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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 2018, which contains the monitoring data from the participating countries at the Nineteenth Session of Scientific Advisory Committee (SAC19), held in October 2019. The draft Data Report was considered at SAC19 by the experts from the participating countries. Following the comments and guidance at the SAC19, the NC has elaborated and finalized the report.

The Data Report 2018 contains the data obtained from monitoring activities carried out in 2018.

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 2018

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 2018. The data on deposition monitoring were submitted from a total of 62 monitoring sites, including 27 urban, 16 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 2018

Table 2.2 Locations of EANET deposition monitoring sites

Country	Site	Code	Classification	Latitude[*1]	Longitude[*1]	Altitude[*1] /m
Cambodia	Phnom Penh	*KHA001*	Urban	11°33'18"N	104°56'20"E	12
China	Chongqing - Haifu	*CNA003*	Urban	29°37'30"N	106°30'34"E	300
	- Jinyunshan	*CNA004*	Rural	29°49'42"N	106°22'43"E	403
	Xi'an - Shizhan	*CNA005*	Urban	34°14'33"N	108°57'10"E	419
	- Jiwozi	*CNA007*	Remote	33°51'06"N	108°48'52"E	2,198
	Xiamen - Hongwen	*CNA008*	Urban	24°28'47"N	118°09'47"E	39
	- Xiaoping	*CNA009*	Remote	24°51'23"N	118°02'55"E	530
	Zhuhai - Xiang Zhou	*CNA010*	Urban	22°16'22"N	113°31'46"E	40
	- Zhuxiandong	*CNA011*	Urban	22°12'24"N	113°30'60"E	50
	- Haibin-Park	*CNA012*	Urban	22°15'40"N	113°34'25"E	30
Indonesia	Jakarta	*IDA001*	Urban	06°09'22"S	106°50'32"E	7
	Serpong	*IDA002*	Rural	06°21'02"S	109°40'04"E	64
	Kototabang	*IDA003*	Remote	00°12'08"S	100°19'05"E	845
	Bandung	*IDA004*	Urban	06°53'41"S	107°35'11"E	753
	Maros	*IDA005*	Rural	04°59'50"S	119°34'17"E	1
Japan	Rishiri	*JPA001*	Remote	45°07'30"N	141°14'30"E	40
	Ochiishi	*JPA002*	Remote	43°09'43"N	145°29'50"E	49
	Tappi	*JPA003*	Remote	41°15'06"N	140°21'01"E	106
	Sado-seki	*JPA004*	Remote	38°15'02"N	138°24'01"E	129
	Happo	*JPA005*	Remote	36°41'48"N	137°47'53"E	1,850
	Ijira	*JPA006*	Rural	35°34'14"N	136°41'51"E	140
	Oki	*JPA007*	Remote	36°17'19"N	133°11'06"E	90
	Banryu	*JPA008*	Urban	34°40'54"N	131°47'59"E	53
	Yusuhara	*JPA009*	Remote	33°22'46"N	132°56'06"E	790
	Hedo	*JPA010*	Remote	26°51'58"N	128°14'55"E	60
	Ogasawara	*JPA011*	Remote	27°05'32"N	142°13'02"E	212
	Tokyo	*JPA012*	Urban	35°41'30"N	139°45'10"E	26
Lao PDR	Vientiane	*LAA001*	Urban	17°59'88"N	102°34'93"E	175
Malaysia	Petaling Jaya	*MYA001*	Urban	03°06'07"N	101°38'42"E	51
	Tanah Rata	*MYA002*	Rural	04°29'03"N	101°22'17"E	1,545
	Danum Valley	*MYA003*	Remote	04°58'53"N	117°50'37"E	438
	Kuching	*MYA004*	Urban	01°29'25"N	110°21'09"E	20
Mongolia	Ulaanbaatar[*2]	*MNA001*	Urban	47°55'13"N	106°54'43"E	1,275
	Terelj[*2]	*MNA002*	Remote	47°59'00"N	107°27'04"E	1,550
Myanmar	Yangon	*MMA001*	Urban	16°51'53"N	96°09'13"E	21
	Mandalay	*MMA002*	Urban	21°54'46"N	96°03'51"E	70
Philippines	Metro Manila	*PHA001*	Urban	14°38'09"N	121°04'43"E	55
	Los Baños	*PHA002*	Rural	14°09'53"N	121°15'00"E	25
	Mt. Sto. Tomas	*PHA003*	Remote	16°25' N	120°36' E	1,500
Republic of Korea	Kanghwa	*KRA001*	Rural	37°42'32"N	126°16'26"E	60
	Cheju (Kosan)	*KRA002*	Remote	33°17'32"N	126°09'43"E	37
	Imsil	*KRA003*	Rural	35°36'09"N	127°10'53"E	217

Table 2.2 Locations of EANET deposition monitoring sites (continued)

Country	Site	Code	Classification	Latitude[*1]	Longitude[*1]	Altitude[*1] /m
Russia	Mondy	*RUA001*	Remote	51°37'18"N	100°55'10"E	1,996
	Listvyanka	*RUA002*	Rural	51°50'47"N	104°53'34"E	646
	Irkutsk	*RUA003*	Urban	52°14'53"N	104°15'33"E	495
	Primorskaya	*RUA004*	Rural	43°37'45"N	132°14'13"E	85
Thailand	Bangkok	*THA001*	Urban	13°47'04"N	100°32'22"E	5
	Samutprakarn	*THA002*	Urban	13°39'58"N	100°36'21"E	4
	Pathumthani	*THA003*	Rural	14°02'46"N	100°42'43"E	6
	Khanchanaburi (Vachiralongkorn Dam)	*THA004*	Remote	14°47'05"N	98°36'05"E	130
	Chiang Mai					
	- Mae Hia	*THA005*	Rural	18°45'40"N	98°55'54"E	349
	- Chang Phueak	*THA006*	Urban	18°50'26"N	98°58'11"E	329
	- Si Phum	*THA007*	Urban	18°47'27"N	98°59'24"E	313
	Nakhon Ratchasima					
	- Sakaerat	*THA008*	Rural	14°28'04"N	101°54'05"E	409
	- Nai Mueang	*THA009*	Urban	14°58'46"N	102°05'53"E	184
Vietnam	Hanoi	*VNA001*	Urban	21°03'24"N	105°43'36"E	6
	Hoa Binh	*VNA002*	Rural	20°50'12"N	105°20'32"E	23
	Cuc Phuong	*VNA003*	Remote	20°18'01"N	105°41'38"E	155
	Da Nang	*VNA004*	Urban	16°02'35"N	108°12'24"E	5
	Can Tho	*VNA005*	Rural	10°05'18"N	105°41'45"E	2
	Ho Chi Minh	*VNA006*	Urban	10°47'04"N	106°42'00"E	5
	Yen Bai	*VNA007*	Rural	21°42'28"N	104°52'29"E	56

*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 The altitude of Ulaanbaatar site and the latitude of Terelj site were revised.

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	Code for soil and vegetation monitoring	Site for monitoring on inland aquatic environment	Code for monitoring on inland aquatic environment
Cambodia	-	-	-	Sras Srang Lake	*KHI002*
China	Chongqing - Jinyunshan	Jinyunshan	*CNS004*	Jinyunshan Lake	*CNI004*
	Xi'an - Jiwozi	Dabagou	*CNS007*	Jiwozi River	*CNI007*
	Xiamen - Xiaoping	Xiaoping	*CNS009*	Xiaoping Dam	*CNI209*
	Zhuhai - Zhuxiandong	Zhuxiandong	*CNS011*	Zhuxiandong Stream	*CNI111*
Indonesia	Serpong	Bogor Research Forest (Dramaga Experimental Forest)	*IDS002*	-	-
	Bandung	-	-	Patengang Lake	*IDI004*
	-	-	-	Gunung Lake	*IDI006*
Japan	Ijira	Ijira	*JPS006*	Ijira Lake	*JPI006*
		Yamato	*JPS106*		
	Banryu	Banryu-2[*1]	*JPS008*	Banryu Lake	*JPI008*
		Iwami "rinku" Factory Park[*1]	*JPS108*		
Lao PDR	Vientiane	-		Nam Hum Lake	*LAI001*

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	Code for soil and vegetation monitoring	Site for monitoring on inland aquatic environment	Code for monitoring on inland aquatic environment
Malaysia	Petaling Jaya	Pasoh Reserve Forest1	*MYS001*	Semenyih Dam	*MYI001*
		Pasoh Reserve Forest2	*MYS101*		
	-	UPMKB Rehabilitated Forest Planted in 1991	*MYS005*		
		UPMKB Rehabilitated Forest Planted in 2008	*MYS105*		
	Danum Valley	-	-	Tembaling River	*MYI003*
Mongolia	Ulaanbaatar	Bogdkhan Mountain	*MNS001*	-	-
	Terelj	Terelj Mountain	*MNS002*	Terelj River	*MNI002*
Philippines	Los Banos	Mt. Makiling	*PHS002*	Pandin Lake	*PHI102*
		UP Quezon, Land Grant	*PHS102*		
	Metro Manila	La Mesa Watershed	*PHS001*	-	-
	Mt. Sto Tomas	Boneco Long Term Ecological Research Site	*PHS003*	Ambulalakaw Lake	*PHI003*
Republic of Korea	Imsil	Mt. Naejang	*KRS003*	-	-
Russia	Irkutsk	Irkutsk	*RUS003*	-	-
	Listvyanka	Bolshie Koty	*RUS002*	Pereemnaya River	*RUI102*
		Pereemnaya river catchment	*RUS102*		-
	Mondy	Ilchir Lake	*RUS001*	-	-
		Okinskoe Lake	*RUS101*		
		Solar Observatory	*RUS201*		
	Primorskaya	Primorskaya	*RUS004*	Komarovka River	*RUI004*

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	Code for soil and vegetation monitoring	Site for monitoring on inland aquatic environment	Code for monitoring on inland aquatic environment
Thailand	Khanchanaburi (Vachiralongkorn Dam)	Vachiralongkorn Dam	*THS004*	Vachiralongkorn Dam	*THI004*
		Vachiralongkorn Puye	*THS104*		
Vietnam	Hoa Binh	Cave of Heaven	*VNS002*	Hoa Binh Reservoir	*VNI002*
		Thang Ranh	*VNS102*		

*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	Code	Note
Japan	Lake Ijira catchment	*JPC006*	
Philippines	La Mesa Watershed	*PHC001*	Under preparation

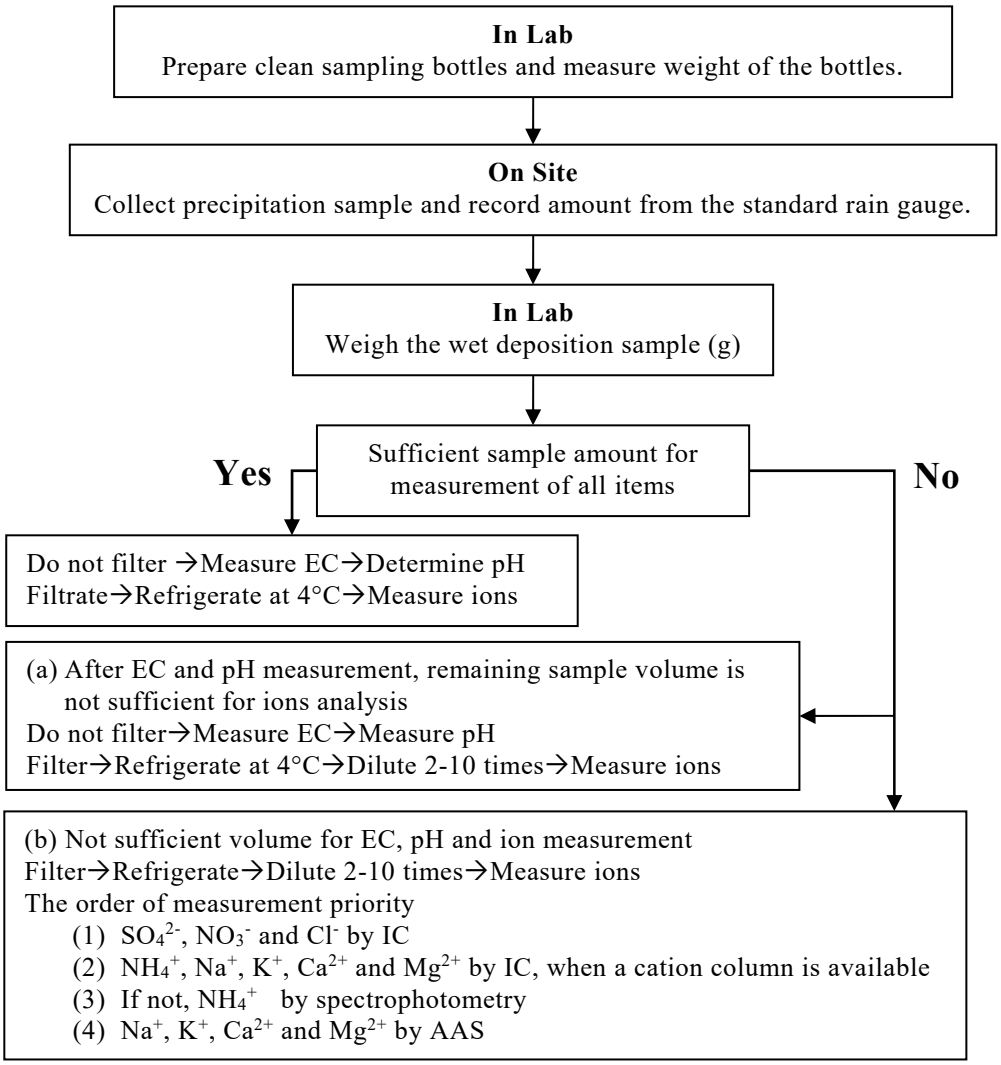
CHAPTER 3

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 = $\hat{C}$ × (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	±30
50 – 100	±15
>100	±8

Conductivity agreement (R_2) :

Calculated as:

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

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

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

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

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

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

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

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

Required criteria for R_2 :

The required conductivity comparison criteria are given in Table 3.4.

Table 3.4 Required criteria for R_2

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

3.1.6 Terms and Abbreviations

Terms and abbreviations are given in Table 3.5.

Table 3.5 Terms and abbreviations

	Terms and abbreviations	Definition
For all data	Data in hatched cell ( )	Rejected monthly (annual) value by the criteria. [%PCL<80% and/or %TP<80%]
	[--]	Precipitation was 0 mm.
	[*]	The constituent was not measured although precipitation was not 0 mm. [%TP=0%]
	[**]	Precipitation was not measured. [%PCL=0%]
	[***]	No data or 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 2018

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 2018 (continued)

Country	Site	Classification	Sampling Interval	Starting Month
Republic of Korea	Kanghwa	Rural	Daily	March 1999
	Cheju (Kosan)	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 2018

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 2018 (continued)

Country	Site	Analytical methods			Additional items
		Anions	NH_4^+	Other Cations	
Japan	Rishiri	IC	IC	IC	
	Ochiishi	IC	IC	IC	HCO_3^-, F^-, Br^-, NO_2^-
	Tappi	IC	IC	IC	HCO_3^-
	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	NO_2^-
	Tokyo	IC	IC	IC	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 (Kosan)	IC	IC	IC	
	Imsil	IC	IC	IC	
Russia	Mondy	IC	SP	AAS	HCO_3^-, F^-, Br^-, NO_2^-, PO_4^{3-}
	Listvyanka	IC	SP	AAS	HCO_3^-, F^-, Br^-, NO_2^-, PO_4^{3-}
	Irkutsk	IC	SP	AAS	HCO_3^-, F^-, Br^-, NO_2^-, PO_4^{3-}
	Primorskaya	SP, TI	SP	AAS	
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^-, F^-
	Can Tho	SP, TI	SP	AES	F^-
	Ho Chi Minh	SP, TI	SP	AES	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 2018 are shown in Table 3.8 through Table 3.64. The annual summaries of wet deposition monitoring in 2018 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 2018 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

2018	SO_4^{2-} µmol L^{-1}	nss-SO_4^{2-} µmol L^{-1}	NO_3^- µmol L^{-1}	Cl^- µmol L^{-1}	NH_4^+ µmol L^{-1}	Na^+ µmol L^{-1}	K^+ µmol L^{-1}	Ca^{2+} µmol L^{-1}	nss-Ca^{2+} µmol L^{-1}	Mg^{2+} µmol L^{-1}	H^+ µmol L^{-1}	pH	EC mS m^{-1}	Precip. mm $month^{-1}$ or mm $year^{-1}$
Jan	***	***	***	***	***	***	***	***	***	***	***	***	***	***
Feb	***	***	***	***	***	***	***	***	***	***	***	***	***	***
Mar	***	***	***	***	***	***	***	***	***	***	***	***	***	***
Apr	***	***	***	***	***	***	***	***	***	***	***	***	***	***
May	***	***	***	***	***	***	***	***	***	***	***	***	***	***
June	***	***	***	***	***	***	***	***	***	***	***	***	***	***
July	***	***	***	***	***	***	***	***	***	***	***	***	***	***
Aug	***	***	***	***	***	***	***	***	***	***	***	***	***	***
Sept	***	***	***	***	***	***	***	***	***	***	***	***	***	***
Oct	***	***	***	***	***	***	***	***	***	***	***	***	***	***
Nov	***	***	***	***	***	***	***	***	***	***	***	***	***	***
Dec	***	***	***	***	***	***	***	***	***	***	***	***	***	***
Annual	***	***	***	***	***	***	***	***	***	***	***	***	***	***
Max.	***	***	***	***	***	***	***	***	***	***	***	***	***	
Min.	***	***	***	***	***	***	***	***	***	***	***	***	***	

Wet deposition amount

2018	SO_4^{2-} mmol m^{-2}	nss-SO_4^{2-} mmol m^{-2}	NO_3^- mmol m^{-2}	Cl^- mmol m^{-2}	NH_4^+ mmol m^{-2}	Na^+ mmol m^{-2}	K^+ mmol m^{-2}	Ca^{2+} mmol m^{-2}	nss-Ca^{2+} mmol m^{-2}	Mg^{2+} mmol m^{-2}	H^+ mmol m^{-2}
Jan	***	***	***	***	***	***	***	***	***	***	***
Feb	***	***	***	***	***	***	***	***	***	***	***
Mar	***	***	***	***	***	***	***	***	***	***	***
Apr	***	***	***	***	***	***	***	***	***	***	***
May	***	***	***	***	***	***	***	***	***	***	***
June	***	***	***	***	***	***	***	***	***	***	***
July	***	***	***	***	***	***	***	***	***	***	***
Aug	***	***	***	***	***	***	***	***	***	***	***
Sept	***	***	***	***	***	***	***	***	***	***	***
Oct	***	***	***	***	***	***	***	***	***	***	***
Nov	***	***	***	***	***	***	***	***	***	***	***
Dec	***	***	***	***	***	***	***	***	***	***	***
Annual	***	***	***	***	***	***	***	***	***	***	***

Data completeness

2018	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	***	***	***	***	***	***	***	***	***	***	***	***	***	***
Feb	***	***	***	***	***	***	***	***	***	***	***	***	***	***
Mar	***	***	***	***	***	***	***	***	***	***	***	***	***	***
Apr	***	***	***	***	***	***	***	***	***	***	***	***	***	***
May	***	***	***	***	***	***	***	***	***	***	***	***	***	***
June	***	***	***	***	***	***	***	***	***	***	***	***	***	***
July	***	***	***	***	***	***	***	***	***	***	***	***	***	***
Aug	***	***	***	***	***	***	***	***	***	***	***	***	***	***
Sept	***	***	***	***	***	***	***	***	***	***	***	***	***	***
Oct	***	***	***	***	***	***	***	***	***	***	***	***	***	***
Nov	***	***	***	***	***	***	***	***	***	***	***	***	***	***
Dec	***	***	***	***	***	***	***	***	***	***	***	***	***	***
Annual	***	***	***	***	***	***	***	***	***	***	***	***	***	***

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

2018	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	146	145	212	31.2	338	17.8	35.6	118	117	12.4	4.19	5.38	8.57	25.7
Feb	207	207	243	37.9	414	13.7	70.9	105	104	18.0	3.60	5.44	10.5	11.8
Mar	58.5	58.0	79.9	11.5	133	7.43	5.56	54.4	54.2	5.25	5.03	5.30	3.74	79.8
Apr	32.5	32.3	35.3	5.52	76.4	3.56	3.61	32.1	32.0	3.33	1.37	5.86	2.00	182
May	33.1	32.7	45.9	8.28	111	6.13	5.88	42.9	42.8	3.86	0.380	6.42	2.58	225
June	31.0	30.7	45.5	9.95	99.0	6.06	5.53	43.2	43.1	4.70	0.372	6.43	2.42	72.2
July	42.1	41.8	76.0	16.6	102	5.19	14.9	88.2	88.1	6.22	6.14	5.21	3.85	51.8
Aug	17.9	17.6	32.9	6.91	44.9	4.00	2.74	36.6	36.5	3.20	0.778	6.11	1.51	148
Sept	32.3	32.1	34.6	5.06	70.5	2.93	1.91	24.1	24.0	1.72	10.7	4.97	2.10	177
Oct	41.0	40.8	63.2	6.34	84.3	2.90	5.49	24.7	24.6	2.76	20.5	4.69	2.98	73.5
Nov	78.2	78.0	105	10.8	164	2.79	5.14	53.0	53.0	5.88	21.4	4.67	4.98	40.2
Dec	98.8	98.4	169	16.8	241	5.94	7.89	87.4	87.3	7.09	3.54	5.45	6.35	29.6
Annual	41.2	40.9	56.8	8.89	103	4.98	6.21	43.0	42.9	4.04	5.10	5.29	2.83	1117
Max.	406	404	554	130	897	117	247	318	317	35.8	166	7.55	19.7	
Min.	5.83	5.67	9.03	1.97	18.3	0.435	<0.3	8.23	8.20	0.822	0.0282	3.78	0.614	

Wet deposition amount

2018	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	3.76	3.73	5.46	0.802	8.68	0.457	0.916	3.03	3.02	0.319	0.108
Feb	2.45	2.44	2.86	0.448	4.89	0.161	0.837	1.24	1.23	0.212	0.0425
Mar	4.67	4.63	6.37	0.918	10.6	0.593	0.443	4.34	4.33	0.419	0.401
Apr	5.92	5.88	6.43	1.00	13.9	0.649	0.658	5.84	5.83	0.607	0.249
May	7.46	7.37	10.4	1.87	25.1	1.38	1.32	9.68	9.65	0.870	0.0856
June	2.24	2.22	3.29	0.718	7.15	0.438	0.399	3.12	3.11	0.340	0.0268
July	2.18	2.17	3.94	0.860	5.29	0.269	0.771	4.57	4.56	0.322	0.318
Aug	2.65	2.61	4.88	1.02	6.65	0.593	0.406	5.42	5.41	0.474	0.115
Sept	5.73	5.70	6.13	0.897	12.5	0.519	0.339	4.27	4.26	0.305	1.90
Oct	3.01	3.00	4.64	0.466	6.20	0.213	0.403	1.82	1.81	0.203	1.51
Nov	3.14	3.14	4.22	0.436	6.59	0.112	0.207	2.13	2.13	0.237	0.861
Dec	2.92	2.91	4.99	0.499	7.15	0.176	0.234	2.59	2.58	0.210	0.105
Annual	46.1	45.7	63.5	9.93	115	5.56	6.94	48.0	47.9	4.52	5.70

Data completeness

2018	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	98.4	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
Feb	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Mar	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	100
Apr	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	100
May	100	100	100	100	100	100	100	100	100	100	100	100	100	100
June	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	100
July	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	100
Aug	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Sept	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
Oct	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Nov	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	100
Dec	98.3	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
Annual	**99.6**	**99.6**	**99.6**	**99.6**	**99.6**	**99.6**	**99.6**	**99.6**	**99.6**	**99.6**	**99.6**	**99.6**	**99.6**	**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

2018	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	96.7	96.4	117	14.7	184	5.78	8.56	66.2	66.1	6.99	49.5	4.31	7.21	31.9
Feb	113	113	104	16.8	198	5.81	24.0	134	134	12.2	8.01	5.10	6.05	6.3
Mar	64.8	64.6	78.1	7.92	121	3.12	5.82	42.4	42.4	4.37	41.0	4.39	4.81	55.7
Apr	24.9	24.8	23.1	2.56	53.2	1.10	1.54	16.9	16.9	2.35	7.37	5.13	1.55	221
May	24.0	23.9	30.9	2.99	81.6	1.81	2.72	42.9	42.9	3.92	0.348	6.46	2.00	106
June	29.5	29.4	37.3	3.75	80.4	1.76	1.84	73.9	73.9	4.51	0.650	6.19	2.93	104
July	21.9	21.8	29.5	3.34	60.8	1.14	0.946	29.2	29.1	2.50	1.64	5.79	1.55	105
Aug	14.4	14.3	24.7	2.75	41.3	0.598	0.452	13.3	13.3	0.972	7.71	5.11	1.28	70.5
Sept	25.0	24.9	30.2	3.04	43.5	1.05	1.83	17.3	17.3	1.79	21.5	4.67	2.05	125
Oct	49.3	49.2	65.8	5.76	80.1	2.63	3.55	16.7	16.7	2.69	53.3	4.27	4.12	46.9
Nov	102	101	122	8.86	179	2.84	6.45	64.0	63.9	8.73	28.7	4.54	5.92	35.4
Dec	109	109	166	13.6	239	5.73	8.79	53.4	53.2	6.78	23.6	4.63	6.24	28.3
Annual	36.3	36.2	44.6	4.47	79.3	1.81	2.75	34.2	34.2	3.34	14.2	4.85	2.65	935
Max.	947	945	1340	98.7	1386	50.9	82.9	549	548	55.1	214	8.87	37.0	
Min.	8.12	8.04	8.55	0.846	6.10	0.435	<0.3	4.99	4.97	0.822	0.0013	3.67	0.811	

Wet deposition amount

2018	SO_4^{2-} mmol m^{-2}	nss-SO_4^{2-} mmol m^{-2}	NO_3^- mmol m^{-2}	Cl^- mmol m^{-2}	NH_4^+ mmol m^{-2}	Na^+ mmol m^{-2}	K^+ mmol m^{-2}	Ca^{2+} mmol m^{-2}	nss-Ca^{2+} mmol m^{-2}	Mg^{2+} mmol m^{-2}	H^+ mmol m^{-2}
Jan	3.09	3.07	3.73	0.469	5.88	0.184	0.273	2.11	2.11	0.223	1.58
Feb	0.712	0.710	0.658	0.106	1.25	0.0366	0.151	0.846	0.845	0.0766	0.0505
Mar	3.61	3.60	4.35	0.441	6.74	0.174	0.324	2.36	2.36	0.243	2.29
Apr	5.49	5.48	5.10	0.565	11.7	0.243	0.339	3.74	3.73	0.518	1.63
May	2.55	2.54	3.28	0.318	8.66	0.192	0.289	4.55	4.55	0.416	0.0370
June	3.05	3.04	3.86	0.388	8.33	0.182	0.190	7.65	7.65	0.467	0.0673
July	2.30	2.29	3.10	0.351	6.38	0.120	0.0993	3.06	3.06	0.262	0.172
Aug	1.01	1.01	1.74	0.194	2.91	0.0421	0.0318	0.936	0.935	0.0685	0.544
Sept	3.13	3.12	3.77	0.381	5.44	0.131	0.229	2.17	2.16	0.224	2.69
Oct	2.31	2.31	3.09	0.270	3.76	0.123	0.167	0.785	0.783	0.126	2.50
Nov	3.60	3.59	4.31	0.314	6.32	0.100	0.228	2.27	2.26	0.309	1.02
Dec	3.09	3.08	4.69	0.385	6.76	0.162	0.249	1.51	1.51	0.192	0.668
Annual	33.9	33.8	41.7	4.18	74.2	1.69	2.57	32.0	32.0	3.13	13.2

Data completeness

2018	SO_4^{2-} %TP	nss-SO_4^{2-} %TP	NO_3^- %TP	Cl^- %TP	NH_4^+ %TP	Na^+ %TP	K^+ %TP	Ca^{2+} %TP	nss-Ca^{2+} %TP	Mg^{2+} %TP	H^+ %TP	pH %TP	EC %TP	Precip. %PCL
Jan	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Feb	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Mar	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Apr	100	100	100	100	100	100	100	100	100	100	100	100	100	100
May	100	100	100	100	100	100	100	100	100	100	100	100	100	100
June	100	100	100	100	100	100	100	100	100	100	100	100	100	100
July	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Aug	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Sept	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Oct	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Nov	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Dec	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Annual	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Terms and abbreviations are given in Table 3.5.

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

Precipitation amount-weighted average concentration/ Precipitation amount

2018	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	70.3	69.0	56.9	27.3	138	22.6	7.11	70.8	70.3	10.1	0.178	6.75	3.72	47.3
Feb	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Mar	80.2	78.8	40.6	19.4	151	24.1	4.86	82.0	81.5	16.1	0.581	6.24	4.33	21.5
Apr	57.9	55.2	28.9	31.5	144	43.6	5.65	88.7	87.8	27.9	0.0971	7.01	3.89	18.4
May	66.1	64.6	64.0	27.2	148	25.6	5.66	90.0	89.5	22.7	0.0708	7.15	5.17	24.5
June	71.3	70.6	99.7	11.9	108	10.6	8.45	91.6	91.4	14.9	0.406	6.39	3.69	71.4
July	26.1	24.9	12.8	22.9	111	19.8	12.0	42.9	42.5	10.0	0.176	6.75	2.37	120
Aug	24.1	23.2	9.30	11.8	72.9	15.1	7.17	49.0	48.7	12.4	0.0348	7.46	2.53	62.0
Sept	31.2	30.1	34.7	30.5	128	17.6	16.8	39.6	39.2	8.05	0.0455	7.34	2.72	64.8
Oct	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Nov	65.0	62.8	24.5	28.3	243	36.4	21.5	70.5	69.8	14.8	0.0176	7.75	4.72	40.9
Dec	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Annual	47.0	45.8	38.5	22.1	127	20.6	10.9	61.9	61.4	12.9	0.171	6.77	3.28	471
Max.	175	174	185	82.7	306	95.5	55.6	272	271	37.6	0.977	7.85	8.95	
Min.	11.1	10.1	6.00	5.36	<0.8	5.40	4.65	18.4	18.2	6.10	0.0141	6.01	1.53	

Wet deposition amount

2018	SO_4^{2-}	nss-SO_4^{2-}	NO_3^-	Cl^-	NH_4^+	Na^+	K^+	Ca^{2+}	nss-Ca^{2+}	Mg^{2+}	H^+
	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}
Jan	3.33	3.26	2.69	1.29	6.52	1.07	0.336	3.35	3.32	0.477	<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	1.72	1.69	0.873	0.418	3.25	0.518	0.104	1.76	1.75	0.347	0.0125
Apr	1.06	1.02	0.531	0.579	2.65	0.803	0.104	1.63	1.62	0.514	<0.01
May	1.62	1.58	1.57	0.666	3.63	0.628	0.139	2.21	2.19	0.556	<0.01
June	5.09	5.04	7.12	0.850	7.71	0.758	0.603	6.54	6.53	1.06	0.0290
July	3.13	2.98	1.54	2.74	13.3	2.37	1.43	5.15	5.10	1.21	0.0211
Aug	1.50	1.44	0.577	0.731	4.52	0.937	0.445	3.04	3.02	0.770	<0.01
Sept	2.02	1.95	2.25	1.98	8.26	1.14	1.09	2.57	2.54	0.522	<0.01
Oct	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Nov	2.66	2.57	1.00	1.16	9.92	1.49	0.878	2.89	2.85	0.604	<0.01
Dec	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	22.1	21.5	18.1	10.4	59.8	9.72	5.13	29.1	28.9	6.06	0.0803

Data completeness

2018	SO_4^{2-}	nss-SO_4^{2-}	NO_3^-	Cl^-	NH_4^+	Na^+	K^+	Ca^{2+}	nss-Ca^{2+}	Mg^{2+}	H^+	pH	EC	Precip.
	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%PCL
Jan	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Feb	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Mar	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Apr	100	100	100	100	100	100	100	100	100	100	100	100	100	100
May	100	100	100	100	100	100	100	100	100	100	100	100	100	100
June	100	100	100	100	100	100	100	100	100	100	100	100	100	100
July	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Aug	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Sept	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Oct	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Nov	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Dec	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Annual	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Terms and abbreviations are given in Table 3.5.

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

Precipitation amount-weighted average concentration/ Precipitation amount

2018	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	32.9	31.6	32.1	28.9	55.7	21.2	6.35	45.0	44.5	13.4	0.125	6.90	2.06	29.0
Feb	47.3	45.6	52.5	31.3	82.6	28.2	7.08	51.8	51.2	16.7	0.143	6.84	2.73	11.4
Mar	9.01	8.01	2.73	16.8	<0.8	16.5	5.27	17.2	16.9	10.2	0.166	6.78	0.766	6.6
Apr	55.1	54.3	30.3	11.0	27.5	13.5	6.19	44.2	43.9	18.8	0.845	6.07	2.00	14.3
May	46.9	45.5	41.8	14.5	1.62	23.7	9.71	75.2	74.7	24.0	0.206	6.69	2.55	40.2
June	27.7	26.2	16.9	11.1	3.57	24.1	24.2	55.3	54.8	14.7	0.113	6.95	1.99	125
July	8.92	8.36	9.88	9.23	5.27	9.34	31.7	24.4	24.2	9.49	0.241	6.62	1.01	112
Aug	40.9	38.3	3.58	12.4	<0.8	44.7	13.0	90.4	89.4	29.0	0.144	6.84	3.00	94.0
Sept	3.67	2.63	<0.5	10.8	<0.8	17.6	20.3	22.7	22.4	9.00	0.0825	7.08	1.02	72.8
Oct	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Nov	31.8	29.9	17.0	33.0	97.1	32.2	10.1	104	103	11.9	0.0434	7.36	4.07	25.3
Dec	58.5	55.2	36.0	43.2	122	54.8	16.5	168	167	16.9	0.0593	7.23	5.92	15.9
Annual	26.6	25.1	15.1	14.5	15.5	24.6	19.3	56.3	55.7	16.0	0.164	6.79	2.09	547
Max.	108	106	72.7	51.0	255	81.4	128	346	345	51.7	1.23	7.78	10.8	
Min.	0.694	<0.3	<0.5	4.47	<0.8	5.38	4.10	10.2	9.89	6.70	0.0166	5.91	0.529	

Wet deposition amount

2018	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	0.954	0.917	0.930	0.837	1.61	0.613	0.184	1.30	1.29	0.390	<0.01
Feb	0.539	0.520	0.599	0.357	0.942	0.322	0.0808	0.591	0.584	0.191	<0.01
Mar	0.0594	0.0529	0.0180	0.111	<0.01	0.109	0.0348	0.114	0.111	0.0671	<0.01
Apr	0.788	0.776	0.433	0.157	0.393	0.193	0.0885	0.633	0.628	0.269	0.0121
May	1.89	1.83	1.68	0.582	0.0651	0.952	0.390	3.02	3.00	0.965	<0.01
June	3.46	3.28	2.12	1.39	0.446	3.02	3.02	6.92	6.85	1.84	0.0142
July	0.999	0.936	1.11	1.03	0.590	1.05	3.55	2.73	2.71	1.06	0.0270
Aug	3.85	3.60	0.336	1.16	0.0426	4.20	1.22	8.50	8.41	2.73	0.0136
Sept	0.267	0.192	0.0228	0.785	<0.01	1.28	1.48	1.66	1.63	0.655	<0.01
Oct	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Nov	0.805	0.756	0.431	0.836	2.46	0.814	0.255	2.62	2.60	0.302	<0.01
Dec	0.931	0.878	0.572	0.687	1.95	0.871	0.262	2.67	2.65	0.269	<0.01
Annual	14.5	13.7	8.25	7.94	8.50	13.4	10.6	30.7	30.5	8.74	0.0895

Data completeness

2018	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
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 3.13 Monthly results **Site: Hongwen** **Country: China**

Precipitation amount-weighted average concentration/ Precipitation amount

2018	SO_4^{2-} µmol L^{-1}	nss-SO_4^{2-} µmol L^{-1}	NO_3^- µmol L^{-1}	Cl^- µmol L^{-1}	NH_4^+ µmol L^{-1}	Na^+ µmol L^{-1}	K^+ µmol L^{-1}	Ca^{2+} µmol L^{-1}	nss-Ca^{2+} µmol L^{-1}	Mg^{2+} µmol L^{-1}	H^+ µmol L^{-1}	pH	EC mS m^{-1}	Precip. mm $month^{-1}$ or mm $year^{-1}$
Jan	15.9	15.5	14.7	31.4	12.5	7.26	8.94	19.8	19.6	2.74	1.18	5.93	1.35	165
Feb	56.5	50.9	81.0	137	101	93.1	48.0	52.6	50.6	16.1	0.206	6.69	5.47	3.8
Mar	39.4	36.8	21.0	70.7	92.3	44.2	21.5	40.6	39.6	9.06	1.89	5.72	3.67	42.9
Apr	124	115	236	248	232	148	152	129	126	30.9	5.52	5.26	10.7	11.8
May	7.59	6.59	14.2	103	15.8	16.5	93.5	7.67	7.31	2.40	0.672	6.17	2.12	268
June	17.5	15.5	31.3	39.1	31.8	34.7	5.60	17.3	16.5	5.48	3.26	5.49	1.80	147
July	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Aug	19.0	17.4	35.6	41.6	9.39	26.8	19.6	45.3	44.8	5.69	4.26	5.37	1.91	264
Sept	15.9	15.0	23.2	114	82.8	14.3	15.2	20.7	20.4	3.65	3.30	5.48	1.53	23.1
Oct	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Nov	15.3	14.2	25.0	55.1	32.7	17.6	29.3	36.9	36.6	4.76	0.543	6.26	1.78	32.0
Dec	40.4	38.2	43.6	40.5	43.8	36.4	14.6	48.9	48.1	10.2	1.59	5.80	3.04	20.7
Annual	17.7	16.3	27.1	62.7	25.0	24.0	37.8	26.5	26.0	4.77	2.30	5.64	2.07	978
Max.	187	175	431	304	272	187	229	330	328	55.8	30.9	7.05	16.6	
Min.	3.34	2.99	1.67	8.64	<0.8	0.708	1.01	1.45	1.32	0.826	0.0891	4.51	0.480	

Wet deposition amount

2018	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	2.62	2.55	2.43	5.18	2.07	1.19	1.47	3.25	3.23	0.451	0.194
Feb	0.215	0.194	0.308	0.521	0.385	0.354	0.183	0.200	0.192	0.0613	<0.01
Mar	1.69	1.58	0.903	3.03	3.96	1.90	0.923	1.74	1.70	0.389	0.0813
Apr	1.47	1.36	2.78	2.93	2.74	1.74	1.79	1.52	1.49	0.364	0.0651
May	2.03	1.77	3.80	27.7	4.25	4.43	25.1	2.06	1.96	0.643	0.180
June	2.58	2.27	4.61	5.74	4.67	5.10	0.823	2.54	2.43	0.806	0.479
July	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Aug	5.01	4.58	9.40	11.0	2.48	7.06	5.17	12.0	11.8	1.50	1.12
Sept	0.367	0.348	0.537	2.64	1.91	0.330	0.351	0.479	0.472	0.0845	0.0764
Oct	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Nov	0.490	0.456	0.801	1.76	1.05	0.562	0.938	1.18	1.17	0.152	0.0174
Dec	0.836	0.791	0.902	0.837	0.907	0.752	0.301	1.01	0.996	0.211	0.0328
Annual	17.3	15.9	26.5	61.3	24.4	23.4	37.0	26.0	25.4	4.66	2.25

Data completeness

2018	SO_4^{2-} %TP	nss-SO_4^{2-} %TP	NO_3^- %TP	Cl^- %TP	NH_4^+ %TP	Na^+ %TP	K^+ %TP	Ca^{2+} %TP	nss-Ca^{2+} %TP	Mg^{2+} %TP	H^+ %TP	pH %TP	EC %TP	Precip. %PCL
Jan	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Feb	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Mar	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Apr	100	100	100	100	100	100	100	100	100	100	100	100	100	100
May	100	100	100	100	100	100	100	100	100	100	100	100	100	100
June	100	100	100	100	100	100	100	100	100	100	100	100	100	100
July	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Aug	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Sept	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Oct	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Nov	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Dec	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Annual	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Terms and abbreviations are given in Table 3.5.

Table 3.14 Monthly results **Site: Xiaoping** **Country: China**

Precipitation amount-weighted average concentration/ Precipitation amount

2018	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	3.59	3.48	6.11	5.25	2.91	1.84	0.927	4.69	4.65	1.75	1.95	5.71	0.362	73.4
Feb	25.4	24.8	45.3	43.7	49.0	10.1	28.9	21.5	21.2	3.01	5.08	5.29	2.09	16.0
Mar	24.3	23.9	6.91	29.8	25.4	7.90	13.1	12.3	12.2	6.41	9.58	5.02	1.43	74.7
Apr	13.4	12.8	25.2	11.6	40.8	8.60	3.03	6.62	6.43	1.68	6.06	5.22	1.25	40.0
May	23.6	23.2	50.9	25.3	65.6	6.50	17.1	14.2	14.0	2.43	17.6	4.76	2.36	99.4
June	6.99	6.42	16.4	35.7	5.99	9.43	21.6	6.31	6.11	1.42	8.72	5.06	0.820	147
July	16.3	15.8	45.1	31.5	34.8	7.99	23.9	11.0	10.8	2.18	27.3	4.56	1.77	107
Aug	9.98	9.70	23.1	12.1	14.6	4.66	9.63	4.88	4.77	1.24	18.1	4.74	1.10	212
Sept	17.7	17.2	30.1	21.3	35.3	7.84	5.81	6.46	6.29	1.50	31.8	4.50	1.93	18.6
Oct	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Nov	6.90	6.76	12.6	24.9	3.87	2.32	24.2	5.87	5.82	1.11	12.3	4.91	0.888	34.9
Dec	10.9	10.3	21.5	8.31	13.4	9.67	2.07	4.82	4.61	2.79	13.8	4.86	1.10	17.3
Annual	13.1	12.7	25.3	22.5	23.5	6.55	14.4	8.12	7.98	2.12	14.6	4.84	1.29	840
Max.	73.1	72.4	198	158	191	69.8	141	54.2	53.8	23.4	79.4	6.04	8.11	
Min.	2.14	1.73	0.738	4.03	<0.8	<0.3	0.638	1.18	1.13	0.547	0.912	4.10	0.195	

Wet deposition amount

2018	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	0.263	0.255	0.448	0.386	0.213	0.135	0.0680	0.344	0.342	0.128	0.143
Feb	0.407	0.398	0.725	0.700	0.785	0.162	0.463	0.344	0.340	0.0482	0.0814
Mar	1.82	1.78	0.516	2.22	1.90	0.590	0.976	0.922	0.909	0.479	0.715
Apr	0.534	0.514	1.01	0.462	1.63	0.344	0.121	0.265	0.257	0.0673	0.242
May	2.35	2.31	5.06	2.52	6.52	0.646	1.70	1.41	1.40	0.241	1.74
June	1.03	0.945	2.42	5.26	0.882	1.39	3.18	0.929	0.899	0.208	1.28
July	1.74	1.69	4.82	3.37	3.72	0.853	2.55	1.17	1.15	0.233	2.92
Aug	2.11	2.05	4.90	2.56	3.09	0.988	2.04	1.03	1.01	0.262	3.84
Sept	0.328	0.319	0.558	0.395	0.655	0.145	0.108	0.120	0.117	0.0278	0.591
Oct	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Nov	0.241	0.236	0.441	0.870	0.135	0.0809	0.847	0.205	0.203	0.0386	0.428
Dec	0.189	0.179	0.372	0.144	0.233	0.168	0.0358	0.0835	0.0799	0.0483	0.239
Annual	11.0	10.7	21.3	18.9	19.8	5.50	12.1	6.83	6.71	1.78	12.2

Data completeness

2018	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
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

2018	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	22.8	22.3	27.3	17.4	53.7	6.95	2.48	7.31	7.16	1.12	14.7	4.83	1.51	64.5
Feb	53.4	51.2	81.0	61.0	94.3	37.2	9.43	7.21	6.40	5.59	79.4	4.10	5.78	13.5
Mar	94.4	87.4	199	163	62.5	116	13.6	187	185	21.2	25.4	4.59	8.17	19.5
Apr	35.4	33.5	75.4	31.7	68.8	31.2	7.09	61.9	61.2	4.31	20.0	4.70	3.52	65.0
May	20.1	18.7	38.9	27.9	40.2	23.3	3.53	14.6	14.1	3.19	14.1	4.85	1.64	125
June	4.53	3.35	7.02	17.1	13.0	19.5	0.951	2.45	2.03	1.21	5.12	5.29	0.847	574
July	8.53	6.44	13.0	34.1	22.1	34.5	1.99	7.49	6.75	3.61	6.94	5.16	1.50	286
Aug	5.88	4.84	9.67	16.8	20.0	17.2	1.29	1.68	1.32	1.14	8.92	5.05	1.23	606
Sept	26.8	2.43	9.34	454	25.7	405	11.6	26.4	17.6	38.8	2.45	5.61	7.23	241
Oct	28.4	25.5	75.4	49.2	54.5	48.3	2.87	17.5	16.4	5.72	41.3	4.38	3.68	26.0
Nov	6.07	5.67	17.4	6.93	18.1	6.60	1.79	8.43	8.28	0.880	7.39	5.13	0.927	43.0
Dec	22.4	21.6	51.6	21.4	83.1	13.5	4.09	23.2	22.9	2.47	0.977	6.01	2.56	3.5
Annual	12.1	8.04	17.1	73.3	24.2	67.2	3.05	10.6	9.14	6.39	8.66	5.06	2.09	2067
Max.	138	132	314	711	216	631	19.7	225	223	60.5	229	6.97	15.6	
Min.	2.91	<0.3	3.71	1.41	6.10	1.30	0.767	0.250	<0.2	<0.3	0.107	3.64	0.477	

Wet deposition amount

2018	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	1.44	1.76	1.12	3.46	0.448	0.160	0.471	0.462	0.0724	0.950
Feb	0.721	0.691	1.09	0.823	1.27	0.502	0.127	0.0973	0.0865	0.0755	1.07
Mar	1.84	1.70	3.88	3.18	1.22	2.27	0.265	3.65	3.60	0.414	0.496
Apr	2.30	2.18	4.90	2.06	4.47	2.03	0.461	4.02	3.98	0.280	1.30
May	2.51	2.34	4.86	3.49	5.02	2.91	0.441	1.82	1.76	0.399	1.77
June	2.60	1.92	4.03	9.84	7.46	11.2	0.546	1.41	1.16	0.697	2.94
July	2.44	1.84	3.72	9.76	6.33	9.88	0.569	2.14	1.93	1.03	1.99
Aug	3.56	2.93	5.86	10.2	12.1	10.4	0.782	1.02	0.801	0.694	5.41
Sept	6.47	0.587	2.25	109	6.19	97.6	2.79	6.36	4.25	9.35	0.589
Oct	0.740	0.664	1.96	1.28	1.42	1.25	0.0746	0.454	0.427	0.149	1.07
Nov	0.261	0.244	0.749	0.298	0.778	0.284	0.0770	0.362	0.356	0.0378	0.318
Dec	0.0783	0.0755	0.181	0.0750	0.291	0.0472	0.0143	0.0812	0.0802	<0.01	<0.01
Annual	25.0	16.6	35.3	152	50.0	139	6.30	21.9	18.9	13.2	17.9

Data completeness

2018	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

2018	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	72.0	63.7	49.3	172	42.4	138	14.4	197	194	57.1	2.29	5.64	6.96	77.5
Feb	26.6	24.6	23.7	45.8	54.4	33.0	7.26	61.2	60.5	12.2	0.687	6.16	2.67	15.5
Mar	40.3	36.8	82.7	75.7	79.6	57.6	8.80	29.6	28.3	9.47	25.4	4.60	4.26	20.5
Apr	31.5	30.0	58.5	20.5	77.1	24.6	8.76	31.6	31.0	4.77	11.3	4.95	3.14	74.0
May	21.4	19.6	33.9	29.5	48.3	30.0	3.78	8.36	7.71	2.70	22.1	4.65	1.82	147
June	5.38	4.15	7.93	19.9	12.9	20.3	1.44	3.62	3.18	1.68	5.30	5.28	0.722	621
July	8.83	6.41	13.4	40.1	18.4	40.1	2.21	5.95	5.09	3.78	6.56	5.18	1.29	305
Aug	7.25	5.73	12.4	24.2	20.4	25.2	1.92	2.73	2.19	1.32	5.99	5.22	1.06	541
Sept	42.7	1.80	3.96	804	16.1	678	21.6	35.1	20.4	65.4	1.75	5.76	11.3	187
Oct	20.8	17.8	47.6	53.4	30.6	50.6	4.50	19.8	18.7	7.54	19.1	4.72	2.52	53.5
Nov	18.3	17.1	84.7	22.1	21.0	20.2	3.24	35.1	34.6	4.33	0.734	6.13	2.26	59.0
Dec	84.2	79.0	174	122	83.1	86.6	14.6	211	209	16.5	0.417	6.38	8.47	8.5
Annual	15.7	10.3	19.3	102	23.6	89.3	4.65	17.7	15.8	10.2	6.98	5.16	2.38	2109
Max.	306	263	719	970	414	818	65.5	998	982	305	219	8.15	33.6	
Min.	3.02	1.20	2.74	2.54	<0.8	2.17	0.767	0.499	<0.2	<0.3	0.0071	3.66	0.450	

Wet deposition amount

2018	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	5.58	4.94	3.82	13.3	3.29	10.7	1.12	15.3	15.0	4.43	0.177
Feb	0.412	0.382	0.368	0.709	0.843	0.512	0.113	0.948	0.937	0.188	0.0106
Mar	0.825	0.754	1.70	1.55	1.63	1.18	0.180	0.606	0.581	0.194	0.520
Apr	2.33	2.22	4.33	1.52	5.70	1.82	0.648	2.33	2.30	0.353	0.834
May	3.14	2.87	4.96	4.32	7.07	4.40	0.554	1.22	1.13	0.396	3.24
June	3.34	2.58	4.92	12.4	8.02	12.6	0.897	2.25	1.97	1.05	3.29
July	2.69	1.95	4.10	12.2	5.61	12.2	0.674	1.82	1.55	1.15	2.00
Aug	3.92	3.10	6.70	13.1	11.0	13.6	1.04	1.48	1.18	0.712	3.24
Sept	7.96	0.335	0.739	150	3.01	126	4.02	6.54	3.81	12.2	0.326
Oct	1.11	0.950	2.55	2.86	1.64	2.70	0.241	1.06	0.998	0.403	1.02
Nov	1.08	1.01	4.99	1.30	1.24	1.19	0.191	2.07	2.04	0.256	0.0433
Dec	0.716	0.672	1.48	1.04	0.707	0.736	0.124	1.79	1.78	0.140	<0.01
Annual	33.1	21.8	40.7	214	49.8	188	9.80	37.4	33.3	21.5	14.7

Data completeness

2018	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

2018	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	26.6	25.2	17.2	29.0	40.6	22.9	2.38	15.3	14.9	3.74	7.08	5.15	1.55	1.5
Feb	17.5	16.3	13.9	21.0	24.2	19.8	2.13	6.67	6.25	3.08	7.21	5.14	1.19	393
Mar	24.5	24.0	25.8	13.4	36.1	8.53	2.52	13.1	12.9	1.98	11.7	4.93	1.60	250
Apr	21.5	21.1	21.5	10.2	28.0	7.38	1.40	7.49	7.33	1.65	14.5	4.84	1.39	158
May	49.7	48.2	62.6	81.9	45.3	24.6	6.41	16.8	16.3	4.58	13.4	4.87	3.79	16.5
June	46.3	43.9	65.5	42.0	101	38.9	5.64	60.0	59.2	9.97	2.11	5.68	2.77	16.1
July	90.3	86.9	118	65.5	124	56.6	8.39	57.3	56.0	10.4	7.08	5.15	4.92	57.5
Aug	82.5	80.9	100	31.0	73.9	25.6	4.16	21.6	21.1	5.41	56.5	4.25	6.63	152
Sept	39.3	38.5	29.6	22.1	79.6	13.7	7.06	16.8	16.5	2.92	0.813	6.09	1.91	33.6
Oct	73.1	71.6	123	33.1	84.0	25.3	5.42	30.0	29.5	5.61	64.6	4.19	6.24	103
Nov	31.1	30.4	49.5	14.4	52.4	10.6	2.14	13.2	13.0	2.59	30.9	4.51	2.48	321
Dec	23.6	22.8	32.9	17.3	48.1	13.2	1.68	26.0	25.7	3.06	4.52	5.34	1.54	207
Annual	34.8	33.8	44.3	21.1	47.9	16.7	2.83	16.5	16.1	3.37	20.4	4.69	2.52	1709
Max.	98.3	96.4	168	126	156	86.5	11.0	128	126	21.2	87.1	6.60	8.44	
Min.	12.0	11.2	8.98	8.64	<0.8	4.18	0.744	3.91	3.55	1.10	0.251	4.06	0.815	

Wet deposition amount

2018	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	0.0399	0.0378	0.0258	0.0435	0.0609	0.0343	<0.01	0.0230	0.0223	<0.01	0.0106
Feb	6.87	6.40	5.46	8.26	9.49	7.78	0.838	2.62	2.45	1.21	2.83
Mar	6.12	5.99	6.45	3.35	9.02	2.13	0.630	3.28	3.23	0.495	2.93
Apr	3.39	3.32	3.38	1.61	4.42	1.16	0.221	1.18	1.16	0.260	2.28
May	0.820	0.796	1.03	1.35	0.748	0.405	0.106	0.278	0.269	0.0756	0.221
June	0.745	0.707	1.06	0.676	1.63	0.627	0.0909	0.967	0.953	0.161	0.0340
July	5.19	4.99	6.77	3.77	7.14	3.25	0.482	3.29	3.22	0.596	0.407
Aug	12.5	12.3	15.2	4.73	11.2	3.90	0.633	3.29	3.21	0.823	8.60
Sept	1.32	1.29	0.994	0.743	2.67	0.462	0.237	0.565	0.555	0.0980	0.0273
Oct	7.51	7.35	12.7	3.40	8.63	2.59	0.557	3.08	3.03	0.577	6.63
Nov	9.98	9.78	15.9	4.62	16.8	3.41	0.686	4.23	4.16	0.830	9.91
Dec	4.88	4.71	6.81	3.58	9.96	2.73	0.348	5.38	5.32	0.633	0.936
Annual	59.4	57.7	75.8	36.1	81.9	28.5	4.83	28.2	27.6	5.76	34.8

Data completeness

2018	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 3.18 Monthly results **Site: Serpong** **Country: Indonesia**

Precipitation amount-weighted average concentration/ Precipitation amount

2018	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	12.0	11.2	22.7	54.1	14.1	3.98	5.74	5.43	2.21	0.324	6.49	1.14	150
Feb	32.9	31.8	24.8	22.6	65.8	17.8	3.53	12.2	11.9	3.30	5.50	5.26	1.87	234
Mar	23.4	22.6	24.6	14.5	46.9	13.1	3.54	10.5	10.3	2.42	7.91	5.10	1.68	227
Apr	24.7	23.7	43.2	19.1	62.5	15.4	6.08	13.6	13.3	4.28	1.25	5.90	1.77	262
May	40.7	39.2	63.0	35.9	85.9	25.4	5.28	27.5	26.9	10.2	0.469	6.33	2.79	109
June	32.7	31.5	51.7	22.5	79.9	19.4	6.19	16.1	15.7	3.40	3.27	5.49	2.21	250
July	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Aug	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Sept	66.3	64.4	106	42.8	88.7	31.9	10.9	81.0	80.3	10.3	5.02	5.30	4.71	155
Oct	47.6	46.2	68.5	32.7	86.1	22.0	12.2	29.0	28.6	5.69	12.8	4.89	3.21	231
Nov	34.5	33.7	57.2	19.7	71.8	13.8	5.27	19.7	19.4	3.86	10.0	5.00	2.39	280
Dec	27.9	27.2	42.2	18.0	61.3	11.7	3.78	15.8	15.5	2.89	9.33	5.03	1.94	220
Annual	33.6	32.5	48.0	23.7	69.4	17.7	6.02	21.2	20.8	4.42	6.10	5.21	2.30	2117
Max.	141	136	373	240	291	115	169	214	212	30.0	55.0	7.20	11.4	
Min.	5.91	5.53	4.33	8.20	7.80	5.10	0.647	2.76	2.58	1.15	0.0631	4.26	0.738	

Wet deposition amount

2018	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	1.93	1.80	1.69	3.41	8.12	2.12	0.598	0.862	0.816	0.332	0.0487
Feb	7.68	7.43	5.79	5.28	15.4	4.17	0.824	2.86	2.77	0.770	1.29
Mar	5.32	5.14	5.59	3.29	10.7	2.98	0.804	2.39	2.33	0.549	1.80
Apr	6.45	6.21	11.3	4.98	16.4	4.04	1.59	3.56	3.47	1.12	0.326
May	4.45	4.28	6.89	3.92	9.39	2.78	0.577	3.00	2.94	1.12	0.0512
June	8.19	7.90	12.9	5.64	20.0	4.86	1.55	4.04	3.93	0.851	0.819
July	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Aug	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sept	10.3	9.96	16.5	6.62	13.7	4.93	1.68	12.5	12.4	1.59	0.776
Oct	11.0	10.7	15.8	7.56	19.9	5.08	2.83	6.70	6.59	1.31	2.96
Nov	9.65	9.41	16.0	5.50	20.1	3.87	1.47	5.51	5.43	1.08	2.81
Dec	6.13	5.97	9.28	3.95	13.5	2.58	0.831	3.47	3.41	0.636	2.05
Annual	71.0	68.8	102	50.2	147	37.4	12.8	44.9	44.1	9.36	12.9

Data completeness

2018	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
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

2018	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	5.06	4.81	2.42	6.97	20.9	4.12	2.99	17.0	16.9	2.52	2.31	5.64	0.674	60.4
Feb	6.79	6.56	11.0	6.40	10.6	3.77	1.51	10.2	10.1	1.33	10.7	4.97	0.552	217
Mar	9.06	8.80	12.6	10.4	13.6	4.38	1.33	8.65	8.55	1.46	1.22	5.91	0.599	190
Apr	6.38	6.19	6.95	3.62	11.3	3.28	2.57	14.1	14.1	0.939	2.41	5.62	0.508	328
May	5.39	5.19	11.5	4.89	12.2	3.23	4.17	6.77	6.70	0.847	1.67	5.78	0.408	285
June	5.30	5.09	9.49	6.60	6.51	3.50	2.19	8.61	8.53	1.11	3.54	5.45	0.433	283
July	9.27	8.83	15.3	13.3	10.2	7.27	3.92	7.83	7.67	1.52	8.14	5.09	0.590	99.6
Aug	1.83	1.64	0.667	4.37	<0.8	3.17	0.381	5.49	5.42	0.883	8.35	5.08	0.261	85.8
Sept	8.22	7.88	4.69	5.76	5.66	5.66	2.15	6.34	6.22	1.24	9.80	5.01	0.516	174
Oct	5.21	5.04	4.80	2.36	6.69	2.79	2.02	6.10	6.04	1.14	4.38	5.36	0.377	473
Nov	3.94	3.84	6.22	2.75	1.68	1.71	1.36	4.63	4.60	0.782	7.05	5.15	0.299	522
Dec	3.15	2.90	3.27	3.16	<0.8	4.27	0.594	17.9	17.8	0.581	1.16	5.93	0.324	188
Annual	5.59	5.39	7.47	4.85	7.35	3.40	2.06	8.57	8.50	1.06	4.88	5.31	0.429	2905
Max.	15.5	14.7	20.6	25.1	55.4	16.1	6.34	27.5	27.2	4.45	34.7	6.36	1.57	
Min.	1.16	1.16	<0.5	<0.5	<0.8	<0.3	<0.3	3.13	3.13	<0.3	0.437	4.46	0.125	

Wet deposition amount

2018	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	0.305	0.290	0.146	0.421	1.26	0.249	0.181	1.02	1.02	0.152	0.139
Feb	1.47	1.42	2.39	1.39	2.31	0.817	0.326	2.21	2.19	0.288	2.32
Mar	1.72	1.67	2.39	1.98	2.58	0.830	0.252	1.64	1.62	0.277	0.232
Apr	2.09	2.03	2.28	1.19	3.71	1.08	0.843	4.64	4.62	0.308	0.790
May	1.53	1.48	3.28	1.39	3.47	0.919	1.19	1.93	1.91	0.241	0.475
June	1.50	1.44	2.68	1.87	1.84	0.991	0.619	2.44	2.41	0.315	1.00
July	0.923	0.879	1.53	1.33	1.02	0.724	0.391	0.780	0.764	0.151	0.810
Aug	0.157	0.141	0.0572	0.375	0.0181	0.272	0.0327	0.471	0.465	0.0758	0.716
Sept	1.43	1.37	0.815	1.00	0.984	0.985	0.373	1.10	1.08	0.216	1.70
Oct	2.47	2.39	2.27	1.12	3.17	1.32	0.958	2.89	2.86	0.539	2.07
Nov	2.06	2.00	3.25	1.43	0.878	0.892	0.709	2.42	2.40	0.408	3.68
Dec	0.592	0.543	0.614	0.593	0.123	0.801	0.112	3.35	3.34	0.109	0.218
Annual	16.2	15.7	21.7	14.1	21.4	9.88	5.98	24.9	24.7	3.08	14.2

Data completeness

2018	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

2018	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	25.2	21.6	17.3	22.4	22.1	60.9	5.97	16.3	14.9	3.53	0.237	6.63	1.47	130
Feb	17.3	15.0	14.0	14.6	15.9	38.2	5.70	16.5	15.6	4.12	0.636	6.20	1.21	175
Mar	36.9	35.3	28.6	14.7	42.3	27.5	4.17	19.1	18.5	4.83	8.92	5.05	2.09	190
Apr	27.1	25.6	16.5	9.20	41.3	24.4	4.70	12.2	11.6	2.45	0.937	6.03	1.45	216
May	53.8	48.4	35.6	28.2	70.1	89.2	10.3	25.4	23.4	7.59	0.585	6.23	2.89	49.2
June	22.6	21.8	14.6	15.9	60.6	14.2	3.17	25.7	25.4	6.17	0.150	6.82	1.58	35.7
July	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Aug	55.7	54.9	38.3	19.1	190	13.5	6.47	32.8	32.5	5.31	0.0663	7.18	3.72	157
Sept	69.7	68.3	60.2	32.7	174	24.2	11.4	58.3	57.8	10.1	0.0871	7.06	4.03	3.5
Oct	40.1	39.0	36.7	20.0	109	17.9	5.24	22.0	21.6	5.02	0.215	6.67	2.47	179
Nov	26.8	26.2	21.4	8.74	47.7	9.59	3.08	16.8	16.6	3.59	2.36	5.63	1.56	359
Dec	28.4	28.0	21.0	7.77	51.2	6.36	2.07	12.3	12.2	2.29	3.25	5.49	1.48	254
Annual	31.8	30.4	23.9	13.7	61.9	23.1	4.48	18.2	17.7	3.92	2.17	5.66	1.88	1747
Max.	228	221	159	110	385	142	38.0	174	172	37.8	29.2	7.21	10.1	
Min.	6.82	5.11	4.90	3.37	5.60	2.06	0.694	7.29	6.59	1.25	0.0617	4.54	0.850	

Wet deposition amount

2018	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	3.27	2.80	2.25	2.90	2.87	7.89	0.774	2.11	1.94	0.457	0.0307
Feb	3.02	2.61	2.45	2.56	2.77	6.67	0.996	2.88	2.73	0.720	0.111
Mar	7.01	6.69	5.43	2.79	8.02	5.22	0.792	3.63	3.52	0.916	1.69
Apr	5.86	5.54	3.57	1.99	8.92	5.28	1.02	2.63	2.51	0.530	0.202
May	2.65	2.38	1.75	1.39	3.45	4.39	0.507	1.25	1.15	0.374	0.0288
June	0.807	0.777	0.523	0.568	2.16	0.508	0.113	0.918	0.907	0.220	<0.01
July	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Aug	8.73	8.61	6.00	3.00	29.8	2.11	1.02	5.14	5.10	0.834	0.0104
Sept	0.244	0.239	0.211	0.114	0.609	0.0847	0.0398	0.204	0.202	0.0353	<0.01
Oct	7.17	6.97	6.56	3.58	19.5	3.20	0.938	3.94	3.87	0.897	0.0385
Nov	9.63	9.42	7.67	3.14	17.1	3.44	1.11	6.03	5.96	1.29	0.846
Dec	7.21	7.11	5.34	1.98	13.0	1.62	0.527	3.12	3.09	0.581	0.825
Annual	55.6	53.2	41.8	24.0	108	40.4	7.82	31.8	31.0	6.86	3.79

Data completeness

2018	SO_4^{2-} %TP	nss-SO_4^{2-} %TP	NO_3^- %TP	Cl^- %TP	NH_4^+ %TP	Na^+ %TP	K^+ %TP	Ca^{2+} %TP	nss-Ca^{2+} %TP	Mg^{2+} %TP	H^+ %TP	pH %TP	EC %TP	Precip. %PCL
Jan	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Feb	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Mar	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Apr	100	100	100	100	100	100	100	100	100	100	100	100	100	100
May	100	100	100	100	100	100	100	100	100	100	100	100	100	100
June	100	100	100	100	100	100	100	100	100	100	100	100	100	100
July	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Aug	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Sept	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Oct	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Nov	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Dec	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Annual	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Terms and abbreviations are given in Table 3.5.

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

Precipitation amount-weighted average concentration/ Precipitation amount

2018	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	4.81	4.11	9.60	13.8	11.3	11.5	1.48	12.0	11.7	2.29	2.05	5.69	0.537	515
Feb	6.43	5.41	11.6	19.6	6.84	16.9	2.15	4.93	4.57	2.58	7.78	5.11	0.589	641
Mar	4.98	4.05	3.92	13.3	11.2	15.6	4.00	14.6	14.2	2.26	0.861	6.06	0.531	582
Apr	7.86	7.27	9.09	9.45	32.6	9.65	3.95	20.3	20.1	3.04	7.06	5.15	0.834	213
May	4.15	3.80	6.70	10.2	48.1	5.84	4.95	29.7	29.6	2.58	1.98	5.70	0.978	98.2
June	5.51	5.01	6.97	11.2	18.5	8.23	2.54	16.4	16.3	1.76	0.988	6.01	0.561	149
July	4.41	3.30	3.25	20.9	6.88	18.3	3.21	15.8	15.5	1.32	3.85	5.41	0.823	51.3
Aug	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Sept	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Oct	18.0	15.0	25.5	59.2	28.4	48.5	10.9	48.9	47.8	10.3	6.50	5.19	2.35	115
Nov	7.46	6.78	12.1	21.5	7.10	11.4	3.45	19.2	19.0	2.55	9.39	5.03	1.01	191
Dec	4.26	3.73	1.82	9.85	<0.8	8.76	1.52	11.7	11.6	1.71	3.76	5.43	0.498	784
Annual	5.83	5.01	7.51	15.5	10.9	13.5	2.83	14.0	13.7	2.51	4.21	5.38	0.664	3339
Max.	31.4	28.4	28.4	93.9	120	64.3	36.4	118	117	15.8	20.0	6.66	4.85	
Min.	2.08	0.632	<0.5	5.51	<0.8	4.00	0.948	3.82	3.35	0.603	0.219	4.70	0.296	

Wet deposition amount

2018	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	2.47	2.12	4.94	7.13	5.79	5.94	0.762	6.18	6.05	1.18	1.05
Feb	4.12	3.47	7.41	12.6	4.39	10.8	1.38	3.16	2.93	1.66	4.99
Mar	2.90	2.35	2.28	7.71	6.53	9.05	2.33	8.47	8.28	1.32	0.501
Apr	1.67	1.55	1.93	2.01	6.94	2.05	0.840	4.32	4.28	0.647	1.50
May	0.408	0.373	0.658	0.997	4.72	0.573	0.486	2.92	2.90	0.253	0.195
June	0.820	0.746	1.04	1.66	2.75	1.22	0.378	2.45	2.42	0.262	0.147
July	0.226	0.169	0.167	1.07	0.353	0.939	0.165	0.813	0.793	0.0675	0.197
Aug	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sept	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Oct	2.06	1.73	2.92	6.79	3.26	5.57	1.25	5.61	5.49	1.18	0.746
Nov	1.42	1.29	2.32	4.10	1.35	2.18	0.658	3.67	3.63	0.486	1.79
Dec	3.34	2.93	1.43	7.72	0.460	6.87	1.19	9.21	9.06	1.34	2.95
Annual	19.4	16.7	25.1	51.8	36.5	45.2	9.44	46.8	45.8	8.39	14.1

Data completeness

2018	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
Sept	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Oct	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Nov	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Dec	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Annual	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Terms and abbreviations are given in Table 3.5.

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

Precipitation amount-weighted average concentration/ Precipitation amount

2018	SO_4^{2-} µmol L^{-1}	nss-SO_4^{2-} µmol L^{-1}	NO_3^- µmol L^{-1}	Cl^- µmol L^{-1}	NH_4^+ µmol L^{-1}	Na^+ µmol L^{-1}	K^+ µmol L^{-1}	Ca^{2+} µmol L^{-1}	nss-Ca^{2+} µmol L^{-1}	Mg^{2+} µmol L^{-1}	H^+ µmol L^{-1}	pH	EC mS m^{-1}	Precip. mm $month^{-1}$ or mm $year^{-1}$
Jan	39.5	14.7	20.1	475	16.9	411	10.1	12.3	3.40	47.6	20.7	4.68	7.91	104
Feb	73.8	35.9	41.6	701	43.3	629	15.7	22.9	9.25	71.0	35.4	4.45	12.2	46.0
Mar	43.5	33.9	65.1	184	102	160	6.16	20.0	16.5	15.8	9.60	5.02	4.90	99.7
Apr	41.8	32.6	57.5	175	74.5	154	4.94	31.2	27.8	20.2	5.62	5.25	4.60	30.0
May	16.9	15.6	18.0	26.9	26.4	22.6	1.25	5.21	4.72	3.00	13.4	4.87	1.74	93.8
June	12.5	10.5	16.1	37.2	17.7	32.6	1.25	2.59	1.88	4.34	17.6	4.76	1.65	110
July	8.13	7.53	9.61	11.8	14.7	10.0	0.713	1.47	1.26	1.25	9.60	5.02	0.891	152
Aug	5.67	3.72	5.96	36.5	1.91	32.4	1.08	1.33	0.633	3.80	11.0	4.96	1.11	104
Sept	13.3	2.94	3.79	193	2.89	173	3.64	5.07	1.34	18.5	7.66	5.12	3.12	39.2
Oct	17.1	3.76	7.83	257	5.22	222	6.10	7.09	2.29	26.8	10.6	4.97	4.20	157
Nov	20.5	9.06	15.5	219	14.5	189	6.28	7.02	2.93	23.8	15.6	4.81	4.05	59.7
Dec	31.1	10.4	21.6	384	14.4	343	9.42	15.1	7.67	41.8	13.6	4.87	6.13	92.3
Annual	22.5	12.2	19.3	194	22.3	170	4.83	8.45	4.78	19.9	13.6	4.87	3.78	1087
Max.	358	132	290	5658	408	4998	123	154	136	594	145	6.40	40.1	
Min.	0.600	<0.3	<0.5	<0.5	<0.8	0.400	<0.3	<0.2	<0.2	<0.3	0.398	3.84	0.240	

Wet deposition amount

2018	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	4.10	1.53	2.09	49.3	1.75	42.6	1.05	1.27	0.352	4.93	2.15
Feb	3.40	1.65	1.91	32.3	1.99	29.0	0.721	1.05	0.426	3.27	1.63
Mar	4.33	3.37	6.49	18.4	10.2	15.9	0.614	1.99	1.65	1.58	0.956
Apr	1.25	0.977	1.72	5.24	2.24	4.61	0.148	0.935	0.835	0.606	0.169
May	1.59	1.46	1.69	2.52	2.47	2.12	0.117	0.489	0.443	0.282	1.26
June	1.37	1.15	1.76	4.07	1.94	3.57	0.136	0.283	0.206	0.475	1.92
July	1.23	1.14	1.46	1.78	2.23	1.52	0.108	0.224	0.191	0.190	1.46
Aug	0.591	0.387	0.620	3.80	0.199	3.38	0.113	0.139	0.0660	0.396	1.15
Sept	0.521	0.115	0.149	7.56	0.113	6.77	0.143	0.199	0.0524	0.724	0.300
Oct	2.70	0.592	1.23	40.5	0.822	35.0	0.961	1.12	0.361	4.22	1.67
Nov	1.22	0.541	0.927	13.1	0.869	11.3	0.375	0.419	0.175	1.42	0.930
Dec	2.87	0.962	1.99	35.4	1.33	31.6	0.869	1.39	0.708	3.85	1.26
Annual	24.4	13.3	20.9	211	24.2	185	5.25	9.19	5.20	21.7	14.8

Data completeness

2018	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	97.4	97.4	97.4	97.4	97.4	97.4	97.4	97.4	97.4	97.4	97.4	97.4	97.4	100
Feb	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	88.9
Mar	70.4	70.4	70.4	70.4	70.4	70.4	70.4	70.4	70.4	70.4	70.4	70.4	70.4	100
Apr	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
May	85.1	85.1	85.1	85.1	85.1	85.1	85.1	85.1	85.1	85.1	85.1	85.1	85.1	100
June	85.4	85.4	85.4	85.4	85.4	85.4	85.4	85.4	85.4	85.4	85.4	85.4	85.4	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	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	100
Sept	99.5	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	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
Nov	97.7	97.7	97.7	97.7	97.7	97.7	97.7	97.7	97.7	97.7	97.7	97.7	97.7	100
Dec	95.7	95.7	95.7	95.7	95.7	95.7	95.7	95.7	95.7	95.7	95.4	95.4	95.4	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**	**99.2**

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

2018	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	22.0	9.18	7.74	247	7.92	213	4.94	7.73	3.15	24.0	10.2	4.99	2.44	16.9
Feb	56.5	16.9	25.4	762	26.9	656	16.0	23.1	8.91	79.4	16.6	4.78	4.76	9.6
Mar	33.4	11.1	15.1	429	19.0	370	8.31	26.6	18.6	37.6	10.3	4.99	6.79	19.0
Apr	12.0	4.63	7.04	134	6.51	122	2.98	7.46	4.83	14.0	3.72	5.43	2.11	43.0
May	15.3	12.1	18.4	61.9	20.9	53.3	1.43	3.89	2.73	6.26	12.8	4.89	1.97	64.9
June	9.78	5.64	6.80	75.3	9.71	68.5	1.57	3.38	1.90	7.78	5.84	5.23	1.56	188
July	3.92	3.49	4.45	8.65	4.13	7.05	<0.3	0.559	0.407	0.893	6.32	5.20	0.547	318
Aug	5.98	3.46	5.66	46.2	2.46	41.7	1.03	1.21	0.309	4.67	8.39	5.08	1.20	135
Sept	44.8	15.2	30.6	571	13.6	491	13.1	16.6	5.94	55.5	*	*	*	89.1
Oct	11.8	3.28	5.04	162	1.96	141	3.13	3.43	0.403	15.7	7.44	5.13	2.75	163
Nov	25.5	3.85	9.05	420	4.05	360	8.46	9.01	1.23	40.0	7.13	5.15	6.10	33.1
Dec	12.0	6.67	10.7	102	6.89	89.1	2.47	3.77	1.84	10.4	11.6	4.94	2.21	44.7
Annual	9.68	5.01	7.04	88.7	6.59	77.6	1.86	3.18	1.50	8.76	7.28	5.14	1.64	1124
Max.	173	64.0	108	2801	175	2371	55.3	109	101	273	41.7	6.21	37.0	
Min.	1.40	<0.3	0.500	1.80	<0.8	1.30	<0.3	<0.2	<0.2	<0.3	0.617	4.38	0.280	

Wet deposition amount

2018	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	0.371	0.155	0.131	4.17	0.134	3.59	0.0835	0.130	0.0532	0.405	0.172
Feb	0.540	0.162	0.243	7.28	0.257	6.27	0.152	0.221	0.0851	0.758	0.159
Mar	0.635	0.211	0.287	8.16	0.362	7.04	0.158	0.507	0.355	0.715	0.196
Apr	0.516	0.199	0.303	5.78	0.280	5.25	0.128	0.321	0.208	0.603	0.160
May	0.995	0.786	1.19	4.02	1.36	3.46	0.0931	0.252	0.178	0.406	0.830
June	1.84	1.06	1.28	14.2	1.82	12.9	0.295	0.634	0.356	1.46	1.10
July	1.24	1.11	1.41	2.75	1.31	2.24	0.0721	0.178	0.129	0.284	2.01
Aug	0.808	0.468	0.765	6.25	0.333	5.64	0.139	0.164	0.0417	0.631	1.13
Sept	3.99	1.35	2.72	50.9	1.21	43.8	1.17	1.48	0.530	4.95	*
Oct	1.92	0.533	0.820	26.4	0.318	22.9	0.508	0.557	0.0656	2.56	1.21
Nov	0.845	0.128	0.300	13.9	0.134	11.9	0.280	0.298	0.0409	1.33	0.236
Dec	0.538	0.298	0.479	4.58	0.308	3.99	0.111	0.169	0.0824	0.463	0.519
Annual	10.9	5.63	7.92	99.6	7.40	87.2	2.09	3.57	1.69	9.84	8.18

Data completeness

2018	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	77.0	77.0	77.0	100
Feb	47.1	47.1	47.1	47.1	47.1	47.1	47.1	47.1	47.1	47.1	10.5	10.5	10.5	100
Mar	65.6	65.6	65.6	65.6	65.6	65.6	65.6	65.6	65.6	65.6	55.1	55.1	55.1	96.8
Apr	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	97.6	97.6	97.6	100
May	98.1	98.1	98.1	98.1	98.1	98.1	98.1	98.1	98.1	98.1	95.5	95.5	95.5	100
June	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
July	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	98.1	98.1	98.1	100
Aug	74.0	74.0	74.0	74.0	74.0	74.0	74.0	74.0	74.0	74.0	72.5	72.5	72.5	100
Sept	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	0	0	0	100
Oct	71.0	71.0	71.0	71.0	71.0	71.0	71.0	71.0	71.0	71.0	70.5	70.5	70.5	100
Nov	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	93.4	93.4	93.4	100
Dec	98.4	98.4	98.4	98.4	98.4	98.4	98.4	98.4	98.4	98.4	92.8	92.8	92.8	100
Annual	**83.6**	**83.6**	**83.6**	**83.6**	**83.6**	**83.6**	**83.6**	**83.6**	**83.6**	**83.6**	**81.2**	**81.2**	**81.2**	**99.7**

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

2018	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	38.8	10.6	17.0	537	10.9	468	10.4	14.2	4.07	54.0	11.1	4.95	6.45	34.7
Feb	44.9	15.7	30.2	568	22.3	484	11.5	18.0	7.58	56.7	18.2	4.74	7.30	83.7
Mar	38.7	4.97	14.2	653	5.72	560	12.2	17.8	5.73	63.7	4.37	5.36	9.52	72.7
Apr	19.6	14.8	20.6	87.7	26.2	79.3	2.65	10.1	8.39	10.1	7.89	5.10	2.31	94.6
May	15.7	8.84	15.1	132	14.7	113	2.96	7.59	5.14	13.6	8.65	5.06	2.65	234
June	19.0	6.59	10.8	239	8.56	205	5.06	5.73	1.29	23.1	8.95	5.05	3.92	145
July	11.0	9.88	8.88	21.5	9.74	18.8	0.707	0.969	0.563	2.27	15.2	4.82	1.21	224
Aug	8.25	5.72	7.34	47.9	6.24	41.9	1.19	1.34	0.433	4.73	11.8	4.93	1.35	329
Sept	11.3	2.23	5.21	175	2.89	151	3.55	3.85	0.593	16.9	6.67	5.18	2.79	191
Oct	26.7	6.08	12.6	398	7.64	343	7.73	9.20	1.80	38.7	11.3	4.95	6.10	94.6
Nov	16.0	9.29	17.1	129	11.7	112	2.96	4.82	2.40	13.1	15.4	4.81	2.81	57.8
Dec	20.7	9.46	15.5	217	10.9	186	4.35	7.22	3.20	21.3	14.7	4.83	3.77	88.5
Annual	17.4	7.83	12.2	185	10.3	159	3.87	6.07	2.63	18.3	11.0	4.96	3.16	1649
Max.	1361	187	301	25913	279	21609	491	507	213	2556	80.5	6.66	38.1	
Min.	2.40	<0.3	1.00	6.30	<0.8	5.50	0.300	0.400	<0.2	0.800	0.220	4.09	0.440	

Wet deposition amount

2018	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	1.35	0.367	0.589	18.6	0.378	16.3	0.362	0.491	0.141	1.87	0.387
Feb	3.76	1.31	2.53	47.5	1.86	40.5	0.959	1.51	0.635	4.75	1.52
Mar	2.82	0.361	1.04	47.5	0.416	40.7	0.887	1.30	0.417	4.63	0.318
Apr	1.85	1.40	1.95	8.30	2.48	7.50	0.250	0.956	0.794	0.960	0.746
May	3.66	2.07	3.53	30.7	3.43	26.5	0.691	1.77	1.20	3.17	2.02
June	2.75	0.957	1.56	34.7	1.24	29.8	0.735	0.832	0.188	3.36	1.30
July	2.47	2.22	1.99	4.83	2.18	4.21	0.159	0.217	0.126	0.509	3.40
Aug	2.71	1.88	2.41	15.8	2.05	13.8	0.393	0.440	0.142	1.55	3.86
Sept	2.16	0.425	0.993	33.3	0.552	28.8	0.678	0.735	0.113	3.22	1.27
Oct	2.53	0.575	1.19	37.7	0.723	32.4	0.732	0.871	0.170	3.67	1.07
Nov	0.928	0.537	0.991	7.47	0.677	6.48	0.171	0.279	0.139	0.757	0.890
Dec	1.83	0.837	1.37	19.2	0.966	16.5	0.385	0.639	0.283	1.89	1.30
Annual	28.8	12.9	20.1	305	16.9	263	6.38	10.0	4.35	30.2	18.1

Data completeness

2018	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	91.6	91.6	91.6	91.6	91.6	91.6	91.6	91.6	91.6	91.6	79.2	79.2	79.2	93.5
Feb	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	98.0	98.0	98.0	100
Mar	100	100	100	100	100	100	100	100	100	100	98.3	98.3	98.3	100
Apr	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	98.9	98.9	98.9	100
May	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.7	99.7	99.7	100
June	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	98.1	98.1	98.1	100
July	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	98.7	98.7	98.7	96.8
Aug	100	100	100	100	100	100	100	100	100	100	99.9	99.9	99.9	100
Sept	100	100	100	100	100	100	100	100	100	100	99.6	99.6	99.6	100
Oct	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
Nov	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
Dec	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	98.3	98.3	98.3	100
Annual	**99.6**	**99.6**	**99.6**	**99.6**	**99.6**	**99.6**	**99.6**	**99.6**	**99.6**	**99.6**	**98.6**	**98.6**	**98.6**	**99.2**

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

2018	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	*	*	*	*	*	*	*	*	*	*	*	*	*	112
Feb	*	*	*	*	*	*	*	*	*	*	*	*	*	82.0
Mar	23.7	21.0	17.0	55.3	17.7	45.9	2.30	5.16	4.17	6.20	34.4	4.46	2.74	66.2
Apr	10.7	7.28	10.5	66.2	10.1	57.0	1.82	6.24	5.01	7.11	8.52	5.07	1.67	132
May	26.6	22.1	40.7	91.1	41.6	75.7	3.61	33.3	31.7	11.4	18.2	4.74	3.66	102
June	3.02	2.33	5.70	13.2	1.95	11.5	0.344	0.650	0.402	1.30	5.85	5.23	0.494	101
July	1.96	1.60	4.51	7.03	1.47	5.98	<0.3	0.389	0.260	0.600	5.00	5.30	0.424	116
Aug	7.87	5.70	7.88	39.9	7.18	35.9	0.934	1.19	0.417	3.96	10.3	4.99	1.29	273
Sept	8.21	1.56	4.10	127	1.62	112	2.57	3.29	0.866	12.5	3.98	5.40	2.13	309
Oct	22.3	7.64	16.3	268	10.5	245	5.64	7.87	2.59	27.7	12.2	4.92	4.41	138
Nov	28.5	14.2	32.0	265	22.0	237	5.70	11.3	6.18	27.0	21.0	4.68	5.32	76.2
Dec	44.5	12.3	23.6	600	14.3	535	11.7	16.8	5.22	60.4	17.7	4.75	8.10	66.1
Annual	15.6	7.60	14.1	151	10.9	134	3.33	7.86	4.96	15.4	10.9	4.96	2.86	1573
Max.	426	101	228	5958	210	6977	155	319	313	783	81.3	6.84	66.4	
Min.	0.400	<0.3	0.800	2.00	<0.8	0.600	<0.3	0.300	<0.2	<0.3	0.145	4.09	0.160	

Wet deposition amount

2018	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	1.57	1.39	1.13	3.66	1.17	3.04	0.152	0.342	0.276	0.410	2.27
Apr	1.42	0.961	1.39	8.75	1.33	7.53	0.240	0.824	0.661	0.939	1.13
May	2.70	2.24	4.13	9.25	4.22	7.69	0.367	3.38	3.21	1.15	1.85
June	0.306	0.236	0.577	1.33	0.198	1.16	0.0348	0.0658	0.0406	0.132	0.593
July	0.226	0.184	0.521	0.812	0.169	0.690	0.0167	0.0449	0.0300	0.0693	0.578
Aug	2.14	1.55	2.15	10.9	1.96	9.78	0.254	0.325	0.114	1.08	2.80
Sept	2.54	0.482	1.27	39.3	0.501	34.7	0.794	1.02	0.268	3.87	1.23
Oct	3.08	1.06	2.25	37.0	1.46	33.8	0.780	1.09	0.358	3.83	1.68
Nov	2.17	1.08	2.44	20.2	1.68	18.1	0.434	0.862	0.471	2.06	1.60
Dec	2.94	0.813	1.56	39.6	0.945	35.4	0.775	1.11	0.345	3.99	1.17
Annual	24.6	12.0	22.2	237	17.2	211	5.23	12.4	7.80	24.3	17.1

Data completeness

2018	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	80.6
Feb	0	0	0	0	0	0	0	0	0	0	0	0	0	85.7
Mar	29.7	29.7	29.7	29.7	29.7	29.7	29.7	29.7	29.7	29.7	29.0	29.0	29.0	93.5
Apr	44.8	44.8	44.8	44.8	44.8	44.8	44.8	44.8	44.8	44.8	44.8	44.8	44.8	96.7
May	83.2	83.2	83.2	83.2	83.2	83.2	83.2	83.2	83.2	83.2	83.2	83.2	83.2	100
June	49.6	49.6	49.6	49.6	49.6	49.6	49.6	49.6	49.6	49.6	45.5	45.5	45.5	100
July	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
Aug	60.7	60.7	60.7	60.7	60.7	60.7	60.7	60.7	60.7	60.7	60.6	60.6	60.6	96.8
Sept	78.6	78.6	78.6	78.6	78.6	78.6	78.6	78.6	78.6	78.6	77.9	77.9	77.9	100
Oct	62.7	62.7	62.7	62.7	62.7	62.7	62.7	62.7	62.7	62.7	60.4	60.4	60.4	96.8
Nov	97.7	97.7	97.7	97.7	97.7	97.7	97.7	97.7	97.7	97.7	96.5	96.5	96.5	100
Dec	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	93.1	93.1	93.1	100
Annual	**56.3**	**56.3**	**56.3**	**56.3**	**56.3**	**56.3**	**56.3**	**56.3**	**56.3**	**56.3**	**55.3**	**55.3**	**55.3**	**95.9**

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

2018	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	18.6	14.5	11.5	80.9	13.1	68.9	1.83	3.49	2.00	7.62	20.5	4.69	2.43	206
Feb	15.9	14.7	21.2	23.5	20.5	20.5	1.69	9.78	9.34	3.48	10.3	4.99	1.45	92.0
Mar	8.28	6.55	8.27	34.1	9.71	28.7	1.13	3.51	2.89	3.98	6.92	5.16	0.988	146
Apr	5.45	5.30	6.60	3.23	7.66	2.55	0.422	3.77	3.72	1.16	4.15	5.38	0.494	329
May	4.35	4.29	7.25	1.50	6.16	0.946	<0.3	1.76	1.74	0.487	6.08	5.22	0.488	287
June	3.61	3.56	5.59	1.41	4.80	0.740	<0.3	0.931	0.915	0.313	6.31	5.20	0.451	254
July	1.49	1.43	1.98	1.25	0.982	0.949	<0.3	0.568	0.547	<0.3	3.13	5.50	0.232	326
Aug	*	*	*	*	*	*	*	*	*	*	*	*	*	283
Sept	2.22	2.18	2.87	1.01	0.982	0.759	<0.3	0.700	0.684	<0.3	5.92	5.23	0.369	491
Oct	7.10	6.60	9.48	10.4	8.23	8.32	0.499	1.38	1.20	1.45	11.9	4.92	0.884	85.5
Nov	4.26	4.05	6.80	4.65	4.07	3.60	0.354	1.73	1.66	0.758	8.31	5.08	0.585	50.0
Dec	9.20	8.27	15.9	17.8	12.3	15.4	0.858	4.04	3.71	2.25	12.3	4.91	1.11	210
Annual	4.74	4.42	6.49	6.57	5.57	5.41	0.423	2.12	2.01	1.03	6.31	5.20	0.560	2758
Max.	78.8	73.7	123	262	152	220	8.60	73.7	71.9	25.3	33.1	6.59	6.00	
Min.	<0.3	<0.3	<0.5	<0.5	<0.8	0.300	<0.3	0.400	0.389	<0.3	0.257	4.48	0.130	

Wet deposition amount

2018	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	3.84	2.98	2.37	16.7	2.70	14.2	0.376	0.720	0.413	1.57	4.22
Feb	1.46	1.35	1.95	2.16	1.88	1.89	0.155	0.900	0.860	0.320	0.949
Mar	1.20	0.953	1.20	4.96	1.41	4.17	0.165	0.511	0.421	0.580	1.01
Apr	1.79	1.74	2.17	1.06	2.52	0.839	0.139	1.24	1.22	0.380	1.36
May	1.25	1.23	2.08	0.431	1.77	0.271	0.0839	0.506	0.500	0.140	1.74
June	0.916	0.905	1.42	0.357	1.22	0.188	0.0351	0.237	0.232	0.0795	1.60
July	0.486	0.467	0.647	0.407	0.320	0.309	0.0457	0.185	0.178	0.0843	1.02
Aug	*	*	*	*	*	*	*	*	*	*	*
Sept	1.09	1.07	1.41	0.497	0.482	0.372	0.117	0.343	0.335	0.127	2.91
Oct	0.607	0.564	0.810	0.893	0.704	0.711	0.0426	0.118	0.103	0.124	1.02
Nov	0.213	0.202	0.340	0.232	0.204	0.180	0.0177	0.0867	0.0828	0.0379	0.415
Dec	1.93	1.74	3.34	3.74	2.59	3.24	0.180	0.848	0.778	0.472	2.58
Annual	13.1	12.2	17.9	18.1	15.4	14.9	1.17	5.86	5.53	2.84	17.4

Data completeness

2018	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	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	100
Feb	87.5	87.5	87.5	87.5	87.5	87.5	87.5	87.5	87.5	87.5	87.5	87.5	87.5	100
Mar	95.2	95.2	95.2	95.2	95.2	95.2	95.2	95.2	95.2	95.2	92.4	92.4	92.4	100
Apr	100	100	100	100	100	100	100	100	100	100	99.2	99.2	99.2	100
May	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
June	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	97.4	97.4	97.4	100
July	100	100	100	100	100	100	100	100	100	100	95.9	95.9	95.9	100
Aug	0	0	0	0	0	0	0	0	0	0	0	0	0	90.3
Sept	98.5	98.5	98.5	98.5	98.5	98.5	98.5	98.5	98.5	98.5	98.3	98.3	98.3	100
Oct	83.6	83.6	83.6	83.6	83.6	83.6	83.6	83.6	83.6	83.6	71.3	71.3	71.3	93.4
Nov	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	88.0	88.0	88.0	100
Dec	73.8	73.8	73.8	73.8	73.8	73.8	73.8	73.8	73.8	73.8	71.4	71.4	71.4	93.7
Annual	**79.1**	**79.1**	**79.1**	**79.1**	**79.1**	**79.1**	**79.1**	**79.1**	**79.1**	**79.1**	**77.6**	**77.6**	**77.6**	**98.1**

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

2018	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	16.5	11.7	20.5	92.9	15.5	78.4	2.14	4.87	3.18	9.47	21.0	4.68	2.55	134
Feb	15.1	12.9	22.0	45.7	17.6	36.2	1.53	4.15	3.37	4.70	24.9	4.60	2.05	56.0
Mar	6.93	6.43	12.4	10.3	10.3	8.29	0.395	1.79	1.61	1.26	12.5	4.90	0.892	242
Apr	9.79	8.84	13.7	20.3	13.7	15.8	0.796	4.44	4.10	2.62	8.26	5.08	1.02	364
May	6.87	6.77	8.50	2.48	8.95	1.82	<0.3	1.30	1.26	0.460	11.6	4.93	0.711	383
June	7.27	6.76	9.35	10.2	9.42	8.49	<0.3	1.12	0.940	1.09	12.5	4.90	0.845	359
July	6.41	5.64	6.34	15.3	7.82	12.7	0.318	1.12	0.842	1.50	9.47	5.02	0.762	682
Aug	4.90	4.05	6.20	17.4	6.39	14.1	0.368	1.05	0.749	1.71	7.95	5.10	0.708	461
Sept	3.77	3.61	8.56	4.60	2.70	2.75	<0.3	0.423	0.364	0.454	13.8	4.86	0.697	725
Oct	13.9	11.9	19.0	40.0	16.2	33.8	0.987	3.58	2.85	4.41	21.0	4.68	1.77	111
Nov	5.94	5.52	11.9	8.41	6.37	6.86	0.313	1.51	1.36	0.762	15.0	4.82	0.890	72.0
Dec	10.3	8.48	21.2	37.5	12.6	30.9	0.813	3.29	2.63	3.92	22.0	4.66	1.72	140
Annual	7.43	6.55	10.4	18.0	9.12	14.6	0.462	1.86	1.54	1.92	12.1	4.92	0.959	3725
Max.	45.1	27.7	75.3	338	55.2	288	8.30	23.2	17.0	35.5	57.5	5.41	7.34	
Min.	1.30	1.15	2.70	1.40	1.10	<0.3	<0.3	0.300	0.246	<0.3	3.88	4.24	0.304	

Wet deposition amount

2018	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	2.20	1.57	2.73	12.4	2.07	10.5	0.285	0.651	0.424	1.26	2.81
Feb	0.845	0.723	1.23	2.56	0.988	2.02	0.0857	0.233	0.189	0.263	1.39
Mar	1.67	1.55	3.00	2.48	2.50	2.00	0.0955	0.432	0.388	0.304	3.03
Apr	3.56	3.21	4.99	7.38	4.98	5.75	0.289	1.62	1.49	0.952	3.00
May	2.63	2.59	3.25	0.948	3.42	0.696	0.0256	0.498	0.483	0.176	4.45
June	2.61	2.42	3.35	3.65	3.38	3.05	0.0827	0.403	0.337	0.391	4.48
July	4.37	3.85	4.33	10.5	5.33	8.68	0.217	0.762	0.574	1.02	6.46
Aug	2.26	1.87	2.86	8.03	2.94	6.48	0.170	0.485	0.345	0.788	3.66
Sept	2.73	2.61	6.20	3.33	1.96	1.99	0.0876	0.306	0.263	0.329	9.99
Oct	1.54	1.32	2.11	4.44	1.80	3.75	0.110	0.397	0.316	0.490	2.33
Nov	0.428	0.398	0.854	0.605	0.458	0.494	0.0225	0.108	0.0977	0.0549	1.08
Dec	1.44	1.18	2.96	5.23	1.76	4.32	0.113	0.460	0.366	0.546	3.07
Annual	27.7	24.4	38.6	66.9	34.0	54.4	1.72	6.92	5.74	7.17	45.1

Data completeness

2018	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	87.6	87.6	87.6	87.6	87.6	87.6	87.6	87.6	87.6	87.6	87.6	87.6	87.6	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	48.2	48.2	48.2	48.2	48.2	48.2	48.2	48.2	48.2	48.2	48.2	48.2	48.2	67.9
Oct	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Nov	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
Dec	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Annual	**88.7**	**88.7**	**88.7**	**88.7**	**88.7**	**88.7**	**88.7**	**88.7**	**88.7**	**88.7**	**88.7**	**88.7**	**88.7**	**97.5**

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

2018	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	175	32.3	49.6	2761	34.9	2361	52.7	65.9	14.8	270	25.3	4.60	34.7	105
Feb	62.6	20.3	30.1	816	26.7	702	17.7	23.6	8.45	83.3	21.7	4.66	12.4	99.7
Mar	46.1	6.55	11.6	807	9.09	689	14.8	16.5	1.90	73.2	11.6	4.93	11.1	119
Apr	21.4	12.9	16.7	166	13.8	141	4.04	11.5	8.47	16.9	13.3	4.88	3.47	137
May	12.1	8.75	11.5	66.1	8.72	56.2	2.65	3.92	2.70	7.01	11.2	4.95	1.79	117
June	11.1	5.61	7.62	107	5.24	90.3	2.28	2.72	0.765	10.3	9.65	5.02	2.12	156
July	28.0	7.31	12.3	401	2.79	344	8.55	8.64	1.21	39.6	15.5	4.81	6.55	47.9
Aug	9.24	3.37	5.11	113	2.88	97.4	2.97	2.93	0.827	11.2	5.67	5.25	1.95	80.5
Sept	7.98	4.81	7.37	59.7	6.15	52.6	1.80	2.06	0.922	5.76	9.28	5.03	1.38	266
Oct	32.5	15.6	31.1	324	21.9	281	6.96	11.4	5.32	32.3	25.4	4.59	6.15	62.4
Nov	40.3	20.2	44.5	381	27.8	334	8.88	20.2	13.0	38.4	22.1	4.66	7.07	17.9
Dec	57.6	14.6	25.7	836	12.7	714	18.3	22.6	7.18	80.8	16.7	4.78	12.4	101
Annual	35.1	10.8	16.9	473	12.1	405	9.86	13.1	4.35	46.1	13.6	4.87	6.96	1308
Max.	1397	268	450	22387	258	18723	431	693	288	2173	170	6.58	135	
Min.	1.00	<0.3	1.60	6.40	<0.8	5.80	0.300	0.300	<0.2	0.600	0.263	3.77	0.320	

Wet deposition amount

2018	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	18.4	3.40	5.22	291	3.67	248	5.55	6.93	1.56	28.4	2.66
Feb	6.25	2.03	3.00	81.4	2.66	70.0	1.76	2.36	0.843	8.31	2.16
Mar	5.46	0.777	1.37	95.7	1.08	81.7	1.76	1.96	0.225	8.68	1.38
Apr	2.92	1.76	2.28	22.7	1.89	19.3	0.552	1.57	1.16	2.32	1.82
May	1.41	1.02	1.34	7.71	1.02	6.55	0.308	0.456	0.315	0.817	1.30
June	1.72	0.873	1.19	16.6	0.815	14.0	0.355	0.423	0.119	1.61	1.50
July	1.34	0.350	0.590	19.2	0.134	16.5	0.409	0.414	0.0579	1.89	0.743
Aug	0.744	0.271	0.411	9.06	0.232	7.85	0.239	0.236	0.0666	0.904	0.457
Sept	2.12	1.28	1.96	15.9	1.64	14.0	0.478	0.547	0.245	1.53	2.47
Oct	2.03	0.974	1.94	20.2	1.37	17.5	0.434	0.711	0.332	2.01	1.59
Nov	0.722	0.362	0.797	6.82	0.498	5.98	0.159	0.361	0.232	0.686	0.396
Dec	5.81	1.47	2.60	84.3	1.28	72.0	1.85	2.28	0.725	8.15	1.69
Annual	45.9	14.1	22.0	619	15.8	530	12.9	17.1	5.69	60.4	17.8

Data completeness

2018	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	81.8	81.8	81.8	81.8	81.8	81.8	81.8	81.8	81.8	81.8	79.6	79.6	79.6	83.9
Feb	91.9	91.9	91.9	91.9	91.9	91.9	91.9	91.9	91.9	91.9	91.3	91.3	91.3	85.7
Mar	86.4	86.4	86.4	86.4	86.4	86.4	86.4	86.4	86.4	86.4	86.0	86.0	86.0	100
Apr	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	100
May	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	100
June	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.6	99.6	99.6	100
July	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
Aug	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.0	99.0	99.0	100
Sept	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.6	99.6	99.6	100
Oct	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
Nov	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	92.2	92.2	92.2	100
Dec	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	96.1	96.1	96.1	100
Annual	**96.4**	**96.4**	**96.4**	**96.4**	**96.4**	**96.4**	**96.4**	**96.4**	**96.4**	**96.4**	**95.6**	**95.6**	**95.6**	**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

2018	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	33.9	21.4	40.9	244	28.8	208	5.38	10.4	5.90	24.6	39.6	4.40	5.58	79.9
Feb	26.4	17.5	42.9	162	29.8	147	3.96	12.2	8.99	18.8	24.6	4.61	4.22	50.9
Mar	12.0	4.49	6.86	137	4.95	125	3.18	3.74	1.04	14.0	8.13	5.09	2.61	200
Apr	20.5	14.7	23.9	113	18.0	96.0	3.18	12.2	10.1	11.9	10.9	4.96	2.72	70.5
May	9.49	8.38	10.2	22.0	9.90	18.4	1.06	2.09	1.69	2.41	13.1	4.88	1.17	188
June	4.86	4.63	5.33	4.84	3.75	3.88	<0.3	0.661	0.577	0.621	8.70	5.06	0.618	265
July	7.13	5.55	5.86	31.0	3.41	26.2	0.573	0.790	0.224	2.73	10.6	4.98	1.07	160
Aug	1.72	1.18	2.30	10.0	1.35	8.82	0.919	0.446	0.256	1.02	3.23	5.49	0.373	138
Sept	8.36	6.79	9.02	31.1	6.41	26.0	0.674	1.29	0.726	2.86	11.7	4.93	1.24	311
Oct	24.0	16.3	41.9	145	26.0	128	3.50	6.38	3.62	15.2	29.4	4.53	4.21	50.0
Nov	18.4	16.9	30.8	28.7	19.5	24.8	1.11	4.06	3.53	3.52	30.1	4.52	2.39	42.1
Dec	20.1	13.9	27.5	118	18.5	102	2.93	6.43	4.21	12.0	20.8	4.68	3.24	108
Annual	11.6	8.21	13.6	65.0	9.62	56.7	1.66	3.30	2.08	6.66	13.5	4.87	1.85	1662
Max.	101	94.4	140	951	101	1004	23.1	67.2	45.5	120	100	5.51	15.9	
Min.	1.60	1.08	2.20	2.30	1.30	1.90	<0.3	0.400	<0.2	0.400	3.09	4.00	0.360	

Wet deposition amount

2018	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	2.71	1.71	3.27	19.5	2.30	16.6	0.430	0.831	0.471	1.97	3.17
Feb	1.34	0.892	2.18	8.27	1.52	7.51	0.202	0.620	0.458	0.958	1.25
Mar	2.40	0.896	1.37	27.4	0.988	24.9	0.634	0.747	0.208	2.79	1.62
Apr	1.44	1.03	1.69	7.98	1.27	6.77	0.224	0.858	0.712	0.836	0.767
May	1.79	1.58	1.93	4.14	1.86	3.47	0.199	0.393	0.318	0.454	2.47
June	1.29	1.22	1.41	1.28	0.993	1.03	0.0555	0.175	0.153	0.164	2.30
July	1.14	0.889	0.937	4.95	0.545	4.19	0.0916	0.126	0.0359	0.436	1.69
Aug	0.237	0.163	0.318	1.39	0.186	1.22	0.127	0.0616	0.0353	0.141	0.445
Sept	2.60	2.11	2.80	9.65	1.99	8.08	0.209	0.400	0.225	0.889	3.64
Oct	1.20	0.814	2.10	7.26	1.30	6.39	0.175	0.319	0.181	0.758	1.47
Nov	0.773	0.710	1.30	1.21	0.822	1.04	0.0466	0.171	0.148	0.148	1.27
Dec	2.17	1.50	2.97	12.8	2.00	11.1	0.317	0.694	0.455	1.30	2.24
Annual	19.3	13.7	22.6	108	16.0	94.3	2.76	5.49	3.46	11.1	22.5

Data completeness

2018	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	99.2	99.2	99.2	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	99.3	99.3	99.3	100
May	100	100	100	100	100	100	100	100	100	100	99.8	99.8	99.8	100
June	86.0	86.0	86.0	86.0	86.0	86.0	86.0	86.0	86.0	86.0	86.0	86.0	86.0	100
July	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Aug	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Sept	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Oct	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Nov	99.8	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
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**	**97.7**	**97.7**	**97.7**	**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

2018	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	11.3	9.30	13.7	36.5	7.34	32.8	1.25	2.85	2.14	4.06	18.4	4.73	1.63	160
Feb	14.1	10.7	21.8	58.0	13.0	56.4	1.97	4.17	2.95	6.14	17.8	4.75	2.07	115
Mar	7.65	7.02	5.36	11.9	3.91	10.5	0.746	1.08	0.852	1.58	14.3	4.84	0.990	226
Apr	5.51	4.94	4.53	10.8	3.75	9.53	0.731	1.52	1.32	1.40	7.98	5.10	0.668	201
May	10.4	10.1	6.65	5.62	6.23	4.34	0.499	1.14	1.05	0.861	17.9	4.75	1.17	281
June	3.27	3.13	3.29	2.41	2.94	2.30	0.561	0.313	0.267	0.386	9.14	5.04	0.504	393
July	3.08	2.51	2.23	10.6	1.86	9.45	0.477	0.317	<0.2	1.17	6.87	5.16	0.532	1104
Aug	5.34	2.22	2.52	60.0	2.51	51.7	1.15	1.13	<0.2	5.89	5.48	5.26	1.17	432
Sept	3.27	2.97	2.27	6.18	1.31	5.01	0.401	0.279	<0.2	0.652	8.13	5.09	0.512	788
Oct	6.57	5.13	6.75	27.4	3.17	23.8	1.09	1.33	0.819	2.76	12.0	4.92	1.09	175
Nov	15.5	15.1	13.4	10.8	9.44	7.40	0.570	1.67	1.51	0.891	34.1	4.47	1.85	53.6
Dec	12.6	11.7	16.9	17.4	9.59	15.3	0.913	3.49	3.16	1.85	24.8	4.60	1.70	94.5
Annual	5.28	4.40	4.37	16.6	3.15	14.5	0.664	0.848	0.558	1.78	10.0	5.00	0.804	4022
Max.	109	99.4	245	649	1013	583	111	69.3	56.7	64.1	132	5.57	13.7	
Min.	0.486	0.318	<0.5	<0.5	<0.8	0.470	<0.3	<0.2	<0.2	<0.3	2.69	3.88	0.189	

Wet deposition amount

2018	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	1.49	2.20	5.83	1.17	5.24	0.201	0.456	0.343	0.650	2.95
Feb	1.61	1.22	2.50	6.64	1.48	6.46	0.226	0.478	0.338	0.703	2.04
Mar	1.73	1.59	1.21	2.69	0.883	2.36	0.169	0.244	0.193	0.358	3.23
Apr	1.11	0.994	0.912	2.17	0.756	1.92	0.147	0.307	0.266	0.283	1.61
May	2.92	2.84	1.87	1.58	1.75	1.22	0.140	0.321	0.295	0.242	5.04
June	1.29	1.23	1.29	0.947	1.16	0.902	0.220	0.123	0.105	0.152	3.59
July	3.40	2.77	2.46	11.7	2.06	10.4	0.527	0.349	0.132	1.30	7.58
Aug	2.30	0.959	1.09	25.9	1.09	22.3	0.497	0.489	0.0841	2.54	2.37
Sept	2.58	2.34	1.79	4.87	1.03	3.95	0.316	0.219	0.135	0.513	6.40
Oct	1.15	0.897	1.18	4.79	0.554	4.15	0.191	0.233	0.143	0.483	2.10
Nov	0.832	0.808	0.720	0.579	0.506	0.397	0.0306	0.0895	0.0809	0.0477	1.83
Dec	1.19	1.11	1.60	1.64	0.906	1.45	0.0863	0.329	0.298	0.175	2.35
Annual	21.2	17.7	17.6	66.8	12.7	58.3	2.67	3.41	2.24	7.18	40.3

Data completeness

2018	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	91.6	91.6	91.6	91.6	91.6	91.6	91.6	91.6	91.6	91.6	91.3	91.3	91.3	100
Feb	50.2	50.2	50.2	50.2	50.2	50.2	50.2	50.2	50.2	50.2	50.2	50.2	50.2	100
Mar	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Apr	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
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	99.9	99.9	99.9	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	99.9	99.9	99.9	100
Oct	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Nov	79.5	79.5	79.5	79.5	79.5	79.5	79.5	79.5	79.5	79.5	79.5	79.5	79.5	100
Dec	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Annual	**98.0**	**98.0**	**98.0**	**98.0**	**98.0**	**98.0**	**98.0**	**98.0**	**98.0**	**98.0**	**97.9**	**97.9**	**97.9**	**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

2018	SO_4^{2-} µmol L^{-1}	nss-SO_4^{2-} µmol L^{-1}	NO_3^- µmol L^{-1}	Cl^- µmol L^{-1}	NH_4^+ µmol L^{-1}	Na^+ µmol L^{-1}	K^+ µmol L^{-1}	Ca^{2+} µmol L^{-1}	nss-Ca^{2+} µmol L^{-1}	Mg^{2+} µmol L^{-1}	H^+ µmol L^{-1}	pH	EC mS m^{-1}	Precip. mm $month^{-1}$ or mm $year^{-1}$
Jan	22.2	7.73	10.8	271	6.90	240	5.26	8.39	3.20	28.8	11.2	4.95	4.66	126
Feb	71.5	27.7	41.0	824	29.4	727	16.4	37.4	21.7	91.5	28.1	4.55	13.9	33.9
Mar	11.4	5.16	8.30	119	4.49	103	1.76	3.29	1.06	12.3	12.4	4.91	2.32	75.6
Apr	5.82	2.86	6.46	57.2	7.50	49.1	1.35	2.06	1.00	6.22	7.31	5.14	1.22	359
May	12.7	7.23	13.7	104	8.62	90.5	1.72	5.56	3.60	11.0	14.5	4.84	2.30	73.0
June	6.22	1.18	1.95	97.3	0.811	83.7	1.78	1.96	0.341	10.0	6.32	5.20	1.57	620
July	10.4	1.39	1.39	173	<0.8	150	3.44	4.99	1.75	20.9	5.30	5.28	2.62	265
Aug	*	*	*	*	*	*	*	*	*	*	*	*	*	187
Sept	12.5	3.73	1.50	169	<0.8	146	2.97	4.49	1.34	18.3	8.83	5.05	2.84	278
Oct	28.7	2.64	4.43	509	1.38	432	9.60	13.7	4.44	58.1	6.79	5.17	7.45	314
Nov	8.19	2.40	4.47	110	0.856	96.0	1.65	2.49	0.417	12.5	7.81	5.11	1.91	147
Dec	14.2	5.20	5.72	173	2.73	150	3.20	4.74	1.52	19.6	11.5	4.94	3.02	155
Annual	12.8	3.12	4.99	186	3.19	160	3.52	5.31	1.90	20.8	7.96	5.10	3.00	2632
Max.	207	133	154	2693	73.7	2353	51.7	101	68.8	285	269	5.69	43.8	
Min.	1.60	<0.3	<0.5	9.70	<0.8	8.80	<0.3	<0.2	<0.2	1.00	2.04	3.57	0.370	

Wet deposition amount

2018	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	2.79	0.972	1.36	34.1	0.868	30.2	0.662	1.06	0.403	3.62	1.41
Feb	2.42	0.939	1.39	27.9	0.995	24.6	0.554	1.27	0.734	3.10	0.953
Mar	0.860	0.390	0.628	9.00	0.340	7.79	0.133	0.249	0.0805	0.932	0.940
Apr	2.09	1.03	2.31	20.5	2.69	17.6	0.483	0.740	0.360	2.23	2.62
May	0.926	0.528	0.999	7.60	0.630	6.61	0.126	0.406	0.263	0.802	1.06
June	3.86	0.731	1.21	60.3	0.503	51.9	1.10	1.22	0.211	6.20	3.91
July	2.77	0.369	0.370	46.0	0.171	39.8	0.913	1.32	0.465	5.55	1.41
Aug	*	*	*	*	*	*	*	*	*	*	*
Sept	3.49	1.04	0.418	47.0	<0.01	40.6	0.825	1.25	0.371	5.10	2.46
Oct	8.99	0.828	1.39	160	0.433	135	3.01	4.31	1.39	18.2	2.13
Nov	1.20	0.352	0.654	16.1	0.125	14.1	0.242	0.365	0.0612	1.83	1.14
Dec	2.20	0.805	0.887	26.9	0.423	23.2	0.497	0.735	0.235	3.04	1.78
Annual	33.6	8.21	13.1	490	8.39	421	9.26	14.0	5.01	54.7	21.0

Data completeness

2018	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	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	64.5
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	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	0	0	0	0	0	0	0	0	0	0	0	0	0	100
Sept	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	90.0
Oct	100	100	100	100	100	100	100	100	100	100	100	100	100	93.5
Nov	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Dec	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
Annual	**81.5**	**81.5**	**81.5**	**81.5**	**81.5**	**81.5**	**81.5**	**81.5**	**81.5**	**81.5**	**81.5**	**81.5**	**81.5**	**95.6**

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

2018	SO_4^{2-} µmol L^{-1}	nss-SO_4^{2-} µmol L^{-1}	NO_3^- µmol L^{-1}	Cl^- µmol L^{-1}	NH_4^+ µmol L^{-1}	Na^+ µmol L^{-1}	K^+ µmol L^{-1}	Ca^{2+} µmol L^{-1}	nss-Ca^{2+} µmol L^{-1}	Mg^{2+} µmol L^{-1}	H^+ µmol L^{-1}	pH	EC mS m^{-1}	Precip. mm $month^{-1}$ or mm $year^{-1}$
Jan	*	*	*	*	*	*	*	*	*	*	*	*	*	55.0
Feb	*	*	*	*	*	*	*	*	*	*	*	*	*	57.0
Mar	4.07	2.41	3.17	31.0	3.93	27.6	0.716	1.20	0.606	3.31	5.98	5.22	0.780	128
Apr	4.25	2.46	4.24	33.2	3.39	29.7	0.792	1.29	0.649	3.57	7.33	5.13	0.879	40.1
May	3.78	2.19	3.61	29.7	3.80	26.4	0.725	1.06	0.494	3.23	6.63	5.18	0.791	111
June	1.84	0.529	1.24	24.5	0.934	22.1	0.571	0.700	0.223	2.61	4.97	5.30	0.564	139
July	3.40	0.727	0.696	53.3	<0.8	47.4	1.07	1.09	<0.2	5.48	5.37	5.27	0.962	178
Aug	11.5	1.29	0.670	199	1.65	171	4.04	4.29	0.664	20.8	4.63	5.33	2.90	27.4
Sept	3.35	0.377	0.786	57.5	1.16	50.4	1.16	1.32	0.237	5.88	5.16	5.29	1.04	56.5
Oct	2.92	0.660	1.74	41.6	1.94	37.5	0.924	0.925	<0.2	4.28	5.44	5.26	0.878	96.3
Nov	8.35	1.51	4.27	130	2.43	114	2.37	2.47	<0.2	12.8	9.37	5.03	2.27	63.7
Dec	13.7	4.39	6.08	177	8.02	154	3.53	4.20	0.931	17.3	13.6	4.87	2.91	9.0
Annual	3.99	1.23	2.08	52.8	2.02	46.7	1.10	1.28	0.302	5.45	5.96	5.23	1.02	960
Max.	206	26.4	16.8	3503	50.0	2974	74.3	80.0	15.7	374	20.4	5.67	45.9	
Min.	<0.3	<0.3	<0.5	3.20	<0.8	3.20	<0.3	<0.2	<0.2	0.400	2.14	4.69	0.200	

Wet deposition amount

2018	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	0.521	0.308	0.406	3.96	0.503	3.53	0.0916	0.154	0.0776	0.424	0.765
Apr	0.170	0.0984	0.170	1.33	0.136	1.19	0.0317	0.0517	0.0260	0.143	0.294
May	0.417	0.242	0.399	3.28	0.420	2.91	0.0801	0.118	0.0546	0.357	0.733
June	0.254	0.0733	0.172	3.39	0.129	3.06	0.0791	0.0969	0.0308	0.361	0.688
July	0.605	0.129	0.124	9.48	0.104	8.44	0.190	0.195	0.0205	0.975	0.955
Aug	0.316	0.0355	0.0184	5.46	0.0452	4.69	0.111	0.118	0.0182	0.570	0.127
Sept	0.189	0.0213	0.0444	3.25	0.0658	2.85	0.0657	0.0749	0.0134	0.332	0.292
Oct	0.281	0.0635	0.168	4.00	0.187	3.61	0.0890	0.0890	0.0149	0.412	0.524
Nov	0.532	0.0964	0.272	8.28	0.155	7.24	0.151	0.157	<0.01	0.818	0.597
Dec	0.123	0.0395	0.0547	1.59	0.0722	1.39	0.0317	0.0378	<0.01	0.156	0.122
Annual	3.83	1.18	2.00	50.7	1.94	44.8	1.06	1.23	0.290	5.23	5.72

Data completeness

2018	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	61.3	61.3	61.3	61.3	61.3	61.3	61.3	61.3	61.3	61.3	61.3	61.3	61.3	93.5
Apr	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	98.1	98.1	98.1	100
May	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	98.6	98.6	98.6	100
June	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	96.8	96.8	96.8	100
July	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.2	99.2	99.2	100
Aug	98.4	98.4	98.4	98.4	98.4	98.4	98.4	98.4	98.4	98.4	96.6	96.6	96.6	100
Sept	100	100	100	100	100	100	100	100	100	100	98.2	98.2	98.2	100
Oct	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	96.9	96.9	96.9	100
Nov	96.5	96.5	96.5	96.5	96.5	96.5	96.5	96.5	96.5	96.5	91.8	91.8	91.8	100
Dec	88.9	88.9	88.9	88.9	88.9	88.9	88.9	88.9	88.9	88.9	50.0	50.0	50.0	100
Annual	**82.5**	**82.5**	**82.5**	**82.5**	**82.5**	**82.5**	**82.5**	**82.5**	**82.5**	**82.5**	**80.8**	**80.8**	**80.8**	**99.5**

Terms and abbreviations are given in Table 3.5.

