0.396	0.380	0.0972	0.0690
Feb	0.754	0.693	0.520	1.11	0.559	1.02	0.331	0.483	0.461	0.183	0.0828
Mar	1.45	1.35	0.827	1.33	1.02	1.66	0.601	0.925	0.889	0.282	0.0376
Apr	4.42	4.18	4.03	2.21	4.50	4.10	1.25	1.97	1.88	0.811	0.165
May	3.16	3.01	2.02	1.60	2.33	2.50	0.861	1.42	1.37	0.786	0.222
June	2.82	2.60	2.18	3.52	2.49	3.67	0.806	1.65	1.57	0.512	0.399
July	2.10	2.03	1.99	1.26	1.44	1.17	0.474	1.53	1.51	0.476	0.386
Aug	2.35	2.15	3.22	10.0	2.91	3.30	7.10	1.41	1.34	0.779	1.10
Sept	1.39	1.31	1.87	4.51	1.94	1.35	4.13	0.570	0.541	0.233	0.618
Oct	1.76	1.63	1.79	1.97	1.70	2.07	0.856	0.775	0.730	0.524	0.308
Nov	1.09	0.995	1.37	2.32	1.28	1.55	0.888	0.727	0.694	0.294	0.262
Dec	0.300	0.284	0.415	0.586	0.373	0.273	0.147	0.316	0.310	0.117	0.0302
Annual	22.2	20.8	20.6	30.9	21.0	23.3	17.6	12.1	11.6	5.09	3.68

Data completeness

2016	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	93.7	93.7	93.7	93.7	93.7	93.7	93.7	93.7	93.7	93.7	100	100	93.7	100
Feb	89.0	89.0	89.0	89.0	89.0	89.0	89.0	89.0	89.0	89.0	100	100	89.0	100
Mar	94.1	94.1	94.1	94.1	94.1	94.1	94.1	94.1	94.1	94.1	100	100	94.1	100
Apr	96.6	96.6	96.6	96.6	96.6	96.6	96.6	96.6	96.6	96.6	100	100	96.6	100
May	96.6	96.6	96.6	96.6	96.6	96.6	96.6	96.6	96.6	96.6	100	100	96.6	100
June	94.1	94.1	94.1	94.1	94.1	94.1	94.1	94.1	94.1	94.1	100	100	94.1	100
July	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.0	100	100	97.0	100
Aug	97.9	97.9	97.9	97.9	97.9	97.9	97.9	97.9	97.9	97.9	100	100	97.9	100
Sept	93.2	93.2	93.2	93.2	93.2	93.2	93.2	93.2	93.2	93.2	100	100	93.2	100
Oct	96.4	96.4	96.4	96.4	96.4	96.4	96.4	96.4	96.4	96.4	100	100	96.4	100
Nov	93.2	93.2	93.2	93.2	93.2	93.2	93.2	93.2	93.2	93.2	100	100	93.2	100
Dec	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Annual	**95.8**	**95.8**	**95.8**	**95.8**	**95.8**	**95.8**	**95.8**	**95.8**	**95.8**	**95.8**	**100**	**100**	**95.8**	**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

2016	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	22.6	18.4	116	28.0	86.5	68.7	6.84	25.6	24.2	6.37	2.19	5.66	3.24	52.7
Feb	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Mar	85.2	80.5	82.9	77.3	115	77.9	8.73	64.2	62.6	14.5	18.4	4.73	5.17	38.6
Apr	--	--	--	--	--	--	--	--	--	--	--	--	--	0
May	25.3	23.2	54.5	42.6	52.7	34.4	4.09	54.1	53.4	7.40	0.257	6.59	2.30	17.7
June	9.19	8.55	21.1	12.5	52.5	10.6	1.19	12.0	11.8	2.44	2.39	5.62	0.954	397
July	11.8	11.3	27.8	12.3	59.9	9.38	1.36	17.7	17.5	2.44	0.136	6.86	1.19	164
Aug	6.99	6.37	11.9	9.21	55.7	10.2	1.18	11.2	11.0	2.29	0.633	6.20	1.03	235
Sept	13.4	13.3	38.1	4.06	65.2	2.77	1.12	12.6	12.6	1.35	3.50	5.46	1.30	329
Oct	15.2	15.0	28.8	5.94	65.7	4.15	1.53	15.5	15.4	1.57	3.14	5.50	1.19	305
Nov	19.8	19.5	48.8	6.31	92.6	4.40	2.10	22.1	22.0	1.94	7.45	5.13	1.84	92.1
Dec	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Annual	14.1	13.5	31.8	11.1	63.6	11.0	1.70	15.9	15.7	2.48	2.91	5.54	1.34	1631
Max.	208	200	179	137	175	139	15.3	151	148	29.2	25.1	8.20	7.89	
Min.	3.12	2.78	4.35	0.846	24.4	0.435	0.512	2.25	2.22	0.411	0.0063	4.60	0.460	

Wet deposition amount

2016	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	1.19	0.971	6.13	1.48	4.56	3.62	0.360	1.35	1.27	0.335	0.115
Feb	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mar	3.29	3.11	3.20	2.98	4.45	3.01	0.337	2.48	2.41	0.559	0.711
Apr	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
May	0.448	0.411	0.965	0.754	0.932	0.608	0.0724	0.958	0.945	0.131	<0.01
June	3.65	3.39	8.36	4.95	20.8	4.20	0.472	4.78	4.69	0.969	0.949
July	1.94	1.85	4.56	2.01	9.82	1.54	0.223	2.90	2.87	0.400	0.0224
Aug	1.64	1.49	2.79	2.16	13.1	2.39	0.276	2.62	2.57	0.537	0.148
Sept	4.42	4.37	12.5	1.33	21.5	0.910	0.370	4.15	4.13	0.445	1.15
Oct	4.65	4.57	8.78	1.82	20.1	1.27	0.466	4.74	4.71	0.481	0.959
Nov	1.82	1.80	4.49	0.581	8.53	0.406	0.194	2.03	2.02	0.179	0.686
Dec	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	23.1	22.0	51.8	18.1	104	17.9	2.77	26.0	25.6	4.04	4.75

Data completeness

2016	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
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

2016	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	30.5	29.6	84.5	19.9	122	14.8	6.22	20.3	20.0	4.26	7.94	5.10	3.35	20.1
Feb	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Mar	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Apr	--	--	--	--	--	--	--	--	--	--	--	--	--	0
May	7.60	6.87	14.1	11.6	34.5	12.0	1.69	11.7	11.4	2.19	1.69	5.77	0.646	112
June	20.0	19.0	11.1	16.9	34.8	16.2	2.20	6.66	6.31	2.41	0.394	6.40	0.663	199
July	7.66	6.94	9.24	12.2	27.4	12.0	1.78	10.9	10.7	2.06	0.220	6.66	0.718	186
Aug	9.07	8.36	10.5	11.3	45.7	11.7	1.44	8.93	8.67	2.27	0.290	6.54	0.592	352
Sept	8.27	7.80	12.5	7.73	42.8	7.74	1.83	8.42	8.26	1.59	1.16	5.93	0.732	434
Oct	15.3	15.1	32.2	4.76	56.9	3.57	1.68	12.0	11.9	1.37	6.44	5.19	1.30	343
Nov	14.6	14.5	35.4	4.60	36.3	1.59	0.852	4.93	4.89	0.534	19.3	4.71	1.32	164
Dec	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Annual	11.8	11.2	18.3	9.41	43.3	8.87	1.71	9.28	9.09	1.79	3.57	5.45	0.880	1810
Max.	318	315	216	86.9	252	97.4	17.6	83.3	81.2	18.1	30.9	8.36	6.28	
Min.	2.81	2.34	3.06	1.13	11.1	0.435	0.512	2.25	2.03	0.411	0.0044	4.51	0.320	

Wet deposition amount

2016	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	0.614	0.596	1.70	0.400	2.44	0.297	0.125	0.408	0.402	0.0857	0.160
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	0.850	0.769	1.58	1.30	3.86	1.35	0.189	1.31	1.28	0.246	0.189
June	3.99	3.79	2.21	3.37	6.92	3.22	0.438	1.33	1.26	0.480	0.0784
July	1.42	1.29	1.71	2.26	5.09	2.23	0.329	2.03	1.98	0.382	0.0409
Aug	3.19	2.94	3.69	3.96	16.1	4.11	0.508	3.14	3.05	0.800	0.102
Sept	3.59	3.39	5.44	3.36	18.6	3.36	0.793	3.66	3.59	0.692	0.505
Oct	5.26	5.18	11.0	1.63	19.5	1.23	0.576	4.12	4.10	0.470	2.21
Nov	2.40	2.38	5.81	0.754	5.95	0.261	0.140	0.809	0.803	0.0876	3.17
Dec	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	21.3	20.3	33.2	17.0	78.4	16.1	3.10	16.8	16.5	3.24	6.46

Data completeness

2016	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
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
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

2016	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	11.1	10.6	22.9	10.9	22.4	8.62	1.73	9.46	9.27	2.01	1.49	5.83	1.04	52.5
Feb	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Mar	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Apr	21.7	21.2	46.6	11.7	82.6	7.78	3.83	10.1	9.91	2.05	36.3	4.44	3.16	36.2
May	11.0	9.87	38.8	11.2	149	18.3	6.27	54.6	54.2	6.97	1.56	5.81	1.53	70.3
June	9.24	8.75	26.5	11.5	51.0	8.00	1.27	8.57	8.40	1.78	1.20	5.92	1.19	151
July	12.0	11.6	26.1	10.3	51.6	6.33	2.98	14.3	14.1	2.40	1.66	5.78	1.38	220
Aug	7.20	6.83	17.9	8.15	35.8	6.18	1.12	8.29	8.15	1.52	1.43	5.84	0.962	144
Sept	8.79	8.59	24.0	6.12	43.3	3.37	1.31	10.8	10.8	1.36	2.73	5.56	1.58	246
Oct	9.98	9.77	28.7	5.18	48.0	3.41	1.57	10.9	10.9	1.52	9.60	5.02	1.28	141
Nov	8.86	8.67	26.3	6.17	59.4	3.08	1.90	17.3	17.3	1.67	1.35	5.87	1.30	8.6
Dec	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Annual	10.2	9.77	26.3	8.65	53.1	6.41	2.09	13.7	13.6	2.10	4.01	5.40	1.38	1069
Max.	95.3	95.3	423	146	221	109	20.3	194	192	24.6	36.3	6.46	12.5	
Min.	2.17	2.08	2.32	1.02	<0.8	<0.3	<0.3	0.887	0.882	<0.3	0.347	4.44	0.356	

Wet deposition amount

2016	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	0.582	0.554	1.20	0.572	1.18	0.453	0.0909	0.497	0.487	0.106	0.0781
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	0.786	0.769	1.69	0.426	2.99	0.282	0.139	0.365	0.359	0.0743	1.32
May	0.771	0.694	2.73	0.784	10.4	1.29	0.441	3.84	3.81	0.490	0.109
June	1.39	1.32	4.00	1.73	7.70	1.21	0.192	1.29	1.27	0.269	0.181
July	2.64	2.56	5.74	2.27	11.3	1.39	0.654	3.13	3.10	0.527	0.365
Aug	1.04	0.985	2.58	1.18	5.16	0.891	0.162	1.19	1.18	0.219	0.207
Sept	2.16	2.11	5.89	1.50	10.6	0.829	0.321	2.66	2.64	0.335	0.671
Oct	1.40	1.37	4.04	0.729	6.76	0.480	0.221	1.54	1.53	0.214	1.35
Nov	0.0758	0.0742	0.225	0.0528	0.509	0.0263	0.0163	0.148	0.148	0.0143	0.0116
Dec	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	10.9	10.4	28.1	9.24	56.7	6.85	2.24	14.7	14.5	2.25	4.29

Data completeness

2016	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
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

2016	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	10.4	10.0	10.7	7.83	28.3	5.99	2.28	7.31	7.18	2.42	0.545	6.26	0.540	85.0
June	3.05	2.44	4.83	9.59	15.5	10.2	2.17	3.55	3.33	1.80	1.61	5.79	0.355	211
July	1.96	1.41	4.16	5.02	30.2	9.86	1.69	8.22	8.01	1.75	0.284	6.55	0.251	239
Aug	34.1	32.9	6.87	18.6	11.9	20.2	1.70	6.95	6.51	2.55	0.327	6.49	0.555	230
Sept	1.77	1.38	2.34	6.84	5.12	6.45	0.553	2.34	2.20	1.12	1.33	5.88	0.345	188
Oct	2.08	2.01	2.62	1.26	5.37	1.27	0.472	1.00	0.973	0.411	3.04	5.52	0.271	106
Nov	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Dec	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Annual	9.80	9.19	4.93	9.04	16.2	10.4	1.51	5.17	4.95	1.74	1.04	5.98	0.379	1059
Max.	157	156	22.6	144	86.5	250	9.97	49.2	46.1	32.1	20.4	7.11	3.57	
Min.	0.625	<0.3	1.13	0.846	<0.8	0.435	<0.3	0.250	0.231	0.411	0.0776	4.69	0.180	

Wet deposition amount

2016	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	0.885	0.854	0.911	0.665	2.40	0.509	0.194	0.621	0.610	0.205	0.0463
June	0.644	0.515	1.02	2.02	3.27	2.16	0.458	0.750	0.703	0.379	0.341
July	0.470	0.338	0.996	1.20	7.23	2.36	0.405	1.97	1.92	0.419	0.0680
Aug	7.82	7.55	1.58	4.27	2.73	4.65	0.392	1.60	1.50	0.587	0.0750
Sept	0.333	0.259	0.439	1.29	0.964	1.21	0.104	0.440	0.414	0.211	0.250
Oct	0.220	0.212	0.276	0.133	0.567	0.134	0.0498	0.106	0.103	0.0434	0.321
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	9.73	5.22	9.58	17.2	11.0	1.60	5.48	5.24	1.84	1.10

Data completeness

2016	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
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: Mae Hia** **Country: Thailand**

Precipitation amount-weighted average concentration/ Precipitation amount

2016	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	14.0	13.7	21.3	8.00	55.0	4.60	4.72	12.2	12.1	3.02	1.27	5.89	1.45	25.9
Feb	68.9	67.7	117	31.8	206	20.0	19.1	36.1	35.7	8.38	55.3	4.26	5.99	2.7
Mar	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Apr	35.5	34.7	60.9	16.3	106	14.1	21.6	38.1	37.8	10.4	5.01	5.30	3.73	25.1
May	14.4	13.8	30.6	12.0	51.9	9.59	5.47	19.5	19.3	3.29	4.11	5.39	1.62	66.8
June	2.39	2.05	8.63	6.88	17.5	5.63	1.29	3.94	3.82	0.407	2.71	5.57	0.540	154
July	3.04	2.58	9.52	8.20	34.0	7.84	3.03	12.5	12.3	1.33	1.19	5.93	0.695	183
Aug	3.08	2.76	8.88	5.98	18.4	5.63	1.60	11.3	11.2	1.15	1.88	5.73	0.622	109
Sept	2.22	1.83	6.29	4.37	15.4	6.37	1.95	6.70	6.57	0.735	2.42	5.62	0.450	176
Oct	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Nov	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Dec	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Annual	5.45	5.04	12.9	7.39	29.3	7.01	3.17	10.7	10.6	1.54	2.49	5.60	0.825	743
Max.	74.6	73.5	119	47.6	261	81.0	35.2	100	99.7	16.5	64.6	6.81	6.49	
Min.	0.317	<0.3	1.33	1.48	4.30	<0.3	<0.3	0.482	0.413	<0.3	0.155	4.19	0.150	

Wet deposition amount

2016	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	0.362	0.354	0.552	0.207	1.42	0.119	0.122	0.316	0.314	0.0783	0.0330
Feb	0.186	0.183	0.316	0.0860	0.557	0.0541	0.0515	0.0975	0.0963	0.0226	0.149
Mar	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Apr	0.891	0.870	1.53	0.409	2.66	0.355	0.542	0.956	0.949	0.262	0.126
May	0.963	0.925	2.05	0.799	3.47	0.641	0.365	1.30	1.29	0.220	0.275
June	0.369	0.317	1.33	1.06	2.71	0.870	0.200	0.608	0.589	0.0629	0.419
July	0.558	0.473	1.75	1.50	6.23	1.44	0.557	2.29	2.26	0.244	0.217
Aug	0.336	0.301	0.968	0.653	2.00	0.614	0.174	1.23	1.22	0.126	0.205
Sept	0.390	0.323	1.11	0.770	2.71	1.12	0.343	1.18	1.16	0.129	0.426
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	4.06	3.74	9.59	5.49	21.8	5.21	2.35	7.99	7.87	1.15	1.85

Data completeness

2016	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	100	100	100	100	100	100	100	100	100	100	100	100	100
May	100	100	100	100	100	100	100	100	100	100	99.6	99.6	99.6	100
June	100	100	100	100	100	100	100	100	100	100	99.9	99.9	99.9	100
July	100	100	100	100	100	100	100	100	100	100	99.9	99.9	99.9	100
Aug	100	100	100	100	100	100	100	100	100	100	99.7	99.7	99.7	100
Sept	100	100	100	100	100	100	100	100	100	100	99.8	99.8	99.8	100
Oct	--	--	--	--	--	--	--	--	--	--	--	--	--	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

2016	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	16.7	15.7	57.4	22.8	117	15.2	8.18	14.2	13.9	7.82	26.9	4.57	3.29	5.1
Feb	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Mar	37.0	34.3	95.1	46.8	142	44.4	15.1	33.9	33.0	13.2	36.3	4.44	5.16	2.8
Apr	24.7	23.5	47.6	24.0	142	18.9	9.72	12.5	12.1	6.53	3.71	5.43	2.35	23.6
May	13.8	13.1	35.9	18.8	57.0	11.8	6.66	9.93	9.68	8.96	23.5	4.63	2.18	83.0
June	5.58	5.46	16.8	7.12	41.5	1.96	1.68	6.28	6.24	7.52	7.00	5.15	0.915	85.7
July	5.04	4.97	9.24	3.59	19.9	1.25	0.926	7.41	7.38	7.43	4.52	5.34	0.671	271
Aug	8.51	8.11	18.2	6.88	44.2	6.72	1.43	11.0	10.9	1.87	3.18	5.50	1.03	58.7
Sept	4.90	4.72	10.1	3.45	27.0	2.90	0.660	7.26	7.19	1.37	2.55	5.59	0.608	340
Oct	7.45	7.21	7.09	7.44	32.9	3.97	0.736	9.29	9.20	1.84	3.61	5.44	0.577	213
Nov	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Dec	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Annual	6.94	6.70	13.5	6.57	34.0	4.02	1.59	8.24	8.16	4.25	5.47	5.26	0.848	1083
Max.	54.3	52.5	106	156	198	148	24.8	44.2	43.8	23.0	72.4	6.63	5.34	
Min.	1.04	<0.3	1.61	<0.5	<0.8	<0.3	<0.3	2.74	2.74	<0.3	0.234	4.14	0.250	

Wet deposition amount

2016	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	0.0849	0.0803	0.293	0.117	0.597	0.0776	0.0417	0.0725	0.0709	0.0399	0.137
Feb	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mar	0.103	0.0960	0.266	0.131	0.397	0.124	0.0423	0.0950	0.0923	0.0369	0.102
Apr	0.583	0.556	1.12	0.567	3.34	0.446	0.229	0.296	0.286	0.154	0.0875
May	1.15	1.09	2.98	1.56	4.73	0.975	0.553	0.825	0.803	0.743	1.95
June	0.478	0.468	1.44	0.610	3.56	0.168	0.144	0.538	0.534	0.645	0.600
July	1.36	1.34	2.50	0.972	5.39	0.339	0.250	2.00	2.00	2.01	1.22
Aug	0.500	0.476	1.07	0.404	2.59	0.395	0.0840	0.647	0.638	0.110	0.187
Sept	1.67	1.61	3.42	1.17	9.19	0.986	0.225	2.47	2.45	0.467	0.868
Oct	1.59	1.54	1.51	1.59	7.01	0.846	0.157	1.98	1.96	0.392	0.770
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	7.51	7.25	14.6	7.12	36.8	4.36	1.73	8.93	8.83	4.60	5.92

Data completeness

2016	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	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	99.9	99.9	99.9	100
Nov	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Dec	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Annual	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**99.9**	**99.9**	**99.9**	**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

2016	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	67.6	67.1	58.8	7.96	141	8.24	3.22	33.4	33.2	6.58	1.14	5.94	3.38	108
Feb	*	*	*	*	*	*	*	*	*	*	*	*	*	1.5
Mar	209	207	159	37.0	376	27.6	20.3	114	113	21.8	4.41	5.36	9.73	16.8
Apr	70.7	69.3	68.6	23.3	117	24.9	10.8	42.2	41.7	11.7	2.64	5.58	3.83	122
May	37.7	36.4	26.0	13.8	55.1	20.4	4.66	31.1	30.7	4.82	0.581	6.24	2.04	271
June	46.5	46.0	32.2	11.2	68.5	8.56	3.15	28.0	27.8	5.85	14.2	4.85	2.64	110
July	16.8	16.5	11.3	8.29	29.2	5.20	1.54	11.7	11.6	2.81	0.982	6.01	0.935	246
Aug	18.8	18.3	14.1	7.79	30.7	7.94	2.22	12.0	11.8	2.18	2.47	5.61	1.08	586
Sept	46.6	46.0	35.8	10.4	72.6	8.93	2.56	31.9	31.7	3.97	1.17	5.93	2.30	138
Oct	53.7	53.1	59.2	22.9	142	10.9	6.74	23.5	23.3	5.32	1.19	5.92	3.08	49.4
Nov	77.3	75.6	58.9	44.3	192	28.5	5.98	25.4	24.8	8.03	1.79	5.75	4.21	10.5
Dec	*	*	*	*	*	*	*	*	*	*	*	*	*	1.9
Annual	35.8	35.2	28.5	11.4	61.4	11.4	3.63	22.8	22.5	4.38	2.52	5.60	1.93	1661
Max.	602	564	627	350	448	631	113	545	532	84.9	35.7	6.71	32.9	
Min.	9.63	9.32	5.20	3.32	17.4	3.29	0.946	5.75	5.65	1.01	0.196	4.45	0.587	

Wet deposition amount

2016	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	7.29	7.24	6.34	0.858	15.2	0.888	0.347	3.60	3.58	0.709	0.123
Feb	*	*	*	*	*	*	*	*	*	*	*
Mar	3.50	3.48	2.67	0.622	6.32	0.463	0.341	1.91	1.90	0.366	0.0741
Apr	8.61	8.43	8.35	2.84	14.3	3.03	1.32	5.14	5.07	1.42	0.321
May	10.2	9.89	7.05	3.75	15.0	5.52	1.26	8.44	8.32	1.31	0.158
June	5.11	5.05	3.54	1.23	7.54	0.941	0.346	3.08	3.06	0.643	1.56
July	4.14	4.06	2.78	2.04	7.19	1.28	0.379	2.88	2.85	0.692	0.241
Aug	11.0	10.7	8.24	4.57	18.0	4.65	1.30	7.02	6.92	1.28	1.45
Sept	6.43	6.35	4.94	1.44	10.0	1.23	0.354	4.41	4.38	0.548	0.162
Oct	2.65	2.62	2.92	1.13	7.01	0.539	0.333	1.16	1.15	0.263	0.0589
Nov	0.812	0.794	0.619	0.465	2.01	0.299	0.0628	0.266	0.260	0.0843	0.0188
Dec	*	*	*	*	*	*	*	*	*	*	*
Annual	59.5	58.4	47.3	18.9	102	18.9	6.03	37.8	37.4	7.28	4.19

Data completeness

2016	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	0	0	0	0	0	0	0	0	0	0	0	0	0	100
Mar	77.4	77.4	77.4	77.4	77.4	77.4	77.4	77.4	77.4	77.4	77.4	77.4	77.4	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	93.7	93.7	93.7	93.7	93.7	93.7	93.7	93.7	93.7	93.7	93.7	93.7	93.7	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	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	0	0	0	0	0	0	0	0	0	0	0	0	0	100
Annual	**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**

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

2016	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	46.1	45.7	31.8	4.32	91.4	5.90	2.69	9.45	9.32	4.42	7.00	5.16	2.25	80.4
Feb	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Mar	177	176	162	24.8	380	14.8	13.5	65.0	64.7	13.2	1.91	5.72	8.14	22.1
Apr	50.5	50.1	47.7	21.5	110	6.64	7.16	21.0	20.8	4.68	4.12	5.38	2.60	179
May	24.0	23.8	22.9	4.45	47.6	4.02	1.80	12.4	12.3	2.45	3.48	5.46	1.28	253
June	14.8	14.5	16.1	4.93	26.2	4.10	1.13	11.4	11.3	2.20	1.50	5.82	0.865	104
July	12.0	11.9	12.3	5.43	27.4	1.84	1.53	11.7	11.6	1.87	0.626	6.20	0.826	249
Aug	11.9	11.7	9.86	3.52	26.5	2.24	1.05	6.76	6.71	1.08	1.10	5.96	0.728	384
Sept	26.9	26.5	32.1	6.80	57.1	6.13	2.28	16.9	16.7	1.51	2.96	5.53	1.60	103
Oct	49.9	49.1	52.8	24.6	131	13.9	5.92	21.7	21.4	3.02	0.967	6.01	2.92	41.3
Nov	54.7	53.7	54.1	27.5	145	16.7	4.28	21.5	21.1	6.03	0.894	6.05	3.11	22.8
Dec	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Annual	26.3	26.1	24.8	7.94	56.9	4.40	2.59	13.1	13.0	2.52	2.31	5.64	1.45	1438
Max.	263	258	521	140	620	78.4	35.2	207	206	32.8	7.94	6.90	16.4	
Min.	3.02	2.96	4.56	1.74	10.9	0.967	<0.3	1.40	1.38	<0.3	0.127	5.10	0.324	

Wet deposition amount

2016	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	3.71	3.68	2.56	0.347	7.35	0.475	0.216	0.760	0.749	0.355	0.563
Feb	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mar	3.90	3.88	3.58	0.548	8.40	0.327	0.297	1.44	1.43	0.292	0.0423
Apr	9.02	8.95	8.53	3.85	19.8	1.19	1.28	3.75	3.73	0.836	0.737
May	6.08	6.02	5.79	1.13	12.0	1.02	0.456	3.13	3.11	0.620	0.880
June	1.54	1.51	1.68	0.514	2.73	0.427	0.118	1.19	1.18	0.230	0.156
July	2.99	2.97	3.06	1.35	6.81	0.458	0.379	2.90	2.89	0.463	0.156
Aug	4.55	4.50	3.78	1.35	10.2	0.857	0.401	2.59	2.57	0.414	0.421
Sept	2.76	2.72	3.30	0.698	5.87	0.629	0.234	1.73	1.72	0.156	0.304
Oct	2.06	2.03	2.18	1.01	5.41	0.574	0.244	0.895	0.882	0.125	0.0399
Nov	1.25	1.22	1.23	0.626	3.30	0.380	0.0976	0.490	0.481	0.137	0.0204
Dec	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	37.9	37.5	35.7	11.4	81.8	6.33	3.73	18.9	18.7	3.63	3.32

Data completeness

2016	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	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 3.60 Monthly results **Site: Cuc Phuong** **Country: Vietnam**

Precipitation amount-weighted average concentration/ Precipitation amount

2016	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	20.3	19.8	18.4	21.6	31.0	7.07	3.38	30.7	30.6	4.45	0.959	6.02	1.46	160
Feb	*	*	*	*	*	*	*	*	*	*	*	*	*	6.4
Mar	124	117	118	118	179	130	41.1	127	124	13.8	1.44	5.84	6.15	43.0
Apr	48.6	45.4	55.6	34.4	60.0	54.3	31.6	99.2	98.0	26.5	0.911	6.04	4.80	60.9
May	12.4	11.8	11.0	13.1	14.1	10.5	2.74	26.4	26.2	9.05	1.71	5.77	1.29	187
June	16.3	16.0	5.61	11.2	11.3	4.29	2.38	25.7	25.6	8.86	2.22	5.65	1.17	222
July	15.9	15.0	4.01	10.7	5.16	15.0	7.31	19.3	19.0	6.63	1.92	5.72	1.09	431
Aug	6.28	6.05	3.43	13.6	21.9	3.73	3.51	9.21	9.12	4.82	1.82	5.74	0.772	375
Sept	7.82	7.25	4.98	8.49	11.0	9.42	2.58	18.6	18.4	6.14	0.928	6.03	0.867	259
Oct	23.4	22.7	22.2	35.6	28.4	12.0	3.87	53.0	52.7	18.2	0.863	6.06	2.47	155
Nov	20.3	19.8	13.7	23.3	25.9	8.48	13.6	38.9	38.7	12.7	1.58	5.80	1.89	30.5
Dec	*	*	*	*	*	*	*	*	*	*	*	*	*	7.2
Annual	16.7	15.9	11.4	17.1	20.1	12.7	5.77	27.1	26.8	8.30	1.57	5.81	1.37	1937
Max.	263	247	282	324	258	275	65.4	480	474	36.6	5.01	6.83	10.5	
Min.	1.36	0.831	1.06	2.76	1.11	1.65	1.30	2.07	1.98	1.73	0.148	5.30	0.490	

Wet deposition amount

2016	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	3.25	3.18	2.95	3.46	4.98	1.13	0.542	4.93	4.90	0.713	0.154
Feb	*	*	*	*	*	*	*	*	*	*	*
Mar	5.35	5.01	5.06	5.10	7.70	5.60	1.77	5.45	5.33	0.595	0.0618
Apr	2.96	2.76	3.38	2.09	3.65	3.31	1.92	6.04	5.97	1.61	0.0555
May	2.32	2.20	2.06	2.46	2.64	1.97	0.512	4.94	4.90	1.69	0.320
June	3.62	3.56	1.25	2.49	2.51	0.954	0.529	5.71	5.69	1.97	0.493
July	6.87	6.48	1.73	4.62	2.23	6.46	3.15	8.32	8.18	2.86	0.826
Aug	2.35	2.27	1.28	5.08	8.20	1.40	1.31	3.45	3.42	1.80	0.680
Sept	2.02	1.88	1.29	2.20	2.84	2.44	0.669	4.81	4.75	1.59	0.240
Oct	3.62	3.51	3.43	5.50	4.39	1.85	0.598	8.20	8.16	2.82	0.134
Nov	0.620	0.604	0.419	0.710	0.791	0.259	0.413	1.19	1.18	0.388	0.0483
Dec	*	*	*	*	*	*	*	*	*	*	*
Annual	32.3	30.8	22.1	33.1	38.9	24.6	11.2	52.4	51.9	16.1	3.03

Data completeness

2016	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	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	100
Feb	0	0	0	0	0	0	0	0	0	0	0	0	0	100
Mar	81.2	81.2	81.2	81.2	81.2	81.2	81.2	81.2	81.2	81.2	67.4	67.4	67.4	100
Apr	98.5	98.5	98.5	98.5	98.5	98.5	98.5	98.5	98.5	98.5	98.5	98.5	98.5	100
May	100	100	100	100	100	100	100	100	100	100	100	100	100	100
June	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
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	79.3	79.3	79.3	79.3	79.3	79.3	79.3	79.3	79.3	79.3	79.3	79.3	79.3	100
Dec	0	0	0	0	0	0	0	0	0	0	0	0	0	100
Annual	**98.0**	**98.0**	**98.0**	**98.0**	**98.0**	**98.0**	**98.0**	**98.0**	**98.0**	**98.0**	**97.7**	**97.7**	**97.7**	**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

2016	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	13.4	8.70	1.46	77.2	10.8	77.3	2.75	37.5	35.8	8.71	0.803	6.10	2.03	68.1
Feb	*	*	*	*	*	*	*	*	*	*	*	*	*	5.0
Mar	23.2	5.22	7.36	374	28.9	298	7.47	46.7	40.3	24.8	0.229	6.64	5.56	15.9
Apr	*	*	*	*	*	*	*	*	*	*	*	*	*	0.7
May	18.3	14.3	18.4	72.4	20.9	66.2	6.14	43.2	41.8	16.4	0.891	6.05	2.17	58.3
June	15.4	11.4	13.8	55.4	42.0	66.1	6.72	45.6	44.2	13.6	0.659	6.18	4.24	47.0
July	26.0	18.4	7.32	101	36.1	127	6.77	56.3	53.5	16.5	0.643	6.19	2.86	54.3
Aug	12.0	8.65	1.43	58.2	<0.8	55.0	4.47	43.3	42.2	9.82	1.27	5.90	1.66	120
Sept	5.57	3.41	1.43	44.0	0.824	36.0	2.11	25.6	24.8	6.16	1.35	5.87	1.01	813
Oct	9.66	6.61	1.43	57.2	3.31	50.6	5.78	62.6	61.6	10.4	0.340	6.47	1.79	384
Nov	14.3	8.25	1.90	105	4.11	100	4.03	56.8	54.6	12.6	0.442	6.35	2.44	336
Dec	15.7	10.9	3.39	82.9	6.39	80.5	2.53	29.9	28.1	8.17	1.56	5.81	1.85	821
Annual	11.7	7.75	2.78	70.2	5.43	65.7	3.39	38.5	37.1	9.03	1.10	5.96	1.74	2723
Max.	37.1	27.8	36.2	374	209	334	19.6	105	104	27.5	2.09	7.05	6.28	
Min.	2.49	1.33	1.43	29.4	<0.8	19.3	0.870	14.2	12.8	3.70	0.0891	5.68	0.740	

Wet deposition amount

2016	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	0.910	0.593	0.0993	5.26	0.734	5.27	0.187	2.55	2.44	0.593	0.0547
Feb	*	*	*	*	*	*	*	*	*	*	*
Mar	0.368	0.0829	0.117	5.95	0.459	4.73	0.119	0.743	0.641	0.394	<0.01
Apr	*	*	*	*	*	*	*	*	*	*	*
May	1.06	0.832	1.07	4.22	1.22	3.86	0.358	2.52	2.44	0.959	0.0520
June	0.725	0.537	0.649	2.61	1.98	3.11	0.316	2.15	2.08	0.641	0.0310
July	1.41	0.997	0.398	5.46	1.96	6.91	0.368	3.06	2.91	0.896	0.0349
Aug	1.44	1.04	0.172	7.00	0.0859	6.62	0.537	5.21	5.07	1.18	0.153
Sept	4.53	2.77	1.16	35.8	0.669	29.2	1.72	20.8	20.2	5.00	1.09
Oct	3.71	2.54	0.549	22.0	1.27	19.4	2.22	24.1	23.6	4.01	0.130
Nov	4.80	2.77	0.639	35.2	1.38	33.7	1.35	19.1	18.3	4.22	0.149
Dec	12.9	8.92	2.79	68.1	5.25	66.1	2.08	24.5	23.1	6.70	1.28
Annual	31.9	21.1	7.58	191	14.8	179	9.24	105	101	24.6	2.99

Data completeness

2016	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	0	0	0	0	0	0	0	0	0	0	0	0	0	100
Mar	83.6	83.6	83.6	83.6	83.6	83.6	83.6	83.6	83.6	83.6	83.6	83.6	83.6	100
Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	100
May	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	100
June	88.5	88.5	88.5	88.5	88.5	88.5	88.5	88.5	88.5	88.5	88.5	88.5	88.5	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	**99.4**	**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**

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

2016	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	10.6	9.99	1.51	33.0	26.4	10.4	4.66	8.37	8.14	5.01	1.56	5.81	1.07	161
June	12.6	12.0	0.740	28.1	14.9	11.5	4.51	10.8	10.5	5.70	0.975	6.01	1.01	232
July	13.4	12.7	<0.5	42.8	23.6	11.4	5.59	11.9	11.7	7.64	2.25	5.65	1.22	365
Aug	14.7	14.1	4.37	26.4	25.6	10.6	4.25	8.86	8.63	4.57	1.89	5.72	0.958	95.0
Sept	23.7	22.6	9.83	51.6	29.4	18.1	10.5	16.5	16.1	10.7	1.10	5.96	1.72	311
Oct	16.3	15.6	2.11	22.5	18.8	10.8	4.64	10.4	10.1	5.62	1.07	5.97	0.924	274
Nov	16.5	15.7	2.99	33.3	22.2	14.5	6.53	12.5	12.2	5.84	1.15	5.94	1.12	147
Dec	15.1	14.5	6.15	37.3	19.9	9.35	4.59	11.2	11.0	4.33	1.24	5.91	1.21	85.0
Annual	15.9	15.1	3.31	36.1	22.7	12.6	6.07	11.9	11.6	6.85	1.43	5.84	1.20	1670
Max.	32.1	30.8	14.2	77.8	37.6	27.1	13.7	22.1	21.6	18.2	3.24	6.60	2.50	
Min.	4.57	4.11	<0.5	7.60	6.90	4.00	1.00	6.00	5.91	3.00	0.251	5.49	0.400	

Wet deposition amount

2016	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	1.71	1.61	0.244	5.33	4.25	1.67	0.751	1.35	1.31	0.809	0.252
June	2.94	2.78	0.172	6.53	3.46	2.68	1.05	2.50	2.45	1.33	0.227
July	4.89	4.64	0.0948	15.6	8.62	4.17	2.04	4.36	4.27	2.79	0.823
Aug	1.40	1.34	0.415	2.51	2.44	1.01	0.404	0.841	0.820	0.435	0.180
Sept	7.38	7.04	3.05	16.0	9.13	5.63	3.27	5.13	5.01	3.32	0.341
Oct	4.45	4.27	0.578	6.16	5.14	2.95	1.27	2.83	2.77	1.54	0.291
Nov	2.43	2.30	0.440	4.89	3.26	2.13	0.959	1.84	1.79	0.857	0.169
Dec	1.28	1.23	0.523	3.17	1.69	0.795	0.390	0.952	0.935	0.368	0.105
Annual	26.5	25.2	5.52	60.3	38.0	21.0	10.1	19.8	19.4	11.4	2.39

Data completeness

2016	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	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

2016	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	27.8	26.8	1.25	52.8	38.2	15.4	7.57	18.1	17.7	13.0	2.49	5.60	2.10	342
June	16.5	15.7	1.60	45.2	36.5	12.6	6.38	13.8	13.5	5.30	1.94	5.71	1.53	304
July	11.2	10.4	2.18	79.5	35.8	13.6	8.64	17.5	17.2	8.94	2.00	5.70	1.92	93.5
Aug	20.4	19.3	16.1	41.2	30.3	18.4	8.36	17.3	16.9	9.80	2.05	5.69	1.46	205
Sept	13.1	12.5	3.96	21.4	22.7	9.18	4.24	8.63	8.43	5.05	1.06	5.98	0.799	654
Oct	22.5	21.5	13.6	35.1	25.2	16.7	8.10	10.1	9.70	6.05	2.01	5.70	1.27	701
Nov	21.6	21.0	11.7	31.5	31.2	9.70	4.92	11.0	10.8	4.21	1.34	5.87	1.20	145
Dec	16.3	15.7	6.30	40.1	26.2	10.2	6.30	8.80	8.58	5.10	1.10	5.96	1.30	110
Annual	19.2	18.4	7.42	37.3	28.8	13.5	6.62	12.1	11.8	6.90	1.75	5.76	1.33	2553
Max.	48.6	47.2	33.4	213	69.0	55.0	18.0	46.0	44.8	15.0	3.16	6.05	4.00	
Min.	6.00	2.68	<0.5	13.8	9.60	5.30	3.20	4.60	4.49	2.30	0.891	5.50	0.490	

Wet deposition amount

2016	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	9.49	9.18	0.426	18.1	13.1	5.27	2.59	6.18	6.06	4.45	0.851
June	5.00	4.77	0.485	13.7	11.1	3.82	1.94	4.19	4.10	1.61	0.590
July	1.05	0.973	0.204	7.43	3.34	1.27	0.808	1.64	1.61	0.836	0.187
Aug	4.17	3.94	3.30	8.43	6.19	3.77	1.71	3.54	3.46	2.00	0.419
Sept	8.54	8.18	2.59	14.0	14.8	6.00	2.77	5.64	5.51	3.30	0.691
Oct	15.8	15.1	9.56	24.6	17.7	11.7	5.68	7.05	6.80	4.25	1.41
Nov	3.13	3.04	1.70	4.56	4.52	1.40	0.713	1.59	1.56	0.609	0.194
Dec	1.79	1.73	0.693	4.41	2.88	1.12	0.693	0.968	0.944	0.561	0.121
Annual	49.0	46.9	18.9	95.2	73.6	34.4	16.9	30.8	30.1	17.6	4.46

Data completeness

2016	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 3.64 Monthly results **Site: Yen Bai** **Country: Vietnam**

Precipitation amount-weighted average concentration/ Precipitation amount

2016	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	104	104	100	21.7	245	7.87	6.82	42.8	42.6	4.35	8.50	5.07	5.55	70.1
Feb	153	152	144	17.4	267	15.9	14.5	108	108	3.63	1.21	5.92	7.35	17.6
Mar	221	220	242	61.8	545	23.3	12.7	95.4	94.9	11.2	3.75	5.43	11.5	72.9
Apr	88.2	87.6	91.1	26.8	207	9.69	10.7	35.2	35.0	6.54	4.48	5.35	4.66	139
May	32.8	32.5	26.9	7.62	52.3	5.62	3.46	14.3	14.1	2.25	22.9	4.64	2.32	352
June	16.0	15.6	11.3	8.43	28.0	6.90	3.73	10.1	9.92	1.10	1.34	5.87	0.956	155
July	13.7	13.5	11.2	5.63	27.8	3.76	1.76	8.17	8.09	0.998	1.59	5.80	0.834	364
Aug	13.0	12.6	10.3	5.47	22.6	7.51	1.38	8.02	7.86	1.54	1.41	5.85	0.774	353
Sept	26.6	25.8	15.6	17.2	44.2	14.4	5.23	15.2	14.9	6.15	1.09	5.96	1.51	71.6
Oct	45.8	45.0	32.2	13.6	79.8	14.6	15.5	18.4	18.1	6.07	0.920	6.04	2.30	70.7
Nov	51.6	50.3	52.6	35.2	120	21.1	9.10	25.7	25.2	4.58	1.15	5.94	3.08	87.5
Dec	58.3	57.7	43.1	22.0	124	10.1	4.24	26.1	25.9	4.61	1.31	5.88	2.90	62.4
Annual	43.6	43.0	40.3	14.3	91.5	8.96	4.98	20.3	20.1	3.24	6.63	5.18	2.47	1815
Max.	418	413	472	192	960	80.0	30.1	226	225	23.8	25.8	6.62	21.1	
Min.	8.98	8.71	5.23	3.06	16.7	2.40	0.501	3.13	2.97	0.459	0.242	4.59	0.619	

Wet deposition amount

2016	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	7.31	7.28	7.03	1.52	17.2	0.552	0.478	3.00	2.99	0.305	0.596
Feb	2.69	2.67	2.53	0.305	4.70	0.280	0.255	1.90	1.90	0.0639	0.0212
Mar	16.1	16.0	17.7	4.51	39.7	1.70	0.928	6.95	6.92	0.820	0.273
Apr	12.2	12.2	12.7	3.73	28.8	1.35	1.48	4.88	4.86	0.909	0.623
May	11.5	11.4	9.45	2.68	18.4	1.98	1.22	5.01	4.97	0.790	8.07
June	2.48	2.41	1.75	1.30	4.33	1.07	0.576	1.56	1.53	0.170	0.207
July	4.99	4.91	4.06	2.05	10.1	1.37	0.641	2.97	2.94	0.364	0.579
Aug	4.60	4.44	3.64	1.93	7.99	2.65	0.489	2.84	2.78	0.543	0.498
Sept	1.91	1.85	1.12	1.23	3.17	1.03	0.374	1.09	1.06	0.440	0.0781
Oct	3.24	3.18	2.28	0.962	5.64	1.04	1.10	1.30	1.28	0.429	0.0651
Nov	4.51	4.40	4.60	3.08	10.5	1.84	0.796	2.25	2.21	0.401	0.100
Dec	3.64	3.60	2.69	1.37	7.73	0.630	0.264	1.63	1.62	0.288	0.0818
Annual	79.1	78.1	73.2	25.9	166	16.3	9.03	36.9	36.5	5.88	12.0

Data completeness

2016	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	74.5	74.5	74.5	74.5	74.5	74.5	74.5	74.5	74.5	74.5	74.5	74.5	74.5	100
Feb	90.3	90.3	90.3	90.3	90.3	90.3	90.3	90.3	90.3	90.3	90.3	90.3	90.3	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	77.2	77.2	77.2	77.2	77.2	77.2	77.2	77.2	77.2	77.2	77.2	77.2	77.2	100
July	62.4	62.4	62.4	62.4	62.4	62.4	62.4	62.4	62.4	62.4	62.4	62.4	62.4	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	**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**

Terms and abbreviations are given in Table 3.5.

Table 3.65 Annual precipitation amount and precipitation amount-weighted average concentration in 2016

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	1277	5.37	5.11	7.66	6.45	19.5	4.23	2.11	14.3	14.2	1.44	0.389	6.41	0.705
China	Haifu	1270	46.9	46.5	52.3	8.34	98.7	6.18	4.66	67.3	67.1	5.69	0.655	6.18	3.00
	Jinyunshan	1217	40.0	39.8	37.5	4.75	65.8	2.55	3.37	38.0	38.0	3.89	10.6	4.97	2.44
	Shizhan	415	62.5	59.2	62.8	14.4	118	53.6	3.76	35.0	33.9	1.97	0.206	6.69	3.69
	Jiwozi	369	19.5	19.0	5.56	0.787	2.87	8.39	4.58	36.8	36.6	12.6	0.237	6.63	1.05
	Hongwen	1771	22.8	21.3	31.4	31.2	37.2	27.2	5.34	13.1	12.6	4.89	12.1	4.92	2.33
	Xiaoping	1851	13.7	13.3	19.3	10.6	24.6	6.54	5.59	6.39	6.24	2.14	18.5	4.73	1.28
	Xiang Zhou	2344	16.0	14.7	18.2	23.6	29.6	22.5	3.68	10.8	10.4	4.02	6.78	5.17	1.50
	Zhuxiandong	2356	18.1	16.2	22.2	33.5	42.4	34.1	5.80	17.3	16.6	5.17	6.88	5.16	2.01
Indonesia	Jakarta	1976	31.1	29.8	34.2	31.2	37.5	21.0	10.5	25.2	24.7	4.50	11.3	4.95	2.03
	Serpong	2929	25.9	25.1	31.7	16.0	55.6	14.4	4.85	13.9	13.6	3.06	6.56	5.18	1.85
	Kototabang	2163	5.70	4.96	4.16	33.4	4.94	21.1	11.5	3.83	3.53	1.19	5.04	5.30	0.790
	Bandung	2699	31.9	31.2	22.6	9.63	58.1	11.2	2.89	15.2	15.0	3.50	8.29	5.08	1.79
	Maros	1973	10.4	5.58	8.79	154	53.7	118	15.1	13.8	11.5	2.92	5.77	5.24	3.03
Japan	Rishiri	1299	11.8	7.61	10.2	79.8	10.4	69.7	2.07	3.60	2.10	7.96	12.6	4.90	1.92
	Ochiishi	1138	12.7	4.37	5.62	161	5.01	138	3.43	4.27	1.28	15.8	6.39	5.19	2.42
	Tappi	1222	22.5	12.3	17.6	195	15.4	169	4.47	7.45	3.80	19.5	15.2	4.82	3.32
	Sado-seki	999	21.4	10.9	18.7	199	16.0	175	7.55	11.4	7.67	20.8	13.9	4.86	3.47
	Happo	2446	5.12	4.83	5.79	6.42	4.77	4.83	0.457	0.750	0.646	0.861	8.18	5.09	0.616
	Ijira	3151	10.8	10.1	16.4	15.2	14.3	12.4	0.498	1.88	1.61	1.57	17.5	4.76	1.33
	Oki	1519	31.7	11.7	16.4	384	14.4	332	8.06	10.6	3.55	38.5	13.4	4.87	6.08
	Banryu	1829	16.9	11.9	17.9	92.1	15.0	81.9	2.28	5.17	3.45	9.45	15.4	4.81	2.39
	Yusuhara	2744	7.58	7.10	6.96	9.97	6.04	7.97	0.508	1.14	0.969	1.21	14.2	4.85	0.972
	Hedo	1822	17.5	5.47	7.40	236	8.05	201	4.51	5.37	1.12	23.3	6.72	5.17	3.41
	Ogasawara	1153	9.57	4.09	3.87	106	4.85	90.9	2.22	2.60	0.638	10.5	7.98	5.10	1.87
	Tokyo	1609	9.36	8.49	11.8	17.2	17.2	14.4	0.539	2.48	2.17	1.85	11.4	4.94	1.04
Lao PDR	Vientiane	713	3.80	3.69	4.12	5.04	7.07	1.87	1.38	2.62	2.58	0.666	0.267	6.57	0.677
Malaysia	Petaling Jaya	3432	20.2	19.9	44.1	10.3	13.0	6.14	1.83	6.48	6.34	0.819	54.9	4.26	2.95
	Tanah Rata	2366	3.92	3.77	5.97	3.30	3.51	2.72	1.22	2.18	2.12	<0.3	14.1	4.85	0.813
	Danum Valley	2987	1.65	1.46	0.888	4.90	<0.8	3.30	1.01	0.987	0.920	0.320	5.56	5.25	0.360
	Kuching	5655	4.07	3.33	4.16	14.5	2.45	12.7	1.13	3.35	3.07	0.949	7.14	5.15	0.683
Mongolia	Ulaanbaatar	160	129	119	36.7	4.63	40.7	172	0.620	29.1	25.4	6.06	9.54	5.02	3.52
	Terelj	106	142	127	48.9	9.71	60.2	206	7.09	16.8	13.7	2.19	6.47	5.19	3.27
Myanmar	Yangon	2180	9.19	8.24	14.9	31.3	17.1	15.7	3.35	5.55	5.22	4.58	0.178	6.75	1.37
Philippines	Metro Manila	2519	21.7	20.7	36.4	31.4	112	17.4	14.2	20.5	20.2	5.29	3.05	5.52	3.02
	Los Baños	1756	15.4	14.0	38.5	25.2	84.8	22.4	13.8	11.8	11.3	4.14	19.3	4.71	2.25
	Mt. Sto. Tomas	4426	5.52	4.62	5.76	5.46	7.79	14.8	0.889	13.4	13.1	2.78	0.345	6.46	0.527
R of Korea	Kanghwa	837	18.8	17.1	29.6	50.1	58.1	28.5	13.3	3.85	3.24	1.19	16.4	4.79	1.80
	Cheju	1121	43.1	19.3	31.8	444	40.3	394	15.2	16.2	7.72	37.7	7.94	5.10	7.07
	Imsil	838	13.8	11.8	22.7	29.9	36.1	33.8	3.39	2.70	2.01	1.55	3.15	5.50	1.23
Russia	Mondy	222	3.13	3.05	5.75	1.66	4.97	1.38	1.05	5.42	5.39	0.864	4.31	5.37	0.409
	Listvyanka	316	15.0	14.7	15.0	3.09	14.4	2.80	1.71	7.94	7.88	1.91	12.5	4.90	1.11
	Irkutsk	481	23.6	23.2	13.4	9.90	22.2	7.42	3.10	17.0	16.8	3.97	11.8	4.93	1.47
	Primorskaya	925	24.0	22.5	22.3	33.4	22.7	25.2	19.1	13.1	12.6	5.51	3.97	5.40	1.58
Thailand	Bangkok	1631	14.1	13.5	31.8	11.1	63.6	11.0	1.70	15.9	15.7	2.48	2.91	5.54	1.34
	Samutprakarn	1810	11.8	11.2	18.3	9.41	43.3	8.87	1.71	9.28	9.09	1.79	3.57	5.45	0.880
	Pathumthani	1069	10.2	9.77	26.3	8.65	53.1	6.41	2.09	13.7	13.6	2.10	4.01	5.40	1.38
	Khanchanaburi	1059	9.80	9.19	4.93	9.04	16.2	10.4	1.51	5.17	4.95	1.74	1.04	5.98	0.379
	Mae Hia	743	5.45	5.04	12.9	7.39	29.3	7.01	3.17	10.7	10.6	1.54	2.49	5.60	0.825
	Sakaerat	1083	6.94	6.70	13.5	6.57	34.0	4.02	1.59	8.24	8.16	4.25	5.47	5.26	0.848
Vietnam	Hanoi	1661	35.8	35.2	28.5	11.4	61.4	11.4	3.63	22.8	22.5	4.38	2.52	5.60	1.93
	Hoa Binh	1438	26.3	26.1	24.8	7.94	56.9	4.40	2.59	13.1	13.0	2.52	2.31	5.64	1.45
	Cuc Phuong	1937	16.7	15.9	11.4	17.1	20.1	12.7	5.77	27.1	26.8	8.30	1.57	5.81	1.37
	Da Nang	2723	11.7	7.75	2.78	70.2	5.43	65.7	3.39	38.5	37.1	9.03	1.10	5.96	1.74
	Can Tho	1670	15.9	15.1	3.31	36.1	22.7	12.6	6.07	11.9	11.6	6.85	1.43	5.84	1.20
	Ho Chi Minh	2553	19.2	18.4	7.42	37.3	28.8	13.5	6.62	12.1	11.8	6.90	1.75	5.76	1.33
	Yen Bai	1815	43.6	43.0	40.3	14.3	91.5	8.96	4.98	20.3	20.1	3.24	6.63	5.18	2.47

Terms and abbreviations are given in Table 3.5.

Table 3.66 Annual wet depositions in 2016

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	6.85	6.53	9.78	8.23	24.9	5.40	2.70	18.2	18.1	1.84	0.496
China	Haifu	59.5	59.1	66.4	10.6	125	7.85	5.91	85.4	85.2	7.22	0.832
	Jinyunshan	48.6	48.5	45.6	5.78	80.1	3.10	4.10	46.3	46.2	4.73	12.9
	Shizhan	25.9	24.6	26.1	5.96	49.0	22.2	1.56	14.5	14.1	0.819	0.0852
	Jiwozi	7.18	6.99	2.05	0.290	1.06	3.09	1.69	13.6	13.5	4.66	0.09
	Hongwen	40.4	37.7	55.6	55.3	65.9	48.2	9.45	23.3	22.2	8.65	21.5
	Xiaoping	25.4	24.7	35.7	19.7	45.5	12.1	10.3	11.8	11.6	3.96	34.2
	Xiang Zhou	37.6	34.4	42.6	55.3	69.4	52.8	8.63	25.4	24.4	9.42	15.9
	Zhuxiandong	42.6	38.3	52.2	78.9	99.8	80.4	13.7	40.9	39.1	12.2	16.2
Indonesia	Jakarta	61.4	58.9	67.5	61.6	74.1	41.5	20.7	49.8	48.9	8.90	22.3
	Serpong	76.0	73.5	92.8	46.8	163	42.1	14.2	40.7	39.8	8.96	19.2
	Kototabang	12.3	10.7	8.99	72.3	10.7	45.7	24.9	8.28	7.64	2.57	10.9
	Bandung	86.1	84.3	61.0	26.0	157	30.3	7.79	41.0	40.4	9.45	22.4
	Maros	20.6	11.0	17.3	304	106	233	29.7	27.2	22.8	5.76	11.4
Japan	Rishiri	15.3	9.89	13.3	104	13.5	90.6	2.69	4.68	2.72	10.3	16.4
	Ochiishi	14.5	4.98	6.40	184	5.70	158	3.91	4.86	1.45	18.0	7.28
	Tappi	27.5	15.1	21.5	238	18.8	206	5.46	9.10	4.65	23.8	18.5
	Sado-seki	21.4	10.9	18.7	199	16.0	175	7.54	11.4	7.66	20.8	13.9
	Happo	12.5	11.8	14.2	15.7	11.7	11.8	1.12	1.84	1.58	2.11	20.0
	Ijira	34.1	31.8	51.6	48.0	45.1	39.1	1.57	5.92	5.08	4.94	55.2
	Oki	48.2	17.8	24.9	583	21.9	505	12.2	16.2	5.39	58.5	20.3
	Banryu	30.9	21.8	32.8	168	27.4	150	4.17	9.45	6.31	17.3	28.2
	Yusuhara	20.8	19.5	19.1	27.4	16.6	21.9	1.39	3.13	2.66	3.33	38.9
	Hedo	31.9	9.97	13.5	429	14.7	365	8.22	9.79	2.05	42.5	12.2
	Ogasawara	11.0	4.72	4.47	122	5.59	105	2.56	3.00	0.736	12.1	9.21
	Tokyo	15.1	13.7	19.0	27.6	27.7	23.2	0.868	3.99	3.49	2.97	18.4
Lao PDR	Vientiane	2.71	2.63	2.94	3.59	5.04	1.33	0.982	1.86	1.84	0.474	0.190
Malaysia	Petaling Jaya	69.4	68.1	151	35.3	44.6	21.1	6.27	22.2	21.8	2.81	189
	Tanah Rata	9.28	8.93	14.1	7.82	8.31	6.44	2.88	5.15	5.01	0.647	33.3
	Danum Valley	4.92	4.36	2.65	14.6	0.827	9.87	3.02	2.95	2.75	0.956	16.6
	Kuching	23.0	18.8	23.5	81.8	13.9	71.7	6.40	18.9	17.4	5.37	40.4
Mongolia	Ulaanbaatar	20.7	19.0	5.87	0.740	6.50	27.6	0.0990	4.65	4.05	0.968	1.52
	Terelj	15.1	13.5	5.20	1.03	6.41	21.9	0.754	1.78	1.46	0.233	0.689
Myanmar	Yangon	20.0	18.0	32.5	68.2	37.4	34.3	7.30	12.1	11.4	9.98	0.387
Philippines	Metro Manila	54.7	52.0	91.8	79.0	283	43.7	35.8	51.6	50.8	13.3	7.68
	Los Baños	27.0	24.7	67.7	44.3	149	39.3	24.3	20.7	19.9	7.28	33.9
	Mt. Sto. Tomas	24.4	20.5	25.5	24.1	34.5	65.7	3.93	59.5	58.0	12.3	1.52
R of Korea	Kanghwa	15.8	14.3	24.7	41.9	48.6	23.8	11.2	3.22	2.71	0.994	13.7
	Cheju	48.3	21.7	35.6	498	45.2	442	17.0	18.1	8.65	42.2	8.90
	Imsil	11.6	9.88	19.0	25.1	30.2	28.4	2.84	2.26	1.68	1.30	2.64
Russia	Mondy	0.696	0.678	1.28	0.369	1.10	0.306	0.233	1.20	1.20	0.192	0.957
	Listvyanka	4.74	4.63	4.73	0.975	4.56	0.883	0.540	2.51	2.49	0.604	3.94
	Irkutsk	11.4	11.1	6.46	4.76	10.7	3.57	1.49	8.18	8.10	1.91	5.68
	Primorskaya	22.2	20.8	20.6	30.9	21.0	23.3	17.6	12.1	11.6	5.09	3.68
Thailand	Bangkok	23.1	22.0	51.8	18.1	104	17.9	2.77	26.0	25.6	4.04	4.75
	Samutprakarn	21.3	20.3	33.2	17.0	78.4	16.1	3.10	16.8	16.5	3.24	6.46
	Pathumthani	10.9	10.4	28.1	9.24	56.7	6.85	2.24	14.7	14.5	2.25	4.29
	Khanchanaburi	10.4	9.73	5.22	9.58	17.2	11.0	1.60	5.48	5.24	1.84	1.10
	Mae Hia	4.06	3.74	9.59	5.49	21.8	5.21	2.35	7.99	7.87	1.15	1.85
	Sakaerat	7.51	7.25	14.6	7.12	36.8	4.36	1.73	8.93	8.83	4.60	5.92
Vietnam	Hanoi	59.5	58.4	47.3	18.9	102	18.9	6.03	37.8	37.4	7.28	4.19
	Hoa Binh	37.9	37.5	35.7	11.4	81.8	6.33	3.73	18.9	18.7	3.63	3.32
	Cuc Phuong	32.3	30.8	22.1	33.1	38.9	24.6	11.2	52.4	51.9	16.1	3.03
	Da Nang	31.9	21.1	7.58	191	14.8	179	9.24	105	101	24.6	2.99
	Can Tho	26.5	25.2	5.52	60.3	38.0	21.0	10.1	19.8	19.4	11.4	2.39
	Ho Chi Minh	49.0	46.9	18.9	95.2	73.6	34.4	16.9	30.8	30.1	17.6	4.46
	Yen Bai	79.1	78.1	73.2	25.9	166	16.3	9.03	36.9	36.5	5.88	12.0

Terms and abbreviations are given in Table 3.5.

Table 3.67 Data completeness for annual summaries in 2016 (%PCL, %TP)

Country	Name of sites	Precip. %PCL	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
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	100	100	100	100	100	100	100	100	100	100	100	100	100
	Serpong	100	100	100	100	100	100	100	100	100	100	100	100	100	100
	Kototabang	100	100	100	100	100	100	100	100	100	100	100	100	100	100
	Bandung	100	100	100	100	100	100	100	100	100	100	100	100	100	100
	Maros	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Japan	Rishiri	100	97.3	97.3	97.3	97.3	97.3	97.3	97.3	97.3	97.3	97.3	97.2	97.2	97.2
	Ochiishi	100	94.5	94.5	94.5	94.5	94.5	94.5	94.5	94.5	94.5	94.5	91.7	91.7	91.7
	Tappi	99.7	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	96.6	96.6	96.6
	Sado-seki	99.5	85.9	85.9	85.9	85.9	85.9	85.9	85.9	85.9	85.9	85.9	82.8	82.8	82.8
	Happo	95.1	48.5	48.5	48.5	48.5	48.5	48.5	48.5	48.5	48.5	48.5	48.3	48.3	48.3
	Ijira	100	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
	Oki	97.5	68.2	68.2	68.2	68.2	68.2	68.2	68.2	68.2	68.2	68.2	67.4	67.4	67.3
	Banryu	100	95.8	95.8	95.8	95.8	95.8	95.8	95.8	95.8	95.8	95.8	95.8	95.8	95.8
	Yusuhara	100	86.8	86.8	86.8	86.8	86.8	86.8	86.8	86.8	86.8	86.8	86.6	86.6	86.6
	Hedo	100	96.2	96.2	96.2	96.2	96.2	96.2	96.2	96.2	96.2	96.2	94.2	94.2	94.2
	Ogasawara	97.8	96.9	96.9	96.9	96.9	96.9	96.9	96.9	96.9	96.9	96.9	96.0	96.0	96.0
	Tokyo	100	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	98.9	98.9	98.9
Lao PDR	Vientiane	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Malaysia	Petaling Jaya	100	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
	Tanah Rata	100	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8
	Danum Valley	100	88.2	88.2	88.2	88.2	88.2	88.2	88.2	88.2	88.2	88.2	88.2	88.2	88.2
	Kuching	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Mongolia	Ulaanbaatar	100	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	100	100	100
	Terelj	100	99.5	99.0	99.5	99.5	99.0	99.0	99.0	99.0	99.0	99.0	100	100	100
Myanmar	Yangon	100	100	98.7	100	100	98.7	98.7	98.7	98.7	98.7	98.7	100	100	100
Philippines	Metro Manila	100	94.0	94.0	94.0	94.0	94.0	94.0	94.0	94.0	94.0	94.0	94.0	94.0	94.0
	Los Baños	100	76.7	76.7	76.7	76.7	76.7	76.7	76.7	76.7	76.7	76.7	76.7	76.7	76.7
	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	100	99.8	100	100	100	99.8	99.8	99.8	99.8	99.8	100	100	100
	Irkutsk	100	100	100	100	100	99.6	100	100	100	100	100	100	100	100
	Primorskaya	100	95.8	95.8	95.8	95.8	95.8	95.8	95.8	95.8	95.8	95.8	100	100	95.8
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
	Mae Hia	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	99.9	99.9	99.9
Vietnam	Hanoi	100	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
	Hoa Binh	100	100	100	100	100	100	100	100	100	100	100	100	100	100
	Cuc Phuong	100	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	97.7	97.7	97.7
	Da Nang	100	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
	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	100	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

Terms and abbreviations are given in Table 3.5.

Table 3.68 Results of ion balance and conductivity agreement check in 2016

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	25	25	1	4.0	25	13	52.0	25	1	4.0
China	Haifu*	134	134	130	97.0	134	134	100	134	130	97.0
	Jinyunshan*	133	133	123	92.5	133	131	98.5	133	121	91.0
	Shizhan	35	35	4	11.4	35	21	60.0	35	4	11.4
	Jiwozi	56	56	8	14.3	56	34	60.7	56	5	8.9
	Hongwen*	52	52	40	76.9	52	44	84.6	52	37	71.2
	Xiaoping*	104	104	64	61.5	104	77	74.0	104	56	53.8
	Xiang Zhou*	79	79	23	29.1	79	39	49.4	79	13	16.5
	Zhuxiandong*	85	85	21	24.7	85	45	52.9	85	13	15.3
Indonesia	Jakarta	33	33	11	33.3	33	27	81.8	33	10	30.3
	Serpong	70	70	31	44.3	70	61	87.1	70	30	42.9
	Kototabang	39	39	22	56.4	39	30	76.9	39	19	48.7
	Bandung	115	115	58	50.4	115	112	97.4	115	58	50.4
	Maros	35	35	6	17.1	35	25	71.4	35	6	17.1
Japan	Rishiri	256	164	154	93.9	164	163	99.4	164	153	93.3
	Ochiishi	176	85	85	100	85	85	100	85	85	100
	Tappi	189	114	114	100	114	114	100	114	114	100
	Sado-seki*	198	108	108	100	108	108	100	108	108	100
	Happo	117	84	81	96.4	84	81	96.4	84	78	92.9
	Ijira	47	47	47	100	47	47	100	47	47	100
	Oki	121	87	86	98.9	85	85	100	85	84	98.8
	Banryu	49	48	47	97.9	48	48	100	48	47	97.9
	Yusuhara*	158	147	140	95.2	147	143	97.3	147	139	94.6
	Hedo	192	130	129	99.2	130	128	98.5	130	127	97.7
	Ogasawara*	142	110	110	100	110	110	100	110	110	100
	Tokyo*	148	118	116	98.3	118	117	99.2	118	115	97.5
Lao PDR	Vientiane	21	21	21	100	21	3	14.3	21	3	14.3
Malaysia	Petaling Jaya*	47	46	43	93.5	46	46	100	46	43	93.5
	Tanah Rata*	48	43	21	48.8	43	41	95.3	43	20	46.5
	Danum Valley*	46	42	31	73.8	42	37	88.1	42	29	69.0
	Kuching*	52	52	38	73.1	52	45	86.5	52	37	71.2
Mongolia	Ulaanbaatar	25	23	10	43.5	23	17	73.9	23	8	34.8
	Terelj	33	31	13	41.9	31	6	19.4	31	0	0
Myanmar	Yangon	25	24	3	12.5	24	10	41.7	24	1	4.2
Philippines	Metro Manila*	31	30	13	43.3	30	18	60.0	30	10	33.3
	Los Baños*	34	27	6	22.2	27	15	55.6	27	4	14.8
	Mt. Sto. Tomas	30	30	1	3.3	30	29	96.7	30	1	3.3
R of Korea	Kanghwa	31	31	26	83.9	31	22	71.0	31	20	64.5
	Cheju	75	75	73	97.3	75	67	89.3	75	65	86.7
	Imsil	77	77	70	90.9	77	75	97.4	77	68	88.3
Russia	Mondy*	21	21	21	100	21	21	100	21	21	100
	Listvyanka*	49	48	48	100	48	48	100	48	48	100
	Irkutsk*	82	79	79	100	79	79	100	79	79	100
	Primorskaya	110	72	70	97.2	72	72	100	72	70	97.2
Thailand	Bangkok*	58	58	6	10.3	58	49	84.5	58	5	8.6
	Samutprakarn*	86	86	9	10.5	86	70	81.4	86	6	7.0
	Pathumthani*	95	95	13	13.7	95	77	81.1	95	11	11.6
	Khanchanaburi*	73	73	36	49.3	73	52	71.2	73	25	34.2
	Mae Hia*	89	84	21	25.0	84	70	83.3	84	16	19.0
	Sakaerat*	93	92	22	23.9	92	81	88.0	92	20	21.7
Vietnam	Hanoi*	34	34	32	94.1	34	34	100	34	32	94.1
	Hoa Binh*	32	32	28	87.5	32	32	100	32	28	87.5
	Cuc Phuong*	46	33	32	97.0	33	33	100	33	32	97.0
	Da Nang*	40	29	29	100	29	19	65.5	29	19	65.5
	Can Tho*	31	31	18	58.1	31	29	93.5	31	17	54.8
	Ho Chi Minh*	28	28	26	92.9	28	27	96.4	28	25	89.3
	Yen Bai*	37	37	35	94.6	37	37	100	37	35	94.6

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 2000 to 2016

unit: mm y^{-1}

Country	Name of sites	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Cambodia	PhnomPenh					419	1308	949	1374	1834	1326	1851	1277	1617	1345	1561	1103	1277
China	Guanyinqiao	1081	752	1445	987	1387	1077	842	1299									
	Haifu									1010	1066	977	810	1010	1026	1417	1220	1270
	Jinyunshan		710	1607	1233	1518	1461	1196	1645	1213	1098	979	848	1005	1127	1490	1288	1217
	Shizhan	559	364	349	1273	601	509	483	527	385	592	459	659	393	441	623	594	415
	Weishuiyuan	447	69.3	232	1302	466	439	316										
	Jiwozi	829	209	142	611	1020	362	234	100	438	628	1155	971	390	649	568	447	369
	Hongwen	1517	296	1568	1301	1065	1702	2134	1347	945	737	1530	843	924	1403	1129	1015	1771
	Xiaoping	1566	2682	2171	1768	1958	2921	2352	1044	2000	1134	1518	1531	1291	1979	1364	1557	1851
	Xiang Zhou	2031	1990	1731	1726	1340	1179	1529	1442	2815	2010	1857	1259	1518	2421	1673	1431	2344
	Zhuxiandong	1779	2571	1581	1755	1277	1062	887	***	2311	1580	1853	1146	***	***	***	1598	2356
Indonesia	Jakarta	1577	1237	1572	1617	1469	2125	1481	2171	1717	1557	2120	990	2722	2331	3168	2807	1976
	Serpong	***	1607	2505	2143	1462	824	1603	2015	2370	1344	1426	830	894	2324	2882	1770	2929
	Kototabang	2340	1209	1798	3127	2111	2194	1248	2772	2481	2656	2370	2193	2639	2120	2496	2503	2163
	Bandung	893	2605	2541	1606	894	1749	1311	1969	2334	2683	2606	1530	2084	2346	2033	2012	2699
	Maros									3037	3237	2663	3632	2451	4033	2763	2479	1973
Japan	Rishiri	770	615	957	709	945	961	1294	883	828	1054	1072	1232	1172	1170	1033	1092	1299
	Ochiishi				782	648	822	997	866	730	1580	1085	818	871	1059	838	827	1138
	Tappi	1049	1082	1329	1150	1473	1240	964	1055	824	1337	1555	1144	1178	1070	1194	1114	1222
	Sado-seki	1068	971	1433	1126	1539	1143	1264	1163	1021	1037	1368	1387	1296	1576	1409	867	999
	Happo	2188	2345	2607	2461	3088	2997	2755	2329	1645	2352	2621	3076	2002	2658	2453	2242	2446
	Ijira	2685	2237	2648	2967	3424	2569	2829	2263	2250	2876	3847	3068	2862	2724	3044	3135	3151
	Oki	1209	1246	1571	1597	1409	1313	1396	1160	1110	1123	1452	1534	1296	1395	1053	1061	1519
	Banryu	1565	1788	1303	1752	1738	1290	1960	1273	1268	1735	1471	1432	1208	2024	1516	1458	1829
	Yusuhara	2801	2080	2346	2839	3970	2321	3160	2373	2189	2068	2476	3401	3048	2485	3529	3046	2744
	Hedo	2907	2126	2032	1393	1778	1780	1863	2701	1961	1975	2643	1766	2837	1612	2442	1762	1822
	Ogasawara	1985	1806	1331	1398	1171	2050	1585	1567	1674	1675	1856	1297	1572	1265	1532	1586	1153
	Tokyo								1080	1860	1727	1656	1388	1635	1609	1807	1641	1609
Lao PDR	Vientiane				88.6	442	665	709	1399	1668	181	***	***	1322	***	1273	921	713
Malaysia	Petaling Jaya	3417	3085	2660	3041	2996	2848	4009	3021	3747	2968	3517	3607	3412	3570	3708	3751	3432
	Tanah Rata	3127	2626	2783	3010	2415	2886	2785	2968	3925	3077	2451	3293	2846	2771	2895	2684	2366
	Danum Valley						1256	3005	2988	2999	3391	2370	3787	2958	3202	2848	2025	2987
	Kuching									4286	4671	4645	4632	3796	4110	3656	4428	5655
Mongolia	Ulaanbaatar	197	166	179	297	83.4	150	188	126	155	228	153	163	170	154	***	150	160
	Terelj	208	88.6	246	312	207	246	215	185	206	111	130	144	117	90.8	***	100	106
Myanmar	Yangon								3981	6375	3010	2280	3151	2570	2692	2872	2432	2180
Philippines	Metro Manila	4036	2291	2975	2205	2164	2377	2696	3505	2381	3782	2676	3657	4461	3516	2628	2499	2519
	Los Baños	2635	1817	1702	1608	1743	1643	2222	3097	1894	2900	2068	2384	2102	2394	2073	1559	1756
	Mt.Sto.Tomas							431	3379	5078	4727	3610	4608	5730	4392	3641	6108	4426
Republic of Korea	Kanghwa	1118	1139	824	1573	878	811	1092	883	1546	1266	1570	1476	748	898	427	589	837
	Cheju	1058	1114	1017	1291	1124	699	1127	1244	843	1039	1003	1076	1199	636	1195	1452	1121
	Imsil		1299	993	1876	1207	1248	709	1344	854	1069	1642	1493	1400	1220	1101	719	838
Russia	Mondy	305	319	204	409	360	286	410	351	206	119	90.2	73.5	105	330	123	136	222
	Listvyanka	442	494	360	540	551	452	311	408	391	312	327	478	343	278	279	335	316
	Irkutsk	534	468	303	457	553	442	357	478	527	430	375	329	443	277	388	291	481
	Primorskaya			835	323	692	737	623	989	553	864	673	621	922	723	643	1157	925
Thailand	Bangkok	1148	1174	1300	1385	1211	2006	1589	1579	1776	2072	2023	2171	1799	1330	1011	1593	1631
	Samutprakarn	978				1260	1625	1420	1871	1734	1989	1880	2103	953	1115	991	1442	1810
	Pathumthani	956	1349	948	1658	976	1268	1608	1381	1670	1314	1763	1562	1563	1181	1059	1071	1069
	Khanchanaburi	881	1516	2200	1627	1392	2043	2518	1704	1962	1998	1626	1941	2390	1501	979	1093	1059
	Mae Hia		1084	1473	808	1151	1430	1420	937	1286	1052	1167	1614	1111	1433	527	747	743
	Sakaerat							1190	1386	1722	1259	1627	1509	1126	1443	427	1385	1083
Vietnam	Hanoi	1256	2255	1416	1586	1575	1761	1231	1659	2267	1609	1236	1817	1798	1945	1661	1273	1661
	HoaBinh	1894	2223	1626	1691	1831	2279	1546	1949	1978	1357	1370	1760	1915	2008	1303	1616	1438
	Cuc Phuong										2266	1654	1853	2018	1898	1702	1461	1937
	Da Nang										2966	1690	3639	1682	2315	2219	1891	2723
	Can Tho															1840	2205	1670
	Ho Chi Minh															1916	1420	2553
	Yen Bai																1514	1815

Terms and abbreviations are given in Table 3.5.

Table 3.70 Precipitation amount-weighted annual average concentrations of SO_4^{2-} from 2000 to 2016

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

Country	Name of sites	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Cambodia	PhnomPenh					***	5.68	5.31	22.5	11.6	11.6	7.37	9.04	10.5	7.99	6.27	7.04	5.37
China	Guanyinqiao	152	205	114	110	165	186	177	130									
	Haifu									144	99.3	139	142	102	106	84.4	50.3	46.9
	Jinyunshan		124	78.3	83.2	109	102	141	90.4	120	114	151	141	124	81.4	60.4	43.9	40.0
	Shizhan	356	470	850	203	173	126	274	183	191	136	100.0	110	109	141	113	82.8	62.5
	Weishuiyuan	538	1510	1010	143	202	107	330										
	Jiwozi	141	326	305	90.6	55.2	118	128	182	145	93.5	31.8	62.6	94.5	52.6	69.3	31.6	19.5
	Hongwen	20.2	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	22.8
	Xiaoping	14.6	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	13.7
	Xiang Zhou	22.4	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	16.0
	Zhuxiandong	48.0	19.3	32.0	18.5	26.9	29.5	19.3	***	21.5	21.0	17.1	20.4	***	***	***	23.3	18.1
Indonesia	Jakarta	58.7	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	31.1
	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	25.9
	Kototabang	3.69	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	5.70
	Bandung	67.4	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	31.9
	Maros									5.38	6.96	10.8	8.26	8.77	6.44	7.56	6.19	10.4
Japan	Rishiri	39.0	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	11.8
	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	12.7
	Tappi	21.9	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	22.5
	Sado-seki	34.4	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	21.4
	Happo	13.3	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	5.12
	Ijira	19.9	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	10.8
	Oki	40.5	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	31.7
	Banryu	15.6	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	16.9
	Yusuhara	11.1	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	7.58
	Hedo	32.2	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	17.5
	Ogasawara	11.4	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	9.57
	Tokyo								17.1	19.6	16.0	10.9	15.9	15.6	12.2	13.9	11.7	9.36
Lao PDR	Vientiane				***	***	***	3.46	4.67	5.06	4.05	***	***	2.41	***	***	3.19	3.80
Malaysia	Petaling Jaya	23.5	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	20.2
	Tanah Rata	4.12	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	3.92
	Danum Valley						4.40	3.41	2.29	2.49	2.82	5.08	1.96	2.28	3.17	2.58	3.54	1.65
	Kuching									4.14	3.78	3.57	4.07	4.67	5.01	7.14	4.68	4.07
Mongolia	Ulaanbaatar	24.3	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	129
	Terelj	16.4	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	142
Myanmar	Yangon								***	***	8.01	4.52	6.63	7.48	7.96	4.55	4.62	9.19
Philippines	Metro Manila	23.4	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	21.7
	Los Baños	10.5	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	15.4
	Mt.Sto.Tomas							1.37	5.74	3.47	5.04	4.94	4.69	7.26	7.71	4.62	4.02	5.52
Republic of Korea	Kanghwa	31.6	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	18.8
	Cheju	23.2	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	43.1
	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	13.8
Russia	Mondy	7.18	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	3.13
	Listvyanka	15.4	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	15.0
	Irkutsk	30.1	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	23.6
	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	24.0
Thailand	Bangkok	21.6	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	14.1
	Samutprakarn	25.5				16.5	19.1	20.7	14.8	15.7	15.1	15.6	7.67	10.2	7.67	9.61	7.24	11.8
	Pathumthani	19.6	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	10.2
	Khanchanaburi	3.64	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	9.80
	Mae Hia		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	5.45
	Sakaerat							8.24	6.44	7.36	6.44	7.04	5.30	6.64	7.49	10.8	6.53	6.94
Vietnam	Hanoi	30.1	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	35.8
	HoaBinh	16.3	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	26.3
	Cuc Phuong										18.5	20.3	37.6	24.3	26.9	18.5	18.8	16.7
	Da Nang										18.8	16.4	21.1	19.6	24.2	15.8	11.4	11.7
	Can Tho															8.73	30.7	15.9
	Ho Chi Minh															24.2	47.6	19.2
	Yen Bai																22.6	43.6

Terms and abbreviations are given in Table 3.5.

Table 3.71 Precipitation amount-weighted annual average concentrations of nss-SO_4^{2-} from 2000 to 2016

unit: μmol L^{-1}

Country	Name of sites	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Cambodia	PhnomPenh					***	***	5.08	22.0	8.67	11.2	7.18	8.83	10.3	7.80	5.81	6.66	5.11
China	Guanyinqiao	151	205	114	109	165	185	177	130									
	Haifu									144	99.0	138	142	101	106	84.0	50.1	46.5
	Jinyunshan		123	78.0	82.9	109	101	140	90.0	120	113	151	140	124	81.2	60.1	43.8	39.8
	Shizhan	353	460	835	199	171	125	271	182	190	135	99.5	109	109	132	105	75.9	59.2
	Weishuiyuan	534	1500	994	136	201	106	326										
	Jiwozi	140	316	295	84.5	53.7	115	124	177	140	92.0	31.4	62.1	91.8	45.8	61.8	26.0	19.0
	Hongwen	18.8	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	21.3
	Xiaoping	14.1	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	13.3
	Xiang Zhou	19.9	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	14.7
	Zhuxiandong	46.3	18.0	29.3	16.4	23.8	26.1	18.0	***	19.0	18.3	15.9	17.7	***	***	***	19.3	16.2
Indonesia	Jakarta	55.6	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	29.8
	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	25.1
	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	4.96
	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	31.2
	Maros									4.43	6.18	10.0	7.36	7.65	5.28	6.24	5.99	5.58
Japan	Rishiri	19.4	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	7.61
	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	4.37
	Tappi	12.9	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	12.3
	Sado-seki	18.9	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	10.9
	Happo	12.9	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	4.83
	Ijira	18.7	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	10.1
	Oki	16.9	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	11.7
	Banryu	13.9	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	11.9
	Yusuhara	10.1	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	7.10
	Hedo	5.89	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	5.47
	Ogasawara	3.13	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	4.09
	Tokyo								15.0	18.4	14.5	9.86	13.6	13.8	10.8	12.8	10.6	8.49
Lao PDR	Vientiane				***	***	***	3.03	4.53	4.88	3.50	***	***	***	***	***	3.02	3.69
Malaysia	Petaling Jaya	23.2	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	19.9
	Tanah Rata	4.01	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	3.77
	Danum Valley						4.13	3.07	2.04	2.30	2.47	4.32	1.72	2.11	2.86	2.25	3.22	1.46
	Kuching									3.82	3.33	3.17	3.53	4.35	4.56	6.58	3.91	3.33
Mongolia	Ulaanbaatar	23.9	24.6	24.3	19.3	21.8	26.3	24.9	36.8	27.3	19.6	22.0	27.7	***	52.0	***	***	119
	Terelj	16.0	8.77	14.3	7.99	12.9	16.8	23.0	24.5	15.8	16.0	29.8	23.2	***	47.7	***	***	127
Myanmar	Yangon								***	***	6.90	3.90	5.72	6.15	7.33	3.51	4.09	8.24
Philippines	Metro Manila	21.6	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	20.7
	Los Baños	8.50	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	14.0
	Mt.Sto.Tomas							1.20	5.40	3.17	4.54	4.56	4.43	6.64	7.31	4.24	3.49	4.62
Republic of Korea	Kanghwa	28.2	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	17.1
	Cheju	14.0	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	19.3
	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	11.8
Russia	Mondy	7.08	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	3.05
	Listvyanka	15.1	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	14.7
	Irkutsk	29.6	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	23.2
	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	22.5
Thailand	Bangkok	21.2	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	13.5
	Samutprakarn	24.9				15.5	17.9	19.7	14.1	14.8	14.5	14.5	7.33	9.74	6.22	8.85	6.68	11.2
	Pathumthani	18.9	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	9.77
	Khanchanaburi	3.09	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	9.19
	Mae Hia		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	5.04
	Sakaerat							7.97	6.18	7.11	6.27	6.85	5.05	6.42	7.31	10.3	6.25	6.70
Vietnam	Hanoi	29.0	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	35.2
	HoaBinh	15.5	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	26.1
	Cuc Phuong										17.8	19.6	36.8	23.1	25.3	17.9	18.3	15.9
	Da Nang										13.1	13.9	16.8	16.1	15.6	10.8	6.65	7.75
	Can Tho															7.80	28.9	15.1
	Ho Chi Minh															22.7	45.5	18.4
	Yen Bai																22.2	43.0

Terms and abbreviations are given in Table 3.5.

Table 3.72 Precipitation amount-weighted annual average concentrations of NO_3^- from 2000 to 2016

unit: µmol L^{-1}

Country	Name of sites	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Cambodia	PhnomPenh					7.68	***	9.05	8.26	9.40	10.3	8.37	8.85	10.7	7.65	8.51	10.4	7.66
China	Guanyinqiao	42.1	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	52.3
	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	37.5
	Shizhan	87.0	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	62.8
	Weishuiyuan	95.8	210	168	54.1	69.6	11.4	104										
	Jiwozi	29.1	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	5.56
	Hongwen	18.7	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	31.4
	Xiaoping	14.6	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	19.3
	Xiang Zhou	15.6	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	18.2
	Zhuxiandong	33.5	22.2	20.8	11.5	25.0	21.5	13.2	***	14.7	19.8	19.7	18.8	***	***	***	29.4	22.2
Indonesia	Jakarta	17.6	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	34.2
	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	31.7
	Kototabang	6.16	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	4.16
	Bandung	34.4	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	22.6
	Maros									3.51	5.36	6.35	7.51	9.05	3.65	6.10	6.29	8.79
Japan	Rishiri	18.1	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	10.2
	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	5.62
	Tappi	12.9	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	17.6
	Sado-seki	18.3	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	18.7
	Happo	11.1	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	5.79
	Ijira	24.1	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	16.4
	Oki	18.6	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	16.4
	Banryu	13.9	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	17.9
	Yusuhara	7.02	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	6.96
	Hedo	5.73	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	7.40
	Ogasawara	2.38	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	3.87
	Tokyo								19.5	24.4	18.1	15.3	21.7	18.8	16.1	16.8	16.3	11.8
Lao PDR	Vientiane				***	***	***	6.94	6.90	5.96	9.73	***	***	5.55	***	***	4.12	4.12
Malaysia	Petaling Jaya	27.2	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	44.1
	Tanah Rata	3.32	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	5.97
	Danum Valley						2.50	1.41	<1.0	1.37	1.65	1.42	1.05	<1.0	1.97	0.738	1.88	0.888
	Kuching									4.98	4.55	4.91	5.00	3.82	4.52	5.29	3.61	4.16
Mongolia	Ulaanbaatar	19.9	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	36.7
	Terelj	17.6	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	48.9
Myanmar	Yangon								***	***	7.23	4.96	6.30	8.31	6.72	4.80	8.25	14.9
Philippines	Metro Manila	12.1	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	36.4
	Los Baños	5.44	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	38.5
	Mt.Sto.Tomas							1.87	5.47	3.92	3.94	4.29	2.56	6.10	8.47	5.07	3.49	5.76
Republic of Korea	Kanghwa	42.4	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	29.6
	Cheju	15.3	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	31.8
	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	22.7
Russia	Mondy	9.97	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	5.75
	Listvyanka	18.7	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	15.0
	Irkutsk	21.0	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	13.4
	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	22.3
Thailand	Bangkok	21.6	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	31.8
	Samutprakarn	15.4				9.79	17.9	14.1	16.6	17.4	20.0	15.4	9.81	12.5	5.07	13.0	9.97	18.3
	Pathumthani	18.6	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	26.3
	Khanchanaburi	5.74	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	4.93
	Mae Hia		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	12.9
	Sakaerat							11.3	11.4	11.5	12.7	14.6	9.97	11.2	10.4	24.5	12.8	13.5
Vietnam	Hanoi	16.1	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	28.5
	HoaBinh	9.68	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	24.8
	Cuc Phuong										10.9	23.2	27.8	20.1	16.7	10.2	13.4	11.4
	Da Nang										11.4	7.02	15.8	4.79	5.41	5.29	<0.5	2.78
	Can Tho															8.38	11.7	3.31
	Ho Chi Minh															17.9	18.0	7.42
	Yen Bai																17.8	40.3

Terms and abbreviations are given in Table 3.5.

Table 3.73 Precipitation amount-weighted annual average concentrations of Cl^- from 2000 to 2016

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

Country	Name of sites	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Cambodia	PhnomPenh					***	6.21	6.20	12.6	8.68	10.3	4.93	5.89	6.67	7.53	9.08	9.01	6.45
China	Guanyinqiao	24.0	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	8.34
	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	4.75
	Shizhan	49.0	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	14.4
	Weishuiyuan	91.6	278	285	99.4	39.4	36.5	51.1										
	Jiwozi	32.3	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	0.787
	Hongwen	32.0	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	31.2
	Xiaoping	20.7	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	10.6
	Xiang Zhou	49.8	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	23.6
	Zhuxiandong	39.4	27.7	59.5	40.2	58.8	52.6	29.3	***	45.6	51.4	21.7	18.8	***	***	***	72.4	33.5
Indonesia	Jakarta	21.5	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	31.2
	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	16.0
	Kototabang	6.76	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	33.4
	Bandung	105	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	9.63
	Maros									20.1	15.3	21.1	16.1	20.0	36.3	36.2	6.90	154
Japan	Rishiri	372	235	217	201	256	233	126	161	268	193	184	156	332	222	184	160	79.8
	Ochiishi				227	410	232	317	219	194	205	266	180	307	486	112	201	161
	Tappi	178	156	191	154	231	250	326	262	226	217	124	167	162	289	176	283	195
	Sado-seki	274	378	307	107	154	337	256	257	236	364	351	182	293	355	317	367	199
	Happo	10.7	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	6.42
	Ijira	23.0	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	15.2
	Oki	449	359	419	201	321	696	253	312	371	436	471	552	411	579	617	473	384
	Banryu	31.0	86.5	88.9	92.5	133	110	76.0	89.2	82.5	114	107	125	103	80.8	102	107	92.1
	Yusuhara	18.7	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	9.97
	Hedo	515	175	593	451	982	488	217	146	138	141	284	232	496	263	157	368	236
	Ogasawara	164	123	278	286	139	115	119	154	98.8	227	211	241	134	166	154	370	106
	Tokyo								41.1	23.7	27.8	19.4	45.9	35.8	27.7	23.1	22.2	17.2
Lao PDR	Vientiane				***	***	***	4.77	7.42	7.41	6.19	***	***	4.46	***	***	4.97	5.04
Malaysia	Petaling Jaya	8.51	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	10.3
	Tanah Rata	6.80	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	3.30
	Danum Valley						6.00	7.15	4.90	6.10	6.79	17.1	5.70	4.16	7.52	6.50	7.47	4.90
	Kuching									6.35	8.41	8.04	11.5	6.78	8.82	11.0	14.5	14.5
Mongolia	Ulaanbaatar	8.96	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	4.63
	Terelj	8.96	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	9.71
Myanmar	Yangon								***	***	25.0	13.2	15.8	26.6	27.1	19.5	34.4	31.3
Philippines	Metro Manila	25.6	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	31.4
	Los Baños	33.0	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	25.2
	Mt.Sto.Tomas							1.57	7.38	5.24	8.31	5.07	4.41	6.50	7.11	4.21	7.79	5.46
Republic of Korea	Kanghwa	54.9	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	50.1
	Cheju	210	112	83.8	68.5	79.1	105	102	104	136	63.7	114	147	455	344	124	109	444
	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	29.9
Russia	Mondy	2.58	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	1.66
	Listvyanka	5.04	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	3.09
	Irkutsk	11.6	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	9.90
	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	33.4
Thailand	Bangkok	12.6	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	11.1
	Samutprakarn	12.9				12.8	19.0	12.5	11.2	12.8	8.45	16.2	7.61	9.92	9.16	11.3	9.66	9.41
	Pathumthani	10.4	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	8.65
	Khanchanaburi	17.6	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	9.04
	Mae Hia		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	7.39
	Sakaerat							5.52	5.11	5.93	4.62	4.81	4.80	6.36	6.34	11.1	6.99	6.57
Vietnam	Hanoi	24.3	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	11.4
	HoaBinh	20.3	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	7.94
	Cuc Phuong										44.2	24.3	15.5	20.3	25.2	11.7	21.3	17.1
	Da Nang										110	50.4	93.5	83.1	174	92.9	72.8	70.2
	Can Tho															27.4	41.2	36.1
	Ho Chi Minh															44.8	52.0	37.3
	Yen Bai																7.48	14.3

Terms and abbreviations are given in Table 3.5.

Table 3.74 Precipitation amount-weighted annual average concentrations of NH_4^+ from 2000 to 2016

unit: µmol L^{-1}

Country	Name of sites	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
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	19.5
China	Guanyinqiao	161	211	120	132	137	157	179	140									
	Haifu									148	105	141	145	116	142	116	95.2	98.7
	Jinyunshan		111	83.5	85.6	105	105	121	75.2	98.8	110	124	117	124	90.1	70.6	62.6	65.8
	Shizhan	421	255	203	144	146	77.2	167	206	164	169	187	60.8	109	238	170	194	118
	Weishuiyuan	426	354	319	144	151	64.4	239										
	Jiwozi	199	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	2.87
	Hongwen	31.6	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	37.2
	Xiaoping	19.8	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	24.6
	Xiang Zhou	20.5	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	29.6
	Zhuxiandong	51.0	30.3	48.4	29.9	59.5	26.1	27.4	***	18.6	25.6	22.7	24.8	***	***	***	24.3	42.4
Indonesia	Jakarta	77.3	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	37.5
	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	55.6
	Kototabang	1.14	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	4.94
	Bandung	32.8	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	58.1
	Maros									8.85	12.7	10.1	9.30	14.1	6.75	7.19	20.7	53.7
Japan	Rishiri	34.0	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	10.4
	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	5.01
	Tappi	9.65	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	15.4
	Sado-seki	16.9	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	16.0
	Happo	14.2	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	4.77
	Ijira	23.8	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	14.3
	Oki	19.4	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	14.4
	Banryu	11.6	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	15.0
	Yusuhara	5.06	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	6.04
	Hedo	7.22	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	8.05
	Ogasawara	2.33	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	4.85
	Tokyo								27.7	29.9	26.2	19.2	25.4	24.3	22.9	23.1	20.1	17.2
Lao PDR	Vientiane				***	***	***	7.72	10.9	8.39	17.3	***	***	***	***	***	7.78	7.07
Malaysia	Petaling Jaya	43.7	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	13.0
	Tanah Rata	41.1	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	3.51
	Danum Valley						2.03	2.05	1.32	9.76	3.44	4.89	1.90	<1.0	<1.0	0.915	4.21	<0.8
	Kuching									4.61	4.94	1.94	5.03	6.16	2.87	9.38	5.49	2.45
Mongolia	Ulaanbaatar	52.0	49.9	72.8	47.5	46.2	54.4	53.7	87.1	53.3	46.7	54.7	45.9	***	62.2	***	***	40.7
	Terelj	44.3	30.5	65.7	31.6	35.6	36.1	54.6	38.8	51.1	41.0	35.0	39.4	***	5.37	***	***	60.2
Myanmar	Yangon								***	***	16.2	14.6	14.9	17.7	17.0	16.6	22.3	17.1
Philippines	Metro Manila	35.6	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	112
	Los Baños	13.6	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	84.8
	Mt.Sto.Tomas							<1.0	8.69	10.5	14.1	4.65	<1.0	3.42	4.71	13.5	9.57	7.79
Republic of Korea	Kanghwa	37.6	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	58.1
	Cheju	20.2	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	40.3
	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	36.1
Russia	Mondy	11.4	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	4.97
	Listvyanka	16.5	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	14.4
	Irkutsk	32.1	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	22.2
	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	22.7
Thailand	Bangkok	41.3	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	63.6
	Samutprakarn	31.8				34.5	37.4	49.9	47.1	56.4	41.0	28.1	27.8	34.1	37.7	48.6	46.0	43.3
	Pathumthani	38.3	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	53.1
	Khanchanaburi	6.84	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	16.2
	Mae Hia		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	29.3
	Sakaerat							23.1	18.3	21.1	22.9	24.6	24.3	25.7	23.8	42.3	31.3	34.0
Vietnam	Hanoi	27.5	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	61.4
	HoaBinh	8.01	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	56.9
	Cuc Phuong										6.30	9.90	19.2	23.9	25.5	20.5	30.0	20.1
	Da Nang										13.5	8.67	21.5	21.3	24.6	14.5	8.73	5.43
	Can Tho															18.3	21.3	22.7
	Ho Chi Minh															24.3	29.4	28.8
	Yen Bai																30.5	91.5

Terms and abbreviations are given in Table 3.5.

Table 3.75 Precipitation amount-weighted annual average concentrations of Na^+ from 2000 to 2016

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

Country	Name of sites	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Cambodia	PhnomPenh					***	***	1.85	8.25	10.3	6.95	3.10	3.55	3.65	3.10	7.60	6.28	4.23
China	Guanyinqiao	11.8	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	6.18
	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	2.55
	Shizhan	44.1	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	53.6
	Weishuiyuan	68.9	219	207	113	23.3	20.5	66.9										
	Jiwozi	23.8	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	8.39
	Hongwen	23.8	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	27.2
	Xiaoping	8.66	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	6.54
	Xiang Zhou	42.1	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	22.5
	Zhuxiandong	31.2	27.5	45.2	36.0	94.4	60.9	22.6	***	40.7	45.3	19.9	45.0	***	***	***	66.9	34.1
Indonesia	Jakarta	52.4	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	21.0
	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	14.4
	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	21.1
	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	11.2
	Maros									15.7	13.3	13.2	14.9	19.9	19.3	29.1	3.67	118
Japan	Rishiri	325	212	197	176	229	203	110	143	247	176	162	139	292	200	162	140	69.7
	Ochiishi				198	360	208	278	186	171	182	232	155	274	421	97.2	178	138
	Tappi	149	134	165	141	199	218	289	234	197	199	114	150	141	257	156	237	169
	Sado-seki	258	355	268	93.8	135	290	224	227	215	321	320	153	246	328	282	327	175
	Happo	7.85	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	4.83
	Ijira	19.9	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	12.4
	Oki	396	316	363	185	295	602	225	275	324	376	409	480	357	505	545	412	332
	Banryu	28.9	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	81.9
	Yusuhara	15.2	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	7.97
	Hedo	454	160	515	430	873	449	189	129	124	127	254	204	418	227	137	313	201
	Ogasawara	139	104	236	251	125	97.3	103	133	86.2	188	208	202	114	141	131	306	90.9
	Tokyo								34.5	19.5	23.5	17.3	37.7	29.5	22.8	18.9	18.0	14.4
Lao PDR	Vientiane				***	***	***	7.10	2.38	2.91	9.14	***	***	***	***	***	2.78	1.87
Malaysia	Petaling Jaya	4.97	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	6.14
	Tanah Rata	1.90	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	2.72
	Danum Valley						4.45	5.64	4.15	3.22	5.83	13.8	5.52	2.87	5.14	5.42	5.40	3.30
	Kuching									5.39	7.35	6.67	9.08	5.21	7.54	9.25	12.9	12.7
Mongolia	Ulaanbaatar	7.88	9.09	6.29	3.84	5.79	7.16	8.43	5.25	3.59	4.88	3.50	5.65	***	78.8	***	***	172
	Terelj	6.47	15.9	16.9	4.50	6.32	11.5	12.5	9.42	5.47	7.60	11.1	6.07	***	17.0	***	***	206
Myanmar	Yangon								***	***	18.5	12.9	15.0	22.1	15.8	17.3	8.77	15.7
Philippines	Metro Manila	30.6	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	17.4
	Los Baños	34.8	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	22.4
	Mt.Sto.Tomas							2.81	5.68	5.11	8.26	6.30	4.31	10.3	6.70	6.30	8.71	14.8
Republic of Korea	Kanghwa	56.3	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	28.5
	Cheju	152	74.7	58.3	46.7	57.8	84.8	85.0	101	133	53.6	103	152	375	290	116	101	394
	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	33.8
Russia	Mondy	1.84	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	1.38
	Listvyanka	4.57	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	2.80
	Irkutsk	8.85	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	7.42
	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	25.2
Thailand	Bangkok	6.93	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	11.0
	Samutprakarn	10.1				16.5	19.8	14.6	12.2	15.4	10.0	18.6	5.70	7.89	25.3	12.6	9.33	8.87
	Pathumthani	10.9	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	6.41
	Khanchanaburi	9.71	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	10.4
	Mae Hia		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	7.01
	Sakaerat							4.45	4.45	4.20	2.73	3.21	4.04	3.71	2.96	8.85	4.59	4.02
Vietnam	Hanoi	18.1	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	11.4
	HoaBinh	12.7	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	4.40
	Cuc Phuong										11.2	12.0	13.6	20.0	26.7	10.7	8.76	12.7
	Da Nang										94.6	41.3	70.2	63.2	144	82.1	79.6	65.7
	Can Tho															15.4	29.4	12.6
	Ho Chi Minh															25.0	34.6	13.5
	Yen Bai																5.40	8.96

Terms and abbreviations are given in Table 3.5.

Table 3.76 Precipitation amount-weighted annual average concentrations of K^+ from 2000 to 2016

unit: μmol L^{-1}

Country	Name of sites	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Cambodia	PhnomPenh					1.63	***	1.48	3.64	10.3	1.50	0.861	1.15	0.761	1.06	2.69	1.98	2.11
China	Guanyinqiao	14.2	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	4.66
	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	3.37
	Shizhan	26.5	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	3.76
	Weishuiyuan	34.7	74.9	76.6	20.3	11.3	12.6	33.6										
	Jiwozi	17.9	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	4.58
	Hongwen	4.99	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	5.34
	Xiaoping	2.81	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	5.59
	Xiang Zhou	6.59	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	3.68
	Zhuxiandong	6.18	5.86	13.2	6.62	22.7	5.60	2.62	***	4.50	2.56	3.29	5.92	***	***	***	8.30	5.80
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	10.5
	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	4.85
	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	11.5
	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	2.89
	Maros									5.76	3.89	2.52	1.86	3.50	1.84	19.1	1786	15.1
Japan	Rishiri	9.95	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	2.07
	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	3.43
	Tappi	3.64	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	4.47
	Sado-seki	6.37	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	7.55
	Happo	<1.0	<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	0.457
	Ijira	2.95	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	0.498
	Oki	10.5	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	8.06
	Banryu	1.35	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	2.28
	Yusuhara	<1.0	<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	0.508
	Hedo	9.06	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	4.51
	Ogasawara	3.58	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	2.22
	Tokyo								1.40	1.14	1.10	0.989	1.29	0.888	0.711	0.628	0.641	0.539
Lao PDR	Vientiane				***	***	***	3.51	1.69	1.69	<1.0	***	***	***	***	***	1.74	1.38
Malaysia	Petaling Jaya	1.77	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	1.83
	Tanah Rata	1.09	<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	1.22
	Danum Valley						1.17	1.01	1.08	2.53	1.59	3.24	1.73	1.21	1.01	2.16	2.39	1.01
	Kuching									<1.0	<1.0	0.650	0.854	0.924	0.695	3.26	1.44	1.13
Mongolia	Ulaanbaatar	3.92	4.64	3.81	3.39	2.84	4.33	5.15	1.28	2.81	2.53	2.72	3.98	***	3.88	***	***	0.620
	Terelj	4.50	3.81	10.2	4.11	4.68	6.48	8.98	3.80	6.46	4.10	5.43	5.00	***	7.98	***	***	7.09
Myanmar	Yangon								***	***	6.46	2.07	1.66	6.78	2.66	4.69	13.3	3.35
Philippines	Metro Manila	15.5	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	14.2
	Los Baños	1.74	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	13.8
	Mt.Sto.Tomas							1.32	2.29	<1.0	1.95	1.41	0.821	0.885	0.752	1.26	1.63	0.889
Republic of Korea	Kanghwa	5.61	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	13.3
	Cheju	6.32	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	15.2
	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	3.39
Russia	Mondy	1.19	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	1.05
	Listvyanka	4.67	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	1.71
	Irkutsk	4.38	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	3.10
	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	19.1
Thailand	Bangkok	3.22	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	1.70
	Samutprakarn	5.29				4.88	4.92	4.31	2.88	6.12	2.77	17.0	1.11	1.52	5.23	2.33	1.93	1.71
	Pathumthani	2.26	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	2.09
	Khanchanaburi	8.88	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	1.51
	Mae Hia		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	3.17
	Sakaerat							<1.0	1.38	1.24	1.31	0.940	1.20	1.26	0.813	2.63	1.52	1.59
Vietnam	Hanoi	4.09	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	3.63
	HoaBinh	3.56	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	2.59
	Cuc Phuong										14.0	5.61	3.31	6.06	8.57	4.72	4.68	5.77
	Da Nang										6.27	3.41	14.0	11.5	17.9	13.8	11.9	3.39
	Can Tho															7.45	7.17	6.07
	Ho Chi Minh															10.6	12.0	6.62
	Yen Bai																4.03	4.98

Terms and abbreviations are given in Table 3.5.

Table 3.77 Precipitation amount-weighted annual average concentrations of Ca^{2+} from 2000 to 2016

unit: µmol L^{-1}

Country	Name of sites	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Cambodia	PhnomPenh					<0.2	***	9.11	19.2	32.6	20.4	8.33	9.30	10.7	9.57	9.47	11.6	14.3
China	Guanyinqiao	63.0	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	67.3
	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	38.0
	Shizhan	229	675	479	258	147	107	301	116	150	138	105	91.2	128	325	92.7	89.7	35.0
	Weishuiyuan	305	1160	617	241	190	91.0	330										
	Jiwozi	124	429	276	230	88.0	129	221	347	266	93.7	40.7	91.6	203	133	149	57.7	36.8
	Hongwen	6.75	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	13.1
	Xiaoping	0.773	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	6.39
	Xiang Zhou	21.2	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	10.8
	Zhuxiandong	25.0	14.3	20.7	20.2	24.7	17.0	17.1	***	13.6	7.40	16.4	19.1	***	***	***	25.2	17.3
Indonesia	Jakarta	87.6	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	25.2
	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	13.9
	Kototabang	3.97	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	3.83
	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	15.2
	Maros									8.39	8.11	9.58	6.49	16.1	10.4	27.9	16.8	13.8
Japan	Rishiri	13.7	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	3.60
	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	4.27
	Tappi	6.37	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	7.45
	Sado-seki	11.7	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	11.4
	Happo	3.88	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	0.750
	Ijira	6.77	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	1.88
	Oki	16.0	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	10.6
	Banryu	4.24	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	5.17
	Yusuhara	2.69	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	1.14
	Hedo	10.1	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	5.37
	Ogasawara	5.11	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	2.60
	Tokyo								4.99	4.09	3.42	3.98	4.84	4.21	4.35	3.81	3.56	2.48
Lao PDR	Vientiane				***	***	***	8.75	3.04	5.77	5.50	***	***	***	***	***	4.00	2.62
Malaysia	Petaling Jaya	6.84	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	6.48
	Tanah Rata	2.26	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	2.18
	Danum Valley						1.35	1.26	0.513	0.353	1.01	3.82	0.887	0.800	1.44	1.41	2.28	0.987
	Kuching									1.91	1.79	2.60	3.15	3.42	4.20	6.12	4.35	3.35
Mongolia	Ulaanbaatar	37.7	47.4	49.9	26.5	43.2	49.8	45.9	41.2	42.9	42.2	34.3	33.9	***	95.3	***	***	29.1
	Terelj	15.2	15.0	27.3	10.7	16.2	13.6	24.8	13.6	17.9	35.8	42.3	20.4	***	69.1	***	***	16.8
Myanmar	Yangon								***	***	9.66	6.37	6.89	7.79	1.07	14.1	88.7	5.55
Philippines	Metro Manila	14.5	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	20.5
	Los Baños	6.95	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	11.8
	Mt.Sto.Tomas							5.64	23.4	3.09	5.87	22.7	7.84	14.0	8.58	8.06	6.85	13.4
Republic of Korea	Kanghwa	26.5	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	3.85
	Cheju	13.8	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	16.2
	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	2.70
Russia	Mondy	5.79	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	5.42
	Listvyanka	12.8	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	7.94
	Irkutsk	28.0	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	17.0
	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	13.1
Thailand	Bangkok	11.4	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	15.9
	Samutprakarn	11.1				7.84	9.68	14.8	11.0	13.8	13.2	7.78	5.95	8.39	19.9	14.6	6.23	9.28
	Pathumthani	13.2	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	13.7
	Khanchanaburi	4.76	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	5.17
	Mae Hia		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	10.7
	Sakaerat							9.54	3.75	3.35	2.53	2.21	1.88	3.74	1.96	8.73	6.83	8.24
Vietnam	Hanoi	20.9	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	22.8
	HoaBinh	13.1	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	13.1
	Cuc Phuong										24.8	38.3	32.2	30.6	24.4	23.1	19.4	27.1
	Da Nang										6.35	8.87	10.0	16.9	21.5	27.3	34.4	38.5
	Can Tho															12.8	26.8	11.9
	Ho Chi Minh															26.0	44.3	12.1
	Yen Bai																15.9	20.3

Terms and abbreviations are given in Table 3.5.

Table 3.78 Precipitation amount-weighted annual average concentrations of nss-Ca^{2+} from 2000 to 2016

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

Country	Name of sites	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Cambodia	PhnomPenh					***	***	9.07	19.1	32.5	20.3	8.26	9.23	10.7	9.50	9.31	11.5	14.2
China	Guanyinqiao	62.8	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	67.1
	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	38.0
	Shizhan	228	672	474	257	147	107	300	116	149	138	105	90.8	128	322	90.0	87.2	33.9
	Weishuiyuan	303	1150	612	238	189	90.6	328										
	Jiwozi	123	425	273	227	87.4	128	220	345	264	93.2	40.6	91.4	202	130	146	55.7	36.6
	Hongwen	6.32	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	12.6
	Xiaoping	0.599	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	6.24
	Xiang Zhou	20.3	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	10.4
	Zhuxiandong	24.3	13.7	19.7	19.4	22.7	15.7	16.7	***	12.7	6.44	15.9	18.1	***	***	***	23.7	16.6
Indonesia	Jakarta	86.4	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	24.7
	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	13.6
	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	3.53
	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	15.0
	Maros									8.05	7.83	9.30	6.17	15.7	9.98	27.2	16.7	11.5
Japan	Rishiri	6.68	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	2.10
	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	1.28
	Tappi	3.20	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	3.80
	Sado-seki	6.18	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	7.67
	Happo	3.71	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	0.646
	Ijira	6.34	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	1.61
	Oki	7.50	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	3.55
	Banryu	3.67	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	3.45
	Yusuhara	2.43	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	0.969
	Hedo	0.807	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	1.12
	Ogasawara	2.14	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	0.638
	Tokyo								4.24	3.67	2.91	3.60	4.03	3.57	3.86	3.40	3.17	2.17
Lao PDR	Vientiane				***	***	***	8.59	2.99	5.70	5.30	***	***	***	***	***	3.94	2.58
Malaysia	Petaling Jaya	6.73	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	6.34
	Tanah Rata	2.21	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	2.12
	Danum Valley						1.26	1.16	0.453	0.315	0.919	3.59	0.794	0.750	1.34	1.32	2.18	0.920
	Kuching									1.81	1.66	2.45	2.95	3.32	4.04	5.93	4.07	3.07
Mongolia	Ulaanbaatar	37.6	47.2	49.8	26.4	43.0	49.6	45.7	41.1	42.9	42.1	34.2	33.8	***	93.6	***	***	25.4
	Terelj	15.1	14.6	26.3	10.6	16.1	13.3	24.5	13.4	17.7	35.6	42.1	20.2	***	68.8	***	***	13.7
Myanmar	Yangon								***	***	9.26	6.09	6.57	7.32	0.792	13.8	88.5	5.22
Philippines	Metro Manila	13.9	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	20.2
	Los Baños	6.20	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	11.3
	Mt.Sto.Tomas							5.58	23.3	2.98	5.69	22.5	7.75	13.8	8.43	7.92	6.66	13.1
Republic of Korea	Kanghwa	25.3	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	3.24
	Cheju	10.5	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	7.72
	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	2.01
Russia	Mondy	5.75	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	5.39
	Listvyanka	12.7	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	7.88
	Irkutsk	27.8	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	16.8
	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	12.6
Thailand	Bangkok	11.2	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	15.7
	Samutprakarn	10.8				7.48	9.25	14.5	10.7	13.5	13.0	7.38	5.83	8.22	19.3	14.3	6.02	9.09
	Pathumthani	12.9	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	13.6
	Khanchanaburi	4.56	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	4.95
	Mae Hia		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	10.6
	Sakaerat							9.45	3.66	3.26	2.48	2.15	1.81	3.66	1.90	8.57	6.73	8.16
Vietnam	Hanoi	20.5	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	22.5
	HoaBinh	12.8	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	13.0
	Cuc Phuong										24.6	38.0	32.0	30.2	23.8	22.8	19.2	26.8
	Da Nang										4.31	7.98	8.50	15.5	18.4	25.5	32.7	37.1
	Can Tho															12.4	26.2	11.6
	Ho Chi Minh															25.4	43.5	11.8
	Yen Bai																15.8	20.1

Terms and abbreviations are given in Table 3.5.

Table 3.79 Precipitation amount-weighted annual average concentrations of Mg^{2+} from 2000 to 2016

unit: μmol L^{-1}

Country	Name of sites	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Cambodia	PhnomPenh					<0.4	***	0.661	3.27	3.45	2.00	0.717	1.22	1.22	1.12	1.63	2.56	1.44
China	Guanyinqiao	8.54	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	5.69
	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	3.89
	Shizhan	23.6	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	1.97
	Weishuiyuan	31.7	88.4	91.1	40.0	19.3	10.9	42.0										
	Jiwozi	14.6	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	12.6
	Hongwen	4.22	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	4.89
	Xiaoping	1.32	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	2.14
	Xiang Zhou	6.95	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	4.02
	Zhuxiandong	7.91	3.33	7.08	7.37	8.49	9.08	4.99	***	5.70	6.15	2.86	6.75	***	***	***	8.78	5.17
Indonesia	Jakarta	219	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	4.50
	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	3.06
	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	1.19
	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	3.50
	Maros									2.56	1.86	2.17	2.50	7.03	2.81	13.6	30.0	2.92
Japan	Rishiri	36.3	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	7.96
	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	15.8
	Tappi	17.5	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	19.5
	Sado-seki	29.0	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	20.8
	Happo	1.67	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	0.861
	Ijira	2.89	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	1.57
	Oki	45.0	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	38.5
	Banryu	3.33	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	9.45
	Yusuhara	2.18	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	1.21
	Hedo	50.0	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	23.3
	Ogasawara	19.2	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	10.5
	Tokyo								4.22	2.78	2.97	2.40	4.79	3.78	3.04	2.54	2.45	1.85
Lao PDR	Vientiane				***	***	***	3.49	0.698	1.31	0.722	***	***	***	***	***	0.613	0.666
Malaysia	Petaling Jaya	1.39	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	0.819
	Tanah Rata	0.415	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	<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	0.320
	Kuching									<0.4	<0.4	0.457	0.745	<0.4	0.588	1.12	1.21	0.949
Mongolia	Ulaanbaatar	4.14	5.41	3.56	3.69	5.86	5.21	4.39	4.75	3.67	5.32	2.98	9.23	***	3.74	***	***	6.06
	Terelj	3.16	2.53	4.09	2.26	5.15	3.67	4.85	2.07	3.00	5.45	5.54	7.35	***	4.97	***	***	2.19
Myanmar	Yangon								***	***	2.84	1.80	3.02	6.56	12.3	3.41	5.87	4.58
Philippines	Metro Manila	6.32	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	5.29
	Los Baños	3.71	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	4.14
	Mt.Sto.Tomas							0.971	2.08	<0.4	1.53	3.34	1.61	2.90	1.69	1.35	3.44	2.78
Republic of Korea	Kanghwa	9.31	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	1.19
	Cheju	18.6	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	37.7
	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	1.55
Russia	Mondy	1.09	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	0.864
	Listvyanka	2.94	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	1.91
	Irkutsk	4.99	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	3.97
	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	5.51
Thailand	Bangkok	2.01	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	2.48
	Samutprakarn	2.39				1.87	3.43	4.63	2.69	3.99	2.80	2.20	1.20	1.53	4.46	3.12	1.57	1.79
	Pathumthani	2.41	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	2.10
	Khanchanaburi	1.67	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	1.74
	Mae Hia		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	1.54
	Sakaerat							1.98	1.78	1.22	1.27	0.703	<0.4	0.423	<0.4	1.31	2.17	4.25
Vietnam	Hanoi	4.99	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	4.38
	HoaBinh	4.67	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	2.52
	Cuc Phuong										4.37	4.41	4.78	7.07	12.2	4.88	5.44	8.30
	Da Nang										10.2	8.52	9.42	9.19	18.8	10.8	8.77	9.03
	Can Tho															4.45	9.17	6.85
	Ho Chi Minh															8.73	17.9	6.90
	Yen Bai																2.68	3.24

Terms and abbreviations are given in Table 3.5.

Table 3.80 Precipitation amount-weighted annual average concentrations of H^+ from 2000 to 2016

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

Country	Name of sites	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
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	0.389
China	Guanyinqiao	46.7	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	0.655
	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	10.6
	Shizhan	2.09	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	0.206
	Weishuiyuan	0.381	0.484	0.931	0.784	1.05	7.04	1.46										
	Jiwozi	3.79	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	0.237
	Hongwen	19.1	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	12.1
	Xiaoping	12.2	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	18.5
	Xiang Zhou	7.00	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	6.78
	Zhuxiandong	23.0	16.7	12.8	7.88	23.2	24.4	15.0	***	13.1	17.7	11.3	16.7	***	***	***	3.29	6.88
Indonesia	Jakarta	6.57	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	11.3
	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	6.56
	Kototabang	31.2	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	5.04
	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	8.29
	Maros									2.35	4.64	6.16	4.43	2.41	3.41	5.88	5.77	5.77
Japan	Rishiri	15.7	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	12.6
	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	6.39
	Tappi	19.0	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	15.2
	Sado-seki	26.9	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	13.9
	Happo	18.6	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	8.18
	Ijira	30.1	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	17.5
	Oki	22.8	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	13.4
	Banryu	22.9	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	15.4
	Yusuhara	19.5	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	14.2
	Hedo	7.38	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	6.72
	Ogasawara	5.91	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	7.98
	Tokyo								16.3	24.8	17.7	11.2	14.9	14.4	8.83	14.8	16.3	11.4
Lao PDR	Vientiane				0.313	2.26	0.481	0.325	2.16	0.987	3.31	***	***	0.351	***	0.288	1.15	0.267
Malaysia	Petaling Jaya	44.9	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	54.9
	Tanah Rata	16.1	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	14.1
	Danum Valley						10.5	8.93	8.03	6.02	6.00	5.99	6.20	6.58	5.33	4.87	6.15	5.56
	Kuching									5.55	5.47	5.25	3.73	4.84	5.17	4.60	4.88	7.14
Mongolia	Ulaanbaatar	0.550	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	9.54
	Terelj	3.02	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	6.47
Myanmar	Yangon								2.66	0.392	0.346	0.384	0.347	0.323	0.352	0.199	0.216	0.178
Philippines	Metro Manila	3.28	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	3.05
	Los Baños	3.64	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	19.3
	Mt.Sto.Tomas							0.475	2.97	3.22	1.47	0.201	4.46	1.12	5.18	0.724	1.10	0.345
Republic of Korea	Kanghwa	10.0	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	16.4
	Cheju	14.1	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	7.94
	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	3.15
Russia	Mondy	5.50	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	4.31
	Listvyanka	8.57	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	12.5
	Irkutsk	7.76	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	11.8
	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	3.97
Thailand	Bangkok	11.1	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	2.91
	Samutprakarn	14.8				3.41	3.42	1.36	2.46	5.08	7.40	4.82	1.27	0.679	1.06	0.310	2.53	3.57
	Pathumthani	5.66	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	4.01
	Khanchanaburi	2.73	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	1.04
	Mae Hia		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	2.49
	Sakaerat							7.61	8.30	9.31	13.6	17.8	9.95	8.58	5.70	15.0	9.26	5.47
Vietnam	Hanoi	3.57	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	2.52
	HoaBinh	7.79	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	2.31
	Cuc Phuong										10.3	5.88	9.09	3.68	3.77	3.00	4.78	1.57
	Da Nang										16.8	7.71	10.4	3.66	2.62	3.01	1.05	1.10
	Can Tho															0.550	1.68	1.43
	Ho Chi Minh															1.42	0.775	1.75
	Yen Bai																5.90	6.63

Terms and abbreviations are given in Table 3.5.

Table 3.81 Precipitation amount-weighted annual average pH from 2000 to 2016

Country	Name of sites	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
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	6.41
China	Guanyinqiao	4.33	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	6.18
	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	4.97
	Shizhan	5.68	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	6.69
	Weishuiyuan	6.42	6.32	6.03	6.11	5.98	5.15	5.84										
	Jiwozi	5.42	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	6.63
	Hongwen	4.72	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	4.92
	Xiaoping	4.91	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	4.73
	Xiang Zhou	5.15	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	5.17
	Zhuxiandong	4.64	4.78	4.89	5.10	4.63	4.61	4.82	***	4.88	4.75	4.95	4.78	***	***	***	5.48	5.16
Indonesia	Jakarta	5.18	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	4.95
	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	5.18
	Kototabang	4.51	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	5.30
	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	5.08
	Maros									5.63	5.33	5.21	5.35	5.62	5.47	5.23	5.24	5.24
Japan	Rishiri	4.80	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	4.90
	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	5.19
	Tappi	4.72	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	4.82
	Sado-seki	4.57	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	4.86
	Happo	4.73	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	5.09
	Ijira	4.52	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	4.76
	Oki	4.64	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	4.87
	Banryu	4.64	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	4.81
	Yusuhara	4.71	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	4.85
	Hedo	5.13	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	5.17
	Ogasawara	5.23	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	5.10
	Tokyo								4.79	4.60	4.75	4.95	4.83	4.84	5.05	4.83	4.79	4.94
Lao PDR	Vientiane				6.51	5.65	6.32	6.49	5.67	6.01	5.48	***	***	6.46	***	6.54	5.94	6.57
Malaysia	Petaling Jaya	4.35	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	4.26
	Tanah Rata	4.79	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	4.85
	Danum Valley						4.98	5.05	5.10	5.22	5.22	5.22	5.21	5.18	5.27	5.31	5.21	5.25
	Kuching									5.26	5.26	5.28	5.43	5.32	5.29	5.34	5.31	5.15
Mongolia	Ulaanbaatar	6.26	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	5.02
	Terelj	5.52	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	5.19
Myanmar	Yangon								5.57	6.41	6.46	6.42	6.46	6.49	6.45	6.70	6.66	6.75
Philippines	Metro Manila	5.48	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	5.52
	Los Baños	5.44	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	4.71
	Mt.Sto.Tomas							6.32	5.53	5.49	5.83	6.70	5.35	5.95	5.29	6.14	5.96	6.46
Republic of Korea	Kanghwa	5.00	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	4.79
	Cheju	4.85	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	5.10
	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	5.50
Russia	Mondy	5.26	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	5.37
	Listvyanka	5.07	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	4.90
	Irkutsk	5.11	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	4.93
	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	5.40
Thailand	Bangkok	4.95	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	5.54
	Samutprakarn	4.83				5.47	5.47	5.87	5.61	5.29	5.13	5.32	5.90	6.17	5.98	6.51	5.60	5.45
	Pathumthani	5.25	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	5.40
	Khanchanaburi	5.56	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	5.98
	Mae Hia		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	5.60
	Sakaerat							5.12	5.08	5.03	4.87	4.75	5.00	5.07	5.24	4.82	5.03	5.26
Vietnam	Hanoi	5.45	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	5.60
	HoaBinh	5.11	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	5.64
	Cuc Phuong										4.99	5.23	5.04	5.43	5.42	5.52	5.32	5.81
	Da Nang										4.77	5.11	4.98	5.44	5.58	5.52	5.98	5.96
	Can Tho															6.26	5.77	5.84
	Ho Chi Minh															5.85	6.11	5.76
	Yen Bai																5.23	5.18

Terms and abbreviations are given in Table 3.5.

Table 3.82 Precipitation amount-weighted annual average EC from 2000 to 2016

unit: mS m^{-1}

Country	Name of sites	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
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	0.705
China	Guanyinqiao	5.61	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	3.00
	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	2.44
	Shizhan	11.4	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	3.69
	Weishuiyuan	15.1	27.7	21.7	7.80	8.55	4.61	13.4										
	Jiwozi	7.71	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	1.05
	Hongwen	1.66	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	2.33
	Xiaoping	0.879	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	1.28
	Xiang Zhou	2.05	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	1.50
	Zhuxiandong	3.04	2.08	3.63	2.42	3.15	2.49	2.67	***	1.94	2.15	1.37	1.99	***	***	***	2.29	2.01
Indonesia	Jakarta	5.06	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	2.03
	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	1.85
	Kototabang	0.997	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	0.790
	Bandung	3.37	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	1.79
	Maros									0.623	1.06	0.718	0.576	0.885	0.970	1.00	2.10	3.03
Japan	Rishiri	6.37	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	1.92
	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	2.42
	Tappi	3.69	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	3.32
	Sado-seki	4.76	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	3.47
	Happo	1.22	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	0.616
	Ijira	2.11	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	1.33
	Oki	7.28	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	6.08
	Banryu	1.82	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	2.39
	Yusuhara	1.17	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	0.972
	Hedo	7.21	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	3.41
	Ogasawara	2.59	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	1.87
	Tokyo								1.80	1.96	1.66	1.18	1.88	1.75	1.33	1.46	1.40	1.04
Lao PDR	Vientiane				2.07	2.65	1.01	0.764	0.396	0.644	0.534	***	***	0.411	***	0.867	1.26	0.677
Malaysia	Petaling Jaya	2.08	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	2.95
	Tanah Rata	0.725	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	0.813
	Danum Valley						0.562	0.465	0.347	0.461	0.445	0.552	0.440	0.416	0.410	0.419	0.513	0.360
	Kuching									0.443	0.521	0.500	0.547	0.489	0.549	1.02	0.635	0.683
Mongolia	Ulaanbaatar	1.79	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	3.52
	Terelj	1.28	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	3.27
Myanmar	Yangon								0.595	0.949	1.54	1.34	0.682	1.30	0.813	0.914	1.46	1.37
Philippines	Metro Manila	2.20	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	3.02
	Los Baños	1.13	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	2.25
	Mt.Sto.Tomas							0.221	1.03	0.347	0.495	0.533	0.355	0.500	0.558	0.460	0.464	0.527
Republic of Korea	Kanghwa	2.50	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	1.80
	Cheju	3.37	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	7.07
	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	1.23
Russia	Mondy	0.578	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	0.409
	Listvyanka	1.04	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	1.11
	Irkutsk	1.71	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	1.47
	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	1.58
Thailand	Bangkok	1.64	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	1.34
	Samutprakarn	1.52				1.01	1.30	1.56	1.34	1.66	1.48	1.13	0.667	0.902	1.20	1.00	0.921	0.880
	Pathumthani	1.48	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	1.38
	Khanchanaburi	0.519	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	0.379
	Mae Hia		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	0.825
	Sakaerat							0.918	0.775	0.833	0.981	0.992	0.796	0.756	0.789	1.46	0.856	0.848
Vietnam	Hanoi	1.55	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	1.93
	HoaBinh	1.15	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	1.45
	Cuc Phuong										1.74	1.71	1.98	1.73	1.80	1.28	1.42	1.37
	Da Nang										2.53	1.46	2.37	2.10	3.46	1.85	1.82	1.74
	Can Tho															1.10	1.92	1.20
	Ho Chi Minh															2.00	2.85	1.33
	Yen Bai																1.31	2.47

Terms and abbreviations are given in Table 3.5.

Table 3.83 Annual SO_4^{2-} deposition amount from 2000 to 2016

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

Country	Name of sites	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
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	6.85
China	Guanyinqiao	164	154	165	108	229	200	149	169									
	Haifu									145	106	136	115	103	109	120	61.3	59.5
	Jinyunshan		87.7	126	103	166	149	169	149	146	125	148	119	125	91.7	90.0	56.5	48.6
	Shizhan	199	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	25.9
	Weishuiyuan	241	105	234	186	94.2	47.1	104										
	Jiwozi	117	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	7.18
	Hongwen	30.7	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	40.4
	Xiaoping	22.8	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	25.4
	Xiang Zhou	45.5	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	37.6
	Zhuxiandong	85.4	49.5	50.6	32.4	34.3	31.3	17.1	***	49.6	33.2	31.6	23.4	***	***	***	37.2	42.6
Indonesia	Jakarta	92.7	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	61.4
	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	76.0
	Kototabang	8.65	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	12.3
	Bandung	60.2	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	86.1
	Maros									16.3	22.5	28.9	30.0	21.5	26.0	20.9	15.3	20.6
Japan	Rishiri	30.0	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	15.3
	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	14.5
	Tappi	22.9	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	27.5
	Sado-seki	36.8	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	21.4
	Happo	29.2	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	12.5
	Ijira	53.3	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	34.1
	Oki	49.0	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	48.2
	Banryu	24.4	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	30.9
	Yusuhara	31.0	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	20.8
	Hedo	93.6	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	31.9
	Ogasawara	22.6	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	11.0
	Tokyo								18.4	36.5	27.6	18.1	22.0	25.5	19.7	25.1	19.2	15.1
Lao PDR	Vientiane				***	***	***	2.45	6.54	8.43	0.733	***	***	3.19	***	***	2.94	2.71
Malaysia	Petaling Jaya	80.4	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	69.4
	Tanah Rata	12.9	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	9.28
	Danum Valley						5.53	10.2	6.85	7.46	9.56	12.0	7.42	6.75	10.1	7.35	7.17	4.92
	Kuching									17.8	17.6	16.6	18.9	17.7	20.6	26.1	20.7	23.0
Mongolia	Ulaanbaatar	4.78	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	20.7
	Terelj	3.41	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	15.1
Myanmar	Yangon								***	***	24.1	10.3	20.9	19.2	21.4	13.1	11.2	20.0
Philippines	Metro Manila	94.4	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	54.7
	Los Baños	27.7	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	27.0
	Mt.Sto.Tomas							0.592	19.4	17.6	23.8	17.8	21.6	41.6	33.8	16.8	24.5	24.4
Republic of Korea	Kanghwa	35.3	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	15.8
	Cheju	24.5	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	48.3
	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	11.6
Russia	Mondy	2.19	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	0.696
	Listvyanka	6.79	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	4.74
	Irkutsk	16.1	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	11.4
	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	22.2
Thailand	Bangkok	24.8	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	23.1
	Samutprakarn	25.0				20.7	31.1	29.4	27.7	27.2	30.0	29.3	16.1	9.73	8.55	9.52	10.4	21.3
	Pathumthani	18.7	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	10.9
	Khanchanaburi	3.21	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	10.4
	Mae Hia		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	4.06
	Sakaerat							9.80	8.93	12.7	8.11	11.5	7.99	7.48	10.8	4.61	9.04	7.51
Vietnam	Hanoi	37.9	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	59.5
	Hoa Binh	30.8	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	37.9
	Cuc Phuong										41.9	33.7	69.7	49.0	51.1	31.5	27.5	32.3
	Da Nang										55.6	27.6	76.7	32.9	56.1	35.0	21.6	31.9
	Can Tho															16.1	67.7	26.5
	Ho Chi Minh															46.3	67.6	49.0
	Yen Bai																34.2	79.1

Terms and abbreviations are given in Table 3.5.

Table 3.84 Annual nss-SO_4^{2-} deposition amount from 2000 to 2016

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

Country	Name of sites	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Cambodia	Phnom Penh					***	***	4.82	30.2	15.9	14.9	13.3	11.3	16.6	10.5	9.07	7.35	6.53
China	Guanyinqiao	163	154	164	108	228	200	149	169									
	Haifu									145	106	135	115	102	108	119	61.1	59.1
	Jinyunshan		87.3	125	102	165	148	168	148	145	124	148	119	125	91.5	89.6	56.4	48.5
	Shizhan	198	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	24.6
	Weishuiyuan	239	104	231	177	93.5	46.6	103										
	Jiwozi	116	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	6.99
	Hongwen	28.5	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	37.7
	Xiaoping	22.0	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	24.7
	Xiang Zhou	40.3	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	34.4
	Zhuxiandong	82.4	46.2	46.3	28.8	30.4	27.7	15.9	***	44.0	28.9	29.4	20.3	***	***	***	30.8	38.3
Indonesia	Jakarta	87.7	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	58.9
	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	73.5
	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	10.7
	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	84.3
	Maros									13.5	20.0	26.7	26.7	18.7	21.3	17.2	14.9	11.0
Japan	Rishiri	14.9	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	9.89
	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	4.98
	Tappi	13.5	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	15.1
	Sado-seki	20.2	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	10.9
	Happo	28.1	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	11.8
	Ijira	50.1	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	31.8
	Oki	20.4	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	17.8
	Banryu	21.7	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	21.8
	Yusuhara	28.4	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	19.5
	Hedo	17.1	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	9.97
	Ogasawara	6.22	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	4.72
	Tokyo								16.2	34.3	25.1	16.3	18.9	22.6	17.4	23.1	17.4	13.7
Lao PDR	Vientiane				***	***	***	2.15	6.34	8.14	0.633	***	***	***	***	***	2.79	2.63
Malaysia	Petaling Jaya	79.3	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	68.1
	Tanah Rata	12.5	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	8.93
	Danum Valley						5.19	9.23	6.11	6.89	8.36	10.2	6.51	6.24	9.15	6.42	6.52	4.36
	Kuching									16.4	15.6	14.7	16.3	16.5	18.7	24.1	17.3	18.8
Mongolia	Ulaanbaatar	4.69	4.08	4.34	5.73	1.81	3.95	4.68	4.63	4.22	4.47	3.36	4.53	***	8.00	***	***	19.0
	Terelj	3.33	0.776	3.51	2.49	2.67	4.12	4.93	4.53	3.26	1.78	3.86	3.34	***	4.33	***	***	13.5
Myanmar	Yangon								***	***	20.8	8.88	18.0	15.8	19.7	10.1	9.94	18.0
Philippines	Metro Manila	87.0	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	52.0
	Los Baños	22.4	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	24.7
	Mt.Sto.Tomas							0.519	18.2	16.1	21.5	16.5	20.4	38.1	32.1	15.4	21.3	20.5
Republic of Korea	Kanghwa	31.6	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	14.3
	Cheju	14.8	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	21.7
	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	9.88
Russia	Mondy	2.16	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	0.678
	Listvyanka	6.67	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	4.63
	Irkutsk	15.8	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	11.1
	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	20.8
Thailand	Bangkok	24.4	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	22.0
	Samutprakarn	24.4				19.5	29.1	28.0	26.3	25.6	28.8	27.2	15.4	9.28	6.94	8.77	9.63	20.3
	Pathumthani	18.1	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	10.4
	Khanchanaburi	2.72	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	9.73
	Mae Hia		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	3.74
	Sakaerat							9.48	8.56	12.2	7.90	11.1	7.63	7.23	10.5	4.39	8.66	7.25
Vietnam	Hanoi	36.5	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	58.4
	Hoa Binh	29.4	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	37.5
	Cuc Phuong										40.4	32.5	68.2	46.5	48.0	30.4	26.8	30.8
	Da Nang										38.7	23.4	61.3	27.1	36.0	24.0	12.6	21.1
	Can Tho															14.4	63.8	25.2
	Ho Chi Minh															43.5	64.6	46.9
	Yen Bai																33.7	78.1

Terms and abbreviations are given in Table 3.5.

Table 3.85 Annual NO_3^- deposition amount from 2000 to 2016

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

Country	Name of sites	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
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	9.78
China	Guanyinqiao	45.5	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	66.4
	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	45.6
	Shizhan	48.6	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	26.1
	Weishuiyuan	42.9	14.5	39.0	70.5	32.4	5.01	32.8										
	Jiwozi	24.1	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	2.05
	Hongwen	28.4	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	55.6
	Xiaoping	22.8	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	35.7
	Xiang Zhou	31.8	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	42.6
	Zhuxiandong	59.6	57.1	32.9	20.2	31.9	22.8	11.7	***	33.9	31.3	36.6	21.5	***	***	***	47.0	52.2
Indonesia	Jakarta	27.8	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	67.5
	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	92.8
	Kototabang	14.4	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	8.99
	Bandung	30.7	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	61.0
	Maros									10.7	17.4	16.9	27.3	22.2	14.7	16.8	15.6	17.3
Japan	Rishiri	13.9	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	13.3
	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	6.40
	Tappi	13.5	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	21.5
	Sado-seki	19.5	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	18.7
	Happo	24.3	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	14.2
	Ijira	64.8	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	51.6
	Oki	22.4	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	24.9
	Banryu	21.7	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	32.8
	Yusuhara	19.7	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	19.1
	Hedo	16.7	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	13.5
	Ogasawara	4.73	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	4.47
	Tokyo								21.0	45.5	31.3	25.4	30.1	30.7	25.9	30.4	26.7	19.0
Lao PDR	Vientiane				***	***	***	4.92	9.65	9.95	1.76	***	***	7.34	***	***	3.79	2.94
Malaysia	Petaling Jaya	92.9	73.2	97.9	100	89.4	102	120	80.5	135	138	174	190	150	119	133	164	151
	Tanah Rata	10.4	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	14.1
	Danum Valley						3.14	4.24	2.02	4.11	5.61	3.36	3.99	2.83	6.32	2.10	3.81	2.65
	Kuching									21.3	21.2	22.8	23.1	14.5	18.6	19.4	16.0	23.5
Mongolia	Ulaanbaatar	3.91	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	5.87
	Terelj	3.65	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	5.20
Myanmar	Yangon								***	***	21.8	11.3	19.8	21.4	18.1	13.8	20.1	32.5
Philippines	Metro Manila	48.9	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	91.8
	Los Baños	14.3	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	67.7
	Mt.Sto.Tomas							0.804	18.5	19.9	18.6	15.5	11.8	34.9	37.2	18.5	21.3	25.5
Republic of Korea	Kanghwa	47.4	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	24.7
	Cheju	16.2	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	35.6
	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	19.0
Russia	Mondy	3.04	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	1.28
	Listvyanka	8.25	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	4.73
	Irkutsk	11.2	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	6.46
	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	20.6
Thailand	Bangkok	24.8	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	51.8
	Samutprakarn	15.1				12.3	29.1	20.0	31.0	30.2	39.7	28.9	20.6	11.9	5.65	12.9	14.4	33.2
	Pathumthani	17.8	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	28.1
	Khanchanaburi	5.06	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	5.22
	Mae Hia		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	9.59
	Sakaerat							13.5	15.7	19.8	16.0	23.7	15.0	12.6	15.0	10.5	17.8	14.6
Vietnam	Hanoi	20.2	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	47.3
	Hoa Binh	18.3	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	35.7
	Cuc Phuong										24.6	38.4	51.5	40.5	31.6	17.4	19.6	22.1
	Da Nang										33.7	11.9	57.5	8.06	12.5	11.7	0.941	7.58
	Can Tho															15.4	25.8	5.52
	Ho Chi Minh															34.2	25.5	18.9
	Yen Bai																27.0	73.2

Terms and abbreviations are given in Table 3.5.

Table 3.86 Annual Cl^- deposition amount from 2000 to 2016

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

Country	Name of sites	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
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	8.23
China	Guanyinqiao	25.9	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	10.6
	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	5.78
	Shizhan	27.4	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	5.96
	Weishuiyuan	41.0	19.3	66.0	129	18.3	16.0	16.1										
	Jiwozi	26.8	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	0.290
	Hongwen	48.6	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	55.3
	Xiaoping	32.4	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	19.7
	Xiang Zhou	101	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	55.3
	Zhuxiandong	70.2	71.2	94.1	70.5	75.1	55.9	25.9	***	105	81.2	40.2	21.5	***	***	***	116	78.9
Indonesia	Jakarta	33.9	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	61.6
	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	46.8
	Kototabang	15.8	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	72.3
	Bandung	93.7	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	26.0
	Maros									60.9	49.7	56.2	58.4	48.9	146	99.9	17.1	304
Japan	Rishiri	286	145	207	142	242	224	163	142	222	203	197	192	389	260	190	175	104
	Ochiishi				178	266	191	316	189	142	323	288	147	267	514	93.8	166	184
	Tappi	187	169	253	178	341	310	314	276	186	290	192	191	191	309	210	315	238
	Sado-seki	292	367	439	121	236	385	324	298	241	377	481	252	380	559	447	318	199
	Happo	23.4	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	15.7
	Ijira	61.8	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	48.0
	Oki	543	448	658	321	453	914	353	362	412	489	684	847	532	807	649	502	583
	Banryu	48.5	155	116	162	232	142	149	114	105	197	157	179	125	164	155	157	168
	Yusuhara	52.4	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	27.4
	Hedo	1500	373	1200	628	1750	869	404	394	270	278	751	410	1407	424	383	648	429
	Ogasawara	325	222	370	400	162	235	188	241	165	379	391	313	210	210	236	587	122
	Tokyo								44.4	44.0	48.0	32.1	63.8	58.5	44.5	41.8	36.4	27.6
Lao PDR	Vientiane				***	***	***	3.38	10.4	12.4	1.12	***	***	5.89	***	***	4.58	3.59
Malaysia	Petaling Jaya	29.1	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	35.3
	Tanah Rata	21.3	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	7.82
	Danum Valley						7.54	21.5	14.6	18.3	23.0	40.5	21.6	12.3	24.1	18.5	15.1	14.6
	Kuching									27.2	39.3	37.3	53.2	25.7	36.2	40.4	64.1	81.8
Mongolia	Ulaanbaatar	1.76	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	0.740
	Terelj	1.86	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	1.03
Myanmar	Yangon								***	***	75.3	30.0	49.6	68.3	72.9	56.0	83.6	68.2
Philippines	Metro Manila	103	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	79.0
	Los Baños	87.1	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	44.3
	Mt.Sto.Tomas							0.677	24.9	26.6	39.3	18.3	20.3	37.2	31.2	15.3	47.6	24.1
Republic of Korea	Kanghwa	61.4	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	41.9
	Cheju	222	125	85.3	88.4	88.9	73.1	116	130	114	66.1	114	158	545	219	148	159	498
	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	25.1
Russia	Mondy	0.785	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	0.369
	Listvyanka	2.22	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	0.975
	Irkutsk	6.19	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	4.76
	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	30.9
Thailand	Bangkok	14.4	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	18.1
	Samutprakarn	12.6				16.2	30.9	17.7	21.0	22.1	16.8	30.4	16.0	9.45	10.2	11.2	13.9	17.0
	Pathumthani	9.96	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	9.24
	Khanchanaburi	15.5	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	9.58
	Mae Hia		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	5.49
	Sakaerat							6.56	7.08	10.2	5.81	7.82	7.24	7.17	9.14	4.76	9.68	7.12
Vietnam	Hanoi	30.5	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	18.9
	Hoa Binh	38.4	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	11.4
	Cuc Phuong										100	40.2	28.7	41.0	47.9	19.8	31.1	33.1
	Da Nang										325	85.2	340	140	403	206	138	191
	Can Tho															50.4	90.8	60.3
	Ho Chi Minh															85.8	73.9	95.2
	Yen Bai																11.3	25.9

Terms and abbreviations are given in Table 3.5.

Table 3.87 Annual NH_4^+ deposition amount from 2000 to 2016

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

Country	Name of sites	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
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	24.9
China	Guanyinqiao	174	158	173	131	189	169	151	181									
	Haifu									149	112	137	117	118	145	164	116	125
	Jinyunshan		79.1	134	106	160	154	145	124	120	121	121	98.8	125	102	105	80.6	80.1
	Shizhan	235	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	49.0
	Weishuiyuan	190	24.5	74.1	188	70.5	28.2	75.4										
	Jiwozi	165	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	1.06
	Hongwen	47.9	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	65.9
	Xiaoping	31.0	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	45.5
	Xiang Zhou	41.7	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	69.4
	Zhuxiandong	90.7	77.8	76.5	52.5	75.9	27.8	24.3	***	42.9	40.5	42.1	28.4	***	***	***	38.9	99.8
Indonesia	Jakarta	122	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	74.1
	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	163
	Kototabang	2.66	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	10.7
	Bandung	29.3	98.8	75.9	52.6	32.9	62.6	61.0	94.3	104	130	83.7	93.0	112	111	113	114	157
	Maros									26.9	41.2	27.0	33.8	34.5	27.2	19.9	51.4	106
Japan	Rishiri	26.2	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	13.5
	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	5.70
	Tappi	10.1	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	18.8
	Sado-seki	18.1	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	16.0
	Happo	31.0	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	11.7
	Ijira	63.8	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	45.1
	Oki	23.5	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	21.9
	Banryu	18.2	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	27.4
	Yusuhara	14.2	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	16.6
	Hedo	21.0	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	14.7
	Ogasawara	4.62	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	5.59
	Tokyo								29.9	55.6	45.3	31.8	35.3	39.8	36.9	41.8	33.0	27.7
Lao PDR	Vientiane				***	***	***	5.47	15.3	14.0	3.13	***	***	***	***	***	7.17	5.04
Malaysia	Petaling Jaya	149	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	44.6
	Tanah Rata	129	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	8.31
	Danum Valley						2.55	6.15	3.95	29.3	11.7	11.6	7.19	1.90	2.48	2.60	8.53	0.827
	Kuching									19.7	23.1	9.03	23.3	23.4	11.8	34.3	24.3	13.9
Mongolia	Ulaanbaatar	10.2	8.28	13.0	14.1	3.86	8.18	10.1	11.0	8.26	10.6	8.35	7.50	***	9.58	***	***	6.50
	Terelj	9.20	2.70	16.2	9.86	7.37	8.87	11.7	7.19	10.5	4.54	4.53	5.66	***	0.487	***	***	6.41
Myanmar	Yangon								***	***	48.9	33.3	46.9	45.6	45.8	47.6	54.3	37.4
Philippines	Metro Manila	143	177	137	52.2	76.6	71.0	109	118	148	79.7	142	667	1218	145	162	215	283
	Los Baños	35.9	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	149
	Mt.Sto.Tomas							0.293	29.4	53.3	66.7	16.8	3.79	19.6	20.7	49.0	58.4	34.5
Republic of Korea	Kanghwa	42.0	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	48.6
	Cheju	21.3	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	45.2
	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	30.2
Russia	Mondy	3.47	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	1.10
	Listvyanka	7.29	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	4.56
	Irkutsk	17.2	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	10.7
	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	21.0
Thailand	Bangkok	47.4	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	104
	Samutprakarn	31.1				43.5	60.8	70.8	88.1	97.8	81.5	52.9	58.5	32.5	42.1	48.2	66.3	78.4
	Pathumthani	36.6	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	56.7
	Khanchanaburi	6.03	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	17.2
	Mae Hia		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	21.8
	Sakaerat							27.5	25.4	36.4	28.8	40.0	36.7	29.0	34.4	18.0	43.3	36.8
Vietnam	Hanoi	34.5	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	102
	Hoa Binh	15.2	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	81.8
	Cuc Phuong										14.3	16.4	35.5	48.3	48.5	34.9	43.8	38.9
	Da Nang										40.0	14.6	78.3	35.8	57.0	32.2	16.5	14.8
	Can Tho															33.7	46.9	38.0
	Ho Chi Minh															46.6	41.8	73.6
	Yen Bai																46.1	166

Terms and abbreviations are given in Table 3.5.

Table 3.88 Annual Na^+ deposition amount from 2000 to 2016

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

Country	Name of sites	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Cambodia	Phnom Penh					***	***	1.75	11.3	18.8	9.22	5.74	4.54	5.90	4.16	11.9	6.92	5.40
China	Guanyinqiao	12.8	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	7.85
	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	3.10
	Shizhan	24.7	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	22.2
	Weishuiyuan	30.8	15.1	48.0	147	10.9	9.01	21.1										
	Jiwozi	19.8	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	3.09
	Hongwen	36.1	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	48.2
	Xiaoping	13.6	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	12.1
	Xiang Zhou	85.4	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	52.8
	Zhuxiandong	55.5	70.7	71.4	63.2	120	64.7	20.0	***	94.1	71.5	37.0	51.5	***	***	***	107	80.4
Indonesia	Jakarta	82.6	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	41.5
	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	42.1
	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	45.7
	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	30.3
	Maros									47.5	43.0	35.3	54.1	48.8	77.7	80.5	9.10	233
Japan	Rishiri	250	130	188	125	217	195	142	126	204	185	173	171	343	234	168	153	90.6
	Ochiishi				155	233	171	277	161	125	287	252	126	239	446	81.5	147	158
	Tappi	156	145	219	162	292	270	278	247	162	266	177	171	166	275	187	264	206
	Sado-seki	275	345	384	106	208	332	283	264	219	333	437	213	319	517	397	283	175
	Happo	17.2	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	11.8
	Ijira	53.5	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	39.1
	Oki	479	394	570	296	416	791	315	319	360	422	594	737	462	705	574	437	505
	Banryu	45.2	140	104	142	197	119	130	100	91.6	171	139	155	111	140	132	133	150
	Yusuhara	42.6	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	21.9
	Hedo	1320	341	1050	599	1550	800	351	349	243	250	670	360	1186	366	335	552	365
	Ogasawara	277	189	314	351	146	199	163	209	144	315	386	262	179	178	201	486	105
	Tokyo								37.3	36.2	40.7	28.7	52.3	48.2	36.7	34.2	29.6	23.2
Lao PDR	Vientiane				***	***	***	5.04	3.32	4.86	1.66	***	***	***	***	***	2.56	1.33
Malaysia	Petaling Jaya	17.0	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	21.1
	Tanah Rata	5.94	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	6.44
	Danum Valley						5.59	16.9	12.4	9.65	19.8	32.7	20.9	8.49	16.5	15.4	10.9	9.87
	Kuching									23.1	34.3	31.0	42.1	19.8	31.0	33.8	56.9	71.7
Mongolia	Ulaanbaatar	1.55	1.51	1.12	1.14	0.483	1.08	1.58	0.660	0.556	1.11	0.535	0.924	***	12.1	***	***	27.6
	Terelj	1.34	1.41	4.15	1.40	1.31	2.83	2.68	1.74	1.13	0.843	1.44	0.873	***	1.54	***	***	21.9
Myanmar	Yangon								***	***	55.7	29.3	47.2	56.7	42.6	49.6	21.3	34.3
Philippines	Metro Manila	123	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	43.7
	Los Baños	91.7	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	39.3
	Mt.Sto.Tomas							1.21	19.2	25.9	39.1	22.7	19.9	58.9	29.4	23.0	53.2	65.7
Republic of Korea	Kanghwa	62.9	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	23.8
	Cheju	161	83.2	59.3	60.3	64.9	59.3	95.8	126	112	55.7	103	163	449	184	139	147	442
	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	28.4
Russia	Mondy	0.560	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	0.306
	Listvyanka	2.02	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	0.883
	Irkutsk	4.73	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	3.57
	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	23.3
Thailand	Bangkok	7.95	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	17.9
	Samutprakarn	9.91				20.8	32.2	20.8	22.8	26.8	19.9	35.0	12.0	7.51	28.2	12.5	13.5	16.1
	Pathumthani	10.4	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	6.85
	Khanchanaburi	8.55	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	11.0
	Mae Hia		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	5.21
	Sakaerat							5.30	6.17	7.24	3.44	5.22	6.10	4.18	4.27	3.78	6.36	4.36
Vietnam	Hanoi	22.8	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	18.9
	Hoa Binh	24.1	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	6.33
	Cuc Phuong										25.5	19.8	25.2	40.4	50.7	18.2	12.8	24.6
	Da Nang										281	69.9	255	106	333	182	151	179
	Can Tho															28.4	64.8	21.0
	Ho Chi Minh															47.9	49.1	34.4
	Yen Bai																8.18	16.3

Terms and abbreviations are given in Table 3.5.

Table 3.89 Annual K^+ deposition amount from 2000 to 2016

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

Country	Name of sites	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
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	2.70
China	Guanyinqiao	15.3	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	5.91
	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	4.10
	Shizhan	14.8	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	1.56
	Weishuiyuan	15.5	5.19	17.8	26.5	5.25	5.52	10.6										
	Jiwozi	14.8	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	1.69
	Hongwen	7.56	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	9.45
	Xiaoping	4.40	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	10.3
	Xiang Zhou	13.4	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	8.63
	Zhuxiandong	11.0	15.1	20.8	11.6	28.9	5.95	2.32	***	10.4	4.04	6.10	6.78	***	***	***	13.3	13.7
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	20.7
	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	14.2
	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	24.9
	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	7.79
	Maros									17.5	12.6	6.71	6.74	8.57	7.41	52.7	4427	29.7
Japan	Rishiri	7.66	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	2.69
	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	3.91
	Tappi	3.82	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	5.46
	Sado-seki	6.80	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	7.54
	Happo	1.76	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	1.12
	Ijira	7.91	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	1.57
	Oki	12.7	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	12.2
	Banryu	2.12	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	4.17
	Yusuhara	2.15	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	1.39
	Hedo	26.3	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	8.22
	Ogasawara	7.10	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	2.56
	Tokyo								1.51	2.12	1.90	1.64	1.79	1.45	1.14	1.13	1.05	0.868
Lao PDR	Vientiane				***	***	***	2.49	2.37	2.82	0.168	***	***	***	***	***	1.61	0.982
Malaysia	Petaling Jaya	6.06	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	6.27
	Tanah Rata	3.41	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	2.88
	Danum Valley						1.47	3.05	3.22	7.58	5.39	7.67	6.56	3.59	3.22	6.15	4.83	3.02
	Kuching									2.77	3.24	3.02	3.95	3.51	2.85	11.9	6.37	6.40
Mongolia	Ulaanbaatar	0.771	0.770	0.679	1.01	0.237	0.651	0.968	0.161	0.435	0.577	0.416	0.650	***	0.598	***	***	0.0990
	Terelj	0.935	0.337	2.50	1.28	0.970	1.59	1.93	0.703	1.33	0.455	0.703	0.719	***	0.725	***	***	0.754
Myanmar	Yangon								***	***	19.4	4.71	5.21	17.4	7.17	13.5	32.2	7.30
Philippines	Metro Manila	62.6	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	35.8
	Los Baños	4.58	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	24.3
	Mt.Sto.Tomas							0.569	7.73	3.57	9.24	5.09	3.78	5.07	3.30	4.57	9.93	3.93
Republic of Korea	Kanghwa	6.27	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	11.2
	Cheju	6.69	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	17.0
	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	2.84
Russia	Mondy	0.361	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	0.233
	Listvyanka	2.06	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	0.540
	Irkutsk	2.34	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	1.49
	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	17.6
Thailand	Bangkok	3.70	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	2.77
	Samutprakarn	5.17				6.15	7.99	6.12	5.38	10.6	5.51	31.9	2.33	1.45	5.83	2.30	2.79	3.10
	Pathumthani	2.16	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	2.24
	Khanchanaburi	7.82	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	1.60
	Mae Hia		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	2.35
	Sakaerat							0.791	1.91	2.13	1.65	1.53	1.81	1.42	1.17	1.12	2.10	1.73
Vietnam	Hanoi	5.14	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	6.03
	Hoa Binh	6.74	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	3.73
	Cuc Phuong										31.7	9.28	6.14	12.2	16.3	8.04	6.83	11.2
	Da Nang										18.6	5.76	50.9	19.3	41.5	30.5	22.6	9.24
	Can Tho															13.7	15.8	10.1
	Ho Chi Minh															20.3	17.1	16.9
	Yen Bai																6.09	9.03

Terms and abbreviations are given in Table 3.5.

Table 3.90 Annual Ca^{2+} deposition amount from 2000 to 2016

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

Country	Name of sites	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Cambodia	Phnom Penh					0	***	8.64	26.4	59.9	27.1	15.4	11.9	17.4	12.9	14.8	12.8	18.2
China	Guanyinqiao	68.1	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	85.4
	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	46.3
	Shizhan	128	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	14.5
	Weishuiyuan	136	80.0	143	313	88.3	39.9	104										
	Jiwozi	103	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	13.6
	Hongwen	10.2	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	23.3
	Xiaoping	1.21	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	11.8
	Xiang Zhou	43.1	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	25.4
	Zhuxiandong	44.4	36.8	32.7	35.5	31.5	18.1	15.2	***	31.4	11.7	30.3	21.8	***	***	***	40.2	40.9
Indonesia	Jakarta	138	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	49.8
	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	40.7
	Kototabang	9.28	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	8.28
	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	41.0
	Maros									25.5	26.3	25.5	23.6	39.4	41.9	77.0	41.5	27.2
Japan	Rishiri	10.6	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	4.68
	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	4.86
	Tappi	6.68	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	9.10
	Sado-seki	12.5	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	11.4
	Happo	8.49	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	1.84
	Ijira	18.2	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	5.92
	Oki	19.4	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	16.2
	Banryu	6.64	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	9.45
	Yusuhara	7.55	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	3.13
	Hedo	29.3	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	9.79
	Ogasawara	10.1	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	3.00
	Tokyo								5.38	7.61	5.91	6.59	6.72	6.88	7.00	6.88	5.84	3.99
Lao PDR	Vientiane				***	***	***	6.20	4.25	9.62	0.996	***	***	***	***	***	3.68	1.86
Malaysia	Petaling Jaya	23.4	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	22.2
	Tanah Rata	7.06	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	5.15
	Danum Valley						1.70	3.79	1.53	1.06	3.43	9.05	3.36	2.37	4.59	4.02	4.62	2.95
	Kuching									8.19	8.35	12.1	14.6	13.0	17.2	22.4	19.2	18.9
Mongolia	Ulaanbaatar	7.41	7.86	8.91	7.88	3.60	7.49	8.63	5.19	6.66	9.63	5.23	5.54	***	14.7	***	***	4.65
	Terelj	3.16	1.33	6.72	3.32	3.36	3.33	5.32	2.52	3.68	3.97	5.48	2.93	***	6.28	***	***	1.78
Myanmar	Yangon								***	***	29.1	14.5	21.7	20.0	2.87	40.6	216	12.1
Philippines	Metro Manila	58.6	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	51.6
	Los Baños	18.3	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	20.7
	Mt.Sto.Tomas							2.43	79.0	15.7	27.8	81.8	36.1	80.4	37.7	29.3	41.8	59.5
Republic of Korea	Kanghwa	29.6	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	3.22
	Cheju	14.6	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	18.1
	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	2.26
Russia	Mondy	1.76	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	1.20
	Listvyanka	5.66	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	2.51
	Irkutsk	14.9	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	8.18
	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	12.1
Thailand	Bangkok	13.0	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	26.0
	Samutprakarn	10.8				9.88	15.7	21.0	20.5	24.0	26.2	14.6	12.5	7.99	22.2	14.5	8.98	16.8
	Pathumthani	12.6	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	14.7
	Khanchanaburi	4.19	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	5.48
	Mae Hia		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	7.99
	Sakaerat							11.4	5.20	5.78	3.19	3.60	2.83	4.21	2.83	3.73	9.46	8.93
Vietnam	Hanoi	26.2	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	37.8
	Hoa Binh	24.8	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	18.9
	Cuc Phuong										56.2	63.3	59.8	61.8	46.2	39.2	28.3	52.4
	Da Nang										18.8	15.0	36.4	28.4	49.7	60.6	65.0	105
	Can Tho															23.5	59.1	19.8
	Ho Chi Minh															49.7	62.8	30.8
	Yen Bai																24.1	36.9

Terms and abbreviations are given in Table 3.5.

Table 3.91 Annual nss-Ca^{2+} deposition amount from 2000 to 2016

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

Country	Name of sites	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Cambodia	Phnom Penh					***	***	8.61	26.2	59.5	26.9	15.3	11.8	17.3	12.8	14.5	12.6	18.1
China	Guanyinqiao	67.9	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	85.2
	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	46.2
	Shizhan	128	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	14.1
	Weishuiyuan	136	79.7	142	310	88.1	39.8	104										
	Jiwozi	102	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	13.5
	Hongwen	9.59	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	22.2
	Xiaoping	0.938	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	11.6
	Xiang Zhou	41.3	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	24.4
	Zhuxiandong	43.2	35.3	31.1	34.1	28.9	16.7	14.8	***	29.3	10.2	29.5	20.7	***	***	***	37.9	39.1
Indonesia	Jakarta	136	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	48.9
	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	39.8
	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	7.64
	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	40.4
	Maros									24.4	25.3	24.8	22.4	38.4	40.3	75.2	41.4	22.8
Japan	Rishiri	5.14	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	2.72
	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	1.45
	Tappi	3.36	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	4.65
	Sado-seki	6.60	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	7.66
	Happo	8.12	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	1.58
	Ijira	17.0	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	5.08
	Oki	9.07	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	5.39
	Banryu	5.74	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	6.31
	Yusuhara	6.80	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	2.66
	Hedo	2.35	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	2.05
	Ogasawara	4.24	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	0.736
	Tokyo								4.58	6.83	5.03	5.97	5.59	5.84	6.21	6.14	5.20	3.49
Lao PDR	Vientiane				***	***	***	6.09	4.18	9.51	0.960	***	***	***	***	***	3.63	1.84
Malaysia	Petaling Jaya	23.0	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	21.8
	Tanah Rata	6.93	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	5.01
	Danum Valley						1.58	3.49	1.36	0.944	3.12	8.51	3.01	2.22	4.30	3.76	4.40	2.75
	Kuching									7.77	7.76	11.4	13.7	12.6	16.6	21.7	18.0	17.4
Mongolia	Ulaanbaatar	7.38	7.83	8.88	7.85	3.59	7.46	8.59	5.17	6.64	9.60	5.22	5.53	***	14.4	***	***	4.05
	Terelj	3.13	1.30	6.46	3.29	3.33	3.27	5.26	2.48	3.66	3.95	5.45	2.91	***	6.25	***	***	1.46
Myanmar	Yangon								***	***	27.9	13.9	20.7	18.8	2.13	39.6	215	11.4
Philippines	Metro Manila	56.0	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	50.8
	Los Baños	16.3	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	19.9
	Mt.Sto.Tomas							2.40	78.7	15.1	26.9	81.4	35.7	79.1	37.0	28.8	40.7	58.0
Republic of Korea	Kanghwa	28.2	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	2.71
	Cheju	11.1	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	8.65
	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	1.68
Russia	Mondy	1.75	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	1.20
	Listvyanka	5.61	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	2.49
	Irkutsk	14.8	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	8.10
	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	11.6
Thailand	Bangkok	12.9	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	25.6
	Samutprakarn	10.6				9.43	15.0	20.6	20.0	23.4	25.8	13.9	12.3	7.83	21.6	14.2	8.69	16.5
	Pathumthani	12.3	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	14.5
	Khanchanaburi	4.02	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	5.24
	Mae Hia		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	7.87
	Sakaerat							11.2	5.07	5.62	3.12	3.50	2.73	4.13	2.75	3.66	9.32	8.83
Vietnam	Hanoi	25.7	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	37.4
	Hoa Binh	24.2	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	18.7
	Cuc Phuong										55.7	62.9	59.2	60.9	45.2	38.8	28.0	51.9
	Da Nang										12.8	13.5	30.9	26.1	42.5	56.7	61.8	101
	Can Tho															22.9	57.7	19.4
	Ho Chi Minh															48.7	61.8	30.1
	Yen Bai																23.9	36.5

Terms and abbreviations are given in Table 3.5.

Table 3.92 Annual Mg^{2+} deposition amount from 2000 to 2016

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

Country	Name of sites	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
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	1.84
China	Guanyinqiao	9.23	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	7.22
	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	4.73
	Shizhan	13.2	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	0.819
	Weishuiyuan	14.2	6.13	21.1	52.0	8.99	4.77	13.3										
	Jiwozi	12.1	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	4.66
	Hongwen	6.40	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	8.65
	Xiaoping	2.07	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	3.96
	Xiang Zhou	14.1	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	9.42
	Zhuxiandong	14.1	8.56	11.2	12.9	10.8	9.65	4.43	***	13.2	9.71	5.30	7.74	***	***	***	14.0	12.2
Indonesia	Jakarta	346	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	8.90
	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	8.96
	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	2.57
	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	9.45
	Maros									7.77	6.02	5.79	9.07	17.2	11.3	37.7	74.5	5.76
Japan	Rishiri	28.0	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	10.3
	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	18.0
	Tappi	18.3	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	23.8
	Sado-seki	30.9	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	20.8
	Happo	3.66	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	2.11
	Ijira	7.75	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	4.94
	Oki	54.4	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	58.5
	Banryu	5.22	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	17.3
	Yusuhara	6.09	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	3.33
	Hedo	145	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	42.5
	Ogasawara	38.2	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	12.1
	Tokyo								4.56	5.17	5.13	3.98	6.65	6.18	4.89	4.58	4.02	2.97
Lao PDR	Vientiane				***	***	***	2.47	0.977	2.18	0.131	***	***	***	***	***	0.564	0.474
Malaysia	Petaling Jaya	4.74	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	2.81
	Tanah Rata	1.30	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	0.647
	Danum Valley						0.406	1.45	1.20	1.58	1.86	3.51	2.05	0.830	1.38	1.57	1.89	0.956
	Kuching									1.24	1.84	2.12	3.45	1.04	2.42	4.10	5.35	5.37
Mongolia	Ulaanbaatar	0.814	0.897	0.636	1.10	0.488	0.783	0.825	0.597	0.568	1.21	0.455	1.51	***	0.576	***	***	0.968
	Terelj	0.656	0.224	1.01	0.706	1.07	0.901	1.04	0.384	0.619	0.604	0.718	1.06	***	0.451	***	***	0.233
Myanmar	Yangon								***	***	8.54	4.11	9.52	16.9	33.1	9.79	14.3	9.98
Philippines	Metro Manila	25.5	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	13.3
	Los Baños	9.78	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	7.28
	Mt.Sto.Tomas							0.418	7.03	1.76	7.23	12.1	7.41	16.6	7.41	4.92	21.0	12.3
Republic of Korea	Kanghwa	10.4	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	0.994
	Cheju	19.7	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	42.2
	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	1.30
Russia	Mondy	0.333	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	0.192
	Listvyanka	1.30	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	0.604
	Irkutsk	2.66	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	1.91
	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	5.09
Thailand	Bangkok	2.30	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	4.04
	Samutprakarn	2.33				2.36	5.57	6.57	5.03	6.91	5.57	4.14	2.52	1.46	4.97	3.09	2.26	3.24
	Pathumthani	2.30	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	2.25
	Khanchanaburi	1.47	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	1.84
	Mae Hia		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	1.15
	Sakaerat							2.36	2.47	2.11	1.60	1.14	0.410	0.477	0.289	0.557	3.01	4.60
Vietnam	Hanoi	6.27	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	7.28
	Hoa Binh	8.84	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	3.63
	Cuc Phuong										9.89	7.30	8.86	14.3	23.1	8.30	7.94	16.1
	Da Nang										30.1	14.4	34.3	15.4	43.4	23.9	16.6	24.6
	Can Tho															8.19	20.2	11.4
	Ho Chi Minh															16.7	25.4	17.6
	Yen Bai																4.06	5.88

Terms and abbreviations are given in Table 3.5.

Table 3.93 Annual H^+ deposition amount from 2000 to 2016

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

Country	Name of sites	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
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	0.496
China	Guanyinqiao	50.5	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	0.832
	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	12.9
	Shizhan	1.17	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	0.0852
	Weishuiyuan	0.171	0.0335	0.216	1.02	0.489	3.09	0.460										
	Jiwozi	3.14	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	0.0875
	Hongwen	29.0	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	21.5
	Xiaoping	19.1	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	34.2
	Xiang Zhou	14.2	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	15.9
	Zhuxiandong	40.8	43.0	20.3	13.8	29.6	25.9	13.3	***	30.2	28.0	21.0	19.1	***	***	***	5.25	16.2
Indonesia	Jakarta	10.4	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	22.3
	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	19.2
	Kototabang	73.0	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	10.9
	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	22.4
	Maros									7.15	15.0	16.4	16.1	5.90	13.7	16.2	14.3	11.4
Japan	Rishiri	12.1	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	16.4
	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	7.28
	Tappi	19.9	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	18.5
	Sado-seki	28.7	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	13.9
	Happo	40.6	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	20.0
	Ijira	80.7	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	55.2
	Oki	27.6	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	20.3
	Banryu	35.9	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	28.2
	Yusuhara	54.7	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	38.9
	Hedo	21.5	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	12.2
	Ogasawara	11.7	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	9.21
	Tokyo								17.6	46.2	30.6	18.6	20.7	23.5	14.2	26.7	26.8	18.4
Lao PDR	Vientiane				0.0277	0.999	0.320	0.231	3.02	1.65	0.600	***	***	0.463	***	0.366	1.06	0.190
Malaysia	Petaling Jaya	153	173	157	158	142	123	151	83.2	140	134	191	250	210	136	142	153	189
	Tanah Rata	50.4	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	33.3
	Danum Valley						13.1	26.8	24.0	18.1	20.4	14.2	23.5	19.5	17.1	13.9	12.4	16.6
	Kuching									23.8	25.5	24.4	17.3	18.4	21.2	16.8	21.6	40.4
Mongolia	Ulaanbaatar	0.108	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	1.52
	Terelj	0.626	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	0.689
Myanmar	Yangon								10.6	2.50	1.04	0.875	1.09	0.831	0.948	0.571	0.526	0.387
Philippines	Metro Manila	13.2	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	7.68
	Los Baños	9.58	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	33.9
	Mt.Sto.Tomas							0.204	10.0	16.3	6.96	0.726	20.6	6.41	22.7	2.64	6.72	1.52
Republic of Korea	Kanghwa	11.2	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	13.7
	Cheju	15.0	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	8.90
	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	2.64
Russia	Mondy	1.68	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	0.957
	Listvyanka	3.78	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	3.94
	Irkutsk	4.15	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	5.68
	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	3.68
Thailand	Bangkok	12.8	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	4.75
	Samutprakarn	14.5				4.29	5.55	1.93	4.60	8.81	14.7	9.06	2.66	0.647	1.18	0.307	3.66	6.46
	Pathumthani	5.41	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	4.29
	Khanchanaburi	2.41	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	1.10
	Mae Hia		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	1.85
	Sakaerat							9.06	11.5	16.0	17.1	29.0	15.0	9.66	8.23	6.42	12.8	5.92
Vietnam	Hanoi	4.48	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	4.19
	Hoa Binh	14.7	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	3.32
	Cuc Phuong										23.4	9.73	16.8	7.42	7.16	5.10	6.99	3.03
	Da Nang										49.9	13.0	38.0	6.16	6.07	6.69	1.98	2.99
	Can Tho															1.01	3.71	2.39
	Ho Chi Minh															2.72	1.10	4.46
	Yen Bai																8.93	12.0

Terms and abbreviations are given in Table 3.5.

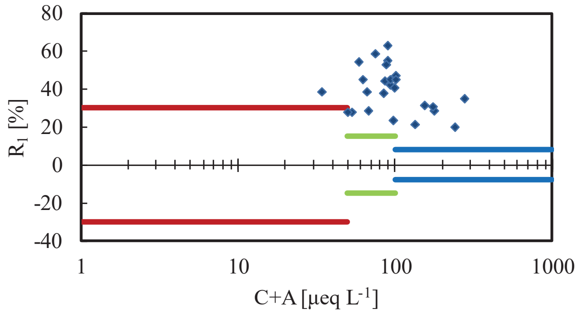


Fig. 3.2 a) Phnom Penh Ion Balance (R_1)

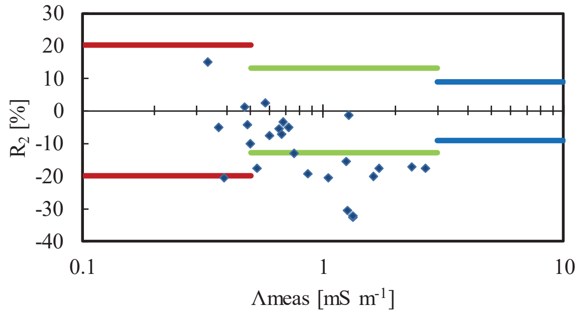


Fig. 3.2 b) Phnom Penh Conductivity Agreement (R_2)

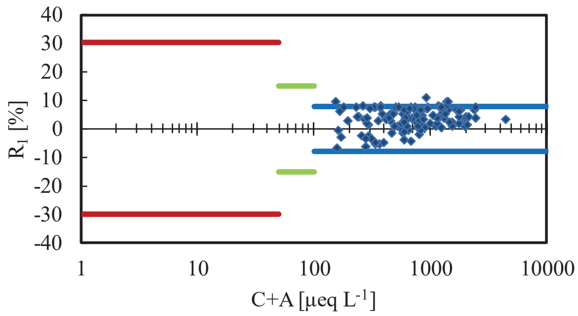


Fig. 3.3 a) Haifu Ion Balance (R_1)

Calculated including F^- and HCO_3^-

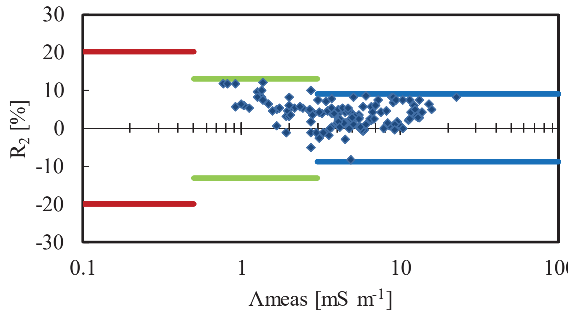


Fig. 3.3 b) Haifu Conductivity Agreement (R_2)

Calculated including F^- and HCO_3^-

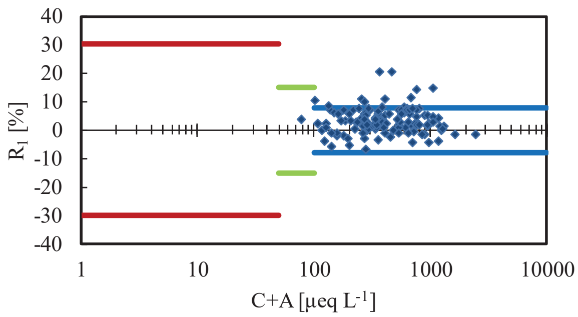


Fig. 3.4 a) Jinyunshan Ion Balance (R_1)

Calculated including F^- and HCO_3^-

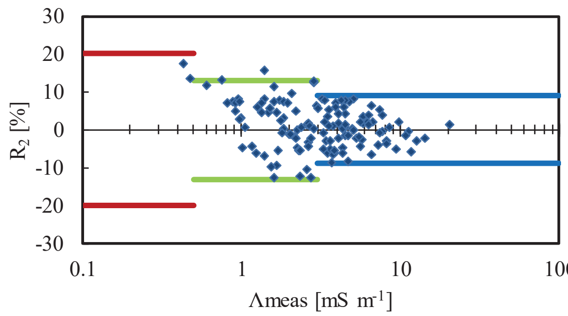


Fig. 3.4 b) Jinyunshan Conductivity Agreement (R_2)

Calculated including F^- and HCO_3^-

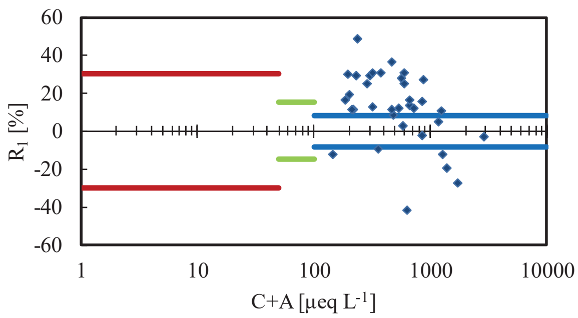


Fig. 3.5 a) Shizhan Ion Balance (R_1)

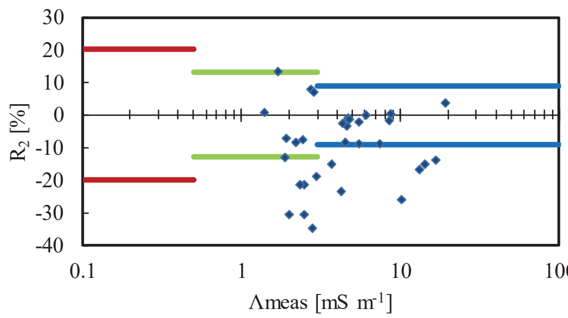


Fig. 3.5 b) Shizhan Conductivity Agreement (R_2)

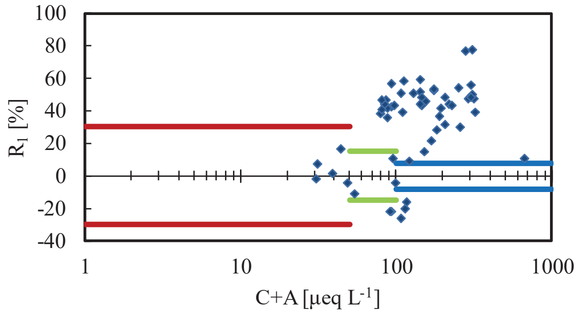


Fig. 3.6 a) Jiwozi Ion Balance (R_1)

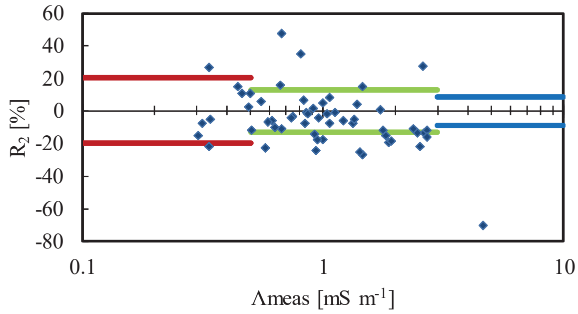


Fig. 3.6 b) Jiwozi Conductivity Agreement (R_2)

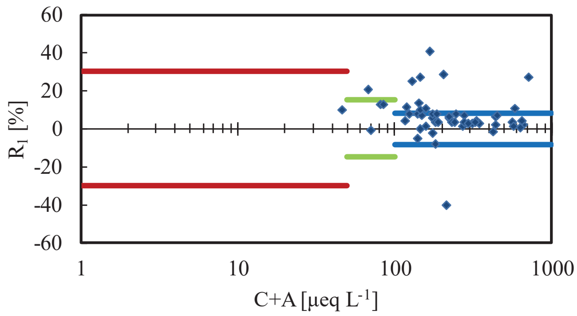


Fig. 3.7 a) Hongwen Ion Balance (R_1)

Calculated including F^-

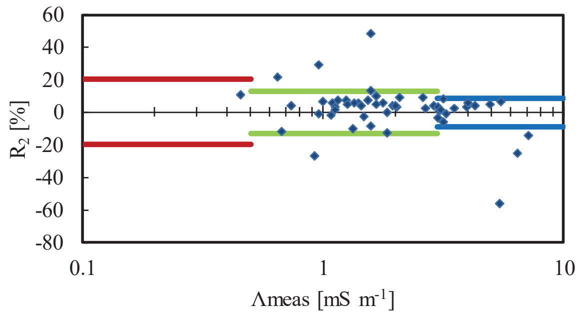


Fig. 3.7 b) Hongwen Conductivity Agreement (R_2)

Calculated including F^-

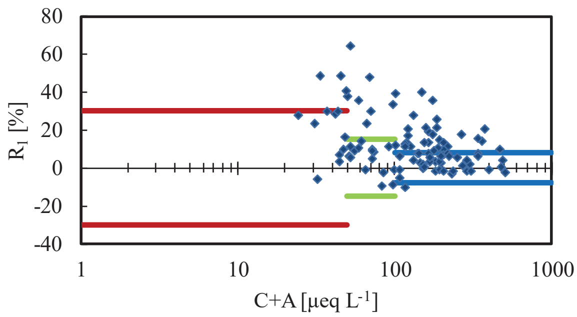


Fig. 3.8 a) Xiaoping Ion Balance (R_1)

Calculated including F^-

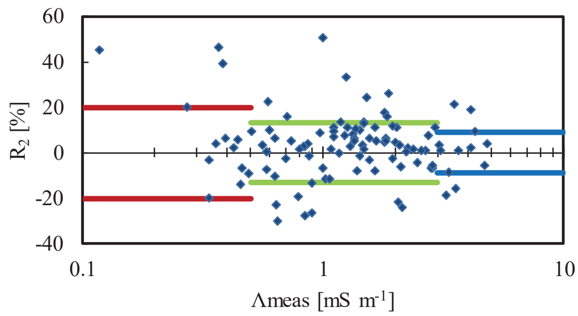


Fig. 3.8 b) Xiaoping Conductivity Agreement (R_2)

Calculated including F^-

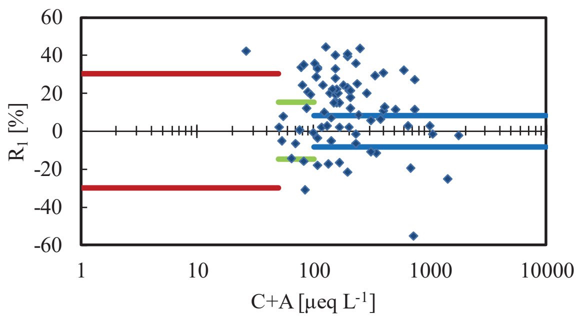


Fig. 3.9 a) Xiang Zhou Ion Balance (R_1)

Calculated including F^-

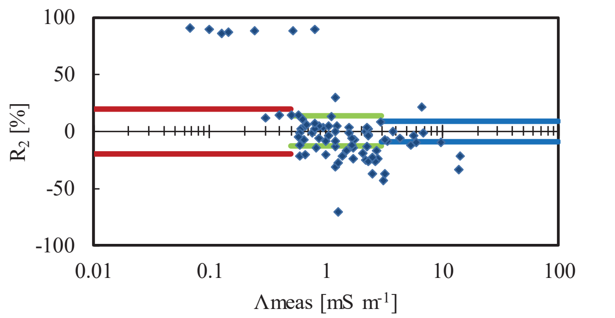
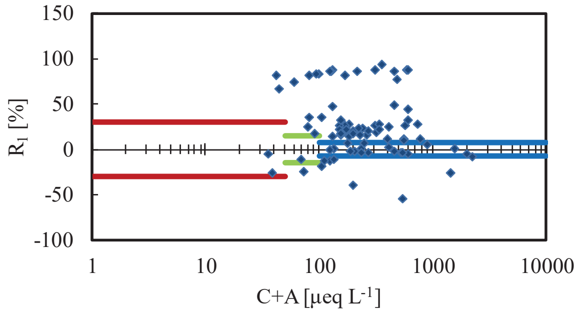


Fig. 3.9 b) Xiang Zhou Conductivity Agreement (R_2)

Calculated including F^-



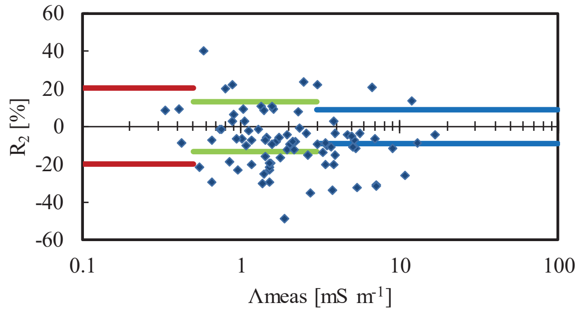


Fig. 3.10 a) Zhuxiandong Ion Balance (R_1)

Calculated including F^-

Fig. 3.10 b) Zhuxiandong Conductivity Agreement (R_2)

Calculated including F^-

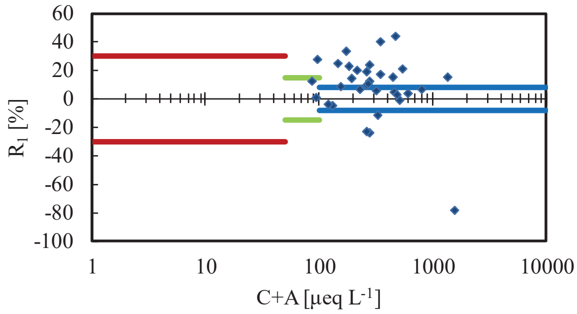


Fig. 3.11 a) Jakarta Ion Balance (R_1)

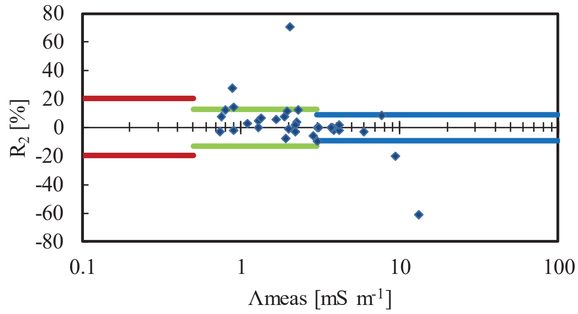


Fig. 3.11 b) Jakarta Conductivity Agreement (R_2)

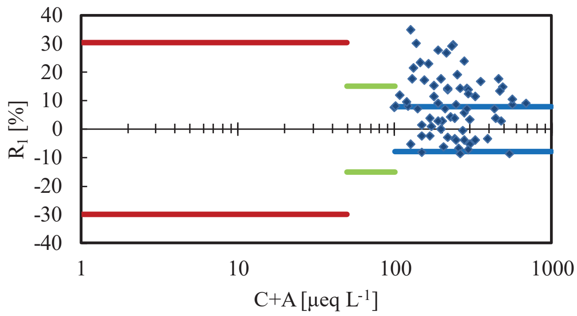


Fig. 3.12 a) Serpong Ion Balance (R_1)

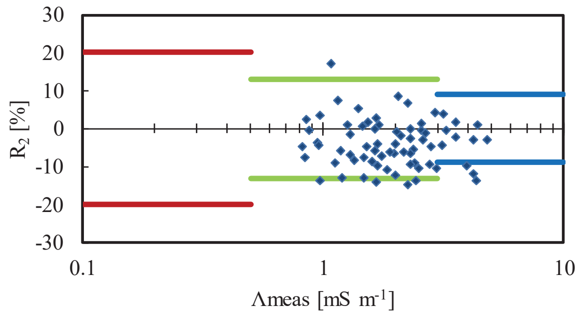


Fig. 3.12 b) Serpong Conductivity Agreement (R_2)

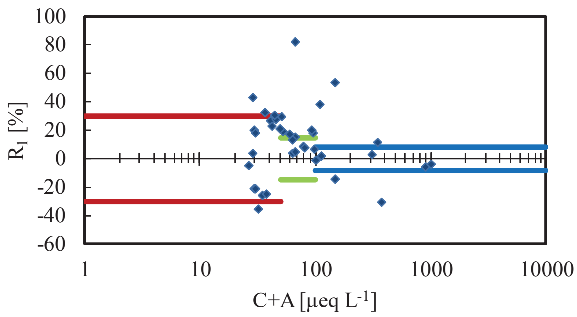


Fig. 3.13 a) Kototabang Ion Balance (R_1)

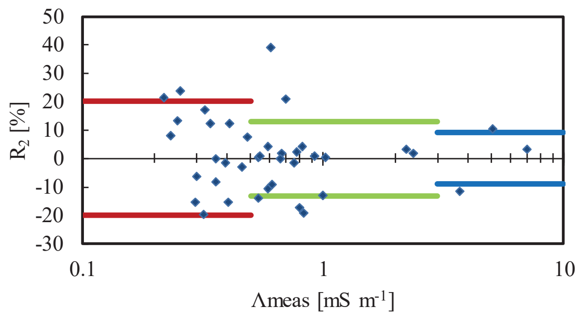


Fig. 3.13 b) Kototabang Conductivity Agreement (R_2)

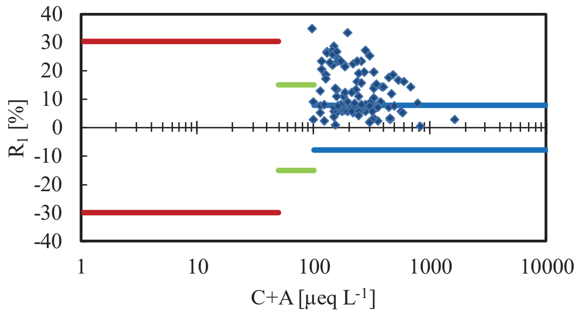


Fig. 3.14 a) Bandung Ion Balance (R_1)

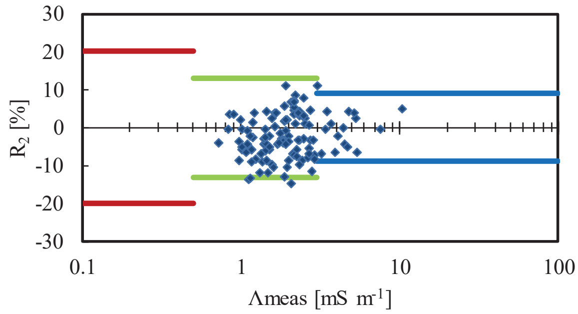


Fig. 3.14 b) Bandung Conductivity Agreement (R_2)

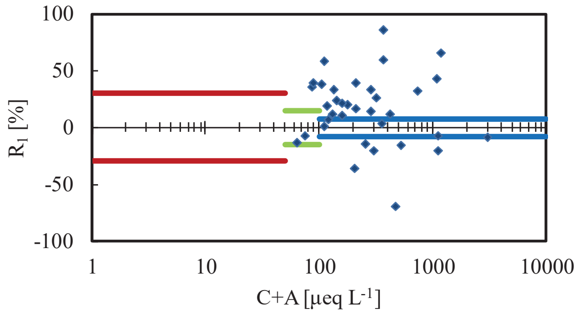


Fig. 3.15 a) Maros Ion Balance (R_1)

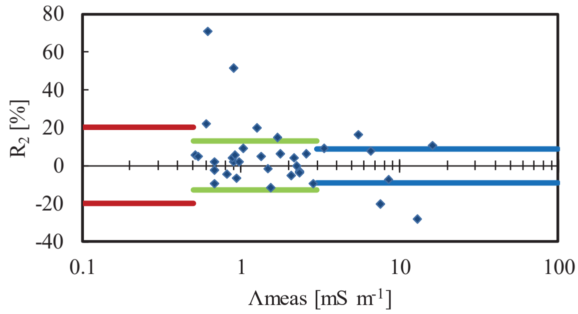


Fig. 3.15 b) Maros Conductivity Agreement (R_2)

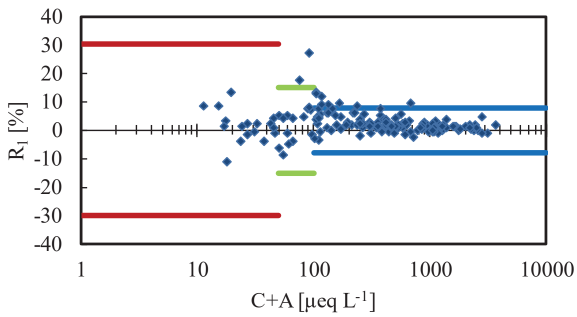


Fig. 3.16 a) Rishiri Ion Balance (R_1)

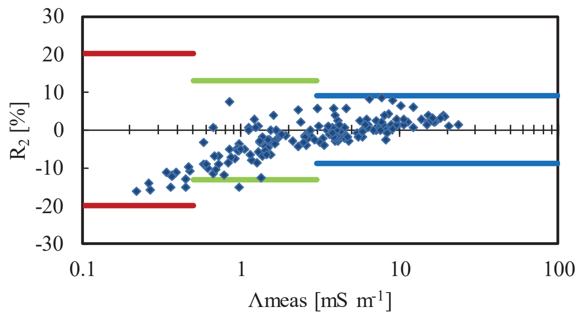


Fig. 3.16 b) Rishiri Conductivity Agreement (R_2)

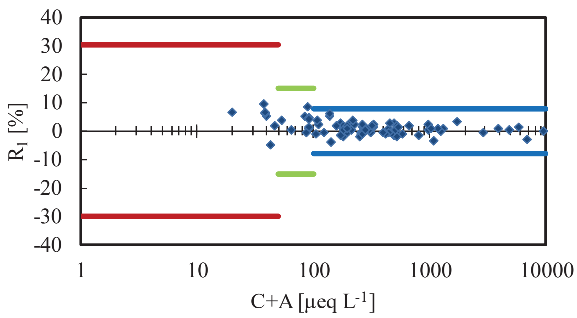


Fig. 3.17 a) Ochiishi Ion Balance (R_1)

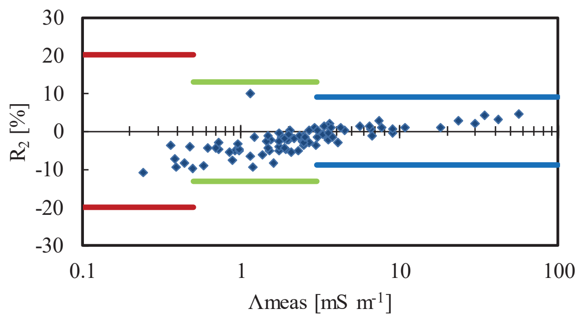


Fig. 3.17 b) Ochiishi Conductivity Agreement (R_2)

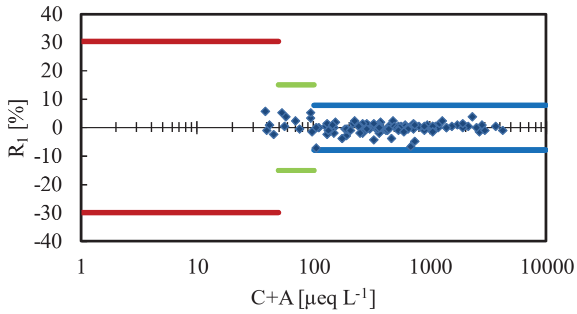


Fig. 3.18 a) Tappi Ion Balance (R_1)

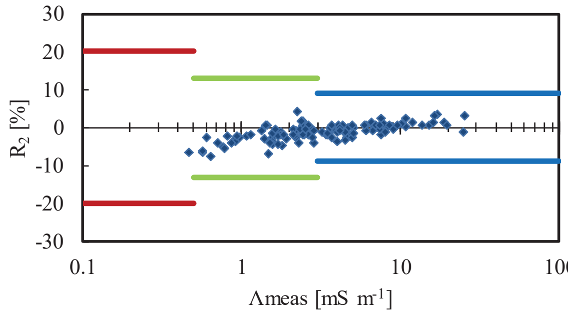


Fig. 3.18 b) Tappi Conductivity Agreement (R_2)

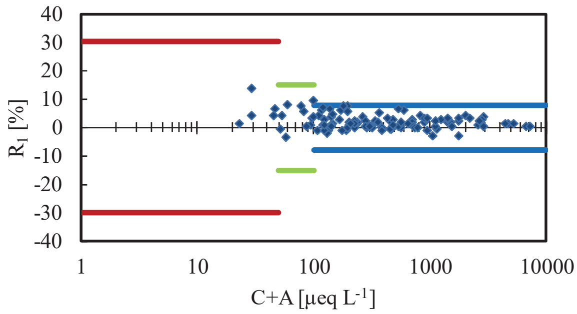


Fig. 3.19 a) Sado-seki Ion Balance (R_1)

Calculated including HCO_3^-

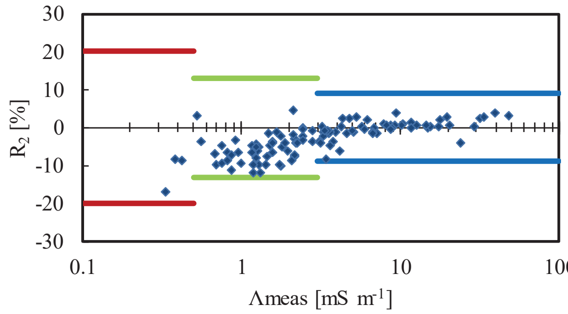


Fig. 3.19 b) Sado-seki Conductivity Agreement (R_2)

Calculated including HCO_3^-

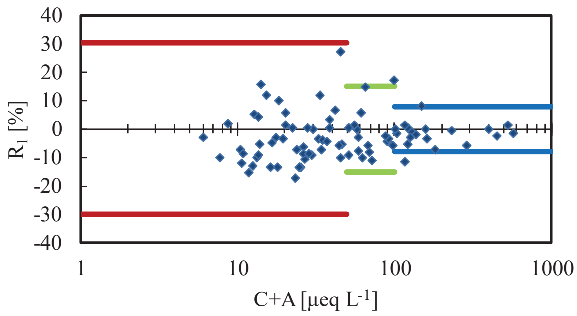


Fig. 3.20 a) Happo Ion Balance (R_1)

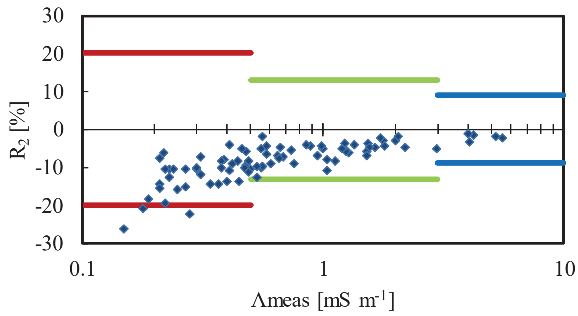


Fig. 3.20 b) Happo Conductivity Agreement (R_2)

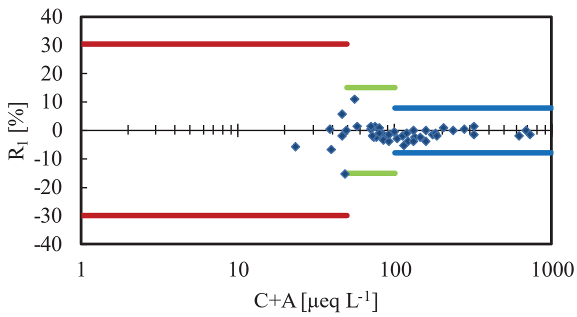


Fig. 3.21 a) Ijira Ion Balance (R_1)

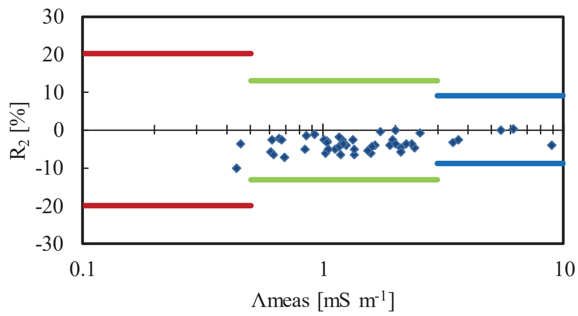


Fig. 3.21 b) Ijira Conductivity Agreement (R_2)

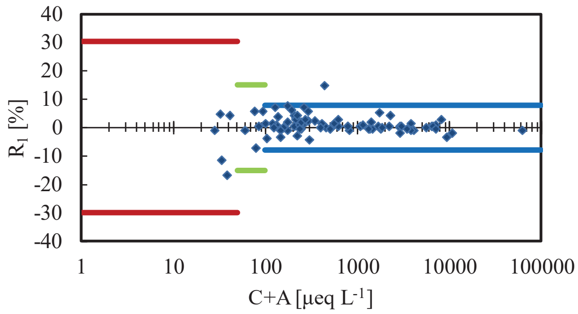


Fig. 3.22 a) Oki Ion Balance (R_1)

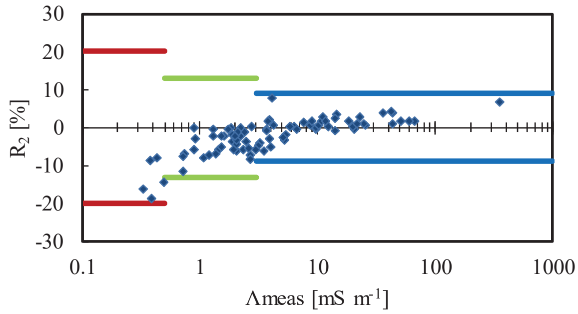


Fig. 3.22 b) Oki Conductivity Agreement (R_2)

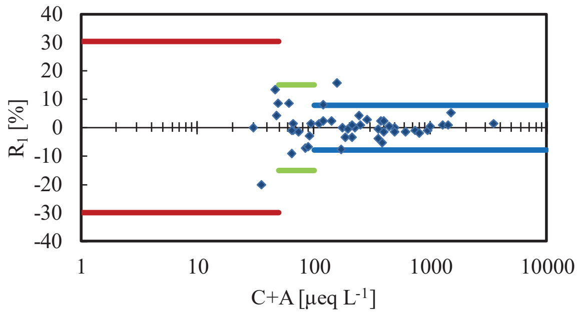


Fig. 3.23 a) Banryu Ion Balance (R_1)

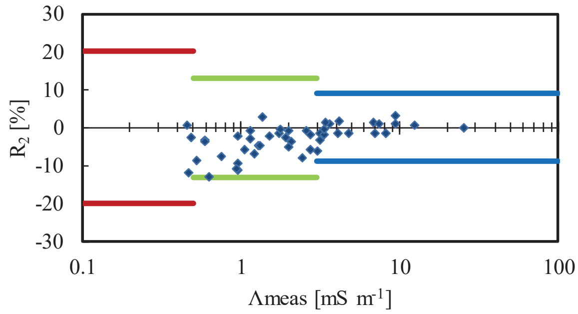


Fig. 3.23 b) Banryu Conductivity Agreement (R_2)

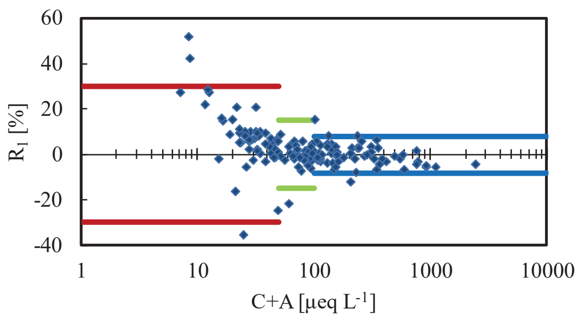


Fig. 3.24 a) Yusuhara Ion Balance (R_1)

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

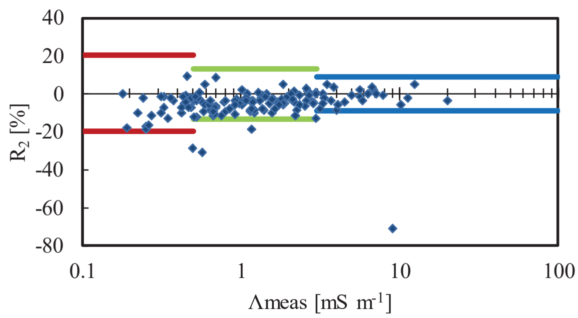


Fig. 3.24 b) Yusuhara Conductivity Agreement (R_2)

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

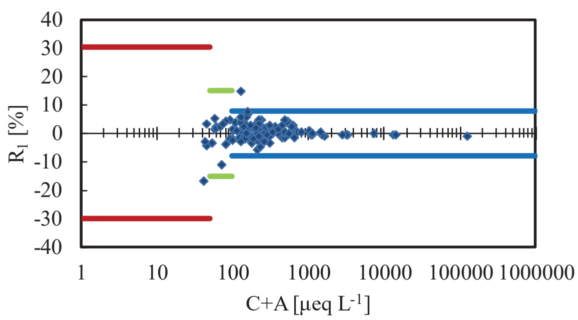


Fig. 3.25 a) Hedo Ion Balance (R_1)

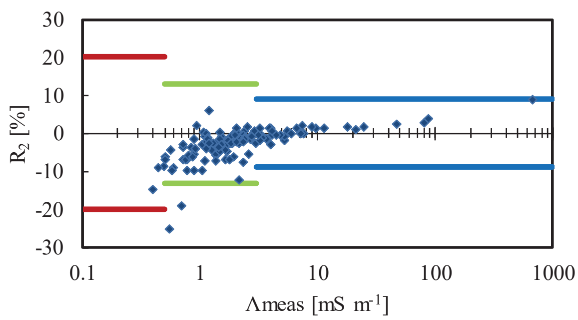


Fig. 3.25 b) Hedo Conductivity Agreement (R_2)

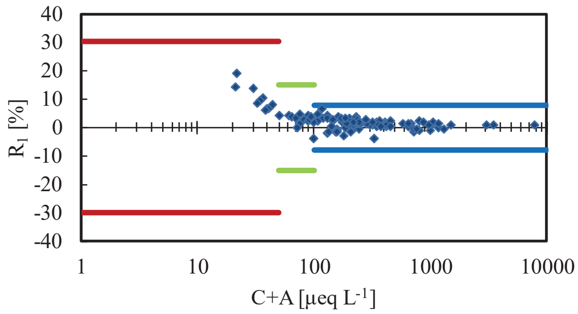


Fig. 3.26 a) Ogasawara Ion Balance (R_1)

Calculated including F^- and NO_2^-

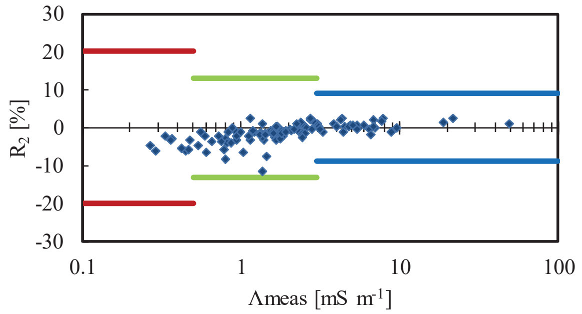


Fig. 3.26 b) Ogasawara Conductivity Agreement (R_2)

Calculated including F^- and NO_2^-

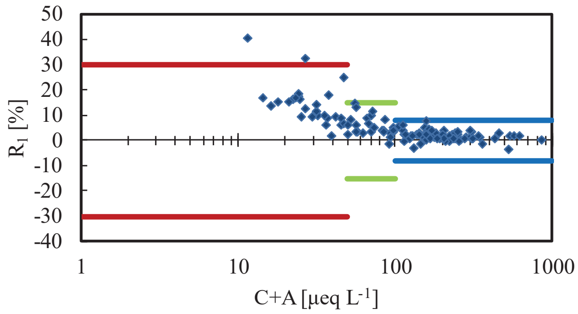


Fig. 3.27 a) Tokyo Ion Balance (R_1)

Calculated including F^- and NO_2^-

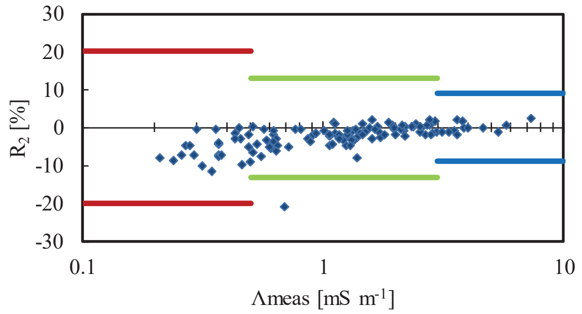


Fig. 3.27 b) Tokyo Conductivity Agreement (R_2)

Calculated including F^- and NO_2^-

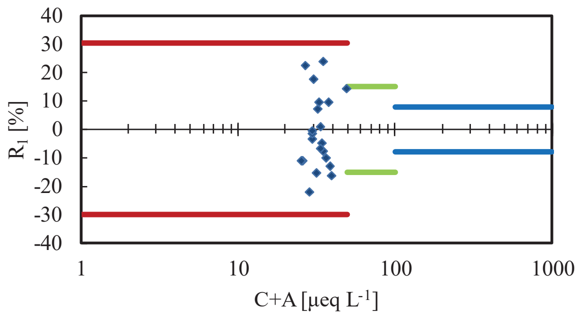


Fig. 3.28 a) Vientiane Ion Balance (R_1)

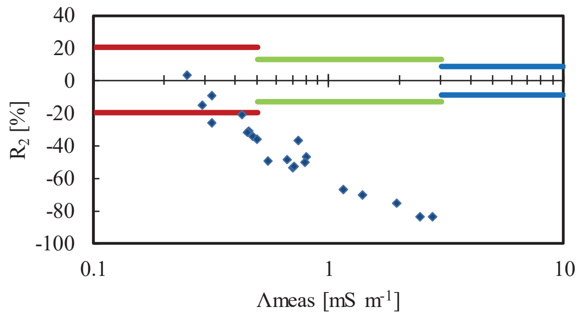


Fig. 3.28 b) Vientiane Conductivity Agreement (R_2)

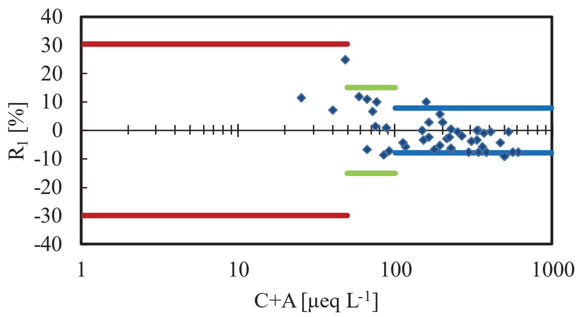


Fig. 3.29 a) Petaling Jaya Ion Balance (R_1)

Calculated including Formic, Acetic and Oxialic acid

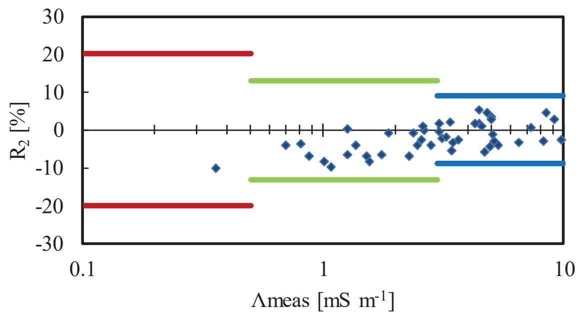


Fig. 3.29 b) Petaling Jaya Conductivity Agreement (R_2)

Calculated including Formic, Acetic and Oxialic acid

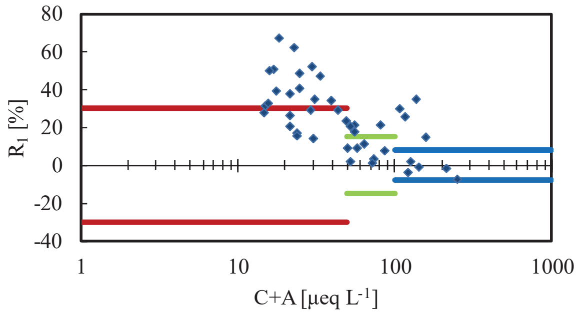


Fig. 3.30 a) Tanah Rata Ion Balance (R_1)
Calculated including Formic, Acetic and Oxialic acid

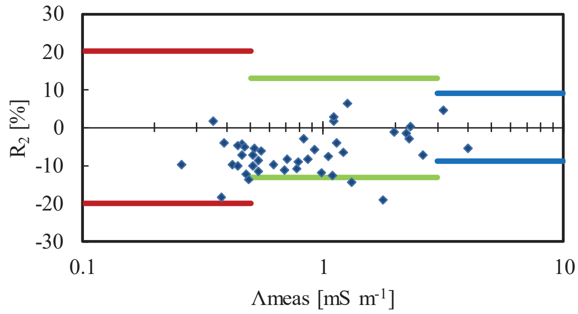


Fig. 3.30 b) Tanah Rata Conductivity Agreement (R_2)
Calculated including Formic, Acetic and Oxialic acid

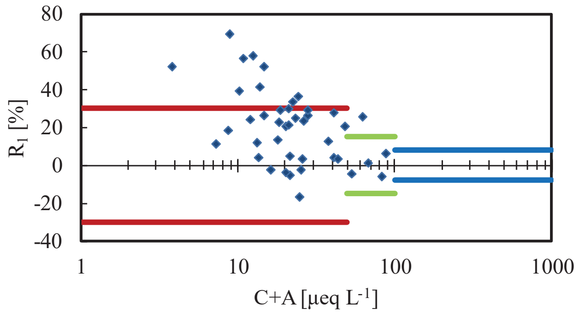


Fig. 3.31 a) Danum Valley Ion Balance (R_1)
Calculated including Formic, Acetic and Oxialic acid

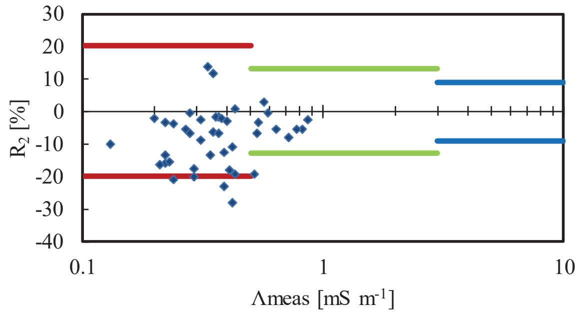


Fig. 3.31 b) Danum Valley Conductivity Agreement (R_2)
Calculated including Formic, Acetic and Oxialic acid