Table 3.33 Monthly results **Site: Tokyo** **Country: Japan**

Precipitation amount-weighted average concentration/ Precipitation amount

2018	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	8.73	7.69	15.8	21.1	36.5	17.2	0.396	3.84	3.47	2.16	3.65	5.44	0.824	43.5
Feb	10.6	9.19	18.2	25.6	27.2	23.6	0.853	4.69	4.18	2.94	7.86	5.10	1.24	60.0
Mar	9.19	7.61	13.4	30.7	21.3	26.2	0.857	2.40	1.84	3.07	10.1	5.00	1.15	151
Apr	11.2	8.84	10.4	44.1	19.0	38.3	0.975	3.72	2.89	4.76	5.80	5.24	1.26	97.0
May	9.30	8.73	14.8	11.2	17.9	9.43	<0.3	2.70	2.50	1.41	13.3	4.88	1.05	154
June	10.7	10.2	20.9	11.5	26.9	9.22	<0.3	2.77	2.57	1.45	16.2	4.79	1.29	142
July	7.79	5.74	7.37	38.6	14.0	34.0	0.667	3.48	2.75	4.11	7.33	5.13	1.13	101
Aug	14.7	10.1	19.9	88.2	33.1	76.0	1.71	6.50	4.86	8.88	11.5	4.94	2.29	79.1
Sept	11.7	8.21	15.5	65.4	18.9	57.1	1.30	3.27	2.04	6.50	14.7	4.83	1.87	349
Oct	16.1	13.7	24.8	44.6	34.5	39.3	0.837	6.03	5.18	5.45	12.3	4.91	1.76	31.7
Nov	10.6	9.85	20.9	14.6	23.6	12.8	0.305	4.14	3.86	1.91	13.5	4.87	1.24	50.2
Dec	5.22	4.40	10.1	14.8	16.7	13.5	0.339	2.77	2.48	1.82	5.55	5.26	0.745	38.8
Annual	10.6	8.51	15.4	39.7	21.7	34.5	0.842	3.46	2.72	4.15	11.8	4.93	1.43	1296
Max.	90.8	77.1	141	568	163	503	10.1	33.9	30.8	54.0	85.1	6.00	8.19	
Min.	1.10	1.06	1.30	0.700	5.10	0.500	<0.3	0.300	0.287	<0.3	1.00	4.07	0.320	

Wet deposition amount

2018	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	0.380	0.335	0.686	0.919	1.59	0.748	0.0172	0.167	0.151	0.0938	0.159
Feb	0.637	0.552	1.09	1.53	1.63	1.42	0.0512	0.282	0.251	0.177	0.472
Mar	1.38	1.15	2.02	4.62	3.21	3.94	0.129	0.362	0.277	0.462	1.51
Apr	1.08	0.858	1.01	4.28	1.84	3.71	0.0946	0.361	0.281	0.462	0.563
May	1.43	1.34	2.28	1.72	2.75	1.45	0.0378	0.416	0.385	0.217	2.04
June	1.52	1.44	2.96	1.63	3.81	1.31	0.0419	0.392	0.364	0.205	2.29
July	0.786	0.580	0.744	3.90	1.42	3.43	0.0674	0.352	0.277	0.416	0.741
Aug	1.16	0.800	1.57	6.98	2.62	6.01	0.136	0.515	0.385	0.703	0.911
Sept	4.06	2.86	5.40	22.8	6.60	19.9	0.453	1.14	0.711	2.27	5.12
Oct	0.511	0.436	0.787	1.42	1.09	1.25	0.0266	0.191	0.164	0.173	0.389
Nov	0.533	0.495	1.05	0.734	1.19	0.644	0.0153	0.208	0.194	0.0958	0.678
Dec	0.202	0.171	0.393	0.574	0.646	0.525	0.0131	0.107	0.0960	0.0706	0.215
Annual	13.7	11.0	20.0	51.5	28.1	44.7	1.09	4.49	3.52	5.38	15.3

Data completeness

2018	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	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	52.9	52.9	52.9	100
Feb	100	100	100	100	100	100	100	100	100	100	100	100	100	96.4
Mar	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.3	99.3	99.3	100
Apr	100	100	100	100	100	100	100	100	100	100	100	100	100	100
May	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	100
June	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.3	99.3	99.3	100
July	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Aug	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	98.6	98.6	98.6	100
Sept	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
Oct	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	96.1	96.1	96.1	100
Nov	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	96.3	96.3	96.3	100
Dec	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	95.4	95.4	95.4	100
Annual	**98.2**	**98.2**	**98.2**	**98.2**	**98.2**	**98.2**	**98.2**	**98.2**	**98.2**	**98.2**	**97.7**	**97.7**	**97.7**	**99.7**

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

2018	SO_4^{2-} µmol L^{-1}	nss-SO_4^{2-} µmol L^{-1}	NO_3^- µmol L^{-1}	Cl^- µmol L^{-1}	NH_4^+ µmol L^{-1}	Na^+ µmol L^{-1}	K^+ µmol L^{-1}	Ca^{2+} µmol L^{-1}	nss-Ca^{2+} µmol L^{-1}	Mg^{2+} µmol L^{-1}	H^+ µmol L^{-1}	pH	EC mS m^{-1}	Precip. mm $month^{-1}$ or mm $year^{-1}$
Jan	**	**	**	**	**	**	**	**	**	**	**	**	**	**
Feb	**	**	**	**	**	**	**	**	**	**	**	**	**	**
Mar	**	**	**	**	**	**	**	**	**	**	**	**	**	**
Apr	**	**	**	**	**	**	**	**	**	**	**	**	**	**
May	**	**	**	**	**	**	**	**	**	**	**	**	**	**
June	**	**	**	**	**	**	**	**	**	**	**	**	**	**
July	**	**	**	**	**	**	**	**	**	**	**	**	**	**
Aug	**	**	**	**	**	**	**	**	**	**	**	**	**	**
Sept	**	**	**	**	**	**	**	**	**	**	**	**	**	**
Oct	**	**	**	**	**	**	**	**	**	**	**	**	**	**
Nov	**	**	**	**	**	**	**	**	**	**	**	**	**	**
Dec	**	**	**	**	**	**	**	**	**	**	**	**	**	**
Annual	**	**	**	**	**	**	**	**	**	**	**	**	**	**
Max.	**	**	**	**	**	**	**	**	**	**	**	**	**	
Min.	**	**	**	**	**	**	**	**	**	**	**	**	**	

Wet deposition amount

2018	SO_4^{2-} mmol m^{-2}	nss-SO_4^{2-} mmol m^{-2}	NO_3^- mmol m^{-2}	Cl^- mmol m^{-2}	NH_4^+ mmol m^{-2}	Na^+ mmol m^{-2}	K^+ mmol m^{-2}	Ca^{2+} mmol m^{-2}	nss-Ca^{2+} mmol m^{-2}	Mg^{2+} mmol m^{-2}	H^+ mmol m^{-2}
Jan	**	**	**	**	**	**	**	**	**	**	**
Feb	**	**	**	**	**	**	**	**	**	**	**
Mar	**	**	**	**	**	**	**	**	**	**	**
Apr	**	**	**	**	**	**	**	**	**	**	**
May	**	**	**	**	**	**	**	**	**	**	**
June	**	**	**	**	**	**	**	**	**	**	**
July	**	**	**	**	**	**	**	**	**	**	**
Aug	**	**	**	**	**	**	**	**	**	**	**
Sept	**	**	**	**	**	**	**	**	**	**	**
Oct	**	**	**	**	**	**	**	**	**	**	**
Nov	**	**	**	**	**	**	**	**	**	**	**
Dec	**	**	**	**	**	**	**	**	**	**	**
Annual	**	**	**	**	**	**	**	**	**	**	**

Data completeness

2018	SO_4^{2-} %TP	nss-SO_4^{2-} %TP	NO_3^- %TP	Cl^- %TP	NH_4^+ %TP	Na^+ %TP	K^+ %TP	Ca^{2+} %TP	nss-Ca^{2+} %TP	Mg^{2+} %TP	H^+ %TP	pH %TP	EC %TP	Precip. %PCL
Jan	**	**	**	**	**	**	**	**	**	**	**	**	**	0
Feb	**	**	**	**	**	**	**	**	**	**	**	**	**	0
Mar	**	**	**	**	**	**	**	**	**	**	**	**	**	0
Apr	**	**	**	**	**	**	**	**	**	**	**	**	**	0
May	**	**	**	**	**	**	**	**	**	**	**	**	**	0
June	**	**	**	**	**	**	**	**	**	**	**	**	**	0
July	**	**	**	**	**	**	**	**	**	**	**	**	**	0
Aug	**	**	**	**	**	**	**	**	**	**	**	**	**	0
Sept	**	**	**	**	**	**	**	**	**	**	**	**	**	0
Oct	**	**	**	**	**	**	**	**	**	**	**	**	**	0
Nov	**	**	**	**	**	**	**	**	**	**	**	**	**	0
Dec	**	**	**	**	**	**	**	**	**	**	**	**	**	0
Annual	**	**	**	**	**	**	**	**	**	**	**	**	**	**0**

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

2018	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	6.12	5.90	25.4	6.99	14.5	3.65	1.46	5.24	5.16	0.771	21.6	4.67	1.40	218
Feb	15.9	15.6	34.6	9.16	24.5	4.89	1.68	6.69	6.59	0.916	30.8	4.51	2.11	297
Mar	24.4	23.9	59.9	12.9	30.1	8.39	2.84	14.2	14.0	1.61	39.6	4.40	3.12	510
Apr	20.1	19.8	53.7	10.8	30.9	5.15	1.65	7.41	7.30	0.967	42.2	4.37	2.78	293
May	12.4	12.1	36.4	7.09	21.2	4.61	2.84	5.36	5.26	<0.3	32.4	4.49	2.15	527
June	10.6	10.2	18.7	10.5	11.2	5.40	2.39	4.44	4.33	0.574	22.6	4.65	1.48	363
July	17.5	17.0	25.5	14.0	16.0	8.02	2.34	10.3	10.1	1.15	25.5	4.59	1.96	105
Aug	20.7	20.2	36.4	12.1	24.6	8.15	1.87	10.3	10.1	1.65	24.5	4.61	2.08	144
Sept	22.3	22.0	42.9	13.2	18.6	6.36	2.29	10.9	10.8	1.84	47.0	4.33	3.05	217
Oct	16.3	16.1	32.9	7.01	15.0	2.43	1.00	4.77	4.71	<0.3	36.9	4.43	2.23	356
Nov	13.2	12.9	31.8	9.81	11.1	5.72	0.951	4.70	4.58	0.504	34.1	4.47	2.13	500
Dec	11.2	11.0	25.3	9.22	17.8	3.45	1.31	4.05	3.98	<0.3	16.0	4.80	1.33	319
Annual	15.5	15.2	36.4	9.75	19.8	5.33	1.90	6.96	6.84	0.724	31.6	4.50	2.17	3848
Max.	67.7	66.4	117	32.0	62.6	22.4	5.40	35.2	34.7	6.39	102	5.14	6.96	
Min.	3.50	3.37	9.27	3.00	<0.8	1.48	0.550	1.22	1.16	<0.3	7.24	3.99	0.790	

Wet deposition amount

2018	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	1.33	1.29	5.53	1.52	3.15	0.795	0.317	1.14	1.12	0.168	4.71
Feb	4.72	4.64	10.3	2.72	7.26	1.45	0.499	1.99	1.95	0.272	9.14
Mar	12.4	12.2	30.5	6.56	15.3	4.28	1.45	7.22	7.13	0.822	20.2
Apr	5.88	5.78	15.7	3.16	9.06	1.51	0.482	2.17	2.14	0.283	12.3
May	6.53	6.38	19.2	3.74	11.2	2.43	1.50	2.83	2.77	0.0418	17.1
June	3.83	3.71	6.77	3.80	4.05	1.96	0.869	1.61	1.57	0.208	8.20
July	1.84	1.79	2.69	1.48	1.69	0.845	0.247	1.08	1.06	0.121	2.69
Aug	2.98	2.91	5.23	1.73	3.54	1.17	0.268	1.48	1.46	0.238	3.53
Sept	4.84	4.76	9.28	2.85	4.02	1.38	0.495	2.36	2.33	0.398	10.2
Oct	5.79	5.74	11.7	2.49	5.34	0.863	0.357	1.70	1.68	0.0753	13.1
Nov	6.63	6.46	15.9	4.91	5.56	2.86	0.476	2.35	2.29	0.252	17.0
Dec	3.58	3.51	8.07	2.95	5.68	1.10	0.420	1.29	1.27	0.0332	5.10
Annual	59.6	58.4	140	37.5	76.0	20.5	7.33	26.8	26.3	2.79	122

Data completeness

2018	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	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	100
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	48.6	48.6	48.6	48.6	48.6	48.6	48.6	48.6	48.6	48.6	48.6	48.6	48.6	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	**97.1**	**97.1**	**97.1**	**97.1**	**97.1**	**97.1**	**97.1**	**97.1**	**97.1**	**97.1**	**97.1**	**97.1**	**97.1**	**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

2018	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	1.96	1.86	1.55	2.74	<0.8	1.61	1.70	1.63	1.59	<0.3	11.5	4.94	0.614	303
Feb	6.28	6.02	13.2	5.04	6.76	4.24	1.32	3.13	3.04	0.649	15.1	4.82	0.937	78.6
Mar	5.52	5.28	13.5	4.63	6.16	3.83	1.65	3.01	2.93	<0.3	15.1	4.82	1.04	285
Apr	4.24	4.05	3.32	4.45	<0.8	3.21	1.26	2.55	2.48	<0.3	33.0	4.48	1.55	133
May	3.56	3.33	8.27	3.57	3.75	3.78	2.67	2.65	2.58	0.366	14.1	4.85	0.805	203
June	2.82	2.66	1.64	6.35	<0.8	2.65	1.44	2.97	2.92	<0.3	7.99	5.10	0.510	269
July	9.38	9.26	15.5	4.79	5.01	2.06	1.27	4.77	4.72	0.395	21.2	4.67	1.38	117
Aug	8.66	8.44	14.5	6.29	5.98	3.62	1.75	8.60	8.52	0.894	12.3	4.91	1.07	148
Sept	7.41	7.27	7.26	3.04	0.987	2.41	0.775	4.37	4.32	0.475	17.2	4.76	1.02	289
Oct	3.77	3.68	<0.5	3.43	<0.8	1.58	0.696	1.15	1.12	<0.3	13.2	4.88	0.714	275
Nov	1.20	1.13	2.28	4.14	<0.8	1.29	0.517	0.398	0.388	<0.3	8.61	5.06	0.426	233
Dec	1.64	1.55	2.19	3.04	<0.8	1.61	1.48	1.39	1.36	<0.3	10.8	4.97	0.566	273
Annual	4.23	4.08	5.83	4.09	2.04	2.48	1.36	2.76	2.71	<0.3	13.7	4.86	0.808	2607
Max.	21.8	21.2	47.5	15.9	23.2	11.3	5.08	24.7	24.5	2.72	44.7	5.36	1.98	
Min.	<0.3	<0.3	<0.5	1.35	<0.8	0.470	<0.3	<0.2	<0.2	<0.3	4.37	4.35	0.250	

Wet deposition amount

2018	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	0.592	0.563	0.468	0.828	0.213	0.486	0.515	0.493	0.482	0.0448	3.48
Feb	0.493	0.473	1.04	0.396	0.531	0.333	0.104	0.246	0.239	0.0510	1.19
Mar	1.57	1.51	3.84	1.32	1.76	1.09	0.471	0.859	0.835	0.0689	4.31
Apr	0.564	0.538	0.441	0.591	<0.01	0.426	0.167	0.339	0.330	0.0390	4.38
May	0.722	0.676	1.68	0.725	0.761	0.767	0.542	0.538	0.523	0.0742	2.87
June	0.760	0.717	0.441	1.71	0.0193	0.714	0.387	0.801	0.785	0.0786	2.15
July	1.09	1.08	1.81	0.559	0.584	0.241	0.149	0.556	0.551	0.0461	2.48
Aug	1.29	1.25	2.15	0.934	0.887	0.537	0.260	1.28	1.26	0.133	1.82
Sept	2.14	2.10	2.10	0.877	0.285	0.697	0.224	1.26	1.25	0.137	4.98
Oct	1.04	1.01	<0.01	0.946	0.209	0.435	0.192	0.316	0.308	<0.01	3.63
Nov	0.280	0.262	0.531	0.965	<0.01	0.301	0.120	0.0927	0.0904	<0.01	2.01
Dec	0.449	0.423	0.598	0.830	<0.01	0.440	0.403	0.381	0.372	<0.01	2.95
Annual	11.0	10.6	15.2	10.7	5.33	6.46	3.54	7.19	7.05	0.673	35.7

Data completeness

2018	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	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	100
Mar	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Apr	75.9	75.9	75.9	75.9	75.9	75.9	75.9	75.9	75.9	75.9	75.9	75.9	75.9	100
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	99.9	99.9	99.9	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	96.5	96.5	96.5	96.5	96.5	96.5	96.5	96.5	96.5	96.5	96.5	96.5	96.5	100
Dec	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Annual	**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**

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

2018	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	2.07	1.71	<0.5	6.45	<0.8	6.00	2.06	0.817	0.689	0.459	6.66	5.18	0.400	344
Feb	4.80	3.82	1.32	21.3	<0.8	16.3	1.60	2.34	1.99	1.51	8.03	5.10	0.775	28.9
Mar	4.53	3.91	<0.5	13.1	0.980	10.2	1.92	2.08	1.86	1.49	5.37	5.27	0.530	147
Apr	4.30	3.96	1.65	8.87	<0.8	5.56	1.29	1.52	1.40	2.20	6.09	5.22	0.530	166
May	*	*	*	*	*	*	*	*	*	*	*	*	*	244
June	4.32	4.10	1.93	9.44	7.07	4.19	2.48	2.81	2.72	1.70	5.24	5.28	0.553	147
July	4.85	4.67	3.00	5.45	6.24	2.98	3.44	3.61	3.55	1.46	3.47	5.46	0.442	147
Aug	3.54	3.34	1.47	5.09	3.39	3.19	5.09	4.36	4.29	2.11	5.37	5.27	0.496	217
Sept	2.60	2.46	<0.5	3.85	<0.8	2.28	3.25	3.75	3.70	1.49	3.14	5.50	0.306	215
Oct	*	*	*	*	*	*	*	*	*	*	*	*	*	315
Nov	2.38	2.06	2.18	9.06	<0.8	5.28	1.35	2.50	2.38	1.39	2.99	5.52	0.354	270
Dec	0.830	0.659	<0.5	4.39	<0.8	2.83	0.970	1.98	1.92	<0.3	2.82	5.55	0.280	248
Annual	3.22	2.91	0.945	7.29	1.75	5.16	2.64	2.52	2.41	1.30	4.97	5.30	0.433	2489
Max.	13.6	12.5	13.9	28.6	19.2	22.4	11.5	7.75	7.64	4.81	16.6	6.16	1.37	
Min.	<0.3	<0.3	<0.5	1.43	<0.8	0.670	0.320	<0.2	<0.2	<0.3	0.692	4.78	0.180	

Wet deposition amount

2018	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	0.712	0.588	0.0297	2.22	0.0924	2.06	0.707	0.281	0.237	0.158	2.29
Feb	0.139	0.110	0.0382	0.616	<0.01	0.470	0.0461	0.0676	0.0575	0.0436	0.232
Mar	0.665	0.575	<0.01	1.92	0.144	1.50	0.282	0.305	0.273	0.219	0.788
Apr	0.713	0.657	0.274	1.47	0.0818	0.921	0.213	0.252	0.232	0.365	1.01
May	*	*	*	*	*	*	*	*	*	*	*
June	0.635	0.603	0.283	1.39	1.04	0.616	0.365	0.413	0.400	0.249	0.770
July	0.712	0.685	0.440	0.799	0.916	0.438	0.505	0.530	0.520	0.214	0.508
Aug	0.768	0.726	0.319	1.11	0.736	0.693	1.10	0.947	0.932	0.458	1.16
Sept	0.560	0.531	<0.01	0.830	<0.01	0.492	0.699	0.807	0.796	0.322	0.677
Oct	*	*	*	*	*	*	*	*	*	*	*
Nov	0.642	0.556	0.589	2.44	0.0918	1.42	0.365	0.673	0.643	0.375	0.805
Dec	0.206	0.164	<0.01	1.09	<0.01	0.702	0.241	0.491	0.476	<0.01	0.699
Annual	8.01	7.24	2.35	18.1	4.34	12.8	6.58	6.27	5.99	3.25	12.4

Data completeness

2018	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	43.5	43.5	43.5	43.5	43.5	43.5	43.5	43.5	43.5	43.5	43.5	43.5	43.5	100
May	0	0	0	0	0	0	0	0	0	0	0	0	0	100
June	52.0	52.0	52.0	52.0	52.0	52.0	52.0	52.0	52.0	52.0	52.0	52.0	52.0	100
July	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Aug	75.2	75.2	75.2	75.2	75.2	75.2	75.2	75.2	75.2	75.2	75.2	75.2	75.2	100
Sept	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
Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	100
Nov	41.8	41.8	41.8	41.8	41.8	41.8	41.8	41.8	41.8	41.8	41.8	41.8	41.8	100
Dec	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	100
Annual	**53.6**	**53.6**	**53.6**	**53.6**	**53.6**	**53.6**	**53.6**	**53.6**	**53.6**	**53.6**	**53.6**	**53.6**	**53.6**	**100**

Terms and abbreviations are given in Table 3.5.

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

Precipitation amount-weighted average concentration/ Precipitation amount

2018	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	2.15	1.84	1.97	6.21	2.18	5.28	1.26	2.47	2.35	<0.3	2.78	5.56	0.302	270
Feb	3.74	2.46	2.13	23.6	2.50	21.3	2.04	2.83	2.37	1.95	7.06	5.15	0.805	377
Mar	5.80	4.70	6.48	20.7	6.89	18.2	2.57	4.18	3.79	1.27	5.02	5.30	0.773	418
Apr	7.64	7.05	8.84	11.0	12.8	9.68	3.08	2.39	2.18	0.434	5.22	5.28	0.612	386
May	2.24	2.05	9.38	5.54	1.52	3.20	1.09	4.10	4.03	0.357	11.2	4.95	0.692	206
June	4.25	4.11	6.31	4.53	5.76	2.40	0.948	3.34	3.29	<0.3	4.70	5.33	0.493	309
July	2.37	2.14	4.43	8.67	8.59	3.91	1.34	3.57	3.49	<0.3	2.47	5.61	0.448	210
Aug	8.11	7.39	10.2	15.1	15.7	11.9	2.74	8.29	8.03	1.34	5.10	5.29	1.03	143
Sept	5.70	5.36	7.83	6.99	5.59	5.62	1.08	3.55	3.42	0.417	8.39	5.08	0.705	235
Oct	5.74	5.40	2.96	7.50	8.01	5.62	1.09	8.09	7.97	<0.3	4.93	5.31	0.662	296
Nov	3.14	2.90	4.61	7.48	1.90	4.07	1.10	4.64	4.55	<0.3	6.60	5.18	0.525	480
Dec	3.19	2.86	4.26	7.92	3.54	5.48	1.04	4.55	4.43	0.326	4.15	5.38	0.467	474
Annual	4.28	3.76	5.25	10.9	5.24	8.49	1.54	4.28	4.10	0.607	5.62	5.25	0.612	3804
Max.	20.4	14.9	23.6	95.5	55.2	89.9	7.31	17.8	17.2	9.58	19.5	6.36	2.62	
Min.	<0.3	<0.3	<0.5	2.14	<0.8	0.650	<0.3	0.980	0.645	<0.3	0.437	4.71	0.180	

Wet deposition amount

2018	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	0.496	0.533	1.68	0.590	1.43	0.339	0.667	0.636	0.0461	0.750
Feb	1.41	0.925	0.802	8.87	0.942	8.01	0.770	1.06	0.891	0.735	2.66
Mar	2.43	1.97	2.71	8.65	2.88	7.61	1.07	1.75	1.58	0.531	2.10
Apr	2.95	2.72	3.41	4.24	4.93	3.74	1.19	0.922	0.842	0.168	2.01
May	0.462	0.422	1.93	1.14	0.313	0.659	0.224	0.844	0.830	0.0735	2.30
June	1.31	1.27	1.95	1.40	1.78	0.740	0.292	1.03	1.02	0.0533	1.45
July	0.499	0.449	0.933	1.83	1.81	0.823	0.283	0.751	0.733	0.0329	0.520
Aug	1.16	1.06	1.47	2.17	2.25	1.71	0.393	1.19	1.15	0.192	0.730
Sept	1.34	1.26	1.84	1.65	1.32	1.32	0.255	0.834	0.806	0.0980	1.97
Oct	1.70	1.60	0.876	2.22	2.37	1.66	0.321	2.39	2.36	0.0654	1.46
Nov	1.51	1.39	2.21	3.59	0.910	1.95	0.530	2.23	2.19	0.0898	3.17
Dec	1.51	1.35	2.02	3.75	1.68	2.60	0.491	2.16	2.10	0.154	1.96
Annual	16.3	14.3	20.0	41.3	19.9	32.3	5.84	16.3	15.6	2.31	21.4

Data completeness

2018	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	44.5	44.5	44.5	44.5	44.5	44.5	44.5	44.5	44.5	44.5	44.5	44.5	44.5	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	67.4	67.4	67.4	67.4	67.4	67.4	67.4	67.4	67.4	67.4	67.4	67.4	67.4	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	**92.6**	**92.6**	**92.6**	**92.6**	**92.6**	**92.6**	**92.6**	**92.6**	**92.6**	**92.6**	**92.6**	**92.6**	**92.6**	**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

2018	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	*	*	*	*	*	*	*	*	*	*	9.12	5.04	2.40	0.3
June	18.2	15.3	36.5	5.67	40.0	47.8	1.31	27.7	26.6	3.12	0.414	6.38	1.38	33.6
July	37.2	34.3	21.8	3.85	61.6	49.5	0.833	18.4	17.3	2.04	1.86	5.73	1.28	93.4
Aug	38.0	36.4	24.5	4.09	77.9	26.3	1.14	29.6	29.1	2.62	3.44	5.46	1.79	27.8
Sept	21.3	20.9	13.8	5.68	33.1	5.64	1.20	34.2	34.1	3.66	0.588	6.23	1.48	15.3
Oct	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Nov	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Dec	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Annual	32.1	29.6	24.4	4.41	57.4	41.5	1.01	23.5	22.6	2.50	1.73	5.76	1.40	170
Max.	206	188	229	42.9	119	300	11.0	270	269	26.3	9.12	6.66	7.52	
Min.	1.14	1.06	1.45	0.560	<0.8	0.435	<0.3	2.50	2.47	0.410	0.219	5.04	0.248	

Wet deposition amount

2018	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	*	*	*	*	*	*	*	*	*	*	<0.01
June	0.611	0.514	1.23	0.191	1.34	1.61	0.0442	0.930	0.896	0.105	0.0139
July	3.48	3.20	2.03	0.360	5.76	4.62	0.0779	1.72	1.62	0.191	0.173
Aug	1.06	1.01	0.682	0.114	2.17	0.731	0.0317	0.824	0.808	0.0729	0.0956
Sept	0.325	0.320	0.211	0.0869	0.506	0.0862	0.0183	0.524	0.522	0.0560	<0.01
Oct	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Nov	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	5.48	5.05	4.16	0.752	9.78	7.07	0.172	4.00	3.85	0.426	0.295

Data completeness

2018	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	0	0	0	0	0	0	0	0	0	0	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	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	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	**99.7**	**99.7**	**99.7**	**99.7**	**99.7**	**99.7**	**99.7**	**99.7**	**99.7**	**99.7**	**100**	**100**	**100**	**100**

Terms and abbreviations are given in Table 3.5.

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

Precipitation amount-weighted average concentration/ Precipitation amount

2018	SO_4^{2-} µmol L^{-1}	nss-SO_4^{2-} µmol L^{-1}	NO_3^- µmol L^{-1}	Cl^- µmol L^{-1}	NH_4^+ µmol L^{-1}	Na^+ µmol L^{-1}	K^+ µmol L^{-1}	Ca^{2+} µmol L^{-1}	nss-Ca^{2+} µmol L^{-1}	Mg^{2+} µmol L^{-1}	H^+ µmol L^{-1}	pH	EC mS m^{-1}	Precip. mm $month^{-1}$ or mm $year^{-1}$
Jan	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Feb	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Mar	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Apr	--	--	--	--	--	--	--	--	--	--	--	--	--	0
May	--	--	--	--	--	--	--	--	--	--	--	--	--	0
June	29.3	27.1	59.6	4.85	8.73	35.9	11.4	28.0	27.2	3.69	5.10	5.29	1.63	21.8
July	45.3	40.0	27.6	5.57	34.2	97.1	3.14	9.07	7.27	1.04	1.65	5.78	1.28	55.8
Aug	4.42	3.95	10.2	4.84	34.1	7.88	1.90	15.8	15.6	0.627	0.383	6.42	0.761	46.8
Sept	24.9	22.9	19.8	8.83	37.8	34.1	1.29	17.4	16.6	2.01	0.476	6.32	1.39	24.6
Oct	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Nov	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Dec	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Annual	26.7	23.9	25.5	5.77	31.0	49.5	3.65	15.3	14.4	1.46	1.56	5.81	1.19	149
Max.	207	188	164	36.1	130	305	44.9	93.3	93.2	12.3	8.32	6.81	4.92	
Min.	<0.3	<0.3	<0.5	<0.5	<0.8	0.900	<0.3	1.50	<0.2	<0.3	0.155	5.08	0.200	

Wet deposition amount

2018	SO_4^{2-} mmol m^{-2}	nss-SO_4^{2-} mmol m^{-2}	NO_3^- mmol m^{-2}	Cl^- mmol m^{-2}	NH_4^+ mmol m^{-2}	Na^+ mmol m^{-2}	K^+ mmol m^{-2}	Ca^{2+} mmol m^{-2}	nss-Ca^{2+} mmol m^{-2}	Mg^{2+} mmol m^{-2}	H^+ mmol m^{-2}
Jan	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Feb	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mar	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Apr	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
May	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
June	0.639	0.592	1.30	0.106	0.191	0.784	0.248	0.611	0.594	0.0805	0.111
July	2.53	2.23	1.54	0.311	1.91	5.42	0.175	0.506	0.405	0.0582	0.0919
Aug	0.207	0.185	0.479	0.226	1.60	0.369	0.0890	0.738	0.730	0.0293	0.0179
Sept	0.613	0.562	0.487	0.217	0.929	0.838	0.0317	0.427	0.409	0.0494	0.0117
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	3.98	3.56	3.81	0.860	4.62	7.38	0.544	2.29	2.14	0.218	0.233

Data completeness

2018	SO_4^{2-} %TP	nss-SO_4^{2-} %TP	NO_3^- %TP	Cl^- %TP	NH_4^+ %TP	Na^+ %TP	K^+ %TP	Ca^{2+} %TP	nss-Ca^{2+} %TP	Mg^{2+} %TP	H^+ %TP	pH %TP	EC %TP	Precip. %PCL
Jan	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Feb	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Mar	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Apr	--	--	--	--	--	--	--	--	--	--	--	--	--	100
May	--	--	--	--	--	--	--	--	--	--	--	--	--	100
June	100	100	100	100	100	100	100	100	100	100	100	100	100	100
July	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	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	**99.6**	**99.6**	**99.6**	**99.6**	**99.6**	**99.6**	**99.6**	**99.6**	**99.6**	**99.6**	**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

2018	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	34.3	32.9	82.6	40.7	73.9	23.0	17.7	64.8	64.3	14.7	0.176	6.75	2.24	35.3
May	8.00	6.68	24.1	22.9	22.5	22.0	6.11	21.7	21.2	5.59	0.220	6.66	0.560	248
June	6.67	4.95	5.37	26.7	14.5	28.6	2.88	14.5	13.9	5.94	0.289	6.54	0.522	553
July	8.19	6.66	7.63	24.3	15.0	25.4	2.63	17.9	17.3	4.62	0.299	6.52	0.835	813
Aug	6.57	5.20	5.66	21.5	13.2	22.7	2.59	14.8	14.3	3.83	0.200	6.70	0.394	499
Sept	6.29	5.35	11.1	16.3	20.4	15.5	2.61	12.4	12.0	4.38	0.330	6.48	0.477	453
Oct	6.39	5.88	9.31	10.4	16.8	8.48	6.40	11.8	11.6	1.99	0.174	6.76	0.284	210
Nov	27.5	26.8	2.37	15.3	86.6	10.5	36.8	22.7	22.5	4.77	0.208	6.68	2.10	73.4
Dec	13.7	13.0	23.8	20.0	58.7	12.0	8.77	26.6	26.3	4.81	0.209	6.68	1.50	54.2
Annual	8.09	6.77	9.98	21.8	19.5	21.9	4.38	16.6	16.1	4.72	0.264	6.58	0.644	2940
Max.	101	100	133	53.4	179	46.4	39.0	69.0	68.5	16.5	0.813	7.30	5.29	
Min.	2.99	2.41	2.06	9.00	9.65	7.13	1.79	5.01	4.80	1.40	0.0501	6.09	0.183	

Wet deposition amount

2018	SO_4^{2-} mmol m^{-2}	nss-SO_4^{2-} mmol m^{-2}	NO_3^- mmol m^{-2}	Cl^- mmol m^{-2}	NH_4^+ mmol m^{-2}	Na^+ mmol m^{-2}	K^+ mmol m^{-2}	Ca^{2+} mmol m^{-2}	nss-Ca^{2+} mmol m^{-2}	Mg^{2+} mmol m^{-2}	H^+ mmol m^{-2}
Jan	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Feb	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mar	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Apr	1.21	1.16	2.91	1.44	2.61	0.811	0.623	2.29	2.27	0.518	<0.01
May	1.98	1.66	5.98	5.68	5.57	5.45	1.52	5.39	5.27	1.39	0.0546
June	3.69	2.74	2.97	14.7	8.04	15.8	1.59	8.01	7.67	3.28	0.160
July	6.66	5.41	6.20	19.8	12.2	20.6	2.14	14.5	14.1	3.76	0.243
Aug	3.28	2.60	2.82	10.7	6.59	11.3	1.29	7.38	7.14	1.91	0.0999
Sept	2.85	2.42	5.02	7.37	9.26	7.03	1.18	5.61	5.46	1.98	0.150
Oct	1.35	1.24	1.96	2.18	3.54	1.78	1.35	2.49	2.45	0.419	0.0366
Nov	2.02	1.97	0.174	1.13	6.36	0.773	2.70	1.67	1.65	0.350	0.0153
Dec	0.743	0.704	1.29	1.08	3.18	0.649	0.476	1.44	1.43	0.261	0.0113
Annual	23.8	19.9	29.3	64.1	57.4	64.3	12.9	48.8	47.4	13.9	0.777

Data completeness

2018	SO_4^{2-} %TP	nss-SO_4^{2-} %TP	NO_3^- %TP	Cl^- %TP	NH_4^+ %TP	Na^+ %TP	K^+ %TP	Ca^{2+} %TP	nss-Ca^{2+} %TP	Mg^{2+} %TP	H^+ %TP	pH %TP	EC %TP	Precip. %PCL
Jan	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Feb	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Mar	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Apr	100	100	100	100	100	100	100	100	100	100	100	100	100	100
May	100	100	100	100	100	100	100	100	100	100	100	100	100	100
June	100	100	100	100	100	100	100	100	100	100	100	100	100	100
July	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Aug	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Sept	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Oct	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Nov	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Dec	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Annual	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Terms and abbreviations are given in Table 3.5.

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

Precipitation amount-weighted average concentration/ Precipitation amount

2018	SO_4^{2-} µmol L^{-1}	nss-SO_4^{2-} µmol L^{-1}	NO_3^- µmol L^{-1}	Cl^- µmol L^{-1}	NH_4^+ µmol L^{-1}	Na^+ µmol L^{-1}	K^+ µmol L^{-1}	Ca^{2+} µmol L^{-1}	nss-Ca^{2+} µmol L^{-1}	Mg^{2+} µmol L^{-1}	H^+ µmol L^{-1}	pH	EC mS m^{-1}	Precip. mm $month^{-1}$ or mm $year^{-1}$
Jan														
Feb														
Mar														
Apr														
May														
June														
July														
Aug														
Sept														
Oct														
Nov														
Dec														
Annual														
Max.														
Min.														

The data have not been submitted yet.

Wet deposition

2018	SO_4^{2-} mmol m^{-2}	ns mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}
Jan											
Feb											
Mar											
Apr											
May											
June											
July											
Aug											
Sept											
Oct											
Nov											
Dec											
Annual											

Data completeness

2018	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														
Feb														
Mar														
Apr														
May														
June														
July														
Aug														
Sept														
Oct														
Nov														
Dec														
Annual														

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

2018	SO_4^{2-} µmol L^{-1}	nss-SO_4^{2-} µmol L^{-1}	NO_3^- µmol L^{-1}	Cl^- µmol L^{-1}	NH_4^+ µmol L^{-1}	Na^+ µmol L^{-1}	K^+ µmol L^{-1}	Ca^{2+} µmol L^{-1}	nss-Ca^{2+} µmol L^{-1}	Mg^{2+} µmol L^{-1}	H^+ µmol L^{-1}	pH	EC mS m^{-1}	Precip. mm $month^{-1}$ or mm $year^{-1}$
Jan														
Feb														
Mar														
Apr														
May														
June														
July														
Aug														
Sept														
Oct														
Nov														
Dec														
Annual														
Max.														
Min.														

The data have not been submitted yet.

Wet deposition

2018	SO_4^{2-} mmol m^{-2}	n	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}
Jan												
Feb												
Mar												
Apr												
May												
June												
July												
Aug												
Sept												
Oct												
Nov												
Dec												
Annual												

Data completeness

2018	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														
Feb														
Mar														
Apr														
May														
June														
July														
Aug														
Sept														
Oct														
Nov														
Dec														
Annual														

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

2018	SO_4^{2-} µmol L^{-1}	nss-SO_4^{2-} µmol L^{-1}	NO_3^- µmol L^{-1}	Cl^- µmol L^{-1}	NH_4^+ µmol L^{-1}	Na^+ µmol L^{-1}	K^+ µmol L^{-1}	Ca^{2+} µmol L^{-1}	nss-Ca^{2+} µmol L^{-1}	Mg^{2+} µmol L^{-1}	H^+ µmol L^{-1}	pH	EC mS m^{-1}	Precip. mm $month^{-1}$ or mm $year^{-1}$
Jan														
Feb														
Mar														
Apr														
May														
June														
July														
Aug														
Sept														
Oct														
Nov														
Dec														
Annual														
Max.														
Min.														

The data have not been submitted yet.

Wet deposition

2018	SO_4^{2-} mmol m^{-2}	n	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}
Jan											
Feb											
Mar											
Apr											
May											
June											
July											
Aug											
Sept											
Oct											
Nov											
Dec											
Annual											

Data completeness

2018	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														
Feb														
Mar														
Apr														
May														
June														
July														
Aug														
Sept														
Oct														
Nov														
Dec														
Annual														

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

2018	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	58.2	54.1	188	73.6	172	66.6	8.15	36.2	34.8	11.2	25.1	4.60	5.70	3.5
Feb	33.7	30.1	44.4	73.7	63.9	60.4	4.16	10.6	9.29	5.03	2.03	5.69	2.46	13.5
Mar	14.3	12.3	28.2	47.9	56.9	33.2	<0.3	2.95	2.23	<0.3	6.64	5.18	1.77	20.0
Apr	8.49	7.23	14.3	42.9	21.7	20.9	10.6	1.64	1.18	0.652	7.82	5.11	1.21	79.5
May	30.1	28.3	65.7	37.5	99.7	29.4	4.36	4.17	3.53	1.38	28.5	4.55	2.92	101
June	23.3	22.2	54.9	47.1	114	18.9	21.1	2.35	1.94	0.638	4.12	5.39	2.23	7.5
July	9.95	8.08	13.7	32.1	20.6	31.1	1.07	0.749	<0.2	<0.3	7.02	5.15	1.12	145
Aug	3.99	2.64	6.02	37.4	4.15	22.4	4.82	2.36	1.89	<0.3	9.14	5.04	0.799	152
Sept	6.54	5.60	19.1	24.9	20.4	15.6	3.45	2.04	1.70	0.620	9.18	5.04	0.918	16.5
Oct	15.8	13.3	35.2	55.8	48.8	41.6	4.46	2.93	2.04	1.20	17.3	4.76	2.13	39.5
Nov	21.5	18.0	59.5	80.4	48.4	57.8	11.4	8.74	7.70	4.59	25.1	4.60	3.05	42.5
Dec	53.8	51.0	106	57.7	141	46.3	1.26	16.3	15.3	6.43	25.1	4.60	5.20	7.5
Annual	14.2	12.4	28.6	42.3	38.6	30.4	5.01	3.20	2.56	1.09	13.2	4.88	1.67	628
Max.	110	96.4	339	391	228	339	114	77.9	70.6	47.4	79.4	6.40	13.9	
Min.	2.63	1.97	5.61	14.9	<0.8	11.0	<0.3	0.362	<0.2	<0.3	0.398	4.10	0.400	

Wet deposition amount

2018	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	0.204	0.189	0.658	0.258	0.601	0.233	0.0285	0.127	0.122	0.0393	0.0879
Feb	0.455	0.406	0.600	0.995	0.862	0.815	0.0561	0.143	0.125	0.0678	0.0274
Mar	0.286	0.246	0.565	0.959	1.14	0.663	<0.01	0.0590	0.0447	<0.01	0.133
Apr	0.675	0.575	1.14	3.41	1.73	1.66	0.842	0.130	0.0942	0.0518	0.621
May	3.04	2.86	6.63	3.79	10.1	2.97	0.440	0.421	0.357	0.139	2.87
June	0.175	0.167	0.412	0.353	0.859	0.142	0.158	0.0176	0.0145	<0.01	0.0309
July	1.44	1.17	1.97	4.64	2.98	4.49	0.155	0.108	0.0137	0.0346	1.01
Aug	0.607	0.401	0.916	5.68	0.630	3.41	0.733	0.359	0.288	0.0409	1.39
Sept	0.108	0.0924	0.316	0.410	0.337	0.257	0.0570	0.0336	0.0281	0.0102	0.151
Oct	0.626	0.527	1.39	2.21	1.93	1.64	0.176	0.116	0.0804	0.0475	0.684
Nov	0.912	0.764	2.53	3.42	2.06	2.46	0.485	0.372	0.327	0.195	1.07
Dec	0.404	0.383	0.797	0.433	1.06	0.347	<0.01	0.123	0.115	0.0482	0.188
Annual	8.93	7.77	17.9	26.6	24.2	19.1	3.14	2.01	1.61	0.683	8.27

Data completeness

2018	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 3.46 Monthly results **Site: Cheju** **Country: R of Korea**

Precipitation amount-weighted average concentration/ Precipitation amount

2018	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	51.3	11.3	25.6	786	47.9	663	21.1	28.0	13.7	30.0	0.432	6.36	11.5	20.7
Feb	57.2	15.7	47.3	757	4.35	689	16.3	30.5	15.6	61.5	0.158	6.80	11.9	16.8
Mar	49.9	20.5	38.2	544	36.4	488	11.5	18.3	8.15	43.6	0.489	6.31	8.69	86.0
Apr	6.76	4.63	11.4	31.0	15.6	35.3	3.01	0.597	0.318	<0.3	0.200	6.70	0.825	55.9
May	18.6	15.7	37.2	36.2	41.2	47.7	1.97	3.41	2.59	1.23	3.11	5.51	1.63	118
June	14.3	8.96	24.9	90.1	39.8	87.7	1.74	1.51	<0.2	2.95	4.09	5.39	2.02	92.2
July	8.93	5.89	19.1	41.0	33.2	50.4	4.21	<0.2	<0.2	<0.3	3.77	5.42	1.25	40.4
Aug	27.0	2.54	4.51	469	11.7	406	9.56	9.46	0.684	26.3	0.398	6.40	6.90	36.9
Sept	8.68	4.80	15.2	73.3	38.4	64.3	1.84	1.22	0.561	0.503	0.748	6.13	1.68	179
Oct	25.8	1.64	5.67	456	8.83	401	8.67	5.66	<0.2	28.0	0.794	6.10	6.61	341
Nov	31.5	12.4	42.8	338	18.8	317	25.1	15.3	8.83	21.7	0.501	6.30	5.97	9.1
Dec	52.0	19.0	81.8	571	31.1	548	11.5	24.8	13.0	52.3	0.634	6.20	9.57	40.0
Annual	23.4	7.55	20.5	293	25.7	264	6.53	6.64	2.29	18.1	1.36	5.87	4.74	1035
Max.	95.8	44.1	204	1085	135	945	39.5	54.0	33.5	100	10.0	6.80	16.8	
Min.	4.22	0.884	3.55	19.6	2.25	26.0	0.583	<0.2	<0.2	<0.3	0.158	5.00	0.700	

Wet deposition amount

2018	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	1.06	0.235	0.529	16.3	0.991	13.7	0.437	0.579	0.283	0.622	<0.01
Feb	0.961	0.263	0.795	12.7	0.0731	11.6	0.274	0.513	0.263	1.03	<0.01
Mar	4.29	1.76	3.28	46.8	3.13	41.9	0.992	1.58	0.701	3.75	0.0421
Apr	0.378	0.259	0.639	1.73	0.871	1.97	0.168	0.0334	0.0178	<0.01	0.0112
May	2.20	1.86	4.39	4.27	4.85	5.62	0.232	0.402	0.306	0.146	0.366
June	1.31	0.827	2.30	8.31	3.67	8.09	0.161	0.139	0.0135	0.272	0.377
July	0.361	0.238	0.773	1.66	1.34	2.04	0.170	<0.01	<0.01	<0.01	0.152
Aug	0.997	0.0937	0.166	17.3	0.433	15.0	0.353	0.349	0.0252	0.971	0.0147
Sept	1.55	0.858	2.71	13.1	6.86	11.5	0.330	0.219	0.100	0.0900	0.134
Oct	8.80	0.557	1.93	155	3.01	137	2.95	1.93	0.0632	9.53	0.271
Nov	0.287	0.113	0.390	3.07	0.171	2.88	0.228	0.139	0.0803	0.197	<0.01
Dec	2.08	0.759	3.27	22.8	1.24	21.9	0.461	0.992	0.518	2.09	0.0254
Annual	24.3	7.82	21.2	303	26.6	273	6.76	6.87	2.37	18.7	1.41

Data completeness

2018	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

2018	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	46.2	37.6	87.5	137	101	143	4.93	13.3	10.2	8.10	4.37	5.36	4.29	35.0
Feb	26.2	20.5	38.4	84.3	39.3	95.3	3.61	14.4	12.3	6.64	0.570	6.24	2.65	19.5
Mar	10.5	9.02	14.8	13.6	18.3	24.9	0.979	<0.2	<0.2	<0.3	1.85	5.73	0.786	81.0
Apr	15.7	13.1	27.7	31.5	38.7	42.6	2.83	3.14	2.32	0.740	0.661	6.18	1.38	128
May	8.98	7.19	17.5	20.5	21.5	29.6	3.47	<0.2	<0.2	<0.3	7.46	5.13	0.999	91.4
June	6.95	4.44	19.3	23.3	14.3	43.2	4.45	0.203	<0.2	<0.3	2.33	5.63	0.938	190
July	6.07	5.09	7.76	18.7	28.9	16.2	0.651	<0.2	<0.2	<0.3	1.47	5.83	0.552	154
Aug	6.54	5.21	12.2	10.6	20.3	22.0	1.02	<0.2	<0.2	<0.3	0.660	6.18	0.605	296
Sept	7.01	5.24	23.8	13.6	14.8	29.4	1.12	4.05	3.63	<0.3	0.831	6.08	0.718	85.9
Oct	38.0	26.7	72.6	193	76.5	188	5.35	9.16	5.11	8.09	3.18	5.50	4.70	24.5
Nov	14.8	10.5	37.2	55.7	44.5	70.0	1.52	1.55	0.569	0.662	5.52	5.26	1.73	41.0
Dec	12.7	10.5	27.4	13.0	23.0	35.9	0.558	0.630	0.293	<0.3	0.971	6.01	0.983	24.0
Annual	10.6	8.33	21.1	27.6	26.8	38.5	2.18	1.64	1.17	0.648	2.00	5.70	1.07	1171
Max.	93.3	60.3	136	556	181	547	20.4	107	94.9	49.0	31.6	6.80	12.5	
Min.	1.89	<0.3	3.53	6.15	<0.8	10.3	0.445	<0.2	<0.2	<0.3	0.158	4.50	0.400	

Wet deposition amount

2018	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	1.62	1.32	3.06	4.80	3.54	4.99	0.173	0.466	0.358	0.284	0.153
Feb	0.511	0.399	0.750	1.64	0.767	1.86	0.0705	0.281	0.241	0.129	0.0111
Mar	0.852	0.731	1.20	1.10	1.48	2.02	0.0793	0.0130	<0.01	<0.01	0.150
Apr	2.01	1.68	3.54	4.03	4.96	5.45	0.362	0.402	0.297	0.0947	0.0846
May	0.821	0.657	1.60	1.87	1.97	2.71	0.317	0.0176	<0.01	<0.01	0.682
June	1.32	0.844	3.68	4.42	2.72	8.22	0.847	0.0387	<0.01	<0.01	0.444
July	0.932	0.782	1.19	2.87	4.43	2.49	0.100	0.0149	<0.01	<0.01	0.226
Aug	1.94	1.55	3.61	3.15	6.03	6.51	0.303	0.0373	<0.01	<0.01	0.196
Sept	0.602	0.450	2.05	1.17	1.27	2.52	0.0958	0.348	0.312	0.0134	0.0714
Oct	0.932	0.655	1.78	4.72	1.87	4.60	0.131	0.224	0.125	0.198	0.0780
Nov	0.605	0.432	1.52	2.28	1.82	2.87	0.0623	0.0637	0.0233	0.0271	0.226
Dec	0.304	0.252	0.658	0.312	0.552	0.862	0.0134	0.0151	<0.01	<0.01	0.0233
Annual	12.4	9.75	24.6	32.4	31.4	45.1	2.55	1.92	1.37	0.759	2.34

Data completeness

2018	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

2018	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	9.58	9.32	8.90	3.67	17.2	4.35	7.70	17.0	16.9	3.70	0.851	6.07	0.930	4.9
Apr	4.66	4.42	5.16	4.30	10.0	3.91	5.60	10.0	9.92	2.50	1.17	5.93	0.520	9.1
May	--	--	--	--	--	--	--	--	--	--	--	--	--	0
June	9.71	9.33	7.62	7.02	13.2	6.26	3.71	23.3	23.1	3.61	3.37	5.47	1.08	57.5
July	4.43	4.40	5.41	1.34	6.72	0.538	0.434	0.664	0.653	0.410	12.0	4.92	0.640	122
Aug	2.34	2.26	4.58	1.27	8.04	1.29	<0.3	1.32	1.29	0.410	4.38	5.36	0.345	144
Sept	1.43	1.24	2.61	2.38	4.70	3.06	2.51	3.33	3.26	0.719	2.44	5.61	0.313	12.6
Oct	2.91	2.63	2.75	3.15	3.31	4.56	3.45	7.26	7.16	1.57	1.31	5.88	0.408	7.0
Nov	3.64	3.33	3.87	1.13	7.20	5.22	2.05	12.0	11.9	1.64	0.708	6.15	0.490	4.9
Dec	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Annual	4.37	4.24	5.30	2.39	8.38	2.11	1.27	5.35	5.30	1.07	6.50	5.19	0.576	362
Max.	18.7	17.6	15.3	19.1	44.4	18.3	10.7	73.4	73.0	9.44	27.5	6.61	2.39	
Min.	0.657	0.631	1.11	<0.5	<0.8	0.430	<0.3	0.250	0.222	0.400	0.245	4.56	0.210	

Wet deposition amount

2018	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	0.0469	0.0456	0.0436	0.0180	0.0843	0.0213	0.0377	0.0833	0.0828	0.0181	<0.01
Apr	0.0424	0.0403	0.0470	0.0391	0.0910	0.0356	0.0510	0.0910	0.0902	0.0228	0.0107
May	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
June	0.558	0.537	0.438	0.404	0.761	0.360	0.213	1.34	1.33	0.208	0.194
July	0.542	0.538	0.661	0.164	0.822	0.0657	0.0531	0.0812	0.0798	0.0501	1.47
Aug	0.336	0.324	0.658	0.182	1.15	0.185	0.0405	0.189	0.185	0.0588	0.629
Sept	0.0180	0.0157	0.0328	0.0300	0.0593	0.0385	0.0316	0.0419	0.0411	<0.01	0.0308
Oct	0.0204	0.0184	0.0193	0.0220	0.0232	0.0319	0.0241	0.0508	0.0501	0.0110	<0.01
Nov	0.0179	0.0163	0.0190	<0.01	0.0353	0.0256	0.0100	0.0588	0.0582	<0.01	<0.01
Dec	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	1.58	1.54	1.92	0.864	3.03	0.764	0.461	1.94	1.92	0.386	2.35

Data completeness

2018	SO_4^{2-} %TP	nss-SO_4^{2-} %TP	NO_3^- %TP	Cl^- %TP	NH_4^+ %TP	Na^+ %TP	K^+ %TP	Ca^{2+} %TP	nss-Ca^{2+} %TP	Mg^{2+} %TP	H^+ %TP	pH %TP	EC %TP	Precip. %PCL
Jan	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Feb	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Mar	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Apr	100	100	100	100	100	100	100	100	100	100	100	100	100	100
May	--	--	--	--	--	--	--	--	--	--	--	--	--	100
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 3.49 Monthly results **Site: Listvyanka** **Country: Russia**

Precipitation amount-weighted average concentration/ Precipitation amount

2018	SO_4^{2-} µmol L^{-1}	nss-SO_4^{2-} µmol L^{-1}	NO_3^- µmol L^{-1}	Cl^- µmol L^{-1}	NH_4^+ µmol L^{-1}	Na^+ µmol L^{-1}	K^+ µmol L^{-1}	Ca^{2+} µmol L^{-1}	nss-Ca^{2+} µmol L^{-1}	Mg^{2+} µmol L^{-1}	H^+ µmol L^{-1}	pH	EC mS m^{-1}	Precip. mm $month^{-1}$ or mm $year^{-1}$
Jan	45.1	44.6	74.7	8.05	8.07	6.99	3.89	74.6	74.4	14.0	4.54	5.34	2.77	4.5
Feb	27.1	26.8	53.4	7.50	7.41	5.67	2.68	37.6	37.4	7.31	6.69	5.17	1.72	13.0
Mar	34.0	33.5	56.8	6.14	21.9	7.06	3.86	35.8	35.6	7.10	8.99	5.05	2.09	6.9
Apr	57.7	57.0	71.3	7.89	50.8	10.3	12.7	48.2	47.9	11.1	9.00	5.05	3.13	7.2
May	24.4	24.1	13.8	3.54	11.3	5.22	2.80	22.0	21.9	5.28	6.07	5.22	1.32	12.1
June	27.1	26.9	16.9	3.00	9.19	3.32	3.84	16.3	16.2	5.36	22.5	4.65	1.90	20.7
July	17.2	17.1	11.2	3.33	21.0	2.11	0.950	3.57	3.52	1.40	22.8	4.64	1.38	35.2
Aug	11.6	11.6	5.75	0.659	4.54	1.07	0.504	2.29	2.27	0.645	17.0	4.77	0.899	54.4
Sept	18.5	18.4	7.93	1.85	15.8	2.13	0.848	3.97	3.93	0.875	21.9	4.66	1.23	57.5
Oct	42.7	39.6	13.8	3.85	27.0	4.25	2.63	19.7	19.6	4.38	38.6	4.41	2.72	6.2
Nov	13.4	13.3	18.2	2.32	4.08	3.00	3.21	20.8	20.7	3.60	1.70	5.77	0.806	2.7
Dec	25.0	24.6	55.2	7.18	14.4	6.89	8.06	30.0	29.9	7.38	5.56	5.25	1.64	4.3
Annual	21.2	20.8	17.8	2.93	13.8	3.01	2.01	12.4	12.4	2.95	17.9	4.75	1.43	225
Max.	146	144	207	19.2	98.3	27.0	35.8	137	136	37.8	57.5	6.82	7.65	
Min.	4.45	4.42	1.61	<0.5	1.00	0.435	<0.3	0.250	0.241	0.410	0.151	4.24	0.540	

Wet deposition amount

2018	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	0.203	0.201	0.336	0.0362	0.0363	0.0314	0.0175	0.335	0.335	0.0628	0.0204
Feb	0.353	0.348	0.694	0.0976	0.0963	0.0737	0.0349	0.488	0.487	0.0950	0.0870
Mar	0.234	0.231	0.392	0.0424	0.151	0.0487	0.0266	0.247	0.246	0.0490	0.0620
Apr	0.415	0.411	0.513	0.0568	0.366	0.0743	0.0916	0.347	0.345	0.0797	0.0648
May	0.295	0.291	0.167	0.0428	0.137	0.0631	0.0339	0.266	0.265	0.0639	0.0734
June	0.561	0.557	0.350	0.0620	0.190	0.0687	0.0795	0.337	0.336	0.111	0.466
July	0.605	0.601	0.396	0.117	0.738	0.0744	0.0334	0.126	0.124	0.0493	0.804
Aug	0.632	0.629	0.313	0.0359	0.247	0.0584	0.0274	0.125	0.123	0.0351	0.924
Sept	1.06	1.06	0.456	0.106	0.906	0.122	0.0487	0.228	0.226	0.0503	1.26
Oct	0.265	0.245	0.0853	0.0239	0.168	0.0264	0.0163	0.122	0.121	0.0272	0.240
Nov	0.0363	0.0358	0.0492	<0.01	0.0110	<0.01	<0.01	0.0562	0.0560	<0.01	<0.01
Dec	0.108	0.106	0.237	0.0309	0.0621	0.0296	0.0347	0.129	0.128	0.0317	0.0239
Annual	4.77	4.68	3.99	0.658	3.11	0.677	0.452	2.80	2.78	0.663	4.03

Data completeness

2018	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	97.1	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	74.2	100	100	100	74.2	74.2	74.2	74.2	74.2	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**	**99.3**	**100**	**100**	**99.7**	**99.3**	**99.3**	**99.3**	**99.3**	**99.3**	**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

2018	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	46.0	44.7	35.2	26.5	29.1	21.4	5.14	114	114	12.4	0.268	6.57	3.92	13.0
Feb	78.0	76.7	35.3	26.2	22.2	21.0	6.10	149	149	14.6	0.136	6.87	4.78	15.1
Mar	75.3	71.9	40.0	59.2	34.9	56.9	5.16	91.6	90.3	13.8	1.33	5.88	4.15	14.5
Apr	46.7	45.5	26.1	23.6	40.6	21.1	3.63	56.5	56.0	9.61	1.30	5.89	2.72	19.7
May	42.3	41.8	17.8	11.1	40.9	8.48	5.21	33.8	33.6	7.92	8.70	5.06	2.34	24.1
June	60.6	60.0	30.6	12.3	44.8	9.76	6.24	48.3	48.1	16.6	19.4	4.71	3.21	20.6
July	18.7	18.6	11.0	4.08	24.7	1.42	1.18	7.27	7.24	3.31	15.1	4.82	1.40	84.8
Aug	18.5	18.4	3.80	1.12	8.51	1.68	0.408	5.40	5.36	1.13	20.1	4.70	1.16	144
Sept	28.3	28.2	6.11	2.69	13.5	1.97	1.69	9.18	9.14	2.76	24.3	4.61	1.61	48.3
Oct	23.7	23.3	9.33	5.48	13.9	6.14	5.80	26.6	26.5	4.60	4.24	5.37	1.33	36.5
Nov	60.7	57.5	20.2	55.0	35.5	53.1	27.2	71.7	70.5	16.4	0.210	6.68	3.54	9.7
Dec	52.4	50.2	31.0	40.3	45.0	38.0	6.39	67.8	67.0	12.2	0.413	6.38	2.97	11.9
Annual	31.1	30.6	13.2	10.0	21.0	8.80	3.06	27.8	27.6	5.32	14.0	4.86	1.90	442
Max.	399	388	117	220	267	224	166	579	575	101	91.2	8.43	22.4	
Min.	4.48	4.40	0.900	<0.5	2.39	0.435	<0.3	2.00	1.95	0.411	0.0037	4.04	0.490	

Wet deposition amount

2018	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	0.598	0.581	0.458	0.344	0.378	0.278	0.0669	1.49	1.48	0.161	<0.01
Feb	1.18	1.16	0.533	0.396	0.336	0.317	0.0921	2.26	2.25	0.221	<0.01
Mar	1.09	1.04	0.580	0.858	0.506	0.825	0.0748	1.33	1.31	0.200	0.0193
Apr	0.921	0.896	0.514	0.465	0.800	0.415	0.0716	1.11	1.10	0.189	0.0256
May	1.02	1.01	0.428	0.267	0.987	0.204	0.125	0.815	0.811	0.191	0.210
June	1.25	1.24	0.630	0.254	0.922	0.201	0.128	0.995	0.991	0.342	0.401
July	1.58	1.57	0.933	0.346	2.10	0.120	0.0998	0.616	0.614	0.281	1.28
Aug	2.66	2.64	0.546	0.160	1.22	0.242	0.0587	0.775	0.770	0.163	2.89
Sept	1.37	1.36	0.295	0.130	0.651	0.0953	0.0817	0.444	0.442	0.133	1.17
Oct	0.866	0.852	0.341	0.200	0.507	0.224	0.212	0.972	0.967	0.168	0.155
Nov	0.589	0.558	0.196	0.534	0.344	0.515	0.264	0.695	0.684	0.159	<0.01
Dec	0.624	0.597	0.369	0.480	0.535	0.452	0.0760	0.807	0.797	0.145	<0.01
Annual	13.7	13.5	5.82	4.43	9.29	3.89	1.35	12.3	12.2	2.35	6.17

Data completeness

2018	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	98.5	100	100	100	100	100	100	100	100	100
Feb	100	100	100	100	98.0	100	100	100	100	100	98.0	98.0	98.0	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	98.3	98.3	98.3	98.3	98.3	98.3	98.3	98.3	98.3	98.3	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	99.6	100	100	100	100	100	100	100	100	100
Sept	100	100	100	100	99.6	100	100	100	100	100	100	100	100	100
Oct	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Nov	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Dec	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Annual	**99.9**	**99.9**	**99.9**	**99.9**	**99.6**	**99.9**	**99.9**	**99.9**	**99.9**	**99.9**	**99.9**	**99.9**	**99.9**	**100**

Terms and abbreviations are given in Table 3.5.

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

Precipitation amount-weighted average concentration/ Precipitation amount

2018	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	48.0	45.5	31.2	35.2	44.1	41.2	22.1	20.1	19.2	14.2	0.846	6.07	2.25	6.5
Feb	127	123	51.2	54.2	84.6	75.6	39.9	71.2	69.6	27.5	0.597	6.22	4.84	4.3
Mar	43.6	42.1	36.1	13.0	34.1	25.4	14.1	20.1	19.5	11.0	1.23	5.91	1.86	85.2
Apr	89.2	86.5	61.3	49.8	78.2	43.5	13.5	25.0	24.1	61.3	0.613	6.21	4.14	30.1
May	31.3	29.8	22.8	20.1	29.0	24.9	10.8	14.4	13.9	7.96	1.42	5.85	1.49	137
June	73.5	71.4	35.7	49.2	119	34.7	15.5	25.6	24.9	14.3	0.651	6.19	3.36	57.7
July	28.1	26.7	25.7	14.9	31.6	24.6	10.2	9.75	9.22	6.97	0.908	6.04	1.40	112
Aug	15.5	14.7	22.0	16.6	22.0	13.3	5.37	9.65	9.37	5.30	2.05	5.69	1.02	309
Sept	23.1	22.0	21.1	22.9	25.0	17.9	4.59	14.0	13.7	7.27	0.909	6.04	1.22	113
Oct	27.5	26.3	28.9	22.6	24.1	21.3	5.07	20.2	19.7	9.68	1.87	5.73	1.52	111
Nov	40.3	37.9	31.0	31.9	37.1	40.3	11.7	17.7	16.9	11.9	2.52	5.60	1.95	42.5
Dec	36.8	35.1	15.2	40.6	47.7	27.4	7.90	19.5	18.9	9.50	1.05	5.98	1.85	14.7
Annual	29.9	28.6	26.4	21.5	33.0	21.9	8.36	14.7	14.2	9.23	1.49	5.83	1.53	1023
Max.	149	147	94.7	100	220	87.5	75.2	85.8	83.9	88.9	16.2	7.09	5.69	
Min.	5.40	5.03	5.60	5.90	2.80	4.80	1.30	3.20	2.04	<0.3	0.0813	4.79	0.360	

Wet deposition amount

2018	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	0.312	0.296	0.203	0.229	0.287	0.268	0.144	0.131	0.125	0.0923	<0.01
Feb	0.547	0.528	0.220	0.233	0.364	0.325	0.172	0.306	0.299	0.118	<0.01
Mar	3.72	3.59	3.08	1.11	2.90	2.16	1.20	1.71	1.66	0.940	0.105
Apr	2.68	2.60	1.85	1.50	2.35	1.31	0.406	0.752	0.724	1.85	0.0185
May	4.29	4.09	3.12	2.75	3.98	3.41	1.47	1.98	1.90	1.09	0.195
June	4.24	4.12	2.06	2.84	6.86	2.00	0.893	1.48	1.43	0.824	0.0376
July	3.16	2.99	2.89	1.68	3.55	2.76	1.15	1.10	1.04	0.783	0.102
Aug	4.78	4.53	6.80	5.13	6.78	4.10	1.66	2.98	2.89	1.63	0.631
Sept	2.60	2.48	2.39	2.58	2.82	2.02	0.518	1.58	1.54	0.820	0.103
Oct	3.07	2.93	3.22	2.52	2.69	2.38	0.565	2.25	2.20	1.08	0.208
Nov	1.71	1.61	1.32	1.36	1.58	1.71	0.496	0.753	0.716	0.507	0.107
Dec	0.541	0.517	0.223	0.597	0.701	0.403	0.116	0.287	0.278	0.140	0.0155
Annual	30.6	29.3	27.0	22.0	33.8	22.4	8.56	15.0	14.5	9.44	1.53

Data completeness

2018	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	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	100	100	29.2	100
Feb	32.6	32.6	32.6	32.6	32.6	32.6	32.6	32.6	32.6	32.6	100	100	32.6	100
Mar	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	100	100	97.2	100
Apr	77.1	77.1	77.1	77.1	77.1	77.1	77.1	77.1	77.1	77.1	100	100	77.1	100
May	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	100	100	97.8	100
June	86.8	86.8	86.8	86.8	86.8	86.8	86.8	86.8	86.8	86.8	100	100	86.8	100
July	95.1	95.1	95.1	95.1	95.1	95.1	95.1	95.1	95.1	95.1	100	100	95.1	100
Aug	98.4	98.4	98.4	98.4	98.4	98.4	98.4	98.4	98.4	98.4	100	100	98.4	100
Sept	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1	100	100	93.1	100
Oct	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	100	100	99.6	100
Nov	96.5	96.5	96.5	96.5	96.5	96.5	96.5	96.5	96.5	96.5	100	100	96.5	100
Dec	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
Annual	**95.3**	**95.3**	**95.3**	**95.3**	**95.3**	**95.3**	**95.3**	**95.3**	**95.3**	**95.3**	**100**	**100**	**95.3**	**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

2018	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	67.3	65.9	127	51.5	31.1	23.2	10.8	203	202	4.67	0.0624	7.20	6.17	65.0
Feb	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Mar	39.0	34.8	190	71.9	58.8	70.9	8.18	107	106	17.7	3.09	5.51	5.60	13.0
Apr	13.7	13.1	38.4	12.2	57.7	9.29	2.20	13.8	13.6	2.30	1.85	5.73	1.60	361
May	13.2	12.9	42.9	8.11	79.8	6.19	1.36	13.8	13.6	1.79	0.469	6.33	1.22	231
June	8.39	7.83	14.9	10.3	46.9	9.29	1.48	18.5	18.3	3.20	0.572	6.24	1.03	118
July	6.30	5.47	10.6	13.8	33.1	13.7	1.28	13.1	12.8	3.72	0.605	6.22	0.897	141
Aug	7.60	6.68	11.4	13.7	38.3	15.2	1.26	20.9	20.6	4.03	0.281	6.55	1.02	130
Sept	8.20	7.20	23.8	12.2	28.1	16.6	2.27	31.8	31.5	5.19	0.285	6.55	1.40	27.1
Oct	23.4	23.0	61.2	11.9	44.2	5.49	1.48	12.4	12.3	1.61	0.266	6.58	2.08	58.4
Nov	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Dec	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Annual	15.1	14.5	38.0	14.4	52.9	11.4	2.26	27.1	26.9	3.00	0.902	6.04	1.64	1144
Max.	76.6	75.0	190	71.9	120	75.7	12.0	223	222	25.5	38.9	7.55	6.80	
Min.	2.60	2.16	5.48	3.10	17.7	2.17	0.512	3.74	3.65	0.823	0.0282	4.41	0.530	

Wet deposition amount

2018	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	4.37	4.28	8.24	3.34	2.02	1.51	0.701	13.2	13.1	0.304	<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	0.507	0.452	2.47	0.935	0.764	0.922	0.106	1.39	1.37	0.230	0.0402
Apr	4.93	4.73	13.9	4.40	20.8	3.35	0.794	4.96	4.89	0.828	0.667
May	3.05	2.97	9.90	1.87	18.4	1.43	0.314	3.17	3.14	0.412	0.108
June	0.986	0.920	1.75	1.21	5.51	1.09	0.173	2.17	2.15	0.376	0.0672
July	0.888	0.771	1.50	1.94	4.67	1.94	0.180	1.84	1.80	0.524	0.0852
Aug	0.989	0.870	1.48	1.79	4.98	1.98	0.164	2.72	2.68	0.524	0.0366
Sept	0.222	0.195	0.644	0.332	0.762	0.450	0.0614	0.862	0.852	0.141	<0.01
Oct	1.36	1.35	3.57	0.698	2.58	0.321	0.0863	0.726	0.719	0.0940	0.0155
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	17.3	16.5	43.4	16.5	60.5	13.0	2.58	31.0	30.7	3.43	1.03

Data completeness

2018	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
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

2018	SO_4^{2-} µmol L^{-1}	nss-SO_4^{2-} µmol L^{-1}	NO_3^- µmol L^{-1}	Cl^- µmol L^{-1}	NH_4^+ µmol L^{-1}	Na^+ µmol L^{-1}	K^+ µmol L^{-1}	Ca^{2+} µmol L^{-1}	nss-Ca^{2+} µmol L^{-1}	Mg^{2+} µmol L^{-1}	H^+ µmol L^{-1}	pH	EC mS m^{-1}	Precip. mm $month^{-1}$ or mm $year^{-1}$
Jan	9.45	9.16	15.3	6.29	27.1	4.88	1.47	3.90	3.79	1.14	7.49	5.13	1.07	189
Feb	17.3	16.2	25.3	27.1	44.0	18.8	1.77	6.92	6.52	2.91	18.7	4.73	1.88	69.1
Mar	22.8	22.0	41.7	18.2	79.5	12.0	2.97	6.10	5.84	2.23	5.77	5.24	1.94	84.7
Apr	11.9	11.4	28.1	10.7	73.4	8.24	2.09	6.31	6.13	1.59	0.728	6.14	1.07	135
May	15.7	15.2	36.6	10.4	60.8	7.86	1.61	11.6	11.4	2.02	0.153	6.81	1.43	28.7
June	6.75	5.82	5.26	14.7	23.6	15.4	1.50	9.85	9.52	3.09	0.903	6.04	0.748	163
July	6.88	5.96	6.78	15.8	21.3	15.2	1.91	14.1	13.7	3.76	0.712	6.15	0.814	105
Aug	6.45	5.54	5.74	14.3	22.3	15.1	1.39	10.4	10.1	2.93	0.346	6.46	0.706	171
Sept	9.34	8.87	20.0	6.58	42.0	7.79	1.57	9.71	9.54	2.13	2.12	5.67	1.00	276
Oct	10.7	10.4	25.5	5.46	43.7	4.90	1.21	9.23	9.12	1.11	1.05	5.98	1.02	250
Nov	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Dec	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Annual	10.3	9.69	18.7	10.9	40.1	9.95	1.63	8.67	8.46	2.14	3.01	5.52	1.05	1471
Max.	55.0	52.9	128	66.0	165	60.9	7.67	52.9	52.2	12.3	21.9	6.97	3.96	
Min.	2.39	2.21	2.10	1.41	10.5	1.30	0.512	1.25	1.20	0.411	0.107	4.66	0.360	

Wet deposition amount

2018	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	1.79	1.73	2.89	1.19	5.13	0.922	0.279	0.737	0.717	0.215	1.42
Feb	1.19	1.12	1.75	1.87	3.04	1.30	0.122	0.478	0.450	0.201	1.30
Mar	1.93	1.87	3.53	1.54	6.73	1.02	0.251	0.517	0.495	0.189	0.489
Apr	1.61	1.54	3.79	1.44	9.88	1.11	0.282	0.850	0.826	0.214	0.0980
May	0.450	0.436	1.05	0.299	1.74	0.226	0.0462	0.333	0.328	0.0580	<0.01
June	1.10	0.949	0.859	2.40	3.86	2.52	0.245	1.61	1.55	0.505	0.147
July	0.721	0.626	0.712	1.66	2.23	1.59	0.200	1.47	1.44	0.395	0.0746
Aug	1.10	0.949	0.983	2.45	3.81	2.58	0.238	1.78	1.73	0.502	0.0592
Sept	2.57	2.44	5.52	1.81	11.6	2.15	0.433	2.68	2.63	0.587	0.585
Oct	2.67	2.60	6.38	1.37	10.9	1.23	0.302	2.31	2.28	0.279	0.263
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	14.3	27.5	16.0	58.9	14.6	2.40	12.8	12.4	3.14	4.43

Data completeness

2018	SO_4^{2-} %TP	nss-SO_4^{2-} %TP	NO_3^- %TP	Cl^- %TP	NH_4^+ %TP	Na^+ %TP	K^+ %TP	Ca^{2+} %TP	nss-Ca^{2+} %TP	Mg^{2+} %TP	H^+ %TP	pH %TP	EC %TP	Precip. %PCL
Jan	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Feb	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Mar	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Apr	100	100	100	100	100	100	100	100	100	100	100	100	100	100
May	100	100	100	100	100	100	100	100	100	100	100	100	100	100
June	100	100	100	100	100	100	100	100	100	100	100	100	100	100
July	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Aug	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Sept	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Oct	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Nov	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Dec	--	--	--	--	--	--	--	--	--	--	--	--	--	100
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

2018	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	18.6	18.3	59.5	8.30	62.3	5.26	2.61	13.5	13.4	1.57	6.65	5.18	2.02	97.8
Feb	14.7	14.1	49.2	18.0	55.9	10.8	3.09	10.2	9.95	2.17	11.9	4.93	1.93	44.7
Mar	27.2	26.2	90.1	25.7	81.9	16.4	6.27	19.6	19.2	5.51	16.2	4.79	3.54	17.2
Apr	0.402	<0.3	0.549	0.990	42.7	4.09	2.06	5.93	5.84	1.06	17.1	4.77	1.89	213
May	7.49	7.27	32.6	5.38	33.5	3.70	1.08	8.52	8.44	1.02	11.3	4.95	1.33	111
June	9.43	8.95	22.5	10.2	35.7	7.97	1.32	10.3	10.2	1.54	8.38	5.08	1.26	102
July	7.37	6.91	11.5	11.3	42.8	7.69	1.38	11.0	10.8	1.82	0.453	6.34	1.06	103
Aug	8.52	7.93	14.5	13.6	34.3	9.86	1.10	16.1	15.9	2.09	0.661	6.18	1.08	131
Sept	4.48	4.37	11.4	4.23	22.2	1.92	0.513	3.63	3.59	0.343	5.86	5.23	0.702	360
Oct	7.89	7.69	6.91	4.74	19.9	3.36	0.454	3.74	3.67	0.453	4.51	5.35	0.696	115
Nov	5.12	4.71	10.4	6.29	39.9	6.80	0.725	9.24	9.10	1.10	1.48	5.83	1.08	2.7
Dec	9.53	9.05	24.7	11.7	51.1	7.85	2.47	6.61	6.44	1.12	1.48	5.83	1.13	23.6
Annual	7.17	6.87	18.3	6.98	35.6	5.10	1.35	7.97	7.86	1.14	7.57	5.12	1.24	1322
Max.	68.2	66.3	229	111	153	85.4	45.3	67.9	67.6	12.9	57.5	6.84	7.40	
Min.	<0.3	<0.3	<0.5	<0.5	8.61	0.479	<0.3	0.697	0.685	<0.3	0.145	4.24	0.289	

Wet deposition amount

2018	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	1.82	1.79	5.81	0.811	6.09	0.515	0.255	1.32	1.31	0.154	0.650
Feb	0.660	0.631	2.20	0.804	2.50	0.482	0.138	0.456	0.445	0.0972	0.531
Mar	0.467	0.450	1.55	0.441	1.41	0.282	0.108	0.336	0.330	0.0945	0.277
Apr	0.0857	0.0563	0.117	0.211	9.10	0.871	0.438	1.26	1.25	0.227	3.64
May	0.831	0.806	3.61	0.597	3.72	0.410	0.120	0.945	0.936	0.114	1.25
June	0.964	0.915	2.30	1.05	3.65	0.815	0.135	1.06	1.04	0.157	0.857
July	0.763	0.715	1.19	1.17	4.42	0.796	0.143	1.13	1.12	0.188	0.0468
Aug	1.12	1.04	1.91	1.79	4.50	1.29	0.144	2.11	2.08	0.275	0.0867
Sept	1.61	1.57	4.11	1.52	8.00	0.689	0.184	1.31	1.29	0.123	2.11
Oct	0.908	0.885	0.796	0.545	2.29	0.387	0.0523	0.431	0.422	0.0522	0.519
Nov	0.0139	0.0128	0.0282	0.0171	0.109	0.0185	<0.01	0.0252	0.0248	<0.01	<0.01
Dec	0.225	0.214	0.584	0.277	1.21	0.185	0.0582	0.156	0.152	0.0264	0.0349
Annual	9.47	9.09	24.2	9.23	47.0	6.74	1.78	10.5	10.4	1.51	10.0

Data completeness

2018	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	99.7	99.7	99.7	100
June	100	100	100	100	100	100	100	100	100	100	99.7	99.7	99.7	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	99.8	99.8	99.8	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**	**99.9**	**99.9**	**99.9**	**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

2018	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	11.5	11.2	21.9	6.27	52.8	5.19	7.86	8.32	8.20	3.07	1.49	5.83	1.00	80.9
May	2.16	1.89	8.07	4.02	7.14	4.47	1.21	2.84	2.74	0.916	4.95	5.31	0.485	103
June	1.68	0.927	1.85	10.8	1.91	12.5	1.06	2.99	2.72	1.67	2.06	5.69	0.351	317
July	2.33	1.66	1.83	10.3	1.04	11.1	0.733	5.09	4.85	1.89	0.549	6.26	0.332	212
Aug	1.77	1.54	1.17	5.21	<0.8	3.70	<0.3	1.81	1.73	0.525	0.947	6.02	0.232	158
Sept	1.51	1.35	1.94	1.69	3.25	2.78	3.40	1.96	1.90	0.575	1.38	5.86	0.247	123
Oct	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Nov	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Dec	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Annual	2.66	2.17	4.03	7.60	6.33	8.17	1.72	3.54	3.36	1.44	1.73	5.76	0.382	994
Max.	17.8	17.0	27.9	29.3	58.2	32.2	10.2	15.2	14.9	4.94	12.0	6.63	1.34	
Min.	0.521	<0.3	<0.5	0.564	<0.8	0.870	<0.3	0.749	0.702	<0.3	0.234	4.92	0.130	

Wet deposition amount

2018	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	0.932	0.907	1.77	0.507	4.27	0.420	0.636	0.673	0.664	0.249	0.121
May	0.223	0.195	0.832	0.414	0.735	0.460	0.124	0.292	0.282	0.0943	0.510
June	0.533	0.294	0.588	3.42	0.607	3.96	0.338	0.948	0.863	0.531	0.652
July	0.494	0.352	0.387	2.18	0.221	2.36	0.155	1.08	1.03	0.400	0.116
Aug	0.279	0.244	0.185	0.823	0.0599	0.585	0.0385	0.287	0.274	0.0829	0.150
Sept	0.186	0.165	0.238	0.207	0.399	0.341	0.418	0.240	0.233	0.0705	0.169
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	2.65	2.16	4.00	7.55	6.29	8.12	1.71	3.52	3.34	1.43	1.72

Data completeness

2018	SO_4^{2-} %TP	nss-SO_4^{2-} %TP	NO_3^- %TP	Cl^- %TP	NH_4^+ %TP	Na^+ %TP	K^+ %TP	Ca^{2+} %TP	nss-Ca^{2+} %TP	Mg^{2+} %TP	H^+ %TP	pH %TP	EC %TP	Precip. %PCL
Jan	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Feb	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Mar	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Apr	100	100	100	100	100	100	100	100	100	100	100	100	100	100
May	100	100	100	100	100	100	100	100	100	100	100	100	100	100
June	100	100	100	100	100	100	100	100	100	100	100	100	100	100
July	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Aug	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Sept	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Oct	--	--	--	--	--	--	--	--	--	--	--	--	--	100
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

2018	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	39.8	39.0	84.5	17.4	166	13.1	25.0	57.6	57.3	11.5	37.2	4.43	4.60	3.3
Apr	23.4	22.5	44.8	33.7	70.8	15.3	11.8	34.7	34.3	5.78	3.12	5.51	1.82	33.7
May	6.76	6.27	13.7	8.70	20.0	8.12	2.28	9.83	9.66	1.07	4.36	5.36	0.770	164
June	2.35	1.73	6.26	8.55	10.5	13.2	1.49	7.85	7.56	0.629	1.76	5.75	0.407	159
July	1.67	1.53	3.48	3.61	9.35	2.51	0.539	4.12	4.06	<0.3	2.39	5.62	0.308	165
Aug	1.63	1.25	4.41	2.64	12.1	7.42	1.39	4.51	4.35	<0.3	1.67	5.78	0.343	106
Sept	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Oct	2.99	2.58	6.30	5.49	8.78	6.73	1.20	1.91	1.77	<0.3	3.90	5.41	0.417	187
Nov	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Dec	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Annual	4.17	3.74	8.86	7.19	15.1	7.89	1.90	7.01	6.84	0.656	3.07	5.51	0.526	818
Max.	353	349	511	174	303	210	147	563	561	95.3	37.2	6.64	10.6	
Min.	0.344	<0.3	1.29	<0.5	<0.8	<0.3	<0.3	<0.2	<0.2	<0.3	0.229	4.43	0.150	

Wet deposition amount

2018	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	0.130	0.128	0.277	0.0571	0.544	0.0431	0.0818	0.189	0.188	0.0378	0.122
Apr	0.790	0.759	1.51	1.14	2.39	0.516	0.397	1.17	1.16	0.195	0.105
May	1.11	1.03	2.24	1.43	3.28	1.33	0.374	1.61	1.58	0.176	0.716
June	0.375	0.276	0.998	1.36	1.68	2.10	0.238	1.25	1.21	0.100	0.281
July	0.275	0.252	0.574	0.596	1.54	0.414	0.0888	0.679	0.670	0.0118	0.393
Aug	0.173	0.132	0.469	0.280	1.28	0.788	0.148	0.479	0.462	0.0147	0.178
Sept	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Oct	0.558	0.482	1.18	1.02	1.64	1.26	0.224	0.356	0.331	<0.01	0.728
Nov	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	3.41	3.06	7.25	5.89	12.3	6.45	1.55	5.74	5.60	0.537	2.51

Data completeness

2018	SO_4^{2-} %TP	nss-SO_4^{2-} %TP	NO_3^- %TP	Cl^- %TP	NH_4^+ %TP	Na^+ %TP	K^+ %TP	Ca^{2+} %TP	nss-Ca^{2+} %TP	Mg^{2+} %TP	H^+ %TP	pH %TP	EC %TP	Precip. %PCL
Jan	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Feb	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Mar	100	100	100	100	100	100	100	100	100	100	90.9	90.9	90.9	100
Apr	100	100	100	100	100	100	100	100	100	100	96.7	96.7	96.7	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	99.7	99.7	99.7	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
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**	**99.7**	**99.7**	**99.7**	**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

2018	SO_4^{2-} µmol L^{-1}	nss-SO_4^{2-} µmol L^{-1}	NO_3^- µmol L^{-1}	Cl^- µmol L^{-1}	NH_4^+ µmol L^{-1}	Na^+ µmol L^{-1}	K^+ µmol L^{-1}	Ca^{2+} µmol L^{-1}	nss-Ca^{2+} µmol L^{-1}	Mg^{2+} µmol L^{-1}	H^+ µmol L^{-1}	pH	EC mS m^{-1}	Precip. mm $month^{-1}$ or mm $year^{-1}$
Jan	19.7	18.2	43.9	12.9	167	24.7	23.9	73.8	73.3	22.1	17.5	4.76	2.37	35.6
Feb	24.6	23.6	32.9	10.3	136	16.5	24.3	37.5	37.1	12.7	32.6	4.49	2.87	20.6
Mar	51.9	47.1	69.0	32.4	164	78.6	16.1	55.4	53.7	11.7	38.8	4.41	5.07	10.1
Apr	12.6	11.9	17.4	4.74	62.5	11.6	8.00	25.5	25.3	5.47	11.5	4.94	1.24	160
May	20.9	20.4	18.5	3.92	46.8	8.30	5.16	17.9	17.7	5.83	14.6	4.84	1.09	152
June	8.05	7.11	11.7	8.15	37.9	15.6	3.54	33.6	33.3	9.40	7.86	5.10	0.849	133
July	4.84	3.89	8.72	9.32	34.3	15.8	8.64	44.0	43.6	9.70	1.83	5.74	0.559	66.6
Aug	5.49	4.84	8.09	5.13	39.0	10.8	6.23	62.1	61.9	9.49	2.66	5.57	0.554	155
Sept	2.95	2.61	8.11	1.85	69.3	5.75	5.33	28.1	28.0	6.83	2.25	5.65	0.416	329
Oct	10.8	10.2	12.2	4.14	115	9.61	7.44	38.8	38.6	10.2	2.79	5.55	0.815	68.6
Nov	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Dec	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Annual	9.62	8.95	13.6	5.08	63.3	11.0	6.95	35.1	34.9	8.17	7.28	5.14	0.870	1129
Max.	63.7	56.0	136	139	349	356	54.2	360	359	84.3	85.1	6.88	10.3	
Min.	0.833	0.433	1.29	0.846	1.66	3.48	2.30	9.23	9.16	<0.3	0.132	4.07	0.190	

Wet deposition amount

2018	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	0.700	0.647	1.56	0.460	5.95	0.881	0.851	2.63	2.61	0.787	0.622
Feb	0.507	0.486	0.678	0.212	2.81	0.341	0.500	0.772	0.765	0.261	0.672
Mar	0.524	0.476	0.697	0.327	1.66	0.794	0.163	0.560	0.543	0.118	0.392
Apr	2.01	1.90	2.78	0.757	9.99	1.85	1.28	4.08	4.04	0.874	1.83
May	3.17	3.09	2.81	0.595	7.09	1.26	0.784	2.71	2.69	0.885	2.21
June	1.07	0.942	1.54	1.08	5.02	2.07	0.469	4.46	4.41	1.25	1.04
July	0.323	0.259	0.581	0.621	2.28	1.05	0.576	2.93	2.91	0.646	0.122
Aug	0.850	0.750	1.25	0.795	6.03	1.67	0.964	9.61	9.58	1.47	0.412
Sept	0.971	0.857	2.66	0.607	22.8	1.89	1.75	9.25	9.21	2.25	0.739
Oct	0.739	0.699	0.834	0.284	7.89	0.659	0.510	2.66	2.65	0.697	0.192
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	10.9	10.1	15.4	5.74	71.5	12.5	7.85	39.7	39.4	9.23	8.21

Data completeness

2018	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	86.1	86.1	86.1	100
Apr	100	100	100	100	100	100	100	100	100	100	99.4	99.4	99.4	100
May	100	100	100	100	100	100	100	100	100	100	98.9	98.9	98.9	100
June	100	100	100	100	100	100	100	100	100	100	96.9	96.9	96.9	100
July	100	100	100	100	100	100	100	100	100	100	95.9	95.9	95.9	100
Aug	100	100	100	100	100	100	100	100	100	100	98.6	98.6	98.6	100
Sept	100	100	100	100	100	100	100	100	100	100	99.5	99.5	99.5	100
Oct	100	100	100	100	100	100	100	100	100	100	99.0	99.0	99.0	100
Nov	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Dec	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Annual	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**98.7**	**98.7**	**98.7**	**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

2018	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	423	414	348	327	315	150	88.9	459	456	33.0	0.955	6.02	21.5	11.8
Feb	494	489	895	120	1274	88.9	67.4	278	277	14.9	0.0773	7.11	30.8	7.3
Mar	54.7	51.6	72.6	38.7	58.4	51.3	16.9	62.0	60.9	8.00	0.202	6.69	3.59	29.1
Apr	66.4	65.3	102	29.4	115	18.4	8.12	74.3	73.9	1.39	0.459	6.34	3.93	137
May	46.1	45.2	44.9	31.7	53.9	14.9	10.4	47.0	46.7	11.6	0.433	6.36	2.60	157
June	42.5	41.9	62.5	17.6	45.0	9.80	7.69	42.9	42.6	9.89	9.77	5.01	2.76	151
July	24.8	24.4	21.8	15.2	37.9	6.51	5.24	22.5	22.4	3.50	0.649	6.19	1.44	470
Aug	22.0	21.8	15.1	17.1	30.3	2.69	3.95	18.0	17.9	3.04	4.32	5.36	1.31	484
Sept	23.7	23.5	23.9	11.9	22.4	3.54	2.58	26.1	26.0	4.67	0.755	6.12	1.29	235
Oct	31.1	31.0	26.5	15.2	32.0	1.97	8.50	24.5	24.5	0.406	11.7	4.93	1.81	132
Nov	121	120	146	31.3	248	24.2	12.6	60.2	59.6	14.6	0.719	6.14	6.21	12.7
Dec	252	247	227	77.6	240	72.0	43.0	199	198	49.9	0.219	6.66	11.2	73.0
Annual	44.5	43.9	46.3	23.0	56.9	11.2	8.06	40.6	40.3	6.49	3.04	5.52	2.47	1900
Max.	685	668	968	742	1386	285	287	540	534	92.8	22.4	7.39	35.4	
Min.	6.87	6.64	10.0	5.08	1.39	1.09	1.69	12.9	12.8	0.329	0.0406	4.65	0.920	

Wet deposition amount

2018	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	5.00	4.89	4.11	3.86	3.72	1.77	1.05	5.42	5.38	0.390	0.0113
Feb	3.61	3.57	6.53	0.876	9.30	0.649	0.492	2.03	2.02	0.108	<0.01
Mar	1.59	1.50	2.11	1.13	1.70	1.49	0.491	1.80	1.77	0.233	<0.01
Apr	9.07	8.92	13.9	4.02	15.8	2.52	1.11	10.2	10.1	0.190	0.0627
May	7.24	7.10	7.05	4.98	8.46	2.34	1.63	7.38	7.33	1.83	0.0680
June	6.42	6.33	9.44	2.66	6.79	1.48	1.16	6.47	6.43	1.49	1.47
July	11.7	11.5	10.2	7.13	17.8	3.06	2.46	10.6	10.5	1.64	0.305
Aug	10.6	10.6	7.29	8.28	14.7	1.30	1.91	8.70	8.68	1.47	2.09
Sept	5.57	5.52	5.62	2.80	5.28	0.832	0.606	6.14	6.12	1.10	0.178
Oct	4.12	4.10	3.50	2.01	4.23	0.261	1.12	3.24	3.23	0.0536	1.55
Nov	1.54	1.52	1.86	0.398	3.15	0.308	0.160	0.764	0.757	0.185	<0.01
Dec	18.4	18.0	16.6	5.66	17.5	5.26	3.14	14.5	14.4	3.65	0.0160
Annual	84.6	83.3	88.0	43.7	108	21.2	15.3	77.1	76.6	12.3	5.77

Data completeness

2018	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	98.3	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
Feb	97.3	97.3	97.3	97.3	97.3	97.3	97.3	97.3	97.3	97.3	97.3	97.3	97.3	100
Mar	97.9	97.9	97.9	97.9	97.9	97.9	97.9	97.9	97.9	97.9	97.9	97.9	97.9	100
Apr	100	100	100	100	100	100	100	100	100	100	100	100	100	100
May	100	100	100	100	100	100	100	100	100	100	100	100	100	100
June	100	100	100	100	100	100	100	100	100	100	100	100	100	100
July	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	100
Aug	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Sept	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
Oct	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Nov	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	100
Dec	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	**99.9**	**99.9**	**99.9**	**99.9**	**99.9**	**99.9**	**99.9**	**99.9**	**99.9**	**99.9**	**99.9**	**99.9**	**99.9**	**100**

Terms and abbreviations are given in Table 3.5.