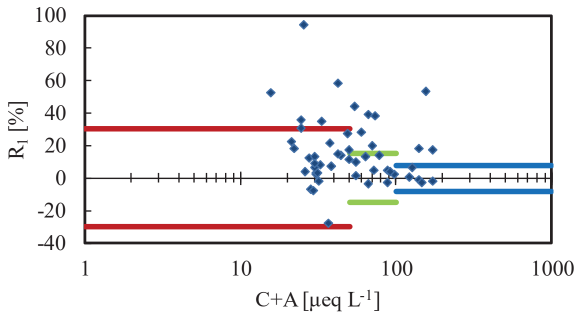


Fig. 3.32 a) Kuching Ion Balance (R_1)
Calculated including Formic, Acetic and Oxialic acid

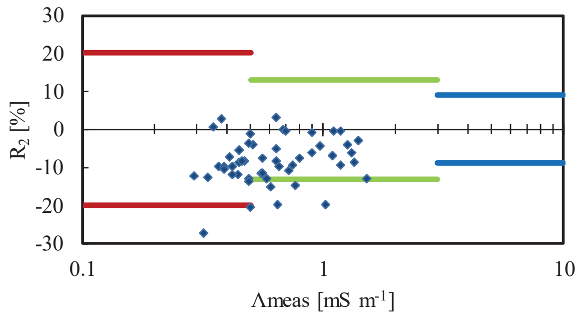


Fig. 3.32 b) Kuching Conductivity Agreement (R_2)
Calculated including Formic, Acetic and Oxialic acid

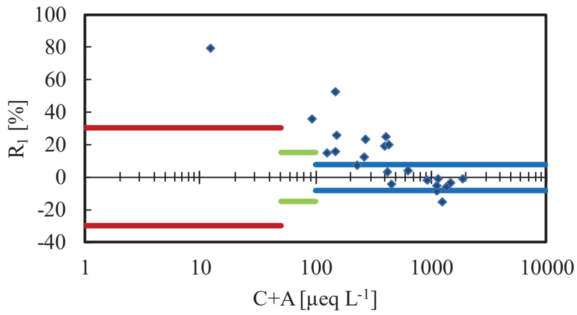


Fig. 3.33 a) Ulaanbaatar Ion Balance (R_1)

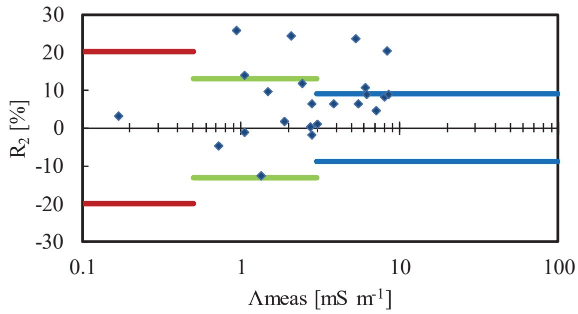


Fig. 3.33 b) Ulaanbaatar Conductivity Agreement (R_2)

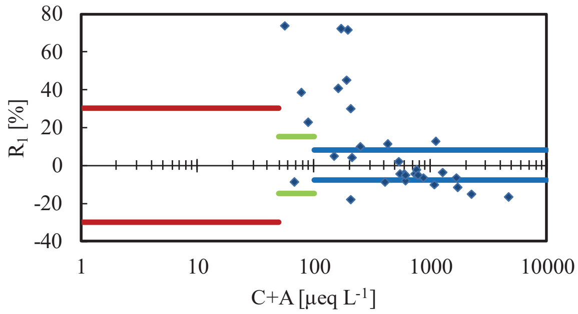


Fig. 3.34 a) Terelj Ion Balance (R_1)

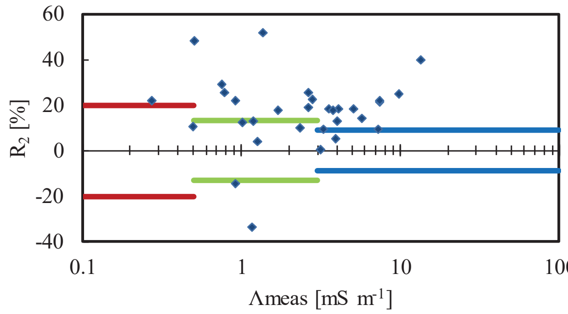


Fig. 3.34 b) Terelj Conductivity Agreement (R_2)

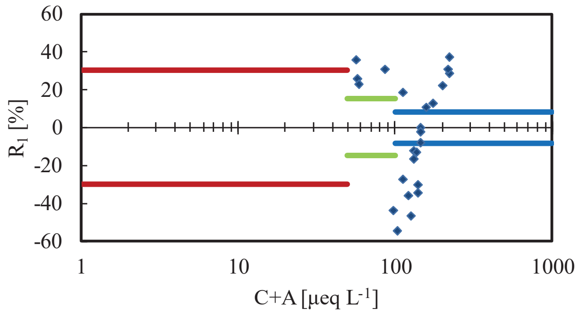


Fig. 3.35 a) Yangon Ion Balance (R_1)

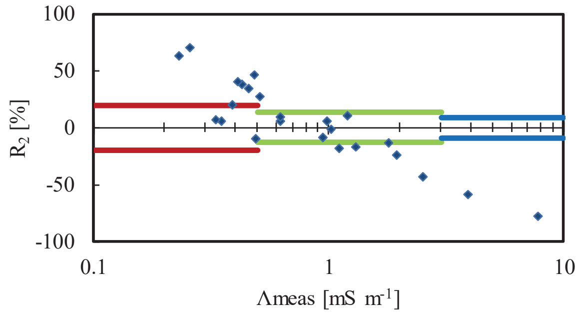


Fig. 3.35 b) Yangon Conductivity Agreement (R_2)

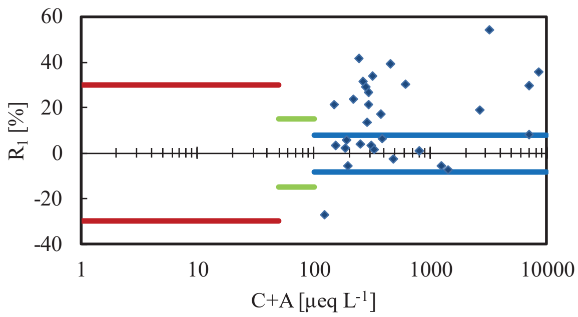


Fig. 3.36 a) Metro Manila Ion Balance (R_1)

Calculated including PO_4^{3-}

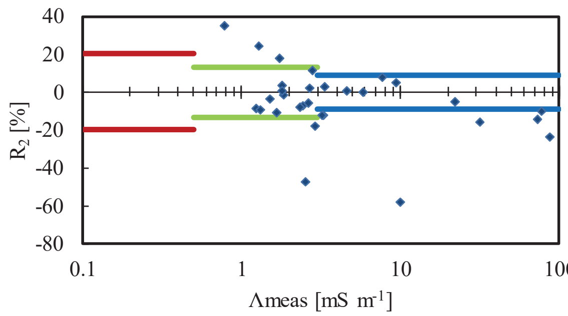


Fig. 3.36 b) Metro Manila Conductivity Agreement (R_2)

Calculated including PO_4^{3-}

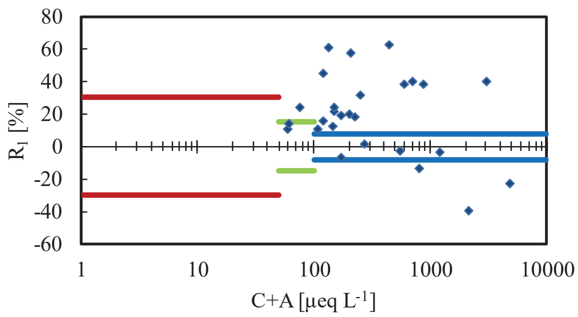


Fig. 3.37 a) Los Baños Ion Balance (R_1)

Calculated including PO_4^{3-}

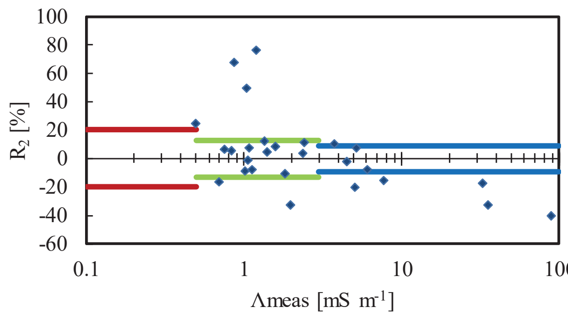


Fig. 3.37 b) Los Baños Conductivity Agreement (R_2)

Calculated including PO_4^{3-}

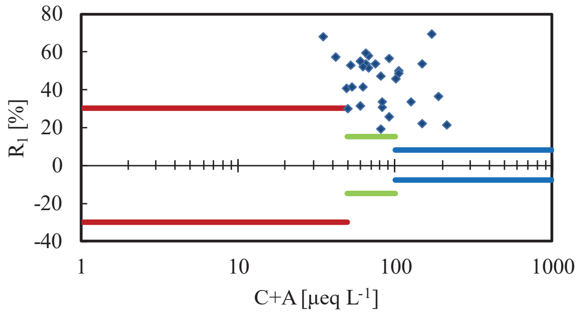


Fig. 3.38 a) Mt. Sto. Tomas Ion Balance (R_1)

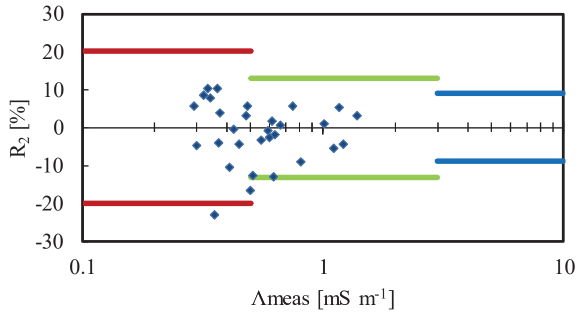


Fig. 3.38 b) Mt. Sto. Tomas Conductivity Agreement (R_2)

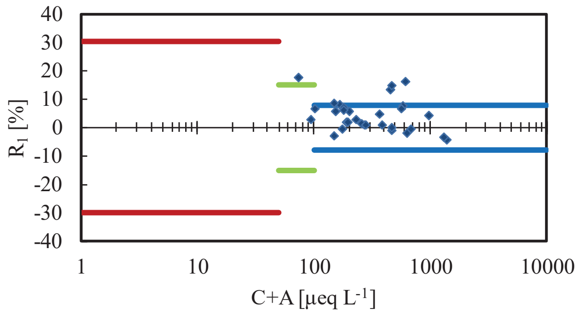


Fig. 3.39 a) Kanghwa Ion Balance (R_1)

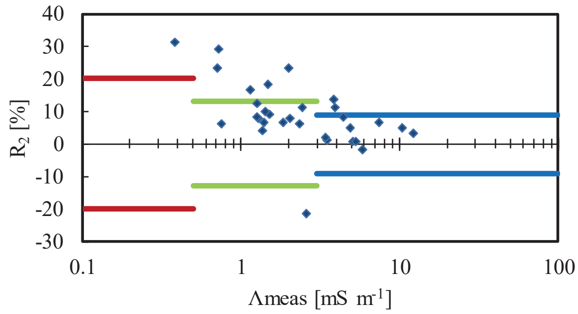


Fig. 3.39 b) Kanghwa Conductivity Agreement (R_2)

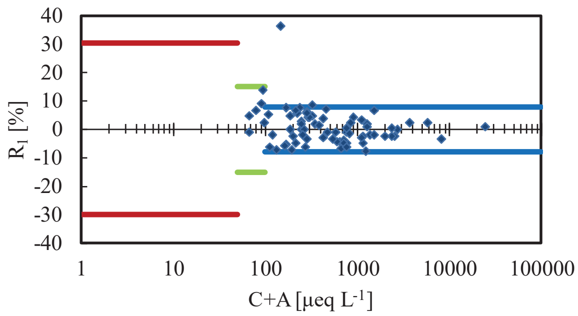


Fig. 3.40 a) Cheju Ion Balance (R_1)

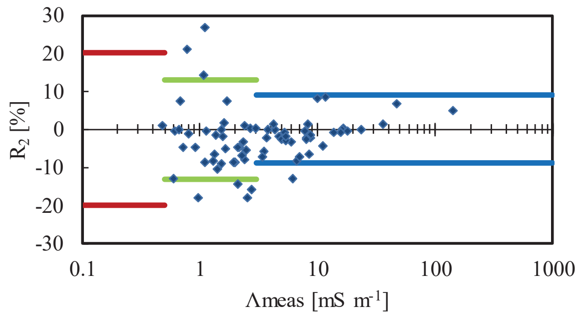


Fig. 3.40 b) Cheju Conductivity Agreement (R_2)

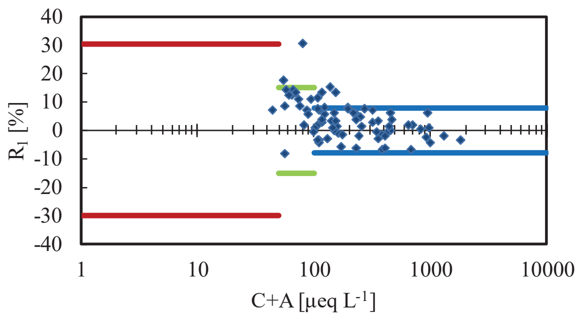


Fig. 3.41 a) Imsil Ion Balance (R_1)

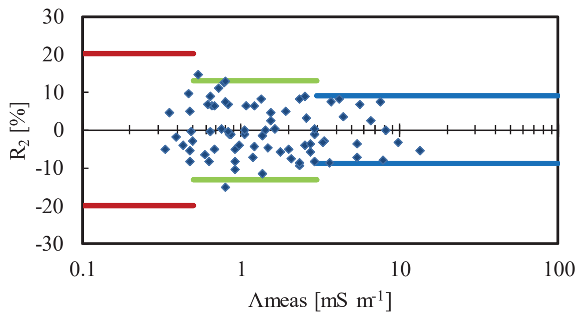


Fig. 3.41 b) Imsil Conductivity Agreement (R_2)

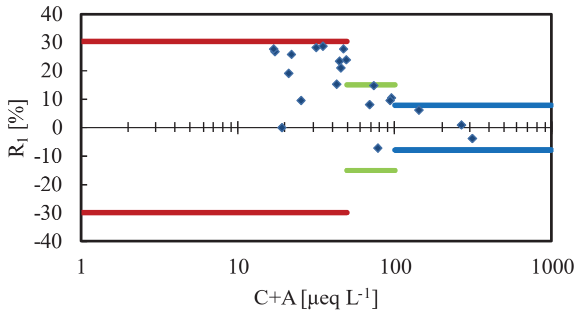


Fig. 3.42 a) Mondy Ion Balance (R_1)

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

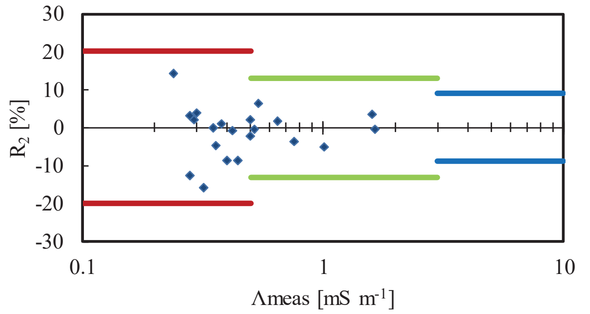


Fig. 3.42 b) Mondy Conductivity Agreement (R_2)

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

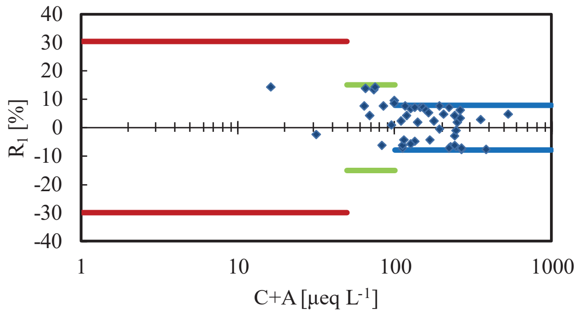


Fig. 3.43 a) Listvyanka Ion Balance (R_1)

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

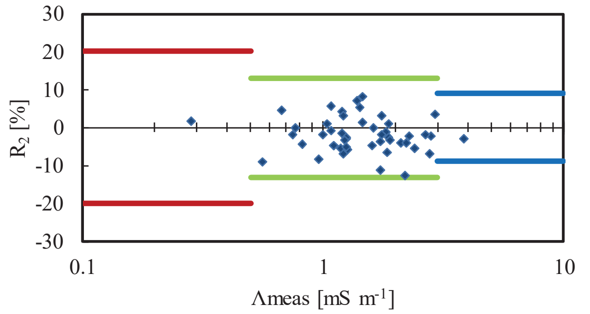


Fig. 3.43 b) Listvyanka Conductivity Agreement (R_2)

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

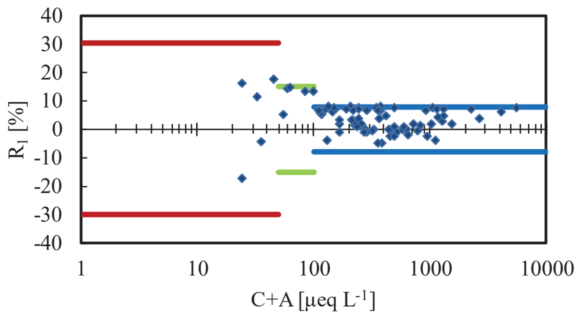


Fig. 3.44 a) Irkutsk Ion Balance (R_1)

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

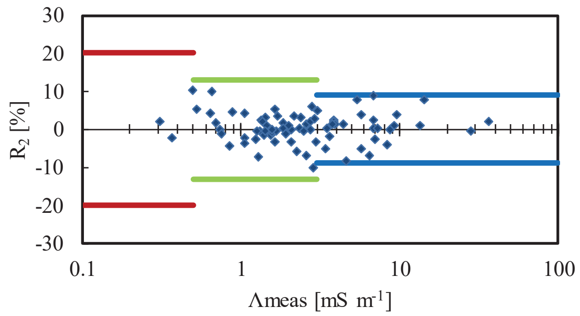


Fig. 3.44 b) Irkutsk Conductivity Agreement (R_2)

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

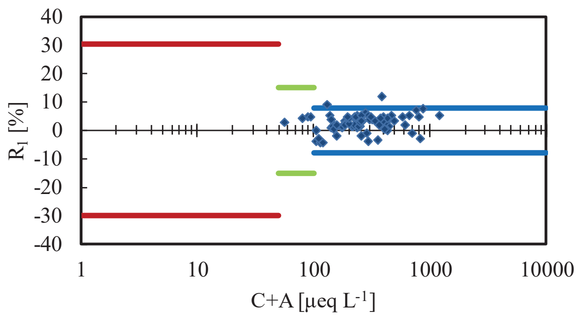


Fig. 3.45 a) Primorskaya Ion Balance (R_1)

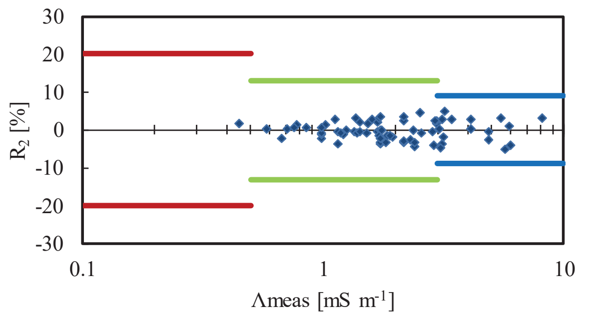


Fig. 3.45 b) Primorskaya Conductivity Agreement (R_2)

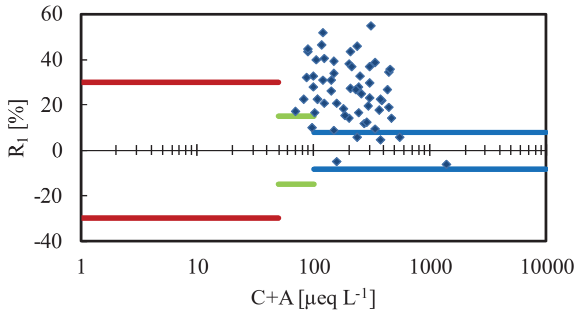


Fig. 3.46 a) Bangkok Ion Balance (R_1)

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

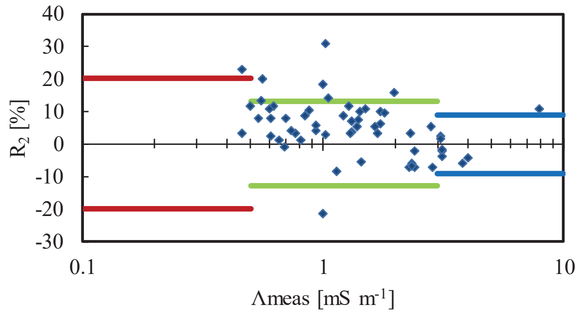


Fig. 3.46 b) Bangkok Conductivity Agreement (R_2)

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

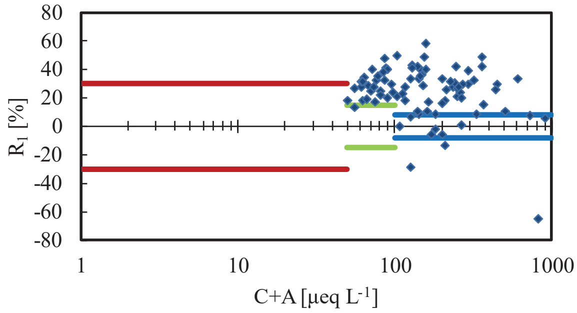


Fig. 3.47 a) Samutprakarn Ion Balance (R_1)

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

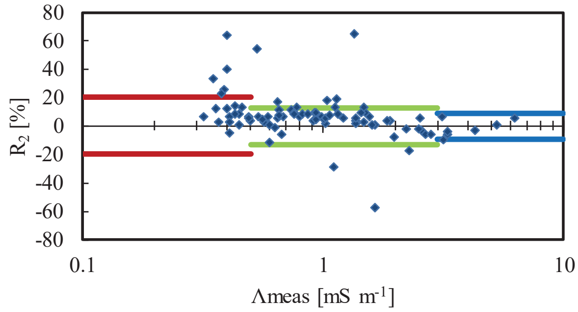


Fig. 3.47 b) Samutprakarn Conductivity Agreement (R_2)

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

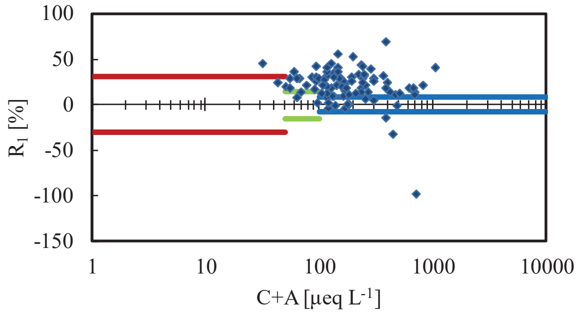


Fig. 3.48 a) Pathumthani Ion Balance (R_1)

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

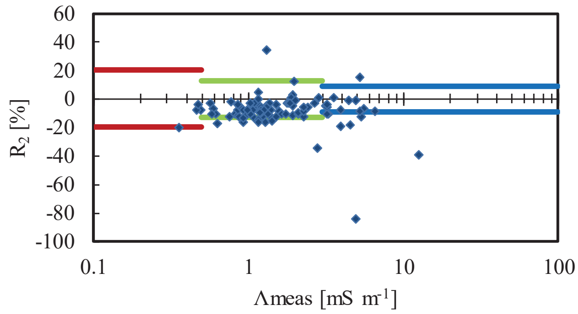


Fig. 3.48 b) Pathumthani Conductivity Agreement (R_2)

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

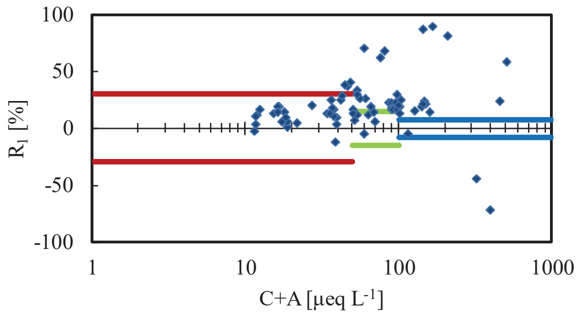


Fig. 3.49 a) Khanchanaburi Ion Balance (R_1)

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

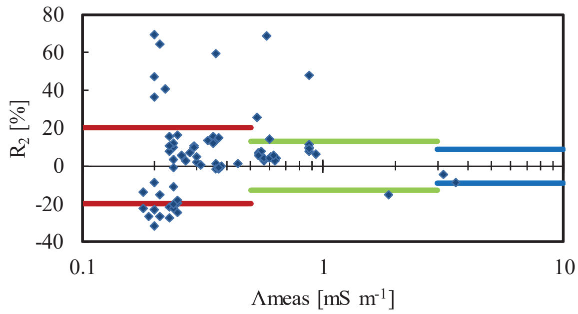


Fig. 3.49 b) Khanchanaburi Conductivity Agreement (R_2)

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

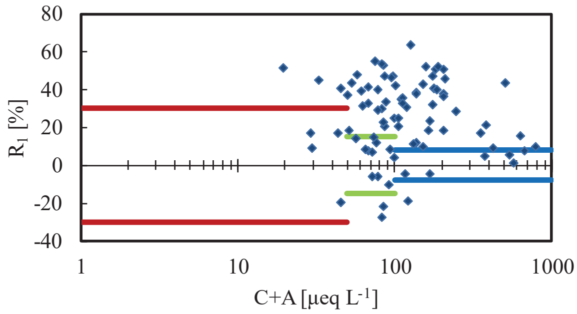


Fig. 3.50 a) Mae Hia Ion Balance (R_1)

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

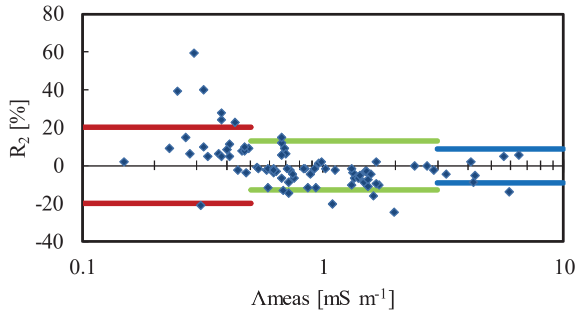


Fig. 3.50 b) Mae Hia Conductivity Agreement (R_2)

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

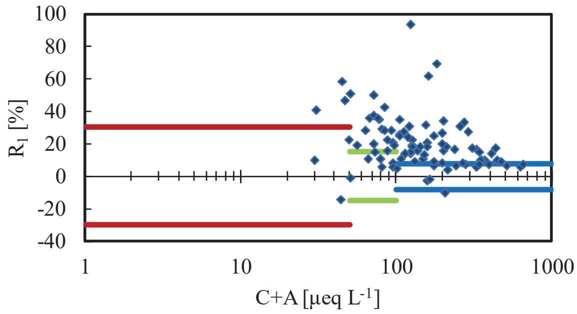


Fig. 3.51 a) Sakaerat Ion Balance (R_1)

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

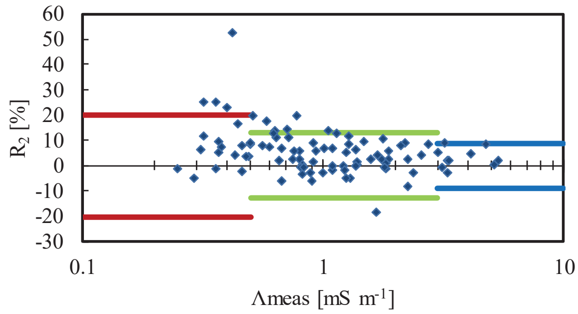


Fig. 3.51 b) Sakaerat Conductivity Agreement (R_2)

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

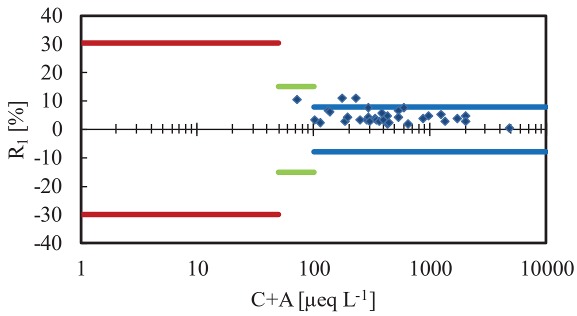


Fig. 3.52 a) Hanoi Ion Balance (R_1)

Calculated including F^-

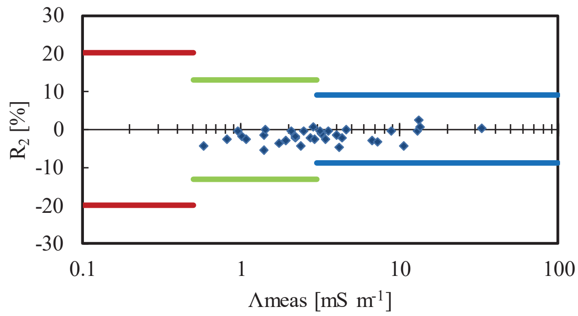


Fig. 3.52 b) Hanoi Conductivity Agreement (R_2)

Calculated including F^-

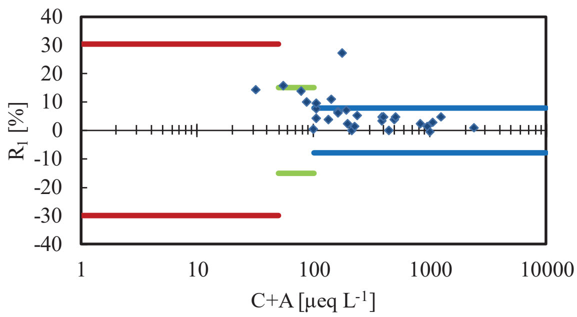


Fig. 3.53 a) Hoa Binh Ion Balance (R_1)

Calculated including F^-

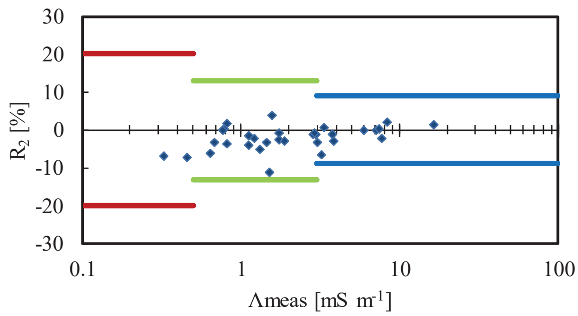


Fig. 3.53 b) Hoa Binh Conductivity Agreement (R_2)

Calculated including F^-

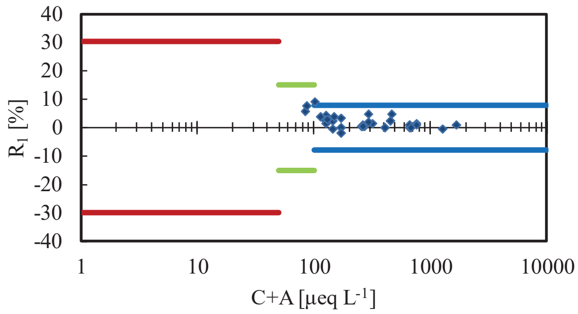


Fig. 3.54 a) Cuc Phuong Ion Balance (R_1)

Calculated including HCO_3^- and F^-

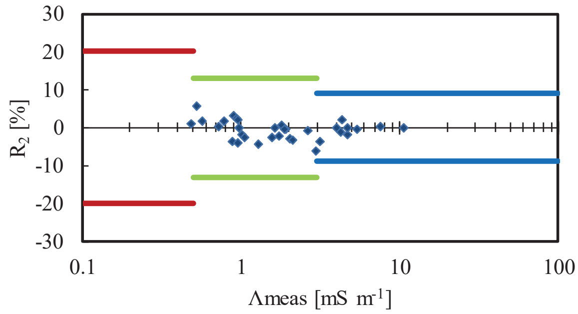


Fig. 3.54 b) Cuc Phuong Conductivity Agreement (R_2)

Conductivity Agreement (R_2)

Calculated including HCO_3^- and F^-

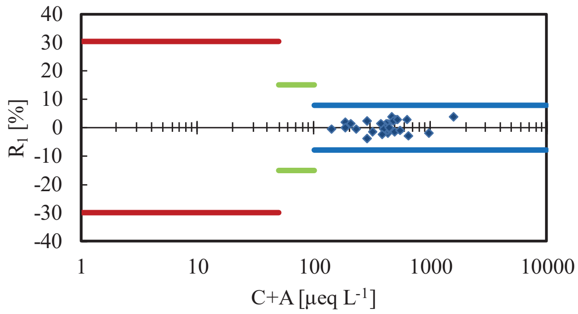


Fig. 3.55 a) Da Nang Ion Balance (R_1)

Calculated including HCO_3^-

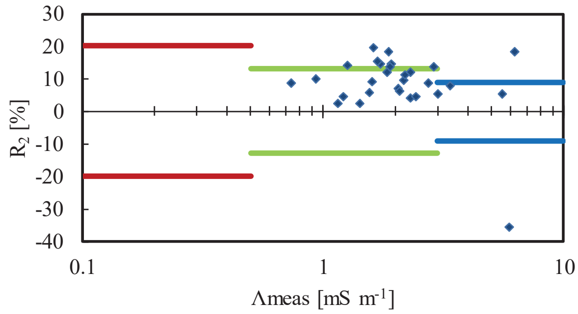


Fig. 3.55 b) Da Nang Conductivity Agreement (R_2)

Calculated including HCO_3^-

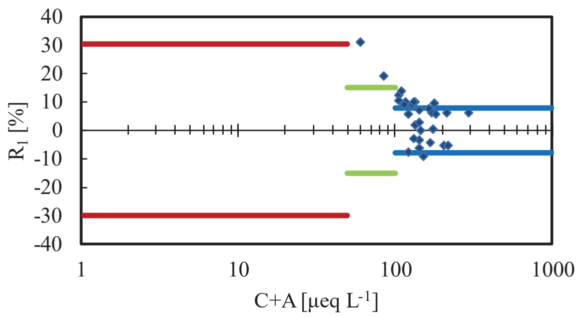


Fig. 3.56 a) Can Tho Ion Balance (R_1)

Calculated including F^-

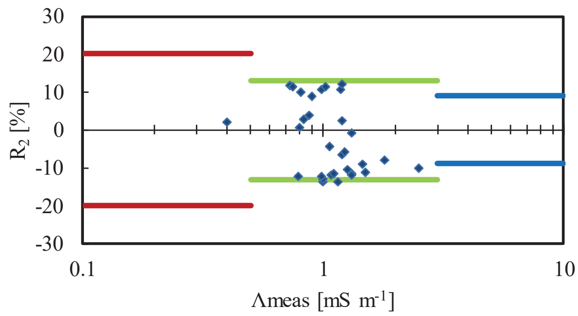


Fig. 3.56 b) Can Tho Conductivity Agreement (R_2)

Calculated including F^-

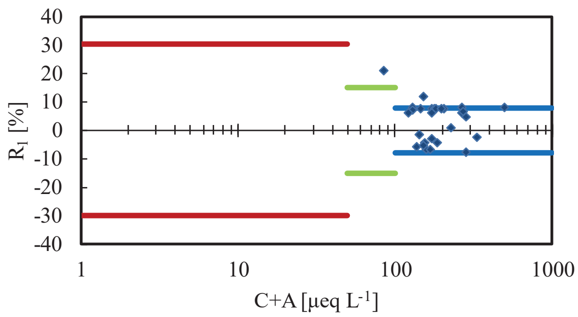


Fig. 3.57 a) Ho Chi Minh Ion Balance (R_1)

Calculated including F^-

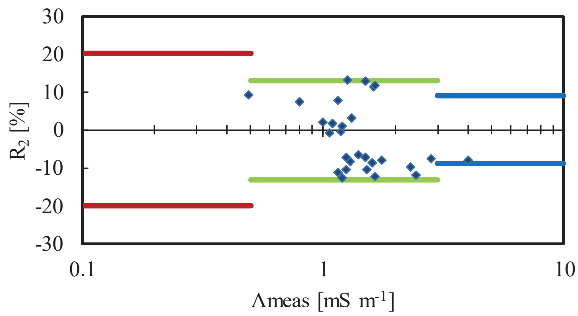


Fig. 3.57 b) Ho Chi Minh

Conductivity Agreement (R_2)

Calculated including F^-

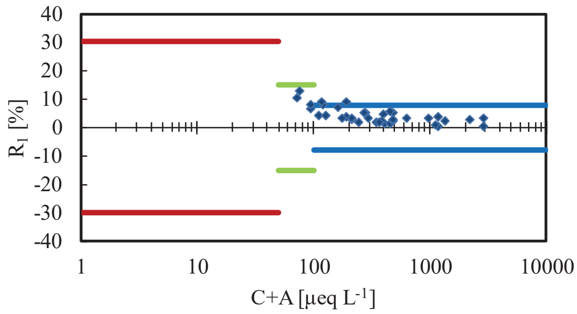


Fig. 3.58 a) Yen Bai Ion Balance (R_1)

Calculated including F^-

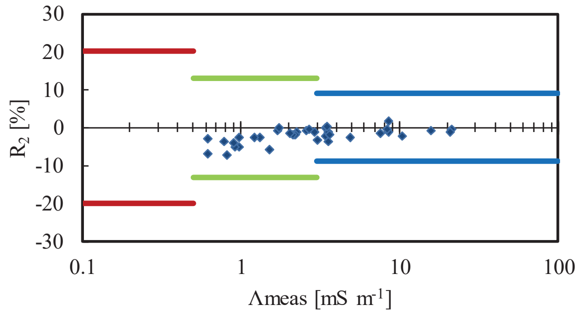


Fig. 3.58 b) Yen Bai Conductivity Agreement (R_2)

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**
China	Haifu	88.3	99.6	77.9	78.7	94.0	69.4	85.7	232	140	131	32.3	68.1	91.2
	Jinyunshan	*	127	*	109	83.4	50.8	31.7	64.3	51.5	69.9	67.6	*	58.6
Japan	Sado-seki	*	*	*	*	*	*	*	*	196	20.3	*	*	188
Russia	Mondy	--	137	67.2	24.1	7.40	<1	<1	<1	<1	1.97	11.7	3.10	5.70
	Listvyanka	<1	<1	<1	<1	<1	<1	<1	<1	<1	35.7	25.6	5.98	1.02
	Irkutsk	8.37	52.9	36.2	121	5.51	3.06	3.56	<1	<1	63.8	65.5	46.5	9.69
Vietnam	Cuc Phuong	25.7	*	73.8	204	41.8	32.2	27.0	21.7	33.8	61.2	50.0	*	38.4
	Da Nang	89.3	*	70.0	*	90.0	126	142	87.2	45.6	128	114	48.4	73.7

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**
China	Haifu	4.59	2.64	7.22	8.66	16.0	21.4	12.4	4.91	17.8	15.6	2.78	0.715	116
	Jinyunshan	*	2.20	*	10.7	10.3	15.1	5.18	4.33	5.34	7.44	5.40	*	71.3
Japan	Sado-seki	*	*	*	*	*	*	*	*	17.6	1.80	*	*	188
Russia	Mondy	0.00	0.754	0.114	0.173	0.130	<0.01	<0.01	<0.01	<0.01	0.0171	0.0679	<0.01	1.27
	Listvyanka	<0.01	<0.01	<0.01	<0.01	0.0119	<0.01	<0.01	<0.01	<0.01	0.126	0.151	0.0319	0.320
	Irkutsk	0.133	0.661	0.282	0.725	0.133	0.123	0.327	<0.01	<0.01	0.704	1.15	0.418	4.66
Vietnam	Cuc Phuong	4.12	*	3.17	12.4	7.82	7.14	11.6	8.12	8.75	9.46	1.52	*	74.3
	Da Nang	6.08	*	1.11	*	5.25	5.90	7.69	10.5	37.0	49.1	38.2	39.7	201

Data completeness														**%TP**
Country	Name of sites	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	**Annual**
China	Haifu	15.6	76.6	53.1	69.5	100	100	100	99.1	99.5	95.3	98.8	68.6	89.1
	Jinyunshan	0.0	21.4	0.0	71.3	69.2	96.1	89.2	52.4	32.5	24.7	1.0	0.0	56.4
Japan	Sado-seki	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	44.5	2.0	0.0	0.0	4.2
Russia	Mondy	--	100	100	100	100	100	100	100	100	100	100	100	100
	Listvyanka	100	100	100	100	100	100	100	100	100	100	100	100	100
	Irkutsk	100	100	100	100	100	100	100	100	100	100	100	100	100
Vietnam	Cuc Phuong	97.8	0.0	81.2	98.5	100	97.6	100	100	100	100	79.3	0.0	98.0
	Da Nang	100	0.0	83.6	0.0	98.8	88.5	100	98.2	100	100	100	100	99.4

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 : $\mu mol\ L^{-1}$											
Country	Name of sites	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	**Annual**
China	Haifu	4.20	2.95	1.58	3.59	3.00	1.29	2.42	6.53	3.07	3.52	1.80	10.1	2.60
	Jinyunshan	2.86	3.41	1.70	2.15	1.69	1.71	1.40	2.24	3.23	3.08	1.88	3.77	2.10
	Hongwen	1.20	2.07	<1	1.34	<1	<1	--	<1	4.44	<1	2.56	9.72	2.10
	Xiaoping	<1	<1	<1	2.44	<1	2.32	<1	<1	2.51	<1	<1	<1	1.00
	Xiang Zhou	5.73	12.6	3.21	4.80	2.77	4.55	3.74	3.60	4.35	1.70	2.60	8.16	3.90
	Zhuxiandong	3.76	6.19	<1	10.7	9.11	4.83	2.56	5.87	4.52	3.40	1.77	24.7	5.35
Japan	Yusuhara	*	*	*	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Ogasawara	<1	<1	<1	*	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Tokyo	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Russia	Mondy	--	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Listvyanka	<1	<1	<1	<1	<1	<1	<1	<1	1.61	2.38	3.56	3.43	<1
	Irkutsk	<1	<1	<1	<1	<1	<1	<1	<1	<1	3.79	4.94	5.03	<1
Vietnam	Hanoi	13.0	*	23.2	13.6	10.8	10.1	4.11	4.34	6.47	13.7	17.0	*	7.71
	Hoa Binh	2.88	--	12.7	6.29	5.68	2.94	1.57	1.16	3.58	9.33	10.7	--	3.63
	Cuc Phuong	6.91	*	4.95	3.72	4.73	5.37	4.77	3.61	3.69	11.7	11.7	*	5.26
	Can Tho	--	--	--	--	1.41	1.97	1.00	1.31	1.01	1.00	1.00	1.00	1.19
	Ho Chi Minh	--	--	--	--	1.04	1.00	2.00	1.87	1.85	1.00	1.00	1.00	1.33
	Yen Bai	12.9	17.1	30.6	14.1	9.75	2.65	2.28	2.21	8.52	7.55	10.9	10.2	7.95

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	0.218	0.0782	0.146	0.394	0.512	0.399	0.351	0.138	0.390	0.419	0.155	0.106	3.30
	Jinyunshan	0.146	0.0591	0.150	0.212	0.208	0.509	0.228	0.151	0.335	0.328	0.150	0.0765	2.55
	Hongwen	0.201	0.0491	<0.01	0.397	0.0797	0.0556	0.00	0.0562	1.93	0.116	0.187	0.644	3.71
	Xiaoping	0.0126	<0.01	<0.01	0.438	0.0934	0.484	0.0606	0.0753	0.650	<0.01	0.0382	<0.01	1.86
	Xiang Zhou	1.28	0.196	0.601	0.643	1.08	1.50	1.16	1.77	0.507	0.0289	0.323	0.0612	9.14
	Zhuxiandong	0.805	0.771	0.154	1.94	2.89	1.53	0.687	2.73	0.351	0.451	0.136	0.173	12.6
Japan	Yusuhara	*	*	*	0.0567	0.0231	0.0315	0.0210	0.0348	0.0477	<0.01	0.0167	0.0430	0.324
	Ogasawara	<0.01	0.0307	0.0182	*	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.0210	0.109
	Tokyo	<0.01	0.0260	0.0546	0.0443	0.0395	0.0318	0.0407	0.0197	0.0453	0.0141	0.0233	0.0227	0.365
Russia	Mondy	0.00	<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	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.0728	<0.01	0.0210	0.0183	0.120
	Irkutsk	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.0419	0.0870	0.0453	0.174
Vietnam	Hanoi	1.40	*	0.389	1.66	2.92	1.11	1.01	2.55	0.892	0.676	0.178	*	12.8
	Hoa Binh	0.232	0.00	0.282	1.12	1.44	0.307	0.389	0.446	0.368	0.386	0.245	0.00	5.22
	Cuc Phuong	1.11	*	0.213	0.226	0.884	1.19	2.06	1.35	0.955	1.81	0.358	*	10.2
	Can Tho	0.00	0.00	0.00	0.00	0.227	0.458	0.365	0.124	0.314	0.274	0.147	0.0850	1.99
	Ho Chi Minh	0.00	0.00	0.00	0.00	0.356	0.304	0.187	0.382	1.21	0.701	0.145	0.110	3.39
	Yen Bai	0.908	0.300	2.23	1.95	3.43	0.410	0.831	0.780	0.610	0.534	0.954	0.637	14.4

Data completeness		%TP											
Country	Name of sites	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	**Annual**
China	Haifu	98.8	100	100	100	100	100	100	99.1	99.5	99.8	99.7	95.2	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	100
	Xiang Zhou	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
Japan	Yusuhara	0.0	0.0	0.0	79.3	100	99.9	100	100	77.5	100	100	99.7	79.7
	Ogasawara	100	99.8	100	0.0	99.0	100	94.9	100	97.2	98.3	99.7	57.1	77.3
	Tokyo	100	100	99.5	99.1	99.6	99.3	99.6	99.8	99.4	99.8	100	99.2	99.6
Russia	Mondy	--	100	100	100	100	100	100	100	100	100	100	100	100
	Listvyanka	100	100	100	100	100	100	100	100	100	100	100	100	100
	Irkutsk	100	100	100	100	100	100	100	100	100	100	100	100	100
Vietnam	Hanoi	100	0.0	77.4	100	100	100	93.7	100	100	100	100	0.0	98.6
	Hoa Binh	100	--	100	100	100	100	100	100	100	100	100	--	100
	Cuc Phuong	97.8	0.0	81.2	98.5	100	97.6	100	100	100	100	79.3	0.0	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
	Yen Bai	74.5	90.3	100	100	100	77.2	62.4	100	100	100	100	100	89.4

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 : µmol L^{-1}						
Country	Name of sites	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	**Annual**
Russia	Mondy	--	<1	<1	<1	<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**
Russia	Mondy	0.00	<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	<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**
Russia	Mondy	--	100	100	100	100	100	100	100	100	100	100	100	100
	Listvyanka	100	100	100	100	100	100	100	100	100	100	100	100	100
	Irkutsk	100	100	100	100	100	100	100	100	100	100	100	100	100

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 : µmol L^{-1}**
Country	Name of sites	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	**Annual**
Japan	Yusuhara	*	*	*	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Ogasawara	<1	<1	<1	*	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Tokyo	1.12	1.50	1.10	1.24	<1	<1	1.20	<1	1.02	1.64	1.69	1.97	1.11
Russia	Mondy	--	<1	<1	<1	<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	Yusuhara	*	*	*	<0.01	<0.01	0.0243	<0.01	0.0332	0.0199	0.0180	0.0183	0.0243	0.180
	Ogasawara	<0.01	<0.01	<0.01	*	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.0107	0.0342
	Tokyo	0.0918	0.0794	0.109	0.136	0.122	0.138	0.0869	0.308	0.266	0.138	0.195	0.121	1.79
Russia	Mondy	0.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.0134
	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	0.0318
	Irkutsk	<0.01	<0.01	<0.01	<0.01	<0.01	0.0121	<0.01	0.0103	<0.01	<0.01	<0.01	<0.01	0.0798
Data completeness											**%TP**			
Country	Name of sites	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	**Annual**
Japan	Yusuhara	0.0	0.0	0.0	79.3	100	99.9	100	100	77.5	100	100	99.7	79.7
	Ogasawara	100	99.8	100	0.0	99.0	100	94.9	100	97.2	98.3	99.7	57.1	77.3
	Tokyo	100	100	99.5	99.1	99.6	99.3	99.6	99.8	99.4	99.8	100	99.2	99.6
Russia	Mondy	--	100	100	100	100	100	100	100	100	100	100	100	100
	Listvyanka	100	100	100	100	100	100	100	98.1	100	100	100	100	99.4
	Irkutsk	100	100	100	100	100	100	100	99.4	100	100	100	100	99.7

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	Yusuhara	*	*	*	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Philippines	Metro Manila	595	498	111	*	<1	2.52	2.46	1.20	5.07	14.8	24.0	173	8.49
	Los Baños	417	41.6	338	9.12	<1	1.95	2.20	9.00	<1	6.96	<1	<1	6.62
Thailand	Bangkok	<1	--	<1	--	<1	<1	<1	<1	<1	<1	<1	--	<1
	Samutprakarn	<1	--	--	--	<1	<1	<1	<1	<1	<1	<1	--	<1
	Pathumthani	<1	--	--	<1	<1	<1	2.13	<1	<1	<1	<1	--	<1
	Khanchanaburi	--	--	--	--	<1	<1	<1	<1	<1	<1	--	--	<1
	Mae Hia	<1	1.51	--	5.35	1.69	1.39	1.30	<1	<1	--	--	--	1.11
	Sakaerat	2.00	--	<1	<1	1.17	1.45	<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	Yusuhara	*	*	*	<0.01	<0.01	<0.01	0.0108	0.0109	<0.01	0.0119	<0.01	<0.01	0.0700
Philippines	Metro Manila	4.70	4.63	2.16	*	0.203	0.397	0.796	0.910	2.52	5.02	1.72	20.3	21.4
	Los Baños	13.3	1.56	1.12	0.129	0.0621	0.222	0.297	2.25	0.283	2.44	0.0599	<0.01	11.6
Thailand	Bangkok	<0.01	0.00	<0.01	0.00	<0.01	0.0533	<0.01	<0.01	<0.01	<0.01	<0.01	0.00	0.0684
	Samutprakarn	<0.01	0.00	0.00	0.00	<0.01	<0.01	0.0155	<0.01	0.0199	<0.01	<0.01	0.00	0.0435
	Pathumthani	<0.01	0.00	0.00	<0.01	<0.01	0.0268	0.468	0.0139	0.0465	<0.01	<0.01	0.00	0.575
	Khanchanaburi	0.00	0.00	0.00	0.00	<0.01	0.0374	0.0212	<0.01	<0.01	<0.01	0.00	0.00	0.0663
	Mae Hia	<0.01	<0.01	0.00	0.134	0.113	0.214	0.238	0.0314	0.0801	0.00	0.00	0.00	0.825
	Sakaerat	0.0102	0.00	<0.01	<0.01	0.0969	0.124	0.127	<0.01	0.0483	0.0714	0.00	0.00	0.486
Data completeness											**%TP**			
Country	Name of sites	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	**Annual**
Japan	Yusuhara	0.0	0.0	0.0	79.3	100	99.9	100	100	77.5	100	100	99.7	79.7
Philippines	Metro Manila	2.5	87.1	99.0	0.0	100	100	100	100	100	89.5	96.0	14.0	94.0
	Los Baños	10.7	95.2	39.4	21.1	96.7	100	97.2	100	93.0	100	31.2	15.2	76.7
Thailand	Bangkok	100	--	100	--	100	100	100	100	100	100	100	--	100
	Samutprakarn	100	--	--	--	100	100	100	100	100	100	100	--	100
	Pathumthani	100	--	--	100	100	100	100	100	100	100	100	--	100
	Khanchanaburi	--	--	--	--	100	100	100	100	100	100	--	--	100
	Mae Hia	100	100	--	100	100	100	100	100	100	--	--	--	100
	Sakaerat	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	2.79	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Danum Valley	<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	3.74	--	18.7	--	1.11	5.02	4.41	3.81	2.32	5.82	16.8	--	5.30
	Samutprakarn	1.55	--	--	--	3.87	1.39	<1	1.01	<1	1.71	2.17	--	1.38
	Pathumthani	<1	--	--	<1	<1	<1	<1	<1	1.56	2.29	5.88	--	<1
	Khanchanaburi	--	--	--	--	<1	<1	<1	<1	1.18	2.82	--	--	<1
	Mae Hia	17.2	31.9	--	28.1	25.7	6.31	7.74	3.54	3.02	--	--	--	8.43
	Sakaerat	42.2	--	61.4	44.3	11.9	10.2	4.07	3.30	6.38	5.44	--	--	7.32

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	0.0371	0.0345	<0.01	<0.01	<0.01	<0.01	0.0988	<0.01	<0.01	<0.01	0.186
	Tanah Rata	0.0319	<0.01	0.0299	0.154	0.138	<0.01	0.0744	0.0844	0.0660	0.155	0.0196	0.162	0.910
	Danum Valley	<0.01	<0.01	*	0.0112	<0.01	<0.01	<0.01	0.0216	<0.01	<0.01	<0.01	<0.01	0.0523
	Kuching	<0.01	0.158	<0.01	<0.01	<0.01	<0.01	<0.01	0.0115	0.0208	0.0268	0.0184	<0.01	0.240
Thailand	Bangkok	0.197	0.00	0.723	0.00	0.0196	1.99	0.723	0.895	0.762	1.78	1.55	0.00	8.64
	Samutprakarn	0.0312	0.00	0.00	0.00	0.433	0.276	0.0749	0.355	0.383	0.588	0.356	0.00	2.50
	Pathumthani	<0.01	0.00	0.00	0.0188	<0.01	0.0110	<0.01	0.0111	0.383	0.322	0.0503	0.00	0.796
	Khanchanaburi	0.00	0.00	0.00	0.00	0.0270	0.147	0.154	0.124	0.222	0.297	0.00	0.00	0.971
	Mae Hia	0.445	0.0863	0.00	0.706	1.72	0.974	1.42	0.386	0.531	0.00	0.00	0.00	6.27
	Sakaerat	0.215	0.00	0.172	1.04	0.988	0.877	1.10	0.194	2.17	1.16	0.00	0.00	7.92

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	99.0	100	100	99.8	100	97.0	100	100	99.7
	Tanah Rata	97.0	98.0	28.4	100	100	99.7	100	97.8	100	100	100	100	97.8
	Danum Valley	100	95.1	0.0	89.5	100	100	81.8	100	100	100	100	50.4	88.2
	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
	Pathumthani	100	--	--	100	100	100	100	100	100	100	100	--	100
	Khanchanaburi	--	--	--	--	100	100	100	100	100	100	--	--	100
	Mae Hia	100	100	--	100	99.6	99.9	99.9	99.7	99.8	--	--	--	99.8
	Sakaerat	100	--	100	100	100	100	100	100	100	99.9	--	--	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	<1	<1	<1	<1	<1
	Tanah Rata	<1	<1	<1	1.04	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Danum Valley	<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	1.60	--	2.64	--	<1	<1	4.84	3.75	<1	1.33	<1	--	1.78
	Samutprakarn	2.18	--	--	--	<1	<1	<1	<1	<1	<1	<1	--	<1
	Pathumthani	<1	--	--	<1	<1	<1	<1	<1	<1	1.31	3.06	--	<1
	Khanchanaburi	--	--	--	--	<1	<1	<1	<1	<1	<1	--	--	<1
	Mae Hia	3.65	4.47	--	11.4	7.03	3.05	1.63	2.21	1.09	--	--	--	2.78
	Sakaerat	21.4	--	19.1	5.14	3.45	8.55	1.87	1.79	2.66	<1	--	--	2.78

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	0.0223	<0.01	<0.01	<0.01	<0.01	0.0635	<0.01	<0.01	<0.01	0.104
	Tanah Rata	0.0320	<0.01	<0.01	0.0577	0.265	0.0954	0.0433	0.0434	0.0783	0.133	0.0181	0.0796	0.865
	Danum Valley	<0.01	<0.01	*	<0.01	0.0132	<0.01	<0.01	<0.01	<0.01	0.0160	<0.01	<0.01	0.0713
	Kuching	0.0224	0.322	0.0697	0.0467	0.178	<0.01	<0.01	0.0296	<0.01	<0.01	<0.01	<0.01	0.683
Thailand	Bangkok	0.0843	0.00	0.102	0.00	<0.01	0.349	0.793	0.880	0.218	0.407	0.0640	0.00	2.91
	Samutprakarn	0.0438	0.00	0.00	0.00	0.0986	0.169	0.137	0.246	0.214	0.168	0.0778	0.00	1.15
	Pathumthani	<0.01	0.00	0.00	0.0116	0.0254	<0.01	<0.01	<0.01	0.208	0.185	0.0262	0.00	0.469
	Khanchanaburi	0.00	0.00	0.00	0.00	0.0431	0.158	0.226	0.162	0.105	0.0616	0.00	0.00	0.756
	Mae Hia	0.0946	0.0121	0.00	0.287	0.470	0.472	0.299	0.241	0.192	0.00	0.00	0.00	2.07
	Sakaerat	0.109	0.00	0.0535	0.121	0.287	0.733	0.507	0.105	0.905	0.190	0.00	0.00	3.01

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	99.0	100	100	99.8	100	97.0	100	100	99.7
	Tanah Rata	97.0	98.0	28.4	100	100	99.7	100	97.8	100	100	100	100	97.8
	Danum Valley	100	95.1	0.0	89.5	100	100	81.8	100	100	100	100	50.4	88.2
	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
	Pathumthani	100	--	--	100	100	100	100	100	100	100	100	--	100
	Khanchanaburi	--	--	--	--	100	100	100	100	100	100	--	--	100
	Mae Hia	100	100	--	100	99.6	99.9	99.9	99.7	99.8	--	--	--	99.8
	Sakaerat	100	--	100	100	100	100	100	100	100	99.9	--	--	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	<1	<1	<1	<1	<1
	Danum Valley	<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	0.0159	<0.01	0.0134	<0.01	<0.01	<0.01	<0.01	<0.01	0.0425	0.0802
	Tanah Rata	0.0230	<0.01	<0.01	0.0112	<0.01	0.0349	<0.01	<0.01	0.0150	0.0279	0.100	0.0362	0.264
	Danum Valley	<0.01	<0.01	*	<0.01	<0.01	<0.01	<0.01	0.189	0.0255	0.0128	<0.01	0.0750	0.314
	Kuching	<0.01	<0.01	<0.01	0.0212	<0.01	<0.01	0.0176	0.0511	0.0793	0.0369	<0.01	<0.01	0.210

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	99.0	100	100	99.8	100	97.0	100	100	99.7
	Tanah Rata	97.0	98.0	28.4	100	100	99.7	100	97.8	100	100	100	100	97.8
	Danum Valley	100	95.1	0.0	89.5	100	100	81.8	100	100	100	100	50.4	88.2
	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 dry deposition (air concentration) monitoring in 2016. The monitoring items were selected taking into account the priority chemical species defined in S*trategy Paper for Future Direction of Dry Deposition Monitoring of EANET (2016-2020 Edition, 2015)*.

4.1.1 Automatic Monitoring Method

The priority chemical species of SO_2, O_3, NO, NO_2, PM_{10} and $PM_{2.5}$ are monitored by automatic monitoring methods. The criteria and quality assurance/quality control (QA/QC) for automatic monitoring methods are 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 priority chemical species in EANET. The passive sampler method is also used to determine gaseous species of SO_2, O_3, NO_2. The recommended monitoring method by means of the four-stage filter pack is explained in the Technical Manual. Basic specifications of the four-stage filter pack method are shown in Fig. 4.1. The QA/QC for the manual monitoring methods is described in the Chapter 4 of the Technical Manual.

4.1.3 Monitoring Sites

The measurement methods and parameters at each monitoring site for dry deposition (air concentration) monitoring in 2016 are shown in Table 4.1. Automatic monitors were used in China, Indonesia, Japan, Lao PDR, 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 method was used in all EANET member countries and the passive sampler method was used in Indonesia and Russia in 2016.

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 2016

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}
		FP	HNO_3, HCl, NH_3, PMC
	Zhuhai		
	- Haibin-Park	AT	SO_2, NO_2, PM_{10}
Indonesia	Jakarta[*1]	AT	$PM_{2.5}$
		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	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	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	AT	SO_2, NO, NO_x*, O_3, $PM_{10/2.5}$
		FP	HNO_3, HCl, NH_3, PMC
	Ijira	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	AT	SO_2, NO, NO_2, NO_x, O_3, $PM_{10/2.5}$
		FP	HNO_3, HCl, NH_3, PMC
	Yusuhara	AT	SO_2, NO, NO_x*, O_3, $PM_{10/2.5}$
		FP	HNO_3, HCl, NH_3, PMC
	Hedo	AT	SO_2, NO, NO_x*, O_3, $PM_{10/2.5}$
		FP	HNO_3, HCl, NH_3, PMC
	Ogasawara	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	AT	NO, NO_2, NO_x, PM_{10}
		FP	SO_2, HNO_3, HCl, NH_3, PMC

Table 4.1.1 Sampling methods and parameters for dry deposition (air concentration) monitoring in 2016 (continued)

Country	Site	Method	Parameter
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
Mongolia	Ulaanbaatar	AT	SO_2, NO, NO_2, NO_x, O_3, $PM_{10}/_{2.5}$
		FP	HNO_3, HCl, NH_3, PMC
	Terelj	FP	SO_2, HNO_3, HCl, NH_3, PMC
Myanmar	Yangon	FP	SO_2, HNO_3, HCl, NH_3, PMC
	Mandalay	AT	$PM_{2.5}$
Philippines	Metro Manila*5	AT	NO, NO_2, NO_x, O_3, $PM_{10}/_{2.5}$
		FP	SO_2, HNO_3, HCl, NH_3, PMC
	Los Baños*5	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*1	AT	SO_2, NO_2, O_3, $PM_{10/2.5}$
		FP	HNO_3, HCl, NH_3, PMC in $PM_{2.5}$
	Cheju*1	AT	SO_2, NO_2, O_3, $PM_{10/2.5}$
	(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*2	FP	SO_2, HNO_3, HCl, NH_3, PMC
		AT (PS)	O_3
	Listvyanka	FP	SO_2, HNO_3, HCl, NH_3, PMC
		PS	O_3
	Irkutsk*6	FP	SO_2, HNO_3, HCl, NH_3, PMC
		PS	O_3
	Primorskaya	FP	SO_2, HNO_3, HCl, NH_3, PMC
Thailand	Bangkok	AT	NO, NO_2, NO_x, O_3, $PM_{10/2.5}$
		FP	SO_2, HNO_3, HCl, NH_3, PMC
	Samutprakarn*1	AT	SO_2, NO, NO_2, NO_x, O_3, $PM_{10/2.5}$
	Pathumthani*5	FP	SO_2, HNO_3, HCl, NH_3, PMC
	Khanchanaburi*3	AT	SO_2, NO, NO_x*, O_3, PM_{10}
	(Vachiralongkorn Dam)	FP	HNO_3, HCl, NH_3, PMC
	Chiang Mai*4		
	- Mae Hia	FP	SO_2, HNO_3, HCl, NH_3, PMC
	- Chang Phueak*1	AT	SO_2, NO, NO_2, NO_x, O_3, $PM_{10/2.5}$
	- Si Phum	AT	SO_2, NO, NO_2, NO_x, $PM_{10/2.5}$
	Nakhon Ratchasima		
	- Sakaerat	FP	SO_2, HNO_3, HCl, NH_3, PMC
	- Nai Mueang	AT	SO_2, NO, NO_2, NO_x, O_3, PM_{10}
Viet Nam	Hanoi	FP	SO_2, HNO_3, HCl, NH_3, PMC
	Hoa Binh	AT	$PM_{2.5}$
		FP	SO_2, HNO_3, HCl, NH_3, PMC
	Can Tho	FP	SO_2, HNO_3, HCl, NH_3, PMC

Table 4.1.1 Sampling methods and parameters for dry deposition (air concentration) monitoring in 2016 (continued)

Country	Site	Method	Parameter
Viet Nam	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 $PM_{2.5}$ monitoring at Jakarta, Kanghwa, Cheju, Samutprakarn and Chang Phueak started in 2016.
*2 O_3 monitoring at Mondy was measured by PS from Nov. 2015 to Apr. 2016 because of their auto monitor's failure.
*3 Two week Intensive monitoring at Khanchanaburi was implemented 3 times per year due to monitoring availability in the remote area.
*4 Chiang Mai site was divided into three sites: Mae Hia (Former FP site), Chang Phueak (Former Automatic site) and Si Phum.
*5 FP monitoring data of Metro Manila, Los Banos and Pathumthani were not submitted.
*6 O_3 monitoring by PS at Irktusk started in 2016.

Table 4.1.2 Methods of automatic monitors in 2016

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	Jakarta	–	–	–	–	β–ray
	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
Lao PDR	Vientiane	–	CLD	–	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 Cheju (Kosan) Imsil	UVF UVF UVF	CLD CLD CLD	UVP UVP UVP	β–ray β–ray β–ray	– – –
Russia	Mondy	–	–	UVP	–	–
Thailand	Bangkok Samutprakarn Khanchanaburi (Vachiralongkorn Dam) Chiang Mai - Chang Phueak - Si Phum Nakhon Ratchasima - Nai Mueang	– UVF UVF UVF UVF UVF	CLD CLD CLD CLD CLD CLD	UVP UVP UVP UVP UVP UVP	β–ray β–ray β–ray TEOM β–ray β–ray	β–ray β–ray β–ray β–ray 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 a monthly basis. Summarized data in 2016 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-day sampling data
Min-10d	Minimum values of 10-day sampling 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 no measurement
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 2000 to 2016 are summarized in Table 4.21 through Table 4.38.

Monthly and annual dry deposition amounts of gaseous and particulate substances in 2016 are 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, the 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 Table 4.3 through Table 4.38, ppb unit is used for gases and $\mu g/m^3$ unit for particulate matter concentrations. In 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 ºC, 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 the filter pack method, their 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 in 2003.

Table 4.3 SO_2

Unit : ppb			2016												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Cambodia	Phnom Penh	Mean	-	-	-	-	0.9	0.8	0.5	0.5	0.4	0.6	0.8	0.7	0.6
		%	0	0	0	0	97	100	100	100	100	100	100	100	67
		Max-2w	-	-	-	-	1.1	0.9	0.6	0.6	0.4	0.9	0.9	0.8	1.1
		Min-2w	-	-	-	-	0.7	0.7	0.4	0.4	0.4	0.4	0.6	0.6	0.4
China	Jinyunshan	Mean	3.8	3.0	3.9	3.1	2.9	2.6	3.2	3.6	2.9	2.6	3.9	4.3	3.3
		%	84	100	100	100	100	97	100	100	100	100	100	100	99
		Max-d	10.9	5.3	8.3	8.3	5.3	4.9	5.3	7.9	5.6	6.0	7.5	10.5	10.9
		Min-d	0.8	1.5	1.1	1.1	1.1	1.1	1.9	1.5	1.1	1.1	1.5	1.5	0.8
	Hongwen	Mean	1.9	1.6	1.8	2.2	3.0	3.3	4.5	5.1	3.7	4.0	4.2	4.7	3.3
		%	100	100	100	97	100	100	100	97	100	100	100	100	100
		Max-d	2.6	3.0	4.1	5.3	6.4	4.9	10.9	9.4	5.3	6.8	7.1	7.5	10.9
		Min-d	0.8	0.8	0.8	1.1	1.5	1.5	2.6	2.6	2.3	2.3	2.3	3.0	0.8
	Haibin-Park	Mean	3.8	3.4	4.3	3.7	3.5	3.0	3.0	3.5	3.9	4.2	4.5	5.3	3.8
		%	94	97	100	93	100	97	100	100	100	100	97	97	98
		Max-d	9.8	5.6	8.6	7.1	5.6	4.9	5.6	5.6	6.0	6.4	8.3	9.0	9.8
		Min-d	1.9	1.5	2.3	2.3	1.9	1.9	1.9	1.9	1.9	1.9	2.3	2.3	1.5
Indonesia	Jakarta	Mean	2.6	2.8	2.7	2.6	3.7	3.0	-	-	2.5	2.6	1.4	1.4	2.5
		%	100	100	100	100	100	100	0	0	100	44	93	100	78
		Max-2w	2.7	3.6	2.7	3.2	4.1	3.5	-	-	2.8	2.6	2.5	2.4	4.1
		Min-2w	2.5	1.9	2.6	2.1	3.4	2.5	-	-	2.2	2.6	0.4	0.3	0.3
	Serpong	Mean	0.9	1.0	1.0	0.4	0.8	0.6	0.5	0.7	0.5	-	0.2	0.7	0.7
		%	58	100	100	100	100	100	100	100	100	0	100	100	90
		Max-2w	0.9	2.0	1.1	0.6	0.9	0.6	0.5	0.8	0.6	-	0.2	0.9	2.0
		Min-2w	0.9	<0.1	0.8	0.2	0.7	0.5	0.5	0.7	0.5	-	0.2	0.6	<0.1
	Kototabang	Mean	3.2	-	-	-	1.0	3.7	2.5	2.8	0.4	1.9	0.8	1.4	2.0
		%	100	0	0	0	100	100	100	100	100	100	100	100	75
		Max-w	3.2	-	-	-	1.0	3.7	2.5	2.8	0.4	1.9	0.8	1.4	3.7
		Min-w	3.2	-	-	-	1.0	3.7	2.5	2.8	0.4	1.9	0.8	1.4	0.4
	Bandung	Mean	1.8	1.6	1.9	2.5	2.2	1.9	1.5	2.2	2.1	2.1	2.1	0.7	1.9
		%	100	100	100	100	100	100	100	97	100	100	100	100	100
		Max-2w	1.9	1.8	2.0	2.5	2.3	1.9	1.9	2.5	2.2	2.3	2.1	1.1	2.5
		Min-2w	1.8	1.5	1.9	2.5	2.1	1.9	1.1	1.8	2.0	1.8	2.0	0.3	0.3
Japan	Rishiri	Mean	0.4	0.4	0.2	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	0.1	0.1	0.3	0.2
		%	98	98	92	99	98	98	98	98	67	98	98	98	95
		Max-d	1.4	0.9	0.7	0.2	0.8	0.2	0.3	0.2	<0.1	0.4	0.3	0.7	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
	Ochiishi	Mean	0.3	0.3	0.2	<0.1	0.2	<0.1	<0.1	<0.1	0.1	0.2	0.2	0.3	0.2
		%	96	96	96	96	84	96	96	96	95	95	90	96	94
		Max-d	0.8	0.5	0.9	0.5	0.6	0.4	0.2	0.4	0.3	0.5	0.7	1.1	1.1
		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
	Tappi	Mean	0.4	0.5	0.4	0.2	0.4	0.3	0.1	0.4	0.2	0.1	0.2	0.5	0.3
		%	99	98	99	98	99	99	97	99	99	85	91	93	96
		Max-d	2.2	1.4	1.2	0.6	1.4	1.6	0.5	1.0	0.7	0.3	0.8	1.5	2.2
		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
	Sado-seki	Mean	0.3	0.3	0.3	0.2	0.2	-	-	<0.1	<0.1	<0.1	0.2	0.2	0.2
		%	98	98	98	98	96	0	0	86	98	98	98	98	81
		Max-d	1.4	0.9	1.1	0.7	0.8	-	-	0.2	0.5	0.2	0.7	0.5	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
	Happo	Mean	0.3	0.3	0.3	0.3	0.3	0.1	<0.1	0.2	<0.1	<0.1	0.1	<0.1	0.2
		%	98	98	98	98	98	98	98	98	88	98	97	98	97
		Max-d	1.2	1.6	1.1	1.2	0.9	0.5	0.3	0.7	0.4	0.5	0.6	0.4	1.6
		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
	Ijira	Mean	0.1	0.1	0.3	0.2	0.3	0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1
		%	98	98	98	98	99	98	98	98	98	98	85	90	97
		Max-d	0.4	0.5	0.7	0.5	1.3	0.5	0.6	0.3	0.2	0.2	0.2	0.2	1.3
		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
	Oki	Mean	0.6	0.5	0.6	0.4	0.4	0.2	0.3	<0.1	0.2	0.2	0.4	0.4	0.3
		%	98	87	97	95	97	98	98	98	98	97	81	96	95
		Max-d	2.1	1.5	1.5	1.0	1.0	0.9	1.1	0.4	1.0	0.4	1.5	1.3	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
	Banryu	Mean	0.5	0.5	0.5	0.2	0.2	0.2	0.2	0.1	0.1	0.4	0.2	0.2	0.3
		%	98	98	96	98	98	97	99	98	98	98	98	98	98
		Max-d	2.0	1.2	1.2	0.4	1.1	0.9	0.5	0.3	1.2	1.4	0.8	0.8	2.0
		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
	Yusuhara	Mean	0.9	1.1	1.1	0.5	0.6	0.3	0.4	0.3	0.2	0.4	0.5	0.6	0.6
		%	98	97	98	98	98	98	94	90	93	98	98	98	97
		Max-d	2.2	3.7	6.7	4.2	5.5	1.2	3.0	1.8	1.3	2.8	3.9	2.8	6.7
		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

Table 4.3 SO_2 (continued)

Unit : ppb			2016												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Japan	Hedo	Mean	0.2	0.3	0.3	<0.1	0.1	<0.1	<0.1	0.2	<0.1	<0.1	0.2	0.2	0.2
		%	98	81	98	98	98	98	92	97	78	91	97	98	94
		Max-d	0.5	1.3	1.3	0.5	0.6	0.2	0.4	1.4	0.4	0.2	0.9	0.5	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
	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
		%	98	55	98	98	98	98	98	98	98	97	98	79	93
		Max-d	<0.1	0.2	0.2	0.1	0.2	0.5	3.0	0.1	<0.1	0.1	<0.1	0.1	3.0
		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
	Tokyo	Mean	1.1	1.3	1.1	1.3	1.4	1.9	2.3	1.7	1.0	0.8	0.7	1.1	1.3
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	1.2	1.4	1.2	1.4	1.5	2.3	2.9	2.2	1.1	0.8	0.8	1.4	2.9
		Min-2w	0.9	1.1	0.9	1.3	1.3	1.5	1.7	1.2	1.0	0.7	0.7	0.8	0.7
Lao PDR	Vientiane	Mean	0.5	0.6	0.5	0.4	0.4	0.6	0.2	0.2	0.3	0.2	0.5	0.2	0.4
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-m	0.5	0.6	0.5	0.4	0.4	0.6	0.2	0.2	0.3	0.2	0.5	0.2	0.6
		Min-m	0.5	0.6	0.5	0.4	0.4	0.6	0.2	0.2	0.3	0.2	0.5	0.2	0.2
Malaysia	Petaling Jaya	Mean	0.9	0.3	1.4	1.9	1.5	1.7	1.4	1.5	0.9	0.7	1.0	0.5	1.2
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	1.1	0.6	2.1	2.6	1.7	2.8	2.4	2.8	1.7	1.2	1.4	0.9	2.8
		Min-w	0.6	<0.1	1.1	1.3	1.4	0.9	0.7	<0.1	0.3	0.5	0.3	0.3	<0.1
	Tanah Rata	Mean	<0.1	<0.1	<0.1	0.2	<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	<0.1	<0.1	0.2	0.5	<0.1	0.2	0.3	0.4	0.2	<0.1	<0.1	0.1	0.5
		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	<0.1	<0.1	<0.1	<0.1
		%	100	61	100	100	100	100	100	100	100	100	100	50	93
		Max-2w	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.2	<0.1	<0.1	<0.1	<0.1	0.2
		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	Mean	26.5	34.1	11.6	5.4	3.4	2.1	2.1	1.2	1.8	5.4	15.1	22.1	10.0
		%	94	57	84	100	99	100	91	99	99	77	86	96	90
		Max-d	53.0	54.8	31.5	10.3	8.1	5.5	8.3	4.5	4.9	12.7	37.3	33.5	54.8
		Min-d	6.3	12.8	4.0	1.0	1.1	0.3	0.3	<0.1	0.4	1.4	2.6	10.6	<0.1
	Terelj	Mean	1.0	0.4	0.4	0.5	0.2	0.1	<0.1	3.1	<0.1	0.3	0.4	-	0.6
		%	90	100	100	100	100	100	100	100	50	100	100	0	88
		Max-2w	1.6	0.5	0.7	0.9	0.4	0.2	<0.1	6.1	<0.1	0.3	0.5	-	6.1
		Min-2w	0.4	0.4	0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	0.3	-	<0.1
Myanmar	Yangon	Mean	0.2	0.2	0.3	0.6	0.9	<0.1	0.3	0.4	<0.1	0.3	0.3	-	0.4
		%	100	100	100	100	100	100	100	100	100	100	100	0	92
		Max-2w	0.3	0.2	0.3	1.0	2.3	<0.1	0.3	0.7	0.1	0.4	0.4	-	2.3
		Min-2w	0.2	0.2	0.3	0.1	0.2	<0.1	0.2	0.1	<0.1	0.2	0.1	-	<0.1
Philippines	Mt. Sto. Tomas	Mean	<0.1	<0.1	0.2	0.4	0.2	0.1	0.1	0.2	0.1	0.2	0.1	<0.1	0.2
		%	100	100	100	100	100	100	100	100	100	79	100	100	98
		Max-w	0.1	0.1	0.4	0.7	0.4	0.2	0.3	0.2	0.2	0.3	0.2	<0.1	0.7
		Min-w	<0.1	<0.1	<0.1	0.2	<0.1	0.1	<0.1	0.1	0.1	0.1	<0.1	<0.1	<0.1
Republic of Korea	Kanghwa	Mean	2.8	2.5	2.4	2.5	2.9	3.4	3.0	3.1	2.5	2.6	3.4	2.9	2.8
		%	99	98	98	98	98	96	99	99	98	98	98	97	98
		Max-d	4.4	3.8	4.7	5.0	4.9	4.9	4.4	5.0	3.8	3.7	4.8	6.6	6.6
		Min-d	1.8	1.5	1.3	1.2	1.4	2.7	2.5	2.5	1.9	2.2	2.4	1.6	1.2
	Cheju (Kosan)	Mean	0.7	1.0	0.5	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.5	0.5
		%	99	99	99	99	99	99	99	97	99	99	94	99	99
		Max-d	1.6	4.8	1.3	0.8	1.2	0.8	0.5	0.6	0.7	0.7	0.9	0.9	4.8
		Min-d	0.2	0.2	0.2	0.2	0.1	0.2	0.4	0.4	0.4	0.4	0.3	0.3	0.1
	Imsil	Mean	2.0	2.8	2.0	2.0	1.9	1.6	1.7	0.6	0.4	1.0	1.9	2.4	1.7
		%	98	97	97	91	99	98	98	83	89	98	97	96	95
		Max-d	3.8	5.6	2.9	3.2	3.2	2.7	3.3	2.2	1.2	1.7	3.1	4.0	5.6
		Min-d	1.0	1.0	1.2	0.8	0.9	1.0	0.7	<0.1	<0.1	0.6	1.3	0.9	<0.1

Table 4.3 SO_2 (continued)

Unit : ppb			2016												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Russia	Mondy	Mean	<0.1	0.2	<0.1	<0.1	0.2	<0.1	<0.1	<0.1	0.2	0.2	0.1	<0.1	<0.1
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-m	<0.1	0.2	<0.1	<0.1	0.4	<0.1	<0.1	<0.1	0.2	0.3	0.1	<0.1	0.4
		Min-m	<0.1	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.2	<0.1	0.1	<0.1	<0.1
	Listvyanka	Mean	12.3	9.5	5.7	5.2	1.1	0.9	0.7	0.1	0.2	1.2	6.8	4.7	4.1
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	28.2	18.6	8.6	13.7	1.4	1.2	1.1	0.2	0.3	3.8	14.1	10.8	28.2
		Min-w	4.8	4.8	3.1	1.7	0.7	0.5	0.3	<0.1	<0.1	<0.1	3.8	0.2	<0.1
	Irkutsk	Mean	15.6	9.9	11.1	2.6	1.8	0.6	0.6	0.9	1.3	6.2	4.2	7.9	5.5
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	22.4	15.6	19.7	3.4	2.9	0.7	1.2	1.2	1.4	14.5	5.4	12.7	22.4
		Min-w	6.2	4.3	0.7	1.2	1.1	0.4	0.3	0.5	1.2	2.6	1.7	4.3	0.3
	Primorskaya	Mean	1.2	1.1	0.9	0.5	0.9	0.5	1.2	0.4	0.3	0.2	1.0	0.9	0.8
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	1.6	1.5	0.9	0.6	0.9	0.5	1.6	0.5	0.3	0.4	1.1	1.0	1.6
		Min-2w	0.8	0.7	0.8	0.5	0.8	0.4	0.7	0.3	0.3	<0.1	0.8	0.9	<0.1
Thailand	Bangkok	Mean	0.7	1.0	0.8	1.7	0.8	<0.1	0.8	0.7	0.8	0.8	0.8	0.9	0.8
		%	90	100	100	100	100	100	100	100	100	100	100	100	99
		Max-10d	1.2	1.1	0.9	4.8	1.0	<0.1	1.0	0.7	0.9	1.1	0.9	1.0	4.8
		Min-10d	0.2	0.9	0.7	0.2	0.7	<0.1	0.7	0.6	0.7	0.6	0.7	0.8	<0.1
	Samutprakarn	Mean	5.4	-	-	-	-	2.3	1.6	2.4	2.1	1.9	1.8	2.0	2.0
		%	6	0	0	0	0	25	96	95	96	95	95	95	51
		Max-d	5.7	-	-	-	-	4.5	3.9	4.7	4.7	4.7	4.5	4.9	5.7
		Min-d	5.0	-	-	-	-	1.0	0.1	0.6	0.7	0.8	0.4	0.4	0.1
	Khanchanaburi (Vachiralongkorn Dam)	Mean	-	-	2.1	1.9	-	-	-	0.6	-	-	-	2.8	1.7
		%	0	0	9	61	0	0	0	52	0	0	0	43	14
		Max-d	-	-	2.4	2.9	-	-	-	1.6	-	-	-	4.0	4.0
		Min-d	-	-	1.9	0.4	-	-	-	<0.1	-	-	-	<0.1	<0.1
	Mae Hia	Mean	<0.1	0.2	0.6	0.3	0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	0.2
		%	30	97	97	97	97	97	97	97	63	0	0	0	64
		Max-10d	<0.1	0.4	0.8	0.4	0.2	<0.1	0.2	<0.1	<0.1	-	-	-	0.8
		Min-10d	<0.1	<0.1	0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	<0.1
	Chang Phueak	Mean	0.6	0.7	0.9	1.5	0.4	0.7	0.2	0.9	0.9	1.0	1.0	0.3	0.8
		%	95	96	88	94	63	74	65	95	95	95	92	83	86
		Max-d	1.3	1.7	2.5	9.6	4.5	5.5	0.9	1.0	1.0	1.1	1.2	0.7	9.6
		Min-d	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.8	0.9	0.9	0.8	<0.1	<0.1
	Si Phum	Mean	1.0	1.2	1.5	1.6	1.1	1.0	1.0	1.0	1.0	1.0	1.1	1.1	1.1
		%	96	96	95	95	93	94	96	96	96	96	94	95	95
		Max-d	1.4	1.7	2.2	2.2	1.4	1.1	1.0	1.1	1.0	1.2	1.6	1.5	2.2
		Min-d	0.7	0.9	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.7
	Sakaerat	Mean	2.0	0.5	0.3	0.5	0.3	0.2	0.2	0.2	<0.1	-	-	-	0.4
		%	29	100	100	100	100	100	100	100	57	0	0	0	65
		Max-10d	2.0	0.7	0.4	0.6	0.4	0.3	0.2	0.2	0.1	-	-	-	2.0
		Min-10d	2.0	0.3	<0.1	0.5	0.2	0.2	<0.1	0.2	<0.1	-	-	-	<0.1
	Nai Mueang	Mean	6.1	6.4	6.2	5.8	0.1	1.2	1.3	1.9	1.7	0.5	0.8	1.4	3.2
		%	96	96	96	94	42	77	76	69	71	53	91	91	79
		Max-d	7.2	7.8	7.3	7.4	0.8	1.6	1.7	2.9	3.5	1.3	1.5	2.4	7.8
		Min-d	5.0	5.5	5.7	<0.1	<0.1	0.9	1.0	1.5	<0.1	0.2	<0.1	0.6	<0.1
Viet Nam	Hanoi	Mean	1.7	1.2	2.0	1.6	2.4	1.6	1.6	2.1	1.3	1.8	1.5	2.2	1.8
		%	75	100	100	100	100	100	75	100	100	100	50	100	92
		Max-w	2.2	1.5	3.2	1.9	4.1	2.0	1.8	3.5	1.6	2.5	1.6	2.6	4.1
		Min-w	1.2	0.9	1.5	1.4	1.6	1.5	1.2	1.4	1.0	1.6	1.3	1.7	0.9
	Hoa Binh	Mean	1.3	1.3	1.2	1.4	1.4	1.1	1.1	1.0	1.3	1.2	1.1	1.5	1.3
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	1.6	1.5	1.5	1.7	1.6	1.5	1.2	1.1	1.4	1.3	1.2	2.4	2.4
		Min-w	0.9	1.0	1.0	1.2	1.3	0.9	1.0	1.0	1.3	0.9	0.9	1.0	0.9
	Can Tho	Mean	0.4	0.2	0.4	0.4	0.4	0.4	0.3	0.2	0.4	0.2	0.2	0.3	0.3
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.7	0.2	0.7	0.5	0.5	0.4	0.4	0.2	0.4	0.3	0.3	0.4	0.7
		Min-w	0.3	0.1	0.2	0.3	0.3	0.3	0.3	0.1	0.3	0.1	0.2	0.3	0.1
	Ho Chi Minh	Mean	0.5	0.6	0.6	0.7	0.7	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.6	0.7	0.6	0.7	0.8	0.6	0.6	0.5	0.5	0.6	0.6	0.6	0.8
		Min-w	0.4	0.5	0.6	0.6	0.6	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.4
	Yen Bai	Mean	1.3	1.8	1.3	1.4	1.7	1.9	1.1	1.3	2.8	1.4	0.9	1.2	1.5
		%	75	100	100	100	100	100	100	100	100	100	100	100	98
		Max-w	1.4	2.1	1.5	1.4	2.2	2.5	1.2	1.8	3.5	1.5	1.2	1.4	3.5
		Min-w	1.2	1.5	1.2	1.3	1.4	1.2	1.0	1.1	2.0	1.2	0.6	1.0	0.6

Terms and abbreviations are given in Table 4.2.

Table 4.4 HNO_3

Unit : ppb			2016												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Cambodia	Phnom Penh	Mean	-	-	-	-	0.6	0.6	0.4	0.3	0.2	0.4	0.6	0.4	0.4
		%	0	0	0	0	97	100	100	100	100	100	100	100	67
		Max-2w	-	-	-	-	0.7	0.9	0.5	0.4	0.3	0.6	0.7	0.5	0.9
		Min-2w	-	-	-	-	0.4	0.4	0.2	0.2	0.2	0.2	0.5	0.2	0.2
China	Hongwen	Mean	0.2	0.5	1.2	2.9	3.9	1.0	1.1	2.1	0.8	0.6	0.9	0.3	1.2
		%	61	100	100	100	100	100	100	100	100	100	100	100	97
		Max-m	0.2	0.5	2.1	2.9	3.9	1.0	1.1	3.5	0.9	0.8	1.1	0.3	3.9
		Min-m	0.2	0.5	0.3	2.9	3.9	1.0	1.1	0.7	0.7	0.5	0.7	0.3	0.2
Indonesia	Jakarta	Mean	0.9	1.1	1.3	0.6	2.2	1.6	-	-	1.2	0.6	0.2	0.2	1.0
		%	100	100	100	100	100	100	0	0	100	44	93	100	78
		Max-2w	1.1	1.3	1.4	1.2	2.2	1.8	-	-	1.5	0.6	0.2	0.2	2.2
		Min-2w	0.7	0.9	1.3	<0.1	2.1	1.4	-	-	0.8	0.6	0.1	0.1	<0.1
	Serpong	Mean	0.6	0.4	0.7	1.1	1.2	1.2	0.9	1.2	0.7	-	0.7	0.3	0.8
		%	58	100	100	100	100	100	100	100	100	0	100	100	90
		Max-2w	0.6	0.7	1.0	1.2	1.2	1.4	1.0	1.2	1.1	-	0.7	0.6	1.4
		Min-2w	0.6	<0.1	0.4	1.0	1.2	1.0	0.7	1.2	0.4	-	0.7	<0.1	<0.1
	Bandung	Mean	0.7	0.4	0.5	0.6	0.5	0.6	0.6	0.5	0.5	0.3	0.4	<0.1	0.5
		%	100	100	100	100	100	100	100	97	100	100	100	100	100
		Max-2w	0.8	0.6	0.6	0.6	0.5	0.6	0.6	0.6	0.5	0.4	0.5	0.1	0.8
		Min-2w	0.6	0.2	0.4	0.6	0.5	0.6	0.6	0.4	0.5	0.3	0.4	<0.1	<0.1
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
		%	100	100	100	100	100	100	100	100	46	100	100	100	96
		Max-2w	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	0.1	0.2	<0.1	<0.1	<0.1	<0.1	0.2
		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	100	53	100	100	100	33	100	100	100	100	88
		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	0.2	<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	0.3	<0.1	0.2	0.4	0.1	<0.1	<0.1	<0.1	0.4
		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	0.1	0.4	0.2	0.1	0.3	0.2	<0.1	<0.1	<0.1	0.2
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	<0.1	0.2	0.2	0.2	0.7	0.3	0.1	0.7	0.3	<0.1	<0.1	<0.1	0.7
		Min-2w	<0.1	<0.1	<0.1	<0.1	0.2	0.2	0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Happo	Mean	0.1	0.2	0.2	0.3	0.4	0.4	0.3	0.4	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	0.1	0.2	0.3	0.4	0.4	0.4	0.4	0.5	0.2	0.1	0.1	0.1	0.5
		Min-2w	<0.1	0.1	0.1	0.2	0.4	0.3	0.3	0.2	<0.1	0.1	0.1	<0.1	<0.1
	Ijira	Mean	<0.1	0.1	0.2	0.3	0.4	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	<0.1	0.2	0.3	0.3	0.5	0.3	0.3	0.5	0.2	0.1	<0.1	<0.1	0.5
		Min-2w	<0.1	0.1	0.2	0.3	0.3	0.2	0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Oki	Mean	<0.1	0.1	0.2	0.2	0.4	0.2	0.1	-	-	-	-	-	0.2
		%	100	100	100	100	100	100	54	0	0	0	0	0	54
		Max-2w	<0.1	0.2	0.2	0.2	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
	Banryu	Mean	0.2	0.2	0.2	0.2	0.4	0.3	0.2	-	-	-	-	-	0.2
		%	100	100	100	100	100	100	50	0	0	0	0	0	54
		Max-2w	0.2	0.2	0.3	0.2	0.5	0.5	0.2	-	-	-	-	-	0.5
		Min-2w	0.1	0.1	0.1	0.2	0.2	<0.1	0.2	-	-	-	-	-	<0.1
	Yusuhara	Mean	0.3	0.2	0.3	0.4	0.3	0.2	0.2	0.2	0.1	<0.1	0.2	0.1	0.2
		%	100	100	100	100	100	100	100	100	100	75	100	100	98
		Max-2w	0.4	0.3	0.3	0.4	0.3	0.2	0.3	0.4	0.1	0.1	0.3	0.2	0.4
		Min-2w	0.2	<0.1	0.2	0.4	0.2	0.1	0.1	<0.1	<0.1	<0.1	0.2	0.1	<0.1
	Hedo	Mean	<0.1	<0.1	0.2	<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-2w	0.1	0.1	0.2	<0.1	<0.1	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	0.2	0.2
		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
	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	100	100	100	100	100	100	100	100
		Max-2w	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<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	0.3	0.4	0.5	0.7	1.0	2.1	0.5	0.9	0.4	0.3	0.3	0.6
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.2	0.3	0.4	0.6	0.9	1.3	2.3	0.7	1.5	0.6	0.3	0.3	2.3
		Min-2w	0.2	0.2	0.4	0.4	0.4	0.8	1.8	0.3	0.4	0.3	0.3	0.2	0.2
Lao PDR	Vientiane	Mean	<0.1	0.3	0.6	0.4	0.2	0.1	0.2	0.1	0.2	0.1	0.3	0.2	0.2
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-m	<0.1	0.3	0.6	0.4	0.2	0.1	0.2	0.1	0.2	0.1	0.3	0.2	0.6
		Min-m	<0.1	0.3	0.6	0.4	0.2	0.1	0.2	0.1	0.2	0.1	0.3	0.2	<0.1
Malaysia	Petaling Jaya	Mean	0.4	<0.1	0.9	1.0	0.6	0.3	0.3	0.2	0.1	<0.1	0.1	<0.1	0.4
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.9	0.2	2.0	1.3	0.9	0.6	0.6	0.6	0.3	0.1	0.2	0.1	2.0
		Min-w	0.1	<0.1	0.2	0.6	0.4	<0.1	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Tanah Rata	Mean	<0.1	<0.1	0.1	0.2	<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	<0.1	<0.1	0.2	0.4	0.1	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
	Danum Valley	Mean	<0.1	<0.1	0.2	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
		%	100	61	100	100	100	100	100	100	100	100	100	50	93
		Max-2w	<0.1	<0.1	0.2	0.1	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<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	<0.1	<0.1	<0.1	<0.1

Table 4.4 HNO_3 (continued)

Unit : ppb			2016												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Mongolia	Ulaanbaatar	Mean	0.2	0.2	0.2	0.1	<0.1	0.1	0.1	0.2	<0.1	0.1	<0.1	0.3	0.1
		%	90	75	100	100	100	100	100	100	80	100	100	60	92
		Max-w	0.5	0.3	0.5	0.2	0.2	0.1	0.2	0.2	<0.1	0.2	0.1	0.6	0.6
		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
	Terelj	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
		%	90	100	100	100	100	100	100	100	50	100	100	0	88
		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
		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
Myammar	Yangon	Mean	0.2	0.3	0.1	0.1	0.6	0.2	0.1	0.1	<0.1	<0.1	0.3	-	0.2
		%	100	100	100	100	100	100	100	100	100	100	100	0	92
		Max-2w	0.3	0.3	0.2	0.2	1.3	0.2	0.2	0.3	<0.1	0.1	0.7	-	1.3
		Min-2w	0.2	0.2	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1
Philippines	Mt. Sto. Tomas	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	79	100	100	98
		Max-w	<0.1	0.1	0.2	0.2	0.1	0.1	<0.1	0.1	0.1	<0.1	<0.1	<0.1	0.2
		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
Republic of Korea	Kanghwa	Mean	<0.1	0.2	0.3	0.3	0.8	0.8	0.5	0.4	0.7	0.6	0.5	0.2	0.4
		%	16	17	16	17	16	17	13	16	17	16	17	19	16
		Max-d	0.1	0.3	0.7	0.6	1.6	1.5	0.7	0.8	2.6	0.9	1.3	0.2	2.6
		Min-d	<0.1	0.1	<0.1	0.1	0.2	0.3	<0.1	<0.1	<0.1	0.1	0.1	<0.1	<0.1
	Cheju (Kosan)	Mean	-	0.4	0.8	1.0	1.0	0.5	0.4	0.3	0.3	0.3	0.4	0.6	0.6
		%	0	17	16	17	16	17	16	16	17	10	17	16	14
		Max-d	-	0.8	1.2	1.3	2.3	1.0	0.5	0.3	0.5	0.5	0.5	1.5	2.3
		Min-d	-	0.2	0.5	0.9	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2
	Imsil	Mean	-	0.4	0.8	0.6	1.3	1.2	0.7	0.4	0.4	0.6	0.8	0.4	0.7
		%	0	17	16	17	16	17	16	16	17	16	17	13	15
		Max-d	-	0.5	1.2	1.1	3.1	2.3	1.3	0.7	0.8	1.4	1.5	0.7	3.1
		Min-d	-	0.2	0.3	0.3	0.3	0.5	0.2	0.2	0.1	0.1	0.3	0.3	0.1
Russia	Mondy	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-m	<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-m	<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
	Listvyanka	Mean	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
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.5	<0.1	0.2	0.2	0.2	<0.1	0.2	<0.1	0.2	0.1	0.2	0.3	0.5
		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	0.2	0.1	0.2	0.2	<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	0.2	0.2	0.3	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.4	0.5	0.3
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.2	0.3	0.3	0.3	0.4	0.4	0.3	0.4	0.3	0.3	0.5	0.5	0.5
		Min-2w	0.1	0.2	0.3	0.3	0.4	0.3	0.3	0.2	0.3	0.3	0.4	0.4	0.1
Thailand	Bangkok	Mean	0.6	1.0	0.6	0.5	0.5	<0.1	0.2	0.2	0.3	0.4	0.5	0.4	0.4
		%	90	100	100	100	100	100	100	100	100	100	100	100	99
		Max-10d	1.4	1.2	0.9	0.6	0.8	<0.1	0.3	0.2	0.4	0.6	0.8	0.5	1.4
		Min-10d	0.2	0.8	0.2	0.3	0.3	<0.1	<0.1	0.1	0.2	0.2	0.3	0.3	<0.1
	Khanchanaburi (Vachiralongkorn Dam)	Mean	-	-	-	5.1	-	-	-	<0.1	-	-	-	<0.1	1.7
		%	0	0	0	67	0	0	0	58	0	0	0	45	15
		Max-2w	-	-	-	5.1	-	-	-	<0.1	-	-	-	<0.1	5.1
		Min-2w	-	-	-	5.1	-	-	-	<0.1	-	-	-	<0.1	<0.1
	Mae Hia	Mean	<0.1	0.4	0.2	0.4	0.2	0.1	0.1	<0.1	0.1	-	-	-	0.2
		%	30	97	97	97	97	97	97	97	63	0	0	0	64
		Max-10d	<0.1	0.6	0.4	0.9	0.3	0.1	0.2	<0.1	0.2	-	-	-	0.9
		Min-10d	<0.1	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	-	-	-	<0.1
	Sakaerat	Mean	2.2	0.6	0.7	0.6	0.3	0.1	0.2	0.1	<0.1	-	-	-	0.4
		%	29	100	100	100	100	100	100	100	57	0	0	0	65
		Max-10d	2.2	0.6	1.6	0.8	0.4	0.2	0.2	0.2	<0.1	-	-	-	2.2
		Min-10d	2.2	0.4	<0.1	0.5	0.2	<0.1	0.1	0.1	<0.1	-	-	-	<0.1
Viet Nam	Hanoi	Mean	0.8	0.6	0.6	0.9	1.3	0.9	0.9	1.1	0.8	1.2	0.5	0.7	0.9
		%	75	100	100	100	100	100	75	100	100	100	50	100	92
		Max-w	1.0	1.0	0.7	1.6	1.8	1.2	1.1	2.0	1.0	2.2	0.6	0.9	2.2
		Min-w	0.7	0.4	0.5	0.6	0.9	0.5	0.8	0.9	0.6	0.9	0.4	0.5	0.4
	Hoa Binh	Mean	0.7	0.8	0.5	1.1	1.7	0.7	0.6	0.6	0.5	0.5	0.5	0.4	0.7
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	1.1	1.1	0.7	1.4	2.1	0.8	0.6	0.8	0.7	0.6	0.6	0.6	2.1
		Min-w	0.5	0.6	0.3	0.8	1.2	0.6	0.6	0.6	0.4	0.4	0.4	0.1	0.1
	Can Tho	Mean	0.3	<0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.2	0.2	0.2
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.3	<0.1	0.2	0.2	0.2	0.2	0.3	0.2	0.3	0.2	0.3	0.2	0.3
		Min-w	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
	Ho Chi Minh	Mean	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.2
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.4	0.4	0.4	0.4	0.4
		Min-w	<0.1	<0.1	0.1	0.2	0.2	0.1	0.2	0.1	0.2	0.3	0.3	0.3	<0.1
	Yen Bai	Mean	0.4	0.5	0.5	1.0	0.9	1.0	0.8	0.7	0.7	0.4	0.3	0.4	0.6
		%	75	100	100	100	100	100	100	100	100	100	100	100	98
		Max-w	0.5	0.9	0.6	1.4	1.2	1.3	1.1	0.9	0.9	0.4	0.4	0.4	1.4
		Min-w	0.4	0.3	0.5	0.9	0.6	0.5	0.6	0.3	0.5	0.4	0.2	0.3	0.2

Terms and abbreviations are given in Table 4.2.