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

Precipitation amount-weighted average concentration/ Precipitation amount

2018	SO_4^{2-} µmol L^{-1}	nss-SO_4^{2-} µmol L^{-1}	NO_3^- µmol L^{-1}	Cl^- µmol L^{-1}	NH_4^+ µmol L^{-1}	Na^+ µmol L^{-1}	K^+ µmol L^{-1}	Ca^{2+} µmol L^{-1}	nss-Ca^{2+} µmol L^{-1}	Mg^{2+} µmol L^{-1}	H^+ µmol L^{-1}	pH	EC mS m^{-1}	Precip. mm $month^{-1}$ or mm $year^{-1}$
Jan	55.1	54.4	83.8	12.6	141	13.0	27.3	30.7	30.4	2.22	0.349	6.46	3.27	9.3
Feb	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Mar	67.8	67.0	41.0	29.2	85.6	13.4	27.8	35.8	35.5	3.70	0.953	6.02	3.05	23.2
Apr	35.7	35.5	45.8	17.7	81.2	3.74	8.96	16.9	16.9	3.52	3.41	5.47	2.09	97.1
May	25.4	25.2	16.8	9.79	26.0	4.69	6.95	19.5	19.4	2.49	1.34	5.87	1.19	389
June	17.2	17.2	13.9	12.2	14.6	1.20	1.97	11.9	11.9	3.68	13.0	4.88	1.26	192
July	14.5	14.5	10.4	7.47	19.1	0.881	1.84	9.07	9.05	2.79	5.41	5.27	0.901	1098
Aug	25.7	25.7	8.44	5.88	30.9	1.28	1.91	11.4	11.4	2.54	4.71	5.33	1.11	593
Sept	29.3	28.4	16.5	12.8	13.7	15.0	7.10	16.2	15.9	12.4	3.56	5.45	1.33	91.4
Oct	23.0	22.7	34.3	11.7	31.4	4.35	8.88	23.9	23.9	1.93	7.29	5.14	1.65	193
Nov	36.3	35.8	48.6	15.1	99.5	8.33	2.03	14.7	14.6	5.12	4.62	5.34	2.28	40.7
Dec	39.6	39.0	54.5	43.7	87.2	9.32	5.99	32.9	32.7	4.04	19.3	4.72	3.06	72.0
Annual	21.9	21.8	16.4	9.84	29.0	2.79	3.89	13.7	13.7	3.11	5.51	5.26	1.22	2799
Max.	103	101	167	62.3	304	30.5	64.5	48.0	47.3	12.9	64.6	7.07	6.39	
Min.	9.36	8.85	6.90	2.14	0.887	0.348	<0.3	5.00	4.96	<0.3	0.0845	4.19	0.620	

Wet deposition amount

2018	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	0.513	0.506	0.779	0.117	1.31	0.121	0.254	0.286	0.283	0.0207	<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	1.57	1.55	0.951	0.677	1.99	0.311	0.645	0.831	0.824	0.0858	0.0221
Apr	3.46	3.44	4.45	1.71	7.89	0.364	0.870	1.64	1.64	0.341	0.331
May	9.90	9.79	6.55	3.81	10.1	1.83	2.70	7.58	7.55	0.969	0.521
June	3.31	3.30	2.67	2.34	2.80	0.231	0.378	2.29	2.28	0.707	2.51
July	16.0	15.9	11.5	8.20	21.0	0.968	2.02	9.96	9.94	3.07	5.95
Aug	15.3	15.2	5.00	3.49	18.3	0.757	1.13	6.75	6.74	1.51	2.79
Sept	2.68	2.60	1.50	1.17	1.25	1.37	0.649	1.48	1.45	1.13	0.325
Oct	4.44	4.39	6.62	2.26	6.05	0.840	1.71	4.62	4.60	0.372	1.41
Nov	1.48	1.46	1.98	0.615	4.05	0.339	0.0825	0.600	0.592	0.209	0.188
Dec	2.85	2.81	3.92	3.14	6.28	0.671	0.431	2.37	2.36	0.291	1.39
Annual	61.4	61.0	45.9	27.5	81.1	7.80	10.9	38.4	38.2	8.70	15.4

Data completeness

2018	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**

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

2018	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	70.4	66.6	69.1	75.9	44.7	61.6	14.2	69.0	67.7	33.0	1.12	5.95	4.11	34.3
Feb	*	*	*	*	*	*	*	*	*	*	*	*	*	12.6
Mar	15.3	14.3	9.31	55.6	4.45	17.8	5.86	27.6	27.2	9.60	6.24	5.20	1.54	89.0
Apr	38.2	36.7	15.6	52.2	9.70	25.8	10.6	30.2	29.7	21.3	9.87	5.01	2.21	115
May	8.50	7.98	4.45	29.2	2.19	8.64	3.26	19.4	19.2	9.00	1.49	5.83	0.885	245
June	9.87	8.57	11.6	21.5	9.13	21.6	3.99	24.6	24.2	4.59	1.63	5.79	1.24	138
July	8.12	7.56	3.99	20.0	1.11	9.27	3.27	11.3	11.1	7.16	2.43	5.61	0.677	739
Aug	9.00	8.47	4.35	28.5	3.70	8.83	2.55	15.1	14.9	9.61	3.61	5.44	0.910	623
Sept	10.7	10.2	7.91	24.9	3.31	8.13	3.18	12.7	12.5	10.0	5.33	5.27	0.904	131
Oct	14.2	13.2	8.40	33.7	3.92	17.0	3.50	15.6	15.2	10.3	4.51	5.35	1.10	175
Nov	25.8	24.2	17.5	51.0	1.56	26.8	5.86	28.1	27.5	15.5	1.43	5.84	1.63	140
Dec	47.7	45.9	67.2	51.7	57.7	29.6	9.49	41.8	41.2	24.7	12.0	4.92	3.40	79.1
Annual	13.5	12.7	9.19	30.2	5.39	13.4	4.00	18.0	17.7	10.2	3.57	5.45	1.10	2521
Max.	85.9	81.6	139	116	108	96.3	24.0	80.1	78.6	41.3	25.1	6.77	5.62	
Min.	6.17	5.60	1.65	10.3	<0.8	4.52	1.02	9.11	8.99	0.740	0.170	4.60	0.570	

Wet deposition amount

2018	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	2.41	2.29	2.37	2.60	1.53	2.11	0.487	2.37	2.32	1.13	0.0385
Feb	*	*	*	*	*	*	*	*	*	*	*
Mar	1.37	1.27	0.829	4.94	0.396	1.59	0.522	2.46	2.42	0.854	0.555
Apr	4.39	4.21	1.79	5.99	1.11	2.96	1.21	3.47	3.40	2.45	1.13
May	2.09	1.96	1.09	7.17	0.537	2.12	0.798	4.75	4.71	2.21	0.365
June	1.36	1.18	1.59	2.96	1.26	2.97	0.549	3.39	3.32	0.632	0.224
July	6.00	5.59	2.95	14.8	0.823	6.85	2.42	8.33	8.18	5.29	1.79
Aug	5.61	5.28	2.71	17.8	2.31	5.50	1.59	9.43	9.31	5.99	2.25
Sept	1.40	1.34	1.03	3.26	0.433	1.06	0.416	1.66	1.63	1.31	0.697
Oct	2.48	2.30	1.47	5.88	0.684	2.96	0.610	2.71	2.65	1.79	0.787
Nov	3.62	3.39	2.46	7.15	0.219	3.77	0.822	3.94	3.86	2.17	0.201
Dec	3.77	3.63	5.31	4.09	4.57	2.34	0.751	3.31	3.26	1.96	0.952
Annual	34.0	31.9	23.2	76.1	13.6	33.9	10.1	45.4	44.7	25.6	8.99

Data completeness

2018	SO_4^{2-} %TP	nss-SO_4^{2-} %TP	NO_3^- %TP	Cl^- %TP	NH_4^+ %TP	Na^+ %TP	K^+ %TP	Ca^{2+} %TP	nss-Ca^{2+} %TP	Mg^{2+} %TP	H^+ %TP	pH %TP	EC %TP	Precip. %PCL
Jan	80.2	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
Feb	0	0	0	0	0	0	0	0	0	0	0	0	0	100
Mar	91.1	91.1	91.1	91.1	91.1	91.1	91.1	91.1	91.1	91.1	91.1	91.1	91.1	100
Apr	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1	100
May	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
June	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
July	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Aug	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	100
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	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Nov	96.2	96.2	96.2	96.2	96.2	96.2	96.2	96.2	96.2	96.2	96.2	96.2	96.2	100
Dec	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5	100
Annual	**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**

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

2018	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	5.30	2.55	<0.5	61.6	4.77	83.2	4.06	43.1	41.3	7.82	0.652	6.19	2.23	16.8
Feb	17.5	15.6	5.88	61.1	49.2	31.8	19.3	67.2	66.5	14.2	0.427	6.37	3.19	15.0
Mar	47.9	43.9	2.69	158	70.6	66.0	23.5	82.2	80.8	15.5	0.372	6.43	4.90	30.3
Apr	36.3	27.9	<0.5	209	13.6	139	11.6	56.1	53.1	35.2	0.630	6.20	4.62	146
May	17.1	13.7	<0.5	81.5	67.1	55.5	39.3	65.2	64.0	22.2	0.493	6.31	4.32	75.5
June	11.5	8.71	<0.5	67.0	66.6	46.5	22.9	44.3	43.3	16.7	0.931	6.03	3.25	79.9
July	12.7	9.74	<0.5	41.4	41.9	49.5	26.9	77.3	76.2	18.1	1.05	5.98	3.37	184
Aug	17.7	10.3	<0.5	139	29.1	122	81.3	67.9	65.3	19.0	0.441	6.36	4.96	54.1
Sept	4.91	3.13	<0.5	46.9	5.16	31.5	7.09	38.0	37.4	1.91	1.34	5.87	1.46	141
Oct	18.9	14.1	<0.5	154	13.7	78.9	47.5	35.8	34.1	20.8	1.41	5.85	3.40	316
Nov	20.0	12.4	<0.5	156	5.84	126	10.5	31.9	29.2	14.4	1.71	5.77	3.02	289
Dec	8.98	5.93	<0.5	71.8	4.36	50.7	3.64	24.3	23.2	2.57	2.15	5.67	1.38	1250
Annual	13.9	9.85	<0.5	97.8	14.1	68.1	15.6	36.5	35.0	10.6	1.64	5.78	2.41	2597
Max.	62.9	56.4	23.5	461	230	271	112	172	170	55.3	2.29	6.83	9.50	
Min.	2.48	<0.3	<0.5	14.8	3.88	7.44	1.56	17.0	14.8	1.40	0.148	5.64	0.920	

Wet deposition amount

2018	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	0.0890	0.0429	<0.01	1.04	0.0802	1.40	0.0682	0.724	0.694	0.131	0.0109
Feb	0.262	0.233	0.0882	0.916	0.737	0.477	0.290	1.01	0.997	0.213	<0.01
Mar	1.45	1.33	0.0815	4.78	2.14	2.00	0.712	2.49	2.45	0.469	0.0113
Apr	5.30	4.08	0.0465	30.5	1.98	20.3	1.70	8.18	7.75	5.14	0.0920
May	1.29	1.04	0.0176	6.15	5.06	4.19	2.97	4.92	4.83	1.68	0.0372
June	0.920	0.696	0.0271	5.36	5.32	3.72	1.83	3.54	3.46	1.34	0.0744
July	2.35	1.80	0.0561	7.64	7.72	9.14	4.96	14.2	14.1	3.34	0.193
Aug	0.959	0.560	0.0142	7.54	1.57	6.63	4.40	3.68	3.53	1.03	0.0239
Sept	0.690	0.440	0.0689	6.59	0.725	4.43	0.996	5.35	5.25	0.268	0.189
Oct	5.96	4.46	0.0975	48.8	4.32	25.0	15.0	11.3	10.8	6.59	0.447
Nov	5.77	3.57	0.0955	44.9	1.69	36.4	3.04	9.20	8.42	4.15	0.494
Dec	11.2	7.40	0.529	89.8	5.45	63.3	4.55	30.3	29.0	3.21	2.68
Annual	36.2	25.6	1.12	254	36.6	177	40.5	94.8	91.0	27.6	4.27

Data completeness

2018	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	81.0	81.0	81.0	81.0	81.0	81.0	81.0	81.0	81.0	81.0	81.0	81.0	81.0	100
Feb	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Mar	90.8	90.8	90.8	90.8	90.8	90.8	90.8	90.8	90.8	90.8	90.8	90.8	90.8	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	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	100
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	**99.7**	**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 3.62 Monthly results **Site: Can Tho** **Country: Vietnam**

Precipitation amount-weighted average concentration/ Precipitation amount

2018	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	23.5	22.9	3.41	32.0	13.4	9.88	6.08	10.4	10.2	11.1	2.58	5.59	1.30	267
Feb	23.4	22.8	3.77	32.4	12.9	10.1	6.53	12.4	12.2	10.8	2.09	5.68	1.33	90.0
Mar	27.7	27.1	3.89	33.7	14.1	10.1	7.03	14.5	14.3	11.4	2.40	5.62	1.46	70.0
Apr	24.7	24.1	3.11	29.6	12.9	9.63	7.06	13.9	13.6	10.3	2.75	5.56	1.37	159
May	22.7	22.2	4.35	32.9	12.0	9.47	6.93	13.6	13.4	9.54	2.31	5.64	1.24	274
June	22.1	21.6	2.75	33.2	13.4	9.19	8.12	14.1	13.9	8.96	1.68	5.77	1.21	261
July	24.7	24.1	2.39	29.0	9.54	9.06	6.55	19.6	19.4	7.90	0.638	6.20	1.37	362
Aug	24.4	23.8	3.12	26.7	12.9	9.59	6.10	14.7	14.5	9.61	0.756	6.12	1.19	308
Sept	20.3	19.7	2.74	29.7	12.1	10.0	4.29	15.4	15.2	9.96	0.557	6.25	1.23	308
Oct	19.8	19.2	2.97	31.1	12.9	9.78	5.34	12.2	12.0	11.2	0.538	6.27	1.23	340
Nov	24.0	23.4	3.85	29.1	13.3	10.1	7.95	16.1	15.9	9.53	0.722	6.14	1.24	49.0
Dec	18.3	17.5	1.84	27.4	10.3	12.3	6.27	14.3	14.0	9.84	0.724	6.14	1.22	120
Annual	22.7	22.1	3.07	30.4	12.3	9.73	6.27	14.4	14.2	9.84	1.34	5.87	1.27	2608
Max.	28.9	28.3	5.81	34.5	16.9	12.8	10.7	21.9	21.7	12.7	3.09	6.44	1.46	
Min.	18.3	17.5	0.970	21.5	7.83	6.39	4.08	9.55	9.34	7.25	0.363	5.51	1.02	

Wet deposition amount

2018	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	6.27	6.11	0.911	8.55	3.59	2.64	1.62	2.78	2.72	2.97	0.689
Feb	2.11	2.05	0.340	2.92	1.17	0.910	0.588	1.12	1.10	0.972	0.188
Mar	1.94	1.90	0.272	2.36	0.988	0.706	0.492	1.02	1.00	0.799	0.168
Apr	3.92	3.83	0.495	4.70	2.05	1.53	1.12	2.20	2.17	1.63	0.437
May	6.23	6.07	1.19	9.00	3.30	2.59	1.90	3.72	3.67	2.61	0.634
June	5.78	5.64	0.717	8.66	3.50	2.40	2.12	3.68	3.63	2.34	0.440
July	8.93	8.74	0.864	10.5	3.45	3.28	2.37	7.09	7.02	2.86	0.231
Aug	7.52	7.34	0.962	8.24	3.97	2.95	1.88	4.54	4.47	2.96	0.233
Sept	6.26	6.08	0.845	9.15	3.74	3.08	1.32	4.74	4.68	3.07	0.172
Oct	6.74	6.53	1.01	10.6	4.38	3.32	1.81	4.15	4.08	3.81	0.183
Nov	1.18	1.15	0.189	1.42	0.653	0.497	0.389	0.791	0.780	0.467	0.0354
Dec	2.19	2.10	0.221	3.28	1.23	1.48	0.752	1.71	1.68	1.18	0.0869
Annual	59.1	57.5	8.01	79.4	32.0	25.4	16.4	37.5	37.0	25.7	3.50

Data completeness

2018	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	83.7	83.7	83.7	83.7	83.7	83.7	83.7	83.7	83.7	83.7	83.7	83.7	83.7	100
Dec	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5	100
Annual	**99.6**	**99.6**	**99.6**	**99.6**	**99.6**	**99.6**	**99.6**	**99.6**	**99.6**	**99.6**	**99.6**	**99.6**	**99.6**	**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

2018	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	40.5	39.7	6.97	39.2	23.6	13.8	9.14	20.6	20.3	9.85	2.88	5.54	1.54	76.0
Apr	38.8	38.1	4.45	37.2	16.5	11.1	10.9	22.2	22.0	10.7	2.82	5.55	1.55	97.0
May	33.4	32.4	6.18	40.6	22.4	15.4	8.75	21.2	20.8	10.3	1.64	5.78	1.53	404
June	24.0	23.2	4.19	41.1	24.1	13.0	8.51	16.7	16.4	9.58	0.592	6.23	1.35	214
July	23.6	22.9	3.96	35.9	18.5	12.4	8.37	23.4	23.2	10.3	0.373	6.43	1.49	348
Aug	22.0	21.1	3.70	30.3	16.8	15.2	7.34	19.8	19.4	10.5	0.260	6.58	1.13	247
Sept	23.3	22.4	4.34	32.3	18.7	15.9	7.87	12.4	12.0	9.78	0.574	6.24	1.38	367
Oct	24.1	23.3	5.74	32.8	18.2	14.2	8.47	15.2	14.9	10.5	0.468	6.33	1.11	202
Nov	19.0	18.2	5.96	39.7	26.3	13.6	7.80	16.2	15.9	9.63	0.220	6.66	1.23	349
Dec	24.6	23.8	3.88	33.3	19.3	14.2	7.95	16.6	16.3	11.2	0.328	6.48	1.19	176
Annual	25.6	24.8	4.90	36.3	20.7	14.2	8.29	18.2	17.9	10.2	0.773	6.11	1.35	2480
Max.	40.5	39.7	8.13	47.7	31.0	18.5	11.5	24.6	24.3	12.7	3.02	6.95	1.64	
Min.	15.2	14.2	2.60	27.2	8.33	8.56	6.62	6.45	6.09	8.25	0.112	5.52	1.06	

Wet deposition amount

2018	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	3.08	3.01	0.530	2.98	1.79	1.05	0.695	1.56	1.54	0.749	0.219
Apr	3.76	3.69	0.432	3.61	1.60	1.08	1.06	2.16	2.13	1.03	0.273
May	13.5	13.1	2.50	16.4	9.03	6.21	3.53	8.55	8.41	4.16	0.664
June	5.14	4.97	0.896	8.79	5.17	2.77	1.82	3.56	3.50	2.05	0.127
July	8.22	7.96	1.38	12.5	6.42	4.33	2.91	8.16	8.07	3.60	0.130
Aug	5.43	5.20	0.913	7.48	4.15	3.75	1.81	4.88	4.80	2.59	0.0643
Sept	8.57	8.22	1.59	11.8	6.87	5.83	2.89	4.54	4.42	3.59	0.211
Oct	4.87	4.70	1.16	6.63	3.67	2.86	1.71	3.08	3.02	2.11	0.0946
Nov	6.63	6.35	2.08	13.9	9.20	4.74	2.72	5.65	5.55	3.36	0.0769
Dec	4.33	4.18	0.683	5.85	3.40	2.49	1.40	2.92	2.87	1.97	0.0577
Annual	63.5	61.4	12.2	89.9	51.3	35.1	20.6	45.1	44.3	25.2	1.92

Data completeness

2018	SO_4^{2-} %TP	nss-SO_4^{2-} %TP	NO_3^- %TP	Cl^- %TP	NH_4^+ %TP	Na^+ %TP	K^+ %TP	Ca^{2+} %TP	nss-Ca^{2+} %TP	Mg^{2+} %TP	H^+ %TP	pH %TP	EC %TP	Precip. %PCL
Jan	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Feb	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Mar	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Apr	100	100	100	100	100	100	100	100	100	100	100	100	100	100
May	100	100	100	100	100	100	100	100	100	100	100	100	100	100
June	100	100	100	100	100	100	100	100	100	100	100	100	100	100
July	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Aug	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Sept	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Oct	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Nov	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Dec	100	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

2018	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	70.0	69.5	87.6	19.5	135	8.83	5.46	46.3	46.1	5.51	1.90	5.72	3.70	54.0
Feb	105	105	136	19.7	218	12.1	9.99	53.8	53.6	9.87	0.990	6.00	5.31	13.7
Mar	77.6	76.5	93.9	27.4	164	19.2	12.9	41.7	41.3	9.01	0.912	6.04	4.29	46.5
Apr	33.0	32.7	35.0	25.0	53.0	3.83	6.57	25.7	25.6	3.95	4.57	5.34	1.91	153
May	22.8	22.5	17.8	16.8	34.1	5.21	3.41	18.5	18.4	4.33	1.55	5.81	1.29	238
June	15.5	15.4	10.1	7.40	23.6	1.01	1.39	12.0	12.0	2.19	1.01	6.00	0.792	56.1
July	17.1	17.0	9.96	6.74	14.3	0.859	2.26	11.1	11.1	2.23	6.39	5.19	0.865	520
Aug	14.8	14.7	22.3	7.39	25.9	0.528	1.87	11.7	11.7	1.89	5.66	5.25	1.01	435
Sept	26.5	26.4	26.5	13.5	33.7	2.01	3.27	27.1	27.0	1.33	6.21	5.21	1.59	146
Oct	41.9	41.2	79.8	19.6	77.1	12.5	1.92	52.4	52.1	8.59	2.28	5.64	2.96	161
Nov	26.6	26.3	19.9	7.11	17.6	5.22	7.24	28.4	28.3	3.95	0.614	6.21	1.22	6.7
Dec	28.7	28.0	31.5	13.7	34.6	10.4	9.67	30.8	30.5	3.74	0.313	6.50	1.69	36.0
Annual	25.4	25.1	28.9	12.4	39.0	3.65	3.27	20.8	20.7	3.39	4.48	5.35	1.49	1866
Max.	142	141	184	38.8	312	30.2	16.5	61.1	60.6	16.7	36.4	6.58	7.15	
Min.	7.60	7.57	5.15	1.21	12.2	<0.3	0.665	7.50	7.50	<0.3	0.263	4.44	0.620	

Wet deposition amount

2018	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	3.78	3.75	4.73	1.05	7.32	0.477	0.295	2.50	2.49	0.297	0.103
Feb	1.44	1.43	1.87	0.270	2.98	0.166	0.137	0.738	0.734	0.135	0.0136
Mar	3.61	3.56	4.37	1.27	7.61	0.891	0.601	1.94	1.92	0.419	0.0424
Apr	5.05	5.01	5.36	3.83	8.11	0.586	1.01	3.94	3.92	0.605	0.699
May	5.42	5.35	4.25	3.99	8.12	1.24	0.811	4.41	4.39	1.03	0.368
June	0.867	0.864	0.567	0.415	1.33	0.0568	0.0777	0.675	0.674	0.123	0.0566
July	8.89	8.87	5.18	3.50	7.42	0.447	1.18	5.80	5.79	1.16	3.33
Aug	6.42	6.40	9.68	3.21	11.2	0.229	0.812	5.09	5.08	0.821	2.46
Sept	3.86	3.84	3.86	1.97	4.91	0.293	0.477	3.94	3.94	0.194	0.905
Oct	6.74	6.62	12.8	3.15	12.4	2.02	0.308	8.42	8.38	1.38	0.367
Nov	0.178	0.176	0.133	0.0476	0.118	0.0350	0.0485	0.190	0.190	0.0264	<0.01
Dec	1.03	1.01	1.13	0.494	1.25	0.373	0.348	1.11	1.10	0.135	0.0113
Annual	47.3	46.9	54.0	23.2	72.8	6.81	6.10	38.8	38.6	6.32	8.36

Data completeness

2018	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 3.65 Annual precipitation amount and precipitation amount-weighted average concentration in 2018

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	***	***	***	***	***	***	***	***	***	***	***	***	***	***
China	Haifu	1117	41.2	40.9	56.8	8.89	103	4.98	6.21	43.0	42.9	4.04	5.10	5.29	2.83
	Jinyunshan	935	36.3	36.2	44.6	4.47	79.3	1.81	2.75	34.2	34.2	3.34	14.2	4.85	2.65
	Shizhan	471	47.0	45.8	38.5	22.1	127	20.6	10.9	61.9	61.4	12.9	0.171	6.77	3.28
	Jiwozi	547	26.6	25.1	15.1	14.5	15.5	24.6	19.3	56.3	55.7	16.0	0.164	6.79	2.09
	Hongwen	978	17.7	16.3	27.1	62.7	25.0	24.0	37.8	26.5	26.0	4.77	2.30	5.64	2.07
	Xiaoping	840	13.1	12.7	25.3	22.5	23.5	6.55	14.4	8.12	7.98	2.12	14.6	4.84	1.29
	Xiang Zhou	2067	12.1	8.04	17.1	73.3	24.2	67.2	3.05	10.6	9.14	6.39	8.66	5.06	2.09
	Zhuxiandong	2109	15.7	10.3	19.3	102	23.6	89.3	4.65	17.7	15.8	10.2	6.98	5.16	2.38
Indonesia	Jakarta	1709	34.8	33.8	44.3	21.1	47.9	16.7	2.83	16.5	16.1	3.37	20.4	4.69	2.52
	Serpong	2117	33.6	32.5	48.0	23.7	69.4	17.7	6.02	21.2	20.8	4.42	6.10	5.21	2.30
	Kototabang	2905	5.59	5.39	7.47	4.85	7.35	3.40	2.06	8.57	8.50	1.06	4.88	5.31	0.429
	Bandung	1747	31.8	30.4	23.9	13.7	61.9	23.1	4.48	18.2	17.7	3.92	2.17	5.66	1.88
	Maros	3339	5.83	5.01	7.51	15.5	10.9	13.5	2.83	14.0	13.7	2.51	4.21	5.38	0.664
Japan	Rishiri	1087	22.5	12.2	19.3	194	22.3	170	4.83	8.45	4.78	19.9	13.6	4.87	3.78
	Ochiishi	1124	9.68	5.01	7.04	88.7	6.59	77.6	1.86	3.18	1.50	8.76	7.28	5.14	1.64
	Tappi	1649	17.4	7.83	12.2	185	10.3	159	3.87	6.07	2.63	18.3	11.0	4.96	3.16
	Sado-seki	1573	15.6	7.60	14.1	151	10.9	134	3.33	7.86	4.96	15.4	10.9	4.96	2.86
	Happo	2758	4.74	4.42	6.49	6.57	5.57	5.41	0.423	2.12	2.01	1.03	6.31	5.20	0.560
	Ijira	3725	7.43	6.55	10.4	18.0	9.12	14.6	0.462	1.86	1.54	1.92	12.1	4.92	0.959
	Oki	1308	35.1	10.8	16.9	473	12.1	405	9.86	13.1	4.35	46.1	13.6	4.87	6.96
	Banryu	1662	11.6	8.21	13.6	65.0	9.62	56.7	1.66	3.30	2.08	6.66	13.5	4.87	1.85
	Yusuhara	4022	5.28	4.40	4.37	16.6	3.15	14.5	0.664	0.848	0.558	1.78	10.0	5.00	0.804
	Hedo	2632	12.8	3.12	4.99	186	3.19	160	3.52	5.31	1.90	20.8	7.96	5.10	3.00
	Ogasawara	960	3.99	1.23	2.08	52.8	2.02	46.7	1.10	1.28	0.302	5.45	5.96	5.23	1.02
	Tokyo	1296	10.6	8.51	15.4	39.7	21.7	34.5	0.842	3.46	2.72	4.15	11.8	4.93	1.43
Lao PDR	Vientiane	**	**	**	**	**	**	**	**	**	**	**	**	**	**
Malaysia	Petaling Jaya	3848	15.5	15.2	36.4	9.75	19.8	5.33	1.90	6.96	6.84	0.724	31.6	4.50	2.17
	Tanah Rata	2607	4.23	4.08	5.83	4.09	2.04	2.48	1.36	2.76	2.71	<0.3	13.7	4.86	0.808
	Danum Valley	2489	3.22	2.91	0.945	7.29	1.75	5.16	2.64	2.52	2.41	1.30	4.97	5.30	0.433
	Kuching	3804	4.28	3.76	5.25	10.9	5.24	8.49	1.54	4.28	4.10	0.607	5.62	5.25	0.612
Mongolia	Ulanbaatar	170	32.1	29.6	24.4	4.41	57.4	41.5	1.01	23.5	22.6	2.50	1.73	5.76	1.40
	Terelj	149	26.7	23.9	25.5	5.77	31.0	49.5	3.65	15.3	14.4	1.46	1.56	5.81	1.19
Myanmar	Yangon	2940	8.09	6.77	9.98	21.8	19.5	21.9	4.38	16.6	16.1	4.72	0.264	6.58	0.644
Philippines	Metro Manila														
	Los Baños														
	Mt. Sto. Tomas														
R of Korea	Kanghwa	628	14.2	12.4	28.6	42.3	38.6	30.4	5.01	3.20	2.56	1.09	13.2	4.88	1.67
	Cheju	1035	23.4	7.55	20.5	293	25.7	264	6.53	6.64	2.29	18.1	1.36	5.87	4.74
	Imsil	1171	10.6	8.33	21.1	27.6	26.8	38.5	2.18	1.64	1.17	0.648	2.00	5.70	1.07
Russia	Mondy	362	4.37	4.24	5.30	2.39	8.38	2.11	1.27	5.35	5.30	1.07	6.50	5.19	0.576
	Listvyanka	225	21.2	20.8	17.8	2.93	13.8	3.01	2.01	12.4	12.4	2.95	17.9	4.75	1.43
	Irkutsk	442	31.1	30.6	13.2	10.0	21.0	8.80	3.06	27.8	27.6	5.32	14.0	4.86	1.90
	Primorskaya	1023	29.9	28.6	26.4	21.5	33.0	21.9	8.36	14.7	14.2	9.23	1.49	5.83	1.53
Thailand	Bangkok	1144	15.1	14.5	38.0	14.4	52.9	11.4	2.26	27.1	26.9	3.00	0.902	6.04	1.64
	Samutprakarn	1471	10.3	9.69	18.7	10.9	40.1	9.95	1.63	8.67	8.46	2.14	3.01	5.52	1.05
	Pathumthani	1322	7.17	6.87	18.3	6.98	35.6	5.10	1.35	7.97	7.86	1.14	7.57	5.12	1.24
	Khanchanaburi	994	2.66	2.17	4.03	7.60	6.33	8.17	1.72	3.54	3.36	1.44	1.73	5.76	0.382
	Mae Hia	818	4.17	3.74	8.86	7.19	15.1	7.89	1.90	7.01	6.84	0.656	3.07	5.51	0.526
	Sakaerat	1129	9.62	8.95	13.6	5.08	63.3	11.0	6.95	35.1	34.9	8.17	7.28	5.14	0.870
Vietnam	Hanoi	1900	44.5	43.9	46.3	23.0	56.9	11.2	8.06	40.6	40.3	6.49	3.04	5.52	2.47
	Hoa Binh	2799	21.9	21.8	16.4	9.84	29.0	2.79	3.89	13.7	13.7	3.11	5.51	5.26	1.22
	Cuc Phuong	2521	13.5	12.7	9.19	30.2	5.39	13.4	4.00	18.0	17.7	10.2	3.57	5.45	1.10
	Da Nang	2597	13.9	9.85	<0.5	97.8	14.1	68.1	15.6	36.5	35.0	10.6	1.64	5.78	2.41
	Can Tho	2608	22.7	22.1	3.07	30.4	12.3	9.73	6.27	14.4	14.2	9.84	1.34	5.87	1.27
	Ho Chi Minh	2480	25.6	24.8	4.90	36.3	20.7	14.2	8.29	18.2	17.9	10.2	0.773	6.11	1.35
	Yen Bai	1866	25.4	25.1	28.9	12.4	39.0	3.65	3.27	20.8	20.7	3.39	4.48	5.35	1.49

Terms and abbreviations are given in Table 3.5.

Table 3.66 Annual wet depositions in 2018

Country	Name of sites	SO_4^{2-}	nss-SO_4^{2-}	NO_3^-	Cl^-	NH_4^+	Na^+	K^+	Ca^{2+}	nss-Ca^{2+}	Mg^{2+}	H^+
		mmol $m^{-2}y^{-1}$	mmol $m^{-2}y^{-1}$	mmol $m^{-2}y^{-1}$	mmol $m^{-2}y^{-1}$	mmol $m^{-2}y^{-1}$	mmol $m^{-2}y^{-1}$	mmol $m^{-2}y^{-1}$	mmol $m^{-2}y^{-1}$	mmol $m^{-2}y^{-1}$	mmol $m^{-2}y^{-1}$	mmol $m^{-2}y^{-1}$
Cambodia	Phnom Penh	***	***	***	***	***	***	***	***	***	***	***
China	Haifu	46.1	45.7	63.5	9.93	115	5.56	6.94	48.0	47.9	4.52	5.70
	Jinyunshan	33.9	33.8	41.7	4.18	74.2	1.69	2.57	32.0	32.0	3.13	13.2
	Shizhan	22.1	21.5	18.1	10.4	59.8	9.72	5.13	29.1	28.9	6.06	0.0803
	Jiwozi	14.5	13.7	8.25	7.94	8.50	13.4	10.6	30.7	30.5	8.74	0.09
	Hongwen	17.3	15.9	26.5	61.3	24.4	23.4	37.0	26.0	25.4	4.66	2.25
	Xiaoping	11.0	10.7	21.3	18.9	19.8	5.50	12.1	6.83	6.71	1.78	12.2
	Xiang Zhou	25.0	16.6	35.3	152	50.0	139	6.30	21.9	18.9	13.2	17.9
	Zhuxiandong	33.1	21.8	40.7	214	49.8	188	9.80	37.4	33.3	21.5	14.7
Indonesia	Jakarta	59.4	57.7	75.8	36.1	81.9	28.5	4.83	28.2	27.6	5.76	34.8
	Serpong	71.0	68.8	102	50.2	147	37.4	12.8	44.9	44.1	9.36	12.9
	Kototabang	16.2	15.7	21.7	14.1	21.4	9.88	5.98	24.9	24.7	3.08	14.2
	Bandung	55.6	53.2	41.8	24.0	108	40.4	7.82	31.8	31.0	6.86	3.79
	Maros	19.4	16.7	25.1	51.8	36.5	45.2	9.44	46.8	45.8	8.39	14.1
Japan	Rishiri	24.4	13.3	20.9	211	24.2	185	5.25	9.19	5.20	21.7	14.8
	Ochiishi	10.9	5.63	7.92	99.6	7.40	87.2	2.09	3.57	1.69	9.84	8.18
	Tappi	28.8	12.9	20.1	305	16.9	263	6.38	10.0	4.35	30.2	18.1
	Sado-seki	24.6	12.0	22.2	237	17.2	211	5.23	12.4	7.80	24.3	17.1
	Happo	13.1	12.2	17.9	18.1	15.4	14.9	1.17	5.86	5.53	2.84	17.4
	Ijira	27.7	24.4	38.6	66.9	34.0	54.4	1.72	6.92	5.74	7.17	45.1
	Oki	45.9	14.1	22.0	619	15.8	530	12.9	17.1	5.69	60.4	17.8
	Banryu	19.3	13.7	22.6	108	16.0	94.3	2.76	5.49	3.46	11.1	22.5
	Yusuhara	21.2	17.7	17.6	66.8	12.7	58.3	2.67	3.41	2.24	7.18	40.3
	Hedo	33.6	8.21	13.1	490	8.39	421	9.26	14.0	5.01	54.7	21.0
	Ogasawara	3.83	1.18	2.00	50.7	1.94	44.8	1.06	1.23	0.290	5.23	5.72
	Tokyo	13.7	11.0	20.0	51.5	28.1	44.7	1.09	4.49	3.52	5.38	15.3
Lao PDR	Vientiane	**	**	**	**	**	**	**	**	**	**	**
Malaysia	Petaling Jaya	59.6	58.4	140	37.5	76.0	20.5	7.33	26.8	26.3	2.79	122
	Tanah Rata	11.0	10.6	15.2	10.7	5.33	6.46	3.54	7.19	7.05	0.673	35.7
	Danum Valley	8.01	7.24	2.35	18.1	4.34	12.8	6.58	6.27	5.99	3.25	12.4
	Kuching	16.3	14.3	20.0	41.3	19.9	32.3	5.84	16.3	15.6	2.31	21.4
Mongolia	Ulanbaatar	5.48	5.05	4.16	0.752	9.78	7.07	0.172	4.00	3.85	0.426	0.295
	Terelj	3.98	3.56	3.81	0.860	4.62	7.38	0.544	2.29	2.14	0.218	0.233
Myanmar	Yangon	23.8	19.9	29.3	64.1	57.4	64.3	12.9	48.8	47.4	13.9	0.777
Philippines	Metro Manila											
	Los Baños											
	Mt. Sto. Tomas											
R of Korea	Kanghwa	8.93	7.77	17.9	26.6	24.2	19.1	3.14	2.01	1.61	0.683	8.27
	Cheju	24.3	7.82	21.2	303	26.6	273	6.76	6.87	2.37	18.7	1.41
	Imsil	12.4	9.75	24.6	32.4	31.4	45.1	2.55	1.92	1.37	0.759	2.34
Russia	Mondy	1.58	1.54	1.92	0.864	3.03	0.764	0.461	1.94	1.92	0.386	2.35
	Listvyanka	4.77	4.68	3.99	0.658	3.11	0.677	0.452	2.80	2.78	0.663	4.03
	Irkutsk	13.7	13.5	5.82	4.43	9.29	3.89	1.35	12.3	12.2	2.35	6.17
	Primorskaya	30.6	29.3	27.0	22.0	33.8	22.4	8.56	15.0	14.5	9.44	1.53
Thailand	Bangkok	17.3	16.5	43.4	16.5	60.5	13.0	2.58	31.0	30.7	3.43	1.03
	Samutprakarn	15.1	14.3	27.5	16.0	58.9	14.6	2.40	12.8	12.4	3.14	4.43
	Pathumthani	9.47	9.09	24.2	9.23	47.0	6.74	1.78	10.5	10.4	1.51	10.0
	Khanchanaburi	2.65	2.16	4.00	7.55	6.29	8.12	1.71	3.52	3.34	1.43	1.72
	Mae Hia	3.41	3.06	7.25	5.89	12.3	6.45	1.55	5.74	5.60	0.537	2.51
	Sakaerat	10.9	10.1	15.4	5.74	71.5	12.5	7.85	39.7	39.4	9.23	8.21
Vietnam	Hanoi	84.6	83.3	88.0	43.7	108	21.2	15.3	77.1	76.6	12.3	5.77
	Hoa Binh	61.4	61.0	45.9	27.5	81.1	7.80	10.9	38.4	38.2	8.70	15.4
	Cuc Phuong	34.0	31.9	23.2	76.1	13.6	33.9	10.1	45.4	44.7	25.6	8.99
	Da Nang	36.2	25.6	1.12	254	36.6	177	40.5	94.8	91.0	27.6	4.27
	Can Tho	59.1	57.5	8.01	79.4	32.0	25.4	16.4	37.5	37.0	25.7	3.50
	Ho Chi Minh	63.5	61.4	12.2	89.9	51.3	35.1	20.6	45.1	44.3	25.2	1.92
	Yen Bai	47.3	46.9	54.0	23.2	72.8	6.81	6.10	38.8	38.6	6.32	8.36

Terms and abbreviations are given in Table 3.5.

Table 3.67 Data completeness for annual summaries in 2018 (%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	***	***	***	***	***	***	***	***	***	***	***	***	***	***
China	Haifu	100	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6
	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	99.2	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
	Ochiishi	99.7	83.6	83.6	83.6	83.6	83.6	83.6	83.6	83.6	83.6	83.6	81.2	81.2	81.2
	Tappi	99.2	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	98.6	98.6	98.6
	Sado-seki	95.9	56.3	56.3	56.3	56.3	56.3	56.3	56.3	56.3	56.3	56.3	55.3	55.3	55.3
	Happo	98.1	79.1	79.1	79.1	79.1	79.1	79.1	79.1	79.1	79.1	79.1	77.6	77.6	77.6
	Ijira	97.5	88.7	88.7	88.7	88.7	88.7	88.7	88.7	88.7	88.7	88.7	88.7	88.7	88.7
	Oki	97.5	96.4	96.4	96.4	96.4	96.4	96.4	96.4	96.4	96.4	96.4	95.6	95.6	95.6
	Banryu	100	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.7	97.7	97.7
	Yusuhara	100	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	97.9	97.9	97.9
	Hedo	95.6	81.5	81.5	81.5	81.5	81.5	81.5	81.5	81.5	81.5	81.5	81.5	81.5	81.5
	Ogasawara	99.5	82.5	82.5	82.5	82.5	82.5	82.5	82.5	82.5	82.5	82.5	80.8	80.8	80.8
	Tokyo	99.7	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2	97.7	97.7	97.7
Lao PDR	Vientiane	0.0	**	**	**	**	**	**	**	**	**	**	**	**	**
Malaysia	Petaling Jaya	100	97.1	97.1	97.1	97.1	97.1	97.1	97.1	97.1	97.1	97.1	97.1	97.1	97.1
	Tanah Rata	100	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
	Danum Valley	100	53.6	53.6	53.6	53.6	53.6	53.6	53.6	53.6	53.6	53.6	53.6	53.6	53.6
	Kuching	100	92.6	92.6	92.6	92.6	92.6	92.6	92.6	92.6	92.6	92.6	92.6	92.6	92.6
Mongolia	Ulanbaatar	100	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	100	100	100
	Terelj	100	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	100	100	100
Myanmar	Yangon	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Philippines	Metro Manila														
	Los Baños														
	Mt. Sto. Tomas														
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	99.3	100	100	99.7	99.3	99.3	99.3	99.3	99.3	100	100	100
	Irkutsk	100	99.9	99.9	99.9	99.9	99.6	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
	Primorskaya	100	95.3	95.3	95.3	95.3	95.3	95.3	95.3	95.3	95.3	95.3	100	100	95.3
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	99.9	99.9	99.9
	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	99.7	99.7	99.7
	Sakaerat	100	100	100	100	100	100	100	100	100	100	100	98.7	98.7	98.7
Vietnam	Hanoi	100	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
	Hoa Binh	100	100	100	100	100	100	100	100	100	100	100	100	100	100
	Cuc Phuong	100	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
	Da Nang	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
	Can Tho	100	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6
	Ho Chi Minh	100	100	100	100	100	100	100	100	100	100	100	100	100	100
	Yen Bai	100	100	100	100	100	100	100	100	100	100	100	100	100	100

Terms and abbreviations are given in Table 3.5.

Table 3.68 Results of ion balance and conductivity agreement check in 2018

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	***	***	***	***	***	***	***	***	***	***
China	Haifu*	129	129	124	96.1	129	129	100	129	124	96.1
	Jinyunshan*	102	102	89	87.3	102	101	99.0	102	88	86.3
	Shizhan	39	39	1	2.6	39	32	82.1	39	1	2.6
	Jiwozi	50	50	3	6.0	50	36	72.0	50	3	6.0
	Hongwen*	45	45	27	60.0	45	36	80.0	45	22	48.9
	Xiaoping*	73	73	64	87.7	73	56	76.7	73	52	71.2
	Xiang Zhou*	77	77	35	45.5	77	52	67.5	77	24	31.2
	Zhuxiandong*	85	85	35	41.2	85	80	94.1	85	33	38.8
Indonesia	Jakarta	30	30	19	63.3	30	25	83.3	30	18	60.0
	Serpong	71	71	55	77.5	71	69	97.2	71	54	76.1
	Kototabang	45	45	17	37.8	45	33	73.3	45	13	28.9
	Bandung	88	88	35	39.8	88	79	89.8	88	34	38.6
	Maros	39	39	6	15.4	39	31	79.5	39	3	7.7
Japan	Rishiri	178	144	142	98.6	144	144	100	144	142	98.6
	Ochiishi*	140	75	74	98.7	75	75	100	75	74	98.7
	Tappi*	192	130	130	100	130	130	100	130	130	100
	Sado-seki*	136	81	81	100	81	81	100	81	81	100
	Happo	142	115	110	95.7	115	113	98.3	115	110	95.7
	Ijira	43	42	42	100	42	42	100	42	42	100
	Oki	193	129	129	100	129	129	100	129	129	100
	Banryu	46	41	41	100	41	41	100	41	41	100
	Yusuhara*	177	165	163	98.8	165	165	100	165	163	98.8
	Hedo	161	119	119	100	119	119	100	119	119	100
	Ogasawara*	111	83	80	96.4	83	83	100	83	80	96.4
	Tokyo*	126	98	95	96.9	98	98	100	98	95	96.9
Lao PDR	Vientiane	22	**	**	**	**	**	**	**	**	**
Malaysia	Petaling Jaya*	48	48	46	95.8	48	48	100	48	46	95.8
	Tanah Rata*	47	47	35	74.5	47	43	91.5	47	34	72.3
	Danum Valley*	27	27	18	66.7	27	26	96.3	27	18	66.7
	Kuching*	49	49	39	79.6	49	45	91.8	49	37	75.5
Mongolia	Ulanbaatar	28	26	4	15.4	26	19	73.1	26	3	11.5
	Terelj	33	32	5	15.6	32	20	62.5	32	4	12.5
Myanmar	Yangon	29	29	1	3.4	29	7	24.1	29	0	0
Philippines	Metro Manila										
	Los Baños										
	Mt. Sto. Tomas										
R of Korea	Kanghwa	41	41	41	100	41	41	100	41	41	100
	Cheju	46	46	44	95.7	46	46	100	46	44	95.7
	Imsil	65	65	62	95.4	65	65	100	65	62	95.4
Russia	Mondy*	27	27	27	100	27	27	100	27	27	100
	Listvyanka*	50	48	46	95.8	48	48	100	48	46	95.8
	Irkutsk*	103	97	94	96.9	97	96	99.0	97	94	96.9
	Primorskaya	105	67	67	100	67	67	100	67	67	100
Thailand	Bangkok*	39	39	2	5.1	39	33	84.6	39	2	5.1
	Samutprakarn*	71	71	13	18.3	71	65	91.5	71	11	15.5
	Pathumthani*	103	99	24	24.2	99	77	77.8	99	20	20.2
	Khanchanaburi*	46	46	19	41.3	46	41	89.1	46	16	34.8
	Mae Hia*	85	75	22	29.3	75	70	93.3	75	19	25.3
	Sakaerat*	115	94	2	2.1	94	7	7.4	94	0	0
Vietnam	Hanoi*	40	40	35	87.5	40	40	100	40	35	87.5
	Hoa Binh*	35	35	34	97.1	35	35	100	35	34	97.1
	Cuc Phuong*	46	32	32	100	32	32	100	32	32	100
	Da Nang*	42	37	37	100	37	37	100	37	37	100
	Can Tho*	42	38	38	100	38	38	100	38	38	100
	Ho Chi Minh*	29	29	22	75.9	29	29	100	29	22	75.9
	Yen Bai*	42	42	38	90.5	42	42	100	42	38	90.5

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 2018

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	2017	2018
Cambodia	PhnomPenh					419	1308	949	1374	1834	1326	1851	1277	1617	1345	1561	1103	1277	1379	***
China	Guanyinqiao	1081	752	1445	987	1387	1077	842	1299											
	Nanshan	1259																		
	Haifu									1010	1066	977	810	1010	1026	1417	1220	1270	1217	1117
	Jinyunshan		710	1607	1233	1518	1461	1196	1645	1213	1098	979	848	1005	1127	1490	1288	1217	1268	935
	Shizhan	559	364	349	1273	601	509	483	527	385	592	459	659	393	441	623	594	415	577	471
	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	508	547
	Hongwen	1517	296	1568	1301	1065	1702	2134	1347	945	737	1530	843	924	1403	1129	1015	1771	538	978
	Xiaoping	1566	2682	2171	1768	1958	2921	2352	1044	2000	1134	1518	1531	1291	1979	1364	1557	1851	676	840
	Xiang Zhou	2031	1990	1731	1726	1340	1179	1529	1442	2815	2010	1857	1259	1518	2421	1673	1431	2344	1905	2067
	Zhuxiandong	1779	2571	1581	1755	1277	1062	887	***	2311	1580	1853	1146	***	***	***	1598	2356	1817	2109
Indonesia	Jakarta	1577	1237	1572	1617	1469	2125	1481	2171	1717	1557	2120	990	2722	2331	3168	2807	1976	1307	1709
	Serpong	***	1607	2505	2143	1462	824	1603	2015	2370	1344	1426	830	894	2324	2882	1770	2929	3197	2117
	Kototabang	2340	1209	1798	3127	2111	2194	1248	2772	2481	2656	2370	2193	2639	2120	2496	2503	2163	2437	2905
	Bandung	893	2605	2541	1606	894	1749	1311	1969	2334	2683	2606	1530	2084	2346	2033	2012	2699	1921	1747
	Maros									3037	3237	2663	3632	2451	4033	2763	2479	1973	2301	3339
Japan	Rishiri	770	615	957	709	945	961	1294	883	828	1054	1072	1232	1172	1170	1033	1092	1299	938	1087
	Ochiishi				782	648	822	997	866	730	1580	1085	818	871	1059	838	827	1138	836	1124
	Tappi	1049	1082	1329	1150	1473	1240	964	1055	824	1337	1555	1144	1178	1070	1194	1114	1222	1129	1649
	Sado-seki	1068	971	1433	1126	1539	1143	1264	1163	1021	1037	1368	1387	1296	1576	1409	867	999	1262	1573
	Happo	2188	2345	2607	2461	3088	2997	2755	2329	1645	2352	2621	3076	2002	2658	2453	2242	2446	3121	2758
	Ijira	2685	2237	2648	2967	3424	2569	2829	2263	2250	2876	3847	3068	2862	2724	3044	3135	3151	2919	3725
	Oki	1209	1246	1571	1597	1409	1313	1396	1160	1110	1123	1452	1534	1296	1395	1053	1061	1519	992	1308
	Banryu	1565	1788	1303	1752	1738	1290	1960	1273	1268	1735	1471	1432	1208	2024	1516	1458	1829	1471	1662
	Yusuhara	2801	2080	2346	2839	3970	2321	3160	2373	2189	2068	2476	3401	3048	2485	3529	3046	2744	2594	4022
	Hedo	2907	2126	2032	1393	1778	1780	1863	2701	1961	1975	2643	1766	2837	1612	2442	1762	1822	1623	2632
	Ogasawara	1985	1806	1331	1398	1171	2050	1585	1567	1674	1675	1856	1297	1572	1265	1532	1586	1153	1654	960
	Tokyo								1080	1860	1727	1656	1388	1635	1609	1807	1641	1609	1280	1296
Lao PDR	Vientiane				88.6	442	665	709	1399	1668	181	***	***	1322	***	1273	921	471	**	**
Malaysia	Petaling Jaya	3417	3085	2660	3041	2996	2848	4009	3021	3747	2968	3517	3607	3412	3570	3708	3751	3432	3125	3848
	Tanah Rata	3127	2626	2783	3010	2415	2886	2785	2968	3925	3077	2451	3293	2846	2771	2895	2684	2366	3016	2607
	Danum Valley						1256	3005	2988	2999	3391	2370	3787	2958	3202	2848	2025	2987	2964	2489
	Kuching									4286	4671	4645	4632	3796	4110	3656	4428	5655	3828	3804
Mongolia	Ulaanbaatar	197	166	179	297	83.4	150	188	126	155	228	153	163	170	154	***	150	160	160	170
	Terelj	208	88.6	246	312	207	246	215	185	206	111	130	144	117	90.8	***	100	106	105	149
Myanmar	Yangon								3981	6375	3010	2280	3151	2570	2692	2872	2432	2180	2813	2940
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	588	628
	Cheju	1058	1114	1017	1291	1124	699	1127	1244	843	1039	1003	1076	1199	636	1195	1452	1121	714	1035
	Imsil		1299	993	1876	1207	1248	709	1344	854	1069	1642	1493	1400	1220	1101	719	838	761	1171
Russia	Mondy	305	319	204	409	360	286	410	351	206	119	90.2	73.5	105	330	123	136	222	191	362
	Listvyanka	442	494	360	540	551	452	311	408	391	312	327	478	343	278	279	335	316	315	225
	Irkutsk	534	468	303	457	553	442	357	478	527	430	375	329	443	277	388	291	481	502	442
	Primorskaya			835	323	692	737	623	989	553	864	673	621	922	723	643	1157	925	635	1023
Thailand	Bangkok	1148	1174	1300	1385	1211	2006	1589	1579	1776	2072	2023	2171	1799	1330	1011	1593	1631	1592	1144
	Samutprakarn	978				1260	1625	1420	1871	1734	1989	1880	2103	953	1115	991	1442	1810	1815	1471
	Pathumthani	956	1349	948	1658	976	1268	1608	1381	1670	1314	1763	1562	1563	1181	1059	1071	1069	1365	1322
	Khanchanaburi	881	1516	2200	1627	1392	2043	2518	1704	1962	1998	1626	1941	2390	1501	979	1093	1059	1178	994
	Mae Hia		1084	1473	808	1151	1430	1420	937	1286	1052	1167	1614	1111	1433	527	747	743	1234	818
	Sakaerat							1190	1386	1722	1259	1627	1509	1126	1443	427	1385	1083	1692	1129
Vietnam	Hanoi	1256	2255	1416	1586	1575	1761	1231	1659	2267	1609	1236	1817	1798	1945	1661	1273	1661	2071	1900
	HoaBinh	1894	2223	1626	1691	1831	2279	1546	1949	1978	1357	1370	1760	1915	2008	1303	1616	1438	1895	2799
	Cuc Phuong										2266	1654	1853	2018	1898	1702	1461	1937	2236	2521
	Da Nang										2966	1690	3639	1682	2315	2219	1891	2723	2244	2597
	Can Tho															1840	2205	1670	1907	2608
	Ho Chi Minh															1916	1420	2553	3444	2480
	Yen Bai																1514	1815	2397	1866

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 2018

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	2017	2018
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	11.3	***
China	Guanyinqiao	152	205	114	110	165	186	177	130											
	Nanshan	130																		
	Haifu									144	99.3	139	142	102	106	84.4	50.3	46.9	41.0	41.2
	Jinyunshan		124	78.3	83.2	109	102	141	90.4	120	114	151	141	124	81.4	60.4	43.9	40.0	36.5	36.3
	Shizhan	356	470	850	203	173	126	274	183	191	136	100.0	110	109	141	113	82.8	62.5	72.5	47.0
	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	35.8	26.6
	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	31.7	17.7
	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	14.6	13.1
	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	14.1	12.1
	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	14.1	15.7
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	17.3	34.8
	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	25.5	33.6
	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	4.48	5.59
	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	35.0	31.8
	Maros									5.38	6.96	10.8	8.26	8.77	6.44	7.56	6.19	10.4	6.34	5.83
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	24.6	22.5
	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	18.0	9.68
	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	22.1	17.4
	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	19.6	15.6
	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	4.66	4.74
	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	10.1	7.43
	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	40.7	35.1
	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	16.2	11.6
	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	19.8	5.28
	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	28.0	12.8
	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	12.8	3.99
	Tokyo								17.1	19.6	16.0	10.9	15.9	15.6	12.2	13.9	11.7	9.36	11.3	10.6
Lao PDR	Vientiane				***	***	***	3.46	4.67	5.06	4.05	***	***	2.41	***	***	3.19	3.66	**	**
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	13.5	15.5
	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	3.53	4.23
	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	2.70	3.22
	Kuching									4.14	3.78	3.57	4.07	4.67	5.01	7.14	4.68	4.07	4.00	4.28
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	34.6	32.1
	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	13.5	26.7
Myanmar	Yangon								***	***	8.01	4.52	6.63	7.48	7.96	4.55	4.62	9.19	11.6	8.09
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	23.5	14.2
	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	31.6	23.4
	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	18.6	10.6
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	6.43	4.37
	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	22.5	21.2
	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	25.7	31.1
	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	34.2	29.9
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	17.0	15.1
	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	8.90	10.3
	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	8.91	7.17
	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	3.33	2.66
	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	6.21	4.17
	Sakaerat							8.24	6.44	7.36	6.44	7.04	5.30	6.64	7.49	10.8	6.53	6.94	4.93	9.62
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	34.6	44.5
	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	18.9	21.9
	Cuc Phuong										18.5	20.3	37.6	24.3	26.9	18.5	18.8	16.7	16.2	13.5
	Da Nang										18.8	16.4	21.1	19.6	24.2	15.8	11.4	11.7	16.5	13.9
	Can Tho															8.73	30.7	15.9	16.2	22.7
	Ho Chi Minh															24.2	47.6	19.2	23.4	25.6
	Yen Bai																22.6	43.6	26.2	25.4

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 2018

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	2017	2018
Cambodia	PhnomPenh					***	***	5.08	22.0	8.67	11.2	7.18	8.83	10.3	7.80	5.81	6.66	5.11	11.0	***
China	Guanyinqiao	151	205	114	109	165	185	177	130											
	Nanshan	130																		
	Haifu									144	99.0	138	142	101	106	84.0	50.1	46.5	40.7	40.9
	Jinyunshan		123	78.0	82.9	109	101	140	90.0	120	113	151	140	124	81.2	60.1	43.8	39.8	36.4	36.2
	Shizhan	353	460	835	199	171	125	271	182	190	135	99.5	109	109	132	105	75.9	59.2	70.8	45.8
	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	33.8	25.1
	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	29.5	16.3
	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	14.2	12.7
	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	11.0	8.04
	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	12.6	10.3
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	16.7	33.8
	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	24.8	32.5
	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	4.27	5.39
	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	33.9	30.4
	Maros									4.43	6.18	10.0	7.36	7.65	5.28	6.24	5.99	5.58	3.71	5.01
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	12.2	12.2
	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	4.87	5.01
	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	10.7	7.83
	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	10.6	7.60
	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	4.36	4.42
	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	9.20	6.55
	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	11.5	10.8
	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	10.9	8.21
	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	16.7	4.40
	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	5.94	3.12
	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	2.09	1.23
	Tokyo								15.0	18.4	14.5	9.86	13.6	13.8	10.8	12.8	10.6	8.49	8.89	8.51
Lao PDR	Vientiane				***	***	***	3.03	4.53	4.88	3.50	***	***	***	***	***	3.02	3.56	**	**
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	13.2	15.2
	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	3.38	4.08
	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	2.56	2.91
	Kuching									3.82	3.33	3.17	3.53	4.35	4.56	6.58	3.91	3.33	3.44	3.76
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	33.3	29.6
	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	12.7	23.9
Myanmar	Yangon								***	***	6.90	3.90	5.72	6.15	7.33	3.51	4.09	8.24	10.7	6.77
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	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	21.9	12.4
of Korea	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	15.9	7.55
	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	16.5	8.33
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	6.27	4.24
	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	22.3	20.8
	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	25.2	30.6
	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	32.6	28.6
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	16.7	14.5
	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	8.47	9.69
	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	8.61	6.87
	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	3.05	2.17
	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	5.85	3.74
	Sakaerat							7.97	6.18	7.11	6.27	6.85	5.05	6.42	7.31	10.3	6.25	6.70	4.80	8.95
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	33.6	43.9
	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	18.7	21.8
	Cuc Phuong										17.8	19.6	36.8	23.1	25.3	17.9	18.3	15.9	15.1	12.7
	Da Nang										13.1	13.9	16.8	16.1	15.6	10.8	6.65	7.75	11.6	9.85
	Can Tho															7.80	28.9	15.1	15.6	22.1
	Ho Chi Minh															22.7	45.5	18.4	22.3	24.8
	Yen Bai																22.2	43.0	26.0	25.1

Terms and abbreviations are given in Table 3.5.

Table 3.72 Precipitation amount-weighted annual average concentrations of NO_3^- from 2000 to 2018

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	2017	2018
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	10.9	***
China	Guanyinqiao	42.1	52.8	34.4	38.9	43.9	41.3	60.7	48.8											
	Nanshan	41.6																		
	Haifu									65.0	53.2	77.6	83.1	73.9	73.9	64.1	47.4	52.3	51.8	56.8
	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	36.8	44.6
	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	25.2	38.5
	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	2.55	15.1
	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	43.7	27.1
	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	28.1	25.3
	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	18.1	17.1
	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	22.8	19.3
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	18.9	44.3
	Serpong	***	50.7	32.6	30.8	39.7	39.4	28.3	30.4	30.3	25.4	29.8	35.5	31.5	39.5	36.2	48.1	31.7	31.1	48.0
	Kototabang	6.16	2.74	5.64	49.3	4.71	1.58	1.40	3.57	2.79	<0.5	2.37	5.05	4.65	2.86	7.48	3.60	4.16	3.78	7.47
	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	25.9	23.9
	Maros									3.51	5.36	6.35	7.51	9.05	3.65	6.10	6.29	8.79	3.48	7.51
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	18.7	19.3
	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	6.83	7.04
	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	19.5	12.2
	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	18.6	14.1
	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	5.96	6.49
	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	15.4	10.4
	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	21.0	16.9
	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	22.2	13.6
	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	26.3	4.37
	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	8.76	4.99
	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	2.81	2.08
	Tokyo								19.5	24.4	18.1	15.3	21.7	18.8	16.1	16.8	16.3	11.8	14.0	15.4
Lao PDR	Vientiane				***	***	***	6.94	6.90	5.96	9.73	***	***	5.55	***	***	4.12	4.07	**	**
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	28.8	36.4
	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	7.89	5.83
	Danum Valley						2.50	1.41	0.676	1.37	1.65	1.42	1.05	0.956	1.97	0.738	1.88	0.888	<0.5	0.945
	Kuching									4.98	4.55	4.91	5.00	3.82	4.52	5.29	3.61	4.16	4.64	5.25
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	30.4	24.4
	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	43.5	25.5
Myanmar	Yangon								***	***	7.23	4.96	6.30	8.31	6.72	4.80	8.25	14.9	18.3	9.98
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	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	41.9	28.6
of Korea	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	39.7	20.5
	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	34.8	21.1
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	9.75	5.30
	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	19.3	17.8
	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	14.4	13.2
	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	35.0	26.4
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	20.2	38.0
	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	15.7	18.7
	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	28.4	18.3
	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	4.95	4.03
	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	10.1	8.86
	Sakaerat							11.3	11.4	11.5	12.7	14.6	9.97	11.2	10.4	24.5	12.8	13.5	10.6	13.6
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	34.8	46.3
	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	22.2	16.4
	Cuc Phuong										10.9	23.2	27.8	20.1	16.7	10.2	13.4	11.4	14.0	9.19
	Da Nang										11.4	7.02	15.8	4.79	5.41	5.29	<0.5	2.78	5.39	<0.5
	Can Tho															8.38	11.7	3.31	3.83	3.07
	Ho Chi Minh															17.9	18.0	7.42	10.8	4.90
	Yen Bai																17.8	40.3	24.5	28.9

Terms and abbreviations are given in Table 3.5.

Table 3.73 Precipitation amount-weighted annual average concentrations of Cl^- from 2000 to 2018

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	2017	2018
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	6.09	***
China	Guanyinqiao	24.0	29.8	15.6	16.2	14.7	18.3	19.3	13.8											
	Nanshan	15.6																		
	Haifu									13.8	11.0	16.2	14.3	11.4	12.7	11.1	7.78	8.34	7.80	8.89
	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	5.34	4.47
	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	8.93	22.1
	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	16.7	14.5
	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	71.7	62.7
	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	21.5	22.5
	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	61.1	73.3
	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	29.3	102
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	12.4	21.1
	Serpong	***	32.3	23.0	27.2	23.8	19.8	10.9	14.3	17.0	17.6	22.4	15.1	24.1	22.7	25.5	22.3	16.0	16.4	23.7
	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	6.28	4.85
	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	14.9	13.7
	Maros									20.1	15.3	21.1	16.1	20.0	36.3	36.2	6.90	154	114	15.5
Japan	Rishiri	372	235	217	201	256	233	126	161	268	193	184	156	332	222	184	160	79.8	234	194
	Ochiishi				227	410	232	317	219	194	205	266	180	307	486	112	201	161	258	88.7
	Tappi	178	156	191	154	231	250	326	262	226	217	124	167	162	289	176	283	195	215	185
	Sado-seki	274	378	307	107	154	337	256	257	236	364	351	182	293	355	317	367	199	170	151
	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	6.18	6.57
	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	17.7	18.0
	Oki	449	359	419	201	321	696	253	312	371	436	471	552	411	579	617	473	384	555	473
	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	99.8	65.0
	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	60.4	16.6
	Hedo	515	175	593	451	982	488	217	146	138	141	284	232	496	263	157	368	236	429	186
	Ogasawara	164	123	278	286	139	115	119	154	98.8	227	211	241	134	166	154	370	106	208	52.8
	Tokyo								41.1	23.7	27.8	19.4	45.9	35.8	27.7	23.1	22.2	17.2	47.5	39.7
Lao PDR	Vientiane				***	***	***	4.77	7.42	7.41	6.19	***	***	4.46	***	***	4.97	5.28	**	**
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	10.0	9.75
	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	3.35	4.09
	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	4.60	7.29
	Kuching									6.35	8.41	8.04	11.5	6.78	8.82	11.0	14.5	14.5	11.5	10.9
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	3.56	4.41
	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	8.67	5.77
Myanmar	Yangon								***	***	25.0	13.2	15.8	26.6	27.1	19.5	34.4	31.3	35.2	21.8
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	55.7	42.3
	Cheju	210	112	83.8	68.5	79.1	105	102	104	136	63.7	114	147	455	344	124	109	444	280	293
	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	32.1	27.6
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	5.29	2.39
	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	4.12	2.93
	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	10.2	10.0
	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	37.1	21.5
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	8.16	14.4
	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	8.30	10.9
	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	7.48	6.98
	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	5.92	7.60
	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	5.73	7.19
	Sakaerat							5.52	5.11	5.93	4.62	4.81	4.80	6.36	6.34	11.1	6.99	6.57	4.08	5.08
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	14.6	23.0
	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	14.6	9.84
	Cuc Phuong										44.2	24.3	15.5	20.3	25.2	11.7	21.3	17.1	35.6	30.2
	Da Nang										110	50.4	93.5	83.1	174	92.9	72.8	70.2	80.9	97.8
	Can Tho															27.4	41.2	36.1	29.2	30.4
	Ho Chi Minh															44.8	52.0	37.3	47.5	36.3
	Yen Bai																7.48	14.3	17.3	12.4

Terms and abbreviations are given in Table 3.5.

Table 3.74 Precipitation amount-weighted annual average concentrations of NH_4^+ from 2000 to 2018

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	2017	2018
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	22.2	***
China	Guanyinqiao	161	211	120	132	137	157	179	140											
	Nanshan	105																		
	Haifu									148	105	141	145	116	142	116	95.2	98.7	96.3	103
	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	60.0	79.3
	Shizhan	421	255	203	144	146	77.2	167	206	164	169	187	60.8	109	238	170	194	118	147	127
	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	1.07	15.5
	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	33.8	25.0
	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	29.5	23.5
	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	24.5	24.2
	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	25.7	23.6
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	24.0	47.9
	Serpong	***	67.6	46.0	45.0	42.3	44.6	40.3	44.3	47.2	43.0	52.3	62.2	71.1	83.0	65.5	63.0	55.6	50.5	69.4
	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	5.59	7.35
	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	62.4	61.9
	Maros									8.85	12.7	10.1	9.30	14.1	6.75	7.19	20.7	53.7	5.22	10.9
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	22.3	22.3
	Ochiishi				7.65	11.8	7.51	15.6	7.84	6.45	8.40	10.7	11.0	12.3	9.68	10.8	11.4	5.01	6.26	6.59
	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	15.9	10.3
	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	20.0	10.9
	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	4.33	5.57
	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	12.5	9.12
	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	17.7	12.1
	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	16.3	9.62
	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	21.9	3.15
	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	7.04	3.19
	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	2.30	2.02
	Tokyo								27.7	29.9	26.2	19.2	25.4	24.3	22.9	23.1	20.1	17.2	18.2	21.7
Lao PDR	Vientiane				***	***	***	7.72	10.9	8.39	17.3	***	***	***	***	***	7.78	7.50	**	**
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	17.0	19.8
	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	3.13	2.04
	Danum Valley						2.03	2.05	1.32	9.76	3.44	4.89	1.90	<0.8	<0.8	0.915	4.21	<0.8	<0.8	1.75
	Kuching									4.61	4.94	1.94	5.03	6.16	2.87	9.38	5.49	2.45	3.48	5.24
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	48.9	57.4
	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	41.9	31.0
Myanmar	Yangon								***	***	16.2	14.6	14.9	17.7	17.0	16.6	22.3	17.1	13.6	19.5
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							<0.8	8.69	10.5	14.1	4.65	0.822	3.42	4.71	13.5	9.57	7.79	***	
Republic	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	84.4	38.6
of Korea	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	38.3	25.7
	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	51.6	26.8
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	10.4	8.38
	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	20.6	13.8
	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	20.4	21.0
	Primorskaya			35.9	39.1	30.4	41.6	49.8	29.6	50.6	28.8	42.7	54.1	27.0	39.6	42.3	25.7	22.7	46.8	33.0
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	54.6	52.9
	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	48.5	40.1
	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	41.3	35.6
	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	14.1	6.33
	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	26.2	15.1
	Sakaerat							23.1	18.3	21.1	22.9	24.6	24.3	25.7	23.8	42.3	31.3	34.0	23.3	63.3
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	52.6	56.9
	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	20.0	29.0
	Cuc Phuong										6.30	9.90	19.2	23.9	25.5	20.5	30.0	20.1	8.72	5.39
	Da Nang										13.5	8.67	21.5	21.3	24.6	14.5	8.73	5.43	20.9	14.1
	Can Tho															18.3	21.3	22.7	21.5	12.3
	Ho Chi Minh															24.3	29.4	28.8	38.4	20.7
	Yen Bai																30.5	91.5	33.6	39.0

Terms and abbreviations are given in Table 3.5.

Table 3.75 Precipitation amount-weighted annual average concentrations of Na^+ from 2000 to 2018

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	2017	2018
Cambodia	PhnomPenh					***	***	1.85	8.25	10.3	6.95	3.10	3.55	3.65	3.10	7.60	6.28	4.23	4.45	***
China	Guanyinqiao	11.8	10.8	5.54	4.91	7.28	8.35	7.92	5.92											
	Nanshan	7.73																		
	Haifu									6.99	4.20	7.56	9.87	6.04	7.29	6.36	3.61	6.18	4.42	4.98
	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	2.95	1.81
	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	28.7	20.6
	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	33.7	24.6
	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	35.7	24.0
	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	6.87	6.55
	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	52.2	67.2
	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	26.2	89.3
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	9.76	16.7
	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	12.1	17.7
	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	3.46	3.40
	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	18.7	23.1
	Maros									15.7	13.3	13.2	14.9	19.9	19.3	29.1	3.67	118	104	13.5
Japan	Rishiri	325	212	197	176	229	203	110	143	247	176	162	139	292	200	162	140	69.7	207	170
	Ochiishi				198	360	208	278	186	171	182	232	155	274	421	97.2	178	138	219	77.6
	Tappi	149	134	165	141	199	218	289	234	197	199	114	150	141	257	156	237	169	189	159
	Sado-seki	258	355	268	93.8	135	290	224	227	215	321	320	153	246	328	282	327	175	150	134
	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	4.96	5.41
	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	14.6	14.6
	Oki	396	316	363	185	295	602	225	275	324	376	409	480	357	505	545	412	332	486	405
	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	87.8	56.7
	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	48.7	14.5
	Hedo	454	160	515	430	873	449	189	129	124	127	254	204	418	227	137	313	201	368	160
	Ogasawara	139	104	236	251	125	97.3	103	133	86.2	188	208	202	114	141	131	306	90.9	180	46.7
	Tokyo								34.5	19.5	23.5	17.3	37.7	29.5	22.8	18.9	18.0	14.4	40.3	34.5
Lao PDR	Vientiane				***	***	***	7.10	2.38	2.91	9.14	***	***	***	***	***	2.78	1.52	**	**
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	6.04	5.33
	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	2.47	2.48
	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	2.52	5.16
	Kuching									5.39	7.35	6.67	9.08	5.21	7.54	9.25	12.9	12.7	9.28	8.49
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	21.9	41.5
	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	13.5	49.5
Myanmar	Yangon								***	***	18.5	12.9	15.0	22.1	15.8	17.3	8.77	15.7	15.0	21.9
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	27.8	30.4
	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	261	264
	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	36.2	38.5
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	2.58	2.11
	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	3.26	3.01
	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	7.99	8.80
	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	26.0	21.9
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	5.83	11.4
	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	7.10	9.95
	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	4.83	5.10
	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	4.70	8.17
	Mae Hia		3.94	9.66	3.21	3.05	0.913	3.53	2.93	2.61	2.69	2.72	3.21	3.80	5.63	3.65	4.48	7.01	6.14	7.89
	Sakaerat							4.45	4.45	4.20	2.73	3.21	4.04	3.71	2.96	8.85	4.59	4.02	2.08	11.0
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	16.4	11.2
	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	3.99	2.79
	Cuc Phuong										11.2	12.0	13.6	20.0	26.7	10.7	8.76	12.7	17.6	13.4
	Da Nang										94.6	41.3	70.2	63.2	144	82.1	79.6	65.7	81.0	68.1
	Can Tho															15.4	29.4	12.6	9.61	9.73
	Ho Chi Minh															25.0	34.6	13.5	17.4	14.2
	Yen Bai																5.40	8.96	3.68	3.65

Terms and abbreviations are given in Table 3.5.

Table 3.76 Precipitation amount-weighted annual average concentrations of K^+ from 2000 to 2018

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	2017	2018
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	1.22	***
China	Guanyinqiao	14.2	18.7	10.6	11.0	10.9	12.4	12.6	8.81											
	Nanshan	16.3																		
	Haifu									11.5	7.72	10.0	9.38	6.57	12.8	9.28	5.99	4.66	4.80	6.21
	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	3.60	2.75
	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	4.60	10.9
	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	13.0	19.3
	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	35.0	37.8
	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	12.4	14.4
	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	2.56	3.05
	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	2.24	4.65
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	2.38	2.83
	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	3.78	6.02
	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	1.86	2.06
	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	4.22	4.48
	Maros									5.76	3.89	2.52	1.86	3.50	1.84	19.1	1786	15.1	6.27	2.83
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	6.01	4.83
	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	5.36	1.86
	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	4.72	3.87
	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	4.71	3.33
	Happo	0.805	0.638	0.394	0.383	0.714	0.713	0.515	0.605	0.585	0.670	0.356	0.447	0.865	0.581	0.746	0.681	0.457	0.376	0.423
	Ijira	2.95	4.06	2.10	1.24	1.10	0.931	0.980	1.15	0.630	0.678	0.426	0.535	0.609	0.589	0.611	0.699	0.498	0.576	0.462
	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	11.6	9.86
	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	2.41	1.66
	Yusuhara	0.768	0.505	1.01	0.457	0.937	0.976	0.681	0.637	0.424	0.768	0.613	0.465	1.07	0.387	0.701	0.758	0.508	1.83	0.664
	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	8.02	3.52
	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	4.14	1.10
	Tokyo								1.40	1.14	1.10	0.989	1.29	0.888	0.711	0.628	0.641	0.539	1.11	0.842
Lao PDR	Vientiane				***	***	***	3.51	1.69	1.69	0.930	***	***	***	***	***	1.74	0.958	**	**
Malaysia	Petaling Jaya	1.77	1.42	1.27	3.04	1.64	2.46	1.55	0.984	1.19	1.51	1.50	1.31	1.33	1.14	1.47	1.70	1.83	1.55	1.90
	Tanah Rata	1.09	0.915	0.795	0.714	1.52	0.891	0.626	0.646	0.433	0.991	1.06	2.03	1.68	1.75	1.62	2.37	1.22	1.93	1.36
	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	1.29	2.64
	Kuching									0.647	0.695	0.650	0.854	0.924	0.695	3.26	1.44	1.13	1.43	1.54
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	1.29	1.01
	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	3.40	3.65
Myanmar	Yangon								***	***	6.46	2.07	1.66	6.78	2.66	4.69	13.3	3.35	10.4	4.38
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	0.702	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	16.5	5.01
	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	7.43	6.53
	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	8.80	2.18
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	1.94	1.27
	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	3.64	2.01
	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	2.92	3.06
	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	10.1	8.36
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	1.24	2.26
	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	1.36	1.63
	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	2.13	1.35
	Khanchanaburi	8.88	4.98	2.38	2.02	1.09	0.687	2.44	0.708	1.15	1.21	0.710	2.21	1.57	0.955	1.22	0.838	1.51	1.43	1.72
	Mae Hia		2.94	4.41	3.95	1.41	0.717	1.70	2.87	2.63	1.47	1.21	1.45	1.26	1.48	1.77	1.24	3.17	2.71	1.90
	Sakaerat							0.665	1.38	1.24	1.31	0.940	1.20	1.26	0.813	2.63	1.52	1.59	0.512	6.95
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	7.09	8.06
	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	2.88	3.89
	Cuc Phuong										14.0	5.61	3.31	6.06	8.57	4.72	4.68	5.77	3.41	4.00
	Da Nang										6.27	3.41	14.0	11.5	17.9	13.8	11.9	3.39	9.85	15.6
	Can Tho															7.45	7.17	6.07	5.44	6.27
	Ho Chi Minh															10.6	12.0	6.62	10.4	8.29
	Yen Bai																4.03	4.98	6.20	3.27

Terms and abbreviations are given in Table 3.5.

Table 3.77 Precipitation amount-weighted annual average concentrations of Ca^{2+} from 2000 to 2018

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	2017	2018
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	9.74	***
China	Guanyinqiao	63.0	137	65.4	65.4	110	156	143	75.2											
	Nanshan	55.2																		
	Haifu									65.3	43.2	69.2	68.5	57.9	69.5	54.6	43.0	67.3	53.5	43.0
	Jinyunshan		44.9	29.7	30.7	70.5	57.7	98.3	55.1	68.3	66.7	68.7	65.1	59.2	31.2	26.0	21.7	38.0	51.9	34.2
	Shizhan	229	675	479	258	147	107	301	116	150	138	105	91.2	128	325	92.7	89.7	35.0	68.3	61.9
	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	95.1	56.3
	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	28.3	26.5
	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	15.1	8.12
	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	10.0	10.6
	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	13.9	17.7
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	17.6	16.5
	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	12.1	21.2
	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	11.6	8.57
	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	14.4	18.2
	Maros									8.39	8.11	9.58	6.49	16.1	10.4	27.9	16.8	13.8	14.4	14.0
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	8.15	8.45
	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	6.18	3.18
	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	6.78	6.07
	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	6.67	7.86
	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	1.77	2.12
	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	2.20	1.86
	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	15.1	13.1
	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	5.13	3.30
	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	5.19	0.848
	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	9.70	5.31
	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	4.54	1.28
	Tokyo								4.99	4.09	3.42	3.98	4.84	4.21	4.35	3.81	3.56	2.48	3.34	3.46
Lao PDR	Vientiane				***	***	***	8.75	3.04	5.77	5.50	***	***	***	***	***	4.00	2.21	**	**
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	4.18	6.96
	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	2.25	2.76
	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	1.48	2.52
	Kuching									1.91	1.79	2.60	3.15	3.42	4.20	6.12	4.35	3.35	3.86	4.28
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	41.8	23.5
	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	15.9	15.3
Myanmar	Yangon								***	***	9.66	6.37	6.89	7.79	1.07	14.1	88.7	5.55	10.5	16.6
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	6.73	3.20
	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	12.8	6.64
	Imsil		5.85	9.84	5.39	6.76	5.00	14.7	13.7	6.92	3.88	5.74	6.81	4.31	2.95	3.50	5.16	2.70	3.71	1.64
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	8.67	5.35
	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	12.2	12.4
	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	22.5	27.8
	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	20.9	14.7
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	11.3	27.1
	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	7.96	8.67
	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	12.3	7.97
	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	3.63	3.54
	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	8.57	7.01
	Sakaerat							9.54	3.75	3.35	2.53	2.21	1.88	3.74	1.96	8.73	6.83	8.24	4.60	35.1
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	35.3	40.6
	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	23.1	13.7
	Cuc Phuong										24.8	38.3	32.2	30.6	24.4	23.1	19.4	27.1	24.0	18.0
	Da Nang										6.35	8.87	10.0	16.9	21.5	27.3	34.4	38.5	33.9	36.5
	Can Tho															12.8	26.8	11.9	10.6	14.4
	Ho Chi Minh															26.0	44.3	12.1	14.8	18.2
	Yen Bai																15.9	20.3	23.1	20.8

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 2018

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	2017	2018
Cambodia	PhnomPenh					***	***	9.07	19.1	32.5	20.3	8.26	9.23	10.7	9.50	9.31	11.5	14.2	9.64	***
China	Guanyinqiao	62.8	137	65.3	65.3	110	156	143	75.1											
	Nanshan	55.0																		
	Haifu									65.2	43.2	69.0	68.2	57.7	69.3	54.5	43.0	67.1	53.4	42.9
	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	51.9	34.2
	Shizhan	228	672	474	257	147	107	300	116	149	138	105	90.8	128	322	90.0	87.2	33.9	67.7	61.4
	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	94.4	55.7
	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	27.5	26.0
	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	14.9	7.98
	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	8.88	9.14
	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	13.3	15.8
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	17.3	16.1
	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	11.8	20.8
	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	11.6	8.50
	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	14.0	17.7
	Maros									8.05	7.83	9.30	6.17	15.7	9.98	27.2	16.7	11.5	12.2	13.7
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	3.68	4.78
	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	1.46	1.50
	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	2.71	2.63
	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	3.43	4.96
	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	1.67	2.01
	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	1.88	1.54
	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	4.72	4.35
	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	3.23	2.08
	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	4.14	0.558
	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	2.08	1.90
	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	0.647	0.302
	Tokyo								4.24	3.67	2.91	3.60	4.03	3.57	3.86	3.40	3.17	2.17	2.47	2.72
Lao PDR	Vientiane				***	***	***	8.59	2.99	5.70	5.30	***	***	***	***	***	3.94	2.18	**	**
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	4.05	6.84
	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	2.20	2.71
	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	1.43	2.41
	Kuching									1.81	1.66	2.45	2.95	3.32	4.04	5.93	4.07	3.07	3.71	4.10
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	41.3	22.6
	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	15.6	14.4
Myanmar	Yangon								***	***	9.26	6.09	6.57	7.32	0.792	13.8	88.5	5.22	10.2	16.1
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	6.15	2.56
	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	7.59	2.29
	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	2.98	1.17
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	8.61	5.30
	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	12.1	12.4
	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	22.4	27.6
	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	20.4	14.2
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	11.2	26.9
	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	7.81	8.46
	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	12.2	7.86
	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	3.53	3.36
	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	8.43	6.84
	Sakaerat							9.45	3.66	3.26	2.48	2.15	1.81	3.66	1.90	8.57	6.73	8.16	4.55	34.9
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	35.0	40.3
	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	23.1	13.7
	Cuc Phuong										24.6	38.0	32.0	30.2	23.8	22.8	19.2	26.8	23.7	17.7
	Da Nang										4.31	7.98	8.50	15.5	18.4	25.5	32.7	37.1	32.1	35.0
	Can Tho															12.4	26.2	11.6	10.3	14.2
	Ho Chi Minh															25.4	43.5	11.8	14.4	17.9
	Yen Bai																15.8	20.1	23.0	20.7

Terms and abbreviations are given in Table 3.5.

Table 3.79 Precipitation amount-weighted annual average concentrations of Mg^{2+} from 2000 to 2018

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	2017	2018
Cambodia	PhnomPenh					<0.3	***	0.661	3.27	3.45	2.00	0.717	1.22	1.22	1.12	1.63	2.56	1.44	1.41	***
China	Guanyinqiao	8.54	11.6	6.00	4.46	9.12	12.7	12.6	8.04											
	Nanshan	7.05																		
	Haifu									7.08	5.45	8.95	8.61	6.87	8.23	7.00	4.79	5.69	4.08	4.04
	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	4.74	3.34
	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	11.2	12.9
	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	19.7	16.0
	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	7.19	4.77
	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	2.78	2.12
	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	5.64	6.39
	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	3.21	10.2
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	2.95	3.37
	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	2.51	4.42
	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	1.08	1.06
	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	3.80	3.92
	Maros									2.56	1.86	2.17	2.50	7.03	2.81	13.6	30.0	2.92	2.24	2.51
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	24.2	19.9
	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	25.4	8.76
	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	21.7	18.3
	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	17.1	15.4
	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	1.23	1.03
	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	1.84	1.92
	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	55.2	46.1
	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	9.94	6.66
	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	6.01	1.78
	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	42.6	20.8
	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	21.3	5.45
	Tokyo								4.22	2.78	2.97	2.40	4.79	3.78	3.04	2.54	2.45	1.85	4.92	4.15
Lao PDR	Vientiane				***	***	***	3.49	0.698	1.31	0.722	***	***	***	***	***	0.613	<0.3	**	**
Malaysia	Petaling Jaya	1.39	1.30	1.43	0.707	0.888	0.842	0.710	0.385	0.520	0.467	0.698	0.579	0.497	0.686	1.10	0.922	0.819	0.565	0.724
	Tanah Rata	0.415	0.406	0.422	0.451	0.310	0.492	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	0.301	0.333	<0.3	<0.3	<0.3	<0.3
	Danum Valley						0.323	0.481	0.402	0.528	0.549	1.48	0.541	<0.3	0.430	0.552	0.934	0.320	0.379	1.30
	Kuching									<0.3	0.395	0.457	0.745	<0.3	0.588	1.12	1.21	0.949	0.718	0.607
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	3.06	2.50
	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	1.32	1.46
Myanmar	Yangon								***	***	2.84	1.80	3.02	6.56	12.3	3.41	5.87	4.58	3.46	4.72
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	0.346	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	2.33	1.09
	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	21.5	18.1
	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	1.91	0.648
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	1.75	1.07
	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	3.15	2.95
	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	4.70	5.32
	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	11.9	9.23
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	1.57	3.00
	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	1.56	2.14
	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	1.41	1.14
	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	1.15	1.44
	Mae Hia		1.10	3.54	2.08	1.82	1.00	2.42	1.24	1.78	2.73	0.451	<0.3	0.842	1.50	1.91	1.41	1.54	1.37	0.656
	Sakaerat							1.98	1.78	1.22	1.27	0.703	<0.3	0.423	<0.3	1.31	2.17	4.25	1.76	8.17
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	7.27	6.49
	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	1.97	3.11
	Cuc Phuong										4.37	4.41	4.78	7.07	12.2	4.88	5.44	8.30	8.30	10.2
	Da Nang										10.2	8.52	9.42	9.19	18.8	10.8	8.77	9.03	11.3	10.6
	Can Tho															4.45	9.17	6.85	5.35	9.84
	Ho Chi Minh															8.73	17.9	6.90	9.01	10.2
	Yen Bai																2.68	3.24	1.66	3.39

Terms and abbreviations are given in Table 3.5.

Table 3.80 Precipitation amount-weighted annual average concentrations of H^+ from 2000 to 2018

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	2017	2018
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	0.667	***
China	Guanyinqiao	46.7	16.1	25.2	32.2	25.9	11.2	13.7	22.6											
	Nanshan	60.5																		
	Haifu									63.5	60.3	71.0	65.9	57.5	30.1	12.1	3.81	0.655	1.47	5.10
	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	7.07	14.2
	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	0.256	0.171
	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	0.203	0.164
	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	4.56	2.30
	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	1.27	14.6
	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	10.5	8.66
	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	8.49	6.98
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	12.9	20.4
	Serpong	***	23.7	22.6	24.1	20.8	25.6	25.0	25.8	23.9	19.3	17.5	19.7	12.4	8.63	7.23	11.4	6.56	6.34	6.10
	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	6.29	4.88
	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	5.63	2.17
	Maros									2.35	4.64	6.16	4.43	2.41	3.41	5.88	5.77	5.77	4.88	4.21
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	17.3	13.6
	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	7.42	7.28
	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	18.0	11.0
	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	12.7	10.9
	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	7.96	6.31
	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	18.3	12.1
	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	14.9	13.6
	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	17.1	13.5
	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	31.1	10.0
	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	9.90	7.96
	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	6.09	5.96
	Tokyo								16.3	24.8	17.7	11.2	14.9	14.4	8.83	14.8	16.3	11.4	12.7	11.8
Lao PDR	Vientiane				0.313	2.26	0.481	0.325	2.16	0.987	3.31	***	***	0.351	***	0.288	1.15	0.171	**	**
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	30.9	31.6
	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	13.9	13.7
	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	6.08	4.97
	Kuching									5.55	5.47	5.25	3.73	4.84	5.17	4.60	4.88	7.14	6.10	5.62
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	2.95	1.73
	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	9.14	1.56
Myanmar	Yangon								2.66	0.392	0.346	0.384	0.347	0.323	0.352	0.199	0.216	0.178	0.204	0.264
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	36.4	13.2
	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	5.27	1.36
	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	5.04	2.00
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	4.86	6.50
	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	17.0	17.9
	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	11.4	14.0
	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	2.07	1.49
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	0.0943	5.09	2.91	1.08	0.902
	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	1.37	3.01
	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	4.55	7.57
	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	1.72	1.73
	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	2.77	3.07
	Sakaerat							7.61	8.30	9.31	13.6	17.8	9.95	8.58	5.70	15.0	9.26	5.47	3.84	7.28
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	0.292	3.04
	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	6.02	5.51
	Cuc Phuong										10.3	5.88	9.09	3.68	3.77	3.00	4.78	1.57	8.43	3.57
	Da Nang										16.8	7.71	10.4	3.66	2.62	3.01	1.05	1.10	1.36	1.64
	Can Tho															0.550	1.68	1.43	1.08	1.34
	Ho Chi Minh															1.42	0.775	1.75	0.861	0.773
	Yen Bai																5.90	6.63	6.40	4.48

Terms and abbreviations are given in Table 3.5.

Table 3.81 Precipitation amount-weighted annual average pH from 2000 to 2018

Country	Name of sites	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
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	6.18	***
China	Guanyinqiao	4.33	4.79	4.60	4.49	4.59	4.95	4.86	4.65											
	Nanshan	4.22																		
	Haifu									4.20	4.22	4.15	4.18	4.24	4.52	4.92	5.42	6.18	5.83	5.29
	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	5.15	4.85
	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	6.59	6.77
	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	6.69	6.79
	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	5.34	5.64
	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	5.90	4.84
	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	4.98	5.06
	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	5.07	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	4.89	4.69
	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	5.20	5.21
	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	5.20	5.31
	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	5.25	5.66
	Maros									5.63	5.33	5.21	5.35	5.62	5.47	5.23	5.24	5.24	5.31	5.38
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	4.76	4.87
	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	5.13	5.14
	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	4.74	4.96
	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	4.90	4.96
	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	5.10	5.20
	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	4.74	4.92
	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	4.83	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	4.77	4.87
	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	4.51	5.00
	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	5.00	5.10
	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	5.22	5.23
	Tokyo								4.79	4.60	4.75	4.95	4.83	4.84	5.05	4.83	4.79	4.94	4.90	4.93
Lao PDR	Vientiane				6.51	5.65	6.32	6.49	5.67	6.01	5.48	***	***	6.46	***	6.54	5.94	6.77	**	**
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	4.51	4.50
	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	4.86	4.86
	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	5.22	5.30
	Kuching									5.26	5.26	5.28	5.43	5.32	5.29	5.34	5.31	5.15	5.21	5.25
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	5.53	5.76
	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	5.04	5.81
Myanmar	Yangon								5.57	6.41	6.46	6.42	6.46	6.49	6.45	6.70	6.66	6.75	6.69	6.58
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	4.44	4.88
	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	5.28	5.87
	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	5.30	5.70
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	5.31	5.19
	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	4.77	4.75
	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	4.94	4.86
	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	5.69	5.83
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	5.97	6.04
	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	5.86	5.52
	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	5.34	5.12
	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	5.76	5.76
	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	5.56	5.51
	Sakaerat							5.12	5.08	5.03	4.87	4.75	5.00	5.07	5.24	4.82	5.03	5.26	5.42	5.14
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	6.53	5.52
	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	5.22	5.26
	Cuc Phuong										4.99	5.23	5.04	5.43	5.42	5.52	5.32	5.81	5.07	5.45
	Da Nang										4.77	5.11	4.98	5.44	5.58	5.52	5.98	5.96	5.87	5.78
	Can Tho															6.26	5.77	5.84	5.97	5.87
	Ho Chi Minh															5.85	6.11	5.76	6.06	6.11
	Yen Bai																5.23	5.18	5.19	5.35

Terms and abbreviations are given in Table 3.5.

Table 3.82 Precipitation amount-weighted annual average EC from 2000 to 2018

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	2017	2018
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	0.747	***
China	Guanyinqiao	5.61	7.00	4.36	4.89	5.82	6.70	6.70	5.01											
	Nanshan	5.20																		
	Haifu									6.46	5.14	6.71	6.55	5.33	5.26	3.94	2.70	3.00	2.71	2.83
	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	2.38	2.65
	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	3.53	3.28
	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	2.64	2.09
	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	2.21	2.07
	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	0.996	1.29
	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	1.85	2.09
	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	1.45	2.38
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	1.27	2.52
	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	1.82	2.30
	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	0.402	0.429
	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	1.88	1.88
	Maros									0.623	1.06	0.718	0.576	0.885	0.970	1.00	2.10	3.03	1.65	0.664
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	4.47	3.78
	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	4.02	1.64
	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	3.91	3.16
	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	3.11	2.86
	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	0.569	0.560
	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	1.32	0.959
	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	7.96	6.96
	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	2.46	1.85
	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	2.68	0.804
	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	6.15	3.00
	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	3.25	1.02
	Tokyo								1.80	1.96	1.66	1.18	1.88	1.75	1.33	1.46	1.40	1.04	1.60	1.43
Lao PDR	Vientiane				2.07	2.65	1.01	0.764	0.396	0.644	0.534	***	***	0.411	***	0.867	1.26	0.730	**	**
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	1.92	2.17
	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	0.798	0.808
	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	0.339	0.433
	Kuching									0.443	0.521	0.500	0.547	0.489	0.549	1.02	0.635	0.683	0.588	0.612
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	1.26	1.40
	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	1.38	1.19
Myanmar	Yangon								0.595	0.949	1.54	1.34	0.682	1.30	0.813	0.914	1.46	1.37	0.504	0.644
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	2.44	1.67
	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	5.00	4.74
	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	1.69	1.07
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	0.659	0.576
	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	1.54	1.43
	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	1.62	1.90
	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	2.06	1.53
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	0.821	1.64
	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	0.799	1.05
	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	1.19	1.24
	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	0.421	0.382
	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	0.736	0.526
	Sakaerat							0.918	0.775	0.833	0.981	0.992	0.796	0.756	0.789	1.46	0.856	0.848	0.566	0.870
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	2.08	2.47
	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	1.27	1.22
	Cuc Phuong										1.74	1.71	1.98	1.73	1.80	1.28	1.42	1.37	1.52	1.10
	Da Nang										2.53	1.46	2.37	2.10	3.46	1.85	1.82	1.74	2.47	2.41
	Can Tho															1.10	1.92	1.20	1.06	1.27
	Ho Chi Minh															2.00	2.85	1.33	1.68	1.35
	Yen Bai																1.31	2.47	1.55	1.49

Terms and abbreviations are given in Table 3.5.

Table 3.83 Annual SO_4^{2-} deposition amount from 2000 to 2018

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	2017	2018
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	15.6	***
China	Guanyinqiao	164	154	165	108	229	200	149	169											
	Nanshan	164																		
	Haifu									145	106	136	115	103	109	120	61.3	59.5	49.8	46.1
	Jinyunshan		87.7	126	103	166	149	169	149	146	125	148	119	125	91.7	90.0	56.5	48.6	46.3	33.9
	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	41.8	22.1
	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	18.2	14.5
	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	17.1	17.3
	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	9.85	11.0
	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	26.9	25.0
	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	25.7	33.1
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	22.6	59.4
	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	81.5	71.0
	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	10.9	16.2
	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	67.3	55.6
	Maros									16.3	22.5	28.9	30.0	21.5	26.0	20.9	15.3	20.6	14.6	19.4
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	23.1	24.4
	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	15.1	10.9
	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	24.9	28.8
	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	24.7	24.6
	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	14.5	13.1
	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	29.4	27.7
	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	40.4	45.9
	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	23.8	19.3
	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	51.3	21.2
	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	45.5	33.6
	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	21.1	3.83
	Tokyo								18.4	36.5	27.6	18.1	22.0	25.5	19.7	25.1	19.2	15.1	14.5	13.7
Lao PDR	Vientiane				***	***	***	2.45	6.54	8.43	0.733	***	***	3.19	***	***	2.94	1.72	**	**
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	42.2	59.6
	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	10.7	11.0
	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	7.99	8.01
	Kuching									17.8	17.6	16.6	18.9	17.7	20.6	26.1	20.7	23.0	15.3	16.3
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	5.54	5.48
	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	1.42	3.98
Myanmar	Yangon								***	***	24.1	10.3	20.9	19.2	21.4	13.1	11.2	20.0	32.6	23.8
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	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	13.8	8.93
of Korea	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	22.6	24.3
	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	14.2	12.4
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	1.23	1.58
	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	7.09	4.77
	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	12.9	13.7
	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	21.7	30.6
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	27.1	17.3
	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	16.2	15.1
	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	12.2	9.47
	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	3.92	2.65
	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	7.67	3.41
	Sakaerat							9.80	8.93	12.7	8.11	11.5	7.99	7.48	10.8	4.61	9.04	7.51	8.34	10.9
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	71.7	84.6
	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	35.9	61.4
	Cuc Phuong										41.9	33.7	69.7	49.0	51.1	31.5	27.5	32.3	36.1	34.0
	Da Nang										55.6	27.6	76.7	32.9	56.1	35.0	21.6	31.9	37.0	36.2
	Can Tho															16.1	67.7	26.5	30.9	59.1
	Ho Chi Minh															46.3	67.6	49.0	80.5	63.5
	Yen Bai																34.2	79.1	62.9	47.3

Terms and abbreviations are given in Table 3.5.

Table 3.84 Annual nss-SO_4^{2-} deposition amount from 2000 to 2018

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	2017	2018
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	15.2	***
China	Guanyinqiao	163	154	164	108	228	200	149	169											
	Nanshan	164																		
	Haifu									145	106	135	115	102	108	119	61.1	59.1	49.5	45.7
	Jinyunshan		87.3	125	102	165	148	168	148	145	124	148	119	125	91.5	89.6	56.4	48.5	46.1	33.8
	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	40.8	21.5
	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	17.1	13.7
	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	15.9	15.9
	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	9.57	10.7
	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	20.9	16.6
	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	22.8	21.8
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	21.8	57.7
	Serpong	***	59.1	60.5	48.0	39.3	26.7	44.4	60.1	64.5	30.2	34.1	27.4	25.4	59.6	63.7	54.3	73.5	79.2	68.8
	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	10.4	15.7
	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	65.1	53.2
	Maros									13.5	20.0	26.7	26.7	18.7	21.3	17.2	14.9	11.0	8.53	16.7
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	11.4	13.3
	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	4.07	5.63
	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	12.1	12.9
	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	13.3	12.0
	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	13.6	12.2
	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	26.8	24.4
	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	11.4	14.1
	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	16.0	13.7
	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	43.4	17.7
	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	9.63	8.21
	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	3.45	1.18
	Tokyo								16.2	34.3	25.1	16.3	18.9	22.6	17.4	23.1	17.4	13.7	11.4	11.0
Lao PDR	Vientiane				***	***	***	2.15	6.34	8.14	0.633	***	***	***	***	***	2.79	1.68	**	**
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	41.1	58.4
	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	10.2	10.6
	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	7.58	7.24
	Kuching									16.4	15.6	14.7	16.3	16.5	18.7	24.1	17.3	18.8	13.2	14.3
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	5.32	5.05
	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	1.34	3.56
Myanmar	Yangon								***	***	20.8	8.88	18.0	15.8	19.7	10.1	9.94	18.0	30.0	19.9
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	12.9	7.77
	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	11.3	7.82
	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	12.5	9.75
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	1.20	1.54
	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	7.03	4.68
	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	12.7	13.5
	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	20.7	29.3
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	26.6	16.5
	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	15.4	14.3
	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	11.8	9.09
	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	3.59	2.16
	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	7.23	3.06
	Sakaerat							9.48	8.56	12.2	7.90	11.1	7.63	7.23	10.5	4.39	8.66	7.25	8.13	10.1
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	69.6	83.3
	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	35.4	61.0
	Cuc Phuong										40.4	32.5	68.2	46.5	48.0	30.4	26.8	30.8	33.7	31.9
	Da Nang										38.7	23.4	61.3	27.1	36.0	24.0	12.6	21.1	26.1	25.6
	Can Tho															14.4	63.8	25.2	29.8	57.5
	Ho Chi Minh															43.5	64.6	46.9	76.9	61.4
	Yen Bai																33.7	78.1	62.4	46.9

Terms and abbreviations are given in Table 3.5.

Table 3.85 Annual NO_3^- deposition amount from 2000 to 2018

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	2017	2018
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	15.1	***
China	Guanyinqiao	45.5	39.7	49.7	38.4	60.9	44.5	51.1	63.3											
	Nanshan	52.4																		
	Haifu									65.6	56.7	75.9	67.4	74.6	75.8	90.8	57.8	66.4	63.1	63.5
	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	46.7	41.7
	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	14.6	18.1
	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	1.30	8.25
	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	23.5	26.5
	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	19.0	21.3
	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	34.5	35.3
	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	41.5	40.7
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	24.7	75.8
	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	99.6	102
	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	9.21	21.7
	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	49.7	41.8
	Maros									10.7	17.4	16.9	27.3	22.2	14.7	16.8	15.6	17.3	8.00	25.1
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	17.5	20.9
	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	5.71	7.92
	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	22.0	20.1
	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	23.5	22.2
	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	18.6	17.9
	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	44.9	38.6
	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	20.8	22.0
	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	32.6	22.6
	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	68.2	17.6
	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	14.2	13.1
	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	4.65	2.00
	Tokyo								21.0	45.5	31.3	25.4	30.1	30.7	25.9	30.4	26.7	19.0	17.9	20.0
Lao PDR	Vientiane				***	***	***	4.92	9.65	9.95	1.76	***	***	7.34	***	***	3.79	1.92	**	**
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	90.1	140
	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	23.8	15.2
	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	0.545	2.35
	Kuching									21.3	21.2	22.8	23.1	14.5	18.6	19.4	16.0	23.5	17.8	20.0
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	4.86	4.16
	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	4.58	3.81
Myanmar	Yangon								***	***	21.8	11.3	19.8	21.4	18.1	13.8	20.1	32.5	51.4	29.3
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	24.6	17.9
	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	28.4	21.2
	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	26.5	24.6
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	1.86	1.92
	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	6.08	3.99
	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	7.22	5.82
	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	22.3	27.0
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	32.2	43.4
	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	28.5	27.5
	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	38.8	24.2
	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	5.83	4.00
	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	12.5	7.25
	Sakaerat							13.5	15.7	19.8	16.0	23.7	15.0	12.6	15.0	10.5	17.8	14.6	17.9	15.4
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	72.1	88.0
	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	42.1	45.9
	Cuc Phuong										24.6	38.4	51.5	40.5	31.6	17.4	19.6	22.1	31.4	23.2
	Da Nang										33.7	11.9	57.5	8.06	12.5	11.7	0.941	7.58	12.1	1.12
	Can Tho															15.4	25.8	5.52	7.30	8.01
	Ho Chi Minh															34.2	25.5	18.9	37.2	12.2
	Yen Bai																27.0	73.2	58.6	54.0

Terms and abbreviations are given in Table 3.5.

Table 3.86 Annual Cl^- deposition amount from 2000 to 2018

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	2017	2018
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	8.40	***
China	Guanyinqiao	25.9	22.4	22.5	16.0	20.3	19.7	16.2	17.9											
	Nanshan	19.7																		
	Haifu									13.9	11.7	15.8	11.6	11.5	13.1	15.7	9.48	10.6	9.49	9.93
	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	6.77	4.18
	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	5.15	10.4
	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	8.49	7.94
	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	38.6	61.3
	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	14.5	18.9
	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	116	152
	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	53.3	214
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	16.2	36.1
	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	52.6	50.2
	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	15.3	14.1
	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	28.7	24.0
	Maros									60.9	49.7	56.2	58.4	48.9	146	99.9	17.1	304	262	51.8
Japan	Rishiri	286	145	207	142	242	224	163	142	222	203	197	192	389	260	190	175	104	219	211
	Ochiishi				178	266	191	316	189	142	323	288	147	267	514	93.8	166	184	216	99.6
	Tappi	187	169	253	178	341	310	314	276	186	290	192	191	191	309	210	315	238	242	305
	Sado-seki	292	367	439	121	236	385	324	298	241	377	481	252	380	559	447	318	199	214	237
	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	19.3	18.1
	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	51.7	66.9
	Oki	543	448	658	321	453	914	353	362	412	489	684	847	532	807	649	502	583	551	619
	Banryu	48.5	155	116	162	232	142	149	114	105	197	157	179	125	164	155	157	168	147	108
	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	157	66.8
	Hedo	1500	373	1200	628	1750	869	404	394	270	278	751	410	1407	424	383	648	429	696	490
	Ogasawara	325	222	370	400	162	235	188	241	165	379	391	313	210	210	236	587	122	344	50.7
	Tokyo								44.4	44.0	48.0	32.1	63.8	58.5	44.5	41.8	36.4	27.6	60.8	51.5
Lao PDR	Vientiane				***	***	***	3.38	10.4	12.4	1.12	***	***	5.89	***	***	4.58	2.48	**	**
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	31.3	37.5
	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	10.1	10.7
	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	13.6	18.1
	Kuching									27.2	39.3	37.3	53.2	25.7	36.2	40.4	64.1	81.8	44.0	41.3
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	0.569	0.752
	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	0.913	0.860
Myanmar	Yangon								***	***	75.3	30.0	49.6	68.3	72.9	56.0	83.6	68.2	99.1	64.1
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	32.8	26.6
	Cheju	222	125	85.3	88.4	88.9	73.1	116	130	114	66.1	114	158	545	219	148	159	498	200	303
	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	24.4	32.4
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	1.01	0.864
	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	1.30	0.658
	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	5.13	4.43
	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	23.6	22.0
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	13.0	16.5
	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	15.1	16.0
	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	10.2	9.23
	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	6.97	7.55
	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	7.07	5.89
	Sakaerat							6.56	7.08	10.2	5.81	7.82	7.24	7.17	9.14	4.76	9.68	7.12	6.90	5.74
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	30.3	43.7
	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	27.6	27.5
	Cuc Phuong										100	40.2	28.7	41.0	47.9	19.8	31.1	33.1	79.6	76.1
	Da Nang										325	85.2	340	140	403	206	138	191	182	254
	Can Tho															50.4	90.8	60.3	55.6	79.4
	Ho Chi Minh															85.8	73.9	95.2	164	89.9
	Yen Bai																11.3	25.9	41.4	23.2

Terms and abbreviations are given in Table 3.5.

Table 3.87 Annual NH_4^+ deposition amount from 2000 to 2018

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	2017	2018
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	30.7	***
China	Guanyinqiao	174	158	173	131	189	169	151	181											
	Nanshan	132																		
	Haifu									149	112	137	117	118	145	164	116	125	117	115
	Jinyunshan		79.1	134	106	160	154	145	124	120	121	121	98.8	125	102	105	80.6	80.1	76.1	74.2
	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	85.0	59.8
	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	0.544	8.50
	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	18.2	24.4
	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	20.0	19.8
	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	46.6	50.0
	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	46.7	49.8
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	31.4	81.9
	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	161	147
	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	13.6	21.4
	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	120	108
	Maros									26.9	41.2	27.0	33.8	34.5	27.2	19.9	51.4	106	12.0	36.5
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	20.9	24.2
	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	5.24	7.40
	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	17.9	16.9
	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	25.2	17.2
	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	13.5	15.4
	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	36.4	34.0
	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	17.6	15.8
	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	24.0	16.0
	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	56.9	12.7
	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	11.4	8.39
	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	3.80	1.94
	Tokyo								29.9	55.6	45.3	31.8	35.3	39.8	36.9	41.8	33.0	27.7	23.3	28.1
Lao PDR	Vientiane				***	***	***	5.47	15.3	14.0	3.13	***	***	***	***	***	7.17	3.53	**	**
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	53.3	76.0
	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	9.45	5.33
	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	0.590	4.34
	Kuching									19.7	23.1	9.03	23.3	23.4	11.8	34.3	24.3	13.9	13.3	19.9
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	7.81	9.78
	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	4.40	4.62
Myanmar	Yangon								***	***	48.9	33.3	46.9	45.6	45.8	47.6	54.3	37.4	38.2	57.4
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	49.6	24.2
	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	27.3	26.6
	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	39.2	31.4
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	1.99	3.03
	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	6.50	3.11
	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	10.3	9.29
	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	29.7	33.8
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	87.0	60.5
	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	88.1	58.9
	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	56.3	47.0
	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	16.6	6.29
	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	32.3	12.3
	Sakaerat							27.5	25.4	36.4	28.8	40.0	36.7	29.0	34.4	18.0	43.3	36.8	39.4	71.5
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	109	108
	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	37.8	81.1
	Cuc Phuong										14.3	16.4	35.5	48.3	48.5	34.9	43.8	38.9	19.5	13.6
	Da Nang										40.0	14.6	78.3	35.8	57.0	32.2	16.5	14.8	46.8	36.6
	Can Tho															33.7	46.9	38.0	41.0	32.0
	Ho Chi Minh															46.6	41.8	73.6	132	51.3
	Yen Bai																46.1	166	80.5	72.8

Terms and abbreviations are given in Table 3.5.

Table 3.88 Annual Na^+ deposition amount from 2000 to 2018

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	2017	2018
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	6.14	***
China	Guanyinqiao	12.8	8.11	8.01	4.85	10.1	8.99	6.66	7.69											
	Nanshan	9.73																		
	Haifu									7.06	4.48	7.38	7.99	6.10	7.48	9.01	4.40	7.85	5.38	5.56
	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	3.74	1.69
	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	16.6	9.72
	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	17.1	13.4
	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	19.2	23.4
	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	4.64	5.50
	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	99.5	139
	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	47.7	188
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	12.8	28.5
	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	38.7	37.4
	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	8.43	9.88
	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	35.9	40.4
	Maros									47.5	43.0	35.3	54.1	48.8	77.7	80.5	9.10	233	240	45.2
Japan	Rishiri	250	130	188	125	217	195	142	126	204	185	173	171	343	234	168	153	90.6	194	185
	Ochiishi				155	233	171	277	161	125	287	252	126	239	446	81.5	147	158	183	87.2
	Tappi	156	145	219	162	292	270	278	247	162	266	177	171	166	275	187	264	206	213	263
	Sado-seki	275	345	384	106	208	332	283	264	219	333	437	213	319	517	397	283	175	189	211
	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	15.5	14.9
	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	42.7	54.4
	Oki	479	394	570	296	416	791	315	319	360	422	594	737	462	705	574	437	505	482	530
	Banryu	45.2	140	104	142	197	119	130	100	91.6	171	139	155	111	140	132	133	150	129	94.3
	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	126	58.3
	Hedo	1320	341	1050	599	1550	800	351	349	243	250	670	360	1186	366	335	552	365	597	421
	Ogasawara	277	189	314	351	146	199	163	209	144	315	386	262	179	178	201	486	105	298	44.8
	Tokyo								37.3	36.2	40.7	28.7	52.3	48.2	36.7	34.2	29.6	23.2	51.5	44.7
Lao PDR	Vientiane				***	***	***	5.04	3.32	4.86	1.66	***	***	***	***	***	2.56	0.713	**	**
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	18.9	20.5
	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	7.45	6.46
	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	7.47	12.8
	Kuching									23.1	34.3	31.0	42.1	19.8	31.0	33.8	56.9	71.7	35.5	32.3
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	3.50	7.07
	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	1.42	7.38
Myanmar	Yangon								***	***	55.7	29.3	47.2	56.7	42.6	49.6	21.3	34.3	42.2	64.3
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	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	16.3	19.1
of Korea	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	187	273
	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	27.5	45.1
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	0.493	0.764
	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	1.03	0.677
	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	4.01	3.89
	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	16.5	22.4
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	9.28	13.0
	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	12.9	14.6
	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	6.60	6.74
	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	5.54	8.12
	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	7.58	6.45
	Sakaerat							5.30	6.17	7.24	3.44	5.22	6.10	4.18	4.27	3.78	6.36	4.36	3.53	12.5
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	33.9	21.2
	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	7.56	7.80
	Cuc Phuong										25.5	19.8	25.2	40.4	50.7	18.2	12.8	24.6	39.3	33.9
	Da Nang										281	69.9	255	106	333	182	151	179	182	177
	Can Tho															28.4	64.8	21.0	18.3	25.4
	Ho Chi Minh															47.9	49.1	34.4	59.8	35.1
	Yen Bai																8.18	16.3	8.81	6.81

Terms and abbreviations are given in Table 3.5.

Table 3.89 Annual K^+ deposition amount from 2000 to 2018

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	2017	2018
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	1.68	***
China	Guanyinqiao	15.3	14.0	15.3	10.9	15.1	13.4	10.6	11.4											
	Nanshan	20.5																		
	Haifu									11.6	8.23	9.78	7.60	6.64	13.1	13.2	7.30	5.91	5.84	6.94
	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	4.56	2.57
	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	2.65	5.13
	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	6.59	10.6
	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	18.8	37.0
	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	8.37	12.1
	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	4.87	6.30
	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	4.08	9.80
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	3.10	4.83
	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	12.1	12.8
	Kototabang	***	1.59	9.16	62.6	13.2	9.57	5.69	23.3	8.42	24.8	10.5	8.69	14.6	40.9	25.8	12387	24.9	4.54	5.98
	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	8.10	7.82
	Maros									17.5	12.6	6.71	6.74	8.57	7.41	52.7	4427	29.7	14.4	9.44
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	5.63	5.25
	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	4.48	2.09
	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	5.33	6.38
	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	5.95	5.23
	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	1.17	1.17
	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	1.68	1.72
	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	11.5	12.9
	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	3.54	2.76
	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	4.74	2.67
	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	13.0	9.26
	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	6.84	1.06
	Tokyo								1.51	2.12	1.90	1.64	1.79	1.45	1.14	1.13	1.05	0.868	1.42	1.09
Lao PDR	Vientiane				***	***	***	2.49	2.37	2.82	0.168	***	***	***	***	***	1.61	0.451	**	**
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	4.83	7.33
	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	5.82	3.54
	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	3.83	6.58
	Kuching									2.77	3.24	3.02	3.95	3.51	2.85	11.9	6.37	6.40	5.48	5.84
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	0.207	0.172
	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	0.358	0.544
Myanmar	Yangon								***	***	19.4	4.71	5.21	17.4	7.17	13.5	32.2	7.30	29.4	12.9
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	9.72	3.14
	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	5.31	6.76
	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	6.70	2.55
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	0.371	0.461
	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	1.15	0.452
	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	1.47	1.35
	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	6.41	8.56
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	1.97	2.58
	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	2.48	2.40
	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	2.90	1.78
	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	1.69	1.71
	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	3.35	1.55
	Sakaerat							0.791	1.91	2.13	1.65	1.53	1.81	1.42	1.17	1.12	2.10	1.73	0.866	7.85
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	14.7	15.3
	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	5.46	10.9
	Cuc Phuong										31.7	9.28	6.14	12.2	16.3	8.04	6.83	11.2	7.63	10.1
	Da Nang										18.6	5.76	50.9	19.3	41.5	30.5	22.6	9.24	22.1	40.5
	Can Tho															13.7	15.8	10.1	10.4	16.4
	Ho Chi Minh															20.3	17.1	16.9	35.7	20.6
	Yen Bai																6.09	9.03	14.9	6.10

Terms and abbreviations are given in Table 3.5.

Table 3.90 Annual Ca^{2+} deposition amount from 2000 to 2018

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	2017	2018
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	13.4	***
China	Guanyinqiao	68.1	103	94.5	64.5	153	168	120	97.7											
	Nanshan	69.5																		
	Haifu									66.0	46.1	67.6	55.5	58.5	71.2	77.4	52.5	85.4	65.1	48.0
	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	65.8	32.0
	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	39.4	29.1
	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	48.3	30.7
	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	15.2	26.0
	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	10.2	6.83
	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	19.1	21.9
	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	25.2	37.4
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	22.9	28.2
	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	38.6	44.9
	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	28.4	24.9
	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	27.7	31.8
	Maros									25.5	26.3	25.5	23.6	39.4	41.9	77.0	41.5	27.2	33.0	46.8
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	7.64	9.19
	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	5.17	3.57
	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	7.66	10.0
	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	8.41	12.4
	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	5.54	5.86
	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	6.41	6.92
	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	15.0	17.1
	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	7.55	5.49
	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	13.5	3.41
	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	15.7	14.0
	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	7.51	1.23
	Tokyo								5.38	7.61	5.91	6.59	6.72	6.88	7.00	6.88	5.84	3.99	4.27	4.49
Lao PDR	Vientiane				***	***	***	6.20	4.25	9.62	0.996	***	***	***	***	***	3.68	1.04	**	**
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	13.1	26.8
	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	6.80	7.19
	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	4.38	6.27
	Kuching									8.19	8.35	12.1	14.6	13.0	17.2	22.4	19.2	18.9	14.8	16.3
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	6.68	4.00
	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	1.67	2.29
Myanmar	Yangon								***	***	29.1	14.5	21.7	20.0	2.87	40.6	216	12.1	29.5	48.8
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	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	3.96	2.01
of Korea	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	9.15	6.87
	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	2.82	1.92
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	1.66	1.94
	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	3.86	2.80
	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	11.3	12.3
	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	13.3	15.0
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	18.0	31.0
	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	14.4	12.8
	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	16.8	10.5
	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	4.28	3.52
	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	10.6	5.74
	Sakaerat							11.4	5.20	5.78	3.19	3.60	2.83	4.21	2.83	3.73	9.46	8.93	7.78	39.7
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	73.2	77.1
	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	43.8	38.4
	Cuc Phuong										56.2	63.3	59.8	61.8	46.2	39.2	28.3	52.4	53.7	45.4
	Da Nang										18.8	15.0	36.4	28.4	49.7	60.6	65.0	105	76.0	94.8
	Can Tho															23.5	59.1	19.8	20.1	37.5
	Ho Chi Minh															49.7	62.8	30.8	51.0	45.1
	Yen Bai																24.1	36.9	55.4	38.8

Terms and abbreviations are given in Table 3.5.

Table 3.91 Annual nss-Ca^{2+} deposition amount from 2000 to 2018

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	2017	2018
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	13.3	***
China	Guanyinqiao	67.9	103	94.3	64.4	153	168	120	97.5											
	Nanshan	69.3																		
	Haifu									65.8	46.0	67.5	55.3	58.3	71.1	77.2	52.4	85.2	65.0	47.9
	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	65.7	32.0
	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	39.0	28.9
	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	47.9	30.5
	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	14.8	25.4
	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	10.1	6.71
	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	16.9	18.9
	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	24.2	33.3
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	22.7	27.6
	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	37.8	44.1
	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	28.2	24.7
	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	27.0	31.0
	Maros									24.4	25.3	24.8	22.4	38.4	40.3	75.2	41.4	22.8	28.1	45.8
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	3.45	5.20
	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	1.22	1.69
	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	3.06	4.35
	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	4.33	7.80
	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	5.20	5.53
	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	5.49	5.74
	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	4.68	5.69
	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	4.75	3.46
	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	10.7	2.24
	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	3.38	5.01
	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	1.07	0.290
	Tokyo								4.58	6.83	5.03	5.97	5.59	5.84	6.21	6.14	5.20	3.49	3.16	3.52
Lao PDR	Vientiane				***	***	***	6.09	4.18	9.51	0.960	***	***	***	***	***	3.63	1.02	**	**
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	12.7	26.3
	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	6.64	7.05
	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	4.24	5.99
	Kuching									7.77	7.76	11.4	13.7	12.6	16.6	21.7	18.0	17.4	14.2	15.6
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	6.60	3.85
	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	1.64	2.14
Myanmar	Yangon								***	***	27.9	13.9	20.7	18.8	2.13	39.6	215	11.4	28.6	47.4
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	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	3.61	1.61
of Korea	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	5.42	2.37
	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	2.26	1.37
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	1.65	1.92
	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	3.83	2.78
	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	11.2	12.2
	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	12.9	14.5
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	17.8	30.7
	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	14.2	12.4
	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	16.6	10.4
	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	4.16	3.34
	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	10.4	5.60
	Sakaerat							11.2	5.07	5.62	3.12	3.50	2.73	4.13	2.75	3.66	9.32	8.83	7.70	39.4
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	72.5	76.6
	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	43.7	38.2
	Cuc Phuong										55.7	62.9	59.2	60.9	45.2	38.8	28.0	51.9	52.9	44.7
	Da Nang										12.8	13.5	30.9	26.1	42.5	56.7	61.8	101	72.1	91.0
	Can Tho															22.9	57.7	19.4	19.7	37.0
	Ho Chi Minh															48.7	61.8	30.1	49.7	44.3
	Yen Bai																23.9	36.5	55.2	38.6

Terms and abbreviations are given in Table 3.5.