Table 4.5 HCl

Unit : ppb			2016												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Cambodia	Phnom Penh	Mean	-	-	-	-	1.0	1.5	1.3	1.1	1.0	1.0	1.7	0.7	1.2
		%	0	0	0	0	97	100	100	100	100	100	100	100	67
		Max-2w	-	-	-	-	1.3	1.9	1.5	1.3	1.1	1.1	1.7	0.8	1.9
		Min-2w	-	-	-	-	0.8	1.1	1.1	0.7	1.0	0.8	1.7	0.6	0.6
China	Hongwen	Mean	1.0	0.9	1.7	1.8	3.6	2.0	1.4	2.6	1.8	1.7	1.7	1.5	1.8
		%	61	100	100	100	100	100	100	100	100	100	100	100	97
		Max-m	1.0	0.9	2.1	1.8	3.6	2.0	1.4	3.3	1.8	1.9	1.8	1.5	3.6
		Min-m	1.0	0.9	1.2	1.8	3.6	2.0	1.4	1.9	1.8	1.5	1.5	1.5	0.9
Indonesia	Jakarta	Mean	1.0	1.3	1.0	0.8	1.5	0.9	-	-	1.1	0.8	0.5	0.5	0.9
		%	100	100	100	100	100	100	0	0	100	44	93	100	78
		Max-2w	1.1	1.5	1.0	1.1	1.8	0.9	-	-	1.3	0.8	0.7	0.6	1.8
		Min-2w	0.8	1.1	0.9	0.5	1.3	0.8	-	-	0.8	0.8	0.3	0.3	0.3
	Serpong	Mean	0.4	0.4	0.6	0.5	0.9	0.6	0.6	1.1	0.7	-	0.6	0.8	0.7
		%	58	100	100	100	100	100	100	100	100	0	100	100	90
		Max-2w	0.4	0.7	0.7	0.5	1.1	0.7	0.7	1.4	0.9	-	0.6	0.8	1.4
		Min-2w	0.4	<0.1	0.6	0.4	0.6	0.6	0.5	0.9	0.4	-	0.6	0.7	<0.1
	Bandung	Mean	1.2	1.1	0.9	0.9	1.1	1.4	1.3	1.4	1.0	1.0	1.0	0.6	1.1
		%	100	100	100	100	100	100	100	97	100	100	100	100	100
		Max-2w	1.2	1.6	1.1	1.1	1.2	1.4	1.4	1.5	1.1	1.2	1.0	0.6	1.6
		Min-2w	1.2	0.6	0.7	0.8	1.0	1.4	1.2	1.2	0.9	0.8	0.9	0.5	0.5
Japan	Rishiri	Mean	0.3	0.4	0.3	0.3	0.9	0.3	0.4	0.5	0.4	0.3	0.3	0.3	0.4
		%	100	100	100	100	100	100	100	100	46	100	100	100	96
		Max-2w	0.4	0.4	0.4	0.4	1.2	0.3	0.5	0.7	0.4	0.3	0.3	0.3	1.2
		Min-2w	0.2	0.4	0.2	0.2	0.6	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.2
	Ochiishi	Mean	0.2	0.2	0.3	0.3	0.6	0.4	0.5	0.4	1.6	0.2	0.3	0.2	0.4
		%	100	100	100	53	100	100	100	33	100	100	100	100	88
		Max-2w	0.2	0.2	0.3	0.3	0.8	0.5	0.5	0.4	2.6	0.2	0.4	0.2	2.6
		Min-2w	<0.1	0.2	0.3	0.3	0.4	0.4	0.4	0.4	0.6	0.2	0.2	0.2	<0.1
	Tappi	Mean	0.2	0.4	0.5	0.4	0.8	0.6	0.5	0.6	0.4	0.3	0.5	0.5	0.5
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.2	0.5	0.6	0.5	1.0	0.7	0.6	0.7	0.5	0.3	0.7	0.7	1.0
		Min-2w	0.2	0.4	0.4	0.3	0.7	0.4	0.3	0.6	0.4	0.3	0.4	0.3	0.2
	Sado-seki	Mean	0.5	0.7	0.7	0.6	0.8	1.0	0.7	0.7	0.6	0.5	0.7	0.8	0.7
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.7	0.9	0.8	0.9	0.9	1.0	0.7	0.8	0.7	0.5	0.8	0.8	1.0
		Min-2w	0.4	0.6	0.6	0.3	0.7	0.9	0.6	0.5	0.5	0.5	0.5	0.7	0.3
	Happo	Mean	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.2	<0.1	0.2	0.2	0.2	0.2
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.3	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-2w	<0.1	0.2	0.1	0.2	0.2	0.1	<0.1	0.2	<0.1	0.2	0.2	0.2	<0.1
	Ijira	Mean	0.2	0.2	0.2	0.3	0.2	0.2	0.1	0.2	<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	0.3	0.2	0.3	0.2	0.3	0.2	0.3	0.1	0.2	0.1	0.2	0.3
		Min-2w	0.1	0.1	0.2	0.2	0.2	0.1	0.1	<0.1	<0.1	0.1	<0.1	<0.1	<0.1
	Oki	Mean	0.8	0.8	1.0	0.8	0.6	0.7	0.7	-	-	-	-	-	0.8
		%	100	100	100	100	100	100	54	0	0	0	0	0	54
		Max-2w	1.0	0.9	1.2	0.9	0.7	1.1	0.7	-	-	-	-	-	1.2
		Min-2w	0.6	0.7	0.7	0.7	0.4	0.3	0.7	-	-	-	-	-	0.3
	Banryu	Mean	0.7	0.7	0.8	0.8	0.5	0.3	0.3	-	-	-	-	-	0.6
		%	100	100	100	100	100	100	50	0	0	0	0	0	54
		Max-2w	0.8	0.8	0.9	0.9	0.7	0.5	0.3	-	-	-	-	-	0.9
		Min-2w	0.5	0.6	0.6	0.8	0.4	0.1	0.3	-	-	-	-	-	0.1
	Yusuhara	Mean	0.6	0.4	0.2	0.3	0.2	0.1	0.2	0.2	0.1	0.2	0.2	0.2	0.3
		%	100	100	100	100	100	100	100	100	100	75	100	100	98
		Max-2w	0.6	0.6	0.2	0.3	0.2	0.2	0.2	0.3	0.1	0.2	0.3	0.3	0.6
		Min-2w	0.6	0.3	0.2	0.3	0.2	<0.1	0.2	0.1	0.1	0.2	0.2	0.2	<0.1
	Hedo	Mean	1.4	0.9	1.4	0.9	0.8	1.0	0.4	1.2	0.6	0.6	1.2	1.2	1.0
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	1.6	1.1	1.7	1.1	0.8	1.4	0.5	1.4	0.9	0.6	1.5	1.6	1.7
		Min-2w	1.2	0.8	1.2	0.7	0.8	0.5	0.3	0.7	0.4	0.5	0.9	0.9	0.3
	Ogasawara	Mean	0.6	0.5	0.4	0.5	0.4	0.5	0.3	0.2	0.1	0.2	0.2	0.3	0.4
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.7	0.5	0.5	0.6	0.4	0.5	0.5	0.3	0.1	0.2	0.3	0.3	0.7
		Min-2w	0.5	0.5	0.3	0.4	0.4	0.4	0.2	0.2	0.1	0.2	0.2	0.3	0.1
	Tokyo	Mean	0.4	0.6	0.6	1.2	1.1	0.7	1.0	0.9	0.8	0.8	0.4	0.3	0.7
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.5	0.6	0.7	1.2	1.2	0.8	1.1	1.2	0.9	0.9	0.5	0.3	1.2
		Min-2w	0.4	0.6	0.6	1.2	1.0	0.7	0.9	0.7	0.7	0.8	0.3	0.3	0.3
Lao PDR	Vientiane	Mean	0.4	0.3	0.4	0.4	0.3	0.2	0.1	0.1	0.1	0.2	0.3	0.2	0.2
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-m	0.4	0.3	0.4	0.4	0.3	0.2	0.1	0.1	0.1	0.2	0.3	0.2	0.4
		Min-m	0.4	0.3	0.4	0.4	0.3	0.2	0.1	0.1	0.1	0.2	0.3	0.2	0.1
Malaysia	Petaling Jaya	Mean	1.4	0.3	1.0	2.4	1.4	1.2	1.7	2.9	3.6	5.4	5.1	6.7	2.8
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	3.4	0.3	2.4	7.0	1.8	2.0	6.3	3.8	4.8	9.6	9.5	10.2	10.2
		Min-w	0.4	0.2	<0.1	0.4	0.9	0.4	0.4	0.8	2.4	3.7	2.7	3.4	<0.1
	Tanah Rata	Mean	0.4	0.2	0.2	0.3	0.3	0.2	0.4	0.1	1.3	1.6	1.5	1.8	0.7
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	1.5	0.3	0.2	0.6	0.6	0.3	0.6	0.2	1.5	1.8	1.9	2.1	2.1
		Min-w	<0.1	0.2	0.1	0.1	<0.1	0.1	0.2	<0.1	0.9	1.4	1.3	1.3	<0.1
	Danum Valley	Mean	0.4	0.8	0.4	0.4	0.2	0.1	0.1	<0.1	0.1	0.2	0.8	0.3	0.3
		%	100	61	100	100	100	100	100	100	100	100	100	50	93
		Max-2w	0.6	0.8	0.5	0.5	0.5	0.1	0.2	<0.1	0.1	0.4	1.3	0.3	1.3
		Min-2w	0.3	0.8	0.4	0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.4	0.3	<0.1

Table 4.5 HCl (continued)

Unit : ppb			2016												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Mongolia	Ulaanbaatar	Mean	1.1	1.8	1.7	1.4	17.0	25.0	27.3	23.7	21.4	6.8	0.6	1.5	11.3
		%	90	75	100	100	100	100	100	100	80	100	100	60	92
		Max-w	2.6	2.7	2.8	2.2	30.6	68.7	41.0	36.8	41.4	13.0	0.8	2.3	68.7
		Min-w	0.3	0.4	0.4	0.3	4.5	2.0	4.7	4.3	2.7	1.3	0.5	1.0	0.3
	Terelj	Mean	0.3	0.4	0.5	0.8	8.3	1.4	21.3	8.6	5.6	0.4	0.3	-	4.3
		%	90	100	100	100	100	100	100	100	50	100	100	0	88
		Max-2w	0.4	0.5	0.6	1.1	17.9	2.6	21.8	15.3	5.6	0.5	0.3	-	21.8
		Min-2w	0.3	0.4	0.4	0.5	2.2	0.2	20.9	2.0	5.6	0.2	0.2	-	0.2
Myanmar	Yangon	Mean	<0.1	<0.1	0.2	0.6	0.5	<0.1	0.2	0.2	<0.1	0.2	0.2	-	0.2
		%	100	100	100	100	100	100	100	100	100	100	100	0	92
		Max-2w	<0.1	<0.1	0.2	1.2	1.2	0.1	0.4	0.3	<0.1	0.2	0.2	-	1.2
		Min-2w	<0.1	<0.1	0.2	<0.1	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1
Philippines	Mt. Sto. Tomas	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	79	100	100	98
		Max-w	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	0.6	0.2	0.2	0.2	0.2	<0.1	0.6
		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	0.1	0.1	0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.2	0.1	<0.1
		%	16	17	16	17	16	17	13	16	17	16	17	19	16
		Max-d	0.2	0.3	0.2	0.2	0.3	0.2	<0.1	<0.1	<0.1	0.1	0.5	0.3	0.5
		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
	Cheju (Kosan)	Mean	-	0.3	0.2	0.4	0.2	0.2	0.2	0.1	0.1	0.1	0.3	0.3	0.2
		%	0	17	16	17	16	17	16	16	17	10	17	16	14
		Max-d	-	0.5	0.3	0.5	0.3	0.3	0.3	0.2	0.1	0.2	0.4	0.4	0.5
		Min-d	-	0.1	0.2	0.3	0.2	0.1	0.1	<0.1	<0.1	<0.1	0.2	0.2	<0.1
	Imsil	Mean	-	0.2	0.4	0.2	0.2	0.1	0.1	0.1	<0.1	0.1	0.3	0.3	0.2
		%	0	17	16	17	16	17	16	16	17	16	17	13	15
		Max-d	-	0.3	0.6	0.2	0.3	0.1	0.1	0.1	0.1	0.1	0.4	0.4	0.6
		Min-d	-	0.1	0.2	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.2	0.2	<0.1
Russia	Mondy	Mean	0.6	1.7	1.5	2.4	1.7	3.3	2.7	0.9	1.4	1.5	0.5	0.3	1.6
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-m	1.0	1.7	2.2	2.4	2.1	3.9	2.7	1.7	1.4	2.7	0.5	0.3	3.9
		Min-m	0.2	1.7	0.9	2.4	1.2	2.7	2.7	0.1	1.4	0.3	0.5	0.3	0.1
	Listvyanka	Mean	7.5	3.8	8.6	11.3	10.9	10.6	8.6	6.4	11.9	9.2	14.0	5.2	9.0
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	8.0	5.1	11.6	17.5	15.0	16.3	11.8	10.2	14.4	15.6	19.5	15.1	19.5
		Min-w	6.7	3.3	4.5	8.0	8.8	5.2	6.2	1.9	9.7	3.5	8.8	0.3	0.3
	Irkutsk	Mean	4.8	4.7	7.3	1.1	0.7	3.5	4.5	2.0	1.9	0.7	1.4	5.9	3.2
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	6.7	5.2	12.4	1.3	1.1	5.4	5.6	3.0	3.9	0.9	3.9	8.3	12.4
		Min-w	2.4	4.3	1.9	0.9	0.4	0.3	1.9	0.3	0.4	0.3	0.4	2.9	0.3
	Primorskaya	Mean	0.6	0.8	0.7	0.6	0.7	0.7	0.8	0.6	0.7	1.0	1.3	1.6	0.8
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.9	0.9	0.8	0.6	0.7	0.7	0.8	0.7	0.7	1.0	1.3	1.8	1.8
		Min-2w	0.2	0.8	0.6	0.6	0.6	0.6	0.7	0.6	0.6	0.9	1.2	1.3	0.2
Thailand	Bangkok	Mean	2.0	1.0	1.0	1.1	0.7	7.4	0.4	1.4	1.2	0.3	0.4	1.4	1.5
		%	90	100	100	100	100	100	100	100	100	100	100	100	99
		Max-10d	2.7	1.4	1.2	1.1	0.8	17.9	0.6	1.5	1.4	0.3	0.5	1.6	17.9
		Min-10d	0.8	0.7	0.8	1.0	0.6	2.1	0.4	1.3	1.1	0.2	0.3	1.1	0.2
	Khanchanaburi (Vachiralongkorn Dam)	Mean	-	-	-	4.0	-	-	-	0.3	-	-	-	<0.1	1.4
		%	0	0	0	67	0	0	0	58	0	0	0	45	15
		Max-2w	-	-	-	4.0	-	-	-	0.3	-	-	-	<0.1	4.0
		Min-2w	-	-	-	4.0	-	-	-	0.3	-	-	-	<0.1	<0.1
	Mae Hia	Mean	0.2	0.2	0.2	0.5	0.4	<0.1	0.1	0.2	0.2	-	-	-	0.2
		%	30	97	97	97	97	97	97	97	63	0	0	0	64
		Max-10d	0.2	0.3	0.3	0.7	0.6	<0.1	0.3	0.2	0.2	-	-	-	0.7
		Min-10d	0.2	<0.1	0.2	0.2	0.2	<0.1	<0.1	0.1	<0.1	-	-	-	<0.1
	Sakaerat	Mean	0.9	0.8	0.3	0.5	0.3	0.4	0.3	0.3	0.1	-	-	-	0.4
		%	29	100	100	100	100	100	100	100	57	0	0	0	65
		Max-10d	0.9	1.6	0.4	0.7	0.3	0.6	0.5	0.5	0.2	-	-	-	1.6
		Min-10d	0.9	0.4	0.2	0.4	0.2	0.2	0.1	0.1	<0.1	-	-	-	<0.1
Viet Nam	Hanoi	Mean	1.5	1.8	2.1	2.3	2.0	2.6	4.1	7.6	3.1	7.1	2.3	2.7	3.3
		%	75	100	100	100	100	100	75	100	100	100	50	100	92
		Max-w	1.7	2.3	2.4	2.7	2.2	3.1	4.9	13.3	3.7	19.3	2.7	3.2	19.3
		Min-w	1.4	1.5	1.8	2.1	1.9	1.7	2.7	5.5	2.3	2.6	1.9	2.4	1.4
	Hoa Binh	Mean	1.8	2.0	2.0	2.2	2.6	3.4	3.2	3.9	2.2	1.5	1.6	2.4	2.4
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	2.0	2.8	2.7	2.9	2.7	5.9	3.3	5.1	3.0	1.6	1.8	3.1	5.9
		Min-w	1.7	1.5	1.7	2.0	2.3	1.7	3.0	2.9	1.4	1.3	1.3	1.6	1.3
	Can Tho	Mean	1.2	0.8	0.9	0.9	1.4	1.6	1.2	1.4	0.6	1.2	0.8	1.8	1.2
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	2.4	1.5	1.7	1.7	1.8	2.1	1.4	2.1	0.8	1.8	1.5	2.3	2.4
		Min-w	0.6	0.4	0.4	0.4	0.9	1.0	0.8	0.4	0.4	0.6	0.3	1.3	0.3
	Ho Chi Minh	Mean	1.4	1.3	1.4	1.4	1.7	1.6	1.5	1.6	1.4	1.3	1.6	1.5	1.5
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	1.6	1.7	1.6	1.7	1.8	1.6	1.7	1.9	1.5	1.4	1.7	2.0	2.0
		Min-w	1.2	1.2	1.2	1.2	1.6	1.4	1.3	1.2	1.3	1.1	1.5	1.2	1.1
	Yen Bai	Mean	1.9	2.3	1.8	2.1	2.5	4.0	2.6	3.7	2.0	1.3	1.8	2.2	2.4
		%	75	100	100	100	100	100	100	100	100	100	100	100	98
		Max-w	2.0	2.9	2.1	2.5	2.9	5.6	2.9	5.3	2.2	1.4	2.4	2.7	5.6
		Min-w	1.8	1.8	1.6	1.9	2.3	2.5	2.4	1.5	1.8	1.2	1.3	1.7	1.2

Terms and abbreviations are given in Table 4.2.

Table 4.6 NH_3

Unit : ppb			2016												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Cambodia	Phnom Penh	Mean	-	-	-	-	7.5	5.1	7.8	7.8	4.3	5.9	10.3	5.1	6.8
		%	0	0	0	0	97	100	100	100	100	100	100	100	67
		Max-2w	-	-	-	-	9.5	7.9	8.9	9.7	4.6	6.0	12.3	6.1	12.3
		Min-2w	-	-	-	-	5.5	2.3	6.7	5.1	4.0	5.8	8.3	4.1	2.3
China	Hongwen	Mean	5.0	8.2	12.1	10.5	14.8	7.9	7.4	13.4	10.6	11.6	10.0	12.3	10.7
		%	61	100	100	100	100	100	100	100	100	100	100	100	97
		Max-m	5.0	8.2	14.3	10.5	14.8	7.9	7.4	19.2	10.7	11.9	10.9	12.3	19.2
		Min-m	5.0	8.2	9.9	10.5	14.8	7.9	7.4	7.5	10.4	11.4	9.1	12.3	5.0
Indonesia	Jakarta	Mean	10.9	7.5	7.2	6.8	19.8	17.9	-	-	15.8	8.2	5.2	5.0	10.5
		%	100	100	100	100	100	100	0	0	100	44	93	100	78
		Max-2w	13.5	13.1	8.1	6.9	20.2	18.1	-	-	20.0	8.2	5.2	5.1	20.2
		Min-2w	8.2	1.8	6.4	6.7	19.4	17.6	-	-	11.7	8.2	5.1	4.9	1.8
	Serpong	Mean	5.3	6.1	10.6	14.6	13.3	13.6	10.9	13.4	16.1	-	7.0	6.8	11.1
		%	58	100	100	100	100	100	100	100	100	0	100	100	90
		Max-2w	5.3	8.4	12.7	16.2	14.4	13.8	12.2	13.4	16.5	-	7.0	7.3	16.5
		Min-2w	5.3	3.8	8.5	12.9	12.2	13.5	9.5	13.3	15.7	-	7.0	6.2	3.8
	Bandung	Mean	8.2	5.8	6.4	7.6	8.4	7.9	6.2	6.7	5.8	6.3	6.3	3.6	6.6
		%	100	100	100	100	100	100	100	97	100	100	100	100	100
		Max-2w	9.9	5.9	6.7	7.7	9.0	7.9	6.7	6.9	6.4	6.4	6.9	4.7	9.9
		Min-2w	6.5	5.7	6.1	7.5	8.0	7.9	5.6	6.6	5.1	6.1	5.8	2.4	2.4
Japan	Rishiri	Mean	<0.1	<0.1	0.2	0.4	1.1	0.5	0.5	0.8	0.6	0.3	0.2	0.1	0.4
		%	100	100	100	100	100	100	100	100	46	100	100	100	96
		Max-2w	0.1	0.1	0.3	0.5	1.4	0.5	0.6	0.9	0.6	0.4	0.2	0.1	1.4
		Min-2w	<0.1	<0.1	0.1	0.4	0.8	0.5	0.4	0.7	0.6	0.3	0.2	0.1	<0.1
	Ochiishi	Mean	0.1	0.1	0.2	0.2	0.5	0.4	0.3	0.3	0.4	0.7	0.4	0.2	0.3
		%	100	100	100	53	100	100	100	33	100	100	100	100	88
		Max-2w	0.2	0.1	0.2	0.2	0.5	0.4	0.4	0.3	0.4	0.8	0.5	0.2	0.8
		Min-2w	<0.1	0.1	0.2	0.2	0.5	0.4	0.2	0.3	0.4	0.7	0.3	0.1	<0.1
	Tappi	Mean	0.1	0.2	0.3	0.5	0.8	0.5	0.5	0.7	0.6	0.5	0.3	0.2	0.4
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.2	0.2	0.3	0.5	0.8	0.5	0.5	0.9	0.6	0.5	0.4	0.3	0.9
		Min-2w	0.1	<0.1	0.3	0.5	0.7	0.5	0.4	0.5	0.5	0.4	0.2	0.1	<0.1
	Sado-seki	Mean	0.1	0.3	0.6	1.0	1.4	0.9	0.5	0.8	0.7	0.5	0.4	0.3	0.6
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.1	0.5	0.8	1.1	1.4	1.0	0.6	0.8	0.9	0.5	0.5	0.4	1.4
		Min-2w	<0.1	0.1	0.3	0.8	1.4	0.9	0.5	0.7	0.4	0.4	0.3	0.3	<0.1
	Happo	Mean	0.2	0.2	0.5	0.9	1.0	0.8	0.6	0.5	0.3	0.3	0.3	0.2	0.5
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.2	0.3	0.5	1.0	1.0	1.0	0.7	0.6	0.4	0.3	0.3	0.2	1.0
		Min-2w	0.1	0.2	0.5	0.9	1.0	0.7	0.5	0.4	0.2	0.3	0.3	0.2	0.1
	Ijira	Mean	0.3	0.4	0.8	1.0	1.3	1.0	1.2	1.3	1.0	0.9	0.5	0.3	0.8
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.3	0.5	0.9	1.0	1.4	1.1	1.2	1.6	1.4	1.1	0.5	0.3	1.6
		Min-2w	0.2	0.2	0.7	0.9	1.1	1.0	1.2	1.1	0.6	0.7	0.5	0.3	0.2
	Oki	Mean	0.2	0.2	0.9	1.5	1.2	1.6	0.9	-	-	-	-	-	0.9
		%	100	100	100	100	100	100	54	0	0	0	0	0	54
		Max-2w	0.2	0.3	1.0	1.7	1.4	1.8	0.9	-	-	-	-	-	1.8
		Min-2w	<0.1	0.2	0.6	1.3	1.1	1.4	0.9	-	-	-	-	-	<0.1
	Banryu	Mean	0.3	0.6	0.9	1.5	1.4	1.5	1.3	-	-	-	-	-	1.0
		%	100	100	100	100	100	100	50	0	0	0	0	0	54
		Max-2w	0.4	0.9	1.1	1.8	1.5	1.8	1.3	-	-	-	-	-	1.8
		Min-2w	0.3	0.5	0.7	1.2	1.2	1.3	1.3	-	-	-	-	-	0.3
	Yusuhara	Mean	0.1	0.3	0.5	0.7	0.8	1.0	0.7	0.8	0.5	0.5	0.4	0.2	0.6
		%	100	100	100	100	100	100	100	100	100	75	100	100	98
		Max-2w	0.2	0.5	0.6	0.8	0.8	1.3	0.9	0.9	0.5	0.7	0.5	0.3	1.3
		Min-2w	0.1	0.2	0.4	0.7	0.8	0.7	0.6	0.8	0.5	0.4	0.3	0.1	0.1
	Hedo	Mean	0.8	0.9	1.5	1.2	1.5	1.6	1.2	1.3	1.0	0.9	1.0	1.1	1.2
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.9	1.5	1.9	1.2	1.6	2.0	1.2	1.8	1.2	0.9	1.0	1.4	2.0
		Min-2w	0.7	0.6	1.1	1.2	1.5	1.2	1.1	1.1	0.8	0.9	0.9	0.8	0.6
	Ogasawara	Mean	0.5	0.4	0.4	0.7	0.6	0.8	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	0.5	0.4	0.5	0.8	0.6	0.8	0.5	0.6	0.5	0.5	0.5	0.4	0.8
		Min-2w	0.5	0.4	0.4	0.6	0.5	0.7	0.5	0.4	0.5	0.5	0.4	0.3	0.3
	Tokyo	Mean	3.5	3.1	3.2	4.0	4.3	5.0	5.4	4.8	4.3	4.5	4.1	4.4	4.2
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	4.7	3.2	3.4	4.2	4.4	5.6	5.9	5.6	4.8	4.7	4.2	5.0	5.9
		Min-2w	2.8	3.1	2.9	3.9	4.3	4.4	4.9	4.4	3.8	4.3	3.9	3.8	2.8
Lao PDR	Vientiane	Mean	3.2	3.7	3.8	3.3	2.3	2.6	1.8	2.0	1.9	2.1	2.9	2.6	2.7
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-m	3.2	3.7	3.8	3.3	2.3	2.6	1.8	2.0	1.9	2.1	2.9	2.6	3.8
		Min-m	3.2	3.7	3.8	3.3	2.3	2.6	1.8	2.0	1.9	2.1	2.9	2.6	1.8
Malaysia	Petaling Jaya	Mean	11.1	4.0	12.3	14.5	13.8	10.8	13.1	10.2	10.9	10.7	9.6	12.3	11.2
		%	100	100	75	100	100	100	100	100	100	100	100	100	98
		Max-w	12.5	8.1	15.1	22.0	22.5	13.0	17.4	14.6	19.9	12.5	10.8	17.6	22.5
		Min-w	9.2	1.2	10.8	10.0	10.4	8.9	7.7	1.8	8.2	8.7	8.0	8.0	1.2
	Tanah Rata	Mean	2.3	2.1	3.4	3.7	2.3	2.0	3.0	2.1	1.6	1.6	1.9	2.0	2.3
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	3.4	2.4	4.0	4.8	3.1	2.1	4.7	2.4	2.3	2.0	2.4	3.4	4.8
		Min-w	1.4	1.8	2.6	2.5	1.9	1.8	1.9	1.7	1.2	1.3	1.4	1.2	1.2
	Danum Valley	Mean	1.6	3.2	2.0	1.7	1.8	1.1	0.9	1.7	1.1	1.0	1.0	0.3	1.4
		%	100	61	100	100	100	100	100	100	100	100	100	50	93
		Max-2w	1.8	3.2	2.3	1.9	3.7	1.3	1.1	2.1	1.3	1.1	1.5	0.3	3.7
		Min-2w	1.4	3.2	1.6	1.4	0.7	0.8	0.6	1.3	0.9	0.8	0.7	0.3	0.3

Table 4.6 NH_3 (continued)

Unit : ppb			2016												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Mongolia	Ulaanbaatar[1)]	Mean	-	-	-	-	-	-	-	-	-	-	-	-	-
		%	0	0	0	0	0	0	0	0	0	0	0	0	0
		Max-w	-	-	-	-	-	-	-	-	-	-	-	-	-
		Min-w	-	-	-	-	-	-	-	-	-	-	-	-	-
	Terelj[1)]	Mean	-	-	-	-	-	-	-	-	-	-	-	-	-
		%	0	0	0	0	0	0	0	0	0	0	0	0	0
		Max-2w	-	-	-	-	-	-	-	-	-	-	-	-	-
		Min-2w	-	-	-	-	-	-	-	-	-	-	-	-	-
Myanmar	Yangon	Mean	0.6	2.3	13.1	8.8	12.1	5.0	4.0	5.0	6.1	7.9	16.1	-	7.1
		%	100	100	100	100	100	100	100	100	100	50	33	0	81
		Max-2w	1.1	4.7	14.1	17.5	16.8	5.9	5.4	5.6	6.2	7.9	16.1	-	17.5
		Min-2w	0.2	<0.1	12.2	0.2	9.7	4.1	2.6	4.4	6.1	7.9	16.1	-	<0.1
Philippines	Mt. Sto. Tomas	Mean	1.8	2.4	3.1	5.6	2.6	2.0	0.5	0.3	2.1	1.1	0.5	0.7	1.9
		%	100	100	100	100	100	100	100	100	100	79	100	100	98
		Max-w	2.1	6.8	3.6	8.1	5.0	3.5	1.4	1.2	4.2	1.7	2.0	2.0	8.1
		Min-w	1.5	<0.1	2.5	3.8	0.6	1.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Republic of Korea	Kanghwa	Mean	0.2	0.4	0.2	1.1	1.2	1.7	1.3	1.0	1.1	1.0	0.4	0.4	0.8
		%	16	17	16	17	16	17	13	16	17	16	17	19	16
		Max-d	0.4	0.7	0.3	1.9	1.9	2.2	1.8	1.5	1.3	1.8	1.1	0.5	2.2
		Min-d	<0.1	<0.1	<0.1	0.7	0.8	1.0	0.7	0.6	0.7	0.4	0.1	0.3	<0.1
	Cheju (Kosan)	Mean	-	4.0	7.0	7.5	2.7	2.9	3.8	3.7	3.0	3.3	3.3	3.0	4.0
		%	0	17	16	17	16	17	16	16	17	10	17	16	14
		Max-d	-	5.7	8.0	9.8	3.3	3.2	4.2	4.8	3.6	3.5	4.4	3.7	9.8
		Min-d	-	3.0	6.3	6.3	2.1	2.5	3.1	3.2	2.6	3.0	2.7	2.3	2.1
	Imsil	Mean	-	5.0	5.5	9.5	3.2	2.8	3.0	2.7	1.4	2.2	9.9	2.1	4.3
		%	0	17	16	17	16	17	16	16	17	16	17	13	15
		Max-d	-	6.1	7.9	12.1	4.0	3.2	3.4	3.6	1.9	3.4	11.1	2.6	12.1
		Min-d	-	4.2	2.0	7.2	2.8	2.2	2.6	1.8	1.1	1.3	8.3	1.7	1.1
Russia	Mondy	Mean	0.2	0.2	0.9	0.4	0.9	1.3	4.6	2.3	1.9	3.1	2.0	0.4	1.5
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-m	0.4	0.2	0.9	0.4	1.8	1.5	4.6	2.7	1.9	3.4	2.0	0.4	4.6
		Min-m	<0.1	0.2	0.8	0.4	<0.1	1.1	4.6	2.0	1.9	2.8	2.0	0.4	<0.1
	Listvyanka	Mean	1.0	1.3	2.0	1.6	4.7	4.2	8.2	4.8	9.4	3.9	4.8	1.6	3.9
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	2.2	2.7	2.7	2.4	9.5	6.4	11.5	7.0	11.2	7.3	8.5	4.4	11.5
		Min-w	0.2	0.5	1.4	0.7	2.2	0.1	5.1	2.6	8.1	<0.1	2.9	<0.1	<0.1
	Irkutsk	Mean	2.1	3.3	3.0	4.2	4.0	1.8	1.9	5.9	3.1	2.9	2.3	2.4	3.0
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	3.4	5.3	4.0	6.0	5.7	2.2	2.6	10.5	4.1	6.5	5.4	3.9	10.5
		Min-w	1.2	1.9	2.4	2.4	2.1	1.2	1.4	2.9	2.6	1.3	0.7	0.6	0.6
	Primorskaya	Mean	0.9	1.6	1.9	3.3	3.1	1.5	4.2	5.2	2.4	1.1	1.6	2.6	2.5
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	1.0	1.7	2.9	4.3	3.2	1.7	6.1	5.6	3.5	1.8	2.6	4.6	6.1
		Min-2w	0.8	1.5	1.0	2.3	2.9	1.2	2.4	4.8	1.3	0.4	0.6	0.6	0.4
Thailand	Bangkok	Mean	9.1	9.4	8.6	5.7	9.3	9.1	8.2	9.0	7.9	16.7	10.6	12.2	9.7
		%	90	100	100	100	100	100	100	100	100	100	100	100	99
		Max-10d	13.8	9.9	10.7	7.1	11.9	12.9	9.2	10.2	8.9	20.1	11.3	13.0	20.1
		Min-10d	3.8	8.8	6.3	4.1	6.4	6.9	7.7	7.3	6.8	15.0	9.4	10.9	3.8
	Khanchanaburi (Vachiralongkorn Dam)	Mean	-	-	-	23.3	-	-	-	<0.1	-	-	-	0.5	7.9
		%	0	0	0	67	0	0	0	58	0	0	0	45	15
		Max-2w	-	-	-	23.3	-	-	-	<0.1	-	-	-	0.5	23.3
		Min-2w	-	-	-	23.3	-	-	-	<0.1	-	-	-	0.5	<0.1
	Mae Hia	Mean	4.3	5.3	7.9	7.6	5.2	3.2	4.1	2.9	3.2	-	-	-	5.0
		%	30	97	97	97	97	97	97	97	63	0	0	0	64
		Max-10d	4.3	6.2	9.1	9.2	7.6	5.1	5.6	3.5	3.9	-	-	-	9.2
		Min-10d	4.3	4.2	6.4	6.7	0.6	0.2	3.1	2.1	2.4	-	-	-	0.2
	Sakaerat	Mean	10.6	6.1	5.3	5.5	3.7	3.9	2.9	3.2	4.0	-	-	-	4.6
		%	29	100	100	100	100	100	100	100	57	0	0	0	65
		Max-10d	10.6	9.4	5.9	5.8	4.7	4.0	4.0	4.2	4.0	-	-	-	10.6
		Min-10d	10.6	4.5	4.9	5.0	2.4	3.8	2.1	1.9	4.0	-	-	-	1.9
Viet Nam	Hanoi	Mean	3.2	5.1	4.7	4.4	3.5	3.5	3.5	5.6	3.7	4.3	4.6	5.6	4.3
		%	75	100	100	100	100	100	75	100	100	100	50	100	92
		Max-w	3.3	9.2	4.9	5.1	3.8	4.0	4.0	10.0	3.8	4.6	5.3	7.0	10.0
		Min-w	3.2	3.5	4.5	3.8	3.3	3.0	2.8	3.7	3.6	3.9	4.0	4.4	2.8
	Hoa Binh	Mean	1.3	1.3	1.3	1.2	1.2	1.2	1.3	1.3	1.3	1.2	1.4	1.4	1.3
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	1.3	1.4	1.4	1.4	1.4	1.3	1.4	1.4	1.4	1.5	1.4	1.5	1.5
		Min-w	1.2	1.2	1.1	1.1	1.1	1.1	1.2	1.2	1.2	0.6	1.3	1.2	0.6
	Can Tho	Mean	3.1	3.7	2.6	3.9	3.1	3.3	3.6	3.0	3.3	3.2	3.1	3.5	3.3
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	3.6	4.6	3.3	4.3	4.1	4.3	4.4	3.3	3.7	3.5	3.6	4.4	4.6
		Min-w	2.7	2.6	1.7	3.5	2.2	2.7	2.8	2.5	2.7	2.7	2.5	2.8	1.7
	Ho Chi Minh	Mean	6.0	4.8	5.6	5.4	3.4	4.5	3.3	4.6	3.4	3.9	3.6	3.2	4.3
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	6.4	5.9	6.3	5.9	4.5	6.0	4.7	5.9	5.2	5.6	4.3	3.8	6.4
		Min-w	5.5	3.9	5.0	5.0	2.4	2.7	2.2	2.8	2.5	2.7	2.8	2.6	2.2
	Yen Bai	Mean	2.5	2.7	2.7	2.4	2.3	3.1	2.5	3.2	4.0	2.6	2.7	2.6	2.8
		%	75	100	100	100	100	100	100	100	100	100	100	100	98
		Max-w	2.6	2.8	3.0	2.6	2.3	5.8	2.5	5.2	6.0	2.7	2.8	2.6	6.0
		Min-w	2.4	2.4	2.6	2.3	2.3	2.3	2.4	2.5	2.7	2.6	2.5	2.5	2.3

Terms and abbreviations are given in Table 4.2.
1) All NH_3 values were invalid because annmonioum ions from F1 filter were not analysed in 2016.

Table 4.7 NO

Unit : ppb			2016												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
China	Jinyunshan	Mean	7.6	5.7	6.8	2.6	1.8	1.6	1.7	1.7	1.7	2.0	3.5	3.5	3.3
		%	87	100	90	100	100	97	100	97	97	100	100	97	97
		Max-d	12.6	7.6	8.0	3.3	2.8	1.8	1.9	2.4	2.1	3.5	5.0	6.1	12.6
		Min-d	5.1	4.9	2.3	2.4	1.5	1.5	1.5	1.5	1.5	1.6	2.4	2.5	1.5
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	98	98	98	98	97	85	98	98	97	96
		Max-d	0.2	0.1	0.1	<0.1	<0.1	0.3	0.3	0.2	0.3	0.3	0.1	<0.1	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
	Ochiishi	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
		%	96	96	93	96	84	96	96	96	95	95	90	96	94
		Max-d	<0.1	0.2	0.1	0.2	0.5	0.4	0.6	0.5	0.3	0.2	<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	0.3	0.3	0.2	0.3	0.1	<0.1	<0.1	0.3	0.2
		%	99	98	98	98	98	99	97	98	98	98	90	93	97
		Max-d	<0.1	0.2	0.2	0.2	1.6	1.4	1.3	1.4	0.4	0.2	0.3	0.4	1.6
		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
	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
		%	98	98	97	97	97	97	98	72	97	97	97	97	95
		Max-d	0.1	0.2	0.1	0.2	<0.1	0.2	0.2	<0.1	0.1	<0.1	<0.1	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
	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
		%	97	97	91	97	97	97	83	97	88	97	97	98	95
		Max-d	0.2	0.2	0.1	0.1	0.2	0.1	<0.1	0.2	0.1	0.2	0.2	0.2	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
	Ijira	Mean	0.1	0.3	0.2	<0.1	0.2	0.5	0.2	0.4	0.8	0.3	<0.1	0.1	0.3
		%	98	98	98	95	96	93	97	98	96	94	82	98	95
		Max-d	0.4	2.3	1.6	0.4	0.7	2.8	0.5	1.4	5.8	1.2	0.3	1.0	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
	Oki	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
		%	98	87	97	95	72	98	73	98	72	97	80	84	88
		Max-d	0.1	0.2	0.4	0.2	0.1	0.2	0.3	0.4	0.2	0.1	0.2	0.2	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
	Banryu	Mean	0.2	0.2	<0.1	<0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
		%	98	97	96	98	98	98	99	98	98	98	98	97	98
		Max-d	0.7	0.3	0.3	0.2	0.2	1.0	0.3	0.3	0.5	0.4	0.5	0.4	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
	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	97	97	97	98	94	89	92	97	98	98	96
		Max-d	0.3	0.2	0.2	<0.1	<0.1	0.2	0.2	0.1	0.1	<0.1	<0.1	<0.1	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
	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	79	98	97	97	98	91	96	78	90	96	96	93
		Max-d	<0.1	<0.1	0.1	0.1	0.2	0.3	0.2	0.2	0.1	0.3	<0.1	<0.1	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
	Ogasawara	Mean	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
		%	98	55	98	98	98	85	98	98	97	97	98	79	92
		Max-d	0.2	0.2	0.2	0.1	0.2	1.7	9.1	1.2	0.4	0.5	<0.1	0.2	9.1
		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
Mongolia	Ulaanbaatar	Mean	30.1	29.4	21.1	10.8	10.5	12.9	9.8	12.0	19.8	28.1	41.4	48.1	22.7
		%	100	100	99	100	100	100	92	100	100	100	87	99	98
		Max-d	77.0	56.3	37.5	21.7	17.1	22.3	19.2	23.1	37.1	76.0	108.7	150.6	150.6
		Min-d	4.6	10.3	7.9	4.8	5.8	7.3	3.8	5.3	10.3	11.3	10.5	11.1	3.8
Philippines	Metro Manila	Mean	-	-	-	7.1	8.5	13.6	11.8	11.8	17.2	16.9	18.8	23.1	13.9
		%	0	0	0	100	100	100	100	100	83	100	100	71	71
		Max-d	-	-	-	17.6	23.7	27.9	27.9	24.8	49.9	42.8	33.5	44.9	49.9
		Min-d	-	-	-	3.3	4.4	4.9	1.2	5.4	5.6	0.5	2.2	4.3	0.5
Thailand	Bangkok	Mean	4.8	4.4	1.9	1.4	1.8	6.2	7.2	5.8	6.6	7.6	7.4	5.3	5.0
		%	94	94	95	95	96	94	96	95	93	96	95	96	95
		Max-d	11.0	22.3	15.6	11.1	8.2	19.2	25.2	17.3	15.8	19.8	19.6	17.3	25.2
		Min-d	1.0	0.7	0.6	0.6	0.7	0.5	1.2	0.6	0.8	1.0	1.3	1.6	0.5
	Samutprakarn	Mean	7.6	-	-	-	-	8.1	9.0	8.1	10.6	9.7	8.6	5.8	8.5
		%	51	0	0	0	0	25	87	95	96	95	95	95	54
		Max-d	12.4	-	-	-	-	12.7	25.9	23.1	23.4	19.7	29.1	24.0	29.1
		Min-d	2.7	-	-	-	-	2.7	<0.1	1.0	2.7	1.8	1.1	0.5	<0.1
	Khanchanaburi (Vachiralongkorn Dam)	Mean	-	-	0.4	0.2	-	-	-	0.1	-	-	-	<0.1	0.1
		%	0	0	9	61	0	0	0	52	0	0	0	43	14
		Max-d	-	-	0.6	0.4	-	-	-	0.4	-	-	-	0.2	0.6
		Min-d	-	-	0.2	<0.1	-	-	-	<0.1	-	-	-	<0.1	<0.1
	Chang Phueak	Mean	11.0	3.7	1.9	1.4	1.1	1.0	3.0	2.6	2.4	2.0	2.9	3.4	2.8
		%	57	96	92	94	66	74	65	95	95	95	92	79	83
		Max-d	19.2	9.5	5.0	3.9	3.7	1.8	5.0	6.2	5.7	4.5	6.6	9.6	19.2
		Min-d	1.8	<0.1	0.3	0.2	<0.1	<0.1	1.0	0.9	0.7	0.2	0.7	0.8	<0.1
	Si Phum	Mean	20.4	19.5	12.9	12.2	7.9	13.5	14.3	13.8	12.5	9.5	13.4	12.7	13.5
		%	96	95	95	95	93	94	96	96	96	96	94	95	95
		Max-d	40.7	35.8	24.5	23.5	13.6	18.6	24.1	22.8	21.1	14.3	30.6	28.3	40.7
		Min-d	6.2	3.6	6.9	4.2	3.3	4.9	5.7	7.5	6.7	2.7	4.9	4.4	2.7
	Nai Mueang	Mean	18.7	14.9	8.0	4.4	6.4	9.9	14.2	15.2	16.6	15.4	18.9	17.9	13.6
		%	96	96	95	95	43	81	79	70	75	56	96	96	81
		Max-d	47.0	52.5	30.9	11.4	12.5	21.2	31.0	23.4	28.1	23.1	35.9	43.0	52.5
		Min-d	5.1	3.7	1.5	1.1	3.3	1.3	4.0	10.3	8.4	7.0	6.7	5.4	1.1

Terms and abbreviations are given in Table 4.2.

Table 4.8 NO_2

Unit : ppb			2016												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
China	Hongwen	Mean	20.0	14.7	21.4	17.8	13.1	8.8	12.2	16.2	13.0	12.9	19.4	22.9	16.1
		%	100	100	100	100	100	100	100	97	100	97	100	100	100
		Max-d	32.8	25.5	43.2	28.1	26.0	17.7	26.5	29.1	22.4	18.2	32.2	39.0	43.2
		Min-d	10.4	7.3	8.8	8.3	4.7	3.6	4.7	9.9	3.6	4.7	9.4	12.5	3.6
	Haibin-Park	Mean	24.7	16.6	24.3	19.2	13.1	11.0	9.0	13.2	13.6	13.5	19.8	25.5	16.9
		%	94	97	100	93	100	100	100	100	100	100	97	97	98
		Max-d	36.4	28.1	40.0	32.2	25.5	16.6	18.7	19.8	20.3	23.9	31.2	40.0	40.0
		Min-d	6.8	5.7	11.4	12.0	6.2	6.8	3.1	5.7	9.9	4.7	11.4	11.4	3.1
Indonesia	Jakarta	Mean	29.3	16.8	29.0	30.0	31.7	34.0	27.1	32.6	24.4	22.0	26.4	14.8	26.5
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	29.3	16.8	29.0	30.0	31.7	34.0	27.1	32.6	24.4	22.0	26.4	14.8	34.0
		Min-w	29.3	16.8	29.0	30.0	31.7	34.0	27.1	32.6	24.4	22.0	26.4	14.8	14.8
	Kototabang	Mean	1.2	1.6	1.2	1.2	1.6	0.7	1.6	0.3	0.9	0.7	<0.1	0.6	1.0
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	1.2	1.6	1.2	1.2	1.6	0.7	1.6	0.3	0.9	0.7	<0.1	0.6	1.6
		Min-w	1.2	1.6	1.2	1.2	1.6	0.7	1.6	0.3	0.9	0.7	<0.1	0.6	<0.1
	Bandung	Mean	52.3	45.0	52.0	51.1	56.8	101.7	88.1	99.1	140.3	130.8	51.2	27.1	74.6
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-m	52.3	45.0	52.0	51.1	56.8	101.7	88.1	99.1	140.3	130.8	51.2	27.1	140.3
		Min-m	52.3	45.0	52.0	51.1	56.8	101.7	88.1	99.1	140.3	130.8	51.2	27.1	27.1
Japan	Banryu	Mean	2.5	2.5	2.3	1.7	1.3	1.3	1.3	1.2	1.4	1.6	1.9	2.2	1.8
		%	98	97	96	98	98	98	99	98	98	98	98	97	98
		Max-d	5.2	4.5	4.8	3.5	2.7	2.4	2.3	2.3	3.1	2.4	2.8	3.6	5.2
		Min-d	1.2	1.5	1.0	0.8	0.4	0.7	0.4	0.2	0.3	0.5	0.8	0.9	0.2
Mongolia	Ulaanbaatar	Mean	29.9	41.2	35.0	27.4	29.7	30.7	29.0	29.7	34.2	42.1	50.3	53.4	35.9
		%	100	100	99	100	100	100	92	100	100	100	87	99	98
		Max-d	60.8	51.9	45.1	34.4	39.7	37.3	35.9	36.7	43.2	51.8	74.9	83.7	83.7
		Min-d	11.0	25.8	25.7	19.7	23.3	24.7	22.4	23.0	20.9	35.5	36.5	12.9	11.0
Philippines	Metro Manila	Mean	-	-	-	12.5	14.7	13.9	14.6	13.4	13.3	11.2	10.6	11.9	12.9
		%	0	0	0	100	100	100	100	100	83	100	100	71	71
		Max-d	-	-	-	19.7	63.7	22.7	19.5	19.6	24.1	23.0	16.4	19.4	63.7
		Min-d	-	-	-	7.1	6.8	6.1	8.7	8.5	5.2	0.5	5.9	7.4	0.5
Republic of Korea	Kanghwa	Mean	6.7	7.4	8.3	8.5	6.8	5.4	4.5	3.9	4.5	6.4	9.9	9.7	6.8
		%	99	98	98	98	98	96	99	99	98	98	98	97	98
		Max-d	26.9	28.4	30.1	17.7	13.2	8.2	11.3	10.2	12.0	15.0	40.3	32.7	40.3
		Min-d	2.8	1.6	2.4	3.6	3.4	3.0	1.5	1.1	1.9	2.4	1.7	1.6	1.1
	Cheju (Kosan)	Mean	3.8	3.2	3.5	4.2	4.1	2.4	1.5	1.7	3.1	3.4	2.7	3.3	3.1
		%	99	99	99	99	99	99	99	92	99	99	95	99	98
		Max-d	8.8	7.7	6.8	7.8	6.6	6.7	5.3	4.1	5.8	6.2	7.0	6.9	8.8
		Min-d	1.8	1.3	1.3	2.1	2.2	0.6	0.3	0.2	0.4	0.4	<0.1	1.2	<0.1
	Imsil	Mean	7.2	4.8	4.6	4.2	4.3	2.8	2.1	2.6	3.7	5.1	6.5	7.0	4.6
		%	98	97	97	91	99	98	98	91	97	98	97	96	96
		Max-d	13.7	12.8	10.0	5.8	6.4	4.9	4.4	4.0	9.1	9.4	12.5	18.6	18.6
		Min-d	3.4	2.1	2.7	2.1	2.2	1.5	0.8	1.4	1.8	2.4	3.6	2.9	0.8
Thailand	Bangkok	Mean	17.7	18.3	12.9	8.3	10.2	12.9	12.4	12.7	15.0	19.8	25.5	27.6	16.1
		%	94	94	95	95	96	94	96	95	93	96	95	96	95
		Max-d	34.1	40.2	31.7	14.0	25.1	21.1	23.0	17.0	28.5	30.3	47.5	45.8	47.5
		Min-d	5.2	8.3	7.0	5.5	5.1	8.3	4.2	7.6	9.4	11.9	12.0	15.9	4.2
	Samutprakarn	Mean	15.4	-	-	-	-	13.1	10.5	9.3	9.6	14.2	17.3	17.9	13.4
		%	51	0	0	0	0	25	87	95	96	95	95	95	54
		Max-d	32.6	-	-	-	-	19.0	18.1	14.1	25.4	27.6	31.6	44.3	44.3
		Min-d	4.3	-	-	-	-	8.2	3.3	3.0	1.7	4.8	6.0	1.2	1.2
	Chang Phueak	Mean	10.3	17.4	19.1	18.3	13.8	7.7	6.5	4.1	2.8	1.9	4.9	4.9	9.3
		%	57	96	92	94	66	74	65	95	95	95	92	79	83
		Max-d	23.7	28.5	26.5	26.4	21.2	10.5	8.9	8.8	8.5	5.0	10.5	16.0	28.5
		Min-d	0.2	6.2	10.9	10.3	7.5	5.6	1.4	1.3	<0.1	<0.1	0.7	0.6	<0.1
	Si Phum	Mean	24.6	28.1	32.1	30.9	18.8	11.1	11.4	13.0	12.6	13.0	16.5	15.3	18.9
		%	96	95	95	95	93	94	96	96	96	96	94	95	95
		Max-d	40.5	42.2	43.6	43.7	32.7	16.2	15.7	18.2	18.9	17.4	22.4	23.9	43.7
		Min-d	7.3	9.6	23.6	13.2	10.5	5.8	4.7	9.5	7.5	6.6	9.1	2.0	2.0
	Nai Mueang	Mean	20.5	23.3	18.0	12.5	20.0	14.0	14.2	15.7	15.3	15.1	16.9	24.8	17.7
		%	96	96	95	95	43	81	79	70	75	56	96	96	81
		Max-d	44.3	46.3	38.3	28.3	28.5	25.0	21.4	20.3	23.1	21.1	25.4	34.7	46.3
		Min-d	5.0	10.4	7.7	3.8	11.8	7.5	9.2	10.7	11.7	8.6	8.2	15.5	3.8

Terms and abbreviations are given in Table 4.2.

Table 4.9 NOx

Unit : ppb			2016												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
China	Jinyunshan (NOx*)	Mean	19.2	15.5	13.4	10.7	10.8	11.8	10.7	8.9	12.0	12.2	19.4	18.0	13.5
		%	87	100	90	100	100	97	100	100	97	100	100	100	98
		Max-d	27.2	22.4	23.3	16.8	15.3	14.8	13.6	13.2	19.8	26.4	31.0	22.8	31.0
		Min-d	9.9	9.7	8.9	6.0	5.2	7.7	7.8	6.1	8.5	5.1	11.2	8.6	5.1
Japan	Rishiri (NOx*)	Mean	0.4	0.6	0.7	0.6	0.6	0.5	0.6	0.4	0.5	0.7	0.8	0.7	0.6
		%	98	98	91	98	98	98	98	97	85	98	98	97	96
		Max-d	1.3	1.1	1.7	1.1	1.2	1.2	1.5	0.9	0.9	1.5	1.7	1.2	1.7
		Min-d	<0.1	0.3	0.3	0.1	<0.1	<0.1	0.1	0.1	0.2	0.2	0.3	0.2	<0.1
	Ochiishi (NOx*)	Mean	0.6	1.0	1.1	1.2	1.4	1.0	0.9	0.7	0.7	0.9	0.8	0.8	0.9
		%	96	96	93	96	84	96	96	96	95	95	90	96	94
		Max-d	1.4	2.8	2.5	2.6	3.0	2.0	2.6	1.7	2.1	2.3	1.4	1.8	3.0
		Min-d	0.2	0.5	0.5	0.3	0.4	0.3	0.4	0.2	0.2	0.3	0.3	0.4	0.2
	Tappi (NOx*)	Mean	0.6	1.0	1.2	1.5	2.5	2.6	1.5	2.1	1.1	0.9	1.0	1.2	1.4
		%	98	98	98	98	98	99	97	98	98	98	90	93	97
		Max-d	1.8	2.0	2.7	3.0	10.8	9.1	6.9	5.8	3.1	1.8	2.1	2.9	10.8
		Min-d	0.2	0.4	0.3	0.5	0.6	0.6	0.4	0.2	0.5	0.4	0.4	0.2	0.2
	Sado-seki (NOx*)	Mean	0.7	0.8	1.0	1.0	0.9	0.5	0.3	0.5	0.4	0.6	0.7	0.7	0.7
		%	98	98	97	97	97	97	98	72	97	97	97	97	95
		Max-d	1.6	1.7	3.0	2.4	1.6	1.3	0.9	0.9	1.7	1.0	1.4	1.3	3.0
		Min-d	0.2	0.3	<0.1	0.2	0.1	<0.1	<0.1	0.2	<0.1	<0.1	<0.1	0.2	<0.1
	Happo (NOx*)	Mean	0.8	0.9	0.9	1.0	0.8	0.6	0.7	0.6	0.6	0.5	0.6	0.6	0.7
		%	97	97	91	97	97	97	83	97	88	97	97	98	95
		Max-d	1.8	1.8	1.7	2.0	1.4	1.2	1.3	1.1	1.5	1.0	1.1	1.2	2.0
		Min-d	0.3	0.3	0.2	0.4	0.4	0.1	0.3	0.3	0.3	0.2	0.2	0.3	0.1
	Ijira (NOx*)	Mean	1.0	1.9	1.9	2.1	2.6	2.1	0.9	1.4	1.9	1.8	1.0	1.1	1.6
		%	98	98	98	98	99	97	98	98	98	97	85	98	97
		Max-d	3.2	6.6	6.0	5.0	5.5	7.1	2.2	2.7	11.1	5.7	2.6	4.2	11.1
		Min-d	0.1	0.2	<0.1	0.1	<0.1	<0.1	<0.1	0.4	<0.1	<0.1	<0.1	<0.1	<0.1
	Oki (NOx*)	Mean	1.5	1.3	1.3	1.3	1.2	0.8	1.0	0.6	0.9	0.6	1.1	1.2	1.0
		%	98	87	97	95	72	98	73	98	72	97	80	84	88
		Max-d	3.2	3.1	3.8	2.6	1.8	1.3	1.7	1.2	2.6	1.6	2.5	2.7	3.8
		Min-d	0.5	0.4	0.1	0.4	0.4	0.2	0.4	0.3	0.3	<0.1	<0.1	0.4	<0.1
	Banryu	Mean	2.7	2.7	2.4	1.7	1.4	1.5	1.5	1.4	1.6	1.8	2.0	2.4	1.9
		%	98	97	96	98	98	98	99	98	98	98	98	97	98
		Max-d	5.9	4.7	5.0	3.7	3.0	3.5	2.6	2.5	3.3	2.8	3.3	3.8	5.9
		Min-d	1.4	1.7	1.1	0.9	0.4	0.7	0.5	0.3	0.4	0.6	1.0	1.0	0.3
	Yusuhara (NOx*)	Mean	2.0	2.2	1.8	1.1	1.0	0.7	0.6	1.1	0.8	0.8	1.5	1.6	1.3
		%	98	97	97	98	97	98	94	89	92	97	98	98	96
		Max-d	5.9	4.2	4.4	2.6	2.2	3.3	1.6	4.7	2.3	1.8	2.3	3.1	5.9
		Min-d	0.5	0.6	0.5	0.5	0.2	0.2	<0.1	0.4	0.2	0.2	0.6	0.6	<0.1
	Hedo (NOx*)	Mean	0.9	0.8	0.7	0.6	0.5	0.6	0.5	0.7	0.5	0.4	0.6	0.6	0.6
		%	98	79	98	97	97	98	91	96	78	90	96	96	93
		Max-d	1.4	1.9	2.7	2.7	1.0	1.1	1.5	1.5	1.1	0.8	0.9	1.3	2.7
		Min-d	0.4	0.3	0.2	<0.1	0.2	0.2	<0.1	0.2	0.3	0.1	0.3	0.1	<0.1
	Ogasawara (NOx*)	Mean	0.6	0.3	0.4	<0.1	0.2	0.4	0.7	0.2	<0.1	0.2	0.1	0.2	0.3
		%	98	55	98	98	98	85	98	98	97	97	98	79	92
		Max-d	2.5	1.3	2.0	0.5	1.5	3.8	11.6	1.7	0.9	1.4	0.7	0.7	11.6
		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
Mongolia	Ulaanbaatar	Mean	60.1	70.6	56.2	38.2	40.2	43.6	38.9	41.7	54.0	70.2	91.7	101.4	58.6
		%	100	100	99	100	100	100	92	100	100	100	87	99	98
		Max-d	137.8	108.3	82.6	51.6	56.7	51.9	47.6	53.4	79.4	127.8	164.9	198.2	198.2
		Min-d	15.6	39.0	33.7	25.3	29.5	36.7	26.9	29.9	35.7	49.3	46.9	43.0	15.6
Philippines	Metro Manila	Mean	-	-	-	19.6	23.3	27.5	26.3	25.1	30.5	28.1	29.5	35.1	26.9
		%	0	0	0	100	100	100	100	100	83	100	100	71	71
		Max-d	-	-	-	27.6	71.8	44.2	46.5	44.4	60.6	60.2	48.3	59.6	71.8
		Min-d	-	-	-	12.2	11.2	14.8	13.3	15.4	16.7	6.1	9.0	11.7	6.1
Thailand	Bangkok	Mean	22.4	22.7	14.8	9.8	12.1	19.1	19.6	18.6	21.6	27.4	33.0	32.9	21.2
		%	94	94	95	95	96	94	96	95	93	96	95	96	95
		Max-d	43.2	55.1	47.0	21.6	33.1	37.7	42.2	30.6	44.2	44.4	54.5	56.8	56.8
		Min-d	7.1	8.9	7.9	6.0	6.0	9.1	5.9	9.5	10.2	13.8	13.1	18.3	5.9
	Samutprakarn	Mean	22.9	-	-	-	-	21.3	19.5	17.4	20.2	23.8	25.9	23.5	21.8
		%	51	0	0	0	0	25	87	95	96	95	95	95	54
		Max-d	45.0	-	-	-	-	30.5	38.7	33.6	48.7	46.3	52.5	64.3	64.3
		Min-d	10.2	-	-	-	-	11.0	4.7	4.5	6.6	13.0	9.1	1.3	1.3
	Khanchanaburi(NOx*) (Vachiralongkorn Dam)	Mean	-	-	4.5	4.3	-	-	-	1.0	-	-	-	2.2	2.7
		%	0	0	9	61	0	0	0	52	0	0	0	43	14
		Max-d	-	-	5.4	6.8	-	-	-	1.3	-	-	-	2.8	6.8
		Min-d	-	-	3.9	2.9	-	-	-	0.6	-	-	-	1.6	0.6
	Chang Phueak	Mean	21.3	21.1	21.0	19.7	14.8	8.7	9.5	6.7	5.3	3.9	7.8	8.3	12.1
		%	57	96	92	94	66	74	65	95	95	95	92	79	83
		Max-d	42.8	38.0	28.7	30.3	23.0	11.5	12.9	15.0	14.1	6.8	15.2	21.0	42.8
		Min-d	10.0	6.2	11.2	10.4	8.0	6.4	2.4	2.5	1.0	0.4	2.3	2.3	0.4
	Si Phum	Mean	45.0	47.6	44.0	43.1	26.7	24.4	25.6	26.7	25.0	22.4	29.9	27.5	32.3
		%	96	95	95	95	93	94	96	96	96	96	94	95	95
		Max-d	67.4	76.1	64.9	61.8	45.5	34.2	36.3	40.4	35.4	30.0	48.3	40.0	76.1
		Min-d	13.4	13.3	18.8	17.3	15.0	11.9	10.0	18.7	14.0	9.3	13.9	8.6	8.6
	Nai Mueang	Mean	39.1	38.2	26.0	17.0	26.4	23.9	28.4	30.9	32.0	30.4	35.7	42.7	31.3
		%	96	96	95	95	43	81	79	70	75	56	96	96	81
		Max-d	91.3	90.6	69.1	39.7	41.1	40.0	47.6	43.6	47.0	42.3	59.7	73.8	91.3
		Min-d	11.0	16.4	9.3	5.0	17.3	8.7	13.1	21.0	20.0	18.6	16.5	20.8	5.0

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			2016												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Indonesia	Bandung	Mean	17	16	16	12	10	9	9	8	7	7	7	4	10
		%	76	82	86	81	83	92	93	94	85	70	65	84	83
		Max-d	49	34	46	20	16	13	13	14	10	11	12	10	49
		Min-d	5	7	8	7	5	2	6	3	3	3	4	2	2
Japan	Rishiri	Mean	45	51	49	45	50	32	24	22	15	39	37	38	39
		%	99	99	93	100	99	99	99	99	15	71	99	17	82
		Max-d	55	58	68	56	71	47	38	32	23	54	45	38	71
		Min-d	39	44	40	34	35	24	14	10	7	29	32	36	7
	Ochiishi	Mean	38	43	48	48	49	37	27	24	34	38	39	39	38
		%	100	100	100	100	92	100	100	100	100	83	97	100	98
		Max-d	43	49	66	65	66	53	40	43	44	48	45	43	66
		Min-d	35	38	42	40	34	31	13	11	21	28	35	34	11
	Tappi	Mean	41	45	51	53	53	38	30	28	33	40	40	41	41
		%	99	99	99	98	96	99	99	99	99	99	91	94	98
		Max-d	48	53	73	65	69	54	53	44	48	48	51	51	73
		Min-d	37	40	41	46	30	27	18	11	19	32	36	36	11
	Sado-seki	Mean	41	45	51	56	61	50	37	36	37	41	41	41	45
		%	99	99	99	99	99	99	99	89	99	99	99	99	98
		Max-d	47	52	67	67	77	67	53	53	58	48	52	49	77
		Min-d	37	39	42	48	44	36	24	15	23	31	36	38	15
	Hapo	Mean	44	47	52	60	61	53	42	40	39	40	43	44	47
		%	99	98	99	93	77	97	96	90	86	85	33	79	86
		Max-d	52	60	70	72	72	69	57	58	60	51	48	51	72
		Min-d	38	39	34	50	48	40	23	23	26	27	33	38	23
	Ijira	Mean	23	14	19	38	48	33	20	22	18	23	24	18	25
		%	99	99	99	99	99	99	78	69	99	99	86	91	93
		Max-d	35	20	47	68	68	55	49	41	47	40	42	30	68
		Min-d	8	5	7	14	19	11	4	8	1	5	8	7	1
	Oki	Mean	44	46	52	58	61	50	33	38	38	41	45	40	46
		%	100	89	99	100	99	100	83	100	100	99	57	87	93
		Max-d	55	58	79	72	76	73	57	58	80	55	63	51	80
		Min-d	39	36	43	51	48	37	22	24	21	30	38	30	21
	Banryu	Mean	31	38	42	44	47	33	23	27	25	24	28	29	33
		%	100	99	99	100	99	100	100	100	96	100	99	100	99
		Max-d	39	47	62	57	65	54	43	51	63	36	40	42	65
		Min-d	12	27	28	29	27	15	9	15	11	11	16	17	9
	Yusuhara	Mean	39	41	45	49	52	38	22	30	21	29	38	38	37
		%	99	79	46	100	100	100	95	91	94	99	99	99	92
		Max-d	48	48	54	63	67	63	48	42	44	45	49	52	67
		Min-d	19	31	35	35	24	22	8	8	9	9	27	31	8
	Hedo	Mean	49	51	49	40	33	21	16	20	25	29	46	46	36
		%	99	83	99	99	99	99	93	95	79	93	99	99	95
		Max-d	55	68	71	67	62	64	27	69	46	53	56	57	71
		Min-d	37	36	30	13	10	7	6	7	8	8	33	41	6
	Ogasawara	Mean	40	42	46	35	32	22	15	17	15	22	34	39	29
		%	99	57	99	98	99	92	99	99	99	97	99	79	93
		Max-d	47	49	61	58	51	57	33	43	26	39	47	46	61
		Min-d	31	36	23	16	14	7	6	8	8	11	16	25	6
Mongolia	Ulaanbaatar	Mean	5	8	13	19	20	15	29	14	9	8	6	3	12
		%	31	89	92	100	81	100	71	100	100	100	87	100	87
		Max-d	17	20	22	30	36	21	108	28	16	15	12	9	108
		Min-d	1	2	6	10	12	8	8	7	4	2	<1	<1	<1

Table 4.10 O_3 (continued)

Unit : ppb			2016												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Philippines	Metro Manila	Mean	-	-	-	11	10	8	-	-	-	-	-	-	10
		%	0	0	0	100	100	83	0	0	0	0	0	0	23
		Max-d	-	-	-	21	23	17	-	-	-	-	-	-	23
		Min-d	-	-	-	4	4	3	-	-	-	-	-	-	3
Republic of Korea	Kanghwa	Mean	39	40	49	55	64	57	41	43	50	43	36	29	45
		%	99	98	98	98	98	96	99	99	98	98	98	97	98
		Max-d	49	50	71	69	91	76	81	68	75	58	69	37	91
		Min-d	20	13	32	46	44	44	25	22	27	29	8	13	8
	Cheju (Kosan)	Mean	30	47	50	53	56	40	22	28	34	40	37	35	39
		%	99	99	99	99	99	99	99	97	99	99	95	99	99
		Max-d	47	63	78	70	78	62	60	60	56	60	51	54	78
		Min-d	24	29	34	38	34	15	6	10	12	17	27	25	6
	Imsil	Mean	26	33	38	46	54	45	30	30	36	33	31	28	36
		%	97	97	97	91	99	98	98	91	97	98	97	94	96
		Max-d	37	44	61	63	69	66	47	65	96	46	42	47	96
		Min-d	9	21	20	34	41	18	11	22	15	16	17	15	9
Russia	Mondy [1]	Mean	40	54	54	54	50	40	39	32	31	34	40	42	43
		%	100	100	100	100	35	100	100	100	100	100	100	81	93
		Max-d	41	54	55	54	58	52	52	44	42	48	49	49	58
		Min-d	39	54	53	54	45	26	27	16	15	19	26	34	15
	Listvyanka [2]	Mean	29	49	47	56	21		59	22	-	21	9	19	35
		%	100	100	100	100	100		100	100	0	100	100	100	92
		Max-2w	29	50	47	56	21		59	22	-	21	9	22	59
		Min-2w	29	48	47	55	21		59	22	-	21	9	16	9
	Irktusk [3]	Mean	11	33	72	39	37	23	17		-	16	6	6	30
		%	100	100	100	100	100	100	100		0	88	100	100	90
		Max-2w	11	53	73	40	40	23	17		-	16	6	6	73
		Min-2w	11	12	72	39	34	23	17		-	16	6	6	6
Thailand	Bangkok	Mean	22	30	28	28	26	14	13	12	12	14	22	26	21
		%	94	94	95	90	96	94	96	96	96	96	95	95	95
		Max-d	36	47	43	41	48	23	21	19	20	31	33	35	48
		Min-d	9	19	13	12	16	4	5	7	3	6	9	14	3
	Samutprakarn	Mean	30	27	-	-	-	11	11	11	11	14	19	24	16
		%	63	11	0	0	0	25	95	95	96	95	95	95	56
		Max-d	46	34	-	-	-	15	23	18	21	32	34	34	46
		Min-d	8	16	-	-	-	9	4	5	3	5	9	11	3
	Khanchanaburi (Vachiralongkorn Dam)	Mean	-	-	30	25	-	-	-	12	-	-	-	18	19
		%	0	0	9	61	0	0	0	52	0	0	0	43	14
		Max-d	-	-	32	31	-	-	-	20	-	-	-	34	34
		Min-d	-	-	27	20	-	-	-	7	-	-	-	10	7
	Chang Phueak	Mean	24	33	42	42	38	14	15	14	16	19	20	20	25
		%	96	96	92	93	66	73	65	95	95	95	92	80	87
		Max-d	37	42	60	56	61	20	23	24	30	25	45	29	61
		Min-d	11	24	19	22	15	8	9	9	8	11	8	9	8
	Nai Mueang	Mean	24	32	40	40	32	19	13	12	7	6	9	23	22
		%	96	96	96	95	43	81	79	70	75	56	95	95	81
		Max-d	34	46	49	52	42	27	24	19	13	9	28	40	52
		Min-d	16	23	29	24	15	7	2	8	3	3	2	10	2

Terms and abbreviations are given in Table 4.2.

1) O_3 monitoring at Mondy was measured by PS from Nov 2015 to April 2016, tentatively.

2) The monthly average of May and June was combined because the sampling period was from Apr. 29 to Jun. 30.

3) Irktusk started O_3 passive monitoring in 2016 and the monthly avarage of July and August was combined because the sampling period was from Jul. 7 to Sep. 1.

Table 4.11 PM_{10}

Unit : µg/m³			2016												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
China	Jinyunshan	Mean	68	83	78	47	53	47	45	47	60	33	48	66	56
		%	87	93	100	93	100	93	100	100	93	100	100	100	97
		Max-d	131	184	186	105	129	139	79	74	135	109	92	103	186
		Min-d	21	25	12	20	9	9	16	24	14	7	10	14	7
	Hongwen	Mean	46	48	54	40	37	25	33	36	36	37	55	63	42
		%	90	100	100	100	100	97	100	100	97	97	97	100	98
		Max-d	101	136	124	91	77	37	87	92	59	76	116	117	136
		Min-d	<1	13	12	16	18	11	10	11	14	9	18	25	<1
	Haibin-Park	Mean	46	52	51	36	33	19	25	31	39	42	47	76	41
		%	94	100	100	97	100	100	100	97	100	100	97	97	99
		Max-d	110	97	114	68	58	38	73	58	81	73	91	125	125
		Min-d	18	6	7	19	13	7	10	9	12	15	12	40	6
Japan	Rishiri	Mean	9	14	22	23	27	7	10	11	14	25	14	15	16
		%	100	99	100	100	100	100	100	99	93	100	100	100	99
		Max-d	23	45	74	80	71	11	37	23	42	93	32	74	93
		Min-d	3	6	3	3	5	4	3	3	2	7	4	5	2
	Ochiishi	Mean	11	17	22	24	23	14	11	18	19	23	20	20	18
		%	99	100	97	95	92	86	98	94	99	93	97	98	96
		Max-d	27	39	68	68	44	33	20	75	34	40	43	38	75
		Min-d	4	8	6	8	7	4	4	4	9	11	10	10	4
	Tappi	Mean	14	18	21	28	26	11	14	18	14	17	16	17	18
		%	99	100	100	100	100	100	100	100	100	93	100	100	99
		Max-d	45	37	54	84	43	21	35	39	38	26	33	46	84
		Min-d	7	9	7	10	8	5	7	8	5	9	7	6	5
	Sado-seki	Mean	24	23	21	31	27	11	13	10	13	19	26	23	20
		%	94	46	100	100	99	71	100	100	99	96	100	100	92
		Max-d	47	41	52	79	64	37	25	24	29	33	50	42	79
		Min-d	7	10	5	6	10	1	4	<1	5	7	8	5	<1
	Happo	Mean	-	-	12	20	16	9	8	8	6	7	8	6	10
		%	0	0	27	100	100	100	100	100	100	96	99	94	76
		Max-d	-	-	22	61	41	19	16	21	19	13	16	11	61
		Min-d	-	-	5	2	2	<1	<1	<1	<1	1	2	2	<1
	Ijira	Mean	10	13	16	20	24	17	22	22	17	13	10	8	16
		%	100	96	100	100	100	99	100	100	100	100	91	94	98
		Max-d	29	33	38	49	61	33	44	42	40	25	19	14	61
		Min-d	3	4	5	3	5	7	8	7	6	5	<1	2	<1
	Oki	Mean	30	30	31	39	33	23	21	24	21	27	37	35	29
		%	100	93	99	100	98	99	100	100	100	100	78	94	97
		Max-d	66	55	73	165	123	54	44	55	57	56	54	81	165
		Min-d	10	10	11	14	7	10	7	10	10	8	19	9	7
	Banryu	Mean	18	21	24	27	28	20	20	28	23	19	21	16	22
		%	100	100	93	100	99	100	100	100	100	99	100	100	99
		Max-d	40	51	59	107	80	39	34	41	44	30	52	40	107
		Min-d	3	4	8	8	3	10	5	11	7	10	6	6	3
	Yusuhara	Mean	15	22	21	12	20	10	13	20	10	11	14	10	14
		%	92	60	96	46	5	100	100	100	99	100	96	100	83
		Max-d	33	61	51	35	22	27	27	46	36	27	32	32	61
		Min-d	3	4	9	1	17	<1	1	4	2	<1	2	2	<1
	Hedo	Mean	27	35	33	29	28	28	22	24	23	23	31	30	28
		%	100	93	52	100	100	100	100	99	89	100	92	100	94
		Max-d	54	64	51	65	50	55	45	46	43	44	53	57	65
		Min-d	11	14	11	13	14	12	10	13	13	15	13	16	10
	Ogasawara	Mean	18	21	20	19	18	15	13	27	18	17	19	19	19
		%	99	93	100	93	99	99	95	73	99	99	99	80	94
		Max-d	35	48	48	36	35	32	34	71	35	31	31	42	71
		Min-d	5	9	8	7	7	7	4	8	6	7	9	8	4
Mongolia	Ulaanbaatar	Mean	174	145	84	67	59	68	63	43	61	88	145	178	97
		%	89	100	99	100	100	100	92	100	100	99	87	100	97
		Max-d	452	343	189	165	116	241	177	85	142	193	364	404	452
		Min-d	23	27	30	32	26	13	25	20	21	41	49	74	13

Table 4.11 PM_{10} (continued)

Unit : μg/m³			2016												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Philippines	Metro Manila	Mean	38	36	32	34	29	27	32	24	26	24	26	25	29
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-d	60	55	48	60	40	49	61	46	49	39	70	102	102
		Min-d	14	17	12	17	15	15	13	8	13	10	8	4	4
Republic of Korea	Kanghwa	Mean	50	46	68	74	61	51	39	39	47	42	46	42	51
		%	99	98	98	98	98	95	95	98	98	98	98	97	98
		Max-d	93	73	165	257	92	81	71	74	63	65	83	61	257
		Min-d	28	21	27	29	34	32	21	27	23	23	24	22	21
	Cheju (Kosan)	Mean	43	49	52	59	48	34	27	33	39	31	40	39	42
		%	97	94	98	91	96	93	93	97	98	26	95	62	87
		Max-d	125	90	88	152	137	80	65	68	63	48	72	148	152
		Min-d	16	23	18	13	14	4	12	17	26	21	16	15	4
	Imsil	Mean	50	49	59	67	49	39	24	26	30	29	45	36	42
		%	98	96	97	88	97	95	97	91	95	97	97	95	95
		Max-d	96	97	94	187	187	71	53	42	58	57	78	101	187
		Min-d	21	16	25	6	15	13	5	6	5	10	22	19	5
Thailand	Bangkok	Mean	42	57	48	39	24	21	24	27	22	29	40	52	35
		%	100	100	100	100	100	99	91	98	95	99	100	100	99
		Max-d	74	106	90	61	45	28	43	40	34	61	73	83	106
		Min-d	20	34	22	24	14	16	14	17	13	16	19	28	13
	Samutprakarn	Mean	41	44	-	-	-	24	29	34	27	34	44	57	38
		%	100	12	0	0	0	21	96	100	100	100	100	100	61
		Max-d	75	64	-	-	-	31	46	52	38	64	84	85	85
		Min-d	21	29	-	-	-	17	16	21	15	17	22	30	15
	Khanchanaburi (Vachiralongkorn Dam)	Mean	-	-	32	55	-	-	-	16	-	-	-	26	34
		%	0	0	10	63	0	0	0	55	0	0	0	45	14
		Max-d	-	-	40	88	-	-	-	26	-	-	-	39	88
		Min-d	-	-	25	31	-	-	-	8	-	-	-	16	8
	Chang Phueak	Mean	44	62	82	103	54	17	26	30	29	29	34	43	48
		%	99	96	96	98	64	48	68	100	100	100	99	93	88
		Max-d	71	98	187	173	86	24	42	56	51	41	45	66	187
		Min-d	4	15	31	53	20	12	17	20	19	20	18	22	4
	Si Phum	Mean	57	83	109	118	50	24	28	30	27	28	33	39	52
		%	100	100	99	99	97	98	100	100	100	100	98	94	99
		Max-d	92	125	208	192	90	41	45	51	49	41	49	72	208
		Min-d	9	27	55	57	16	17	14	19	14	13	18	19	9
	Nai Mueang	Mean	63	80	80	60	42	33	38	41	35	43	46	61	55
		%	100	97	100	100	46	84	69	14	78	58	100	100	78
		Max-d	111	143	107	98	54	44	63	59	53	80	71	96	143
		Min-d	22	41	53	37	29	21	27	32	26	32	21	29	21

Terms and abbreviations are given in Table 4.2.

1) PM_{10} monitor was moved to Haibin-Park from Xiang Zhou.

Table 4.12 $PM_{2.5}$

Unit : µg/m^3			2016												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Japan	Rishiri	Mean	5	7	9	8	11	4	5	5	5	10	8	7	7
		%	100	100	100	100	100	100	100	99	93	100	100	100	99
		Max-d	17	14	24	24	26	7	12	13	16	35	27	20	35
		Min-d	<1	3	1	1	3	<1	<1	<1	<1	2	3	1	<1
	Ochiishi	Mean	5	9	9	9	10	6	5	6	6	9	10	8	8
		%	99	100	97	96	93	87	99	95	99	93	97	98	96
		Max-d	17	18	30	17	22	12	7	26	12	21	23	17	30
		Min-d	2	4	2	2	3	1	<1	<1	2	3	4	4	<1
	Tappi	Mean	8	11	11	12	14	6	7	7	6	8	9	10	9
		%	99	100	100	100	100	100	100	100	100	93	100	100	99
		Max-d	32	22	26	27	25	12	17	16	18	13	19	36	36
		Min-d	2	5	2	5	3	3	2	2	1	3	3	2	1
	Sado-seki	Mean	8	11	12	13	16	9	8	8	6	8	11	8	10
		%	94	46	100	100	99	71	100	100	99	96	100	100	92
		Max-d	21	18	30	22	29	17	17	17	17	13	22	19	30
		Min-d	3	5	2	5	2	3	2	3	3	4	4	2	2
	Happo	Mean	-	-	8	10	10	6	6	6	4	5	5	4	6
		%	0	0	27	100	100	100	100	100	100	96	99	100	77
		Max-d	-	-	15	27	26	14	12	15	12	10	10	8	27
		Min-d	-	-	<1	<1	<1	<1	<1	<1	<1	<1	1	1	<1
	Ijira	Mean	8	9	11	13	15	9	8	9	7	8	7	5	9
		%	100	95	100	100	100	99	100	100	100	100	91	94	98
		Max-d	23	25	23	30	25	16	15	19	17	16	14	11	30
		Min-d	2	1	3	2	2	2	2	2	2	1	<1	1	<1
	Oki	Mean	13	13	14	14	17	12	9	11	8	9	13	9	12
		%	100	93	99	100	98	99	100	100	100	100	78	94	97
		Max-d	39	34	35	38	41	25	22	23	26	20	22	20	41
		Min-d	4	4	4	2	3	6	2	4	3	2	4	3	2
	Banryu	Mean	13	13	14	14	16	11	9	11	10	9	12	9	12
		%	100	100	93	100	99	100	100	100	100	99	100	100	99
		Max-d	31	33	29	34	39	22	16	22	26	16	23	23	39
		Min-d	2	3	5	4	1	4	2	5	2	4	3	3	1
	Yusuhara	Mean	12	18	18	8	16	7	8	12	7	8	10	8	10
		%	92	60	96	46	5	100	100	100	99	100	96	100	83
		Max-d	28	39	37	23	17	18	18	29	24	22	19	24	39
		Min-d	3	5	8	1	13	<1	<1	2	1	<1	2	2	<1
	Hedo	Mean	13	15	14	12	10	7	6	10	8	8	12	12	10
		%	100	93	52	100	100	100	100	99	89	100	92	100	94
		Max-d	29	33	28	28	18	19	15	27	25	16	23	27	33
		Min-d	3	6	3	4	4	3	3	4	4	4	4	5	3
	Ogasawara	Mean	7	8	8	7	6	4	3	6	4	4	6	7	6
		%	99	93	100	93	99	99	95	73	99	99	99	80	94
		Max-d	15	14	22	12	10	12	11	20	7	8	9	13	22
		Min-d	2	3	3	2	1	1	1	1	2	2	3	2	1
Mongolia	Ulaanbaatar	Mean	148	110	40	19	16	15	24	9	17	28	89	120	53
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-d	387	241	75	46	28	27	122	19	58	54	245	244	387
		Min-d	24	34	10	12	9	6	5	4	7	12	11	48	4
Myanmar	Mandalay	Mean	-	-	97	51	27	9	10	18	19	28	35	44	33
		%	0	0	92	98	97	98	97	97	98	97	98	97	81
		Max-d	-	-	135	105	50	15	22	87	46	48	109	70	135
		Min-d	-	-	49	22	7	4	4	5	3	13	16	21	3
Philippines	Metro Manila	Mean	23	22	19	19	18	19	23	18	19	19	19	17	20
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-d	41	37	34	46	29	34	51	37	38	34	39	45	51
		Min-d	7	10	4	10	8	10	10	6	8	9	7	4	4
Republic of Korea	Kanghwa	Mean	29	24	34	31	33	30	22	20	27	23	30	28	28
		%	95	94	96	96	97	95	98	97	96	94	89	90	95
		Max-d	74	48	60	54	67	58	52	42	41	53	67	53	74
		Min-d	13	11	14	16	14	16	9	10	9	6	13	11	6
	Cheju (Kosan)	Mean	19	21	22	27	25	16	14	19	25	14	20	22	21
		%	89	91	98	87	95	85	82	88	74	20	87	62	80
		Max-d	37	50	51	70	62	49	54	33	50	22	38	83	83
		Min-d	5	5	5	5	7	<1	5	6	8	8	6	11	<1
Thailand	Bangkok	Mean	22	34	36	31	18	17	17	17	15	20	25	29	23
		%	98	96	100	71	96	94	96	91	94	98	99	100	95
		Max-d	42	63	64	45	32	27	34	24	29	42	64	45	64
		Min-d	8	17	19	17	10	12	11	5	5	11	10	16	5
	Samutprakarn	Mean						14	18	21	20	28	37	45	28
		%						27	96	100	99	100	100	100	52
		Max-d						17	29	29	29	47	75	67	75
		Min-d						9	10	14	13	16	21	25	9
	Chang Phueak	Mean							21	21	21	20	23	34	24
		%							68	95	100	100	99	96	47
		Max-d							29	35	42	32	35	48	48
		Min-d							16	11	16	14	14	18	11
	Si Phum	Mean	34	54	74	82	33	10	13	14	13	15	17	23	32
		%	95	96	99	99	96	96	99	99	97	96	97	94	97
		Max-d	67	93	138	144	66	15	20	23	27	24	25	34	144
		Min-d	6	16	31	45	9	7	7	8	7	9	9	11	6
Viet Nam	Hoa Binh	Mean	61	64	63	58	47	27	-	22	32	42	36	55	49
		%	90	92	100	83	56	23	0	36	89	99	100	99	72
		Max-d	164	104	123	117	104	40	-	40	91	88	78	108	164
		Min-d	19	32	22	25	17	14	-	8	8	13	10	25	8

Terms and abbreviations are given in Table 4.2.

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

Unit : µg/m³			2016												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Cambodia	Phnom Penh	Mean	-	-	-	-	3.24	2.04	0.70	1.70	0.41	1.06	1.47	1.60	1.54
		%	0	0	0	0	97	100	100	100	100	100	100	100	67
		Max-2w	-	-	-	-	4.00	2.98	1.01	2.35	0.57	1.40	1.75	1.91	4.00
		Min-2w	-	-	-	-	2.48	1.09	0.39	1.19	0.26	0.71	1.20	1.30	0.26
China	Hongwen	Mean	9.90	9.35	17.16	12.12	14.47	6.69	5.94	14.24	10.54	5.89	9.91	11.76	10.92
		%	61	100	100	100	100	100	100	100	100	100	100	100	97
		Max-m	9.90	9.35	21.34	12.12	14.47	6.69	5.94	22.39	14.27	6.18	11.26	11.76	22.39
		Min-m	9.90	9.35	12.98	12.12	14.47	6.69	5.94	6.09	6.81	5.60	8.56	11.76	5.60
Indonesia	Jakarta	Mean	4.21	3.16	4.90	2.30	6.59	4.77	-	-	4.58	2.64	0.87	0.85	3.53
		%	100	100	100	100	100	100	0	0	100	44	93	100	78
		Max-2w	4.3	3.32	5.66	4.43	7.15	6.72	-	-	6.29	2.64	1.52	1.48	7.15
		Min-2w	4.1	2.99	4.13	0.18	6.03	2.81	-	-	2.88	2.64	0.23	0.22	0.18
	Serpong	Mean	4.13	0.24	3.88	1.98	4.78	4.86	4.55	5.61	1.70	-	5.05	1.92	3.41
		%	58	100	100	100	100	100	100	100	100	0	100	100	90
		Max-2w	4.13	0.28	3.93	3.88	5.72	5.02	5.86	5.81	1.98	-	5.05	2.28	5.86
		Min-2w	4.13	0.20	3.83	0.09	3.83	4.71	3.23	5.40	1.42	-	5.05	1.56	0.09
	Bandung	Mean	3.86	2.53	3.11	3.06	3.32	2.55	2.61	2.91	2.85	2.46	2.46	0.63	2.73
		%	100	100	100	100	100	100	100	97	100	100	100	100	100
		Max-2w	4.59	3.51	3.26	3.31	3.66	2.55	2.66	2.98	3.40	2.52	2.76	0.85	4.59
		Min-2w	3.13	1.56	2.96	2.81	2.94	2.55	2.56	2.83	2.31	2.40	2.17	0.42	0.42
Japan	Rishiri	Mean	1.51	2.55	2.34	1.77	2.95	1.23	1.83	2.14	1.97	2.24	1.77	2.12	2.05
		%	100	100	100	100	100	100	100	100	46	100	100	100	96
		Max-2w	2.18	2.85	3.33	2.03	3.82	1.40	1.85	3.33	1.97	2.60	2.05	2.56	3.82
		Min-2w	0.85	2.24	1.32	1.52	2.07	1.06	1.81	1.28	1.97	1.89	1.50	1.68	0.85
	Ochiishi	Mean	1.68	2.23	3.19	1.38	2.40	1.99	1.90	1.36	2.10	2.16	1.59	1.28	1.98
		%	100	100	100	53	100	100	100	33	100	100	100	100	88
		Max-2w	2.09	2.90	4.13	1.38	3.12	2.34	2.01	1.36	2.32	2.18	2.04	2.18	4.13
		Min-2w	0.90	1.57	2.24	1.38	1.68	1.64	1.79	1.36	1.87	2.14	1.15	0.37	0.37
	Tappi	Mean	2.39	3.56	3.64	3.13	3.41	2.47	2.32	2.93	1.72	2.23	3.25	5.81	3.08
		%	100	100	100	50	100	100	100	100	100	100	100	100	96
		Max-2w	4.04	3.83	4.22	3.13	4.88	2.69	2.68	4.96	2.12	3.11	3.37	7.11	7.11
		Min-2w	0.75	3.14	3.07	3.13	1.94	2.25	1.96	1.67	1.32	1.36	3.12	4.51	0.75
	Sado-seki	Mean	1.64	3.49	3.68	3.13	4.38	2.58	2.17	3.31	1.04	2.49	3.09	3.04	2.88
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	1.67	3.96	3.69	4.04	4.98	2.95	2.42	4.96	2.00	2.51	3.60	3.06	4.98
		Min-2w	1.61	3.14	3.67	2.23	3.78	2.21	1.92	2.40	0.08	2.47	2.57	3.03	0.08
	Happo	Mean	1.26	1.95	2.45	2.38	2.27	1.48	2.23	2.80	1.18	1.21	1.22	0.51	1.80
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	1.75	3.39	3.11	3.98	2.27	1.48	2.95	3.92	1.37	1.45	1.22	0.85	3.98
		Min-2w	0.77	0.77	1.78	0.78	2.27	1.48	1.50	1.59	0.98	0.97	1.22	0.17	0.17
	Ijira	Mean	2.11	3.18	3.38	3.32	4.57	3.08	3.35	3.56	2.11	2.09	2.04	1.72	2.91
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	2.88	4.40	3.93	3.79	4.74	3.37	3.93	4.61	2.67	2.15	2.42	2.03	4.74
		Min-2w	1.34	2.13	2.83	2.84	4.40	2.79	2.77	2.19	1.55	2.02	1.66	1.41	1.34
	Oki	Mean	4.75	3.48	5.56	5.26	5.89	4.76	2.83	-	-	-	-	-	4.84
		%	100	100	100	100	100	100	54	0	0	0	0	0	54
		Max-2w	5.19	3.96	6.62	6.29	7.93	7.65	2.83	-	-	-	-	-	7.93
		Min-2w	4.30	3.01	4.41	4.22	3.85	1.86	2.83	-	-	-	-	-	1.86
	Banryu	Mean	4.57	4.08	4.66	4.64	5.19	3.08	2.76	-	-	-	-	-	4.24
		%	100	100	100	100	100	100	50	0	0	0	0	0	54
		Max-2w	4.84	5.88	5.42	5.52	6.17	5.79	2.76	-	-	-	-	-	6.17
		Min-2w	4.30	3.17	3.91	3.77	4.22	0.38	2.76	-	-	-	-	-	0.38
	Yusuhara	Mean	4.05	3.69	3.89	3.82	3.17	1.92	3.45	4.51	2.41	2.04	3.24	2.44	3.29
		%	100	100	100	100	100	100	100	100	100	75	100	100	98
		Max-2w	4.76	5.27	3.98	4.17	3.47	3.24	4.88	6.70	2.76	2.09	3.78	3.27	6.70
		Min-2w	3.35	2.44	3.79	3.48	2.87	0.59	2.02	2.92	2.05	1.99	2.70	1.62	0.59
	Hedo	Mean	7.75	5.02	7.02	4.35	3.22	3.36	2.28	4.71	3.00	2.80	5.26	5.72	4.57
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	9.29	5.12	7.34	4.98	3.37	4.51	3.05	6.03	3.65	2.88	6.16	6.50	9.29
		Min-2w	6.20	4.85	6.69	3.72	3.06	2.21	1.52	2.80	2.36	2.72	4.37	4.94	1.52
	Ogasawara	Mean	3.05	2.81	2.42	2.19	1.75	1.95	1.43	1.17	0.95	0.86	1.54	2.43	1.93
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	3.21	3.42	2.68	2.57	1.88	2.02	1.99	1.69	1.24	0.86	1.68	2.52	3.42
		Min-2w	2.89	2.36	2.16	1.81	1.62	1.89	0.87	0.84	0.66	0.86	1.40	2.35	0.66
	Tokyo	Mean	1.90	3.32	3.47	3.65	4.19	4.24	6.04	2.91	2.77	2.28	2.18	1.67	3.16
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	2.18	4.25	3.66	4.07	4.29	5.47	6.23	3.27	3.32	2.63	2.27	1.71	6.23
		Min-2w	1.45	2.40	3.28	3.23	4.09	3.00	5.86	2.56	2.21	1.92	2.09	1.63	1.45
Lao PDR	Vientiane	Mean	5.73	5.20	6.30	3.85	3.19	1.06	1.90	1.92	1.05	3.42	4.50	7.13	3.77
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-m	5.73	5.20	6.30	3.85	3.19	1.06	1.90	1.92	1.05	3.42	4.50	7.13	7.13
		Min-m	5.73	5.20	6.30	3.85	3.19	1.06	1.90	1.92	1.05	3.42	4.50	7.13	1.05
Malaysia	Petaling Jaya	Mean	2.43	0.69	7.84	8.25	2.47	1.98	1.48	2.50	1.73	2.56	2.16	1.33	2.96
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	3.91	1.75	13.26	9.08	3.69	2.82	3.23	8.31	3.11	4.09	2.96	2.88	13.26
		Min-w	1.56	0.02	4.61	7.00	1.38	0.17	<0.01	<0.01	<0.01	1.55	1.08	0.15	<0.01
	Tanah Rata	Mean	0.50	0.88	3.42	5.01	1.41	1.51	3.08	3.35	1.01	1.74	0.50	1.51	2.01
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.74	1.51	6.64	7.24	2.04	3.28	4.59	6.45	1.90	3.51	0.75	3.50	7.24
		Min-w	0.35	0.16	1.61	3.42	0.53	0.53	0.60	1.38	<0.01	1.09	0.34	0.10	<0.01
	Danum Valley	Mean	1.26	1.46	2.62	1.67	1.48	0.73	0.42	0.81	0.99	0.50	0.86	<0.01	1.10
		%	100	61	100	100	100	100	100	100	100	100	100	50	93
		Max-2w	1.28	1.46	3.27	1.92	3.02	0.86	0.48	1.50	1.29	0.50	1.54	<0.01	3.27
		Min-2w	1.23	1.46	1.97	1.43	0.58	0.60	0.35	0.12	0.70	0.49	0.36	<0.01	<0.01

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

Unit : µg/m³			2016												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Mongolia	Ulaanbaatar	Mean	4.49	14.31	0.31	0.58	0.37	0.58	0.61	0.17	0.72	0.16	3.49	3.67	2.10
		%	90	75	100	100	100	100	100	100	80	100	100	60	92
		Max-w	8.95	18.56	0.88	1.24	1.03	1.59	1.34	0.45	2.22	0.29	7.81	8.83	18.56
		Min-w	0.02	9.80	<0.01	0.05	0.02	0.06	<0.01	0.04	<0.01	0.06	0.02	0.85	<0.01
	Terelj	Mean	0.26	0.06	0.12	0.17	0.15	0.02	0.04	4.53	1.22	4.82	6.25	-	1.70
		%	90	100	100	100	100	100	100	100	50	100	100	0	88
		Max-2w	0.35	0.08	0.13	0.19	0.27	0.04	0.08	5.21	1.22	10.81	10.85	-	10.85
		Min-2w	0.17	0.05	0.11	0.16	0.09	<0.01	<0.01	3.85	1.22	0.08	1.65	-	<0.01
Myanmar	Yangon	Mean	0.52	0.31	0.03	0.16	0.18	0.14	0.45	0.23	0.22	0.35	2.57	-	0.54
		%	100	100	100	100	100	100	100	100	100	100	100	0	92
		Max-2w	0.54	0.40	0.04	0.25	0.35	0.22	0.59	0.34	0.26	0.41	7.02	-	7.02
		Min-2w	0.50	0.21	0.02	0.07	<0.01	0.06	0.31	0.12	0.18	0.29	0.25	-	<0.01
Philippines	Mt. Sto. Tomas	Mean	0.24	0.09	0.50	0.44	0.30	0.38	0.37	0.38	0.18	0.33	0.18	0.15	0.30
		%	100	100	100	100	100	100	100	100	100	79	100	100	98
		Max-w	0.62	0.28	1.13	1.11	0.70	0.75	0.83	0.49	0.40	0.51	0.21	0.31	1.13
		Min-w	0.02	0.01	0.03	0.15	0.02	0.01	0.11	0.29	0.02	0.23	0.13	0.01	0.01
Republic of Korea	Kanghwa	Mean	2.86	4.04	6.27	6.17	9.29	10.10	7.42	5.76	6.50	4.89	5.88	4.72	6.11
		%	16	17	16	17	16	17	13	16	17	16	17	19	16
		Max-d	4.27	5.49	10.32	8.35	17.36	15.20	14.16	9.84	10.19	10.08	9.98	7.41	17.36
		Min-d	1.78	2.57	3.19	3.60	2.99	6.64	1.93	0.62	1.11	0.32	1.39	3.33	0.32
	Cheju (Kosan)	Mean	-	3.93	5.56	7.41	6.64	4.61	5.15	3.98	3.37	3.15	4.13	3.72	4.75
		%	0	17	16	17	16	17	16	16	17	10	17	16	14
		Max-d	-	6.31	10.29	14.45	15.93	10.54	7.77	8.20	9.19	5.99	5.05	6.58	15.93
		Min-d	-	1.85	2.68	3.19	2.51	0.91	3.09	0.72	0.69	1.54	3.54	2.53	0.69
	Imsil	Mean	-	3.55	4.02	5.43	5.64	7.39	6.41	5.46	4.58	6.34	3.77	2.69	5.07
		%	0	17	16	17	16	17	16	16	17	16	17	13	15
		Max-d	-	4.70	8.53	8.42	11.47	12.75	10.61	8.90	8.28	12.29	5.53	3.12	12.75
		Min-d	-	1.94	1.06	2.69	2.64	3.24	1.72	0.60	0.74	2.56	1.54	1.95	0.60
Russia	Mondy	Mean	0.32	0.82	0.83	0.45	0.28	0.17	0.58	0.06	0.70	0.69	0.54	0.35	0.45
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-m	0.44	0.82	1.07	0.45	0.32	0.28	0.58	0.06	0.70	0.87	0.54	0.35	1.07
		Min-m	0.21	0.82	0.60	0.45	0.24	0.06	0.58	0.06	0.70	0.50	0.54	0.35	0.06
	Listvyanka	Mean	1.41	1.07	1.12	0.59	0.76	0.58	1.48	0.66	0.90	0.66	0.63	0.60	0.88
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	2.36	1.40	1.55	0.85	1.06	0.67	2.41	1.04	1.40	1.29	1.27	1.68	2.41
		Min-w	0.48	0.70	0.76	0.45	0.59	0.49	0.92	0.27	0.13	0.01	<0.01	0.06	<0.01
	Irkutsk	Mean	6.00	1.90	2.00	1.30	0.89	0.54	0.88	1.81	0.81	2.51	2.42	2.38	2.03
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	10.19	2.05	3.00	1.58	1.65	0.83	1.21	3.75	0.98	3.78	3.00	3.78	10.19
		Min-w	1.52	1.72	1.12	0.98	0.24	0.35	0.66	0.62	0.55	0.36	1.95	0.65	0.24
	Primorskaya	Mean	2.84	1.92	3.45	2.35	2.20	1.77	0.56	2.36	1.84	1.25	2.90	3.27	2.23
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	3.23	3.16	3.48	3.52	2.43	2.89	0.93	3.87	3.20	1.91	4.17	6.12	6.12
		Min-2w	2.44	0.68	3.43	1.19	1.98	0.65	0.19	0.85	0.48	0.59	1.63	0.42	0.19
Thailand	Bangkok	Mean	1.66	4.66	5.99	19.31	5.10	<0.01	1.71	0.88	2.10	2.86	2.69	2.20	4.10
		%	90	100	100	100	100	100	100	100	100	100	100	100	99
		Max-10d	3.10	6.57	7.07	47.21	9.33	<0.01	1.92	1.60	2.71	5.53	3.89	3.01	47.21
		Min-10d	0.58	3.66	5.15	4.85	2.88	<0.01	1.44	<0.01	1.55	0.29	2.07	1.45	<0.01
	Khanchanaburi (Vachiralongkorn Dam)	Mean	-	-	-	43.09	-	-	-	3.58	-	-	-	0.06	15.58
		%	0	0	0	67	0	0	0	58	0	0	0	45	15
		Max-2w	-	-	-	43.09	-	-	-	3.58	-	-	-	0.06	43.09
		Min-2w	-	-	-	43.09	-	-	-	3.58	-	-	-	0.06	0.06
	Mae Hia	Mean	0.16	2.77	0.64	2.80	0.06	0.17	0.10	0.08	0.36	-	-	-	0.86
		%	30	97	97	97	97	97	97	97	63	0	0	0	64
		Max-10d	0.16	5.75	1.17	6.50	0.19	0.25	0.12	0.20	0.47	-	-	-	6.50
		Min-10d	0.16	0.27	0.16	0.23	<0.01	0.11	0.08	<0.01	0.25	-	-	-	<0.01
	Sakaerat	Mean	0.91	3.27	4.05	6.44	1.91	1.54	1.49	2.33	1.46	-	-	-	2.79
		%	29	100	100	100	100	100	100	100	57	0	0	0	65
		Max-10d	0.91	4.78	6.66	9.36	3.42	1.93	2.44	3.01	1.53	-	-	-	9.36
		Min-10d	0.91	0.72	0.16	4.61	0.64	1.28	<0.01	1.07	1.39	-	-	-	<0.01
Viet Nam	Hanoi	Mean	9.05	8.58	11.13	11.19	5.82	4.18	5.59	4.50	10.58	11.35	7.89	13.93	8.84
		%	75	100	100	100	100	100	75	100	100	100	50	100	92
		Max-w	11.86	11.77	13.03	14.67	7.47	4.80	6.62	5.67	13.45	14.09	8.28	16.44	16.44
		Min-w	4.60	3.18	7.40	8.12	3.53	3.47	4.86	2.69	8.51	8.54	7.49	9.58	2.69
	Hoa Binh	Mean	8.51	4.50	7.38	11.25	8.38	1.52	1.86	1.20	5.77	6.93	6.21	6.40	5.78
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	11.58	6.17	9.76	17.26	11.11	3.08	2.60	2.31	9.31	10.39	7.57	11.38	17.26
		Min-w	5.98	2.71	5.66	7.95	3.95	0.58	1.08	0.58	2.08	2.62	5.37	1.36	0.58
	Can Tho	Mean	1.09	1.06	1.54	1.02	1.41	1.45	0.88	0.73	2.13	1.33	2.00	2.01	1.42
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	2.14	1.58	2.05	1.25	2.08	1.97	1.12	0.90	3.55	2.37	3.25	2.45	3.55
		Min-w	0.57	0.34	0.42	0.68	0.52	0.51	0.61	0.45	0.61	0.61	0.63	1.64	0.34
	Ho Chi Minh	Mean	3.48	3.82	3.03	2.75	2.29	1.93	1.27	0.98	0.90	0.62	1.68	3.00	2.15
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	4.92	4.55	3.91	4.24	3.05	2.51	2.35	1.37	1.56	1.03	2.35	4.67	4.92
		Min-w	2.53	2.68	2.56	1.75	1.59	1.26	0.75	0.53	0.39	0.37	1.02	1.25	0.37
	Yen Bai	Mean	7.48	10.20	11.76	13.70	6.68	3.33	5.12	2.10	5.34	4.76	2.71	5.05	6.49
		%	75	100	100	100	100	100	100	100	100	100	100	100	98
		Max-w	7.98	13.64	13.42	21.07	10.16	5.87	6.75	3.94	10.37	5.41	5.22	7.78	21.07
		Min-w	6.99	5.91	10.34	9.44	1.11	1.00	3.94	0.99	0.67	4.26	0.50	3.03	0.50

Terms and abbreviations are given in Table 4.2.