Table 3.92 Annual Mg^{2+} deposition amount from 2000 to 2018

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	2017	2018
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	1.94	***
China	Guanyinqiao	9.23	8.73	8.67	4.40	12.7	13.7	10.6	10.4											
	Nanshan	8.87																		
	Haifu									7.15	5.81	8.75	6.98	6.94	8.44	9.92	5.85	7.22	4.96	4.52
	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	6.01	3.13
	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	6.45	6.06
	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	10.0	8.74
	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	3.87	4.66
	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	1.88	1.78
	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	10.7	13.2
	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	5.82	21.5
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	3.86	5.76
	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	8.01	9.36
	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	2.63	3.08
	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	7.30	6.86
	Maros									7.77	6.02	5.79	9.07	17.2	11.3	37.7	74.5	5.76	5.16	8.39
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	22.7	21.7
	Ochiishi				17.3	27.3	18.2	31.1	18.6	14.5	31.4	31.0	15.1	26.6	51.0	9.28	16.9	18.0	21.3	9.84
	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	24.5	30.2
	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	21.6	24.3
	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	3.83	2.84
	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	5.38	7.17
	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	54.8	60.4
	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	14.6	11.1
	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	15.6	7.18
	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	69.2	54.7
	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	35.2	5.23
	Tokyo								4.56	5.17	5.13	3.98	6.65	6.18	4.89	4.58	4.02	2.97	6.30	5.38
Lao PDR	Vientiane				***	***	***	2.47	0.977	2.18	0.131	***	***	***	***	***	0.564	0.130	**	**
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	1.77	2.79
	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	0.327	0.673
	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	1.12	3.25
	Kuching									1.24	1.84	2.12	3.45	1.04	2.42	4.10	5.35	5.37	2.75	2.31
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	0.489	0.426
	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	0.139	0.218
Myanmar	Yangon								***	***	8.54	4.11	9.52	16.9	33.1	9.79	14.3	9.98	9.75	13.9
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	1.37	0.683
	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	15.3	18.7
	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	1.45	0.759
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	0.334	0.386
	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	0.993	0.663
	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	2.36	2.35
	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	7.57	9.44
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	2.50	3.43
	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	2.83	3.14
	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	1.92	1.51
	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	1.35	1.43
	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	1.69	0.537
	Sakaerat							2.36	2.47	2.11	1.60	1.14	0.410	0.477	0.289	0.557	3.01	4.60	2.97	9.23
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	15.1	12.3
	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	3.73	8.70
	Cuc Phuong										9.89	7.30	8.86	14.3	23.1	8.30	7.94	16.1	18.6	25.6
	Da Nang										30.1	14.4	34.3	15.4	43.4	23.9	16.6	24.6	25.4	27.6
	Can Tho															8.19	20.2	11.4	10.2	25.7
	Ho Chi Minh															16.7	25.4	17.6	31.0	25.2
	Yen Bai																4.06	5.88	3.99	6.32

Terms and abbreviations are given in Table 3.5.

Table 3.93 Annual H^+ deposition amount from 2000 to 2018

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	2017	2018
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	0.920	***
China	Guanyinqiao	50.5	12.1	36.4	31.7	36.0	12.1	11.6	29.3											
	Nanshan	76.2																		
	Haifu									64.1	64.3	69.3	53.4	58.1	30.8	17.1	4.65	0.832	1.79	5.70
	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	8.96	13.2
	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	0.148	0.0803
	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	0.103	0.0895
	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	2.46	2.25
	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	0.856	12.2
	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	20.0	17.9
	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	15.4	14.7
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	16.8	34.8
	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	20.3	12.9
	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	15.3	14.2
	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	10.8	3.79
	Maros									7.15	15.0	16.4	16.1	5.90	13.7	16.2	14.3	11.4	11.2	14.1
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	16.2	14.8
	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	6.21	8.18
	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	20.4	18.1
	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	16.0	17.1
	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	24.9	17.4
	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	53.5	45.1
	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	14.8	17.8
	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	25.2	22.5
	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	80.7	40.3
	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	16.1	21.0
	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	10.1	5.72
	Tokyo								17.6	46.2	30.6	18.6	20.7	23.5	14.2	26.7	26.8	18.4	16.3	15.3
Lao PDR	Vientiane				0.0277	0.999	0.320	0.231	3.02	1.65	0.600	***	***	0.463	***	0.366	1.06	0.0807	**	**
Malaysia	Petaling Jaya	153	173	157	158	142	123	151	83.2	140	134	191	250	210	136	142	153	189	96.6	122
	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	41.9	35.7
	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	18.0	12.4
	Kuching									23.8	25.5	24.4	17.3	18.4	21.2	16.8	21.6	40.4	23.4	21.4
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	0.471	0.295
	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	0.962	0.233
Myanmar	Yangon								10.6	2.50	1.04	0.875	1.09	0.831	0.948	0.571	0.526	0.387	0.575	0.777
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	21.4	8.27
	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	3.76	1.41
	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	3.83	2.34
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	0.928	2.35
	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	5.38	4.03
	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	5.73	6.17
	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	1.31	1.53
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	1.72	1.03
	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	2.49	4.43
	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	6.21	10.0
	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	2.02	1.72
	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	3.42	2.51
	Sakaerat							9.06	11.5	16.0	17.1	29.0	15.0	9.66	8.23	6.42	12.8	5.92	6.50	8.21
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	0.604	5.77
	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	11.4	15.4
	Cuc Phuong										23.4	9.73	16.8	7.42	7.16	5.10	6.99	3.03	18.8	8.99
	Da Nang										49.9	13.0	38.0	6.16	6.07	6.69	1.98	2.99	3.06	4.27
	Can Tho															1.01	3.71	2.39	2.05	3.50
	Ho Chi Minh															2.72	1.10	4.46	2.97	1.92
	Yen Bai																8.93	12.0	15.3	8.36

Terms and abbreviations are given in Table 3.5.

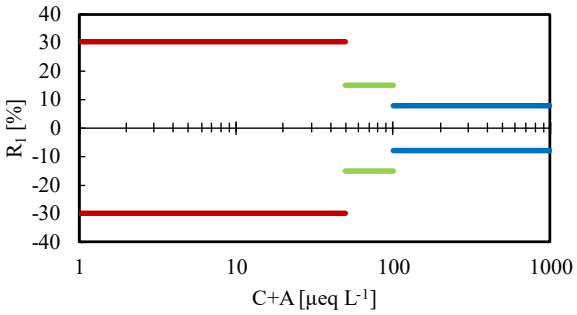


Fig. 3.2 a) Phnom Penh Ion Balance (R_1)

No data

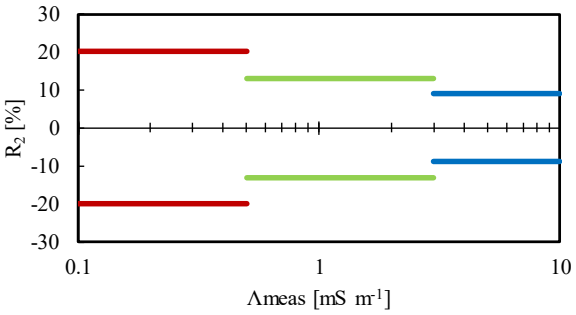


Fig. 3.2 b) Phnom Penh Conductivity Agreement (R_2)

No data

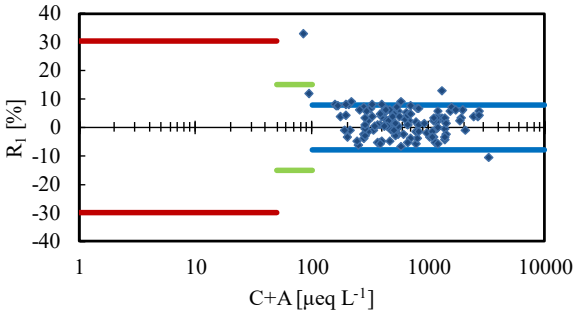


Fig. 3.3 a) Haifu Ion Balance (R_1)

Calculated including HCO_3^- and F^-

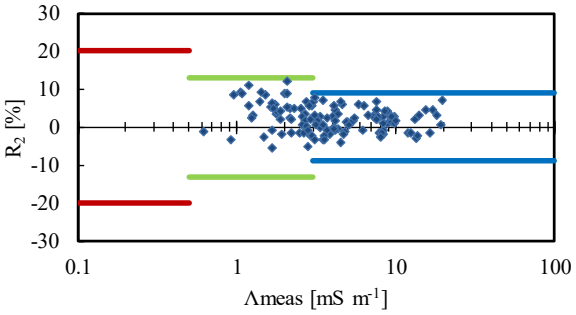


Fig. 3.3 b) Haifu Conductivity Agreement (R_2)

Calculated including HCO_3^- and F^-

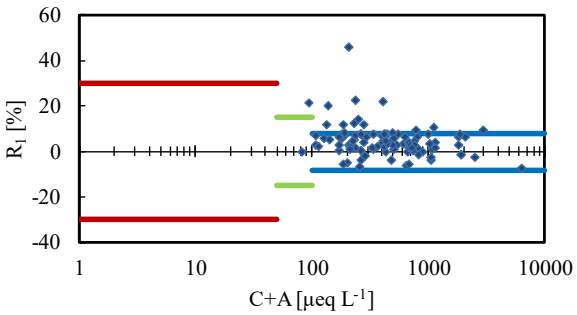


Fig. 3.4 a) Jinyunshan Ion Balance (R_1)

Calculated including HCO_3^- and F^-

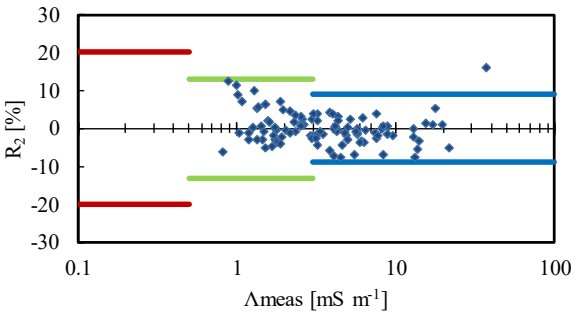


Fig. 3.4 b) Jinyunshan Conductivity Agreement (R_2)

Calculated including HCO_3^- and F^-

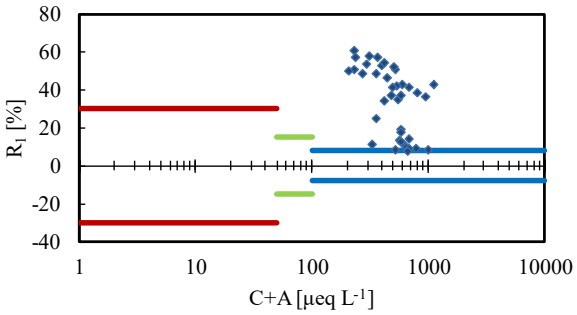


Fig. 3.5 a) Shizhan Ion Balance (R_1)

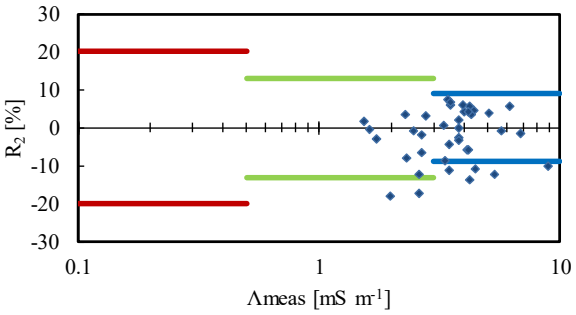


Fig. 3.5 b) Shizhan Conductivity Agreement (R_2)

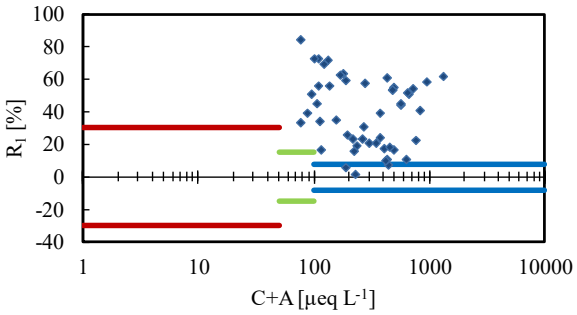


Fig. 3.6 a) Jiwozi Ion Balance (R_1)

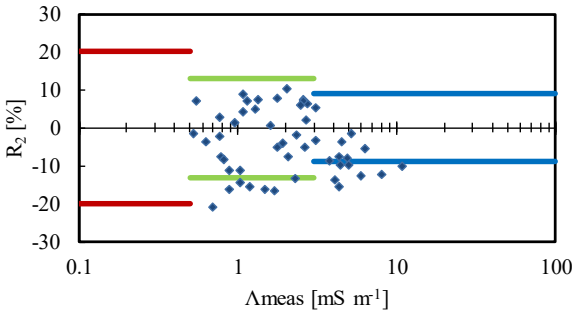


Fig. 3.6 b) Jiwozi Conductivity Agreement (R_2)

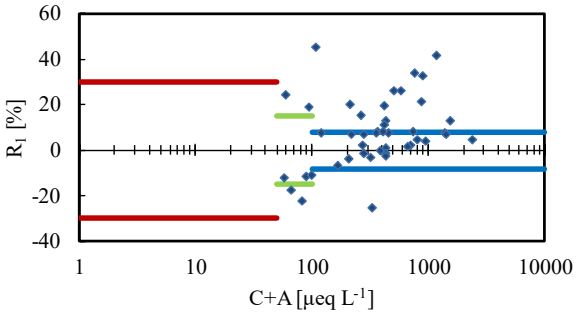


Fig. 3.7 a) Hongwen Ion Balance (R_1)

Calculated including F^-

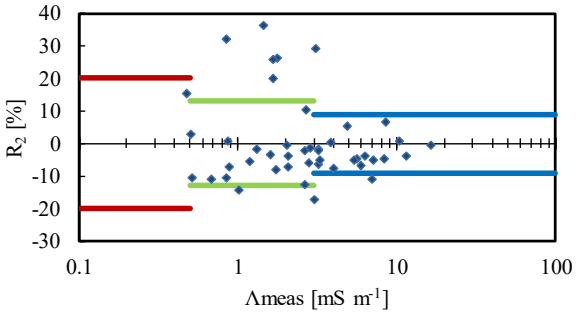


Fig. 3.7 b) Hongwen Conductivity Agreement (R_2)

Calculated including F^-

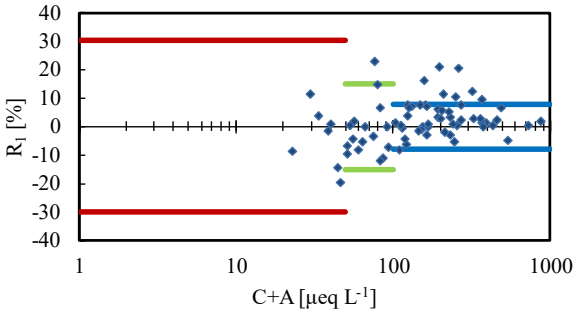


Fig. 3.8 a) Xiaoping Ion Balance (R_1)

Calculated including F^-

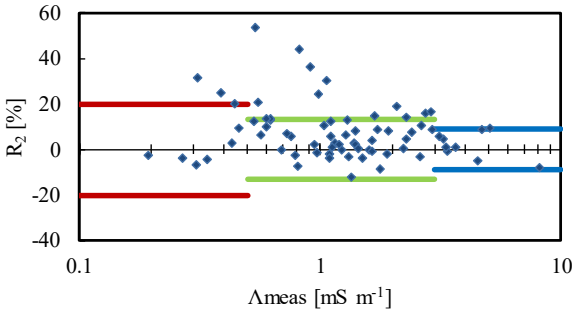


Fig. 3.8 b) Xiaoping Conductivity Agreement (R_2)

Calculated including F^-

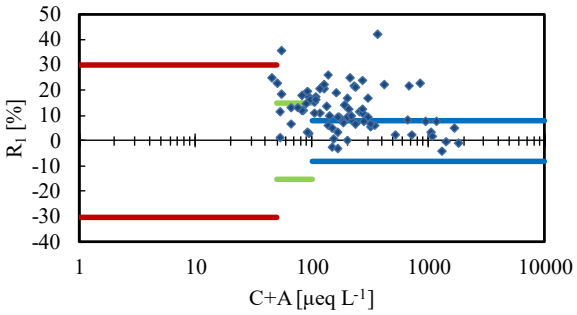


Fig. 3.9 a) Xiang Zhou Ion Balance (R_1)

Calculated including F^-

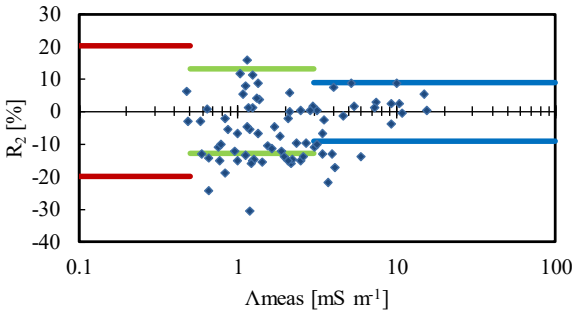


Fig. 3.9 b) Xiang Zhou Conductivity Agreement (R_2)

Calculated including F^-

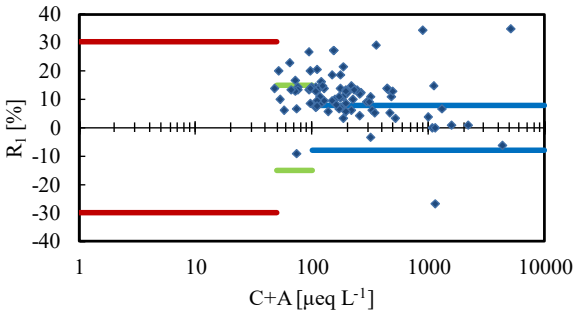


Fig. 3.10 a) Zhuxiandong Ion Balance (R_1)

Calculated including F^-

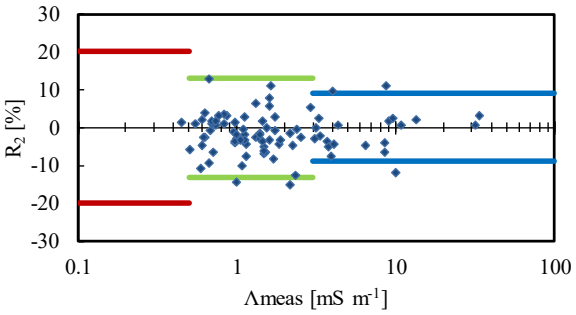


Fig. 3.10 b) Zhuxiandong Conductivity Agreement (R_2)

Calculated including F^-

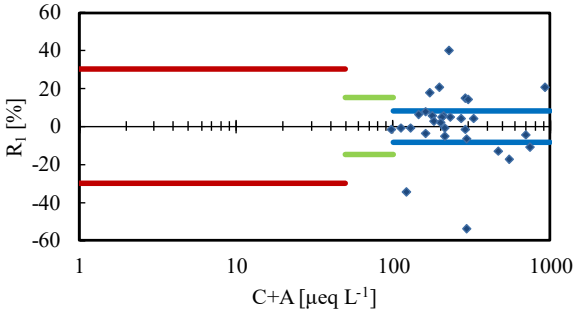


Fig. 3.11 a) Jakarta Ion Balance (R_1)

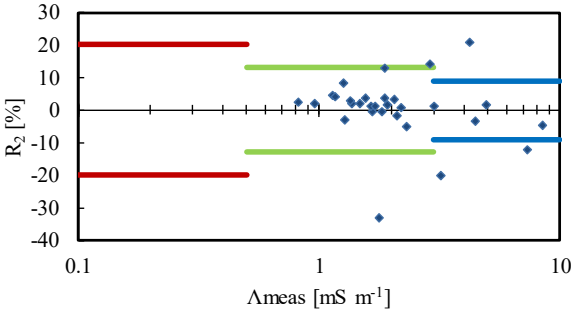


Fig. 3.11 b) Jakarta Conductivity Agreement (R_2)

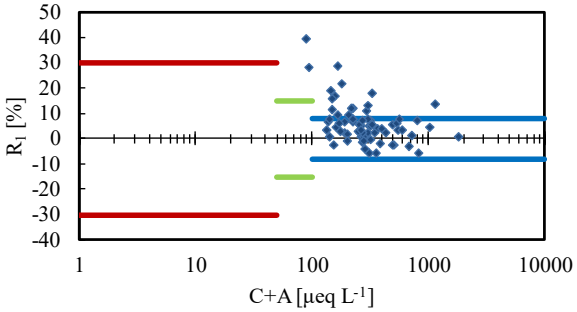


Fig. 3.12 a) Serpong Ion Balance (R_1)

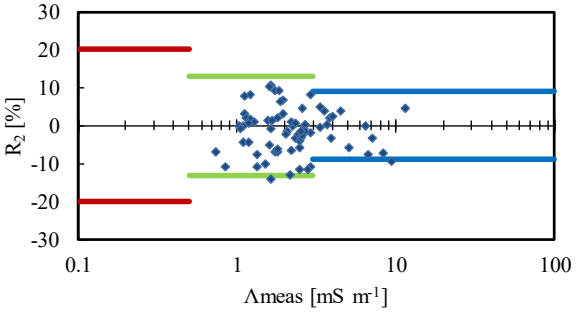


Fig. 3.12 b) Serpong Conductivity Agreement (R_2)

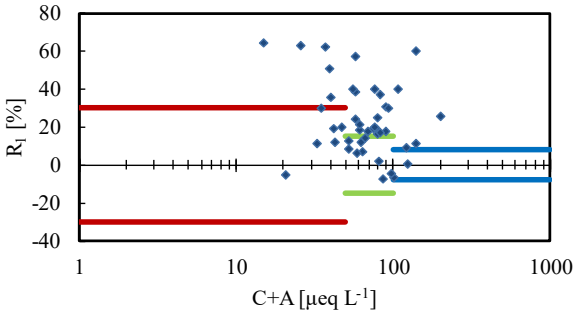


Fig. 3.13 a) Kototabang Ion Balance (R_1)

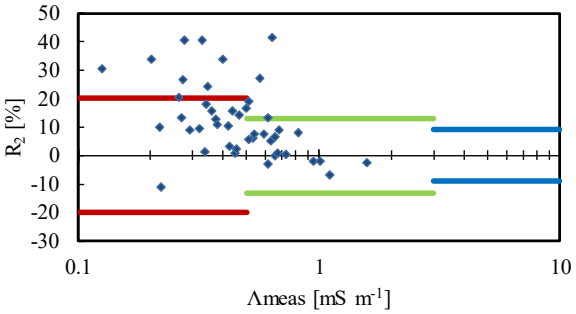


Fig. 3.13 b) Kototabang Conductivity Agreement (R_2)

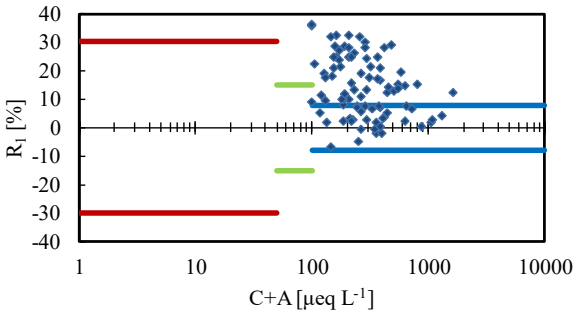


Fig. 3.14 a) Bandung Ion Balance (R_1)

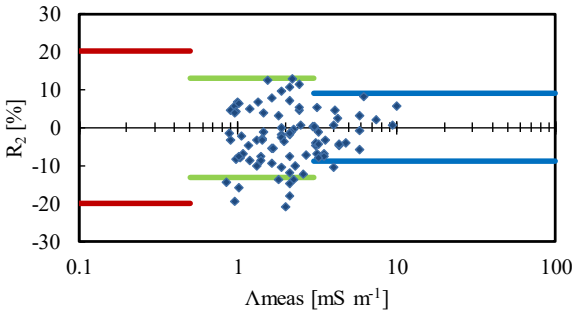


Fig. 3.14 b) Bandung Conductivity Agreement (R_2)

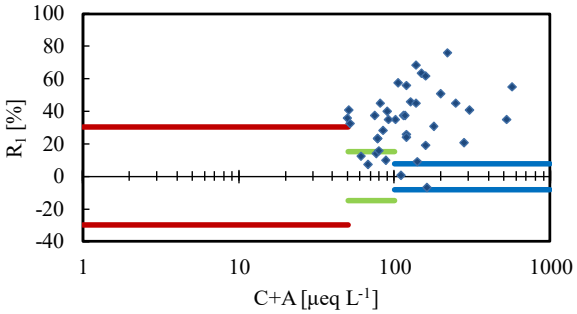


Fig. 3.15 a) Maros Ion Balance (R_1)

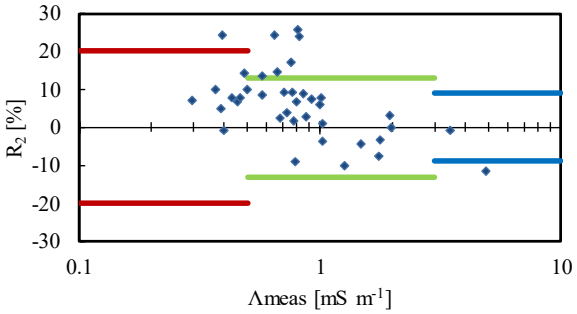


Fig. 3.15 b) Maros Conductivity Agreement (R_2)

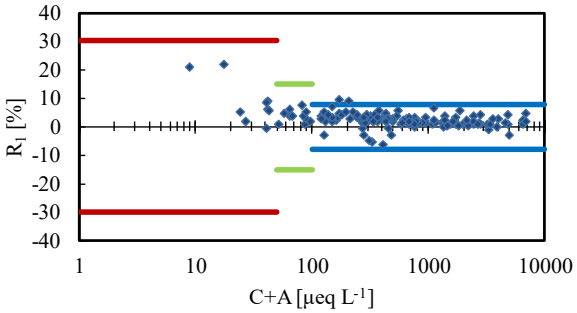


Fig. 3.16 a) Rishiri Ion Balance (R_1)

Calculated including HCO_3^-

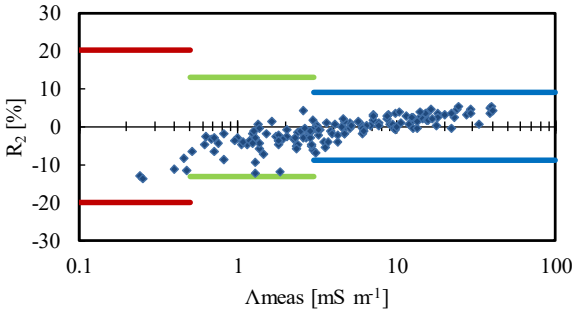


Fig. 3.16 b) Rishiri Conductivity Agreement (R_2)

Calculated including HCO_3^-

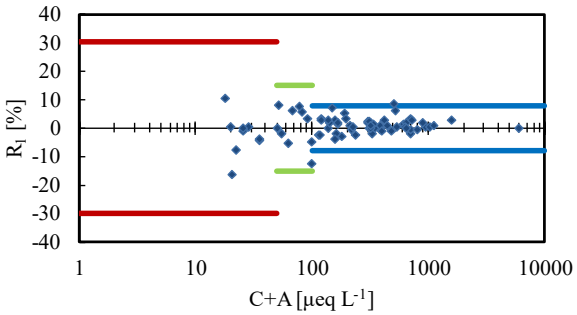


Fig. 3.17 a) Ochiishi Ion Balance (R_1)

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

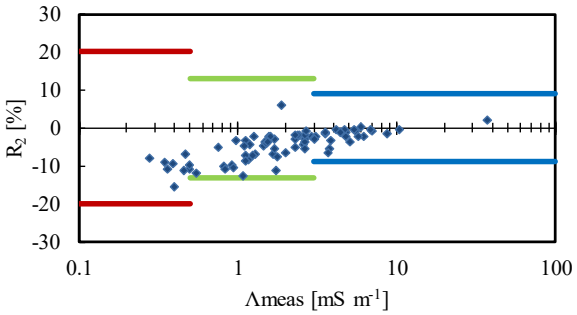


Fig. 3.17 b) Ochiishi Conductivity Agreement (R_2)

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

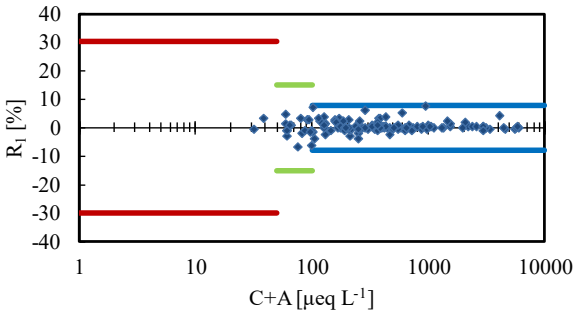


Fig. 3.18 a) Tappi Ion Balance (R_1)

Calculated including HCO_3^-

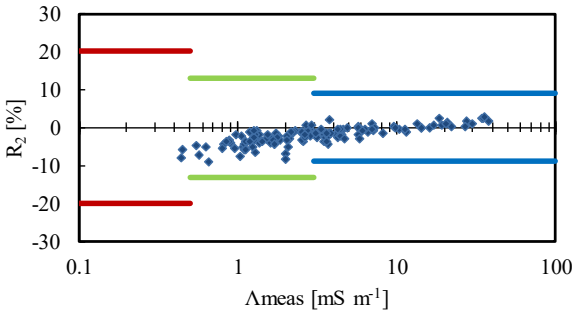


Fig. 3.18 b) Tappi Conductivity Agreement (R_2)

Calculated including HCO_3^-

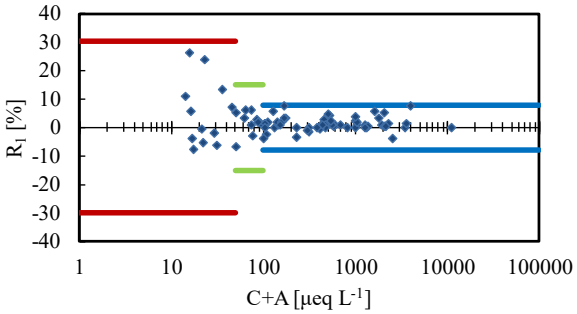


Fig. 3.19 a) Sado-seki Ion Balance (R_1)

Calculated including HCO_3^-

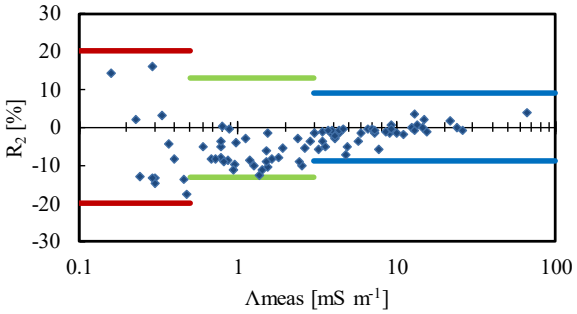


Fig. 3.19 b) Sado-seki Conductivity Agreement (R_2)

Calculated including HCO_3^-

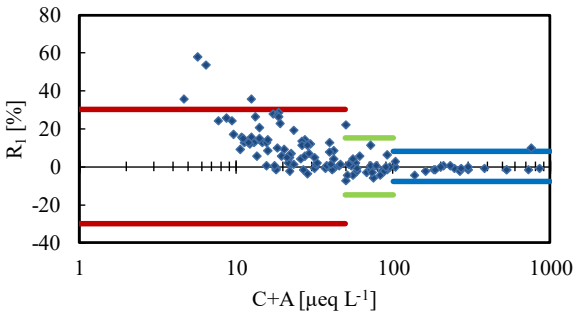


Fig. 3.20 a) Happo Ion Balance (R_1)

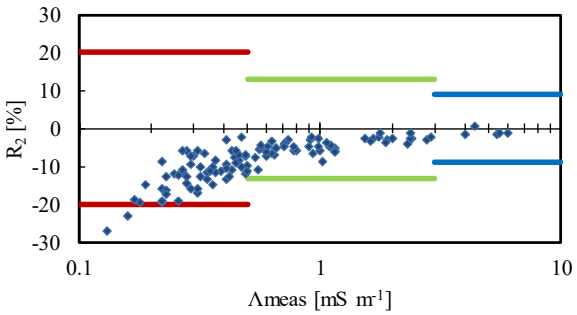


Fig. 3.20 b) Happo Conductivity Agreement (R_2)

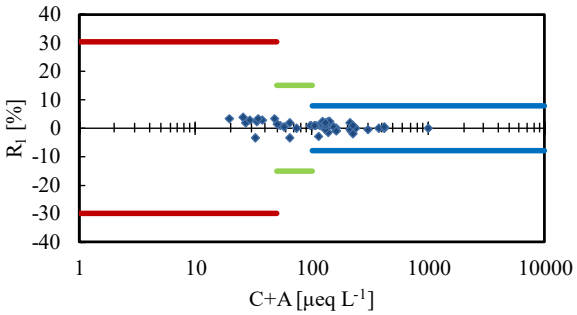


Fig. 3.21 a) Ijira Ion Balance (R_1)

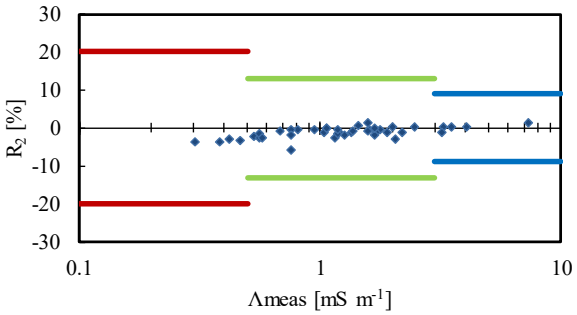


Fig. 3.21 b) Ijira Conductivity Agreement (R_2)

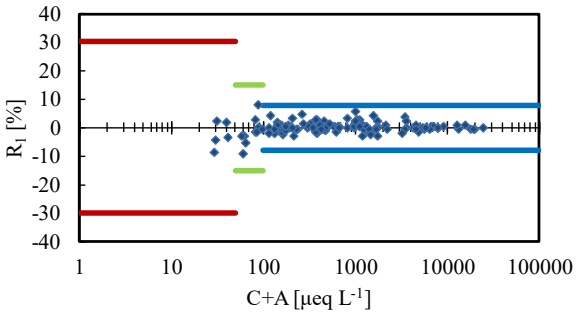


Fig. 3.22 a) Oki Ion Balance (R_1)

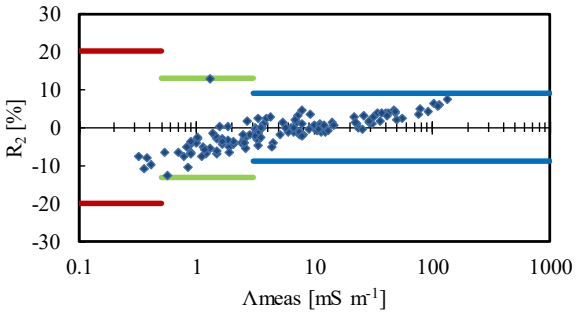


Fig. 3.22 b) Oki Conductivity Agreement (R_2)

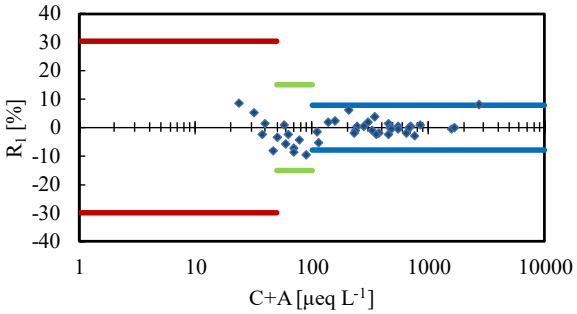


Fig. 3.23 a) Banryu Ion Balance (R_1)

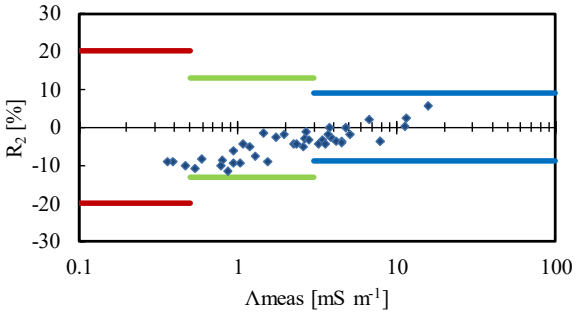


Fig. 3.23 b) Banryu Conductivity Agreement (R_2)

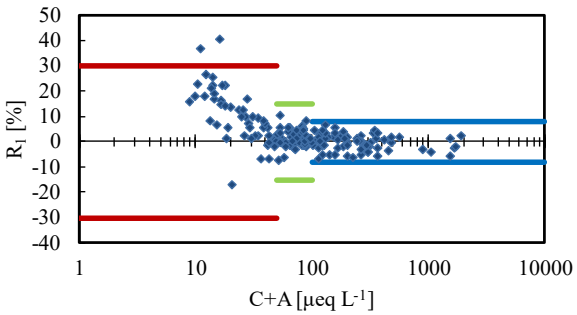


Fig. 3.24 a) Yusuhara Ion Balance (R_1)

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

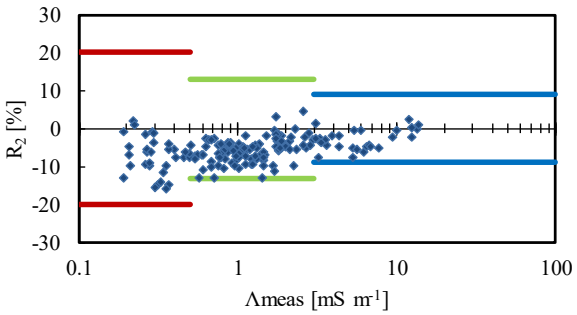


Fig. 3.24 b) Yusuhara Conductivity Agreement (R_2)

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

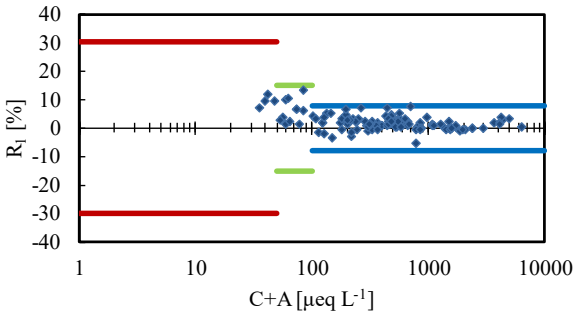


Fig. 3.25 a) Hedo Ion Balance (R_1)

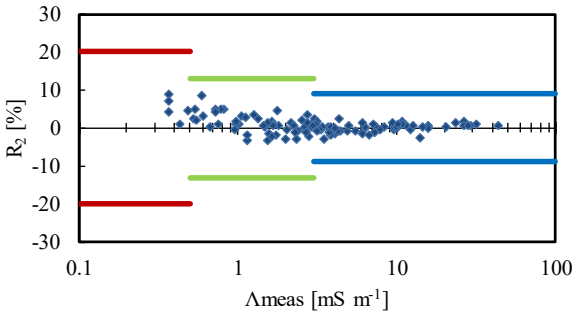


Fig. 3.25 b) Hedo Conductivity Agreement (R_2)

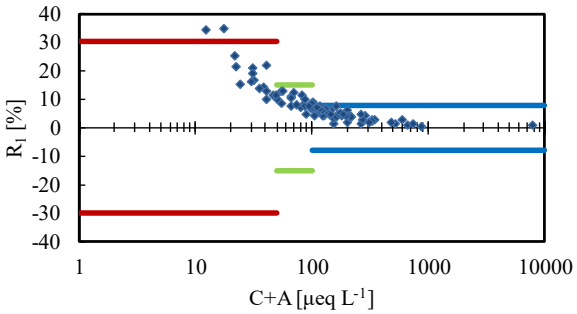


Fig. 3.26 a) Ogasawara Ion Balance (R_1)

Calculated including NO_2^-

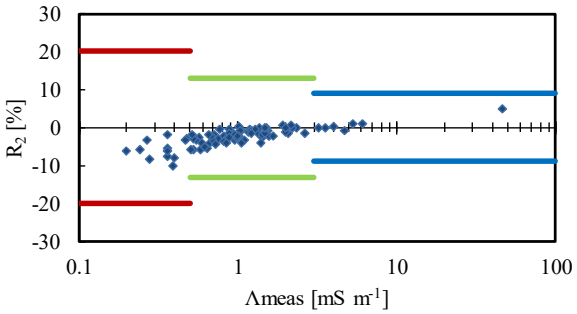


Fig. 3.26 b) Ogasawara Conductivity Agreement (R_2)

Calculated including NO_2^-

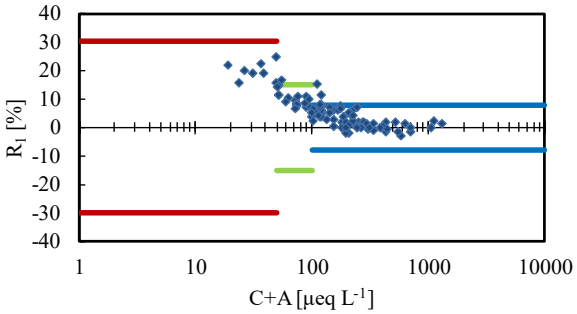


Fig. 3.27 a) Tokyo Ion Balance (R_1)

Calculated including NO_2^-

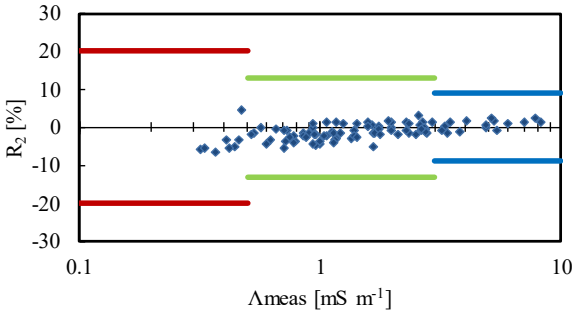


Fig. 3.27 b) Tokyo Conductivity Agreement (R_2)

Calculated including NO_2^-

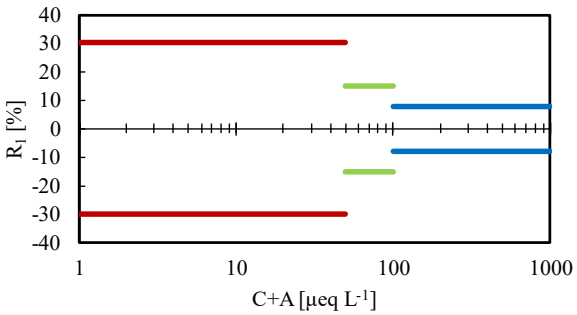


Fig. 3.28 a) Vientiane Ion Balance (R_1)

Not calculated

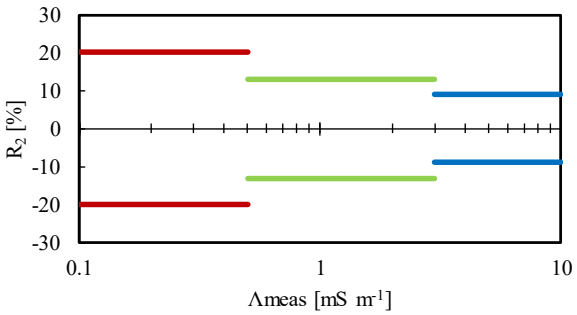


Fig. 3.28 b) Vientiane Conductivity Agreement (R_2)

Not calculated

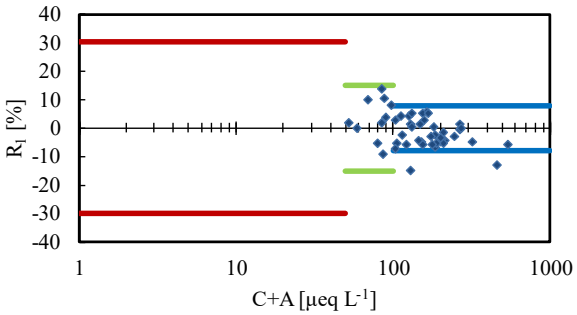


Fig. 3.29 a) Petaling Jaya Ion Balance (R_1)

Calculated including Formic, Acetic and Oxialic acid

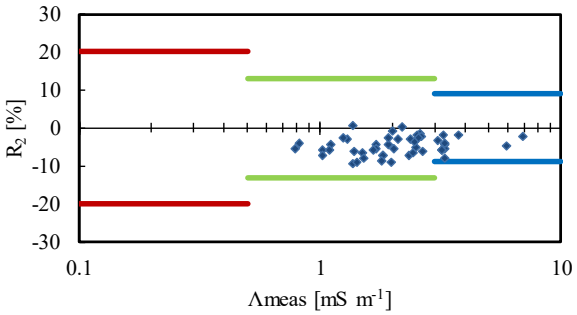


Fig. 3.29 b) Petaling Jaya Conductivity Agreement (R_2)

Calculated including Formic, Acetic and Oxialic acid

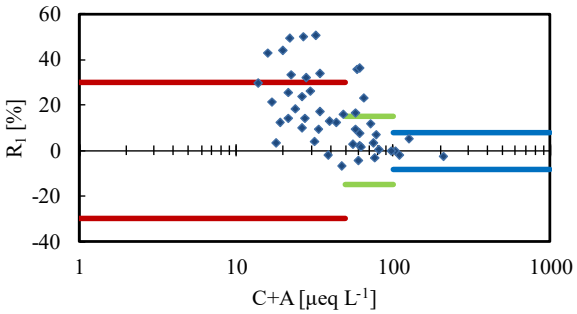


Fig. 3.30 a) Tanah Rata Ion Balance (R_1)

Calculated including Formic, Acetic and Oxialic acid

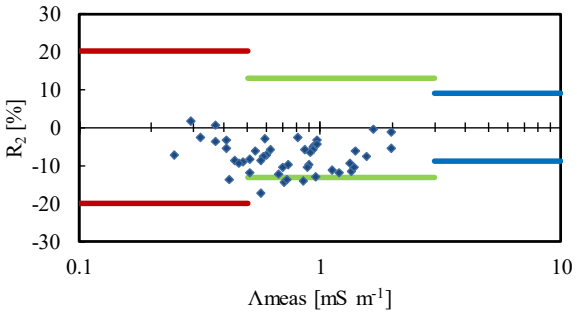


Fig. 3.30 b) Tanah Rata Conductivity Agreement (R_2)

Calculated including Formic, Acetic and Oxialic acid

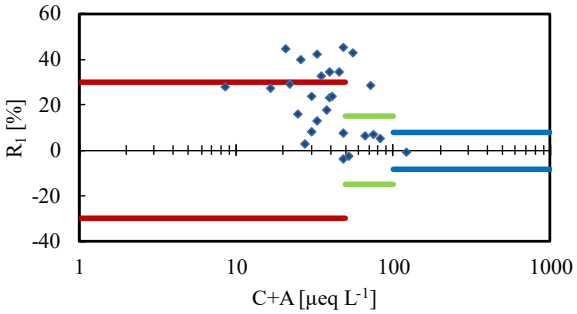


Fig. 3.31 a) Danum Valley Ion Balance (R_1)

Calculated including Formic, Acetic and Oxialic acid

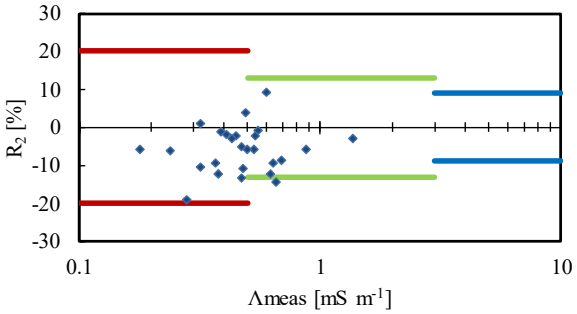


Fig. 3.31 b) Danum Valley Conductivity Agreement (R_2)

Calculated including Formic, Acetic and Oxialic acid

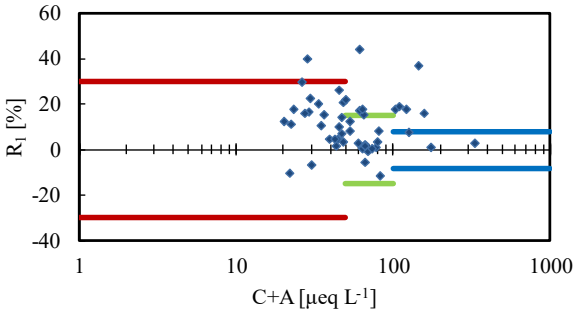


Fig. 3.32 a) Kuching Ion Balance (R_1)

Calculated including Formic, Acetic and Oxialic acid

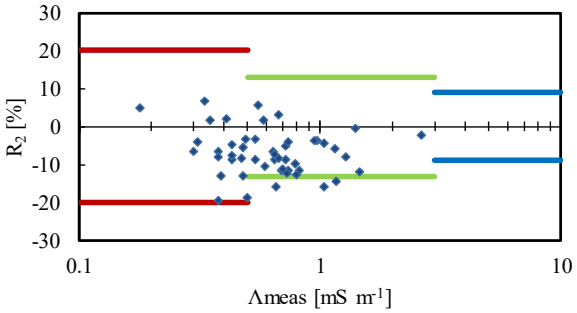


Fig. 3.32 b) Kuching Conductivity Agreement (R_2)

Calculated including Formic, Acetic and Oxialic acid

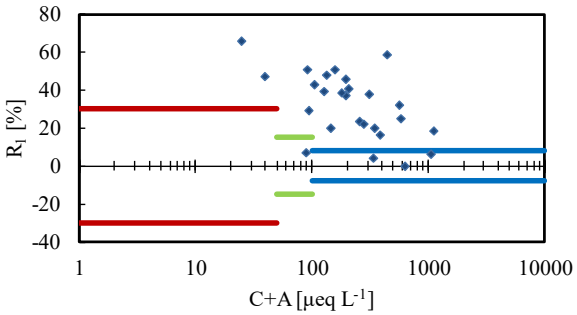


Fig. 3.33 a) Ulaanbaatar Ion Balance (R_1)

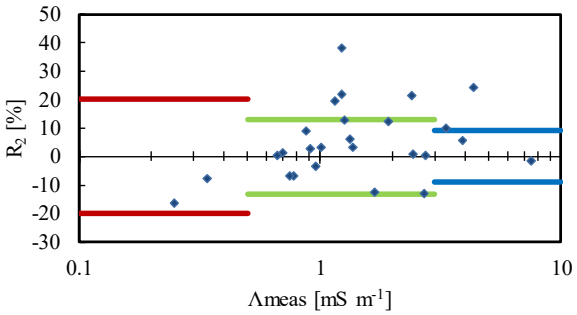


Fig. 3.33 b) Ulaanbaatar Conductivity Agreement (R_2)

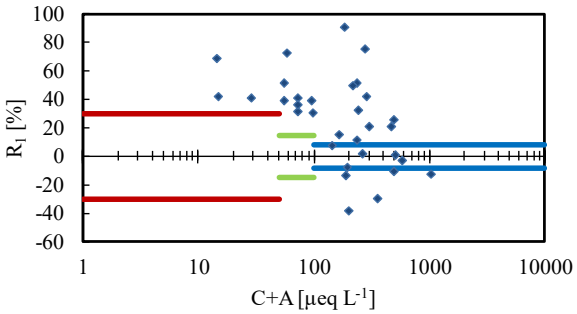


Fig. 3.34 a) Terelj Ion Balance (R_1)

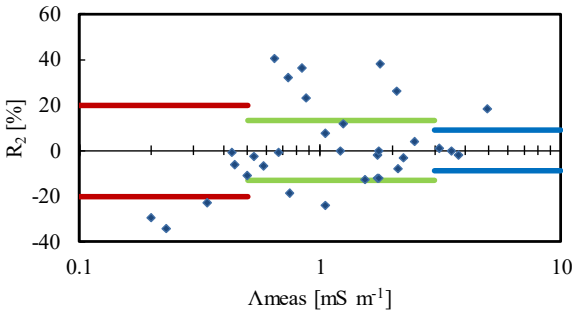


Fig. 3.34 b) Terelj Conductivity Agreement (R_2)

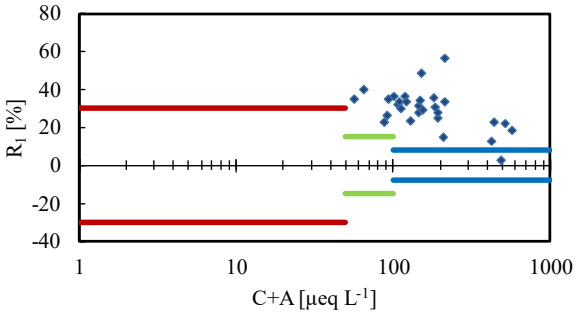


Fig. 3.35 a) Yangon Ion Balance (R_1)

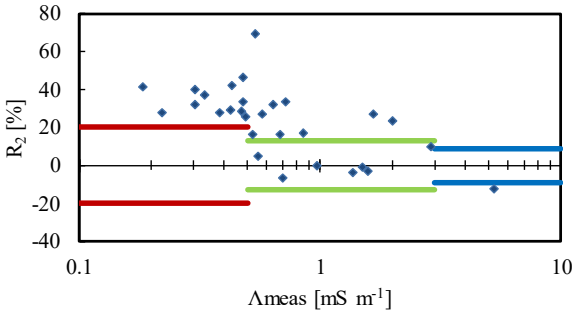


Fig. 3.35 b) Yangon Conductivity Agreement (R_2)

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

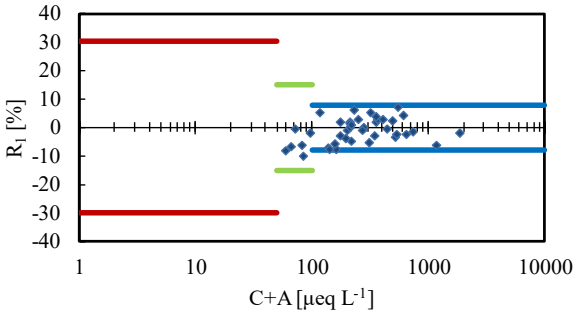
Fig. 3.36 b) Metro Manila Conductivity Agreement (R_2)

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

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

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

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



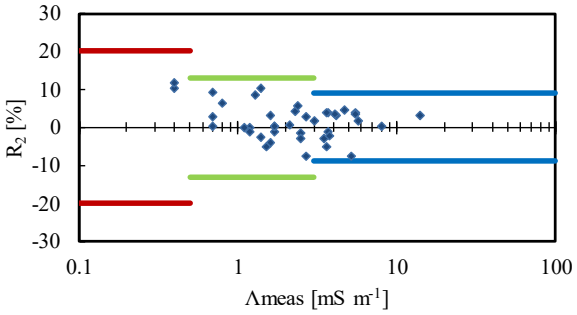
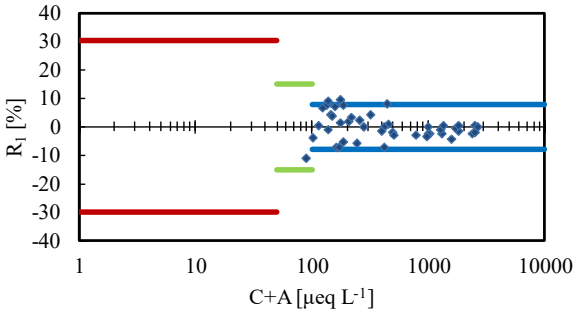


Fig. 3.39 a) Kanghwa Ion Balance (R_1)

Fig. 3.39 b) Kanghwa Conductivity Agreement (R_2)



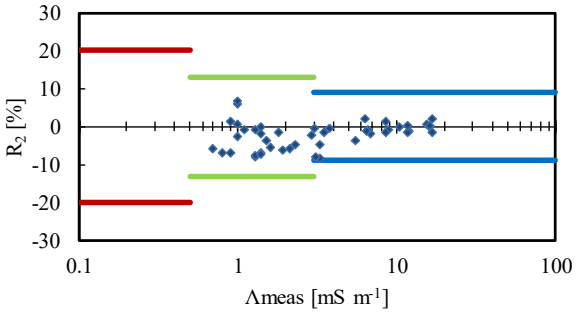
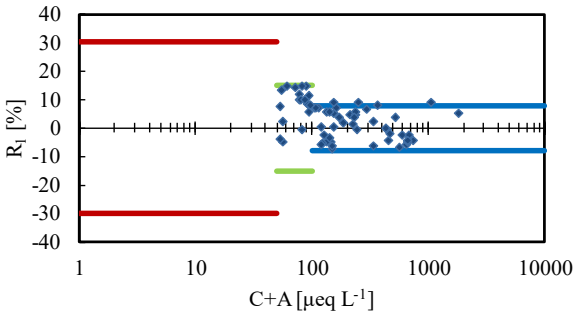


Fig. 3.40 a) Cheju Ion Balance (R_1)

Fig. 3.40 b) Cheju Conductivity Agreement (R_2)



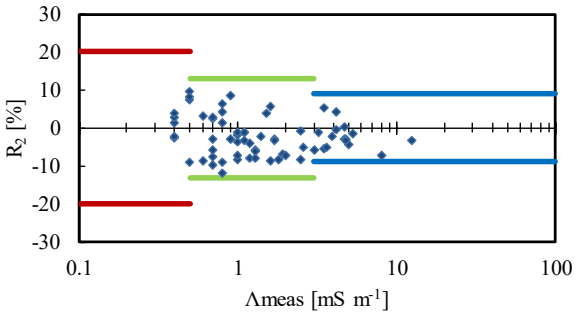


Fig. 3.41 a) Imsil Ion Balance (R_1)

Fig. 3.41 b) Imsil Conductivity Agreement (R_2)

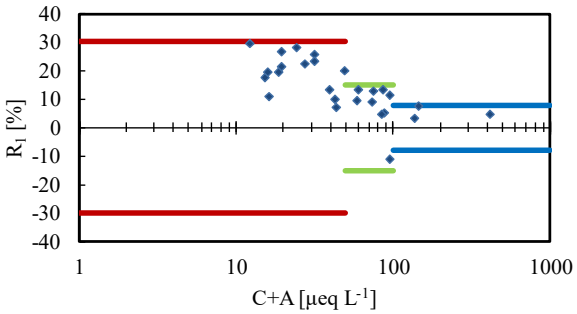


Fig. 3.42 a) Mondy Ion Balance (R_1)

Calculated including HCO_3^-, F^-, Br^-, NO_2^- and PO_4^{3-}

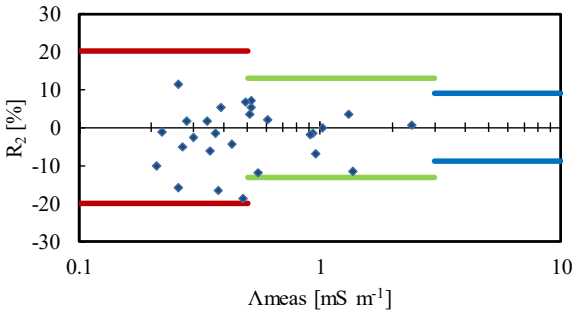


Fig. 3.42 b) Mondy Conductivity Agreement (R_2)

Calculated including HCO_3^-, F^-, Br^-, NO_2^- and PO_4^{3-}

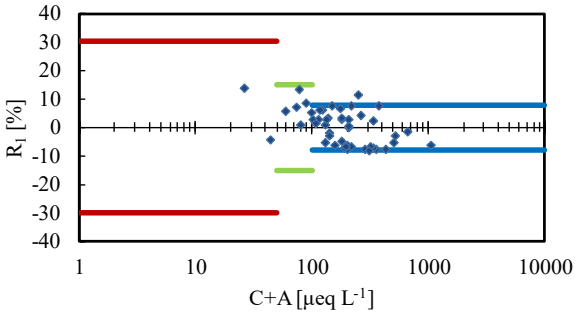


Fig. 3.43 a) Listvyanka Ion Balance (R_1)

Calculated including HCO_3^-, F^-, Br^-, NO_2^- and PO_4^{3-}

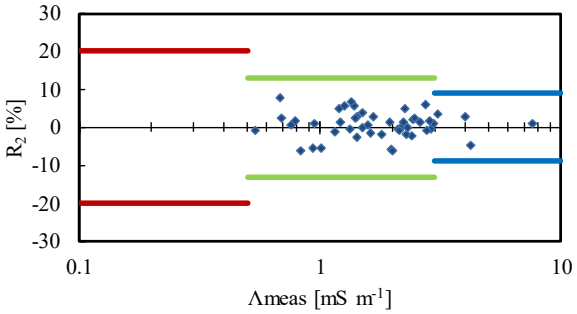


Fig. 3.43 b) Listvyanka Conductivity Agreement (R_2)

Calculated including HCO_3^-, F^-, Br^-, NO_2^- and PO_4^{3-}

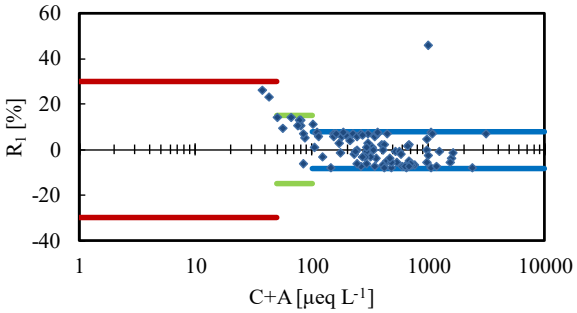


Fig. 3.44 a) Irkutsk Ion Balance (R_1)

Calculated including HCO_3^-, F^-, Br^-, NO_2^- and PO_4^{3-}

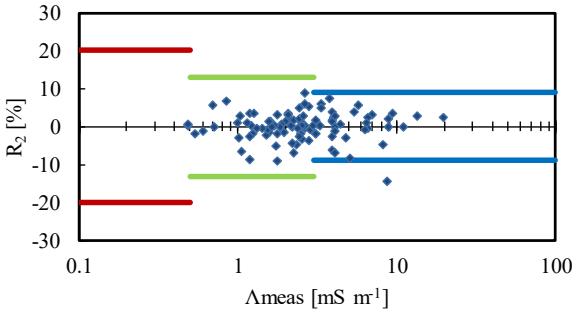


Fig. 3.44 b) Irkutsk Conductivity Agreement (R_2)

Calculated including HCO_3^-, F^-, Br^-, NO_2^- and PO_4^{3-}

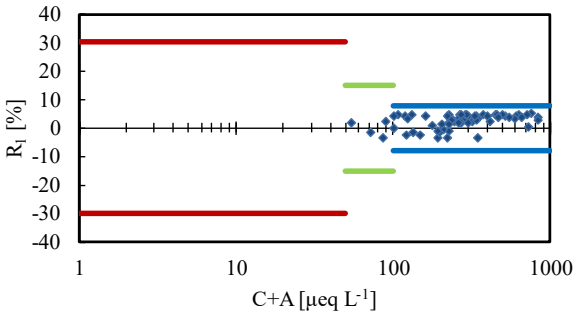


Fig. 3.45 a) Primorskaya Ion Balance (R_1)

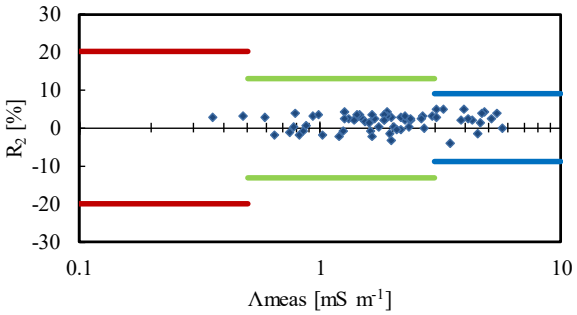


Fig. 3.45 b) Primorskaya Conductivity Agreement (R_2)

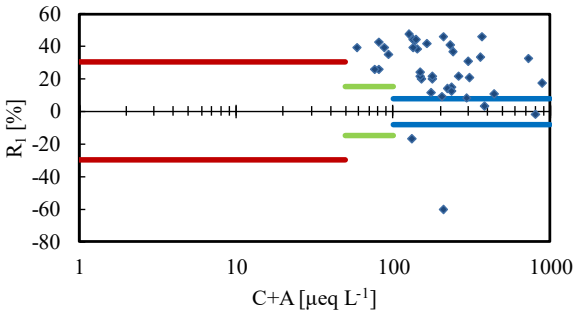


Fig. 3.46 a) Bangkok Ion Balance (R_1)

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

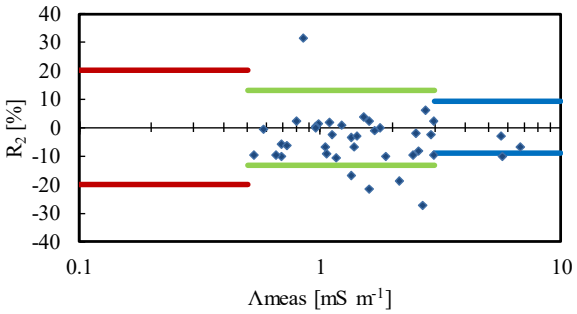


Fig. 3.46 b) Bangkok Conductivity Agreement (R_2)

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

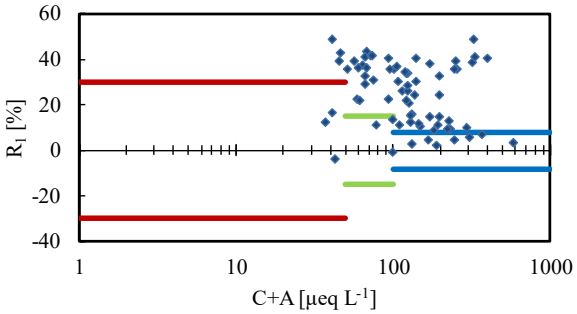


Fig. 3.47 a) Samutprakarn Ion Balance (R_1)

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

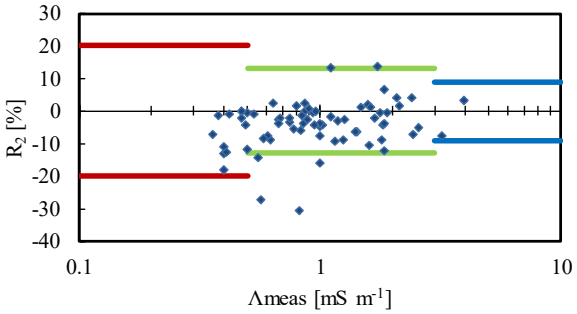


Fig. 3.47 b) Samutprakarn Conductivity Agreement (R_2)

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

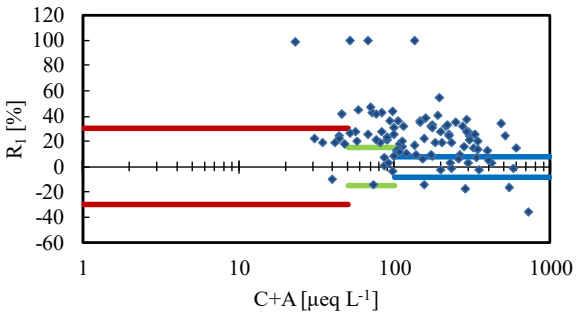


Fig. 3.48 a) Pathumthani Ion Balance (R_1)

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

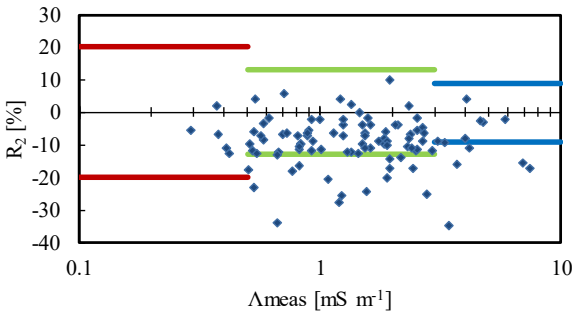


Fig. 3.48 b) Pathumthani Conductivity Agreement (R_2)

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

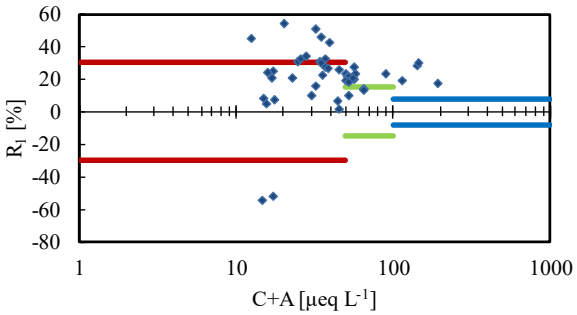


Fig. 3.49 a) Khanchanaburi Ion Balance (R_1)

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

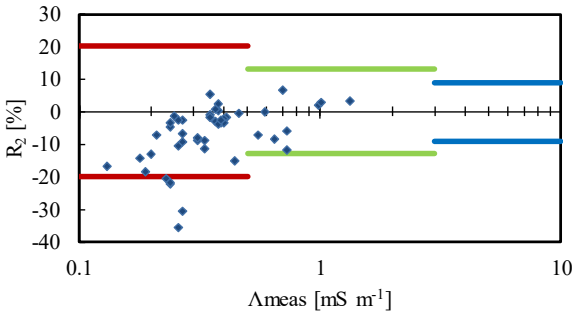


Fig. 3.49 b) Khanchanaburi Conductivity Agreement (R_2)

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

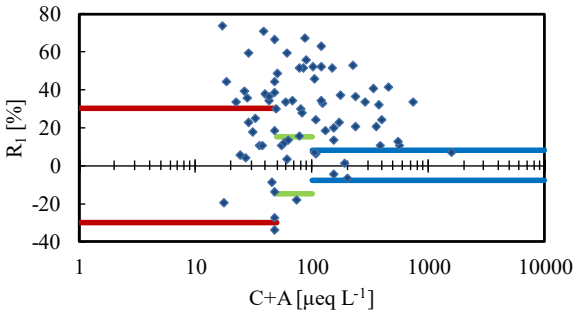


Fig. 3.50 a) Mae Hia Ion Balance (R_1)

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

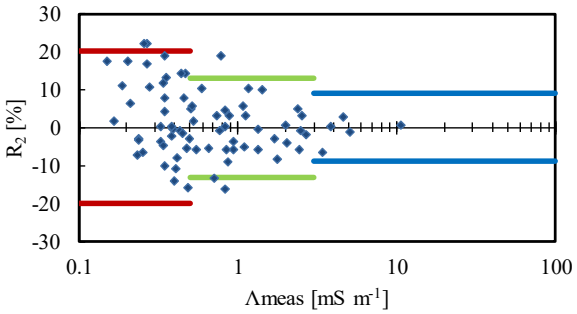


Fig. 3.50 b) Mae Hia Conductivity Agreement (R_2)

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

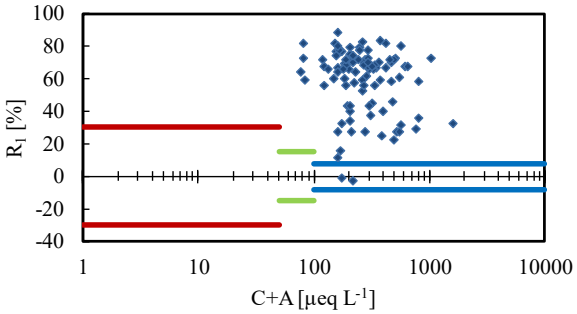


Fig. 3.51 a) Sakaerat Ion Balance (R_1)

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

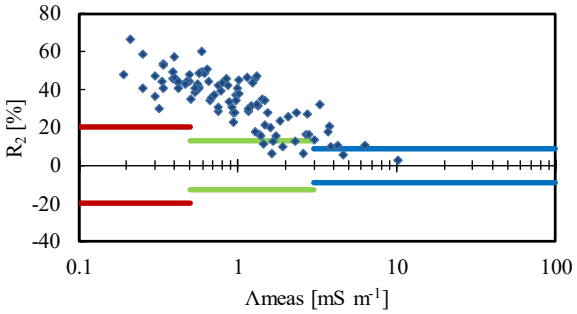


Fig. 3.51 b) Sakaerat Conductivity Agreement (R_2)

Conductivity Agreement (R_2)

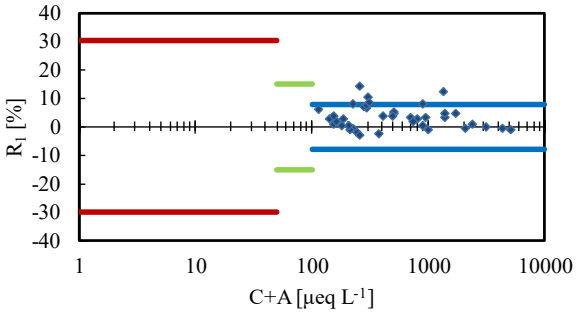


Fig. 3.52 a) Hanoi Ion Balance (R_1)

Calculated including F^-

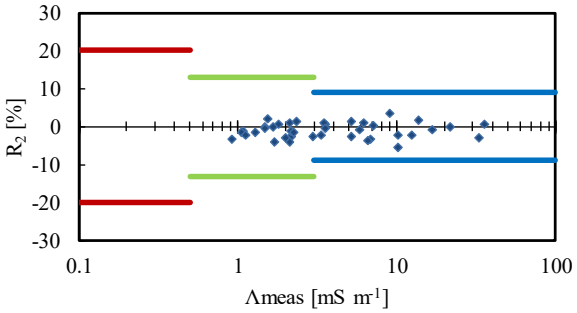


Fig. 3.52 b) Hanoi Conductivity Agreement (R_2)

Calculated including F^-

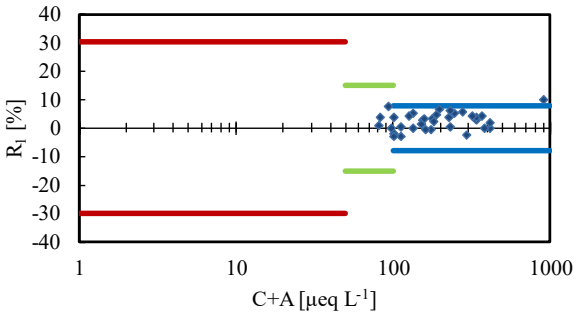


Fig. 3.53 a) Hoa Binh Ion Balance (R_1)

Calculated including F^-

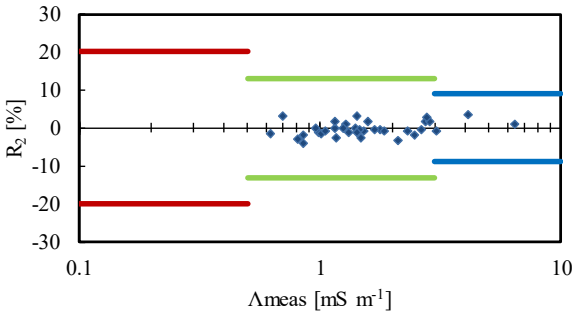


Fig. 3.53 b) Hoa Binh Conductivity Agreement (R_2)

Calculated including F^-

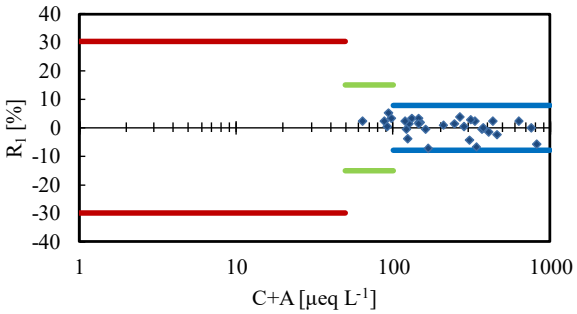


Fig. 3.54 a) Cuc Phuong Ion Balance (R_1)

Calculated including HCO_3^- and F^-

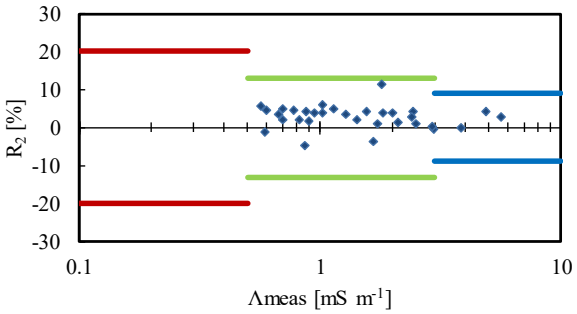


Fig. 3.54 b) Cuc Phuong Conductivity Agreement (R_2)

Conductivity Agreement (R_2)

Calculated including HCO_3^- and F^-

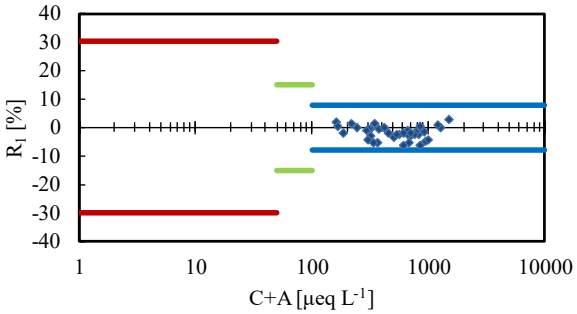


Fig. 3.55 a) Da Nang Ion Balance (R_1)

Calculated including HCO_3^- and F^-

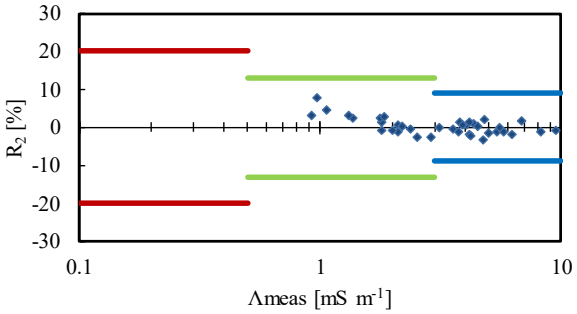


Fig. 3.55 b) Da Nang Conductivity Agreement (R_2)

Calculated including HCO_3^- and F^-

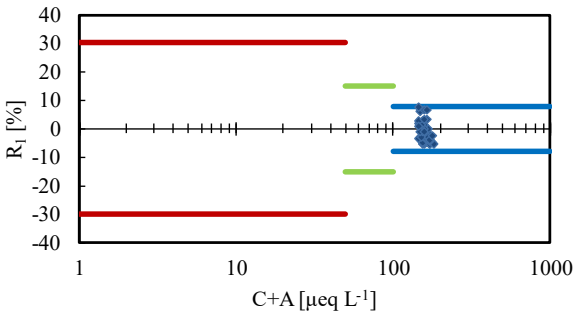


Fig. 3.56 a) Can Tho Ion Balance (R_1)

Calculated including F^-

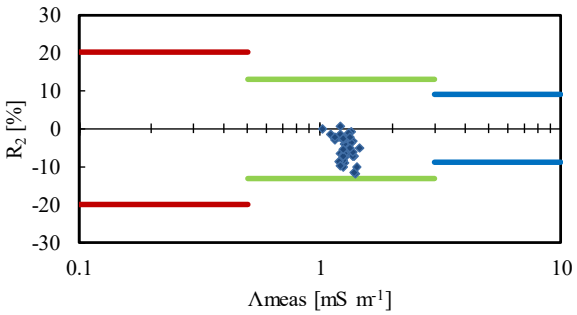


Fig. 3.56 b) Can Tho Conductivity Agreement (R_2)

Calculated including F^-

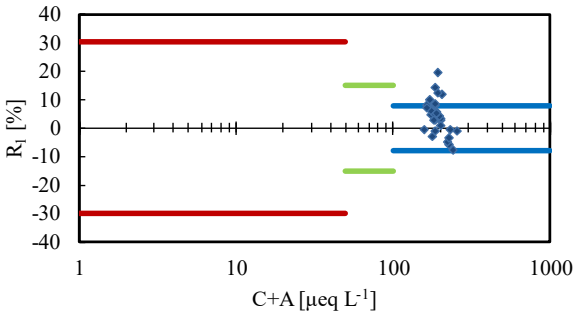


Fig. 3.57 a) Ho Chi Minh Ion Balance (R_1)

Calculated including F^-

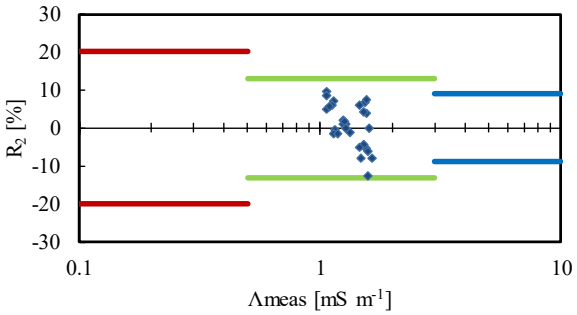


Fig. 3.57 b) Ho Chi Minh

Conductivity Agreement (R_2)

Calculated including F^-

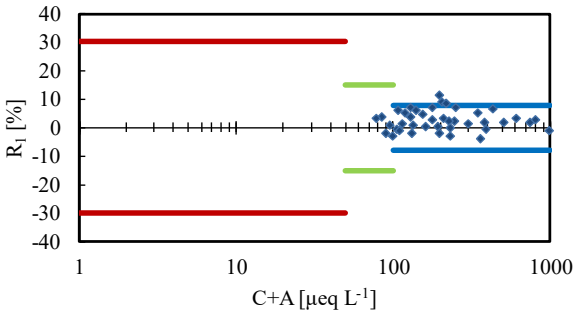


Fig. 3.58 a) Yen Bai Ion Balance (R_1)

Calculated including F^-

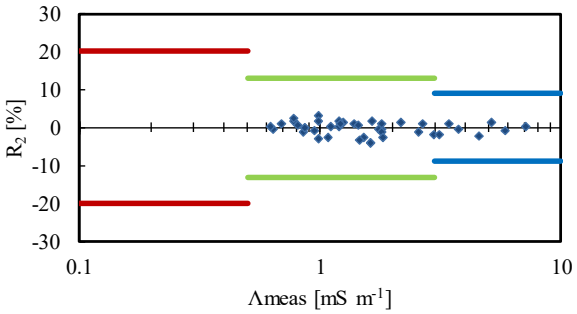


Fig. 3.58 b) Yen Bai Conductivity Agreement (R_2)

Calculated including F^-

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

Precipitation amount-weighted average concentration/ Precipitation amount											**unit : μmol L^{-1}**			
Country	Name of sites	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	**Annual**
China	Haifu	149	379	71.1	55.0	89.3	70.3	127	65.7	59.6	79.2	60.9	78.9	77.2
	Jinyunshan	104	249	162	69.7	88.6	156	52.8	66.9	63.4	*	*	*	101
Japan	Ochiishi	*	*	*	*	*	22.6	*	*	*	*	*	*	22.6
	Tappi	*	*	*	31.9	*	*	*	*	*	*	*	*	31.9
	Sado-seki	*	*	*	*	576	*	*	*	*	*	*	*	576
Russia	Mondy	--	--	28.7	15.1	--	33.5	<1	<1	5.85	11.7	39.3	--	7.48
	Listvyanka	22.8	<1	<1	<1	<1	<1	<1	<1	<1	15.3	9.56	4.49	1.09
	Irkutsk	165	189	67.2	39.9	11.4	19.4	<1	<1	<1	19.7	114	71.5	22.7
Vietnam	Cuc Phuong	66.3	*	10.2	12.6	16.9	42.4	9.59	13.8	6.36	10.3	6.83	29.0	14.3
	Da Nang	113	170	119	72.2	248	186	234	237	59.3	67.9	32.5	13.4	63.0
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	3.83	4.47	5.67	10.0	20.1	5.08	6.58	9.73	10.6	5.82	2.45	2.34	86.3
	Jinyunshan	3.31	1.57	9.01	15.4	9.41	16.2	5.54	4.72	7.93	*	*	*	94.9
Japan	Ochiishi	*	*	*	*	*	4.24	*	*	*	*	*	*	25.3
	Tappi	*	*	*	3.02	*	*	*	*	*	*	*	*	52.6
	Sado-seki	*	*	*	*	58.5	*	*	*	*	*	*	*	906
Russia	Mondy	0.00	0.00	0.141	0.137	0.00	1.92	0.0499	0.103	0.0737	0.0819	0.193	0.00	2.70
	Listvyanka	0.103	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.0948	0.0258	0.0193	0.245
	Irkutsk	2.15	2.86	0.975	0.787	0.274	0.400	<0.01	<0.01	<0.01	0.720	1.10	0.851	10.0
Vietnam	Cuc Phuong	2.28	*	0.906	1.44	4.15	5.84	7.09	8.60	0.832	1.79	0.958	2.30	36.1
	Da Nang	1.90	2.55	3.61	10.5	18.7	14.8	43.2	12.8	8.34	21.5	9.36	16.8	164
Data completeness											**%TP**			
Country	Name of sites	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	**Annual**
China	Haifu	63.0	20.3	57.9	93.5	100	99.7	86.7	70.6	33.5	10.5	17.2	90.2	70.0
	Jinyunshan	18.2	20.6	19.6	18.1	100	80.1	33.0	5.1	20.0	0.0	0.0	0.0	33.2
Japan	Ochiishi	0.0	0.0	0.0	0.0	0.0	10.1	0.0	0.0	0.0	0.0	0.0	0.0	1.7
	Tappi	0.0	0.0	0.0	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
	Sado-seki	0.0	0.0	0.0	0.0	7.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5
Russia	Mondy	--	--	100	100	--	100	100	100	100	100	100	--	100
	Listvyanka	100	100	100	100	92.6	91.3	100	100	100	100	100	100	98.8
	Irkutsk	96.9	98.0	100	100	98.3	100	100	100	99.6	100	100	100	99.7
Vietnam	Cuc Phuong	80.2	0.0	91.1	93.1	97.9	99.9	100	99.2	99.9	100	96.2	97.5	97.9
	Da Nang	81.0	100	90.8	100	100	100	99.3	100	100	100	100	100	99.7

Terms and abbreviations are given in Table 3.5.

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

Precipitation amount-weighted average concentration/ Precipitation amount														**unit : μmol L^{-1}**
Country	Name of sites	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	**Annual**
China	Haifu	7.87	9.86	2.79	2.73	1.97	2.39	3.56	1.77	1.61	2.10	5.53	5.36	2.62
	Jinyunshan	4.64	2.57	4.35	<1	1.16	1.44	1.73	<1	1.02	1.72	4.45	3.84	1.72
	Hongwen	5.02	13.0	4.73	18.0	<1	2.17	--	2.62	3.19	--	5.16	13.4	3.15
	Xiaoping	<1	3.35	<1	1.06	2.17	<1	1.57	1.25	2.62	--	1.35	<1	1.21
	Xiang Zhou	1.73	2.12	7.60	2.56	1.69	<1	<1	2.03	<1	1.99	<1	1.58	1.10
	Zhuxiandong	2.81	<1	3.23	1.86	1.02	<1	<1	<1	4.99	1.24	2.58	10.5	1.30
Japan	Ochiishi	*	*	*	*	*	1.80	*	*	*	*	*	*	1.80
	Yusuhara	<1	1.28	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Russia	Mondy	--	--	1.80	6.30	--	2.10	<1	<1	<1	*	*	--	<1
	Listvyanka	24.9	14.0	14.7	16.1	7.79	<1	<1	<1	<1	<1	*	*	2.88
	Irkutsk	17.2	21.5	16.4	9.28	6.30	14.5	<1	<1	<1	<1	*	*	3.14
Vietnam	Hanoi	17.3	33.4	4.41	3.55	2.17	8.89	4.18	1.75	2.96	1.90	5.18	16.7	4.09
	Hoa Binh	2.44	--	1.11	1.31	<1	1.60	1.31	2.17	2.16	4.56	6.25	8.18	1.96
	Cuc Phuong	4.81	*	1.54	7.10	1.61	3.37	1.21	1.78	1.12	1.18	<1	3.72	1.87
	Da Nang	10.2	9.51	7.94	10.1	9.28	9.19	8.50	8.57	8.52	9.38	10.3	11.0	10.1
	Can Tho	1.01	1.17	<1	<1	<1	1.10	<1	<1	<1	<1	<1	1.00	<1
	Ho Chi Minh	--	--	1.58	1.26	1.02	1.43	5.07	1.26	1.33	1.17	1.03	<1	1.72
	Yen Bai	3.40	4.89	4.00	2.42	2.62	2.83	<1	1.91	4.68	7.40	2.37	2.53	2.59
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	0.202	0.116	0.223	0.498	0.444	0.173	0.185	0.263	0.286	0.155	0.222	0.159	2.92
	Jinyunshan	0.148	0.0162	0.242	0.200	0.123	0.149	0.182	0.0704	0.128	0.0806	0.158	0.109	1.61
	Hongwen	0.825	0.0494	0.203	0.212	0.266	0.319	0.00	0.692	0.0739	0.00	0.165	0.277	3.08
	Xiaoping	0.0358	0.0537	0.0228	0.0426	0.216	0.111	0.168	0.264	0.0487	0.00	0.0472	<0.01	1.02
	Xiang Zhou	0.112	0.0287	0.148	0.166	0.212	0.0482	0.142	1.23	0.0968	0.0518	0.0321	<0.01	2.27
	Zhuxiandong	0.218	0.0153	0.0663	0.138	0.149	0.167	0.209	0.531	0.931	0.0663	0.152	0.0895	2.73
Japan	Ochiishi	*	*	*	*	*	0.338	*	*	*	*	*	*	2.02
	Yusuhara	0.0767	0.147	0.159	0.0526	0.104	0.0823	0.381	0.0712	0.201	0.100	0.0406	0.0511	1.41
Russia	Mondy	0.00	0.00	<0.01	0.0573	0.00	0.121	<0.01	<0.01	<0.01	*	*	0.00	0.204
	Listvyanka	0.112	0.182	0.101	0.116	0.0942	0.0119	<0.01	<0.01	<0.01	<0.01	*	*	0.646
	Irkutsk	0.223	0.324	0.237	0.183	0.152	0.299	<0.01	<0.01	<0.01	<0.01	*	*	1.39
Vietnam	Hanoi	0.204	0.243	0.128	0.485	0.341	1.34	1.97	0.846	0.696	0.251	0.0658	1.22	7.77
	Hoa Binh	0.0227	0.00	0.0256	0.127	0.365	0.307	1.44	1.29	0.198	0.879	0.255	0.589	5.50
	Cuc Phuong	0.165	*	0.137	0.815	0.395	0.463	0.892	1.11	0.146	0.206	0.123	0.295	4.71
	Da Nang	0.171	0.143	0.241	1.48	0.700	0.734	1.57	0.464	1.20	2.97	2.96	13.7	26.3
	Can Tho	0.271	0.106	0.0623	0.140	0.208	0.287	0.303	0.271	0.266	0.303	0.0445	0.120	2.38
	Ho Chi Minh	0.00	0.00	0.120	0.122	0.412	0.306	1.76	0.311	0.488	0.236	0.358	0.163	4.28
	Yen Bai	0.183	0.0670	0.186	0.370	0.625	0.159	0.425	0.831	0.682	1.19	0.0159	0.0912	4.83
Data completeness														**%TP**
Country	Name of sites	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	**Annual**
China	Haifu	98.4	100	99.7	99.9	100	99.7	99.6	100	98.3	100	99.5	98.3	99.6
	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
	Xiaoping	100	100	100	100	100	100	100	100	100	--	100	100	100
	Xiang Zhou	100	100	100	100	100	100	100	100	100	100	100	100	100
	Zhuxiandong	100	100	100	100	100	100	100	100	100	100	100	100	100
Japan	Ochiishi	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.1
	Yusuhara	91.6	50.2	100	99.8	100	100	100	100	100	100	79.5	100	98.0
Russia	Mondy	--	--	100	100	--	100	100	100	24.6	0.0	0.0	--	94.1
	Listvyanka	100	100	100	100	100	100	100	100	100	90.3	0.0	0.0	96.6
	Irkutsk	31.4	100	100	100	98.3	100	100	100	100	82.5	0.0	0.0	91.6
Vietnam	Hanoi	98.3	97.3	97.9	100	100	100	99.9	100	99.8	100	99.2	99.7	99.9
	Hoa Binh	100	--	100	100	100	100	100	100	100	100	100	100	100
	Cuc Phuong	80.2	0.0	91.1	93.1	97.9	99.9	100	99.2	99.9	100	96.2	97.5	97.9
	Da Nang	81.0	100	90.8	100	100	100	99.3	100	100	100	100	100	99.7
	Can Tho	100	100	100	100	100	100	100	100	100	100	83.7	97.5	99.6
	Ho Chi Minh	--	--	100	100	100	100	100	100	100	100	100	100	100
	Yen Bai	100	100	100	100	100	100	100	100	100	100	100	100	100

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**
Japan	Ochiishi	*	*	*	*	*	<1	*	*	*	*	*	*	<1
Russia	Mondy	--	--	<1	<1	--	<1	<1	<1	<1	*	<1	--	<1
	Listvyanka	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Irkutsk	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Wet deposition amount										**unit: mmol $m^{-2}month^{-1}$ or mmol $m^{-2}year^{-1}$**				
Country	Name of sites	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	**Annual**
Japan	Ochiishi	*	*	*	*	*	0.0188	*	*	*	*	*	*	0.112
Russia	Mondy	0.00	0.00	<0.01	<0.01	0.00	<0.01	<0.01	<0.01	<0.01	*	<0.01	0.00	<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	0.0105
Data completeness										**%TP**				
Country	Name of sites	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	**Annual**
Japan	Ochiishi	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Russia	Mondy	--	--	100	100	--	100	100	100	67.5	0.0	100	--	96.9
	Listvyanka	100	100	100	100	100	100	100	100	100	100	100	100	100
	Irkutsk	100	100	100	100	98.3	100	100	100	100	100	100	100	99.9

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	Ochiishi	*	*	*	*	*	<1	*	*	*	*	*	*	<1
	Yusuhara	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Ogasawara	*	*	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Tokyo	4.77	1.42	<1	<1	<1	<1	<1	1.70	<1	1.26	1.72	1.99	<1
Russia	Mondy	--	--	<1	<1	--	<1	<1	<1	<1	<1	<1	--	<1
	Listvyanka	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Irkutsk	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Wet deposition amount												**unit: mmol $m^{-2}month^{-1}$ or mmol $m^{-2}year^{-1}$**		
Country	Name of sites	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	**Annual**
Japan	Ochiishi	*	*	*	*	*	0.0751	*	*	*	*	*	*	0.449
	Yusuhara	0.0220	<0.01	0.0201	0.0238	0.0173	<0.01	0.0469	0.0122	0.0412	0.0126	0.0142	0.0348	0.255
	Ogasawara	*	*	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.0122	<0.01	0.0150
	Tokyo	0.207	0.0851	0.127	0.0612	0.0748	0.125	0.0555	0.135	0.240	0.0401	0.0866	0.0772	1.24
Russia	Mondy	0.00	0.00	<0.01	<0.01	0.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.00	0.0225
	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	0.0163
	Irkutsk	<0.01	<0.01	<0.01	0.0115	<0.01	<0.01	<0.01	<0.01	<0.01	0.0110	<0.01	<0.01	0.0744
Data completeness												**%TP**		
Country	Name of sites	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	**Annual**
Japan	Ochiishi	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.1
	Yusuhara	91.6	50.2	100	99.8	100	100	100	100	100	100	79.5	100	98.0
	Ogasawara	0.0	0.0	61.3	99.4	99.5	99.6	99.7	98.4	100	99.2	96.5	88.9	82.5
	Tokyo	54.0	100	99.7	100	99.5	99.5	100	99.2	99.9	99.2	99.6	99.3	98.2
Russia	Mondy	--	--	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	98.3	100	100	100	100	100	100	100	99.9

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	<1	<1	<1
Philippines	Metro Manila													
	Los Baños													
Russia	Mondy	--	--	1.46	<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	1.01	1.55	<1	<1
Thailand	Bangkok	<1	--	<1	<1	<1	<1	1.13	<1	<1	<1	--	--	<1
	Samutprakarn	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	--	--	<1
	Pathumthani	<1	<1	<1	<1	<1	<1	<1	<1	<1	3.40	<1	<1	<1
	Khanchanaburi	--	--	--	<1	<1	<1	<1	<1	<1	--	--	--	<1
	Mae Hia	--	--	2.80	1.70	<1	<1	<1	<1	--	<1	--	--	<1
	Sakaerat	<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	<0.01	0.0296	<0.01	0.0365	<0.01	0.205	0.0189	0.0223	<0.01	<0.01	0.331
Philippines	Metro Manila													
	Los Baños													
Russia	Mondy	0.00	0.00	<0.01	<0.01	0.00	0.0128	0.0138	<0.01	<0.01	<0.01	<0.01	0.00	0.0458
	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	0.0331
	Irkutsk	<0.01	<0.01	<0.01	0.0109	0.0201	0.0122	0.0276	<0.01	<0.01	0.0370	0.0150	<0.01	0.149
Thailand	Bangkok	<0.01	0.00	<0.01	<0.01	<0.01	0.0698	0.160	0.0652	<0.01	0.0158	0.00	0.00	0.318
	Samutprakarn	<0.01	<0.01	0.0171	<0.01	<0.01	0.0957	0.0450	0.0534	0.0196	0.0667	0.00	0.00	0.311
	Pathumthani	<0.01	<0.01	<0.01	0.0735	<0.01	0.0106	<0.01	<0.01	<0.01	0.392	<0.01	<0.01	0.495
	Khanchanaburi	0.00	0.00	0.00	0.0370	0.0416	0.104	0.0429	0.0233	<0.01	0.00	0.00	0.00	0.251
	Mae Hia	0.00	0.00	<0.01	0.0572	0.0345	0.0930	0.0762	0.0762	0.00	0.0791	0.00	0.00	0.425
	Sakaerat	0.0137	<0.01	<0.01	0.0387	0.0437	0.0261	<0.01	0.0216	0.0282	<0.01	0.00	0.00	0.190
Data completeness											**%TP**			
Country	Name of sites	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	**Annual**
	Yusuhara	91.6	50.2	100	99.8	100	100	100	100	100	100	79.5	100	98.0
Philippines	Metro Manila													
	Los Baños													
Russia	Mondy	--	--	100	100	--	100	100	100	100	100	100	--	100
	Listvyanka	100	100	100	100	76.9	91.3	95.5	100	100	100	100	100	97.2
	Irkutsk	95.8	94.7	100	100	98.3	96.1	100	99.6	99.6	100	100	100	99.2
	Primorskaya	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Thailand	Bangkok	100	--	100	100	100	100	100	100	100	100	--	--	100
	Samutprakarn	100	100	100	100	100	100	100	100	100	100	--	--	100
	Pathumthani	100	100	100	100	100	100	100	100	100	100	100	100	100
	Khanchanaburi	--	--	--	100	100	100	100	100	100	--	--	--	100
	Mae Hia	--	--	100	100	100	100	100	100	--	100	--	--	100
	Sakaerat	100	100	100	100	100	100	100	100	100	100	--	--	100

Terms and abbreviations are given in Table 3.5.

Table 3.99 Concentration, deposition and data completeness of Formic Acid

Precipitation amount-weighted average concentration/ Precipitation amount											**unit : µmol L^{-1}**			
Country	Name of sites	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	**Annual**
Malaysia	Petaling Jaya	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Tanah Rata	<1	<1	<1	16.7	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Danum Valley	<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	11.6	--	50.8	3.09	3.42	<1	<1	<1	<1	1.02	--	--	2.98
	Samutprakarn	1.90	<1	<1	<1	<1	<1	<1	<1	<1	<1	--	--	<1
	Pathumthani	<1	<1	10.1	<1	<1	<1	<1	<1	1.63	1.21	<1	<1	1.02
	Khanchanaburi	--	--	--	<1	<1	<1	<1	<1	<1	--	--	--	<1
	Mae Hia	--	--	81.7	18.9	4.10	<1	1.44	1.27	--	8.00	--	--	4.25
	Sakaerat	8.43	7.87	25.1	1.05	<1	<1	1.25	<1	<1	<1	--	--	1.38
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	0.0529	<0.01	<0.01	<0.01	0.0191	<0.01	<0.01	<0.01	<0.01	<0.01	0.0884
	Tanah Rata	0.0204	0.0157	0.0211	2.22	0.0495	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	1.83
	Danum Valley	<0.01	<0.01	<0.01	<0.01	*	0.0203	<0.01	<0.01	<0.01	*	<0.01	<0.01	0.0329
	Kuching	<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
Thailand	Bangkok	0.751	0.00	0.660	1.11	0.789	<0.01	<0.01	0.0239	<0.01	0.0594	0.00	0.00	3.40
	Samutprakarn	0.359	0.0358	0.0764	0.0426	<0.01	0.0108	<0.01	<0.01	0.0271	0.0265	0.00	0.00	0.591
	Pathumthani	0.0551	<0.01	0.174	0.163	0.0325	0.0983	<0.01	0.0863	0.588	0.139	<0.01	<0.01	1.35
	Khanchanaburi	0.00	0.00	0.00	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.00	0.00	0.00	<0.01
	Mae Hia	0.00	0.00	0.268	0.636	0.673	0.0724	0.237	0.135	0.00	1.49	0.00	0.00	3.48
	Sakaerat	0.300	0.162	0.253	0.168	0.143	0.128	0.0832	0.0802	0.214	0.0485	0.00	0.00	1.55
Data completeness											**%TP**			
Country	Name of sites	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	**Annual**
Malaysia	Petaling Jaya	100	100	100	100	100	99.6	100	100	48.6	100	100	100	97.1
	Tanah Rata	100	99.5	100	75.9	100	99.9	100	100	100	100	96.5	100	98.4
	Danum Valley	100	100	100	43.5	0.0	52.0	100	75.2	98.5	0.0	41.8	12.5	53.6
	Kuching	100	100	100	44.5	100	100	67.4	100	100	100	100	100	92.6
Thailand	Bangkok	100	--	100	100	100	100	100	100	100	100	--	--	100
	Samutprakarn	100	100	100	100	100	100	100	100	100	100	--	--	100
	Pathumthani	100	100	100	100	99.7	99.7	100	100	100	99.8	100	100	99.9
	Khanchanaburi	--	--	--	100	100	100	100	100	100	--	--	--	100
	Mae Hia	--	--	90.9	96.7	100	99.7	99.9	99.7	--	99.9	--	--	99.7
	Sakaerat	100	100	86.1	99.4	98.9	96.9	95.9	98.6	99.5	99.0	--	--	98.7

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	4.00	<1	<1	11.4	1.11	<1	<1	<1	<1	<1	<1	<1	1.16
	Danum Valley	<1	<1	<1	<1	*	<1	<1	<1	<1	*	<1	<1	<1
	Kuching	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	1.17	<1
Thailand	Bangkok	7.24	--	16.1	<1	2.58	<1	<1	<1	<1	2.74	--	--	1.55
	Samutprakarn	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	--	--	<1
	Pathumthani	<1	<1	<1	<1	<1	1.14	<1	<1	<1	<1	<1	<1	<1
	Khanchanaburi	--	--	--	<1	<1	<1	<1	<1	<1	--	--	--	<1
	Mae Hia	--	--	11.9	11.2	3.44	<1	<1	<1	--	1.49	--	--	1.69
	Sakaerat	17.9	4.46	10.2	5.02	8.70	7.41	6.23	6.14	6.11	6.25	--	--	6.85
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	0.0127	<0.01	<0.01	<0.01	<0.01	0.0190	<0.01	<0.01	<0.01	<0.01	<0.01	0.0351
	Tanah Rata	1.21	0.0152	0.0348	1.51	0.226	0.0947	<0.01	0.0280	<0.01	0.122	<0.01	0.0913	3.01
	Danum Valley	0.0471	<0.01	<0.01	0.0327	*	0.0707	<0.01	<0.01	0.0161	*	<0.01	<0.01	0.261
	Kuching	<0.01	0.0176	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.351	0.555	1.01
Thailand	Bangkok	0.471	0.00	0.210	0.211	0.594	0.0578	0.0212	0.0361	0.0106	0.160	0.00	0.00	1.77
	Samutprakarn	0.0538	<0.01	0.0249	0.0365	<0.01	0.0471	0.0227	<0.01	0.0547	0.0848	0.00	0.00	0.340
	Pathumthani	0.0340	0.0126	<0.01	0.0802	0.0258	0.117	0.0435	0.129	0.0606	0.0531	<0.01	<0.01	0.571
	Khanchanaburi	0.00	0.00	0.00	<0.01	<0.01	0.0233	<0.01	<0.01	<0.01	0.00	0.00	0.00	0.0345
	Mae Hia	0.00	0.00	0.0390	0.376	0.565	0.109	<0.01	0.0191	0.00	0.278	0.00	0.00	1.38
	Sakaerat	0.637	0.0919	0.103	0.803	1.32	0.981	0.415	0.950	2.01	0.429	0.00	0.00	7.73
Data completeness											**%TP**			
Country	Name of sites	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	**Annual**
Malaysia	Petaling Jaya	100	100	100	100	100	99.6	100	100	48.6	100	100	100	97.1
	Tanah Rata	100	99.5	100	75.9	100	99.9	100	100	100	100	96.5	100	98.4
	Danum Valley	100	100	100	43.5	0.0	52.0	100	75.2	98.5	0.0	41.8	12.5	53.6
	Kuching	100	100	100	44.5	100	100	67.4	100	100	100	100	100	92.6
Thailand	Bangkok	100	--	100	100	100	100	100	100	100	100	--	--	100
	Samutprakarn	100	100	100	100	100	100	100	100	100	100	--	--	100
	Pathumthani	100	100	100	100	99.7	99.7	100	100	100	99.8	100	100	99.9
	Khanchanaburi	--	--	--	100	100	100	100	100	100	--	--	--	100
	Mae Hia	--	--	90.9	96.7	100	99.7	99.9	99.7	--	99.9	--	--	99.7
	Sakaerat	100	100	86.1	99.4	98.9	96.9	95.9	98.6	99.5	99.0	--	--	98.7

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
	Kuching	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Wet deposition amount										**unit: mmol $m^{-2}month^{-1}$ or mmol $m^{-2}year^{-1}$**				
Country	Name of sites	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	**Annual**
Malaysia	Petaling Jaya	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.0205	<0.01	0.0154	<0.01	<0.01	<0.01	0.0373
	Tanah Rata	0.0630	<0.01	0.0226	<0.01	<0.01	0.0512	<0.01	0.0102	0.0237	<0.01	0.0326	0.0692	0.292
	Danum Valley	0.154	<0.01	<0.01	<0.01	*	<0.01	0.0139	<0.01	0.0270	*	<0.01	<0.01	0.369
	Kuching	<0.01	0.0472	<0.01	<0.01	<0.01	0.0375	0.0218	<0.01	0.0113	<0.01	<0.01	0.0315	0.158
Data completeness										**%TP**				
Country	Name of sites	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	**Annual**
Malaysia	Petaling Jaya	100	100	100	100	100	99.6	100	100	48.6	100	100	100	97.1
	Tanah Rata	100	99.5	100	75.9	100	99.9	100	100	100	100	96.5	100	98.4
	Danum Valley	100	100	100	43.5	0.0	52.0	100	75.2	98.5	0.0	41.8	12.5	53.6
	Kuching	100	100	100	44.5	100	100	67.4	100	100	100	100	100	92.6

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 2018. 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, and NH_3. The recommended monitoring method by means of the four-stage filter pack is explained in the Technical Manual. Basic flow chart of the four-stage filter pack method are shown in Figure 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 2018 are shown in Table 4.1.1. Automatic monitors were used in Cambodia, China, Indonesia, Japan, Lao PDR, Mongolia, Myanmar, Philippines, Republic of Korea, Thailand and Vietnam. The individual methods adopted at each site are shown in Table 4.1.2.

The filter pack method was used in Indonesia, Japan, Lao PDR, Malaysia, Mongolia, Myanmar, Philippines, Republic of Korea, Russia, Thailand, and Vietnam, and the passive sampler method was used in Indonesia and Russia in 2018.

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

↓

Extraction of filter pack

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

↓

Chemical analysis

By ion chromatography or other suitable analytical methods

Figure 4.1 Flow chart of the four-stage filter pack method

Table 4.1.1 Sampling methods and parameters for dry deposition (air concentration) monitoring in 2018

Country	Site	Method	Parameter
Cambodia	Phnom Penh[*1]	AT	$PM_{2.5}$
China	Chongqing		
	- Jinyunshan	AT	SO_2, NO, NO_x*, PM_{10}
	Xiamen		
	- Hongwen	AT	SO_2, NO_2, PM_{10}
	Zhuhai	AT	SO_2, NO_2, PM_{10}
	- Haibin-Park		
Indonesia	Jakarta	AT	$PM_{2.5}$
		FP	SO_2, HNO_3, HCl, NH_3, PMC
		PS	NO_2, O_3, NH_3
	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[*2]	AT	NO, NO_2, NO_x, PM_{10}, $PM_{2.5}$
		FP	SO_2, HNO_3, HCl, NH_3, PMC

Table 4.1.1 Sampling methods and parameters for dry deposition (air concentration) monitoring in 2018 (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[*2]	AT	$PM_{2.5}$
		FP	SO_2, HNO_3, HCl, NH_3, PMC
	Mandalay	AT	$PM_{2.5}$
Philippines	Metro Manila	AT	NO, NO_2, NO_x, O_3, $PM_{10}/_{2.5}$
		FP	SO_2, HNO_3, HCl, NH_3, PMC
	Los Baños	FP	SO_2, HNO_3, HCl, NH_3, PMC
	Mt. Sto. Tomas	FP	SO_2, HNO_3, HCl, NH_3, PMC
Republic of Korea	Kanghwa	AT	SO_2, NO_2, O_3, $PM_{10/2.5}$
		FP	HNO_3, HCl, NH_3, PMC in $PM_{2.5}$
	Cheju	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	FP	SO_2, HNO_3, HCl, NH_3, PMC
		PS	O_3
	Listvyanka	FP	SO_2, HNO_3, HCl, NH_3, PMC
		PS	O_3
	Irkutsk	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	AT	SO_2, NO, NO_2, NO_x, O_3, $PM_{10/2.5}$
	Khanchanaburi[*1]	AT	SO_2, NO, NO_x*, O_3, $PM_{10/2.5}$
	(Vachiralongkorn Dam)	FP	HNO_3, HCl, NH_3, PMC
	Chiang Mai		
	- Mae Hia	FP	SO_2, HNO_3, HCl, NH_3, PMC
	- Chang Phueak	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}

Table 4.1.1 Sampling methods and parameters for dry deposition (air concentration) monitoring in 2018 (continued)

Country	Site	Method	Parameter
Vietnam	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
	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 Two week intensive monitoring at Khanchanaburi was implemented 3 times per year due to monitoring availability in the remote area.

*2 $PM_{2.5}$ monitoring at Yangon and Vientiane started in 2018.

Table 4.1.2 Methods of automatic monitors in 2018

Country	Site	Parameter				
		SO_2	NO_x	O_3	PM_{10}	$PM_{2.5}$
Cambodia	Phnom Penh	–	–	–	–	β–ray
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	β–ray
Mongolia	Ulaanbaatar	UVF	CLD	UVP	β–ray	β–ray
Myanmar	Yangon	–	–	–	–	β–ray
	Mandalay					β–ray

Philippines	Metro Manila	–	CLD	UVP	LS	β–ray
Republic of Korea	Kanghwa	UVF	CLD	UVP	β–ray	β–ray
	Cheju (Kosan)	UVF	CLD	UVP	β–ray	β–ray
	Imsil	UVF	CLD	UVP		–
Thailand	Bangkok	–	CLD	UVP	β–ray	β–ray
	Samutprakarn	UVF	CLD	UVP	β–ray	β–ray
	Khanchanaburi (Vachiralongkorn Dam)	UVF	CLD	UVP	β–ray	β–ray
	Chiang Mai					
	- Chang Phueak	UVF	CLD	UVP	β–ray	β–ray
	- Si Phum	UVF	CLD		β–ray	β–ray
	Nakhon Ratchasima					
	- Nai Mueang	UVF	CLD	UVP	β–ray	–
Vietnam	Hoa Binh	–	–	–	–	β–ray

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

4.2 Results of Monitoring

Monitoring data were summarized into monthly averaged values accompanied with maximum, minimum and data completeness on a monthly basis. Summarized data in 2018 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
%	Percentages of monthly or annual data completeness

[-]	No monthly data or no monitoring
[<1]	The monthly or the annual value was lower than their reporting limits of O_3, PM_{10} or $PM_{2.5.}$
[<0.1]	The monthly or the annual value was lower than their reporting limits of gaseous substances (SO_2, HNO_3, HCl, NH_3).
[<0.01]	The monthly or the annual value was lower than their reporting limits of particular matter components (PMC).
( )	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 2018 are summarized in Table 4.21 through Table 4.38.

Monthly and annual dry deposition amounts of gaseous and particulate substances in 2018 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 μg/m^3 unit for particulate matter concentrations. In Table 4.39 through Table 4.49, mmol m^{-2} unit is used for monthly or annual dry deposition amounts. For comparing the other networks' data, conversion ratios from ppb to μg/m^3, which are based on 20 ^{o}C, 1 atm, are provided in Table 4.50.

Reporting limits for individual species depend on specification of instrument or procedures of sampling and analysis. The NC sets up the reporting limits as shown in Table 4.51 taking into account methods adopted by each country. The data that air concentrations were less than the

reporting limit are specified in the summarized tables. Regarding the particulate matter components measured by 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			2018												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
China	Jinyunshan	Mean	2.8	2.2	2.2	2.8	2.5	3.3	3.2	2.7	2.2	1.7	2.5	3.4	2.6
		%	100	100	100	90	97	100	97	100	100	100	97	97	98
		Max-d	6.4	4.9	3.8	7.1	4.9	6.0	6.4	3.8	4.5	4.5	6.0	7.1	7.1
		Min-d	0.8	0.4	0.8	0.8	1.1	1.5	1.1	1.5	0.8	0.4	0.8	1.9	0.4
	Hongwen	Mean	3.7	3.1	3.7	4.3	5.0	4.2	3.1	2.8	2.4	2.6	2.5	2.6	3.3
		%	100	100	100	100	100	97	100	100	100	97	100	100	99
		Max-d	7.1	5.3	5.6	6.4	9.4	8.3	6.0	6.0	4.5	4.5	6.0	7.1	9.4
		Min-d	0.8	1.1	1.9	2.6	2.6	1.5	1.1	0.8	1.1	1.5	1.1	0.4	0.4
	Haibin-Park	Mean	3.7	2.8	3.5	3.1	2.1	1.8	1.5	1.8	2.4	3.4	2.4	2.5	2.6
		%	100	100	100	100	100	100	100	100	90	97	97	100	99
		Max-d	8.3	4.1	6.8	5.3	3.4	4.9	2.6	3.8	3.8	4.9	4.5	3.8	8.3
		Min-d	0.8	0.8	1.1	1.5	1.1	1.1	0.8	0.8	1.1	1.5	1.1	0.8	0.8
Indonesia	Jakarta	Mean	2.7	3.3	2.9	3.0	3.4	2.2	2.3	1.4	1.4	2.3	7.5	-	2.7
		%	63	50	39	100	97	100	100	100	100	70	52	0	73
		Max-2w	2.9	3.3	2.9	3.0	4.1	2.4	2.4	2.4	2.1	2.6	7.5	-	7.5
		Min-2w	2.5	3.3	2.9	2.9	2.6	2.0	2.2	0.4	0.7	2.0	7.5	-	0.4
	Serpong	Mean	0.7	0.7	1.0	1.3	0.8	1.5	1.0	0.9	1.2	0.8	0.2	1.7	1.0
		%	67	100	100	100	100	67	100	100	100	100	100	100	92
		Max-2w	0.7	0.7	1.4	2.0	0.9	2.3	1.5	1.4	1.2	1.1	0.3	1.8	2.3
		Min-2w	0.7	0.7	0.7	0.6	0.7	0.7	0.5	0.4	1.2	0.5	0.2	1.6	0.2
	Kototabang	Mean	1.5	1.7	0.4	1.5	1.9	-	1.1	2.3	1.0	0.7	1.2	1.0	1.3
		%	100	100	100	100	100	0	100	100	100	100	100	100	92
		Max-m	1.5	1.7	0.4	1.5	1.9	-	1.1	2.3	1.0	0.7	1.2	1.0	2.3
		Min-m	1.5	1.7	0.4	1.5	1.9	-	1.1	2.3	1.0	0.7	1.2	1.0	0.4
	Bandung	Mean	2.6	4.0	4.6	5.8	5.3	2.8	4.9	4.6	5.3	4.0	4.8	3.6	4.3
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	3.1	5.5	5.2	6.0	5.8	3.0	6.2	4.9	5.3	4.2	5.0	3.9	6.2
		Min-2w	2.1	2.6	3.4	5.7	4.9	2.5	3.6	4.3	5.3	3.9	4.5	3.4	2.1
Japan	Rishiri	Mean	0.3	0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	0.2	0.1
		%	99	97	91	98	99	98	98	35	59	95	99	79	87
		Max-d	0.8	0.8	0.4	0.4	0.3	0.4	<0.1	<0.1	0.1	0.2	0.3	0.4	0.8
		Min-d	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Ochiishi	Mean	0.2	0.3	0.1	0.1	<0.1	<0.1	<0.1	<0.1	0.1	0.1	0.1	0.3	0.1
		%	96	96	88	96	92	96	96	95	89	96	91	96	94
		Max-d	0.8	0.9	0.4	0.4	0.4	0.3	0.3	0.6	0.5	0.4	0.4	0.6	0.9
		Min-d	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Tappi	Mean	0.3	0.3	0.3	0.3	0.4	0.4	0.2	0.2	0.2	0.2	0.2	0.1	0.3
		%	98	85	99	98	95	99	98	99	99	99	99	86	96
		Max-d	0.8	0.8	0.9	1.2	1.8	2.1	0.9	0.7	0.6	0.6	0.4	0.5	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
	Sado-seki	Mean	0.2	0.3	0.5	0.5	0.4	0.1	0.2	<0.1	<0.1	<0.1	0.1	0.1	0.2
		%	90	90	97	98	98	98	98	83	98	98	98	98	95
		Max-d	0.5	0.6	2.9	4.4	1.4	0.6	1.1	0.4	0.3	0.4	0.4	0.3	4.4
		Min-d	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Happo	Mean	0.2	0.3	0.3	0.3	0.3	0.2	0.1	<0.1	<0.1	<0.1	0.1	<0.1	0.2
		%	98	98	98	98	98	98	98	98	88	98	98	96	97
		Max-d	0.4	0.9	1.1	2.0	1.1	1.1	0.5	0.4	0.2	0.4	0.4	0.6	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
	Ijira	Mean	0.2	0.2	0.4	0.4	0.5	<0.1	0.2	0.2	<0.1	<0.1	<0.1	-	0.2
		%	98	99	98	98	92	72	60	73	73	98	38	0	75
		Max-d	0.4	0.7	2.3	1.3	1.3	0.6	0.8	1.0	1.5	0.4	0.2	-	2.3
		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
	Oki	Mean	0.4	0.5	0.5	0.7	0.5	0.3	0.5	0.2	0.1	0.3	0.4	0.3	0.4
		%	87	89	98	98	98	89	98	97	83	98	98	97	94
		Max-d	1.4	1.5	2.1	4.9	2.0	1.2	3.0	0.7	0.8	0.7	1.1	1.5	4.9
		Min-d	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Banryu	Mean	0.3	0.3	0.3	0.4	0.3	0.1	0.1	0.1	<0.1	0.1	<0.1	<0.1	0.2
		%	88	98	98	98	98	98	98	98	98	98	98	98	97
		Max-d	1.3	1.1	2.1	1.9	2.1	0.6	0.5	0.9	0.2	0.4	0.3	0.2	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
	Yusuhara	Mean	0.8	1.1	1.0	1.0	0.6	0.4	0.2	0.3	0.2	0.4	0.8	0.5	0.6
		%	98	98	98	98	98	98	98	98	88	95	98	97	97
		Max-d	3.1	4.3	4.9	5.9	5.3	2.8	0.9	2.9	3.3	2.1	4.2	2.5	5.9
		Min-d	0.2	0.2	<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			2018												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Japan	Hedo	Mean	0.2	0.1	0.2	0.2	<0.1	0.2	<0.1	<0.1	<0.1	0.3	0.3	0.2	0.1
		%	97	73	76	92	61	48	99	100	94	91	98	98	86
		Max-d	0.3	0.2	0.8	0.4	0.2	0.9	0.1	0.1	<0.1	1.3	1.2	0.6	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
	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	90	98	98	98	98	98	97	98	98	97	97	97
		Max-d	0.2	<0.1	0.2	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	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
	Tokyo	Mean	0.9	1.1	1.7	1.6	1.7	1.4	2.2	1.2	0.9	0.7	0.9	0.8	1.3
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	1.2	1.2	1.9	2.0	1.9	1.4	3.1	1.4	1.1	0.7	0.9	0.9	3.1
		Min-2w	0.8	1.1	1.4	1.2	1.6	1.3	1.0	1.1	0.7	0.6	0.9	0.6	0.6
Malaysia	Petaling Jaya	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
		%	75	75	100	75	50	60	25	100	100	75	100	100	79
		Max-w	<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-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
	Tanah Rata	Mean	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
		%	100	100	100	75	100	100	100	100	100	100	100	75	96
		Max-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
		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	100	100	100	100	100	75	86	100	100	100	100	97
		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
Mongolia	Ulaanbaatar	Mean	16.7	14.5	11.2	4.6	2.9	1.7	0.9	1.0	1.3	4.8	11.0	16.8	7.3
		%	100	99	99	97	99	99	99	99	99	100	99	100	99
		Max-d	30.3	24.2	22.9	9.5	6.6	4.5	3.7	4.4	3.5	10.0	19.5	26.0	30.3
		Min-d	5.8	3.1	2.9	1.3	0.9	0.7	0.2	0.1	0.2	0.8	3.1	3.9	0.1
	Terelj	Mean	0.2	-	-	<0.1	0.3	<0.1	<0.1	<0.1	0.1	0.1	0.2	0.4	0.1
		%	90	0	0	78	100	100	100	100	100	100	100	100	81
		Max-2w	0.3	-	-	<0.1	0.5	0.2	<0.1	<0.1	0.1	0.1	0.3	0.6	0.6
		Min-2w	0.1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	0.1	0.1	<0.1
Myanmar	Yangon	Mean	0.5	0.8	0.7	0.3	0.2	0.4	0.4	0.2	0.3	1.2	1.7	0.7	0.7
		%	100	82	50	100	67	100	100	50	90	100	100	100	86
		Max-2w	0.8	0.8	0.7	0.6	0.3	0.5	0.5	0.2	0.3	1.5	2.5	0.8	2.5
		Min-2w	0.2	0.8	0.7	<0.1	0.1	0.3	0.3	0.2	0.2	0.6	1.0	0.6	<0.1
Philippines	Metro Manila	Mean													
		%													
		Max-w													
		Min-w													
	Los Baños	Mean													
		%													
		Max-w													
		Min-w													
	Mt. Sto. Tomas	Mean													
		%													
		Max-w													
		Min-w													
Republic of Korea	Kanghwa	Mean	3.0	2.2	2.5	2.6	2.4	2.2	2.3	2.1	-	-	-	1.6	2.3
		%	97	95	95	97	92	91	93	89	0	0	0	98	71
		Max-d	5.0	5.7	4.2	4.4	5.2	5.3	4.0	3.8	-	-	-	3.0	5.7
		Min-d	2.0	0.7	1.4	1.0	0.9	0.8	1.6	1.2	-	-	-	0.5	0.5
	Cheju (Kosan)	Mean	0.7	0.9	0.6	0.7	0.6	0.9	0.7	0.7	-	0.9	1.0	1.0	0.8
		%	17	97	98	98	97	98	97	96	0	93	99	82	81
		Max-d	1.1	1.6	1.6	1.9	1.6	2.6	1.4	2.2	-	1.6	1.8	2.4	2.6
		Min-d	0.2	0.3	0.2	0.2	0.2	0.4	0.3	<0.1	-	0.3	0.4	0.4	<0.1
	Imsil	Mean	5.1	6.8	7.4	10.7	8.4	10.7	1.7	1.4	1.2	2.0	0.9	3.3	5.0
		%	96	96	98	93	97	97	98	97	87	97	95	92	95
		Max-d	6.7	8.6	9.2	12.7	13.7	19.9	2.8	2.6	2.1	3.2	1.7	6.0	19.9
		Min-d	3.7	5.7	4.7	9.2	3.2	1.2	0.9	0.7	<0.1	0.9	0.3	1.2	<0.1

Table 4.3 SO_2 (continued)

Unit : ppb			2018												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Russia	Mondy	Mean	0.4	0.4	0.3	0.2	<0.1	0.7	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.2
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-m	0.4	0.4	0.4	0.3	<0.1	1.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	1.3
		Min-m	0.4	0.4	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Listvyanka	Mean	10.6	7.2	4.1	1.0	0.9	1.5	0.3	0.3	0.2	0.2	0.3	0.3	2.2
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	12.1	8.6	7.0	1.2	1.3	4.6	0.6	0.3	0.3	0.3	0.3	0.4	12.1
		Min-w	8.8	5.9	2.2	0.7	0.3	0.4	0.2	0.2	<0.1	0.2	0.2	0.3	<0.1
	Irkutsk	Mean	30.6	9.0	4.9	3.7	1.4	1.3	0.4	0.5	0.1	0.3	0.1	0.2	4.3
		%	100	100	100	100	100	80	100	100	100	100	100	100	98
		Max-w	40.6	15.3	5.9	5.1	2.3	2.5	0.8	1.4	0.3	0.7	0.2	0.2	40.6
		Min-w	12.0	5.9	3.4	2.6	1.0	0.7	<0.1	0.2	<0.1	0.1	<0.1	0.1	<0.1
	Primorskaya	Mean	0.3	<0.1	<0.1	0.1	0.3	0.1	0.2	<0.1	<0.1	<0.1	0.1	0.2	0.1
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.5	0.1	0.1	0.2	0.6	0.2	0.2	<0.1	<0.1	<0.1	0.2	0.2	0.6
		Min-2w	0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.2	<0.1
Thailand	Bangkok	Mean	1.4	1.1	1.1	0.9	1.4	0.5	0.5	0.6	0.5	0.5	0.8	1.0	0.9
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-10d	1.9	1.3	1.2	1.1	2.6	0.6	0.8	1.3	0.6	0.5	1.0	1.4	2.6
		Min-10d	1.2	0.9	1.0	0.5	0.8	0.3	0.3	0.2	0.4	0.5	0.7	0.6	0.2
	Samutprakarn	Mean	3.3	2.5	2.5	1.1	1.2	1.6	1.8	1.6	1.3	1.1	2.4	3.0	2.0
		%	95	94	94	92	95	90	93	93	96	95	96	86	93
		Max-d	6.5	4.6	3.9	3.1	2.1	3.2	3.1	3.1	2.1	2.2	4.0	6.2	6.5
		Min-d	1.8	1.3	1.3	<0.1	0.6	0.6	0.6	0.5	<0.1	<0.1	1.5	0.7	<0.1
	Khanchanaburi	Mean	-	-	1.5	-	-	-	1.2	0.9	-	-	2.0	-	1.4
	(Vachiralongkorn Dam)	%	0	0	51	0	0	0	30	47	0	0	53	0	15
		Max-d	-	-	2.2	-	-	-	3.0	2.0	-	-	2.0	-	3.0
		Min-d	-	-	1.0	-	-	-	1.0	<0.1	-	-	2.0	-	<0.1
	Mae Hia	Mean	<0.1	0.3	<0.1	0.2	<0.1	<0.1	<0.1	0.1	-	<0.1	-	-	<0.1
		%	90	61	97	97	97	67	97	100	0	94	0	0	67
		Max-10d	<0.1	0.3	<0.1	0.2	<0.1	<0.1	0.1	0.1	-	<0.1	-	-	0.3
		Min-10d	<0.1	0.3	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	-	<0.1	-	-	<0.1
	Chang Phueak	Mean	0.7	0.9	1.9	2.6	1.2	0.7	0.6	0.1	0.3	1.0	0.1	1.0	0.9
		%	94	93	91	83	92	95	95	96	95	89	95	95	93
		Max-d	0.9	1.9	2.3	3.5	2.0	1.0	1.0	0.6	0.6	2.0	0.4	2.2	3.5
		Min-d	0.4	<0.1	1.2	0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Si Phum	Mean	1.1	1.4	1.6	1.3	1.0	1.0	1.0	1.0	1.1	1.1	1.4	1.8	1.2
		%	95	95	95	96	95	95	96	95	95	96	94	96	95
		Max-d	1.5	1.8	2.0	1.9	1.2	1.1	1.1	1.3	1.3	1.3	3.0	2.2	3.0
		Min-d	1.0	1.1	1.1	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.2	1.0
	Sakaerat	Mean	0.7	1.8	1.3	0.4	0.4	0.9	0.5	0.8	0.1	0.4	-	-	0.7
		%	93	100	100	100	100	70	100	100	100	100	0	0	80
		Max-10d	0.8	3.0	1.8	0.4	0.6	1.2	0.7	1.2	0.2	0.4	-	-	3.0
		Min-10d	0.6	1.1	0.8	0.3	0.3	0.5	0.4	0.6	0.1	0.3	-	-	0.1
	Nai Mueang	Mean	1.1	1.2	1.0	0.7	0.8	0.6	0.7	0.7	0.6	0.2	0.4	0.8	0.7
		%	94	95	95	95	95	95	95	94	95	96	96	96	95
		Max-d	2.4	2.7	2.0	1.6	2.4	1.0	1.4	1.5	1.1	0.7	1.0	1.9	2.7
		Min-d	<0.1	0.3	0.3	0.2	<0.1	<0.1	0.2	<0.1	0.2	<0.1	<0.1	0.2	<0.1
Vietnam	Hanoi	Mean	1.0	0.7	0.5	0.5	0.5	0.3	0.2	0.2	0.3	0.6	0.7	0.9	0.5
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	1.3	0.8	0.6	0.6	0.8	0.4	0.3	0.3	0.4	0.7	1.0	1.3	1.3
		Min-w	0.5	0.4	0.4	0.4	0.3	0.3	0.2	0.2	0.3	0.5	0.3	0.5	0.2
	Hoa Binh	Mean	0.4	0.5	0.4	0.6	0.6	0.3	0.4	0.3	0.3	0.7	0.6	0.7	0.5
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.6	0.6	0.7	0.9	0.8	0.4	0.5	0.4	0.3	0.8	0.6	0.9	0.9
		Min-w	0.3	0.4	0.2	0.3	0.4	0.3	0.3	0.2	0.2	0.4	0.5	0.3	0.2
	Can Tho	Mean	0.6	0.6	0.6	0.6	0.6	0.6	0.3	0.7	0.5	0.7	0.6	0.6	0.6
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.8	0.9	0.9	0.9	0.8	0.9	0.4	0.8	0.8	0.9	0.7	0.7	0.9
		Min-w	0.4	0.3	0.4	0.5	0.4	0.5	0.2	0.5	0.3	0.5	0.4	0.5	0.2
	Ho Chi Minh	Mean	0.6	0.6	0.6	0.6	0.7	0.6	0.6	0.5	0.5	0.5	0.6	0.9	0.6
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.9	0.9	0.8	0.7	0.9	0.7	0.8	0.6	0.7	0.9	0.7	2.5	2.5
		Min-w	0.3	0.3	0.4	0.4	0.4	0.6	0.4	0.4	0.3	0.4	0.4	0.3	0.3
	Yen Bai	Mean	0.9	0.8	0.8	0.8	0.7	0.6	0.5	0.6	1.2	1.0	0.9	0.9	0.8
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	1.6	0.8	1.1	1.0	1.0	0.8	0.5	0.8	1.9	1.2	1.1	1.1	1.9
		Min-w	0.4	0.7	0.6	0.7	0.6	0.5	0.4	0.2	0.7	0.9	0.8	0.8	0.2

Terms and abbreviations are given in Table 4.2.

Table 4.4 HNO_3

Unit : ppb			2018												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Indonesia	Jakarta	Mean	0.6	0.8	1.3	1.3	1.7	1.5	2.9	0.6	1.0	2.1	0.7	-	1.4
		%	63	50	39	100	97	100	100	100	100	70	52	0	73
		Max-2w	0.7	0.8	1.3	1.4	3.0	2.2	3.0	0.9	1.4	2.5	0.7	-	3.0
		Min-2w	0.5	0.8	1.3	1.1	0.3	0.9	2.8	0.4	0.5	1.7	0.7	-	0.3
	Serpong	Mean	0.2	0.4	0.8	2.6	1.4	2.0	1.6	2.8	1.8	1.9	0.7	0.8	1.5
		%	67	100	100	100	100	67	100	100	100	100	100	100	92
		Max-2w	0.3	0.4	0.9	4.4	2.0	3.2	2.1	3.7	2.1	3.1	1.3	1.1	4.4
		Min-2w	<0.1	0.4	0.8	0.8	0.9	0.8	1.1	2.0	1.5	0.7	<0.1	0.4	<0.1
	Bandung	Mean	0.1	0.4	0.8	0.9	0.9	0.9	1.1	1.1	1.3	1.1	0.9	0.7	0.8
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.2	0.4	1.1	1.1	1.0	1.4	1.9	1.1	1.3	1.3	1.0	0.8	1.9
		Min-2w	<0.1	0.3	0.6	0.7	0.8	0.5	0.4	1.0	1.3	0.8	0.7	0.5	<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	92	100	100	100	100	100	100	100	100	100	99
		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
	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	59	100	100	100	100	100	100	100	100	100	100	97
		Max-2w	<0.1	<0.1	<0.1	<0.1	0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1
		Min-2w	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Tappi	Mean	<0.1	<0.1	<0.1	<0.1	<0.1	0.4	0.2	<0.1	<0.1	<0.1	-	<0.1	0.1
		%	100	50	100	100	100	100	100	100	100	100	0	31	81
		Max-2w	<0.1	<0.1	<0.1	0.1	<0.1	0.7	0.4	<0.1	<0.1	<0.1	-	<0.1	0.7
		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
	Sado-seki	Mean	<0.1	<0.1	0.5	0.6	0.5	0.6	0.6	0.1	<0.1	<0.1	<0.1	<0.1	0.3
		%	100	50	50	100	100	100	100	100	100	100	100	100	93
		Max-2w	<0.1	<0.1	0.5	0.9	0.5	1.1	0.9	0.2	<0.1	0.1	<0.1	<0.1	1.1
		Min-2w	<0.1	<0.1	0.5	0.3	0.4	0.2	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Happo	Mean	0.1	0.1	0.2	0.3	0.4	0.3	0.4	0.2	0.2	0.1	0.1	<0.1	0.2
		%	66	100	100	100	100	100	100	50	100	100	100	100	93
		Max-2w	0.1	0.1	0.3	0.5	0.4	0.3	0.5	0.2	0.3	0.1	0.1	<0.1	0.5
		Min-2w	<0.1	0.1	0.2	0.1	0.4	0.3	0.3	0.2	0.1	0.1	0.1	<0.1	<0.1
	Ijira	Mean	<0.1	0.1	0.3	0.3	0.3	0.3	0.4	0.1	<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	0.4	0.4	0.5	0.4	0.6	0.2	<0.1	0.2	<0.1	<0.1	0.6
		Min-2w	<0.1	<0.1	0.2	0.2	0.2	0.2	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Oki	Mean	<0.1	<0.1	0.2	0.3	0.2	0.2	0.3	<0.1	<0.1	<0.1	<0.1	<0.1	0.1
		%	100	100	100	100	100	100	100	100	100	100	85	100	99
		Max-2w	<0.1	<0.1	0.4	0.4	0.2	0.3	0.7	<0.1	<0.1	<0.1	<0.1	<0.1	0.7
		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
	Banryu	Mean	<0.1	0.2	0.2	0.2	0.3	0.3	0.4	0.1	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	0.2	0.3	0.4	0.5	0.6	0.1	0.1	0.2	0.1	0.1	0.6
		Min-2w	<0.1	0.1	0.1	0.1	0.2	0.1	0.2	<0.1	0.1	<0.1	<0.1	0.1	<0.1
	Yusuhara	Mean	0.2	0.2	0.4	0.3	0.2	0.3	0.2	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	0.2	0.6	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.6
		Min-2w	0.1	0.2	0.3	0.2	0.2	0.3	<0.1	<0.1	0.1	0.1	0.1	<0.1	<0.1
	Hedo	Mean	<0.1	<0.1	0.1	<0.1	0.2	<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	0.3	<0.1	0.3	0.2	<0.1	<0.1	0.1	0.1	0.3
		Min-2w	<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
	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	0.4	0.7	0.9	0.8	0.9	1.2	0.4	0.3	0.4	0.4	0.2	0.6
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.2	0.4	1.0	1.2	1.0	1.1	1.6	0.5	0.4	0.4	0.4	0.3	1.6
		Min-2w	0.2	0.4	0.4	0.6	0.6	0.7	0.4	0.4	0.2	0.3	0.3	0.2	0.2

Table 4.4 HNO_3 (continued)

Unit : ppb			2018												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Malaysia	Petaling Jaya	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
		%	75	75	100	75	50	60	25	100	100	75	100	100	79
		Max-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
		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
	Tanah Rata	Mean	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
		%	100	100	100	75	100	100	100	100	100	100	100	75	96
		Max-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
		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	100	100	100	100	100	75	86	100	100	100	100	97
		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
Mongolia	Ulaanbaatar	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	75	98
		Max-w	<0.1	<0.1	0.2	0.1	0.1	<0.1	0.1	0.1	0.2	0.3	0.1	<0.1	0.3
		Min-w	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Terelj	Mean	<0.1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
		%	90	0	0	78	100	100	100	100	100	100	100	100	81
		Max-2w	<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
Myammar	Yangon	Mean	0.7	<0.1	<0.1	<0.1	<0.1	0.1	0.2	0.1	0.2	0.5	0.7	0.5	0.3
		%	100	82	50	100	67	100	100	50	90	100	100	100	86
		Max-2w	0.7	<0.1	<0.1	<0.1	0.1	0.2	0.2	0.1	0.2	0.9	1.0	0.9	1.0
		Min-2w	0.7	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	0.1	0.1	<0.1	0.4	0.1	<0.1
Republic of Korea	Kanghwa	Mean	0.2	<0.1	0.1	0.1	0.2	0.2	-	<0.1	<0.1	0.1	0.2	<0.1	0.1
		%	19	14	16	19	9	13	0	3	17	16	17	13	13
		Max-d	0.2	<0.1	0.2	0.2	0.3	0.3	-	<0.1	0.2	0.4	0.3	<0.1	0.4
		Min-d	0.1	<0.1	<0.1	<0.1	0.2	<0.1	-	<0.1	<0.1	<0.1	0.1	<0.1	<0.1
	Cheju (Kosan)	Mean	0.2	0.3	-	-	0.3	0.5	0.3	0.2	0.4	0.5	0.6	0.7	0.4
		%	16	14	0	0	16	13	13	12	5	13	17	16	11
		Max-d	0.2	0.3	-	-	0.7	0.5	0.5	0.3	0.5	0.7	1.5	1.4	1.5
		Min-d	<0.1	0.2	-	-	<0.1	0.4	0.3	0.2	0.2	0.1	<0.1	0.1	<0.1
	Imsil	Mean	0.3	0.1	0.2	0.4	0.5	0.9	0.3	0.2	0.3	0.4	0.9	0.3	0.4
		%	13	11	13	17	13	13	16	13	17	16	17	13	14
		Max-d	0.4	0.2	0.3	1.3	1.3	1.5	0.4	0.4	0.8	0.8	1.2	0.4	1.5
		Min-d	<0.1	<0.1	0.1	0.1	0.2	0.4	0.2	<0.1	0.1	0.1	0.7	<0.1	<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	0.1	0.2	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-w	0.2	0.2	0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	0.3
		Min-w	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	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	80	100	100	100	100	100	100	98
		Max-w	0.4	<0.1	<0.1	<0.1	<0.1	0.1	0.2	<0.1	0.1	0.2	<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
	Primorskaya	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
Thailand	Bangkok	Mean	1.5	1.9	1.1	1.0	0.8	0.1	<0.1	<0.1	0.2	0.5	1.1	1.6	0.8
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-10d	1.7	2.3	1.5	2.0	1.6	0.2	<0.1	0.1	0.4	0.6	1.2	2.2	2.3
		Min-10d	1.2	1.4	0.4	0.3	0.4	<0.1	<0.1	<0.1	0.2	0.4	0.8	0.8	<0.1
	Khanchanaburi (Vachiralongkorn Dam)	Mean	-	-	1.2	-	-	-	<0.1	-	-	-	<0.1	-	0.4
		%	0	0	55	0	0	0	68	0	0	0	57	0	15
		Max-2w	-	-	1.2	-	-	-	<0.1	-	-	-	<0.1	-	1.2
		Min-2w	-	-	1.2	-	-	-	<0.1	-	-	-	<0.1	-	<0.1
	Mae Hia	Mean	0.1	0.2	<0.1	0.3	0.2	<0.1	<0.1	0.1	-	<0.1	-	-	0.1
		%	90	61	97	97	97	67	97	100	0	94	0	0	67
		Max-10d	0.1	0.2	<0.1	0.6	0.3	<0.1	0.1	0.1	-	0.1	-	-	0.6
		Min-10d	<0.1	0.1	<0.1	0.2	0.1	<0.1	<0.1	<0.1	-	<0.1	-	-	<0.1
	Sakaerat	Mean	0.3	0.5	0.5	0.4	0.1	0.1	0.1	0.2	<0.1	0.3	-	-	0.3
		%	93	100	100	100	100	70	100	100	100	100	0	0	80
		Max-10d	0.4	0.7	0.6	0.4	0.2	0.2	0.3	0.4	<0.1	0.4	-	-	0.7
		Min-10d	0.2	0.2	0.3	0.2	0.1	<0.1	<0.1	<0.1	<0.1	0.2	-	-	<0.1

Table 4.4 HNO_3 (continued)

Unit : ppb			2018												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Vietnam	Hanoi	Mean	0.4	0.2	0.2	0.4	0.4	0.2	0.2	0.3	0.5	0.5	0.7	1.2	0.4
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.5	0.3	0.3	0.6	0.6	0.3	0.3	0.4	0.7	0.9	0.9	2.1	2.1
		Min-w	0.2	0.1	<0.1	0.2	0.2	0.2	0.1	0.2	0.2	0.4	0.3	0.5	<0.1
	Hoa Binh	Mean	0.3	0.3	0.3	0.7	0.3	0.3	0.2	0.2	0.2	0.5	0.7	0.5	0.4
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.5	0.5	0.8	1.5	0.6	0.8	0.3	0.3	0.3	0.7	1.0	0.6	1.5
		Min-w	0.2	0.2	0.1	<0.1	0.1	0.1	0.2	0.2	0.2	0.4	0.6	0.5	<0.1
	Can Tho	Mean	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
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.1	0.1	0.1	<0.1	<0.1	0.5	0.1	0.1	<0.1	0.1	0.2	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
	Ho Chi Minh	Mean	0.3	0.4	0.5	0.4	0.4	0.4	0.3	0.5	0.4	0.4	0.4	0.4	0.4
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.4	0.6	0.7	0.7	0.6	0.6	0.4	0.7	0.6	0.6	0.5	0.5	0.7
		Min-w	0.2	0.2	0.3	0.2	0.1	0.3	0.2	0.3	0.2	0.2	0.2	0.4	0.1
	Yen Bai	Mean	0.6	0.4	0.3	0.5	0.6	0.4	0.3	0.4	0.8	0.6	0.7	0.9	0.5
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	1.5	0.8	0.4	0.5	0.7	0.5	0.4	0.5	1.2	0.8	0.9	1.0	1.5
		Min-w	0.2	0.3	0.3	0.4	0.4	0.3	0.3	0.2	0.3	0.5	0.5	0.7	0.2

Terms and abbreviations are given in Table 4.2.

Table 4.5 HCl

Unit : ppb			2018												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Indonesia	Jakarta	Mean	1.3	2.6	1.0	1.5	1.5	1.7	2.0	0.7	0.8	1.6	2.7	-	1.5
		%	63	50	39	100	97	100	100	100	100	70	52	0	73
		Max-2w	1.5	2.6	1.0	2.0	2.8	2.2	2.0	0.8	1.0	2.1	2.7	-	2.8
		Min-2w	1.2	2.6	1.0	1.0	0.2	1.1	2.0	0.6	0.5	1.0	2.7	-	0.2
	Serpong	Mean	0.7	0.1	0.7	1.9	2.0	1.6	1.5	1.8	1.5	2.1	0.4	0.5	1.3
		%	67	100	100	100	100	67	100	100	100	100	100	100	92
		Max-2w	0.9	0.1	0.8	2.6	2.7	2.4	1.6	1.9	1.5	3.1	0.7	0.6	3.1
		Min-2w	0.6	0.1	0.6	1.2	1.3	0.9	1.5	1.7	1.5	1.1	0.2	0.4	0.1
	Bandung	Mean	0.3	0.7	0.8	0.8	1.1	1.2	1.2	1.3	1.2	1.3	0.9	0.7	0.9
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.3	0.9	1.1	0.8	1.1	1.3	1.3	1.4	1.2	1.5	1.0	0.8	1.5
		Min-2w	0.3	0.5	0.6	0.7	1.1	1.1	1.1	1.2	1.2	1.0	0.9	0.7	0.3
Japan	Rishiri	Mean	0.2	0.3	0.4	0.5	0.4	0.7	0.5	0.3	0.3	0.2	0.3	0.2	0.4
		%	100	100	92	100	100	100	100	100	100	100	100	100	99
		Max-2w	0.3	0.4	0.5	0.7	0.5	1.0	0.6	0.3	0.4	0.3	0.3	0.3	1.0
		Min-2w	0.2	0.3	0.4	0.2	0.3	0.4	0.2	0.3	0.2	0.2	0.3	0.1	0.1
	Ochiishi	Mean	0.2	0.3	0.5	0.3	0.5	0.4	0.5	0.5	0.4	0.2	0.2	0.2	0.3
		%	100	59	50	100	100	100	100	100	100	100	100	100	93
		Max-2w	0.3	0.3	0.5	0.4	0.5	0.5	0.5	0.7	0.4	0.2	0.3	0.2	0.7
		Min-2w	<0.1	0.3	0.5	0.3	0.5	0.4	0.5	0.4	0.4	0.2	0.1	0.1	<0.1
	Tappi	Mean	0.3	0.3	0.6	0.3	0.4	0.5	0.5	0.5	0.4	0.3	-	0.3	0.4
		%	100	50	100	100	100	100	100	100	100	100	0	31	81
		Max-2w	0.3	0.3	0.6	0.4	0.4	0.6	0.5	0.5	0.5	0.4	-	0.3	0.6
		Min-2w	0.2	0.3	0.5	<0.1	0.4	0.5	0.4	0.4	0.3	0.2	-	0.3	<0.1
	Sado-seki	Mean	0.4	0.4	2.0	1.6	1.7	1.2	1.1	1.1	0.9	0.7	0.5	0.5	1.0
		%	100	50	50	100	100	100	100	100	100	100	100	100	93
		Max-2w	0.5	0.4	2.0	1.7	1.8	1.2	1.4	1.3	1.3	0.8	0.6	0.5	2.0
		Min-2w	0.3	0.4	2.0	1.5	1.6	1.2	0.9	1.0	0.6	0.7	0.4	0.4	0.3
	Happo	Mean	0.2	0.2	0.3	0.2	0.2	0.1	0.2	0.2	0.2	0.1	0.2	0.1	0.2
		%	66	100	100	100	100	100	100	50	100	100	100	100	93
		Max-2w	0.2	0.2	0.4	0.2	0.2	0.1	0.2	0.2	0.2	0.1	0.2	0.1	0.4
		Min-2w	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.2	<0.1	0.1	0.2	<0.1	<0.1
	Ijira	Mean	0.1	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.1	<0.1	0.2
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.1	0.3	0.2	0.3	0.2	0.2	0.4	0.3	0.2	0.2	0.1	0.1	0.4
		Min-2w	<0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.1	<0.1	<0.1
	Oki	Mean	0.6	0.5	1.1	1.2	1.0	0.7	0.8	0.8	0.6	0.6	0.7	0.4	0.7
		%	100	100	100	100	100	100	100	100	100	100	85	100	99
		Max-2w	0.7	0.7	1.4	1.6	1.1	1.0	1.0	0.9	0.7	0.6	0.7	0.5	1.6
		Min-2w	0.5	0.4	0.8	0.8	1.0	0.5	0.6	0.7	0.5	0.5	0.7	0.2	0.2
	Banryu	Mean	0.6	0.7	1.0	0.8	0.8	0.6	0.7	0.5	0.4	0.5	0.5	0.4	0.6
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.8	0.9	1.4	0.8	1.0	0.9	1.0	0.6	0.6	0.6	0.6	0.5	1.4
		Min-2w	0.4	0.5	0.6	0.8	0.7	0.4	0.5	0.4	0.3	0.5	0.4	0.3	0.3
	Yusuhara	Mean	0.3	0.3	0.3	0.4	0.3	0.1	0.2	0.3	0.1	0.2	0.2	0.2	0.3
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.3	0.3	0.4	0.6	0.3	0.2	0.3	0.4	0.2	0.3	0.3	0.2	0.6
		Min-2w	0.3	0.3	0.3	0.2	0.2	0.1	0.2	0.3	0.1	0.2	0.2	0.2	0.1
	Hedo	Mean	0.7	1.1	1.1	0.8	1.2	0.7	0.8	1.1	0.5	1.1	1.2	0.8	0.9
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.8	1.2	1.2	1.3	1.3	0.8	1.9	1.6	0.5	1.2	1.3	1.2	1.9
		Min-2w	0.6	0.9	0.9	0.4	1.0	0.5	0.3	0.5	0.4	1.0	1.1	0.6	0.3
	Ogasawara	Mean	0.4	0.2	0.3	0.5	0.4	0.4	0.3	0.2	0.2	0.2	0.3	0.3	0.3
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.5	0.3	0.4	0.6	0.5	0.4	0.4	0.2	0.3	0.2	0.3	0.5	0.6
		Min-2w	0.3	<0.1	0.2	0.4	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.2	<0.1
	Tokyo	Mean	0.3	0.5	0.9	1.2	0.9	0.8	1.1	1.1	0.9	0.9	0.6	0.4	0.8
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.3	0.6	1.0	1.3	1.1	0.9	1.4	1.4	1.2	1.1	0.6	0.6	1.4
		Min-2w	0.3	0.4	0.8	1.1	0.8	0.7	0.8	0.9	0.6	0.8	0.6	0.2	0.2

Table 4.5 HCl (continued)

Unit : ppb			2018												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Malaysia	Petaling Jaya	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
		%	75	75	100	75	50	60	25	100	100	75	100	100	79
		Max-w	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	0.1	0.2	<0.1	<0.1	<0.1	0.2
		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
	Tanah Rata	Mean	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
		%	100	100	100	75	100	100	100	100	100	100	100	75	96
		Max-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
		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	0.8	0.2	0.1	<0.1	<0.1	<0.1	0.1
		%	100	100	100	100	100	100	75	86	100	100	100	100	97
		Max-2w	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	1.0	0.2	0.1	<0.1	<0.1	0.1	1.0
		Min-2w	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.6	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Mongolia	Ulaanbaatar	Mean	1.0	1.2	1.1	0.6	0.6	0.8	1.0	0.7	0.6	0.6	0.6	0.4	0.8
		%	100	100	100	100	100	100	100	100	100	100	100	75	98
		Max-w	1.5	1.8	1.9	0.8	1.0	0.8	1.4	0.8	0.7	0.7	0.9	0.7	1.9
		Min-w	0.7	0.7	0.7	0.4	0.3	0.7	0.7	0.6	0.6	0.4	0.5	<0.1	<0.1
	Terelj	Mean	0.4	-	-	0.3	0.4	0.3	0.3	0.3	0.3	0.2	0.3	<0.1	0.3
		%	90	0	0	78	100	100	100	100	100	100	100	100	81
		Max-2w	0.6	-	-	0.4	0.4	0.3	0.4	0.4	0.3	0.3	0.4	<0.1	0.6
		Min-2w	0.3	-	-	0.1	0.3	0.2	0.2	0.3	0.3	0.2	0.2	<0.1	<0.1
Myanmar	Yangon	Mean	0.8	0.5	0.4	0.4	0.7	0.7	0.5	0.3	0.3	0.4	0.7	0.6	0.5
		%	100	82	50	100	67	100	100	50	90	100	100	100	86
		Max-2w	0.9	1.0	0.4	0.5	0.8	0.8	0.6	0.3	0.3	0.7	1.2	0.8	1.2
		Min-2w	0.7	0.1	0.4	0.3	0.5	0.6	0.3	0.3	0.3	0.3	0.3	0.3	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	<0.1	<0.1
		%	19	14	16	19	9	13	0	3	17	16	17	13	13
		Max-d	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	-	<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
	Cheju (Kosan)	Mean	0.2	0.2	-	-	0.1	0.2	0.1	0.2	0.2	0.3	0.4	0.2	0.2
		%	16	14	0	0	16	13	13	12	5	13	17	16	11
		Max-d	0.3	0.3	-	-	0.2	0.3	0.2	0.2	0.2	0.6	0.7	0.3	0.7
		Min-d	<0.1	0.1	-	-	<0.1	0.1	<0.1	0.2	0.2	0.2	0.1	0.2	<0.1
	Imsil	Mean	0.1	0.2	0.1	0.1	0.1	0.2	0.2	0.1	<0.1	0.1	0.3	0.3	0.2
		%	13	11	13	17	13	13	16	13	17	16	17	13	14
		Max-d	0.2	0.2	0.2	0.2	0.2	0.4	0.3	0.2	0.2	0.1	0.6	0.4	0.6
		Min-d	<0.1	0.1	<0.1	0.1	0.1	0.1	0.1	<0.1	<0.1	<0.1	0.2	<0.1	<0.1
Russia	Mondy	Mean	4.0	2.6	11.1	5.4	2.3	3.7	0.1	0.1	0.1	0.2	0.3	0.2	2.6
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-m	4.0	2.6	15.8	5.8	2.5	5.4	0.1	0.1	0.2	0.2	0.3	0.3	15.8
		Min-m	4.0	2.6	6.5	4.9	2.0	2.1	<0.1	0.1	<0.1	0.2	0.3	<0.1	<0.1
	Listvyanka	Mean	16.8	6.6	11.0	7.7	5.0	13.0	1.1	1.4	0.7	0.2	0.2	0.2	5.3
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	26.5	7.6	18.1	8.6	6.9	16.9	2.6	1.8	1.3	0.3	0.2	0.3	26.5
		Min-w	2.1	5.8	4.5	6.8	4.1	10.0	0.5	0.9	0.3	0.2	0.2	0.2	0.2
	Irkutsk	Mean	21.7	6.7	8.8	7.9	6.6	10.0	0.3	0.8	0.4	0.2	<0.1	0.2	5.3
		%	100	100	100	100	100	80	100	100	100	100	100	100	98
		Max-w	32.9	8.1	11.9	13.0	7.0	18.4	0.3	2.0	0.6	0.7	0.1	0.3	32.9
		Min-w	5.4	4.9	7.3	4.1	6.0	4.0	0.2	0.4	0.3	<0.1	<0.1	<0.1	<0.1
	Primorskaya	Mean	0.3	0.4	0.3	0.2	0.2	0.2	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-2w	0.4	0.5	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.5
		Min-2w	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.1
Thailand	Bangkok	Mean	1.8	1.4	1.4	0.9	1.8	0.4	0.1	0.6	0.6	0.6	1.0	1.0	1.0
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-10d	2.5	1.7	1.6	1.1	3.8	0.5	0.2	0.7	0.6	0.7	1.1	1.0	3.8
		Min-10d	1.3	1.1	1.1	0.7	0.7	0.3	0.1	0.3	0.5	0.6	0.9	0.8	0.1
	Khanchanaburi (Vachiralongkorn Dam)	Mean	-	-	0.9	-	-	-	<0.1	-	-	-	<0.1	-	0.3
		%	0	0	55	0	0	0	68	0	0	0	57	0	15
		Max-2w	-	-	0.9	-	-	-	<0.1	-	-	-	<0.1	-	0.9
		Min-2w	-	-	0.9	-	-	-	<0.1	-	-	-	<0.1	-	<0.1
	Mae Hia	Mean	0.4	0.3	<0.1	0.7	0.5	<0.1	0.4	0.3	-	0.3	-	-	0.4
		%	90	61	97	97	97	67	97	100	0	94	0	0	67
		Max-10d	0.5	0.4	0.1	1.1	1.0	0.2	0.7	0.4	-	0.4	-	-	1.1
		Min-10d	0.3	0.3	<0.1	0.3	<0.1	<0.1	<0.1	0.3	-	0.3	-	-	<0.1
	Sakaerat	Mean	0.2	0.1	0.2	0.3	0.2	0.2	0.3	0.2	0.2	0.3	-	-	0.2
		%	93	100	100	100	100	70	100	100	100	100	0	0	80
		Max-10d	0.2	0.2	0.3	0.4	0.2	0.3	0.4	0.3	0.2	0.4	-	-	0.4
		Min-10d	0.2	<0.1	0.1	0.3	0.1	<0.1	0.1	0.1	0.2	0.3	-	-	<0.1

Table 4.5 HCl (continued)

Unit : ppb			2018												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Vietnam	Hanoi	Mean	1.1	1.8	1.3	1.4	0.9	1.0	0.7	0.8	0.8	1.6	1.2	1.3	1.1
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	1.4	3.1	1.7	2.3	1.0	1.3	0.9	1.0	0.9	1.9	1.4	1.7	3.1
		Min-w	0.8	1.1	1.1	0.9	0.7	0.7	0.6	0.6	0.6	1.3	0.9	0.9	0.6
	Hoa Binh	Mean	0.7	1.2	1.0	1.3	1.0	1.0	0.9	0.9	0.9	1.8	1.8	1.2	1.2
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.9	2.0	1.5	1.4	1.2	1.3	1.1	1.1	1.2	2.4	2.9	1.6	2.9
		Min-w	0.6	0.7	0.7	1.1	0.9	0.8	0.8	0.7	0.8	1.3	1.3	1.0	0.6
	Can Tho	Mean	2.1	1.1	1.5	1.5	2.1	1.9	0.8	1.9	2.4	2.3	2.1	2.1	1.8
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	2.5	1.6	2.2	2.2	2.6	2.7	0.9	2.5	2.9	2.7	2.3	2.4	2.9
		Min-w	1.9	0.9	0.9	0.6	1.2	1.1	0.7	0.8	2.1	1.7	1.8	1.7	0.6
	Ho Chi Minh	Mean	1.0	1.6	2.1	1.1	2.0	1.6	2.1	1.4	1.6	1.2	1.5	1.7	1.6
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	1.8	2.3	2.5	1.4	2.5	2.4	2.3	2.1	2.3	1.6	1.8	2.1	2.5
		Min-w	0.6	0.8	1.4	0.7	1.2	1.1	1.9	0.7	0.8	0.7	1.2	1.4	0.6
	Yen Bai	Mean	1.8	1.2	1.1	1.6	1.0	1.4	1.0	1.8	3.0	2.7	2.4	2.4	1.8
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	2.5	1.5	1.2	2.4	1.5	2.0	1.5	2.8	3.8	3.0	2.9	3.3	3.8
		Min-w	1.5	0.9	0.9	1.1	0.4	1.1	0.8	0.9	2.7	2.3	1.7	1.9	0.4

Terms and abbreviations are given in Table 4.2.

Table 4.6 NH_3

Unit : ppb			2018												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Indonesia	Jakarta	Mean	8.5	3.9	12.1	38.2	14.5	20.6	19.3	7.7	15.8	4.3	14.6	-	15.2
		%	63	50	39	100	97	100	100	100	100	70	52	0	73
		Max-2w	9.6	3.9	12.1	75.2	19.9	25.6	20.1	13.8	17.3	4.9	14.6	-	75.2
		Min-2w	7.4	3.9	12.1	1.1	9.2	15.6	18.5	1.6	14.4	3.6	14.6	-	1.1
	Serpong	Mean	1.5	1.2	2.1	2.9	9.5	9.0	4.2	15.5	29.5	14.3	3.2	2.8	8.3
		%	67	100	100	100	100	67	100	100	100	100	100	100	92
		Max-2w	2.0	1.2	2.1	3.6	16.1	12.2	5.6	27.4	30.9	22.1	3.7	3.5	30.9
		Min-2w	0.9	1.2	2.0	2.3	2.9	5.8	2.8	3.6	28.0	6.5	2.6	2.1	0.9
	Bandung	Mean	8.5	6.8	7.9	8.5	10.2	9.5	9.4	9.8	10.0	9.8	8.1	6.8	8.7
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	10.5	7.3	8.8	8.7	10.6	9.9	10.8	9.8	10.0	10.1	8.7	7.5	10.8
		Min-2w	6.4	6.4	7.2	8.3	9.7	9.1	8.0	9.8	10.0	9.6	7.5	6.1	6.1
Japan	Rishiri	Mean	0.1	0.2	0.4	0.6	0.5	0.7	0.8	0.7	0.5	0.6	0.4	0.2	0.5
		%	100	100	92	100	100	100	100	100	100	100	100	100	99
		Max-2w	0.2	0.3	0.4	0.8	0.6	1.0	1.2	0.7	0.6	0.7	0.4	0.3	1.2
		Min-2w	0.1	0.2	0.3	0.4	0.4	0.5	0.6	0.7	0.5	0.6	0.3	0.2	0.1
	Ochiishi	Mean	0.1	<0.1	0.1	0.3	0.4	0.3	0.3	0.4	0.7	0.5	0.5	0.3	0.3
		%	100	59	100	100	100	100	100	100	100	100	100	100	97
		Max-2w	0.1	<0.1	0.2	0.3	0.4	0.3	0.4	0.4	0.7	0.6	0.5	0.3	0.7
		Min-2w	<0.1	<0.1	<0.1	0.2	0.4	0.2	0.3	0.3	0.7	0.4	0.5	0.2	<0.1
	Tappi	Mean	0.1	0.2	0.4	0.4	0.4	0.5	0.5	0.5	0.6	0.5	-	0.1	0.4
		%	100	50	100	100	100	100	100	100	100	100	0	31	81
		Max-2w	0.2	0.2	0.6	0.6	0.4	0.6	0.6	0.6	0.7	0.6	-	0.1	0.7
		Min-2w	<0.1	0.2	0.2	0.2	0.4	0.5	0.5	0.5	0.5	0.4	-	0.1	<0.1
	Sado-seki	Mean	0.1	0.1	2.0	1.8	2.3	1.3	1.2	1.1	1.0	0.9	0.4	0.3	1.0
		%	100	50	50	100	100	100	100	100	100	100	100	100	93
		Max-2w	0.2	0.1	2.0	2.1	2.3	1.6	1.4	1.2	1.1	1.0	0.4	0.4	2.3
		Min-2w	<0.1	0.1	2.0	1.5	2.2	1.0	1.0	0.9	0.9	0.7	0.3	<0.1	<0.1
	Happo	Mean	0.2	0.3	0.7	0.8	1.1	0.8	0.8	0.5	0.6	0.6	0.3	0.2	0.6
		%	66	100	100	100	100	100	100	50	100	100	100	100	93
		Max-2w	0.2	0.4	0.9	1.0	1.1	0.9	1.1	0.5	0.7	0.8	0.3	0.3	1.1
		Min-2w	0.1	0.2	0.5	0.7	1.1	0.7	0.6	0.5	0.5	0.4	0.3	0.2	0.1
	Ijira	Mean	0.4	0.6	1.0	1.3	1.3	1.4	2.0	1.7	1.1	1.1	0.6	0.4	1.1
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.5	0.8	1.3	1.4	1.5	1.6	2.2	1.9	1.3	1.2	0.6	0.7	2.2
		Min-2w	0.2	0.5	0.6	1.3	1.1	1.3	1.9	1.6	0.9	1.0	0.6	0.2	0.2
	Oki	Mean	0.4	0.6	1.2	1.4	1.2	1.1	1.2	1.0	0.9	0.8	0.6	0.3	0.9
		%	100	100	100	100	100	100	100	48	100	100	85	100	95
		Max-2w	0.4	0.8	1.8	1.5	1.2	1.4	2.0	1.0	1.0	0.8	0.6	0.4	2.0
		Min-2w	0.3	0.3	0.5	1.2	1.1	0.8	0.8	1.0	0.9	0.8	0.6	0.2	0.2
	Banryu	Mean	0.9	1.7	1.4	1.4	1.4	1.3	1.2	1.5	1.2	1.0	0.8	0.7	1.2
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	1.3	1.8	1.5	1.5	1.6	1.4	1.6	1.8	1.3	1.1	0.8	1.0	1.8
		Min-2w	0.5	1.5	1.3	1.2	1.1	1.1	0.9	1.3	1.1	1.0	0.7	0.3	0.3
	Yusuhara	Mean	0.2	0.4	0.6	0.8	0.5	0.6	0.8	0.7	0.5	0.5	0.3	0.2	0.5
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.2	0.6	0.9	0.9	0.6	0.6	1.3	1.0	0.6	0.6	0.5	0.4	1.3
		Min-2w	0.2	0.2	0.4	0.7	0.4	0.6	0.5	0.6	0.4	0.4	0.2	0.1	0.1
	Hedo	Mean	0.8	1.5	1.1	1.4	1.9	1.2	1.2	1.2	0.9	1.0	0.9	0.9	1.1
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.9	1.7	1.3	1.5	2.0	1.3	1.7	1.5	1.0	1.1	1.0	1.1	2.0
		Min-2w	0.7	1.3	0.9	1.3	1.7	1.1	0.8	0.8	0.9	0.9	0.8	0.7	0.7
	Ogasawara	Mean	0.3	0.2	0.4	0.6	0.7	0.6	0.5	0.4	0.6	0.5	0.4	0.4	0.5
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.4	0.3	0.5	0.7	0.7	0.6	0.7	0.5	0.6	0.5	0.5	0.4	0.7
		Min-2w	0.3	0.2	0.3	0.5	0.7	0.6	0.4	0.3	0.5	0.5	0.4	0.3	0.2
	Tokyo	Mean	2.8	2.9	3.6	4.2	3.8	4.0	5.0	4.3	3.2	3.9	4.0	3.9	3.8
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	3.5	3.3	4.0	4.5	4.3	4.1	6.1	4.7	3.3	4.1	4.1	4.9	6.1
		Min-2w	2.4	2.6	3.1	4.0	3.4	4.0	3.6	3.8	3.2	3.6	3.9	2.9	2.4

Table 4.6 NH_3 (continued)

Unit : ppb			2018												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Malaysia	Petaling Jaya	Mean	0.1	0.2	0.2	0.2	0.2	0.4	0.2	0.4	0.3	0.4	<0.1	0.2	0.2
		%	75	75	100	75	50	60	25	100	100	75	100	100	79
		Max-w	0.2	0.2	0.3	0.3	0.3	0.5	0.2	1.1	0.5	0.9	0.2	0.2	1.1
		Min-w	0.1	0.2	0.1	0.1	0.1	0.3	0.2	0.2	0.2	0.1	<0.1	0.1	<0.1
	Tanah Rata	Mean	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
		%	100	100	100	75	100	100	100	100	100	100	100	75	96
		Max-w	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	0.2	0.2
		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
	Danum Valley	Mean	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	1.5	1.0	0.9	0.8	0.5	0.5	0.5
		%	100	100	100	100	100	100	75	86	100	100	100	100	97
		Max-2w	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	1.6	1.2	1.0	1.1	0.8	0.6	1.6
		Min-2w	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	1.4	0.9	0.9	0.3	0.3	0.3	<0.1
Mongolia	Ulaanbaatar	Mean	6.9	6.4	7.5	9.5	6.6	8.2	6.8	6.7	6.2	8.0	7.9	6.4	7.3
		%	100	100	100	100	100	100	100	100	100	100	100	75	98
		Max-w	10.7	6.9	12.5	12.4	8.1	11.0	7.6	7.9	7.3	9.2	9.3	7.7	12.5
		Min-w	4.3	5.7	5.1	7.4	4.6	5.3	5.4	5.4	5.0	5.7	4.7	5.3	4.3
	Terelj	Mean	1.4	-	-	2.8	2.8	2.3	2.5	1.3	3.9	1.7	1.2	0.9	2.1
		%	90	0	0	78	100	100	100	100	100	100	100	100	81
		Max-2w	1.4	-	-	3.0	3.8	2.4	2.5	2.0	4.8	2.2	1.4	1.2	4.8
		Min-2w	1.3	-	-	2.6	1.8	2.2	2.4	0.6	3.0	1.3	1.0	0.6	0.6
Myanmar	Yangon	Mean	1.1	<0.1	<0.1	<0.1	<0.1	7.6	6.8	4.7	3.4	0.4	0.4	1.0	2.0
		%	100	82	50	100	67	100	100	50	90	100	100	100	86
		Max-2w	2.0	<0.1	<0.1	0.2	<0.1	8.2	8.5	4.7	6.4	0.9	0.6	1.6	8.5
		Min-2w	0.2	<0.1	<0.1	<0.1	<0.1	7.0	5.2	4.7	0.3	<0.1	<0.1	0.3	<0.1
Republic of Korea	Kanghwa	Mean	1.2	0.1	0.5	0.2	0.6	0.9	-	0.1	0.2	0.4	0.4	0.4	0.5
		%	19	14	16	19	9	13	0	3	17	16	17	13	13
		Max-d	1.6	0.2	0.8	0.2	0.8	1.3	-	0.1	0.3	0.5	0.6	0.8	1.6
		Min-d	0.5	<0.1	0.4	<0.1	0.5	0.3	-	0.1	0.1	0.3	0.1	0.1	<0.1
	Cheju (Kosan)	Mean	5.9	3.5	-	-	4.5	7.5	5.2	6.2	14.2	9.0	10.0	8.2	7.1
		%	16	14	0	0	16	13	13	12	5	13	17	16	11
		Max-d	6.6	4.5	-	-	6.0	8.6	5.5	8.0	18.7	10.3	12.0	9.8	18.7
		Min-d	5.2	2.3	-	-	2.3	6.7	5.1	4.3	9.8	6.9	8.7	5.6	2.3
	Imsil	Mean	6.5	3.4	5.7	7.2	7.7	15.4	14.3	9.5	10.6	8.2	9.9	12.4	9.4
		%	13	11	13	17	13	13	16	13	17	16	17	13	14
		Max-d	8.2	4.0	6.3	10.0	10.9	18.5	21.7	10.6	12.6	10.1	12.4	17.2	21.7
		Min-d	5.8	2.9	4.8	4.5	5.6	11.4	10.8	6.9	8.8	6.3	7.2	5.6	2.9
Russia	Mondy	Mean	0.3	0.4	0.5	0.4	0.5	0.9	1.8	2.2	2.6	1.8	1.3	1.4	1.2
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-m	0.3	0.4	0.5	0.8	0.8	1.3	1.8	2.2	3.2	3.0	1.3	1.7	3.2
		Min-m	0.3	0.4	0.5	<0.1	0.2	0.5	1.8	2.2	2.0	0.5	1.3	1.0	<0.1
	Listvyanka	Mean	0.5	0.4	0.4	0.8	0.7	1.1	3.8	5.0	2.3	3.3	1.3	1.1	1.7
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.6	0.7	0.6	1.4	1.2	1.4	5.6	7.9	3.6	4.5	1.6	1.3	7.9
		Min-w	0.4	0.3	0.2	0.2	<0.1	0.7	0.5	3.3	1.2	2.4	0.9	0.8	<0.1
	Irkutsk	Mean	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.3	0.2	0.1	<0.1	0.1	<0.1	<0.1
		%	100	100	100	100	100	80	100	100	100	100	100	100	98
		Max-w	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.9	0.6	0.3	0.1	0.1	0.1	0.9
		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	0.6	0.1	0.6	2.0	1.7	2.2	2.7	2.2	1.5	1.1	0.7	0.8	1.4
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	1.0	0.2	1.0	2.9	2.2	2.5	3.7	2.5	1.6	1.1	0.7	1.0	3.7
		Min-2w	0.2	<0.1	0.3	1.1	1.3	2.0	1.7	1.9	1.4	1.1	0.6	0.5	<0.1

Table 4.6 NH_3 (continued)

Unit : ppb			2018												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Thailand	Bangkok	Mean	12.4	11.9	10.4	9.3	29.0	9.9	6.7	7.4	10.0	10.7	15.0	14.2	12.2
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-10d	13.9	12.5	10.9	12.6	59.2	10.9	7.0	7.9	10.3	10.9	16.1	15.4	59.2
		Min-10d	11.1	11.0	10.1	6.9	13.9	8.7	6.3	7.1	9.4	10.5	14.2	13.3	6.3
	Khanchanaburi	Mean	-	-	7.8	-	-	-	1.0	-	-	-	2.4	-	3.8
	(Vachiralongkorn Dam)	%	0	0	55	0	0	0	68	0	0	0	57	0	15
		Max-2w	-	-	7.8	-	-	-	1.0	-	-	-	2.4	-	7.8
		Min-2w	-	-	7.8	-	-	-	1.0	-	-	-	2.4	-	1.0
	Mae Hia	Mean	4.7	5.4	6.1	6.0	4.2	2.9	3.0	3.9	-	4.8	-	-	4.6
		%	90	61	97	97	97	67	97	100	0	94	0	0	67
		Max-10d	5.9	5.9	6.9	6.6	4.6	3.2	3.4	5.3	-	5.3	-	-	6.9
		Min-10d	3.9	4.9	5.2	4.9	3.9	2.7	2.6	3.1	-	3.8	-	-	2.6
	Sakaerat	Mean	4.7	7.0	6.5	4.8	3.7	4.5	3.5	3.2	3.3	4.5	-	-	4.6
		%	93	100	100	100	100	70	100	100	100	100	0	0	80
		Max-10d	5.8	8.7	7.4	5.3	3.9	5.4	4.0	3.8	4.0	5.0	-	-	8.7
		Min-10d	4.0	6.1	5.6	4.1	3.2	3.6	3.0	2.8	2.8	4.2	-	-	2.8
Vietnam	Hanoi	Mean	3.4	3.2	2.8	2.0	1.9	2.0	2.0	2.0	1.9	2.6	2.7	2.8	2.4
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	3.6	4.2	4.3	2.2	2.2	2.2	2.2	2.1	2.0	2.8	2.8	3.0	4.3
		Min-w	3.0	2.6	2.0	1.9	1.7	1.9	1.7	1.8	1.8	2.5	2.6	2.6	1.7
	Hoa Binh	Mean	1.1	1.2	1.1	1.1	1.2	1.2	1.2	1.2	1.1	2.1	2.1	2.1	1.4
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	1.3	1.2	1.2	1.2	1.2	1.2	1.3	1.3	1.1	2.2	2.2	2.2	2.2
		Min-w	1.0	1.1	1.1	1.0	1.1	1.1	1.0	1.1	1.0	1.9	2.0	2.0	1.0
	Can Tho	Mean	5.9	5.0	6.9	3.1	4.3	4.3	3.6	4.3	6.7	6.4	4.4	4.1	4.9
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	7.6	8.2	8.1	4.0	6.7	5.1	4.7	5.3	7.8	7.3	4.8	4.8	8.2
		Min-w	3.6	1.8	4.6	2.6	2.4	3.5	2.4	2.7	5.8	6.0	4.0	3.6	1.8
	Ho Chi Minh	Mean	4.0	3.7	5.3	5.4	4.3	3.0	3.6	5.1	4.5	5.7	5.1	5.2	4.6
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	5.0	4.3	5.8	5.9	5.9	5.0	5.1	6.9	6.6	6.3	5.9	6.6	6.9
		Min-w	2.2	3.0	4.6	4.8	2.6	1.7	1.0	2.7	2.5	4.4	4.5	3.1	1.0
	Yen Bai	Mean	3.1	3.0	3.0	2.5	2.5	2.5	2.8	2.8	3.0	4.2	4.5	4.3	3.2
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	3.2	3.3	3.1	2.5	2.6	2.6	3.0	3.1	3.6	4.5	4.9	4.7	4.9
		Min-w	3.0	2.8	2.8	2.5	2.5	2.4	2.4	2.5	2.6	4.0	4.4	4.1	2.4

Terms and abbreviations are given in Table 4.2.

Table 4.7 NO

Unit : ppb			2018												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
China	Jinyunshan	Mean	11.4	10.2	8.9	7.9	6.1	5.1	5.5	5.5	5.4	7.0	7.8	10.3	7.6
		%	100	100	100	90	97	100	97	100	100	100	97	94	98
		Max-d	23.7	19.9	14.0	12.5	9.7	7.8	7.8	8.8	8.0	20.6	12.8	18.6	23.7
		Min-d	6.1	6.6	5.8	5.0	3.6	2.5	2.8	3.3	3.0	3.3	3.3	5.3	2.5
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	96	90	98	98	98	98	68	85	90	57	98	90
		Max-d	<0.1	<0.1	0.2	0.1	0.2	0.2	0.3	0.3	0.2	0.1	0.2	0.2	0.3
		Min-d	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Ochiishi	Mean	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.2	0.1	0.1	<0.1	<0.1	<0.1	<0.1
		%	96	96	88	96	92	96	96	95	89	96	89	96	94
		Max-d	<0.1	<0.1	<0.1	0.2	0.2	0.3	0.7	0.2	0.3	0.2	<0.1	<0.1	0.7
		Min-d	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Tappi	Mean	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.2	<0.1
		%	98	84	98	98	98	98	97	97	99	98	98	86	96
		Max-d	0.2	0.3	0.3	0.2	0.6	1.0	0.8	0.2	0.2	<0.1	0.3	0.3	1.0
		Min-d	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Sado-seki	Mean	-	-	<0.1	<0.1	<0.1	<0.1	0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
		%	0	0	75	96	96	93	81	81	96	96	97	97	76
		Max-d	-	-	0.3	0.3	0.2	0.2	0.6	0.7	<0.1	0.2	0.1	0.1	0.7
		Min-d	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	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	97	98	98	97	98	98	90	93	14	95	89
		Max-d	0.4	0.2	0.3	0.2	0.2	0.1	0.2	0.1	0.2	0.2	0.1	0.3	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
	Ijira	Mean	<0.1	0.1	<0.1	0.3	0.2	0.3	0.5	0.9	0.3	0.2	0.3	0.2	0.3
		%	95	99	94	98	98	99	98	98	84	98	38	10	84
		Max-d	0.3	0.5	0.4	1.0	0.5	1.1	1.5	5.3	0.7	0.7	0.6	0.3	5.3
		Min-d	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.2	<0.1
	Oki	Mean	<0.1	<0.1	0.2	-	-	-	-	-	-	-	-	-	<0.1
		%	86	89	38	0	0	0	0	0	0	0	0	0	17
		Max-d	0.4	0.6	0.6	-	-	-	-	-	-	-	-	-	0.6
		Min-d	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	<0.1
	Banryu	Mean	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	0.2	0.2	0.1	0.2	0.1	0.2	0.1
		%	87	97	97	98	97	98	98	98	99	98	98	98	97
		Max-d	0.3	0.1	0.3	0.2	0.2	0.3	0.7	0.7	0.3	0.4	0.2	0.4	0.7
		Min-d	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	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
		%	100	99	97	97	97	98	97	98	88	94	97	97	97
		Max-d	0.2	0.2	0.2	0.3	0.2	0.3	0.3	0.9	0.2	0.2	0.4	0.3	0.9
		Min-d	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	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
		%	97	73	97	97	71	65	96	100	94	90	97	97	90
		Max-d	<0.1	0.2	0.1	0.1	0.4	0.4	0.2	0.1	0.2	0.2	0.2	0.1	0.4
		Min-d	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	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	90	98	98	98	98	98	97	98	97	97	97	97
		Max-d	0.2	0.2	0.2	0.2	0.2	0.3	0.9	0.8	0.7	0.6	0.3	0.2	0.9
		Min-d	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Mongolia	Ulaanbaatar	Mean	18.6	18.3	11.4	4.0	2.7	1.4	1.6	3.5	12.3	18.9	25.6	34.1	12.7
		%	100	99	100	98	100	99	99	100	99	100	99	100	100
		Max-d	46.8	45.5	34.9	15.4	9.9	4.7	5.8	12.7	28.3	44.6	68.5	64.1	68.5
		Min-d	0.3	0.6	0.8	0.4	0.2	0.1	0.1	0.2	0.8	0.7	2.2	5.1	0.1
Thailand	Bangkok	Mean	6.0	4.2	3.7	3.9	6.8	5.9	7.8	8.1	7.7	6.0	6.2	5.6	6.0
		%	96	96	90	96	95	87	92	96	96	96	96	96	94
		Max-d	30.3	12.3	16.0	10.9	15.9	24.7	22.7	28.1	25.0	20.9	18.3	25.8	30.3
		Min-d	<0.1	1.8	1.7	1.5	1.6	1.2	2.0	1.5	0.3	<0.1	1.0	1.7	<0.1
	Samutprakarn	Mean	6.8	3.3	2.2	3.1	4.9	7.7	11.6	9.5	10.0	8.4	8.6	8.3	7.1
		%	94	94	94	92	95	95	93	93	96	95	96	95	94
		Max-d	35.3	17.3	14.7	13.7	12.1	17.7	23.8	21.4	25.3	24.0	32.3	30.5	35.3
		Min-d	0.2	0.4	0.6	0.5	0.7	0.4	3.6	1.0	1.8	0.5	0.5	0.3	0.2
	Khanchanaburi	Mean	-	-	1.2	-	-	-	3.6	7.4	-	-	0.2	-	2.9
	(Vachiralongkorn Dam)	%	0	0	51	0	0	0	30	47	0	0	53	0	15
		Max-d	-	-	2.1	-	-	-	8.8	16.1	-	-	0.5	-	16.1
		Min-d	-	-	1.0	-	-	-	1.8	3.8	-	-	<0.1	-	<0.1
	Chang Phueak	Mean	3.7	1.4	1.8	1.6	0.8	1.1	2.1	2.0	2.1	1.7	2.8	3.2	2.0
		%	94	68	91	95	93	95	95	96	95	95	96	95	92
		Max-d	7.9	4.7	10.2	4.0	3.6	3.6	3.7	3.9	4.9	4.0	6.3	6.0	10.2
		Min-d	0.5	0.2	<0.1	0.3	<0.1	<0.1	0.8	0.2	0.7	0.6	0.9	0.3	<0.1

Table 4.7 NO (continued)

Unit : ppb			2018												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Thailand	Si Phum	Mean	11.0	9.9	7.6	5.5	6.2	8.1	5.1	5.6	7.7	5.7	9.1	10.9	7.7
		%	95	95	95	96	95	95	96	94	95	96	95	96	95
		Max-d	18.1	33.5	16.8	12.1	13.5	19.0	11.5	12.7	16.3	11.6	13.4	19.6	33.5
		Min-d	4.3	3.6	1.9	3.7	3.6	4.3	1.8	1.5	3.9	3.2	5.7	5.5	1.5
	Nai Mueang	Mean	16.4	10.4	7.0	7.5	8.8	8.8	14.3	11.7	10.6	5.8	-	-	10.2
		%	94	95	95	95	94	95	95	94	96	88	0	0	78
		Max-d	44.5	28.7	13.2	26.8	21.1	22.2	26.0	18.7	19.0	10.3	-	-	44.5
		Min-d	1.8	1.2	2.1	1.7	2.2	3.3	7.3	5.3	3.7	1.3	-	-	1.2

Terms and abbreviations are given in Table 4.2.

Table 4.8 NO_2

Unit : ppb			2018												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
China	Hongwen	Mean	18.0	13.4	20.0	12.6	9.4	9.8	11.3	12.5	11.7	12.7	13.7	16.4	13.5
		%	100	100	100	100	97	97	100	100	100	90	100	97	98
		Max-d	29.1	29.6	64.5	22.4	17.2	22.4	21.8	29.6	19.8	26.0	19.2	31.2	64.5
		Min-d	7.8	4.7	9.9	6.8	4.7	5.7	5.7	5.2	5.7	8.3	8.3	7.3	4.7
	Haibin-Park	Mean	24.0	17.9	17.9	14.6	9.3	9.4	7.7	10.8	12.2	14.5	23.5	23.7	15.5
		%	100	100	100	100	100	100	100	100	90	97	97	100	99
		Max-d	39.5	32.8	36.4	29.6	24.4	17.7	15.6	17.2	18.7	26.5	38.0	39.5	39.5
		Min-d	10.9	7.3	8.3	6.8	4.2	3.6	2.1	4.2	6.8	5.7	12.5	15.6	2.1
Indonesia	Jakarta	Mean	23.0	18.0	22.0	29.0	25.0	20.0	25.0	22.0	21.0	21.0	28.0	19.0	22.8
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-m	23.0	18.0	22.0	29.0	25.0	20.0	25.0	22.0	21.0	21.0	28.0	19.0	29.0
		Min-m	23.0	18.0	22.0	29.0	25.0	20.0	25.0	22.0	21.0	21.0	28.0	19.0	18.0
	Kototabang	Mean	0.6	1.1	0.9	1.1	1.0	-	0.6	0.5	0.8	0.6	0.4	3.0	1.0
		%	100	100	100	100	100	0	100	100	100	100	100	100	92
		Max-m	0.6	1.1	0.9	1.1	1.0	-	0.6	0.5	0.8	0.6	0.4	3.0	3.0
		Min-m	0.6	1.1	0.9	1.1	1.0	-	0.6	0.5	0.8	0.6	0.4	3.0	0.4
	Bandung	Mean	25.0	29.1	31.0	40.6	40.2	34.0	31.0	25.2	30.5	12.0	31.3	33.5	30.3
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-m	25.0	29.1	31.0	40.6	40.2	34.0	31.0	25.2	30.5	12.0	31.3	33.5	40.6
		Min-m	25.0	29.1	31.0	40.6	40.2	34.0	31.0	25.2	30.5	12.0	31.3	33.5	12.0
Japan	Banryu	Mean	2.2	2.5	2.1	1.9	1.6	1.3	1.1	1.4	1.3	1.3	1.5	1.7	1.7
		%	87	97	97	98	97	98	98	98	99	98	98	98	97
		Max-d	3.8	4.0	3.8	3.8	2.9	2.6	2.2	2.4	2.5	2.3	2.5	2.4	4.0
		Min-d	<0.1	1.3	0.4	0.7	0.6	0.7	0.4	0.6	0.5	0.6	0.8	0.6	<0.1
Mongolia	Ulaanbaatar	Mean	37.4	45.1	40.3	30.3	25.9	28.0	27.7	26.2	29.1	36.3	39.9	46.7	34.3
		%	100	99	100	98	100	99	99	100	99	100	99	100	100
		Max-d	58.0	64.4	54.3	40.2	33.7	35.6	33.5	32.0	39.6	46.9	56.7	59.2	64.4
		Min-d	15.2	21.9	28.6	20.4	14.8	15.4	21.5	19.8	17.2	23.2	21.8	24.8	14.8
Republic of Korea	Kanghwa	Mean	5.7	5.4	6.6	5.3	4.0	3.6	2.7	3.3	-	-	-	7.3	4.9
		%	97	94	95	97	90	92	88	88	0	0	0	98	70
		Max-d	31.2	27.4	16.9	13.8	9.2	7.5	6.6	9.0	-	-	-	25.5	31.2
		Min-d	1.1	1.4	1.7	1.6	1.6	1.8	0.9	1.4	-	-	-	2.2	0.9
	Cheju (Kosan)	Mean	2.0	3.1	3.9	3.4	3.1	3.3	1.9	2.6	-	3.8	5.8	4.3	3.4
		%	86	97	98	98	97	95	97	97	0	93	99	98	88
		Max-d	7.1	7.2	5.8	6.9	4.5	5.8	4.5	4.8	-	7.8	9.1	11.6	11.6
		Min-d	<0.1	1.4	1.2	1.7	1.7	1.6	0.8	1.0	-	1.4	2.1	1.4	<0.1
	Imsil	Mean	6.8	5.2	4.6	2.9	2.5	2.7	1.6	2.1	2.3	3.0	7.7	7.6	4.1
		%	95	96	98	93	96	97	98	88	97	97	97	92	95
		Max-d	13.0	9.2	7.6	4.8	4.4	3.8	2.8	3.2	3.6	6.4	12.4	18.1	18.1
		Min-d	2.5	1.4	1.2	0.9	0.4	1.0	0.4	0.6	1.2	1.4	4.8	2.8	0.4
Thailand	Bangkok	Mean	27.5	22.7	14.6	14.6	19.3	12.9	13.0	12.4	16.2	21.8	26.5	26.7	19.1
		%	96	96	90	96	95	87	92	96	96	96	96	96	94
		Max-d	46.0	55.8	34.2	36.2	29.6	20.3	17.0	16.0	26.2	33.0	35.7	43.8	55.8
		Min-d	12.0	9.2	6.1	3.8	10.2	6.9	9.7	7.3	9.8	12.8	15.8	12.5	3.8
	Samutprakarn	Mean	20.8	19.9	11.1	13.1	15.4	12.1	12.9	10.7	14.4	18.5	28.4	31.2	17.4
		%	94	94	94	92	95	95	93	93	96	95	96	95	94
		Max-d	49.3	47.3	33.1	35.5	26.3	19.0	18.9	18.1	31.3	35.3	41.8	55.9	55.9
		Min-d	4.6	6.2	4.9	2.3	7.0	4.5	6.6	2.3	3.3	5.8	12.8	14.4	2.3
	Chang Phueak	Mean	9.6	6.5	1.5	5.2	2.3	3.9	6.1	6.2	5.5	5.7	7.9	9.3	5.8
		%	94	68	91	95	93	95	95	96	95	95	96	95	92
		Max-d	13.0	11.7	15.1	11.6	8.0	8.9	9.3	9.5	7.3	7.6	12.0	14.8	15.1
		Min-d	4.3	2.0	<0.1	<0.1	<0.1	<0.1	3.3	2.5	3.7	3.2	4.9	5.2	<0.1
	Si Phum	Mean	15.0	22.0	25.9	15.2	12.5	11.1	45.7	26.3	11.1	11.5	15.1	16.8	19.0
		%	95	95	95	96	95	95	96	94	95	96	96	96	95
		Max-d	25.4	32.8	36.8	23.5	18.8	14.9	81.2	45.4	14.2	14.2	19.9	22.9	81.2
		Min-d	6.8	13.3	13.5	8.2	8.1	8.2	8.9	9.6	8.3	8.8	9.2	10.4	6.8
	Nai Mueang	Mean	27.0	29.0	23.6	21.0	17.9	13.6	16.0	14.1	14.3	9.9	-	-	18.6
		%	94	95	95	95	94	95	95	95	96	88	0	0	78
		Max-d	36.6	51.0	39.1	33.7	28.4	21.6	20.0	19.7	21.3	19.1	-	-	51.0
		Min-d	16.7	17.6	14.9	13.5	11.7	6.8	10.1	7.0	8.5	<0.1	-	-	<0.1

Terms and abbreviations are given in Table 4.2.

Table 4.9 NOx

Unit : ppb			2018												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
China	Jinyunshan	Mean	26.9	24.0	20.7	18.8	15.2	12.9	13.4	13.0	12.8	16.4	18.1	23.4	17.9
	(NOx*)	%	100	100	100	90	97	100	97	100	100	100	97	94	98
		Max-d	44.8	46.4	31.2	31.2	27.2	24.8	19.2	20.0	20.0	42.4	32.0	39.2	46.4
		Min-d	16.0	14.4	12.0	11.2	8.8	5.6	6.4	8.0	7.2	8.0	8.0	13.6	5.6
Japan	Rishiri	Mean	0.5	0.6	0.8	0.9	0.6	0.5	0.6	0.5	0.5	0.6	0.6	0.5	0.6
	(NOx*)	%	98	96	90	98	98	98	98	68	85	90	57	98	90
		Max-d	1.3	1.4	2.7	1.9	1.1	1.5	2.2	1.0	0.8	1.1	1.1	1.9	2.7
		Min-d	<0.1	0.2	0.3	<0.1	<0.1	<0.1	<0.1	<0.1	0.2	0.2	<0.1	<0.1	<0.1
	Ochiishi	Mean	0.7	0.8	1.0	1.2	1.0	0.9	1.1	0.9	1.0	0.9	0.7	0.7	0.9
	(NOx*)	%	96	96	88	96	92	96	96	95	89	96	89	96	94
		Max-d	1.3	1.8	1.9	2.5	2.6	2.7	2.5	2.6	2.0	1.9	1.2	1.2	2.7
		Min-d	0.2	0.3	0.5	0.4	0.3	0.3	0.3	0.2	0.3	0.4	0.3	0.3	0.2
	Tappi	Mean	0.7	0.7	1.3	1.6	1.9	2.0	1.8	1.0	0.7	0.8	0.8	0.8	1.2
	(NOx*)	%	98	84	98	98	98	98	97	97	99	98	98	86	96
		Max-d	2.1	2.1	3.7	5.8	7.5	8.0	5.4	3.7	1.9	1.6	1.4	1.5	8.0
		Min-d	0.2	0.3	0.3	0.6	0.2	<0.1	0.3	<0.1	0.2	0.3	0.4	0.5	<0.1
	Sado-seki	Mean	-	-	1.4	1.0	0.9	0.3	0.3	0.4	0.3	0.7	0.8	0.7	0.7
	(NOx*)	%	0	0	75	96	96	96	95	81	96	96	97	97	78
		Max-d	-	-	4.8	1.9	1.9	1.3	0.9	1.3	1.4	1.4	1.5	1.3	4.8
		Min-d	-	-	0.4	0.2	0.3	<0.1	<0.1	<0.1	<0.1	0.2	0.2	0.3	<0.1
	Happo	Mean	0.8	1.0	1.0	1.1	0.7	0.9	0.8	0.6	0.4	0.7	0.8	0.6	0.8
	(NOx*)	%	97	97	97	98	98	97	98	98	90	93	14	95	90
		Max-d	1.8	2.7	2.1	2.3	1.4	1.9	1.6	1.3	1.8	1.2	1.1	1.4	2.7
		Min-d	0.2	<0.1	0.2	0.4	<0.1	0.4	0.3	0.2	0.1	0.4	0.6	0.2	<0.1
	Ijira	Mean	1.0	1.5	1.8	1.7	1.8	1.5	3.2	3.5	1.4	1.4	1.4	0.2	1.9
	(NOx*)	%	98	99	97	98	98	99	98	98	84	98	38	10	85
		Max-d	5.8	4.3	3.7	4.3	5.0	5.1	5.8	8.8	4.1	3.3	4.0	0.7	8.8
		Min-d	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.3	0.6	<0.1	<0.1	0.3	<0.1	<0.1
	Oki	Mean	1.2	1.1	1.0	-	-	-	-	-	-	-	-	-	1.1
	(NOx*)	%	87	89	38	0	0	0	0	0	0	0	0	0	17
		Max-d	2.3	2.2	2.1	-	-	-	-	-	-	-	-	-	2.3
		Min-d	0.3	0.4	<0.1	-	-	-	-	-	-	-	-	-	<0.1
	Banryu	Mean	2.3	2.5	2.2	1.9	1.6	1.4	1.4	1.7	1.4	1.5	1.7	1.9	1.8
		%	87	97	97	98	97	98	98	98	99	98	98	98	97
		Max-d	3.8	4.0	3.9	3.8	3.2	2.7	2.8	2.7	2.6	2.8	2.7	2.8	4.0
		Min-d	0.2	1.1	0.5	0.7	0.6	0.7	0.4	0.8	0.6	0.6	1.0	0.7	0.2
	Yusuhara	Mean	1.7	1.8	1.4	1.2	0.9	0.9	0.7	0.8	0.5	1.2	1.2	1.7	1.2
	(NOx*)	%	100	99	97	97	97	98	97	98	88	94	97	97	97
		Max-d	2.9	3.0	5.2	2.2	1.6	3.1	3.1	2.9	1.1	2.5	2.5	3.1	5.2
		Min-d	0.6	0.9	0.4	<0.1	0.1	0.2	<0.1	0.1	<0.1	0.5	0.5	0.6	<0.1
	Hedo	Mean	1.0	1.1	0.8	0.7	0.8	0.4	0.3	0.3	0.3	1.0	0.8	0.8	0.7
	(NOx*)	%	97	73	97	97	71	65	96	100	94	90	97	97	90
		Max-d	1.9	2.1	1.9	1.2	2.3	1.1	0.6	0.8	0.6	1.8	1.7	2.3	2.3
		Min-d	0.5	0.7	0.1	0.4	0.2	<0.1	0.1	0.1	<0.1	0.1	0.3	0.2	<0.1
	Ogasawara	Mean	0.7	0.5	0.4	0.2	0.1	0.1	0.1	<0.1	0.1	0.3	0.4	0.5	0.3
	(NOx*)	%	98	90	98	98	98	98	98	97	98	97	97	97	97
		Max-d	2.1	1.6	2.1	1.3	0.5	0.7	1.4	1.1	1.5	1.4	1.9	3.0	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
Mongolia	Ulaanbaatar	Mean	56.0	63.3	51.6	34.3	28.7	29.4	29.3	29.7	41.4	55.1	65.6	80.8	47.0
		%	100	99	100	98	100	99	99	100	99	100	99	100	100
		Max-d	101.7	109.1	89.2	55.4	40.8	37.6	36.7	44.5	67.9	85.4	125.2	117.1	125.2
		Min-d	15.6	22.5	30.6	21.4	15.0	15.6	21.6	20.7	18.0	24.3	24.3	29.9	15.0
Thailand	Bangkok	Mean	33.5	26.9	18.3	18.5	26.1	18.8	20.8	20.5	23.9	27.9	32.8	32.4	25.1
		%	96	96	90	96	95	87	92	96	96	96	96	96	94
		Max-d	74.6	63.7	50.2	45.8	39.8	41.9	34.0	42.4	47.5	45.4	50.7	65.0	74.6
		Min-d	13.3	10.8	8.7	5.3	13.0	8.8	13.4	9.1	10.8	13.8	16.9	14.4	5.3
	Samutprakarn	Mean	27.6	23.3	13.4	16.2	20.2	19.8	24.5	20.2	24.4	26.9	37.1	39.4	24.5
		%	94	94	94	92	95	95	93	93	96	95	96	95	94
		Max-d	84.6	64.6	42.6	44.2	34.3	36.0	40.0	34.7	56.6	48.5	73.1	86.4	86.4
		Min-d	5.2	6.9	6.0	2.9	7.7	4.9	10.3	3.7	9.1	6.8	13.9	14.7	2.9
	Khanchanaburi(NOx*)	Mean	-	-	9.6	-	-	-	5.1	9.2	-	-	0.4	-	6.1
	(Vachiralongkorn Dam)	%	0	0	51	0	0	0	30	47	0	0	53	0	15
		Max-d	-	-	15.4	-	-	-	9.9	16.9	-	-	2.7	-	16.9
		Min-d	-	-	5.9	-	-	-	3.2	5.4	-	-	<0.1	-	<0.1
	Chang Phueak	Mean	13.3	7.9	3.4	6.9	3.2	5.2	8.2	8.2	7.7	7.5	10.7	12.5	7.9
		%	94	68	91	95	93	95	95	96	95	95	96	95	92
		Max-d	18.5	16.4	25.2	13.5	9.8	11.3	12.7	13.2	12.1	11.0	17.6	21.0	25.2
		Min-d	5.7	2.6	0.1	0.5	0.2	<0.1	5.0	2.8	4.6	4.4	6.7	7.1	<0.1

Table 4.9 NOx (continued)

Unit : ppb			2018												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Thailand	Si Phum	Mean	26.0	31.8	33.4	20.7	18.7	19.1	50.7	31.8	18.7	17.1	24.2	27.6	26.6
		%	95	95	95	96	95	95	96	94	95	96	95	96	95
		Max-d	43.6	64.9	51.7	31.0	27.0	33.7	85.7	47.9	29.6	24.8	33.2	37.9	85.7
		Min-d	13.0	18.8	16.3	12.2	12.0	12.8	15.4	16.4	12.5	12.6	16.0	19.0	12.0
	Nai Mueang	Mean	43.4	39.4	30.7	28.6	26.7	22.4	30.3	25.8	24.9	15.5	-	-	28.8
		%	94	95	95	95	94	95	95	94	96	88	0	0	78
		Max-d	80.4	74.9	50.1	58.3	42.2	43.7	41.6	36.5	39.0	29.0	-	-	80.4
		Min-d	20.8	18.9	19.5	17.7	13.9	11.4	18.0	12.2	12.2	0.3	-	-	0.3

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			2018												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Indonesia	Bandung	Mean	9	11	17	14	16	15	17	18	18	18	13	13	15
		%	87	14	6	99	100	97	63	80	100	100	100	100	79
		Max-d	16	12	21	30	28	27	23	22	29	24	24	24	30
		Min-d	4	9	12	7	7	5	9	14	11	9	5	4	4
Japan	Rishiri	Mean	37	41	47	51	44	35	21	23	29	34	33	35	36
		%	100	98	92	99	100	99	99	81	86	96	100	99	96
		Max-d	44	48	79	72	65	69	36	33	52	42	45	41	79
		Min-d	33	37	41	40	31	19	10	17	18	26	24	31	10
	Ochiishi	Mean	40	43	51	54	49	38	27	33	36	39	37	38	40
		%	100	100	91	100	96	100	100	100	94	100	95	100	98
		Max-d	44	52	75	81	69	59	39	44	56	48	47	44	81
		Min-d	34	37	45	44	39	27	15	25	27	30	32	33	15
	Tappi	Mean	41	46	56	60	55	41	30	33	43	44	46	38	45
		%	98	85	99	95	99	73	98	98	99	99	99	89	94
		Max-d	46	59	90	92	80	69	48	40	69	55	63	43	92
		Min-d	36	41	47	42	31	25	10	26	26	32	34	33	10
	Sado-seki	Mean	40	44	54	58	57	46	32	33	42	41	41	38	44
		%	87	64	98	66	99	99	99	91	99	99	99	99	92
		Max-d	46	52	85	86	82	66	46	47	57	50	49	45	86
		Min-d	35	40	44	43	35	20	20	20	24	28	36	33	20
	Happo	Mean	-	45	49	64	74	64	41	38	46	42	44	44	50
		%	0	59	96	99	99	99	99	99	95	98	99	97	87
		Max-d	-	55	68	93	94	99	69	67	64	50	51	52	99
		Min-d	-	31	34	49	54	23	20	24	21	25	37	31	20
	Ijira	Mean	-	37	36	42	34	33	28	27	23	25	25	13	28
		%	0	5	98	99	53	100	99	99	89	99	86	100	78
		Max-d	-	38	55	58	48	50	54	47	37	42	37	26	58
		Min-d	-	37	16	20	15	13	14	15	7	12	6	6	6
	Oki	Mean	40	45	56	60	59	51	33	32	45	42	44	39	46
		%	88	91	100	100	100	100	100	100	99	100	100	90	97
		Max-d	48	55	85	97	80	76	63	56	66	58	57	47	97
		Min-d	33	38	41	46	35	18	16	15	30	31	36	33	15
	Banryu	Mean	32	38	44	47	44	35	18	20	27	29	27	28	32
		%	90	100	99	100	100	100	100	100	100	99	100	100	99
		Max-d	40	48	60	73	60	58	38	37	44	42	36	38	73
		Min-d	22	27	24	29	27	13	11	11	14	14	17	16	11
	Yusuhara	Mean	-	-	-	-	-	-	-	-	36	43	40	37	39
		%	0	0	0	0	0	0	0	0	81	96	99	99	31
		Max-d	-	-	-	-	-	-	-	-	54	54	49	54	54
		Min-d	-	-	-	-	-	-	-	-	19	28	32	30	19
	Hedo	Mean	40	40	36	33	22	17	12	14	10	46	43	40	29
		%	99	74	99	99	98	99	99	99	94	93	99	99	96
		Max-d	48	47	51	56	46	45	24	28	23	64	49	53	64
		Min-d	30	25	15	12	7	5	6	5	6	21	37	25	5
	Ogasawara	Mean	44	46	44	39	31	15	14	11	14	22	38	40	30
		%	99	91	99	99	98	99	99	99	77	97	98	94	96
		Max-d	49	52	56	57	62	24	25	19	29	43	47	50	62
		Min-d	38	36	24	14	15	6	5	7	7	10	29	25	5
Mongolia	Ulaanbaatar	Mean	6	9	13	21	18	17	16	14	10	8	5	4	11
		%	100	97	14	51	95	100	100	100	100	100	99	100	88
		Max-d	14	21	17	34	28	25	24	22	15	15	12	10	34
		Min-d	2	3	12	6	12	10	8	7	6	4	2	2	2.0
Republic of Korea	Kanghwa	Mean	35	38	44	46	49	51	28	46	-	-	-	31	41
		%	96	93	95	97	94	92	96	89	0	0	0	98	71
		Max-d	43	44	63	60	63	70	54	73	-	-	-	36	73
		Min-d	13	27	31	32	23	28	13	21	-	-	-	16	13
	Cheju (Kosan)	Mean	38	45	51	53	50	46	17	27	-	48	44	38	42
		%	99	100	99	100	99	99	84	99	0	97	100	100	90
		Max-d	52	59	80	86	69	72	47	48	-	62	61	57	86
		Min-d	28	37	37	36	19	15	8	11	-	36	34	29	8
	Imsil	Mean	23	26	31	33	37	41	19	24	28	27	25	24	28
		%	97	96	98	93	97	97	98	96	55	66	97	92	90
		Max-d	30	33	42	48	57	58	37	39	42	42	36	31	58
		Min-d	13	17	20	18	18	26	10	10	14	19	15	14	10

Table 4.10 O_3 (continued)

Unit : ppb			2018												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Russia	Mondy	Mean	55	58	55	55	46	41	28	24	31	35	39	39	42
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max	56	58	56	56	46	44	28	24	32	38	40	41	58
		Min	54	58	55	54	45	38	27	24	30	33	39	38	24
	Listvyanka	Mean	-	42	55	51	34	35	24	25	22	37	31	33	36
		%	0	100	100	100	100	100	100	48	100	100	100	100	88
		Max-2w	-	42	57	56	45	35	25	25	22	50	32	33	57
		Min-2w	-	42	52	46	23	35	22	25	22	24	29	33	22
	Irkutsk	Mean	14	20	33	35	32	26	15	19	14	13	12	12	22
		%	100	100	100	100	100	100	100	74	93	100	100	100	97
		Max-2w	14	20	34	37	33	29	19	20	14	13	14	13	37
		Min-2w	14	20	33	32	31	23	11	18	14	13	10	11	10
Thailand	Bangkok	Mean	24	34	29	30	17	15	12	14	18	22	27	26	22
		%	96	96	89	96	96	95	92	96	94	96	96	96	95
		Max-d	49	60	47	55	26	25	18	20	34	46	49	56	60
		Min-d	11	16	11	5	11	2	<1	8	5	7	6	5	<1
	Samutprakarn	Mean	21	22	25	28	19	13	10	10	15	22	26	26	20
		%	95	94	93	92	95	94	91	92	96	92	96	95	94
		Max-d	33	42	51	53	28	21	14	16	27	41	41	46	53
		Min-d	10	10	9	7	11	5	6	6	5	10	7	6	5
	Khanchanaburi	Mean	-	-	36	-	-	-	28	26	-	-	12	-	25
	(Vachiralongkorn Dam)	%	0	0	51	0	0	0	30	47	0	0	53	0	15
		Max-d	-	-	48	-	-	-	73	51	-	-	18	-	73
		Min-d	-	-	7	-	-	-	16	20	-	-	8	-	7
	Chang Phueak	Mean	19	35	45	41	29	19	22	25	25	27	29	28	29
		%	94	93	92	95	78	94	95	96	95	74	95	95	91
		Max-d	34	47	56	54	40	33	32	31	39	38	39	37	56
		Min-d	11	21	26	28	11	2	15	14	17	10	18	20	2
	Nai Mueang	Mean	24	34	34	27	19	16	12	13	15	23	19	21	22
		%	94	95	95	95	95	95	95	94	95	96	96	96	95
		Max-d	36	47	44	43	27	25	20	21	24	43	35	34	47
		Min-d	14	17	24	11	7	8	5	7	9	8	7	5	5

Terms and abbreviations are given in Table 4.2.
1) O_3 monitoring at Mondy was measured by PS in 2017. The sampling period in November was from Oct. 10 to Dec. 14.

Table 4.11 PM_{10}

Unit : μg/m^3			2018												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
China	Jinyunshan	Mean	64	73	44	54	51	37	41	50	31	43	44	45	48
		%	100	100	97	87	97	100	97	100	100	100	97	94	97
		Max-d	142	120	76	121	89	69	73	84	61	101	85	99	142
		Min-d	9	17	12	8	13	19	23	24	12	15	12	9	8
	Hongwen	Mean	42	47	49	52	39	33	36	29	36	50	42	45	41
		%	100	100	100	100	97	97	97	100	100	100	100	100	99
		Max-d	90	106	101	109	72	63	71	55	50	73	68	96	109
		Min-d	12	13	20	24	16	13	21	9	10	22	11	14	9
	Haibin-Park	Mean	52	56	40	49	25	26	21	28	34	53	50	47	40
		%	100	100	100	100	100	100	100	100	97	97	97	100	99
		Max-d	111	110	67	109	50	62	40	62	64	83	81	73	111
		Min-d	12	14	15	17	11	10	8	10	11	22	24	26	8
Japan	Rishiri	Mean	12	13	23	33	15	15	10	13	17	18	17	18	17
		%	100	99	99	100	100	88	100	100	99	100	97	99	98
		Max-d	34	40	106	90	46	64	27	44	72	37	62	60	106
		Min-d	2	5	6	5	3	5	2	3	<1	5	4	5	<1
	Ochiishi	Mean	14	13	21	23	14	12	9	13	15	19	13	10	15
		%	99	100	99	96	97	98	100	99	94	99	99	99	98
		Max-d	25	22	44	52	39	28	20	32	35	46	27	21	52
		Min-d	7	7	9	9	5	3	2	5	5	5	6	5	2
	Tappi	Mean	15	16	23	26	18	13	16	14	14	16	14	12	16
		%	99	100	100	100	100	100	100	100	100	93	100	100	99
		Max-d	30	30	48	63	43	27	58	38	38	37	51	26	63
		Min-d	9	8	8	7	6	6	5	5	6	7	5	8	5
	Sado-seki	Mean	21	24	31	34	26	16	16	17	16	21	19	25	22
		%	91	91	99	100	100	100	100	100	94	100	100	100	98
		Max-d	33	45	65	64	65	37	42	57	49	51	64	39	65
		Min-d	9	8	6	4	6	4	4	5	4	6	5	10	4
	Happo	Mean	4	9	10	22	16	10	11	7	4	7	5	3	9
		%	13	98	94	97	99	98	99	91	94	92	98	86	88
		Max-d	5	27	32	79	55	29	31	15	14	14	28	10	79
		Min-d	1	2	<1	<1	2	2	1	<1	<1	1	<1	<1	<1
	Ijira	Mean	8	13	15	27	18	17	26	28	13	15	11	8	17
		%	96	100	100	100	100	100	100	100	87	100	100	100	98
		Max-d	20	36	35	76	45	39	58	63	26	25	35	35	76
		Min-d	3	5	3	6	6	4	11	7	4	5	<1	1	<1
	Oki	Mean	32	32	38	46	29	22	22	22	20	25	27	31	29
		%	88	91	100	100	99	100	99	100	99	100	93	100	97
		Max-d	58	60	83	86	60	46	46	42	34	47	80	66	86
		Min-d	8	12	16	10	11	7	9	9	11	11	5	6	5
	Banryu	Mean	20	24	25	35	25	19	23	19	16	17	19	18	22
		%	99	100	100	99	99	99	100	100	100	88	100	100	99
		Max-d	51	54	49	73	53	39	54	33	28	29	52	63	73
		Min-d	8	6	5	6	8	7	9	9	8	9	7	5	5
	Yusuhara	Mean	11	17	15	33	17	12	14	13	9	12	13	12	15
		%	100	89	88	100	99	100	100	100	100	96	100	99	98
		Max-d	32	39	43	151	63	32	40	26	21	22	36	53	151
		Min-d	1	6	<1	<1	<1	1	<1	<1	<1	<1	6	5	<1
	Hedo	Mean	24	31	28	34	32	26	43	41	26	35	26	26	31
		%	100	100	100	100	99	99	100	93	94	94	100	100	98
		Max-d	40	74	68	96	47	62	105	86	113	87	40	46	113
		Min-d	10	16	15	10	14	11	18	8	9	13	16	14	8
	Ogasawara	Mean	18	16	26	24	20	21	19	25	18	18	14	20	20
		%	100	94	91	100	100	99	100	100	100	91	100	100	98
		Max-d	38	32	49	45	40	48	45	71	37	45	26	40	71
		Min-d	6	8	7	7	4	8	8	6	7	9	7	10	4
Mongolia	Ulaanbaatar	Mean	189	176	118	89	100	71	41	56	81	123	180	231	121
		%	100	99	99	98	99	99	99	100	100	100	99	100	99
		Max-d	363	546	184	184	216	229	80	114	142	209	293	446	546
		Min-d	32	33	63	17	53	33	15	13	21	27	70	74	13

Table 4.11 PM_{10} (continued)

Unit : μg/m³			2018												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Republic of Korea	Kanghwa	Mean	48	49	47	50	47	34	26	30	-	-	-	45	42
		%	98	97	95	98	92	92	96	87	0	0	0	98	71
		Max-d	112	95	92	123	115	49	39	59	-	-	-	87	123
		Min-d	19	25	15	16	17	11	14	9	-	-	-	19	9
	Cheju (Kosan)	Mean	36	38	43	61	38	-	29	24	-	-	-	-	39
		%	67	95	79	91	52	0	67	68	0	0	0	0	43
		Max-d	93	76	101	143	63	-	55	33	-	-	-	-	143
		Min-d	9	9	3	19	15	-	17	6	-	-	-	-	3
	Imsil	Mean	44	52	43	52	34	36	23	23	17	28	46	52	37
		%	94	93	98	90	97	97	93	90	85	93	96	81	92
		Max-d	102	99	87	140	69	73	54	36	37	59	155	111	155
		Min-d	20	22	7	6	15	13	10	4	3	7	15	26	3
Thailand	Bangkok	Mean	52	61	40	35	25	23	26	24	24	31	46	52	36
		%	100	100	93	99	100	99	96	100	99	99	100	100	99
		Max-d	121	128	95	72	38	44	40	41	41	46	66	88	128
		Min-d	17	19	16	21	14	14	15	13	14	15	29	29	13
	Samutprakarn	Mean	62	63	42	34	26	27	32	29	31	37	55	64	42
		%	100	92	100	81	100	99	100	99	100	95	100	99	97
		Max-d	153	114	99	78	37	54	53	46	54	57	82	113	153
		Min-d	24	21	19	23	15	18	18	13	16	16	31	31	13
	Khanchanaburi (Vachiralongkorn Dam)	Mean	-	-	79	-	-	-	12	13	-	-	20	-	35
		%	0	0	53	0	0	0	31	49	0	0	40	0	15
		Max-d	-	-	150	-	-	-	18	19	-	-	27	-	150
		Min-d	-	-	29	-	-	-	3	10	-	-	13	-	3
	Chang Phueak	Mean	49	82	107	75	41	31	32	36	33	37	39	40	50
		%	100	100	99	100	99	100	94	100	99	99	99	100	99
		Max-d	61	106	150	126	76	69	42	50	42	53	48	62	150
		Min-d	32	60	62	35	19	19	20	24	27	22	25	27	19
	Si Phum	Mean	41	64	85	60	33	39	35	30	22	24	30	30	41
		%	95	99	99	100	98	100	99	98	97	99	100	100	99
		Max-d	55	90	123	96	57	63	57	45	30	40	40	53	123
		Min-d	20	39	48	27	19	22	23	15	15	10	16	16	10
	Nai Mueang	Mean	65	98	82	55	31	37	39	38	35	46	58	54	53
		%	99	100	100	98	98	100	100	100	100	100	100	40	94
		Max-d	109	168	136	115	42	58	54	53	50	66	90	80	168
		Min-d	31	50	39	20	19	25	30	29	25	29	35	25	19

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 : $\mu g/m^3$			2018												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Cambodia	Phnom Penh	Mean	21	37	30	26	15	12	11	13	12	14	17	21	19
		%	100	100	100	100	100	100	100	100	99	100	100	68	97
		Max-d	36	79	47	35	22	18	17	19	19	24	26	37	79
		Min-d	11	13	20	18	9	8	7	10	8	6	7	13	6
Indonesia	Jakarta	Mean	17	-	26	42	51	37	61	50	47	51	42	25	45
		%	13	0	14	88	82	28	100	86	99	31	53	86	57
		Max-d	21	-	37	63	74	51	80	75	64	82	75	54	82
		Min-d	10	-	11	23	24	16	33	40	29	43	<1	5	<1
Japan	Rishiri	Mean	7	8	12	16	8	6	5	5	5	6	6	7	7
		%	100	99	99	100	100	88	100	100	99	100	97	99	98
		Max-d	19	18	48	46	24	17	16	10	14	15	20	20	48
		Min-d	1	3	4	4	2	2	<1	<1	<1	2	<1	2	<1
	Ochiishi	Mean	6	6	10	11	7	6	5	6	5	6	5	4	6
		%	99	100	99	97	98	98	100	99	94	99	99	100	98
		Max-d	15	13	22	33	23	13	10	11	16	14	12	11	33
		Min-d	2	3	4	4	2	1	<1	2	2	2	2	2	<1
	Tappi	Mean	9	10	13	15	11	8	9	6	5	6	6	6	9
		%	99	100	100	100	100	100	100	100	100	93	100	100	99
		Max-d	21	21	30	31	31	16	34	11	11	13	16	16	34
		Min-d	5	5	4	4	3	2	2	2	2	2	2	4	2
	Sado-seki	Mean	8	9	13	13	12	8	12	7	5	8	7	6	9
		%	91	91	99	100	100	100	100	100	94	100	100	100	98
		Max-d	13	17	37	31	32	17	40	14	12	24	15	10	40
		Min-d	3	4	1	<1	2	2	1	3	2	2	2	2	<1
	Happo	Mean	3	7	6	11	9	7	8	4	2	4	4	2	6
		%	13	98	94	97	99	98	99	91	94	92	98	86	88
		Max-d	5	22	17	33	23	23	27	10	10	10	13	6	33
		Min-d	<1	1	<1	<1	<1	1	<1	<1	<1	<1	<1	<1	<1
	Ijira	Mean	5	10	10	14	10	8	9	6	5	8	7	5	8
		%	96	100	100	100	100	100	100	100	87	100	100	100	98
		Max-d	15	24	25	32	23	24	25	15	11	15	19	18	32
		Min-d	2	3	1	2	2	1	2	2	1	3	<1	<1	<1
	Oki	Mean	13	15	16	18	14	11	14	9	7	9	10	9	12
		%	88	91	100	100	99	100	99	99	99	100	93	100	97
		Max-d	31	33	45	38	26	27	41	17	13	19	23	19	45
		Min-d	3	5	6	4	6	2	4	3	1	4	2	2	1
	Banryu	Mean	11	13	14	18	13	11	12	9	8	8	10	9	11
		%	99	100	100	99	99	99	100	100	100	88	100	100	99
		Max-d	36	35	35	38	29	26	35	16	14	15	21	27	38
		Min-d	4	4	2	3	5	3	4	4	3	4	3	3	2
	Yusuhara	Mean	9	13	11	16	11	9	10	8	6	8	10	8	10
		%	100	89	88	100	99	100	100	100	100	96	100	99	98
		Max-d	26	25	33	45	39	25	29	17	14	17	18	27	45
		Min-d	2	5	<1	<1	<1	1	<1	<1	<1	<1	6	4	<1
	Hedo	Mean	12	13	13	13	12	8	8	9	6	13	11	11	11
		%	100	100	100	100	99	99	100	93	94	94	100	100	98
		Max-d	24	25	40	30	24	15	21	27	25	22	20	23	40
		Min-d	4	7	6	3	5	2	3	2	3	5	5	4	2
	Ogasawara	Mean	7	6	9	8	6	5	5	6	4	4	5	7	6
		%	100	94	91	100	100	99	100	100	100	91	100	100	98
		Max-d	17	13	21	15	12	13	9	17	11	9	10	12	21
		Min-d	2	3	2	2	1	2	2	2	2	2	2	3	1
Lao PDR	Vientiane	Mean											30	32	31
		%											58	100	13
		Max-d											49	53	53
		Min-d											9	14	9
Mongolia	Ulaanbaatar	Mean	118	85	39	19	13	12	11	11	14	27	59	113	42
		%	100	71	100	100	100	100	100	100	100	100	100	100	98
		Max-d	248	146	95	35	20	23	17	23	28	55	143	184	248
		Min-d	33	27	19	11	8	7	6	5	8	10	18	34	5
Myanmar	Yangon	Mean	-	-	45	35	10	12	13	12	12	22	37	38	24
		%	0	0	13	90	26	98	91	44	42	98	100	100	59
		Max-d	-	-	49	65	14	23	22	20	17	38	67	70	70
		Min-d	-	-	41	20	8	7	<1	9	7	10	20	22	<1
	Mandalay	Mean	-	-	-	-	-	-	-	-	9	11	20	19	16
		%	0	0	0	0	0	0	0	0	29	95	97	95	27
		Max-d	-	-	-	-	-	-	-	-	21	29	32	43	43
		Min-d	-	-	-	-	-	-	-	-	2	2	5	3	2
Philippines	Metro Manila	Mean	19	19	16	15	16	15	-	-	-	-	-	-	17
		%	99	81	100	98	99	35	0	0	0	0	0	0	42
		Max-d	83	45	27	22	25	28	-	-	-	-	-	-	83
		Min-d	4	7	7	8	9	10	-	-	-	-	-	-	4

Table 4.12 $PM_{2.5}$ (continued)

Unit : μg/m³			2018												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Republic of Korea	Kanghwa	Mean	29	28	31	22	18	18	14	17	-	-	-	23	22
		%	95	95	93	83	94	90	87	85	0	0	0	98	68
		Max-d	86	68	69	40	45	33	27	32	-	-	-	52	86
		Min-d	9	11	7	7	3	2	6	3	-	-	-	11	2
	Cheju (Kosan)	Mean	-	-	-	24	15	16	12	10	12	15	22	17	16
		%	0	0	0	76	95	74	82	89	82	87	95	95	65
		Max-d	-	-	-	65	27	34	34	17	20	40	50	45	65
		Min-d	-	-	-	4	2	3	1	4	5	8	5	7	1
Thailand	Bangkok	Mean	39	-	29	22	14	12	14	13	14	18	27	32	21
		%	90	0	6	99	98	97	90	99	96	99	100	99	82
		Max-d	97	-	30	51	22	22	21	19	27	28	41	61	97
		Min-d	10	-	28	12	8	7	8	6	7	7	14	14	6
	Samutprakarn	Mean	32	40	31	17	13	13	16	14	16	20	30	35	23
		%	99	79	100	81	97	99	99	99	100	97	100	99	96
		Max-d	99	73	76	47	22	22	25	25	29	32	46	72	99
		Min-d	7	12	11	8	4	7	7	5	8	7	16	14	4
	Khanchanaburi (Vachiralongkorn Dam)	Mean	-	-	63	-	-	-	1	2	-	-	28	-	27
		%	0	0	53	0	0	0	31	49	0	0	56	0	16
		Max-d	-	-	119	-	-	-	5	6	-	-	34	-	119
		Min-d	-	-	24	-	-	-	<1	<1	-	-	24	-	<1
	Chang Phueak	Mean	30	53	73	49	20	15	15	17	14	23	22	24	29
		%	99	100	98	100	92	96	94	100	99	99	100	100	98
		Max-d	41	75	105	94	41	34	20	24	19	35	31	41	105
		Min-d	21	35	39	18	11	7	10	11	8	14	12	15	7
	Si Phum	Mean	26	49	73	49	20	19	16	15	12	-	16	20	30
		%	93	96	97	99	94	94	91	94	96	0	18	99	81
		Max-d	40	75	108	86	41	48	37	22	20	-	24	47	108
		Min-d	15	26	38	14	7	7	8	8	7	-	9	7	7
Vietnam	Hoa Binh	Mean	47	72	57	46	20	20	14	25	-	-	-	-	37
		%	54	100	99	65	88	89	100	87	0	0	0	0	57
		Max-d	118	190	133	78	47	53	34	69	-	-	-	-	190
		Min-d	23	18	23	25	10	7	4	10	-	-	-	-	4

Terms and abbreviations are given in Table 4.2.