Table 4.14 Particulate matter component: NO_3^-

Unit : μg/m³			2016												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Cambodia	Phnom Penh	Mean	-	-	-	-	2.03	2.18	1.05	1.25	1.25	1.17	1.00	1.05	1.37
		%	0	0	0	0	97	100	100	100	100	100	100	100	67
		Max-2w	-	-	-	-	2.50	2.89	1.33	1.46	1.32	1.37	1.19	1.13	2.89
		Min-2w	-	-	-	-	1.56	1.46	0.77	0.92	1.17	0.98	0.82	0.97	0.77
China	Hongwen	Mean	9.13	8.88	16.84	3.34	1.61	3.92	3.52	5.89	9.45	4.62	6.94	11.73	7.62
		%	61	100	100	100	100	100	100	100	100	100	100	100	97
		Max-m	9.13	8.88	18.9	3.34	1.61	3.92	3.52	7.13	15.57	4.81	12.97	11.73	18.85
		Min-m	9.13	8.88	14.8	3.34	1.61	3.92	3.52	4.65	3.34	4.43	0.91	11.73	0.91
Indonesia	Jakarta	Mean	1.19	1.91	2.27	1.20	1.38	1.42	-	-	1.19	1.14	0.82	0.79	1.34
		%	100	100	100	100	100	100	0	0	100	44	93	100	78
		Max-2w	1.65	2.12	3.08	2.29	1.51	2.04	-	-	1.37	1.14	1.39	1.35	3.08
		Min-2w	0.73	1.70	1.47	0.11	1.24	0.80	-	-	1.02	1.14	0.25	0.24	0.11
	Serpong	Mean	0.84	0.06	0.76	0.52	1.16	1.48	0.82	0.93	1.42	-	0.26	0.52	0.82
		%	58	100	100	100	100	100	100	100	100	0	100	100	90
		Max-2w	0.84	0.08	1.09	0.68	1.48	1.63	0.94	1.21	2.62	-	0.26	0.55	2.62
		Min-2w	0.84	0.05	0.42	0.36	0.84	1.33	0.71	0.66	0.22	-	0.26	0.49	0.05
	Bandung	Mean	0.68	0.42	0.61	0.82	1.37	4.50	0.66	1.20	0.57	0.98	1.26	0.47	1.00
		%	100	100	100	100	100	100	100	97	100	100	100	100	100
		Max-2w	1.17	0.50	0.77	1.02	1.94	4.50	0.76	1.33	0.66	1.06	1.72	0.60	4.50
		Min-2w	0.20	0.34	0.45	0.62	1.01	4.50	0.56	1.07	0.48	0.90	0.80	0.34	0.20
Japan	Rishiri	Mean	0.36	0.50	0.91	0.73	1.23	0.33	0.27	0.44	0.74	0.88	0.55	0.59	0.63
		%	100	100	100	100	100	100	100	100	46	100	100	100	96
		Max-2w	0.57	0.57	1.60	0.86	1.75	0.38	0.33	0.52	0.74	1.00	0.60	0.67	1.75
		Min-2w	0.15	0.44	0.29	0.60	0.70	0.28	0.21	0.40	0.74	0.76	0.51	0.50	0.15
	Ochiishi	Mean	0.39	0.60	1.40	0.49	1.43	0.58	0.36	0.33	0.78	0.84	0.31	0.36	0.67
		%	100	100	100	53	100	100	100	33	100	100	100	100	88
		Max-2w	0.50	0.90	2.03	0.49	1.94	0.71	0.44	0.33	1.21	0.94	0.53	0.68	2.03
		Min-2w	0.18	0.31	0.77	0.49	0.91	0.44	0.28	0.33	0.35	0.75	0.09	0.04	0.04
	Tappi	Mean	0.92	1.05	2.18	2.35	1.96	1.00	0.54	0.82	0.91	0.77	1.21	1.93	1.23
		%	100	100	100	50	100	100	100	100	100	100	100	100	96
		Max-2w	1.71	1.35	2.74	2.35	2.90	1.53	0.69	0.97	1.18	1.14	1.35	2.72	2.90
		Min-2w	0.13	0.74	1.62	2.35	1.02	0.47	0.39	0.65	0.63	0.40	1.06	1.14	0.13
	Sado-seki	Mean	0.32	1.09	1.84	1.56	1.20	1.02	0.74	0.95	0.44	0.93	1.15	1.02	1.02
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.47	1.21	2.03	2.41	1.66	1.26	0.84	1.40	0.80	1.00	1.51	1.15	2.41
		Min-2w	0.18	0.94	1.66	0.72	0.74	0.77	0.63	0.28	0.07	0.87	0.79	0.89	0.07
	Happo	Mean	0.24	0.55	0.97	1.19	0.27	0.26	0.12	0.27	0.08	0.29	0.12	0.09	0.39
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.38	1.34	1.43	1.84	0.27	0.36	0.15	0.54	0.09	0.29	0.12	0.12	1.84
		Min-2w	0.11	0.11	0.50	0.53	0.27	0.15	0.08	0.10	0.07	0.29	0.12	0.06	0.06
	Ijira	Mean	0.27	0.73	0.91	0.85	0.82	0.29	0.22	0.30	0.19	0.25	0.39	0.31	0.46
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.35	1.48	1.18	1.02	1.09	0.44	0.38	0.71	0.25	0.47	0.50	0.44	1.48
		Min-2w	0.19	0.31	0.64	0.68	0.55	0.14	0.06	0.08	0.12	0.03	0.27	0.19	0.03
	Oki	Mean	2.23	2.07	3.32	2.40	1.56	1.09	0.82	-	-	-	-	-	2.10
		%	100	100	100	100	100	100	54	0	0	0	0	0	54
		Max-2w	3.00	2.56	3.91	2.73	2.20	1.77	0.82	-	-	-	-	-	3.91
		Min-2w	1.45	1.57	2.25	2.07	0.93	0.42	0.82	-	-	-	-	-	0.42
	Banryu	Mean	2.17	2.32	2.41	1.76	1.28	0.43	0.28	-	-	-	-	-	1.67
		%	100	100	100	100	100	100	50	0	0	0	0	0	54
		Max-2w	2.43	3.04	3.07	1.86	1.60	0.79	0.28	-	-	-	-	-	3.07
		Min-2w	1.91	1.72	1.75	1.66	0.96	0.07	0.28	-	-	-	-	-	0.07
	Yusuhara	Mean	1.18	1.27	1.07	0.37	0.21	0.09	0.02	0.19	<0.01	0.51	0.49	0.90	0.54
		%	100	100	100	100	100	100	100	100	100	75	100	100	98
		Max-2w	1.68	2.09	1.69	0.48	0.30	0.11	0.02	0.55	0.01	0.57	0.63	1.66	2.09
		Min-2w	0.67	0.81	0.46	0.27	0.13	0.06	<0.01	0.01	<0.01	0.46	0.34	0.13	<0.01
	Hedo	Mean	1.79	1.67	2.95	1.97	1.40	1.18	0.82	1.27	0.66	1.15	2.05	2.29	1.59
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	2.13	1.90	3.31	2.40	1.53	1.53	1.21	1.90	0.71	1.51	2.39	3.13	3.31
		Min-2w	1.45	1.52	2.59	1.54	1.26	0.84	0.43	0.67	0.61	0.79	1.71	1.44	0.43
	Ogasawara	Mean	0.62	0.77	0.76	0.70	0.61	0.39	0.36	0.22	0.14	0.14	0.49	0.81	0.52
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.68	1.02	0.84	0.80	0.68	0.43	0.43	0.39	0.15	0.14	0.53	0.95	1.02
		Min-2w	0.56	0.62	0.69	0.59	0.55	0.35	0.30	0.11	0.13	0.14	0.44	0.66	0.11
	Tokyo	Mean	3.40	4.32	3.84	4.14	3.83	2.49	1.69	2.28	2.22	3.16	3.84	3.41	3.19
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	3.68	5.47	3.88	4.48	4.08	2.58	2.03	3.11	2.27	3.66	4.36	4.16	5.47
		Min-2w	3.08	3.16	3.81	3.79	3.58	2.40	1.34	1.85	2.18	2.65	3.31	2.65	1.34
Lao PDR	Vientiane	Mean	0.38	0.65	0.51	0.12	0.83	0.47	0.58	0.43	0.27	0.11	0.28	0.22	0.40
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-m	0.38	0.65	0.51	0.12	0.83	0.47	0.58	0.43	0.27	0.11	0.28	0.22	0.83
		Min-m	0.38	0.65	0.51	0.12	0.83	0.47	0.58	0.43	0.27	0.11	0.28	0.22	0.11
Malaysia	Petaling Jaya	Mean	2.11	0.70	2.33	2.42	1.06	1.03	1.04	1.08	1.18	2.10	1.18	1.09	1.46
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	2.75	1.65	4.04	3.35	1.67	2.13	2.04	2.64	2.22	2.91	1.40	1.87	4.04
		Min-w	1.26	<0.01	1.47	1.10	0.36	0.05	0.07	<0.01	0.03	1.46	0.64	0.42	<0.01
	Tanah Rata	Mean	0.19	0.30	0.43	0.36	0.08	0.21	0.41	0.45	0.22	0.24	0.12	0.13	0.26
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.25	0.59	0.67	0.75	0.12	0.35	1.33	0.68	0.67	0.34	0.15	0.24	1.33
		Min-w	0.10	0.09	0.13	0.06	0.06	0.11	0.08	0.29	<0.01	0.12	0.06	0.03	<0.01
	Danum Valley	Mean	0.38	0.29	0.14	0.29	0.05	0.03	<0.01	<0.01	<0.01	0.01	0.11	<0.01	0.10
		%	100	61	100	100	100	100	100	100	100	100	100	50	93
		Max-2w	0.52	0.29	0.17	0.35	0.07	0.05	0.01	<0.01	<0.01	0.02	0.19	<0.01	0.52
		Min-2w	0.23	0.29	0.11	0.23	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.03	<0.01	<0.01

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

Unit : µg/m³			2016												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Mongolia	Ulaanbaatar	Mean	0.03	0.14	0.02	0.10	0.09	0.16	0.19	0.07	0.26	0.01	0.05	0.09	0.10
		%	90	75	100	100	100	100	100	100	80	100	100	60	92
		Max-w	0.07	0.23	0.07	0.22	0.26	0.52	0.58	0.18	0.93	0.02	0.11	0.22	0.93
		Min-w	<0.01	0.09	<0.01	<0.01	<0.01	0.02	<0.01	0.02	<0.01	<0.01	<0.01	0.02	<0.01
	Terelj	Mean	0.02	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01
		%	90	100	100	100	100	100	100	100	50	100	100	0	88
		Max-2w	0.03	<0.01	<0.01	0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	-	0.03
		Min-2w	<0.01	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01
Myanmar	Yangon	Mean	0.33	0.34	0.13	0.08	0.36	0.31	0.38	0.32	0.44	0.42	1.66	-	0.48
		%	100	100	100	100	100	100	100	100	100	100	100	0	92
		Max-2w	0.45	0.47	0.13	0.13	0.66	0.38	0.41	0.57	0.51	0.45	3.99	-	3.99
		Min-2w	0.21	0.20	0.13	0.04	<0.01	0.23	0.35	0.06	0.38	0.39	0.19	-	<0.01
Philippines	Mt. Sto. Tomas	Mean	0.17	0.07	0.15	0.09	0.05	0.09	0.07	0.25	0.17	0.31	0.18	0.13	0.14
		%	100	100	100	100	100	100	100	100	100	79	100	100	98
		Max-w	0.52	0.17	0.23	0.14	0.10	0.14	0.10	0.33	0.31	0.50	0.21	0.26	0.52
		Min-w	0.02	<0.01	0.06	0.03	0.01	0.02	0.04	0.21	<0.01	0.18	0.14	<0.01	<0.01
Republic of Korea	Kanghwa	Mean	2.67	4.34	5.84	4.08	5.52	1.58	0.64	0.29	1.49	1.85	3.97	5.72	3.25
		%	16	17	16	17	16	17	13	16	17	16	17	19	16
		Max-d	4.91	7.56	11.15	7.42	12.52	4.10	1.53	0.39	5.21	5.77	6.57	14.40	14.40
		Min-d	1.20	2.71	1.22	1.16	1.61	0.66	0.33	0.24	0.46	0.43	0.64	0.66	0.24
	Cheju (Kosan)	Mean	-	0.63	1.43	1.07	1.11	0.88	0.35	0.25	0.48	0.57	0.41	1.00	0.75
		%	0	17	16	17	16	17	16	16	17	10	17	16	14
		Max-d	-	1.27	5.01	3.28	3.65	3.27	0.46	0.39	0.78	1.41	0.71	2.04	5.01
		Min-d	-	0.34	0.41	0.33	0.29	0.22	0.29	0.12	0.31	0.08	0.24	0.33	0.08
	Imsil	Mean	-	2.05	2.37	0.88	0.48	0.31	0.25	0.13	0.54	0.68	2.71	2.79	1.17
		%	0	17	16	17	16	17	16	16	17	16	17	13	15
		Max-d	-	4.14	3.91	2.76	1.58	0.44	0.37	0.19	1.52	1.90	5.58	6.46	6.46
		Min-d	-	1.14	0.69	0.20	0.13	0.21	0.21	0.08	0.24	0.03	0.41	1.38	0.03
Russia	Mondy	Mean	0.02	0.04	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	<0.01	<0.01	<0.01	0.01
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-m	0.02	0.04	0.03	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	<0.01	<0.01	<0.01	0.04
		Min-m	0.02	0.04	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	<0.01	<0.01	<0.01	<0.01
	Listvyanka	Mean	0.20	0.09	0.12	0.10	0.08	0.03	0.04	0.03	0.10	0.18	1.29	0.21	0.20
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.31	0.12	0.16	0.13	0.11	0.05	0.05	0.05	0.28	0.57	1.39	0.59	1.39
		Min-w	0.05	0.07	0.05	0.05	0.06	0.02	0.03	0.02	0.01	0.02	1.25	<0.01	<0.01
	Irkutsk	Mean	1.81	0.87	0.63	0.38	0.21	0.12	0.14	0.35	0.32	0.87	0.93	1.07	0.67
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	2.82	1.11	0.97	0.41	0.36	0.20	0.19	0.71	0.61	1.53	1.20	1.91	2.82
		Min-w	0.45	0.66	0.23	0.34	0.08	0.07	0.11	0.15	0.22	0.10	0.67	<0.01	<0.01
	Primorskaya	Mean	1.09	0.66	1.54	1.17	0.65	0.20	0.04	0.13	0.24	0.37	1.87	1.30	0.77
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	1.30	1.26	1.71	1.85	0.78	0.31	0.04	0.24	0.46	0.62	2.86	2.41	2.86
		Min-2w	0.89	0.07	1.36	0.49	0.52	0.09	0.04	0.03	0.01	0.11	0.88	0.20	0.01
Thailand	Bangkok	Mean	1.78	3.19	3.31	3.11	2.15	<0.01	1.45	0.69	1.48	1.47	3.05	2.08	1.98
		%	90	100	100	100	100	100	100	100	100	100	100	100	99
		Max-10d	2.99	3.71	3.61	3.47	2.45	<0.01	1.83	1.29	1.58	2.43	3.61	2.27	3.71
		Min-10d													
	Khanchanaburi (Vachiralongkorn Dam)	Mean	-	-	-	0.59	-	-	-	1.90	-	-	-	0.01	0.83
		%	0	0	0	67	0	0	0	58	0	0	0	45	15
		Max-2w	-	-	-	0.59	-	-	-	1.90	-	-	-	0.01	1.90
		Min-2w	-	-	-	0.59	-	-	-	1.90	-	-	-	0.01	0.01
	Mae Hia	Mean	<0.01	0.25	0.14	0.38	0.14	0.16	0.13	0.06	0.20	-	-	-	0.18
		%	30	97	97	97	97	97	97	97	63	0	0	0	64
		Max-10d	<0.01	0.50	0.22	0.85	0.20	0.21	0.19	0.19	0.29	-	-	-	0.85
		Min-10d	<0.01	0.06	0.09	0.12	0.07	0.09	0.10	<0.01	0.12	-	-	-	<0.01
	Sakaerat	Mean	<0.01	<0.01	0.03	0.19	0.07	0.69	0.36	0.80	0.38	-	-	-	0.30
		%	29	100	100	100	100	100	100	100	57	0	0	0	65
		Max-10d	<0.01	<0.01	0.08	0.28	0.09	0.78	0.59	1.53	0.46	-	-	-	1.53
		Min-10d	<0.01	<0.01	<0.01	0.15	0.05	0.62	0.01	0.44	0.30	-	-	-	<0.01
Viet Nam	Hanoi	Mean	8.24	6.45	8.34	8.57	5.70	3.63	4.40	3.42	4.80	4.56	4.94	13.90	6.58
		%	75	100	100	100	100	100	75	100	100	100	50	100	92
		Max-w	10.69	8.92	9.61	10.12	7.55	4.11	4.85	4.86	6.02	5.03	5.19	17.14	17.14
		Min-w	3.40	2.63	5.39	7.71	4.41	2.78	3.78	2.16	3.69	4.33	4.69	9.09	2.16
	Hoa Binh	Mean	7.33	2.10	6.69	7.34	3.91	1.02	0.95	1.21	0.87	1.25	2.92	3.15	3.21
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	10.88	2.77	8.60	12.61	4.80	1.20	1.14	1.95	0.94	1.88	3.95	6.61	12.61
		Min-w	5.20	1.40	5.13	3.52	2.26	0.70	0.72	0.79	0.76	0.73	1.79	1.49	0.70
	Can Tho	Mean	0.40	1.17	1.40	0.68	0.36	1.22	0.39	0.32	0.43	0.84	0.27	0.34	0.66
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.62	3.35	2.03	0.75	0.66	1.77	0.66	0.40	0.68	1.01	0.38	0.42	3.35
		Min-w	0.18	0.36	0.88	0.61	0.18	0.80	0.18	0.23	0.20	0.68	0.21	0.28	0.18
	Ho Chi Minh	Mean	2.83	2.61	3.91	3.20	2.24	1.96	1.39	0.68	0.59	0.73	1.76	2.61	2.06
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	4.56	3.05	5.17	4.05	3.56	3.56	2.01	1.16	1.12	1.29	2.06	3.05	5.17
		Min-w	1.25	2.16	2.36	2.16	1.25	1.24	0.98	0.32	0.18	0.25	1.36	2.19	0.18
	Yen Bai	Mean	6.74	6.83	10.79	10.49	4.87	2.06	2.39	1.01	0.90	1.15	2.41	3.41	4.36
		%	75	100	100	100	100	100	100	100	100	100	100	100	98
		Max-w	7.66	8.82	12.18	15.79	7.07	3.10	3.43	1.39	1.45	1.51	5.25	4.81	15.79
		Min-w	6.08	5.11	9.59	6.93	0.43	0.82	1.77	0.70	0.34	0.75	0.61	1.74	0.34

Terms and abbreviations are given in Table 4.2.

Table 4.15 Particulate matter component: Cl^-

Unit : μg/m³			2016												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Cambodia	Phnom Penh	Mean	-	-	-	-	0.41	0.50	0.33	0.82	0.56	0.58	0.69	0.49	0.56
		%	0	0	0	0	97	100	100	100	100	100	100	100	67
		Max-2w	-	-	-	-	0.60	0.58	0.38	0.94	0.73	0.58	0.99	0.59	0.99
		Min-2w	-	-	-	-	0.23	0.42	0.28	0.60	0.40	0.58	0.39	0.38	0.23
China	Hongwen	Mean	1.63	1.37	1.69	0.30	0.15	0.33	0.30	0.73	0.88	0.66	1.25	2.31	0.99
		%	61	100	100	100	100	100	100	100	100	100	100	100	97
		Max-m	1.63	1.37	2.00	0.30	0.15	0.33	0.30	0.87	1.25	0.76	1.25	2.31	2.31
		Min-m	1.63	1.37	1.38	0.30	0.15	0.33	0.30	0.59	0.52	0.56	1.25	2.31	0.15
Indonesia	Jakarta	Mean	0.27	0.47	0.54	0.19	0.43	0.30	-	-	0.48	0.23	0.56	0.54	0.41
		%	100	100	100	100	100	100	0	0	100	44	93	100	78
		Max-2w	0.45	0.55	0.79	0.33	0.45	0.43	-	-	0.69	0.23	0.94	0.92	0.94
		Min-2w	0.10	0.40	0.30	0.05	0.41	0.18	-	-	0.27	0.23	0.17	0.16	0.05
	Serpong	Mean	0.11	0.02	0.06	0.11	0.22	0.26	0.25	0.32	0.82	-	0.16	0.68	0.29
		%	58	100	100	100	100	100	100	100	100	0	100	100	90
		Max-2w	0.11	0.04	0.13	0.19	0.33	0.31	0.30	0.40	1.54	-	0.16	1.12	1.54
		Min-2w	0.11	<0.01	<0.01	0.03	0.12	0.22	0.20	0.24	0.10	-	0.16	0.24	<0.01
	Bandung	Mean	0.11	0.23	0.14	0.18	0.26	0.23	0.16	0.21	0.09	0.24	0.36	0.24	0.20
		%	100	100	100	100	100	100	100	97	100	100	100	100	100
		Max-2w	0.14	0.29	0.15	0.19	0.40	0.23	0.23	0.23	0.10	0.35	0.44	0.30	0.44
		Min-2w	0.07	0.16	0.13	0.16	0.13	0.23	0.09	0.18	0.07	0.13	0.28	0.19	0.07
Japan	Rishiri	Mean	1.35	2.39	2.73	2.49	2.85	0.31	0.39	0.83	5.09	4.70	1.92	3.40	2.21
		%	100	100	100	100	100	100	100	100	46	100	100	100	96
		Max-2w	1.71	3.34	3.80	2.79	3.11	0.39	0.72	1.55	5.09	5.11	2.16	4.80	5.11
		Min-2w	0.99	1.44	0.68	2.19	2.59	0.23	0.07	0.41	5.09	4.28	1.68	1.99	0.07
	Ochiishi	Mean	2.83	4.81	5.58	2.54	3.50	2.89	1.06	0.72	6.19	6.07	5.80	2.99	3.89
		%	100	100	100	53	100	100	100	33	100	100	100	100	88
		Max-2w	3.08	6.74	6.19	2.54	4.15	4.02	1.29	0.72	7.39	6.18	7.14	4.47	7.39
		Min-2w	2.37	2.88	4.96	2.54	2.85	1.77	0.82	0.72	4.99	5.96	4.46	1.50	0.72
	Tappi	Mean	5.91	6.83	4.13	2.82	2.06	3.35	1.37	0.80	1.27	8.22	8.83	24.33	5.79
		%	100	100	100	50	100	100	100	100	100	100	100	100	96
		Max-2w	9.88	8.65	5.09	2.82	3.42	4.83	2.48	1.33	1.36	11.73	11.31	42.14	42.14
		Min-2w	1.95	5.71	3.17	2.82	0.70	1.86	0.26	0.20	1.19	4.71	6.35	6.51	0.20
	Sado-seki	Mean	5.39	4.85	2.82	6.45	2.97	2.08	0.86	1.43	1.28	6.22	5.57	5.99	3.77
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	7.62	7.49	3.59	9.57	5.91	2.95	1.05	3.12	2.46	6.58	7.28	6.47	9.57
		Min-2w	3.15	2.57	2.05	3.33	0.03	1.20	0.68	<0.01	0.09	5.86	3.85	5.51	<0.01
	Happo	Mean	<0.01	0.03	0.03	0.04	<0.01	<0.01	<0.01	0.03	<0.01	0.03	<0.01	<0.01	0.02
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.01	0.06	0.06	0.05	<0.01	<0.01	0.02	0.06	<0.01	0.03	<0.01	<0.01	0.06
		Min-2w	<0.01	<0.01	0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	<0.01	<0.01	<0.01
	Ijira	Mean	0.05	0.09	0.07	0.10	0.04	<0.01	<0.01	0.06	0.02	0.05	0.08	0.10	0.06
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.07	0.19	0.11	0.18	0.07	0.01	0.02	0.15	0.04	0.06	0.10	0.14	0.19
		Min-2w	0.03	0.03	0.04	0.02	0.01	<0.01	<0.01	0.01	<0.01	0.04	0.07	0.06	<0.01
	Oki	Mean	11.76	4.66	4.10	12.49	0.84	0.52	0.64	-	-	-	-	-	5.25
		%	100	100	100	100	100	100	54	0	0	0	0	0	54
		Max-2w	18.40	4.67	6.35	17.39	1.52	0.90	0.64	-	-	-	-	-	18.40
		Min-2w	5.13	4.65	2.77	7.59	0.16	0.14	0.64	-	-	-	-	-	0.14
	Banryu	Mean	1.38	1.32	0.99	0.83	0.21	0.10	0.01	-	-	-	-	-	0.78
		%	100	100	100	100	100	100	50	0	0	0	0	0	54
		Max-2w	2.10	1.99	1.08	1.11	0.40	0.18	0.01	-	-	-	-	-	2.10
		Min-2w	0.66	0.94	0.91	0.55	0.02	0.02	0.01	-	-	-	-	-	0.01
	Yusuhara	Mean	0.16	0.14	0.05	0.07	0.03	0.01	0.01	0.06	<0.01	0.12	0.05	0.11	0.07
		%	100	100	100	100	100	100	100	100	100	75	100	100	98
		Max-2w	0.18	0.17	0.08	0.12	0.04	0.02	0.02	0.18	0.01	0.17	0.06	0.19	0.19
		Min-2w	0.15	0.11	0.03	0.01	0.02	<0.01	<0.01	<0.01	<0.01	0.06	0.03	0.03	<0.01
	Hedo	Mean	19.18	8.12	6.15	4.49	3.33	3.90	4.73	5.65	8.68	8.36	8.74	9.65	7.53
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	33.17	8.52	7.81	4.59	3.83	5.26	5.71	10.79	10.81	9.68	10.24	11.95	33.17
		Min-2w	5.19	7.46	4.49	4.38	2.84	2.53	3.76	2.69	6.54	7.05	7.24	7.35	2.53
	Ogasawara	Mean	3.53	4.35	4.03	3.33	2.30	1.05	1.84	4.80	4.90	3.73	5.29	5.98	3.83
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	5.00	5.75	5.67	3.43	2.95	1.59	2.18	5.26	6.70	3.73	5.75	7.98	7.98
		Min-2w	2.06	2.60	2.39	3.23	1.65	0.50	1.51	4.36	3.09	3.73	4.83	3.99	0.50
	Tokyo	Mean	0.52	0.89	0.80	0.94	0.45	0.11	0.10	0.71	0.17	0.81	0.70	0.52	0.57
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.66	1.04	1.11	1.24	0.77	0.15	0.15	1.29	0.24	0.99	0.74	0.72	1.29
		Min-2w	0.43	0.74	0.48	0.65	0.14	0.07	0.05	0.20	0.09	0.63	0.65	0.33	0.05
Lao PDR	Vientiane	Mean	0.02	0.03	0.05	0.06	0.07	0.18	0.07	0.08	0.07	0.01	0.02	0.03	0.06
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-m	0.02	0.03	0.05	0.06	0.07	0.18	0.07	0.08	0.07	0.01	0.02	0.03	0.18
		Min-m	0.02	0.03	0.05	0.06	0.07	0.18	0.07	0.08	0.07	0.01	0.02	0.03	0.01
Malaysia	Petaling Jaya	Mean	0.47	0.16	0.18	0.15	0.11	0.15	0.13	0.02	0.38	0.54	0.11	0.13	0.21
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	1.27	0.37	0.27	0.20	0.19	0.23	0.22	0.05	0.95	1.02	0.14	0.20	1.27
		Min-w	0.09	<0.01	0.10	0.07	0.05	0.08	0.06	<0.01	0.06	0.21	0.05	0.04	<0.01
	Tanah Rata	Mean	0.18	0.25	0.09	0.03	0.02	0.05	0.05	<0.01	0.15	0.11	0.03	0.09	0.09
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.47	0.51	0.16	0.05	0.03	0.11	0.13	<0.01	0.61	0.16	0.06	0.33	0.61
		Min-w	0.02	0.04	0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	0.02	<0.01	0.02	<0.01
	Danum Valley	Mean	0.42	0.25	0.03	0.07	0.05	<0.01	<0.01	<0.01	<0.01	<0.01	0.05	0.07	0.07
		%	100	61	100	100	100	100	100	100	100	100	100	50	93
		Max-2w	0.72	0.25	0.03	0.07	0.11	<0.01	0.01	<0.01	<0.01	<0.01	0.13	0.07	0.72
		Min-2w	0.12	0.25	0.02	0.06	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	0.07	<0.01

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

Unit : μg/m^3			2016												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Mongolia	Ulaanbaatar	Mean	0.02	0.15	0.02	0.03	0.12	0.21	0.03	0.07	0.12	0.02	0.04	0.15	0.08
		%	90	75	100	100	100	100	100	100	80	100	100	60	92
		Max-w	0.05	0.30	0.05	0.04	0.24	0.60	0.09	0.20	0.28	0.02	0.11	0.35	0.60
		Min-w	<0.01	0.07	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	0.02	0.04	<0.01
	Terelj	Mean	<0.01	0.02	0.03	0.01	0.02	0.02	<0.01	0.04	0.04	0.02	<0.01	-	0.02
		%	90	100	100	100	100	100	100	100	50	100	100	0	88
		Max-2w	<0.01	0.03	0.03	0.01	0.04	0.03	<0.01	0.08	0.04	0.06	<0.01	-	0.08
		Min-2w	<0.01	<0.01	0.02	0.01	<0.01	<0.01	<0.01	0.01	0.04	<0.01	<0.01	-	<0.01
Myanmar	Yangon	Mean	0.10	0.15	0.22	0.90	2.04	0.06	0.12	0.15	0.47	0.18	0.97	-	0.57
		%	100	100	100	100	100	100	100	100	100	100	100	0	92
		Max-2w	0.15	0.31	0.39	1.51	5.80	0.11	0.15	0.24	0.60	0.22	2.55	-	5.80
		Min-2w	0.04	<0.01	0.04	0.29	0.08	<0.01	0.10	0.06	0.35	0.14	0.12	-	<0.01
Philippines	Mt. Sto. Tomas	Mean	0.04	0.04	0.06	0.03	0.05	0.05	0.03	0.04	0.03	0.02	0.04	0.04	0.04
		%	100	100	100	100	100	100	100	100	100	79	100	100	98
		Max-w	0.07	0.06	0.06	0.06	0.06	0.06	0.06	0.08	0.10	0.05	0.06	0.07	0.10
		Min-w	<0.01	<0.01	0.05	<0.01	0.04	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	0.01	<0.01
Republic of Korea	Kanghwa	Mean	0.07	0.10	0.02	0.06	0.07	0.06	0.03	0.02	0.07	0.09	0.14	0.40	0.10
		%	16	17	16	17	16	17	13	16	17	16	17	19	16
		Max-d	0.17	0.23	0.04	0.17	0.11	0.13	0.04	0.04	0.09	0.11	0.22	1.28	1.28
		Min-d	0.01	0.02	<0.01	0.02	<0.01	0.02	<0.01	<0.01	0.04	0.05	0.08	0.02	<0.01
	Cheju (Kosan)	Mean	-	0.40	0.43	0.41	1.80	0.68	0.45	0.32	0.73	0.37	0.47	0.44	0.60
		%	0	17	16	17	16	17	16	16	17	10	17	16	14
		Max-d	-	0.47	0.59	0.44	7.00	2.27	0.61	0.49	1.33	0.45	0.57	0.61	7.00
		Min-d	-	0.29	0.30	0.35	0.19	0.23	0.31	0.26	0.48	0.30	0.42	0.34	0.19
	Imsil	Mean	-	0.28	0.38	0.18	0.17	0.25	0.24	0.18	0.47	0.34	0.46	0.46	0.31
		%	0	17	16	17	16	17	16	16	17	16	17	13	15
		Max-d	-	0.35	0.48	0.21	0.18	0.31	0.29	0.20	0.76	0.40	0.52	0.62	0.76
		Min-d	-	0.22	0.32	0.16	0.17	0.18	0.17	0.14	0.36	0.26	0.35	0.34	0.14
Russia	Mondy	Mean	<0.01	0.01	0.01	<0.01	<0.01	0.01	0.05	<0.01	0.02	<0.01	<0.01	0.03	0.01
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-m	0.01	0.01	0.02	<0.01	<0.01	0.02	0.05	0.01	0.02	<0.01	<0.01	0.03	0.05
		Min-m	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	0.05	<0.01	0.02	<0.01	<0.01	0.03	<0.01
	Listvyanka	Mean	0.11	0.07	0.08	0.03	0.05	0.03	0.03	0.05	0.06	0.10	0.01	0.09	0.06
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.41	0.10	0.17	0.04	0.14	0.05	0.03	0.09	0.16	0.21	0.02	0.17	0.41
		Min-w	0.01	0.06	0.03	0.02	0.02	0.01	0.02	0.02	0.02	0.01	<0.01	0.04	<0.01
	Irkutsk	Mean	0.20	0.29	0.11	0.19	0.06	0.04	0.02	0.05	0.05	0.39	0.17	1.21	0.23
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.30	0.53	0.13	0.34	0.11	0.05	0.04	0.10	0.09	0.74	0.22	4.24	4.24
		Min-w	0.06	0.15	0.09	0.12	0.04	0.03	0.01	0.02	0.03	0.09	0.13	0.12	0.01
	Primorskaya	Mean	0.08	0.12	0.14	0.23	0.09	0.05	0.03	0.06	0.07	0.08	0.15	0.13	0.10
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.12	0.21	0.19	0.39	0.10	0.09	0.03	0.11	0.07	0.10	0.22	0.22	0.39
		Min-2w	0.04	0.03	0.10	0.07	0.09	0.01	0.02	0.01	0.06	0.06	0.09	0.03	0.01
Thailand	Bangkok	Mean	1.27	0.25	0.56	0.52	0.43	<0.01	0.33	0.28	0.16	0.08	0.10	0.05	0.34
		%	90	100	100	100	100	100	100	100	100	100	100	100	99
		Max-10d	2.54	0.49	0.93	0.74	0.62	<0.01	0.47	0.63	0.23	0.11	0.16	0.06	2.54
		Min-10d	0.12	0.11	0.27	0.23	0.16	<0.01	0.22	0.01	0.09	0.06	0.07	0.04	<0.01
	Khanchanaburi (Vachiralongkorn Dam)	Mean	-	-	-	0.14	-	-	-	0.63	-	-	-	0.01	0.26
		%	0	0	0	67	0	0	0	58	0	0	0	45	15
		Max-2w	-	-	-	0.14	-	-	-	0.63	-	-	-	0.01	0.63
		Min-2w	-	-	-	0.14	-	-	-	0.63	-	-	-	0.01	0.01
	Mae Hia	Mean	0.03	0.09	0.11	0.37	0.15	0.18	0.56	0.09	0.20	-	-	-	0.21
		%	30	97	97	97	97	97	97	97	63	0	0	0	64
		Max-10d	0.03	0.12	0.16	1.06	0.25	0.46	1.40	0.14	0.27	-	-	-	1.40
		Min-10d	0.03	0.05	0.07	<0.01	0.06	0.04	0.05	0.06	0.13	-	-	-	<0.01
	Sakaerat	Mean	0.91	<0.01	0.08	0.01	0.61	0.05	0.05	0.44	0.12	-	-	-	0.21
		%	29	100	100	100	100	100	100	100	57	0	0	0	65
		Max-10d	0.91	<0.01	0.12	0.04	1.82	0.09	0.12	0.78	0.20	-	-	-	1.82
		Min-10d	0.91	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	0.24	0.05	-	-	-	<0.01
Viet Nam	Hanoi	Mean	1.60	1.43	2.46	2.03	1.25	1.04	1.06	6.62	2.99	1.26	1.50	3.47	2.32
		%	75	100	100	100	100	100	75	100	100	100	50	100	92
		Max-w	2.55	2.02	3.74	2.64	1.40	1.49	1.28	22.25	3.89	1.91	1.70	5.87	22.25
		Min-w	0.92	1.01	1.59	1.22	0.87	0.52	0.83	1.07	2.19	0.78	1.30	1.57	0.52
	Hoa Binh	Mean	1.01	1.36	1.08	0.94	0.56	0.84	1.09	3.35	1.96	0.30	0.42	1.13	1.18
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	1.51	2.03	1.67	1.47	0.92	1.05	1.91	5.39	6.85	0.40	0.55	1.82	6.85
		Min-w	0.58	0.62	0.80	0.26	0.33	0.62	0.23	2.06	0.28	0.22	0.32	0.46	0.22
	Can Tho	Mean	2.35	1.42	1.96	1.78	1.69	1.74	2.16	1.95	1.38	1.62	1.68	1.68	1.78
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	3.56	1.56	2.45	1.97	1.88	2.03	2.56	2.20	1.70	2.01	2.06	1.92	3.56
		Min-w	1.23	1.32	1.48	1.56	1.52	1.23	1.91	1.63	1.02	1.26	1.23	1.52	1.02
	Ho Chi Minh	Mean	2.28	1.86	2.27	2.31	1.72	1.34	1.55	0.67	0.35	0.11	0.13	0.97	1.29
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	3.56	2.35	3.05	2.75	2.86	2.03	2.06	1.76	0.45	0.18	0.18	1.54	3.56
		Min-w	1.15	1.56	1.97	1.97	1.12	0.98	0.98	0.16	0.26	0.03	0.09	0.32	0.03
	Yen Bai	Mean	1.30	1.15	1.52	1.50	0.65	2.10	1.26	2.96	0.47	0.34	0.66	1.05	1.25
		%	75	100	100	100	100	100	100	100	100	100	100	100	98
		Max-w	1.64	1.43	2.07	2.17	0.92	3.81	1.63	3.86	0.69	0.42	1.40	1.80	3.86
		Min-w	1.09	0.88	1.20	0.72	0.51	0.63	0.92	0.45	0.33	0.25	0.20	0.56	0.20

Terms and abbreviations are given in Table 4.2.

Table 4.16 Particulate matter component: NH_4^+

Unit : µg/m³			2016												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Cambodia	Phnom Penh	Mean	-	-	-	-	0.93	0.57	0.39	0.56	0.29	0.36	0.76	0.45	0.54
		%	0	0	0	0	97	100	100	100	100	100	100	100	67
		Max-2w	-	-	-	-	1.15	0.66	0.40	0.72	0.31	0.44	0.90	0.57	1.15
		Min-2w	-	-	-	-	0.70	0.47	0.39	0.30	0.27	0.27	0.61	0.33	0.27
China	Hongwen	Mean	5.19	3.69	8.06	3.32	1.70	1.02	1.41	3.21	4.30	1.75	3.67	4.15	3.68
		%	61	100	100	100	100	100	100	100	100	100	100	100	97
		Max-m	5.19	3.69	9.76	3.32	1.70	1.02	1.41	5.09	7.26	1.78	4.48	4.15	9.76
		Min-m	5.19	3.69	6.37	3.32	1.70	1.02	1.41	1.34	1.35	1.72	2.87	4.15	1.02
Indonesia	Jakarta	Mean	0.39	0.38	0.73	0.25	0.63	0.69	-	-	0.54	0.23	0.06	0.06	0.40
		%	100	100	100	100	100	100	0	0	100	44	93	100	78
		Max-2w	0.65	0.44	1.24	0.51	0.70	1.00	-	-	0.73	0.23	0.10	0.10	1.24
		Min-2w	0.13	0.31	0.22	<0.01	0.55	0.37	-	-	0.35	0.23	0.02	0.02	<0.01
	Serpong	Mean	0.86	0.06	0.37	0.58	0.70	0.72	0.93	0.71	0.55	-	0.82	0.04	0.55
		%	58	100	100	100	100	100	100	100	100	0	100	100	90
		Max-2w	0.86	0.06	0.48	0.60	0.96	1.04	1.14	0.93	0.88	-	0.82	0.07	1.14
		Min-2w	0.86	0.05	0.26	0.55	0.44	0.41	0.73	0.48	0.21	-	0.82	<0.01	<0.01
	Bandung	Mean	1.97	1.24	1.66	1.76	2.14	1.38	1.01	1.29	1.17	1.33	1.50	0.22	1.42
		%	100	100	100	100	100	100	100	97	100	100	100	100	100
		Max-2w	2.64	1.85	1.80	2.04	2.47	1.38	1.08	1.33	1.28	1.49	1.91	0.25	2.64
		Min-2w	1.31	0.63	1.53	1.48	1.78	1.38	0.93	1.26	1.06	1.18	1.08	0.20	0.20
Japan	Rishiri	Mean	0.28	0.45	0.55	0.36	0.35	0.29	0.40	0.39	0.23	0.49	0.40	0.42	0.40
		%	100	100	100	100	100	100	100	100	46	100	100	100	96
		Max-2w	0.45	0.50	0.88	0.36	0.45	0.33	0.47	0.55	0.23	0.61	0.45	0.46	0.88
		Min-2w	0.11	0.41	0.26	0.35	0.26	0.25	0.34	0.28	0.23	0.37	0.35	0.39	0.11
	Ochiishi	Mean	0.40	0.45	0.61	0.22	0.35	0.18	0.21	0.17	0.22	0.37	0.24	0.22	0.32
		%	100	100	100	53	100	100	100	33	100	100	100	100	88
		Max-2w	0.55	0.58	0.90	0.22	0.52	0.21	0.23	0.17	0.30	0.38	0.41	0.37	0.90
		Min-2w	0.16	0.32	0.31	0.22	0.18	0.16	0.20	0.17	0.15	0.36	0.08	0.07	0.07
	Tappi	Mean	0.26	0.52	0.92	0.48	0.70	0.33	0.33	0.49	0.34	0.25	0.39	0.74	0.48
		%	100	100	100	50	100	100	100	100	100	100	100	100	96
		Max-2w	0.46	0.67	1.09	0.48	1.19	0.48	0.36	0.93	0.45	0.36	0.46	1.08	1.19
		Min-2w	0.07	0.33	0.75	0.48	0.21	0.18	0.30	0.26	0.23	0.14	0.32	0.40	0.07
	Sado-seki	Mean	0.18	0.69	0.91	0.51	0.78	0.40	0.35	0.65	0.17	0.27	0.36	0.34	0.48
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.24	0.97	0.97	0.81	1.26	0.46	0.45	1.24	0.29	0.32	0.39	0.39	1.26
		Min-2w	0.13	0.49	0.84	0.22	0.30	0.33	0.24	0.34	0.04	0.23	0.33	0.30	0.04
	Happo	Mean	0.31	0.58	0.77	0.79	0.57	0.53	0.67	0.88	0.33	0.28	0.20	0.11	0.53
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.47	1.17	1.26	1.40	0.57	0.54	0.93	1.31	0.41	0.31	0.20	0.18	1.40
		Min-2w	0.16	0.21	0.29	0.18	0.57	0.52	0.40	0.45	0.24	0.25	0.20	0.04	0.04
	Ijira	Mean	0.67	1.03	1.09	0.82	1.41	0.83	0.85	0.82	0.58	0.54	0.57	0.49	0.82
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.92	1.53	1.39	0.95	1.49	0.90	1.06	1.04	0.69	0.55	0.68	0.56	1.53
		Min-2w	0.42	0.63	0.80	0.69	1.33	0.76	0.63	0.46	0.48	0.53	0.47	0.41	0.41
	Oki	Mean	0.97	0.87	1.36	0.81	1.76	1.19	0.48	-	-	-	-	-	1.13
		%	100	100	100	100	100	100	54	0	0	0	0	0	54
		Max-2w	1.23	1.06	1.55	0.93	2.75	1.88	0.48	-	-	-	-	-	2.75
		Min-2w	0.72	0.68	1.04	0.68	0.78	0.51	0.48	-	-	-	-	-	0.48
	Banryu	Mean	1.65	1.16	1.25	0.81	1.52	0.89	0.69	-	-	-	-	-	1.17
		%	100	100	100	100	100	100	50	0	0	0	0	0	54
		Max-2w	1.77	1.64	1.62	0.98	2.37	1.65	0.69	-	-	-	-	-	2.37
		Min-2w	1.53	0.79	0.88	0.65	0.66	0.14	0.69	-	-	-	-	-	0.14
	Yusuhara	Mean	1.26	1.06	1.18	0.95	0.69	0.54	0.80	1.07	0.49	0.47	0.85	0.78	0.86
		%	100	100	100	100	100	100	100	100	100	75	100	100	98
		Max-2w	1.62	1.52	1.40	1.08	0.70	0.91	1.21	1.60	0.61	0.52	0.96	1.19	1.62
		Min-2w	0.89	0.60	0.96	0.81	0.68	0.17	0.40	0.61	0.37	0.42	0.73	0.38	0.17
	Hedo	Mean	0.88	0.63	1.14	0.60	0.30	0.26	0.25	0.50	0.13	0.20	0.50	0.63	0.51
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.98	0.67	1.22	0.80	0.35	0.35	0.41	0.88	0.20	0.29	0.59	0.74	1.22
		Min-2w	0.77	0.57	1.07	0.40	0.25	0.18	0.09	0.29	0.06	0.12	0.42	0.53	0.06
	Ogasawara	Mean	0.31	0.34	0.29	0.16	0.16	0.17	0.19	0.06	0.03	0.04	0.08	0.33	0.19
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.37	0.48	0.37	0.18	0.17	0.24	0.25	0.08	0.05	0.04	0.10	0.40	0.48
		Min-2w	0.24	0.24	0.21	0.14	0.16	0.10	0.12	0.05	<0.01	0.04	0.06	0.26	<0.01
	Tokyo	Mean	1.48	1.80	1.57	0.99	1.12	1.10	1.46	0.58	0.85	0.80	1.39	1.14	1.18
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	1.68	2.38	1.63	1.14	1.31	1.46	1.48	0.62	1.05	0.93	1.63	1.30	2.38
		Min-2w	1.24	1.21	1.51	0.84	0.94	0.73	1.45	0.51	0.66	0.67	1.15	0.99	0.51
Lao PDR	Vientiane	Mean	1.57	1.58	1.90	1.21	0.77	0.29	0.58	0.55	0.38	1.18	1.42	1.99	1.12
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-m	1.57	1.58	1.90	1.21	0.77	0.29	0.58	0.55	0.38	1.18	1.42	1.99	1.99
		Min-m	1.57	1.58	1.90	1.21	0.77	0.29	0.58	0.55	0.38	1.18	1.42	1.99	0.29
Malaysia	Petaling Jaya	Mean	0.68	0.18	2.26	2.62	0.98	0.57	0.55	0.68	0.56	0.67	0.82	0.46	0.92
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	1.16	0.41	3.47	3.35	1.34	0.96	1.02	2.18	1.04	0.98	1.11	0.85	3.47
		Min-w	0.45	<0.01	1.35	2.14	0.72	0.07	0.04	<0.01	0.03	0.40	0.50	0.24	<0.01
	Tanah Rata	Mean	0.16	0.27	0.82	1.27	0.43	0.31	0.45	0.78	0.22	0.39	0.20	0.26	0.46
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.22	0.47	1.71	2.06	0.63	0.64	0.92	1.50	0.53	0.88	0.31	0.67	2.06
		Min-w	0.08	0.16	0.30	0.85	0.23	0.09	0.18	0.43	0.01	0.15	0.12	0.03	0.01
	Danum Valley	Mean	0.06	0.09	0.20	0.08	0.17	0.08	0.06	0.11	0.21	0.06	0.06	<0.01	0.10
		%	100	61	100	100	100	100	100	100	100	100	100	50	93
		Max-2w	0.06	0.09	0.29	0.08	0.33	0.08	0.08	0.19	0.29	0.07	0.07	<0.01	0.33
		Min-2w	0.06	0.09	0.11	0.08	0.09	0.07	0.04	0.04	0.12	0.06	0.05	<0.01	<0.01

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

Unit : μg/m^3			2016												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Mongolia	Ulaanbaatar	Mean	1.74	3.81	0.11	0.20	0.04	0.07	0.18	0.02	0.14	0.06	1.54	1.41	0.67
		%	90	75	100	100	100	100	100	100	80	100	100	60	92
		Max-w	3.33	5.56	0.26	0.50	0.16	0.24	0.34	0.05	0.42	0.11	3.07	2.94	5.56
		Min-w	<0.01	2.20	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.46	<0.01
	Terelj	Mean	0.13	0.03	0.07	0.08	0.08	0.02	0.08	0.01	0.03	0.02	0.07	-	0.06
		%	90	100	100	100	100	100	100	100	50	100	100	0	88
		Max-2w	0.16	0.03	0.07	0.10	0.12	0.02	0.14	0.01	0.03	0.05	0.12	-	0.16
		Min-2w	0.10	0.02	0.06	0.06	0.06	0.01	0.03	0.01	0.03	<0.01	<0.01	-	<0.01
Myanmar	Yangon	Mean	0.21	<0.01	2.01	<0.01	0.61	0.13	0.17	0.27	<0.01	0.28	<0.01	-	0.37
		%	100	100	100	100	100	100	100	100	100	50	33	0	81
		Max-2w	0.24	<0.01	2.43	0.02	0.83	0.24	0.24	0.48	0.01	0.28	<0.01	-	2.43
		Min-2w	0.19	<0.01	1.59	<0.01	0.40	0.02	0.11	0.06	<0.01	0.28	<0.01	-	<0.01
Philippines	Mt. Sto. Tomas	Mean	<0.01	<0.01	0.03	0.03	0.02	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	79	100	100	98
		Max-w	<0.01	<0.01	0.08	0.12	0.08	0.06	<0.01	<0.01	0.03	<0.01	<0.01	<0.01	0.12
		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
Republic of Korea	Kanghwa	Mean	2.16	3.07	3.79	4.03	3.95	3.69	3.14	2.52	3.30	2.83	2.59	3.27	3.20
		%	16	17	16	17	16	17	13	16	17	16	17	19	16
		Max-d	3.66	4.21	6.72	5.80	6.56	4.89	5.84	4.00	4.54	4.54	3.87	6.45	6.72
		Min-d	1.13	2.10	1.35	2.45	1.58	2.34	0.97	0.35	0.93	0.86	0.73	1.21	0.35
	Cheju (Kosan)	Mean	-	1.27	1.90	3.01	2.94	1.94	2.38	1.41	1.61	1.18	1.27	1.25	1.86
		%	0	17	16	17	16	17	16	16	17	10	17	16	14
		Max-d	-	2.21	4.25	5.92	6.84	5.19	3.22	2.92	4.24	2.23	1.61	2.48	6.84
		Min-d	-	0.76	0.81	1.57	1.36	0.40	1.78	0.21	0.59	0.55	1.07	0.79	0.21
	Imsil	Mean	-	1.86	1.65	1.81	1.91	2.78	2.40	2.07	1.89	2.54	1.71	1.44	2.02
		%	0	17	16	17	16	17	16	16	17	16	17	13	15
		Max-d	-	2.87	3.02	3.12	3.94	4.95	4.02	3.27	3.04	4.82	2.32	2.39	4.95
		Min-d	-	1.08	0.34	1.06	0.88	1.39	0.86	0.37	0.55	0.82	0.58	0.84	0.34
Russia	Mondy	Mean	0.04	0.20	0.19	0.11	0.07	<0.01	0.08	<0.01	0.16	0.07	0.09	0.18	0.09
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-m	0.07	0.20	0.23	0.11	0.12	<0.01	0.08	<0.01	0.16	0.14	0.09	0.18	0.23
		Min-m	0.02	0.20	0.15	0.11	0.02	<0.01	0.08	<0.01	0.16	<0.01	0.09	0.18	<0.01
	Listvyanka	Mean	0.17	0.22	0.27	0.28	0.21	0.18	0.40	0.04	0.11	0.07	0.52	0.03	0.21
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.44	0.39	0.33	0.46	0.26	0.40	0.59	0.10	0.27	0.20	0.65	0.11	0.65
		Min-w	0.03	0.11	0.16	0.13	0.16	0.07	0.29	<0.01	0.02	<0.01	0.31	<0.01	<0.01
	Irkutsk	Mean	2.27	0.58	0.77	0.60	0.57	0.33	0.49	0.97	0.63	0.87	1.33	1.56	0.93
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	3.43	0.76	1.06	0.76	0.72	0.59	0.64	1.92	0.87	1.68	1.57	2.24	3.43
		Min-w	0.62	0.48	0.46	0.48	0.37	0.18	0.29	0.30	0.42	<0.01	0.98	0.91	<0.01
	Primorskaya	Mean	1.20	0.63	1.30	0.91	0.95	0.91	0.21	1.00	0.67	0.20	0.85	0.83	0.80
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	1.21	1.05	1.37	1.37	1.05	1.60	0.39	1.72	1.33	0.37	1.42	1.55	1.72
		Min-2w	1.18	0.21	1.23	0.45	0.84	0.22	0.04	0.28	0.01	0.03	0.27	0.11	0.01
Thailand	Bangkok	Mean	0.45	1.37	1.33	1.62	0.65	0.12	0.34	0.21	0.44	0.77	0.61	1.08	0.75
		%	90	100	100	100	100	100	100	100	100	100	100	100	99
		Max-10d	0.66	1.40	1.44	2.03	0.86	0.35	0.37	0.39	0.65	1.52	0.94	1.54	2.03
		Min-10d	0.24	1.31	1.20	1.33	0.55	<0.01	0.32	0.05	0.27	0.14	0.36	0.82	<0.01
	Khanchanaburi (Vachiralongkorn Dam)	Mean	-	-	-	7.71	-	-	-	0.42	-	-	-	0.04	2.73
		%	0	0	0	67	0	0	0	58	0	0	0	45	15
		Max-2w	-	-	-	7.71	-	-	-	0.42	-	-	-	0.04	7.71
		Min-2w	-	-	-	7.71	-	-	-	0.42	-	-	-	0.04	0.04
	Mae Hia	Mean	0.07	0.70	0.20	0.65	1.31	0.02	0.02	0.05	0.09	-	-	-	0.38
		%	30	97	97	97	97	97	97	97	63	0	0	0	64
		Max-10d	0.07	1.44	0.41	1.69	3.88	0.03	0.04	0.10	0.14	-	-	-	3.88
		Min-10d	0.07	0.04	<0.01	<0.01	0.01	<0.01	<0.01	0.01	0.03	-	-	-	<0.01
	Sakaerat	Mean	<0.01	0.84	1.21	2.18	0.79	0.42	0.37	0.41	0.22	-	-	-	0.80
		%	29	100	100	100	100	100	100	100	57	0	0	0	65
		Max-10d	<0.01	1.29	2.07	3.01	1.30	0.44	0.64	0.61	0.32	-	-	-	3.01
		Min-10d	<0.01	<0.01	<0.01	1.69	0.28	0.41	<0.01	0.05	0.12	-	-	-	<0.01
Viet Nam	Hanoi	Mean	2.96	2.20	5.10	3.17	1.39	0.66	0.42	0.29	1.73	2.43	1.58	4.57	2.32
		%	75	100	100	100	100	100	75	100	100	100	50	100	92
		Max-w	4.26	3.02	8.05	4.90	1.74	1.42	0.59	0.42	2.21	2.95	1.76	5.36	8.05
		Min-w	0.99	0.59	2.73	1.90	1.01	0.36	0.23	0.12	1.30	1.74	1.40	3.56	0.12
	Hoa Binh	Mean	4.35	2.37	3.87	3.40	0.67	0.32	0.36	0.26	1.39	1.87	1.78	2.13	1.90
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	7.15	4.20	4.89	6.27	0.96	0.69	0.57	0.44	2.46	2.49	2.22	3.33	7.15
		Min-w	0.97	0.98	3.14	1.42	0.38	0.15	0.16	0.13	0.12	0.97	1.40	0.86	0.12
	Can Tho	Mean	0.25	0.18	1.04	1.59	0.92	0.68	0.50	0.42	0.92	0.54	0.48	1.47	0.77
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.46	0.26	1.97	2.36	1.69	1.06	0.75	0.58	1.68	1.02	0.98	2.78	2.78
		Min-w	0.05	0.08	0.33	0.68	0.38	0.20	0.36	0.26	0.39	0.06	0.12	0.09	0.05
	Ho Chi Minh	Mean	1.95	2.07	0.78	1.43	0.69	2.01	3.89	0.87	0.36	0.86	1.93	0.84	1.44
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	3.14	3.39	1.56	3.02	1.72	3.05	10.60	1.75	0.75	1.06	2.45	1.29	10.60
		Min-w	0.35	0.38	0.28	0.68	0.20	1.14	1.28	0.16	0.10	0.56	1.23	0.26	0.10
	Yen Bai	Mean	3.40	3.37	7.61	7.18	2.39	1.08	0.62	0.32	0.99	1.49	0.85	2.05	2.62
		%	75	100	100	100	100	100	100	100	100	100	100	100	98
		Max-w	5.46	4.65	9.73	11.63	3.73	2.56	0.76	0.96	3.04	1.53	2.10	3.16	11.63
		Min-w	2.33	2.15	6.52	4.64	0.84	0.41	0.49	0.05	0.18	1.46	0.10	0.79	0.05

Terms and abbreviations are given in Table 4.2.

Table 4.17 Particulate matter component: Na^{+}

Unit : μg/m³			2016												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Cambodia	Phnom Penh	Mean	-	-	-	-	0.57	0.50	0.64	0.70	0.54	0.60	1.06	0.50	0.64
		%	0	0	0	0	97	100	100	100	100	100	100	100	67
		Max-2w	-	-	-	-	0.70	0.57	0.81	1.10	0.63	0.64	1.25	0.50	1.25
		Min-2w	-	-	-	-	0.43	0.43	0.47	0.40	0.45	0.56	0.87	0.50	0.40
China	Hongwen	Mean	0.73	1.09	1.44	1.15	2.80	1.92	1.09	2.34	1.40	1.50	1.61	1.95	1.61
		%	61	100	100	100	100	100	100	100	100	100	100	100	97
		Max-m	0.73	1.09	1.47	1.15	2.80	1.92	1.09	2.90	1.69	1.58	1.85	1.95	2.90
		Min-m	0.73	1.09	1.41	1.15	2.80	1.92	1.09	1.77	1.10	1.43	1.37	1.95	0.73
Indonesia	Jakarta	Mean	0.47	1.59	0.61	0.30	0.74	0.49	-	-	0.71	0.09	0.19	0.18	0.56
		%	100	100	100	100	100	100	0	0	100	44	93	100	78
		Max-2w	0.6	2.3	0.7	0.5	0.8	0.7	-	-	0.9	0.1	0.4	0.4	2.3
		Min-2w	0.37	0.88	0.53	0.10	0.69	0.33	-	-	0.53	0.09	0.02	0.02	0.02
	Serpong	Mean	0.12	0.04	0.35	0.18	0.25	0.34	0.39	0.87	0.39	-	0.21	0.60	0.36
		%	58	100	100	100	100	100	100	100	100	0	100	100	90
		Max-2w	0.12	0.05	0.55	0.19	0.31	0.39	0.48	0.93	0.55	-	0.21	0.83	0.93
		Min-2w	0.12	0.02	0.16	0.18	0.18	0.30	0.30	0.82	0.24	-	0.21	0.38	0.02
	Bandung	Mean	0.47	0.45	0.38	0.27	0.35	0.34	0.55	0.72	0.47	0.41	0.26	0.26	0.41
		%	100	100	100	100	100	100	100	97	100	100	100	100	100
		Max-2w	0.55	0.57	0.47	0.29	0.39	0.34	0.69	0.74	0.65	0.46	0.26	0.30	0.74
		Min-2w	0.38	0.33	0.29	0.25	0.28	0.34	0.41	0.70	0.29	0.35	0.25	0.22	0.22
Japan	Rishiri	Mean	1.04	1.72	1.88	1.70	2.59	0.43	0.58	0.96	3.41	2.98	1.37	2.20	1.65
		%	100	100	100	100	100	100	100	100	46	100	100	100	96
		Max-2w	1.36	2.28	2.55	1.99	2.82	0.44	0.86	1.18	3.41	3.18	1.49	3.08	3.41
		Min-2w	0.72	1.17	0.60	1.40	2.36	0.42	0.30	0.75	3.41	2.79	1.26	1.32	0.30
	Ochiishi	Mean	1.81	3.07	3.50	1.67	2.74	2.21	1.17	0.87	3.80	3.73	3.43	1.76	2.56
		%	100	100	100	53	100	100	100	33	100	100	100	100	88
		Max-2w	1.96	4.23	3.85	1.67	2.84	2.90	1.31	0.87	4.14	3.75	4.01	2.72	4.23
		Min-2w	1.69	1.91	3.14	1.67	2.64	1.52	1.02	0.87	3.45	3.70	2.86	0.80	0.80
	Tappi	Mean	3.72	4.35	2.91	2.27	2.06	2.51	1.33	1.21	1.17	4.86	5.44	14.15	3.81
		%	100	100	100	50	100	100	100	100	100	100	100	100	96
		Max-2w	6.30	5.40	3.49	2.27	2.48	3.18	2.07	1.30	1.25	6.97	6.88	23.76	23.76
		Min-2w	1.14	3.69	2.33	2.27	1.65	1.84	0.59	1.04	1.10	2.74	4.01	4.54	0.59
	Sado-seki	Mean	3.22	3.27	2.24	4.01	2.47	1.83	1.02	1.47	0.97	4.04	3.82	4.05	2.68
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	4.39	4.60	2.67	5.64	4.31	2.12	1.11	2.58	1.88	4.25	4.91	4.32	5.64
		Min-2w	2.06	2.00	1.81	2.38	0.63	1.55	0.94	0.43	0.06	3.84	2.74	3.79	0.06
	Happo	Mean	0.11	0.09	0.10	0.13	0.10	0.04	0.03	0.13	0.02	0.14	0.12	0.05	0.09
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.18	0.15	0.11	0.16	0.10	0.06	0.03	0.26	0.03	0.15	0.12	0.10	0.26
		Min-2w	0.05	0.05	0.09	0.10	0.10	0.03	0.03	0.04	0.02	0.14	0.12	<0.01	<0.01
	Ijira	Mean	0.16	0.25	0.26	0.46	0.40	0.20	0.13	0.33	0.09	0.15	0.22	0.23	0.24
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.20	0.41	0.27	0.51	0.47	0.27	0.18	0.52	0.13	0.27	0.27	0.31	0.52
		Min-2w	0.13	0.15	0.25	0.41	0.32	0.13	0.08	0.13	0.06	0.02	0.17	0.14	0.02
	Oki	Mean	7.27	3.29	3.20	9.02	1.18	1.14	1.04	-	-	-	-	-	3.89
		%	100	100	100	100	100	100	54	0	0	0	0	0	54
		Max-2w	10.60	3.39	4.71	12.86	1.79	1.85	1.04	-	-	-	-	-	12.86
		Min-2w	3.95	3.19	2.36	5.18	0.57	0.43	1.04	-	-	-	-	-	0.43
	Banryu	Mean	1.28	1.35	1.32	1.52	0.75	0.40	0.40	-	-	-	-	-	1.07
		%	100	100	100	100	100	100	50	0	0	0	0	0	54
		Max-2w	1.60	1.66	1.33	1.64	1.08	0.75	0.40	-	-	-	-	-	1.66
		Min-2w	0.96	1.09	1.31	1.40	0.43	0.05	0.40	-	-	-	-	-	0.05
	Yusuhara	Mean	0.31	0.34	0.29	0.38	0.30	0.12	0.23	0.33	0.13	0.40	0.37	0.33	0.30
		%	100	100	100	100	100	100	100	100	100	75	100	100	98
		Max-2w	0.35	0.43	0.31	0.46	0.31	0.19	0.27	0.61	0.14	0.40	0.45	0.47	0.61
		Min-2w	0.28	0.18	0.27	0.30	0.29	0.04	0.19	0.16	0.11	0.39	0.29	0.20	0.04
	Hedo	Mean	12.04	5.34	4.86	3.56	2.75	3.17	3.12	4.27	5.47	5.33	6.23	6.79	5.21
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	19.72	5.55	5.60	3.68	3.05	3.49	3.47	7.41	6.39	5.95	7.31	7.69	19.72
		Min-2w	4.36	4.97	4.12	3.43	2.45	2.85	2.76	2.63	4.55	4.70	5.16	5.89	2.45
	Ogasawara	Mean	2.80	3.09	2.74	2.42	1.68	1.16	1.26	2.69	2.81	2.19	3.28	3.87	2.54
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	3.52	3.80	3.48	2.58	2.01	1.53	1.57	3.19	3.83	2.19	3.56	4.97	4.97
		Min-2w	2.07	2.12	1.99	2.25	1.36	0.78	0.96	2.37	1.78	2.19	2.99	2.77	0.78
	Tokyo	Mean	0.33	0.83	0.90	1.67	1.23	0.91	0.78	1.20	0.62	1.05	0.51	0.42	0.86
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.41	0.94	1.01	1.74	1.63	0.99	0.86	1.82	0.66	1.11	0.61	0.47	1.82
		Min-2w	0.29	0.71	0.79	1.61	0.82	0.84	0.71	0.62	0.58	1.00	0.41	0.38	0.29
Lao PDR	Vientiane	Mean	0.31	0.22	0.51	0.17	0.27	0.21	0.25	0.24	0.10	0.22	0.27	0.24	0.25
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-m	0.31	0.22	0.51	0.17	0.27	0.21	0.25	0.24	0.10	0.22	0.27	0.24	0.51
		Min-m	0.31	0.22	0.51	0.17	0.27	0.21	0.25	0.24	0.10	0.22	0.27	0.24	0.10
Malaysia	Petaling Jaya	Mean	0.59	0.25	0.69	0.56	0.20	0.17	0.17	0.33	0.39	0.68	0.15	0.18	0.36
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	1.13	0.50	1.27	1.33	0.36	0.25	0.27	1.03	0.96	1.00	0.24	0.28	1.33
		Min-w	0.30	<0.01	0.33	0.15	0.05	0.07	0.08	<0.01	0.03	0.26	0.09	0.12	<0.01
	Tanah Rata	Mean	0.21	0.43	0.36	0.27	0.05	0.11	0.13	0.23	0.23	0.28	0.07	0.09	0.20
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.35	0.74	0.62	0.78	0.09	0.21	0.25	0.29	0.74	0.40	0.10	0.22	0.78
		Min-w	0.05	0.18	0.11	0.04	0.02	0.05	0.02	0.10	<0.01	0.18	0.03	0.02	<0.01
	Danum Valley	Mean	0.66	0.63	0.59	0.56	0.21	0.04	0.03	0.06	0.06	0.04	0.22	0.03	0.25
		%	100	61	100	100	100	100	100	100	100	100	100	50	93
		Max-2w	0.93	0.63	0.65	0.70	0.42	0.05	0.05	0.11	0.07	0.04	0.39	0.03	0.93
		Min-2w	0.40	0.63	0.52	0.43	0.04	0.03	0.01	0.02	0.05	0.04	0.06	0.03	0.01

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

Unit : μg/m^3			2016												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Mongolia	Ulaanbaatar	Mean	0.21	1.26	0.10	0.11	0.15	0.15	0.08	0.12	0.08	0.05	0.10	0.36	0.20
		%	90	75	100	100	100	100	100	100	80	100	100	60	92
		Max-w	0.46	1.94	0.14	0.15	0.23	0.25	0.11	0.35	0.18	0.07	0.25	0.93	1.94
		Min-w	0.07	0.77	0.08	0.09	0.06	0.07	0.04	0.04	0.04	0.04	0.04	0.07	0.04
	Terelj	Mean	<0.01	0.01	0.02	0.01	0.09	0.02	0.02	0.01	0.03	0.03	0.04	-	0.03
		%	90	100	100	100	100	100	100	100	50	100	100	0	88
		Max-2w	<0.01	0.02	0.03	0.01	0.22	0.03	0.02	0.01	0.03	0.08	0.06	-	0.22
		Min-2w	<0.01	<0.01	0.02	0.01	0.01	0.01	0.01	0.01	0.03	<0.01	0.03	-	<0.01
Myanmar	Yangon	Mean	0.13	<0.01	0.51	<0.01	0.78	0.14	0.46	0.26	0.35	0.34	<0.01	-	0.31
		%	100	100	100	100	100	100	100	100	100	50	33	0	81
		Max-2w	0.25	<0.01	0.61	<0.01	1.69	0.27	0.50	0.39	0.68	0.34	<0.01	-	1.69
		Min-2w	<0.01	<0.01	0.41	<0.01	<0.01	0.01	0.43	0.13	0.02	0.34	<0.01	-	<0.01
Philippines	Mt. Sto. Tomas	Mean	0.07	0.11	0.03	0.22	0.37	0.41	0.46	0.18	0.09	0.39	0.31	0.29	0.24
		%	100	100	100	100	100	100	100	100	100	79	100	100	98
		Max-w	0.20	0.40	0.04	0.42	0.44	0.46	1.32	0.67	0.31	0.80	0.70	0.51	1.32
		Min-w	0.02	<0.01	0.02	0.02	0.29	0.36	<0.01	<0.01	<0.01	0.02	0.06	0.03	<0.01
Republic of Korea	Kanghwa	Mean	0.21	0.27	0.32	0.34	0.33	0.26	0.21	0.24	0.18	0.16	0.25	0.23	0.25
		%	16	17	16	17	16	17	13	16	17	16	17	19	16
		Max-d	0.27	0.37	0.40	0.70	0.52	0.33	0.31	0.30	0.23	0.24	0.36	0.28	0.70
		Min-d	0.15	0.19	0.21	0.16	0.16	0.22	0.09	0.11	0.09	0.06	0.12	0.20	0.06
	Cheju (Kosan)	Mean	-	0.37	0.30	0.40	0.99	0.38	0.38	0.23	0.25	0.22	0.27	0.39	0.39
		%	0	17	16	17	16	17	16	16	17	10	17	16	14
		Max-d	-	0.49	0.45	0.76	3.64	0.93	0.50	0.39	0.71	0.26	0.31	0.53	3.64
		Min-d	-	0.27	0.19	0.19	0.28	0.18	0.31	0.12	0.10	0.18	0.24	0.32	0.10
	Imsil	Mean	-	0.27	0.26	0.25	0.20	0.27	0.23	0.15	0.23	0.23	0.27	0.32	0.24
		%	0	17	16	17	16	17	16	16	17	16	17	13	15
		Max-d	-	0.36	0.34	0.30	0.25	0.35	0.27	0.22	0.35	0.29	0.31	0.36	0.36
		Min-d	-	0.17	0.20	0.21	0.15	0.23	0.20	0.08	0.08	0.16	0.24	0.30	0.08
Russia	Mondy	Mean	0.01	0.04	0.02	0.01	0.01	0.01	0.06	0.01	0.04	0.02	<0.01	0.02	0.02
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-m	0.02	0.04	0.03	0.01	0.01	0.02	0.06	0.02	0.04	0.03	<0.01	0.02	0.06
		Min-m	<0.01	0.04	0.02	0.01	0.01	<0.01	0.06	0.01	0.04	0.02	<0.01	0.02	<0.01
	Listvyanka	Mean	0.07	0.06	0.30	0.49	0.07	0.05	0.06	0.07	0.26	0.09	0.02	0.03	0.13
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.16	0.10	0.99	1.12	0.10	0.08	0.07	0.18	0.74	0.24	0.04	0.07	1.12
		Min-w	0.03	0.04	0.06	0.09	0.05	0.03	0.04	0.03	0.03	<0.01	<0.01	<0.01	<0.01
	Irkutsk	Mean	0.22	0.21	0.16	0.10	0.07	0.07	0.08	0.18	0.06	0.25	0.09	0.13	0.14
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.34	0.48	0.21	0.14	0.11	0.10	0.12	0.31	0.08	0.40	0.10	0.19	0.48
		Min-w	0.08	0.07	0.07	0.07	0.05	0.05	0.06	0.10	0.04	0.03	0.08	0.04	0.03
	Primorskaya	Mean	0.14	0.08	0.19	0.23	0.25	0.11	0.02	0.07	0.16	0.17	0.15	0.15	0.14
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.20	0.14	0.23	0.33	0.32	0.19	0.03	0.12	0.25	0.27	0.18	0.28	0.33
		Min-2w	0.08	0.03	0.16	0.12	0.17	0.03	0.02	0.01	0.07	0.06	0.12	<0.01	<0.01
Thailand	Bangkok	Mean	0.58	1.08	1.78	1.67	0.81	0.73	0.50	0.42	0.32	0.19	0.21	0.18	0.71
		%	90	100	100	100	100	100	100	100	100	100	100	100	99
		Max-10d	1.20	1.96	1.88	1.91	0.97	1.15	0.64	0.77	0.43	0.27	0.30	0.24	1.96
		Min-10d	0.06	0.46	1.66	1.37	0.70	0.02	0.37	0.03	0.19	0.05	0.14	0.13	0.02
	Khanchanaburi (Vachiralongkorn Dam)	Mean	-	-	-	3.61	-	-	-	0.84	-	-	-	0.01	1.49
		%	0	0	0	67	0	0	0	58	0	0	0	45	15
		Max-2w	-	-	-	3.61	-	-	-	0.84	-	-	-	0.01	3.61
		Min-2w	-	-	-	3.61	-	-	-	0.84	-	-	-	0.01	0.01
	Mae Hia	Mean	0.07	0.32	0.15	0.56	0.21	0.25	0.51	0.24	0.10	-	-	-	0.29
		%	30	97	97	97	97	97	97	97	63	0	0	0	64
		Max-10d	0.07	0.59	0.23	1.50	0.40	0.41	1.16	0.70	0.18	-	-	-	1.50
		Min-10d	0.07	0.16	0.05	<0.01	0.12	0.10	0.05	<0.01	0.02	-	-	-	<0.01
	Sakaerat	Mean	<0.01	0.10	0.37	0.40	0.55	0.27	0.15	0.59	0.36	-	-	-	0.33
		%	29	100	100	100	100	100	100	100	57	0	0	0	65
		Max-10d	<0.01	0.18	0.65	0.45	1.28	0.40	0.24	1.00	0.48	-	-	-	1.28
		Min-10d	<0.01	<0.01	0.06	0.30	0.14	0.18	<0.01	0.34	0.25	-	-	-	<0.01
Viet Nam	Hanoi	Mean	0.74	0.64	1.21	1.59	1.04	0.81	0.93	7.00	1.66	0.63	0.73	1.49	1.58
		%	75	100	100	100	100	100	75	100	100	100	50	100	92
		Max-w	1.55	1.14	1.64	2.03	1.28	1.54	1.12	20.77	2.32	0.74	0.97	2.70	20.77
		Min-w	0.33	0.31	0.76	1.19	0.73	0.28	0.80	1.82	1.33	0.55	0.50	0.64	0.28
	Hoa Binh	Mean	0.67	1.09	0.79	0.99	0.80	0.86	1.57	3.29	2.19	0.34	0.49	1.37	1.21
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	1.13	1.77	1.29	1.38	1.01	1.21	2.28	5.38	7.75	0.39	0.77	1.79	7.75
		Min-w	0.25	0.56	0.51	0.59	0.62	0.57	0.95	2.14	0.46	0.28	0.34	0.74	0.25
	Can Tho	Mean	0.20	0.21	0.09	0.09	0.13	0.22	0.15	0.18	0.39	0.40	0.42	0.35	0.24
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.27	0.29	0.14	0.12	0.18	0.32	0.21	0.32	0.56	0.52	0.61	0.42	0.61
		Min-w	0.06	0.14	0.03	0.05	0.09	0.12	0.06	0.09	0.27	0.26	0.24	0.29	0.03
	Ho Chi Minh	Mean	0.24	0.44	0.47	0.43	0.48	0.40	0.35	0.37	0.35	0.32	0.44	0.33	0.38
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.31	1.02	0.78	1.25	0.76	0.75	0.63	0.41	0.58	0.42	0.56	0.45	1.25
		Min-w	0.16	0.03	0.19	0.09	0.19	0.12	0.15	0.29	0.17	0.28	0.34	0.21	0.03
	Yen Bai	Mean	0.72	0.61	0.56	0.78	0.64	3.40	2.12	2.98	0.39	0.52	0.54	0.74	1.18
		%	75	100	100	100	100	100	100	100	100	100	100	100	98
		Max-w	1.08	0.86	0.91	1.16	1.00	7.72	3.82	4.04	0.55	0.61	0.77	0.93	7.72
		Min-w	0.48	0.51	0.38	0.42	0.38	0.91	0.65	0.41	0.26	0.37	0.39	0.61	0.26

Terms and abbreviations are given in Table 4.2.

Table 4.18 Particulate matter component: K^+

Unit : µg/m^3			2016												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Cambodia	Phnom Penh	Mean	-	-	-	-	0.80	0.49	0.40	0.48	0.22	0.26	0.79	0.56	0.50
		%	0	0	0	0	97	100	100	100	100	100	100	100	67
		Max-2w	-	-	-	-	0.98	0.55	0.47	0.57	0.36	0.26	1.02	0.69	1.02
		Min-2w	-	-	-	-	0.62	0.43	0.33	0.43	0.09	0.26	0.57	0.43	0.09
China	Hongwen	Mean	0.56	1.34	0.80	0.45	0.44	0.25	0.25	0.53	0.53	0.26	0.54	0.71	0.55
		%	61	100	100	100	100	100	100	100	100	100	100	100	97
		Max-m	0.56	1.34	0.85	0.45	0.44	0.25	0.25	0.83	0.77	0.28	0.56	0.71	1.34
		Min-m	0.56	1.34	0.75	0.45	0.44	0.25	0.25	0.23	0.29	0.25	0.51	0.71	0.23
Indonesia	Jakarta	Mean	0.25	0.39	0.48	0.45	0.57	0.40	-	-	0.35	0.10	0.04	0.04	0.32
		%	100	100	100	100	100	100	0	0	100	44	93	100	78
		Max-2w	0.35	0.39	0.63	0.53	0.63	0.53	-	-	0.40	0.10	0.07	0.07	0.63
		Min-2w	0.14	0.39	0.34	0.38	0.51	0.26	-	-	0.30	0.10	0.02	0.02	0.02
	Serpong	Mean	0.38	0.02	0.36	0.47	0.48	0.53	0.52	0.65	0.14	-	0.36	0.40	0.39
		%	58	100	100	100	100	100	100	100	100	0	100	100	90
		Max-2w	0.38	0.02	0.37	0.48	0.49	0.55	0.62	0.77	0.20	-	0.36	0.52	0.77
		Min-2w	0.38	0.01	0.34	0.45	0.47	0.50	0.42	0.53	0.08	-	0.36	0.27	0.01
	Bandung	Mean	0.46	0.41	0.47	0.51	0.57	0.66	0.51	0.50	0.46	0.52	0.51	0.21	0.48
		%	100	100	100	100	100	100	100	97	100	100	100	100	100
		Max-2w	0.49	0.43	0.50	0.55	0.64	0.66	0.52	0.50	0.51	0.52	0.55	0.29	0.66
		Min-2w	0.43	0.39	0.45	0.47	0.53	0.66	0.50	0.49	0.41	0.51	0.46	0.14	0.14
Japan	Rishiri	Mean	0.08	0.13	0.13	0.11	0.16	0.05	0.05	0.07	0.17	0.23	0.13	0.12	0.12
		%	100	100	100	100	100	100	100	100	46	100	100	100	96
		Max-2w	0.12	0.16	0.19	0.11	0.19	0.05	0.06	0.09	0.17	0.28	0.16	0.16	0.28
		Min-2w	0.05	0.11	0.06	0.10	0.12	0.05	0.04	0.06	0.17	0.18	0.11	0.08	0.04
	Ochiishi	Mean	0.09	0.14	0.47	0.07	0.13	0.09	0.05	0.04	0.15	0.19	0.14	0.08	0.14
		%	100	100	100	53	100	100	100	33	100	100	100	100	88
		Max-2w	0.10	0.19	0.67	0.07	0.14	0.12	0.05	0.04	0.15	0.21	0.14	0.13	0.67
		Min-2w	0.07	0.09	0.26	0.07	0.13	0.07	0.04	0.04	0.14	0.17	0.13	0.03	0.03
	Tappi	Mean	0.13	0.22	0.22	0.14	0.15	0.11	0.08	0.16	0.07	0.21	0.27	0.51	0.19
		%	100	100	100	50	100	100	100	100	100	100	100	100	96
		Max-2w	0.25	0.28	0.23	0.14	0.17	0.13	0.12	0.30	0.08	0.29	0.34	0.77	0.77
		Min-2w	0.01	0.18	0.21	0.14	0.12	0.10	0.04	0.08	0.06	0.13	0.19	0.24	0.01
	Sado-seki	Mean	0.12	0.19	0.16	0.20	0.17	0.09	0.06	0.10	0.04	0.18	0.20	0.18	0.14
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.16	0.23	0.16	0.22	0.21	0.09	0.06	0.13	0.09	0.20	0.27	0.19	0.27
		Min-2w	0.09	0.14	0.16	0.17	0.12	0.09	0.06	0.07	<0.01	0.15	0.13	0.18	<0.01
	Happo	Mean	0.02	0.03	0.05	0.05	0.05	0.02	0.02	0.03	0.01	0.02	0.03	<0.01	0.03
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.02	0.07	0.06	0.07	0.05	0.02	0.03	0.03	0.01	0.02	0.03	0.01	0.07
		Min-2w	<0.01	0.01	0.03	0.02	0.05	0.02	0.02	0.02	<0.01	0.02	0.03	<0.01	<0.01
	Ijira	Mean	0.04	0.08	0.10	0.12	0.14	0.11	0.10	0.09	0.09	0.07	0.06	0.05	0.09
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.06	0.11	0.13	0.12	0.15	0.13	0.12	0.10	0.09	0.08	0.06	0.06	0.15
		Min-2w	0.03	0.07	0.07	0.12	0.13	0.09	0.09	0.07	0.08	0.07	0.05	0.05	0.03
	Oki	Mean	0.33	0.22	0.24	1.33	0.71	0.11	1.37	-	-	-	-	-	0.54
		%	100	100	100	100	100	100	54	0	0	0	0	0	54
		Max-2w	0.44	0.24	0.32	1.34	1.25	0.17	1.37	-	-	-	-	-	1.37
		Min-2w	0.23	0.19	0.17	1.31	0.16	0.06	1.37	-	-	-	-	-	0.06
	Banryu	Mean	0.15	0.17	0.17	1.12	0.13	0.07	0.07	-	-	-	-	-	0.27
		%	100	100	100	100	100	100	50	0	0	0	0	0	54
		Max-2w	0.15	0.19	0.22	1.33	0.13	0.13	0.07	-	-	-	-	-	1.33
		Min-2w	0.15	0.13	0.13	0.90	0.13	<0.01	0.07	-	-	-	-	-	<0.01
	Yusuhara	Mean	0.09	0.21	0.10	0.09	0.07	0.03	0.04	0.06	0.03	0.06	0.08	0.06	0.08
		%	100	100	100	100	100	100	100	100	100	75	100	100	98
		Max-2w	0.11	0.37	0.13	0.09	0.07	0.05	0.06	0.08	0.04	0.06	0.12	0.10	0.37
		Min-2w	0.07	0.07	0.08	0.09	0.07	0.02	0.02	0.04	0.02	0.05	0.05	0.03	0.02
	Hedo	Mean	0.48	0.32	0.31	0.23	0.18	0.20	0.16	0.21	0.25	0.22	0.28	0.31	0.26
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.71	0.42	0.32	0.23	0.19	0.21	0.18	0.33	0.25	0.24	0.32	0.31	0.71
		Min-2w	0.25	0.27	0.30	0.23	0.18	0.19	0.14	0.13	0.25	0.19	0.24	0.30	0.13
	Ogasawara	Mean	0.13	0.15	0.13	0.13	0.08	0.07	0.06	0.11	0.11	0.09	0.13	0.15	0.11
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.15	0.18	0.15	0.14	0.09	0.08	0.08	0.13	0.15	0.09	0.17	0.17	0.18
		Min-2w	0.10	0.10	0.11	0.11	0.07	0.05	0.04	0.09	0.06	0.09	0.09	0.13	0.04
	Tokyo	Mean	0.09	0.13	0.14	0.16	0.15	0.11	0.11	0.10	0.11	0.15	0.15	0.12	0.13
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.12	0.15	0.16	0.16	0.16	0.13	0.11	0.12	0.13	0.18	0.19	0.13	0.19
		Min-2w	0.08	0.12	0.11	0.16	0.14	0.10	0.10	0.08	0.09	0.12	0.11	0.11	0.08
Lao PDR	Vientiane	Mean	0.83	0.78	0.70	0.40	0.16	0.11	0.08	0.10	0.16	0.18	0.43	0.33	0.36
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-m	0.83	0.78	0.70	0.40	0.16	0.11	0.08	0.10	0.16	0.18	0.43	0.33	0.83
		Min-m	0.83	0.78	0.70	0.40	0.16	0.11	0.08	0.10	0.16	0.18	0.43	0.33	0.08
Malaysia	Petaling Jaya	Mean	0.18	0.06	0.47	0.44	0.17	0.18	0.16	0.26	0.25	0.42	0.20	0.16	0.24
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.32	0.17	0.59	0.53	0.21	0.30	0.33	0.72	0.43	0.62	0.25	0.26	0.72
		Min-w	0.08	<0.01	0.35	0.36	0.06	0.04	0.08	<0.01	0.02	0.32	0.09	0.07	<0.01
	Tanah Rata	Mean	0.03	0.09	0.26	0.28	0.08	0.09	0.13	0.17	0.06	0.09	0.06	0.06	0.12
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.07	0.18	0.47	0.38	0.11	0.15	0.28	0.28	0.11	0.13	0.08	0.12	0.47
		Min-w	<0.01	0.04	0.12	0.16	0.04	0.05	0.04	0.07	<0.01	0.06	0.05	0.01	<0.01
	Danum Valley	Mean	0.21	0.20	0.28	0.20	0.21	0.24	0.06	0.11	0.14	0.15	0.16	<0.01	0.17
		%	100	61	100	100	100	100	100	100	100	100	100	50	93
		Max-2w	0.23	0.20	0.36	0.23	0.43	0.27	0.10	0.21	0.14	0.15	0.22	<0.01	0.43
		Min-2w	0.20	0.20	0.21	0.16	0.07	0.22	0.02	0.02	0.14	0.14	0.12	<0.01	<0.01

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

Unit : μg/m³			2016												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Mongolia	Ulaanbaatar	Mean	0.06	0.19	0.03	0.03	0.06	0.10	0.07	0.09	0.08	0.03	0.06	0.14	0.08
		%	90	75	100	100	100	100	100	100	80	100	100	60	92
		Max-w	0.11	0.22	0.05	0.05	0.14	0.16	0.13	0.28	0.20	0.04	0.13	0.38	0.38
		Min-w	0.02	0.14	0.02	0.02	<0.01	0.04	0.02	0.02	0.02	0.02	0.02	0.02	<0.01
	Terelj	Mean	0.01	<0.01	0.02	0.01	0.08	0.01	0.01	0.05	0.03	0.02	0.03	-	0.03
		%	90	100	100	100	100	100	100	100	50	100	100	0	88
		Max-2w	0.02	<0.01	0.02	0.01	0.20	0.01	0.01	0.08	0.03	0.04	0.03	-	0.20
		Min-2w	<0.01	<0.01	0.02	0.01	0.02	0.01	0.01	0.02	0.03	<0.01	0.03	-	<0.01
Myanmar	Yangon	Mean	0.86	0.04	0.61	<0.01	0.49	0.04	0.23	0.08	0.16	0.37	2.49	-	0.40
		%	100	100	100	100	100	100	100	100	100	50	33	0	81
		Max-2w	1.43	0.05	0.85	<0.01	1.22	0.06	0.25	0.13	0.31	0.37	2.49	-	2.49
		Min-2w	0.29	0.02	0.38	<0.01	<0.01	0.02	0.21	0.03	0.01	0.37	2.49	-	<0.01
Philippines	Mt. Sto. Tomas	Mean	0.06	0.07	0.01	0.07	0.18	0.19	0.05	0.12	0.04	0.15	0.32	0.02	0.10
		%	100	100	100	100	100	100	100	100	100	79	100	100	98
		Max-w	0.18	0.16	0.02	0.22	0.21	0.22	0.17	0.23	0.13	0.42	1.00	0.05	1.00
		Min-w	<0.01	<0.01	<0.01	<0.01	0.15	0.16	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Republic of Korea	Kanghwa	Mean	0.17	0.38	0.35	0.19	0.20	0.11	0.06	0.07	0.13	0.16	0.32	0.22	0.20
		%	16	17	16	17	16	17	13	16	17	16	17	19	16
		Max-d	0.29	0.91	0.75	0.25	0.48	0.15	0.12	0.16	0.16	0.34	0.74	0.31	0.91
		Min-d	0.06	0.10	0.13	0.08	0.04	0.08	0.01	<0.01	0.07	<0.01	0.04	0.10	<0.01
	Cheju (Kosan)	Mean	-	0.22	0.20	0.15	0.14	0.14	0.09	0.12	0.13	0.06	0.13	0.22	0.15
		%	0	17	16	17	16	17	16	16	17	10	17	16	14
		Max-d	-	0.67	0.31	0.24	0.22	0.30	0.19	0.14	0.19	0.08	0.18	0.31	0.67
		Min-d	-	0.02	0.12	0.09	0.07	<0.01	0.03	0.07	0.09	0.04	0.11	0.19	<0.01
	Imsil	Mean	-	0.17	0.18	0.14	0.13	0.18	0.12	0.10	0.14	0.10	0.19	0.23	0.15
		%	0	17	16	17	16	17	16	16	17	16	17	13	15
		Max-d	-	0.37	0.27	0.16	0.18	0.38	0.28	0.15	0.22	0.21	0.25	0.33	0.38
		Min-d	-	0.09	0.07	0.08	0.08	0.07	0.02	0.02	0.09	0.02	0.13	0.19	0.02
Russia	Mondy	Mean	<0.01	0.02	0.03	0.04	0.02	0.02	0.02	0.02	0.09	0.08	<0.01	<0.01	0.03
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-m	0.01	0.02	0.05	0.04	0.02	0.03	0.02	0.02	0.09	0.15	<0.01	<0.01	0.15
		Min-m	<0.01	0.02	0.02	0.04	0.02	0.02	0.02	0.02	0.09	<0.01	<0.01	<0.01	<0.01
	Listvyanka	Mean	0.02	0.01	0.08	0.13	0.14	0.08	0.09	0.04	0.11	0.11	<0.01	0.02	0.07
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.04	0.02	0.14	0.21	0.17	0.12	0.11	0.05	0.20	0.39	0.01	0.05	0.39
		Min-w	<0.01	0.01	0.01	0.04	0.10	0.05	0.08	0.02	0.04	<0.01	<0.01	<0.01	<0.01
	Irkutsk	Mean	0.24	0.05	0.09	0.13	0.10	0.10	0.12	0.26	0.11	0.41	0.04	0.06	0.15
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.41	0.06	0.16	0.18	0.16	0.18	0.21	0.63	0.21	0.91	0.07	0.12	0.91
		Min-w	0.07	0.04	0.06	0.08	0.06	0.05	0.08	0.06	0.06	0.05	0.03	0.02	0.02
	Primorskaya	Mean	0.27	0.18	0.26	0.27	0.16	0.11	0.02	0.04	0.06	0.07	0.41	0.45	0.19
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.33	0.31	0.27	0.43	0.17	0.13	0.03	0.08	0.07	0.11	0.42	0.81	0.81
		Min-2w	0.21	0.05	0.26	0.11	0.14	0.08	<0.01	<0.01	0.04	0.03	0.40	0.09	<0.01
Thailand	Bangkok	Mean	4.75	1.16	1.01	0.56	0.36	0.15	0.34	0.26	0.41	0.36	0.42	0.67	0.87
		%	90	100	100	100	100	100	100	100	100	100	100	100	99
		Max-10d	13.57	1.54	1.64	0.59	0.42	0.44	0.35	0.44	0.51	0.64	0.45	0.76	13.57
		Min-10d	0.31	0.92	0.55	0.53	0.32	<0.01	0.33	0.03	0.34	0.08	0.39	0.62	<0.01
	Khanchanaburi (Vachiralongkorn Dam)	Mean	-	-	-	5.11	-	-	-	0.21	-	-	-	0.02	1.78
		%	0	0	0	67	0	0	0	58	0	0	0	45	15
		Max-2w	-	-	-	5.11	-	-	-	0.21	-	-	-	0.02	5.11
		Min-2w	-	-	-	5.11	-	-	-	0.21	-	-	-	0.02	0.02
	Mae Hia	Mean	0.02	0.37	0.06	1.20	0.10	0.06	0.13	0.06	0.14	-	-	-	0.26
		%	30	97	97	97	97	97	97	97	63	0	0	0	64
		Max-10d	0.02	0.72	0.10	3.11	0.27	0.11	0.18	0.10	0.19	-	-	-	3.11
		Min-10d	0.02	0.07	0.02	<0.01	<0.01	<0.01	0.04	0.02	0.09	-	-	-	<0.01
	Sakaerat	Mean	0.13	0.41	0.37	0.43	0.30	0.10	0.09	0.13	0.15	-	-	-	0.25
		%	29	100	100	100	100	100	100	100	57	0	0	0	65
		Max-10d	0.13	0.65	0.56	0.50	0.63	0.12	0.14	0.16	0.20	-	-	-	0.65
		Min-10d	0.13	<0.01	0.13	0.37	0.13	0.09	<0.01	0.10	0.11	-	-	-	<0.01
Viet Nam	Hanoi	Mean	0.60	0.90	0.86	0.75	0.55	0.86	0.63	1.94	1.08	1.44	1.44	1.91	1.09
		%	75	100	100	100	100	100	75	100	100	100	50	100	92
		Max-w	0.84	1.63	1.35	1.19	0.61	1.49	0.90	5.68	1.21	1.76	1.74	2.44	5.68
		Min-w	0.27	0.26	0.44	0.41	0.44	0.49	0.48	0.35	0.93	1.23	1.13	1.52	0.26
	Hoa Binh	Mean	0.70	0.75	0.57	1.06	0.77	0.55	0.68	0.89	1.40	0.95	0.98	1.36	0.90
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.86	1.28	0.78	1.64	1.25	1.00	1.00	1.46	2.96	1.05	1.22	2.23	2.96
		Min-w	0.42	0.29	0.31	0.79	0.35	0.17	0.34	0.46	0.43	0.89	0.79	0.84	0.17
	Can Tho	Mean	0.25	0.30	0.15	0.14	0.19	0.27	0.22	0.25	0.45	0.46	0.46	0.42	0.30
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.32	0.33	0.29	0.19	0.23	0.37	0.31	0.37	0.61	0.57	0.63	0.54	0.63
		Min-w	0.09	0.27	0.05	0.08	0.15	0.16	0.11	0.13	0.31	0.31	0.29	0.34	0.05
	Ho Chi Minh	Mean	0.45	0.69	0.65	0.58	0.67	0.66	0.61	0.52	0.54	0.47	0.60	0.49	0.58
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.57	1.45	0.97	1.37	0.91	0.91	0.96	0.61	0.79	0.59	0.72	0.67	1.45
		Min-w	0.32	0.13	0.23	0.15	0.38	0.39	0.32	0.45	0.31	0.34	0.45	0.33	0.13
	Yen Bai	Mean	0.62	1.30	0.81	0.83	0.35	1.24	1.05	1.20	0.68	1.35	0.51	1.24	0.94
		%	75	100	100	100	100	100	100	100	100	100	100	100	98
		Max-w	0.72	1.89	1.01	1.58	0.65	2.28	1.80	1.43	0.86	1.56	0.75	1.73	2.28
		Min-w	0.48	0.83	0.52	0.48	0.02	0.43	0.50	0.88	0.57	1.19	0.28	1.05	0.02

Terms and abbreviations are given in Table 4.2.

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

Unit : μg/m³			2016												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Cambodia	Phnom Penh	Mean	-	-	-	-	0.11	0.10	0.14	0.12	0.13	0.04	0.22	0.07	0.12
		%	0	0	0	0	97	100	100	100	100	100	100	100	67
		Max-2w	-	-	-	-	0.14	0.11	0.18	0.19	0.17	0.04	0.26	0.07	0.26
		Min-2w	-	-	-	-	0.09	0.09	0.11	0.07	0.09	0.03	0.18	0.06	0.03
China	Hongwen	Mean	0.09	0.35	0.25	0.19	0.37	0.25	0.16	0.34	0.21	0.17	0.27	0.34	0.25
		%	61	100	100	100	100	100	100	100	100	100	100	100	97
		Max-m	0.09	0.35	0.27	0.19	0.37	0.25	0.16	0.50	0.21	0.18	0.30	0.34	0.50
		Min-m	0.09	0.35	0.22	0.19	0.37	0.25	0.16	0.19	0.20	0.16	0.24	0.34	0.09
Indonesia	Jakarta	Mean	0.11	0.12	0.10	0.06	0.15	0.13	-	-	0.13	0.02	0.04	0.04	0.09
		%	100	100	100	100	100	100	0	0	100	44	93	100	78
		Max-2w	0.14	0.13	0.11	0.10	0.16	0.18	-	-	0.15	0.02	0.06	0.06	0.18
		Min-2w	0.08	0.12	0.09	0.02	0.15	0.08	-	-	0.11	0.02	0.02	0.02	0.02
	Serpong	Mean	0.05	<0.01	0.07	0.05	0.06	0.09	0.08	0.13	0.04	-	0.02	0.08	0.06
		%	58	100	100	100	100	100	100	100	100	0	100	100	90
		Max-2w	0.05	0.01	0.09	0.07	0.07	0.10	0.10	0.13	0.04	-	0.02	0.09	0.13
		Min-2w	0.05	<0.01	0.05	0.04	0.05	0.08	0.06	0.12	0.04	-	0.02	0.07	<0.01
	Bandung	Mean	0.19	0.17	0.20	0.18	0.20	0.18	0.18	0.22	0.17	0.17	0.12	0.09	0.17
		%	100	100	100	100	100	100	100	97	100	100	100	100	100
		Max-2w	0.20	0.20	0.21	0.19	0.21	0.18	0.20	0.22	0.20	0.18	0.13	0.11	0.22
		Min-2w	0.19	0.14	0.19	0.17	0.19	0.18	0.16	0.22	0.13	0.16	0.12	0.06	0.06
Japan	Rishiri	Mean	0.12	0.21	0.23	0.20	0.31	0.05	0.07	0.11	0.40	0.35	0.16	0.26	0.19
		%	100	100	100	100	100	100	100	100	46	100	100	100	96
		Max-2w	0.17	0.27	0.31	0.23	0.35	0.06	0.10	0.14	0.40	0.37	0.17	0.36	0.40
		Min-2w	0.08	0.14	0.07	0.16	0.28	0.05	0.04	0.09	0.40	0.33	0.14	0.16	0.04
	Ochiishi	Mean	0.19	0.34	0.39	0.18	0.30	0.23	0.11	0.08	0.42	0.41	0.38	0.19	0.28
		%	100	100	100	53	100	100	100	33	100	100	100	100	88
		Max-2w	0.20	0.47	0.44	0.18	0.31	0.32	0.13	0.08	0.47	0.41	0.44	0.31	0.47
		Min-2w	0.18	0.21	0.34	0.18	0.30	0.15	0.09	0.08	0.37	0.41	0.31	0.07	0.07
	Tappi	Mean	0.40	0.50	0.35	0.28	0.26	0.30	0.16	0.14	0.14	0.58	0.65	1.49	0.43
		%	100	100	100	50	100	100	100	100	100	100	100	100	96
		Max-2w	0.69	0.63	0.42	0.28	0.30	0.39	0.24	0.15	0.15	0.82	0.81	2.47	2.47
		Min-2w	0.12	0.41	0.27	0.28	0.22	0.22	0.07	0.13	0.12	0.33	0.48	0.51	0.07
	Sado-seki	Mean	0.38	0.40	0.29	0.50	0.30	0.23	0.13	0.19	0.13	0.46	0.44	0.45	0.32
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.49	0.55	0.34	0.68	0.51	0.27	0.15	0.32	0.23	0.48	0.55	0.47	0.68
		Min-2w	0.26	0.27	0.24	0.32	0.09	0.19	0.12	0.05	0.02	0.44	0.32	0.43	0.02
	Happo	Mean	0.01	0.02	0.03	0.04	0.03	0.01	0.01	0.03	<0.01	0.03	0.02	0.02	0.02
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.02	0.04	0.03	0.05	0.03	0.02	0.02	0.03	<0.01	0.03	0.02	0.04	0.05
		Min-2w	<0.01	<0.01	0.03	0.02	0.03	<0.01	0.01	0.01	<0.01	0.02	0.02	<0.01	<0.01
	Ijira	Mean	0.02	0.04	0.04	0.06	0.05	0.02	0.02	0.03	<0.01	0.04	0.03	0.01	0.03
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.02	0.06	0.05	0.07	0.07	0.03	0.02	0.05	0.01	0.04	0.04	0.03	0.07
		Min-2w	<0.01	0.02	0.04	0.05	0.03	0.02	0.01	0.01	<0.01	0.04	0.01	<0.01	<0.01
	Oki	Mean	0.89	0.42	0.40	1.07	0.16	0.14	0.08	-	-	-	-	-	0.47
		%	100	100	100	100	100	100	54	0	0	0	0	0	54
		Max-2w	1.29	0.43	0.59	1.55	0.23	0.23	0.08	-	-	-	-	-	1.55
		Min-2w	0.50	0.40	0.30	0.59	0.08	0.05	0.08	-	-	-	-	-	0.05
	Banryu	Mean	0.17	0.21	0.17	0.18	0.11	0.05	0.05	-	-	-	-	-	0.14
		%	100	100	100	100	100	100	50	0	0	0	0	0	54
		Max-2w	0.21	0.25	0.17	0.18	0.15	0.09	0.05	-	-	-	-	-	0.25
		Min-2w	0.14	0.15	0.16	0.17	0.06	<0.01	0.05	-	-	-	-	-	<0.01
	Yusuhara	Mean	0.04	0.07	0.05	0.06	0.05	0.02	0.03	0.04	0.02	0.05	0.05	0.05	0.05
		%	100	100	100	100	100	100	100	100	100	75	100	100	98
		Max-2w	0.05	0.12	0.05	0.07	0.06	0.03	0.04	0.08	0.02	0.05	0.06	0.08	0.12
		Min-2w	0.03	0.03	0.05	0.06	0.04	<0.01	0.02	0.02	0.01	0.05	0.04	0.02	<0.01
	Hedo	Mean	1.31	0.69	0.64	0.46	0.35	0.40	0.41	0.55	0.70	0.69	0.81	0.86	0.65
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	2.09	0.74	0.72	0.47	0.39	0.44	0.47	0.95	0.81	0.79	0.95	0.95	2.09
		Min-2w	0.54	0.66	0.55	0.44	0.30	0.36	0.35	0.35	0.59	0.60	0.68	0.78	0.30
	Ogasawara	Mean	0.34	0.39	0.35	0.28	0.21	0.13	0.16	0.33	0.35	0.27	0.40	0.47	0.31
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.43	0.47	0.44	0.31	0.26	0.18	0.19	0.39	0.48	0.27	0.44	0.59	0.59
		Min-2w	0.25	0.26	0.25	0.26	0.16	0.09	0.12	0.29	0.21	0.27	0.37	0.35	0.09
	Tokyo	Mean	0.05	0.12	0.13	0.22	0.18	0.12	0.12	0.16	0.08	0.15	0.08	0.06	0.12
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.06	0.14	0.15	0.22	0.24	0.13	0.13	0.23	0.09	0.16	0.10	0.07	0.24
		Min-2w	0.04	0.10	0.12	0.21	0.13	0.11	0.10	0.09	0.08	0.14	0.06	0.06	0.04
Lao PDR	Vientiane	Mean	0.06	0.08	0.09	0.03	0.06	0.03	0.05	0.04	0.02	0.03	0.04	0.05	0.05
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-m	0.06	0.08	0.09	0.03	0.06	0.03	0.05	0.04	0.02	0.03	0.04	0.05	0.09
		Min-m	0.06	0.08	0.09	0.03	0.06	0.03	0.05	0.04	0.02	0.03	0.04	0.05	0.02
Malaysia	Petaling Jaya	Mean	0.06	0.02	0.09	0.07	<0.01	0.02	0.03	0.03	0.05	0.10	0.02	0.01	0.04
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.11	0.04	0.13	0.16	<0.01	0.03	0.10	0.10	0.12	0.12	0.04	0.02	0.16
		Min-w	0.03	<0.01	0.06	0.03	<0.01	<0.01	<0.01	<0.01	<0.01	0.05	<0.01	<0.01	<0.01
	Tanah Rata	Mean	0.02	0.04	0.04	0.04	<0.01	0.02	0.03	0.02	0.03	0.03	<0.01	0.01	0.02
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.03	0.07	0.05	0.09	<0.01	0.04	0.11	0.04	0.08	0.04	0.01	0.03	0.11
		Min-w	<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
	Danum Valley	Mean	0.07	0.06	0.08	0.06	0.03	0.01	<0.01	0.01	0.01	<0.01	0.02	<0.01	0.03
		%	100	61	100	100	100	100	100	100	100	100	100	50	93
		Max-2w	0.10	0.06	0.09	0.08	0.06	0.02	<0.01	0.02	0.01	0.01	0.05	<0.01	0.10
		Min-2w	0.05	0.06	0.06	0.04	<0.01	<0.01	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01

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

Unit : μg/m³			2016												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Mongolia	Ulaanbaatar	Mean	0.03	0.12	<0.01	0.03	0.04	0.04	0.05	0.03	0.06	0.01	0.03	0.05	0.04
		%	90	75	100	100	100	100	100	100	80	100	100	60	92
		Max-w	0.06	0.19	0.02	0.05	0.08	0.09	0.13	0.05	0.18	0.02	0.07	0.11	0.19
		Min-w	<0.01	0.07	<0.01	<0.01	<0.01	0.02	<0.01	0.02	<0.01	<0.01	<0.01	0.02	<0.01
	Terelj	Mean	<0.01	<0.01	<0.01	<0.01	0.01	<0.01	0.01	<0.01	0.01	0.02	0.02	-	0.01
		%	90	100	100	100	100	100	100	100	50	100	100	0	88
		Max-2w	<0.01	<0.01	<0.01	0.01	0.03	0.01	0.02	0.01	0.01	0.04	0.02	-	0.04
		Min-2w	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	<0.01	0.02	-	<0.01
Myanmar	Yangon	Mean	<0.01	<0.01	0.42	<0.01	0.44	0.84	0.07	0.03	0.07	0.10	<0.01	-	0.20
		%	100	100	100	100	100	100	100	100	100	50	33	0	81
		Max-2w	<0.01	<0.01	0.54	<0.01	1.15	1.63	0.07	0.05	0.13	0.10	<0.01	-	1.63
		Min-2w	<0.01	<0.01	0.31	<0.01	<0.01	0.05	0.07	<0.01	0.02	0.10	<0.01	-	<0.01
Philippines	Mt. Sto. Tomas	Mean	<0.01	0.03	0.06	<0.01	0.02	0.01	0.08	0.08	0.08	0.03	0.03	0.06	0.04
		%	100	100	100	100	100	100	100	100	100	79	100	100	98
		Max-w	0.02	0.08	0.08	<0.01	0.06	0.06	0.26	0.13	0.12	0.08	0.07	0.10	0.26
		Min-w	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	<0.01	<0.01	<0.01	<0.01
Republic of Korea	Kanghwa	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
		%	16	17	16	17	16	17	13	16	17	16	17	19	16
		Max-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
		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	-	0.06	0.05	0.02	0.02	0.01	0.03	0.09	0.09	0.05	0.20	0.11	0.07
		%	0	17	16	17	16	17	16	16	17	10	17	16	14
		Max-d	-	0.08	0.07	0.02	0.05	0.03	0.07	0.12	0.11	0.05	0.20	0.11	0.20
		Min-d	-	<0.01	0.05	0.02	<0.01	<0.01	0.01	0.03	0.02	0.05	0.20	0.11	<0.01
	Imsil	Mean	-	0.06	0.05	0.02	0.02	0.03	0.11	0.12	0.12	0.05	0.21	0.12	0.08
		%	0	17	16	17	16	17	16	16	17	16	17	13	15
		Max-d	-	0.08	0.06	0.03	0.03	0.07	0.17	0.14	0.21	0.06	0.22	0.13	0.22
		Min-d	-	<0.01	0.05	0.02	<0.01	<0.01	0.05	0.07	0.08	0.05	0.20	0.11	<0.01
Russia	Mondy	Mean	<0.01	0.04	<0.01	<0.01	<0.01	<0.01	0.03	<0.01	<0.01	0.02	0.02	<0.01	<0.01
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-m	<0.01	0.04	<0.01	<0.01	<0.01	<0.01	0.03	<0.01	<0.01	0.04	0.02	<0.01	0.04
		Min-m	<0.01	0.04	<0.01	<0.01	<0.01	<0.01	0.03	<0.01	<0.01	<0.01	0.02	<0.01	<0.01
	Listvyanka	Mean	0.02	0.06	0.04	<0.01	<0.01	0.07	0.17	0.09	<0.01	0.03	0.03	0.03	0.04
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.04	0.06	0.07	<0.01	<0.01	0.12	0.23	0.16	<0.01	0.07	0.04	0.07	0.23
		Min-w	<0.01	0.05	<0.01	<0.01	<0.01	<0.01	0.12	0.05	<0.01	<0.01	0.01	<0.01	<0.01
	Irkutsk	Mean	0.03	0.08	0.06	0.01	0.01	0.02	0.04	0.05	0.02	0.17	0.07	0.11	0.06
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.06	0.13	0.13	0.02	0.02	0.03	0.08	0.10	0.03	0.54	0.08	0.26	0.54
		Min-w	<0.01	0.02	0.01	<0.01	<0.01	0.01	0.02	0.02	0.02	<0.01	0.06	0.05	<0.01
	Primorskaya	Mean	0.06	<0.01	0.09	0.12	0.09	0.05	<0.01	0.04	0.08	0.13	0.20	<0.01	0.07
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.09	0.01	0.17	0.18	0.10	0.07	0.01	0.07	0.10	0.19	0.39	<0.01	0.39
		Min-2w	0.03	<0.01	0.01	0.07	0.08	0.02	<0.01	0.01	0.06	0.07	0.01	<0.01	<0.01
Thailand	Bangkok	Mean	0.09	0.19	0.27	0.27	0.14	0.04	0.10	0.07	0.07	0.07	0.06	0.09	0.12
		%	90	100	100	100	100	100	100	100	100	100	100	100	99
		Max-10d	0.16	0.29	0.29	0.31	0.15	0.09	0.12	0.12	0.09	0.09	0.07	0.09	0.31
		Min-10d	0.02	0.12	0.26	0.23	0.13	0.02	0.08	0.01	0.05	0.03	0.05	0.08	0.01
	Khanchanaburi (Vachiralongkorn Dam)	Mean	-	-	-	1.01	-	-	-	0.21	-	-	-	0.01	0.41
		%	0	0	0	67	0	0	0	58	0	0	0	45	15
		Max-2w	-	-	-	1.01	-	-	-	0.21	-	-	-	0.01	1.01
		Min-2w	-	-	-	1.01	-	-	-	0.21	-	-	-	0.01	0.01
	Mae Hia	Mean	<0.01	0.05	0.02	0.06	0.10	0.02	0.02	0.01	0.01	-	-	-	0.04
		%	30	97	97	97	97	97	97	97	63	0	0	0	64
		Max-10d	<0.01	0.09	0.02	0.15	0.28	0.04	0.02	0.02	0.02	-	-	-	0.28
		Min-10d	<0.01	0.02	0.02	<0.01	<0.01	<0.01	0.01	<0.01	<0.01	-	-	-	<0.01
	Sakaerat	Mean	1.82	0.95	0.04	0.06	0.03	0.02	0.02	0.04	0.04	-	-	-	0.22
		%	29	100	100	100	100	100	100	100	57	0	0	0	65
		Max-10d	1.82	2.52	0.06	0.08	0.05	0.02	0.03	0.05	0.04	-	-	-	2.52
		Min-10d	1.82	0.15	0.01	0.05	0.01	0.01	<0.01	0.03	0.03	-	-	-	<0.01
Viet Nam	Hanoi	Mean	0.52	0.41	0.44	0.58	0.54	0.46	0.60	0.41	0.46	0.40	0.33	0.73	0.50
		%	75	100	100	100	100	100	75	100	100	100	50	100	92
		Max-w	0.71	0.72	0.58	0.73	0.66	0.85	0.63	0.54	0.52	0.48	0.36	0.97	0.97
		Min-w	0.32	0.07	0.17	0.47	0.37	0.31	0.55	0.28	0.36	0.29	0.30	0.59	0.07
	Hoa Binh	Mean	0.26	0.16	0.28	0.39	0.38	0.16	0.18	0.14	0.20	0.35	0.26	0.26	0.25
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.40	0.31	0.61	0.63	0.58	0.28	0.23	0.20	0.28	0.48	0.41	0.69	0.69
		Min-w	0.11	0.09	0.11	0.26	0.07	0.09	0.12	0.07	0.13	0.25	0.19	0.08	0.07
	Can Tho	Mean	0.08	0.14	0.22	0.28	0.09	0.12	0.13	0.49	0.36	0.10	0.24	0.32	0.22
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.12	0.28	0.46	0.52	0.12	0.36	0.26	0.82	0.55	0.12	0.68	0.78	0.82
		Min-w	0.05	0.04	0.04	0.06	0.07	0.04	0.06	0.16	0.12	0.08	0.08	0.04	0.04
	Ho Chi Minh	Mean	0.54	0.13	0.26	0.32	0.39	0.80	1.15	0.91	1.31	1.08	0.83	0.87	0.72
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.86	0.21	0.53	0.75	0.91	1.27	1.62	1.25	1.61	1.62	1.03	1.39	1.62
		Min-w	0.31	0.02	0.12	0.09	0.08	0.35	0.76	0.61	0.97	0.56	0.52	0.52	0.02
	Yen Bai	Mean	2.22	4.51	2.68	3.11	1.47	2.70	3.34	2.33	1.78	1.45	0.34	1.28	2.26
		%	75	100	100	100	100	100	100	100	100	100	100	100	98
		Max-w	2.89	7.32	4.10	5.19	3.38	3.55	3.93	2.52	3.08	3.17	1.09	1.83	7.32
		Min-w	1.65	1.85	1.68	1.72	<0.01	1.46	2.49	2.11	0.96	0.59	0.01	0.52	<0.01

Terms and abbreviations are given in Table 4.2.

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

Unit : µg/m³			2016												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Cambodia	Phnom Penh	Mean	-	-	-	-	1.51	1.39	1.06	1.33	0.88	0.52	0.99	0.78	1.07
		%	0	0	0	0	97	100	100	100	100	100	100	100	67
		Max-2w	-	-	-	-	1.87	1.60	1.54	1.98	1.28	0.53	1.18	0.98	1.98
		Min-2w	-	-	-	-	1.16	1.18	0.58	0.91	0.48	0.50	0.81	0.57	0.48
China	Hongwen	Mean	1.12	1.47	1.81	1.26	1.29	1.02	1.00	2.06	1.35	0.94	2.12	2.88	1.56
		%	61	100	100	100	100	100	100	100	100	100	100	100	97
		Max-m	1.12	1.47	1.91	1.26	1.29	1.02	1.00	3.40	1.62	1.01	2.34	2.88	3.40
		Min-m	1.12	1.47	1.70	1.26	1.29	1.02	1.00	0.71	1.08	0.86	1.90	2.88	0.71
Indonesia	Jakarta	Mean	0.71	0.67	0.97	0.66	1.36	1.45	-	-	1.12	0.45	0.38	0.37	0.83
		%	100	100	100	100	100	100	0	0	100	44	93	100	78
		Max-2w	0.82	0.87	1.14	1.18	1.37	2.04	-	-	1.16	0.45	0.55	0.53	2.04
		Min-2w	0.59	0.47	0.79	0.14	1.35	0.86	-	-	1.07	0.45	0.21	0.21	0.14
	Serpong	Mean	0.59	0.07	0.30	0.47	0.54	0.80	0.37	0.74	0.18	-	0.46	0.31	0.43
		%	58	100	100	100	100	100	100	100	100	0	100	100	90
		Max-2w	0.59	0.09	0.35	0.49	0.58	0.84	0.38	0.80	0.28	-	0.46	0.42	0.84
		Min-2w	0.59	0.06	0.26	0.45	0.50	0.76	0.36	0.67	0.08	-	0.46	0.19	0.06
	Bandung	Mean	1.62	1.37	1.28	1.15	1.46	1.38	1.07	1.44	1.20	1.36	1.12	0.81	1.28
		%	100	100	100	100	100	100	100	97	100	100	100	100	100
		Max-2w	1.64	1.39	1.35	1.16	1.54	1.38	1.10	1.53	1.36	1.49	1.28	1.02	1.64
		Min-2w	1.61	1.35	1.21	1.14	1.39	1.38	1.04	1.35	1.04	1.23	0.97	0.60	0.60
Japan	Rishiri	Mean	0.05	0.13	0.20	0.20	0.21	0.04	0.04	0.06	0.18	0.17	0.08	0.12	0.12
		%	100	100	100	100	100	100	100	100	46	100	100	100	96
		Max-2w	0.08	0.16	0.28	0.22	0.25	0.04	0.05	0.07	0.18	0.18	0.09	0.17	0.28
		Min-2w	0.03	0.10	0.11	0.17	0.16	0.04	0.03	0.05	0.18	0.16	0.07	0.07	0.03
	Ochiishi	Mean	0.09	0.12	0.24	0.09	0.13	0.07	0.03	0.04	0.16	0.20	0.16	0.08	0.12
		%	100	100	100	53	100	100	100	33	100	100	100	100	88
		Max-2w	0.11	0.17	0.34	0.09	0.13	0.10	0.04	0.04	0.16	0.21	0.20	0.14	0.34
		Min-2w	0.08	0.07	0.14	0.09	0.13	0.05	0.03	0.04	0.15	0.20	0.13	0.03	0.03
	Tappi	Mean	0.15	0.27	0.35	0.62	0.22	0.13	0.07	0.08	0.08	0.27	0.31	0.59	0.24
		%	100	100	100	50	100	100	100	100	100	100	100	100	96
		Max-2w	0.26	0.35	0.47	0.62	0.24	0.14	0.11	0.09	0.09	0.37	0.37	0.93	0.93
		Min-2w	0.04	0.18	0.24	0.62	0.20	0.12	0.04	0.07	0.06	0.18	0.25	0.25	0.04
	Sado-seki	Mean	0.15	0.24	0.34	0.59	0.37	0.13	0.07	0.11	0.06	0.21	0.28	0.26	0.23
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.19	0.26	0.34	0.94	0.56	0.13	0.07	0.16	0.10	0.23	0.37	0.31	0.94
		Min-2w	0.11	0.19	0.33	0.24	0.18	0.12	0.06	0.08	0.01	0.18	0.19	0.22	0.01
	Happo	Mean	0.02	0.11	0.28	0.31	0.20	0.05	0.06	0.04	<0.01	0.10	0.14	0.02	0.10
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.04	0.28	0.37	0.47	0.20	0.06	0.06	0.04	0.01	0.12	0.14	0.03	0.47
		Min-2w	0.01	0.03	0.20	0.16	0.20	0.04	0.05	0.03	<0.01	0.07	0.14	<0.01	<0.01
	Ijira	Mean	0.03	0.09	0.23	0.24	0.28	0.11	0.08	0.13	0.03	0.08	0.09	0.07	0.12
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.03	0.17	0.25	0.25	0.37	0.12	0.10	0.15	0.07	0.11	0.11	0.09	0.37
		Min-2w	0.02	0.05	0.20	0.24	0.19	0.09	0.06	0.11	<0.01	0.05	0.07	0.05	<0.01
	Oki	Mean	0.34	0.23	0.51	0.63	0.38	0.10	0.04	-	-	-	-	-	0.35
		%	100	100	100	100	100	100	54	0	0	0	0	0	54
		Max-2w	0.46	0.24	0.64	0.67	0.56	0.15	0.04	-	-	-	-	-	0.67
		Min-2w	0.21	0.23	0.30	0.60	0.19	0.04	0.04	-	-	-	-	-	0.04
	Banryu	Mean	0.15	0.31	0.29	0.31	0.30	0.05	0.06	-	-	-	-	-	0.23
		%	100	100	100	100	100	100	50	0	0	0	0	0	54
		Max-2w	0.16	0.57	0.29	0.35	0.45	0.10	0.06	-	-	-	-	-	0.57
		Min-2w	0.14	0.15	0.28	0.26	0.15	<0.01	0.06	-	-	-	-	-	<0.01
	Yusuhara	Mean	0.11	0.21	0.18	0.21	0.16	0.03	0.05	0.07	0.02	0.10	0.12	0.13	0.12
		%	100	100	100	100	100	100	100	100	100	75	100	100	98
		Max-2w	0.14	0.46	0.18	0.22	0.22	0.04	0.07	0.10	0.03	0.10	0.14	0.24	0.46
		Min-2w	0.07	0.06	0.18	0.19	0.09	0.02	0.03	0.04	0.01	0.10	0.10	0.02	0.01
	Hedo	Mean	0.63	0.55	0.60	0.35	0.28	0.20	0.18	0.24	0.25	0.26	0.49	0.52	0.38
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.94	0.62	0.61	0.39	0.40	0.21	0.19	0.42	0.27	0.26	0.58	0.65	0.94
		Min-2w	0.31	0.42	0.60	0.32	0.16	0.19	0.18	0.13	0.22	0.26	0.40	0.40	0.13
	Ogasawara	Mean	0.17	0.21	0.21	0.17	0.18	0.07	0.07	0.10	0.10	0.09	0.16	0.16	0.14
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.22	0.29	0.26	0.18	0.26	0.09	0.07	0.12	0.14	0.09	0.16	0.18	0.29
		Min-2w	0.12	0.12	0.16	0.15	0.09	0.05	0.07	0.09	0.07	0.09	0.16	0.15	0.05
	Tokyo	Mean	0.33	0.43	0.45	0.51	0.64	0.39	0.39	0.34	0.23	0.40	0.36	0.40	0.40
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.34	0.47	0.50	0.55	0.73	0.39	0.47	0.39	0.24	0.45	0.41	0.46	0.73
		Min-2w	0.32	0.38	0.40	0.46	0.54	0.39	0.32	0.31	0.22	0.35	0.32	0.34	0.22
Lao PDR	Vientiane	Mean	0.31	0.23	0.28	0.14	0.18	0.28	0.31	0.22	0.10	0.13	0.15	0.31	0.22
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-m	0.31	0.23	0.28	0.14	0.18	0.28	0.31	0.22	0.10	0.13	0.15	0.31	0.31
		Min-m	0.31	0.23	0.28	0.14	0.18	0.28	0.31	0.22	0.10	0.13	0.15	0.31	0.10
Malaysia	Petaling Jaya	Mean	0.48	0.08	0.59	0.63	0.36	0.18	0.44	0.32	0.47	0.94	0.58	0.24	0.44
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.67	0.20	0.75	0.77	0.73	0.30	0.76	0.87	1.22	1.21	0.73	0.55	1.22
		Min-w	0.23	<0.01	0.38	0.43	<0.01	<0.01	<0.01	<0.01	<0.01	0.76	0.32	0.03	<0.01
	Tanah Rata	Mean	0.02	0.05	0.15	0.25	0.06	0.11	0.33	0.16	0.09	0.11	0.05	0.04	0.12
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.04	0.13	0.24	0.40	0.08	0.23	1.23	0.31	0.19	0.16	0.09	0.13	1.23
		Min-w	<0.01	<0.01	0.09	0.04	0.04	0.03	0.01	0.04	<0.01	0.08	0.02	<0.01	<0.01
	Danum Valley	Mean	0.04	0.04	0.07	0.04	0.02	0.03	<0.01	0.01	0.01	0.02	0.02	<0.01	0.03
		%	100	61	100	100	100	100	100	100	100	100	100	50	93
		Max-2w	0.06	0.04	0.10	0.05	0.06	0.05	<0.01	0.02	0.01	0.02	0.03	<0.01	0.10
		Min-2w	0.02	0.04	0.04	0.03	<0.01	<0.01	<0.01	<0.01	0.01	0.01	<0.01	<0.01	<0.01

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

Unit : µg/m^3			2016												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Mongolia	Ulaanbaatar	Mean	0.33	1.41	0.14	0.41	0.60	0.55	0.89	0.36	0.97	0.15	0.45	0.69	0.55
		%	90	75	100	100	100	100	100	100	80	100	100	60	92
		Max-w	0.63	2.03	0.45	0.74	1.33	1.51	2.18	0.75	2.80	0.23	1.15	1.64	2.80
		Min-w	0.07	0.98	0.06	0.09	0.06	0.18	0.08	0.16	0.08	0.08	0.08	0.18	0.06
	Terelj	Mean	0.05	0.03	0.05	0.08	0.44	0.36	0.75	0.27	0.59	0.65	1.08	-	0.40
		%	90	100	100	100	100	100	100	100	50	100	100	0	88
		Max-2w	0.07	0.04	0.06	0.09	0.91	0.62	1.31	0.38	0.59	1.75	1.32	-	1.75
		Min-2w	0.04	0.03	0.05	0.07	0.18	0.10	0.19	0.15	0.59	0.07	0.83	-	0.03
Myanmar	Yangon	Mean	<0.01	<0.01	0.74	0.21	10.43	0.54	0.28	0.02	0.15	0.39	<0.01	-	1.69
		%	100	100	100	100	100	100	100	100	100	50	33	0	81
		Max-2w	0.01	<0.01	1.12	0.41	28.82	0.83	0.39	0.02	0.28	0.39	<0.01	-	28.82
		Min-2w	<0.01	<0.01	0.37	<0.01	0.43	0.25	0.18	0.02	0.01	0.39	<0.01	-	<0.01
Philippines	Mt. Sto. Tomas	Mean	0.15	0.01	0.10	<0.01	0.17	0.22	0.35	0.32	0.21	0.25	0.21	0.21	0.18
		%	100	100	100	100	100	100	100	100	100	79	100	100	98
		Max-w	0.36	0.02	0.25	0.01	0.23	0.29	0.77	0.42	0.37	0.52	0.32	0.30	0.77
		Min-w	0.05	<0.01	<0.01	<0.01	0.04	0.16	0.17	0.24	<0.01	<0.01	0.11	<0.01	<0.01
Republic of Korea	Kanghwa	Mean	0.03	0.02	0.05	0.03	0.01	0.02	0.03	0.02	0.03	<0.01	0.04	0.05	0.03
		%	16	17	16	17	16	17	13	16	17	16	17	19	16
		Max-d	0.07	0.06	0.11	0.08	0.03	0.08	0.05	0.04	0.06	<0.01	0.08	0.10	0.11
		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	-	0.10	0.15	0.06	0.06	0.08	0.09	0.18	0.18	0.02	0.21	0.15	0.12
		%	0	17	16	17	16	17	16	16	17	10	17	16	14
		Max-d	-	0.11	0.30	0.10	0.11	0.15	0.18	0.28	0.28	0.04	0.22	0.18	0.30
		Min-d	-	0.10	0.11	0.04	0.04	0.01	0.03	0.12	0.13	<0.01	0.20	0.14	<0.01
	Imsil	Mean	-	0.10	0.12	0.07	0.05	0.10	0.25	0.16	0.28	0.02	0.22	0.17	0.14
		%	0	17	16	17	16	17	16	16	17	16	17	13	15
		Max-d	-	0.11	0.14	0.09	0.08	0.16	0.38	0.25	0.42	0.03	0.23	0.19	0.42
		Min-d	-	0.10	0.11	0.05	0.03	0.04	0.11	0.12	0.14	<0.01	0.21	0.14	<0.01
Russia	Mondy	Mean	0.12	0.15	<0.01	<0.01	0.03	0.05	0.21	0.02	0.08	0.17	0.10	0.04	0.08
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-m	0.14	0.15	0.01	<0.01	0.06	0.06	0.21	0.03	0.08	0.19	0.10	0.04	0.21
		Min-m	0.09	0.15	<0.01	<0.01	<0.01	0.03	0.21	0.02	0.08	0.15	0.10	0.04	<0.01
	Listvyanka	Mean	0.39	0.28	0.24	0.02	0.03	0.18	0.46	0.25	0.09	0.26	0.19	0.12	0.21
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.69	0.33	0.51	0.02	0.04	0.30	0.60	0.40	0.22	0.63	0.30	0.29	0.69
		Min-w	0.09	0.21	<0.01	0.01	0.02	0.03	0.35	0.17	0.02	0.03	0.07	0.03	<0.01
	Irkutsk	Mean	0.55	0.48	0.33	0.07	0.08	0.17	0.32	0.43	0.19	0.78	0.48	0.66	0.38
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.89	0.72	0.51	0.12	0.14	0.32	0.56	0.84	0.22	1.45	0.53	0.90	1.45
		Min-w	0.09	0.32	0.07	0.04	0.03	0.09	0.20	0.19	0.16	0.02	0.39	0.37	0.02
	Primorskaya	Mean	0.39	0.05	0.59	0.88	0.66	0.36	0.09	0.28	0.21	0.17	0.30	0.05	0.34
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.54	0.06	1.10	1.30	0.70	0.55	0.10	0.50	0.34	0.26	0.56	0.10	1.30
		Min-2w	0.24	0.05	0.09	0.47	0.63	0.17	0.07	0.06	0.08	0.08	0.05	<0.01	<0.01
Thailand	Bangkok	Mean	0.69	1.53	1.35	0.94	0.90	0.36	0.88	0.54	0.81	0.92	1.26	1.91	1.01
		%	90	100	100	100	100	100	100	100	100	100	100	100	99
		Max-10d	1.13	1.80	1.52	0.99	1.07	0.89	1.05	0.84	0.87	1.38	1.45	2.12	2.12
		Min-10d	0.06	1.16	1.08	0.92	0.76	0.02	0.74	0.10	0.71	0.48	1.08	1.76	0.02
	Khanchanaburi (Vachiralongkorn Dam)	Mean	-	-	-	3.24	-	-	-	1.69	-	-	-	0.02	1.65
		%	0	0	0	67	0	0	0	58	0	0	0	45	15
		Max-2w	-	-	-	3.24	-	-	-	1.69	-	-	-	0.02	3.24
		Min-2w	-	-	-	3.24	-	-	-	1.69	-	-	-	0.02	0.02
	Mae Hia	Mean	0.78	0.47	0.26	0.54	0.87	0.35	0.35	0.15	0.21	-	-	-	0.42
		%	30	97	97	97	97	97	97	97	63	0	0	0	64
		Max-10d	0.78	0.83	0.37	0.99	2.26	0.48	0.49	0.19	0.33	-	-	-	2.26
		Min-10d	0.78	0.18	0.17	0.22	0.09	0.12	0.26	0.11	0.08	-	-	-	0.08
	Sakaerat	Mean	1.57	0.53	0.11	0.21	0.07	0.11	0.23	0.52	0.25	-	-	-	0.31
		%	29	100	100	100	100	100	100	100	57	0	0	0	65
		Max-10d	1.57	0.90	0.12	0.31	0.12	0.25	0.46	0.86	0.34	-	-	-	1.57
		Min-10d	1.57	0.22	0.10	0.11	<0.01	<0.01	<0.01	0.33	0.16	-	-	-	<0.01
Viet Nam	Hanoi	Mean	4.99	3.30	3.67	4.97	5.32	4.70	5.56	5.18	5.40	3.43	3.93	6.25	4.76
		%	75	100	100	100	100	100	75	100	100	100	50	100	92
		Max-w	5.77	5.22	4.48	5.74	6.85	6.80	5.87	7.67	6.36	3.89	4.62	6.59	7.67
		Min-w	3.64	0.65	1.61	3.90	3.29	2.97	5.08	3.70	4.23	2.83	3.25	5.69	0.65
	Hoa Binh	Mean	2.50	1.35	2.49	3.79	3.45	1.33	1.69	1.69	2.05	1.26	1.56	1.48	2.04
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	3.14	2.41	4.26	5.41	5.17	2.36	1.97	2.19	3.41	1.71	2.47	4.06	5.41
		Min-w	1.07	0.71	1.28	2.69	0.66	0.58	1.06	1.13	1.28	1.09	1.20	0.19	0.19
	Can Tho	Mean	0.65	0.82	1.67	2.40	2.92	1.22	0.86	3.97	3.14	1.46	0.85	0.95	1.74
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.86	1.24	2.75	3.77	3.97	1.52	1.06	5.63	4.52	2.16	1.02	1.34	5.63
		Min-w	0.36	0.40	0.55	0.92	1.38	0.89	0.68	1.79	1.23	0.77	0.67	0.45	0.36
	Ho Chi Minh	Mean	0.90	0.35	0.54	1.41	1.68	1.67	2.05	1.94	2.72	2.85	2.60	2.53	1.78
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	1.29	0.58	0.81	2.25	2.23	2.63	2.46	2.58	3.56	3.72	3.25	3.29	3.72
		Min-w	0.62	0.08	0.38	0.57	1.29	0.98	1.63	0.98	1.97	1.98	1.89	1.85	0.08
	Yen Bai	Mean	0.11	0.29	0.17	0.27	0.16	0.14	0.16	0.14	0.19	0.19	0.06	0.12	0.17
		%	75	100	100	100	100	100	100	100	100	100	100	100	98
		Max-w	0.13	0.38	0.26	0.43	0.30	0.20	0.19	0.18	0.23	0.21	0.09	0.18	0.43
		Min-w	0.10	0.15	0.13	0.15	0.03	0.08	0.11	0.12	0.15	0.17	0.04	0.08	0.03

Terms and abbreviations are given in Table 4.2.

Table 4.21 Annual SO_2 concentration from 2000 to 2016

unit: ppb

Country	Site	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Cambodia	Phnom Penh											1.8	1.5	1.3	1.1	0.8	0.5	0.6
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	3.3
	Weishuiyuan	6.2	5.1	4.6	3.8	8.9	11.7	15.4										
	Hongwen	5.9	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	3.3
	Xiang Zhou	7.9	10.0	9.4	10.1	8.2	6.3	8.2	6.3	6.6	5.9	5.9	5.6					
	Haibin - Park													3.2	3.9	3.9	3.1	3.8
Indonesia	Jakarta								11.0	7.4	8.3	6.3	5.0	5.7	5.3	5.6	5.4	2.5
	Serpong	2.2	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	0.7
	Kototabang								3.3	6.3	7.9	11.7	2.2	***	1.8	3.5	6.7	2.0
	Bandung									2.7	4.7	4.2	4.0	4.0	4.0	4.4	1.3	1.9
Japan	Rishiri	<0.1	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	0.2
	Ochiishi									0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.1	0.2
	Tappi	0.3	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	0.3
	Sado-seki	0.2	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	0.2
	Happo	0.2	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	0.2
	Ijira	0.1	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	0.1
	Oki	0.3	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	0.3
	Banryu	0.5	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	0.3
	Yusuhara	0.6	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	0.6
	Hedo	0.2	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	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	<0.1	<0.1
	Tokyo								2.2	2.2	2.0	1.8	1.6	1.4	1.6	1.5	1.3	1.3
Lao PDR	Vientiane																0.4	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	1.2
	Tanah Rata	<0.1	<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	<0.1
	Danum Valley							0.1	0.1	<0.1	0.1	<0.1	<0.1	0.1	0.2	<0.1	<0.1	<0.1
Mongolia	Ulaanbaatar	1.5	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	10.0
	Terelj	0.4	0.5	0.3	0.4	0.5	0.5	0.5	1.4	0.5	0.7	0.6	0.7	***	***	***	***	0.6
Myanmar	Yangon												1.6	2.9	1.3	1.2	0.5	0.4
Philippines	Metro Manila	4.8	4.2	4.3	4.4	3.4	3.1	2.1	2.7	1.2	***	2.2	***	***	***	***	***	***
	Los Banos	0.8	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	0.2
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	2.8
	Cheju			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	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	1.7
Russia	Mondy	<0.1	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	<0.1
	Listvyanka	1.0	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	4.1
	Irkutsk	3.4	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	5.5
	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	0.8
Thailand	Bangkok	4.2	2.8	2.5	2.4	3.3	8.8	4.1	0.8	2.1	1.9	1.6	1.6	1.5	1.9	1.4	0.6	0.8
	Samutprakarn	4.1	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	2.0
	Pathumthani				2.4	1.3	1.6	2.7	1.8	0.5	1.1	1.2	0.6	***	***	***	***	***
	Khanchanaburi	1.0	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	1.7
	Mae Hia		0.5	0.5	0.3	0.5	0.4	0.8	0.3	0.3	0.3	0.3	0.3	0.2	0.2	<0.1	<0.1	0.2
	Chang Phueak				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	0.8
	Si Phum														1.4	1.7	1.4	1.1
	Sakaerat							0.3	0.4	0.2	0.2	0.2	0.2	0.3	0.2	0.4	0.4	0.4
	Nai Mueang									2.7	***	1.3	1.4	1.1	1.2	1.0	2.9	3.2
Vietnam	Hanoi	0.8	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	1.8
	Hoa Binh	0.9	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	1.3
	Can Tho															1.2	1.0	0.3
	Ho Chi Minh															1.6	1.5	0.5
	Yen Bai																4.2	1.5

Terms and abbreviations are given in Table 4.2.

Table 4.22 Annual HNO_3 concentration from 2000 to 2016

unit: ppb

Country	Site	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Cambodia	Phnom Penh											0.3	0.3	0.3	0.5	0.4	0.5	0.4
China	Hongwen								0.9	1.7	1.1	1.0	2.1	***	***	***	***	1.2
Indonesia	Jakarta															3.1	1.4	1.0
	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	0.8
	Bandung															0.7	0.5	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	<0.1
	Ochiishi									<0.1	<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	<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	0.2
	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	0.2
	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	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	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	0.2
	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	0.2
	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	<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
	Tokyo								1.1	1.0	0.8	0.8	0.6	0.6	0.8	0.8	0.7	0.6
Lao PDR	Vientiane																0.3	0.2
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	0.4
	Tanah Rata	<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	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	<0.1
Mongolia	Ulaanbaatar	0.2	0.1	<0.1	0.2	<0.1	<0.1	0.1	0.2	0.2	0.2	0.3	0.2	***	***	***	***	0.1
	Terelj	<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
Myanmar	Yangon												0.4	0.4	0.3	0.2	0.2	0.2
Philippines	Metro Manila	0.7	0.3	0.2	0.4	0.5	0.4	0.3	0.4	0.4	***	0.2	***	***	***	***	***	***
	Los Banos	0.3	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	<0.1
Republic of Korea	Kanghwa				0.2	0.3	***	0.4	0.7	0.5	0.5	0.4	***	***	0.4	0.5	0.3	0.4
	Cheju				0.2	0.9	***	0.5	***	0.7	0.6	0.5	***	***	0.4	0.8	0.5	0.6
	Imsil		0.5	***	1.7	0.4	***	0.6	0.4	0.4	0.5	0.3	***	***	0.6	0.6	0.4	0.7
Russia	Mondy	<0.1	<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	<0.1
	Listvyanka	0.2	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	0.1
	Irkutsk	<0.1	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	<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	0.3
Thailand	Bangkok				0.7	0.8	0.5	1.0	0.5	0.5	0.5	0.6	0.5	0.6	0.4	0.9	0.7	0.4
	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	1.7
	Mae Hia		0.2	0.2	0.2	0.4	0.4	0.2	0.5	0.4	0.7	1.9	0.1	0.2	0.2	<0.1	<0.1	0.2
	Sakaerat							0.3	0.3	0.2	0.2	0.2	<0.1	0.2	<0.1	0.3	0.3	0.4
Vietnam	Hanoi	0.6	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	0.9
	Hoa Binh	0.5	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	0.7
	Can Tho															0.5	0.4	0.2
	Ho Chi Minh															0.6	0.6	0.2
	Yen Bai																0.7	0.6

Terms and abbreviations are given in Table 4.2.

Table 4.23 Annual HCl concentration from 2000 to 2016

unit: ppb

Country	Site	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Cambodia	Phnom Penh											0.5	0.4	0.7	1.3	1.1	1.3	1.2
China	Hongwen								1.5	1.2	1.5	14.5	13.3	***	***	***	***	1.8
Indonesia	Jakarta															3.2	1.9	0.9
	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	0.7
	Bandung															0.8	0.5	1.1
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	0.4
	Ochiishi									0.4	0.4	0.4	0.6	0.6	0.5	0.4	0.8	0.4
	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	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	0.7
	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	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	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	0.8
	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	0.6
	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	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	1.0
	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	0.4
	Tokyo								1.0	0.8	0.8	0.7	0.8	0.7	0.8	0.7	0.8	0.7
Lao PDR	Vientiane																0.3	0.2
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	2.8
	Tanah Rata	0.1	<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	0.7
	Danum Valley							0.2	0.2	0.3	0.5	0.3	0.2	0.5	1.0	0.4	0.3	0.3
Mongolia	Ulaanbaatar	0.3	0.1	0.4	1.0	0.9	0.7	1.0	0.9	0.7	0.7	1.7	1.1	***	***	***	***	11.3
	Terelj	0.1	<0.1	0.3	0.7	0.6	0.4	0.4	0.5	0.4	0.3	0.5	0.5	***	***	***	***	4.3
Myanmar	Yangon												1.5	1.5	0.6	0.7	0.7	0.2
Philippines	Metro Manila	5.4	0.3	0.9	1.2	1.0	0.9	0.5	0.7	0.7	***	0.8	***	***	***	***	***	***
	Los Banos	1.5	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	<0.1
Republic of Korea	Kanghwa				0.3	0.1	***	0.2	0.2	<0.1	0.1	0.2	***	***	0.3	0.2	0.1	<0.1
	Cheju				0.1	0.9	***	0.2	***	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	0.2
Russia	Mondy	<0.1	<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	1.6
	Listvyanka	0.3	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	9.0
	Irkutsk	0.3	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	3.2
	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	0.8
Thailand	Bangkok				0.7	0.8	1.5	1.5	0.7	0.8	0.9	0.7	0.7	0.7	0.6	1.2	0.7	1.5
	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	1.4
	Mae Hia		0.9	0.4	0.2	0.3	0.4	0.5	0.2	0.2	0.3	0.4	0.3	0.3	0.2	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	0.4
Vietnam	Hanoi	0.8	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	3.3
	Hoa Binh	0.1	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	2.4
	Can Tho															1.7	1.4	1.2
	Ho Chi Minh															1.6	1.1	1.5
	Yen Bai																2.4	2.4

Terms and abbreviations are given in Table 4.2.

Table 4.24 Annual NH_3 concentration from 2000 to 2016

unit: ppb

Country	Site	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Cambodia	Phnom Penh											14.3	11.5	9.9	9.4	6.9	7.3	6.8
China	Hongwen								7.9	8.1	11.2	12.2	9.5	***	***	***	***	10.7
Indonesia	Jakarta															38.3	13.7	10.5
	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	11.1
	Bandung															8.4	9.4	6.6
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	0.4
	Ochiishi									0.6	1.0	0.4	0.4	0.4	0.3	0.4	0.3	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	0.4
	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	0.6
	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	0.5
	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	0.8
	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	0.9
	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	1.0
	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	0.6
	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	1.2
	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	0.5
	Tokyo								6.1	5.2	5.0	4.9	4.4	3.9	4.6	4.6	4.2	4.2
Lao PDR	Vientiane																2.6	2.7
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	11.2
	Tanah Rata	0.5	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	2.3
	Danum Valley							1.2	0.9	0.9	1.9	1.5	0.9	0.7	3.8	1.2	1.4	1.4
Mongolia	Ulaanbaatar	8.4	7.3	9.8	11.3	9.2	9.2	10.3	10.4	10.7	7.4	14.8	8.7	***	***	***	***	***
	Terelj	1.0	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	7.1
Philippines	Metro Manila	<0.1	7.1	10.0	9.3	9.1	12.5	3.8	6.6	9.2	***	7.5	***	***	***	***	***	***
	Los Banos	<0.1	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	1.9
Republic of Korea	Kanghwa				14.1	13.7	***	4.8	9.7	3.4	3.2	4.6	***	***	7.4	3.7	4.3	0.8
	Cheju				1.4	1.1	***	***	***	3.7	4.9	7.0	***	***	3.2	6.9	7.5	4.0
	Imsil		4.9	***	4.6	6.0	***	5.9	5.0	5.0	6.0	6.5	***	***	3.0	6.3	5.6	4.3
Russia	Mondy	0.6	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	1.5
	Listvyanka	1.1	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	3.9
	Irkutsk	1.8	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	3.0
	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	2.5
Thailand	Bangkok				5.8	10.2	7.8	10.1	10.2	8.2	8.7	7.9	8.8	8.3	8.7	14.6	9.2	9.7
	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	7.9
	Mae Hia		6.5	5.0	6.9	4.9	3.0	3.2	4.7	3.8	5.8	9.0	5.3	4.4	3.5	1.5	0.9	5.0
	Sakaerat							2.8	2.4	2.6	2.3	2.0	1.8	3.3	2.9	3.5	3.9	4.6
Vietnam	Hanoi	9.6	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	4.3
	Hoa Binh	6.8	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	1.3
	Can Tho															2.6	2.5	3.3
	Ho Chi Minh															3.0	2.8	4.3
	Yen Bai																2.9	2.8

Terms and abbreviations are given in Table 4.2.

Table 4.25 Annual NO concentration from 2000 to 2016

unit: ppb

Country	Site	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
China	Jinyunshan						1.0	2.6	1.5	6.7	3.3	2.0	1.6	2.1	1.6	1.7	1.5	3.3
	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	<0.1	<0.1
	Ochiishi									<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Tappi	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	<0.1	0.2
	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	<0.1	<0.1
	Happo	<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	<0.1	<0.1
	Ijira	0.1	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	0.3
	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	<0.1	0.2	<0.1	<0.1
	Banryu	0.1	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	0.2
	Yusuhara	0.2	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	<0.1
	Hedo	<0.1	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	<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	<0.1	<0.1
Lao PDR	Vientian															8.4	10.9	***
Malaysia	Tanah Rata								10.1	***	***	***	***	***	***	***	***	***
Mongolia	Ulannbaatar															21.8	27.8	22.7
Philippines	Metro Manila																17.6	13.9
Thailand	Bangkok		25.0	21.6	***	15.3	11.7	11.1	11.5	13.6	11.6	8.8	10.3	9.5	8.5	6.5	6.2	5.0
	Samutprakarn	23.0	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	8.5
	Khanchanaburi	<0.1	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	0.1
	ChangPhueak				7.2	3.0	2.9	2.5	3.1	2.0	2.1	3.0	2.0	4.3	1.9	2.3	3.5	2.8
	Si Phum														6.9	7.0	11.8	13.5
	Nai Mueang									5.9	***	15.3	16.5	15.6	15.4	11.7	11.3	13.6

Terms and abbreviations are given in Table 4.2.

Table 4.26 Annual NO_2 concentration from 2000 to 2016

unit: ppb

Country	Site	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
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	14.8	16.1
	Xiang Zhou		18.6	24.2	22.1	21.0	18.8	20.7	19.5	21.1	15.4	17.0	18.6					
	Haibin - Park													13.8	17.6	18.7	15.6	16.9
Indonesia	Jakarta								4.2	32.8	48.5	31.2	***	16.3	26.5	25.9	25.7	26.5
	Serpong	6.3																
	Kototabang								0.7	1.9	3.5	0.5	***	***	2.5	0.7	1.2	1.0
	Bandung									11.3	13.3	31.5	39.0	42.8	41.0	40.6	54.4	74.6
Japan	Banryu	3.8	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	1.8
Lao PDR	Vientiane															10.0	11.4	***
Malaysia	Petaling Jaya		26.6	29.4	30.9													
Mongolia	Ulannbaatar															26.9	30.3	35.9
Philippines	Metro Manila																15.5	12.9
Republic of Korea	Kanghwa								5.3	6.9	7.1	6.4	5.4	5.0	5.7	5.9	7.4	6.8
	Cheju								4.3	2.9	3.1	4.1	4.4	3.0	3.4	3.3	3.7	3.1
	Imsil								4.2	4.1	4.5	5.1	5.0	4.6	5.1	4.0	4.4	4.6
Thailand	Bangkok		25.3	28.5	***	23.8	21.8	23.6	16.4	20.5	23.6	21.2	24.5	24.7	25.3	20.3	14.4	16.1
	Samutprakarn	18.4	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	13.4
	ChangPhueak				14.9	10.9	7.6	8.3	9.7	8.5	8.8	9.5	9.6	11.2	12.3	11.2	10.2	9.3
	Si Phum														16.1	14.9	18.1	18.9
	Nai Mueang									11.0	***	17.9	17.6	18.7	19.4	15.6	15.0	17.7

Terms and abbreviations are given in Table 4.2.

Table 4.27 Annual NOx concentration from 2000 to 2016

unit: ppb

Country	Site	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
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	13.5
	Weishuiyuan (NOx*)						14.7	26.8										
Japan	Rishiri (NOx*)	0.7	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	0.6
	Ochiishi (NOx*)									1.0	1.1	1.0	1.1	1.0	0.8	0.9	0.9	0.9
	Tappi (NOx*)	0.9	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	1.4
	Sado-seki (NOx*)	0.9	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	0.7
	Happo (NOx*)	1.9	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	0.7
	Ijira (NOx*)	2.1	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	1.6
	Oki (NOx*)	1.2	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	1.0
	Banryu	3.9	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	1.9
	Yusuhara (NOx*)	1.9	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	1.3
	Hedo (NOx*)	0.6	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	0.6
	Ogasawara (NOx*)	0.3	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	0.3
Lao PDR	Vientiane															18.4	22.4	***
Malaysia	Tanah Rata (NOx*)								12.2	***	***	***	***	***	***	***	***	***
Mongolia	Ulannbaatar															48.7	58.2	58.6
Philippines	Metro Manila																33.2	26.9
Thailand	Bangkok		50.7	50.3	43.7	37.9	33.4	34.6	28.1	34.4	35.2	30.2	35.0	34.5	34.0	27.0	20.6	21.2
	Samutprakarn	40.4	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	21.8
	Khanchanaburi (NOx*)	2.5	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	2.7
	Chang Phuseak				22.1	13.9	10.2	10.4	12.6	10.4	10.8	12.5	11.6	15.5	14.2	13.5	13.7	12.1
	Si Phum														23.0	21.9	29.8	32.3
	Nai Mueang									16.9	***	33.2	34.0	34.2	34.6	27.3	26.2	31.3

Terms and abbreviations are given in Table 4.2.

Table 4.28 Annual O_3 concentration from 2000 to 2016

unit: ppb

Country	Site	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Indonesia	Bandung																26	10
Japan	Rishiri	39	39	41	43	43	42	43	46	42	42	40	37	34	37	39	40	39
	Ochiishi									38	37	38	35	39	39	42	40	38
	Tappi	47	46	46	45	47	51	51	54	60	***	***	38	41	40	39	38	41
	Sado-seki	44	41	43	49	49	48	48	48	47	49	53	49	46	46	47	45	45
	Happo	53	54	55	56	56	58	59	(63)	50	52	48	53	49	49	48	48	47
	Ijira	30	30	24	30	27	23	17	35	20	21	19	20	24	26	28	26	25
	Oki	45	44	40	39	45	45	44	45	45	46	45	46	46	48	47	47	46
	Banryu	36	36	37	36	37	37	34	34	35	36	35	33	33	33	33	33	33
	Yusuhara	39	29	29	33	39	43	42	40	40	41	36	33	34	39	40	40	37
	Hedo	41	41	42	39	32	35	40	38	39	39	38	33	35	38	40	39	36
	Ogasawara	22	27	29	30	30	33	31	32	28	30	38	29	32	37	33	35	29
Malaysia	Tanah Rata								15	***	***	***	***	***	***	***	***	***
Mongolia	Ulannbaatar															12	13	12
Philippines	Metro Manila																7	10
Republic of Korea	Kanghwa			42	43	40	41	27	43	41	43	43	39	44	46	50	47	45
	Cheju			41	28	38	40	35	38	42	44	42	35	39	41	45	46	39
	Imsil			31	22	24	30	30	30	20	33	30	30	33	31	31	36	36
Russia	Mondy 1)			44	42	45	42	45	39	35	45	44	40	38	38	35	40	43
	Listvyanka															39	39	35
	Irktusk																	30
Thailand	Bangkok									10	17	17	19	17	21	19	43	21
	Samutprakarn		4	12	17	13	14	14	14	18	18	15	17	19	20	22	23	16
	Khanchanaburi	20	10	14	***	15	17	10	7	16	14	23	12	16	13	22	20	19
	ChangPhueak				13	22	20	19	23	22	26	24	25	21	21	20	22	25
	Si Phum														22	19	***	***
	Nai Mueang									22	***	17	***	19	22	22	21	22

Terms and abbreviations are given in Table 4.2.

1) O_3 at Mondy was monitored with Passive sampler from Nov. 2015 to Apr.2016 tentatively.

Table 4.29 Annual PM_{10} concentration from 2000 to 2016

unit: $\mu g/m^3$

Country	Site	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
China	Jinyunshan		96	73	70	64	60	78	65	50	40	51	45	43	64	57	48	56
	Weishuiyuan		123	138	112	128	118	121										
	Hongwen		61	62	68	64	66	97	71	59	60	63	61	59	58	54	43	42
	Xiang Zhou		51	48	56	48	40	47	50	51	48	48	49					
	Haibin -Park													44	54	46	50	41
Japan	Rishiri	16	18	18	16	17	14	15	14	16	16	18	15	13	12	26	19	16
	Ochiishi									30	24	22	23	20	16	26	22	18
	Tappi	64	19	26	16	20	19	18	17	22	16	28	18	17	18	20	20	18
	Sado-seki	24	25	27	22	28	24	24	22	23	22	21	21	19	20	23	24	20
	Happo	13	14	12	10	15	15	13	12	14	12	12	12	11	11	12	10	10
	Ijira	24	22	24	20	21	21	22	22	20	18	18	19	16	18	17	17	16
	Oki	26	29	31	23	27	28	30	29	26	26	29	25	23	27	31	32	29
	Banryu	29	31	35	25	29	29	31	31	27	26	28	24	22	25	25	24	22
	Yusuhara	15	22	22	18	20	20	20	19	18	18	18	16	15	17	15	16	14
	Hedo		46	48	26	34	35	37	29	27	28	31	28	27	26	27	31	28
	Ogasawara	11	12	13	11	13	12	13	13	10	12	12	10	11	12	11	18	19
Lao PDR	Vientiane															72	72	***
Malaysia	Petaling Jaya	37	***	39	41													
Mongolia	Ulannbaatar															211	106	97
Philippines	Metro Manila																33	29
Republic of Korea	Kanghwa			53	56	54	58	46	52	48	51	51	44	45	48	49	52	51
	Cheju			43	41	36	39	51	54	50	43	47	42	37	45	47	45	42
	Imsil			57	42	44	54	57	43	59	34	40	38	36	39	44	43	42
Thailand	Bangkok	56	49	***	***	51	43	44	45	43	39	38	38	37	41	37	32	35
	Samutprakarn									45	43	38	54	39	44	41	35	38
	Khanchanaburi	38	21	79	***	41	60	37	31	37	28	46	23	10	28	90	23	34
	ChangPhueak				48	59	51	41	52	38	42	45	33	42	41	45	43	48
	Si Phum														47	47	49	52
	Nai Mueang									47	***	44	***	54	59	51	45	55

Terms and abbreviations are given in Table 4.2.

Table 4.30 Annual $PM_{2.5}$ concentration from 2000 to 2016

unit: µg/m^3

Country	Site	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Indonesia	Jakarta																	***
Japan	Rishiri		9	8	10	8	8	8	8	9	8	9	8	8	7	8	8	7
	Ochiishi									16	12	12	10	9	7	7	9	8
	Tappi																10	9
	Sadoseki															11	10	10
	Happo																7	6
	Ijira																11	9
	Oki		12	14	12	13	15	15	15	14	12	12	14	13	15	13	13	12
	Banryu																13	12
	Yuahara																11	10
	Hedo																10	10
	Ogasawara																7	6
Myanmar	Mandalay																47	33
Mongoloa	Ulaanbaatar															50	50	53
Philippines	Metro Manila																22	20
Republic of Korea	Kanghwa																	28
	Cheju																	21
Thailand	Bangkok																18	23
	Samutprakarn																	28
	Khanchanaburi																24	***
	ChangPhueak																	24
	Si Phum														35	33	33	32
Vietnam	Hoa Binh																40	49

Terms and abbreviations are given in Table 4.2.

Table 4.31 Annual SO_4^{2-} in PM concentration from 2000 to 2016

unit: μg/m³

Country	Site	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Cambodia	Phnom Penh											2.85	2.95	2.63	2.91	2.11	2.20	1.54
China	Hongwen								10.58	13.38	12.72	14.10	17.60	***	***	***	***	10.92
Indonesia	Jakarta															11.44	6.76	3.53
	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	3.41
	Bandung															6.93	2.69	2.73
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	2.05
	Ochiishi									2.73	2.61	2.31	2.13	1.95	2.19	2.52	2.05	1.98
	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	3.08
	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	2.88
	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	1.80
	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	2.91
	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	4.84
	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	4.24
	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	3.29
	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	4.57
	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	1.93
	Tokyo								5.36	5.15	4.62	4.28	4.06	3.14	4.38	4.11	3.79	3.16
Lao PDR	Vientiane																4.75	3.77
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	2.96
	Tanah Rata	1.20	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	2.01
	Danum Valley							0.69	0.76	1.12	3.64	1.73	0.86	0.38	0.78	1.11	1.80	1.10
Mongolia	Ulaanbaatar	2.1	2.5	1.8	3.59	3.63	5.10	5.68	4.20	1.33	2.24	4.70	4.11	***	***	***	***	2.10
	Terelj	1.1	1.5	0.7	0.78	1.24	0.85	1.40	1.41	1.42	1.07	0.61	1.06	***	***	***	***	1.70
Myanmar	Yangon												3.77	3.59	1.40	1.56	0.90	0.54
Philippines	Metro Manila	2.0	1.9	2.3	3.74	3.19	3.31	2.63	3.15	2.37	***	1.43	***	***	***	***	***	***
	Los Banos	0.5	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	0.30
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	6.11
	Cheju		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	4.75
	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	5.07
Russia	Mondy	0.5	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	0.45
	Listvyanka	1.4	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	0.88
	Irkutsk	2.4	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	2.03
	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	2.23
Thailand	Bangkok				3.63	3.75	2.13	4.71	2.97	2.65	2.71	3.63	3.31	2.26	2.80	4.38	2.64	4.10
	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	15.58
	Mae Hia		0.9	2.0	2.11	4.21	1.11	2.22	2.60	1.75	1.97	1.29	1.34	1.12	0.39	0.10	0.08	0.86
	Sakaerat							3.64	4.80	3.78	3.44	2.12	2.74	2.44	2.89	3.31	2.70	2.79
Vietnam	Hanoi	1.1	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	8.84
	Hoa Binh	2.3	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	5.78
	Can Tho															1.40	1.22	1.42
	Ho Chi Minh															2.08	2.42	2.15
	Yen Bai																8.68	6.49

The reporting limits for the components in the particulate matters 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 2000 to 2016

unit: μg/m³

Country	Site	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Cambodia	Phnom Penh											1.32	1.27	1.20	1.18	1.22	2.03	1.37
China	Hongwen								5.81	8.10	7.98	11.66	11.66	***	***	***	***	7.62
Indonesia	Jakarta															4.67	2.37	1.34
	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	0.82
	Bandung															1.92	1.19	1.00
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	0.63
	Ochiishi									0.71	0.67	0.55	0.67	0.43	0.42	0.71	0.57	0.67
	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	1.23
	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	1.02
	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	0.39
	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	0.46
	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	2.10
	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	1.67
	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	0.54
	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	1.59
	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	0.52
	Tokyo								3.86	4.03	3.85	3.80	3.76	2.73	3.13	3.13	3.55	3.19
Lao PDR	Vientiane																0.47	0.40
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	1.46
	Tanah Rata	0.20	<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	0.26
	Danum Valley							0.05	0.04	0.06	0.21	0.36	0.04	0.08	0.09	0.11	0.11	0.10
Mongolia	Ulaanbaatar	0.9	1.4	1.0	1.71	1.53	1.61	1.74	1.66	0.90	0.93	1.25	1.81	***	***	***	***	0.10
	Terelj	0.2	0.2	0.2	0.16	0.15	0.18	0.19	0.71	0.65	0.24	0.11	0.29	***	***	***	***	<0.01
Myanmar	Yangon												0.31	0.92	0.54	0.33	0.44	0.48
Philippines	Metro Manila	0.7	1.1	0.9	2.26	1.77	1.11	1.03	1.27	0.99	***	0.85	***	***	***	***	***	***
	Los Banos	0.2	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	0.14
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	3.25
	Cheju		<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	0.75
	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	1.17
Russia	Mondy	<0.1	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	0.01
	Listvyanka	0.5	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	0.20
	Irkutsk	0.8	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	0.67
	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	0.77
Thailand	Bangkok				1.51	1.93	2.83	1.60	1.51	1.44	1.62	1.86	2.00	1.91	1.41	2.77	2.20	1.98
	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	0.83
	Mae Hia		0.7	0.2	0.28	0.47	0.38	0.67	0.62	0.36	0.66	10.25	0.24	0.31	0.30	0.11	0.13	0.18
	Sakaerat							0.52	0.48	0.41	0.34	0.18	0.31	0.28	0.41	0.58	0.32	0.30
Vietnam	Hanoi	0.3	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	6.58
	Hoa Binh	0.5	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	3.21
	Can Tho															0.67	0.55	0.66
	Ho Chi Minh															1.09	1.07	2.06
	Yen Bai																3.19	4.36

The reporting limits for the components in the particulate matters 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 2000 to 2016

unit: $\mu g/m^3$

Country	Site	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Cambodia	Phnom Penh											0.20	0.24	0.24	0.40	0.26	0.54	0.56
China	Hongwen								2.07	1.85	1.73	2.28	1.51	***	***	***	***	0.99
Indonesia	Jakarta															1.35	0.51	0.41
	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	0.29
	Bandung															0.31	0.27	0.20
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	2.21
	Ochiishi									4.44	6.88	4.34	3.28	3.06	4.58	4.12	4.46	3.89
	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	5.79
	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	3.77
	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	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	0.06
	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	5.25
	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	0.78
	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	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	7.53
	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	3.83
	Tokyo								0.62	0.63	0.68	0.66	0.70	0.49	0.59	0.53	0.53	0.57
Lao PDR	Vientiane																0.06	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	0.21
	Tanah Rata	<0.1	<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	0.09
	Danum Valley							0.04	0.02	0.04	0.15	0.33	0.04	0.02	0.11	0.13	0.11	0.07
Mongolia	Ulaanbaatar	0.5	0.7	0.4	0.82	1.02	1.06	1.25	0.87	0.47	1.84	1.06	1.18	***	***	***	***	0.08
	Terelj	<0.1	0.2	<0.1	0.20	0.18	0.30	0.19	0.36	0.24	0.22	0.18	0.23	***	***	***	***	0.02
Myanmar	Yangon												0.59	0.56	0.21	0.27	0.63	0.57
Philippines	Metro Manila	2.6	0.5	0.5	0.86	0.77	0.39	0.62	0.62	0.59	***	0.66	***	***	***	***	***	***
	Los Banos	1.1	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	0.04
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	0.10
	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	0.60
	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	0.31
Russia	Mondy	<0.1	<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	0.01
	Listvyanka	0.4	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	0.06
	Irkutsk	0.1	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	0.23
	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	0.10
Thailand	Bangkok				0.22	1.08	0.59	0.19	0.29	0.18	0.26	0.28	0.32	0.26	0.16	0.31	0.19	0.34
	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	0.26
	Mae Hia		0.6	0.1	0.03	0.32	0.09	0.29	0.11	0.05	0.09	0.16	0.12	0.13	0.12	0.08	0.06	0.21
	Sakaerat							0.09	0.06	0.06	0.07	0.02	0.06	0.10	0.12	0.16	0.08	0.21
Vietnam	Hanoi	0.4	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	2.32
	Hoa Binh	0.3	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	1.18
	Can Tho															0.56	0.46	1.78
	Ho Chi Minh															0.74	0.59	1.29
	Yen Bai																1.01	1.25

The reporting limits for the components in the particulate matters 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 2000 to 2016

unit: μg/m³

Country	Site	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Cambodia	Phnom Penh											0.61	0.50	0.34	0.57	0.52	0.54	0.54
China	Hongwen								3.66	5.55	5.48	6.72	5.85	***	***	***	***	3.68
Indonesia	Jakarta															0.57	0.71	0.40
	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	0.55
	Bandung															1.20	1.17	1.42
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	0.40
	Ochiishi									0.40	0.40	0.29	0.37	0.32	0.28	0.38	0.24	0.32
	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	0.48
	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	0.48
	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	0.53
	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	0.82
	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	1.13
	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	1.17
	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	0.86
	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	0.51
	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	0.19
	Tokyo								1.82	1.96	1.83	1.71	1.57	1.10	1.44	1.42	1.40	1.18
Lao PDR	Vientiane																1.22	1.12
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	0.92
	Tanah Rata	0.3	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	0.46
	Danum Valley							0.10	0.08	0.12	0.39	0.12	0.13	0.08	0.13	0.12	0.25	0.10
Mongolia	Ulaanbaatar	0.4	0.4	0.5	0.67	0.92	1.60	1.95	1.96	0.23	0.95	1.69	1.80	***	***	***	***	0.67
	Terelj	0.3	0.4	0.3	0.29	0.33	0.28	0.43	0.40	0.37	0.28	0.12	0.43	***	***	***	***	0.06
Myanmar	Yangon												0.34	0.38	0.30	0.50	0.45	0.37
Philippines	Metro Manila	<0.1	0.3	0.9	1.09	0.48	0.73	0.25	0.43	0.42	***	0.14	***	***	***	***	***	***
	Los Banos	<0.1	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	<0.01
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	3.20
	Cheju		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	1.86
	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	2.02
Russia	Mondy	0.1	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	0.09
	Listvyanka	0.8	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	0.21
	Irkutsk	1.0	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	0.93
	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	0.80
Thailand	Bangkok				1.08	0.56	0.42	1.30	1.29	1.15	0.70	0.69	0.60	0.53	0.79	1.27	0.65	0.75
	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	2.73
	Mae Hia		0.6	0.3	1.23	0.66	0.75	0.67	0.74	0.49	0.58	3.70	0.31	0.23	0.09	0.09	0.11	0.38
	Sakaerat							1.13	1.37	1.13	0.87	0.73	0.96	0.84	0.90	1.01	0.88	0.80
Vietnam	Hanoi	1.0	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	2.32
	Hoa Binh	0.8	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	1.90
	Can Tho															0.63	1.08	0.77
	Ho Chi Minh															1.00	1.35	1.44
	Yen Bai																2.00	2.62

The reporting limits for the components in the particulate matters were changed from 0.1 μg/m³ to 0.01 μg/m³ in 2003.

Terms and abbreviations are given in Table 4.2.

Table 4.35 Annual Na^{+} in PM concentration from 2000 to 2016

unit: μg/m³

Country	Site	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Cambodia	Phnom Penh											0.53	0.63	0.57	0.67	0.59	0.81	0.64
China	Hongwen								1.39	1.40	1.55	1.76	1.62	***	***	***	***	1.61
Indonesia	Jakarta															1.84	0.97	0.56
	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	0.36
	Bandung															0.57	0.64	0.41
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	1.65
	Ochiishi									3.09	4.37	2.87	2.45	2.15	3.00	2.72	2.86	2.56
	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	3.81
	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	2.68
	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	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	0.24
	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	3.89
	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	1.07
	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	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	5.21
	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	2.54
	Tokyo								0.99	0.80	0.94	0.91	0.89	0.71	0.87	0.77	0.87	0.86
Lao PDR	Vientiane																0.28	0.25
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	0.36
	Tanah Rata	0.1	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	0.20
	Danum Valley							0.13	0.13	0.16	0.59	0.72	0.17	0.05	0.16	0.32	0.35	0.25
Mongolia	Ulaanbaatar	0.3	0.3	0.2	0.60	0.49	0.47	0.38	0.32	0.09	0.08	0.21	0.20	***	***	***	***	0.20
	Terelj	<0.1	0.1	<0.1	0.09	0.17	0.14	0.11	0.12	0.08	0.11	0.02	0.09	***	***	***	***	0.03
Myanmar	Yangon												0.59	0.74	0.21	0.34	0.12	0.31
Philippines	Metro Manila	1.3	1.1	0.3	0.92	0.89	0.62	0.61	0.79	0.97	***	0.54	***	***	***	***	***	***
	Los Banos	0.6	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	0.24
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	0.25
	Cheju		<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	0.39
	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	0.24
Russia	Mondy	<0.1	<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	0.02
	Listvyanka	<0.1	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	0.13
	Irkutsk	0.1	<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	0.14
	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	0.14
Thailand	Bangkok				0.46	1.52	0.48	0.68	0.38	0.33	0.57	0.54	0.54	0.43	0.47	1.03	0.53	0.71
	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	1.49
	Mae Hia		0.1	0.1	0.12	0.37	0.11	0.21	0.23	0.15	0.48	0.17	0.10	0.16	0.11	0.07	0.08	0.29
	Sakaerat							0.17	0.28	0.24	0.21	0.16	0.17	0.18	0.13	0.27	0.43	0.33
Vietnam	Hanoi	0.6	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	1.58
	Hoa Binh	0.3	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	1.21
	Can Tho															0.24	0.31	0.24
	Ho Chi Minh															0.26	0.37	0.38
	Yen Bai																0.83	1.18

The reporting limits for the components in the particulate matters 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 2000 to 2016

unit: μg/m³

Country	Site	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Cambodia	Phnom Penh											0.63	0.59	0.46	0.73	0.67	0.75	0.50
China	Hongwen								0.57	0.62	0.68	3.46	0.72	***	***	***	***	0.55
Indonesia	Jakarta															0.96	0.48	0.32
	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	0.39
	Bandung															0.55	0.74	0.48
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	0.12
	Ochiishi									0.16	0.18	0.13	0.12	0.10	0.12	0.13	0.15	0.14
	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	0.19
	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	0.14
	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	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	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	0.54
	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	0.27
	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	0.08
	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	0.26
	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	0.11
	Tokyo								0.20	0.19	0.21	0.18	0.17	0.12	0.16	0.16	0.16	0.13
Lao PDR	Vientiane																0.36	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	0.24
	Tanah Rata	0.1	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	0.12
	Danum Valley							0.09	0.09	0.12	0.43	0.29	0.16	0.06	0.14	0.20	0.21	0.17
Mongolia	Ulaanbaatar	0.2	0.3	0.2	0.53	0.42	0.61	0.60	0.25	0.12	0.16	0.22	0.29	***	***	***	***	0.08
	Terelj	<0.1	0.2	0.2	0.24	0.24	0.20	0.13	0.14	0.09	0.16	0.04	0.08	***	***	***	***	0.03
Myanmar	Yangon												1.24	0.76	0.24	0.55	0.94	0.40
Philippines	Metro Manila	14.3	1.0	0.3	0.74	0.33	0.26	0.46	0.41	0.43	***	0.22	***	***	***	***	***	***
	Los Banos	0.4	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	0.10
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	0.20
	Cheju		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	0.15
	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	0.15
Russia	Mondy	0.1	<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	0.03
	Listvyanka	0.3	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	0.07
	Irkutsk	0.5	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	0.15
	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	0.19
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	0.87
	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	1.78
	Mae Hia		0.5	0.5	0.37	0.42	0.32	0.86	0.58	0.37	0.47	0.42	0.27	0.21	0.17	0.05	0.07	0.26
	Sakaerat							0.25	0.37	0.34	0.31	0.18	0.64	0.51	0.16	0.33	0.30	0.25
Vietnam	Hanoi	0.1	0.2	0.8	0.82	1.90	2.61	1.70	2.04	1.00	0.79	1.15	0.85	1.36	2.34	0.64	0.98	1.09
	Hoa Binh	0.3	0.4	1.2	0.39	0.61	2.37	1.19	1.41	0.94	0.70	0.65	0.32	0.56	1.30	0.83	0.70	0.90
	Can Tho															0.89	0.19	0.30
	Ho Chi Minh															0.53	0.34	0.58
	Yen Bai																1.11	0.94

The reporting limits for the components in the particulate matters were changed from 0.1 μg/m³ to 0.01 μg/m³ in 2003.

Terms and abbreviations are given in Table 4.2.

Table 4.37 Annual Mg^{2+} in PM concentration from 2000 to 2016

unit: μg/m³

Country	Site	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Cambodia	Phnom Penh											0.12	0.14	0.11	0.14	0.13	0.17	0.12
China	Hongwen								0.28	0.31	0.33	0.48	0.31	***	***	***	***	0.25
Indonesia	Jakarta															0.34	0.16	0.09
	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	0.06
	Bandung															0.14	0.21	0.17
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	0.19
	Ochiishi									0.44	0.56	0.34	0.30	0.25	0.35	0.33	0.34	0.28
	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	0.43
	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	0.32
	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	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	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	0.47
	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	0.14
	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	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	0.65
	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	0.31
	Tokyo								0.15	0.12	0.13	0.12	0.13	0.11	0.14	0.13	0.13	0.12
Lao PDR	Vientiane																0.05	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	0.04
	Tanah Rata	<0.1	<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	0.02
	Danum Valley							0.01	0.04	0.05	0.07	0.10	0.02	<0.01	0.01	0.04	0.05	0.03
Mongolia	Ulaanbaatar	0.1	0.3	0.1	0.40	0.33	0.35	0.26	0.19	0.11	0.04	0.18	0.38	***	***	***	***	0.04
	Terelj	<0.1	<0.1	<0.1	0.04	0.06	0.06	0.06	0.02	0.02	0.04	0.04	0.05	***	***	***	***	0.01
Myanmar	Yangon												0.18	0.13	0.04	0.09	0.15	0.20
Philippines	Metro Manila	2.7	<0.1	<0.1	0.15	0.10	0.11	0.24	0.14	0.17	***	0.10	***	***	***	***	***	***
	Los Banos	0.1	<0.1	0.1	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	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	<0.01
	Cheju		<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	0.07
	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	0.08
Russia	Mondy	<0.1	<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	<0.01
	Listvyanka	<0.1	<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	0.04
	Irkutsk	0.1	<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	0.06
	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	0.07
Thailand	Bangkok				0.12	0.50	0.10	0.13	0.09	0.08	0.09	0.14	0.09	0.07	0.11	0.20	0.13	0.12
	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	0.41
	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	0.04
	Sakaerat							0.05	0.06	0.05	0.04	0.02	0.01	0.01	<0.01	0.02	0.03	0.22
Vietnam	Hanoi	0.1	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	0.50
	Hoa Binh	0.1	<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	0.25
	Can Tho															0.15	0.20	0.22
	Ho Chi Minh															0.23	0.46	0.72
	Yen Bai																0.19	2.26

The reporting limits for the components in the particulate matters were changed from 0.1 μg/m³ to 0.01 μg/m³ in 2003.

Terms and abbreviations are given in Table 4.2.

Table 4.38 Annual Ca^{2+} in PM concentration from 2000 to 2016

unit: $\mu g/m^3$

Country	Site	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Cambodia	Phnom Penh											0.87	0.82	0.76	0.87	0.71	1.32	1.07
China	Hongwen								2.84	2.79	2.73	9.44	1.59	***	***	***	***	1.56
Indonesia	Jakarta															3.18	1.14	0.83
	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	0.43
	Bandung															1.32	1.61	1.28
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	0.12
	Ochiishi									0.15	0.24	0.14	0.14	0.10	0.17	0.24	0.14	0.12
	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	0.24
	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	0.23
	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	0.10
	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	0.12
	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	0.35
	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	0.23
	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	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	0.38
	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	0.14
	Tokyo								0.56	0.52	0.51	0.59	0.49	0.36	0.52	0.49	0.45	0.40
Lao PDR	Vientiane																0.22	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	0.44
	Tanah Rata	<0.1	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	0.12
	Danum Valley							0.02	0.03	0.02	0.04	0.07	0.02	0.02	0.04	0.07	0.04	0.03
Mongolia	Ulaanbaatar	3.6	4.4	3.6	6.76	4.76	4.86	4.64	3.69	3.38	1.43	1.45	3.35	***	***	***	***	0.55
	Terelj	0.3	0.4	0.3	0.26	0.30	0.27	0.30	0.43	0.42	0.32	0.16	0.32	***	***	***	***	0.40
Myanmar	Yangon												1.82	1.03	0.29	0.51	3.11	1.69
Philippines	Metro Manila	0.4	0.8	0.6	1.37	1.00	0.75	1.09	1.18	0.87	***	0.66	***	***	***	***	***	***
	Los Banos	1.0	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	0.18
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	0.03
	Cheju		<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	0.12
	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	0.14
Russia	Mondy	0.1	<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	0.08
	Listvyanka	0.5	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	0.21
	Irkutsk	0.6	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	0.38
	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	0.34
Thailand	Bangkok				1.17	0.92	1.20	1.39	1.07	0.80	0.88	0.94	1.03	0.74	1.29	2.09	0.97	1.01
	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	1.65
	Mae Hia		0.5	0.4	1.17	0.34	0.31	0.61	0.57	0.44	0.72	0.53	0.22	0.47	0.46	0.12	0.15	0.42
	Sakaerat							0.17	0.23	0.28	0.22	0.09	0.16	0.14	0.11	0.16	0.22	0.31
Vietnam	Hanoi	2.0	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	4.76
	Hoa Binh	1.2	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	2.04
	Can Tho															1.52	1.53	1.74
	Ho Chi Minh															1.18	1.05	1.78
	Yen Bai																4.08	0.17

The reporting limits for the components in the particulate matters 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 4.39 Monthly and annual dry deposition amounts of gaseous and particulate substances

Site: Rishiri Country: Japan

2016	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	0.57	0.06	0.05	0.00	0.10	0.05	2.08	0.11	2.49	0.12	0.28	0.08
Feb	0.32	0.06	0.05	0.01	0.12	0.05	2.42	0.13	2.71	0.12	0.31	0.13
Mar	0.19	0.06	0.16	0.05	0.17	0.16	3.93	0.27	4.15	0.18	0.47	0.26
Apr	0.06	0.07	0.35	0.09	0.10	0.09	2.44	0.14	2.53	0.09	0.28	0.17
May	0.12	0.22	0.70	0.11	0.15	0.14	2.15	0.12	3.05	0.11	0.35	0.14
June	0.02	0.06	0.34	0.11	0.04	0.02	0.10	0.06	0.21	0.01	0.03	0.01
July	0.06	0.17	0.45	0.10	0.07	0.02	0.20	0.08	0.58	0.03	0.06	0.02
Aug	0.02	0.10	0.58	0.08	0.08	0.04	0.32	0.09	0.60	0.03	0.07	0.02
Sept	0.00	0.03	0.20	0.07	0.04	0.04	2.63	0.04	2.74	0.08	0.30	0.08
Oct	0.08	0.07	0.17	0.04	0.08	0.09	3.58	0.14	3.51	0.16	0.39	0.11
Nov	0.13	0.08	0.15	0.04	0.10	0.07	2.63	0.14	2.82	0.16	0.31	0.09
Dec	0.26	0.06	0.07	0.04	0.12	0.08	4.13	0.16	4.15	0.14	0.46	0.13
Annual	1.82	1.06	3.27	0.75	1.17	0.83	26.61	1.47	29.55	1.23	3.30	1.25

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

Site: Ochiishi Country: Japan

2016	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	0.27	0.09	0.07	0.01	0.06	0.03	1.18	0.11	1.13	0.03	0.11	0.04
Feb	0.25	0.05	0.04	0.01	0.08	0.05	1.58	0.13	1.57	0.04	0.17	0.04
Mar	0.17	0.05	0.15	0.09	0.10	0.10	1.32	0.15	1.28	0.10	0.14	0.05
Apr	0.20	0.05	0.18	0.14	0.04	0.03	0.96	0.04	0.96	0.03	0.10	0.03
May	0.29	0.33	1.03	0.19	0.12	0.16	1.73	0.13	2.04	0.06	0.21	0.05
June	0.16	0.15	1.02	0.17	0.08	0.05	1.81	0.06	2.11	0.05	0.21	0.04
July	0.15	0.13	0.76	0.14	0.07	0.03	0.36	0.05	0.61	0.01	0.05	0.01
Aug	0.16	0.02	0.14	0.11	0.01	0.01	0.06	0.01	0.11	0.00	0.01	0.00
Sept	0.22	0.08	0.51	0.12	0.04	0.05	2.65	0.05	2.42	0.05	0.25	0.06
Oct	0.20	0.15	0.53	0.06	0.08	0.10	3.37	0.13	3.18	0.09	0.33	0.10
Nov	0.21	0.16	0.45	0.05	0.04	0.03	3.36	0.08	3.02	0.07	0.31	0.08
Dec	0.31	0.12	0.17	0.05	0.07	0.05	1.99	0.09	1.81	0.05	0.18	0.05
Annual	2.59	1.38	5.04	1.13	0.78	0.70	20.35	1.03	20.24	0.60	2.08	0.54

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

Site: Tappi Country: Japan

2016	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	0.92	0.39	0.21	0.01	1.08	1.33	62.51	1.12	60.57	1.28	6.19	1.44
Feb	1.01	0.42	0.31	0.01	1.34	1.30	82.22	1.63	79.93	2.40	8.76	2.91
Mar	0.87	0.44	0.44	0.11	1.15	1.63	33.89	1.97	35.54	1.39	4.00	2.14
Apr	0.56	0.44	1.09	0.18	0.51	0.94	12.74	0.61	15.48	0.60	1.79	2.12
May	1.86	1.48	1.75	0.36	0.95	1.49	24.52	1.37	31.86	1.12	3.74	1.69
June	1.45	0.60	1.38	0.42	0.61	0.70	30.89	0.63	34.47	0.89	3.94	0.96
July	0.67	1.28	1.49	0.28	0.84	0.45	11.38	0.90	18.43	0.96	2.05	0.61
Aug	2.01	1.23	1.64	0.36	0.68	0.64	8.21	0.81	14.84	0.75	1.57	0.50
Sept	0.93	0.42	1.10	0.18	0.35	0.50	9.57	0.49	12.59	0.42	1.36	0.42
Oct	0.44	0.42	0.52	0.05	0.53	0.84	97.38	0.71	89.09	2.29	9.98	2.85
Nov	0.73	0.50	0.48	0.04	0.93	1.33	118.93	1.16	110.81	2.99	12.14	3.33
Dec	1.31	0.60	0.34	0.04	1.35	2.36	269.37	2.47	242.87	5.21	24.42	5.93
Annual	12.74	8.20	10.75	2.04	10.32	13.51	761.62	13.87	746.49	20.30	79.93	24.89

1 NO_2 = NOx- NO

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

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

2016	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	0.97	0.38	0.20	0.01	0.46	0.37	39.59	0.49	39.90	1.02	4.71	1.26
Feb	0.57	0.33	0.14	0.01	0.35	0.29	27.11	0.39	27.32	0.70	3.22	0.86
Mar	0.41	0.24	0.09	0.14	0.21	0.18	13.24	0.24	13.35	0.34	1.57	0.42
Apr	0.15	0.24	0.11	0.13	0.22	0.19	14.64	0.26	14.75	0.38	1.74	0.46
May	0.19	0.22	0.11	0.15	0.19	0.17	11.81	0.23	11.90	0.30	1.40	0.38
June	--	0.18	0.11	0.11	0.15	0.13	8.44	0.18	8.51	0.22	1.00	0.27
July	--	0.49	0.22	0.07	0.20	0.12	7.99	0.26	8.27	0.23	0.98	0.28
Aug	0.04	0.76	0.52	0.09	0.31	0.31	5.93	0.34	8.22	0.26	0.97	0.30
Sept	0.07	0.53	0.42	0.08	0.16	0.18	5.74	0.17	6.80	0.18	0.82	0.21
Oct	0.06	0.34	0.16	0.04	0.23	0.29	24.34	0.23	24.48	0.64	2.65	0.73
Nov	0.31	0.49	0.19	0.04	0.54	0.56	37.29	0.45	39.29	1.19	4.20	1.60
Dec	0.46	0.68	0.27	0.04	0.73	0.72	50.16	0.73	52.33	1.40	5.55	1.87
Annual	3.22	4.88	2.54	0.91	3.74	3.50	246.28	3.97	255.12	6.85	28.82	8.65

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

Site: Happo **Country: Japan**

2016	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	0.15	0.72	0.05	0.01	0.38	0.11	0.03	0.45	1.03	0.10	0.12	0.14
Feb	0.21	0.74	0.12	0.01	0.42	0.25	0.26	0.64	0.87	0.17	0.18	0.61
Mar	0.22	0.88	0.28	0.07	0.49	0.35	0.16	0.81	0.67	0.17	0.18	0.88
Apr	0.25	1.20	0.98	0.12	0.40	0.38	0.19	0.65	0.87	0.19	0.23	1.15
May	0.39	1.27	0.99	0.13	0.33	0.11	0.02	0.46	0.48	0.14	0.14	0.61
June	0.17	0.90	1.15	0.11	0.17	0.04	0.01	0.29	0.15	0.05	0.04	0.10
July	0.14	0.85	0.73	0.11	0.24	0.02	0.02	0.38	0.12	0.05	0.05	0.12
Aug	0.35	0.83	0.59	0.11	0.24	0.05	0.07	0.39	0.52	0.05	0.08	0.06
Sept	0.09	0.35	0.44	0.07	0.11	0.02	0.01	0.16	0.16	0.02	0.02	0.02
Oct	0.08	0.31	0.33	0.03	0.12	0.05	0.06	0.14	0.54	0.05	0.09	0.22
Nov	0.09	0.38	0.18	0.03	0.14	0.03	0.01	0.12	0.53	0.07	0.11	0.36
Dec	0.06	0.47	0.11	0.02	0.16	0.04	0.03	0.18	0.73	0.07	0.19	0.15
Annual	2.21	8.90	5.93	0.82	3.22	1.47	0.89	4.66	6.66	1.14	1.44	4.43

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

Site: Ijira **Country: Japan**

2016	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	0.08	0.07	0.11	0.02	0.05	0.01	0.02	0.09	0.11	0.02	0.01	0.01
Feb	0.07	0.11	0.14	0.03	0.07	0.03	0.05	0.13	0.20	0.04	0.03	0.04
Mar	0.13	0.28	0.29	0.19	0.12	0.07	0.06	0.22	0.30	0.06	0.05	0.14
Apr	0.09	0.30	0.39	0.19	0.09	0.05	0.06	0.13	0.37	0.06	0.05	0.11
May	0.15	0.33	0.40	0.21	0.10	0.04	0.02	0.16	0.27	0.05	0.03	0.11
June	0.05	0.16	0.35	0.17	0.05	0.01	0.00	0.07	0.10	0.03	0.01	0.03
July	0.05	0.18	0.40	0.07	0.05	0.01	0.00	0.07	0.06	0.03	0.01	0.02
Aug	0.02	0.26	0.52	0.09	0.07	0.01	0.02	0.09	0.21	0.03	0.02	0.04
Sept	0.02	0.05	0.28	0.09	0.02	0.01	0.01	0.03	0.07	0.02	0.01	0.01
Oct	0.02	0.05	0.30	0.07	0.03	0.01	0.01	0.04	0.05	0.02	0.01	0.02
Nov	0.03	0.04	0.18	0.03	0.03	0.01	0.03	0.05	0.11	0.02	0.01	0.02
Dec	0.03	0.03	0.12	0.05	0.03	0.01	0.04	0.05	0.15	0.02	0.01	0.03
Annual	0.73	1.85	3.48	1.21	0.71	0.26	0.33	1.13	1.98	0.39	0.24	0.59

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+}
2016	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	1.19	0.87	0.19	0.03	1.42	2.05	137.34	2.41	128.58	3.51	14.92	3.51
Feb	0.72	1.08	0.49	0.03	1.48	2.15	57.19	2.33	63.10	2.47	7.54	3.13
Mar	0.80	1.19	0.75	0.15	1.52	2.05	22.43	2.35	27.10	1.18	3.14	2.30
Apr	0.58	1.57	1.62	0.18	1.39	2.25	122.15	2.08	137.52	11.13	15.53	6.08
May	0.62	1.88	1.27	0.12	1.38	1.19	21.81	2.17	27.46	5.15	3.14	2.92
June	0.84	1.66	2.33	0.18	1.38	0.75	3.99	2.18	13.01	0.98	1.49	0.63
July	1.14	0.36	0.72	0.12	0.37	0.25	2.61	0.39	6.51	5.05	0.46	0.13
Aug	0.37	--	--	0.08	--	--	--	--	--	--	--	--
Sept	0.62	--	--	0.09	--	--	--	--	--	--	--	--
Oct	0.44	--	--	0.03	--	--	--	--	--	--	--	--
Nov	0.61	--	--	0.05	--	--	--	--	--	--	--	--
Dec	0.99	--	--	0.05	--	--	--	--	--	--	--	--
Annual	8.92	8.61	7.36	1.11	8.93	10.69	367.53	13.91	403.28	29.46	46.22	18.69

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+}
2016	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	1.02	0.50	0.59	0.05	0.55	0.54	4.86	1.09	6.33	0.38	0.79	0.39
Feb	0.75	0.55	0.88	0.06	0.48	0.56	4.21	0.75	6.18	0.44	0.87	0.67
Mar	0.76	0.67	1.21	0.26	0.59	0.59	2.53	0.85	4.99	0.35	0.63	0.71
Apr	0.18	0.72	0.89	0.21	0.53	0.42	2.08	0.54	5.95	2.51	0.66	0.72
May	0.22	1.00	0.83	0.19	0.51	0.27	0.58	0.73	2.81	0.32	0.37	0.65
June	0.16	0.58	1.08	0.24	0.24	0.06	0.16	0.36	1.08	0.11	0.12	0.08
July	0.16	0.19	0.30	0.32	0.07	0.01	0.01	0.09	0.25	0.02	0.03	0.02
Aug	0.10	--	--	0.28	--	--	--	--	--	--	--	--
Sept	0.16	--	--	0.21	--	--	--	--	--	--	--	--
Oct	0.50	--	--	0.10	--	--	--	--	--	--	--	--
Nov	0.21	--	--	0.11	--	--	--	--	--	--	--	--
Dec	0.32	--	--	0.12	--	--	--	--	--	--	--	--
Annual	4.53	4.20	5.78	2.13	2.97	2.45	14.42	4.40	27.61	4.13	3.49	3.24

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+}
2016	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	1.02	0.78	0.16	0.04	0.50	0.25	0.52	0.77	1.33	0.20	0.16	0.23
Feb	1.09	0.51	0.28	0.05	0.39	0.26	0.33	0.57	1.45	0.51	0.26	0.45
Mar	0.79	0.79	0.42	0.20	0.44	0.21	0.11	0.66	1.02	0.23	0.18	0.40
Apr	0.50	1.02	0.70	0.14	0.38	0.09	0.15	0.50	1.22	0.18	0.19	0.39
May	0.48	0.64	0.78	0.13	0.27	0.04	0.05	0.31	0.86	0.12	0.15	0.28
June	0.38	0.33	0.96	0.10	0.17	0.01	0.02	0.24	0.43	0.06	0.06	0.06
July	0.52	0.39	0.76	0.09	0.21	0.00	0.01	0.28	0.37	0.04	0.05	0.05
Aug	0.30	0.52	0.88	0.16	0.34	0.03	0.12	0.43	0.88	0.09	0.11	0.10
Sept	0.27	0.18	0.52	0.08	0.17	0.01	0.03	0.18	0.42	0.07	0.05	0.05
Oct	0.53	0.15	0.47	0.05	0.11	0.05	0.11	0.14	0.72	0.06	0.09	0.11
Nov	0.73	0.57	0.48	0.08	0.30	0.11	0.09	0.44	0.95	0.13	0.12	0.18
Dec	1.19	0.47	0.29	0.09	0.32	0.20	0.28	0.53	1.51	0.15	0.19	0.24
Annual	7.80	6.36	6.69	1.21	3.59	1.26	1.84	5.04	11.17	1.85	1.61	2.55

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+}
2016	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	0.51	0.48	0.78	0.02	0.92	0.68	124.15	0.88	117.42	2.66	12.04	3.47
Feb	0.36	0.52	0.75	0.01	0.73	0.65	37.23	0.66	37.91	1.39	4.59	2.14
Mar	0.35	0.60	1.14	0.09	0.94	0.91	29.08	0.97	32.88	1.10	4.05	2.19
Apr	0.13	0.30	1.53	0.09	0.53	0.61	15.94	0.51	19.31	0.77	2.36	1.19
May	0.25	0.27	1.80	0.06	0.35	0.41	9.42	0.26	12.15	0.49	1.45	0.65
June	0.17	0.37	1.88	0.09	0.32	0.31	10.74	0.19	13.77	0.52	1.65	0.51
July	0.19	0.08	1.14	0.09	0.20	0.20	11.92	0.19	12.00	0.36	1.52	0.38
Aug	0.52	0.30	1.26	0.12	0.55	0.40	19.58	0.42	22.53	0.63	2.76	0.72
Sept	0.08	0.12	1.18	0.07	0.26	0.21	22.31	0.12	22.73	0.66	2.75	0.62
Oct	0.28	0.08	0.95	0.02	0.22	0.35	34.20	0.17	32.82	0.79	4.05	0.87
Nov	0.28	0.40	0.58	0.04	0.59	0.65	24.85	0.44	27.50	0.73	3.40	1.26
Dec	0.31	0.50	0.51	0.04	0.63	0.68	29.35	0.55	31.27	0.81	3.74	1.24
Annual	3.42	4.03	13.50	0.74	6.24	6.05	368.79	5.35	382.29	10.91	44.35	15.24

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+}
2016	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	0.02	0.04	0.39	0.01	0.14	0.07	5.38	0.09	6.22	0.16	0.72	0.22
Feb	0.04	0.04	0.31	0.00	0.14	0.10	6.87	0.12	7.36	0.20	0.87	0.27
Mar	0.03	0.05	0.40	0.04	0.13	0.12	7.70	0.12	7.73	0.20	0.93	0.35
Apr	0.04	0.08	0.76	0.01	0.14	0.11	4.94	0.08	5.67	0.18	0.64	0.23
May	0.06	0.03	0.52	0.03	0.08	0.07	2.32	0.05	2.67	0.08	0.32	0.15
June	0.04	0.06	0.75	0.05	0.10	0.05	1.04	0.06	1.66	0.05	0.18	0.06
July	0.32	0.02	0.51	0.03	0.06	0.04	2.39	0.05	2.30	0.06	0.27	0.06
Aug	0.06	0.01	0.55	0.02	0.04	0.04	8.23	0.03	7.10	0.16	0.83	0.15
Sept	0.00	0.00	0.46	0.01	0.03	0.03	5.15	0.01	4.62	0.11	0.54	0.10
Oct	0.04	0.01	0.41	0.01	0.03	0.03	5.76	0.02	5.34	0.14	0.62	0.13
Nov	0.01	0.02	0.41	0.01	0.05	0.07	6.17	0.04	5.93	0.15	0.69	0.16
Dec	0.04	0.02	0.27	0.01	0.07	0.08	4.81	0.08	4.79	0.11	0.55	0.12
Annual	0.69	0.39	5.73	0.24	1.00	0.79	60.76	0.76	61.38	1.60	7.15	2.00

1 NO_2 = NOx- NO

Table 4.50 Conversion ratios from ppb to $\mu g/m^3$ (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 $\mu g/m^3$
Particulate matter components	0.01 $\mu g/m^3$

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 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.

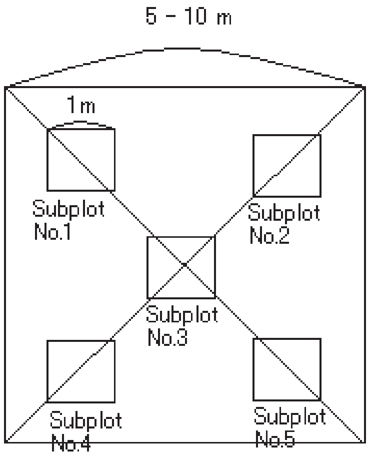
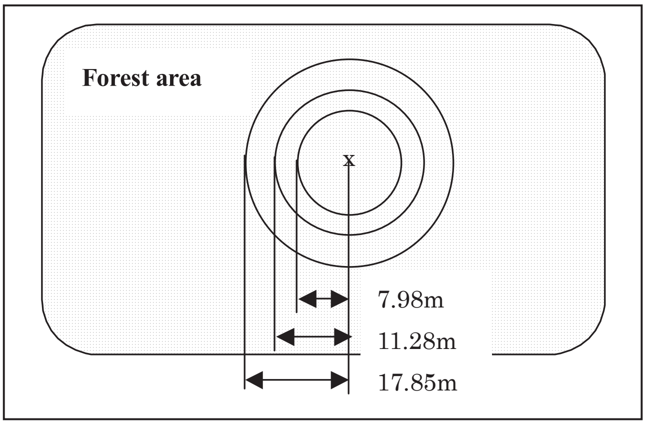


Figure 5.1 Plot for soil sampling



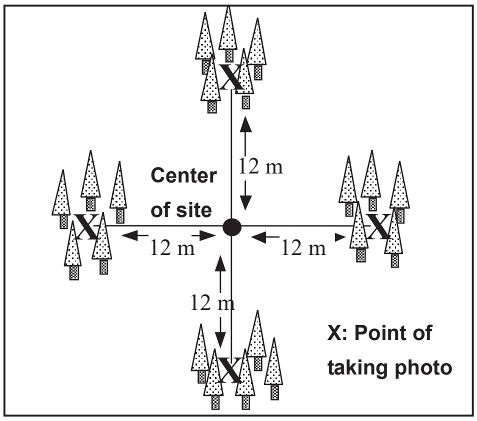


Figure 5.2 Plots for description of trees (Left) and selection of observation trees (Right)

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 were submitted from 5 areas of 2 countries. The list of monitoring site and reported items in 2016 are shown in Table 5.4.1 Observation of the tree decline was conducted in 5 plots. The survey on soil monitoring were carried out in Japan. The number of soil and vegetation plots in each monitoring site are shown in Table 5.4.2 with the number of survey until 2016.

Table 5.4.1 Outline of the Monitoring Sites in 2016

Country	Nearest deposition monitoring site	Site: Name of forests	Soil type	Items*1
China	**Jinyunshan (Chongqing)**	**Jinyunshan**	**Acidi-Udic Argosols**	**F_1,**
	Xiamen	**Xiaoping**	**Red soil**	**F_1,**
	Jiwozi (Xi'an)	**Dabagou**	**Brown soil**	**F_1,**
Japan	**Ijira**	**Lake Ijira**	**Dystric Cambisols**	**S, F_1, F_2**
		Yamato	**Andosols**	**S, F_1, F_2**
	Banryu	**Banryu-2**	**Cambisols**	**S, F_1, F_2**
		Iwami Rinku Factory Park	**Acrisols**	**S, F_1, F_2**

*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 2016

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 2016		
			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	**2016**	**11**	5	6
	Jiwozi (Xi'an)	Dabagou	1	2	5	1	2001	**2016**	**11**	5	6
	Xiaoping (Xiamen)	Xiaoping	1	1	5	1	2000	**2016**	**11**	5	5
	Zhuxiandong (Zhuhai)	Zhuxiandong	3	3	5	1	2001	2015	9	7	6
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	**2016**	**15**	**4**	**4**
		Yamato	1	2	5	2	2003	**2016**	**14**	**3**	**3**
	Banryu	Banryu-2	1	2	5	2	2000	**2016**	**16**	**4**	**4**
		Iwami Rinku Factory Park	1	2	5	2	2001	**2016**	**15**	**4**	**4**
Malaysia	Petaling Jaya	Pasoh Reserve Forest 1	0	1	5	1	2000	2014	0	0	2
		Pasoh Reserve Forest 2	0	1	5	1	2000	2014	0	0	1
	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	1	1	1
	Terelj	Terelj Mountain	0	2	5	1	2014	2014	0	0	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	2	2	2
Russia	Irkutsk	Irkutsk	1	1	2	1	2001	2013	3	3	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 2016.

** 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: Lake Ijira (Japan)
Soil sampling year: 2016
Name of analysis laboratory: Gifu Prefectural Research Institute for Health and Environmental Sciences

Repeat analysis :1

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)
									(cmol$_c$ kg^{-1})							
Lake Ijira	Cambisols	1	1	0-10	1	3.0	4.5	3.5	0.53	0.21	0.18	0.0062	8.0	6.8	1.3	9.0
			2			2.8	4.4	3.5	0.28	0.14	0.15	0.0066	7.7	6.6	1.2	8.3
			3			3.5	4.3	3.5	0.13	0.14	0.16	0.014	9.3	7.9	1.4	9.7
			4			3.7	4.6	3.3	0.096	0.15	0.18	0.0079	12	10	1.4	12
			5			3.6	4.3	3.5	0.14	0.15	0.20	0.0088	9.7	8.5	1.2	10
			1	10-20	1	2.5	4.7	3.9	0.086	0.056	0.13	0.0038	3.7	2.9	0.82	4.0
			2			2.7	4.5	3.7	0.078	0.059	0.11	0.0032	5.9	5.1	0.85	6.2
			3			2.7	4.6	3.8	0.031	0.066	0.10	0.011	5.4	4.6	0.76	5.6
			4			2.8	4.4	3.6	0.016	0.063	0.095	0.0098	8.0	7.1	0.91	8.2
			5			2.8	4.5	3.8	0.026	0.077	0.12	0.011	5.9	4.8	1.1	6.1
	Cambisols	2	1	0-10	1	3.5	4.5	3.6	0.17	0.15	0.20	0.016	8.3	7.1	1.2	8.8
			2			3.1	4.6	3.6	0.24	0.20	0.19	0.020	9.1	7.8	1.2	9.7
			3			3.7	4.5	3.5	0.74	0.34	0.27	0.014	9.3	8.1	1.2	11
			4			3.8	4.5	3.5	0.19	0.18	0.26	0.023	7.8	6.7	1.1	8.5
			5			4.0	4.3	3.5	0.26	0.23	0.27	0.029	11	10	0.93	12
			1	10-20	1	2.9	4.7	3.9	0.028	0.055	0.12	0.012	5.2	4.2	0.93	5.4
			2			2.7	4.7	3.8	0.045	0.075	0.13	0.012	5.7	4.8	0.87	5.9
			3			3.2	4.7	3.8	0.072	0.083	0.13	0.0072	6.0	5.1	0.83	6.2
			4			3.1	4.6	3.7	0.039	0.074	0.14	0.014	7.3	6.3	0.92	7.5
			5			3.6	4.5	3.6	0.057	0.13	0.19	0.025	9.6	8.5	1.1	10

Repeat analysis :2

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)
									(cmol$_c$ kg^{-1})							
Lake Ijira	Cambisols	1	1	0-10	2	3.2	4.5	3.6	0.71	0.28	0.21	0.0086	9.0	7.8	1.2	10
			2			2.9	4.4	3.5	0.35	0.17	0.17	0.0086	8.1	7.1	0.99	8.8
			3			3.8	4.3	3.5	0.16	0.19	0.19	0.016	9.8	8.7	1.1	10
			4			3.8	4.1	3.3	0.13	0.20	0.21	0.0092	13	11	1.4	13
			5			3.7	4.3	3.5	0.15	0.17	0.20	0.0089	9.8	8.7	1.1	10
			1	10-20	2	2.7	4.8	3.9	0.094	0.066	0.14	0.0052	5.1	4.4	0.70	5.4
			2			2.8	4.5	3.7	0.13	0.086	0.13	0.0089	6.5	5.6	0.86	6.8
			3			2.9	4.6	3.8	0.037	0.085	0.12	0.013	5.8	4.9	0.82	6.0
			4			2.9	4.4	3.6	0.020	0.080	0.11	0.011	8.4	7.5	0.86	8.6
			5			2.9	4.6	3.8	0.029	0.086	0.13	0.012	6.4	5.6	0.77	6.6
	Cambisols	2	1	0-10	2	3.7	4.5	3.7	0.16	0.15	0.19	0.014	8.4	7.5	0.87	8.9
			2			3.3	4.5	3.6	0.25	0.23	0.19	0.019	8.8	7.9	0.92	9.5
			3			3.8	4.5	3.5	0.76	0.37	0.26	0.012	9.3	8.2	1.1	11
			4			3.6	4.4	3.6	0.22	0.23	0.28	0.025	9.3	8.3	1.0	10
			5			4.1	4.4	3.5	0.28	0.26	0.27	0.028	11	10	1.1	12
			1	10-20	2	3.0	4.8	3.9	0.034	0.065	0.13	0.012	5.3	4.6	0.69	5.5
			2			2.7	4.7	3.8	0.049	0.084	0.13	0.012	5.9	5.2	0.72	6.2
			3			3.1	4.7	3.8	0.070	0.095	0.14	0.0071	6.3	5.6	0.65	6.6
			4			3.1	4.6	3.7	0.042	0.089	0.15	0.013	7.4	6.7	0.69	7.7
			5			3.7	4.5	3.6	0.061	0.15	0.19	0.024	9.4	8.5	0.87	9.8

Gray cell: a difference between results of the repeat analysis was more than 25% of the average value.
Thick box: a coefficient of variation between subplots was more than 75%.

Table 5.5.2) Soil chemical analysis: Yamato (Japan)

Soil sampling year: 2016

Name of analysis laboratory: Gifu Prefectural Research Institute for Health and Environmental Sciences

Repeat analysis :1

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)
							H_2O	KCl	Ca	Mg	K	Na	(cmol$_c$ kg^{-1})	Al	H	
Yamato	Umblic Andosols	1	1	0-10	1	11	3.8	3.5	0.065	0.20	0.26	0.020	17	16	1.2	17
			2			10	4.1	3.7	0.065	0.14	0.20	0.017	14	12	1.6	14
			3			11	3.9	3.6	0.18	0.17	0.21	0.012	15	14	1.1	16
			4			9.6	4.4	3.9	0.26	0.12	0.15	0.0072	9.1	7.7	1.4	9.7
			5			11	3.9	3.6	0.21	0.19	0.26	0.017	15	14	1.2	16
			1	10-20	1	10	4.4	4.0	0.018	0.096	0.14	0.0089	8.1	7.3	0.81	8.3
			2			10	4.6	4.1	0.040	0.078	0.11	0.014	6.8	6.2	0.62	7.0
			3			10	4.2	3.9	0.050	0.12	0.17	0.0098	9.1	8.0	1.1	9.4
			4			10.0	4.7	4.2	0.11	0.080	0.13	0.0063	5.2	4.6	0.61	5.5
			5			11	4.5	4.1	0.042	0.085	0.13	0.0061	7.4	6.6	0.77	7.7
	Umblic Andosols	2	1	0-10	1	9.9	4.2	3.9	0.094	0.14	0.18	0.013	9.4	8.8	0.61	9.8
			2			11	4.2	3.8	0.12	0.20	0.25	0.030	11	11	0.68	12
			3			10	3.8	3.5	0.12	0.17	0.23	0.015	15	14	1.1	15
			4			9.8	3.9	3.6	0.045	0.16	0.20	0.011	16	14	1.4	16
			5			11	4.0	3.7	0.044	0.12	0.16	0.0099	11	9.9	1.6	12
			1	10-20	1	9.8	4.6	4.2	0.035	0.073	0.11	0.0072	4.0	3.4	0.62	4.3
			2			11	4.7	4.3	0.033	0.091	0.12	0.015	4.2	3.1	1.0	4.4
			3			9.6	4.5	4.1	0.028	0.095	0.14	0.012	6.8	5.9	0.93	7.1
			4			8.5	4.6	4.2	0.017	0.087	0.13	0.0074	4.9	3.9	0.93	5.1
			5			10	4.5	4.2	0.022	0.077	0.11	0.0058	4.1	3.2	0.93	4.4

Repeat analysis :2

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)
							H_2O	KCl	Ca	Mg	K	Na	(cmol$_c$ kg^{-1})	Al	H	
Yamato	Umblic Andosols	1	1	0-10	2	11	3.9	3.5	0.064	0.21	0.26	0.021	16	15	1.1	17
			2			11	4.1	3.8	0.071	0.15	0.22	0.021	12	11	1.2	13
			3			11	3.9	3.6	0.21	0.22	0.27	0.016	14	13	1.3	15
			4			9.6	4.5	4.0	0.28	0.14	0.19	0.010	8.4	7.4	1.0	9.0
			5			11	3.9	3.6	0.21	0.21	0.30	0.021	14	13	1.2	15
			1	10-20	2	10	4.5	4.0	0.016	0.10	0.14	0.0089	7.9	7.1	0.82	8.2
			2			11	4.6	4.1	0.045	0.098	0.15	0.018	6.7	6.1	0.63	7.0
			3			11	4.3	4.0	0.061	0.16	0.22	0.014	8.9	8.0	0.90	9.3
			4			10.0	4.7	4.2	0.12	0.087	0.14	0.0079	5.3	4.7	0.56	5.6
			5			12	4.5	4.1	0.048	0.11	0.16	0.0089	6.4	5.8	0.58	6.7
	Umblic Andosols	2	1	0-10	2	9.6	4.3	3.9	0.081	0.13	0.18	0.014	9.3	8.8	0.53	9.7
			2			11	4.2	3.8	0.12	0.20	0.28	0.037	11	9.8	0.76	11
			3			11	3.9	3.6	0.12	0.19	0.27	0.019	16	14	1.2	16
			4			9.7	4.0	3.6	0.041	0.16	0.23	0.015	15	13	1.7	15
			5			11	4.1	3.8	0.049	0.14	0.22	0.015	11	10	1.2	12
			1	10-20	2	9.5	4.6	4.2	0.026	0.062	0.10	0.0073	4.3	3.8	0.51	4.5
			2			11	4.8	4.3	0.033	0.091	0.14	0.019	4.0	3.2	0.77	4.3
			3			10.0	4.6	4.1	0.032	0.11	0.17	0.017	6.6	6.2	0.44	6.9
			4			8.3	4.6	4.2	0.014	0.090	0.15	0.010	4.9	4.2	0.68	5.2
			5			9.9	4.5	4.3	0.016	0.074	0.12	0.0079	4.4	3.6	0.73	4.6

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

Table 5.5.3) Soil chemical analysis: Banryu-2 (Japan)
Soil sampling year: 2016
Name of analysis laboratory: Japan Environmental Sanitations Center

Repeat analysis :1

Location	Soil type	Plot No.	Subplot No.	Layer analyzed (cm)	Repeat analysis	Water contents (%)	pH		Exchangeable base cations (B)				Ex-acidity	Ex-acid cations		ECEC
							H_2O	KCl	Ca	Mg	K	Na	(A)	Al	H	(A) + (B)
									(cmol$_c$ kg^{-1})							
Banryu-2	Cambisols	1	1	0-10	1	2.4	4.5	3.5	0.62	0.48	0.19	0.84	5.4	4.5	0.88	7.5
			2			2.3	4.7	3.6	0.63	0.57	0.21	0.80	4.3	3.5	0.77	6.5
			3			2.0	4.5	3.6	0.14	0.44	0.22	0.74	4.1	3.3	0.81	5.7
			4			2.2	4.7	3.8	0.098	0.26	0.19	0.65	4.3	3.4	0.85	5.5
			5			2.2	4.9	3.9	0.34	0.35	0.19	1.2	3.2	2.9	0.25	5.2
			1	10-20	1	1.9	4.6	3.6	0.080	0.42	0.096	0.60	4.6	3.6	1.0	5.8
			2			1.8	4.8	3.7	0.30	0.37	0.20	0.58	3.7	3.2	0.51	5.1
			3			1.8	4.8	3.8	0.045	0.26	0.16	0.59	3.3	2.7	0.59	4.4
			4			2.0	4.7	3.8	0.095	0.19	0.16	0.59	3.7	3.1	0.64	4.8
			5			1.9	5.1	3.9	0.20	0.39	0.14	0.78	3.2	3.1	0.15	4.7
	Cambisols	2	1	0-10	1	2.5	4.7	3.7	0.35	0.34	0.27	0.68	4.4	3.5	0.91	6.0
			2			2.5	4.7	3.8	0.33	0.26	0.15	0.66	4.1	3.2	0.95	5.5
			3			3.0	4.9	3.8	0.87	0.81	0.33	1.4	3.0	2.3	0.72	6.5
			4			2.1	4.7	3.8	0.47	0.46	0.20	0.56	3.4	2.7	0.70	5.1
			5			2.2	4.9	3.9	0.43	0.28	0.18	0.58	3.3	2.7	0.55	4.7
			1	10-20	1	1.9	4.9	3.9	0.14	0.16	0.14	0.48	3.6	2.9	0.69	4.5
			2			1.9	4.9	3.9	0.16	0.20	0.13	0.63	3.3	3.0	0.32	4.5
			3			2.3	4.9	3.9	0.25	0.33	0.14	0.99	3.8	3.4	0.43	5.5
			4			1.9	4.9	4.0	0.059	0.20	0.13	0.39	3.1	2.7	0.46	3.9
			5			1.8	4.8	3.9	0.078	0.12	0.075	0.69	3.6	3.2	0.35	4.5

Repeat analysis :2

Location	Soil type	Plot No.	Subplot No.	Layer analyzed (cm)	Repeat analysis	Water contents (%)	pH		Exchangeable base cations (B)				Ex-acidity	Ex-acid cations		ECEC
							H_2O	KCl	Ca	Mg	K	Na	(A)	Al	H	(A) + (B)
									(cmol$_c$ kg^{-1})							
Banryu-2	Cambisols	1	1	0-10	2	2.4	4.5	3.5	0.29	0.49	0.18	0.69	4.9	4.3	0.63	6.6
			2			2.3	4.7	3.6	0.59	0.58	0.22	0.83	3.9	3.6	0.36	6.2
			3			2.0	4.5	3.6	0.11	0.45	0.22	0.79	4.2	4.0	0.16	5.7
			4			2.2	4.7	3.8	0.075	0.27	0.19	0.69	3.7	3.5	0.20	4.9
			5			2.2	4.9	3.9	0.17	0.27	0.18	0.73	3.5	3.2	0.30	4.8
			1	10-20	2	1.9	4.6	3.6	0.084	0.32	0.095	0.68	4.0	3.7	0.29	5.1
			2			1.8	4.9	3.7	0.32	0.42	0.21	0.64	3.5	3.3	0.23	5.1
			3			1.8	4.8	3.8	0.11	0.31	0.15	0.84	3.6	3.3	0.25	5.0
			4			2.0	4.7	3.8	0.061	0.19	0.16	0.47	3.8	3.7	0.058	4.7
			5			1.9	5.2	3.9	0.27	0.41	0.15	0.99	2.8	2.7	0.12	4.6
	Cambisols	2	1	0-10	2	2.5	4.7	3.8	0.36	0.35	0.27	0.67	3.6	3.1	0.55	5.3
			2			2.5	4.8	3.8	0.34	0.26	0.16	0.74	3.6	3.3	0.35	5.1
			3			3.0	4.9	3.9	0.71	0.83	0.33	1.4	3.5	3.1	0.33	6.8
			4			2.1	4.8	3.8	0.42	0.43	0.19	0.57	3.2	2.8	0.35	4.8
			5			2.2	4.9	4.0	0.43	0.29	0.18	0.61	2.8	2.4	0.38	4.3
			1	10-20	2	1.9	4.9	3.9	0.14	0.18	0.14	0.49	3.2	2.9	0.23	4.1
			2			1.9	5.0	3.9	0.093	0.20	0.12	0.54	3.2	2.7	0.51	4.1
			3			2.3	4.9	3.9	0.23	0.33	0.14	1.1	3.9	3.1	0.83	5.7
			4			1.9	4.9	4.0	0.062	0.22	0.15	0.54	3.1	2.8	0.27	4.0
			5			1.8	4.9	3.9	0.0039	0.13	0.076	0.74	3.4	2.8	0.57	4.3

Gray cell: a difference between results of the repeat analysis was more than 25% of the average value.
Thick box: a coefficient of variation between subplots was more than 75%.

Table 5.5.4) Soil chemical analysis: Iwamirinku-FP (Japan)
Soil sampling year: 2016
Name of analysis laboratory: Japan Environmental Sanitations Center

Repeat analysis :1

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)
							H_2O	KCl	Ca	Mg	K	Na		Al	H	
									(cmol$_c$ kg^{-1})							
Iwamirinku-FP	Acrisols	1	1	0-10	1	5.0	4.0	3.1	0.69	0.61	0.19	0.10	12	9.8	2.0	13
			2			5.6	4.0	3.2	0.71	0.92	0.29	0.025	8.4	7.2	1.2	10
			3			4.8	4.2	3.4	0.21	0.45	0.19	0.13	9.4	8.6	0.76	10
			4			4.4	4.2	3.3	0.56	0.55	0.21	0.069	9.7	8.6	1.1	11
			5			3.9	4.4	3.5	0.29	0.37	0.60	0.11	7.7	6.5	1.2	9.1
			1	10-20	1	4.1	4.3	3.5	0.17	0.26	0.13	0.070	11	10	0.90	12
			2			5.0	4.3	3.5	0.079	0.41	0.15	0.019	9.5	8.0	1.5	10
			3			4.1	4.4	3.5	0.25	0.35	0.16	0.14	8.9	7.8	1.1	9.8
			4			3.4	4.5	3.7	0.10	0.20	0.100	0.056	6.9	6.6	0.33	7.4
			5			3.3	4.5	3.6	0.12	0.19	0.15	0.087	6.4	6.2	0.24	7.0
	Acrisols	2	1	0-10	1	4.5	4.5	3.7	0.70	0.61	0.25	0.14	4.7	4.2	0.48	6.4
			2			4.4	4.0	3.2	0.089	0.62	0.33	0.073	7.4	6.6	0.78	8.5
			3			3.9	4.3	3.5	0.12	0.47	0.32	0.065	5.7	5.1	0.63	6.7
			4			4.8	4.1	3.3	0.43	1.1	0.45	0.093	4.0	3.5	0.50	6.1
			5			3.7	4.2	3.4	0.12	0.27	0.21	0.049	7.3	6.6	0.61	7.9
			1	10-20	1	4.1	4.6	3.6	0.19	0.31	0.17	0.099	5.7	5.3	0.47	6.5
			2			3.7	4.4	3.6	0.057	0.28	0.20	0.066	7.0	6.4	0.58	7.6
			3			3.7	4.4	3.6	0.043	0.30	0.22	0.073	6.1	5.4	0.75	6.7
			4			3.2	4.6	3.6	0.046	0.42	0.18	0.069	5.2	4.7	0.43	5.9
			5			3.1	4.5	3.6	0.045	0.22	0.19	0.060	5.5	4.7	0.71	6.0

Repeat analysis :2

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)
							H_2O	KCl	Ca	Mg	K	Na		Al	H	
									(cmol$_c$ kg^{-1})							
Iwamirinku-FP	Acrisols	1	1	0-10	2	5.0	4.0	3.1	0.50	0.59	0.19	0.096	11	10	1.4	13
			2			5.6	4.0	3.2	1.0	0.92	0.29	0.025	8.0	6.8	1.2	10
			3			4.8	4.2	3.3	0.23	0.48	0.20	0.14	9.1	7.6	1.5	10
			4			4.4	4.3	3.3	0.57	0.54	0.22	0.073	9.6	7.5	2.1	11
			5			3.9	4.5	3.5	0.26	0.38	0.65	0.11	7.8	6.4	1.4	9.2
			1	10-20	2	4.1	4.4	3.5	0.25	0.29	0.13	0.084	10	9.3	0.99	11
			2			5.0	4.4	3.5	0.093	0.42	0.15	0.019	8.0	7.1	0.85	8.7
			3			4.1	4.5	3.6	0.24	0.36	0.15	0.15	7.9	7.1	0.82	8.9
			4			3.4	4.6	3.7	0.065	0.20	0.10	0.054	6.8	6.1	0.64	7.2
			5			3.3	4.6	3.6	0.24	0.21	0.16	0.10	6.2	5.3	0.86	6.9
	Acrisols	2	1	0-10	2	4.5	4.5	3.6	0.70	0.60	0.26	0.15	5.7	4.9	0.75	7.4
			2			4.4	4.0	3.2	0.093	0.63	0.36	0.079	8.0	6.5	1.5	9.2
			3			3.9	4.3	3.5	0.079	0.47	0.33	0.063	6.5	5.7	0.81	7.4
			4			4.8	4.1	3.3	1.2	1.1	0.53	0.14	4.9	3.8	1.1	7.8
			5			3.7	4.2	3.4	0.27	0.29	0.23	0.056	8.1	7.0	1.1	9.0
			1	10-20	2	4.1	4.5	3.6	0.30	0.33	0.17	0.12	6.4	5.7	0.71	7.3
			2			3.7	4.4	3.6	0.0090	0.28	0.20	0.069	7.9	6.5	1.3	8.4
			3			3.7	4.4	3.6	0.051	0.30	0.22	0.077	6.3	5.6	0.72	7.0
			4			3.2	4.6	3.7	0.050	0.44	0.18	0.071	5.9	5.0	0.84	6.6
			5			3.1	4.4	3.6	0.19	0.24	0.20	0.074	6.4	5.4	1.0	7.1

Gray cell: a difference between results of the repeat analysis was more than 25% of the average value.
Thick box: a coefficient of variation between subplots was more than 75%.