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

Unit : μg/m^3			2018												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Indonesia	Jakarta	Mean	3.28	8.51	6.42	8.05	11.67	8.82	9.70	1.64	3.90	8.36	1.20	-	6.68
		%	63	50	39	100	97	100	100	100	100	70	52	0	73
		Max-2w	3.3	8.51	6.42	9.08	15.67	9.23	9.87	1.93	6.25	8.37	1.20	-	15.67
		Min-2w	3.2	8.51	6.42	7.03	7.67	8.41	9.53	1.35	1.54	8.34	1.20	-	1.20
	Serpong	Mean	2.29	3.09	2.74	6.57	5.07	9.82	7.64	8.62	7.35	10.95	5.53	5.72	6.42
		%	67	100	100	100	100	67	100	100	100	100	100	100	92
		Max-2w	2.46	3.09	3.57	8.82	5.28	15.14	11.11	9.00	8.38	16.21	6.74	6.33	16.21
		Min-2w	2.11	3.09	1.92	4.31	4.86	4.50	4.16	8.24	6.32	5.69	4.33	5.11	1.92
	Bandung	Mean	2.82	5.59	6.30	7.54	8.88	8.81	9.37	9.86	7.38	9.63	8.31	6.29	7.52
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	3.47	5.97	8.14	7.75	10.19	10.97	13.18	10.44	7.38	9.85	9.03	7.87	13.18
		Min-2w	2.17	5.21	5.02	7.33	7.58	6.64	5.57	9.28	7.38	9.40	7.59	4.71	2.17
Japan	Rishiri	Mean	1.70	2.29	3.50	3.28	1.95	2.63	1.90	1.20	1.71	1.71	1.55	1.68	2.05
		%	100	100	92	100	100	100	100	100	100	100	100	100	99
		Max-2w	2.44	2.33	3.74	4.29	2.00	3.40	2.51	1.24	2.45	2.07	1.73	1.94	4.29
		Min-2w	1.06	2.24	3.26	2.27	1.91	1.85	1.18	1.16	0.96	1.36	1.36	1.32	0.96
	Ochiishi	Mean	2.33	2.33	2.92	2.18	2.71	2.04	1.75	0.86	1.83	2.06	1.70	1.66	2.03
		%	100	59	100	100	100	100	100	100	100	100	100	100	97
		Max-2w	2.95	2.33	3.51	2.59	3.29	2.16	2.00	1.04	1.83	2.15	2.16	1.83	3.51
		Min-2w	1.39	2.33	2.34	1.77	2.12	1.91	1.59	0.67	1.83	1.98	1.24	1.48	0.67
	Tappi	Mean	3.44	1.98	4.25	1.91	2.15	2.82	2.95	1.81	1.82	1.83	-	2.61	2.56
		%	100	100	100	100	100	100	100	100	100	100	0	31	85
		Max-2w	6.48	3.14	4.74	2.54	3.01	3.44	5.63	2.53	2.52	2.30	-	2.61	6.48
		Min-2w	1.87	0.82	3.75	1.27	1.28	2.21	1.45	1.08	1.12	1.37	-	2.61	0.82
	Sado-seki	Mean	2.11	2.59	7.64	3.92	5.36	4.27	5.64	2.87	2.61	2.90	2.36	2.26	3.55
		%	100	50	50	100	100	100	100	100	100	100	100	100	93
		Max-2w	3.10	2.59	7.64	6.64	5.86	5.64	9.60	3.15	4.26	3.77	2.48	2.60	9.60
		Min-2w	1.01	2.59	7.64	1.20	4.86	2.91	2.21	2.59	0.96	2.03	2.25	1.82	0.96
	Happo	Mean	1.19	2.12	1.92	1.64	1.77	1.72	2.60	1.14	1.04	0.97	1.08	0.72	1.56
		%	66	100	100	100	100	100	100	50	100	100	100	100	93
		Max-2w	1.19	2.73	2.05	2.70	1.77	1.82	4.10	1.14	1.11	1.77	1.08	0.83	4.10
		Min-2w	1.18	1.51	1.78	0.58	1.77	1.62	1.27	1.14	0.96	0.17	1.08	0.62	0.17
	Ijira	Mean	1.61	3.18	3.24	3.75	3.00	2.56	4.00	1.70	1.36	1.96	1.64	1.56	2.45
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	2.24	4.33	3.91	3.98	3.57	3.29	4.61	1.83	1.39	2.30	1.90	2.16	4.61
		Min-2w	0.99	2.03	2.56	3.52	2.43	1.82	3.00	1.58	1.33	1.63	1.38	1.18	0.99
	Oki	Mean	4.78	4.43	5.77	5.81	4.48	4.26	5.21	2.74	2.49	3.16	3.28	2.90	4.12
		%	100	100	100	100	100	100	100	100	100	100	85	100	99
		Max-2w	5.65	5.37	6.67	7.63	4.75	4.92	8.65	3.20	2.80	3.39	3.30	3.52	8.65
		Min-2w	3.91	3.77	4.87	4.00	4.20	3.60	2.02	2.28	2.18	2.92	3.26	2.26	2.02
	Banryu	Mean	3.66	4.26	4.65	4.89	4.57	4.01	4.93	1.76	2.34	2.57	2.92	2.44	3.59
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	4.30	5.47	5.91	5.72	5.31	4.30	6.78	2.35	2.79	2.89	2.92	3.55	6.78
		Min-2w	2.95	3.05	3.39	4.06	3.83	3.72	2.75	1.17	1.89	2.26	2.91	1.56	1.17
	Yusuhara	Mean	2.81	3.21	3.46	4.47	3.84	2.26	3.40	2.71	2.22	2.50	2.46	2.17	2.94
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	3.02	4.07	4.29	5.10	5.14	2.34	4.02	3.94	2.22	2.72	2.50	2.74	5.14
		Min-2w	2.59	2.35	2.63	3.84	2.54	2.18	2.33	2.02	2.22	2.28	2.42	1.82	1.82
	Hedo	Mean	4.83	5.64	5.31	4.56	4.84	2.67	3.28	4.13	3.72	4.99	4.84	4.11	4.37
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	5.03	5.75	6.10	5.86	5.00	3.14	6.66	5.93	5.63	5.53	5.32	4.76	6.66
		Min-2w	4.68	5.54	4.52	3.26	4.69	2.20	1.24	2.32	1.80	4.44	4.37	3.43	1.24
	Ogasawara	Mean	2.64	1.03	1.87	2.38	1.89	1.22	1.51	1.47	1.00	0.94	1.29	2.35	1.67
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	2.87	1.78	2.58	2.68	2.11	1.48	2.05	1.57	1.12	0.98	1.31	3.01	3.01
		Min-2w	2.48	0.27	1.16	2.08	1.67	0.96	0.80	1.36	0.87	0.90	1.27	1.68	0.27
	Tokyo	Mean	1.54	2.83	4.30	5.06	4.54	3.40	5.77	3.43	2.54	2.40	2.43	1.55	3.28
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	2.06	3.38	5.18	5.20	5.11	3.41	7.26	3.87	3.43	2.42	2.80	2.16	7.26
		Min-2w	0.85	2.28	3.42	4.92	3.97	3.38	3.09	2.99	1.65	2.38	2.06	0.86	0.85

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

Unit : μg/m³			2018												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Malaysia	Petaling Jaya	Mean	0.19	0.59	0.43	0.40	0.37	0.83	0.43	0.81	0.52	0.48	0.18	0.18	0.45
		%	75	75	100	75	50	60	25	100	100	75	100	100	79
		Max-w	0.37	0.82	0.63	0.48	0.37	0.95	0.43	2.24	1.07	1.10	0.29	0.32	2.24
		Min-w	0.09	0.39	0.03	0.36	0.36	0.72	0.43	0.31	<0.01	0.15	0.08	0.07	<0.01
	Tanah Rata	Mean	<0.01	0.10	0.19	0.19	0.14	0.22	0.24	0.24	0.14	0.10	0.07	0.10	0.15
		%	100	100	100	75	100	100	100	100	100	100	100	75	96
		Max-w	0.01	0.19	0.29	0.26	0.25	0.44	0.28	0.29	0.36	0.18	0.12	0.27	0.44
		Min-w	<0.01	<0.01	0.11	0.10	0.08	0.02	0.20	0.21	0.03	0.01	0.01	<0.01	<0.01
	Danum Valley	Mean	0.07	0.20	0.15	0.21	0.10	0.13	1.64	1.64	1.07	0.39	0.02	<0.01	0.47
		%	100	100	100	100	100	100	75	86	100	100	100	100	97
		Max-2w	0.07	0.20	0.15	0.29	0.15	0.14	1.72	1.90	1.29	0.63	0.05	<0.01	1.90
		Min-2w	0.06	0.20	0.15	0.13	0.07	0.12	1.55	1.38	0.85	<0.01	<0.01	<0.01	<0.01
Mongolia	Ulaanbaatar	Mean	1.14	5.14	1.04	0.54	0.31	0.14	0.07	0.37	0.46	1.32	2.43	2.68	1.25
		%	100	100	100	100	100	100	100	100	100	100	100	75	98
		Max-w	3.03	11.13	3.97	1.64	0.59	0.42	0.19	0.69	0.83	3.44	5.18	7.84	11.13
		Min-w	0.12	0.14	0.10	0.02	0.08	0.02	0.02	0.02	0.06	0.07	0.09	0.05	0.02
	Terelj	Mean	0.11	-	-	0.06	0.07	0.03	0.06	0.05	<0.01	0.09	0.10	0.06	0.07
		%	90	0	0	78	100	100	100	100	100	100	100	100	81
		Max-2w	0.21	-	-	0.12	0.12	0.04	0.08	0.09	<0.01	0.26	0.12	0.07	0.26
		Min-2w	0.02	-	-	<0.01	0.01	0.03	0.04	<0.01	<0.01	<0.01	0.08	0.04	<0.01
Myanmar	Yangon	Mean	7.44	0.49	0.11	0.71	0.94	1.08	2.50	1.96	2.26	0.19	0.61	0.14	1.52
		%	100	82	50	100	67	100	100	50	90	100	100	100	86
		Max-2w	7.89	0.58	0.11	1.09	1.70	1.74	3.61	1.96	2.38	0.30	1.01	0.21	7.89
		Min-2w	7.00	0.41	0.11	0.32	0.18	0.41	1.39	1.96	2.15	0.01	0.20	0.08	0.01
Republic of Korea	Kanghwa	Mean	1.91	2.36	5.08	4.39	4.76	6.33	-	0.61	2.00	1.97	3.87	2.69	3.37
		%	19	14	16	19	9	13	0	3	17	16	17	13	13
		Max-d	2.70	3.79	11.27	8.62	5.27	10.69	-	0.61	5.53	3.82	7.48	3.50	11.27
		Min-d	1.33	1.18	1.59	1.75	4.09	2.12	-	0.61	0.82	1.33	1.89	1.36	0.61
	Cheju (Kosan)	Mean	0.79	1.36	-	-	4.47	5.09	8.54	2.36	3.44	2.99	3.18	2.49	3.45
		%	16	14	0	0	16	13	13	12	5	13	17	16	11
		Max-d	1.53	1.80	-	-	9.38	6.43	12.16	4.52	5.49	4.74	7.45	4.50	12.16
		Min-d	0.06	0.23	-	-	0.97	3.35	3.73	0.21	1.39	2.25	0.90	1.12	0.06
	Imsil	Mean	2.74	2.61	3.26	2.65	4.23	5.94	4.92	2.64	2.27	2.39	4.40	1.31	3.30
		%	13	11	13	17	13	13	16	13	17	16	17	13	14
		Max-d	4.87	3.02	4.20	6.15	12.74	11.63	7.79	4.50	6.09	4.40	8.75	2.72	12.74
		Min-d	1.26	2.28	1.28	1.32	0.53	3.80	1.57	0.40	0.85	1.23	1.72	0.48	0.40
Russia	Mondy	Mean	0.22	0.63	0.49	0.90	0.40	0.25	0.16	0.14	0.15	0.31	0.30	0.23	0.35
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-m	0.22	0.63	0.92	1.70	0.51	0.40	0.18	0.14	0.16	0.44	0.49	0.27	1.70
		Min-m	0.22	0.63	0.05	0.09	0.30	0.10	0.13	0.14	0.13	0.18	0.11	0.19	0.05
	Listvyanka	Mean	0.96	1.06	1.59	0.82	0.60	0.40	0.84	0.42	0.52	0.67	0.65	0.67	0.78
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	1.35	1.64	2.08	1.00	0.76	0.77	1.91	0.70	1.25	1.41	1.08	1.12	2.08
		Min-w	0.25	0.64	0.91	0.67	0.28	0.03	0.27	0.32	0.15	0.09	0.33	0.06	0.03
	Irkutsk	Mean	12.38	3.33	1.91	1.21	0.84	0.68	0.87	0.75	0.61	0.89	1.56	2.45	2.28
		%	100	100	100	100	100	80	100	100	100	100	100	100	98
		Max-w	17.46	4.89	2.54	1.46	1.11	1.27	1.52	1.29	1.05	1.51	3.51	4.03	17.46
		Min-w	2.55	2.23	1.16	1.04	0.57	0.47	0.55	0.30	0.39	0.52	0.59	1.43	0.30
	Primorskaya	Mean	0.88	0.70	0.98	0.51	0.48	0.80	0.25	0.68	0.38	0.15	0.26	0.12	0.52
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	1.32	1.15	1.67	0.78	0.86	1.46	0.39	0.85	0.69	0.18	0.33	0.14	1.67
		Min-2w	0.43	0.24	0.28	0.25	0.10	0.14	0.11	0.52	0.07	0.12	0.18	0.10	0.07
Thailand	Bangkok	Mean	3.46	7.71	6.74	5.18	4.77	1.44	0.74	0.94	1.57	2.53	5.90	4.28	3.77
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-10d	3.80	8.72	9.01	5.85	9.00	1.62	0.80	1.32	1.73	3.09	6.58	7.91	9.01
		Min-10d	3.01	6.61	5.12	4.39	2.07	1.11	0.63	0.64	1.47	2.05	5.51	1.23	0.63
	Khanchanaburi (Vachiralongkorn Dam)	Mean	-	-	7.75	-	-	-	0.01	-	-	-	2.06	-	3.27
		%	0	0	55	0	0	0	68	0	0	0	57	0	15
		Max-2w	-	-	7.75	-	-	-	0.01	-	-	-	2.06	-	7.75
		Min-2w	-	-	7.75	-	-	-	0.01	-	-	-	2.06	-	0.01
	Mae Hia	Mean	1.15	0.33	1.34	1.53	1.15	0.47	0.52	0.44	-	0.29	-	-	0.83
		%	90	61	97	97	97	67	97	100	0	94	0	0	67
		Max-10d	2.19	0.39	3.51	3.10	2.08	0.49	0.93	0.78	-	0.41	-	-	3.51
		Min-10d	0.21	0.26	0.25	0.50	0.16	0.44	0.09	0.11	-	0.17	-	-	0.09
	Sakaerat	Mean	3.46	5.32	4.65	4.81	2.66	2.18	1.70	1.36	2.00	4.09	-	-	3.26
		%	93	100	100	100	100	70	100	100	100	100	0	0	80
		Max-10d	4.49	9.18	6.63	5.65	3.28	2.27	3.10	2.11	2.41	6.08	-	-	9.18
		Min-10d	2.62	0.18	1.27	4.20	1.73	2.10	0.15	0.07	1.74	2.28	-	-	0.07

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

Unit : μg/m^3			2018												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Vietnam	Hanoi	Mean	4.20	7.24	4.83	6.23	2.44	2.43	3.69	3.63	4.16	4.77	5.45	5.36	4.50
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	4.94	8.92	8.75	8.23	2.91	3.23	4.51	4.58	5.10	6.66	8.96	6.99	8.96
		Min-w	3.46	4.45	2.10	3.49	1.89	2.10	2.69	2.07	3.34	3.27	3.33	4.30	1.89
	Hoa Binh	Mean	7.10	6.70	3.70	8.01	4.69	2.96	3.17	2.41	2.29	4.01	4.61	4.03	4.43
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	9.54	9.69	5.21	12.04	8.25	4.20	3.75	2.98	3.57	4.39	5.98	4.47	12.04
		Min-w	4.20	3.53	1.48	2.56	2.43	1.99	2.81	1.74	0.92	3.84	3.39	3.68	0.92
	Can Tho	Mean	5.25	6.25	7.37	6.12	4.94	5.24	4.13	4.53	4.14	6.14	5.65	4.85	5.40
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	6.15	7.00	8.89	7.20	6.73	5.87	5.20	6.94	4.38	7.30	5.95	5.69	8.89
		Min-w	4.46	5.73	6.35	5.30	3.13	4.64	2.74	2.22	3.75	4.68	5.28	4.25	2.22
	Ho Chi Minh	Mean	8.76	8.94	8.09	7.99	6.62	6.88	6.30	5.69	5.73	4.22	6.05	5.82	6.75
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	11.55	9.48	8.27	8.39	7.58	9.72	6.37	6.03	6.17	4.44	7.00	6.23	11.55
		Min-w	7.24	7.86	7.84	7.04	5.75	5.67	6.23	5.24	4.84	3.87	5.46	5.38	3.87
	Yen Bai	Mean	11.23	8.24	9.28	10.05	7.12	4.57	3.82	4.46	5.77	5.85	6.58	8.99	7.14
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	14.63	10.37	12.34	10.66	9.44	6.21	5.64	5.36	7.68	10.75	7.53	10.75	14.63
		Min-w	9.78	5.05	7.77	9.52	5.96	3.61	2.81	3.09	2.87	3.72	4.05	7.28	2.81

Terms and abbreviations are given in Table 4.2.

Table 4.14 Particulate matter component: NO_3^-

Unit : μg/m^3			2018												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Indonesia	Jakarta	Mean	1.81	3.62	1.54	4.02	4.44	4.11	4.22	1.13	1.79	2.10	0.42	-	2.78
		%	63	50	39	100	97	100	100	100	100	70	52	0	73
		Max-2w	2.02	3.62	1.54	4.58	5.90	5.54	4.78	1.21	2.58	2.43	0.42	-	5.90
		Min-2w	1.59	3.62	1.54	3.46	2.98	2.69	3.67	1.06	1.01	1.78	0.42	-	0.42
	Serpong	Mean	0.90	0.44	0.25	1.30	1.48	2.45	1.99	2.88	2.35	1.72	1.57	0.58	1.54
		%	67	100	100	100	100	67	100	100	100	100	100	100	92
		Max-2w	0.94	0.44	0.29	1.79	1.57	3.66	2.42	3.72	2.58	1.75	2.40	1.05	3.72
		Min-2w	0.87	0.44	0.21	0.81	1.39	1.25	1.55	2.03	2.13	1.68	0.74	0.11	0.11
	Bandung	Mean	0.91	1.49	1.24	0.82	1.69	1.23	2.39	2.17	1.61	2.08	2.01	1.37	1.57
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	1.00	1.66	2.06	0.98	1.84	1.78	2.69	2.46	1.61	2.47	2.12	1.49	2.69
		Min-2w	0.83	1.31	0.75	0.66	1.53	0.69	2.09	1.87	1.61	1.70	1.90	1.24	0.66
Japan	Rishiri	Mean	0.41	0.50	1.53	1.74	0.77	1.03	0.26	0.35	0.70	0.64	0.74	0.63	0.74
		%	100	100	92	100	100	100	100	100	100	100	100	100	99
		Max-2w	0.78	0.66	2.28	2.59	0.86	1.39	0.31	0.39	1.02	0.78	0.86	0.96	2.59
		Min-2w	0.18	0.34	0.78	0.90	0.69	0.67	0.21	0.31	0.39	0.50	0.62	0.30	0.18
	Ochiishi	Mean	0.64	0.69	1.37	1.18	1.47	0.58	0.48	0.28	1.16	0.96	0.74	0.66	0.82
		%	100	59	100	100	100	100	100	100	100	100	100	100	97
		Max-2w	1.12	0.69	1.86	1.59	1.92	0.78	0.49	0.31	1.16	0.97	1.09	0.71	1.92
		Min-2w	0.31	0.69	0.89	0.77	1.02	0.37	0.45	0.25	1.16	0.95	0.38	0.62	0.25
	Tappi	Mean	0.97	0.54	3.46	1.62	1.49	1.03	0.42	0.83	1.14	0.83	-	0.99	1.18
		%	100	100	100	100	100	100	100	100	100	100	0	31	85
		Max-2w	1.65	1.01	4.71	2.65	1.90	1.38	0.68	1.26	1.51	0.94	-	0.99	4.71
		Min-2w	0.48	0.06	2.20	0.59	1.08	0.68	0.10	0.40	0.77	0.71	-	0.99	0.06
	Sado-seki	Mean	0.59	0.51	8.32	2.28	2.18	1.20	0.59	1.10	1.05	1.13	1.25	0.87	1.41
		%	100	50	50	100	100	100	100	100	100	100	100	100	93
		Max-2w	1.17	0.51	8.32	4.11	2.56	1.70	1.03	1.16	1.57	1.28	1.57	0.90	8.32
		Min-2w	0.18	0.51	8.32	0.44	1.80	0.71	0.05	1.05	0.53	0.98	0.94	0.81	0.05
	Happo	Mean	0.14	0.90	1.37	0.56	0.43	0.40	0.13	0.22	0.13	0.27	0.25	0.14	0.42
		%	66	100	100	100	100	100	100	50	100	100	100	100	93
		Max-2w	0.19	1.50	1.79	0.81	0.43	0.44	0.23	0.22	0.17	0.46	0.25	0.23	1.79
		Min-2w	0.09	0.30	0.95	0.32	0.43	0.37	0.05	0.22	0.08	0.08	0.25	0.04	0.04
	Ijira	Mean	0.40	0.84	0.85	0.74	0.35	0.25	0.20	0.48	0.26	0.55	0.42	0.46	0.47
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.52	1.20	0.92	0.84	0.42	0.25	0.31	0.48	0.27	0.58	0.56	0.73	1.20
		Min-2w	0.20	0.48	0.78	0.64	0.28	0.25	0.04	0.47	0.25	0.53	0.29	0.24	0.04
	Oki	Mean	2.87	2.30	3.95	3.29	1.84	1.26	0.63	1.15	1.20	1.66	2.40	1.85	1.98
		%	100	100	100	100	100	100	100	100	100	100	85	100	99
		Max-2w	4.26	2.59	5.55	4.10	1.95	1.90	1.05	1.31	1.27	1.74	2.68	3.19	5.55
		Min-2w	1.48	1.84	2.35	2.48	1.74	0.61	0.18	1.00	1.12	1.58	2.11	0.62	0.18
	Banryu	Mean	2.79	2.83	2.63	2.63	1.06	1.10	0.58	0.76	0.71	1.42	1.95	2.02	1.72
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	3.31	3.19	3.61	2.75	1.13	1.66	1.14	1.02	0.76	1.54	1.99	2.63	3.61
		Min-2w	2.20	2.47	1.66	2.52	0.99	0.53	0.20	0.50	0.66	1.30	1.92	1.37	0.20
	Yusuhara	Mean	1.39	1.45	0.78	0.91	0.22	0.06	0.02	0.15	0.12	0.41	0.57	1.03	0.57
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	1.68	1.74	0.94	1.49	0.28	0.10	0.05	0.17	0.15	0.54	0.65	1.57	1.74
		Min-2w	1.10	1.17	0.62	0.32	0.17	0.03	<0.01	0.13	0.08	0.28	0.48	0.76	<0.01
	Hedo	Mean	1.87	2.48	1.87	2.14	1.92	0.71	0.61	0.58	0.31	2.42	2.23	1.98	1.58
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	2.33	2.54	2.23	2.66	2.08	0.79	1.19	0.59	0.60	2.52	2.59	3.03	3.03
		Min-2w	1.38	2.42	1.51	1.62	1.76	0.63	0.29	0.57	0.03	2.33	1.88	1.35	0.03
	Ogasawara	Mean	0.92	0.25	0.54	0.86	0.56	0.19	0.23	0.16	0.20	0.27	0.52	0.94	0.48
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	1.24	0.45	0.72	1.08	0.58	0.19	0.27	0.17	0.22	0.35	0.56	1.13	1.24
		Min-2w	0.65	0.05	0.37	0.65	0.54	0.18	0.14	0.15	0.17	0.19	0.47	0.76	0.05
	Tokyo	Mean	3.01	3.57	5.14	4.05	3.69	2.71	2.71	3.22	2.21	3.06	3.77	3.35	3.34
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	3.83	4.04	6.15	4.32	3.80	3.16	3.39	4.27	2.92	3.33	4.00	4.65	6.15
		Min-2w	1.57	3.10	4.14	3.78	3.58	2.27	1.88	2.18	1.50	2.80	3.54	1.53	1.50

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

Unit : μg/m³			2018												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Malaysia	Petaling Jaya	Mean	0.05	0.12	0.10	0.09	0.06	0.19	0.12	0.19	0.10	0.17	0.05	0.07	0.11
		%	75	75	100	75	50	60	25	100	100	75	100	100	79
		Max-w	0.09	0.13	0.13	0.11	0.09	0.25	0.12	0.49	0.16	0.41	0.08	0.15	0.49
		Min-w	0.02	0.10	<0.01	0.07	0.04	0.14	0.12	0.09	<0.01	0.05	0.02	0.04	<0.01
	Tanah Rata	Mean	<0.01	0.01	0.01	0.01	<0.01	<0.01	0.02	0.03	<0.01	<0.01	<0.01	<0.01	0.01
		%	100	100	100	75	100	100	100	100	100	100	100	75	96
		Max-w	<0.01	0.03	0.02	0.02	<0.01	0.03	0.04	0.05	0.01	0.01	<0.01	0.02	0.05
		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
	Danum Valley	Mean	<0.01	0.03	0.01	<0.01	<0.01	<0.01	0.10	0.05	<0.01	0.01	<0.01	<0.01	0.02
		%	100	100	100	100	100	100	75	86	100	100	100	100	97
		Max-2w	<0.01	0.03	0.01	<0.01	<0.01	<0.01	0.17	0.09	<0.01	0.02	0.02	<0.01	0.17
		Min-2w	<0.01	0.03	0.01	<0.01	<0.01	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Mongolia	Ulaanbaatar	Mean	<0.01	0.07	0.03	0.19	0.13	0.06	0.04	0.25	0.22	0.57	0.44	0.17	0.18
		%	100	100	100	100	100	100	100	100	100	100	100	75	98
		Max-w	<0.01	0.14	0.06	0.61	0.39	0.22	0.15	0.58	0.49	1.57	0.80	0.43	1.57
		Min-w	<0.01	0.03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.03	0.03	<0.01
	Terelj	Mean	<0.01	-	-	0.02	0.01	<0.01	<0.01	0.02	<0.01	0.02	<0.01	<0.01	0.01
		%	90	0	0	78	100	100	100	100	100	100	100	100	81
		Max-2w	0.01	-	-	0.03	0.03	<0.01	0.02	0.03	<0.01	0.05	0.02	0.01	0.05
		Min-2w	<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	3.19	0.12	0.07	0.03	2.05	0.43	1.03	0.95	1.10	0.07	0.18	0.11	0.82
		%	100	82	50	100	100	100	100	50	90	100	100	100	90
		Max-2w	4.61	0.23	0.07	0.05	5.14	0.67	1.40	0.95	1.21	0.18	0.18	0.16	5.14
		Min-2w	1.77	0.01	0.07	<0.01	0.18	0.18	0.67	0.95	0.98	<0.01	0.18	0.06	<0.01
Republic of Korea	Kanghwa	Mean	2.64	1.56	2.52	2.39	0.38	0.79	-	0.29	0.19	2.59	5.36	9.27	2.74
		%	19	14	16	19	9	13	0	3	17	16	17	13	13
		Max-d	7.54	3.08	6.80	4.05	0.62	1.58	-	0.29	0.37	11.07	9.02	16.83	16.83
		Min-d	0.65	0.62	0.06	0.42	0.21	0.01	-	0.29	0.09	0.37	0.96	2.04	0.01
	Cheju (Kosan)	Mean	0.97	5.31	-	-	1.20	1.23	0.16	0.58	0.64	1.46	1.43	0.67	1.41
		%	16	14	0	0	16	13	13	12	5	13	17	16	11
		Max-d	2.08	9.15	-	-	2.42	2.23	0.25	0.64	0.87	2.66	3.77	1.50	9.15
		Min-d	0.21	2.30	-	-	0.12	0.62	0.07	0.53	0.41	0.39	0.38	0.36	0.07
	Imsil	Mean	11.60	4.61	8.77	1.81	0.36	1.47	0.31	0.27	0.57	1.52	6.20	2.22	3.17
		%	13	11	13	17	13	13	16	13	17	16	17	13	14
		Max-d	23.97	6.18	23.25	4.70	0.47	4.01	0.43	0.58	1.02	3.19	8.90	5.11	23.97
		Min-d	3.92	1.85	1.95	0.22	0.23	0.20	0.18	0.10	0.24	0.41	3.13	0.46	0.10
Russia	Mondy	Mean	0.03	0.02	<0.01	0.04	0.03	0.03	<0.01	0.04	0.02	0.05	0.01	0.02	0.03
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-m	0.03	0.02	0.01	0.07	0.04	0.04	0.01	0.04	0.02	0.08	0.02	0.03	0.08
		Min-m	0.03	0.02	<0.01	<0.01	0.03	0.02	<0.01	0.04	0.02	0.03	0.01	0.02	<0.01
	Listvyanka	Mean	0.18	0.21	0.10	0.10	0.05	0.05	0.12	0.07	0.05	0.08	0.08	0.15	0.10
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.29	0.32	0.15	0.15	0.07	0.10	0.27	0.17	0.14	0.17	0.17	0.25	0.32
		Min-w	0.06	0.15	0.08	0.06	0.03	0.02	0.03	0.02	<0.01	0.02	0.03	0.03	<0.01
	Irkutsk	Mean	4.79	1.23	0.65	0.33	0.12	0.16	0.08	0.11	0.10	0.21	0.50	0.72	0.75
		%	100	100	100	100	100	80	100	100	100	100	100	100	98
		Max-w	8.00	1.81	1.23	0.55	0.19	0.30	0.18	0.17	0.18	0.40	1.21	1.05	8.00
		Min-w	0.82	0.67	0.35	0.19	0.03	0.09	0.02	0.05	0.03	0.12	0.15	0.54	0.02
	Primorskaya	Mean	0.48	0.32	0.45	0.30	0.17	0.14	0.04	0.13	0.10	0.03	0.11	0.01	0.19
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.93	0.55	0.77	0.47	0.30	0.26	0.08	0.16	0.20	0.05	0.18	0.02	0.93
		Min-2w	0.03	0.09	0.14	0.14	0.03	0.01	<0.01	0.10	<0.01	<0.01	0.03	<0.01	<0.01
Thailand	Bangkok	Mean	4.64	3.93	3.94	2.84	4.24	1.41	0.61	0.90	1.26	1.47	4.18	2.72	2.68
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-10d	7.38	5.10	4.63	3.89	8.50	1.77	0.72	1.10	1.55	1.54	4.64	3.87	8.50
		Min-10d	2.84	3.26	3.46	1.66	2.08	1.16	0.53	0.71	1.04	1.36	3.89	0.62	0.53
	Khanchanaburi (Vachiralongkorn Dam)	Mean	-	-	0.33	-	-	-	0.01	-	-	-	0.24	-	0.20
		%	0	0	55	0	0	0	68	0	0	0	57	0	15
		Max-2w	-	-	0.33	-	-	-	0.01	-	-	-	0.24	-	0.33
		Min-2w	-	-	0.33	-	-	-	0.01	-	-	-	0.24	-	0.01
	Mae Hia	Mean	0.07	0.07	0.20	0.22	0.25	0.28	0.30	0.25	-	0.12	-	-	0.20
		%	90	61	97	97	97	67	97	100	0	94	0	0	67
		Max-10d	0.11	0.11	0.45	0.40	0.57	0.32	0.52	0.43	-	0.14	-	-	0.57
		Min-10d	<0.01	0.04	<0.01	0.09	<0.01	0.24	<0.01	0.07	-	0.11	-	-	<0.01
	Sakaerat	Mean	0.39	0.23	0.22	0.17	0.18	0.90	0.73	0.55	0.34	0.30	-	-	0.38
		%	93	100	100	100	100	70	100	100	100	100	0	0	80
		Max-10d	0.61	0.43	0.27	0.21	0.27	1.39	1.32	0.84	0.55	0.54	-	-	1.39
		Min-10d	0.22	0.07	0.14	0.10	0.13	0.40	0.13	0.09	0.18	0.12	-	-	0.07

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

Unit : μg/m^3			2018												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Vietnam	Hanoi	Mean	4.08	6.05	3.81	5.16	3.90	1.04	1.77	1.77	2.88	6.34	5.98	7.90	4.19
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	6.30	10.37	8.87	6.46	12.79	2.16	2.71	2.48	4.08	7.36	8.52	10.73	12.79
		Min-w	2.02	3.71	1.48	3.10	0.90	0.15	0.91	0.75	2.10	5.41	4.53	6.73	0.15
	Hoa Binh	Mean	7.10	6.49	2.23	3.70	2.18	1.37	1.40	1.00	1.83	2.28	2.62	4.19	2.95
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	12.11	10.38	3.33	5.17	3.93	1.72	1.64	1.31	3.65	3.01	3.33	5.21	12.11
		Min-w	3.06	2.56	1.48	1.57	1.13	0.97	1.22	0.78	0.92	1.86	1.80	1.64	0.78
	Can Tho	Mean	2.25	1.63	2.60	2.11	1.63	2.52	2.61	2.79	1.54	2.27	2.02	1.88	2.16
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	2.88	2.16	3.81	3.47	2.42	5.85	3.35	3.63	3.45	2.82	2.42	2.30	5.85
		Min-w	1.09	0.81	1.53	0.67	0.56	0.67	1.85	2.32	0.75	1.71	1.63	1.49	0.56
	Ho Chi Minh	Mean	8.51	8.04	5.06	6.26	4.96	6.12	5.86	5.85	7.21	4.70	3.89	3.97	5.80
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	10.71	9.58	8.12	9.11	7.94	7.64	6.77	6.59	10.00	7.24	4.13	4.29	10.71
		Min-w	2.86	6.45	2.60	4.48	2.60	5.16	5.44	5.04	4.60	3.71	3.63	3.55	2.60
	Yen Bai	Mean	8.44	6.01	7.93	6.10	3.78	2.36	1.87	2.64	6.85	5.64	8.48	10.76	5.89
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	13.01	8.62	9.20	6.97	4.43	2.82	2.63	3.34	8.91	8.90	9.51	14.32	14.32
		Min-w	6.17	2.66	6.93	4.21	3.01	1.73	0.86	1.86	3.82	3.11	8.05	7.95	0.86

Terms and abbreviations are given in Table 4.2.

Table 4.15 Particulate matter component: Cl^-

Unit : μg/m^3			2018												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Indonesia	Jakarta	Mean	2.48	1.62	1.36	1.45	1.28	0.33	0.31	0.18	0.15	0.25	0.16	-	0.84
		%	63	50	39	100	97	100	100	100	100	70	52	0	73
		Max-2w	3.10	1.62	1.36	1.48	1.97	0.36	0.33	0.20	0.19	0.31	0.16	-	3.10
		Min-2w	1.85	1.62	1.36	1.41	0.59	0.30	0.30	0.16	0.10	0.19	0.16	-	0.10
	Serpong	Mean	0.32	0.23	0.08	0.46	0.28	0.24	0.13	0.27	0.15	0.16	0.64	0.07	0.25
		%	67	100	100	100	100	67	100	100	100	100	100	100	92
		Max-2w	0.53	0.23	0.10	0.67	0.29	0.37	0.20	0.32	0.19	0.22	1.01	0.14	1.01
		Min-2w	0.12	0.23	0.07	0.25	0.26	0.12	0.06	0.22	0.11	0.10	0.27	<0.01	<0.01
	Bandung	Mean	0.37	0.20	0.16	0.12	0.17	0.16	0.29	0.16	0.05	0.06	0.13	0.12	0.17
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.51	0.23	0.23	0.13	0.21	0.25	0.45	0.21	0.05	0.06	0.17	0.15	0.51
		Min-2w	0.22	0.16	0.12	0.12	0.12	0.06	0.13	0.10	0.05	0.05	0.09	0.08	0.05
Japan	Rishiri	Mean	1.83	2.28	5.45	5.04	1.26	1.61	0.26	1.50	5.06	5.59	3.66	3.33	2.93
		%	100	100	92	100	100	100	100	100	100	100	100	100	99
		Max-2w	1.92	2.63	5.52	5.52	1.43	2.07	0.30	1.84	7.88	6.48	4.13	4.60	7.88
		Min-2w	1.66	1.92	5.37	4.56	1.10	1.15	0.22	1.16	2.24	4.70	3.19	2.22	0.22
	Ochiishi	Mean	5.38	5.42	4.66	4.39	3.05	1.50	1.03	1.43	6.09	8.12	5.33	3.84	3.97
		%	100	59	100	100	100	100	100	100	100	100	100	100	97
		Max-2w	6.14	5.42	5.33	4.79	4.59	2.53	1.49	1.69	6.09	9.22	7.35	4.51	9.22
		Min-2w	4.04	5.42	3.99	3.98	1.51	0.48	0.45	1.16	6.09	7.03	3.31	3.17	0.45
	Tappi	Mean	17.78	7.39	5.62	2.53	2.56	1.09	0.85	2.87	3.96	6.26	-	7.07	5.54
		%	100	100	100	100	100	100	100	100	100	100	0	31	85
		Max-2w	39.27	9.47	6.14	2.89	3.44	1.92	1.99	3.92	5.79	7.81	-	7.07	39.27
		Min-2w	6.37	5.31	5.10	2.17	1.68	0.26	0.02	1.81	2.13	4.71	-	7.07	0.02
	Sado-seki	Mean	6.41	10.18	3.00	1.49	2.88	1.34	0.98	4.14	7.08	24.42	4.31	6.09	5.80
		%	100	50	50	100	100	100	100	100	100	100	100	100	93
		Max-2w	8.62	10.18	3.00	2.38	4.34	2.10	2.31	4.92	12.46	43.87	5.04	7.27	43.87
		Min-2w	3.35	10.18	3.00	0.59	1.42	0.58	<0.01	3.37	1.71	4.96	3.58	4.25	<0.01
	Happo	Mean	0.02	0.03	0.12	0.04	<0.01	0.02	0.01	0.08	0.02	0.05	0.01	<0.01	0.03
		%	66	100	100	100	100	100	100	50	100	100	100	100	93
		Max-2w	0.02	0.05	0.15	0.07	<0.01	0.03	0.02	0.08	0.03	0.06	0.01	<0.01	0.15
		Min-2w	0.01	0.01	0.09	<0.01	<0.01	<0.01	<0.01	0.08	<0.01	0.04	0.01	<0.01	<0.01
	Ijira	Mean	0.13	0.18	0.08	0.02	0.19	<0.01	0.04	0.11	0.06	0.13	0.05	0.14	0.10
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.25	0.30	0.10	0.03	0.35	<0.01	0.12	0.13	0.07	0.14	0.07	0.19	0.35
		Min-2w	0.06	0.06	0.05	0.02	0.03	<0.01	<0.01	0.09	0.05	0.12	0.03	0.08	<0.01
	Oki	Mean	11.73	8.68	5.71	3.12	2.23	1.29	1.53	3.17	3.02	6.91	3.88	8.08	5.07
		%	100	100	100	100	100	100	100	100	100	100	85	100	99
		Max-2w	13.12	10.78	9.02	4.78	3.48	1.74	4.01	3.91	3.89	7.65	4.36	8.85	13.12
		Min-2w	10.35	6.94	2.40	1.46	0.98	0.84	<0.01	2.43	2.16	6.17	3.40	7.39	<0.01
	Banryu	Mean	2.66	2.10	2.75	1.14	0.97	0.86	0.36	1.42	0.91	1.24	1.01	1.80	1.45
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	3.38	2.70	3.71	1.88	1.43	0.98	0.60	2.75	1.19	1.56	1.38	2.36	3.71
		Min-2w	1.27	1.50	1.78	0.40	0.50	0.74	<0.01	0.09	0.64	0.93	0.63	0.72	<0.01
	Yusuhara	Mean	0.18	0.14	0.11	0.06	0.01	<0.01	<0.01	0.04	0.03	0.08	0.04	0.09	0.06
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.31	0.21	0.13	0.11	0.02	<0.01	0.02	0.09	0.05	0.15	0.06	0.15	0.31
		Min-2w	0.05	0.07	0.10	<0.01	0.01	<0.01	<0.01	0.01	0.01	0.02	0.02	0.04	<0.01
	Hedo	Mean	8.51	7.07	7.22	5.47	3.33	5.21	4.59	5.92	21.22	8.77	6.72	8.79	7.69
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	9.40	8.57	8.14	7.13	4.15	6.44	8.34	6.72	37.99	10.11	8.04	9.56	37.99
		Min-2w	7.42	5.57	6.30	3.82	2.51	3.98	1.19	5.12	4.44	7.43	5.40	7.48	1.19
	Ogasawara	Mean	4.33	1.33	4.31	4.29	2.49	1.74	3.58	6.84	2.64	3.52	2.87	4.70	3.59
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	5.34	2.43	5.10	4.82	2.83	1.77	5.27	7.36	2.77	4.17	2.96	5.60	7.36
		Min-2w	3.22	0.24	3.53	3.76	2.14	1.72	2.41	6.31	2.52	2.88	2.78	3.80	0.24
	Tokyo	Mean	0.74	0.66	0.65	0.68	0.32	0.15	0.66	1.03	1.12	0.87	0.51	0.53	0.66
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.89	0.68	0.76	1.20	0.35	0.18	1.69	1.25	1.32	1.16	0.59	0.91	1.69
		Min-2w	0.51	0.64	0.53	0.17	0.29	0.11	0.11	0.81	0.91	0.58	0.44	0.18	0.11

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

Unit : μg/m³			2018												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Malaysia	Petaling Jaya	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
		%	75	75	100	75	50	60	25	100	100	75	100	100	79
		Max-w	<0.01	<0.01	0.01	0.02	<0.01	<0.01	<0.01	0.02	<0.01	0.02	<0.01	0.01	0.02
		Min-w	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	Tanah Rata	Mean	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
		%	100	100	100	75	100	100	100	100	100	100	100	75	96
		Max-w	<0.01	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	0.03	<0.01	<0.01	<0.01	<0.01	0.03
		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
	Danum Valley	Mean	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
		%	100	100	100	100	100	100	75	86	100	100	100	100	97
		Max-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	0.02
		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	<0.01
Mongolia	Ulaanbaatar	Mean	0.08	0.12	0.25	0.06	0.05	0.05	<0.01	0.05	0.10	0.39	0.30	0.19	0.14
		%	100	100	100	100	100	100	100	100	100	100	100	75	98
		Max-w	0.21	0.27	0.92	0.13	0.13	0.11	<0.01	0.07	0.23	0.84	0.53	0.49	0.92
		Min-w	<0.01	0.03	0.04	0.01	<0.01	<0.01	<0.01	<0.01	0.02	0.03	0.01	0.01	<0.01
	Terelj	Mean	0.02	-	-	0.02	0.03	<0.01	<0.01	0.02	0.01	0.02	<0.01	0.01	0.02
		%	90	0	0	78	100	100	100	100	100	100	100	100	81
		Max-2w	0.03	-	-	0.03	0.06	<0.01	<0.01	0.03	0.02	0.04	<0.01	0.02	0.06
		Min-2w	<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	0.53	0.20	<0.01	0.06	0.18	1.20	1.76	2.27	0.71	0.04	<0.01	0.10	0.52
		%	100	82	50	100	67	100	100	50	90	100	100	100	86
		Max-2w	0.70	0.24	<0.01	0.08	0.20	2.27	2.32	2.27	0.74	0.07	0.02	0.10	2.32
		Min-2w	0.36	0.17	<0.01	0.05	0.17	0.13	1.21	2.27	0.69	<0.01	<0.01	0.10	<0.01
Republic of Korea	Kanghwa	Mean	0.15	0.13	0.12	0.12	0.03	0.09	-	0.01	0.04	0.05	0.12	0.24	0.11
		%	19	14	16	19	9	13	0	3	17	16	17	13	13
		Max-d	0.25	0.26	0.22	0.22	0.03	0.16	-	0.01	0.09	0.14	0.34	0.50	0.50
		Min-d	0.03	0.01	0.02	0.04	0.02	0.05	-	0.01	<0.01	0.02	0.04	0.08	<0.01
	Cheju (Kosan)	Mean	0.34	0.43	-	-	0.74	1.97	0.29	0.41	0.54	0.62	0.42	0.47	0.62
		%	16	14	0	0	16	13	13	12	5	13	17	16	11
		Max-d	0.40	0.64	-	-	1.18	2.38	0.38	0.53	0.56	0.80	0.99	0.69	2.38
		Min-d	0.27	0.24	-	-	0.25	1.48	0.25	0.28	0.52	0.51	0.26	0.40	0.24
	Imsil	Mean	0.58	0.76	0.27	0.21	0.29	0.56	0.28	0.40	0.51	0.38	0.32	0.54	0.41
		%	13	11	13	17	13	13	16	13	17	16	17	13	14
		Max-d	0.93	1.59	0.39	0.24	0.35	0.91	0.33	0.50	0.71	0.47	0.35	0.87	1.59
		Min-d	0.32	0.26	0.17	0.18	0.23	0.28	0.25	0.35	0.38	0.31	0.30	0.35	0.17
Russia	Mondy	Mean	<0.01	<0.01	0.01	<0.01	0.01	0.09	0.04	0.03	<0.01	<0.01	<0.01	0.01	0.02
		%	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	0.17	0.07	0.03	<0.01	<0.01	<0.01	0.02	0.17
		Min-m	<0.01	<0.01	<0.01	<0.01	0.01	0.02	<0.01	0.03	<0.01	<0.01	<0.01	<0.01	<0.01
	Listvyanka	Mean	0.02	<0.01	<0.01	<0.01	<0.01	0.11	0.17	0.05	0.02	0.02	0.02	0.01	0.04
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.06	0.02	0.02	0.02	<0.01	0.23	0.47	0.15	0.04	0.05	0.04	0.04	0.47
		Min-w	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.03	<0.01	<0.01	0.01	<0.01	<0.01	<0.01
	Irkutsk	Mean	0.69	0.12	0.23	0.10	0.02	0.03	0.02	<0.01	0.04	0.09	0.26	0.14	0.15
		%	100	100	100	100	100	80	100	100	100	100	100	100	98
		Max-w	1.04	0.21	0.50	0.29	0.03	0.08	0.04	<0.01	0.05	0.29	0.45	0.24	1.04
		Min-w	0.14	0.07	0.12	0.04	<0.01	<0.01	<0.01	<0.01	0.03	<0.01	0.07	0.06	<0.01
	Primorskaya	Mean	0.05	0.04	0.06	0.03	<0.01	0.05	<0.01	0.03	0.03	<0.01	<0.01	<0.01	0.03
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.09	0.07	0.11	0.05	0.01	0.11	0.01	0.05	0.03	<0.01	<0.01	<0.01	0.11
		Min-2w	0.01	0.01	<0.01	0.01	<0.01	<0.01	<0.01	0.01	0.03	<0.01	<0.01	<0.01	<0.01
Thailand	Bangkok	Mean	0.27	0.22	0.35	0.21	0.41	0.68	0.32	0.39	0.08	0.06	0.16	0.11	0.27
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-10d	0.36	0.24	0.45	0.44	0.89	1.10	0.33	0.46	0.12	0.10	0.20	0.21	1.10
		Min-10d	0.20	0.19	0.24	0.04	0.09	0.45	0.30	0.29	0.04	0.03	0.13	0.02	0.02
	Khanchanaburi (Vachiralongkorn Dam)	Mean	-	-	0.03	-	-	-	0.01	-	-	-	0.03	-	0.03
		%	0	0	55	0	0	0	68	0	0	0	57	0	15
		Max-2w	-	-	0.03	-	-	-	0.01	-	-	-	0.03	-	0.03
		Min-2w	-	-	0.03	-	-	-	0.01	-	-	-	0.03	-	0.01
	Mae Hia	Mean	0.14	0.13	0.09	0.13	0.12	0.20	0.18	0.11	-	0.07	-	-	0.13
		%	90	61	97	97	97	67	97	100	0	94	0	0	67
		Max-10d	0.21	0.25	0.10	0.28	0.22	0.26	0.20	0.24	-	0.14	-	-	0.28
		Min-10d	0.04	<0.01	0.08	<0.01	0.01	0.14	0.15	<0.01	-	<0.01	-	-	<0.01
	Sakaerat	Mean	0.02	<0.01	0.04	0.01	0.02	0.48	0.27	0.11	0.02	<0.01	-	-	0.08
		%	93	100	100	100	100	70	100	100	100	100	0	0	80
		Max-10d	0.03	0.02	0.08	0.02	0.04	0.56	0.40	0.20	0.03	<0.01	-	-	0.56
		Min-10d	<0.01	<0.01	0.01	<0.01	<0.01	0.40	0.06	<0.01	<0.01	<0.01	-	-	<0.01

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

Unit : μg/m^3			2018												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Vietnam	Hanoi	Mean	1.70	3.42	2.25	3.07	1.10	0.99	1.25	1.39	1.59	2.90	4.59	3.75	2.33
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	2.85	6.32	5.50	5.09	2.30	2.02	1.74	1.63	2.35	3.20	8.58	4.36	8.58
		Min-w	0.84	0.28	0.13	0.40	0.30	0.25	0.31	0.93	0.39	2.46	3.21	3.34	0.13
	Hoa Binh	Mean	3.98	3.22	1.70	1.56	1.11	0.63	1.09	1.03	0.98	2.75	2.34	2.59	1.88
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	6.63	3.99	2.61	2.07	1.82	1.08	1.24	1.57	1.80	3.73	2.79	4.02	6.63
		Min-w	1.56	1.06	0.95	0.90	0.40	0.19	1.00	0.48	0.42	1.95	1.63	1.47	0.19
	Can Tho	Mean	2.89	2.47	2.38	2.48	2.05	2.59	0.88	1.56	2.76	2.44	1.36	2.05	2.14
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	3.33	3.06	3.00	3.21	3.27	3.47	1.05	3.13	3.13	3.19	1.67	2.44	3.47
		Min-w	2.28	2.02	1.79	1.45	1.05	1.45	0.71	0.83	1.85	1.31	1.23	1.67	0.71
	Ho Chi Minh	Mean	4.71	4.16	4.23	4.43	5.03	4.54	3.44	2.94	4.29	4.86	2.80	3.24	4.03
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	5.58	4.58	4.82	4.62	6.31	6.43	3.85	3.85	5.18	6.57	3.21	3.99	6.57
		Min-w	3.55	3.41	3.95	4.27	4.11	3.61	2.64	2.02	3.45	3.06	2.46	2.38	2.02
	Yen Bai	Mean	4.43	4.87	6.11	4.44	2.26	1.26	1.13	1.85	3.87	5.00	4.15	2.79	3.52
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	7.04	6.86	7.91	5.63	2.77	1.83	1.74	3.73	4.87	5.44	4.92	4.65	7.91
		Min-w	2.44	2.39	2.41	3.04	1.51	0.16	0.17	0.71	2.99	4.60	3.17	1.29	0.16

Terms and abbreviations are given in Table 4.2.

Table 4.16 Particulate matter component: NH_4^+

Unit : μg/m^3			2018												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Indonesia	Jakarta	Mean	0.28	0.52	1.08	1.71	1.84	1.81	1.38	0.63	0.82	1.24	0.04	-	1.11
		%	63	50	39	100	97	100	100	100	100	70	52	0	73
		Max-2w	0.30	0.52	1.08	2.25	2.46	2.40	1.40	0.74	1.03	1.46	0.04	-	2.46
		Min-2w	0.27	0.52	1.08	1.18	1.22	1.22	1.36	0.51	0.61	1.02	0.04	-	0.04
	Serpong	Mean	0.36	0.23	0.33	0.92	0.93	1.66	1.57	1.38	1.00	1.79	1.36	0.87	1.07
		%	67	100	100	100	100	67	100	100	100	100	100	100	92
		Max-2w	0.51	0.23	0.45	1.29	0.95	2.45	2.20	1.90	1.07	2.59	1.55	1.01	2.59
		Min-2w	0.22	0.23	0.21	0.55	0.91	0.87	0.93	0.87	0.92	0.98	1.17	0.72	0.21
	Bandung	Mean	0.87	1.51	1.43	1.69	1.83	1.93	1.89	1.59	1.30	1.94	1.67	1.45	1.60
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	1.04	1.65	2.60	1.84	2.04	2.23	2.61	1.63	1.30	2.50	2.20	2.19	2.61
		Min-2w	0.71	1.37	0.58	1.54	1.63	1.64	1.18	1.55	1.30	1.38	1.13	0.71	0.58
Japan	Rishiri	Mean	0.36	0.52	0.96	0.89	0.38	0.43	0.28	0.25	0.26	0.22	0.31	0.40	0.43
		%	100	100	92	100	100	100	100	100	100	100	100	68	96
		Max-2w	0.65	0.52	1.20	1.22	0.54	0.60	0.34	0.28	0.35	0.27	0.43	0.50	1.22
		Min-2w	0.19	0.51	0.73	0.56	0.22	0.25	0.24	0.22	0.17	0.17	0.19	0.30	0.17
	Ochiishi	Mean	0.42	0.43	0.66	0.44	0.54	0.31	0.22	0.12	0.30	0.24	0.31	0.30	0.35
		%	100	59	100	100	100	100	100	100	100	100	100	100	97
		Max-2w	0.65	0.43	0.83	0.53	0.70	0.37	0.32	0.12	0.30	0.25	0.35	0.32	0.83
		Min-2w	0.27	0.43	0.49	0.36	0.38	0.25	0.14	0.12	0.30	0.23	0.26	0.29	0.12
	Tappi	Mean	0.29	0.25	1.18	0.41	0.39	0.59	0.53	0.17	0.28	0.18	-	0.35	0.42
		%	100	100	100	100	100	100	100	100	100	100	0	31	85
		Max-2w	0.48	0.44	1.57	0.63	0.60	0.84	1.21	0.25	0.37	0.24	-	0.35	1.57
		Min-2w	0.19	0.05	0.79	0.20	0.19	0.35	0.17	0.09	0.18	0.13	-	0.35	0.05
	Sado-seki	Mean	0.26	0.26	2.97	0.74	0.62	0.84	0.97	0.15	0.19	0.21	0.39	0.26	0.56
		%	100	50	50	100	100	100	100	100	100	100	100	100	93
		Max-2w	0.49	0.26	2.97	1.37	0.89	1.11	1.86	0.16	0.27	0.24	0.48	0.35	2.97
		Min-2w	0.09	0.26	2.97	0.11	0.34	0.57	0.06	0.14	0.11	0.18	0.30	0.18	0.06
	Happo	Mean	0.31	0.67	0.58	0.38	0.30	0.61	0.74	0.33	0.26	0.27	0.27	0.12	0.43
		%	66	100	100	100	100	100	100	50	100	100	100	100	93
		Max-2w	0.33	0.92	0.70	0.66	0.30	0.64	1.19	0.33	0.29	0.50	0.27	0.14	1.19
		Min-2w	0.29	0.42	0.46	0.11	0.30	0.59	0.35	0.33	0.24	0.03	0.27	0.10	0.03
	Ijira	Mean	0.53	0.99	1.01	0.88	0.78	0.67	0.88	0.27	0.29	0.43	0.47	0.45	0.64
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.72	1.33	1.28	0.91	0.92	0.87	1.11	0.31	0.31	0.53	0.54	0.52	1.33
		Min-2w	0.28	0.65	0.75	0.86	0.65	0.47	0.52	0.24	0.27	0.33	0.41	0.36	0.24
	Oki	Mean	1.13	1.01	1.39	1.26	0.72	0.97	0.99	0.33	0.39	0.45	0.80	0.53	0.83
		%	100	100	100	100	100	100	100	100	100	100	85	100	99
		Max-2w	1.60	1.25	1.90	1.91	0.84	1.15	2.01	0.34	0.48	0.52	0.88	0.83	2.01
		Min-2w	0.67	0.77	0.87	0.61	0.60	0.79	0.18	0.32	0.31	0.39	0.72	0.24	0.18
	Banryu	Mean	1.31	1.38	1.10	1.03	0.77	0.97	1.11	0.28	0.49	0.53	0.91	0.68	0.90
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	1.65	1.65	1.42	1.31	0.78	1.10	1.79	0.33	0.56	0.62	0.93	0.78	1.79
		Min-2w	1.07	1.10	0.78	0.74	0.76	0.84	0.43	0.23	0.41	0.45	0.89	0.57	0.23
	Yusuhara	Mean	1.02	1.03	0.90	0.76	0.80	0.58	0.78	0.56	0.51	0.54	0.66	0.62	0.72
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	1.08	1.25	1.22	0.84	1.01	0.64	1.08	0.99	0.53	0.64	0.73	0.64	1.25
		Min-2w	0.95	0.81	0.58	0.69	0.60	0.53	0.39	0.31	0.48	0.43	0.58	0.60	0.31
	Hedo	Mean	0.64	0.78	0.66	0.61	0.50	0.20	0.25	0.18	0.07	0.60	0.56	0.45	0.46
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.81	0.91	0.85	0.98	0.60	0.21	0.59	0.24	0.14	0.63	0.72	0.63	0.98
		Min-2w	0.51	0.64	0.47	0.24	0.40	0.20	0.07	0.13	<0.01	0.57	0.41	0.27	<0.01
	Ogasawara	Mean	0.38	0.13	0.15	0.17	0.14	0.09	0.15	0.05	0.12	0.06	0.12	0.26	0.16
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.41	0.20	0.17	0.18	0.17	0.09	0.21	0.07	0.12	0.07	0.15	0.40	0.41
		Min-2w	0.35	0.06	0.12	0.17	0.11	0.09	0.07	0.04	0.11	0.05	0.10	0.12	0.04
	Tokyo	Mean	1.24	1.36	1.77	1.10	1.27	1.08	1.29	0.75	0.45	0.65	1.18	1.07	1.11
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	1.53	1.49	2.18	1.15	1.30	1.14	1.68	0.81	0.66	0.66	1.20	1.34	2.18
		Min-2w	0.69	1.24	1.36	1.04	1.25	1.02	0.56	0.68	0.25	0.64	1.15	0.59	0.25

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

Unit : μg/m³			2018												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Malaysia	Petaling Jaya	Mean	0.01	0.03	0.02	0.02	0.02	0.04	0.02	0.04	0.03	0.02	0.01	0.01	0.02
		%	75	75	100	75	50	60	25	100	100	75	100	100	79
		Max-w	0.02	0.03	0.03	0.02	0.03	0.05	0.02	0.12	0.06	0.04	0.02	0.02	0.12
		Min-w	<0.01	0.02	<0.01	0.02	0.01	0.03	0.02	0.01	<0.01	0.01	<0.01	<0.01	<0.01
	Tanah Rata	Mean	<0.01	<0.01	0.01	<0.01	<0.01	0.01	0.01	0.02	0.01	<0.01	<0.01	<0.01	<0.01
		%	100	100	100	75	100	100	100	100	100	100	100	75	96
		Max-w	<0.01	<0.01	0.02	0.01	0.01	0.02	0.01	0.03	0.03	0.01	<0.01	0.02	0.03
		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
	Danum Valley	Mean	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.22	0.36	0.12	0.04	0.01	<0.01	0.07
		%	100	100	100	100	100	100	75	86	100	100	100	100	97
		Max-2w	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.33	0.51	0.17	0.11	0.02	<0.01	0.51
		Min-2w	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.12	0.21	0.08	<0.01	<0.01	<0.01	<0.01
Mongolia	Ulaanbaatar	Mean	0.57	1.52	0.36	0.07	0.01	0.03	<0.01	0.05	0.02	0.07	0.65	0.91	0.34
		%	100	100	100	100	100	100	100	100	100	100	100	75	98
		Max-w	1.32	2.94	1.46	0.18	0.02	0.08	<0.01	0.13	0.06	0.28	1.15	2.64	2.94
		Min-w	0.11	0.13	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.11	<0.01	<0.01
	Terelj	Mean	0.04	-	-	<0.01	<0.01	<0.01	0.01	<0.01	<0.01	0.01	<0.01	<0.01	<0.01
		%	90	0	0	78	100	100	100	100	100	100	100	100	81
		Max-2w	0.08	-	-	<0.01	<0.01	<0.01	0.02	<0.01	<0.01	0.04	<0.01	0.02	0.08
		Min-2w	<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	1.18	0.15	0.05	0.22	0.05	0.03	0.67	0.66	<0.01	0.62	0.12	0.13	0.33
		%	100	82	50	100	67	100	100	50	90	100	100	100	86
		Max-2w	1.54	0.24	0.05	0.32	0.10	0.06	1.35	0.66	<0.01	1.66	0.18	0.17	1.66
		Min-2w	0.82	0.06	0.05	0.13	<0.01	<0.01	<0.01	0.66	<0.01	<0.01	0.06	0.08	<0.01
Republic of Korea	Kanghwa	Mean	2.18	0.99	2.95	2.08	1.90	2.74	-	0.14	0.63	1.23	3.18	3.98	2.13
		%	19	14	16	19	9	13	0	3	17	16	17	13	13
		Max-d	4.60	1.99	7.05	4.33	2.28	4.07	-	0.14	2.20	3.95	5.97	6.72	7.05
		Min-d	1.01	0.36	0.27	0.51	1.70	1.06	-	0.14	0.07	0.47	0.82	1.62	0.07
	Cheju (Kosan)	Mean	0.43	1.61	-	-	1.92	1.92	2.57	0.60	1.51	1.06	1.33	0.82	1.38
		%	16	14	0	0	16	13	13	12	5	13	17	16	11
		Max-d	0.89	2.13	-	-	3.91	2.56	3.71	1.09	2.08	2.11	3.08	1.62	3.91
		Min-d	0.05	1.11	-	-	0.42	1.43	1.08	0.11	0.94	0.59	0.36	0.43	0.05
	Imsil	Mean	4.27	1.86	3.61	1.54	1.52	2.32	1.48	0.60	1.23	1.33	2.71	0.89	1.92
		%	13	11	13	17	13	13	16	13	17	16	17	13	14
		Max-d	8.60	2.55	8.36	3.47	4.74	4.34	2.58	1.14	2.65	2.38	4.13	1.71	8.60
		Min-d	1.69	0.93	0.93	0.55	0.08	1.40	0.35	0.11	0.58	0.67	1.42	0.13	0.08
Russia	Mondy	Mean	0.05	0.12	0.10	0.15	0.02	<0.01	0.03	0.03	0.01	0.02	0.04	0.02	0.05
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-m	0.05	0.12	0.18	0.29	0.03	<0.01	0.04	0.03	0.01	0.03	0.06	0.02	0.29
		Min-m	0.05	0.12	0.01	<0.01	<0.01	<0.01	0.03	0.03	0.01	0.02	0.01	0.01	<0.01
	Listvyanka	Mean	0.10	0.26	0.16	0.05	0.04	<0.01	0.09	0.08	0.07	0.19	0.07	0.10	0.10
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.17	0.40	0.30	0.07	0.08	<0.01	0.17	0.19	0.17	0.42	0.14	0.18	0.42
		Min-w	0.07	0.12	<0.01	0.03	<0.01	<0.01	0.06	0.03	0.01	0.01	0.04	0.04	<0.01
	Irkutsk	Mean	4.41	1.13	0.58	0.15	0.06	<0.01	0.28	0.12	0.11	0.19	0.59	1.04	0.73
		%	100	100	100	100	100	80	100	100	100	100	100	100	98
		Max-w	7.32	1.65	0.89	0.37	0.10	0.03	0.60	0.21	0.23	0.54	1.42	1.55	7.32
		Min-w	0.80	0.59	0.32	0.05	<0.01	<0.01	0.09	0.01	0.04	0.04	0.12	0.77	<0.01
	Primorskaya	Mean	0.25	0.20	0.28	0.05	0.05	0.24	0.04	0.23	0.11	0.02	0.06	0.02	0.13
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.49	0.36	0.55	0.09	0.08	0.46	0.06	0.29	0.19	0.03	0.09	0.02	0.55
		Min-2w	<0.01	0.03	<0.01	<0.01	0.03	0.03	0.02	0.17	0.02	0.01	0.03	0.02	<0.01
Thailand	Bangkok	Mean	1.35	1.56	0.98	1.00	1.54	0.09	0.16	0.06	0.42	1.06	0.52	0.46	0.77
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-10d	1.68	1.83	1.27	1.33	2.80	0.15	0.25	0.10	0.54	1.23	0.69	0.70	2.80
		Min-10d	1.07	1.19	0.70	0.36	0.71	0.05	0.07	<0.01	0.32	0.73	0.30	0.10	<0.01
	Khanchanaburi (Vachiralongkorn Dam)	Mean	-	-	1.42	-	-	-	<0.01	-	-	-	0.29	-	0.57
		%	0	0	55	0	0	0	68	0	0	0	57	0	15
		Max-2w	-	-	1.42	-	-	-	<0.01	-	-	-	0.29	-	1.42
		Min-2w	-	-	1.42	-	-	-	<0.01	-	-	-	0.29	-	<0.01
	Mae Hia	Mean	0.23	0.13	0.07	0.48	0.28	0.09	0.11	0.14	-	0.02	-	-	0.18
		%	90	61	97	97	97	67	97	100	0	94	0	0	67
		Max-10d	0.42	0.16	0.09	0.84	0.52	0.10	0.15	0.22	-	0.05	-	-	0.84
		Min-10d	0.03	0.09	0.05	0.26	0.03	0.08	0.05	0.07	-	<0.01	-	-	<0.01
	Sakaerat	Mean	1.57	2.15	2.33	2.26	1.44	1.35	0.64	0.64	1.24	2.49	-	-	1.62
		%	93	100	100	100	100	70	100	100	100	100	0	0	80
		Max-10d	2.15	3.84	3.30	2.58	1.82	1.48	1.06	0.93	1.62	3.47	-	-	3.84
		Min-10d	1.12	0.25	0.91	1.71	1.04	1.21	0.09	0.10	1.01	1.76	-	-	0.09

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

Unit : μg/m^3			2018												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Vietnam	Hanoi	Mean	0.66	2.08	1.46	1.23	0.23	0.28	0.40	0.38	0.79	3.27	2.45	3.52	1.37
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	1.52	4.66	4.06	2.43	0.44	0.64	0.94	0.78	1.27	3.88	3.26	4.28	4.66
		Min-w	0.04	0.03	0.14	0.21	0.03	0.05	0.03	0.04	0.28	2.45	1.61	2.63	0.03
	Hoa Binh	Mean	3.13	3.44	1.08	1.91	0.77	0.42	0.36	0.25	0.21	1.71	1.86	2.28	1.42
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	6.13	5.81	1.39	3.85	1.49	1.09	0.66	0.54	0.39	1.88	2.08	3.19	6.13
		Min-w	1.58	0.69	0.52	0.08	0.32	0.18	0.16	0.10	0.03	1.63	1.64	1.32	0.03
	Can Tho	Mean	1.28	1.50	1.68	1.46	1.37	1.36	0.10	1.21	1.31	1.28	1.10	0.70	1.21
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	1.71	1.73	2.02	2.04	1.92	1.75	0.22	2.34	1.90	1.96	1.23	1.01	2.34
		Min-w	0.87	1.07	1.21	0.10	0.69	0.83	<0.01	0.04	0.46	0.67	0.97	0.40	<0.01
	Ho Chi Minh	Mean	2.14	1.51	1.21	1.19	1.30	0.93	1.43	1.78	0.84	1.52	1.37	1.11	1.37
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	2.46	2.00	3.00	2.82	2.76	1.73	1.90	2.44	2.34	2.40	1.69	1.29	3.00
		Min-w	1.92	0.58	0.32	0.38	0.16	0.46	0.93	1.45	0.26	0.44	1.03	0.87	0.16
	Yen Bai	Mean	5.15	3.99	4.33	3.38	1.17	0.80	0.70	0.61	1.96	2.49	2.92	3.76	2.58
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	8.74	6.85	5.87	4.63	2.16	0.98	1.20	0.71	2.69	3.58	3.87	5.04	8.74
		Min-w	2.21	0.85	2.85	1.98	0.58	0.50	0.40	0.33	0.19	1.74	1.63	3.15	0.19

Terms and abbreviations are given in Table 4.2.

Table 4.17 Particulate matter component: Na^+

Unit : μg/m^3			2018												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Indonesia	Jakarta	Mean	1.63	2.02	1.44	1.15	1.25	1.38	1.55	0.35	0.68	0.71	0.13	-	1.10
		%	63	50	39	100	97	100	100	100	100	70	52	0	73
		Max-2w	1.9	2.0	1.4	1.5	1.7	1.6	1.6	0.4	1.0	0.8	0.1	-	2.0
		Min-2w	1.39	2.02	1.44	0.78	0.81	1.11	1.52	0.34	0.32	0.63	0.13	-	0.13
	Serpong	Mean	0.62	0.39	0.22	0.90	0.87	0.81	0.67	1.10	1.12	0.87	0.18	0.54	0.70
		%	67	100	100	100	100	67	100	100	100	100	100	100	92
		Max-2w	0.79	0.39	0.29	1.18	1.28	1.31	0.99	1.29	1.22	1.11	0.27	0.80	1.31
		Min-2w	0.45	0.39	0.15	0.63	0.45	0.32	0.36	0.91	1.02	0.64	0.09	0.28	0.09
	Bandung	Mean	0.38	0.49	0.57	0.38	0.75	0.76	1.05	1.14	0.82	0.99	0.46	0.31	0.67
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.43	0.55	1.02	0.41	0.89	0.79	1.27	1.30	0.82	1.20	0.46	0.34	1.30
		Min-2w	0.34	0.43	0.29	0.35	0.61	0.73	0.83	0.99	0.82	0.78	0.46	0.28	0.28
Japan	Rishiri	Mean	1.27	1.79	3.72	3.55	1.28	1.69	0.57	1.18	2.93	3.39	2.29	2.44	2.08
		%	100	100	92	100	100	100	100	100	100	100	100	68	96
		Max-2w	1.43	2.07	3.75	3.57	1.30	1.72	0.82	1.37	4.41	3.93	2.54	2.73	4.41
		Min-2w	1.14	1.50	3.70	3.53	1.27	1.66	0.32	0.99	1.45	2.86	2.04	2.16	0.32
	Ochiishi	Mean	3.23	3.41	3.23	3.02	2.48	1.42	1.14	1.02	3.72	4.87	3.16	2.37	2.64
		%	100	59	100	100	100	100	100	100	100	100	100	100	97
		Max-2w	3.69	3.41	3.74	3.41	3.47	2.07	1.44	1.26	3.72	5.51	4.39	2.78	5.51
		Min-2w	2.40	3.41	2.72	2.62	1.48	0.78	0.82	0.78	3.72	4.24	1.94	1.96	0.78
	Tappi	Mean	10.23	4.25	3.94	1.88	2.02	1.22	1.01	2.20	2.73	3.84	-	4.32	3.58
		%	100	100	100	100	100	100	100	100	100	100	0	31	85
		Max-2w	22.40	5.64	4.19	1.98	2.69	1.83	1.56	3.03	3.96	4.85	-	4.32	22.40
		Min-2w	3.84	2.87	3.69	1.78	1.35	0.61	0.60	1.38	1.50	2.83	-	4.32	0.60
	Sado-seki	Mean	3.82	5.83	3.04	1.69	2.98	1.73	1.40	3.31	4.51	13.94	2.88	3.73	3.91
		%	100	50	50	100	100	100	100	100	100	100	100	100	93
		Max-2w	5.20	5.83	3.04	1.92	3.85	2.29	2.08	3.61	7.84	24.73	3.18	4.36	24.73
		Min-2w	1.97	5.83	3.04	1.45	2.11	1.17	0.72	3.01	1.18	3.15	2.59	2.69	0.72
	Happo	Mean	0.07	0.13	0.14	0.09	0.07	0.04	0.12	0.16	0.07	0.08	0.12	0.07	0.10
		%	66	100	100	100	100	100	100	50	100	100	100	100	93
		Max-2w	0.09	0.15	0.15	0.12	0.07	0.04	0.14	0.16	0.09	0.13	0.12	0.09	0.16
		Min-2w	0.06	0.11	0.13	0.06	0.07	0.04	0.10	0.16	0.04	0.03	0.12	0.05	0.03
	Ijira	Mean	0.21	0.36	0.32	0.34	0.22	0.18	0.41	0.40	0.18	0.37	0.20	0.21	0.28
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.25	0.51	0.37	0.40	0.23	0.21	0.53	0.49	0.20	0.39	0.26	0.30	0.53
		Min-2w	0.16	0.20	0.26	0.29	0.22	0.15	0.27	0.32	0.15	0.35	0.14	0.14	0.14
	Oki	Mean	7.62	5.47	4.43	2.94	2.27	1.54	1.71	2.63	2.30	4.51	2.89	4.97	3.66
		%	100	100	100	100	100	100	100	100	100	100	85	100	99
		Max-2w	8.51	6.67	5.93	3.50	3.05	2.01	2.79	3.19	2.68	4.98	3.09	5.61	8.51
		Min-2w	6.74	4.25	2.94	2.38	1.49	1.06	0.73	2.07	1.91	4.05	2.69	4.62	0.73
	Banryu	Mean	2.04	1.77	2.48	1.58	1.42	1.12	0.93	1.31	0.96	1.35	1.08	1.41	1.46
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	2.61	1.84	2.63	1.94	1.56	1.39	1.29	2.27	0.98	1.48	1.25	1.78	2.63
		Min-2w	1.21	1.70	2.33	1.23	1.28	0.85	0.52	0.35	0.93	1.21	0.92	0.73	0.35
	Yusuhara	Mean	0.32	0.36	0.44	0.51	0.29	0.13	0.27	0.37	0.17	0.40	0.30	0.28	0.32
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.41	0.44	0.44	0.77	0.31	0.15	0.30	0.41	0.18	0.41	0.34	0.34	0.77
		Min-2w	0.24	0.28	0.44	0.25	0.28	0.12	0.22	0.30	0.15	0.39	0.27	0.24	0.12
	Hedo	Mean	5.76	5.17	5.22	3.90	3.17	3.51	3.42	4.46	12.24	6.18	5.05	5.80	5.29
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	6.21	5.81	5.61	4.37	3.76	3.93	4.91	4.68	21.59	7.06	5.58	6.19	21.59
		Min-2w	5.23	4.53	4.83	3.44	2.58	3.08	2.62	4.23	2.90	5.30	4.52	5.43	2.58
	Ogasawara	Mean	2.98	0.99	2.79	2.94	1.89	1.32	2.35	4.06	1.73	2.22	2.02	3.21	2.40
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	3.65	1.78	3.39	3.30	2.03	1.40	3.40	4.43	1.80	2.51	2.05	3.52	4.43
		Min-2w	2.26	0.20	2.20	2.58	1.74	1.23	1.75	3.68	1.66	1.92	1.98	2.91	0.20
	Tokyo	Mean	0.37	0.67	1.03	1.55	1.04	0.65	1.43	1.67	1.43	1.26	0.66	0.39	0.98
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.43	0.83	1.04	1.79	1.11	0.72	1.72	2.04	1.83	1.59	0.70	0.77	2.04
		Min-2w	0.28	0.52	1.02	1.30	0.96	0.58	1.16	1.30	1.04	0.93	0.61	0.16	0.16

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

Unit : μg/m³			2018												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Malaysia	Petaling Jaya	Mean	<0.01	0.02	0.01	<0.01	<0.01	0.01	0.01	0.02	<0.01	<0.01	<0.01	<0.01	0.01
		%	75	75	100	75	50	60	25	100	100	75	100	100	79
		Max-w	<0.01	0.03	0.02	0.02	<0.01	0.02	0.01	0.05	0.01	<0.01	<0.01	0.02	0.05
		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
	Tanah Rata	Mean	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
		%	100	100	100	75	100	100	100	100	100	100	100	75	96
		Max-w	<0.01	<0.01	0.02	<0.01	<0.01	0.03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.03
		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
	Danum Valley	Mean	<0.01	0.02	0.01	<0.01	<0.01	<0.01	0.25	0.34	0.10	0.04	0.02	<0.01	0.07
		%	100	100	100	100	100	100	75	86	100	100	100	100	97
		Max-2w	<0.01	0.02	0.01	0.01	<0.01	<0.01	0.34	0.37	0.18	0.11	0.03	<0.01	0.37
		Min-2w	<0.01	0.02	0.01	<0.01	<0.01	<0.01	0.17	0.32	0.03	<0.01	<0.01	<0.01	<0.01
Mongolia	Ulaanbaatar	Mean	0.11	0.59	0.24	0.11	0.11	0.07	0.04	0.09	0.07	0.20	0.26	0.35	0.18
		%	100	100	100	100	100	100	100	100	100	100	100	75	98
		Max-w	0.24	1.35	0.78	0.22	0.16	0.15	0.04	0.16	0.10	0.62	0.39	0.98	1.35
		Min-w	0.05	0.11	0.08	0.02	0.08	0.02	0.04	0.04	0.04	0.02	0.19	0.02	0.02
	Terelj	Mean	0.02	-	-	0.02	0.03	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02
		%	90	0	0	78	100	100	100	100	100	100	100	100	81
		Max-2w	0.03	-	-	0.04	0.06	0.01	0.01	0.01	0.01	0.04	0.03	0.03	0.06
		Min-2w	<0.01	-	-	<0.01	0.01	0.01	0.01	0.01	<0.01	0.01	0.02	<0.01	<0.01
Myanmar	Yangon	Mean	0.57	0.11	<0.01	0.08	0.22	3.07	1.52	<0.01	0.89	0.05	0.03	0.06	0.58
		%	100	82	50	100	67	100	100	50	90	100	100	100	86
		Max-2w	0.69	0.11	<0.01	0.13	0.28	4.10	2.01	<0.01	0.94	0.10	0.03	0.10	4.10
		Min-2w	0.45	0.11	<0.01	0.03	0.15	2.03	1.04	<0.01	0.85	0.02	0.03	0.03	<0.01
Republic of Korea	Kanghwa	Mean	0.17	0.25	0.26	0.23	0.09	0.29	-	0.28	0.24	0.10	0.16	0.22	0.20
		%	19	14	16	19	9	13	0	3	17	16	17	13	13
		Max-d	0.26	0.44	0.31	0.32	0.13	0.42	-	0.28	0.32	0.18	0.24	0.35	0.44
		Min-d	0.12	0.13	0.19	0.14	0.03	0.15	-	0.28	0.12	0.05	0.06	0.11	0.03
	Cheju (Kosan)	Mean	0.22	0.44	-	-	0.35	0.81	0.35	0.36	0.33	0.46	0.32	0.31	0.39
		%	16	14	0	0	16	13	13	12	5	13	17	16	11
		Max-d	0.36	0.53	-	-	0.56	1.05	0.47	0.51	0.35	0.79	0.50	0.47	1.05
		Min-d	0.09	0.35	-	-	0.15	0.70	0.30	0.21	0.31	0.24	0.18	0.18	0.09
	Imsil	Mean	0.26	0.37	0.23	0.20	0.22	0.35	0.35	0.26	0.18	0.24	0.26	0.21	0.26
		%	13	11	13	17	13	13	16	13	17	16	17	13	14
		Max-d	0.31	0.58	0.27	0.27	0.31	0.53	0.62	0.32	0.23	0.28	0.38	0.23	0.62
		Min-d	0.20	0.23	0.17	0.15	0.15	0.24	0.25	0.19	0.11	0.19	0.19	0.19	0.11
Russia	Mondy	Mean	0.05	0.03	0.03	0.02	0.04	0.06	0.03	0.04	0.02	0.02	<0.01	0.02	0.03
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-m	0.05	0.03	0.04	0.03	0.05	0.11	0.04	0.04	0.02	0.02	0.01	0.02	0.11
		Min-m	0.05	0.03	0.02	<0.01	0.02	<0.01	0.03	0.04	<0.01	0.01	<0.01	<0.01	<0.01
	Listvyanka	Mean	0.04	0.07	0.05	0.02	0.05	0.06	0.13	0.05	0.03	0.03	0.06	0.03	0.05
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.07	0.10	0.08	0.03	0.12	0.10	0.38	0.08	0.05	0.04	0.13	0.05	0.38
		Min-w	0.03	0.05	0.03	0.01	0.01	0.03	0.03	0.02	0.01	0.01	0.03	0.01	0.01
	Irkutsk	Mean	0.72	0.14	0.19	0.08	0.04	0.07	0.05	0.03	0.05	0.28	0.17	0.12	0.16
		%	100	100	100	100	100	80	100	100	100	100	100	100	98
		Max-w	1.06	0.18	0.35	0.20	0.07	0.16	0.07	0.03	0.06	0.90	0.26	0.25	1.06
		Min-w	0.12	0.08	0.12	0.04	<0.01	0.02	0.03	0.02	0.04	0.05	0.06	0.07	<0.01
	Primorskaya	Mean	0.03	0.05	0.07	0.11	0.09	0.10	0.05	0.07	0.05	<0.01	0.02	0.02	0.05
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.05	0.08	0.12	0.17	0.17	0.19	0.09	0.09	0.09	0.01	0.03	0.02	0.19
		Min-2w	<0.01	0.02	0.03	0.04	0.01	0.02	0.01	0.04	0.01	<0.01	0.02	0.02	<0.01
Thailand	Bangkok	Mean	0.41	0.63	0.91	0.70	0.73	0.67	0.48	0.43	0.20	0.29	0.24	0.19	0.49
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-10d	0.50	0.78	1.05	0.92	1.45	1.00	0.51	0.57	0.28	0.29	0.32	0.29	1.45
		Min-10d	0.25	0.51	0.73	0.43	0.29	0.48	0.43	0.33	0.12	0.28	0.19	0.01	0.01
	Khanchanaburi (Vachiralongkorn Dam)	Mean	-	-	0.20	-	-	-	<0.01	-	-	-	0.07	-	0.09
		%	0	0	55	0	0	0	68	0	0	0	57	0	15
		Max-2w	-	-	0.20	-	-	-	<0.01	-	-	-	0.07	-	0.20
		Min-2w	-	-	0.20	-	-	-	<0.01	-	-	-	0.07	-	<0.01
	Mae Hia	Mean	0.25	0.21	0.18	0.30	0.12	0.31	0.23	0.23	-	0.12	-	-	0.21
		%	90	61	97	97	97	67	97	100	0	94	0	0	67
		Max-10d	0.29	0.33	0.23	0.41	0.21	0.38	0.26	0.30	-	0.21	-	-	0.41
		Min-10d	0.20	0.08	0.13	0.17	<0.01	0.25	0.18	0.16	-	0.02	-	-	<0.01
	Sakaerat	Mean	0.22	0.20	0.48	0.37	0.16	1.05	0.60	0.35	0.22	0.29	-	-	0.37
		%	93	100	100	100	100	70	100	100	100	100	0	0	80
		Max-10d	0.31	0.31	0.73	0.52	0.26	1.53	0.88	0.57	0.33	0.39	-	-	1.53
		Min-10d	0.18	0.01	0.11	0.30	0.07	0.57	0.12	0.06	0.13	0.14	-	-	0.01

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

Unit : μg/m³			2018												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Vietnam	Hanoi	Mean	0.67	1.32	0.59	0.88	0.53	0.25	0.35	0.29	0.45	0.41	1.34	0.84	0.66
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.85	3.36	0.98	1.32	1.23	0.34	0.45	0.33	0.57	0.60	3.03	1.07	3.36
		Min-w	0.53	0.52	0.35	0.41	0.27	0.19	0.26	0.24	0.28	0.26	0.39	0.63	0.19
	Hoa Binh	Mean	1.07	0.46	0.55	0.51	0.40	0.24	0.42	0.45	0.39	0.45	0.41	0.57	0.49
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	1.67	0.64	1.23	0.63	0.62	0.34	0.50	0.76	0.47	0.52	0.54	0.66	1.67
		Min-w	0.56	0.27	0.20	0.37	0.28	0.06	0.34	0.28	0.31	0.38	0.29	0.48	0.06
	Can Tho	Mean	0.17	0.19	0.17	0.18	0.26	0.45	0.30	0.33	0.12	0.19	0.30	0.22	0.24
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.32	0.34	0.38	0.38	0.38	1.17	0.52	0.48	0.22	0.32	0.48	0.34	1.17
		Min-w	0.04	0.06	<0.01	0.02	0.10	0.02	0.14	0.22	<0.01	0.06	0.12	0.14	<0.01
	Ho Chi Minh	Mean	1.26	1.28	1.08	1.16	1.17	1.08	0.71	0.66	0.77	1.48	0.85	1.24	1.05
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	1.90	1.37	2.04	1.53	2.14	1.39	0.91	1.11	2.00	1.83	1.27	1.49	2.14
		Min-w	0.36	1.13	0.26	0.85	0.73	0.63	0.62	0.30	0.30	1.17	0.42	0.75	0.26
	Yen Bai	Mean	0.57	0.68	0.84	1.22	0.79	0.44	0.54	1.16	1.36	0.47	0.50	0.80	0.78
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.77	0.79	1.20	1.77	1.15	0.55	0.72	2.37	2.32	0.60	0.86	1.78	2.37
		Min-w	0.31	0.45	0.49	0.64	0.46	0.38	0.36	0.72	0.35	0.27	0.29	0.39	0.27

Terms and abbreviations are given in Table 4.2.

Table 4.18 Particulate matter component: K^+

Unit : μg/m^3			2018												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Indonesia	Jakarta	Mean	1.30	0.81	0.79	0.83	0.94	0.73	0.95	0.21	0.44	0.50	0.09	-	0.71
		%	63	50	39	100	97	100	100	100	100	70	52	0	73
		Max-2w	1.96	0.81	0.79	0.97	1.06	0.95	0.96	0.24	0.65	0.53	0.09	-	1.96
		Min-2w	0.63	0.81	0.79	0.69	0.82	0.51	0.94	0.18	0.22	0.46	0.09	-	0.09
	Serpong	Mean	0.36	0.41	0.40	0.52	1.07	0.86	0.72	0.96	0.91	1.02	0.49	0.61	0.71
		%	67	100	100	100	100	67	100	100	100	100	100	100	92
		Max-2w	0.52	0.41	0.50	0.57	1.49	1.23	0.98	0.98	1.03	1.28	0.75	0.64	1.49
		Min-2w	0.19	0.41	0.31	0.48	0.64	0.49	0.47	0.95	0.79	0.75	0.23	0.58	0.19
	Bandung	Mean	0.27	0.44	0.56	0.53	0.77	0.65	0.86	0.87	0.87	0.90	0.62	0.45	0.64
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.29	0.53	0.80	0.58	0.83	0.75	1.13	0.97	0.87	1.02	0.62	0.53	1.13
		Min-2w	0.24	0.35	0.41	0.47	0.72	0.56	0.58	0.78	0.87	0.78	0.62	0.37	0.24
Japan	Rishiri	Mean	0.12	0.14	0.21	0.28	0.08	0.09	0.08	0.15	0.22	0.20	0.15	0.17	0.15
		%	100	100	92	100	100	100	100	100	100	100	100	68	96
		Max-2w	0.20	0.14	0.33	0.29	0.09	0.09	0.13	0.16	0.36	0.26	0.17	0.18	0.36
		Min-2w	0.07	0.14	0.09	0.27	0.07	0.08	0.05	0.14	0.08	0.14	0.13	0.17	0.05
	Ochiishi	Mean	0.14	0.16	0.17	0.15	0.11	0.06	0.05	0.04	0.13	0.20	0.13	0.10	0.12
		%	100	59	100	100	100	100	100	100	100	100	100	100	97
		Max-2w	0.18	0.16	0.21	0.16	0.16	0.08	0.06	0.05	0.13	0.22	0.19	0.12	0.22
		Min-2w	0.08	0.16	0.13	0.14	0.06	0.03	0.04	0.03	0.13	0.18	0.07	0.09	0.03
	Tappi	Mean	0.44	0.20	0.25	0.13	0.11	0.09	0.08	0.11	0.12	0.16	-	0.25	0.18
		%	100	100	100	100	100	100	100	100	100	100	0	31	85
		Max-2w	0.85	0.28	0.30	0.16	0.15	0.10	0.09	0.15	0.17	0.20	-	0.25	0.85
		Min-2w	0.18	0.12	0.20	0.10	0.07	0.07	0.07	0.07	0.08	0.12	-	0.25	0.07
	Sado-seki	Mean	0.15	0.25	0.34	0.14	0.18	0.11	0.09	0.15	0.20	0.57	0.14	0.16	0.19
		%	100	50	50	100	100	100	100	100	100	100	100	100	93
		Max-2w	0.22	0.25	0.34	0.21	0.23	0.12	0.09	0.15	0.35	0.99	0.15	0.18	0.99
		Min-2w	0.08	0.25	0.34	0.06	0.14	0.10	0.07	0.14	0.06	0.15	0.14	0.12	0.06
	Happo	Mean	0.01	0.06	0.06	0.05	0.05	0.03	0.03	0.02	0.02	0.02	0.02	0.01	0.03
		%	66	100	100	100	100	100	100	50	100	100	100	100	93
		Max-2w	0.02	0.08	0.07	0.08	0.05	0.03	0.03	0.02	0.02	0.03	0.02	0.02	0.08
		Min-2w	0.01	0.03	0.04	0.02	0.05	0.03	0.02	0.02	0.01	<0.01	0.02	<0.01	<0.01
	Ijira	Mean	0.05	0.14	0.11	0.11	0.36	0.09	0.10	0.08	0.08	0.09	0.07	0.06	0.11
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.07	0.21	0.14	0.11	0.62	0.11	0.14	0.11	0.09	0.09	0.08	0.08	0.62
		Min-2w	0.04	0.07	0.08	0.11	0.10	0.07	0.08	0.06	0.07	0.09	0.05	0.04	0.04
	Oki	Mean	0.33	0.34	0.24	0.23	0.15	0.11	0.10	0.12	0.13	0.22	0.16	0.22	0.20
		%	100	100	100	100	100	100	100	100	100	100	85	100	99
		Max-2w	0.35	0.39	0.24	0.24	0.18	0.13	0.15	0.15	0.14	0.23	0.17	0.27	0.39
		Min-2w	0.30	0.31	0.24	0.22	0.12	0.08	0.06	0.10	0.13	0.20	0.16	0.18	0.06
	Banryu	Mean	0.13	0.23	0.16	0.14	0.12	0.11	0.07	0.07	0.10	0.13	0.12	0.12	0.12
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.14	0.31	0.21	0.15	0.12	0.11	0.09	0.12	0.11	0.13	0.12	0.16	0.31
		Min-2w	0.12	0.15	0.12	0.14	0.12	0.10	0.05	0.01	0.09	0.12	0.12	0.08	0.01
	Yusuhara	Mean	0.07	0.12	0.08	0.10	0.06	0.05	0.03	0.04	0.03	0.05	0.06	0.06	0.06
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.08	0.17	0.11	0.11	0.06	0.06	0.04	0.05	0.03	0.06	0.06	0.07	0.17
		Min-2w	0.05	0.07	0.05	0.09	0.06	0.04	0.02	0.04	0.03	0.04	0.05	0.05	0.02
	Hedo	Mean	0.27	0.32	0.25	0.21	0.19	0.20	0.17	0.21	0.47	0.27	0.22	0.27	0.25
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.28	0.35	0.25	0.22	0.21	0.20	0.20	0.22	0.76	0.30	0.22	0.28	0.76
		Min-2w	0.25	0.29	0.24	0.21	0.17	0.19	0.13	0.19	0.17	0.24	0.22	0.24	0.13
	Ogasawara	Mean	0.13	0.05	0.11	0.13	0.10	0.09	0.10	0.15	0.07	0.09	0.09	0.12	0.10
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.15	0.08	0.14	0.15	0.10	0.09	0.12	0.17	0.07	0.10	0.09	0.12	0.17
		Min-2w	0.11	0.01	0.09	0.12	0.10	0.08	0.08	0.14	0.07	0.09	0.08	0.12	0.01
	Tokyo	Mean	0.09	0.12	0.15	0.19	0.13	0.10	0.14	0.18	0.16	0.13	0.14	0.11	0.14
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.12	0.14	0.18	0.21	0.15	0.10	0.18	0.20	0.16	0.14	0.16	0.14	0.21
		Min-2w	0.08	0.10	0.12	0.17	0.12	0.10	0.11	0.17	0.16	0.12	0.12	0.06	0.06

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

Unit : μg/m³			2018												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Malaysia	Petaling Jaya	Mean	0.01	0.02	0.01	0.01	0.01	0.04	0.02	0.03	0.02	<0.01	0.01	0.01	0.02
		%	75	75	100	75	50	60	25	100	100	75	100	100	79
		Max-w	0.01	0.03	0.02	0.01	0.02	0.05	0.02	0.08	0.02	0.01	0.02	0.03	0.08
		Min-w	<0.01	0.01	<0.01	<0.01	<0.01	0.03	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	Tanah Rata	Mean	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
		%	100	100	100	75	100	100	100	100	100	100	100	75	96
		Max-w	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	0.01	<0.01	<0.01	0.02	0.02
		Min-w	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	Danum Valley	Mean	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.28	0.34	0.15	0.05	<0.01	<0.01	0.07
		%	100	100	100	100	100	100	75	86	100	100	100	100	97
		Max-2w	<0.01	<0.01	<0.01	0.01	<0.01	<0.01	0.29	0.42	0.22	0.11	0.01	<0.01	0.42
		Min-2w	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.26	0.26	0.09	<0.01	<0.01	<0.01	<0.01
Mongolia	Ulaanbaatar	Mean	0.04	0.07	0.06	0.06	0.08	0.04	0.03	0.07	0.06	0.07	0.12	0.06	0.06
		%	100	100	100	100	100	100	100	100	100	100	100	75	98
		Max-w	0.06	0.09	0.07	0.11	0.16	0.06	0.04	0.10	0.08	0.15	0.16	0.12	0.16
		Min-w	0.02	0.02	0.03	0.02	0.04	0.02	0.02	0.04	0.04	0.02	0.09	0.02	0.02
	Terelj	Mean	0.02	-	-	0.02	0.04	0.02	0.01	0.02	0.01	0.01	0.02	0.02	0.02
		%	90	0	0	78	100	100	100	100	100	100	100	100	81
		Max-2w	0.02	-	-	0.04	0.07	0.03	0.01	0.02	0.01	0.02	0.03	0.03	0.07
		Min-2w	<0.01	-	-	<0.01	<0.01	0.01	0.01	0.01	<0.01	<0.01	0.02	<0.01	<0.01
Myanmar	Yangon	Mean	2.24	0.36	<0.01	0.09	0.10	<0.01	0.13	<0.01	0.26	0.36	0.73	0.12	0.40
		%	100	82	50	100	67	100	100	50	90	100	100	100	86
		Max-2w	2.98	0.42	<0.01	0.18	0.21	<0.01	0.17	<0.01	0.43	0.97	1.15	0.16	2.98
		Min-2w	1.51	0.31	<0.01	<0.01	<0.01	<0.01	0.10	<0.01	0.09	0.03	0.32	0.08	<0.01
Republic of Korea	Kanghwa	Mean	0.07	0.02	0.02	<0.01	<0.01	<0.01	-	0.04	0.15	0.11	0.21	0.24	0.09
		%	19	14	16	19	9	13	0	3	17	16	17	13	13
		Max-d	0.21	0.07	0.11	<0.01	<0.01	<0.01	-	0.04	0.52	0.30	0.31	0.44	0.52
		Min-d	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	0.04	0.02	0.03	0.08	0.11	<0.01
	Cheju (Kosan)	Mean	0.06	0.11	-	-	0.10	0.10	0.05	0.08	0.04	0.07	0.07	0.04	0.07
		%	16	14	0	0	16	13	13	12	5	13	17	16	11
		Max-d	0.09	0.14	-	-	0.24	0.11	0.05	0.08	0.06	0.15	0.19	0.14	0.24
		Min-d	0.04	0.06	-	-	0.03	0.08	0.05	0.07	0.02	<0.01	0.01	<0.01	<0.01
	Imsil	Mean	0.18	0.45	0.11	0.09	0.05	0.38	0.05	0.07	0.03	0.08	0.21	0.03	0.13
		%	13	11	13	17	13	13	16	13	17	16	17	13	14
		Max-d	0.25	1.05	0.19	0.22	0.09	0.78	0.06	0.10	0.09	0.24	0.33	0.10	1.05
		Min-d	0.10	0.13	0.04	0.04	0.03	0.06	0.04	0.06	<0.01	<0.01	0.10	<0.01	<0.01
Russia	Mondy	Mean	0.05	0.01	<0.01	0.16	0.02	0.06	0.03	0.07	0.02	0.01	<0.01	<0.01	0.04
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-m	0.05	0.01	0.01	0.31	0.03	0.13	0.04	0.07	0.02	0.02	0.01	0.01	0.31
		Min-m	0.05	0.01	<0.01	0.01	0.02	<0.01	0.02	0.07	0.01	<0.01	<0.01	<0.01	<0.01
	Listvyanka	Mean	0.02	0.02	0.11	<0.01	0.11	0.09	0.09	0.06	0.02	0.02	0.01	<0.01	0.05
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.03	0.03	0.25	0.02	0.33	0.15	0.23	0.17	0.03	0.04	0.04	0.01	0.33
		Min-w	0.01	0.02	0.02	<0.01	<0.01	<0.01	0.01	<0.01	<0.01	0.01	<0.01	<0.01	<0.01
	Irkutsk	Mean	0.70	0.07	0.04	0.15	0.01	0.18	0.04	0.03	0.11	0.22	0.19	0.18	0.16
		%	100	100	100	100	100	80	100	100	100	100	100	100	98
		Max-w	1.27	0.09	0.10	0.51	0.02	0.33	0.06	0.04	0.29	0.75	0.49	0.53	1.27
		Min-w	0.07	0.04	0.03	0.02	<0.01	0.01	<0.01	0.01	0.04	0.02	0.04	0.05	<0.01
	Primorskaya	Mean	0.05	0.04	0.08	0.22	0.16	0.04	0.01	0.06	0.02	<0.01	0.02	<0.01	0.06
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.09	0.06	0.11	0.35	0.32	0.08	0.02	0.09	0.04	0.02	0.05	<0.01	0.35
		Min-2w	<0.01	0.02	0.06	0.09	<0.01	<0.01	<0.01	0.04	<0.01	<0.01	<0.01	<0.01	<0.01
Thailand	Bangkok	Mean	0.56	0.72	0.44	0.40	0.87	0.33	0.29	0.22	0.35	0.34	0.60	0.56	0.47
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-10d	0.81	0.91	0.55	0.48	1.79	0.38	0.36	0.31	0.48	0.37	0.64	1.09	1.79
		Min-10d	0.32	0.46	0.27	0.28	0.40	0.26	0.23	0.14	0.27	0.32	0.56	0.04	0.04
	Khanchanaburi (Vachiralongkorn Dam)	Mean	-	-	0.93	-	-	-	0.01	-	-	-	0.12	-	0.35
		%	0	0	55	0	0	0	68	0	0	0	57	0	15
		Max-2w	-	-	0.93	-	-	-	0.01	-	-	-	0.12	-	0.93
		Min-2w	-	-	0.93	-	-	-	0.01	-	-	-	0.12	-	0.01
	Mae Hia	Mean	0.38	0.13	0.20	0.43	0.15	0.14	0.15	0.24	-	0.22	-	-	0.23
		%	90	61	97	97	97	67	97	100	0	94	0	0	67
		Max-10d	0.54	0.22	0.55	1.01	0.33	0.17	0.33	0.39	-	0.58	-	-	1.01
		Min-10d	0.11	0.04	0.02	0.06	0.02	0.11	<0.01	0.06	-	<0.01	-	-	<0.01
	Sakaerat	Mean	1.12	0.96	0.85	0.85	0.55	0.44	0.29	0.29	0.52	0.47	-	-	0.64
		%	93	100	100	100	100	70	100	100	100	100	0	0	80
		Max-10d	1.35	1.51	1.21	1.04	0.67	0.56	0.44	0.41	0.55	0.59	-	-	1.51
		Min-10d	0.70	0.33	0.23	0.68	0.46	0.32	0.09	0.07	0.48	0.40	-	-	0.07

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

Unit : μg/m^3			2018												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Vietnam	Hanoi	Mean	0.33	0.74	0.37	0.55	0.29	0.28	0.34	0.38	0.46	0.56	1.13	1.18	0.55
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.51	1.62	0.46	0.85	0.60	0.43	0.44	0.57	0.60	1.23	2.09	1.58	2.09
		Min-w	0.18	0.31	0.23	0.18	0.10	0.17	0.12	0.18	0.27	0.27	0.67	0.94	0.10
	Hoa Binh	Mean	0.68	0.68	0.30	0.35	0.39	0.15	0.24	0.24	0.22	0.34	0.29	0.32	0.35
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.78	1.30	0.50	0.60	0.74	0.22	0.30	0.32	0.34	0.38	0.45	0.66	1.30
		Min-w	0.56	0.38	0.18	0.20	0.15	0.03	0.21	0.18	0.08	0.29	0.16	0.13	0.03
	Can Tho	Mean	0.11	0.19	0.12	0.21	0.13	0.26	0.21	0.24	0.31	0.16	0.48	0.47	0.24
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.20	0.36	0.30	0.36	0.24	0.52	0.44	0.56	0.48	0.44	0.62	0.62	0.62
		Min-w	<0.01	0.04	<0.01	0.08	0.08	<0.01	0.08	0.04	0.06	0.06	0.32	0.28	<0.01
	Ho Chi Minh	Mean	1.33	1.23	0.91	0.72	1.33	0.96	0.43	0.79	0.86	1.24	0.79	1.04	0.97
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	1.65	1.51	1.11	0.87	1.57	1.23	0.60	0.97	1.59	1.43	1.09	1.35	1.65
		Min-w	1.01	0.87	0.60	0.63	0.85	0.48	0.34	0.56	0.50	1.07	0.60	0.71	0.34
	Yen Bai	Mean	0.36	0.63	0.76	0.59	0.54	0.59	0.35	0.88	0.99	1.00	1.64	1.78	0.85
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.58	0.81	1.25	0.94	0.89	0.98	0.74	1.25	1.53	1.93	1.87	2.03	2.03
		Min-w	0.14	0.49	0.47	0.38	0.37	0.07	0.17	0.65	0.78	0.35	1.32	1.35	0.07

Terms and abbreviations are given in Table 4.2.

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

Unit : μg/m^3			2018												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Indonesia	Jakarta	Mean	0.17	0.37	0.10	0.12	0.21	0.24	0.40	0.05	0.11	0.13	0.05	-	0.18
		%	63	50	39	100	97	100	100	100	100	70	52	0	73
		Max-2w	0.20	0.37	0.10	0.14	0.30	0.28	0.52	0.05	0.17	0.14	0.05	-	0.52
		Min-2w	0.15	0.37	0.10	0.10	0.12	0.20	0.28	0.05	0.05	0.12	0.05	-	0.05
	Serpong	Mean	0.08	0.05	0.04	0.13	0.12	0.14	0.16	0.12	0.20	0.18	0.05	0.01	0.11
		%	67	100	100	100	100	67	100	100	100	100	100	100	92
		Max-2w	0.09	0.05	0.05	0.20	0.17	0.22	0.19	0.13	0.22	0.24	0.07	0.01	0.24
		Min-2w	0.07	0.05	0.03	0.05	0.07	0.06	0.12	0.10	0.18	0.12	0.03	0.01	0.01
	Bandung	Mean	0.11	0.12	0.14	0.11	0.20	0.18	0.23	0.26	0.21	0.23	0.15	0.11	0.17
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.11	0.12	0.22	0.11	0.21	0.18	0.23	0.28	0.21	0.27	0.16	0.11	0.28
		Min-2w	0.11	0.12	0.08	0.10	0.19	0.18	0.23	0.25	0.21	0.20	0.14	0.11	0.08
Japan	Rishiri	Mean	0.17	0.21	0.49	0.46	0.09	0.07	0.09	0.17	0.39	0.45	0.30	0.32	0.26
		%	100	100	92	100	100	100	100	100	100	100	100	68	96
		Max-2w	0.19	0.24	0.49	0.46	0.09	0.07	0.12	0.20	0.59	0.52	0.34	0.36	0.59
		Min-2w	0.15	0.18	0.48	0.45	0.09	0.07	0.04	0.14	0.19	0.37	0.27	0.29	0.04
	Ochiishi	Mean	0.39	0.41	0.38	0.36	0.29	0.16	0.13	0.12	0.43	0.58	0.38	0.27	0.31
		%	100	59	100	100	100	100	100	100	100	100	100	100	97
		Max-2w	0.47	0.41	0.44	0.41	0.41	0.24	0.16	0.14	0.43	0.65	0.53	0.32	0.65
		Min-2w	0.27	0.41	0.32	0.31	0.18	0.09	0.09	0.09	0.43	0.51	0.22	0.23	0.09
	Tappi	Mean	1.20	0.51	0.49	0.23	0.24	0.15	0.12	0.26	0.32	0.46	-	0.50	0.42
		%	100	100	100	100	100	100	100	100	100	100	0	31	85
		Max-2w	2.62	0.67	0.50	0.25	0.32	0.22	0.18	0.36	0.47	0.57	-	0.50	2.62
		Min-2w	0.44	0.34	0.47	0.22	0.16	0.08	0.08	0.16	0.18	0.34	-	0.50	0.08
	Sado-seki	Mean	0.44	0.65	0.42	0.26	0.39	0.22	0.19	0.40	0.56	1.71	0.35	0.45	0.48
		%	100	50	50	100	100	100	100	100	100	100	100	100	93
		Max-2w	0.60	0.65	0.42	0.29	0.46	0.27	0.26	0.43	0.97	3.03	0.38	0.50	3.03
		Min-2w	0.23	0.65	0.42	0.23	0.31	0.16	0.12	0.37	0.16	0.38	0.33	0.33	0.12
	Happo	Mean	<0.01	0.02	0.05	0.03	0.05	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.02
		%	66	100	100	100	100	100	100	50	100	100	100	100	93
		Max-2w	0.01	0.03	0.06	0.05	0.05	0.01	0.02	0.02	0.02	0.02	0.01	0.02	0.06
		Min-2w	<0.01	0.01	0.04	0.02	0.05	0.01	0.01	0.02	<0.01	<0.01	0.01	<0.01	<0.01
	Ijira	Mean	0.03	0.05	0.05	0.08	0.05	0.03	0.05	0.05	0.03	0.06	0.03	0.03	0.04
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.03	0.08	0.05	0.10	0.05	0.04	0.07	0.07	0.03	0.06	0.03	0.07	0.10
		Min-2w	0.02	0.02	0.05	0.07	0.04	0.02	0.04	0.03	0.03	0.05	0.02	0.01	0.01
	Oki	Mean	0.96	0.65	0.52	0.38	0.30	0.19	0.20	0.31	0.29	0.55	0.35	0.58	0.44
		%	100	100	100	100	100	100	100	100	100	100	85	100	99
		Max-2w	1.03	0.85	0.68	0.45	0.37	0.24	0.33	0.38	0.33	0.60	0.37	0.67	1.03
		Min-2w	0.90	0.43	0.37	0.32	0.22	0.13	0.09	0.24	0.24	0.50	0.32	0.53	0.09
	Banryu	Mean	0.26	0.23	0.31	0.21	0.20	0.14	0.11	0.15	0.12	0.17	0.14	0.20	0.19
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.33	0.25	0.31	0.25	0.20	0.17	0.15	0.26	0.13	0.18	0.16	0.27	0.33
		Min-2w	0.15	0.20	0.31	0.18	0.20	0.12	0.06	0.04	0.12	0.16	0.12	0.10	0.04
	Yusuhara	Mean	0.05	0.07	0.07	0.12	0.06	0.02	0.03	0.04	0.03	0.05	0.04	0.05	0.05
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.07	0.09	0.08	0.16	0.08	0.03	0.04	0.05	0.03	0.06	0.05	0.09	0.16
		Min-2w	0.03	0.05	0.07	0.08	0.04	0.02	0.03	0.04	0.02	0.05	0.03	0.03	0.02
	Hedo	Mean	0.74	0.69	0.68	0.53	0.44	0.46	0.45	0.57	1.53	0.82	0.65	0.79	0.69
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.80	0.77	0.72	0.59	0.50	0.52	0.65	0.61	2.68	0.95	0.71	0.88	2.68
		Min-2w	0.68	0.60	0.64	0.46	0.38	0.39	0.33	0.54	0.39	0.68	0.58	0.74	0.33
	Ogasawara	Mean	0.36	0.12	0.33	0.38	0.25	0.16	0.29	0.48	0.20	0.26	0.23	0.38	0.29
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.45	0.22	0.40	0.43	0.26	0.17	0.41	0.53	0.21	0.29	0.24	0.41	0.53
		Min-2w	0.28	0.03	0.25	0.33	0.23	0.15	0.21	0.43	0.20	0.23	0.23	0.35	0.03
	Tokyo	Mean	0.06	0.10	0.15	0.19	0.13	0.11	0.14	0.19	0.16	0.13	0.14	0.11	0.13
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.08	0.12	0.16	0.21	0.15	0.11	0.18	0.20	0.17	0.14	0.16	0.15	0.21
		Min-2w	0.04	0.08	0.14	0.17	0.12	0.11	0.11	0.17	0.16	0.12	0.12	0.06	0.04

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

Unit : μg/m³			2018												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Malaysia	Petaling Jaya	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
		%	75	75	100	75	50	60	25	100	100	75	100	100	79
		Max-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
		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
	Tanah Rata	Mean	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
		%	100	100	100	75	100	100	100	100	100	100	100	75	96
		Max-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
		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
	Danum Valley	Mean	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.05	0.06	0.02	<0.01	<0.01	<0.01	0.01
		%	100	100	100	100	100	100	75	86	100	100	100	100	97
		Max-2w	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.05	0.07	0.03	0.02	<0.01	<0.01	0.07
		Min-2w	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.04	0.05	<0.01	<0.01	<0.01	<0.01	<0.01
Mongolia	Ulaanbaatar	Mean	0.01	0.04	0.02	0.03	0.03	0.03	<0.01	0.04	0.05	0.09	0.11	0.03	0.04
		%	100	100	100	100	100	100	100	100	100	100	100	75	98
		Max-w	0.02	0.07	0.04	0.07	0.04	0.08	0.02	0.08	0.10	0.32	0.14	0.09	0.32
		Min-w	<0.01	0.02	0.01	<0.01	0.02	<0.01	<0.01	0.02	<0.01	0.02	0.07	<0.01	<0.01
	Terelj	Mean	<0.01	-	-	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
		%	90	0	0	78	100	100	100	100	100	100	100	100	81
		Max-2w	<0.01	-	-	0.01	0.02	<0.01	<0.01	<0.01	<0.01	0.02	<0.01	<0.01	0.02
		Min-2w	<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	0.25	0.02	0.01	0.02	0.01	0.07	0.15	0.04	0.10	0.01	<0.01	<0.01	0.06
		%	100	82	50	100	67	100	100	50	90	100	100	100	86
		Max-2w	0.29	0.02	0.01	0.03	0.03	0.15	0.25	0.04	0.10	0.02	0.02	<0.01	0.29
		Min-2w	0.21	0.01	0.01	<0.01	<0.01	<0.01	0.05	0.04	0.09	<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
		%	19	14	16	19	9	13	0	3	17	16	17	13	13
		Max-d	0.05	<0.01	<0.01	<0.01	<0.01	<0.01	-	0.01	<0.01	<0.01	0.01	<0.01	0.05
		Min-d	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	Cheju (Kosan)	Mean	0.05	0.05	-	-	<0.01	0.07	<0.01	<0.01	<0.01	<0.01	0.02	0.02	0.03
		%	16	14	0	0	16	13	13	12	5	13	17	16	11
		Max-d	0.06	0.05	-	-	<0.01	0.07	<0.01	<0.01	<0.01	<0.01	0.02	0.03	0.07
		Min-d	0.05	0.05	-	-	<0.01	0.07	<0.01	<0.01	<0.01	<0.01	0.02	0.02	<0.01
	Imsil	Mean	0.06	0.05	0.07	<0.01	<0.01	0.07	<0.01	<0.01	<0.01	<0.01	0.03	0.02	0.02
		%	13	11	13	17	13	13	16	13	17	16	17	13	14
		Max-d	0.06	0.06	0.07	<0.01	<0.01	0.07	<0.01	<0.01	<0.01	<0.01	0.04	0.02	0.07
		Min-d	0.06	0.05	0.07	<0.01	<0.01	0.07	<0.01	<0.01	<0.01	<0.01	0.02	0.02	<0.01
Russia	Mondy	Mean	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-m	<0.01	0.01	0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.02
		Min-m	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	Listvyanka	Mean	0.02	0.02	0.02	0.01	<0.01	0.02	0.01	<0.01	<0.01	<0.01	0.03	0.02	0.01
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.02	0.02	0.02	0.02	0.01	0.03	0.03	0.02	0.01	0.01	0.05	0.03	0.05
		Min-w	0.01	0.02	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	0.01	<0.01
	Irkutsk	Mean	1.26	0.27	0.17	0.17	0.10	0.12	0.14	0.22	0.16	0.22	0.20	0.18	0.26
		%	100	100	100	100	100	80	100	100	100	100	100	100	98
		Max-w	1.87	0.43	0.20	0.27	0.13	0.17	0.30	0.37	0.27	0.40	0.30	0.27	1.87
		Min-w	0.20	0.18	0.15	0.05	0.04	0.10	0.05	0.09	0.09	0.10	0.14	0.09	0.04
	Primorskaya	Mean	0.01	0.01	0.01	<0.01	<0.01	0.02	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.01	0.02	0.02	<0.01	<0.01	0.03	0.01	0.02	0.01	<0.01	0.01	<0.01	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	<0.01
Thailand	Bangkok	Mean	0.11	0.15	0.17	0.14	0.25	0.14	0.13	0.10	0.08	0.08	0.11	0.08	0.13
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-10d	0.11	0.15	0.24	0.15	0.50	0.20	0.15	0.12	0.10	0.09	0.12	0.12	0.50
		Min-10d	0.10	0.15	0.11	0.11	0.10	0.11	0.10	0.08	0.06	0.07	0.10	0.01	0.01
	Khanchanaburi (Vachiralongkorn Dam)	Mean	-	-	0.11	-	-	-	0.01	-	-	-	0.03	-	0.05
		%	0	0	55	0	0	0	68	0	0	0	57	0	15
		Max-2w	-	-	0.11	-	-	-	0.01	-	-	-	0.03	-	0.11
		Min-2w	-	-	0.11	-	-	-	0.01	-	-	-	0.03	-	0.01
	Mae Hia	Mean	<0.01	0.12	0.01	0.28	0.27	<0.01	<0.01	<0.01	-	<0.01	-	-	0.08
		%	90	61	97	97	97	67	97	100	0	94	0	0	67
		Max-10d	0.01	0.15	0.04	0.34	0.48	<0.01	<0.01	<0.01	-	<0.01	-	-	0.48
		Min-10d	<0.01	0.08	<0.01	0.23	0.08	<0.01	<0.01	<0.01	-	<0.01	-	-	<0.01
	Sakaerat	Mean	0.16	0.13	0.30	0.43	0.15	0.50	0.34	0.42	0.12	0.38	-	-	0.29
		%	93	100	100	100	100	70	100	100	100	100	0	0	80
		Max-10d	0.20	0.23	0.40	0.53	0.19	0.79	0.49	0.64	0.17	0.45	-	-	0.79
		Min-10d	0.13	0.06	0.10	0.27	0.13	0.21	0.09	0.13	0.07	0.29	-	-	0.06

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

Unit : μg/m³			2018												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Vietnam	Hanoi	Mean	0.25	0.32	0.25	0.32	0.17	0.14	0.17	0.17	0.19	0.27	0.57	0.27	0.26
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.29	0.44	0.41	0.50	0.22	0.19	0.22	0.19	0.25	0.44	1.41	0.36	1.41
		Min-w	0.22	0.23	0.10	0.15	0.12	0.12	0.15	0.12	0.11	0.12	0.22	0.19	0.10
	Hoa Binh	Mean	0.36	0.28	0.16	0.36	0.20	0.16	0.19	0.20	0.22	0.15	0.20	0.16	0.22
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.40	0.36	0.23	0.52	0.27	0.18	0.26	0.25	0.24	0.21	0.31	0.25	0.52
		Min-w	0.30	0.17	0.11	0.20	0.11	0.13	0.15	0.16	0.20	0.10	0.12	0.11	0.10
	Can Tho	Mean	0.45	0.43	0.33	0.64	0.27	0.44	0.33	0.34	0.28	0.39	0.34	0.28	0.37
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.81	0.75	0.67	0.69	0.36	0.65	0.58	0.56	0.50	0.85	0.42	0.36	0.85
		Min-w	0.10	0.16	0.08	0.56	0.22	0.08	0.22	0.06	0.08	0.10	0.22	0.18	0.06
	Ho Chi Minh	Mean	0.62	0.82	0.87	0.69	0.54	0.89	0.74	0.68	0.57	0.80	0.54	0.48	0.68
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.75	0.91	1.07	0.89	0.71	1.05	0.85	0.77	0.69	1.05	0.67	0.54	1.07
		Min-w	0.52	0.63	0.63	0.48	0.38	0.62	0.65	0.54	0.44	0.48	0.38	0.38	0.38
	Yen Bai	Mean	0.25	0.22	0.43	0.45	0.20	0.16	0.12	0.09	0.13	0.17	0.16	0.22	0.22
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.29	0.28	0.84	1.09	0.22	0.20	0.18	0.24	0.24	0.31	0.22	0.32	1.09
		Min-w	0.18	0.16	0.17	0.20	0.17	0.14	0.03	0.02	0.07	0.11	0.08	0.13	0.02

Terms and abbreviations are given in Table 4.2.

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

Unit : μg/m^3			2018												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Indonesia	Jakarta	Mean	0.88	1.52	1.04	1.35	1.40	1.27	2.06	0.38	0.72	1.20	0.43	-	1.13
		%	63	50	39	100	97	100	100	100	100	70	52	0	73
		Max-2w	0.91	1.52	1.04	1.40	2.21	1.32	2.07	0.42	1.08	1.37	0.43	-	2.21
		Min-2w	0.84	1.52	1.04	1.30	0.60	1.23	2.05	0.33	0.35	1.04	0.43	-	0.33
	Serpong	Mean	0.40	0.09	0.36	0.96	1.08	0.99	1.16	1.72	1.48	1.39	0.46	0.80	0.94
		%	67	100	100	100	100	67	100	100	100	100	100	100	92
		Max-2w	0.61	0.09	0.40	1.56	1.48	1.38	1.44	1.82	1.72	1.69	0.72	0.81	1.82
		Min-2w	0.19	0.09	0.32	0.36	0.68	0.61	0.88	1.62	1.25	1.09	0.19	0.79	0.09
	Bandung	Mean	1.22	1.29	1.35	1.23	1.39	1.30	1.86	2.06	1.71	1.87	1.64	1.44	1.51
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	1.29	1.35	1.72	1.28	1.40	1.38	2.09	2.09	1.71	2.28	2.04	1.69	2.28
		Min-2w	1.14	1.23	1.07	1.19	1.37	1.23	1.63	2.03	1.71	1.45	1.25	1.19	1.07
Japan	Rishiri	Mean	0.09	0.15	0.23	0.32	0.09	0.08	0.06	0.12	0.23	0.28	0.16	0.23	0.16
		%	100	100	92	100	100	100	100	100	100	100	100	68	96
		Max-2w	0.13	0.15	0.29	0.37	0.09	0.08	0.11	0.15	0.37	0.38	0.17	0.29	0.38
		Min-2w	0.06	0.15	0.16	0.28	0.09	0.08	0.03	0.10	0.09	0.18	0.16	0.18	0.03
	Ochiishi	Mean	0.21	0.16	0.17	0.17	0.15	0.07	0.05	0.04	0.19	0.29	0.18	0.14	0.15
		%	100	59	100	100	100	100	100	100	100	100	100	100	97
		Max-2w	0.37	0.16	0.21	0.19	0.20	0.09	0.05	0.05	0.19	0.30	0.26	0.18	0.37
		Min-2w	0.07	0.16	0.14	0.14	0.09	0.04	0.03	0.04	0.19	0.28	0.10	0.11	0.03
	Tappi	Mean	0.39	0.24	0.37	0.26	0.16	0.11	0.06	0.11	0.17	0.24	-	0.23	0.21
		%	100	100	100	100	100	100	100	100	100	100	0	31	85
		Max-2w	0.75	0.34	0.45	0.29	0.21	0.13	0.07	0.15	0.21	0.26	-	0.23	0.75
		Min-2w	0.20	0.14	0.28	0.24	0.12	0.10	0.05	0.07	0.12	0.21	-	0.23	0.05
	Sado-seki	Mean	0.21	0.28	0.64	0.42	0.55	0.21	0.14	0.17	0.23	0.55	0.23	0.28	0.30
		%	100	50	50	100	100	100	100	100	100	100	100	100	93
		Max-2w	0.30	0.28	0.64	0.64	0.63	0.29	0.16	0.17	0.36	0.79	0.24	0.41	0.79
		Min-2w	0.10	0.28	0.64	0.21	0.47	0.13	0.11	0.16	0.11	0.32	0.22	0.19	0.10
	Happo	Mean	0.04	0.16	0.43	0.23	0.34	0.06	0.05	0.02	0.03	0.05	0.05	0.08	0.12
		%	66	100	100	100	100	100	100	50	100	100	100	100	93
		Max-2w	0.05	0.26	0.55	0.33	0.34	0.08	0.08	0.02	0.04	0.09	0.05	0.15	0.55
		Min-2w	0.03	0.06	0.30	0.13	0.34	0.05	0.03	0.02	0.02	0.02	0.05	0.01	0.01
	Ijira	Mean	0.06	0.16	0.19	0.37	0.19	0.13	0.12	0.08	0.06	0.08	0.09	0.14	0.13
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.08	0.22	0.21	0.42	0.24	0.13	0.14	0.11	0.09	0.08	0.09	0.28	0.42
		Min-2w	0.04	0.09	0.17	0.31	0.15	0.13	0.09	0.06	0.04	0.08	0.08	0.06	0.04
	Oki	Mean	0.54	0.41	0.39	0.60	0.38	0.14	0.10	0.13	0.18	0.36	0.29	0.35	0.32
		%	100	100	100	100	100	100	100	100	100	100	85	100	99
		Max-2w	0.62	0.46	0.43	0.74	0.46	0.16	0.12	0.16	0.20	0.43	0.33	0.47	0.74
		Min-2w	0.45	0.36	0.34	0.47	0.29	0.12	0.08	0.09	0.15	0.30	0.25	0.28	0.08
	Banryu	Mean	0.28	0.29	0.29	0.51	0.34	0.13	0.08	0.08	0.12	0.18	0.18	0.34	0.23
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.40	0.34	0.36	0.61	0.44	0.14	0.10	0.11	0.12	0.23	0.19	0.73	0.73
		Min-2w	0.22	0.23	0.22	0.42	0.25	0.12	0.06	0.04	0.12	0.13	0.17	0.11	0.04
	Yusuhara	Mean	0.14	0.21	0.31	0.57	0.23	0.05	0.05	0.05	0.06	0.09	0.09	0.21	0.16
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.19	0.29	0.33	0.70	0.32	0.06	0.07	0.07	0.08	0.12	0.11	0.50	0.70
		Min-2w	0.09	0.13	0.28	0.44	0.15	0.05	0.03	0.03	0.04	0.05	0.07	0.06	0.03
	Hedo	Mean	0.49	0.68	0.51	0.65	0.50	0.20	0.17	0.21	0.52	0.41	0.35	0.49	0.43
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.57	0.94	0.67	0.82	0.53	0.23	0.22	0.21	0.90	0.43	0.36	0.55	0.94
		Min-2w	0.43	0.43	0.36	0.49	0.46	0.17	0.11	0.21	0.13	0.40	0.34	0.42	0.11
	Ogasawara	Mean	0.22	0.09	0.18	0.29	0.17	0.07	0.11	0.16	0.08	0.09	0.07	0.17	0.14
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.27	0.16	0.24	0.38	0.18	0.08	0.14	0.19	0.09	0.10	0.09	0.18	0.38
		Min-2w	0.16	0.02	0.11	0.20	0.16	0.07	0.09	0.14	0.07	0.08	0.05	0.16	0.02
	Tokyo	Mean	0.34	0.47	0.49	0.82	0.59	0.39	0.58	0.39	0.27	0.37	0.38	0.38	0.46
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.42	0.48	0.57	1.00	0.71	0.46	0.74	0.50	0.30	0.44	0.40	0.54	1.00
		Min-2w	0.18	0.46	0.42	0.65	0.48	0.31	0.48	0.27	0.24	0.31	0.37	0.24	0.18

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

Unit : μg/m³			2018												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Malaysia	Petaling Jaya	Mean	0.02	0.02	0.01	0.02	0.02	0.04	0.04	0.04	0.02	<0.01	0.01	0.02	0.02
		%	75	75	100	75	50	60	25	100	100	75	100	100	79
		Max-w	0.03	0.04	0.03	0.02	0.02	0.05	0.04	0.12	0.04	0.01	0.02	0.03	0.12
		Min-w	0.01	<0.01	<0.01	0.02	0.01	0.03	0.04	0.02	<0.01	<0.01	<0.01	<0.01	<0.01
	Tanah Rata	Mean	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
		%	100	100	100	75	100	100	100	100	100	100	100	75	96
		Max-w	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	0.02	0.03	<0.01	<0.01	<0.01	0.01	0.03
		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
	Danum Valley	Mean	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.13	0.13	0.02	<0.01	<0.01	<0.01	0.02
		%	100	100	100	100	100	100	75	86	100	100	100	100	97
		Max-2w	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.18	0.20	0.03	0.01	<0.01	<0.01	0.20
		Min-2w	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.08	0.06	0.02	<0.01	<0.01	<0.01	<0.01
Mongolia	Ulaanbaatar	Mean	0.21	0.51	0.35	1.13	0.63	0.64	0.14	0.78	0.86	1.59	2.23	0.60	0.83
		%	100	100	100	100	100	100	100	100	100	100	100	75	98
		Max-w	0.32	1.02	0.72	3.41	0.96	1.44	0.18	1.44	1.71	5.65	2.83	1.48	5.65
		Min-w	0.13	0.16	0.18	0.10	0.32	0.17	0.10	0.35	0.11	0.19	1.40	0.13	0.10
	Terelj	Mean	0.07	-	-	0.09	0.17	0.05	0.11	0.06	0.06	0.10	0.07	0.05	0.08
		%	90	0	0	78	100	100	100	100	100	100	100	100	81
		Max-2w	0.08	-	-	0.15	0.24	0.05	0.11	0.06	0.07	0.23	0.08	0.06	0.24
		Min-2w	0.07	-	-	0.04	0.09	0.04	0.10	0.06	0.06	0.03	0.06	0.03	0.03
Myanmar	Yangon	Mean	1.95	0.05	0.07	0.01	0.06	<0.01	0.17	0.20	0.43	<0.01	<0.01	<0.01	0.24
		%	100	82	50	100	67	100	100	50	90	100	100	100	86
		Max-2w	2.02	0.10	0.07	0.02	0.12	<0.01	0.34	0.20	0.55	<0.01	<0.01	<0.01	2.02
		Min-2w	1.88	<0.01	0.07	<0.01	<0.01	<0.01	<0.01	0.20	0.31	<0.01	<0.01	<0.01	<0.01
Republic of Korea	Kanghwa	Mean	0.03	0.01	0.06	0.02	0.05	0.02	-	<0.01	0.04	0.03	0.04	0.03	0.03
		%	19	14	16	19	9	13	0	3	17	16	17	13	13
		Max-d	0.12	0.02	0.10	0.02	0.13	0.03	-	<0.01	0.06	0.07	0.12	0.04	0.13
		Min-d	<0.01	<0.01	0.02	<0.01	<0.01	0.01	-	<0.01	<0.01	0.02	<0.01	0.01	<0.01
	Cheju (Kosan)	Mean	0.07	0.17	-	-	0.03	0.10	0.05	0.09	0.07	0.04	0.05	0.10	0.08
		%	16	14	0	0	16	13	13	12	5	13	17	16	11
		Max-d	0.08	0.37	-	-	0.06	0.14	0.09	0.16	0.08	0.05	0.06	0.23	0.37
		Min-d	0.07	0.08	-	-	<0.01	0.08	<0.01	0.02	0.06	0.04	0.05	0.05	<0.01
	Imsil	Mean	0.11	0.09	0.02	0.03	0.01	0.29	0.03	0.07	0.07	0.04	0.11	0.05	0.08
		%	13	11	13	17	13	13	16	13	17	16	17	13	14
		Max-d	0.15	0.10	0.03	0.15	0.03	0.90	0.07	0.21	0.11	0.05	0.28	0.06	0.90
		Min-d	0.08	0.09	<0.01	<0.01	<0.01	0.08	0.01	0.01	0.04	0.03	0.05	0.05	<0.01
Russia	Mondy	Mean	0.02	0.08	0.06	0.06	0.07	0.09	0.04	0.04	0.04	0.07	0.02	0.04	0.05
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-m	0.02	0.08	0.11	0.11	0.09	0.12	0.06	0.04	0.05	0.10	0.04	0.05	0.12
		Min-m	0.02	0.08	0.01	0.02	0.04	0.06	0.03	0.04	0.03	0.04	<0.01	0.02	<0.01
	Listvyanka	Mean	0.09	0.10	0.09	0.08	0.03	0.12	0.15	0.09	0.08	0.09	0.14	0.09	0.10
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.14	0.14	0.15	0.14	0.05	0.17	0.30	0.11	0.14	0.14	0.27	0.12	0.30
		Min-w	0.06	0.07	0.03	0.05	0.01	0.05	0.06	0.07	0.05	0.04	0.06	0.06	0.01
	Irkutsk	Mean	1.26	0.27	0.17	0.17	0.10	0.12	0.14	0.22	0.16	0.22	0.20	0.18	0.27
		%	100	100	100	100	100	80	100	100	100	100	100	100	98
		Max-w	1.87	0.43	0.20	0.27	0.14	0.17	0.30	0.38	0.27	0.40	0.30	0.28	1.87
		Min-w	0.20	0.18	0.15	0.06	0.04	0.10	0.05	0.09	0.09	0.10	0.14	0.09	0.04
	Primorskaya	Mean	0.08	0.10	0.09	0.03	0.04	0.06	0.02	0.04	0.03	0.02	0.05	0.02	0.05
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.12	0.17	0.16	0.05	0.06	0.11	0.03	0.05	0.04	0.03	0.07	0.03	0.17
		Min-2w	0.04	0.04	0.01	0.02	0.03	0.02	0.01	0.03	0.02	0.01	0.04	0.02	0.01
Thailand	Bangkok	Mean	1.44	1.28	2.36	0.87	2.47	0.88	0.79	0.59	0.64	1.22	1.68	1.29	1.29
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-10d	2.18	1.43	5.48	1.12	5.04	1.00	1.04	0.80	0.76	1.46	1.91	1.94	5.48
		Min-10d	0.80	1.06	0.71	0.59	1.14	0.81	0.62	0.46	0.53	1.09	1.34	0.36	0.36
	Khanchanaburi (Vachiralongkorn Dam)	Mean	-	-	0.36	-	-	-	0.03	-	-	-	0.08	-	0.16
		%	0	0	55	0	0	0	68	0	0	0	57	0	15
		Max-2w	-	-	0.36	-	-	-	0.03	-	-	-	0.08	-	0.36
		Min-2w	-	-	0.36	-	-	-	0.03	-	-	-	0.08	-	0.03
	Mae Hia	Mean	0.26	0.11	0.32	0.01	0.02	0.13	0.24	0.25	-	0.19	-	-	0.18
		%	90	61	97	97	97	67	97	100	0	94	0	0	67
		Max-10d	0.42	0.15	0.58	0.04	0.05	0.19	0.36	0.37	-	0.24	-	-	0.58
		Min-10d	0.12	0.07	0.18	<0.01	<0.01	0.08	0.08	0.08	-	0.14	-	-	<0.01
	Sakaerat	Mean	0.75	0.88	0.94	1.17	0.68	2.70	1.51	3.15	0.73	1.53	-	-	1.36
		%	93	100	100	100	100	70	100	100	100	100	0	0	80
		Max-10d	0.96	1.11	1.36	1.70	0.76	3.76	2.09	4.86	1.00	2.58	-	-	4.86
		Min-10d	0.60	0.57	0.37	0.31	0.54	1.64	0.53	0.44	0.38	0.99	-	-	0.31

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

Unit : μg/m³			2018												Annual
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Vietnam	Hanoi	Mean	2.16	2.72	1.77	3.15	1.67	1.05	1.67	1.70	1.83	1.52	2.10	1.83	1.92
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	2.89	3.73	3.88	3.76	2.60	2.01	1.92	2.14	2.03	1.94	3.09	2.11	3.88
		Min-w	1.24	1.73	0.91	1.79	0.74	0.35	1.30	1.22	1.28	1.10	1.70	1.54	0.35
	Hoa Binh	Mean	2.36	1.80	1.09	2.26	1.56	0.93	1.11	0.69	0.95	1.31	1.33	1.16	1.36
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	3.09	2.38	2.07	3.06	3.03	1.12	1.44	0.87	1.25	1.52	1.59	1.38	3.09
		Min-w	0.86	1.33	0.58	1.21	0.47	0.72	0.77	0.46	0.50	0.86	1.00	0.89	0.46
	Can Tho	Mean	1.69	1.37	1.77	1.11	1.34	1.66	1.58	1.01	1.24	1.75	1.49	0.89	1.41
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	2.24	2.28	2.44	1.47	2.76	3.15	2.08	1.94	2.46	2.74	1.67	1.49	3.15
		Min-w	0.95	0.12	0.54	0.85	0.22	0.81	0.56	0.17	0.16	0.99	1.23	0.54	0.12
	Ho Chi Minh	Mean	3.01	3.05	3.10	3.80	3.07	3.35	2.86	1.92	4.23	1.07	1.23	1.19	2.63
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	3.53	4.33	5.28	5.62	3.73	5.60	3.87	3.57	5.83	1.98	1.67	1.33	5.83
		Min-w	1.98	1.83	1.31	1.25	1.98	1.29	1.85	0.81	0.60	0.69	0.93	1.07	0.60
	Yen Bai	Mean	3.23	2.46	3.39	2.76	2.75	1.52	1.14	1.50	2.75	3.28	3.37	3.26	2.63
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	3.75	3.77	4.31	3.77	3.26	1.95	1.63	2.14	3.49	3.60	3.69	3.47	4.31
		Min-w	2.45	1.88	2.61	1.98	2.34	1.02	0.75	1.18	1.64	3.06	3.17	2.89	0.75

Terms and abbreviations are given in Table 4.2.

Table 4.21 Annual SO_2 concentration from 2000 to 2018

unit: ppb

Country	Site	Code	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Cambodia	Phnom Penh	*KHA001*											1.8	1.5	1.3	1.1	0.8	0.5	0.6	1.3	***
China	Jinyunshan	*CNA004*		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	3.6	2.6
	Weishuiyuan	*CNA006*	6.7	5.2	4.6	3.8	8.9	11.7	15.4												
	Hongwen	*CNA008*	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	3.6	3.3
	Xiang Zhou	*CNA010*	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	*CNA012*													3.2	3.9	3.9	3.1	3.8	2.9	2.6
Indonesia	Jakarta	*IDA001*								11.0	7.4	8.3	6.3	5.0	5.7	5.3	5.6	5.4	2.5	1.7	2.7
	Serpong	*IDA002*	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	0.8	1.0
	Kototabang	*IDA003*								3.3	6.3	7.9	11.7	2.2	***	1.8	3.5	6.7	2.0	1.3	1.3
	Bandung	*IDA004*									2.7	4.7	4.2	4.0	4.0	4.0	4.4	1.3	1.9	1.7	4.3
Japan	Rishiri	*JPA001*	<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	<0.1	0.1
	Ochiishi	*JPA002*									0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.1
	Tappi	*JPA003*	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	0.3	0.3
	Sado-seki	*JPA004*	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	0.2	0.2
	Happo	*JPA005*	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	0.2	0.2
	Ijira	*JPA006*	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	<0.1	0.2
	Oki	*JPA007*	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	0.4	0.4
	Banryu	*JPA008*	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	0.3	0.2
	Yusuhara	*JPA009*	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	0.6	0.6
	Hedo	*JPA010*	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	0.2	0.1
	Ogasawara	*JPA011*	<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	<0.1	<0.1
	Tokyo	*JPA012*								2.2	2.2	2.0	1.8	1.6	1.4	1.6	1.5	1.3	1.3	1.4	1.3
Lao PDR	Vientiane	*LAA001*																0.4	0.4	***	
Malaysia	Petaling Jaya	*MYA001*		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	1.1	<0.1
	Tanah Rata	*MYA002*	<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	<0.1	<0.1
	Danum Valley	*MYA003*							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
Mongolia	Ulaanbaatar	*MNA001*	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	11.5	7.3
	Terelj	*NMA002*	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	0.2	0.1
Myanmar	Yangon	*MMA001*												1.6	2.9	1.3	1.2	0.5	0.4	0.5	0.7
Philippines	Metro Manila	*PHA001*	4.8	4.2	4.3	4.4	3.4	3.1	2.1	2.7	1.2	***	2.2	***	***	***	***	***	***	***	
	Los Banos	*PHA002*	0.8	0.7	0.9	0.9	0.4	0.2	0.3	0.4	0.3	***	***	***	***	***	***	***	***	***	
	Mt. Sto. Tomas	*PHA003*							<0.1	<0.1	0.4	<0.1	1.1	***	0.2	0.1	0.1	0.1	0.2	***	
Republic of Korea	Kanghwa	*KRA001*			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	1.9	2.3
	Cheju	*KRA002*			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	0.5	0.8
	Imsil	*KRA003*			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	2.3	5.0
Russia	Mondy	*RUA001*	<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	0.2	0.2
	Listvyanka	*RUA002*	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	2.9	2.2
	Irkutsk	*RUA003*	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	4.6	<0.1
	Primorskaya	*RUA004*			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	0.4	0.1
Thailand	Bangkok	*THA001*	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	0.8	0.9
	Samutprakarn	*THA002*	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	1.5	2.0
	Pathumthani	*THA003*				2.4	1.3	1.6	2.7	1.8	0.5	1.1	1.2	0.6	***	***	***	***	***	***	***
	Khanchanaburi	*THA004*	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	1.4	1.4
	Mae Hia	*THA005*		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	0.2	<0.1
	Chang Phueak	*THA006*				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	0.8	0.9
	Si Phum	*THA007*														1.4	1.7	1.4	1.1	1.1	1.2
	Sakaerat	*THA008*							0.3	0.4	0.2	0.2	0.2	0.2	0.3	0.2	0.4	0.4	0.4	0.2	0.7
	Nai Mueang	*THA009*									2.7	***	1.3	1.4	1.1	1.2	1.0	2.9	3.2	0.7	0.7
Vietnam	Hanoi	*VNA001*	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	1.0	0.5
	Hoa Binh	*VNA002*	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	0.6	0.5
	Can Tho	*VNA005*															1.2	1.0	0.3	0.2	0.6
	Ho Chi Minh	*CNA006*															1.6	1.5	0.5	0.4	0.6
	Yen Bai	*VNA007*																4.2	1.5	0.8	0.8

Terms and abbreviations are given in Table 4.2.

Table 4.22 Annual HNO_3 concentration from 2000 to 2018

unit: ppb

Country	Site	Code	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Cambodia	Phnom Penh	*KHA001*											0.3	0.3	0.3	0.5	0.4	0.5	0.4	0.5	***
China	Hongwen	*CNA008*								0.9	1.7	1.1	1.0	2.1	***	***	***	***	1.2	1.1	***
Indonesia	Jakarta	*IDA001*															3.1	1.4	1.0	1.0	1.4
	Serpong	*IDA002*		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	0.8	1.5
	Bandung	*IDA004*															0.7	0.5	0.5	0.4	0.8
Japan	Rishiri	*JPA001*			<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	*JPA002*									<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Tappi	*JPA003*				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	0.1	0.1
	Sado-seki	*JPA004*				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	0.2	0.3
	Happo	*JPA005*				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	0.2	0.2
	Ijira	*JPA006*				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	0.2	0.2
	Oki	*JPA007*			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	0.1	0.1
	Banryu	*JPA008*				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	0.1	0.2
	Yusuhara	*JPA009*				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	0.2	0.2
	Hedo	*JPA010*				<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
	Ogasawara	*JPA011*				<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	*JPA012*								1.1	1.0	0.8	0.8	0.6	0.6	0.8	0.8	0.7	0.6	0.7	0.6
Lao PDR	Vientiane	*LAA001*																0.3	0.2	***	
Malaysia	Petaling Jaya	*MYA001*		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	0.5	<0.1
	Tanah Rata	*MYA002*	<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	<0.1	<0.1
	Danum Valley	*MYA003*							<0.1	<0.1	<0.1	0.2	<0.1	<0.1	<0.1	0.3	<0.1	<0.1	<0.1	<0.1	<0.1
Mongolia	Ulaanbaatar	*MNA001*	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	<0.1	<0.1
	Terelj	*NMA002*	<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
Myanmar	Yangon	*MMA001*												0.4	0.4	0.3	0.2	0.2	0.2	0.2	0.3
Philippines	Metro Manila	*PHA001*	0.7	0.3	0.2	0.4	0.5	0.4	0.3	0.4	0.4	***	0.2	***	***	***	***	***	***	***	
	Los Banos	*PHA002*	0.3	0.2	0.1	0.2	0.2	<0.1	<0.1	0.2	<0.1	***	***	***	***	***	***	***	***	***	
	Mt. Sto. Tomas	*PHA003*							<0.1	<0.1	0.3	<0.1	0.4	***	0.2	<0.1	0.1	<0.1	<0.1	***	
Republic of Korea	Kanghwa	*KRA001*				0.2	0.3	***	0.4	0.7	0.5	0.5	0.4	***	***	0.4	0.5	0.3	0.4	0.1	0.1
	Cheju	*KRA002*				0.2	0.9	***	0.5	***	0.7	0.6	0.5	***	***	0.4	0.8	0.5	0.6	0.3	0.4
	Imsil	*KRA003*		0.5	***	1.7	0.4	***	0.6	0.4	0.4	0.5	0.3	***	***	0.6	0.6	0.4	0.7	0.6	0.4
Russia	Mondy	*RUA001*	<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	<0.1	<0.1
	Listvyanka	*RUA002*	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	<0.1	<0.1
	Irkutsk	*RUA003*	<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	<0.1	<0.1
	Primorskaya	*RUA004*		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	0.2	<0.1
Thailand	Bangkok	*THA001*				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	0.3	0.8
	Pathumthani	*THA003*				0.6	1.3	0.3	0.6	0.8	0.3	0.7	0.9	0.3	***	***	***	***	***	***	***
	Khanchanaburi	*THA004*			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	0.2	0.4
	Mae Hia	*THA005*		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	0.2	0.1
	Sakaerat	*THA008*							0.3	0.3	0.2	0.2	0.2	<0.1	0.2	<0.1	0.3	0.3	0.4	0.2	0.3
Vietnam	Hanoi	*VNA001*	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	1.6	0.4
	Hoa Binh	*VNA002*	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	0.9	0.4
	Can Tho	*VNA005*															0.5	0.4	0.2	<0.1	<0.1
	Ho Chi Minh	*CNA006*															0.6	0.6	0.2	0.4	0.4
	Yen Bai	*VNA007*																0.7	0.6	1.3	0.5

Terms and abbreviations are given in Table 4.2.

Table 4.23 Annual HCl concentration from 2000 to 2018

unit: ppb

Country	Site	Code	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Cambodia	Phnom Penh	*KHA001*											0.5	0.4	0.7	1.3	1.1	1.3	1.2	1.6	***
China	Hongwen	*CNA008*								1.5	1.2	1.5	14.5	13.3	***	***	***	***	1.8	1.5	***
Indonesia	Jakarta	*IDA001*															3.2	1.9	0.9	1.1	1.5
	Serpong	*IDA002*		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	0.9	1.3
	Bandung	*IDA004*															0.8	0.5	1.1	0.9	0.9
Japan	Rishiri	*JPA001*			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	0.4	0.4
	Ochiishi	*JPA002*									0.4	0.4	0.4	0.6	0.6	0.5	0.4	0.8	0.4	0.4	0.3
	Tappi	*JPA003*				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	0.5	0.4
	Sado-seki	*JPA004*				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	0.8	1.0
	Happo	*JPA005*				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	0.2	0.2
	Ijira	*JPA006*				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	0.2	0.2
	Oki	*JPA007*			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	0.8	0.7
	Banryu	*JPA008*				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	0.7	0.6
	Yusuhara	*JPA009*				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	0.2	0.3
	Hedo	*JPA010*				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	0.9	0.9
	Ogasawara	*JPA011*				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	0.4	0.3
	Tokyo	*JPA012*								1.0	0.8	0.8	0.7	0.8	0.7	0.8	0.7	0.8	0.7	0.7	0.8
Lao PDR	Vientiane	*LAA001*																0.3	0.2	***	
Malaysia	Petaling Jaya	*MYA001*		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	0.3	<0.1
	Tanah Rata	*MYA002*	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	0.2	<0.1
	Danum Valley	*MYA003*							0.2	0.2	0.3	0.5	0.3	0.2	0.5	1.0	0.4	0.3	0.3	0.1	0.1
Mongolia	Ulaanbaatar	*MNA001*	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	1.7	0.8
	Terelj	*NMA002*	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	0.5	0.3
Myanmar	Yangon	*MMA001*												1.5	1.5	0.6	0.7	0.7	0.2	0.4	0.5
Philippines	Metro Manila	*PHA001*	5.4	0.3	0.9	1.2	1.0	0.9	0.5	0.7	0.7	***	0.8	***	***	***	***	***	***	***	
	Los Banos	*PHA002*	1.5	0.2	0.6	1.2	0.5	0.3	0.3	0.8	0.4	***	***	***	***	***	***	***	***	***	
	Mt. Sto. Tomas	*PHA003*							0.2	<0.1	0.6	0.2	1.2	***	0.2	0.2	0.2	0.7	<0.1	***	
Republic	Kanghwa	*KRA001*				0.3	0.1	***	0.2	0.2	<0.1	0.1	0.2	***	***	0.3	0.2	0.1	<0.1	<0.1	<0.1
of Korea	Cheju	*KRA002*				0.1	0.9	***	0.2	***	0.2	0.2	0.2	***	***	0.2	0.2	0.2	0.2	0.2	0.2
	Imsil	*KRA003*		0.5	***	0.2	2.0	***	0.3	0.2	0.1	0.2	0.1	***	***	0.2	0.2	0.2	0.2	0.2	0.2
Russia	Mondy	*RUA001*	<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	2.7	2.6
	Listvyanka	*RUA002*	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	6.0	5.3
	Irkutsk	*RUA003*	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	4.7	5.3
	Primorskaya	*RUA004*		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	0.6	0.2
Thailand	Bangkok	*THA001*				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	0.7	1.0
	Pathumthani	*THA003*				0.5	0.8	0.6	1.1	1.2	0.4	0.9	0.7	0.5	***	***	***	***	***	***	***
	Khanchanaburi	*THA004*			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	0.3	0.3
	Mae Hia	*THA005*		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	0.2	0.4
	Sakaerat	*THA008*							0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.4	0.5	0.4	0.2	0.2
Vietnam	Hanoi	*VNA001*	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	2.0	1.1
	Hoa Binh	*VNA002*	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	1.6	1.2
	Can Tho	*VNA005*															1.7	1.4	1.2	0.9	1.8
	Ho Chi Minh	*CNA006*															1.6	1.1	1.5	1.3	1.6
	Yen Bai	*VNA007*																2.4	2.4	2.3	1.8

Terms and abbreviations are given in Table 4.2.

Table 4.24 Annual NH_3 concentration from 2000 to 2018

unit: ppb

Country	Site	Code	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Cambodia	Phnom Penh	*KHA001*											14.3	11.5	9.9	9.4	6.9	7.3	6.8	7.5	***
China	Hongwen	*CNA008*								7.9	8.1	11.2	12.2	9.5	***	***	***	***	10.7	9.3	***
Indonesia	Jakarta	*IDA001*															38.3	13.7	10.5	4.1	15.2
	Serpong	*IDA002*		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	5.8	8.3
	Bandung	*IDA004*															8.4	9.4	6.6	8.6	8.7
Japan	Rishiri	*JPA001*			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	0.5	0.5
	Ochiishi	*JPA002*									0.6	1.0	0.4	0.4	0.4	0.3	0.4	0.3	0.3	0.3	0.3
	Tappi	*JPA003*				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	0.4	0.4
	Sado-seki	*JPA004*				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	0.7	1.0
	Happo	*JPA005*				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	0.5	0.6
	Ijira	*JPA006*				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	0.9	1.1
	Oki	*JPA007*			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	0.6	0.9
	Banryu	*JPA008*				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	0.7	1.2
	Yusuhara	*JPA009*				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	0.6	0.5
	Hedo	*JPA010*				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	1.3	1.1
	Ogasawara	*JPA011*				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	0.5	0.5
	Tokyo	*JPA012*								6.1	5.2	5.0	4.9	4.4	3.9	4.6	4.6	4.2	4.2	4.2	3.8
Lao PDR	Vientiane	*LAA001*																2.6	2.7	***	
Malaysia	Petaling Jaya	*MYA001*		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	7.6	0.2
	Tanah Rata	*MYA002*	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	1.8	<0.1
	Danum Valley	*MYA003*							1.2	0.9	0.9	1.9	1.5	0.9	0.7	3.8	1.2	1.4	1.4	1.1	0.5
Mongolia	Ulaanbaatar	*MNA001*	8.4	7.3	9.8	11.3	9.2	9.2	10.3	10.4	10.7	7.4	14.8	8.7	***	***	***	***	***	9.7	7.3
	Terelj	*NMA002*	1.0	0.7	1.5	1.7	1.3	1.4	1.6	1.3	1.2	1.9	1.4	1.5	***	***	***	***	***	1.7	2.1
Myanmar	Yangon	*MMA001*												15.5	10.2	6.2	8.9	7.6	7.1	5.8	2.0
Philippines	Metro Manila	*PHA001*	<0.1	7.1	10.0	9.3	9.1	12.5	3.8	6.6	9.2	***	7.5	***	***	***	***	***	***	***	
	Los Banos	*PHA002*	<0.1	4.2	6.2	5.0	4.1	4.5	2.0	2.7	3.1	***	***	***	***	***	***	***	***	***	
	Mt. Sto. Tomas	*PHA003*							0.2	0.9	6.4	0.4	2.5	***	1.0	1.1	2.2	1.9	1.9	***	
Republic	Kanghwa	*KRA001*				14.1	13.7	***	4.8	9.7	3.4	3.2	4.6	***	***	7.4	3.7	4.3	0.8	0.4	0.5
of Korea	Cheju	*KRA002*				1.4	1.1	***	***	***	3.7	4.9	7.0	***	***	3.2	6.9	7.5	4.0	7.0	7.1
	Imsil	*KRA003*		4.9	***	4.6	6.0	***	5.9	5.0	5.0	6.0	6.5	***	***	3.0	6.3	5.6	4.3	8.4	9.4
Russia	Mondy	*RUA001*	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	1.0	1.2
	Listvyanka	*RUA002*	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	2.9	1.7
	Irkutsk	*RUA003*	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	2.3	<0.1
	Primorskaya	*RUA004*			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	0.8	1.4
Thailand	Bangkok	*THA001*				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	6.4	12.2
	Pathumthani	*THA003*				6.5	8.5	6.3	7.0	9.2	3.1	8.1	7.8	5.2	***	***	***	***	***	***	***
	Khanchanaburi	*THA004*			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	4.2	3.8
	Mae Hia	*THA005*		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	4.6	4.6
	Sakaerat	*THA008*							2.8	2.4	2.6	2.3	2.0	1.8	3.3	2.9	3.5	3.9	4.6	3.5	4.6
Vietnam	Hanoi	*VNA001*	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	3.9	2.4
	Hoa Binh	*VNA002*	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	1.8	1.4
	Can Tho	*VNA005*															2.6	2.5	3.3	3.4	4.9
	Ho Chi Minh	*CNA006*															3.0	2.8	4.3	5.6	4.6
	Yen Bai	*VNA007*																2.9	2.8	3.5	3.2

Terms and abbreviations are given in Table 4.2.

Table 4.25 Annual NO concentration from 2000 to 2018

unit: ppb

Country	Site	Code	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
China	Jinyunshan	*CNA004*						1.0	2.6	1.5	6.7	3.3	2.0	1.6	2.1	1.6	1.7	1.5	3.3	8.7	7.6
	Weishuiyuan	*CNA006*						5.1	9.8												
Japan	Rishiri	*JPA001*	<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	<0.1	<0.1
	Ochiishi	*JPA002*									<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Tappi	*JPA003*	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	0.1	<0.1
	Sado-seki	*JPA004*	<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	<0.1	<0.1
	Happo	*JPA005*	<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	<0.1	<0.1
	Ijira	*JPA006*	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	0.1	0.3
	Oki	*JPA007*	<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	<0.1	<0.1
	Banryu	*JPA008*	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	0.2	0.1
	Yusuhara	*JPA009*	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	<0.1	<0.1
	Hedo	*JPA010*	<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	<0.1	<0.1
	Ogasawara	*JPA011*	<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	<0.1	<0.1
Lao PDR	Vientiane	*LAA001*															8.4	10.9	***	***	
Malaysia	Tanah Rata	*MYA002*								10.1	***	***	***	***	***	***	***	***	***	***	
Mongolia	Ulannbaatar	*MNA001*															21.8	27.8	22.7	19.4	12.7
Philippines	Metro Manila	*PHA001*																17.6	13.9	***	
Thailand	Bangkok	*THA001*		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	6.6	6.0
	Samutprakarn	*THA002*	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	7.3	7.1
	Khanchanaburi	*THA004*	<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	0.5	2.9
	ChangPhueak	*THA006*				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	2.4	2.0
	Si Phum	*THA007*														6.9	7.0	11.8	13.5	9.1	7.7
	Nai Mueang	*THA009*									5.9	***	15.3	16.5	15.6	15.4	11.7	11.3	13.6	13.0	10.2

Terms and abbreviations are given in Table 4.2.

Table 4.26 Annual NO_2 concentration from 2000 to 2018

unit: ppb

Country	Site	Code	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
China	Jinyunshan	*CNA004*		2.7																	
	Weishuiyuan	*CNA006*	6.2	4.6																	
	Hongwen	*CNA008*		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	14.7	13.5
	Xiang Zhou	*CNA010*		18.6	24.2	22.1	21.0	18.8	20.7	19.5	21.1	15.4	17.0	18.6							
	Haibin - Park	*CNA012*													13.8	17.6	18.7	15.6	16.9	15.9	15.5
Indonesia	Jakarta	*IDA001*								4.2	32.8	48.5	31.2	***	16.3	26.5	25.9	25.7	26.5	28.4	22.8
	Serpong	*IDA002*	6.3																		
	Kototabang	*IDA003*								0.7	1.9	3.5	0.5	***	***	2.5	0.7	1.2	1.0	1.2	1.0
	Bandung	*IDA004*									11.3	13.3	31.5	39.0	42.8	41.0	40.6	54.4	74.6	36.0	30.3
Japan	Banryu	*JPA008*	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	2.0	1.7
Lao PDR	Vientiane	*LAA001*															10.0	11.4	***	***	
Malaysia	Petaling Jaya	*MYA001*		26.6	29.4	30.9															
Mongolia	Ulannbaatar	*MNA001*															26.9	30.3	35.9	42.9	34.3
Philippines	Metro Manila	*PHA001*																15.5	12.9	***	
Republic of Korea	Kanghwa	*KRA001*								5.3	6.9	7.1	6.4	5.4	5.0	5.7	5.9	7.4	6.8	5.7	4.9
	Cheju	*KRA002*								4.3	2.9	3.1	4.1	4.4	3.0	3.4	3.3	3.7	3.1	2.7	3.4
	Imsil	*KRA003*								4.2	4.1	4.5	5.1	5.0	4.6	5.1	4.0	4.4	4.6	4.0	4.1
Thailand	Bangkok	*THA001*		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	17.6	19.1
	Samutprakarn	*THA002*	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	15.6	17.4
	ChangPhueak	*THA006*				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	8.4	5.8
	Si Phum	*THA007*														16.1	14.9	18.1	18.9	14.5	19.0
	Nai Mueang	*THA009*									11.0	***	17.9	17.6	18.7	19.4	15.6	15.0	17.7	22.7	18.6

Terms and abbreviations are given in Table 4.2.

Table 4.27 Annual NOx concentration from 2000 to 2018

unit: ppb

Country	Site	Code	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
China	Jinyunshan (NOx*)	*CNA004*						7.2	8.7	8.1	11.8	8.2	11.4	10.0	8.4	9.1	8.9	9.6	13.5	18.5	17.9
	Weishuiyuan (NOx*)	*CNA006*						14.7	26.8												
Japan	Rishiri (NOx*)	*JPA001*	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	0.6	0.6
	Ochiishi (NOx*)	*JPA002*									1.0	1.1	1.0	1.1	1.0	0.8	0.9	0.9	0.9	0.9	0.9
	Tappi (NOx*)	*JPA003*	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	1.3	1.2
	Sado-seki (NOx*)	*JPA004*	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	0.7	0.7
	Happo (NOx*)	*JPA005*	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	0.7	0.8
	Ijira (NOx*)	*JPA006*	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	1.4	1.9
	Oki (NOx*)	*JPA007*	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	1.0	1.1
	Banryu	*JPA008*	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	2.1	1.8
	Yusuhara (NOx*)	*JPA009*	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	1.5	1.2
	Hedo (NOx*)	*JPA010*	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	0.7	0.7
	Ogasawara (NOx*)	*JPA011*	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	0.4	0.3
Lao PDR	Vientiane	*LAA001*															18.4	22.4	***	***	
Malaysia	Tanah Rata (NOx*)	*MYA002*								12.2	***	***	***	***	***	***	***	***	***	***	
Mongolia	Ulannbaatar	*MNA001*															48.7	58.2	58.6	62.3	47.0
Philippines	Metro Manila	*PHA001*																33.2	26.9	***	
Thailand	Bangkok	*THA001*		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	24.2	25.1
	Samutprakarn	*THA002*	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	22.8	24.5
	Khanchanaburi (NOx*)	*THA004*	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	1.4	6.1
	Chang Phuseak	*THA006*				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	10.7	7.9
	Si Phum	*THA007*														23.0	21.9	29.8	32.3	23.5	26.6
	Nai Mueang	*THA009*									16.9	***	33.2	34.0	34.2	34.6	27.3	26.2	31.3	35.7	28.8

Terms and abbreviations are given in Table 4.2.

Table 4.28 Annual O_3 concentration from 2000 to 2018

unit: ppb

Country	Site	Code	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Indonesia	Bandung	*IDA004*																26	10	11	15
Japan	Rishiri	*JPA001*	39	39	41	43	43	42	43	46	42	42	40	37	34	37	39	40	39	37	36
	Ochiishi	*JPA002*									38	37	38	35	39	39	42	40	38	42	40
	Tappi	*JPA003*	47	46	46	45	47	51	51	54	60	***	***	38	41	40	39	38	41	45	45
	Sado-seki	*JPA004*	44	41	43	49	49	48	48	48	47	49	53	49	46	46	47	45	45	45	44
	Happo	*JPA005*	53	54	55	56	56	58	59	(63)	50	52	48	53	49	49	48	48	47	47	50
	Ijira	*JPA006*	30	30	24	30	27	23	17	35	20	21	19	20	24	26	28	26	25	28	28
	Oki	*JPA007*	45	44	40	39	45	45	44	45	45	46	45	46	46	48	47	47	46	47	46
	Banryu	*JPA008*	36	36	37	36	37	37	34	34	35	36	35	33	33	33	33	33	33	35	32
	Yusuhara	*JPA009*	39	29	29	33	39	43	42	40	40	41	36	33	34	39	40	40	37	41	39
	Hedo	*JPA010*	41	41	42	39	32	35	40	38	39	39	38	33	35	38	40	39	36	36	29
	Ogasawara	*JPA011*	22	27	29	30	30	33	31	32	28	30	38	29	32	37	33	35	29	36	30
Malaysia	Tanah Rata	*MYA002*								15	***	***	***	***	***	***	***	***	***	***	
Mongolia	Ulannbaatar	*MNA001*															12	13	12	9	11
Philippines	Metro Manila	*PHA001*																7	10	***	
Republic	Kanghwa	*KRA001*			42	43	40	41	27	43	41	43	43	39	44	46	50	47	45	43	41
of Korea	Cheju	*KRA002*			41	28	38	40	35	38	42	44	42	35	39	41	45	46	39	47	42
	Imsil	*KRA003*			31	22	24	30	30	30	20	33	30	30	33	31	31	36	36	29	28
Russia	Mondy	*RUA001*			44	42	45	42	45	39	35	45	44	40	38	38	35	40	43	27	42
	Listvyanka	*RUA002*															39	39	35	25	36
	Irktusk	*RUA003*																	30	14	22
Thailand	Bangkok	*THA001*									10	17	17	19	17	21	19	43	21	22	22
	Samutprakarn	*THA002*		4	12	17	13	14	14	14	18	18	15	17	19	20	22	23	16	17	20
	Khanchanaburi	*THA004*	20	10	14	***	15	17	10	7	16	14	23	12	16	13	22	20	19	18	25
	ChangPhueak	*THA006*				13	22	20	19	23	22	26	24	25	21	21	20	22	25	22	29
	Si Phum	*THA007*														22	19	***	***	***	***
	Nai Mueang	*THA009*									22	***	17	***	19	22	22	21	22	26	22

Terms and abbreviations are given in Table 4.2.

Table 4.29 Annual PM_{10} concentration from 2000 to 2018

unit: μg/m^3

Country	Site	Code	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
China	Jinyunshan	*CNA004*		95	73	70	64	60	78	65	50	40	51	45	43	64	57	48	56	50	48
	Weishuiyuan	*CNA006*		121	138	112	128	118	121												
	Hongwen	*CNA008*		61	62	68	64	66	97	71	59	60	63	61	59	58	54	43	42	43	41
	Xiang Zhou	*CNA010*		51	48	56	48	40	47	50	51	48	48	49							
	Haibin -Park	*CNA012*													44	54	46	50	41	42	40
Japan	Rishiri	*JPA001*	16	18	18	16	17	14	15	14	16	16	18	15	13	12	26	19	16	17	17
	Ochiishi	*JPA002*									30	24	22	23	20	16	26	22	18	16	15
	Tappi	*JPA003*	64	19	26	16	20	19	18	17	22	16	28	18	17	18	20	20	18	16	16
	Sado-seki	*JPA004*	24	25	27	22	28	24	24	22	23	22	21	21	19	20	23	24	20	21	22
	Happo	*JPA005*	13	14	12	10	15	15	13	12	14	12	12	12	11	11	12	10	10	7	9
	Ijira	*JPA006*	24	22	24	20	21	21	22	22	20	18	18	19	16	18	17	17	16	18	17
	Oki	*JPA007*	26	29	31	23	27	28	30	29	26	26	29	25	23	27	31	32	29	28	29
	Banryu	*JPA008*	29	31	35	25	29	29	31	31	27	26	28	24	22	25	25	24	22	24	22
	Yusuhara	*JPA009*	15	22	22	18	20	20	20	19	18	18	18	16	15	17	15	16	14	14	15
	Hedo	*JPA010*		46	48	26	34	35	37	29	27	28	31	28	27	26	27	31	28	29	31
	Ogasawara	*JPA011*	11	12	13	11	13	12	13	13	10	12	12	10	11	12	11	18	19	19	20
Lao PDR	Vientiane	*LAA001*															72	72	***	***	
Malaysia	Petaling Jaya	*MYA001*	37	***	39	41															
Mongolia	Ulannbaatar	*MNA001*															211	106	97	102	121
Philippines	Metro Manila	*PHA001*																33	29	***	
Republic	Kanghwa	*KRA001*			53	56	54	58	46	52	48	51	51	44	45	48	49	52	51	49	42
of Korea	Cheju	*KRA002*			43	41	36	39	51	54	50	43	47	42	37	45	47	45	42	37	39
	Imsil	*KRA003*			57	42	44	54	57	43	59	34	40	38	36	39	44	43	42	39	37
Thailand	Bangkok	*THA001*	56	49	***	***	51	43	44	45	43	39	38	38	37	41	37	32	35	36	36
	Samutprakarn	*THA002*									45	43	38	54	39	44	41	35	38	38	42
	Khanchanaburi	*THA004*	38	21	79	***	41	60	37	31	37	28	46	23	10	28	90	23	34	17	35
	ChangPhueak	*THA006*				48	59	51	41	52	38	42	45	33	42	41	45	43	48	43	50
	Si Phum	*THA007*														47	47	49	52	45	41
	Nai Mueang	*THA009*									47	***	44	***	54	59	51	45	55	54	53

Terms and abbreviations are given in Table 4.2.

Table 4.30 Annual $PM_{2.5}$ concentration from 2000 to 2018

unit: μg/m^3

Country	Site	Code	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Cambodia	Phnom Penh	*KHA001*																		13	19
Indonesia	Jakarta	*IDA001*																	***	39	45
Japan	Rishiri	*JPA001*		9	8	10	8	8	8	8	9	8	9	8	8	7	8	8	7	8	7
	Ochiishi	*JPA002*									16	12	12	10	9	7	7	9	8	7	6
	Tappi	*JPA003*																10	9	8	9
	Sadoseki	*JPA004*															11	10	10	10	9
	Happo	*JPA005*																7	6	6	6
	Ijira	*JPA006*																11	9	11	8
	Oki	*JPA007*		12	14	12	13	15	15	15	14	12	12	14	13	15	13	13	12	11	12
	Banryu	*JPA008*																13	12	13	11
	Yuahara	*JPA009*																11	10	10	10
	Hedo	*JPA010*																10	10	11	11
	Ogasawara	*JPA011*																7	6	6	6
Lao PDR	Vientiane	*LAA001*																			31
Mongoloa	Ulaanbaatar	*MNA001*															50	50	53	48	42
Myanmar	Yangon	*MMA001*																			24
	Mandalay	*MMA002*																47	33	37	16
Philippines	Metro Manila	*PHA001*																22	20	18	17
Republic	Kanghwa	*KRA001*																	28	25	22
of Korea	Cheju	*KRA002*																	21	16	16
Thailand	Bangkok	*THA001*																18	23	25	21
	Samutprakarn	*THA002*																	28	24	23
	Khanchanaburi	*THA004*																24	***	7	27
	ChangPhueak	*THA006*																	24	30	29
	Si Phum	*THA007*														35	33	33	32	23	30
Vietnam	Hoa Binh	VNA002																40	49	37	37

Terms and abbreviations are given in Table 4.2.

Table 4.31 Annual SO_4^{2-} in PM concentration from 2000 to 2018

unit: μg/m^3

Country	Site	Code	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Cambodia	Phnom Penh	*KHA001*											2.85	2.95	2.63	2.91	2.11	2.20	1.54	2.11	***
China	Hongwen	*CNA008*								10.58	13.38	12.72	14.10	17.60	***	***	***	***	10.92	9.08	***
Indonesia	Jakarta	*IDA001*															11.44	6.76	3.53	4.23	6.68
	Serpong	*IDA002*		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	4.43	6.42
	Bandung	*IDA004*															6.93	2.69	2.73	2.28	7.52
Japan	Rishiri	*JPA001*			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	2.13	2.05
	Ochiishi	*JPA002*									2.73	2.61	2.31	2.13	1.95	2.19	2.52	2.05	1.98	2.38	2.03
	Tappi	*JPA003*				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	3.02	2.56
	Sado-seki	*JPA004*				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	2.82	3.55
	Happo	*JPA005*				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	1.57	1.56
	Ijira	*JPA006*				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	2.50	2.45
	Oki	*JPA007*			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	4.31	4.12
	Banryu	*JPA008*				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	3.52	3.59
	Yusuhara	*JPA009*				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	3.16	2.94
	Hedo	*JPA010*				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	4.37	4.37
	Ogasawara	*JPA011*				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	1.94	1.67
	Tokyo	*JPA012*								5.36	5.15	4.62	4.28	4.06	3.14	4.38	4.11	3.79	3.16	3.08	3.28
Lao PDR	Vientiane	*LAA001*																4.75	3.77	***	
Malaysia	Petaling Jaya	*MYA001*		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	2.77	0.45
	Tanah Rata	*MYA002*	1.2	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	1.28	0.15
	Danum Valley	*MYA003*							0.69	0.76	1.12	3.64	1.73	0.86	0.38	0.78	1.11	1.80	1.10	0.75	0.47
Mongolia	Ulaanbaatar	*MNA001*	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	2.23	1.25
	Terelj	*MNA002*	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	0.11	0.07
Myanmar	Yangon	*MMA001*												3.77	3.59	1.40	1.56	0.90	0.54	1.70	1.52
Philippines	Metro Manila	*PHA001*	2.0	1.9	2.3	3.74	3.19	3.31	2.63	3.15	2.37	***	1.43	***	***	***	***	***	***	***	
	Los Banos	*PHA002*	0.5	0.9	1.5	2.59	1.64	1.71	1.52	2.29	1.86	***	***	***	***	***	***	***	***	***	
	Mt. Sto. Tomas	*PHA003*							0.14	0.22	0.91	0.16	1.40	***	0.15	0.17	0.38	0.27	0.30	***	
Republic	Kanghwa	*KRA001*		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	4.20	3.37
of Korea	Cheju	*KRA002*		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	2.01	3.45
	Imsil	*KRA003*		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	3.55	3.30
Russia	Mondy	*RUA001*	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	0.58	0.35
	Listvyanka	*RUA002*	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	0.85	0.78
	Irkutsk	*RUA003*	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	1.85	2.28
	Primorskaya	*RUA004*		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	1.08	0.52
Thailand	Bangkok	*THA001*				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	1.47	3.77
	Pathumthani	*THA003*				2.34	3.46	1.39	3.14	4.69	1.41	3.12	3.78	1.64	***	***	***	***	***	***	***
	Khanchanaburi	*THA004*			<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	1.82	3.27
	Mae Hia	*THA005*		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	0.87	0.83
	Sakaerat	*THA008*							3.64	4.80	3.78	3.44	2.12	2.74	2.44	2.89	3.31	2.70	2.79	2.35	3.26
Vietnam	Hanoi	*VNA001*	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	7.96	4.50
	Hoa Binh	*VNA002*	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	3.24	4.43
	Can Tho	*VNA005*															1.40	1.22	1.42	5.58	5.40
	Ho Chi Minh	*VNA006*															2.08	2.42	2.15	7.68	6.75
	Yen Bai	*VNA007*																8.68	6.49	6.61	7.14

The reporting limits for the components in the particulate matters were changed from 0.1 μg/m^3 to 0.01 μg/m^3 in 2003.
Terms and abbreviations are given in Table 4.2.

Table 4.32 Annual NO_3^- in PM concentration from 2000 to 2018

unit: μg/m^3

Country	Site	Code	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Cambodia	Phnom Penh	*KHA001*											1.32	1.27	1.20	1.18	1.22	2.03	1.37	1.58	***
China	Hongwen	*CNA008*								5.81	8.10	7.98	11.66	11.66	***	***	***	***	7.62	8.26	***
Indonesia	Jakarta	*IDA001*															4.67	2.37	1.34	1.36	2.78
	Serpong	*IDA002*		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	1.05	1.54
	Bandung	*IDA004*															1.92	1.19	1.00	0.73	1.57
Japan	Rishiri	*JPA001*			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	0.70	0.74
	Ochiishi	*JPA002*									0.71	0.67	0.55	0.67	0.43	0.42	0.71	0.57	0.67	0.82	0.82
	Tappi	*JPA003*				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	1.27	1.18
	Sado-seki	*JPA004*				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	1.10	1.41
	Happo	*JPA005*				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	0.36	0.42
	Ijira	*JPA006*				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	0.41	0.47
	Oki	*JPA007*			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	2.70	1.98
	Banryu	*JPA008*				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	2.13	1.72
	Yusuhara	*JPA009*				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	0.56	0.57
	Hedo	*JPA010*				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	1.75	1.58
	Ogasawara	*JPA011*				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	0.55	0.48
	Tokyo	*JPA012*								3.86	4.03	3.85	3.80	3.76	2.73	3.13	3.13	3.55	3.19	2.99	3.34
Lao PDR	Vientiane	*LAA001*																0.47	0.40	***	
Malaysia	Petaling Jaya	*MYA001*		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	1.29	0.11
	Tanah Rata	*MYA002*	0.2	<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	0.13	0.01
	Danum Valley	*MYA003*							0.05	0.04	0.06	0.21	0.36	0.04	0.08	0.09	0.11	0.11	0.10	0.08	0.02
Mongolia	Ulaanbaatar	*MNA001*	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	0.18	0.18
	Terelj	*MNA002*	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	0.01	0.01
Myanmar	Yangon	*MMA001*												0.31	0.92	0.54	0.33	0.44	0.48	1.65	0.82
Philippines	Metro Manila	*PHA001*	0.7	1.1	0.9	2.26	1.77	1.11	1.03	1.27	0.99	***	0.85	***	***	***	***	***	***	***	
	Los Banos	*PHA002*	0.2	0.8	0.5	1.18	0.64	0.42	0.29	0.39	0.27	***	***	***	***	***	***	***	***	***	
	Mt. Sto. Tomas	*PHA003*							0.02	0.07	1.15	0.12	0.78	***	0.19	0.14	0.26	0.27	0.14	***	
Republic	Kanghwa	*KRA001*		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	2.82	2.74
of Korea	Cheju	*KRA002*		<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	1.92	1.41
	Imsil	*KRA003*		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	2.72	3.17
Russia	Mondy	*RUA001*	<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	0.04	0.03
	Listvyanka	*RUA002*	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	0.07	0.10
	Irkutsk	*RUA003*	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	0.63	0.75
	Primorskaya	*RUA004*		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	0.53	0.19
Thailand	Bangkok	*THA001*				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	1.28	2.68
	Pathumthani	*THA003*				0.63	1.11	1.13	0.81	2.02	0.77	1.73	1.93	0.92	***	***	***	***	***	***	***
	Khanchanaburi	*THA004*			<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	0.24	0.20
	Mae Hia	*THA005*		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	0.18	0.20
	Sakaerat	*THA008*							0.52	0.48	0.41	0.34	0.18	0.31	0.28	0.41	0.58	0.32	0.30	0.27	0.38
Vietnam	Hanoi	*VNA001*	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	11.14	4.19
	Hoa Binh	*VNA002*	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	3.28	2.95
	Can Tho	*VNA005*															0.67	0.55	0.66	2.19	2.16
	Ho Chi Minh	*VNA006*															1.09	1.07	2.06	5.67	5.80
	Yen Bai	*VNA007*																3.19	4.36	8.00	5.89

The reporting limits for the components in the particulate matters were changed from 0.1 μg/m^3 to 0.01 μg/m^3 in 2003.
Terms and abbreviations are given in Table 4.2.

Table 4.33 Annual Cl^- in PM concentration from 2000 to 2018

unit: μg/m^3

Country	Site	Code	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Cambodia	Phnom Penh	*KHA001*											0.20	0.24	0.24	0.40	0.26	0.54	0.56	0.32	***
China	Hongwen	*CNA008*								2.07	1.85	1.73	2.28	1.51	***	***	***	***	0.99	0.95	***
Indonesia	Jakarta	*IDA001*															1.35	0.51	0.41	0.54	0.84
	Serpong	*IDA002*		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	0.23	0.25
	Bandung	*IDA004*															0.31	0.27	0.20	0.57	0.17
Japan	Rishiri	*JPA001*			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	2.66	2.93
	Ochiishi	*JPA002*									4.44	6.88	4.34	3.28	3.06	4.58	4.12	4.46	3.89	3.81	3.97
	Tappi	*JPA003*				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	5.70	5.54
	Sado-seki	*JPA004*				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	3.52	5.80
	Happo	*JPA005*				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	0.03	0.03
	Ijira	*JPA006*				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	0.06	0.10
	Oki	*JPA007*			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	10.45	5.07
	Banryu	*JPA008*				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	2.79	1.45
	Yusuhara	*JPA009*				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	0.06	0.06
	Hedo	*JPA010*				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	7.16	7.69
	Ogasawara	*JPA011*				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	3.71	3.59
	Tokyo	*JPA012*								0.62	0.63	0.68	0.66	0.70	0.49	0.59	0.53	0.53	0.57	0.43	0.66
Lao PDR	Vientiane	*LAA001*																0.06	0.06	***	
Malaysia	Petaling Jaya	*MYA001*		<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	0.13	<0.01
	Tanah Rata	*MYA002*	<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	0.04	<0.01
	Danum Valley	*MYA003*							0.04	0.02	0.04	0.15	0.33	0.04	0.02	0.11	0.13	0.11	0.07	0.08	<0.01
Mongolia	Ulaanbaatar	*MNA001*	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	0.20	0.14
	Terelj	*MNA002*	<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	0.03	0.02
Myanmar	Yangon	*MMA001*												0.59	0.56	0.21	0.27	0.63	0.57	0.13	0.52
Philippines	Metro Manila	*PHA001*	2.6	0.5	0.5	0.86	0.77	0.39	0.62	0.62	0.59	***	0.66	***	***	***	***	***	***	***	
	Los Banos	*PHA002*	1.1	0.9	0.9	1.09	0.65	0.58	0.67	1.15	0.82	***	***	***	***	***	***	***	***	***	
	Mt. Sto. Tomas	*PHA003*							0.03	0.07	0.35	0.05	0.32	***	0.05	0.04	0.10	0.08	0.04	***	
Republic	Kanghwa	*KRA001*		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	0.28	0.11
of Korea	Cheju (Kosan)	*KRA002*		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	0.54	0.62
	Imsil	*KRA003*		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	0.39	0.41
Russia	Mondy	*RUA001*	<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	0.03	0.02
	Listvyanka	*RUA002*	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	0.05	0.04
	Irkutsk	*RUA003*	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	0.19	0.15
	Primorskaya	*RUA004*		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	0.12	0.03
Thailand	Bangkok	*THA001*				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	0.09	0.27
	Pathumthani	*THA003*				0.07	0.11	0.31	0.09	0.39	0.07	0.20	0.14	0.15	***	***	***	***	***	***	***
	Khanchanaburi	*THA004*			<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	0.22	0.03
	Mae Hia	*THA005*		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	0.15	0.13
	Sakaerat	*THA008*							0.09	0.06	0.06	0.07	0.02	0.06	0.10	0.12	0.16	0.08	0.21	0.04	0.08
Vietnam	Hanoi	*VNA001*	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	4.04	2.33
	Hoa Binh	*VNA002*	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	1.04	1.88
	Can Tho	*VNA005*																0.56	0.46	1.78	1.08	2.14
	Ho Chi Minh	*VNA006*															0.74	0.59	1.29	1.40	4.03
	Yen Bai	*VNA007*																1.01	1.25	3.58	3.52

The reporting limits for the components in the particulate matters were changed from 0.1 μg/m^3 to 0.01 μg/m^3 in 2003.
Terms and abbreviations are given in Table 4.2.

Table 4.34 Annual NH_4^+ in PM concentration from 2000 to 2018

unit: μg/m^3

Country	Site	Code	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Cambodia	Phnom Penh	*KHA001*											0.61	0.50	0.34	0.57	0.52	0.54	0.54	0.38	***
China	Hongwen	*CNA008*								3.66	5.55	5.48	6.72	5.85	***	***	***	***	3.68	2.83	***
Indonesia	Jakarta	*IDA001*															0.57	0.71	0.40	0.32	1.11
	Serpong	*IDA002*		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	0.50	1.07
	Bandung	*IDA004*															1.20	1.17	1.42	1.13	1.60
Japan	Rishiri	*JPA001*			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	0.42	0.43
	Ochiishi	*JPA002*									0.40	0.40	0.29	0.37	0.32	0.28	0.38	0.24	0.32	0.38	0.35
	Tappi	*JPA003*				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	0.49	0.42
	Sado-seki	*JPA004*				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	0.44	0.56
	Happo	*JPA005*				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	0.47	0.43
	Ijira	*JPA006*				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	0.68	0.64
	Oki	*JPA007*			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	0.77	0.83
	Banryu	*JPA008*				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	0.93	0.90
	Yusuhara	*JPA009*				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	0.89	0.72
	Hedo	*JPA010*				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	0.53	0.46
	Ogasawara	*JPA011*				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	0.22	0.16
	Tokyo	*JPA012*								1.82	1.96	1.83	1.71	1.57	1.10	1.44	1.42	1.40	1.18	1.16	1.11
Lao PDR	Vientiane	*LAA001*																1.22	1.12	***	
Malaysia	Petaling Jaya	*MYA001*		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	0.74	0.02
	Tanah Rata	*MYA002*	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	0.32	<0.01
	Danum Valley	*MYA003*							0.10	0.08	0.12	0.39	0.12	0.13	0.08	0.13	0.12	0.25	0.10	0.09	0.07
Mongolia	Ulaanbaatar	*MNA001*	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	0.58	0.34
	Terelj	*MNA002*	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	0.04	<0.01
Myanmar	Yangon	*MMA001*												0.34	0.38	0.30	0.50	0.45	0.37	0.80	0.33
Philippines	Metro Manila	*PHA001*	<0.1	0.3	0.9	1.09	0.48	0.73	0.25	0.43	0.42	***	0.14	***	***	***	***	***	***	***	
	Los Banos	*PHA002*	<0.1	0.4	0.3	0.70	0.21	0.67	0.23	0.28	0.34	***	***	***	***	***	***	***	***	***	
	Mt. Sto. Tomas	*PHA003*							0.03	0.09	0.33	0.03	0.10	***	<0.01	0.01	0.10	0.05	<0.01	***	
Republic of Korea	Kanghwa	*KRA001*		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	2.50	2.13
	Cheju	*KRA002*		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	1.19	1.38
	Imsil	*KRA003*		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	1.96	1.92
Russia	Mondy	*RUA001*	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	0.12	0.05
	Listvyanka	*RUA002*	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	0.32	0.10
	Irkutsk	*RUA003*	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	0.57	0.73
	Primorskaya	*RUA004*		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	0.45	0.13
Thailand	Bangkok	*THA001*				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	1.02	0.77
	Pathumthani	*THA003*				0.46	0.73	0.38	0.86	1.37	0.71	1.50	0.84	0.26	***	***	***	***	***	***	***
	Khanchanaburi	*THA004*			<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	0.58	0.57
	Mae Hia	*THA005*		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	0.25	0.18
	Sakaerat	*THA008*							1.13	1.37	1.13	0.87	0.73	0.96	0.84	0.90	1.01	0.88	0.80	0.77	1.62
Vietnam	Hanoi	*VNA001*	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	3.41	1.37
	Hoa Binh	*VNA002*	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	1.03	1.42
	Can Tho	*VNA005*															0.63	1.08	0.77	1.39	1.21
	Ho Chi Minh	*VNA006*															1.00	1.35	1.44	1.23	1.37
	Yen Bai	*VNA007*																2.00	2.62	3.17	2.58

The reporting limits for the components in the particulate matters were changed from 0.1 μg/m^3 to 0.01 μg/m^3 in 2003.
Terms and abbreviations are given in Table 4.2.

Table 4.35 Annual Na^+ in PM concentration from 2000 to 2018

unit: μg/m^3

Country	Site	Code	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Cambodia	Phnom Penh	*KHA001*											0.53	0.63	0.57	0.67	0.59	0.81	0.64	0.63	***
China	Hongwen	*CNA008*								1.39	1.40	1.55	1.76	1.62	***	***	***	***	1.61	1.58	***
Indonesia	Jakarta	*IDA001*															1.84	0.97	0.56	0.49	1.10
	Serpong	*IDA002*		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	0.32	0.70
	Bandung	*IDA004*															0.57	0.64	0.41	0.49	0.67
Japan	Rishiri	*JPA001*			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	1.88	2.08
	Ochiishi	*JPA002*									3.09	4.37	2.87	2.45	2.15	3.00	2.72	2.86	2.56	2.64	2.64
	Tappi	*JPA003*				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	3.77	3.58
	Sado-seki	*JPA004*				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	2.57	3.91
	Happo	*JPA005*				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	0.08	0.10
	Ijira	*JPA006*				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	0.25	0.28
	Oki	*JPA007*			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	6.68	3.66
	Banryu	*JPA008*				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	2.23	1.46
	Yusuhara	*JPA009*				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	0.28	0.32
	Hedo	*JPA010*				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	5.03	5.29
	Ogasawara	*JPA011*				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	2.50	2.40
	Tokyo	*JPA012*								0.99	0.80	0.94	0.91	0.89	0.71	0.87	0.77	0.87	0.86	0.76	0.98
Lao PDR	Vientiane	*LAA001*																0.28	0.25	***	
Malaysia	Petaling Jaya	*MYA001*		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	0.30	0.01
	Tanah Rata	*MYA002*	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	0.08	<0.01
	Danum Valley	*MYA003*							0.13	0.13	0.16	0.59	0.72	0.17	0.05	0.16	0.32	0.35	0.25	0.18	0.07
Mongolia	Ulaanbaatar	*MNA001*	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	0.31	0.18
	Terelj	*MNA002*	<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	0.03	0.02
Myanmar	Yangon	*MMA001*												0.59	0.74	0.21	0.34	0.12	0.31	0.19	0.58
Philippines	Metro Manila	*PHA001*	1.3	1.1	0.3	0.92	0.89	0.62	0.61	0.79	0.97	***	0.54	***	***	***	***	***	***	***	
	Los Banos	*PHA002*	0.6	1.4	0.8	0.72	0.64	0.65	0.70	0.98	0.67	***	***	***	***	***	***	***	***	***	
	Mt. Sto. Tomas	*PHA003*							0.05	0.05	0.38	0.16	0.52	***	0.07	0.10	0.31	0.58	0.24	***	
Republic	Kanghwa	*KRA001*		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	0.23	0.20
of Korea	Cheju	*KRA002*		<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	0.38	0.39
	Imsil	*KRA003*		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	0.26	0.26
Russia	Mondy	*RUA001*	<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	0.16	0.03
	Listvyanka	*RUA002*	<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	0.24	0.05
	Irkutsk	*RUA003*	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	0.45	0.16
	Primorskaya	*RUA004*		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	0.10	0.05
Thailand	Bangkok	*THA001*				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	0.15	0.49
	Pathumthani	*THA003*				0.23	0.54	0.27	0.34	0.40	0.27	0.38	0.30	0.22	***	***	***	***	***	***	***
	Khanchanaburi	*THA004*			<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	0.20	0.09
	Mae Hia	*THA005*		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	0.25	0.21
	Sakaerat	*THA008*							0.17	0.28	0.24	0.21	0.16	0.17	0.18	0.13	0.27	0.43	0.33	0.18	0.37
Vietnam	Hanoi	*VNA001*	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	1.44	0.66
	Hoa Binh	*VNA002*	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	0.54	0.49
	Can Tho	*VNA005*															0.24	0.31	0.24	0.48	0.24
	Ho Chi Minh	*VNA006*															0.26	0.37	0.38	1.08	1.05
	Yen Bai	*VNA007*																0.83	1.18	0.88	0.78

The reporting limits for the components in the particulate matters were changed from 0.1 μg/m^3 to 0.01 μg/m^3 in 2003.
Terms and abbreviations are given in Table 4.2.

Table 4.36 Annual K^+ in PM concentration from 2000 to 2018

unit: μg/m^3

Country	Site	Code	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Cambodia	Phnom Penh	*KHA001*											0.63	0.59	0.46	0.73	0.67	0.75	0.50	0.56	***
China	Hongwen	*CNA008*								0.57	0.62	0.68	3.46	0.72	***	***	***	***	0.55	0.51	***
Indonesia	Jakarta	*IDA001*															0.96	0.48	0.32	0.22	0.71
	Serpong	*IDA002*		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	0.28	0.71
	Bandung	*IDA004*															0.55	0.74	0.48	0.47	0.64
Japan	Rishiri	*JPA001*			<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	0.13	0.15
	Ochiishi	*JPA002*									0.16	0.18	0.13	0.12	0.10	0.12	0.13	0.15	0.14	0.11	0.12
	Tappi	*JPA003*				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	0.19	0.18
	Sado-seki	*JPA004*				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	0.14	0.19
	Happo	*JPA005*				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	0.03	0.03
	Ijira	*JPA006*				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	0.10	0.11
	Oki	*JPA007*			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	0.29	0.20
	Banryu	*JPA008*				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	0.17	0.12
	Yusuhara	*JPA009*				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	0.07	0.06
	Hedo	*JPA010*				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	0.25	0.25
	Ogasawara	*JPA011*				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	0.12	0.10
	Tokyo	*JPA012*								0.20	0.19	0.21	0.18	0.17	0.12	0.16	0.16	0.16	0.13	0.13	0.14
Lao PDR	Vientiane	*LAA001*																0.36	0.36	***	
Malaysia	Petaling Jaya	*MYA001*		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	0.28	0.02
	Tanah Rata	*MYA002*	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	0.08	<0.01
	Danum Valley	*MYA003*							0.09	0.09	0.12	0.43	0.29	0.16	0.06	0.14	0.20	0.21	0.17	0.15	0.07
Mongolia	Ulaanbaatar	*MNA001*	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	0.15	0.06
	Terelj	*MNA002*	<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	0.03	0.02
Myanmar	Yangon	*MMA001*												1.24	0.76	0.24	0.55	0.94	0.40	0.47	0.40
Philippines	Metro Manila	*PHA001*	14.3	1.0	0.3	0.74	0.33	0.26	0.46	0.41	0.43	***	0.22	***	***	***	***	***	***	***	
	Los Banos	*PHA002*	0.4	1.0	0.2	0.26	0.17	0.22	0.22	0.28	0.17	***	***	***	***	***	***	***	***	***	
	Mt. Sto. Tomas	*PHA003*							0.03	0.06	0.39	0.14	0.15	***	0.01	0.01	0.07	0.06	0.10	***	
Republic	Kanghwa	*KRA001*		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	0.17	0.09
of Korea	Cheju	*KRA002*		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	0.10	0.07
	Imsil	*KRA003*		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	0.15	0.13
Russia	Mondy	*RUA001*	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	0.08	0.04
	Listvyanka	*RUA002*	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	0.28	0.05
	Irkutsk	*RUA003*	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	0.53	0.16
	Primorskaya	*RUA004*		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	0.14	0.06
Thailand	Bangkok	*THA001*				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	0.21	0.47
	Pathumthani	*THA003*				0.49	0.61	0.47	0.48	1.82	0.26	0.54	0.47	0.24	***	***	***	***	***	***	***
	Khanchanaburi	*THA004*			<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	6.90	0.35
	Mae Hia	*THA005*		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	0.19	0.23
	Sakaerat	*THA008*							0.25	0.37	0.34	0.31	0.18	0.64	0.51	0.16	0.33	0.30	0.25	0.22	0.64
Vietnam	Hanoi	*VNA001*	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	0.96	0.55
	Hoa Binh	*VNA002*	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	0.31	0.35
	Can Tho	*VNA005*															0.89	0.19	0.30	0.29	0.24
	Ho Chi Minh	*VNA006*															0.53	0.34	0.58	0.66	0.97
	Yen Bai	*VNA007*																1.11	0.94	0.91	0.85

The reporting limits for the components in the particulate matters were changed from 0.1 μg/m^3 to 0.01 μg/m^3 in 2003.
Terms and abbreviations are given in Table 4.2.

Table 4.37 Annual Mg^{2+} in PM concentration from 2000 to 2018

unit: μg/m^3

Country	Site	Code	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Cambodia	Phnom Penh	*KHA001*											0.12	0.14	0.11	0.14	0.13	0.17	0.12	0.16	***
China	Hongwen	*CNA008*								0.28	0.31	0.33	0.48	0.31	***	***	***	***	0.25	0.30	***
Indonesia	Jakarta	*IDA001*															0.34	0.16	0.09	0.07	0.18
	Serpong	*IDA002*		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	0.05	0.11
	Bandung	*IDA004*															0.14	0.21	0.17	0.15	0.17
Japan	Rishiri	*JPA001*			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	0.23	0.26
	Ochiishi	*JPA002*									0.44	0.56	0.34	0.30	0.25	0.35	0.33	0.34	0.28	0.30	0.31
	Tappi	*JPA003*				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	0.44	0.42
	Sado-seki	*JPA004*				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	0.32	0.48
	Happo	*JPA005*				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	0.01	0.02
	Ijira	*JPA006*				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	0.03	0.04
	Oki	*JPA007*			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	0.79	0.44
	Banryu	*JPA008*				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	0.28	0.19
	Yusuhara	*JPA009*				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	0.04	0.05
	Hedo	*JPA010*				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	0.65	0.69
	Ogasawara	*JPA011*				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	0.31	0.29
	Tokyo	*JPA012*								0.15	0.12	0.13	0.12	0.13	0.11	0.14	0.13	0.13	0.12	0.12	0.13
Lao PDR	Vientiane	*LAA001*																0.05	0.05	***	
Malaysia	Petaling Jaya	*MYA001*		<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	0.04	<0.01
	Tanah Rata	*MYA002*	<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	<0.01	<0.01
	Danum Valley	*MYA003*							0.01	0.04	0.05	0.07	0.10	0.02	<0.01	0.01	0.04	0.05	0.03	0.02	0.01
Mongolia	Ulaanbaatar	*MNA001*	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	0.05	0.04
	Terelj	*MNA002*	<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	<0.01	<0.01
Myanmar	Yangon	*MMA001*												0.18	0.13	0.04	0.09	0.15	0.20	0.04	0.06
Philippines	Metro Manila	*PHA001*	2.7	<0.1	<0.1	0.15	0.10	0.11	0.24	0.14	0.17	***	0.10	***	***	***	***	***	***	***	
	Los Banos	*PHA002*	0.1	<0.1	0.1	0.10	0.07	0.06	0.09	0.14	0.11	***	***	***	***	***	***	***	***	***	
	Mt. Sto. Tomas	*PHA003*							0.01	<0.01	0.07	<0.01	0.06	***	0.03	0.04	0.03	0.04	0.04	***	
Republic	Kanghwa	*KRA001*		<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	<0.01	<0.01
of Korea	Cheju	*KRA002*		<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	0.03	0.03
	Imsil	*KRA003*		<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	0.03	0.02
Russia	Mondy	*RUA001*	<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	0.01	<0.01
	Listvyanka	*RUA002*	<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	0.02	0.01
	Irkutsk	*RUA003*	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	0.04	0.26
	Primorskaya	*RUA004*		<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	0.01	<0.01
Thailand	Bangkok	*THA001*				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	0.07	0.13
	Pathumthani	*THA003*				0.05	0.80	0.05	0.05	0.08	0.06	0.07	0.05	0.04	***	***	***	***	***	***	***
	Khanchanaburi	*THA004*			<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	0.03	0.05
	Mae Hia	*THA005*		<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	0.04	0.08
	Sakaerat	*THA008*							0.05	0.06	0.05	0.04	0.02	0.01	0.01	<0.01	0.02	0.03	0.22	0.05	0.29
Vietnam	Hanoi	*VNA001*	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	0.38	0.26
	Hoa Binh	*VNA002*	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	0.14	0.22
	Can Tho	*VNA005*															0.15	0.20	0.22	0.40	0.37
	Ho Chi Minh	*VNA006*															0.23	0.46	0.72	0.44	0.68
	Yen Bai	*VNA007*																0.19	2.26	0.13	0.22

The reporting limits for the components in the particulate matters were changed from 0.1 μg/m^3 to 0.01 μg/m^3 in 2003.
Terms and abbreviations are given in Table 4.2.

Table 4.38 Annual Ca^{2+} in PM concentration from 2000 to 2018

unit: μg/m^3

Country	Site	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Cambodia	Phnom Penh											0.87	0.82	0.76	0.87	0.71	1.32	1.07	1.17	***
China	Hongwen								2.84	2.79	2.73	9.44	1.59	***	***	***	***	1.56	1.80	***
Indonesia	Jakarta															3.18	1.14	0.83	0.59	0.18
	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	0.41	0.11
	Bandung															1.32	1.61	1.28	1.09	0.17
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	0.15	0.26
	Ochiishi									0.15	0.24	0.14	0.14	0.10	0.17	0.24	0.14	0.12	0.15	0.31
	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	0.24	0.42
	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	0.22	0.48
	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	0.07	0.02
	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	0.11	0.04
	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	0.45	0.44
	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	0.26	0.19
	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	0.12	0.05
	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	0.38	0.69
	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	0.15	0.29
	Tokyo								0.56	0.52	0.51	0.59	0.49	0.36	0.52	0.49	0.45	0.40	0.43	0.13
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	0.35	<0.01
	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	0.05	<0.01
	Danum Valley							0.02	0.03	0.02	0.04	0.07	0.02	0.02	0.04	0.07	0.04	0.03	0.02	0.01
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	0.74	0.04
	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	0.06	<0.01
Myanmar	Yangon												1.82	1.03	0.29	0.51	3.11	1.69	0.40	0.06
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	0.05	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	0.05	0.08
	Imsil		<0.1	0.3	0.42	0.13	0.11	0.12	0.28	0.11	0.08	0.09	***	***	0.08	0.07	0.09	0.14	0.08	0.08
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	0.06	<0.01
	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	0.07	0.01
	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	0.23	0.26
	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	0.09	<0.01
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	0.49	1.29
	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	0.07	0.16
	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	0.27	0.08
	Sakaerat							0.17	0.23	0.28	0.22	0.09	0.16	0.14	0.11	0.16	0.22	0.31	0.22	0.29
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	3.01	0.26
	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	0.94	0.22
	Can Tho															1.52	1.53	1.74	1.36	0.37
	Ho Chi Minh															1.18	1.05	1.78	2.88	0.68
	Yen Bai																4.08	0.17	2.42	0.22

The reporting limits for the components in the particulate matters were changed from 0.1 μg/m^3 to 0.01 μg/m^3 in 2003.
Terms and abbreviations are given in Table 4.2.

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

Site: Rishiri **Country: Japan**

	Gases				Particulate matter components							
	SO_2	HNO_3	NH_3	NO_2 *1	nss-SO_4^{2-}	NO_3^-	Cl^-	NH_4^+	Na^+	K^+	Mg^{2+}	Ca^{2+}
2018	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	0.19	0.03	0.03	0.01	0.05	0.03	0.76	0.07	0.86	0.04	0.09	0.03
Feb	0.14	0.04	0.06	0.01	0.06	0.05	1.73	0.10	1.75	0.06	0.21	0.06
Mar	0.06	0.04	0.07	0.06	0.08	0.04	1.16	0.13	1.25	0.05	0.14	0.04
Apr	0.04	0.07	0.33	0.10	0.10	0.13	2.59	0.18	2.75	0.11	0.32	0.11
May	0.02	0.04	0.48	0.08	0.06	0.08	1.53	0.07	1.69	0.05	0.20	0.15
June	0.01	0.06	0.48	0.10	0.08	0.05	1.25	0.09	1.72	0.07	0.19	0.07
July	0.01	0.10	0.74	0.07	0.08	0.03	0.25	0.09	0.63	0.03	0.07	0.02
Aug	0.01	0.06	0.35	0.10	0.06	0.03	0.75	0.08	0.91	0.04	0.10	0.03
Sept	0.04	0.05	0.48	0.09	0.06	0.05	3.23	0.06	3.07	0.09	0.37	0.12
Oct	0.03	0.07	0.18	0.05	0.05	0.06	2.20	0.08	2.13	0.12	0.27	0.09
Nov	0.09	0.08	0.40	0.06	0.06	0.07	4.09	0.11	3.96	0.19	0.46	0.16
Dec	0.15	0.03	0.04	0.04	0.03	0.02	1.69	0.05	1.71	0.06	0.19	0.06
Annual	0.78	0.66	3.63	0.77	0.78	0.64	21.23	1.11	22.43	0.91	2.62	0.95

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

Site: Ochiishi **Country: Japan**

	Gases				Particulate matter components							
	SO_2	HNO_3	NH_3	NO_2 *1	nss-SO_4^{2-}	NO_3^-	Cl^-	NH_4^+	Na^+	K^+	Mg^{2+}	Ca^{2+}
2018	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	0.21	0.12	0.09	0.01	0.09	0.07	2.13	0.14	1.98	0.05	0.23	0.08
Feb	0.26	0.11	0.03	0.01	0.06	0.05	1.30	0.09	1.25	0.03	0.14	0.04
Mar	0.17	0.14	0.14	0.09	0.13	0.15	1.83	0.23	1.95	0.06	0.22	0.06
Apr	0.21	0.19	0.52	0.16	0.10	0.14	2.06	0.17	2.20	0.06	0.25	0.07
May	0.15	0.35	0.91	0.14	0.12	0.14	1.83	0.17	2.27	0.06	0.26	0.08
June	0.17	0.24	0.64	0.17	0.09	0.06	0.76	0.09	1.04	0.02	0.11	0.03
July	0.13	0.17	0.69	0.16	0.06	0.03	0.30	0.05	0.52	0.01	0.06	0.01
Aug	0.24	0.17	0.73	0.14	0.04	0.03	0.79	0.03	0.90	0.02	0.10	0.02
Sept	0.23	0.19	0.73	0.16	0.04	0.08	2.04	0.07	1.92	0.04	0.21	0.06
Oct	0.16	0.07	0.33	0.06	0.05	0.09	3.89	0.08	3.59	0.09	0.40	0.12
Nov	0.09	0.09	0.29	0.04	0.05	0.06	1.79	0.08	1.65	0.04	0.18	0.06
Dec	0.17	0.15	0.14	0.05	0.06	0.06	1.46	0.09	1.39	0.04	0.15	0.05
Annual	2.19	1.99	5.24	1.18	0.88	0.96	20.19	1.29	20.67	0.53	2.31	0.66

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

Site: Tappi **Country: Japan**

	Gases				Particulate matter components							
	SO_2	HNO_3	NH_3	NO_2 *1	nss-SO_4^{2-}	NO_3^-	Cl^-	NH_4^+	Na^+	K^+	Mg^{2+}	Ca^{2+}
2018	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	0.81	0.63	0.22	0.01	0.62	1.44	268.19	1.14	237.61	5.87	26.26	5.03
Feb	0.71	0.31	0.15	0.01	0.75	0.85	91.78	0.98	83.32	2.54	9.36	2.73
Mar	1.15	0.43	0.92	0.12	1.40	2.64	65.93	2.50	65.46	2.10	7.53	2.85
Apr	1.09	0.66	0.77	0.19	0.78	1.64	29.74	1.15	33.91	1.39	3.99	2.71
May	1.19	0.83	0.59	0.30	0.80	1.32	26.41	0.97	32.58	1.04	3.72	1.55
June	1.06	1.73	0.65	0.37	0.81	0.82	14.23	0.90	20.23	0.66	2.28	0.71
July	1.01	1.65	1.00	0.26	1.09	0.25	5.77	1.13	10.75	0.45	1.21	0.39
Aug	1.18	0.70	1.49	0.19	0.55	0.60	18.96	0.38	23.86	0.79	2.61	0.71
Sept	0.80	0.24	1.07	0.13	0.43	0.81	34.68	0.52	36.94	0.97	4.13	1.25
Oct	0.47	0.24	0.50	0.06	0.34	0.60	62.09	0.36	59.12	1.45	6.64	2.02
Nov	0.51	--	--	0.04	--	--	--	--	--	--	--	--
Dec	0.39	0.08	0.03	0.02	0.31	0.38	19.01	0.37	17.93	0.61	1.98	0.56
Annual	10.37	7.51	7.39	1.70	7.89	11.36	636.80	10.40	621.71	17.86	69.70	20.52

1 NO_2 = NOx- NO

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

Site: Sado-seki **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+}
2018	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	0.53	0.31	0.10	--	0.49	0.44	71.68	0.52	65.85	1.56	7.18	2.03
Feb	0.57	0.21	0.05	--	0.28	0.23	59.71	0.31	53.01	1.33	5.63	1.48
Mar	0.54	1.25	0.46	0.17	0.65	1.43	6.10	1.37	9.53	0.63	1.24	1.15
Apr	--	--	--	--	--	--	--	--	--	--	--	--
May	--	--	--	--	--	--	--	--	--	--	--	--
June	--	--	--	--	--	--	--	--	--	--	--	--
July	--	--	--	--	--	--	--	--	--	--	--	--
Aug	--	--	--	--	--	--	--	--	--	--	--	--
Sept	--	--	--	--	--	--	--	--	--	--	--	--
Oct	--	--	--	--	--	--	--	--	--	--	--	--
Nov	--	--	--	--	--	--	--	--	--	--	--	--
Dec	--	--	--	--	--	--	--	--	--	--	--	--
Annual	1.65	1.77	0.62	0.17	1.42	2.10	137.49	2.21	128.39	3.52	14.05	4.67

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

Site: Happo **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+}
2018	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	0.37	0.03	0.01	0.24	0.05	0.10	0.30	0.63	0.08	0.07	0.18
Feb	0.12	0.52	0.05	0.01	0.40	0.27	0.12	0.59	0.94	0.21	0.14	0.53
Mar	0.16	0.95	0.33	0.08	0.51	0.61	0.61	0.79	1.44	0.37	0.39	2.05
Apr	0.42	1.03	0.71	0.13	0.21	0.16	0.22	0.25	0.48	0.12	0.15	0.68
May	0.44	1.28	0.96	0.11	0.22	0.10	0.03	0.18	0.31	0.12	0.19	0.84
June	0.31	0.77	0.68	0.19	0.16	0.06	0.04	0.26	0.24	0.06	0.05	0.13
July	0.18	0.98	0.68	0.17	0.25	0.03	0.03	0.37	0.48	0.06	0.07	0.11
Aug	0.13	0.29	0.48	0.13	0.06	0.02	0.07	0.09	0.21	0.02	0.02	0.02
Sept	0.11	0.46	0.77	0.05	0.09	0.02	0.05	0.11	0.23	0.04	0.04	0.07
Oct	0.13	0.35	0.72	0.04	0.08	0.04	0.08	0.11	0.31	0.04	0.04	0.09
Nov	0.14	0.29	0.26	0.01	0.08	0.04	0.02	0.10	0.28	0.03	0.04	0.11
Dec	0.07	0.25	0.14	0.02	0.16	0.07	0.04	0.12	0.74	0.07	0.12	0.51
Annual	2.29	7.54	5.80	0.93	2.47	1.45	1.41	3.27	6.28	1.21	1.31	5.33

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

Site: Ijira **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+}
2018	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	0.04	0.17	0.02	0.04	0.02	0.06	0.06	0.15	0.02	0.02	0.02
Feb	0.14	0.09	0.22	0.03	0.07	0.04	0.08	0.13	0.25	0.06	0.03	0.06
Mar	0.23	0.40	0.41	0.15	0.13	0.07	0.09	0.22	0.42	0.09	0.06	0.13
Apr	0.39	0.46	0.60	0.15	0.14	0.05	0.02	0.18	0.38	0.08	0.09	0.23
May	0.31	0.37	0.53	0.18	0.09	0.02	0.10	0.13	0.19	0.18	0.04	0.09
June	0.08	0.25	0.66	0.16	0.07	0.01	0.01	0.09	0.19	0.05	0.03	0.06
July	0.13	0.55	0.86	0.30	0.13	0.01	0.03	0.17	0.44	0.06	0.06	0.08
Aug	0.11	0.33	1.00	0.27	0.08	0.03	0.07	0.09	0.47	0.06	0.05	0.06
Sept	0.08	0.04	0.45	0.07	0.02	0.01	0.03	0.03	0.14	0.03	0.02	0.02
Oct	0.03	0.12	0.38	0.07	0.04	0.02	0.06	0.05	0.26	0.04	0.04	0.03
Nov	0.01	0.07	0.19	0.02	0.03	0.02	0.03	0.05	0.13	0.02	0.02	0.04
Dec	--	0.04	0.19	0.00	0.03	0.02	0.05	0.04	0.11	0.02	0.01	0.04
Annual	1.59	2.76	5.66	1.42	0.87	0.32	0.62	1.25	3.13	0.70	0.47	0.88

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+}
2018	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	1.06	0.60	0.38	0.02	1.18	2.28	114.34	2.37	113.29	3.00	13.65	4.72
Feb	0.97	0.55	0.51	0.02	0.89	1.38	61.23	1.62	59.13	1.92	6.89	2.43
Mar	1.25	1.58	1.22	0.05	2.40	3.46	144.43	3.53	149.91	4.23	16.76	5.71
Apr	3.03	2.22	1.72	--	1.93	2.77	35.87	2.68	47.39	2.10	5.79	5.58
May	1.70	1.52	1.15	--	1.57	1.52	22.53	1.62	33.62	1.26	4.06	2.71
June	0.81	1.05	1.00	--	1.02	0.76	19.11	1.39	25.61	0.91	2.90	0.98
July	0.98	2.25	0.95	--	1.11	0.38	22.91	1.42	27.27	0.88	3.03	0.76
Aug	0.63	0.80	0.90	--	0.76	0.78	19.61	0.73	26.06	0.72	2.91	0.74
Sept	0.26	0.55	1.22	--	0.82	0.98	30.88	0.85	38.14	1.35	4.46	1.61
Oct	0.63	0.53	0.55	--	0.73	1.20	60.08	0.85	60.70	1.73	7.00	2.88
Nov	0.37	0.46	0.25	--	0.66	1.23	19.06	1.12	21.93	0.73	2.49	1.26
Dec	0.60	0.53	0.37	--	0.63	1.47	71.16	1.11	67.21	1.77	7.47	2.85
Annual	12.30	12.64	10.21	0.09	13.71	18.21	621.21	19.29	670.25	20.61	77.41	32.21

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+}
2018	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	0.07	0.07	0.11	0.01	0.11	0.22	2.55	0.22	3.07	0.08	0.37	0.27
Feb	--	--	--	--	--	--	--	--	--	--	--	--
Mar	--	--	--	--	--	--	--	--	--	--	--	--
Apr	--	--	--	--	--	--	--	--	--	--	--	--
May	--	--	--	--	--	--	--	--	--	--	--	--
June	--	--	--	--	--	--	--	--	--	--	--	--
July	--	--	--	--	--	--	--	--	--	--	--	--
Aug	--	--	--	--	--	--	--	--	--	--	--	--
Sept	--	--	--	--	--	--	--	--	--	--	--	--
Oct	--	--	--	--	--	--	--	--	--	--	--	--
Nov	--	--	--	--	--	--	--	--	--	--	--	--
Dec	--	--	--	--	--	--	--	--	--	--	--	--
Annual	0.07	0.07	0.11	0.01	0.11	0.22	2.55	0.22	3.07	0.08	0.37	0.27

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+}
2018	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	1.28	0.58	0.17	0.03	0.40	0.38	0.41	0.75	1.54	0.21	0.24	0.38
Feb	0.87	0.53	0.19	0.03	0.34	0.31	0.27	0.59	1.40	0.24	0.24	0.41
Mar	0.54	1.00	0.47	0.15	0.33	0.17	0.27	0.46	1.38	0.18	0.23	0.54
Apr	1.17	0.80	0.62	0.14	0.36	0.15	0.11	0.34	1.41	0.15	0.30	0.85
May	0.63	0.52	0.36	0.10	0.25	0.03	0.02	0.28	0.63	0.08	0.12	0.27
June	0.42	0.39	0.40	0.13	0.13	0.01	0.01	0.18	0.32	0.05	0.05	0.06
July	0.18	0.30	0.55	0.11	0.23	0.00	0.01	0.27	0.74	0.05	0.09	0.08
Aug	0.31	0.27	0.60	0.11	0.17	0.02	0.06	0.17	1.03	0.06	0.11	0.07
Sept	0.25	0.25	0.47	0.07	0.18	0.02	0.07	0.20	0.64	0.06	0.09	0.11
Oct	0.30	0.35	0.32	0.07	0.21	0.07	0.12	0.25	1.04	0.08	0.13	0.13
Nov	0.44	0.34	0.16	0.07	0.20	0.11	0.10	0.28	0.71	0.08	0.11	0.22
Dec	0.49	0.36	0.17	0.08	0.22	0.20	0.16	0.34	0.86	0.11	0.14	0.32
Annual	6.88	5.70	4.47	1.08	3.01	1.47	1.62	4.10	11.69	1.36	1.86	3.45

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+}
2018	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}
Jan	0.18	0.15	0.36	0.02	0.51	0.55	17.43	0.56	18.11	0.49	2.20	0.85
Feb	--	--	--	--	--	--	--	--	--	--	--	--
Mar	0.04	0.28	0.17	0.07	0.27	0.23	5.03	0.25	5.94	0.18	0.75	0.47
Apr	0.27	0.38	0.89	0.13	0.52	0.57	13.79	0.48	15.91	0.52	2.03	1.47
May	0.08	0.67	1.21	0.11	0.40	0.39	5.93	0.27	8.35	0.29	1.07	0.65
June	0.21	0.20	1.02	0.05	0.21	0.18	17.03	0.14	17.37	0.56	2.14	0.57
July	0.15	0.29	1.32	0.06	0.26	0.18	26.69	0.17	25.79	0.69	3.19	0.66
Aug	0.05	0.70	2.10	0.06	0.70	0.25	23.21	0.26	30.53	0.86	3.72	0.84
Sept	0.01	0.17	1.30	0.05	0.07	0.09	109.02	0.05	96.23	2.07	11.34	2.33
Oct	0.40	0.36	0.89	0.06	0.74	0.98	49.65	0.68	53.90	1.38	6.81	1.96
Nov	0.39	0.43	0.76	0.05	0.53	0.68	20.49	0.46	23.78	0.63	2.89	1.00
Dec	0.43	0.39	1.00	0.05	0.54	0.84	40.86	0.50	41.63	1.13	5.35	2.08
Annual	2.20	4.01	11.02	0.69	4.75	4.95	329.13	3.84	337.55	8.81	41.49	12.87

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+}
2018	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	0.03	0.17	0.01	0.09	0.09	3.87	0.11	4.11	0.11	0.48	0.17
Feb	0.01	0.03	0.12	0.01	0.05	0.04	1.66	0.05	1.84	0.05	0.22	0.09
Mar	0.04	0.03	0.24	0.05	0.07	0.06	4.46	0.05	4.48	0.11	0.50	0.17
Apr	0.01	0.04	0.34	0.02	0.12	0.13	5.02	0.08	5.30	0.14	0.64	0.29
May	0.00	0.03	0.39	0.01	0.07	0.06	2.28	0.05	2.67	0.09	0.33	0.13
June	0.00	0.02	0.39	0.01	0.07	0.03	3.49	0.05	3.84	0.13	0.44	0.11
July	0.00	0.01	0.36	0.01	0.05	0.03	4.32	0.05	4.34	0.11	0.50	0.11
Aug	0.00	0.01	0.39	0.00	0.04	0.03	8.07	0.04	7.48	0.17	0.84	0.18
Sept	--	0.01	0.28	0.01	0.03	0.02	4.12	0.03	3.87	0.09	0.43	0.09
Oct	0.00	0.01	0.26	0.01	0.02	0.03	3.16	0.02	3.08	0.08	0.34	0.07
Nov	0.02	0.02	0.17	0.02	0.03	0.05	3.14	0.03	3.28	0.08	0.36	0.07
Dec	0.05	0.02	0.10	0.02	0.06	0.07	2.90	0.06	3.04	0.07	0.34	0.09
Annual	0.15	0.27	3.22	0.19	0.69	0.65	46.48	0.61	47.33	1.21	5.42	1.58

1 NO_2 = NOx- NO

Table 4.50 Conversion ratios from ppb to μg/m^3 (20ºC, 1 atm)

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

Table 4.51 Reporting limits for summarizing air concentration data

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

CHAPTER 5

Soil and Vegetation Monitoring

5. Soil and Vegetation Monitoring

5.1 Method

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

Table 5.1 Basic survey for soil and forest

Item	Parameters
Soil	- pH(H_2O), pH(KCl), Exchangeable base cations (Na, K, Ca, and Mg), Exchangeable acidity, Effective cation exchange capacity (ECEC), Carbonate content (if pH > 7) - Exchangeable Al and H, Total C content, Total N content (optional) - Available P, Sulfate (voluntary) - Physical properties (Fine earth bulk density, and Penetration resistance) (optional)
Forest	- General description of the forest (Description of trees, and Understory vegetation) - Observation of tree decline - Photographic record of tree decline, Estimation of decline causes (optional)

5.1.1 Field Operation

Basically, two forest areas, whose soils have different sensitivities to acid deposition, are recommended to be selected in an area. Several plots (at least two) of areas from 5 m x 5 m to 10 m x 10 m should be chosen randomly at each forest area (each soil type). Five subplots with 1 m x 1 m square of each are set up for soil sampling at the center and along the diagonal lines of the plot (Figure 5.1).

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

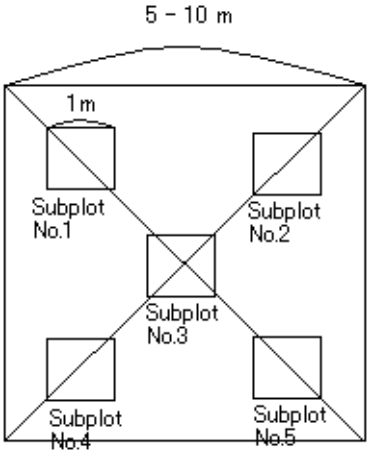


Figure 5.1 Plot for soil sampling

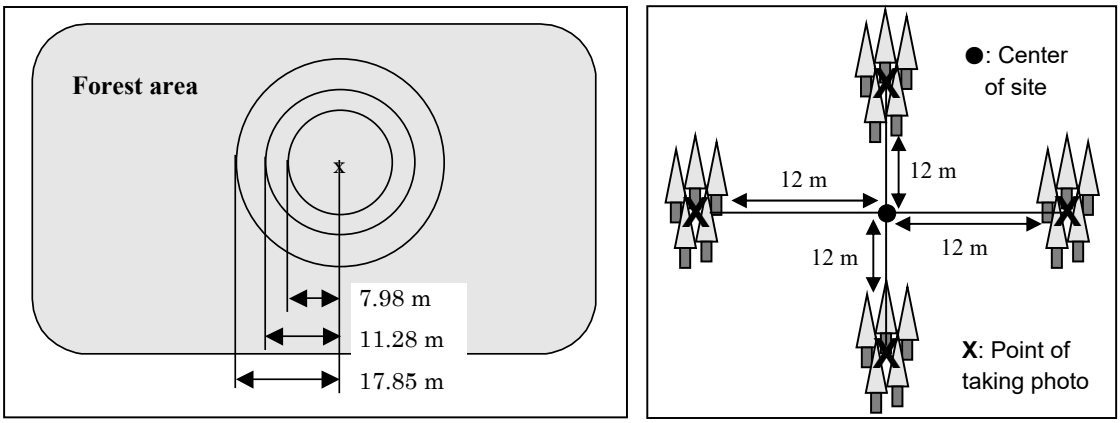


Figure 5.2 Plots for description of trees (Left) and selection of observation trees (Right)

Table 5.2 Observation items and decline scale

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

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

5.1.2 Laboratory Operation

Analytical methods recommended in the Manual are presented in Table 5.3.

Table 5.3 Analytical equipment and methods for soil monitoring

Parameters	Equipment/methods
Chemical Properties of Soil	
a) Moisture Content	Drying oven, Balance
b) pH(H_2O) and pH(KCl)	Glass electrode
c) Exchangeable Base Cations (Ca, Mg, K and Na)	AAS, ICP-AES or ICP-MS (CH_3COONH_4-Extraction)
d) Exchangeable Acidity	Titration (KCl-Extraction)
e) Exchangeable Al , H	ibid.
f) Effective Cation Exchange Capacity (ECEC)	Calculation (as sum of exchangeable cations)
g) Carbonate Content (for calcareous soil)	Volumetric calcimeter
h) Total Carbon Content	Titration (Walkley-Black method) or CN-analyzer
i) Total Nitrogen Content	Titration (Kjeldahl method) or CN-analyzer
j) Available Phosphate	Spectrophotometry (Bray-1 test)
k) Sulfate	Turbidimetry, IC, ICP-AES or ICP-MS
Physical Properties of Soil	
a) Fine Earth Bulk Density	Metal sampling cylinder, Drying oven, Balance
b) Penetration Resistance (in the fieldwork)	Pocket penetrometer

5.1.3 Monitoring Sites

Soil and vegetation monitoring data of 6 areas of 3 countries were submitted this year. The list of monitoring site and reported items in 2018 were shown in Table 5.4.1 Observation of the tree decline was conducted in 7 plots. The survey on soil monitoring were carried out in Malaysia. The number of soil and vegetation plots in each monitoring site were shown in Table 5.4.2 with the number of survey until 2018.