Table 5.6.1) Observation of tree decline: Chongqing (China)
Plot name: Jinyunshan-1
Date: 20 October 2016
Surveyor: Lixianyuan

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	*Cuninghamia lanceolata*	*Symplocos setchuenensis*	*Symplocos setchuenensis*	*Symplocos setchuenensis*	*Symplocos setchuenensis*	*Symplocos setchuenensis*	*Symplocos setchuenensis*	*Symplocos setchuenensis*	*Symplocos setchuenensis*	*Symplocos setchuenensis*
Relative height										
Tree height (m)	18.7	10.2	7.3	13.8	13.3	8.7	Dead	10.6	12.6	12.4
DBH (cm)	19.4	14.3	12.2	14.0	14.6	9.6		12.6	12.8	10.6
Vitality of tree	0	0	0	0	0	0		0	0	0
Form of tree	1	0	0	0	0	0		0	0	0
Branch growth	0	0	0	0	0	0		0	0	0
Dieback of stem	0	0	0	0	0	0		0	0	0
Defoliation of crown	0	0	0	0	0	0		0	0	0
Deformation of leaves	1	0	0	0	0	0		0	0	0
Size of leaves	0	0	0	0	0	0		0	0	0
Discoloration of leaves	0	0	0	0	0	0		0	0	0
Injury of leaves	0	0	0	0	0	0		0	0	0
Damage class*1										

Estimated cause of decline:
Note: *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-1
Date: 20 October 2016
Surveyor: Lixianyuan

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)	11.2	10.2	16.2	17.1	20.2	14.8	18.3	
DBH (cm)	11.7	15.0	16.0	25.5	21.3	17.0	39.8	
Vitality of tree	0	0	0	0	0	0	0.0	
Form of tree	0	0	0	1	0	0	0.0	
Branch growth	0	0	0	0	0	0	0.0	
Dieback of stem	0	0	0	0	0	0	0.0	
Defoliation of crown	0	0	0	0	0	0	0.0	
Deformation of leaves	0	0	0	0	0	0	0.0	
Size of leaves	0	0	0	0	0	0	0.0	
Discoloration of leaves	0	0	0	0	0	0	0.0	
Injury of leaves	0	0	0	0	0	1	0.0	
Damage class*1								

Estimated cause of decline:
Note: *1. Damage class will be decided based on combination of defoliation and discoloration classes

Table 5.6.3) Observation of tree decline: Jiwozi (China)
Plot name: Dabagou
Date: 17 October 2016
Surveyor:ZhuJian

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 armandi Fanch*	*Pinus armandi Fanch*	*Pinus armandi Fanch*	*Pinus armandi Fanch*	*Pinus armandi Fanch*	*Pinus armandi Fanch*	*Pinus armandi Fanch*	*Pinus armandi Fanch*	*Pinus armandi Fanch*	*Pinus armandi Fanch*	*Pinus armandi Fanch*	*Pinus armandi Fanch*	*Pinus armandi Fanch*	*Pinus armandi Fanch*	*Pinus armandi Fanch*	*Pinus armandi Fanch*	*Pinus armandi Fanch*	*Pinus armandi Fanch*	*Pinus armandi Fanch*	*Pinus armandi Fanch*
Relative height																				
Tree height (m)	17.1	14.3	12.1	14.8	12.0	12.0	9.8	8.9	10.9	14.7	14.6	12.6	10.9	15.4	11.2	13.2	11.9	13.7	11.2	8.7
DBH (cm)	25.9	25.7	17.0	21.6	24.8	17.2	12.7	18.9	15.9	19.2	28.7	24.1	15.1	24.1	16.5	24.3	16.3	24.3	15.9	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Size of leaves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Discoloration of leaves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Injury of leaves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Damage class*1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

Estimated cause of decline:
Note: *1. Damage class will be decided based on combination of defoliation and discoloration classes

Table 5.6.4) Observation of tree decline: Chongqing (China)
Plot name: XPZ-01
Date: 10 October 2016
Surveyor: Zhang Yashuang

Individual No.	120	210	211	116	203	225	227	301	220	221	337	334	333	313	314	310	309	308
Direction (E, W, S, or N)	E	E	E	E	S	S	S	S	W	W	W	W	W	N	N	N	N	N
Plant Name	*Michelia.Macclurei Dandy*	*Michelia.Macclurei Dandy*	*Michelia.Macclurei Dandy*	*Michelia.Macclurei Dandy*	*Michelia.Macclurei Dandy*	*Michelia.Macclurei Dandy*	*Michelia.Macclurei Dandy*	*Michelia.Macclurei Dandy*	*Michelia.Macclurei Dandy*	*Michelia.Macclurei Dandy*	*Michelia.Macclurei Dandy*	*Michelia.Macclurei Dandy*	*Michelia.Macclurei Dandy*	*Michelia.Macclurei Dandy*	*Michelia.Macclurei Dandy*	*Michelia.Macclurei Dandy*	*Michelia.Macclurei Dandy*	*Michelia.Macclurei Dandy*
Relative height																		
Tree height (m)	16.7	17.3	18.4	17.3	16.5	17.6	18.5	17.9	17.8	18.4	17.9	17.8	18.9	16.7	16.9	17.1	16.9	19.4
DBH (cm)	17.3	20.9	19.6	19.9	21.7	24.7	21.4	20.4	18.3	22.8	20.4	20.4	18.9	21.6	20.5	20.4	21.5	30.0
Vitality of tree	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Form of tree	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Branch growth	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dieback of stem	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Defoliation of crown	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Deformation of leaves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Size of leaves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Discoloration of leaves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Injury of leaves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Damage class*1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Estimated cause of decline:
Note: *1. Damage class will be decided based on combination of defoliation and discoloration classes

Table 5.6.5) Observation of tree decline: Lake Ijira-1 (Japan)
Plot name: Ijira, Ijira
Date: 8 November 2016
Surveyor: Yoshizumi Hisada

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 (E, W, S, or N)	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)	15.3	14.5	15.9	12.9	16.4	17.0	18.1	17.3	16.3	16.2	16.9	14.8	14.8	18.0	17.3	13.5	15.3	12.6	13.6	13.8
DBH (cm)	21.3	16.1	18.0	15.1	17.9	24.5	27.6	22.6	17.8	19.2	15.5	16.3	16.3	21.1	19.5	22.4	17.3	11.4	12.2	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: 10 November 2016
Surveyor: Yoshizumi Hisada

Individual No.	1	2	3	4	5	6	7-2	8	9-2	10	11-2	12-3	13-2	14-2	15	16	17	18-2	19-2	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	29.2	30.9	30.0	30.1	31.7	30.1	32.3	30.4	29.2	27.3	28.2	31.2	29.8	30.0	30.1	28.4	31.6	30.6	25.5
DBH (cm)	39.5	39.3	44.0	44.0	42.3	45.0	41.2	37.3	41.5	39.5	34.4	32.3	46.1	35.4	42.7	33.2	34.7	46.5	45.1	34.4
Vitality of tree																				1
Form of tree								1				1				1	1			1
Branch growth																				
Dieback of stem				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, 12-3, 16, 17 and 20, bent stem.

Table 5.6.7) Observation of tree decline: Lake Banryu-1 (Japan)
Plot name: Banryu-2, Banryu
Date: 6 October 2016
Surveyor: Ryoji Yanai

Individual No.	72	82	76	63	64	65	54	83	34	35	37	8	9	80
Direction (E, W, S, or N)	N	N	N	E	E	E	S	N	W	W	W	W	W	W
Plant Name	*Castanopsis cuspidata* var. *sieboldii*	*Machilus Thunbergii*	*Symplocos lucida*	*Machilus Thunbergii*	*Styrax japonica*	*Machilus Thunbergii*	*Clethra barbinervis*	*Quercus serrata*	*Machilus Thunbergii*	*Machilus Thunbergii*	*Acanthopanax sciadophylloides*	*Symplocos lucida*	*Symplocos lucida*	*Ilex integra*
Relative height	+	+	+	+		+		+	+	+		+	+	+
Tree height (m)	14.8	14.8	14.5	12.8		14.7		14.8	16.4	15.0		15.0	15.3	15.5
DBH (cm)	30.0	29.4	12.5	29.6		23.9		29.1	25.8	22.1		16.7	21.7	34.6
Vitality of tree														
Form of tree														
Branch growth														
Dieback of stem													1	
Defoliation of crown														
Deformation of leaves														
Size of leaves														
Discoloration of leaves														
Injury of leaves														
Damage class														

Estimated cause of decline:

Table 5.6.8) Observation of tree decline: Lake Banryu-2 (Japan)
Plot name: Iwamirinku-FP, Banryu
Date: 6 October 2016
Surveyor: Ryoji Yanai

Individual No.	92	93	122	100	104	108	127	128	63	137	138	140	112	113	114	142	141
Direction	N	N	N	E	E	E	E	E	S	S	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*	*Quercus serrata*	*Machilus Thunbergii*	*Quercus serrata*	*Machilus Thunbergii*	*Machilus Thunbergii*	*Machilus Thunbergii*	*Castanea crenata*	*Machilus Thunbergii*
Relative height			+		+						−						−
Tree height (m)	16.0	16.5	19.0	20.0	18.0	17.5	19.0	18.5	18.5		13.5		19.0	20.2	16.5	12.8	15.5
DBH (cm)	16.2	30.6	30.7	32.4	30.2	27.3	33.4	38.9	35.0		27.1		23.1	22.8	30.2	35.8	28.8
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: Lake Ijira (Japan)
Plot name: Ijira, Ijira
Date: 8 November 2016
Surveyor: Yoshizumi Hisada

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

Tree No.	Scientific name (Local name)	DBH (cm)	Tree Height (m)	Remarks
1	*Chamaecyparis obtusa*	16.2	15.7	
2	*Chamaecyparis obtusa*	cut	cut	
3	*Chamaecyparis obtusa*	cut	cut	
4	*Chamaecyparis obtusa*	25.6	19.1	
5	*Chamaecyparis obtusa*	cut	cut	
6	*Chamaecyparis obtusa*	17.9	16.4	
7	*Chamaecyparis obtusa*	15.9	12.9	
8	*Chamaecyparis obtusa*	cut	cut	
9	*Chamaecyparis obtusa*	24.3	17.8	
10	*Chamaecyparis obtusa*	19.8	17.5	
11	*Chamaecyparis obtusa*	18.7	16.6	
12	*Chamaecyparis obtusa*	cut	cut	
13	*Chamaecyparis obtusa*	19.0	14.7	
14	*Chamaecyparis obtusa*	cut	cut	
15	*Chamaecyparis obtusa*	18.8	16.7	
16	*Chamaecyparis obtusa*	19.6	17.4	
17	*Chamaecyparis obtusa*	17.9	16.7	
18	*Chamaecyparis obtusa*	22.3	17.4	
19	*Chamaecyparis obtusa*	cut	cut	
20	*Chamaecyparis obtusa*	18.4	16.0	
21	*Chamaecyparis obtusa*	23.4	17.1	
22	*Chamaecyparis obtusa*	cut	cut	
23	*Chamaecyparis obtusa*	17.6	14.7	
24	*Chamaecyparis obtusa*	16.0	14.0	
25	*Chamaecyparis obtusa*	16.5	14.8	
26	*Chamaecyparis obtusa*	cut	cut	
27	*Chamaecyparis obtusa*	18.5	15.9	
28	*Chamaecyparis obtusa*	cut	cut	
29	*Chamaecyparis obtusa*	cut	cut	
30	*Chamaecyparis obtusa*	14.6	13.6	
31	*Chamaecyparis obtusa*	19.1	15.6	
32	*Chamaecyparis obtusa*	cut	cut	
33	*Chamaecyparis obtusa*	cut	cut	
34	*Chamaecyparis obtusa*	22.8	16.1	
35	*Chamaecyparis obtusa*	cut	cut	
36	*Chamaecyparis obtusa*	cut	cut	
37	*Chamaecyparis obtusa*	18.4	16.7	
38	*Chamaecyparis obtusa*	cut	cut	
39	*Chamaecyparis obtusa*	22.3	16.5	
40	*Chamaecyparis obtusa*	23.2	16.6	
41	*Chamaecyparis obtusa*	cut	cut	
42	*Chamaecyparis obtusa*	30.8	20.5	
43	*Chamaecyparis obtusa*	14.9	14.9	
44	*Chamaecyparis obtusa*	18.7	14.6	
45	*Chamaecyparis obtusa*	cut	cut	
46	*Chamaecyparis obtusa*	17.0	13.6	
47	*Chamaecyparis obtusa*	18.0	14.5	
48	*Chamaecyparis obtusa*	cut	cut	
49	*Chamaecyparis obtusa*	cut	cut	
50	*Chamaecyparis obtusa*	18.8	16.3	
51	*Chamaecyparis obtusa*	dead	dead	

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

Tree No.	Scientific name (Local name)	DBH (cm)	Tree Height (m)	Remarks
52	*Chamaecyparis obtusa*	26.1	17.4	
53	*Chamaecyparis obtusa*	18.0	15.9	
54	*Chamaecyparis obtusa*	cut	cut	
55	*Chamaecyparis obtusa*	cut	cut	
56	*Chamaecyparis obtusa*	cut	cut	
57	*Chamaecyparis obtusa*	19.5	14.9	
58	*Chamaecyparis obtusa*	cut	cut	
59	*Chamaecyparis obtusa*	16.2	15.6	
60	*Chamaecyparis obtusa*	14.3	15.0	
61	*Chamaecyparis obtusa*	cut	cut	
62	*Chamaecyparis obtusa*	19.6	16.2	
63	*Chamaecyparis obtusa*	cut	cut	
64	*Chamaecyparis obtusa*	16.8	15.9	
65	*Chamaecyparis obtusa*	18.1	15.5	
66	*Chamaecyparis obtusa*	cut	cut	
67	*Chamaecyparis obtusa*	cut	cut	
68	*Chamaecyparis obtusa*	cut	cut	
69	*Chamaecyparis obtusa*	22.4	13.5	
70	*Chamaecyparis obtusa*	17.3	15.3	
71	*Chamaecyparis obtusa*	28.9	18.4	
72	*Chamaecyparis obtusa*	cut	cut	
73	*Chamaecyparis obtusa*	25.7	17.5	
74	*Chamaecyparis obtusa*	cut	cut	
75	*Chamaecyparis obtusa*	20.4	17.6	
76	*Chamaecyparis obtusa*	21.6	17.0	
77	*Chamaecyparis obtusa*	24.2	17.7	
78	*Chamaecyparis obtusa*	cut	cut	
79	*Chamaecyparis obtusa*	15.2	15.6	
80	*Chamaecyparis obtusa*	19.2	16.2	
81	*Chamaecyparis obtusa*	14.8	16.7	
82	*Chamaecyparis obtusa*	19.1	16.0	
83	*Chamaecyparis obtusa*	22.0	18.4	
84	*Chamaecyparis obtusa*	20.2	16.3	
85	*Chamaecyparis obtusa*	22.3	19.2	
86	*Chamaecyparis obtusa*	12.7	15.3	
87	*Chamaecyparis obtusa*	17.7	15.6	
88	*Chamaecyparis obtusa*	17.5	15.8	
89	*Chamaecyparis obtusa*	19.4	15.9	
90	*Chamaecyparis obtusa*	dead	dead	
91	*Chamaecyparis obtusa*	cut	cut	
92	*Chamaecyparis obtusa*	18.0	15.1	
93	*Chamaecyparis obtusa*	dead	dead	
94	*Chamaecyparis obtusa*	19.5	17.3	
95	*Chamaecyparis obtusa*	cut	cut	
96	*Chamaecyparis obtusa*	cut	cut	
97	*Chamaecyparis obtusa*	17.9	13.5	
98	*Chamaecyparis obtusa*	23.1	17.1	

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

Tree No.	Scientific name (Local name)	DBH (cm)	Tree Height (m)	Remarks
99	*Chamaecyparis obtusa*	29.0	15.3	
100	*Chamaecyparis obtusa*	26.2	16.0	
101	*Cryptomeria japonica*	48.4	23.0	
102	*Chamaecyparis obtusa*	27.2	19.1	
103	*Chamaecyparis obtusa*	21.4	15.8	
104	*Chamaecyparis obtusa*	25.9	17.7	
105	*Chamaecyparis obtusa*	23.6	16.9	
106	*Chamaecyparis obtusa*	19.2	15.1	
107	*Chamaecyparis obtusa*	26.5	17.8	
108	*Chamaecyparis obtusa*	19.8	16.3	
109	*Chamaecyparis obtusa*	19.5	16.3	
110	*Chamaecyparis obtusa*	23.3	16.7	
111	*Chamaecyparis obtusa*	24.2	15.6	
112	*Chamaecyparis obtusa*	25.9	14.8	
113	*Chamaecyparis obtusa*	21.1	18.6	
114	*Chamaecyparis obtusa*	19.3	16.8	
115	*Chamaecyparis obtusa*	23.8	17.3	
116	*Chamaecyparis obtusa*	25.7	17.5	
117	*Chamaecyparis obtusa*	23.5	17.1	
118	*Chamaecyparis obtusa*	22.6	17.3	
119	*Cryptomeria japonica*	27.6	18.1	
120	*Chamaecyparis obtusa*	24.5	17.0	
121	*Chamaecyparis obtusa*	22.8	17.0	
122	*Chamaecyparis obtusa*	18.1	15.2	
123	*Chamaecyparis obtusa*	21.8	16.8	
124	*Chamaecyparis obtusa*	21.3	15.3	
125	*Chamaecyparis obtusa*	18.4	14.9	
126	*Chamaecyparis obtusa*	21.4	17.8	
127	*Chamaecyparis obtusa*	19.3	16.9	
128	*Chamaecyparis obtusa*	19.6	17.4	
129	*Chamaecyparis obtusa*	19.9	17.1	
130	*Chamaecyparis obtusa*	21.2	17.0	
131	*Chamaecyparis obtusa*	23.5	17.5	
132	*Chamaecyparis obtusa*	19.9	17.5	
133	*Chamaecyparis obtusa*	21.5	15.9	
134	*Chamaecyparis obtusa*	19.9	15.1	
135	*Chamaecyparis obtusa*	21.0	16.1	
136	*Chamaecyparis obtusa*	21.1	18.0	
137	*Chamaecyparis obtusa*	19.1	15.3	
138	*Chamaecyparis obtusa*	18.2	16.3	
139	*Chamaecyparis obtusa*	19.7	17.5	
140	*Chamaecyparis obtusa*	20.2	17.6	
141	*Chamaecyparis obtusa*	20.9	18.0	
142	*Chamaecyparis obtusa*	18.6	16.0	
143	*Chamaecyparis obtusa*	18.7	17.0	
144	*Chamaecyparis obtusa*	18.5	15.7	
145	*Chamaecyparis obtusa*	19.6	16.8	
146	*Chamaecyparis obtusa*	18.2	13.7	
147	*Chamaecyparis obtusa*	18.3	13.8	

Table 5.7.2) Description of trees: Lake Ijira-2 (Japan)
Plot name: Yamato, Ijira
Date: 10 November 2016
Surveyor: Yoshizumi Hisada

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

Tree No.	Scientific name (Local name)	DBH (cm)	Tree Height (m)	Remarks
1	*Chamaecyparis obtusa*	41.6	28.6	
2	*Chamaecyparis obtusa*	dead	dead	
3	*Chamaecyparis obtusa*	31.2	26.5	
4	*Chamaecyparis obtusa*	cut	cut	
5	*Chamaecyparis obtusa*	cut	cut	
6	*Chamaecyparis obtusa*	46.1	31.2	
7	*Chamaecyparis obtusa*	39.5	29.2	

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

Tree No.	Scientific name (Local name)	DBH (cm)	Tree Height (m)	Remarks
8	*Chamaecyparis obtusa*	cut	cut	
9	*Chamaecyparis obtusa*	44.0	30.9	
10	*Chamaecyparis obtusa*	44.0	30.0	
11	*Chamaecyparis obtusa*	cut	cut	
12	*Chamaecyparis obtusa*	cut	cut	
13	*Chamaecyparis obtusa*	45.1	30.6	
14	*Chamaecyparis obtusa*	dead	dead	
15	*Chamaecyparis obtusa*	dead	dead	
16	*Chamaecyparis obtusa*	cut	cut	
17	*Chamaecyparis obtusa*	cut	cut	
18	*Chamaecyparis obtusa*	cut	cut	

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

Tree No.	Scientific name (Local name)	DBH (cm)	Tree Height (m)	Remarks
19	*Chamaecyparis obtusa*	41.2	30.1	
20	*Chamaecyparis obtusa*	cut	cut	
21	*Chamaecyparis obtusa*	39.3	29.2	
22	*Chamaecyparis obtusa*	39.5	30.0	
23	*Chamaecyparis obtusa*	42.3	30.1	
24	*Chamaecyparis obtusa*	42.2	32.2	
25	*Chamaecyparis obtusa*	cut	cut	
26	*Chamaecyparis obtusa*	cut	cut	
27	*Chamaecyparis obtusa*	cut	cut	
28	*Chamaecyparis obtusa*	cut	cut	
29	*Chamaecyparis obtusa*	34.7	28.4	
30	*Chamaecyparis obtusa*	33.2	30.1	
31	*Chamaecyparis obtusa*	34.4	25.5	
32	*Chamaecyparis obtusa*	46.5	31.6	
33	*Chamaecyparis obtusa*	dead	dead	
34	*Chamaecyparis obtusa*	34.4	27.3	
35	*Chamaecyparis obtusa*	35.0	28.5	
36	*Chamaecyparis obtusa*	32.3	28.2	
37	*Chamaecyparis obtusa*	42.7	30.0	
38	*Chamaecyparis obtusa*	35.4	29.8	
39	*Chamaecyparis obtusa*	cut	cut	
40	*Chamaecyparis obtusa*	38.6	30.7	
41	*Chamaecyparis obtusa*	cut	cut	
42	*Chamaecyparis obtusa*	cut	cut	
43	*Chamaecyparis obtusa*	cut	cut	
44	*Chamaecyparis obtusa*	cut	cut	
45	*Chamaecyparis obtusa*	37.3	32.3	
46	*Chamaecyparis obtusa*	45.0	31.7	
47	*Chamaecyparis obtusa*	cut	cut	
48	*Chamaecyparis obtusa*	41.5	30.4	

Table 5.7.3) Description of trees: Lake Banryu-1 (Japan)
Plot name: Banryu2, Banryu
Date: 6 October 2016
Surveyor: Yanai, Asaura, Ohno, Suzukawa, Murakami

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

Tree No.	Scientific name (Local name)	DBH (cm)	Tree Height (m)	Remarks
1	*Ilex integra*	28.0	16.3	
2	*Myrica rubra*	dead	dead	
3	*Symplocos lucida*	cut	cut	
4	*Styrax japonicus*	cut	cut	
5	*Lindera umbellata*	cut	cut	
6	*Lindera umbellata*	cut	cut	
7	*Ligustrum japonicum*	cut	cut	
8	*Symplocos lucida*	16.7	15.0	Half dead
9	*Symplocos lucida*	21.7	15.3	die back
10	*Ligustrum japonicum*	cut	cut	
11	*Eurya japonica*	cut	cut	
12	*Clethra barbinervis*	cut	cut	
13	*Pieris japonica*	cut	cut	
14	*Symplocos lucida*	cut	cut	
15	*Machilus Thunbergii*	cut	cut	
16	*Symplocos lucida*	cut	cut	
17	*Symplocos lucida*	cut	cut	
18	*Symplocos lucida*	dead	dead	die back 2011
19	*Ligustrum japonicum*	cut	cut	
20	*Ligustrum japonicum*	cut	cut	
21	*Callicarpa mollis*	cut	cut	
22	*Eurya japonica*	cut	cut	
23	*Symplocos prunifolia*	dead	dead	
24	*Rhus succedanea*	13.1	9.3	broken of core
25	*Symplocos lucida*	cut	cut	
26	*Lindera umbellata*	cut	cut	
27	*Ligustrum japonicum*	cut	cut	
28	*Clethra barbinervis*	cut	cut	
29	*Clethra barbinervis*	cut	cut	
86	*Machilus Thunbergii*	dead	dead	die back 2011
87	*Clethra barbinervis*	dead	dead	die back 2011
88	*Clethra barbinervis*	dead	dead	
89	*Clethra barbinervis*	dead	dead	
90	*Dendropanax trifidus*	2.1	3.6	
91	*Ligustrum japonicum*	2.4	3.8	
92	*Ligustrum japonicum*	2.0	3.3	
94	*Clethra barbinervis*	3.2	4.6	

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

Tree No.	Scientific name (Local name)	DBH (cm)	Tree Height (m)	Remarks
30	*Quercus serrata*	dead	dead	die back 2011
31	*Clethra barbinervis*	dead	dead	
32	*Machilus Thunbergii*	22.7	13.5	
33	*Machilus Thunbergii*	28.7	16.0	
34	*Machilus Thunbergii*	25.8	16.4	
35	*Machilus Thunbergii*	22.1	15.0	
37	*Acanthopanax sciadophylloides*	dead	dead	die back 2011
38	*Pinus densiflora*	cut	cut	
39	*Clethra barbinervis*	10.0	10.0	
40	*Clethra barbinervis*	cut	cut	
41	*Clethra barbinervis*	cut	cut	
42	*Clethra barbinervis*	9.2	11.0	
43	*Clethra barbinervis*	dead	dead	
44	*Clethra barbinervis*	cut	cut	
45	*Quercus serrata*	cut	cut	
46	*Quercus serrata*	cut	cut	
47	*Symplocos lucida*	cut	cut	
48	*Clethra barbinervis*	cut	cut	
49	*Clethra barbinervis*	cut	cut	
50	*Clethra barbinervis*	cut	cut	
51	*Clethra barbinervis*	cut	cut	
52	*Lyonia ovalifolia* var. *elliptica*	cut	cut	
53	*Lyonia ovalifolia* var. *elliptica*	cut	cut	
54	*Clethra barbinervis*	dead	dead	die back 2011
55	*Lyonia ovalifolia* var. *elliptica*	cut	cut	
56	*Lyonia ovalifolia* var. *elliptica*	cut	cut	
57	*Lyonia ovalifolia* var. *elliptica*	cut	cut	
58	*Ilex pedunculosa*	cut	cut	
59	*Ilex pedunculosa*	9.0	11.5	die back
60	*Ilex pedunculosa*	12.5	15.2	stand at an angle
61	*Ligustrum japonicum*	cut	cut	
62	*Pinus densiflora*	cut	cut	
63	*Machilus Thunbergii*	29.6	12.8	
64	*Styrax japonicus*	dead	dead	
65	*Machilus Thunbergii*	23.9	14.7	
66	*Machilus Thunbergii*	cut	cut	
67	*Quercus serrata*	cut	cut	
68	*Symplocos lucida*	15.6	14.8	die back
69	*Dendropanax trifidus*	16.7	10.0	
70	*Ligustrum japonicum*	6.9	6.4	
71	*Machilus Thunbergii*	23.6	14.5	die back
72	*Castanopsis cuspidata* var. *sieboldii*	30.0	14.8	
73	*Clethra barbinervis*	dead	dead	
74	*Symplocos lucida*	cut	cut	
75	*Symplocos lucida*	10.1	10.6	
76	*Symplocos lucida*	12.5	14.5	
93	*Clethra barbinervis*	9.3	11.5	

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

Tree No.	Scientific name (Local name)	DBH (cm)	Tree Height (m)	Remarks
77	*Machilus Thunbergii*	27.5	15.0	
77-2	*Machilus Thunbergii*	18.6	13.8	
78	*Dendropanax trifidus*	38.2	12.5	
80	*Ilex integra*	34.6	14.0	
81	*Pinus densiflora*	cut	cut	
82	*Machilus Thunbergii*	29.4	14.8	
83	*Quercus serrata*	29.1	14.8	holes by beetles
84	*Machilus Thunbergii*	21.1	14.6	
85	*Daphniphyllum teijsmannii*	23.4	12.8	die back

Table 5.7.4) Description of trees: Lake Banryu-2 (Japan)
Plot name: Iwamirinku-FP, Banryu
Date: 8 October 2016
Surveyor: Yanai, Asaura, Ohno, Suzukawa, Murakami

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

Tree No.	Scientific name (Local name)	DBH (cm)	Tree Height (m)	Remarks
1	*Ligustrum japonicum*	dead	dead	die back 2011
2	*Eurya japonica*	dead	dead	die back 2011
3	*Eurya japonica*	dead	dead	die back 2011
4	*Eurya japonica*	dead	dead	die back 2011
5	*Symplocos lucida*	5.7	7.0	
6	*Eurya japonica*	dead	dead	die back 2011
7	*Symplocos lucida*	2.8	3.5	broken of core
8	*Eurya japonica*	dead	dead	
9	*Eurya japonica*	2.4	2.6	
10	*Eurya japonica*	1.7	1.6	
11	*Eurya japonica*	1.7	1.7	broken of core
12	*Castanopsis cuspidata* var. *sieboldii*	43.5	20.0	
13	*Castanopsis cuspidata* var. *sieboldii*	71.5	20.0	
14	*Castanopsis cuspidata* var. *sieboldii*	37.1	20.0	
15	*Castanopsis cuspidata* var. *sieboldii*	61.3	20.0	
16	*Castanopsis cuspidata* var. *sieboldii*	42.5	20.0	
17	*Castanopsis cuspidata* var. *sieboldii*	dead	dead	die back 2011
18	*Castanopsis cuspidata* var. *sieboldii*	dead	dead	die back 2011
19	*Castanopsis cuspidata* var. *sieboldii*	dead	dead	die back 2011
20	*Castanopsis cuspidata* var. *sieboldii*	dead	dead	die back 2011
21	*Castanopsis cuspidata* var. *sieboldii*	dead	dead	die back 2011
22	*Ilex integra*	1.6	3.8	
23	*Ilex integra*	3.3	5.8	
24	*Ilex integra*	1.6	2.5	die back
25	*Symplocos lucida*	dead	dead	die back 2011
26	*Eurya japonica*	dead	dead	die back 2011
27	*Symplocos lucida*	14.0	14.3	
28	*Symplocos lucida*	14.6	13.0	
29	*Symplocos lucida*	dead	dead	
30	*Machilus Thunbergii*	dead	dead	die back 2011
31	*Machilus Thunbergii*	9.8	12.3	
32	*Symplocos lucida*	9.0	10.0	
33	*Ilex rotunda*	4.1	4.8	
34	*Ilex rotunda*	2.5	2.2	
35	*Ilex rotunda*	3.0	2.7	
36	*Symplocos lucida*	12.2	12.5	
37	*Ilex micrococca*	30.6	22.0	
38	*Ilex micrococca*	36.0	20.0	die back
39	*Symplocos lucida*	9.8	8.0	
40	*Machilus Thunbergii*	dead	dead	die back 2011
41	*Symplocos lucida*	8.9	10.0	
42	*Symplocos lucida*	dead	dead	die back 2011
43	*Rhus succedanea*	9.7	11.0	
44	*Rhus succedanea*	dead	dead	die back 2011
45	*Symplocos lucida*	dead	dead	die back 2011
46	*Symplocos lucida*	4.9	3.5	die back
47	*Symplocos lucida*	8.0	7.0	
48	*Symplocos lucida*	4.9	4.6	die back
49	*Machilus Thunbergii*	dead	dead	die back 2011
50	*Machilus Thunbergii*	dead	dead	die back 2011
51	*Machilus Thunbergii*	dead	dead	die back 2011
52	*Machilus Thunbergii*	dead	dead	die back 2011
53	*Machilus Thunbergii*	dead	dead	die back 2011
54	*Eurya japonica*	dead	dead	die back 2011
55	*Symplocos lucida*	dead	dead	die back 2011
56	*Symplocos lucida*	8.6	9.5	
57	*Quercus glauca*	dead	dead	die back 2011
58	*Symplocos lucida*	7.4	9.0	
59	*Symplocos lucida*	3.5	2.5	die back
60	*Castanopsis cuspidata* var. *sieboldii*	35.9	15.5	
61	*Castanopsis cuspidata* var. *sieboldii*	41.1	20.1	
62	*Castanopsis cuspidata* var. *sieboldii*	44.7	20.1	
63	*Castanopsis cuspidata* var. *sieboldii*	35.0	18.5	
64	*Symplocos lucida*	6.6	7.0	
65	*Symplocos lucida*	11.0	12.5	
66	*Rhus succedanea*	11.1	15.5	
67	*Rhus succedanea*	dead	dead	
68	*Ligustrum japonicum*	5.2	8.0	
69	*Symplocos lucida*	11.2	10.2	
70	*Machilus Thunbergii*	dead	dead	
71	*Symplocos lucida*	15.7	15.0	
72	*Ilex rotunda*	5.3	6.0	die back
73	*Ilex rotunda*	dead	dead	
74	*Ilex rotunda*	13.6	15.3	
143	*Symplocos lucida*	20.7	14.0	
144	*Machilus Thunbergii*	dead	dead	
145	*Eurya japonica*	dead	dead	
146	*Castanopsis cuspidata* var. *sieboldii*	6.0	2.4	
147	*Machilus Thunbergii*	1.0	1.7	
148	*Machilus Thunbergii*	3.1	4.5	

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

Tree No.	Scientific name (Local name)	DBH (cm)	Tree Height (m)	Remarks
75	*Machilus Thunbergii*	dead	dead	
76	*Machilus Thunbergii*	18.7	16.5	
77	*Machilus Thunbergii*	dead	dead	
78	*Machilus Thunbergii*	16.1	17.0	
79	*Machilus Thunbergii*	17.0	19.0	
80	*Machilus Thunbergii*	21.2	19.0	
81	*Machilus Thunbergii*	17.7	19.5	
82	*Symplocos lucida*	4.8	6.0	
83	*Symplocos lucida*	9.5	9.0	
84	*Symplocos lucida*	7.3	7.5	
85	*Quercus glauca*	dead	dead	die back 2011
86	*Quercus glauca*	dead	dead	die back 2011
87	*Symplocos lucida*	7.4	7.2	
88	*Symplocos lucida*	5.8	6.0	
89	*Ligustrum japonicum*	dead	dead	
90	*Ligustrum japonicum*	4.7	5.5	
91	*Quercus glauca*	10.2	14.5	
92	*Machilus Thunbergii*	16.2	16.0	
93	*Machilus Thunbergii*	30.6	16.5	
94	*Symplocos lucida*	12.3	10.9	
95	*Quercus serrata*	27.6	20.0	holes by beetles
96	*Myrica rubra*	dead	dead	
97	*Myrica rubra*	8.7	8.5	
98	*Myrica rubra*	14.8	12.0	
99	*Quercus serrata*	26.3	20.5	
100	*Quercus serrata*	32.4	20.0	holes by beetles
102	*Quercus serrata*	dead	dead	die back 2011
103	*Quercus serrata*	dead	dead	die back 2011
104	*Castanopsis cuspidata* var. *sieboldii*	30.2	18.0	
105	*Castanopsis cuspidata* var. *sieboldii*	35.1	19.0	
106	*Castanopsis cuspidata* var. *sieboldii*	27.1	16.5	
107	*Castanopsis cuspidata* var. *sieboldii*	30.4	16.5	
108	*Castanopsis cuspidata* var. *sieboldii*	27.3	17.5	die back
109	*Quercus serrata*	30.3	23.0	holes by beetles
110	*Quercus serrata*	31.8	24.0	holes by beetles
111	*Quercus serrata*	19.0	15.8	

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

Tree No.	Scientific name (Local name)	DBH (cm)	Tree Height (m)	Remarks
112	*Machilus Thunbergii*	23.1	19.0	
113	*Machilus Thunbergii*	22.8	20.2	
114	*Machilus Thunbergii*	30.2	16.5	
115	*Machilus Thunbergii*	22.6	17.5	
116	*Machilus Thunbergii*	37.1	22.5	
117	*Machilus Thunbergii*	28.0	20.5	
118	*Machilus Thunbergii*	30.2	22.0	
119	*Machilus Thunbergii*	26.8	20.5	
120	*Quercus serrata*	dead	dead	
122	*Ilex micrococca*	30.7	19.0	
123	*Machilus Thunbergii*	32.2	17.0	
124	*Castanopsis cuspidata* var. *sieboldii*	56.0	17.5	
125	*Castanopsis cuspidata* var. *sieboldii*	28.5	18.0	
126	*Castanopsis cuspidata* var. *sieboldii*	32.0	18.5	
127	*Castanopsis cuspidata* var. *sieboldii*	33.4	19.0	holes by beetles
128	*Castanopsis cuspidata* var. *sieboldii*	38.9	18.5	
129	*Ilex micrococca*	27.2	19.0	broke of top branch
130	*Castanopsis cuspidata* var. *sieboldii*	26.6	15.0	
131	*Quercus serrata*	dead	dead	
132	*Quercus serrata*	28.5	18.1	holes by beetles
133	*Castanopsis cuspidata* var. *sieboldii*	36.4	19.7	holes by beetles
134	*Castanopsis cuspidata* var. *sieboldii*	33.4	19.7	holes by beetles
135	*Castanopsis cuspidata* var. *sieboldii*	29.8	19.7	holes by beetles
136	*Castanopsis cuspidata* var. *sieboldii*	54.0	19.7	holes by beetles
137	*Quercus serrata*	dead	dead	die back 2011
138	*Machilus Thunbergii*	27.1	13.5	
139	*Machilus Thunbergii*	26.1	13.0	
140	*Quercus serrata*	dead	dead	die back 2011
141	*Machilus Thunbergii*	28.8	15.5	
142	*Castanea crenata*	35.8	12.8	die back

Table 5.8.1) Understory vegetation survey: Lake Ijira (Japan)
Plot name: Ijira, Ijira
Date: 8 November 2016
Surveyor: Yoshizumi Hisada

Number of Species: 18

Scientific name (Local name)	Abundance
Thea sinensis	1
Cleyera japonica	1
Camellia japonica	1
Eurya japonica	+
Castanopsis cuspidata	+
Illicium anisatum	+
Prunus spinulosa	+
Rubus buergeri	+
Struthiopter is niponica	1
Dryopteris erythrosora	1
Pieris japonica	1
Quercus glauca	+
Ilex macropoda	+
Quercus variabilis	+
Plagiogyria japonica	+
Smilax china	+
Viburnum erosum var. *punctatum*	+
Aucuba japonica	+

Table 5.8.2) Understory vegetation survey:Lake Ijira-2 (Japan)

Plot name: Yamato, Ijira

Date: 10 November 2016

Surveyor: Yoshizumi Hisada

Number of Species: 28

Scientific name (Local name)	Abundance
Parabenzoin trilobum	1
Acanthopanax sciadophylloides	+
Clethra barbinervis	1
Rhus trichocarpa	+
Acer crataegifolium	+
Acer micranthum	+
Callicarpa japonica	+
Chamaecyparis obtusa	+
Hydrangea hirta	+
Ilex crenata	+
Magnolia salicifolia	+
Rubus crataegifolius	+
Rubus palmatus	+
Smilax china	+
Styrax japonicus	+
Oplismenus undulatifolius	+
Dryopteris erythrosora	1
Stegnogramma pozoi ssp. *mollissima*	+
Struthiopter is niponica	+
Cryptomeria japonica	+
Gentiana scabra var. *buergeri*	+
Schizophragma hydrangeoides	+
Macleaya cordata	+
Carpinus laxiflora	+
Reynoutria japonica	+
Aralia elata	+
Carex morrowii	+
Plagiogyria japonica	+

Table 5.8.3) Understory vegetation survey:Lake Banryu-1 (Japan)
Plot name: Banryu2, Banryu
Date: 6 October 2016
Surveyor: Yanai, Asaura, Ohno, Suzukawa, Murakami

Number of Species: 18

Scientific name (Local name)	Abundance
Gleichenia japonica	5
Dendropanax trifidus	+
Eurya japonica	+
Ligustrum japonicum	+
Smilax china	+
Callicarpa mollis	+
Lindera umbellata	+
Akebia trifoliata	+
Rhus succedanea	+
Daphniphyllum teijsmannii	+
Symplocos lucida	+
Rubus palmatus	+
Rhus trichocarpa	+
Clethra barbinervis	+
Rhus javanica var. *roxburgii*	+
Vaccinium oldhamii	+
Dioscorea japonica	+
Stauntonia hexaphylla	+

Table 5.8.4) Understory vegetation survey:Lake Banryu-2 (Japan)
Plot name: Iwamirinku-FP, Banryu
Date: 8 October 2016
Surveyor: Yanai, Asaura, Ohno, Suzukawa, Murakami

Number of Species: 13

Scientific name (Local name)	Abundance
Gleichenia japonica	3
Castanopsis cuspidata var. *sieboldii*	1
Symplocos lucida	1
Ardisia japonica	+
Ligustrum japonicum	+
Akebia trifoliata	+
Machilus Thunbergii	+
Dendropanax trifidus	+
Eurya japonica	1
Ilex micrococca	+
Cinnamomum japonicum	+
Cleyera japonica	+
Ternstroemia gymnanthera	+

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, including 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.

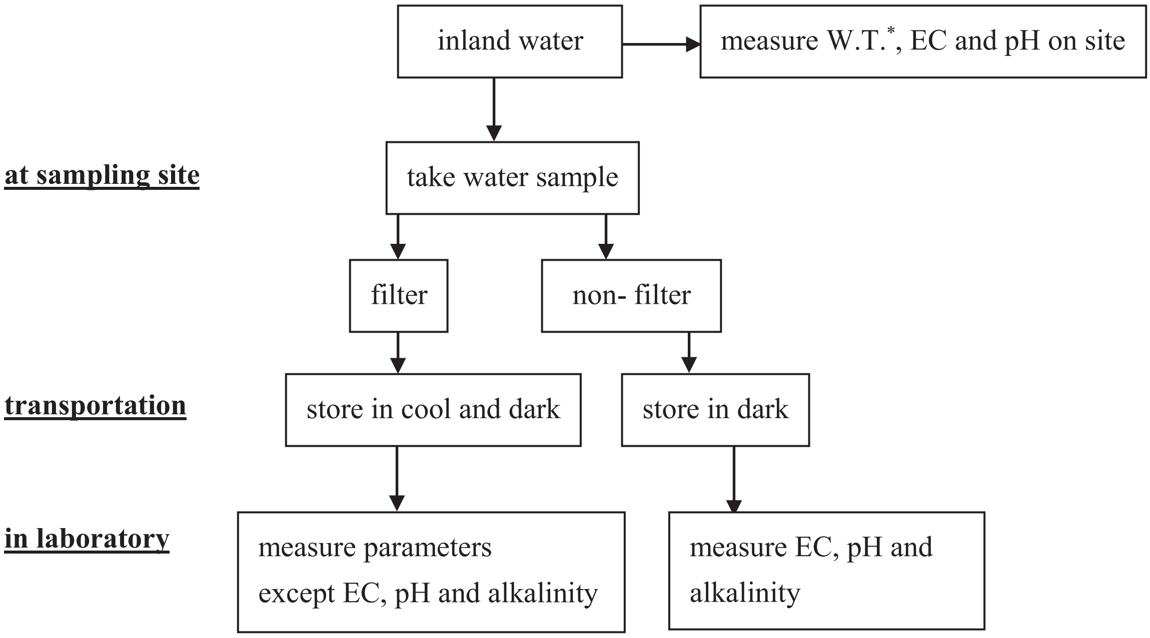
Items specified in the technical manual (2000) include water temperature, pH, electric conductivity (EC), alkalinity and concentration of SO_4^{2-}, NO_3^-, Cl^-, NH_4^+, Na^+, K^+, Ca^{2+}, and Mg^{2+} of targeted lakes/rivers at least four times a year (seasonally), and transparency, water color, DOC (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 12 lakes/reservoirs and 6 streams. For 2016, the data of Sras Srang Lake and Semenyih Dam have not been submitted yet. 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 2016

Country	Site	Distance from the site	Nearest deposition monitoring site	Start year	Interval
Cambodia	Sras Srang Lake (Kampong Speu province)	-	Remote	2012	-
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	4 times/yr.
	Gunung Lake (Sukabumi)	-	-	2008	3 times/yr.
Japan	Ijira Lake (Gifu Pref.)	1.1 km	Rural/Ecolog. (Ijira)	2001	2 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	-
	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	5 times/yr.
	Komarovka River (Primorskaya)	0.5 km	Rural (Primorskaya)	2005	4 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 Table 6.4.12. 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 *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 six sites (Jiwozi River and Zhuxiandong Stream in China, Patengang Lake and Gunung Lake in Indonesia, Terelj River in Mongolia and Ambulalakaw Lake in Philippines) 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 2016 are shown in Table 6.5.1 to Table 6.5.20.

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	2.4 m/s (mean) *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	23.2°C (mean) *1
Precipitation	1,891.3 mm *1
Sunshine duration	176.3 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, 2014

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 since 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	24.0°C (mean) *1
Precipitation	3,011.8 mm *1
Sunshine duration	-
Solar radiation	406.6 MJ/m^2/month (mean) *1
Wind speed	Mean 1.3 m/s *1
Wind direction	SSW (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, 2014

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	16.1°C (mean) *1
Precipitation	1,719.0 mm/year *1
Sunshine duration	184.1 hrs/month (mean) *1
Solar radiation	-
Wind speed	Mean 2.7 m/s *1
Wind direction	NW(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	15.5°C (mean) *1
Precipitation	1,518.5 mm/year *1
Sunshine duration	139.3 hrs/month (mean) *1
Solar radiation	-
Wind speed	Mean 1.7 m/s *1
Wind direction	S (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, 2014

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	3,720 km^2
Shore line length	-
Lake hydrologic type	Reservoir
Lake trophic type	-
Water depth	137.7-146.3m (mean: 141.9 m) (2016)
Water volume	3.5688-5.8286 km^3 (mean: 4.6346km^3) (2016)
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	1,303.2 mm *2
Sunshine duration	133.7 hrs/month (mean) *2
Solar radiation	-
Wind speed	Mean 1.1 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: 2016.3.-2016.10.
Country: Cambodia
Lake/Stream: Sras Srang Lake

		Mandatory Parameters: 4 times/year												
Site	Sampling Date	Temp. (^{o}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)
Sras Srang Lake	Mar-16	30.5	5.85	1.01	0.035	0.04	0.39	1.30	0.14	1.01	0.22	0.31	0.12
	Oct-16	28.7	6.08	0.83	0.020	0.17	0.22	0.90	0.04	0.81	0.07	0.23	0.15
	mean*1	29.6	5.95	0.92	0.028	0.10	0.30	1.10	0.09	0.91	0.14	0.27	0.13

		Mandatory Parameters: Once/year				Parameters
Site	Sampling Date	Transparency (m)	PO_4^{3-} (mg/L)	NO_2^- (mg/L)	COD (mg/L)	DO (mg/L)
Sras Srang Lake	Mar-16	0.7	0.0	0.0	-	7.2
	Oct-16	0.8	0.0	0.0	-	7.0
	mean*1	0.7	-	-	-	7.1

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

		Anion	Cation	R1	Judge
Sras Srang Lake	Mar-16	78.7	84.0	3.3	O
	Oct-16	52.5	63.4	9.4	×

Λcalc	R2	Judge
1.00	-0.3	O
0.70	-8.1	O

Table 6.4.2 Result of Inland Aquatic Environment Monitoring

Duration: 2016.1.-2016.12.
Country: China
Lake/Stream: (See below)

		Mandatory Parameters : 4 times/year											
Site	Sampling Date	Temp. (^{o}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)
Chongqing -Jinyunshan Lake	27-Mar-16	18.0	6.18	13.50	0.289	30.17	12.72	3.29	*1	2.97	2.28	15.79	3.92
	24-Jun-16	29.0	6.60	12.20	0.209	28.07	13.12	3.20	*1	3.30	2.61	12.82	3.66
	18-Sep-16	27.0	6.86	11.27	0.427	26.38	6.55	2.42	*1	2.64	2.29	10.58	3.49
	18-Dec-16	12.0	6.62	11.70	0.139	29.77	14.49	2.95	*1	2.73	2.00	11.44	3.28
	mean*2	21.5	6.49	12.17	0.266	28.60	11.72	2.97	*1	2.91	2.30	12.66	3.59
Xiamen -Xiaoping Dam	02-Mar-16	12.3	7.42	7.66	0.439	3.41	1.47	2.90	0.20	6.52	2.02	5.12	0.80
	05-May-16	23.1	6.62	5.71	0.265	2.34	2.91	3.48	0.11	4.70	2.28	2.64	0.67
	06-Jul-16	27.6	6.47	5.41	0.220	1.86	2.93	2.39	0.06	3.33	2.81	3.29	0.56
	01-Nov-16	25.2	6.54	5.15	0.197	1.93	3.14	2.72	0.07	3.17	2.33	3.03	0.60
	mean*2	22.1	6.65	5.98	0.280	2.39	2.61	2.87	0.11	4.43	2.36	3.52	0.66
Xi'an -Jiwozi River	04-Jan-16	4.0	7.04	7.63	0.250	11.60	5.82	2.01	0.00	4.65	0.83	7.53	0.89
	28-Apr-16	8.0	7.12	7.05	0.240	12.07	4.03	1.15	0.00	2.01	0.14	10.27	0.12
	10-Aug-16	16.0	7.35	7.60	0.320	12.97	0.98	0.06	0.00	1.37	0.32	9.76	1.73
	17-Oct-16	10.0	6.97	8.12	0.370	10.16	0.60	0.05	0.00	1.13	1.31	12.71	1.71
	mean*2	-	7.10	7.60	0.295	11.70	2.86	0.82	*1	2.29	0.65	10.07	1.11
Zhuhai -Zhuxiandong Stream	04-Jan-16	18.3	7.08	5.47	0.511	1.85	2.24	4.35	0.03	6.40	1.05	1.88	0.84
	05-Apr-16	22.4	7.28	7.68	0.488	2.92	3.66	5.72	0.04	6.48	1.84	3.91	1.56
	05-Sep-16	25.3	6.66	7.36	0.483	2.49	1.78	4.42	0.04	5.92	1.92	5.08	1.85
	03-Dec-16	21.0	7.29	9.29	0.502	0.14	0.35	0.28	0.00	8.00	1.29	6.51	2.30
	mean*2	21.8	6.99	7.45	0.496	1.85	2.01	3.69	0.03	6.70	1.53	4.35	1.64

		Mandatory Parameters : Once /year				
Site	Sampling Date	Transparency (m)	Water Color	PO_4^{3-} (mg/l)	NO_2^- (mg/l)	COD (mg/l)
Chongqing -Jinyunshan Lake	27-Mar-16	3.5	-	-	-	-
	24-Jun-16	1.9	-	-	-	-
	18-Sep-16	3.0	-	-	-	-
	18-Dec-16	1.4	-	*1	*1	<10*1
	mean*2	2.5	-	*1	*1	<10*1
Xiamen -Xiaoping Dam	02-Mar-16	1.2	-	-	0.018	1.1
	05-May-16	1.0	-	-	0.016	0.8
	06-Jul-16	1.2	-	-	0.022	1.1
	01-Nov-16	1.5	-	0.04	0.010	0.7
	mean*2	1.2	-	0.04	0.017	0.9
Xi'an -Jiwozi River	04-Jan-16	-	-	-	-	-
	28-Apr-16	-	-	-	-	-
	10-Aug-16	-	-	-	-	-
	17-Oct-16	-	-	<0.01*1	<0.003*1	*1
	mean*2	-	-	<0.01*1	<0.003*1	*1
Zhuhai -Zhuxiandong Stream	04-Jan-16	-	-	-	-	-
	05-Apr-16	-	-	-	-	-
	05-Sep-16	-	-	-	-	-
	03-Dec-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.

		Anion	Cation	R1	Judge		Acalc	R2	Judge
Chongqing -Jinyunshan Lake	27-Mar-16	1215.1	1298.5	3.3	O		16.01	8.5	O
	24-Jun-16	1095.3	1151.3	2.5	O		14.46	8.5	O
	18-Sep-16	1150.1	988.5	-7.6	O		13.27	8.1	O
	18-Dec-16	1075.7	1010.7	-3.1	O		13.71	7.9	O
Xiamen -Xiaoping	2-Mar-16	615.9	667.7	4.0	O		7.08	-3.9	O
	5-May-16	459.2	455.9	-0.4	O		5.24	-4.3	O
	6-Jul-16	373.9	430.6	7.1	O		4.66	-7.4	O
	1-Nov-16	366.1	402.2	4.7	O		4.49	-6.8	O
Xi'an -Jiwozi	4-Jan-16	642.2	672.4	2.3	O		7.96	2.1	O
	28-Apr-16	588.8	613.5	2.0	O		7.38	2.3	O
	10-Aug-16	607.4	697.3	6.9	O		7.74	0.9	O
	17-Oct-16	592.5	857.9	18.3	×		8.46	2.0	O
Zhuhai -Zhuxiandong Stream	4-Jan-16	708.1	469.9	-20.2	×		6.31	7.1	O
	5-Apr-16	769.2	654.6	-8.0	×		7.94	1.7	O
	5-Sep-16	688.2	714.7	1.9	O		7.72	2.4	O
	3-Dec-16	518.5	895.0	26.6	×		7.30	-12.0	×

Table 6.4.3 Result of Inland Aquatic Environment Monitoring

Duration: 2016.4.-2016.11.
Country: Indonesia
Lake/Stream: (See below)

		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)
Patengang Lake	7-Apr-16	-	7.98	9.30	0.348	7.05	1.57	6.60	0.03	4.93	1.38	5.62	1.89
	2-Jun-16	-	8.12	9.76	0.397	6.77	1.51	2.98	0.06	3.53	1.21	6.79	1.91
	9-Sep-16	-	8.17	10.20	0.533	6.40	0.09	2.35	0.09	6.78	0.79	5.91	1.82
	24-Nov-16	-	8.10	8.80	0.427	5.36	0.11	2.57	0.16	3.47	1.18	2.95	1.73
	-	-											
	mean*1	-	8.09	9.51	0.43	6.40	0.82	3.62	0.09	4.68	1.14	5.32	1.84
Gunung Lake	14-Jun-16	-	7.03	3.30	0.443	1.12	0.32	0.76	0.08	1.58	0.68	5.42	1.42
	22-Sep-16	-	7.75	4.27	0.401	1.61	0.11	0.84	0.03	8.80	0.30	4.59	1.37
	29-Nov-16	-	8.24	4.19	0.392	1.08	0.04	0.83	0.16	1.91	0.57	6.59	1.29
	-	-											
	-	-											
	mean*1	-	7.41	3.92	0.41	1.27	0.15	0.81	0.09	4.10	0.51	5.53	1.36

		Mandatory Parameters: Once/year				
Site	Sampling Date	Transparency (m)	Water Color (PtCo unit)	PO_4^{3-} (mg/L)	NO_2^- (mg/L)	DOC (mg/L)
Patengang Lake	7-Apr-16	-	-	-	-	-
	2-Jun-16	-	-	-	-	-
	9-Sep-16	-	-	-	-	-
	24-Nov-16	-	-	-	-	-
	-	-	-	-	-	-
	mean*1	-	-	-	-	-
Gunung Lake	14-Jun-16	-	-	-	-	-
	22-Sep-16	-	-	-	-	-
	29-Nov-16	-	-	-	-	-
	-	-	-	-	-	-
	-	-	-	-	-	-
	mean*1	-	-	-	-	-

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

		Anion	Cation	R1	Judge
Patengang Lake	7-Apr-16	706.8	687.7	-1.4	O
	2-Jun-16	646.7	683.8	2.8	O
	9-Sep-16	733.4	764.4	2.1	O
	24-Nov-16	612.8	479.9	-12.2	×
	-	-	-	-	-
Gunung Lake	14-Jun-16	492.4	477.7	-1.5	O
	22-Sep-16	460.1	734.0	22.9	×
	29-Nov-16	438.3	541.8	10.6	×
	-	-	-	-	-

Λcalc	R2	Judge
8.18	-6.4	O
7.60	-12.5	×
8.17	-11.0	×
6.04	-18.6	×
-	-	-
5.10	21.5	×
6.20	18.53	×
5.23	11.0	×
-	-	-

Table 6.4.4 Result of Inland Aquatic Environment Monitoring

Duration: 2016.4.-2017.1.
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)	12-Apr-16	12.6	6.91	3.75	0.118	6.12	1.67	1.81	<0.01*1	1.87	0.25	2.37	1.20
	19-Jul-16	24.2	7.32	3.72	0.165	4.62	1.11	1.75	<0.01*1	1.90	0.28	2.41	1.21
	-	-	-	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-	-	-
	mean*2	18.4	7.11	3.73	0.141	5.37	1.39	1.78	<0.01*1	1.89	0.27	2.39	1.20
Center (near bottom)	12-Apr-16	12.4	6.60	4.10	0.123	6.96	1.65	1.86	<0.01*1	1.95	0.25	2.64	1.31
	19-Jul-16	18.8	6.49	4.04	0.178	5.05	0.99	1.77	<0.01*1	1.86	0.27	2.75	1.29
	-	-	-	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-	-	-
	mean*2	15.6	6.54	4.07	0.150	6.00	1.32	1.82	<0.01*1	1.90	0.26	2.69	1.30
Kamagatani River (Input)	12-Apr-16	10.7	7.13	4.02	0.144	6.13	1.36	1.90	<0.01*1	2.00	0.23	2.51	1.35
	19-Jul-16	21.1	7.14	4.09	0.165	5.66	1.32	1.85	<0.01*1	2.02	0.29	2.68	1.32
	24-Oct-16	15.7	7.07	3.79	0.147	5.65	1.36	1.86	<0.01*1	1.94	0.26	2.44	1.31
	17-Jan-17	5.8	6.99	4.21	0.142	7.06	1.38	1.98	<0.01*1	1.98	0.21	2.87	1.42
	mean*2	13.3	7.08	4.03	0.150	6.12	1.35	1.90	<0.01*1	1.98	0.25	2.62	1.35
Kobora River (Input)	12-Apr-16	10.5	7.04	3.50	0.128	4.77	1.12	2.00	<0.01*1	2.20	0.22	1.66	1.22
	19-Jul-16	21.5	7.10	3.64	0.144	4.47	1.35	1.97	<0.01*1	2.32	0.29	1.75	1.22
	24-Oct-16	15.2	6.96	3.34	0.130	4.47	1.24	1.98	<0.01*1	2.20	0.26	1.62	1.20
	17-Jan-17	5.5	6.98	3.69	0.131	5.22	1.39	2.11	<0.01*1	2.20	0.19	1.93	1.35
	mean*2	13.2	7.01	3.54	0.133	4.73	1.27	2.01	<0.01*1	2.23	0.24	1.74	1.24

		Mandatory Parameters : Once/year						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)	12-Apr-16	2.2	14	clear, colorless	<0.1*1	<0.01*1	0.6	2.6
	19-Jul-16	7.4	6	clear, colorless	-	<0.01*1	-	0.3
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
	mean	4.8	-	-	<0.1*1	<0.01*1	0.6	1.5
Center (near bottom)	12-Apr-16	-	-	clear, colorless	<0.1*1	<0.01*1	0.5	7.1
	19-Jul-16	-	-	clear, colorless	-	<0.01*1	-	4.3
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
	mean	-	-	-	<0.1*1	<0.01*1	0.5	5.7
Kamagatani River (Input)	12-Apr-16	-	-	clear, colorless	<0.1*1	<0.01*1	0.2	-
	19-Jul-16	-	-	clear, colorless	-	<0.01*1	-	-
	24-Oct-16	-	-	clear, colorless	-	<0.01*1	-	-
	17-Jan-17	-	-	clear, colorless	-	<0.01*1	-	-
	mean	-	-	-	<0.1*1	<0.01*1	0.2	-
Kobora River (Input)	12-Apr-16	-	-	clear, colorless	<0.1*1	<0.01*1	0.2	-
	19-Jul-16	-	-	clear, colorless	-	<0.01*1	-	-
	24-Oct-16	-	-	clear, colorless	-	<0.01*1	-	-
	17-Jan-17	-	-	-	-	-	-	-
	mean	-	-	-	<0.1*1	<0.01*1	0.2	-

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 it.
Annual precipitation is 1988.0 mm/year in 2016 (Gifu pref. Meteorological observatory).
Data missing in October and January was caused by dam reinforcement work.

		Anion	Cation	R1	Judge		Acalc	R2	Judge
Center (Surface)	12-Apr-16	322.8	304.1	-3.0	O		3.81	0.9	O
	19-Jul-16	328.4	309.0	-3.0	O		3.72	0.1	O
	24-Oct-16	-	-	-	-		-	-	-
	17-Jan-17	-	-	-	-		-	-	-
Center (near bottom)	12-Apr-16	346.9	330.3	-2.4	O		4.14	0.4	O
	19-Jul-16	348.5	331.0	-2.6	O		3.98	-0.7	O
	24-Oct-16	-	-	-	-		-	-	-
	17-Jan-17	-	-	-	-		-	-	-
Kamagatani River (Input)	12-Apr-16	347.1	328.6	-2.7	O		4.05	0.3	O
	19-Jul-16	356.3	337.0	-2.8	O		4.10	0.1	O
	24-Oct-16	339.0	320.0	-2.9	O		3.93	1.8	O
	17-Jan-17	367.0	351.4	-2.2	O		4.34	1.6	O
Kobora River (Input)	12-Apr-16	301.2	284.6	-2.8	O		3.47	-0.4	O
	19-Jul-16	314.3	295.1	-3.2	O		3.58	-0.8	O
	24-Oct-16	298.8	281.2	-3.0	O		3.43	1.4	O
	17-Jan-17	321.6	307.4	-2.3	O		3.75	0.9	O

Table 6.4.5 Result of Inland Aquatic Environment Monitoring

Duration: 2016.5.-2017.1.
Country: Japan
Lake/Stream: Banryu Lake

		Mandatory Parameters : 4 times/year											
Site	Sampling Date	Temp. (^{o}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	30-May-16	24.2	7.15	10.05	0.140	4.58	<0.08*1	23.70	<0.05*1	13.45	1.63	1.40	1.67
	27-Jul-16	30.0	7.04	9.88	0.155	4.09	<0.08*1	22.50	<0.05*1	13.50	1.71	1.61	1.66
	25-Oct-16	20.3	6.86	9.89	0.200	3.76	<0.08*1	21.25	0.06	13.95	1.56	1.72	1.94
	11-Jan-17	8.4	6.88	9.86	0.175	4.37	0.40	21.75	0.18	13.60	1.62	1.65	1.87
	mean*2	20.7	6.96	9.92	0.168	4.20	0.10	22.30	0.06	13.63	1.63	1.59	1.78
NO.2 (center) near bottom	30-May-16	11.5	6.43	11.52	0.250	5.05	0.15	24.45	0.17	14.20	1.76	2.15	2.27
	27-Jul-16	14.5	6.46	13.43	0.420	3.22	<0.08*1	24.35	<0.05*1	15.00	1.95	3.55	3.11
	25-Oct-16	15.8	6.40	15.26	0.675	1.49	<0.08*1	22.80	0.89	16.75	2.06	5.15	4.24
	11-Jan-17	8.4	6.94	9.97	0.175	4.35	0.40	21.85	0.18	13.80	1.63	1.67	1.91
	mean*2	12.6	6.51	12.54	0.380	3.53	0.14	23.36	0.31	14.94	1.85	3.13	2.88

		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	30-May-16	2.9	12	<0.003*1	<0.01*1	2.3	-	-	7.5
	27-Jul-16	2.9	13	-	-	-	-	-	3.7
	25-Oct-16	1.8	13	-	-	-	-	-	3.8
	11-Jan-17	2.5	13	-	-	-	-	-	5.9
	mean	2.5	-	<0.003*1	<0.01*1	2.3	-	-	5.2
NO.2 (center) near bottom	30-May-16	-	-	<0.003*1	<0.01*1	2.2	-	-	14.0
	27-Jul-16	-	-	-	-	-	-	-	56.3
	25-Oct-16	-	-	-	-	-	-	-	54.6
	11-Jan-17	-	-	-	-	-	-	-	6.2
	mean	-	-	<0.003*1	<0.01*1	2.2	-	-	32.8

- : 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 1825.0 mm/year in 2016 (Lake Banryu national acid rain monitoring station).

		Anion	Cation	R1	Judge	Λcalc	R2	Judge
NO.2 (center) surface	30-May-16	903.9	833.6	-4.0	O	10.87	4.0	O
	27-Jul-16	874.9	847.8	-1.6	O	10.69	3.9	O
	25-Oct-16	877.6	894.7	1.0	O	10.81	4.5	O
	11-Jan-17	885.9	878.7	-0.4	O	10.89	5.0	O
NO.2 (center) near bottom	30-May-16	1047.1	966.1	-4.0	O	12.37	3.6	O
	27-Jul-16	1173.9	1135.2	-1.7	O	13.71	1.1	O
	25-Oct-16	1349.1	1435.9	3.1	O	15.96	2.2	O
	11-Jan-17	888.3	892.2	0.2	O	10.98	4.8	O

Table 6.4.6 Result of Inland Aquatic Environment Monitoring

Duration: 2016.3.-2016.12.
Country: Lao PDR
Lake/Stream: Nam Hum Lake

		Mandatory Parameters: 4 times/year											
Site	Sampling Date	Temp. (^{o}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)
Nam Hum Lake	16-Mar-17	27.3	7.54	3.60	0.310	5.44	0.05	2.40	0.01	2.30	0.39	1.21	3.23
	16-Jun-17	27.1	6.73	3.20	0.390	1.00	0.01	1.40	0.01	1.60	0.69	1.25	2.64
	16-Sep-17	27.3	7.80	1.15	0.200	2.00	0.02	1.90	0.01	0.19	0.19	1.01	0.54
	16-Dec-17	25.0	7.70	1.40	0.460	2.00	0.01	1.60	0.01	0.20	0.32	1.10	0.46
	mean*1	-	7.20	2.34	0.340	2.61	0.02	1.83	0.01	1.07	0.40	1.14	1.72

		Mandatory Parameters: Once/year					Optional Parameters
Site	Sampling Date	Transparency (m)	Water Color (PtCo unit)	PO_4^{3-} (mg/L)	NO_2^- (mg/L)	COD (mg/L)	DO (mg/L)
Nam Hum Lake	16-Mar-17	0.5	-	0.010	-	11.7	7.4
	16-Jun-17	0.5	-	0.010	-	10.4	6.9
	16-Sep-17	0.5	-	0.010	-	11.4	6.4
	16-Dec-17	1.0	-	0.010	-	11.1	6.4
	mean*1	0.6	-	0.010	-	11.2	6.8

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

		Anion	Cation	R1	Judge
Nam Hum Lake	16-Mar-17	492.1	436.6	-6.0	O
	16-Jun-17	450.8	367.5	-10.2	×
	16-Sep-17	295.9	108.5	-46.3	×
	16-Dec-17	547.3	110.2	-66.5	×

Λcalc	R2	Judge
5.17	17.9	×
4.23	13.8	×
2.26	32.5	×
3.37	41.3	×

Table 6.4.7 Result of Inland Aquatic Environment Monitoring

Duration: 2016.3.-2016.12.
Country: Malaysia
Lake/Stream: (See below)

		Mandatory Parameters: 4 times/year												
Site	Sampling Date	Temp. (^oC)	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)
Semenyih Dam	-	-	-	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-	-	-
	mean*2	-	-	-	-	-	-	-	-	-	-	-	-
Tembaling River	15-Mar-16	26.8	8.07	23.38	2.080	10.61	0.35	5.98	0.196	10.80	5.78	22.00	10.62
	15-Jun-16	26.3	7.71	16.56	1.286	9.10	<0.05*1	3.45	0.001	6.59	0.36	15.63	7.39
	15-Sep-16	25.7	7.66	17.44	1.537	9.78	0.52	3.42	<0.003*1	8.20	0.39	17.83	8.09
	6-Dec-16	25.3	7.74	15.32	1.446	7.57	1.32	2.05	0.035	5.48	0.37	15.66	7.89
	mean*2	26.0	7.77	18.17	1.587	9.26	0.55	3.73	0.058	7.77	1.73	17.78	8.50

		Mandatory Parameters: Once/year	
Site	Sampling Date	PO_4^{3-} (mg/L)	COD (mg/L)
Semenyih Dam	-	-	-
	-	-	-
	mean*2	-	-
Tembaling River	15-Mar-16	<0.10	4.5
	15-Jun-16	<0.10	9.5
	15-Sep-16	<0.10	3.4
	6-Dec-16	<0.10	7.9
	mean*2	<0.10*1	6.3

- : 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.

		Anion	Cation	R1	Judge
Semenyih Dam	-	-	-	-	-
	-	-	-	-	-
	-	-	-	-	-
Tembaling River	17-Mar-15	2475.5	2599.3	2.4	O
	16-Jun-15	1573.1	1683.2	3.4	O
	17-Sep-15	1845.6	1922.1	2.0	O
	8-Dec-15	1682.8	1680.0	-0.1	O

Λcalc	R2	Judge
-	-	-
-	-	-
-	-	-
27.09	7.4	O
17.39	2.4	O
19.99	6.8	O
17.70	7.2	O

Table 6.4.8 Result of Inland Aquatic Environment Monitoring

Duration: 2016.5.-2016.10.
Country: Mongolia
Lake/Stream: Terelj River

		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)
Terelj River	4-May-16	25.0	6.58	4.11	0.223	2.91	*1	0.63	*1	1.09	1.02	5.88	0.77
	8-Jun-16	25.0	7.01	4.87	0.324	3.50	*1	0.38	*1	1.58	0.49	6.81	0.86
	17-Jul-16	25.0	7.03	4.66	0.324	3.69	*1	0.30	*1	1.50	0.48	6.76	0.84
	17-Aug-16	25.0	6.77	3.55	0.284	3.21	0.55	0.21	*1	1.45	0.50	6.38	0.77
	7-Sep-06	25.0	6.40	4.66	0.243	3.49	0.40	0.24	*1	1.58	0.50	6.94	0.84
	5-Oct-16	25.0	6.29	4.50	0.263	3.71	1.10	0.31	*1	1.48	0.42	6.53	0.81
	mean*1	-	6.59	4.39	0.277	3.42	0.34	0.35	*1	1.45	0.57	6.55	0.82

		Mandatory Parameters : Once/year	
Site	Sampling Date	PO_4^{3-} (mg/L)	NO_2^- (mg/L)
Terelj River	4-May-16	-	-
	8-Jun-16	-	-
	17-Jul-16	-	-
	17-Aug-16	-	-
	7-Sep-06	-	-
	5-Oct-16	-	-
	mean*1	-	-

note
- : Items were not analyzed.
*1: Less than determination limit.
*2: Mean of pH takes an average of hydrogen ion.

		Anion	Cation	R1	Judge
Terelj River	4-May-16	301.4	430.5	17.6	×
	8-Jun-16	407.6	491.9	9.4	×
	17-Jul-16	409.3	484.0	8.4	×
	17-Aug-16	365.6	457.7	11.2	×
	7-Sep-06	328.9	497.3	20.4	×
	5-Oct-16	366.7	468.1	12.1	×

Acalc	R2	Judge
4.14	0.4	O
4.96	0.9	O
4.93	2.8	O
4.56	12.5	×
4.65	-0.1	O
4.70	2.2	O

Table 6.4.9 Result of Inland Aquatic Environment Monitoring

Duration: 2016.3.-2016.11.
Country: Philippines
Lake/Stream: (See below)

		Mandatory Parameters: 4 times/year											
Site	Sampling Date	Temp. (^{o}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)
Ambulalakaw Lake	8-Mar-16	-	6.03	0.531	0.030	0.020	0.000	0.13	0.000	0.40	0.13	0.3	0.10
	17-May-16	-	5.70	0.556	0.020	0.095	0.000	0.27	0.000	0.75	0.19	0.3	0.11
	06-Sep-16	-	5.80	0.473	0.045	0.149	0.079	0.08	0.000	0.28	0.00	0.0	0.05
	08-Nov-16	-	5.77	0.495	0.010	0.168	0.000	0.25	0.000	0.42	0.16	0.3	0.12
	mean*1	-	5.81	0.514	0.026	0.108	0.020	0.18	0.000	0.46	0.12	0.3	0.10
Pandin Lake	17-Feb-16	-	7.97	21.200	1.787	0.736	0.556	3.51	1.128	8.83	4.55	17.2	8.62
	11-May-16	-	6.92	18.750	1.694	0.901	0.469	3.63	0.076	8.95	4.59	15.8	8.57
	24-Aug-16	-	7.15	17.930	1.771	0.994	0.130	3.55	0.050	8.59	4.41	15.1	8.21
	16-Nov-16	-	7.19	17.080	1.725	0.720	0.118	3.23	0.016	7.96	4.08	15.0	7.75
	mean*1	-	7.18	18.740	1.744	0.838	0.318	3.48	0.318	8.58	4.41	15.8	8.29

		Mandatory Parameters: Once/year			Parameters
Site	Sampling Date	Transparency (m)	PO_4^{3-} (mg/L)	NO_2^- (mg/L)	DO (mg/L)
Ambulalakaw Lake	8-Mar-16	-	-	-	-
	17-May-16	-	-	-	-
	06-Sep-16	-	-	-	-
	08-Nov-16	-	-	-	-
	mean*1	-	-	-	-
Pandin Lake	17-Feb-16		0.223	0.00	-
	11-May-16		0.215	0.00	-
	24-Aug-16		0.000	0.00	-
	16-Nov-16		0.000	0.00	-
	mean*1	-	0.110	0.00	-

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

		Anion	Cation	R1	Judge
Ambulalakaw Lake	08-Mar-16	34.1	46.8	15.7	×
	17-May-16	29.6	65.2	37.6	×
	06-Sep-16	51.7	20.0	-44.3	×
	08-Nov-16	20.5	50.1	41.9	×
Pandin Lake	17-Feb-16	1917.6	2129.3	5.2	O
	11-May-16	1829.5	2001.6	4.5	O
	24-Aug-16	1893.9	1920.4	0.7	O
	16-Nov-16	1833.0	1837.6	0.1	O

Acalc	R2	Judge
0.45	-7.7	O
0.58	2.1	O
0.40	-8.0	O
0.46	-4.2	O
21.09	-0.3	O
19.87	2.9	O
19.67	4.6	O
18.89	5.0	O

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

Table 6.4.10 Result of Inland Aquatic Environment Monitoring

Duration: 2016.2.-2016.11.
Country: Russian Federation
Lake/Stream: (See below)

		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)
Pereemnaya River	27-Feb-16	0.2	6.56	4.91	0.142	12.58	0.81	0.19	0.010	1.32	0.72	5.21	0.86
	16-May-16	7.6	6.85	3.46	0.120	7.65	1.02	0.12	0.003	0.78	0.53	3.89	0.60
	26-Jul-16	14.5	7.05	4.76	0.140	12.11	0.45	0.02	0.009	0.95	0.61	5.16	0.95
	4-Oct-16	3.2	6.82	4.97	0.167	12.21	0.52	0.22	0.005	1.20	0.79	5.34	1.00
	mean*1	6.4	6.78	4.53	0.142	11.14	0.70	0.14	0.007	1.06	0.66	4.90	0.85
Komarovka River	17-Feb-16	0.1	6.57	9.11	0.411	14.68	3.17	3.23	0.03	3.50	0.30	9.45	2.08
	21-Apr-16	2.3	6.85	8.81	0.251	16.25	6.15	3.55	0.21	3.52	0.88	7.57	2.27
	23-Jun-16	12.1	6.50	9.54	0.381	14.07	4.12	4.38	0.49	4.83	1.08	8.25	2.15
	21-Sep-16	12.1	6.81	9.07	0.420	13.52	1.65	3.83	0.28	4.73	1.08	8.55	1.82
	23-Nov-16	0.1	7.01	8.90	0.412	12.72	3.32	2.87	0.17	2.53	0.40	10.42	1.78
	mean*1	5.3	6.71	9.09	0.375	14.25	3.68	3.57	0.24	3.82	0.75	8.85	2.02

		Mandatory Parameters: Once/year					Optional Parameters			
Site	Sampling Date	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	27-Feb-16	1.5	colorless	0.007	0.002	0.4	-	0.009	12.38	2.61
	16-May-16	2.0	colorless	0.004	0.002	1.4	-	0.005	11.51	2.23
	26-Jul-16	2.0	colorless	0.002	0.002	-	-	0.006	10.79	2.59
	4-Oct-16	2.0	colorless	0.002	0.001	0.8	-	0.007	13.53	3.13
	mean*1	1.9	-	0.004	0.002	0.9	-	0.007	12.05	2.64
Komarovka River	17-Feb-16	-	colorless	0.005	0.026	5.8	0.08	-	12.23	5.22
	21-Apr-16	-	colorless	0.005	0.023	7.0	0.48	-	11.22	5.55
	23-Jun-16	-	colorless	0.005	0.023	6.3	0.65	-	10.78	4.13
	21-Sep-16	-	colorless	0.005	0.010	5.2	0.55	-	11.62	5.02
	23-Nov-16	-	colorless	0.005	0.005	3.6	0.26	-	12.17	5.05
	mean*1	-	-	0.005	0.017	5.6	0.40	-	11.60	4.99

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

		Anion	Cation	R1	Judge
Pereemnaya River	27-Feb-16	422.6	406.4	-2.0	O
	16-May-16	299.3	291.2	-1.4	O
	26-Jul-16	399.6	392.3	-0.9	O
	4-Oct-16	436.1	421.6	-1.7	O
Komarovka River	17-Feb-16	859.7	804.7	-3.3	O
	21-Apr-16	789.1	751.5	-2.4	O
	23-Jun-16	864.8	853.6	-0.6	O
	21-Sep-16	836.5	825.0	-0.7	O
	23-Nov-16	811.4	796.6	-0.9	O

Λcalc	R2	Judge
5.23	3.1	O
3.65	2.7	O
4.97	2.3	O
5.34	3.5	O
9.91	4.2	O
9.58	4.2	O
10.33	4.0	O
9.84	4.1	O
9.54	3.5	O

Table 6.4.11 Result of Inland Aquatic Environment Monitoring

Duration: 2016.2.-2016.11.
Country: Thailand
Lake/Stream: Vachiralongkorn Dam

		Mandatory Parameters : 4 times/year											
Site	Sampling Date	Temp. (^{o}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)
Station1 (Ban Pong Chang)	9-Feb-16	25.9	7.90	10.60	1.040	1.30	0.10	0.84	0.01	1.32	0.97	16.8	3.40
	18-May-16	32.6	7.60	13.47	1.160	1.34	0.10	0.93	<0.01*1	1.36	0.94	17.8	3.70
	28-Jul-16	30.2	7.20	13.00	1.110	1.19	0.10	0.85	0.02	1.27	0.88	17.1	3.46
	10-Nov-16	30.8	6.60	11.56	1.175	1.28	0.10	1.62	0.02	1.94	1.06	17.1	3.88
	mean*1	29.9	7.06	12.16	1.121	1.28	0.10	1.06	0.01	1.47	0.96	17.2	3.61
Station2 (Ban Pang Pueng)	9-Feb-16	25.6	8.20	10.70	1.090	1.58	0.13	0.84	0.03	1.30	0.93	17.9	3.11
	18-May-16	31.6	7.50	12.95	1.160	1.51	0.10	0.94	<0.01*1	1.35	0.91	18.2	3.20
	28-Jul-16	30.5	7.90	12.55	1.120	1.38	0.10	0.85	0.01	1.28	0.84	17.6	3.09
	10-Nov-16	30.5	6.80	11.13	1.105	1.75	0.10	1.76	0.02	2.11	0.99	17.5	3.22
	mean*1	29.6	7.28	11.83	1.119	1.55	0.11	1.09	0.01	1.51	0.92	17.8	3.15

		Mandatory Parameters : Once/year				
Site	Sampling Date	Transparency (m)	Water color	PO_4^{3-} (mg/L)	NO_2^- (mg/L)	COD (mg/L)
Station1 (Ban Pong Chang)	9-Feb-16	2.5	light green	0.02	-	-
	18-May-16	1.8	light green	0.02	-	-
	28-Jul-16	3.0	light green	0.02	-	40.00
	10-Nov-16	3.5	light green	0.02	-	-
	mean*1	2.7	-	0.02	-	40.00
Station2 (Ban Pang Pueng)	9-Feb-16	1.5	light green	0.02	-	-
	18-May-16	2.0	light green	0.02	-	-
	28-Jul-16	4.0	light green	0.02	-	40.00
	10-Nov-16	4.0	light green	0.02	-	-
	mean*1	2.9	-	0.02	-	40.00

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

	Date	Anion	Cation	R1	Judge
Station1 (Ban Pong Chang)	9-Feb-16	1093.0	1197.5	4.6	O
	18-May-16	1216.1	1272.7	2.3	O
	28-Jul-16	1161.0	1216.5	2.3	O
	10-Nov-16	1249.3	1284.2	1.4	O
Station2 (Ban Pang Pueng)	9-Feb-16	1149.2	1228.0	3.3	O
	18-May-16	1220.2	1253.2	1.3	O
	28-Jul-16	1174.8	1207.2	1.4	O
	10-Nov-16	1193.1	1255.7	2.6	O

Λcalc	R2	Judge
12.00	6.2	O
12.99	-1.8	O
12.41	-2.3	O
13.24	6.8	O
12.47	7.6	O
12.93	-0.1	O
12.44	-0.4	O
12.89	7.3	O

Table 6.4.12 Result of Inland Aquatic Environment Monitoring

Duration: 2016.3.-2016.12.
Country: Vietnam
Lake/Stream: Hoa Binh Reservoir

		Mandatory Parameters: 4 times/year											
Site	Sampling Date	Temp. (^oC)	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)
Hoa Binh Reservoir	15-Mar-16	22.5	7.37	21.90	1.85	8.18	1.66	1.30	0.00	2.98	1.11	28.23	6.31
	15-Jun-16	29.5	7.53	17.20	1.50	7.28	0.77	1.10	0.00	3.17	1.18	21.20	6.40
	15-Sep-16	26.3	7.28	17.60	1.38	6.03	1.20	1.23	0.00	2.87	1.20	18.45	6.20
	15-Dec-16	22.7	7.41	18.30	1.45	5.29	2.80	1.34	0.00	3.00	1.48	19.47	6.20
	mean*1	25.3	7.39	18.75	1.55	6.70	1.61	1.24	0.00	3.01	1.24	21.84	6.28

		Mandatory Parameters: Once/year				
Site	Sampling Date	Transparency (m)	Water Color (PtCo unit)	PO_4^{3-} (mg/L)	NO_2^- (mg/L)	COD (mg/L)
Hoa Binh Reservoir	15-Mar-16	1.2	-	0.034	0.005	3.8
	15-Jun-16	1.2	-	0.055	0.002	4.0
	15-Sep-16	1.1	-	0.040	0.216	4.3
	15-Dec-16	1.2	11	0.022	0.001	3.7
	mean*1	1.2	-	0.038	0.056	4.0

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

		Anion	Cation	R1	Judge
Hoa Binh Reservoir	15-Mar-16	2084.9	2085.7	0.0	O
	15-Jun-16	1696.8	1752.3	1.6	O
	15-Sep-16	1565.6	1586.1	0.7	O
	15-Dec-16	1643.8	1649.8	0.2	O

Λcalc	R2	Judge
22.1	0.5	O
18.3	3.0	O
16.7	-2.7	O
17.4	-2.5	O

Table 6.4.13 Summary of Inland Aquatic Environment Monitoring

Country	Location	Site	Mandatory Parameters : 4 times/year										
			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)
Cambodia	Kampong Speu province	Sras Srang Lake	5.95	0.92	0.028	0.10	0.30	1.10	0.09	0.91	0.14	0.27	0.13
China	Chongqing	Jinyunshan Lake	6.49	12.17	0.266	28.60	11.72	2.97	*1	2.91	2.30	12.66	3.59
	Xiamen	Xiaoping Dam	6.65	5.98	0.280	2.39	2.61	2.87	0.11	4.43	2.36	3.52	0.66
	Xi'an	Jiwozi River	7.10	7.60	0.295	11.70	2.86	0.82	*1	2.29	0.65	10.07	1.11
	Zhuhai	Zhuxiandong Stream	6.99	7.45	0.496	1.85	2.01	3.69	0.03	6.70	1.53	4.35	1.64
Indonesia	Bandung	Patengang Lake	8.09	9.51	0.426	6.40	0.82	3.62	0.09	4.68	1.14	5.32	1.84
	Sukabumi, West Java	Gunung Lake*4	7.41	3.92	0.412	1.27	0.15	0.81	0.09	4.10	0.51	5.53	1.36
Japan	Gifu pref.	Ijira Lake (Center, surface)*2	7.11	3.73	0.141	5.37	1.39	1.78	<0.01*1	1.89	0.27	2.39	1.20
	Shimane pref.	Banryu Lake (Center, surface)	6.96	9.92	0.168	4.20	0.10	22.30	0.06	13.63	1.63	1.59	1.78
Lao PDR	Vientiane province	Nam Hum Lake	7.20	2.34	0.340	2.61	0.02	1.83	0.01	1.07	0.40	1.14	1.72
Malaysia	Selangor	Semenyih Dam	-	-	-	-	-	-	-	-	-	-	-
	Sabah	Tembaling river	7.77	18.17	1.587	9.26	0.55	3.73	0.06	7.77	1.73	17.78	8.50
Mongolia	Terelj	Terelj River*5	6.59	4.39	0.277	3.42	0.34	0.35	*1	1.45	0.57	6.55	0.82
Philippines	San Pablo City	Pandin Lake	7.18	18.74	1.744	0.84	0.32	3.48	0.32	8.58	4.41	15.77	8.29
	Benguet	Ambulalakaw Lake	5.81	0.51	0.026	0.11	0.02	0.18	0.00	0.46	0.12	0.26	0.10
Russia	Southern Baikal	Pereemnaya River	6.78	4.53	0.142	11.14	0.70	0.14	0.01	1.06	0.66	4.90	0.85
	Primorskaya	Komarovka River*3	6.71	9.09	0.375	14.25	3.68	3.57	0.24	3.82	0.75	8.85	2.02
Thailand	Kanchanaburi Province	Vachiralongkorn Dam (Ban Pong Chang)	7.06	12.16	1.121	1.28	0.10	1.06	0.01	1.47	0.96	17.2	3.61
		Vachiralongkorn Dam (Ban Pang Pueng)	7.28	11.83	1.119	1.55	0.11	1.09	0.01	1.51	0.92	17.8	3.15
Vietnam	Hoa Binh Province	Hoa Binh Reservoir	7.39	18.75	1.545	6.70	1.61	1.24	0.00	3.01	1.24	21.84	6.28

Country	Location	Site	Mandatory Parameters : Once/year				
			Transparency (m)	PO_4^{3-} (mg/L)	NO_2^- (mg/L)	DOC (mg/L)	COD (mg/L)
Cambodia	Kampong Speu province	Sras Srang Lake	0.7	-	-	-	-
China	Chongqing	Jinyunshan Lake	2.5	*1	*1	-	<10*1
	Xiamen	Xiaoping Dam	1.2	0.042	0.017	-	0.9
	Xi'an	Jiwozi River	-	<0.01*1	<0.003*1		*1
	Zhuhai	Zhuxiandong Stream	-	-	-	-	-
Indonesia	Bandung	Patengang Lake	-	-	-	-	-
	Sukabumi, West Java	Gunung Lake*4	-	-	-	-	-
Japan	Gifu pref.	Ijira Lake (Center, surface)*2	4.8	<0.1*1	<0.01*1	0.6	-
	Shimane pref.	Banryu Lake (Center, surface)	2.5	<0.003*1	<0.01*1	2.3	-
Lao PDR	Vientiane province	Nam Hum Lake	0.6	0.010	-	-	11.2
Malaysia	Selangor	Semenyih Dam	-	-	-	-	-
	Sabah	Tembaling river	-	<0.10*1	-	-	6.3
Mongolia	Terelj	Terelj River*5	-	-	-	-	-
Philippines	San Pablo City	Pandin Lake	-	0.110	*1	-	-
	Benguet	Ambulalakaw Lake	-	-	-	-	-
Russia	Southern Baikal	Pereemnaya River	1.9	0.004	0.002	-	0.9
	Primorskaya	Komarovka River*3	-	0.005	0.017	-	5.6
Thailand	Kanchanaburi Province	Vachiralongkorn Dam (Ban Pong Chang)	2.7	0.02	-	-	40.0
		Vachiralongkorn Dam (Ban Pang Pueng)	-	-	-	-	40.0
Vietnam	Hoa Binh Province	Hoa Binh Reservoir	-	-	-	-	-

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 2016 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	-	-	-	-
2016	5.95	0.92	0.028	0.10	0.30	1.10	0.09	0.91	0.14	0.27	0.13	0.7	-	-	-	-

Table 6.5.2 Annual mean values of each parameters from 2001 to 2016 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
2016	6.49	12.17	0.266	28.6	11.72	2.97	*1	2.91	2.30	12.66	3.59	2.5	*1	*1	-	<10*1

Table 6.5.3 Annual mean values of each parameters from 2001 to 2016 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
2016	6.65	5.98	0.280	2.39	2.61	2.87	0.11	4.43	2.36	3.52	0.66	1.2	0.04	0.017	-	0.9

- : Items were not analyzed.

*1: Less than determination/detection limit.

Table 6.5.4 Annual mean values of each parameters from 2001 to 2016 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
2016	7.10	7.60	0.295	11.70	2.86	0.82	*1	2.29	0.65	10.07	1.11	-	<0.01*1	<0.003*1		*1

Table 6.5.5 Annual mean values of each parameters from 2004 to 2016 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	-	-	-	-	-
2016	6.99	7.45	0.496	1.85	2.01	3.69	0.03	6.70	1.53	4.35	1.64	-	-	-	-	-

Table 6.5.6 Annual mean values of each parameters from 2001 to 2016 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	-	-	-	-	-
2016	8.09	9.51	0.426	6.40	0.82	3.62	0.09	4.68	1.14	5.32	1.84	-	-	-	-	-

- : Items were not analyzed.

*1: Less than determination/detection limit.

Table 6.5.7 Annual mean values of each parameters from 2008 to 2016 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	-	-	-	-	-
2016	7.41	3.92	0.412	1.27	0.15	0.81	0.09	4.10	0.51	5.53	1.36	-	-	-	-	-

Table 6.5.8 Annual mean values of each parameters from 2001 to 2016 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	-
2016	7.11	3.73	0.141	5.37	1.39	1.78	<0.01*1	1.89	0.27	2.39	1.20	4.8	<0.1*1	<0.01*1	0.6	-

Table 6.5.9 Annual mean values of each parameters from 2001 to 2016 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	-
2016	6.96	9.92	0.168	4.20	0.10	22.3	0.06	13.6	1.63	1.59	1.78	2.5	<0.003*1	<0.01*1	2.3	-

- : Items were not analyzed.

*1: Less than determination/detection limit.

Table 6.5.10 Annual mean values of each parameters of 2009 and 2016 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
2016	7.20	2.34	0.340	2.61	0.02	1.83	0.01	1.07	0.40	1.14	1.72	0.6	0.010	-	-	11.2

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 2016 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
2016	7.77	18.2	1.587	9.26	0.55	3.73	0.06	7.77	1.73	17.8	8.5	-	<0.10*1	-	-	6.3

- : Items were not analyzed.

*1: Less than determination/detection limit.

Table 6.5.13 Annual mean values of each parameters from 2002 to 2016 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	-	-	-	-	-	-	-	-	-	-
2016	6.59	4.39	0.277	3.42	0.34	0.35	*1	1.45	0.57	6.55	0.82	-	-	-	-	-

Table 6.5.14 Annual mean values of each parameters from 2004 to 2016 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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2016	7.18	18.7	1.744	0.84	0.32	3.48	0.32	8.58	4.41	15.8	8.29	-	0.110	*1	-	-

Table 6.5.15 Annual mean values of each parameters from 2005 to 2016 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	-	-	-	-	-
2016	5.81	0.51	0.026	0.11	0.02	0.18	0.00	0.46	0.12	0.26	0.10	-	-	-	-	-

- : Items were not analyzed.

*1: Less than determination/detection limit.

Table 6.5.16 Annual mean values of each parameters from 2004 to 2016 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
2016	6.78	4.53	0.142	11.1	0.70	0.14	0.01	1.06	0.66	4.90	0.85	1.9	0.004	0.002	-	0.9

Table 6.5.17 Annual mean values of each parameters from 2005 to 2016 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
2016	6.71	9.09	0.375	14.25	3.68	3.57	0.24	3.82	0.75	8.85	2.02	-	0.005	0.017	-	5.6

Table 6.5.18 Annual mean values of each parameters from 2002 to 2016 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	-	-	-
2016	7.06	12.2	1.121	1.28	0.10	1.06	0.01	1.47	0.96	17.2	3.61	2.7	0.02	-	-	40.0

- : Items were not analyzed.

*1: Less than determination/detection limit.

Table 6.5.19 Annual mean values of each parameters from 2002 to 2016 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	-	-	-
2016	7.28	11.8	1.119	1.55	0.11	1.09	0.01	1.51	0.92	17.8	3.15	2.9	0.02	-	-	40.0

Table 6.5.20 Annual mean values of each parameters from 2001 to 2016 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
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	-	1.9
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
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	-	1.4
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	-	0.9
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	-	3.4
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	-	4.3
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	-	3.7
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	-	3.5
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	0.009	-	3.5
2016	7.39	18.8	1.545	6.70	1.61	1.24	0.00	3.01	1.24	21.8	6.28	1.2	0.038	0.056	-	4.0

- : Items were not analyzed.

*1: Less than determination/detection limit.

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		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
Rainwater samples	Mandatory: SO_4^{2-}, NO_3^-, Cl^-, NH_4^+, Ca^{2+}, Mg^{2+}, Na^+, K^+, Electric conductivity (EC), and pH Optional: Total organic nitrogen (TON), Total organic carbon (TOC)
Stream water samples	Mandatory: 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) Optional: 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 for the respective monitoring items are 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. μmol_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 the 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 2015-2016, based on the regular catchment-scale monitoring in the Lake Ijira Catchment, which was started in 2007. Site characteristics and the survey outline are shown in Table 7.3 and 7.4, respectively. The 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.

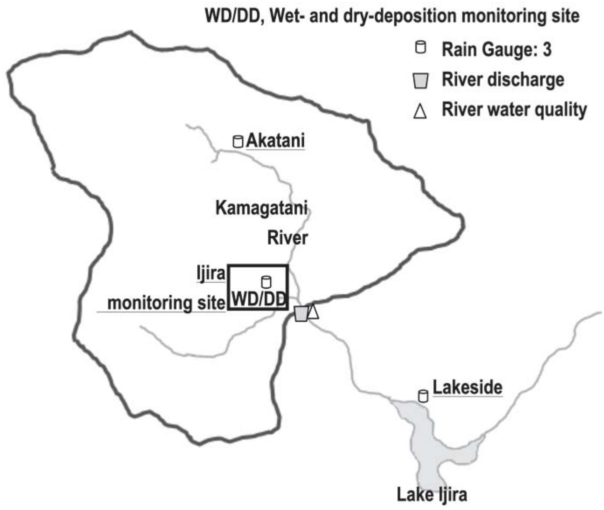


Figure 7.1 Sampling design at the Lake Ijira catchment site

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 the NC is shown in Table 7.5.

Table 7.5 List of the dataset submitted for Data Report 2016

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.	2015-2016*3
	Output (chemical discharge from the stream)	1. Water discharge 2. Stream water chemistry: biweekly 3. Chemical discharge	2015-2016*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 2015 and 2016; *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 are 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]
		2015-2016
Input by precipitation, mm y^{-1}	Akatani (260 m)	3277
	Ijira monitoring site (140 m)	3263
	Lakeside (110 m)	3108
	Mean	3216
Output by the stream, mm y^{-1}	Outlet of Kamagatani River	1867
Runoff rate, %		58

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 2015-2016)

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
		$mS\ m^{-1}$				$\mu mol_c\ L^{-1}$						$mg\text{-}C\ L^{-1}$	$mg\text{-}SiO_2\ L^{-1}$	
2015/11/16	7.06	4.29	130	148	37.0	58.6	92.7	142	128	7.6	< 3.0	0.39	8.2	0.20
2015/11/30	7.06	4.23	132	158	27.9	60.3	93.0	137	126	5.8	< 3.0	0.3	8.0	0.19
2015/12/15	7.06	3.83	118	125	23.0	54.9	87.6	120	109	6.0	< 3.0	0.3	8.2	0.23
2015/12/24	7.01	4.01	120	139	25.7	55.3	88.8	127	115	5.7	< 3.0	0.4	7.9	0.20
2016/1/15	7.04	4.26	128	178	20.9	60.2	96.0	134	124	5.3	< 3.0	0.4	7.6	0.17
2016/1/29	6.96	4.27	127	184	29.1	62.0	89.1	141	127	5.5	< 3.0	0.7	7.1	0.22
2016/2/16	7.03	3.93	110	138	30.0	54.5	86.0	123	113	5.1	< 3.0	0.5	7.6	0.23
2016/2/29	7.07	4.15	133	154	20.8	56.7	91.6	130	120	5.2	< 3.0	0.3	7.7	0.19
2016/3/15	7.11	4.33	136	159	18.1	56.2	92.5	149	130	5.8	< 3.0	0.4	8.0	0.18
2016/3/28	7.09	4.19	135	148	19.8	55.6	90.3	144	125	5.8	< 3.0	0.3	8.1	0.19
2016/4/14	7.08	3.98	128	141	26.1	67.1	84.6	139	115	6.2	< 3.0	0.4	8.1	0.25
2016/4/26	7.09	3.69	126	125	20.4	63.9	82.2	126	106	5.8	< 3.0	0.4	8.5	0.26
2016/5/16	7.08	3.80	129	127	24.1	64.4	82.7	128	108	5.9	< 3.0	0.4	8.7	0.24
2016/5/31	7.09	4.04	139	128	24.4	56.2	86.2	138	115	6.6	< 3.0	0.4	8.7	0.20
2016/6/15	7.03	4.36	151	151	30.8	58.2	95.0	154	128	7.6	< 3.0	0.4	8.8	0.19
2016/6/30	7.04	3.58	121	117	26.8	53.7	78.8	125	104	6.6	< 3.0	0.5	8.1	0.31
2016/7/15	7.10	3.88	129	119	22.6	54.5	85.1	136	113	6.9	< 3.0	0.3	9.0	0.22
2016/7/29	7.02	4.29	145	135	27.4	55.6	94.7	153	127	7.6	< 3.0	0.5	9.4	0.18
2016/8/16	7.04	4.64	148	155	26.7	57.6	102	165	134	8.8	< 3.0	0.4	9.6	0.18
2016/8/31	6.92	4.93	147	159	49.8	56.6	102	174	140	8.2	< 3.0	0.5	9.4	0.17
2016/9/15	7.09	4.32	131	133	42.2	52.0	92.3	156	128	7.9	< 3.0	0.3	8.6	0.22
2016/9/30	7.00	3.56	113	103	31.3	51.5	79.3	123	103	6.9	< 3.0	0.4	8.9	0.30
2016/10/14	7.00	3.67	133	114	20.3	54.9	84.3	128	108	6.8	< 3.0	0.2	9.0	0.22
2016/10/31	7.04	3.85	126	125	26.9	52.7	86.2	135	114	6.4	< 3.0	0.4	8.7	0.21

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 2015-2016)

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
2015/10/29	2015/11/16	0.07	0.06	0.07	0.01	0.03	0.04	0.06	0.06	0.003	ND	4.28E-05	0.17	3.83	45
2015/11/16	2015/11/30	0.07	0.06	0.07	0.01	0.03	0.04	0.06	0.06	0.003	ND	4.00E-05	0.14	3.61	44
2015/11/30	2015/12/15	0.11	0.10	0.11	0.02	0.04	0.07	0.10	0.09	0.005	ND	6.92E-05	0.23	6.24	77
2015/12/15	2015/12/24	0.04	0.04	0.04	0.01	0.02	0.03	0.04	0.03	0.002	ND	2.87E-05	0.11	2.43	30
2015/12/24	2016/1/15	0.07	0.06	0.07	0.01	0.03	0.04	0.06	0.06	0.003	ND	4.46E-05	0.18	3.65	47
2016/1/15	2016/1/29	0.04	0.03	0.05	0.01	0.02	0.02	0.04	0.03	0.001	ND	2.57E-05	0.14	1.89	26
2016/1/29	2016/2/15	0.08	0.07	0.09	0.02	0.03	0.05	0.08	0.07	0.003	ND	5.90E-05	0.35	4.31	59
2016/2/15	2016/2/29	0.06	0.05	0.06	0.01	0.02	0.04	0.05	0.05	0.002	ND	3.89E-05	0.17	3.29	43
2016/2/29	2016/3/15	0.06	0.05	0.06	0.01	0.02	0.03	0.05	0.05	0.002	ND	3.18E-05	0.14	2.94	37
2016/3/15	2016/3/28	0.08	0.07	0.08	0.01	0.03	0.05	0.08	0.07	0.003	ND	4.38E-05	0.21	4.40	55
2016/3/28	2016/4/14	0.13	0.12	0.13	0.02	0.06	0.08	0.13	0.11	0.005	ND	7.30E-05	0.34	7.37	91
2016/4/14	2016/4/26	0.31	0.28	0.29	0.05	0.15	0.19	0.29	0.25	0.013	ND	1.78E-04	0.92	18.42	222
2016/4/26	2016/5/16	0.22	0.20	0.20	0.04	0.10	0.13	0.20	0.17	0.009	ND	1.26E-04	0.64	13.5	158
2016/5/16	2016/5/31	0.14	0.12	0.12	0.02	0.05	0.08	0.12	0.10	0.006	ND	7.23E-05	0.35	7.87	90
2016/5/31	2016/6/15	0.06	0.06	0.06	0.01	0.02	0.04	0.06	0.05	0.003	ND	3.35E-05	0.16	3.5	39
2016/6/15	2016/6/30	0.19	0.17	0.17	0.04	0.07	0.11	0.18	0.15	0.009	ND	1.14E-04	0.55	10.72	127
2016/6/30	2016/7/15	0.15	0.13	0.12	0.03	0.06	0.09	0.14	0.11	0.007	ND	8.94E-05	0.41	9.0	105
2016/7/15	2016/7/29	0.07	0.06	0.05	0.01	0.02	0.04	0.06	0.05	0.003	ND	3.85E-05	0.18	3.9	43
2016/7/29	2016/8/16	0.08	0.07	0.07	0.01	0.03	0.04	0.07	0.06	0.004	ND	4.32E-05	0.20	4.3	45
2016/8/16	2016/8/31	0.05	0.05	0.05	0.01	0.02	0.03	0.05	0.04	0.003	ND	3.23E-05	0.13	2.93	31
2016/8/31	2016/9/15	0.10	0.08	0.09	0.03	0.03	0.06	0.10	0.08	0.005	ND	5.98E-05	0.23	5.4	60
2016/9/15	2016/9/30	0.29	0.25	0.24	0.07	0.10	0.17	0.28	0.23	0.015	ND	1.82E-04	0.72	17.74	203
2016/9/30	2016/10/14	0.16	0.14	0.12	0.03	0.06	0.09	0.14	0.12	0.008	ND	1.14E-04	0.36	10.2	114
2016/10/14	2016/10/31	0.11	0.10	0.09	0.02	0.04	0.06	0.10	0.08	0.005	ND	7.14E-05	0.23	6.64	75

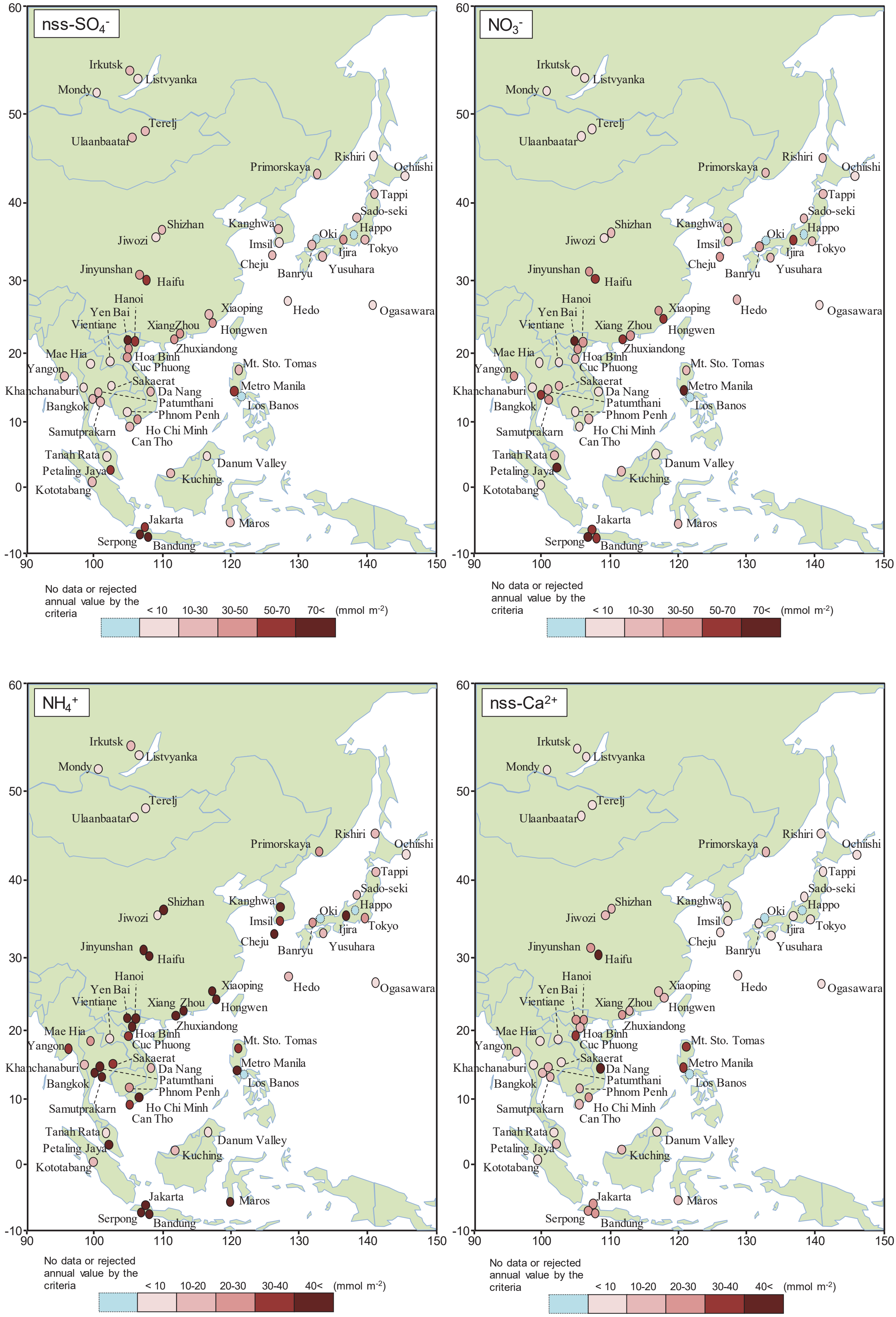
Note. Periodic chemical discharges were calculated based on the mean concentrations and the water discharge for the respective sampling intervals.

Table 7.9 Annual chemical discharges from the stream: Lake Ijira Catchment (Water year 2015-2016)

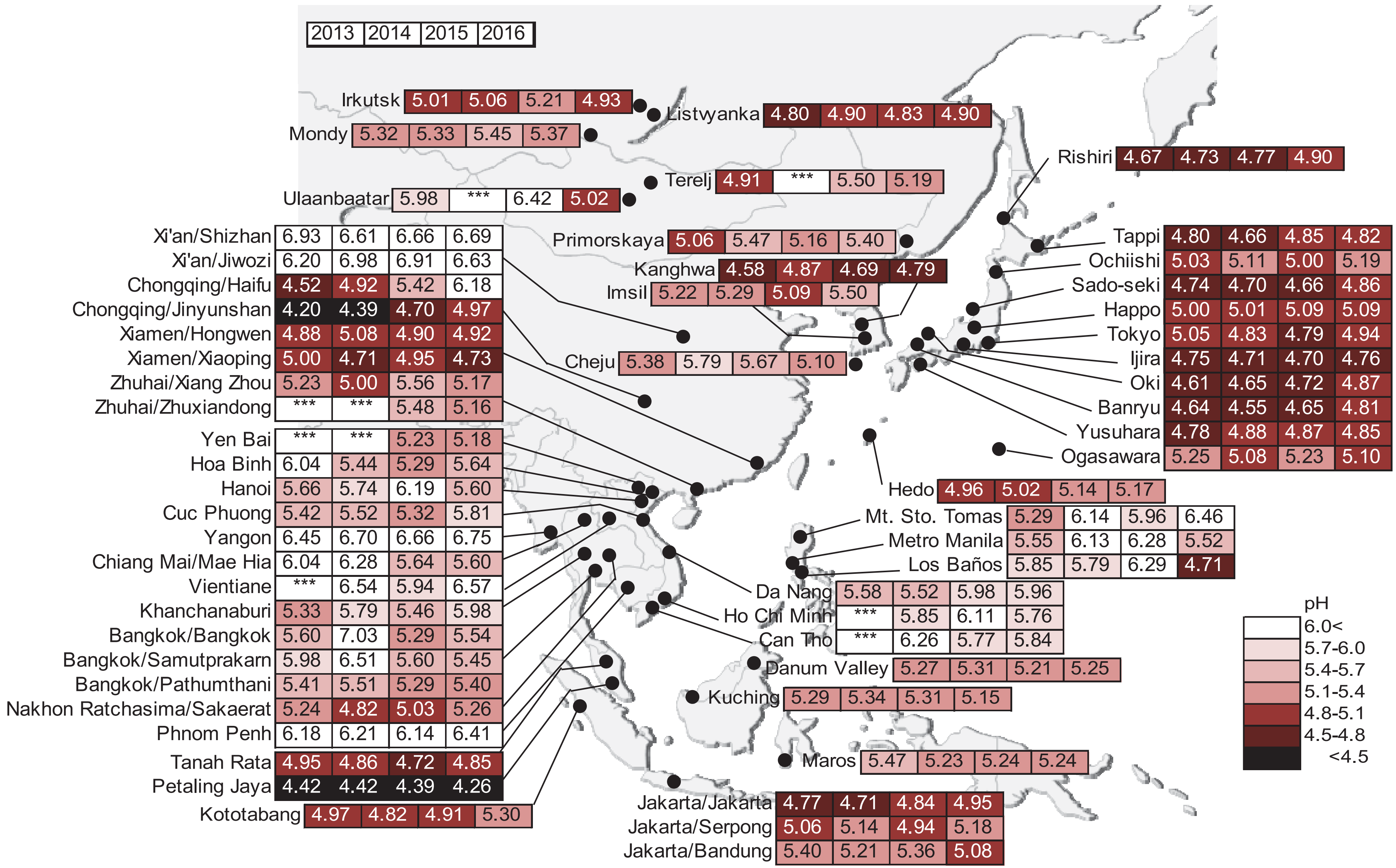
Water year	pH4.8	alkalinity Gran's ANC	SO_4^{2-}	NO_3^-	Cl^-	Na^+	Ca^{2+}	Mg^{2+}	K^+	NH_4^+	H^+	TOC	SiO_2
						kmol$_c$ ha^{-1}						kg-C ha^{-1}	kg-SiO_2 ha^{-1}
2015 - 2016	2.7	2.4	2.5	0.5	1.1	1.6	2.6	2.2	0.1	0.0	0.0	7.2	158

Appendix 1

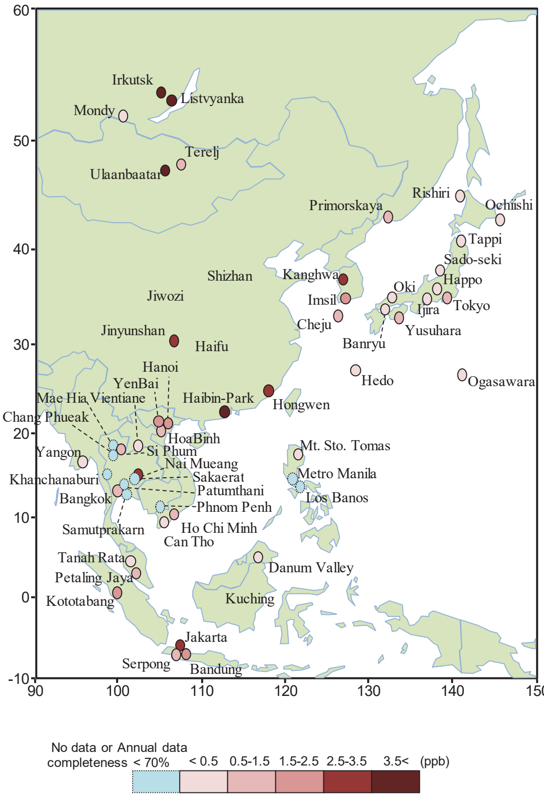
Overview of Data Report 2016



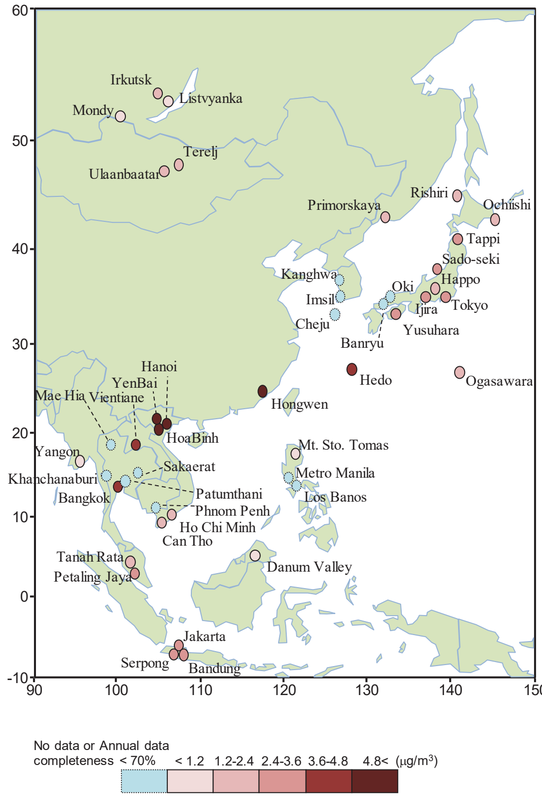
Appendix Fig. 1-1 Annual wet deposition levels of nss-SO_4^{2-}, NO_3^-, NH_4^+ and nss-Ca^{2+} in 2016



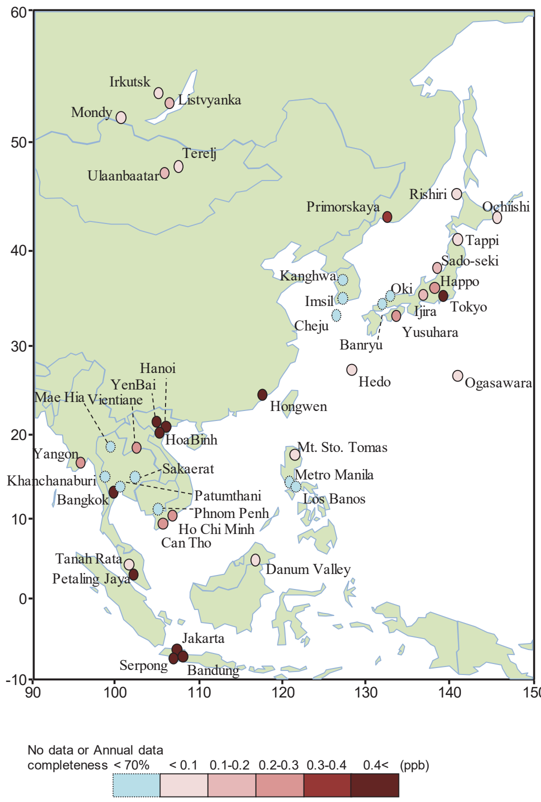
Appendix Fig. 1-2 Trends of pH in each EANET site from 2013 to 2016



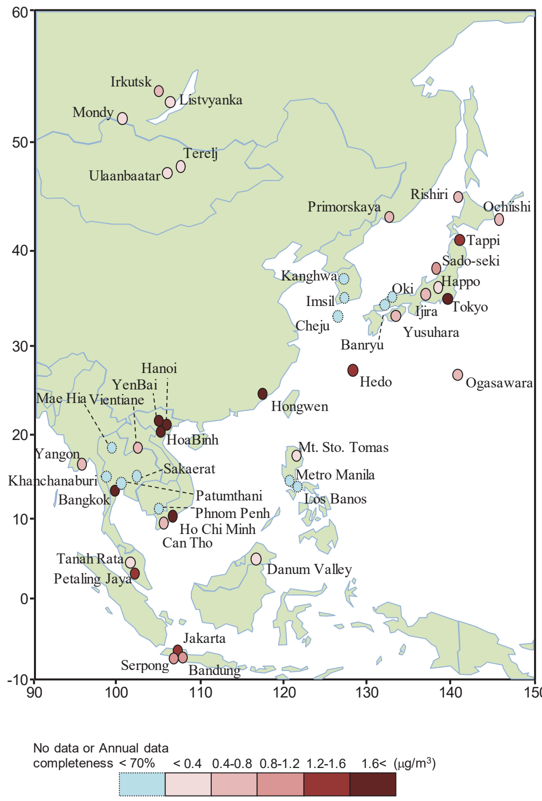
Appendix Fig. 1-3 Levels of annual SO_2 concentrations at EANET monitoring sites in 2016.



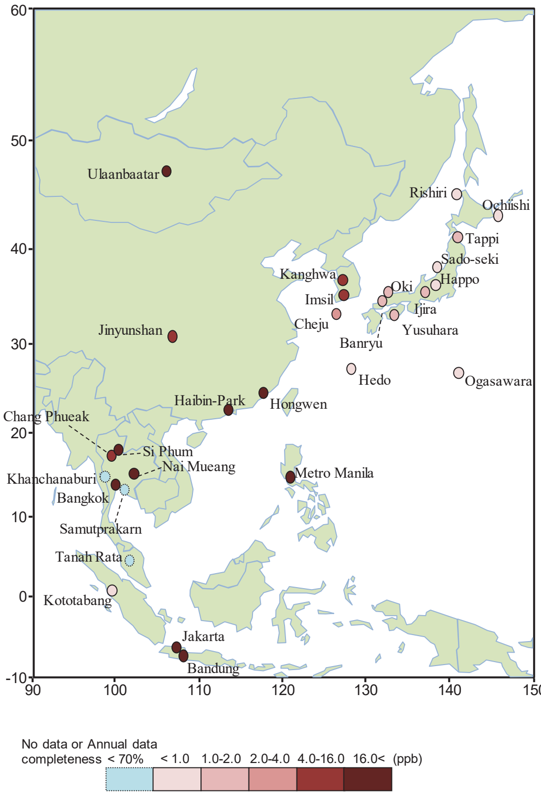
Appendix Fig. 1-4 Levels of annual particulate SO_4^{2-} concentrations at EANET monitoring sites in 2016.



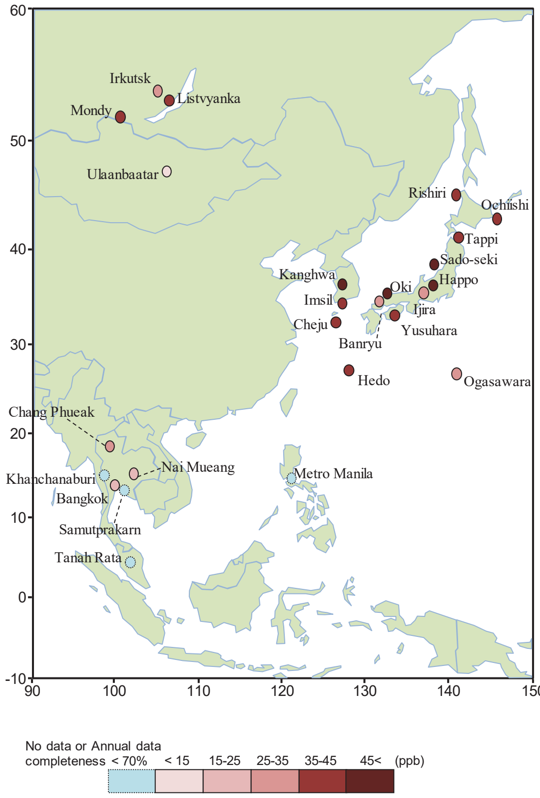
Appendix Fig. 1-5 Levels of annual HNO_3 concentrations at EANET monitoring sites in 2016.



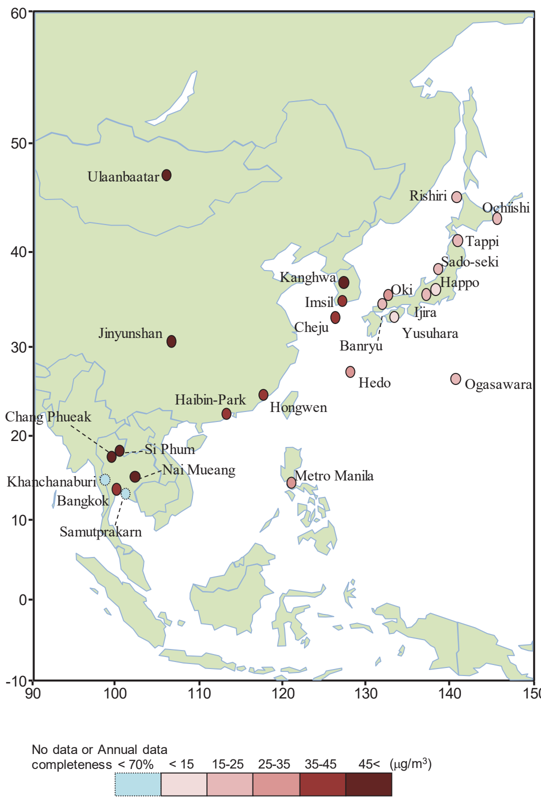
Appendix Fig. 1-6 Levels of annual particulate NO_3^- concentrations at EANET monitoring sites in 2016.



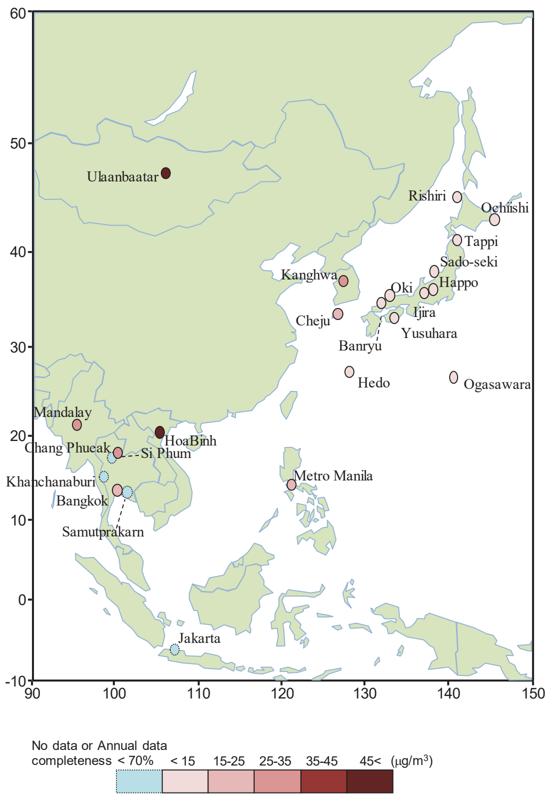
Appendix Fig. 1-7 Levels of annual NOx or NO_2 concentrations at EANET monitoring sites in 2016.



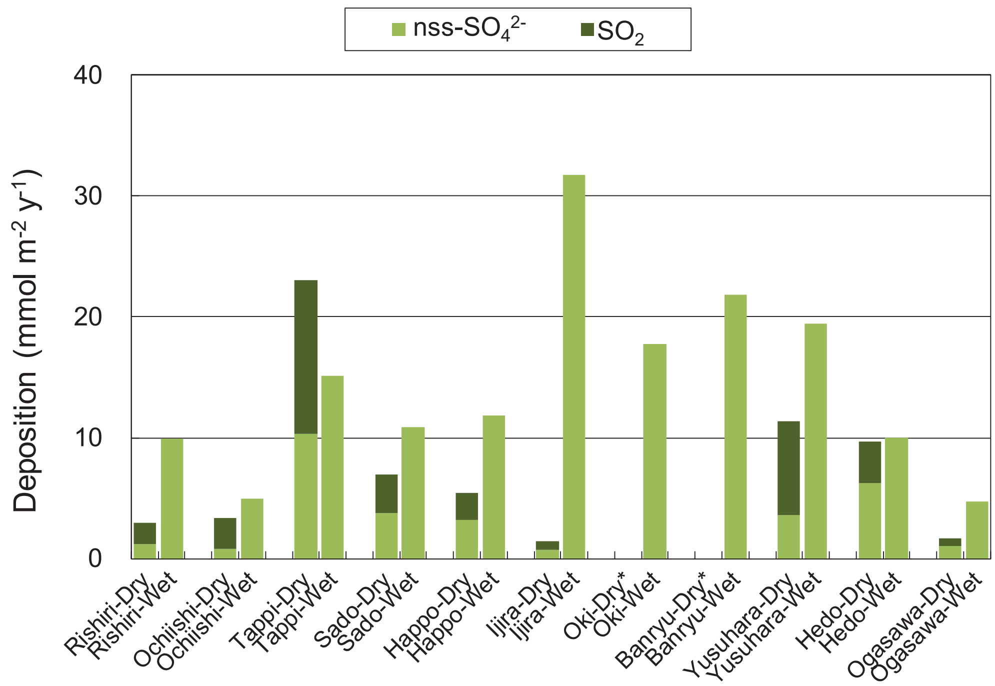
Appendix Fig. 1-8 Levels of annual O_3 concentrations at EANET monitoring sites in 2016.



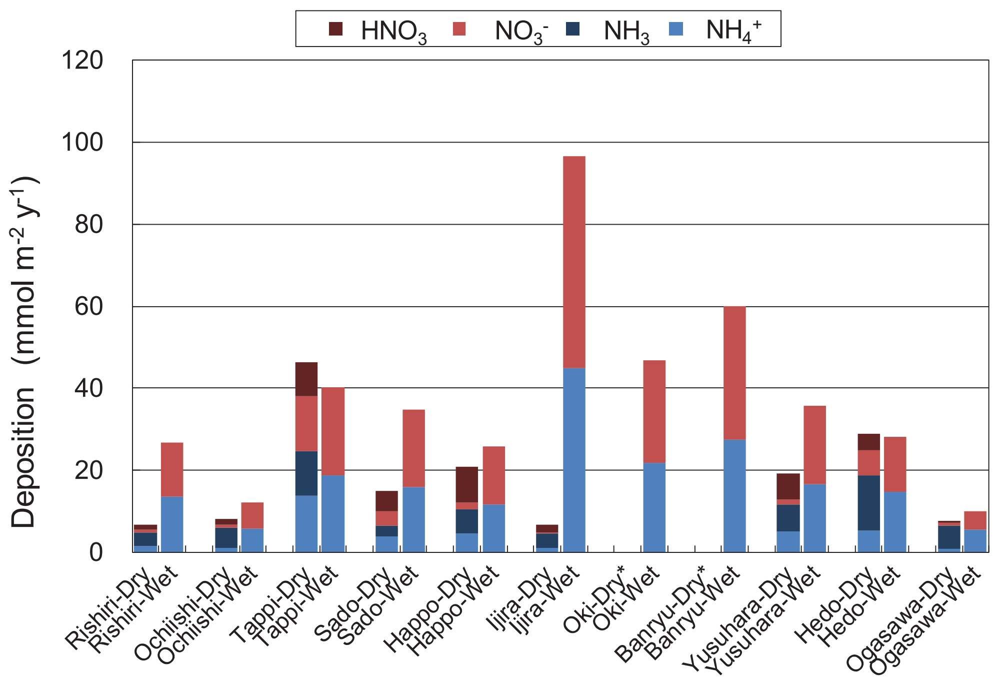
Appendix Fig. 1-9 Levels of annual PM_{10} concentrations at EANET monitoring sites in 2016.



Appendix Fig. 1-10 Levels of annual $PM_{2.5}$ concentrations at EANET monitoring sites in 2016.



Appendix Fig. 1-11 Annual dry and wet deposition amount of sulfur compounds at EANET sites in 2016.



Appendix Fig. 1-12 Annual dry and wet deposition amount of nitrogen compounds at EANET sites in 2016.

* The filter pack data of Oki and Banryu sites were not satisfied with annual data completeness of EANET criteria (<70%). So the annual dry deposition amounts of these sites are excluded.

Appendix 2

Meteorological Statistics at the Monitoring Sites

Appendix Table 2-1 Meteorological statistics at the monitoring site
Site : Xi'an, China

2016

Month / Items		1	2	3	4	5	6	7	8	9	10	11	12
Tempera-ture (ºC)	monthly mean	0.3	4.8	11.5	18.3	20.2	26.7	28.3	28.6	22.6	15.3	8.3	4.7
	max.daily mean	5.0	10.7	17.0	24.2	25.9	32.7	33.9	33.6	27.6	19.1	12.9	9.2
	min.daily mean	-3.3	-0.1	7.2	13.3	15.4	21.6	24.1	24.6	19.0	12.6	4.8	1.0
Relative humidity (%)	monthly mean	55	40	45	55	56	56	64	64	66	78	72	62
	max.daily mean	--	--	--	--	--	--	--	--	--	--	--	--
	min.daily mean	14	6	10	16	15	12	24	29	17	28	22	19
Mean wind speed (m/s)		2	2.3	2.5	2.3	2.5	2.5	2.8	3.3	1.9	2.1	1.9	2.1
Most frequent wind direction (bearings)		NNE	NE	ENE	ENE	ENE	ENE	ENE	ENE	NE	ENE	ENE	ENE
Precipitation amount (mm/month)		7	2	3	23	34	17	37	31	8	34	19	4
Sunshine duration (hours/month)		1112	206	169	212	201	259	232	291	142	89	119	110
Solar radiation (MJ/m^2/month)		--	--	--	--	--	--	--	--	--	--	--	--

Appendix Table 2-2 Meteorological statistics at the monitoring site
Site : Zhuhai, China

2016

Month / Items		1	2	3	4	5	6	7	8	9	10	11	12
Tempera-ture (ºC)	monthly mean	15.0	14.2	17.1	23.3	26.5	29.0	29.5	28.2	27.9	26.6	21.2	18.9
	max.daily mean	17.3	17.5	19.9	25.8	29.3	32.0	32.9	31.0	30.9	29.3	24.1	21.9
	min.daily mean	13.4	11.9	15.2	21.6	24.5	26.8	26.9	26.1	25.8	24.6	19.0	16.6
Relative humidity (%)	monthly mean	83	75	87	94	87	86	82	87	80	80	79	67
	max.daily mean	--	--	--	--	--	--	--	--	--	--	--	--
	min.daily mean	29	18	31	60	43	57	47	50	37	55	51	37
Mean wind speed (m/s)		2.3	2.2	2.2	2.5	2.9	2.5	2.5	2.5	2.4	2.8	2.4	2.2
Most frequent wind direction (bearings)		ENE	NNW	ESE	ESE	ESE	SW	WSW	ESE	ENE	NE	ENE	NE
Precipitation amount (mm/month)		337	34	181	174	306	277	271	554	142	136	115	12
Sunshine duration (hours/month)		57	98	74	29	156	233	267	147	176	175	136	182
Solar radiation (MJ/m^2/month)		--	--	--	--	--	--	--	--	--	--	--	--

Appendix Table 2-3 Meteorological statistics at the monitoring site
Site : Serpong, Indonesia

2016

Month / Items		1	2	3	4	5	6	7	8	9	10	11	12
Tempera-ture (ºC)	monthly mean	26.2	26.1	30.6	28.1	27.6	27.4	27.3	27.4	26.9	26.9	26.8	26.3
	max.daily mean	34.2	35.0	36.7	35.8	35.9	36.1	35.7	35.7	34.3	35.8	35.7	34.3
	min.daily mean	22.1	20.7	24.4	22.8	22.0	21.3	22.3	21.9	21.2	23.2	23.4	23.1
Relative humidity (%)	monthly mean	87	88	78	86	82	86	86	82	80	88	89	88
	max.daily mean	98	99	98	98	97	99	99	99	97	99	99	99
	min.daily mean	51	47	51	57	39	47	50	37	46	54	51	60
Mean wind speed (m/s)		0.2	0.1	0.2	0.1	0.1	0.1	0.0	0.0	0.2	0.0	0.0	0.1
Most frequent wind direction (bearings)		W	WSW	WSW	WSW	ENE	ENE	W	W	E	SW	WSW	WSW
Precipitation amount (mm/month)		--	--	--	--	--	--	--	--	--	--	--	--
Sunshine duration (hours/month)		--	--	--	--	--	--	--	--	--	--	--	--
Solar radiation (MJ/m^2/month)		--	--	--	--	--	--	--	--	--	--	--	--

Appendix Table 2-4 Meteorological statistics at the monitoring site
Site : Rishiri, Japan

2016

Month / Items		1	2	3	4	5	6	7	8	9	10	11	12
Tempera-ture (ºC)	monthly mean	-5.5	-4.7	0.3	4.3	11.2	14.0	18.1	21.3	16.6	8.8	-0.2	-2.8
	max.daily mean	-0.3	4.0	6.7	9.6	16.5	20.0	21.1	23.4	22.9	18.7	4.9	6.9
	min.daily mean	-9.2	-9.9	-7.4	0.6	3.7	7.9	12.9	17.6	11.5	0.5	-9.2	-7.1
Relative humidity (%)	monthly mean	74	75	72	81	74	86	91	90	87	67	77	74
	max.daily mean	90	100	89	95	98	100	100	100	100	100	98	89
	min.daily mean	57	56	50	53	43	69	66	69	73	40	55	57
Mean wind speed (m/s)		3.7	3.7	2.9	3.0	2.4	2.0	1.7	2.2	2.4	3.6	3.1	3.6
Most frequent wind direction (bearings)		NW	NNW	NNW	E	E	E	E	E	E	NW	NW	NW
Precipitation amount (mm/month)		67	42	25	54	46	169	195	106	363	57	70	28
Sunshine duration (hours/month)		--	--	--	--	--	--	--	--	--	--	--	--
Solar radiation (MJ/m^2/month)		115	167	369	407	573	453	484	483	405	202	93	104

Appendix Table 2-5 Meteorological statistics at the monitoring site
Site : Ochiishi, Japan

2016

Month / Items		1	2	3	4	5	6	7	8	9	10	11	12
Tempera-ture (ºC)	monthly mean	-4.7	-4.8	-0.8	1.6	6.1	7.6	12.1	17.3	15.2	9.0	1.3	-2.3
	max.daily mean	-0.9	-0.3	2.1	5.0	9.4	11.7	17.0	19.2	19.0	15.1	6.4	4.6
	min.daily mean	-8.9	-9.1	-3.1	-0.8	2.5	3.9	8.0	12.0	12.0	2.5	-5.8	-7.7
Relative humidity (%)	monthly mean	67	71	80	85	85	95	99	99	89	69	69	73
	max.daily mean	100	98	100	100	100	100	100	100	100	100	99	99
	min.daily mean	50	53	60	56	58	74	90	87	65	49	45	50
Mean wind speed (m/s)		7.6	6.8	6.7	8.0	7.8	6.8	5.8	6.6	5.8	8.9	8.1	8.8
Most frequent wind direction (bearings)		NW	NNW	WSW	S	WSW	SE	SSW	SSW	E	NW	NW	NW
Precipitation amount (mm/month)		8	29	13	53	56	174	79	379	124	46	36	57
Sunshine duration (hours/month)		--	--	--	--	--	--	--	--	--	--	--	--
Solar radiation (MJ/m^2/month)		230	287	344	436	558	450	480	387	359	335	200	164

Appendix Table 2-6 Meteorological statistics at the monitoring site
Site : Tappi, Japan

2016

Month / Items		1	2	3	4	5	6	7	8	9	10	11	12
Tempera-ture (ºC)	monthly mean	-0.8	0.0	3.7	7.7	12.9	14.8	19.0	22.4	19.5	12.4	5.1	2.4
	max.daily mean	5.5	8.3	10.7	13.0	16.8	18.1	25.1	23.8	22.4	18.8	12.1	11.1
	min.daily mean	-5.0	-4.2	-2.1	3.1	8.5	11.5	14.6	19.4	16.7	6.3	-2.2	-2.9
Relative humidity (%)	monthly mean	86	84	80	84	89	96	98	97	95	82	84	86
	max.daily mean	97	99	98	98	99	100	100	100	100	98	95	98
	min.daily mean	76	70	65	61	59	85	94	85	82	68	65	68
Mean wind speed (m/s)		10.8	9.3	6.9	6.6	6.1	5.5	5.4	5.1	4.5	8.0	8.6	8.9
Most frequent wind direction (bearings)		W	W	W	W	E	E	E	E	E	W	W	W
Precipitation amount (mm/month)		30	58	51	90	103	122	156	185	119	93	76	149
Sunshine duration (hours/month)		--	--	--	--	--	--	--	--	--	--	--	--
Solar radiation (MJ/m^2/month)		92	149	344	431	590	442	442	513	401	267	103	92

Appendix Table 2-7 Meteorological statistics at the monitoring site
Site : Sado-seki, Japan

2016

Items		1	2	3	4	5	6	7	8	9	10	11	12
Tempera-ture (ºC)	monthly mean	2.5	3.3	6.7	11.6	17.1	19.5	23.0	25.3	22.1	15.6	9.4	6.4
	max.daily mean	9.4	13.5	15.7	15.5	22.9	23.9	27.1	28.3	28.4	23.9	16.1	15.4
	min.daily mean	-1.5	-0.8	-0.6	4.7	12.2	13.4	19.6	21.0	16.9	9.9	3.6	0.6
Relative humidity (%)	monthly mean	78	71	65	65	66	78	84	78	80	69	68	71
	max.daily mean	94	88	93	91	97	93	95	92	90	91	95	88
	min.daily mean	61	42	42	29	31	46	71	61	57	56	54	51
Mean wind speed (m/s)		7.2	6.6	4.5	4.6	4.0	3.3	2.8	3.0	3.3	3.6	5.4	7.2
Most frequent wind direction (bearings)		WNW	W	WNW	WSW	WSW	WSW	WSW	ENE	ENE	WNW	WNW	W
Precipitation amount (mm/month)		88	33	--	101	84	61	148	96	90	74	74	108
Sunshine duration (hours/month)		--	--	--	--	--	--	--	--	--	--	--	--
Solar radiation (MJ/m^2/month)		80	187	398	469	632	576	520	632	359	317	172	108

Appendix Table 2-8 Meteorological statistics at the monitoring site
Site : Happo, Japan

2016

Items		1	2	3	4	5	6	7	8	9	10	11	12
Tempera-ture (ºC)	monthly mean	-7.5	-6.9	-2.5	4.3	10.3	11.8	15.9	16.9	13.9	8.0	0.8	-3.4
	max.daily mean	0.0	3.7	5.3	11.0	14.5	15.1	17.5	20.4	17.0	15.1	7.4	5.3
	min.daily mean	-14.4	-12.2	-13.3	-5.8	5.0	3.8	13.9	12.9	11.2	0.5	-6.8	-10.6
Relative humidity (%)	monthly mean	93	88	80	73	76	92	93	92	94	79	78	75
	max.daily mean	99	98	97	99	99	100	100	98	98	98	96	97
	min.daily mean	68	65	42	45	46	71	76	78	57	36	41	22
Mean wind speed (m/s)		5.5	4.5	3.6	4.3	2.9	2.2	2.1	2.1	1.9	2.3	3.1	4.9
Most frequent wind direction (bearings)		NW	S	S	S	SSE	SSE	SSE	SSE	SSE	SSE	SSE	NW
Precipitation amount (mm/month)		146	133	61	264	147	243	379	193	391	218	146	200
Sunshine duration (hours/month)		--	--	--	--	--	--	--	--	--	--	--	--
Solar radiation (MJ/m^2/month)		272	363	562	612	672	480	395	404	263	335	280	259

Appendix Table 2-9 Meteorological statistics at the monitoring site
Site : Ijira, Japan

2016

Items	Month	1	2	3	4	5	6	7	8	9	10	11	12
Tempera-ture (ºC)	monthly mean	2.9	3.4	7.6	12.8	17.3	19.6	23.2	25.2	22.2	16.2	9.6	5.1
	max.daily mean	7.0	11.3	13.7	16.6	20.8	22.3	25.2	27.6	25.4	22.4	13.4	10.0
	min.daily mean	-2.9	0.1	-0.7	8.6	12.6	16.2	20.3	20.0	19.6	10.4	5.5	1.5
Relative humidity (%)	monthly mean	92	87	79	85	86	92	94	91	96	94	93	94
	max.daily mean	99	99	98	99	99	99	99	98	99	99	99	99
	min.daily mean	80	62	59	62	68	69	80	76	81	82	83	84
Mean wind speed (m/s)		0.4	0.4	0.6	0.5	0.4	0.3	0.3	0.3	0.2	0.3	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)		118	137	136	437	351	406	228	88	645	297	142	169
Sunshine duration (hours/month)		--	--	--	--	--	--	--	--	--	--	--	--
Solar radiation (MJ/m^2/month)		205	253	431	401	477	398	413	774	273	278	232	200

Appendix Table 2-10 Meteorological statistics at the monitoring site
Site : Oki, Japan

2016

Items	Month	1	2	3	4	5	6	7	8	9	10	11	12
Tempera-ture (ºC)	monthly mean	5.4	5.4	8.5	13.4	17.7	20.9	24.1	25.4	21.9	17.3	12.5	8.8
	max.daily mean	12.1	14.8	14.1	17.2	22.6	23.6	27.6	28.2	26.8	25.0	17.2	14.9
	min.daily mean	-2.5	1.5	2.0	6.9	12.6	16.6	20.3	20.9	16.6	13.0	6.6	2.8
Relative humidity (%)	monthly mean	77	76	74	78	79	89	93	90	91	83	79	79
	max.daily mean	96	95	91	95	97	98	99	99	99	98	97	96
	min.daily mean	61	64	59	51	55	64	82	71	73	69	59	66
Mean wind speed (m/s)		7.2	6.6	5.8	5.9	5.0	4.2	4.1	4.8	4.6	4.9	6.0	7.0
Most frequent wind direction (bearings)		WSW	S	N	S	S	S	S	NNE	NNE	NNE	NNE	N
Precipitation amount (mm/month)		110	73	31	137	86	103	251	175	277	53	71	121
Sunshine duration (hours/month)		--	--	--	--	--	--	--	--	--	--	--	--
Solar radiation (MJ/m^2/month)		147	216	423	497	607	540	540	635	352	349	196	159

Appendix Table 2-11 Meteorological statistics at the monitoring site
Site : Banryu, Japan

2016

Month / Items		1	2	3	4	5	6	7	8	9	10	11	12
Temperature (ºC)	monthly mean	4.7	5.9	9.0	14.3	18.0	21.4	25.6	25.9	22.5	18.1	11.9	8.5
	max.daily mean	10.5	16.1	16.4	17.6	22.2	23.7	28.0	28.1	25.3	25.3	17.4	15.7
	min.daily mean	-3.5	2.2	1.1	10.3	12.9	16.8	22.5	20.3	19.2	12.9	7.4	1.9
Relative humidity (%)	monthly mean	94	88	92	--	--	--	--	82	90	89	85	83
	max.daily mean	100	99	99	--	--	--	--	97	98	98	97	98
	min.daily mean	84	70	81	--	--	--	--	59	62	78	65	70
Mean wind speed (m/s)		2.6	2.9	2.7	2.6	2.3	1.9	1.9	2.5	2.2	2.2	2.3	2.5
Most frequent wind direction (bearings)		S	S	S	S	S	N	SSE	S	S	S	S	S
Precipitation amount (mm/month)		113	105	106	150	123	234	87	159	307	169	96	180
Sunshine duration (hours/month)		--	--	--	--	--	--	--	--	--	--	--	--
Solar radiation (MJ/m^2/month)		160	268	423	480	583	489	624	647	351	320	245	173

Appendix Table 2-12 Meteorological statistics at the monitoring site
Site : Yusuhara, Japan

2016

Month / Items		1	2	3	4	5	6	7	8	9	10	11	12
Temperature (ºC)	monthly mean	1.3	2.1	6.5	12.1	15.9	18.3	22.1	22.7	20.3	16.4	9.4	4.9
	max.daily mean	9.6	12.5	13.4	15.1	19.2	21.6	24.8	24.7	22.3	22.4	13.8	11.4
	min.daily mean	-8.8	-3.5	-2.8	8.2	12.0	14.0	18.6	17.2	17.2	10.5	4.2	-1.4
Relative humidity (%)	monthly mean	88	82	75	83	81	93	93	91	97	93	92	92
	max.daily mean	98	98	98	98	98	98	99	99	99	99	99	99
	min.daily mean	59	53	37	57	39	53	80	72	82	66	78	68
Mean wind speed (m/s)		2.3	2.1	2.0	1.7	1.4	1.2	1.0	1.2	1.0	1.2	1.8	2.1
Most frequent wind direction (bearings)		N	N	N	N	NNW	N	SSE	NNW	SSE	NNW	N	N
Precipitation amount (mm/month)		132	132	127	270	341	534	158	128	441	161	111	183
Sunshine duration (hours/month)		--	--	--	--	--	--	--	--	--	--	--	--
Solar radiation (MJ/m^2/month)		227	317	494	460	557	370	552	587	319	336	300	237

Appendix Table 2-13 Meteorological statistics at the monitoring site
Site : Hedo, Japan

2016

Month / Items		1	2	3	4	5	6	7	8	9	10	11	12
Tempera-ture (ºC)	monthly mean	16.8	16.4	18.4	22.6	25.4	28.2	30.2	29.8	28.3	27.1	22.4	19.8
	max.daily mean	23.0	23.4	22.3	26.0	28.6	30.6	31.7	31.4	30.6	28.6	25.5	23.5
	min.daily mean	8.4	12.0	13.8	19.6	19.4	24.1	26.6	25.9	26.1	24.7	19.1	15.4
Relative humidity (%)	monthly mean	83	77	80	90	90	91	85	85	89	92	81	77
	max.daily mean	98	98	98	98	98	99	98	98	97	98	98	96
	min.daily mean	64	59	56	72	61	84	80	65	74	78	68	61
Mean wind speed (m/s)		5.4	5.9	5.1	4.2	4.1	3.7	3.7	4.0	4.1	4.5	5.0	5.8
Most frequent wind direction (bearings)		N	N	N	SSW	E	SSW	S	E	ESE	ENE	NNE	NNE
Precipitation amount (mm/month)		216	113	229	274	95	191	75	129	197	93	90	57
Sunshine duration (hours/month)		--	--	--	--	--	--	--	--	--	--	--	--
Solar radiation (MJ/m^2/month)		211	249	369	489	522	604	745	633	442	444	302	251

Appendix Table 2-14 Meteorological statistics at the monitoring site
Site : Ogasawara, Japan

2016

Month / Items		1	2	3	4	5	6	7	8	9	10	11	12
Tempera-ture (ºC)	monthly mean	17.1	17.0	17.3	21.0	22.7	25.2	26.2	26.1	25.9	24.8	21.8	19.3
	max.daily mean	20.4	20.6	21.2	23.4	24.9	27.5	27.9	27.3	26.7	26.5	24.5	22.8
	min.daily mean	12.6	14.3	14.2	17.4	19.5	22.2	24.1	24.2	24.0	23.4	19.1	16.3
Relative humidity (%)	monthly mean	91	89	90	96	95	96	96	97	98	98	97	95
	max.daily mean	99	98	98	98	98	98	98	99	99	100	100	100
	min.daily mean	74	75	74	82	86	90	90	94	94	93	88	81
Mean wind speed (m/s)		1.4	1.6	1.6	1.7	1.3	1.3	1.2	1.7	1.3	1.2	1.5	1.5
Most frequent wind direction (bearings)		WSW	SSW	SSW	SSW	SSW,	SW	NE	NE	NE	NE	NE	NE
Precipitation amount (mm/month)		181	133	176	226	61	20	24	72	14	85	87	39
Sunshine duration (hours/month)		--	--	--	--	--	--	--	--	--	--	--	--
Solar radiation (MJ/m^2/month)		280	371	433	409	610	564	652	571	535	438	343	236

Appendix Table 2-15 Meteorological statistics at the monitoring site
Site : Mondy, Russia

2016

Items		1	2	3	4	5	6	7	8	9	10	11	12
Temperature (ºC)	monthly mean	-22.1	-14.0	-5.4	0.9	6.1	12.9	17.3	12.8	8.1	-6.8	-12.0	-15,6
	max.daily mean	-12.0	-5.6	2.0	8.2	14.1	20.3	24.7	20.0	16.6	-0.1	-5.4	-6,0
	min.daily mean	-28.8	-21.8	-13.0	-6.5	-2.0	5.7	11.0	6.8	1.4	-12.1	-17.8	-22.6
Relative humidity (%)	monthly mean	61	53	50	53	49	65	71	74	73	73	64	67
	max.daily mean	73	69	72	78	76	89	93	94	94	86	77	77
	min.daily mean	42	32	29	28	26	40	45	47	44	51	47	49
Mean wind speed (m/s)		1.7	2.3	2.5	2.9	3.0	2.1	2.0	1.9	1.8	2.0	2.3	1.6
Most frequent wind direction (bearings)		W	W	W	W	W	E	E	E	E	E	W	W
Precipitation amount (mm/month)		0	3	2	17	28	92	118	84	19	18	3	1
Sunshine duration (hours/month)		173	177	223	237	268	228	261	210	203	156	135	132
Solar radiation (MJ/m^2/month)		152	216	369	473	576	516	538	427	337	251	131	84

Appendix Table 2-16 Meteorological statistics at the monitoring site
Site : Listvyanka, Russia

2016

Items		1	2	3	4	5	6	7	8	9	10	11	12
Temperature (ºC)	monthly mean	-18.6	-11.2	-4.3	1.3	6.2	11.5	16.2	14.0	10.3	-1.8	-8.3	-8.7
	max.daily mean	-14.4	-6.2	0.8	6.2	12.0	17.6	21.1	18.5	15.4	2.3	-4.2	-3.6
	min.daily mean	-21.8	-15.2	-8.5	-2.2	1.8	7.0	12.1	10.7	6.2	-4.8	-11.5	-12.7
Relative humidity (%)	monthly mean	88	83	76	67	62	75	81	88	82	73	79	81
	max.daily mean	--	--	--	--	--	--	--	--	--	--	--	--
	min.daily mean	83	66	59	46	42	56	63	75	64	55	64	68
Mean wind speed (m/s)		5.4	3.3	3.3	3.0	3.3	2.2	2.4	2.8	2.7	4.2	4.2	3.9
Most frequent wind direction (bearings)		N	N	N	N, NNW	N, NNW	N	N	N	N	N	N	N
Precipitation amount (mm/month)		13	10	10	13	27	30	35	97	41	9	13	10
Sunshine duration (hours/month)		--	--	--	--	--	--	--	--	--	--	--	--
Solar radiation (MJ/m^2/month)		--	--	--	--	--	--	--	--	--	--	--	--

Appendix Table 2-17 Meteorological statistics at the monitoring site
Site : Irkutsk, Russia

2016

Month / Items		1	2	3	4	5	6	7	8	9	10	11	12
Tempera-ture (ºC)	monthly mean	-21.7	-12.1	-2.7	4.1	10.0	17.4	20.4	16.6	11.2	-3.0	-10.5	-12.1
	max.daily mean	-17.5	-6.2	3.5	10.0	17.7	25.3	27.5	22.8	18.2	1.6	-5.7	-6.6
	min.daily mean	-25.4	-17	-8.1	-1.2	3.1	10.4	14.7	11.8	5.9	-6.5	-14.3	-16.4
Relative humidity (%)	monthly mean	76	71	59	51	47	56	67	79	75	71	79	81
	max.daily mean	--	--	--	--	--	--	--	--	--	--	--	--
	min.daily mean	70	54	40	27	26	32	42	57	48	52	65	72
Mean wind speed (m/s)		1.3	1.4	2.0	2.1	2.3	1.8	1.5	1.6	1.6	1.5	1.6	1.6
Most frequent wind direction (bearings)		NW	NW	NW, SE	NW	NW	WNW SE	WNW SE	WNW	ENE, WNW	WNW	WNW	SE
Precipitation amount (mm/month)		22	12	12	7	34	44	112	221	82	13	24	10
Sunshine duration (hours/month)		85	156	222	246	295	281	281	215	221	109	108	106
Solar radiation (MJ/m^2/month)		118	227	410	499	651	642	617	446	369	206	130	98

Appendix Table 2-18 Meteorological statistics at the monitoring site
Site : Bangkok, Thailand

2016

Month / Items		1	2	3	4	5	6	7	8	9	10	11	12
Tempera-ture (ºC)	monthly mean	27.0	27.6	29.8	31.6	31.4	28.8	28.8	29.2	28.0	27.6	25.8	26.2
	max.daily mean	29.4	29.3	31.5	32.4	33.2	31.4	30.7	31.0	29.9	30.0	28.4	29.7
	min.daily mean	17.3	21.1	27.8	29.4	28.8	26.2	26.2	27.5	25.7	25.6	21.0	20.9
Relative humidity (%)	monthly mean	67	58	65	65	64	75	72	71	77	80	68	56
	max.daily mean	78	74	77	73	77	91	88	83	93	91	91	63
	min.daily mean	52	38	35	53	56	57	59	59	64	65	56	46
Mean wind speed (m/s)		0.7	0.7	1.0	1.0	0.9	0.6	0.6	0.6	0.5	0.4	0.5	0.6
Most frequent wind direction (bearings)		SW	SW	SW	SW	SW	WSW	WSW	WSW	WSW	N	N	N
Precipitation amount (mm/month)		59	2	39	0	115	444	189	280	355	295	124	0
Sunshine duration (hours/month)		--	--	--	--	--	--	--	--	--	--	--	--
Solar radiation (MJ/m^2/month)		--	--	--	--	--	--	--	--	--	--	--	--

Appendix Table 2-19 Meteorological statistics at the monitoring site
Site : Samutprakarn, Thailand

2016

Month / Items		1	2	3	4	5	6	7	8	9	10	11	12
Tempera-ture (ºC)	monthly mean	27.7	28.2	--	--	--	28.3	29.0	29.2	28.2	28.0	28.3	27.5
	max.daily mean	30.6	30.0	--	--	--	0.0	30.9	31.0	29.9	30.2	30.0	29.7
	min.daily mean	17.8	27.4	--	--	--	0.0	26.8	27.3	26.0	25.9	26.7	25.2
Relative humidity (%)	monthly mean	75	72	--	--	--	75	76	75	79	81	73	59
	max.daily mean	87	79	--	--	--	0	89	86	94	92	90	68
	min.daily mean	60	62	--	--	--	0	62	64	66	69	56	50
Mean wind speed (m/s)		3.4	--	--	--	--	0.4	1.2	1.3	1.1	1.0	1.0	1.3
Most frequent wind direction (bearings)		SSW	SSW	--	--	--	SW	SSW	SSW	WNW	WNW	ENE	ENE
Precipitation amount (mm/month)		116	2	--	--	--	0	177	313	488	353	164	0
Sunshine duration (hours/month)		--	--	--	--	--	--	--	--	--	--	--	--
Solar radiation (MJ/m^2/month)		--	--	--	--	--	--	--	--	--	--	--	--

Appendix Table 2-20 Meteorological statistics at the monitoring site
Site : Pathumthani, Thailand

2016

Month / Items		1	2	3	4	5	6	7	8	9	10	11	12
Tempera-ture (ºC)	monthly mean	33.3	29.2	31.1	38.4	36.6	30.8	30.6	31.5	30.1	30.2	30.3	28.5
	max.daily mean	36.2	36.3	38.3	39.9	39.5	33.2	32.1	32.9	31.7	32.2	31.7	31.3
	min.daily mean	22.4	23.6	23.6	33.5	29.2	28.4	28.3	29.7	28.0	28.3	28.4	25.5
Relative humidity (%)	monthly mean	49	33	54	60	60	77	79	77	80	80	74	66
	max.daily mean	73	60	68	64	68	84	80	81	90	88	85	73
	min.daily mean	23	25	29	52	57	65	77	64	69	70	66	58
Mean wind speed (m/s)		1.4	1.4	2.2	2.7	2.1	1.6	1.5	2.2	2.4	2.7	2.7	3.2
Most frequent wind direction (bearings)		S	ESE	S	S	S	S	S	WSW	WSW	WSW	E	NE
Precipitation amount (mm/month)		48	0	1	32	72	113	135	124	213	115	11	0
Sunshine duration (hours/month)		--	--	--	--	--	--	--	--	--	--	--	--
Solar radiation (MJ/m^2/month)		--	--	--	--	--	--	--	--	--	--	--	--

Appendix Table 2-21 Meteorological statistics at the monitoring site
Site : Khanchanaburi, Thailand

2016

Month / Items		1	2	3	4	5	6	7	8	9	10	11	12
Tempera-ture (ºC)	monthly mean	--	--	28.3	31.3	--	--	--	26.6	--	--	--	23.8
	max.daily mean	--	--	28.5	33.0	--	--	--	27.9	--	--	--	25.1
	min.daily mean	--	--	28.0	28.9	--	--	--	24.9	--	--	--	22.8
Relative humidity (%)	monthly mean	--	--	--	--	--	--	--	--	--	--	--	--
	max.daily mean	--	--	--	--	--	--	--	--	--	--	--	--
	min.daily mean	--	--	--	--	--	--	--	--	--	--	--	--
Mean wind speed (m/s)		--	--	1.1	1.9	--	--	--	0.8	--	--	--	0.5
Most frequent wind direction (bearings)		--	--	NNW	NNW	--	--	--	NNW	--	--	--	SSW
Precipitation amount (mm/month)		--	--	1	1	--	--	--	158	--	--	--	1
Sunshine duration (hours/month)		--	--	--	--	--	--	--	--	--	--	--	--
Solar radiation (MJ/m^2/month)		--	--	--	--	--	--	--	--	--	--	--	--

Appendix Table 2-22 Meteorological statistics at the monitoring site
Site : Chang Phueak, Thailand

2016

Month / Items		1	2	3	4	5	6	7	8	9	10	11	12
Tempera-ture (ºC)	monthly mean	20.8	23.9	30.1	33.9	33.0	28.9	26.6	26.7	26.7	26.6	25.3	22.7
	max.daily mean	27.4	28.2	32.6	36.9	37.6	31.8	29.0	28.5	28.2	28.1	26.8	24.6
	min.daily mean	9.1	18.5	26.0	29.1	28.3	26.0	24.7	24.4	24.0	24.4	23.3	20.9
Relative humidity (%)	monthly mean	64	60	49	46	57	78	83	83	83	78	78	72
	max.daily mean	90	74	56	68	82	91	94	94	96	90	96	89
	min.daily mean	50	53	41	38	39	68	70	72	75	67	67	60
Mean wind speed (m/s)		1.9	2.1	1.4	0.7	0.7	0.8	0.4	0.3	0.3	0.3	0.4	0.5
Most frequent wind direction (bearings)		--	--	--	--	--	--	--	--	--	--	--	--
Precipitation amount (mm/month)		30	35	49	58	79	54	137	113	162	96	77	3
Sunshine duration (hours/month)		--	--	--	--	--	--	--	--	--	--	--	--
Solar radiation (MJ/m^2/month)		--	--	--	--	--	--	--	--	--	--	--	--

Appendix Table 2-23 Meteorological statistics at the monitoring site
Site : Nai Mueang, Thailand

2016

Items		1	2	3	4	5	6	7	8	9	10	11	12
Temperature (ºC)	monthly mean	26.5	25.9	31.1	33.5	32.1	29.9	29.0	--	28.8	30.1	29.7	28.8
	max.daily mean	30.3	30.9	34.4	35.4	34.8	32.6	31.2	--	0.0	30.9	30.7	30.1
	min.daily mean	14.7	18.9	24.6	27.6	28.0	27.6	26.1	--	0.0	29.1	28.1	27.1
Relative humidity (%)	monthly mean	42	33	--	--	66	44	54	--	--	--	--	30
	max.daily mean	71	39	--	--	70	72	80	--	--	--	--	38
	min.daily mean	24	27	--	--	61	22	31	--	--	--	--	18
Mean wind speed (m/s)		0.5	0.7	0.5	0.6	0.4	0.6	0.6	--	0.4	0.5	0.6	0.7
Most frequent wind direction (bearings)		E	E	WSW	WSW	SW	W	WNW	--	NE	SE	NE	NE
Precipitation amount (mm/month)		39	0	0	22	5	83	215	44	337	62	34	0
Sunshine duration (hours/month)		--	--	--	--	--	--	--	--	--	--	--	--
Solar radiation (MJ/m^2/month)		--	--	--	--	--	--	--	--	--	--	--	--

Appendix Table 2-24 Meteorological statistics at the monitoring site
Site : Hanoi, Vietnam

2016

Items		1	2	3	4	5	6	7	8	9	10	11	12
Temperature (ºC)	monthly mean	18.8	16.4	20.1	25.4	28.4	30.7	30.0	28.8	28.4	27.3	22.6	20.4
	max.daily mean	22.6	20.4	22.7	28.4	32.5	35.5	34.0	33.1	32.2	31.3	26.7	25.0
	min.daily mean	15.3	13.7	18.2	23.4	25.9	27.6	27.0	26.0	25.8	24.8	19.9	17.2
Relative humidity (%)	monthly mean	89	72	83	86	77	76	80	81	81	82	90	88
	max.daily mean	95	87	91	92	86	89	91	88	89	95	80	75
	min.daily mean	81	56	75	77	63	60	65	71	66	64	65	57
Mean wind speed (m/s)		1.1	1.5	1.1	1.3	1.9	1.6	1.6	1.3	1.1	1.4	1.5	1.5
Most frequent wind direction (bearings)		NE	NE, N	SE	SE	SE	SE	SE	N, NW	N, NE	NW, SE	N, SE	NE
Precipitation amount (mm/month)		106	4	16	122	271	108	248	586	138	49	11	2
Sunshine duration (hours/month)		40	87	21	58	137	228	173	148	137	154	125	141
Solar radiation (MJ/m^2/month)		--	--	--	--	--	--	--	--	--	--	--	--

Appendix Table 2-25 Meteorological statistics at the monitoring site
Site : Hoa Binh, Vietnam

2016

Items		1	2	3	4	5	6	7	8	9	10	11	12
Tempera-ture (ºC)	monthly mean	17.4	16.3	20.6	26.0	28.3	30.7	29.8	28.9	28.1	26.6	22.3	20.0
	max.daily mean	20.8	21.6	24.3	30.5	33.8	36.6	35.2	33.9	33.0	31.6	27.5	26.2
	min.daily mean	15.4	13.0	18.2	23.2	25.0	26.9	26.6	25.9	25.4	23.8	19.5	16.4
Relative humidity (%)	monthly mean	84	72	81	81	80	74	80	84	83	81	80	78
	max.daily mean	90	85	91	92	90	90	82	91	90	90	90	92
	min.daily mean	60	62	66	50	58	58	57	58	65	56	62	56
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)		N	NE	N	NW	SE	SE	N	N	N	N	N	N
Precipitation amount (mm/month)		80	0	22	179	253	72	281	384	103	41	23	0
Sunshine duration (hours/month)		67	118	45	121	179	250	207	162	153	165	145	169
Solar radiation (MJ/m^2/month)		--	--	--	--	--	--	--	--	--	--	--	--

Appendix Table 2-26 Meteorological statistics at the monitoring site
Site : Cuc Phuong, Vietnam

2016

Items		1	2	3	4	5	6	7	8	9	10	11	12
Tempera-ture (ºC)	monthly mean	16.2	14.7	18.6	23.9	26.8	28.9	28.4	27.5	26.6	25.0	21.1	18.9
	max.daily mean	19.2	19.9	21.9	27.8	31.7	34.4	33.3	32.0	31.2	29.9	25.7	24.0
	min.daily mean	14.5	11.7	16.6	21.5	23.8	25.6	25.1	24.6	24.1	22.5	18.4	16.1
Relative humidity (%)	monthly mean	90	77	91	91	86	83	85	89	87	86	84	82
	max.daily mean	97	95	98	99	97	96	97	98	98	97	95	96
	min.daily mean	78	54	77	78	67	59	64	69	69	64	66	58
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)		NE	NE	SSW	NE	SW	NE	WSW	SSW	NNE	NNE	NNE	NE
Precipitation amount (mm/month)		158	9	40	64	228	162	450	375	257	156	31	10
Sunshine duration (hours/month)		41	109	27	78	153	222	182	143	113	141	115	106
Solar radiation (MJ/m^2/month)		--	--	--	--	--	--	--	--	--	--	--	--

Appendix Table 2-27 Meteorological statistics at the monitoring site
Site : DaNang, Vietnam

2016

Items		1	2	3	4	5	6	7	8	9	10	11	12
Tempera-ture (ºC)	monthly mean	23.1	21.1	23.4	27.2	28.7	30.1	29.8	30.2	28.6	27.5	25.7	23,3
	max.daily mean	26.2	24.4	26.6	32.3	33.4	35.3	34.9	35.4	32.9	31.1	28..7	25,6
	min.daily mean	21.4	19.1	21.6	24.7	26	26.6	26.2	26.9	25.8	25.1	23.9	21,8
Relative humidity (%)	monthly mean	86	80	84	81	78	74	75	76	82	83	85	89
	max.daily mean	93	87	93	87	89	85	84	92	95	92	94	95
	min.daily mean	77	68	75	72	74	61	67	59	68	74	76	81
Mean wind speed (m/s)		1.0	1.0	1.0	2.0	1.0	1.0	2.0	1.0	2.0	1.0	2.0	2.0
Most frequent wind direction (bearings)		N	NW	E	E	E	E	E	NNE	NNE	E	ENE	NNE
Precipitation amount (mm/month)		72	5	14	0	59	47	54	145	783	411	336	758
Sunshine duration (hours/month)		118	112	160	207	243	262	288	224	189	133	111	39
Solar radiation (MJ/m^2/month)		--	--	--	--	--	--	--	--	--	--	--	--

Appendix Table 2-28 Meteorological statistics at the monitoring site
Site : Can Tho, Vietnam

2016

Items		1	2	3	4	5	6	7	8	9	10	11	12
Tempera-ture (ºC)	monthly mean	26.5	26.1	27.1	29.0	28.5	27.3	27.3	27.4	27.3	26.8	27.6	26.0
	max.daily mean	31.1	31.4	32.7	34.8	34.0	32.5	32.5	31.7	31.5	30.3	31.7	29.6
	min.daily mean	23.5	22.8	23.6	25.2	25.9	25.0	24.8	25.4	25.1	25.1	25.4	24.1
Relative humidity (%)	monthly mean	83	77	79	80	87	89	89	90	89	91	86	87
	max.daily mean	95	93	94	95	96	97	97	97	97	97	95	95
	min.daily mean	64	58	59	57	69	74	73	76	74	80	68	74
Mean wind speed (m/s)		1.3	1.8	2.0	1.0	1.0	1.0	2.0	2.0	1.3	1.0	1.0	1.5
Most frequent wind direction (bearings)		E	SE	SE	SE	SW	SW	SW	SW	SW	SW	E	NE
Precipitation amount (mm/month)		--	--	--	--	250	144	365	111	295	314	107	85
Sunshine duration (hours/month)		269	211	264	268	180	169	195	147	117	76	176	88
Solar radiation (MJ/m^2/month)		--	--	--	--	--	--	--	--	--	--	--	--

Appendix Table 2-29 Meteorological statistics at the monitoring site
Site : Ho Chi Minh, Vietnam

2016

Month / Items		1	2	3	4	5	6	7	8	9	10	11	12
Tempera-ture (ºC)	monthly mean	28.7	28.3	28.8	30.7	30.8	28.9	28.7	28.6	28.4	27.7	28.6	27.3
	max.daily mean	29.8	29.7	30.1	32.0	32.6	31.6	31.3	30.1	30.2	29.2	30.1	28.6
	min.daily mean	26.5	24.7	28.0	29.3	28.3	26.4	26.1	26.7	26.2	26.1	25.7	24.4
Relative humidity (%)	monthly mean	74	77	72	71	73	73	75	78	78	77	75	72
	max.daily mean	98	99	97	96	97	95	94	98	97	96	94	93
	min.daily mean	50	49	47	47	48	51	56	57	59	58	56	50
Mean wind speed (m/s)		1.0	1.1	1.0	1.2	1.0	1.2	1.0	1.3	1.2	1.0	1.2	1.2
Most frequent wind direction (bearings)		SE	E	SE	SE	W	W	W	W	W	W	SE	SE
Precipitation amount (mm/month)		--	--	--	--	362	284	94	221	637	812	34	110
Sunshine duration (hours/month)		185	200	210	190	201	198	193	201	190	187	182	196
Solar radiation (MJ/m^2/month)		--	--	--	--	--	--	--	--	--	--	--	--

Appendix Table 2-30 Meteorological statistics at the monitoring site
Site : Yen Bai, Vietnam

2016

Month / Items		1	2	3	4	5	6	7	8	9	10	11	12
Tempera-ture (ºC)	monthly mean	16.5	15.8	19.5	25.1	27.5	29.8	28.9	28.3	27.7	26.5	21.6	19.1
	max.daily mean	27.8	31.0	26.9	32.9	35.4	38.2	36.5	36.9	35.1	33.8	30.8	28.4
	min.daily mean	6.0	7.5	9.5	19.4	20.4	24.2	23.6	24.4	22.3	20.5	13.1	11.5
Relative humidity (%)	monthly mean	90	81	89	90	86	82	86	87	85	83	88	85
	max.daily mean	100	99	100	100	98	98	99	100	99	97	98	98
	min.daily mean	56	32	25	54	47	47	58	51	48	41	45	39
Mean wind speed (m/s)		0.8	0.8	0.9	1.0	1.5	1.3	1.3	1.4	1.3	1.3	1.0	1.0
Most frequent wind direction (bearings)		SE	SE	SE	SE	SE	NW	SE	NW	SE	NW	SE	NW
Precipitation amount (mm/month)		70	18	66	146	381	84	405	354	67	80	83	56
Sunshine duration (hours/month)		45	92	26	76	125	214	184	123	168	161	95	123
Solar radiation (MJ/m^2/month)		--	--	--	--	--	--	--	--	--	--	--	--

Appendix 3

Supplemental Data of Wet Deposition Monitoring in 2015

Corrigenda to Data Report 2015

There were errors in the monthly results of wet deposition monitoring at Phnom Penh site.
The page and table number correspond to those of Data Report 2015.

Page 26 (Error)

Table 3.8 Monthly results Site: Phnom Penh Country: Cambodia

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	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-} 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	0.0988	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-} %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**

(Correction)

Table 3.8 Monthly results **Site: Phnom Penh** **Country: Cambodia**

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	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	--	--	--	--	--	--	--	--	--	--	--	--	--	0
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	7.77	7.58	8.93	7.47	14.7	3.23	1.74	9.91	9.84	2.64	0.739	6.13	0.522	377
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-} 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	0.0988	0.0836	0.105	0.141	0.116	0.252	0.0953	0.130	0.125	0.0669	<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	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	2.93	2.86	3.37	2.82	5.53	1.22	0.657	3.74	3.71	0.994	0.278
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-} %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	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**

Appendix 4

Supplemental Data of Dry Deposition Monitoring from 2003 to 2015

Appendix 4-1. Auto data of 2014 and 2015 were submitted from Lao PDR.

Appendix Table 4-1 NO

Unit : ppb			2014												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Lao PDR	Vientiane	Mean			7.4	3.3	3.8	6.4	7.0	6.8	7.2	9.2	16.7	16.8	8.4
		%			100	100	100	100	97	100	100	100	87	100	82
		Max-d			15.4	15.6	23.7	14.8	14.8	17.9	22.2	18.0	29.0	30.2	30.2
		Min-d			＜0.1	＜0.1	1.2	0.5	1.3	0.9	1.2	2.1	8.9	3.0	＜0.1
Unit : ppb			2015												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Lao PDR	Vientiane	Mean	20.5	14.1	9.9	7.6	5.5	4.5	6.0	5.7	9.1	10.6	16.6	16.3	10.9
		%	100	100	97	100	87	57	100	65	100	100	97	90	91
		Max-d	83.1	23.0	19.4	15.7	8.9	14.6	14.6	15.9	23.2	20.7	30.3	31.1	83.1
		Min-d	＜0.1	7.3	2.1	2.4	2.2	1.3	2.0	2.1	2.2	3.7	3.2	2.7	＜0.1

Appendix Table 4-2 NO_2

Unit : ppb			2014												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Lao PDR	Vientiane	Mean			16.5	9.8	5.6	6.7	6.0	5.1	6.3	11.2	14.7	19.0	10.0
		%			100	100	100	100	97	100	100	100	87	100	82
		Max-d			24.2	23.2	11.6	15.2	12.5	10.8	11.0	23.0	20.9	26.2	26.2
		Min-d			＜0.1	＜0.1	2.5	1.6	1.4	1.5	3.0	6.1	8.3	9.6	＜0.1
Unit : ppb			2015												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Lao PDR	Vientiane	Mean	20.6	17.9	14.0	13.1	7.2	6.7	6.0	5.0	6.1	9.8	12.6	14.0	11.4
		%	100	100	94	100	90	57	100	65	100	100	97	90	91
		Max-d	30.0	25.5	25.1	20.8	11.6	10.5	12.8	9.4	12.9	14.9	19.4	20.8	30.0
		Min-d	＜0.1	9.1	8.3	7.9	4.2	4.1	2.9	2.6	3.3	4.9	5.3	7.5	＜0.1

Appendix Table 4-3 NOx

Unit : ppb			2014												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Lao PDR	Vientiane	Mean			24.1	13.0	9.4	13.1	12.9	11.9	13.3	20.4	31.5	35.8	18.4
		%			100	100	100	100	97	100	100	100	87	100	82
		Max-d			36.5	36.7	23.9	38.6	27.0	28.2	31.1	40.1	47.4	56.3	56.3
		Min-d			＜0.1	＜0.1	4.0	2.0	2.7	2.4	4.6	9.9	17.6	12.2	＜0.1
Unit : ppb			2015												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Lao PDR	Vientiane	Mean	41.0	32.3	24.0	20.6	12.9	11.2	12.0	10.8	15.2	20.5	29.3	30.2	22.4
		%	100	100	97	100	87	57	100	65	100	100	97	90	91
		Max-d	99.2	47.0	41.5	35.6	21.7	18.8	27.0	25.6	35.7	34.1	44.6	52.2	99.2
		Min-d	＜0.1	17.2	11.0	11.9	8.9	5.6	5.0	4.8	5.3	9.1	8.6	10.5	＜0.1

Appendix Table 4-4 PM_{10}

Unit : ppb			2014												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Lao PDR	Vientiane	Mean			153	106	59	44	36	34	47	55	81	105	72
		%			100	100	100	100	100	100	100	100	87	100	83
		Max-d			238	192	121	79	63	60	168	104	128	164	238
		Min-d			57	53	25	14	16	13	17	<1	35	54	<1
Unit : ppb			2015												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Lao PDR	Vientiane	Mean	122	98	128	112	54	39	32	32	38	67	53	60	72
		%	100	100	100	100	90	57	100	65	100	100	97	90	92
		Max-d	173	135	229	205	85	60	56	60	71	126	107	119	229
		Min-d	41	45	45	41	25	27	16	13	17	13	<1	<1	<1

Appendix 4-2 . O_3 data of Mondy were revised.

Passive monitoring from Nov. 2015 to Apr. 2016 was run during failure of O_3 monitor.

Their sampling periods by PS in Nov. and Dec. were 10 days an 20 days respectively.

Appendix Table 4-5 O_3

Unit : ppb			2015												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Russia	Mondy	Mean	38	41	45	49	46	40	40	37	31	39	35	39	40
		%	100	100	100	50	100	100	100	100	100	71	100	100	93
		Max-d	41	45	50	58	55	57	54	49	45	45	35	39	58
		Min-d	33	36	38	43	37	24	24	19	22	31	35	39	19

Appendix 4-3 . Auto data of Nai Mueang were newly added.

Nakhon Ratchasima was divided into two sites, Sakaerat (rural) and Nai Mueang (urban)from Data Report 2015.

Appendix Table 4-6 SO_2

Unit : ppb			2008												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Thailand	Nai Mueang	Mean	2.0	2.8	3.4	2.7	2.3	1.5	2.5	2.8	1.1	2.9	5.1	2.6	2.7
		%	81	79	90	83	94	60	77	97	87	97	83	100	86
		Max-d	4.3	4.7	4.8	5.2	5.6	3.1	5.3	4.4	2.7	4.7	6.2	5.8	85.8
		Min-d	0.1	1.3	2.3	1.1	0.8	0.3	0.2	0.3	<0.1	<0.1	3.7	0.8	<0.1
Unit : ppb			2009												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Thailand	Nai Mueang	Mean	-	-	-	-	-	-	-	-	-	-	-	-	-
		%	0	0	0	0	0	0	0	0	0	0	0	0	0
		Max-d	-	-	-	-	-	-	-	-	-	-	-	-	-
		Min-d	-	-	-	-	-	-	-	-	-	-	-	-	-
Unit : ppb			2010												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Thailand	Nai Mueang	Mean	-	-	-	-	0.6	0.4	0.7	0.9	1.3	1.6	2.3	2.7	1.3
		%	0	0	0	0	76	95	95	95	95	96	95	95	62
		Max-d	-	-	-	-	0.9	0.6	1.1	1.3	1.8	2.6	3.3	4.3	4.3
		Min-d	-	-	-	-	0.2	0.1	0.3	0.6	0.9	1.1	1.7	1.9	0.1
Unit : ppb			2011												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Thailand	Nai Mueang	Mean	2.6	3.3	1.0	1.0	0.9	0.9	0.9	1.1	1.2	1.4	1.7	1.4	1.4
		%	95	95	95	94	96	95	95	95	95	95	95	95	95
		Max-d	3.6	5.0	2.3	3.4	1.4	1.2	1.6	2.3	1.6	2.8	4.8	3.3	5.0
		Min-d	2.0	2.5	0.4	0.4	0.4	0.4	0.7	0.5	0.7	0.9	0.3	0.7	0.3
Unit : ppb			2012												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Thailand	Nai Mueang	Mean	1.2	2.0	1.4	0.7	0.7	1.2	1.2	0.7	0.5	0.9	1.5	1.7	1.1
		%	78	95	92	78	95	88	88	91	91	91	91	91	89
		Max-d	2.0	3.8	3.4	1.5	1.4	2.6	1.7	1.0	1.5	1.8	3.4	2.8	3.8
		Min-d	0.6	1.0	0.2	0.3	0.4	0.6	0.2	0.4	<0.1	0.2	0.8	0.6	<0.1
Unit : ppb			2013												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Thailand	Nai Mueang	Mean	2.0	2.0	1.5	0.6	0.2	0.6	0.9	1.0	0.5	1.1	1.0	0.7	1.2
		%	91	91	73	20	25	86	43	28	37	26	76	64	55
		Max-d	3.2	3.3	8.0	1.4	0.7	1.0	1.3	2.2	0.9	2.3	2.6	1.3	8.0
		Min-d	1.0	0.2	<0.1	<0.1	<0.1	<0.1	0.5	0.8	<0.1	0.1	<0.1	<0.1	<0.1
Unit : ppb			2014												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Thailand	Nai Mueang	Mean	1.4	1.9	0.3	0.6	0.7	1.7	1.2	0.8	1.1	0.6	0.6	0.2	1.0
		%	59	90	80	88	91	90	91	91	91	64	91	6	77
		Max-d	2.4	4.4	2.5	2.0	2.0	4.2	1.7	1.3	2.0	1.3	1.4	0.4	4.4
		Min-d	0.6	0.3	<0.1	<0.1	<0.1	0.8	0.8	0.6	0.8	<0.1	<0.1	0.1	<0.1

Appendix Table 4-7 NO

Unit : ppb			2008												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Thailand	Nai Mueang	Mean	9.5	5.4	4.7	4.3	2.9	3.3	4.8	5.7	4.1	6.8	6.3	13.3	5.9
		%	77	93	90	93	100	83	84	100	100	97	100	100	93
		Max-d	26.7	19.3	10.9	7.3	5.7	12.3	7.2	8.5	11.8	16.0	29.7	48.7	93.2
		Min-d	1.7	1.4	2.1	2.1	1.5	1.7	2.5	3.7	2.0	2.5	3.0	2.3	1.4
Unit : ppb			2009												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Thailand	Nai Mueang	Mean	-	-	-	-	-	-	-	-	-	-	-	-	-
		%	0	0	0	0	0	0	0	0	0	0	0	0	0
		Max-d	-	-	-	-	-	-	-	-	-	-	-	-	-
		Min-d	-	-	-	-	-	-	-	-	-	-	-	-	-
Unit : ppb			2010												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Thailand	Nai Mueang	Mean	-	-	-	-	10.0	9.9	14.5	15.9	18.3	12.8	15.9	23.7	15.3
		%	0	0	0	0	75	96	95	95	95	96	95	95	62
		Max-d	-	-	-	-	22.9	15.1	26.6	23.6	28.7	26.0	30.8	84.5	84.5
		Min-d	-	-	-	-	4.5	3.9	4.6	8.3	9.2	3.6	6.9	3.9	3.6
Unit : ppb			2011												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Thailand	Nai Mueang	Mean	21.4	18.0	16.2	12.6	11.4	11.7	14.1	15.8	17.2	17.7	24.1	18.2	16.5
		%	96	95	95	95	96	95	95	95	96	96	83	94	94
		Max-d	47.4	41.3	25.6	28.5	20.0	18.1	21.8	22.2	30.3	27.2	53.8	32.4	53.8
		Min-d	12.1	7.9	9.1	5.7	2.0	5.9	9.0	7.3	3.0	9.5	9.4	9.2	2.0

Appendix Table 4-7 NO (continued)

Unit : ppb			2012												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Thailand	Nai Mueang	Mean	17.3	17.6	14.7	10.8	13.6	11.9	14.5	16.5	16.6	16.7	19.1	21.9	15.6
		%	96	95	92	78	96	92	92	95	90	75	3	75	82
		Max-d	31.7	51.3	36.3	19.3	72.5	21.9	23.7	26.4	34.4	35.8	23.6	49.3	72.5
		Min-d	7.7	7.8	7.8	5.6	3.9	4.5	6.4	10.7	4.6	8.0	16.1	6.8	3.9

Unit : ppb			2013												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Thailand	Nai Mueang	Mean	18.0	18.0	12.1	9.1	10.3	10.1	11.6	13.8	18.0	16.1	19.4	21.7	15.4
		%	95	95	96	20	29	90	45	29	39	27	60	69	58
		Max-d	39.0	44.7	29.4	13.2	15.0	21.7	19.3	23.7	28.7	32.7	38.1	53.2	53.2
		Min-d	5.7	5.7	5.9	5.7	4.7	2.5	5.4	7.6	4.9	5.5	7.8	9.2	2.5

Unit : ppb			2014												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Thailand	Nai Mueang	Mean	28.7	11.5	13.5	11.4	6.3	9.5	10.7	10.4	11.9	12.4	17.6	15.3	11.7
		%	7	92	95	95	95	95	95	95	95	95	95	19	81
		Max-d	43.6	26.9	26.1	23.9	13.5	24.6	17.1	17.3	21.4	33.0	39.4	23.0	43.6
		Min-d	24.3	2.0	0.7	1.2	1.2	3.6	5.5	4.2	5.3	2.7	8.2	8.0	0.7

Appendix Table 4-8 NO_2

Unit : ppb			2008												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Thailand	Nai Mueang	Mean	19.7	13.0	13.5	11.5	5.4	9.4	9.7	7.3	8.5	8.8	9.7	17.3	11.0
		%	77	93	90	93	100	83	84	100	100	100	100	100	93
		Max-d	35.3	21.3	21.3	19.6	10.7	17.5	14.0	10.8	14.1	12.3	14.9	28.2	93.4
		Min-d	10.5	8.2	7.7	3.6	1.1	4.2	4.5	3.0	4.4	2.7	4.3	7.0	1.1

Unit : ppb			2009												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Thailand	Nai Mueang	Mean	-	-	-	-	-	-	-	-	-	-	-	-	-
		%	0	0	0	0	0	0	0	0	0	0	0	0	0
		Max-d	-	-	-	-	-	-	-	-	-	-	-	-	-
		Min-d	-	-	-	-	-	-	-	-	-	-	-	-	-

Unit : ppb			2010												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Thailand	Nai Mueang	Mean	-	-	-	-	14.7	14.1	13.2	13.9	16.2	17.4	26.7	26.4	17.9
		%	0	0	0	0	75	96	95	95	95	96	95	95	62
		Max-d	-	-	-	-	21.7	18.7	21.2	21.7	23.5	24.8	33.9	46.4	46.4
		Min-d	-	-	-	-	6.2	7.7	5.7	6.0	10.5	8.4	16.7	12.8	5.7

Unit : ppb			2011												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Thailand	Nai Mueang	Mean	28.8	32.7	28.1	24.7	11.2	8.6	8.2	8.2	9.0	15.4	16.9	20.8	17.6
		%	96	95	95	95	96	95	95	95	96	96	83	94	94
		Max-d	37.8	52.0	39.4	39.6	20.3	15.0	13.7	12.0	17.3	24.2	38.2	36.1	52.0
		Min-d	22.7	24.6	15.7	7.2	3.1	3.1	3.1	2.8	0.2	10.1	6.0	9.5	0.2

Unit : ppb			2012												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Thailand	Nai Mueang	Mean	23.5	31.9	27.6	21.0	17.9	14.5	13.4	7.8	8.9	14.5	3.8	26.0	18.7
		%	96	95	92	78	96	92	92	95	90	75	3	76	82
		Max-d	39.7	54.1	56.4	34.2	32.0	23.0	17.9	12.5	16.1	25.1	5.9	34.9	56.4
		Min-d	11.2	18.6	14.6	14.2	9.0	3.8	2.6	2.1	2.5	0.5	0.6	15.9	0.5

Unit : ppb			2013												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Thailand	Nai Mueang	Mean	23.1	27.0	22.2	24.8	13.4	12.8	18.1	14.0	15.5	13.4	13.4	22.8	19.4
		%	96	95	97	20	29	91	45	29	39	27	60	69	58
		Max-d	38.3	48.7	36.2	40.3	28.3	20.7	24.1	18.6	22.7	24.2	25.8	44.8	48.7
		Min-d	3.4	8.1	9.6	17.5	6.2	3.5	12.0	9.8	5.7	3.9	0.6	3.0	0.6

Unit : ppb			2014												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Thailand	Nai Mueang	Mean	19.3	20.4	22.7	17.7	13.7	14.0	13.8	12.3	12.7	13.0	16.0	17.5	15.6
		%	7	92	95	95	95	95	95	95	95	95	95	19	81
		Max-d	30.8	35.6	40.7	25.7	23.1	22.9	18.7	17.7	21.5	25.3	22.8	25.5	40.7
		Min-d	8.3	2.3	4.0	7.7	6.6	8.0	6.3	6.4	7.0	0.6	5.7	10.8	0.6

Appendix Table 4-9 NOx

Unit : ppb			2008												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Thailand	Nai Mueang	Mean	29.2	18.4	18.2	15.8	8.3	12.7	14.4	13.0	12.5	15.5	16.0	30.5	16.9
		%	77	93	90	93	100	83	84	100	100	100	100	100	93
		Max-d	58.4	38.5	32.1	25.7	13.5	30.0	19.9	18.9	23.7	28.3	39.0	71.8	93.4
		Min-d	13.1	11.1	10.2	5.8	3.7	6.1	9.0	7.2	6.4	6.7	8.1	9.9	3.7
Unit : ppb			2009												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Thailand	Nai Mueang	Mean	-	-	-	-	-	-	-	-	-	-	-	-	-
		%	0	0	0	0	0	0	0	0	0	0	0	0	0
		Max-d	-	-	-	-	-	-	-	-	-	-	-	-	-
		Min-d	-	-	-	-	-	-	-	-	-	-	-	-	-
Unit : ppb			2010												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Thailand	Nai Mueang	Mean	-	-	-	-	24.7	24.0	27.7	29.8	34.5	30.2	42.6	50.1	33.2
		%	0	0	0	0	75	96	95	95	95	96	95	95	62
		Max-d	-	-	-	-	44.3	33.1	47.8	44.9	48.2	45.4	57.3	125.8	125.8
		Min-d	-	-	-	-	10.7	12.4	12.3	18.0	21.7	13.5	32.5	17.3	10.7
Unit : ppb			2011												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Thailand	Nai Mueang	Mean	50.1	50.8	44.3	37.3	22.8	20.0	22.1	23.8	25.9	33.1	40.8	39.0	34.0
		%	96	95	95	95	96	95	95	95	96	96	83	94	94
		Max-w	81.5	80.9	59.9	67.9	40.3	32.1	34.2	33.3	43.4	45.3	91.9	64.6	91.9
		Min-w	34.8	33.5	31.5	14.2	7.6	8.3	11.7	9.6	2.0	19.8	14.7	19.4	2.0
Unit : ppb			2012												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Thailand	Nai Mueang	Mean	40.7	49.5	42.4	31.8	31.5	26.4	27.9	23.7	25.0	31.0	20.4	47.9	34.2
		%	96	95	92	78	96	92	92	95	90	75	3	75	82
		Max-d	71.4	93.5	92.6	52.1	104.5	37.6	40.4	34.8	44.9	60.9	20.9	81.0	104.5
		Min-d	19.2	26.4	24.6	19.8	14.1	8.0	10.3	11.9	14.6	11.3	20.2	25.2	8.0
Unit : ppb			2013												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Thailand	Nai Mueang	Mean	40.9	44.9	34.2	33.9	23.8	22.9	29.6	27.8	33.5	28.9	31.8	44.4	34.6
		%	95	95	96	20	29	90	45	29	39	27	60	69	58
		Max-d	70.4	93.3	61.2	53.4	42.7	36.6	42.8	42.3	44.5	38.4	62.7	78.3	93.3
		Min-d	8.5	15.7	17.3	24.8	10.8	6.0	17.7	17.3	10.5	18.9	9.3	17.1	6.0
Unit : ppb			2014												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Thailand	Nai Mueang	Mean	45.1	31.6	36.2	29.0	19.9	23.5	24.5	22.7	24.6	25.1	33.6	32.8	27.3
		%	7	92	95	95	95	95	95	95	95	95	95	19	81
		Max-d	74.3	60.9	58.0	46.2	34.9	47.5	34.7	30.6	36.2	52.5	60.2	41.7	74.3
		Min-d	26.7	8.4	6.0	9.6	9.6	12.1	12.3	13.9	12.1	6.3	16.1	19.0	6.0

Appendix Table 4-10 O_3

Unit : ppb			2008												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Thailand	Nai Mueang	Mean	28	33	35	25	25	17	11	12	13	12	24	26	22
		%	81	93	90	97	81	63	84	100	100	87	100	100	90
		Max-d	41	43	49	37	30	25	19	26	19	22	38	37	90
		Min-d	20	22	16	11	17	9	6	7	7	8	9	14	6
Unit : ppb			2009												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Thailand	Nai Mueang	Mean	-	-	-	-	-	-	-	-	-	-	-	-	-
		%	0	0	0	0	0	0	0	0	0	0	0	0	0
		Max-d	-	-	-	-	-	-	-	-	-	-	-	-	-
		Min-d	-	-	-	-	-	-	-	-	-	-	-	-	-
Unit : ppb			2010												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Thailand	Nai Mueang	Mean	-	-	-	-	24	20	14	12	10	15	24	20	17
		%	0	0	0	0	77	96	95	95	95	96	95	95	62
		Max-d	-	-	-	-	35	28	26	20	19	36	45	34	45
		Min-d	-	-	-	-	16	13	8	8	3	4	12	11	3
Unit : ppb			2011												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Thailand	Nai Mueang	Mean	31	34	38	37	23	17	17	16	16	20	24	25	25
		%	89	84	83	81	95	96	78	92	95	95	96	95	90
		Max-d	50	51	61	50	39	24	29	28	27	30	33	36	61
		Min-d	22	19	18	17	13	9	9	8	11	12	17	14	8
Unit : ppb			2012												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Thailand	Nai Mueang	Mean	21	27	27	24	21	17	13	11	14	16	16	19	19
		%	96	95	92	78	96	92	92	95	96	95	93	96	93
		Max-d	38	34	36	40	32	26	19	16	36	28	28	30	40
		Min-d	11	19	16	11	13	10	6	8	5	9	8	12	5

Appendix Table 4-11 O_3 (continued)

Unit : ppb			2013												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Thailand	Nai Mueang	Mean	22	26	30	36	17	16	20	13	11	23	16	21	22
		%	96	96	82	20	24	35	17	12	27	26	78	69	48
		Max-d	31	37	43	38	24	22	28	17	20	48	30	31	48
		Min-d	10	15	15	30	4	8	8	7	4	10	3	7	3

Unit : ppb			2014												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Thailand	Nai Mueang	Mean	5	34	35	30	24	19	17	16	14	19	18	32	22
		%	13	82	95	96	95	95	82	95	95	95	87	10	78
		Max-d	7	45	44	44	35	27	27	24	22	37	33	37	45
		Min-d	2	21	21	21	15	9	10	10	8	8	2	28	2

Appendix Table 4-12 PM_{10}

Unit : $\mu g/m^3$			2008												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Thailand	Nai Mueang	Mean	120	44	36	77	55	46	30	29	26	35	45	56	47
		%	42	83	71	93	87	77	65	100	100	97	100	61	81
		Max-d	181	92	90	111	98	71	50	40	43	63	70	103	181
		Min-d	70	28	20	37	32	24	20	18	14	15	12	19	12

Unit : $\mu g/m^3$			2009												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Thailand	Nai Mueang	Mean	-	-	-	-	-	-	-	-	-	-	-	-	-
		%	0	0	0	0	0	0	0	0	0	0	0	0	0
		Max-d	-	-	-	-	-	-	-	-	-	-	-	-	-
		Min-d	-	-	-	-	-	-	-	-	-	-	-	-	-

Unit : $\mu g/m^3$			2010												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Thailand	Nai Mueang	Mean	-	-	-	-	35	35	31	32	33	39	74	76	44
		%	0	0	0	0	80	92	99	99	100	100	100	89	64
		Max-d	-	-	-	-	52	61	42	44	43	77	116	106	116
		Min-d	-	-	-	-	21	19	16	20	24	15	31	47	15

Unit : $\mu g/m^3$			2011												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Thailand	Nai Mueang	Mean	-	-	-	-	-	-	-	-	-	-	-	-	-
		%	0	0	0	0	0	0	0	0	0	0	0	0	0
		Max-d	-	-	-	-	-	-	-	-	-	-	-	-	-
		Min-d	-	-	-	-	-	-	-	-	-	-	-	-	-

Unit : $\mu g/m^3$			2012												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Thailand	Nai Mueang	Mean	65	88	81	51	39	42	31	32	40	59	51	70	54
		%	99	98	99	100	99	96	85	99	100	100	100	100	98
		Max-d	119	133	156	95	60	106	49	42	86	101	75	101	156
		Min-d	42	50	44	30	20	25	20	24	20	17	35	43	17

Unit : $\mu g/m^3$			2013												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Thailand	Nai Mueang	Mean	79	89	68	67	30	30	30	33	31	66	49	81	59
		%	100	100	100	21	28	94	47	30	40	28	82	72	62
		Max-d	126	132	102	108	40	46	38	50	46	97	78	137	137
		Min-d	44	39	41	48	19	19	21	26	14	13	33	30	13

Unit : $\mu g/m^3$			2014												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Thailand	Nai Mueang	Mean	91	81	76	53	35	38	34	33	31	47	48	65	51
		%	69	100	100	99	100	99	92	100	99	100	100	17	89
		Max-d	145	105	133	87	50	67	43	65	47	103	76	78	145
		Min-d	51	43	51	30	27	22	8	19	19	18	26	38	8

Appendix 4-4 . Chiangmai site was divided into three sites, Mae Hia, Chang Phueak and Si Phum.

SO_2 data by FP of Mae Hia were newly added.

Appendix Table 4-13 SO_2

Unit : ppb			2003												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Thailand	Mae Hia	Mean				<0.1	<0.1	0.1	0.1	<0.1	<0.1	0.6	1.5	0.5	0.3
		%				23	23	23	23	23	23	23	23	23	17
		Max-w				<0.1	<0.1	0.1	0.1	<0.1	<0.1	0.6	1.5	0.5	1.5
		Min-w				<0.1	<0.1	0.1	0.1	<0.1	<0.1	0.6	1.5	0.5	<0.1
Unit : ppb			2004												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Thailand	Mae Hia	Mean	1.0	0.4	0.8	1.0	0.6	0.2	0.2	0.2	0.5	0.7	1.0	0.2	0.5
		%	21	24	23	100	100	100	100	91	100	100	100	100	100
		Max-w	1.0	0.4	0.8	1.3	1.0	0.3	0.2	0.2	0.6	1.0	1.8	0.3	1.8
		Min-w	1.0	0.4	0.8	0.7	0.1	0.1	0.2	0.1	0.3	0.5	0.5	0.2	0.1
Unit : ppb			2005												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Thailand	Mae Hia	Mean	0.8	0.9	0.5	0.5	0.5	0.2	0.2	<0.1	<0.1	0.2	0.1	0.5	0.4
		%	100	100	94	100	97	84	100	100	100	100	100	100	92
		Max-w	1.7	1.5	0.9	0.9	1.0	0.4	0.4	0.2	<0.1	0.5	0.2	1.0	1.7
		Min-w	0.4	0.5	0.3	0.3	0.2	<0.1	0.2	<0.1	<0.1	<0.1	<0.1	0.1	<0.1
Unit : ppb			2006												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Thailand	Mae Hia	Mean	<0.1	0.3	0.6	0.4	0.3	0.2	<0.1	0.2	0.1	0.4	<0.1	0.4	0.3
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	<0.1	0.4	0.7	0.4	0.6	0.5	0.1	0.6	0.3	1.2	0.1	0.5	1.2
		Min-w	<0.1	0.1	0.5	0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.3	<0.1
Unit : ppb			2007												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Thailand	Mae Hia	Mean	0.3	0.4	0.5	0.6	<0.1	0.2	0.1	<0.1	0.3	0.4	0.3	0.2	0.3
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.6	0.5	0.8	1.4	<0.1	0.3	0.3	<0.1	0.9	0.8	0.6	0.2	1.4
		Min-w	0.2	0.3	0.2	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	0.1	<0.1
Unit : ppb			2008												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Thailand	Mae Hia	Mean	0.2	0.2	0.9	0.4	0.2	0.2	<0.1	0.2	0.2	0.2	0.1	0.5	0.3
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.3	0.3	1.8	0.6	0.4	0.3	0.1	0.4	0.3	0.3	0.1	1.1	1.8
		Min-w	0.2	0.1	0.4	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.3	<0.1
Unit : ppb			2009												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Thailand	Mae Hia	Mean	0.5	0.3	0.4	0.3	0.5	<0.1	0.2	0.2	0.1	0.3	0.1	0.1	0.3
		%	100	97	97	97	97	97	97	97	97	97	97	100	97
		Max-10d	1.1	0.4	0.6	0.4	1.0	<0.1	0.4	0.3	0.2	0.8	0.2	0.2	1.1
		Min-10d	<0.1	0.2	0.3	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Unit : ppb			2010												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Thailand	Mae Hia	Mean	0.3	0.5	1.1	0.4	0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	0.3
		%	94	96	100	97	97	97	97	97	100	0	0	0	73
		Max-10d	0.5	1.2	2.3	0.5	0.2	0.2	<0.1	0.1	0.2	-	-	-	2.3
		Min-10d	0.1	0.2	0.5	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	<0.1
Unit : ppb			2011												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Thailand	Mae Hia	Mean	-	-	0.2	1.0	0.9	<0.1	<0.1	0.1	<0.1	0.1	0.1	0.3	0.3
		%	0	0	97	100	97	97	97	97	97	100	90	100	81
		Max-10d	-	-	0.5	1.5	1.8	<0.1	0.1	0.1	<0.1	0.3	0.3	0.5	1.8
		Min-10d	-	-	<0.1	0.4	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.1
Unit : ppb			2012												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Thailand	Mae Hia	Mean	-	-	-	0.2	0.2	<0.1	<0.1	0.1	0.2	0.4	0.2	0.2	0.2
		%	0	0	0	100	97	100	97	97	97	97	97	100	73
		Max-w	-	-	-	0.3	0.4	<0.1	<0.1	0.2	0.2	0.8	0.2	0.3	0.8
		Min-w	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	0.2	0.1	0.1	0.2	<0.1
Unit : ppb			2013												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Thailand	Mae Hia	Mean	0.3	<0.1	-	0.3	0.4	0.2	<0.1	0.2	0.2	0.1	<0.1	-	0.2
		%	94	36	0	30	97	97	97	97	97	97	100	0	70
		Max-10d	0.3	<0.1	-	0.3	0.5	0.3	0.1	0.2	0.2	0.2	0.1	-	0.5
		Min-10d	0.3	<0.1	-	0.3	0.2	<0.1	<0.1	0.2	0.2	<0.1	<0.1	-	<0.1
Unit : ppb			2014												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Thailand	Mae Hia	Mean	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	<0.1	<0.1
		%	68	96	97	97	97	97	97	52	0	0	0	61	63
		Max-d	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	<0.1	0.2
		Min-d	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	<0.1	<0.1
Unit : ppb			2015												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Thailand	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-d	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	<0.1
		Min-d	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	<0.1

Appendix 4-5 . Auto data of Si Phum were newly added.

Appendix Table 4-14 SO_2

Unit : ppb			2013												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Thailand	Si Phum	Mean	2.8	1.9	2.4	1.7	0.5	0.7	1.5	<0.1	0.8	1.0	1.4	2.0	1.4
		%	81	94	79	95	53	76	86	81	94	95	95	95	85
		Max-d	6.0	5.2	7.8	4.8	3.2	3.4	4.8	0.4	1.3	1.8	4.2	4.4	7.8
		Min-d	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.3	0.4	<0.1	<0.1
Unit : ppb			2014												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Thailand	Si Phum	Mean	2.1	1.5	1.7	2.1	2.2	2.2	1.8	2.3	1.0	1.0	1.2	1.0	1.7
		%	96	81	62	18	95	96	96	86	92	95	96	93	84
		Max-d	5.0	3.6	3.8	2.8	3.2	5.1	3.4	7.9	1.0	1.4	2.0	1.2	7.9
		Min-d	0.2	<0.1	0.3	1.3	0.9	0.7	0.8	0.9	1.0	1.0	1.0	0.9	<0.1
Unit : ppb			2015												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Thailand	Si Phum	Mean	1.4	1.7	1.9	1.5	1.2	1.2	1.3	1.5	1.4	1.2	1.0	1.0	1.4
		%	96	96	95	96	93	90	95	93	96	96	95	93	94
		Max-d	2.5	2.3	2.8	2.0	1.8	1.6	1.6	2.2	1.8	2.0	1.3	1.2	2.8
		Min-d	0.4	1.3	0.3	1.0	1.0	1.0	1.0	1.1	1.0	1.0	1.0	1.0	0.3

Appendix Table 4-15 NO

Unit : ppb			2013												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Thailand	Si Phum	Mean	11.0	9.0	9.2	4.1	3.3	4.9	6.5	8.1	6.6	5.7	6.7	7.6	6.9
		%	93	95	95	95	94	95	95	93	94	76	95	96	93
		Max-d	24.6	18.1	17.7	7.4	7.1	10.0	13.4	17.1	12.4	10.2	10.6	13.2	24.6
		Min-d	3.3	4.0	3.1	1.5	1.3	2.3	3.3	5.0	3.6	0.4	3.1	2.3	0.4
Unit : ppb			2014												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Thailand	Si Phum	Mean	8.7	9.3	7.1	2.2	3.0	3.4	5.0	6.1	10.1	6.7	11.6	11.9	7.0
		%	96	81	45	96	95	96	95	86	92	95	96	93	89
		Max-d	14.5	20.9	18.9	5.9	7.0	4.8	12.6	19.0	21.0	13.2	29.0	18.2	29.0
		Min-d	4.8	3.6	1.7	0.9	1.1	1.6	2.9	2.4	5.2	3.1	6.3	2.2	0.9
Unit : ppb			2015												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Thailand	Si Phum	Mean	13.5	15.1	14.6	7.7	8.6	10.1	11.6	12.0	10.4	10.7	12.9	13.7	11.8
		%	96	96	95	96	93	89	95	93	95	96	94	93	94
		Max-d	23.1	28.1	34.4	13.5	19.5	21.8	20.7	27.4	17.7	21.9	24.8	20.8	34.4
		Min-d	2.7	9.5	4.7	3.6	3.8	7.3	3.4	4.8	4.1	2.0	3.8	6.6	2.0

Appendix Table 4-16 NO_2

Unit : ppb			2013												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Thailand	Si Phum	Mean	22.6	23.1	29.8	21.0	11.7	11.0	11.6	11.0	10.2	11.8	12.1	16.7	16.1
		%	93	95	95	95	94	95	95	93	94	76	95	96	93
		Max-d	28.8	34.8	48.6	32.5	16.0	15.0	17.4	15.8	13.4	15.8	16.0	23.7	48.6
		Min-d	13.5	14.5	13.7	11.7	8.5	7.7	7.8	7.0	7.7	<0.1	8.3	10.1	<0.1
Unit : ppb			2014												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Thailand	Si Phum	Mean	21.2	22.8	29.7	15.9	10.5	8.6	8.7	8.5	11.6	12.7	17.0	20.4	14.9
		%	96	81	45	96	95	96	95	86	92	95	96	93	89
		Max-d	29.3	33.1	43.8	34.0	15.0	12.7	19.1	15.3	15.2	17.8	22.5	27.3	43.8
		Min-d	14.5	14.3	13.1	9.0	6.4	4.3	5.0	4.5	9.3	6.9	12.7	10.0	4.3
Unit : ppb			2015												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Thailand	Si Phum	Mean	22.3	29.1	30.8	19.9	14.4	11.3	11.2	11.8	12.2	15.0	17.8	21.3	18.1
		%	96	96	95	96	93	89	95	93	95	96	94	93	94
		Max-d	30.8	39.3	49.6	32.7	21.4	17.4	15.2	15.0	17.3	27.0	23.4	29.6	49.6
		Min-d	8.3	23.1	14.3	10.0	10.0	8.7	8.3	8.3	9.5	6.0	8.0	9.2	6.0

Appendix Table 4-17 NOx

Unit : ppb			2013												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Thailand	Si Phum	Mean	33.6	32.1	39.0	25.1	15.0	15.9	18.0	19.0	16.8	17.6	18.8	24.3	23.0
		%	93	95	95	95	94	95	95	93	94	76	95	96	93
		Max-d	53.1	46.8	65.6	39.5	23.1	21.1	27.2	30.2	25.2	24.3	25.6	35.3	65.6
		Min-d	18.4	20.0	18.9	14.3	10.9	11.4	11.8	12.4	12.4	0.4	12.8	12.7	0.4
Unit : ppb			2014												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Thailand	Si Phum	Mean	29.9	32.2	36.8	18.0	13.5	12.0	13.6	14.6	21.6	19.3	28.4	32.3	21.9
		%	96	81	45	96	95	96	95	86	92	95	96	93	89
		Max-d	41.4	50.3	53.9	39.9	21.9	16.2	31.6	34.0	36.1	25.3	44.2	42.3	53.9
		Min-d	19.5	19.0	14.7	10.0	8.8	5.8	8.3	7.8	14.4	10.4	21.7	12.1	5.8
Unit : ppb			2015												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Thailand	Si Phum	Mean	35.8	44.3	45.4	27.5	23.0	21.4	22.7	23.6	22.5	25.6	30.7	34.9	29.8
		%	96	96	95	96	93	89	95	93	95	96	94	93	94
		Max-d	50.7	65.2	83.7	45.8	33.9	38.9	32.8	40.8	31.0	44.0	46.8	46.3	83.7
		Min-d	11.0	34.4	18.8	13.7	15.0	16.4	12.7	13.3	13.7	7.7	11.8	15.7	7.7

Appendix Table 4-18 O_3

Unit : ppb			2013												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Thailand	Si Phum	Mean	25	29	31	38	28	22	15	11	12	16	16	19	22
		%	94	94	95	95	94	96	96	93	95	95	96	96	95
		Max-d	40	42	39	50	44	40	22	17	19	30	24	29	50
		Min-d	18	19	20	27	16	8	8	5	7	5	9	11	5
Unit : ppb			2014												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Thailand	Si Phum	Mean	24	26	35	26	17	11	10	9	-	-	-	-	19
		%	96	81	74	21	95	96	96	61	0	0	0	0	52
		Max-d	30	42	47	35	26	18	15	13	-	-	-	-	47
		Min-d	17	20	17	19	10	7	3	4	-	-	-	-	3
Unit : ppb			2015												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Thailand	Si Phum	Mean	-	-	-	-	-	-	-	-	-	-	-	-	-
		%	0	0	0	0	0	0	0	0	0	0	0	0	0
		Max-w	-	-	-	-	-	-	-	-	-	-	-	-	-
		Min-w	-	-	-	-	-	-	-	-	-	-	-	-	-

Appendix Table 4-19 PM_{10}

Unit : $\mu g/m^3$			2013												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Thailand	Si Phum	Mean	60	71	109	92	32	22	20	22	20	35	32	49	47
		%	98	100	98	93	99	98	100	99	99	99	100	86	98
		Max-d	83	109	229	157	73	43	41	34	40	61	47	79	229
		Min-d	36	34	22	31	18	11	13	10	10	6	19	27	6
Unit : $\mu g/m^3$			2014												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Thailand	Si Phum	Mean	49	39	122	52	31	24	21	28	35	46	45	53	47
		%	100	100	96	98	98	99	89	39	92	97	100	97	92
		Max-d	62	87	243	128	48	42	30	47	46	75	60	71	243
		Min-d	38	17	36	24	13	10	13	15	17	18	33	41	10
Unit : $\mu g/m^3$			2015												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Thailand	Si Phum	Mean	54	83	125	62	42	22	27	28	30	33	36	47	49
		%	100	100	100	98	97	94	99	97	100	99	98	95	98
		Max-d	83	163	296	135	99	32	39	51	44	66	58	65	296
		Min-d	16	65	30	13	17	14	19	19	17	15	19	21	13

Appendix Table 4-20 $PM_{2.5}$

Unit : $\mu g/m^3$			2013												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Thailand	Si Phum	Mean	45	51	84	60	26	21	20	21	17	28	24	40	35
		%	98	98	68	93	100	99	100	100	98	100	100	100	96
		Max-d	55	89	188	112	54	32	26	30	27	48	43	68	188
		Min-d	25	21	17	24	17	15	15	12	11	13	14	20	11
Unit : $\mu g/m^3$			2014												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Thailand	Si Phum	Mean	41	35	95	51	26	21	22	19	12	26	22	34	33
		%	100	85	83	97	99	99	99	87	96	99	98	96	95
		Max-d	63	56	188	127	39	31	30	34	20	53	32	51	188
		Min-d	28	23	47	31	15	10	10	10	6	10	13	23	6
Unit : $\mu g/m^3$			2015												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Thailand	Si Phum	Mean	38	64	106	47	24	12	13	12	14	17	18	27	33
		%	97	100	96	99	96	93	99	96	98	99	98	92	97
		Max-d	62	156	266	115	60	17	22	17	23	36	27	41	266
		Min-d	10	45	18	8	9	8	9	6	6	7	9	11	6

Appendix 4-6 . Ozone data of Bandung were revised.

Data errors were found, so their invalid data were removed and recalculated.

Appendix Table 4-21 O_3

Unit : ppb			2015												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Indonesia	Bandung	Mean	13	17	26	34	45	31	21	26	25	24	19	16	26
		%	43	43	41	80	81	85	78	85	77	95	75	85	73
		Max-d	23	34	55	63	82	60	33	47	69	33	32	36	82
		Min-d	4	7	5	13	34	17	14	15	18	16	11	7	4

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