Table 5.4.1 Outline of the Monitoring Sites in 2018

Country	Nearest deposition monitoring site	Site: Name of forests EANET site code	Soil type	Items[*1]
China	**Jinyunshan (Chongqing)**	**Jinyunshan CNS004**	**Acidi-Udic Argosols**	**F_1**
	Jiwozi (Xi'an)	**Dabagou CNS007**	**Brown soil**	**F_1**
	Xiaoping (Xiamen)	**Xiaoping CNS009**	**Red soil**	**F_1**
Japan	**Ijira**	**Ijira JPS006**	**Dystric Cambisols**	**F_1**
		Yamato JPS106	**Andosols**	**F_1**
	Banryu	**Banryu-2 JPS008**	**Cambisols**	**F_1**
		Iwami "rinku" Factory Park JPS108	**Acrisols**	**F_1**
Malaysia	**Petaling Jaya**	**Pasoh Reserve Forest 1 MYS001**	**Orthoxic Tropudults**	**S**
		Pasoh Reserve Forest 2 MYS101	**Plinthic Kandiaquults**	**S**

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

Table 5.4.2 Site location and number of plots and surveys conducted until 2018

Country	Area (Nearest deposition monitoring site)	Soil and vegetation monitoring site	EANET site code	Number of plots		Start year	Latest year	Number of surveys until 2018			
				Forest plot	Soil plot			Tree decline	Forest survey	Understory survey	Soil survey
China	Jinyunshan (Chongqing)	Jinyunshan	CNS004	2	2	2000	**2018**	**13**	5	5	6
	Jiwozi (Xi'an)	Dabagou	CNS007	1	2	2001	**2018**	**13**	5	5	6
	Xiaoping (Xiamen)	Xiaoping	CNS009	1	1	2000	**2018**	**12**	5	4	5
	Zhuxiandong (Zhuhai)	Zhuxiandong	CNS011	3	3	2001	2016	7	7	7	6
Indonesia	EMC	Bogor Research Forest (Dramaga Experimental Forest)	IDS002	1	1	2001	2015	7	1	1	4
Japan	Ijira	Ijira	JPS006	1	2	2000	**2018**	**16**	4	4	4
		Yamato	JPS106	1	2	2003	**2018**	**16**	3	3	3
	Banryu	Banryu-2	JPS008	1	2	2000	**2018**	**17**	4	4	4
		Iwami "rinku" Factory Park	JPS108	1	2	2001	**2018**	**17**	4	4	4
Malaysia	Petaling Jaya	Pasoh Reserve Forest 1	MYS001	0	1	2000	**2018**				**3**
		Pasoh Reserve Forest 2	MYS101	0	1	2014	**2018**				**2**
	(Bintulu)	UPMKB Rehabilitated Forest Planted in 1991	MYS005	0	2	2009	2012				2
		UPMKB Rehabilitated Forest Planted in 2008	MYS105	0	2	2009	2012				2
Mongolia	Ulaanbaatar	Bogdkhan Mountain	MNS001	1	2	2005	2017	1	1	0	2
	Terelj	Terelj Mountain	MNS002	0	2	2014	2017				2
Philippines	Los Banos	Mt. Makiling	PHS002	1	2	2000	2008	2	3	3	3
		UP Quezon, Land Grant	PHS102	1	2	2000	2008	3	2	3	4
	Metro Manila	La Mesa Watershed	PHS001	1	2	2007	2010	2	2	2	2
	Mt. Sto Tomas	Boneco Long Term Ecological Research Site	PHS003	1	2	2008	2008	1	1	1	1
Republic of Korea	Imsil	Mt. Naejang	KRS003	1	2	2001	2004	2	2	2	2
Russia	Irkutsk	Irkutsk	RUS003	1	1	2001	2013	2	2	2	2
	Listvyanka	Bolshie Koty	RUS002	1	2	2000	2013	1	1	1	2
		Pereemnaya river catchment	RUS102	1	2	2005	2005	1	1	1	1
	Mondy	Ilchir Lake	RUS001	0	2	1999	1999				1
		Okinskoe Lake	RUS101	0	1	1999	1999				1
		Solar Observatory	RUS201	1	2	1999	2014	1	1	1	2
	Primorskaya	Primorskaya	RUS004	1	1	2006	2013	1	1	1	2
Thailand	Vachiralongkorn Dam (old name: Kao Lam Dam)	Vachiralongkorn Dam	THS004	1	2	2000	2012	2	4	3	6
		Vachiralongkorn Puye	THS104	1	1	2002	2012	2	5	4	4
Vietnam	Hoa Binh	Cave of Heaven	VNS002	0	2	1999	1999				1
		Thang Ranh	VNS102	0	2	1999	1999				1

Bold letters indicate soil and/or vegetation monitoring was conducted in 2018.

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 5.5.1: Pasoh Reserve Forest 1 and 2 (Malaysia) MYS001 and 101

Table 5.6: Observation of tree decline

Table 5.6.1: Chongqing-1 (China) CNS004

Table 5.6.2: Chongqing-2 (China) CNS004

Table 5.6.3: Jiwozi (China) CNS007

Table 5.6.4: Xiaoping (China) CNS009

Table 5.6.5: Ijira-1 (Japan) JPS006

Table 5.6.6: Lake Ijira-2 (Japan) JPS106

Table 5.6.7: Banryu-1 (Japan) JPS008

Table 5.6.8: Lake Banryu-2 (Japan) JPS108

Table 5.5.1 Soil chemical analysis: Pasoh reserve forest (Malaysia) MYS001, MYS101
Soil sampling date: 2018
Name of analysis laboratory:

Location	Soil type	Plot No.	Subplot No.	Layer analyzed (cm)	Repeat analysis	Water contents (%)	pH		Exchangeable base cations (B)				Ex-acidity (A)	Ex-acid cations		ECEC (A) + (B)	Total C	Total N	Available P
							H_2O	KCl	Ca	Mg	K	Na		Al	H				
									($cmol_c\ kg^{-1}$)								(%)		($mg\ kg^{-1}$)
Pasoh Reserve Forest 1 MYS001	Orthoxic Tropudults	1	1	0-10	1		4.5	3.4	0.52	0.61	0.33	0.13		2.37			2.33	0.16	0.45
			2		1		4.4	3.5	0.06	0.23	0.06	0.10		3.21			1.53	0.12	0.73
			3		1		4.5	4.2	0.49	0.62	0.32	0.10		2.40			2.27	0.14	0.35
			4		1		4.5	3.6	0.45	0.56	0.35	0.14		2.30			2.00	0.10	0.37
			1	10-20	1		4.7	4.2	0.07	0.11	0.16	0.16		3.58			0.42	0.10	0.86
			2		1		4.7	4.1	0.06	0.05	0.10	0.12		3.60			0.42	0.06	0.61
			3		1		4.6	4.1	0.04	0.06	0.10	0.09		3.28			0.31	0.05	0.54
			4		1	-	4.6	4.0	0.08	0.07	0.09	0.10	-	3.62	-	-	0.23	0.08	0.55
Pasoh Reserve Forest 2 MYS101	Plinthic Kandiaqualts	2	1	0-10	1		3.9	3.5	0.12	0.17	0.10	0.10		3.00			1.76	0.10	1.00
			2		1		4.1	3.6	0.05	0.03	0.03	0.03		3.42			1.03	0.12	0.60
			3		1		4.2	3.5	0.02	0.02	0.03	0.10		3.40			2.27	0.14	0.45
			4		1		4.0	4.0	0.11	0.14	0.10	0.12		2.13			2.00	0.14	0.38
			1	10-20	1		4.5	4.1	0.03	0.04	0.02	0.03		3.31			0.35	0.14	0.66
			2		1		4.5	3.6	0.10	0.00	0.03	0.02		3.46			0.24	0.07	0.53
			3		1		4.7	4.1	0.15	0.04	0.03	0.04		3.70			0.24	0.03	0.48
			4		1		4.6	4.1	0.04	0.01	0.02	0.04		4.38			0.16	0.03	0.65

Table 5.6.1 Observation of tree decline: Chongqing (China) CNS004

Plot name: Jinyunshan-1

Date: 19 October 2018

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	*Cunninghamia lanceolata*	*Symplocos setchuenensis*	*Symplocos setchuenensis*	*Symplocos setchuenensis*	*Symplocos setchuenensis*	*Symplocos setchuenensis*	*Symplocos setchuenensis*	*Symplocos setchuenensis*	*Symplocos setchuenensis*	*Symplocos setchuenensis*
Relative height							Null			
Tree height (m)	19.2	10.3	7.8	14.4	13.9	9.2		11.2	13.1	13.0
DBH (cm)	19.1	15.5	13.0	14.8	15.4	10.4		13.0	13.8	10.5
Vitality of tree										
Form of tree	1						Dead in 2016			
Branch growth										
Dieback of stem										
Defoliation of crown										
Deformation of leaves	1									
Size of leaves										
Discoloration of leaves										
Injury of leaves										
Damage class*1										

Estimated cause of decline: Unspecified

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) CNS004

Plot name: Jinyunshan-2

Date: 19 October 2018

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			Null					Null
Tree height (m)	11.7	10.7		17.6	20.8	15.3	18.8	
DBH (cm)	13.5	16.6		26.4	21.5	17.4	40.6	
Vitality of tree								
Form of tree			Dead in 2017	1				Dead in 2015
Branch growth								
Dieback of stem								
Defoliation of crown								
Deformation of leaves								
Size of leaves								
Discoloration of leaves								
Injury of leaves						1		
Damage class*1								

Estimated cause of decline: Unspecified

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) CNS007

Plot name: Dabagou

Date: 22 October 2018

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)	17.2	14.4	12.2	14.8	12.0	12.0	9.8	9.0	10.9	14.8	14.6	12.6	10.9	15.4	11.2	13.2	11.9	13.7	11.4	8.8
DBH (cm)	25.9	25.8	17.0	21.6	24.8	17.8	12.7	19.0	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																				
Size of leaves																				
Discoloration of leaves																				
Injury of leaves																				
Damage class*1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

Estimated cause of decline: Too much density

Note: *1. Damage class was decided based on combination of defoliation and discoloration classes.

Table 5.6.4 Observation of tree decline: Xiaoping (China) CNS009

Plot name: XPZ-01

Date: 21 October 2018

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)	16.8	17.2	18.6	17.5	16.6	17.5	18.5	17.9	17.9	18.6	17.9	17.8	18.8	16.8	17.2	17.3	17.2	19.4
DBH (cm)	17.4	20.9	19.8	20.0	21.7	24.7	21.6	20.4	18.3	22.7	20.6	20.4	18.9	21.7	20.6	20.4	21.6	29.9
Vitality of tree																		
Form of tree																		
Branch growth																		
Dieback of stem																		
Defoliation of crown																		
Deformation of leaves																		
Size of leaves																		
Discoloration of leaves																		
Injury of leaves																		
Damage class*1																		

Estimated cause of decline:

Note: *1. Damage class was decided based on combination of defoliation and discoloration classes.

Table 5.6.5 Observation of tree decline: Ijira-1 (Japan) JPS006

Plot name: Ijira, Ijira
Date: 4 October 2018
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)	15.4	14.7	16.1	13.2	16.5	17.6	18.3	17.5	16.5	16.2	18.0	15.9	15.0	18.8	17.7	13.9	15.5	12.6	13.6	13.8
DBH (cm)	22.5	16.3	18.2	15.4	18.6	25.3	28.1	23.1	18.3	19.5	16.2	16.3	16.5	21.8	20.3	22.5	17.5	11.4	12.2	18.5
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, 11, 12, 14, 15 and 17, bent stem; No. 10, bent stem and head; No. 13, bent stem and dichotomy; No. 18 and 19, suppression by other surrounding trees and bent stem; No. 20 suppression by other surrounding trees and dichotomy.

+ :Significantly taller taller than other trees. - : Significantly shorter than other trees.

Table 5.6.6 Observation of tree decline: Lake Ijira-2 (Japan) JPS106

Plot name: Yamato, Ijira
Date: 3 October 2018
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					Dead					Dead	−					Dead				−
Tree height (m)	30.4	29.6	31.2	30.1		32.4	30.9	31.9	31.6		28.8	25.1	32.6	30.4	30.5		27.7	31.5	31.3	25.7
DBH (cm)	40.1	39.8	44.9	44.3		46.0	41.9	37.8	41.7		34.7	32.5	47.5	35.8	43.5		34.9	47.4	46.1	34.6
Vitality of tree																				1
Form of tree						1		1			1	1					1	1		1
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: No. 6, 20, bent stem; No. 8, 12-3 and 17, bent stem and head; No. 11-2, bent head and dichotomy; No. 18-2, bent head and insect damage; No. 5, 10 and 16, dead by typhoon.

+ :Significantly taller taller than other trees. - : Significantly shorter than other trees.

Table 5.6.7 Observation of tree decline: Banryu-1 (Japan) JPS008

Plot name: Banryu-2, Banryu
Date: 3 October 2018
Surveyor: Ryoji Yanai

Individual No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14
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 japonicus*	*Machilus Thunbergii*	*Clethra barbinervis*	*Quercus serrata*	*Machilus Thunbergii*	*Machilus Thunbergii*	*Acanthopanax sciadophylloides*	*Symplocos lucida*	*Symplocos lucida*	*Ilex integra*
Relative height	＋	＋	＋	＋	Null	＋	Null	＋	＋	＋	Null	＋	＋	＋
Tree height (m)	15.0	14.9	14.5	12.9		15.0		15.0	16.5	15.2		15.0	15.3	15.7
DBH (cm)	31.2	29.8	12.7	29.9		24.5		24.7	26.2	22.5		17.0	21.8	35.0
Vitality of tree														
Form of tree					Dead in 2016		Dead in 2011				Dead in 2008			
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:

+ :Significantly taller taller than other trees. - : Significantly shorter than other trees.

Table 5.6.8 Observation of tree decline: Lake Banryu-2 (Japan) JPS108

Plot name: Iwami "rinku" Factory Park, Banryu
Date: 3 October 2018
Surveyor: Ryoji Yanai

Individual No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
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			＋		＋					Null	－	Null					－
Tree height (m)	16.2	16.7	19.2	20.0	18.1	17.6	19.5	18.7	18.7		13.6		19.2	20.4	16.7	12.8	15.6
DBH (cm)	26.3	30.8	31.0	32.4	30.5	27.6	34.3	39.8	35.2		27.2		23.5	23.2	31.1	34.8	29.1
Vitality of tree																4	
Form of tree					1	1			1	Dead in 2006		Dead in 2008				3	
Branch growth					1	1			1							3	
Dieback of stem					1	1			1							3	
Defoliation of crown																2	
Deformation of leaves																	
Size of leaves																2	
Discoloration of leaves																2	
Injury of leaves																2	
Damage class																3	

Estimated cause of decline: 4, 16, by specific disease for Fagaceae tree species (infection of *Raffaelea quercivora* through the beetle, *Platypus quercivorus*)

+ :Significantly taller taller than other trees. - : Significantly shorter than other trees.

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.

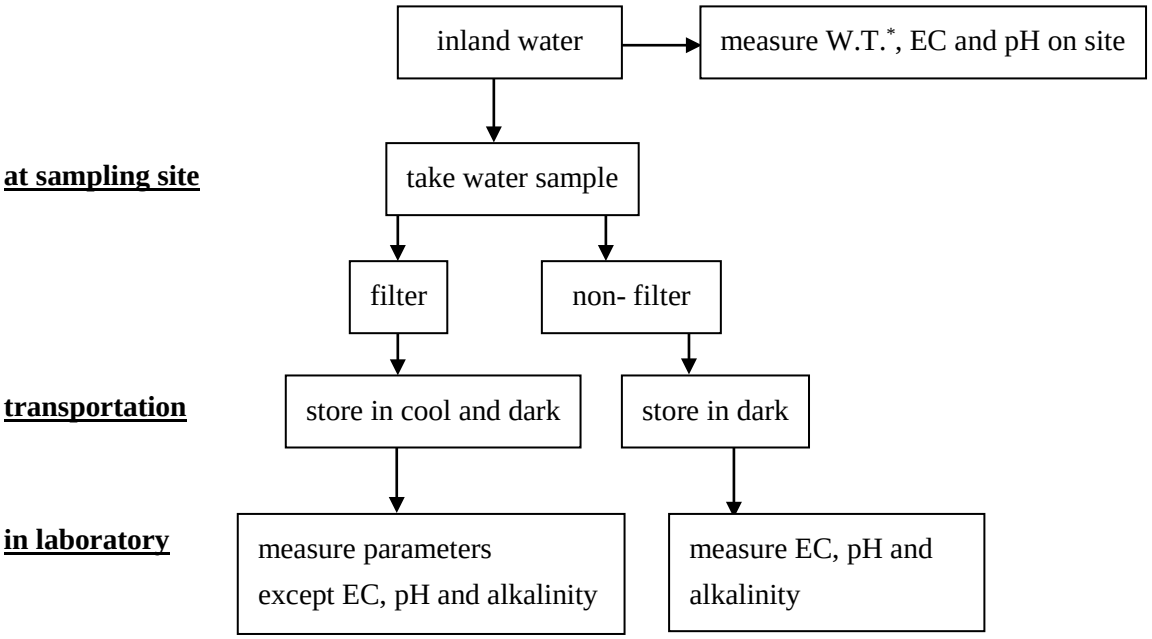
6.1.1 Selection of Sampling Sites

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.
Cations weren't analyzed in Nam Hum Lake.

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, 8 countries (China, Indonesia, Japan, Lao PDR, Mongolia, Russia, Thailand and Vietnam) carried out inland aquatic environment monitoring. The monitoring sites were established in 9 lakes/reservoirs and 5 streams. For 2018, the data of Sras Srang Lake, Semenyih Dam, Tembaling River, Pandin Lake and Ambulalakaw Lake 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 2017

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	3 times/yr.
	Gunung Lake (Sukabumi)	-	-	2008	3 times/yr.
Japan	Ijira Lake (Gifu Pref.)	1.1 km	Rural/Ecolog. (Ijira)	2001	4 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	-
Mongolia	Terelj River	-	Remote (Terelj)	2002	5 times/yr.
Philippines	Pandin Lake	30 km	Rural (Mt. Makiling)	2004	-
	Ambulalakaw Lake	-	Remote (Mt. Sto. Tomas)	2005	-
Russia	Pereemnaya River (Listvyanka)	48 km	Rural (Listvyanka)	2004	4 times/yr.
	Komarovka River (Primorskaya)	0.5 km	Rural (Primorskaya)	2005	5 times/yr.
Thailand	Vajiralongkorn 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 four sites (Patengang Lake and Gunung Lake in Indonesia, Terelj River in Mongolia and Vajiralongkorn Dam in Thailand) which have results exceeding allowable range of R_1 and/or R_2. However, those main reasons could not be identified.

The annual mean values of each parameter from 2000 to 2018 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	15.5 °C (mean) *1
Precipitation	452.1 mm/year *1
Sunshine duration	174.0 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, 2018

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	23.3 ℃ (mean) *1
Precipitation	2,182.9 mm *1
Sunshine duration	144.1 hrs/month (mean) *1
Solar radiation	-
Wind speed	Mean 2.7 m/s *1
Wind direction	ESE (dominant) *1
Lake (flows into)	-

- : no information
*1 Zhuhai, 2018

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 ℃ (mean) *1
Precipitation	6,728.8 mm *1
Sunshine duration	-
Solar radiation	408.1 MJ/m^2/month (mean) *1
Wind speed	Mean 1.7 m/s *1
Wind direction	W (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, 2017

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	16.9 °C (mean) *1
Precipitation	2,087.0 mm/year *1
Sunshine duration	189.8 hrs/month (mean) *1
Solar radiation	-
Wind speed	Mean 2.7 m/s *1
Wind direction	WNW (dominant) *1
Residence time of water	23 days
Lake utilization	Irrigation and fishing
River (inflow)	Kamagatani River, Kobora River

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

*1 Gifu Local Meteorological Observatory, 2018

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	16.2 °C (mean) *1
Precipitation	1,685.0 mm/year *1
Sunshine duration	163.7 hrs/month (mean) *1
Solar radiation	-
Wind speed	Mean 1.9 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, 2018

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	0.24 km^2
Shore line length	-
Lake hydrologic type	-
Lake trophic type	oligatrophic
Water depth	61.75 m (mean), 63 m (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	43°42’ 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: Vajiralongkorn Dam

Country	Thailand
Location	Tha Khanoon sub-district, Thongpaphum District, Khanchanaburi Province 71180
Latitude and longitude	14°46’ N, 98°35’ E
Altitude	170 m
Origin	Artificial (Lake by Dam Reservoir area)
Area and shape	3,720 km^2 , Multi-shape
Shore line length	-
Lake hydrologic type	Reservoir
Lake trophic type	-
Water depth	141.8-153.9m (mean: 148.3 m) (2018)
Water volume	4.5649-8.4538 km^3 (mean: 6.5415 km^3) (2018)
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 generation, Fishery, Flooding protection and Sight seeing
Watershed area	3,720 km^2
Amount of inlet water	Annual : 7,949.8 x 10^6 m^3 /year, daily : 21.8 x 10^6 m^3 /day
Amount of outlet water	Annual : 6,687.4 x 10^6 m^3 /year, daily : 18.3 x 10^6 m^3 /day
Nearest meteorological station	Vajiralongkorn Dam (0.3 km from the site)

Watershed area	3,720 km^2
Surface geology	Ferric Acrisols, USA Texonomy: Hapluf Talff / FAO : Luvisols
Vegetation (dominant plants)	banana, pine apple, pomelo, para rubber tree, tapioca, corn, rice , rambutan, longon, durien (2008)
Land use	Agriculture area 183,832 km^2 (8.7 %) Residential area 21,941 km^2 (1.0%) Forest area 1,788,561 km^2 (84.6%) Others 118,807 km^2 (5.6%) (2010)

- : 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	24.6 ℃ (mean) *2
Precipitation	2,798.9 mm *2
Sunshine duration	142.2 hrs/month (mean) *2
Solar radiation	-
Wind speed	Mean 1 m/s *2
Wind direction	NE (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, 2018

Table 6.4.2 Result of Inland Aquatic Environment Monitoring

Duration: 2018.2.-2018.12.
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	26-Mar-18	18.0	6.68	12.8	0.39	29.3	1.00	2.55	2.41	3.03	1.68	10.3	3.12
-Jinyunshan Lake	27-Jun-18	28.0	6.96	10.4	0.12	26.0	10.7	2.06	0.03	2.30	1.83	9.59	2.74
	30-Aug-18	25.5	6.80	10.4	0.22	23.4	7.35	2.29	0.01	2.20	1.72	9.10	2.88
	04-Nov-18	18.5	6.59	10.4	0.16	25.5	9.94	2.21	0.02	2.40	2.01	10.8	3.27
	mean*2	22.5	6.74	11.0	0.22	26.0	7.2	2.28	0.62	2.48	1.81	9.96	3.00
Xiamen	07-Mar-18	20.3	7.97	6.08	0.30	2.48	2.73	2.24	0.15	4.50	2.41	3.84	0.60
-Xiaoping Dam	10-May-18	24.1	7.25	5.71	0.28	2.12	2.36	3.07	0.41	4.68	2.18	3.48	0.70
	03-Sep-18	27.1	7.21	4.91	0.27	2.17	2.30	1.76	0.44	2.71	1.87	2.66	0.37
	01-Nov-18	24.2	7.16	6.01	0.29	1.92	2.74	2.20	0.14	4.08	2.29	4.18	0.62
	mean*2	23.9	7.31	5.68	0.29	2.17	2.53	2.32	0.29	3.99	2.19	3.54	0.57
Xi'an	22-Mar-18	4.0	6.79	6.12	0.29	8.35	1.12	1.57	0.02	1.13	0.31	7.23	1.41
-Jiwozi River	25-Jun-18	7.0	6.76	5.46	0.30	8.23	0.43	0.62	0.02	1.67	0.74	6.38	1.22
	05-Aug-18	15.0	7.29	6.45	0.35	8.61	0.51	0.58	0.02	1.86	1.08	8.02	1.56
	20-Oct-18	12.0	7.24	7.29	0.38	9.14	1.02	2.03	0.02	2.57	1.26	8.84	1.71
	mean*2	9.5	6.95	6.33	0.33	8.59	0.77	1.20	0.02	1.81	0.85	7.62	1.48
Zhuhai	01-Feb-18	-	7.10	9.25	0.67	2.23	2.65	6.33	0.06	8.12	1.66	6.43	2.75
-Zhuxiandong	02-Apr-18	-	7.63	9.40	0.76	1.94	1.35	5.77	0.05	7.49	1.35	7.86	2.62
Stream	01-Aug-18	-	7.32	6.76	0.45	1.93	1.85	4.85	0.00	7.12	1.03	3.86	1.20
	03-Dec-18	-	6.98	9.11	0.64	2.35	2.60	6.24	0.00	7.60	1.49	6.04	2.44
	mean*2	-	7.19	8.63	0.63	2.11	2.11	5.80	0.03	7.58	1.38	6.05	2.25

		Mandatory Parameters : Once /year				
Site	Sampling Date	Transparency (m)	Water Color	PO_4^{3-} (mg/l)	NO_2^- (mg/l)	COD (mg/l)
Chongqing	26-Mar-18	3.1	-	-	-	-
-Jinyunshan Lake	27-Jun-18	1.8	-	-	-	-
	30-Aug-18	1.7	-	-	-	-
	04-Nov-18	2.2	-	0.00	0.00	<10*1
	mean*2	2.2	-	0.00	0.00	<10*1
Xiamen	07-Mar-18	0.3	-	-	0.11	2.72
-Xiaoping Dam	10-May-18	0.8	-	-	0.04	1.58
	03-Sep-18	0.7	-	-	0.02	1.86
	01-Nov-18	1.2	-	0.03	0.02	1.25
	mean*2	0.8	-	0.03	0.05	1.85
Xi'an	22-Mar-18	-	-	-	-	-
-Jiwozi River	25-Jun-18	-	-	-	-	-
	05-Aug-18	-	-	-	-	-
	20-Oct-18	-	-	<0.01*1	<0.003*1	<5*1
	mean*2	-	-	<0.01*1	<0.003*1	<5*1
Zhuhai	01-Feb-18	-	-	-	-	-
-Zhuxiandong	02-Apr-18	-	-	-	-	-
Stream	01-Aug-18	-	-	-	-	-
	03-Dec-18	-	-	0.0	-	8.5
	mean*2	-	-	0.0	-	8.5

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	26-Mar-18	1088	1081	-0.3	O	13.7	3.4	O
-Jinyunshan Lake	27-Jun-18	893	852	-2.3	O	11.5	4.9	O
	30-Aug-18	891	831	-3.5	O	11.0	2.8	O
	4-Nov-18	912	965	2.8	O	12.1	7.8	O
Xiamen	7-Mar-18	460	507	4.8	O	5.5	-5.4	O
-Xiaoping	10-May-18	453	513	6.3	O	5.5	-1.9	O
	3-Sep-18	403	353	-6.6	O	4.3	-6.7	O
	1-Nov-18	441	503	6.6	O	5.3	-6.1	O
Xi'an	22-Mar-18	526	535	0.8	O	6.2	1.0	O
-Jiwozi	25-Jun-18	496	512	1.6	O	5.8	3.4	O
	5-Aug-18	554	638	7.1	O	6.9	3.2	O
	20-Oct-18	644	727	6.0	O	8.0	4.4	O
Zhuhai	1-Feb-18	938	946	0.4	O	10.3	5.1	O
-Zhuxiandong	2-Apr-18	985	971	-0.7	O	10.5	5.5	O
Stream	1-Aug-18	657	627	-2.3	O	7.0	1.8	O
	3-Dec-18	907	871	-2.0	O	9.7	3.1	O

Table 6.4.3 Result of Inland Aquatic Environment Monitoring

Duration: 2018.3.-2018.10.
Country: Indonesia
Lake/Stream: (See below)

		Mandatory Parameters: 4 times/year											
Site	Sampling Date	Temp. (^{0}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	22-Mar-18	-	8.55	5.01	0.40	6.30	1.66	2.06	0.00	3.06	1.20	6.07	1.71
	28-Jun-18	-	7.70	7.62	0.49	6.52	0.61	2.52	0.06	3.56	1.33	7.04	1.92
	3-Oct-18	-	7.62	6.53	0.48	5.51	0.09	2.07	0.00	4.10	1.44	6.60	1.81
	mean*1	-	7.81	6.39	0.46	6.11	0.79	2.22	0.02	3.57	1.32	6.57	1.82
Gunung Lake	28-Mar-18	-	7.64	3.45	0.42	0.93	0.07	0.65	0.01	1.94	0.50	5.32	1.38
	26-Jun-18	-	7.66	5.80	0.51	0.58	0.17	1.07	0.04	2.23	0.72	6.79	1.70
	28-Sep-18	-	6.58	5.37	0.53	1.02	0.22	1.63	0.04	2.89	0.73	6.82	1.74
	mean*1	-	6.99	4.87	0.49	0.84	0.15	1.12	0.03	2.35	0.65	6.31	1.61

		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	22-Mar-18	-	-	-	-	-
	28-Jun-18	-	-	-	-	-
	3-Oct-18	-	-	-	-	-
	mean*1	-	-	-	-	-
Gunung Lake	28-Mar-18	-	-	-	-	-
	26-Jun-18	-	-	-	-	-
	28-Sep-18	-	-	-	-	-
	mean*1	-	-	-	-	-

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

		Anion	Cation	R1	Judge	Λcalc	R2	Judge
Patengang Lake	22-Mar-18	618.8	607.3	-0.9	O	6.93	16.1	×
	28-Jun-18	707.6	702.0	-0.4	O	7.88	1.7	O
	3-Oct-18	658.5	693.6	2.6	O	7.46	6.6	O
Gunung Lake	28-Mar-18	456.0	477.3	2.3	O	4.88	17.2	×
	26-Jun-18	555.0	596.3	3.6	O	6.03	1.9	O
	28-Sep-18	605.6	629.9	2.0	O	6.52	9.7	×

Table 6.4.4 Result of Inland Aquatic Environment Monitoring

Duration: 2018.4.-2019.1.
Country: Japan
Lake/Stream: Ijira Lake

		Mandatory Parameters : 4times/year												
	Sampling Date	Temp. (degreeC)	pH	EC (mS/m)	Alkalinity (meq/L)	Gran's ANC (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	10-Apr-18	13.9	6.84	3.85	0.16	0.14	5.48	0.72	1.98	<0.01*1	1.86	0.24	2.86	1.28
(Surface)	25-Jul-18	29.8	7.41	3.23	0.15	0.13	4.07	0.11	1.87	<0.01*1	1.79	0.27	2.25	1.07
	02-Oct-18	18.5	6.72	3.27	0.13	0.11	3.86	1.86	1.66	<0.01*1	1.68	0.30	2.32	1.10
	22-Jan-19	8.5	7.15	4.04	0.21	0.19	4.74	0.28	1.97	<0.01*1	1.97	0.24	3.56	1.18
	mean*2	17.7	6.95	3.59	0.16	0.14	4.54	0.74	1.87	<0.01*1	1.82	0.26	2.75	1.16
Center	10-Apr-18	11.7	7.02	3.84	0.16	0.14	5.55	0.68	1.99	0.02	1.82	0.24	2.88	1.28
(near bottom)	25-Jul-18	17.4	6.60	3.57	0.19	0.17	3.24	0.73	1.77	0.10	1.58	0.37	2.44	1.39
	02-Oct-18	17.5	6.71	3.37	0.13	0.12	3.90	1.69	1.71	0.04	1.71	0.29	2.35	1.15
	22-Jan-19	7.3	7.17	4.07	0.20	0.19	4.74	0.29	1.97	<0.01*1	1.97	0.25	3.55	1.17
	mean*2	13.5	6.82	3.71	0.17	0.15	4.35	0.85	1.86	0.04	1.77	0.28	2.80	1.25
Kamagatani River	10-Apr-18	12.1	7.04	4.10	0.15	0.13	6.79	1.05	1.93	<0.01*1	1.94	0.25	2.81	1.43
(Input)	25-Jul-18	22.8	7.20	3.64	0.14	0.12	5.21	1.01	1.89	<0.01*1	1.94	0.30	2.44	1.23
	02-Oct-18	17.7	6.95	3.27	0.11	0.09	4.27	1.68	1.79	<0.01*1	1.73	0.27	2.15	1.12
	22-Jan-19	7.6	7.11	4.25	0.12	0.09	7.80	1.34	2.02	<0.01*1	2.10	0.23	2.90	1.45
	mean*2	15.1	7.06	3.81	0.13	0.11	6.02	1.27	1.91	<0.01*1	1.93	0.26	2.58	1.31
Kobora River	10-Apr-18	9.9	6.99	3.74	0.15	0.13	5.28	0.92	2.05	<0.01*1	2.23	0.24	2.04	1.42
(Input)	25-Jul-18	23.6	7.02	3.42	0.14	0.13	4.41	0.64	1.97	<0.01*1	2.32	0.29	1.79	1.24
	02-Oct-18	17.4	6.85	2.78	0.10	0.08	3.47	1.09	1.85	<0.01*1	1.89	0.26	1.41	0.97
	*3	-	-	-	-	-	-	-	-	-	-	-	-	-
	mean*2	17.0	6.95	3.31	0.13	0.11	4.39	0.88	1.96	<0.01*1	2.15	0.26	1.75	1.21

		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	10-Apr-18	3.8	5	clear, colorless	<0.1*1	<0.01*1	2.40	0.90
(Surface)	25-Jul-18	2.2	17	clear, colorless	-	<0.01*1	-	7.70
	02-Oct-18	1.9	16	clear, colorless	-	<0.01*1	-	0.95
	22-Jan-19	2.5	16	clear, colorless	-	<0.01*1	-	10.45
	mean	2.6	-	-	<0.1*1	<0.01*1	2.40	5.00
Center	10-Apr-18	-	-	clear, colorless	<0.1*1	<0.01*1	2.45	1.41
(near bottom)	25-Jul-18	-	-	clear, colorless	-	<0.01*1	-	2.25
	02-Oct-18	-	-	clear, colorless	-	<0.01*1	-	1.25
	22-Jan-19	-	-	clear, colorless	-	<0.01*1	-	21.00
	mean	-	-	-	<0.1*1	<0.01*1	2.45	6.48
Kamagatani River	10-Apr-18	-	-	clear, colorless	<0.1*1	<0.01*1	2.00	-
(Input)	25-Jul-18	-	-	clear, colorless	-	<0.01*1	-	-
	02-Oct-18	-	-	clear, colorless	-	<0.01*1	-	-
	22-Jan-19	-	-	clear, colorless	-	<0.01*1	-	-
	mean	-	-	-	<0.1*1	<0.01*1	2.00	-
Kobora River	10-Apr-18	-	-	clear, colorless	<0.1*1	<0.01*1	2.05	-
(Input)	25-Jul-18	-	-	clear, colorless	-	<0.01*1	-	-
	02-Oct-18	-	-	clear, colorless	-	<0.01*1	-	-
	*3	-	-	-	-	-	-	-
	mean	-	-	-	<0.1*1	<0.01*1	2.05	-

note
- : Items were not analyzed.
*1: Less than detection limit.
*2: Mean of pH takes an average of hydrogen ion.
*3: No sample because of no river flow.
When the value is under detection limit, it considers "0". Then the average and R1R2 were calculated by using it.
Annual precipitation is 1864.0 mm/year in 2017 (Gifu pref. Meteorological observatory).

		Anion	Cation	R1	Judge	Acalc	R2	Judge
Center	10-Apr-18	345	335	-1.5	O	4.02	2.2	O
(Surface)	25-Jul-18	289	285	-0.8	O	3.34	1.7	O
	02-Oct-18	285	287	0.4	O	3.39	1.8	O
	22-Jan-19	364	366	0.2	O	4.21	2.1	O
Center	10-Apr-18	347	335	-1.8	O	4.03	2.4	O
(near bottom)	25-Jul-18	317	320	0.4	O	3.64	1.0	O
	02-Oct-18	288	296	1.3	O	3.45	1.2	O
	22-Jan-19	362	365	0.4	O	4.20	1.6	O
Kamagatani River	10-Apr-18	360	349	-1.7	O	4.26	2.0	O
(Input)	25-Jul-18	320	314	-0.9	O	3.77	1.8	O
	02-Oct-18	281	282	0.1	O	3.36	1.4	O
	22-Jan-19	364	361	-0.5	O	4.44	2.2	O
Kobora River	10-Apr-18	332	321	-1.7	O	3.86	1.5	O
(Input)	25-Jul-18	302	299	-0.5	O	3.51	1.4	O
	02-Oct-18	239	239	0.1	O	2.84	1.1	O

Table 6.4.5 Result of Inland Aquatic Environment Monitoring

Duration: 2018.5.-2019.1.
Country: Japan
Lake/Stream: Banryu Lake

					Mandatory Parameters : 4 times/year									
Site	Sampling Date	Temp. (^{o}C)	pH	EC (mS/m)	Alkalinity (meq/L)	Gran's ANC (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)	30-May-18	23.3	6.96	9.8	0.17	0.14	4.68	<0.08*1	23.6	<0.05*1	12.8	1.74	1.50	1.71
surface	19-Jul-18	31.9	6.95	9.08	0.16	0.13	4.00	<0.08*1	20.4	0.05	12.2	1.70	1.36	1.51
	23-Oct-18	19.3	6.88	9.67	0.21	0.16	3.29	<0.08*1	20.4	<0.05*1	13.2	1.87	1.78	1.80
	15-Jan-19	7.4	6.90	10.0	0.21	0.16	3.89	0.35	21.0	0.10	12.6	1.83	1.74	1.76
	mean*2	20.5	6.92	9.64	0.19	0.15	3.97	0.09	21.3	<0.05*1	12.7	1.78	1.59	1.70
NO.2 (center)	30-May-18	11.1	6.52	11.4	0.33	0.32	4.11	<0.08*1	22.7	0.12	13.6	1.85	2.41	2.56
near bottom	19-Jul-18	12.9	6.53	12.5	0.49	0.51	2.39	<0.08*1	22.5	0.06	13.9	1.88	3.33	3.00
	23-Oct-18	15.3	6.50	11.2	0.35	0.32	2.67	<0.08*1	20.8	0.29	13.5	2.07	2.79	2.36
	15-Jan-19	7.2	6.91	10.1	0.21	0.16	3.81	0.34	21.1	0.10	12.6	1.86	1.73	1.75
	mean*2	11.6	6.59	11.3	0.34	0.33	3.25	0.09	21.7	0.15	13.4	1.91	2.56	2.42

				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)	30-May-18	2.0	14	<0.003*1	<0.01*1	2.10	-	-	3.77
surface	19-Jul-18	3.2	14	-	-	-	-	-	2.37
	23-Oct-18	3.1	14	-	-	-	-	-	5.65
	15-Jan-19	3.0	13	-	-	-	-	-	6.08
	mean	2.8	-	<0.003*1	<0.01*1	2.10	-	-	4.47
NO.2 (center)	30-May-18	-	-	<0.003*1	<0.01*1	2.36	-	-	16.7
near bottom	19-Jul-18	-	-	-	-	-	-	-	154.4
	23-Oct-18	-	-	-	-	-	-	-	26.6
	15-Jan-19	-	-	-	-	-	-	-	6.28
	mean	-	-	<0.003*1	<0.01*1	2.36	-	-	51.0

- : 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 1471.2 mm/year in 2017 (Lake Banryu national acid rain monitoring station).

		Anion	Cation	R1	Judge	Acalc	R2	Judge
NO.2 (center)	30-May-18	930	817	-6.5	O	10.9	5.3	O
surface	19-Jul-18	819	766	-3.4	O	9.8	3.9	O
	23-Oct-18	851	857	0.3	O	10.4	3.6	O
	15-Jan-19	884	831	-3.1	O	10.5	2.6	O
NO.2 (center)	30-May-18	1056	975	-4.0	O	12.2	3.4	O
near bottom	19-Jul-18	1174	1065	-4.8	O	13.1	2.5	O
	23-Oct-18	990	990	0.0	O	11.8	2.7	O
	15-Jan-19	886	832	-3.1	O	10.6	2.4	O

Table 6.4.6 Result of Inland Aquatic Environment Monitoring

Duration: 2018.3.-2018.12.
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	12-Mar-18	27.4	7.90	4.13	0.39	2.45	0.21	0.49	-	-	-	-	-
	12-Jun-18	18.8	7.48	4.10	0.40	2.50	0.49	0.25	-	-	-	-	-
	12-Sep-18	28.6	7.15	4.09	0.38	2.00	0.52	0.45	-	-	-	-	-
	12-Dec-18	30.5	7.51	4.11	0.39	2.08	0.41	0.40	-	-	-	-	-
	mean*1	26.3	7.43	4.11	0.39	2.26	0.41	0.40	-	-	-	-	-

		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	12-Mar-18	0.5	-	0.01	-	7.5	8.8
	12-Jun-18	0.5	-	0.01	-	9.0	8.6
	12-Sep-18	0.5	-	0.01	-	5.8	8.3
	12-Dec-18	1.0	-	0.01	-	7.5	8.5
	mean*1	0.6	-	0.01	-	7.5	8.5

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

		Anion	Cation	R1	Judge	Λcalc	R2	Judge
Nam Hum Lake	12-Mar-18	459	-	-	-	-	-	-
	12-Jun-18	467	-	-	-	-	-	-
	12-Sep-18	443	-	-	-	-	-	-
	12-Dec-18	452	-	-	-	-	-	-

Table 6.4.8 Result of Inland Aquatic Environment Monitoring

Duration: 2018.05-2018.10
Country: Mongolia
Lake/Stream: Terelj River

		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)
Terelj River	9-May-18	25.0	6.60	5.14	0.25	3.93	1.16	0.37	0.00	3.58	0.53	5.25	0.67
	6-Jun-18	25.0	6.83	4.55	0.32	4.01	0.81	0.32	0.00	1.71	0.45	6.40	0.79
	18-Jul-18	25.0	6.71	3.97	0.26	3.25	0.72	0.21	0.00	1.03	0.28	4.72	0.48
	1-Aug-18	25.0	6.97	3.37	0.24	1.96	0.46	0.17	0.00	1.49	0.46	5.48	0.70
	3-Oct-18	25.0	6.95	4.86	0.31	4.43	0.99	0.41	0.00	1.69	0.41	6.75	0.88
	mean*1	25.0	6.79	4.38	0.28	3.52	0.83	0.30	0.00	1.90	0.43	5.72	0.70

		Mandatory Parameters : Once/year	
Site	Sampling Date	PO_4^{3-} (mg/L)	NO_2^- (mg/L)
Terelj River	9-May-18	-	-
	6-Jun-18	-	-
	18-Jul-18	-	-
	1-Aug-18	-	-
	3-Oct-18	-	-
	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	Λcalc	R2	Judge
Terelj River	9-May-18	363	487	14.6	×	4.74	-4.1	O
	6-Jun-18	429	470	4.7	O	4.99	4.6	O
	18-Jul-18	348	327	-3.1	O	3.74	-2.9	O
	1-Aug-18	295	408	16.0	×	3.85	6.7	O
	3-Oct-18	433	493	6.5	O	5.18	3.2	O

Table 6.4.9 Result of Inland Aquatic Environment Monitoring

Duration: 2018.2.-2018.11.
Country: Russian Federation
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)
Pereemnaya River	26-Feb-18	0.4	6.75	5.06	0.13	13.1	0.91	0.44	0.02	1.26	0.56	5.26	0.89
	10-May-18	4.8	6.49	3.66	0.10	9.21	1.05	0.18	0.01	0.88	0.50	3.82	0.69
	23-Jul-18	13.2	6.91	4.22	0.10	11.4	0.51	0.20	0.00	0.85	0.58	4.59	0.78
	29-Sep-18	4.2	6.68	4.28	0.11	11.1	0.47	0.17	0.01	1.25	0.71	4.05	0.85
	mean*1	5.7	6.68	4.30	0.11	11.2	0.74	0.25	0.01	1.06	0.59	4.43	0.80
Komarovka River	13-Feb-18	0.1	6.95	8.61	0.38	12.9	3.45	3.58	0.09	4.40	1.12	8.42	3.27
	19-Apr-18	4.2	7.15	9.01	0.31	15.6	5.04	1.68	0.03	4.30	0.98	9.98	2.15
	26-Jun-18	16.1	7.02	8.62	0.41	13.4	4.62	1.78	0.12	3.83	1.03	10.7	2.17
	20-Sep-18	17.1	6.86	8.42	0.45	10.7	2.44	1.70	0.09	4.10	1.08	8.70	2.57
	22-Nov-18	3.5	6.99	7.86	0.36	11.5	3.05	2.50	0.06	3.67	0.90	8.18	2.57
	mean*1	8.2	6.98	8.50	0.38	12.8	3.72	2.25	0.08	4.06	1.02	9.20	2.54

		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	26-Feb-18	-	colorless	0.01	0.00	0.4	-	0.00	13.6	2.53
	10-May-18	-	colorless	0.00	0.00	1.1	-	0.00	12.3	2.12
	23-Jul-18	-	colorless	0.01	0.00	1.0	-	0.00	10.1	2.02
	29-Sep-18	-	colorless	0.01	0.01	1.7	-	0.01	10.8	2.37
	mean*1	-	-	0.01	0.00	1.1	-	0.00	11.7	2.26
Komarovka River	13-Feb-18	-	colorless	0.00	0.01	2.1	0.12	-	11.3	5.03
	19-Apr-18	-	colorless	0.00	0.01	6.4	0.33	-	12.8	4.80
	26-Jun-18	-	colorless	0.00	0.02	3.8	0.26	-	9.91	5.97
	20-Sep-18	-	colorless	0.01	0.01	6.6	0.44	-	9.51	6.87
	22-Nov-18	-	colorless	0.00	0.01	4.1	0.34	-	13.1	5.87
	mean*1	-	-	0.00	0.01	4.6	0.30	-	11.3	5.71

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

		Anion	Cation	R1	Judge	Acalc	R2	Judge
Pereemnaya River	26-Feb-18	428	406	-2.7	O	5.30	2.4	O
	10-May-18	313	299	-2.3	O	3.88	2.9	O
	23-Jul-18	348	345	-0.3	O	4.44	2.6	O
	29-Sep-18	358	345	-1.7	O	4.45	1.9	O
Komarovka River	13-Feb-18	806	914	6.2	O	10.2	8.3	O
	19-Apr-18	763	889	7.6	O	10.0	5.1	O
	26-Jun-18	813	912	5.7	O	10.2	8.4	O
	20-Sep-18	759	856	6.0	O	9.3	4.9	O
	22-Nov-18	720	805	5.6	O	9.0	6.6	O

Table 6.4.10 Result of Inland Aquatic Environment Monitoring

Duration: 2018.2.-2018.11.
Country: Thailand
Lake/Stream: Vajiralongkorn Dam

		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)
Station1	13-Feb-18	27.8	7.50	10.5	1.13	1.21	0.10	0.94	0.01	1.37	1.04	17.2	3.03
(Ban Pong Chang)	17-May-18	32.1	8.40	14.4	1.23	1.24	0.10	0.93	0.01	1.27	1.04	17.8	3.19
	16-Aug-18	28.1	7.90	11.7	1.05	1.23	0.10	1.01	0.01	1.20	1.07	16.8	2.99
	15-Nov-18	30.6	8.30	12.8	1.12	0.79	0.10	0.95	0.01	1.09	1.01	17.1	3.45
	mean*1	29.7	7.88	12.4	1.13	1.11	0.10	0.95	0.01	1.23	1.04	17.2	3.16
Station2	13-Feb-18	26.9	7.60	9.9	1.20	1.41	0.10	0.88	0.01	1.32	1.04	17.9	2.80
(Ban Pang Pueng)	17-May-18	31.5	8.50	13.8	1.24	1.40	0.10	0.92	0.01	1.28	1.06	18.2	2.91
	16-Aug-18	27.9	8.10	11.1	1.06	1.34	0.10	0.88	0.01	1.15	1.01	16.7	2.57
	15-Nov-18	30.1	8.30	10.9	0.94	0.99	0.10	0.90	0.01	1.08	1.02	15.1	2.49
	mean*1	29.1	7.99	11.4	1.11	1.29	0.10	0.89	0.01	1.21	1.03	16.9	2.69

		Mandatory Parameters : Once/year				
Site	Sampling Date	Transparency (m)	Water color	PO_4^{3-} (mg/L)	NO_2^- (mg/L)	COD (mg/L)
Station1	13-Feb-18	3.5	light green	0.01	-	-
(Ban Pong Chang)	17-May-18	3.0	light green	0.01	-	-
	16-Aug-18	2.5	light green	0.01	-	-
	15-Nov-18	3.0	light green	0.01	-	-
	mean*1	3.0	-	0.01	-	-
Station2	13-Feb-18	4.0	light green	0.01	-	-
(Ban Pang Pueng)	17-May-18	4.0	light green	0.01	-	-
	16-Aug-18	3.0	light green	0.01	-	-
	15-Nov-18	4.0	light green	0.01	-	-
	mean*1	3.8	-	0.01	-	-

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

	Date	Anion	Cation	R1	Judge	Acalc	R2	Judge
Station1	13-Feb-18	1178	1194	0.7	O	12.4	8.1	O
(Ban Pong Chang)	17-May-18	1284	1232	-2.0	O	13.1	-4.8	O
	16-Aug-18	1106	1164	2.6	O	11.9	0.8	O
	15-Nov-18	1160	1208	2.0	O	12.3	-1.8	O
Station2	13-Feb-18	1256	1205	-2.1	O	12.8	13.1	×
(Ban Pang Pueng)	17-May-18	1297	1228	-2.7	O	13.1	-2.6	O
	16-Aug-18	1115	1118	0.2	O	11.7	2.6	O
	15-Nov-18	983	1032	2.4	O	10.6	-1.6	O

Table 6.4.11 Result of Inland Aquatic Environment Monitoring

Duration: 2018.3.-2018.12.
Country: Vietnam
Lake/Stream: Hoa Binh Reservoir

		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)
Hoa Binh Reservoir	15-Mar-18	23.2	8.00	18.2	1.48	5.68	3.29	4.90	<0.01	5.47	1.05	19.9	6.35
	15-Jun-18	26.6	7.60	15.0	1.12	4.72	2.73	4.06	<0.01	4.54	0.87	16.6	4.27
	15-Sep-18	27.8	7.90	15.5	1.28	2.64	1.38	4.47	0.39	5.37	2.59	17.5	3.89
	15-Dec-18	21.0	7.83	16.3	1.40	5.13	1.10	3.17	0.25	7.90	1.89	19.0	3.72
	mean*1	24.7	7.81	16.3	1.32	4.54	2.13	4.15	0.16	5.82	1.60	18.3	4.56

		Mandatory Parameters: Once/year					
Site	Sampling Date	Transparency (m)	Water Color (PtCo unit)	F^{-} (mg/L)	PO_4^{3-} (mg/L)	NO_2^{-} (mg/L)	COD (mg/L)
Hoa Binh Reservoir	15-Mar-18	1.2	-	0.11	0.08	0.01	3.8
	15-Jun-18	1.0	-	0.10	0.09	0.01	4.0
	15-Sep-18	0.7	-	0.11	0.08	0.00	4.5
	15-Dec-18	1.2	12	0.13	0.07	0.01	3.4
	mean*1	1.0	-	0.11	0.08	0.01	3.9

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

		Anion	Cation	R1	Judge	Λcalc	R2	Judge
Hoa Binh Reservoir	15-Mar-18	1792	1782	-0.3	O	19.1	2.4	O
	15-Jun-18	1380	1397	0.6	O	14.9	-0.2	O
	15-Sep-18	1486	1516	1.0	O	16.0	1.7	O
	15-Dec-18	1616	1661	1.3	O	17.4	3.2	O

Table 6.4.12 Summary of Inland Aquatic Environment Monitoring

			Mandatory Parameters : 4 times/year											
Country	Location	Site	pH	EC (mS/m)	Alkalinity (meq/L)	Gran's ANC (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*2	-	-	-	-	-	-	-	-	-	-	-	-
China	Chongqing	Jinyunshan Lake	6.74	11.0	0.22	-	26.0	7.2	2.28	0.62	2.48	1.81	10.0	3.00
	Xiamen	Xiaoping Dam	7.31	5.68	0.29	-	2.17	2.53	2.32	0.29	3.99	2.19	3.54	0.57
	Xi'an	Jiwozi River	6.95	6.33	0.33	-	8.59	0.77	1.20	0.02	1.81	0.85	7.62	1.48
	Zhuhai	Zhuxiandong Stream	7.19	8.6	0.63	-	2.11	2.11	5.8	0.03	7.6	1.38	6.0	2.25
Indonesia	Bandung	Patengang Lake*3	7.81	6.39	0.46	-	6.11	0.79	2.22	0.02	3.57	1.32	6.57	1.82
	Sukabumi, West Java	Gunung Lake*3	6.99	4.87	0.49	-	0.84	0.15	1.12	0.03	2.35	0.65	6.31	1.61
Japan	Gifu pref.	Ijira Lake (Center, surface)	6.95	3.59	0.16	0.14	4.54	0.74	1.87	<0.01*1	1.82	0.26	2.75	1.16
	Shimane pref.	Banryu Lake (Center, surface)	6.92	9.64	0.19	0.15	3.97	0.09	21.3	<0.05*1	12.7	1.78	1.59	1.70
Lao PDR	Vientiane province	Nam Hum Lake	7.43	4.11	0.39	-	2.26	0.41	0.40	-	-	-	-	-
Malaysia	Selangor	Semenyih Dam	-	-	-	-	-	-	-	-	-	-	-	-
	Sabah	Tembaling river	-	-	-	-	-	-	-	-	-	-	-	-
Mongolia	Terelj	Terelj River*4	6.79	4.38	0.28	-	3.52	0.83	0.30	0.00	1.90	0.43	5.72	0.70
Philippines	San Pablo City	Pandin Lake	-	-	-	-	-	-	-	-	-	-	-	-
	Benguet	Ambulalakaw Lake	-	-	-	-	-	-	-	-	-	-	-	-
Russia	Southern Baikal	Pereemnaya River	6.68	4.30	0.11	-	11.2	0.74	0.25	0.01	1.06	0.59	4.43	0.80
	Primorskaya	Komarovka River*4	6.98	8.50	0.38	-	12.8	3.72	2.25	0.08	4.06	1.02	9.2	2.54
Thailand	Kanchanaburi Province	Vajiralongkorn Dam (Ban Pong Chang)	7.88	12.4	1.13	-	1.11	0.10	0.95	0.01	1.23	1.04	17.2	3.16
		Vajiralongkorn Dam (Ban Pang Pueng)	7.99	11.4	1.11	-	1.29	0.10	0.89	0.01	1.21	1.03	16.9	2.69
Vietnam	Hoa Binh Province	Hoa Binh Reservoir	7.81	16.3	1.32	-	4.54	2.13	4.15	0.16	5.82	1.60	18.3	4.56

			Mandatory Parameters : Once/year				
Country	Location	Site	Transparency (m)	PO_4^{3-} (mg/L)	NO_2^- (mg/L)	DOC (mg/L)	COD (mg/L)
Cambodia	Kampong Speu province	Sras Srang Lake*2	-	-	-	-	-
China	Chongqing	Jinyunshan Lake	2.21	0.00	0.00	-	<10*1
	Xiamen	Xiaoping Dam	0.75	0.03	0.05	-	1.85
	Xi'an	Jiwozi River	-	<0.01*1	<0.003*1	-	<5*1
	Zhuhai	Zhuxiandong Stream	-	0.00	-	-	8.50
Indonesia	Bandung	Patengang Lake*3	-	-	-	-	-
	Sukabumi, West Java	Gunung Lake*3	-	-	-	-	-
Japan	Gifu pref.	Ijira Lake (Center, surface)	2.58	<0.1*1	<0.01*1	2.40	-
	Shimane pref.	Banryu Lake (Center, surface)	2.83	<0.003*1	<0.01*1	2.10	-
Lao PDR	Vientiane province	Nam Hum Lake	0.63	0.01	-	-	7.47
Malaysia	Selangor	Semenyih Dam	-	-	-	-	-
	Sabah	Tembaling river	-	-	-	-	-
Mongolia	Terelj	Terelj River*4	-	-	-	-	-
Philippines	San Pablo City	Pandin Lake	-	-	-	-	-
	Benguet	Ambulalakaw Lake	-	-	-	-	-
Russia	Southern Baikal	Pereemnaya River	-	0.01	0.00	-	1.05
	Primorskaya	Komarovka River*4	-	0.00	0.01	-	4.59
Thailand	Kanchanaburi Province	Vajiralongkorn Dam (Ban Pong Chang)	3.00	0.01	-	-	-
		Vajiralongkorn Dam (Ban Pang Pueng)	3.75	0.01	-	-	-
Vietnam	Hoa Binh Province	Hoa Binh Reservoir	1.03	0.08	0.01	-	3.93

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

Table 6.5.1 Annual mean values of each parameters of 2012 to 2017 at Sras Srang Lake (Cambodia)

	Mandatory Parameters : 4 times/year												Mandatory Parameters : Once/year				
	pH	EC	Alkalinity	Gran's ANC	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	(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	0.04	-	0.08	0.06	1.65	0.04	0.94	0.13	0.27	0.16	0.7	-	-	-	-
2013	5.74	0.93	0.03	-	0.05	0.28	1.39	0.02	0.94	0.12	0.29	0.13	0.7	-	-	-	-
2014	5.84	0.96	0.04	-	0.06	0.60	1.38	0.12	1.03	0.31	0.26	0.12	0.7	-	-	-	-
2015	5.81	0.98	0.04	-	0.09	0.22	1.17	0.07	0.80	0.19	0.37	0.22	0.8	-	-	-	-
2016	5.95	0.92	0.03	-	0.10	0.30	1.10	0.09	0.91	0.14	0.27	0.13	0.7	-	-	-	-
2017	6.04	0.97	0.03	-	0.07	0.06	1.12	0.01	0.67	0.08	0.17	0.09	0.8	-	-	-	-

Table 6.5.2 Annual mean values of each parameters from 2001 to 2018 at Jinyushan Lake (China)

	Mandatory Parameters : 4 times/year												Mandatory Parameters : Once/year				
	pH	EC	Alkalinity	Gran's ANC	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	(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	0.21	-	23.2	5.16	2.68	0.21	2.60	1.72	9.03	3.30	0.9	-	-	-	-
2004	6.34	9.61	0.08	-	25.7	7.94	1.74	0.30	1.98	1.65	9.66	2.71	2.6	-	-	-	7.60
2005	6.04	10.2	0.07	-	28.1	8.16	2.63	0.04	2.70	1.82	9.36	3.22	3.7	*1	*1	-	2.94
2006	6.36	11.9	0.11	-	32.7	9.53	3.05	0.11	2.96	2.27	11.1	3.82	5.0	*1	*1	-	3.20
2007	6.24	12.4	0.09	-	37.2	10.2	3.12	0.12	2.81	2.18	11.2	3.81	3.0	*1	*1	-	4.37
2008	5.42	12.2	0.07	-	33.3	12.8	2.77	0.16	2.65	1.98	11.3	3.77	3.7	*1	*1	-	2.90
2009	5.84	11.2	0.05	-	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	0.16	-	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	0.06	-	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	0.05	-	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	0.08	-	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	12.4	0.04	-	34.9	14.3	2.65	0.09	2.54	2.14	11.8	3.77	6.3	*1	*1	-	-
2015	6.48	11.4	0.14	-	29.4	10.1	2.24	0.25	2.25	2.01	11.6	3.46	0.9	*1	*1	-	<10*1
2016	6.49	12.2	0.27	-	28.6	11.7	2.97	*1	2.91	2.30	12.7	3.59	2.5	*1	*1	-	<10*1
2017	6.48	11.2	0.12	-	27.3	11.8	2.70	0.02	2.63	1.98	11.3	3.24	2.0	*1	*1	-	<10*1
2018	6.74	11.0	0.22	-	26.0	7.2	2.28	0.62	2.48	1.81	10.0	3.00	2.2	*1	*1	-	<10*1

Table 6.5.3 Annual mean values of each parameters from 2001 to 2018 at Xiaoping Dam (China)

	Mandatory Parameters : 4 times/year												Mandatory Parameters : Once/year				
	pH	EC	Alkalinity	Gran's ANC	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	(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	0.19	-	2.68	5.02	5.91	0.17	6.53	2.06	2.35	0.86	-	-	-	-	1.83
2004	7.34	5.57	0.24	-	2.68	7.83	4.35	0.18	6.70	2.18	2.92	0.64	-	0.02	0.01	-	2.12
2005	6.73	4.62	0.23	-	2.07	2.83	3.94	0.05	4.77	2.37	2.95	0.61	0.9	0.02	0.01	-	1.33
2006	6.81	5.27	0.19	-	2.46	2.52	5.13	0.19	6.02	2.33	3.19	0.66	0.9	0.02	0.01	-	0.66
2007	7.07	7.32	0.11	-	2.67	2.67	5.13	0.15	3.64	1.63	2.82	0.54	-	-	0.01	-	1.78
2008	6.73	5.66	0.12	-	4.49	2.67	12.9	0.14	4.97	2.46	3.90	0.56	-	0.01	0.01	-	1.93
2009	6.72	7.53	0.19	-	3.14	2.67	7.44	0.10	6.91	3.52	2.43	0.82	-	0.01	0.01	-	3.50
2010	6.63	6.19	0.19	-	2.70	3.70	5.54	0.11	5.80	2.53	2.51	0.69	1.1	0.02	0.01	-	1.86
2011	6.78	4.85	0.17	-	2.60	2.89	3.14	0.09	3.50	2.10	2.57	0.52	0.7	0.05	0.02	-	1.83
2012	6.94	5.08	0.15	-	2.92	3.46	3.10	0.06	3.78	2.50	2.51	0.68	1.2	0.03	0.03	-	2.52
2013	6.80	5.52	0.22	-	2.71	3.42	2.77	0.05	3.80	2.83	3.20	0.76	0.9	0.02	0.03	-	1.66
2014	7.18	5.79	0.22	-	3.71	3.53	2.64	0.05	3.09	2.61	3.70	0.84	0.9	0.04	0.02	-	1.47
2015	7.01	6.01	0.18	-	3.99	3.17	3.43	0.05	3.65	2.64	3.61	0.66	0.7	0.05	0.01	-	1.23
2016	6.65	5.98	0.28	-	2.39	2.61	2.87	0.11	4.43	2.36	3.52	0.66	1.2	0.04	0.02	-	0.92
2017	7.08	5.76	0.26	-	3.17	3.33	2.85	0.08	4.56	2.47	3.96	0.62	1.5	0.03	0.02	-	1.10
2018	7.31	5.68	0.29	-	2.17	2.53	2.32	0.29	3.99	2.19	3.54	0.57	0.8	0.03	0.05	-	1.85

- : Items were not analyzed.

*1: Less than determination/detection limit.

Table 6.5.4 Annual mean values of each parameters from 2001 to 2018 at Jiwozi River (China)

	Mandatory Parameters : 4 times/year												Mandatory Parameters : Once/year				
	pH	EC	Alkalinity	Gran's ANC	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	(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	0.23	-	10.0	1.47	1.06	0.04	1.90	0.70	8.83	1.38	-	-	-	-	-
2002	7.60	8.47	0.11	-	12.2	1.70	1.80	*1	2.80	1.20	12.7	1.72	-	-	-	-	-
2003	7.54	7.83	0.14	-	11.4	2.01	1.63	*1	2.08	0.95	12.0	1.59	-	-	-	-	-
2004	7.20	6.63	0.24	-	11.7	2.30	1.06	*1	1.79	0.68	9.04	1.35	-	*1	*1	-	3.20
2005	6.99	7.99	0.21	-	15.3	0.81	1.74	0.06	1.77	0.72	7.44	1.35	-	*1	0.090	-	1.60
2006	6.80	7.59	0.24	-	11.8	1.87	1.21	0.07	1.93	0.65	7.64	1.11	-	0.03	0.003	-	2.80
2007	7.32	8.86	0.25	-	16.7	3.46	1.31	0.13	2.09	0.96	11.0	0.96	-	*1	*1	-	2.20
2008	7.05	8.42	0.25	-	13.9	1.89	1.51	0.30	1.43	1.05	9.38	1.20	-	<0.01*1	<0.003*1	-	2.50
2009	6.98	8.28	0.28	-	15.5	2.07	1.34	0.14	1.88	1.04	9.85	1.38	-	<0.01*1	<0.003*1	-	2.50
2010	7.33	8.11	0.28	-	13.9	2.83	1.27	*1	1.22	0.81	10.5	1.35	-	<0.01*1	<0.003*1	-	3.00
2011	6.85	6.83	0.28	-	12.9	0.87	0.51	*1	0.74	0.84	8.09	2.01	-	<0.01*1	<0.003*1	-	3.00
2012	6.83	6.95	0.28	-	13.0	0.96	0.57	*1	0.70	0.83	7.80	2.01	-	<0.01*1	<0.003*1	-	4.00
2013	6.86	8.92	0.33	-	15.0	2.39	3.16	*1	3.50	1.37	11.1	1.69	-	<0.01*1	<0.003*1	-	5.00
2014	7.05	8.24	0.27	-	15.8	1.28	1.32	0.27	1.93	1.06	9.15	1.61	-	<0.01*1	<0.003*1	-	4.00
2015	7.09	7.27	0.26	-	11.3	6.45	1.55	*1	4.12	0.95	9.19	1.28	-	<0.01*1	<0.003*1	-	3.00
2016	7.10	7.60	0.30	-	11.7	2.86	0.82	*1	2.29	0.65	10.1	1.11	-	<0.01*1	<0.003*1		*1
2017	6.99	6.87	0.34	-	9.0	2.09	1.02	0.03	2.02	0.82	8.6	1.41	-	<0.01*1	<0.003*1	-	*1
2018	6.95	6.33	0.33	-	8.59	0.77	1.20	0.02	1.81	0.85	7.62	1.48	-	<0.01*1	<0.003*1	-	*1

Table 6.5.5 Annual mean values of each parameters from 2004 to 2018 at Zhuxiandong stream and from 2001 to 2003 at Zhuxiandong resorvoir(China)

	Mandatory Parameters : 4 times/year												Mandatory Parameters : Once/year				
	pH	EC	Alkalinity	Gran's ANC	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	(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	-	-	-	17.7	0.63	43	0.20	-	-	-	-	-	-	-	-	-
2002	7.93	6.70	0.96	-	19.9	0.83	24	0.23	7.27	1.57	17.0	2.50	-	-	-	-	-
2003	7.82	7.54	1.60	-	17.5	0.29	20	0.17	7.34	1.96	16.8	2.36	-	-	0.029	-	1.68
2004	7.12	8.49	0.65	-	5.47	1.90	6.03	*1	8.95	1.88	5.41	2.84	-		*1	-	1.08
2005	6.97	9.53	0.13	-	5.83	1.70	6.73	*1	8.90	1.60	4.63	2.65	1.3	*1	*1	-	0.93
2006	7.18	7.35	0.23	-	2.60	1.15	4.50	1.10	5.40	1.13	4.38	1.58	1.3	*1	*1		0.98
2007	7.28	7.80	0.24	-	3.61	1.77	5.09	0.10	6.01	1.22	3.65	1.38	1.3	*1	*1	-	1.13
2008	7.18	7.58	0.17	-	2.95	2.36	4.90	0.05	6.83	1.31	4.40	1.76	1.3	*1	*1	-	1.13
2009	7.16	7.74	0.37	-	2.97	4.20	6.30	0.06	7.86	1.57	2.77	1.96	1.1	*1	*1	-	1.28
2010	7.22	6.86	0.39	-	2.49	2.50	5.15	0.08	6.98	1.23	4.30	1.72	1.1	*1	*1	-	1.38
2011	7.16	7.42	0.47	-	1.95	1.00	4.33	0.09	7.70	1.15	4.68	1.69	1.1	*1	*1	-	1.28
2012	7.26	7.62	0.50	-	2.98	2.00	5.38	0.09	7.50	1.69	4.81	1.88	1.1	*1	*1	-	1.15
2013	7.20	7.87	0.50	-	3.81	4.11	4.66	0.07	6.95	1.77	4.91	1.91	1.2	*1	*1	-	1.13
2014	7.19	8.27	0.50	-	4.64	4.80	3.75	0.02	6.42	1.69	5.22	2.53	-	-	-	-	-
2015	6.38	6.73	0.50	-	2.47	1.31	2.50	0.44	7.48	1.84	2.84	1.14	-	-	-	-	-
2016	6.99	7.45	0.50	-	1.85	2.01	3.69	0.03	6.70	1.53	4.35	1.64	-	-	-	-	-
2017	7.29	15.17	0.49	-	8.15	3.33	14.38	0.15	11.32	1.76	14.03	2.87	-	-	-	-	-
2018	7.19	8.6	0.63	-	2.11	2.11	5.8	0.03	7.6	1.38	6.0	2.25	-	*1	-	-	8.5

Table 6.5.6 Annual mean values of each parameters from 2001 to 2018 at Patenggang Lake (Indonesia)

	Mandatory Parameters : 4 times/year												Mandatory Parameters : Once/year				
	pH	EC	Alkalinity	Gran's ANC	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	(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	0.49	-	4.33	0.07	8.19	0.13	4.90	0.54	6.32	2.18	-	-	-	-	-
2002	8.46	5.83	0.26	-	7.33	0.06	6.30	0.17	4.60	0.71	4.03	1.93	-	-	-	-	-
2003	7.34	6.58	0.46	-	7.76	0.19	7.50	0.53	4.30	0.49	5.17	2.53	0.6	0.21	*1	12.4	-
2004	7.29	5.89	0.34	-	2.65	0.03	3.85	0.02	2.10	0.85	5.75	2.20	0.6	0.01	*1	7.30	-
2005	7.19	6.71	0.46	-	8.83	0.23	2.30	0.43	4.04	1.87	5.70	2.70	0.1	0.01	*1	10.9	-
2006	7.49	5.74	0.41	-	3.80	0.47	2.58	0.39	2.87	1.70	5.70	1.43	0.1	0.09	0.02	8.13	-
2007	7.17	6.75	0.42	-	7.45	0.32	2.59	0.41	3.40	1.53	5.75	1.47	0.1	0.04	0.01	3.80	-
2008	6.76	6.43	0.45	-	7.89	0.07	2.18	0.05	2.84	1.29	6.18	2.39	0.9	0.20	0.02	10.2	-
2009	6.99	6.96	0.49	-	5.16	0.58	2.24	0.19	3.68	2.33	6.66	1.09	1.1	0.01	0.01	8.62	-
2010	6.66	6.75	0.51	-	4.93	0.01	2.33	0.17	3.43	1.52	6.87	2.12	1.1	0.03	0.01	7.54	-
2011	7.84	7.40	0.52	-	8.08	0.02	2.48	0.34	3.18	1.38	6.46	2.61	0.7	0.29	0.01	6.87	-
2012	7.72	6.09	0.40	-	7.40	*1	1.80	0.43	3.50	1.47	5.26	2.06	0.8	0.13	*1	7.58	-
2013	7.41	6.64	0.44	-	8.23	0.06	1.50	0.09	4.83	2.03	4.60	1.97	0.9	*1	0.01	12.1	-
2014	7.48	6.19	0.36	-	7.15	0.12	2.44	0.47	3.00	1.15	4.90	2.06	1.6	0.01	0.01	6.82	-
2015	7.75	7.03	0.37	-	9.96	0.12	2.06	0.06	3.12	1.50	5.74	2.22	-	-	-	-	-
2016	8.09	9.51	0.43	-	6.40	0.82	3.62	0.09	4.68	1.14	5.32	1.84	-	-	-	-	-
2017	7.88	6.56	0.49	-	6.65	0.48	2.24	0.07	3.07	1.53	6.58	1.80	1.4	-	-	-	-
2018	7.81	6.39	0.46	-	6.11	0.79	2.22	0.02	3.57	1.32	6.57	1.82	-	-	-	-	-

- : Items were not analyzed.
*1: Less than determination/detection limit.

Table 6.5.7 Annual mean values of each parameters from 2008 to 2018 at Gunung Lake (Indonesia)

	Mandatory Parameters : 4 times/year												Mandatory Parameters : Once/year				
	pH	EC	Alkalinity	Gran's ANC	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	(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	0.44	-	5.59	0.03	2.01	0.57	2.24	0.71	5.09	1.87	1.1	0.04	0.01	6.65	-
2009	6.69	5.54	0.46	-	3.48	0.06	1.30	0.16	3.14	1.02	4.62	2.20	1.0	0.01	0.01	10.8	-
2010	6.24	5.14	0.44	-	1.70	0.00	1.15	0.11	2.01	0.87	5.35	1.66	1.1	0.13	0.00	4.98	-
2011	7.38	5.15	0.41	-	4.04	0.07	1.00	0.12	2.36	0.84	5.04	2.02	0.7	0.04	0.00	10.2	-
2012	6.56	5.86	0.45	-	4.04	*1	1.10	*1	1.74	0.88	5.30	2.54	0.5	0.71	*1	9.46	-
2013	7.38	4.15	0.32	-	3.05	0.04	0.75	0.08	2.75	0.76	2.92	1.18	1.0	*1	0.00	5.28	-
2014	6.97	3.96	0.25	-	4.05	0.04	1.68	0.13	2.74	0.87	2.65	0.92	1.0	0.02	0.00	8.83	4.81
2015	7.33	4.91	0.27	-	6.74	0.05	1.96	0.03	1.74	0.49	4.46	2.00	-	-	-	-	-
2016	7.41	3.92	0.41	-	1.27	0.15	0.81	0.09	4.10	0.51	5.53	1.36	-	-	-	-	-
2017	7.88	4.47	0.32	-	1.59	0.13	0.82	0.09	1.87	0.92	5.07	1.17	0.8	-	-	-	-
2018	6.99	4.87	0.49	-	0.84	0.15	1.12	0.03	2.35	0.65	6.31	1.61	-	-	-	-	-

Table 6.5.8 Annual mean values of each parameters from 2001 to 2018 at Ijira Lake (Japan)

	Mandatory Parameters : 4 times/year												Mandatory Parameters : Once/year				
	pH	EC	Alkalinity	Gran's ANC	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	(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	0.14	-	4.66	2.31	2.19	0.07	2.37	0.40	3.51	1.61	-	<0.01*1	-	-	-
2002	6.72	4.52	0.17	-	5.63	2.01	2.27	0.09	2.23	0.38	3.39	1.37	2.2	<0.066*1	<0.01*1	3.18	-
2003	6.75	4.10	0.15	-	5.14	2.07	2.40	0.08	1.86	0.30	2.94	1.36	3.0	<0.01*1	<0.03*1	1.40	-
2004	7.17	4.05	0.14	-	4.79	1.88	2.34	0.12	2.15	0.23	2.71	1.23	2.8	<0.03*1	<0.02*1	1.13	-
2005	6.94	4.47	0.15	-	5.73	2.37	2.32	0.08	2.29	0.39	3.27	1.42	3.0	<0.03*1	0.07	0.74	-
2006	6.81	3.94	0.16	-	4.53	2.11	2.09	0.03	2.00	0.33	2.80	1.23	2.4	<0.1*1	<0.02*1	0.62	-
2007	7.09	4.58	0.21	-	5.77	1.22	2.27	0.03	2.24	0.30	3.57	1.46	2.7	<0.1*1	<0.02*1	1.00	-
2008	7.19	4.36	0.18	-	5.37	1.78	2.16	0.04	2.10	0.28	3.24	1.45	2.7	<0.1*1	<0.01*1	0.80	-
2009	7.04	4.26	0.18	-	5.18	1.47	2.13	0.01	2.08	0.26	3.03	1.35	2.7	<0.1*1	<0.01*1	0.70	-
2010	7.01	3.74	0.16	-	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	0.49	-
2011	7.11	3.85	0.16	-	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	0.83	-
2012	7.11	3.76	0.15	-	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	0.50	-
2013	7.17	3.94	0.16	-	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	0.50	-
2014	7.06	3.73	0.14	-	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	0.50	-
2015	7.16	3.57	0.15	-	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	0.55	-
2016	7.11	3.73	0.14	-	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	0.60	-
2017	7.02	3.89	0.16	-	5.33	0.97	1.84	<0.01*1	1.96	0.26	2.82	1.31	3.3	<0.1*1	<0.01*1	0.55	-
2018	6.95	3.59	0.16	0.14	4.54	0.74	1.87	<0.01*1	1.82	0.26	2.75	1.16	2.6	<0.1*1	<0.01*1	2.40	-

Table 6.5.9 Annual mean values of each parameters from 2001 to 2018 at Banryu Lake (Japan)

	Mandatory Parameters : 4 times/year												Mandatory Parameters : Once/year				
	pH	EC	Alkalinity	Gran's ANC	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	(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	0.17	-	4.07	0.11	19.7	0.15	12.2	1.75	1.23	1.60	-	<0.003*1	-	-	5.30
2002	7.07	10.1	0.18	-	3.93	0.30	21.9	0.12	13.0	1.80	1.21	1.76	1.6	<0.003*1	<0.003*1	2.48	5.71
2003	6.98	10.9	0.17	-	3.96	0.14	22.3	0.19	13.4	1.78	1.09	1.69	1.5	<0.003*1	<0.003*1	2.64	5.61
2004	7.10	10.7	0.16	-	3.96	0.21	23.0	0.09	14.0	1.84	1.05	1.69	2.5	<0.003*1	<0.003*1	3.33	4.78
2005	7.09	10.7	0.16	-	4.31	0.14	23.1	0.04	14.2	1.91	1.47	1.82	2.2	0.003	<0.003*1	2.59	5.03
2006	7.01	10.3	0.16	-	4.44	0.13	21.6	0.11	13.8	1.83	1.49	1.77	2.5	<0.003*1	0.003	2.72	4.84
2007	7.02	10.8	0.18	-	4.49	0.10	22.5	0.02	14.3	1.94	1.52	1.62	2.5	<0.003*1	<0.003*1	2.63	5.00
2008	7.05	10.7	0.17	-	4.24	0.14	22.8	0.03	14.3	1.87	1.37	1.65	3.0	<0.003*1	<0.003*1	2.54	-
2009	7.02	10.1	0.17	-	4.14	0.10	22.0	0.03	13.7	1.79	1.52	1.81	2.7	<0.003*1	<0.003*1	2.94	-
2010	7.03	10.1	0.14	-	4.00	0.16	21.9	0.04	13.5	1.77	1.67	1.88	2.9	<0.003*1	<0.003*1	2.85	5.49
2011	6.97	10.9	0.17	-	4.08	0.21	23.6	0.04	14.3	1.90	1.85	2.07	3.2	<0.003*1	<0.003*1	2.44	5.04
2012	7.00	11.0	0.18	-	4.02	0.15	24.3	0.04	14.7	1.92	1.88	2.04	2.7	<0.003*1	0.004	2.20	4.68
2013	7.01	9.89	0.17	-	4.15	0.13	21.5	0.03	13.2	1.78	1.76	1.89	2.5	<0.003*1	<0.003*1	2.46	4.99
2014	7.06	10.5	0.16	-	3.99	0.14	21.7	0.04	12.8	1.70	1.64	1.83	3.1	<0.003*1	<0.003*1	2.14	4.81
2015	6.91	10.3	0.16	-	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	2.20	-
2016	6.96	9.92	0.17	-	4.20	0.10	22.3	0.06	13.6	1.63	1.59	1.78	2.5	<0.003*1	<0.01*1	2.30	-
2017	6.99	9.89	0.17	-	4.13	<0.08*1	22.2	<0.05*1	13.5	1.74	1.55	1.74	2.9	<0.003*1	<0.01*1	2.49	-
2018	6.92	9.64	0.19	0.15	3.97	0.09	21.3	<0.05*1	12.7	1.78	1.59	1.70	2.8	<0.003*1	<0.01*1	2.10	-

- : Items were not analyzed.

*1: Less than determination/detection limit.

Table 6.5.10 Annual mean values of each parameters of 2009 and 2018 at Nam Hum Lake (Lao PDR)

	Mandatory Parameters : 4 times/year												Mandatory Parameters : Once/year				
	pH	EC	Alkalinity	Gran's ANC	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	(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	0.41	-	1.83	0.65	1.45	0.15	0.94	1.75	4.43	0.86	-	0.00	-	-	10.2
2014	7.18	4.12	0.44	-	-	-	-	-	-	-	-	-	0.8	0.01	-	-	23.1
2016	7.20	2.34	0.34	-	2.61	0.02	1.83	0.01	1.07	0.40	1.14	1.72	0.6	0.01	-	-	11.2
2017	7.54	3.39	0.30	-	3.76	0.01	0.48	-	-	-	-	-	0.6	0.01	-	-	3.7
2018	7.43	4.11	0.39	-	2.26	0.41	0.40	-	-	-	-	-	0.6	0.01	-	-	7.47

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	Gran's ANC	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	(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	0.23	-	0.75	1.07	1.41	0.11	2.34	2.01	4.93	1.40	-	-	-	-	-
2006	7.24	3.03	0.69	-	5.04	0.87	7.03	0.29	14.5	16.8	14.4	2.70	-	-	-	-	-
2007	7.02	2.67	0.27	-	1.22	0.10	0.75	0.04	2.35	2.05	2.30	0.69	-	-	-	-	-
2008	6.94	1.53	0.26	-	1.73	0.18	0.83	0.06	2.46	2.08	2.54	0.66	-	-	-	-	-
2009	6.91	3.30	0.23	-	1.80	0.22	0.83	0.02	2.13	1.90	1.83	0.55	-	-	-	-	-
2010	6.92	2.77	0.23	-	2.40	0.05	0.81	0.02	2.18	2.00	2.43	0.65	-	<0.10*1	-	-	-
2011	6.99	2.69	0.27	-	2.85	0.54	0.96	0.05	2.15	2.01	2.53	0.60	-	-	-	-	-
2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2013	6.63	2.96	0.23	-	2.98	0.25	0.77	0.06	2.12	1.94	2.55	0.61	-	<0.10*1	-	-	5.27
2014	7.06	3.63	0.23	-	3.16	0.42	0.78	0.15	2.18	2.07	3.24	0.68	-	<0.10*1	-	-	4.93
2015	6.99	3.20	0.24	-	1.32	0.14	1.61	0.03	3.70	1.60	2.21	0.64	-	<0.10*1	-	-	7.62

Table 6.5.12 Annual mean values of each parameters from 2007 to 2017 at Tembaling River (Malaysia)

	Mandatory Parameters : 4 times/year												Mandatory Parameters : Once/year				
	pH	EC	Alkalinity	Gran's ANC	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	(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	1.64	-	7.03	0.63	2.20	0.05	3.01	3.37	16.5	8.68	-	-	-	-	-
2008	7.07	18.6	1.85	-	8.10	0.75	1.20	0.01	5.83	0.40	22.0	10.4	-	-	-	-	-
2009	7.97	20.3	1.98	-	9.38	0.72	1.33	0.01	6.25	0.53	20.5	10.2	-	-	-	-	-
2010	8.11	21.8	2.07	-	9.94	0.59	1.55	0.03	6.99	0.81	18.4	16.0	-	<0.10*1	-	-	4.01
2011	8.18	17.4	1.63	-	7.23	1.19	1.35	0.01	4.99	0.40	16.3	7.50	-	<0.10*1	-	-	7.81
2012	8.06	17.8	1.80	-	6.11	0.29	1.18	0.01	4.71	0.25	19.4	9.20	-	<0.10*1	-	-	4.46
2013	8.05	19.2	1.91	-	5.50	0.38	1.20	0.04	5.73	0.38	20.4	10.7	-	<0.10*1	-	-	4.59
2014	7.82	20.8	2.00	-	7.79	0.47	1.02	0.04	6.39	0.57	21.5	11.0	-	<0.10*1	-	-	4.75
2015	8.02	23.4	2.21	-	11.3	0.54	2.33	0.03	9.37	0.64	24.0	12.1	-	<0.10*1	-	-	4.84
2016	7.77	18.2	1.59	-	9.26	0.55	3.73	0.06	7.77	1.73	17.8	8.5	-	<0.10*1	-	-	6.34
2017	7.97	17.1	1.53	-	7.39	0.95	2.27	0.00	7.44	0.51	16.1	7.9	-	<0.10*1	-	-	4.89

- : Items were not analyzed.

*1: Less than determination/detection limit.

Table 6.5.13 Annual mean values of each parameters from 2002 to 2018 at Terelj River (Mongolia)

	Mandatory Parameters : 4 times/year												Mandatory Parameters : Once/year				
	pH	EC	Alkalinity	Gran's ANC	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	(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	0.10	-	3.47	1.11	0.43	0.04	1.87	0.52	7.17	0.87	-	-	-	-	-
2003	6.75	4.60	0.27	-	3.16	0.74	0.36	0.04	1.65	0.48	5.88	0.83	-	-	-	-	-
2004	6.80	4.44	0.30	-	2.76	0.70	0.54	0.06	1.60	0.72	5.93	0.89	-	-	-	-	-
2005	6.90	4.84	0.37	-	3.18	0.82	0.56	0.05	1.95	0.68	8.90	1.04	-	-	0.00	-	-
2006	6.99	5.07	0.33	-	3.60	0.79	0.46	0.11	2.07	0.62	9.04	1.07	-	-	0.00	-	-
2007	6.89	5.06	0.34	-	3.18	0.79	0.57	0.07	2.22	0.55	8.63	1.03	-	<0.005*1	0.00	-	-
2008	6.36	6.59	0.28	-	3.82	1.33	0.73	<0.01*1	1.93	0.60	13.7	1.00	-	0.01	<0.005*1	-	-
2009	7.13	4.70	0.33	-	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	0.38	-	4.47	0.86	0.78	0.13	2.17	1.19	7.52	1.15	-	0.01	<0.005*1	-	-
2011	6.28	5.33	0.33	-	3.73	0.76	0.79	0.06	1.57	0.68	5.80	0.87	-	0.01	0.00	-	-
2012	7.24	4.55	0.32	-	-	-	-	-	-	-	-	-	-	0.01	0.01	-	-
2013	6.84	4.32	0.29	-	2.81	0.46	0.37	*1	1.46	1.01	6.13	0.83	-	-	-	-	-
2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2015	7.23	5.37	0.35	-	4.43	0.82	0.38	-	-	-	-	-	-	-	-	-	-
2016	6.59	4.39	0.28	-	3.42	0.34	0.35	*1	1.45	0.57	6.55	0.82	-	-	-	-	-
2017	6.73	5.09	0.35	-	4.72	0.85	0.48	0.01	1.89	0.52	6.90	0.88	-	-	-	-	-
2018	6.79	4.38	0.28	-	3.52	0.83	0.30	0.00	1.90	0.43	5.72	0.70	-	-	-	-	-

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	Gran's ANC	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	(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	1.81	-	0.33	0.08	3.16	0.02	8.91	5.81	12.1	6.91	-	0.01	0.07	-	-
2005	7.96	18.1	1.72	-	1.11	0.58	3.76	0.69	8.18	4.89	14.3	7.84	-	0.01	0.30	-	-
2006	7.72	17.3	1.76	-	0.43	0.19	2.40	0.22	8.08	5.08	15.1	7.30	2.2	0.00	0.01	-	-
2007	7.76	17.6	1.71	-	0.52	0.10	3.37	0.26	7.28	6.29	12.1	9.03	-	0.00	0.01	-	-
2008	7.48	18.0	1.63	-	0.76	5.23	3.70	0.02	7.33	4.92	12.6	7.97	-	0.01	-	-	-
2009	7.68	18.7	1.81	-	0.66	5.72	3.78	1.02	8.61	4.35	14.1	7.32	1.8	0.09	-	-	-
2010	8.25	18.4	1.84	-	0.34	3.36	3.28	*1	8.79	5.59	13.1	8.49	-	0.06	-	-	-
2011	7.67	20.5	1.74	-	0.49	2.08	3.29	0.17	7.99	4.14	14.9	7.58	-	0.09	-	-	-
2012	7.95	17.6	1.68	-	1.53	0.48	3.45	0.06	8.19	4.43	14.1	7.59	-	*1	-	-	-
2013	7.29	17.7	1.73	-	0.56	0.16	3.19	0.10	8.17	4.24	15.6	7.89	-	0.00	*1	-	-
2014	7.64	20.5	2.15	-	0.22	0.14	2.54	0.04	7.00	3.70	19.1	9.09	-	-	*1	-	-
2015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2016	7.18	18.7	1.74	-	0.84	0.32	3.48	0.32	8.58	4.41	15.8	8.29	-	0.11	*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	Gran's ANC	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	(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	0.02	-	0.15	0.11	0.06	-	0.22	0.15	0.15	0.04	-	-	0.10	-	-
2007	5.49	0.53	0.03	-	0.46	0.12	0.25	0.02	0.37	0.13	0.40	0.10	-	*1	*1	-	-
2008	5.74	0.38	0.08	-	0.27	0.12	0.17	0.10	0.19	0.07	0.26	0.15	-	0.00	-	-	-
2009	5.72	30.3	0.28	-	23.1	14.8	9.27	0.13	6.54	0.33	32.6	2.84	-	-	-	-	-
2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2013	5.75	0.52	0.06	-	*1	*1	0.39	*1	0.56	0.13	0.49	0.11	-	-	-	-	-
2014	5.69	0.52	0.02	-	0.11	*1	0.20	0.21	0.46	0.35	0.59	0.12	-	-	-	-	-
2015	5.86	0.50	0.03	-	0.21	0.36	0.22	0.05	0.48	0.14	0.37	0.31	-	-	-	-	-
2016	5.81	0.51	0.03	-	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 2018 at Pereemnaya River (Russia)

	Mandatory Parameters : 4 times/year												Mandatory Parameters : Once/year				
	pH	EC	Alkalinity	Gran's ANC	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	(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	0.14	-	7.18	0.76	0.23	0.03	1.10	0.77	3.23	0.94	2.0	0.01	0.00	-	-
2005	6.80	4.03	0.14	-	7.84	0.66	0.20	0.03	0.96	0.71	3.29	1.04	-	0.00	0.01	-	0.82
2006	6.74	3.95	0.14	-	7.49	0.81	0.20	0.04	1.07	0.75	3.36	1.02	-	0.00	0.00	1.53	1.05
2007	6.59	4.21	0.13	-	8.98	0.91	0.18	0.11	1.06	0.76	3.92	0.85	-	0.00	0.00	1.57	1.03
2008	6.68	4.87	0.16	-	9.77	1.03	0.13	0.03	0.93	0.60	4.78	1.05	-	0.01	0.00	0.99	0.76
2009	6.66	4.87	0.13	-	11.7	0.85	0.14	0.02	1.00	0.60	4.94	0.97	-	0.00	0.00	-	0.60
2010	6.88	5.14	0.13	-	12.9	0.79	0.20	0.03	0.99	0.66	5.18	1.05	-	0.01	0.00	-	1.10
2011	6.85	4.79	0.14	-	11.4	0.67	0.16	0.02	1.02	0.68	4.97	0.83	-	0.00	0.00	-	0.88
2012	6.61	4.21	0.14	-	9.49	0.38	0.17	0.09	0.95	0.63	4.42	0.67	-	0.01	0.00	-	1.18
2013	6.76	4.61	0.13	-	11.1	0.57	0.13	0.02	1.00	0.65	4.92	0.82	1.9	0.01	0.00	-	0.97
2014	6.69	4.66	0.14	-	11.2	0.58	0.19	0.01	1.30	0.78	4.87	0.78	1.9	0.01	0.00	-	1.23
2015	6.63	4.29	0.12	-	10.5	0.48	0.20	0.01	1.01	0.66	4.57	0.76	1.9	0.01	0.00	-	0.84
2016	6.78	4.53	0.14	-	11.1	0.70	0.14	0.01	1.06	0.66	4.90	0.85	1.9	0.00	0.00	-	0.90
2017	6.76	4.64	0.13	-	11.9	0.87	0.09	0.01	1.03	0.66	4.89	0.97	-	0.00	0.00	-	0.79
2018	6.68	4.30	0.11	-	11.2	0.74	0.25	0.01	1.06	0.59	4.43	0.80	-	0.01	0.00	-	1.05

Table 6.5.17 Annual mean values of each parameters from 2005 to 2018 at Komarovka River (Russia)

	Mandatory Parameters : 4 times/year												Mandatory Parameters : Once/year				
	pH	EC	Alkalinity	Gran's ANC	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	(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	0.50	-	11.18	0.33	3.09	0.15	3.34	0.60	9.07	2.25	-	*1	*1	-	-
2006	7.08	8.37	0.43	-	9.02	0.26	3.12	0.08	3.10	0.57	8.51	2.27	-	0.01	0.00	-	-
2007	7.15	8.68	0.39	-	10.51	0.26	4.03	0.09	3.39	0.65	8.04	2.34	-	0.01	0.03	-	4.33
2008	7.22	8.68	0.39	-	12.08	0.52	3.06	0.09	3.80	0.62	8.14	2.08	-	0.03	0.05	-	3.63
2009	7.02	8.64	0.35	-	12.59	1.11	3.69	0.22	3.57	0.60	8.21	2.07	-	0.04	0.07	-	4.42
2010	6.99	8.32	0.44	-	8.62	0.99	3.33	0.19	3.21	0.46	8.29	2.12	-	0.01	0.04	-	4.00
2011	7.09	8.86	0.40	-	12.67	1.63	3.11	0.27	3.88	0.74	8.58	2.22	-	0.01	0.02	-	4.44
2012	6.99	8.54	0.38	-	9.61	1.33	3.88	0.45	3.53	0.79	7.88	2.37	-	0.02	0.04	-	5.10
2013	6.84	8.45	0.37	-	11.87	1.27	3.61	0.16	3.44	0.64	7.71	2.66	-	0.01	0.03	-	4.14
2014	6.91	8.45	0.37	-	11.76	2.81	3.16	0.14	3.52	0.72	8.29	2.27	-	0.01	0.03	-	4.57
2015	6.98	8.75	0.40	-	13.46	1.27	3.06	0.12	3.45	0.58	8.73	2.20	-	0.01	0.03	-	4.36
2016	6.71	9.09	0.38	-	14.25	3.68	3.57	0.24	3.82	0.75	8.85	2.02	-	0.01	0.02	-	5.56
2017	6.93	8.93	0.42	-	11.48	3.97	4.36	0.19	4.39	0.87	10.00	1.91	-	0.01	0.02	-	3.32
2018	6.98	8.50	0.38	-	12.78	3.72	2.25	0.08	4.06	1.02	9.20	2.54	-	0.00	0.01	-	4.59

Table 6.5.18 Annual mean values of each parameters from 2002 to 2018 at Vajiralongkorn Dam (Ban Pong Chang) (Thailand)

	Mandatory Parameters : 4 times/year												Mandatory Parameters : Once/year				
	pH	EC	Alkalinity	Gran's ANC	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	(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	0.63	-	1.15	0.04	0.89	*1	1.14	1.01	13.3	2.98	5.3	0.02	*1	-	4.00
2003	7.45	10.8	0.63	-	1.29	0.01	0.84	*1	1.14	0.97	16.2	3.52	5.0	*1	*1	-	5.75
2004	7.77	11.5	1.05	-	1.27	0.20	0.98	0.05	1.18	0.97	15.7	3.26	5.6	0.02	0.010	-	7.50
2005	7.33	11.2	1.28	-	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	1.13	-	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	1.09	-	1.17	0.20	0.75	0.01	1.21	0.96	16.5	3.26	5.1	0.01	0.010	-	5.15
2008	7.71	10.6	1.18	-	1.11	0.05	0.75	<0.01*1	1.16	0.97	16.3	3.23	4.4	<0.01*1	0.010	-	6.75
2009	7.79	10.8	1.11	-	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	1.18	-	1.55	0.06	0.83	0.01	1.24	1.01	16.6	3.62	3.6	0.01	0.010	-	4.70
2011	7.38	12.8	1.18	-	1.43	0.07	0.82	0.01	1.22	1.04	17.9	3.70	3.0	0.01	<0.01*1	-	5.73
2012	7.32	11.8	1.15	-	1.22	0.19	0.94	0.03	1.21	1.12	16.8	3.53	3.2	0.01	-	-	8.45
2013	7.67	13.5	1.19	-	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	1.14	-	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	1.07	-	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	1.12	-	1.28	0.10	1.06	0.01	1.47	0.96	17.2	3.61	2.7	0.02	-	-	40.0
2017	7.07	11.9	1.19	-	1.57	0.09	1.15	0.01	1.44	1.06	17.9	3.45	2.9	0.02	-	-	-
2018	7.88	12.4	1.13	-	1.11	0.10	0.95	0.01	1.23	1.04	17.2	3.16	3.0	0.01	-	-	-

- : Items were not analyzed.
*1: Less than determination/detection limit.

Table 6.5.19 Annual mean values of each parameters from 2002 to 2018 at Vajiralongkorn Dam (Ban Pang Pueng) (Thailand)

	Mandatory Parameters : 4 times/year												Mandatory Parameters : Once/year				
	pH	EC	Alkalinity	Gran's ANC	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	(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	0.63	-	1.24	0.06	0.90	*1	1.19	0.99	13.3	2.90	5.5	0.03	*1	-	3.00
2003	7.87	10.5	0.59	-	1.41	0.01	0.84	*1	1.17	0.98	16.2	2.94	5.8	*1	*1	-	7.33
2004	7.24	11.1	1.01	-	1.54	0.20	0.95	0.05	1.21	1.03	16.0	2.83	8.1	0.02	0.01	-	5.00
2005	6.98	11.2	1.02	-	1.29	0.11	1.15	0.03	1.52	1.02	16.2	2.98	4.4	0.14	0.01	-	*1
2006	7.12	10.0	1.05	-	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	1.05	-	1.25	0.20	0.70	0.01	1.13	0.98	16.8	2.98	5.3	0.01	0.01	-	4.00
2008	7.78	9.88	1.10	-	1.49	<0.06*1	0.75	<0.01*1	1.17	1.00	15.7	2.49	4.4	<0.01*1	0.01	-	4.70
2009	7.93	10.3	1.07	-	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	1.11	-	1.61	0.06	0.76	0.01	1.16	0.99	16.4	2.86	4.1	0.01	0.01	-	7.05
2011	7.41	11.8	1.10	-	1.51	0.07	0.79	0.02	1.18	0.98	16.9	2.92	3.5	0.01	<0.01*1	-	8.40
2012	7.30	9.41	1.05	-	1.85	0.08	0.86	0.03	1.17	1.08	16.3	2.80	3.8	0.01	-	-	6.90
2013	7.90	11.1	1.09	-	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	1.09	-	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	1.08	-	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	1.12	-	1.55	0.11	1.09	0.01	1.51	0.92	17.8	3.15	2.9	0.02	-	-	40.0
2017	7.17	11.8	1.20	-	1.61	0.10	0.98	0.02	1.37	1.04	18.7	2.98	3.6	0.02	-	-	-
2018	7.99	11.4	1.11	-	1.29	0.10	0.89	0.01	1.21	1.03	16.9	2.69	3.8	0.01	-	-	-

- : Items were not analyzed.
*1: Less than determination/detection limit.

Table 6.5.20 Annual mean values of each parameters from 2001 to 2018 at Hoa Binh Reservoir (Vietnam)

	Mandatory Parameters : 4 times/year												Mandatory Parameters : Once/year				
	pH	EC	Alkalinity	Gran's ANC	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	(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	1.58	-	5.44	0.59	1.16	0.15	1.97	1.22	21.8	6.12	-	-	-	-	-
2002	7.88	17.1	1.61	-	3.90	0.46	1.35	0.21	1.70	1.16	22.5	5.49	-	-	-	-	-
2003	7.29	18.4	1.60	-	6.13	0.63	1.33	0.08	2.14	1.36	24.5	4.78	-	-	-	-	-
2004	6.55	19.3	1.68	-	4.51	1.16	1.38	0.17	2.45	1.11	27.2	4.11	-	-	-	-	-
2005	7.58	19.0	1.61	-	5.62	1.04	1.62	0.16	4.40	1.31	23.1	4.77	-	-	-	-	-
2006	7.22	19.1	1.61	-	7.71	0.87	1.41	0.12	3.62	1.46	25.2	4.87	0.7	0.01	0.01	-	2.20
2007	7.62	19.1	1.61	-	8.14	1.44	1.54	0.11	3.53	1.48	24.9	4.64	0.9	0.02	0.02	-	1.92
2008	7.73	18.3	1.53	-	7.36	1.04	1.65	0.04	2.33	0.91	22.9	5.01	1.5	0.02	0.03	-	2.23
2009	7.98	16.7	1.39	-	6.55	0.67	2.05	0.02	3.10	0.84	20.8	4.49	1.1	0.02	0.01	-	1.43
2010	7.80	17.7	1.42	-	7.26	1.66	2.07	0.11	4.20	1.56	23.3	2.94	1.0	0.01	0.01	-	0.93
2011	7.43	18.5	1.54	-	7.36	1.59	2.26	0.07	3.51	1.26	23.2	4.55	1.1	0.01	0.01	-	3.38
2012	7.10	17.7	1.52	-	4.67	1.52	2.13	0.12	3.59	1.39	23.1	4.25	1.0	0.01	0.02	-	4.33
2013	7.54	17.2	1.44	-	6.92	1.04	2.41	0.14	4.96	1.58	20.0	5.31	1.1	0.01	0.01	-	3.65
2014	7.65	17.2	1.50	-	5.13	0.80	1.64	0.02	3.05	1.31	22.3	4.50	1.1	0.02	0.01	-	3.50
2015	7.60	17.9	1.43	-	7.01	1.47	0.95	0.02	2.93	1.06	24.4	3.65	1.2	0.04	0.01	-	3.45
2016	7.39	18.8	1.55	-	6.70	1.61	1.24	0.00	3.01	1.24	21.8	6.28	1.2	0.04	0.06	-	3.95
2017	7.29	15.9	1.33	-	5.09	1.43	1.04	0.01	2.15	1.09	20.5	4.21	1.0	0.04	0.01	-	4.15
2018	7.81	16.3	1.32	-	4.54	2.13	4.15	0.16	5.82	1.60	18.3	4.56	1.0	0.08	0.01	-	3.93

- : 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. $\mu mol_c\ L^{-1}$ or $mmol_c\ L^{-1}$)
- Ion flux (deposition, discharge or soil/vegetation flux): $mol_c\ ha^{-1}$ or $mol_c\ m^{-2}$
- Elemental flux for N and S: $kg\ ha^{-1}\ y^{-1}$ or $g\ m^{-2}\ y^{-1}$

Based on the compiled data with the standard units on a water-year basis, initial evaluations should be done for the following items:

- Water balance on a catchment-scale: input, output and possible evapotranspiration
- Material/elemental balance on a catchment-scale: input-output budget

Dataset should be submitted to 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 2017-2018, 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.

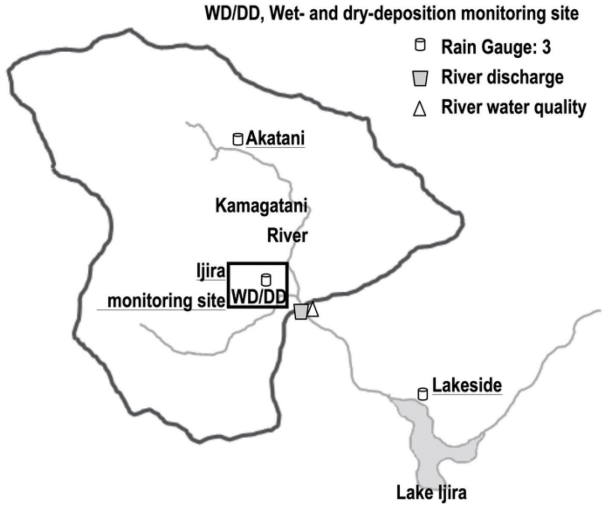


Figure 7.1 Sampling design at the Lake Ijira catchment site

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 2018

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.	2017-2018[*3]
	Output (chemical discharge from the stream)	1. Water discharge 2. Stream water chemistry: biweekly 3. Chemical discharge	2017-2018[*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 2017 and 2018; [*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 2016 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]
		2017-2018
Input by precipitation, mm y^{-1}	Akatani (260 m)	3774
	Ijira monitoring site (140 m)	3588
	Lakeside (110 m)	3427
	Mean	3596
Output by the stream, mm y^{-1}	Outlet of Kamagatani River	2818
Runoff rate, %		78

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 2017-2018)

Collection date	pH	EC	alkalinity pH4.8	Gran's ANC	SO_4^{2-}	NO_3^-	Cl^-	Na^+	Ca^{2+}	Mg^{2+}	K^+	NH_4^{+*1}	H^+	Al	TOC	SiO_2	Water level, m
		$mS\ m^{-1}$					$\mu mol_c\ L^{-1}$							$mg\ L^{-1}$	$mg\text{-}C\ L^{-1}$	$mg\text{-}SiO_2\ L^{-1}$	
2017/11/15	6.97	3.93	138	115	132	17.4	56.8	89.7	136	120	6.8	<3.0	0.11	<0.02	0.31	8.7	0.18
2017/11/30	6.98	4.16	130	110	151	17.9	55.7	93.3	146	127	6.3	<3.0	0.10	<0.02	0.2	8.4	0.18
2017/12/15	6.94	4.30	134	138	163	16.9	56.4	98.0	157	137	6.4	<3.0	0.11	<0.02	0.4	8.1	0.17
2017/12/25	6.98	4.25	122	102	149	37.2	57.1	88.8	161	137	6.5	<3.0	0.10	<0.02	0.7	7.3	0.21
2018/1/15	6.93	4.14	134	104	152	18.5	55.1	80.1	135	116	4.9	<3.0	0.12	<0.02	0.5	7.8	0.20
2018/1/31	6.95	4.16	136	123	155	18.7	57.6	71.3	119	103	4.3	<3.0	0.11	<0.02	0.3	7.6	0.19
2018/2/15	6.99	4.30	130	118	159	20.4	57.5	89.5	140	131	5.6	<3.0	0.10	<0.02	0.3	7.7	0.19
2018/2/27	7.06	4.37	144	129	154	16.7	52.6	80.7	127	118	4.8	<3.0	0.09	<0.02	0.3	7.7	0.17
2018/3/15	7.15	4.00	134	116	134	19.7	56.9	78.5	121	105	5.5	<3.0	0.07	<0.02	0.3	8.7	0.22
2018/3/27	7.13	4.08	136	126	138	19.2	55.9	86.8	136	119	6.0	<3.0	0.07	<0.02	0.3	8.7	0.21
2018/4/16	7.03	4.00	132	113	127	27.1	56.2	80.7	131	114	5.9	<3.0	0.09	<0.02	0.3	8.3	0.27
2018/4/27	6.97	3.44	110	102	102	21.3	55.8	74.3	110	95	6.0	<3.0	0.11	<0.02	0.3	8.7	0.28
2018/5/15	7.06	3.58	128	111	110	19.4	53.7	78.7	117	102	6.4	<3.0	0.09	<0.02	0.3	8.5	0.26
2018/5/29	7.08	4.10	146	134	131	18.5	55.6	88.6	137	118	6.8	<3.0	0.08	<0.02	0.3	9.4	0.19
2018/6/15	6.86	4.34	174	157	149	21.7	54.2	94.6	152	131	7.2	<3.0	0.14	<0.02	0.3	9.6	0.18
2018/6/29	6.92	3.85	150	135	128	24.9	49.9	83.0	139	116	7.3	<3.0	0.12	<0.02	0.5	8.7	0.24
2018/7/13	6.89	3.12	118	90	95	17.4	55.4	76	103	90	6.6	<3.0	0.13	<0.02	0.3	9.2	0.36
2018/7/31	6.88	4.10	156	138	134	23.3	56.4	93.3	140	119	8.4	<3.0	0.13	<0.02	0.3	9.2	0.22
2018/8/13	6.88	4.32	142	127	125	64.1	54.1	91.7	151	126	9.3	<3.0	0.13	<0.02	0.5	8.9	0.25
2018/8/31	6.77	3.96	152	136	123	24.3	54.7	85.9	134	113	7.7	<3.0	0.17	<0.02	0.6	9.4	0.24
2018/9/14	6.87	3.43	130	113	101	20.2	55.7	78.2	115	97	7.1	<3.0	0.13	<0.02	0.4	8.9	0.32
2018/9/28	6.77	3.65	138	125	111	22.3	54.4	81.2	122	104	6.8	<3.0	0.17	<0.02	0.5	8.9	0.29
2018/10/15	6.78	3.78	138	125	119	22.0	55.7	84.8	124	107	6.9	<3.0	0.17	<0.02	0.3	8.9	0.25
2018/10/30	6.74	4.04	136	126	136	28.6	56.6	87.4	136	116	6.7	<3.0	0.18	<0.02	0.3	8.9	0.23

Note. The water year was difined as the period from November to October in the following year. *1, 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 2017-2018)

Start date	End date	pH4.8	Gran's ANC	SO_4^{2-}	NO_3^-	Cl^-	Na^+	Ca^{2+}	Mg^{2+}	K^+	NH_4^+	H^+	Al	TOC	SiO_2	Periodic discharge,
							$kmol_c\ ha^{-1}$						$mg\ L^{-1}$	$kg\text{-}C\ ha^{-1}$	$kg\text{-}SiO_2\ ha^{-1}$	mm
2017/10/31	2017/11/15	0.07	0.05	0.05	0.01	0.02	0.04	0.06	0.05	0.003	ND	5.67E-05	ND	0.16	4.46	52
2017/11/15	2017/11/30	0.05	0.04	0.05	0.01	0.02	0.03	0.05	0.04	0.002	ND	3.67E-05	ND	0.09	3.00	35
2017/11/30	2017/12/15	0.04	0.04	0.05	0.01	0.02	0.03	0.05	0.04	0.002	ND	3.13E-05	ND	0.10	2.47	30
2017/12/15	2017/12/25	0.02	0.02	0.03	0.01	0.01	0.02	0.03	0.03	0.001	ND	1.97E-05	ND	0.10	1.45	19
2017/12/25	2018/1/15	0.08	0.06	0.09	0.02	0.03	0.05	0.09	0.08	0.003	ND	6.58E-05	ND	0.36	4.53	60
2018/1/15	2018/1/31	0.06	0.05	0.07	0.01	0.03	0.04	0.06	0.05	0.002	ND	5.45E-05	ND	0.19	3.66	47
2018/1/31	2018/2/15	0.05	0.05	0.06	0.01	0.02	0.03	0.05	0.05	0.002	ND	4.11E-05	ND	0.13	3.00	39
2018/2/15	2018/2/27	0.03	0.03	0.04	0.00	0.01	0.02	0.03	0.03	0.001	ND	2.30E-05	ND	0.08	1.87	24
2018/2/27	2018/3/15	0.13	0.12	0.14	0.02	0.05	0.08	0.12	0.11	0.005	ND	7.72E-05	ND	0.26	7.93	96
2018/3/15	2018/3/27	0.07	0.07	0.07	0.01	0.03	0.04	0.07	0.06	0.003	ND	3.76E-05	ND	0.14	4.68	54
2018/3/27	2018/4/16	0.12	0.11	0.12	0.02	0.05	0.07	0.12	0.10	0.005	ND	7.12E-05	ND	0.24	7.56	89
2018/4/16	2018/4/27	0.14	0.12	0.13	0.03	0.06	0.09	0.14	0.12	0.007	ND	1.15E-04	ND	0.35	9.77	115
2018/4/27	2018/5/15	0.19	0.17	0.17	0.03	0.09	0.12	0.18	0.16	0.010	ND	1.57E-04	ND	0.48	13.5	157
2018/5/15	2018/5/29	0.07	0.06	0.06	0.01	0.03	0.04	0.06	0.05	0.003	ND	4.20E-05	ND	0.13	4.41	49
2018/5/29	2018/6/15	0.07	0.06	0.06	0.01	0.02	0.04	0.06	0.05	0.003	ND	4.58E-05	ND	0.12	3.9	42
2018/6/15	2018/6/29	0.11	0.10	0.09	0.02	0.04	0.06	0.10	0.08	0.005	ND	8.81E-05	ND	0.28	6.20	68
2018/6/29	2018/7/13	0.83	0.70	0.69	0.13	0.33	0.49	0.75	0.64	0.043	ND	7.75E-04	ND	2.51	55.3	620
2018/7/13	2018/7/31	0.23	0.19	0.19	0.03	0.09	0.14	0.21	0.18	0.013	ND	2.20E-04	ND	0.53	15.5	170
2018/7/31	2018/8/13	0.09	0.08	0.08	0.03	0.03	0.06	0.09	0.07	0.005	ND	7.77E-05	ND	0.24	5.4	60
2018/8/13	2018/8/31	0.20	0.18	0.17	0.06	0.08	0.12	0.20	0.17	0.012	ND	2.08E-04	ND	0.74	12.70	139
2018/8/31	2018/9/14	0.46	0.41	0.37	0.07	0.18	0.27	0.41	0.34	0.024	ND	4.90E-04	ND	1.55	29.9	327
2018/9/14	2018/9/28	0.28	0.25	0.22	0.04	0.12	0.17	0.25	0.21	0.015	ND	3.16E-04	ND	0.90	18.82	211
2018/9/28	2018/10/15	0.32	0.29	0.27	0.05	0.13	0.19	0.29	0.25	0.016	ND	3.96E-04	ND	0.84	20.8	233
2018/10/15	2018/10/30	0.12	0.11	0.11	0.02	0.05	0.07	0.11	0.09	0.006	ND	1.49E-04	ND	0.22	7.58	85

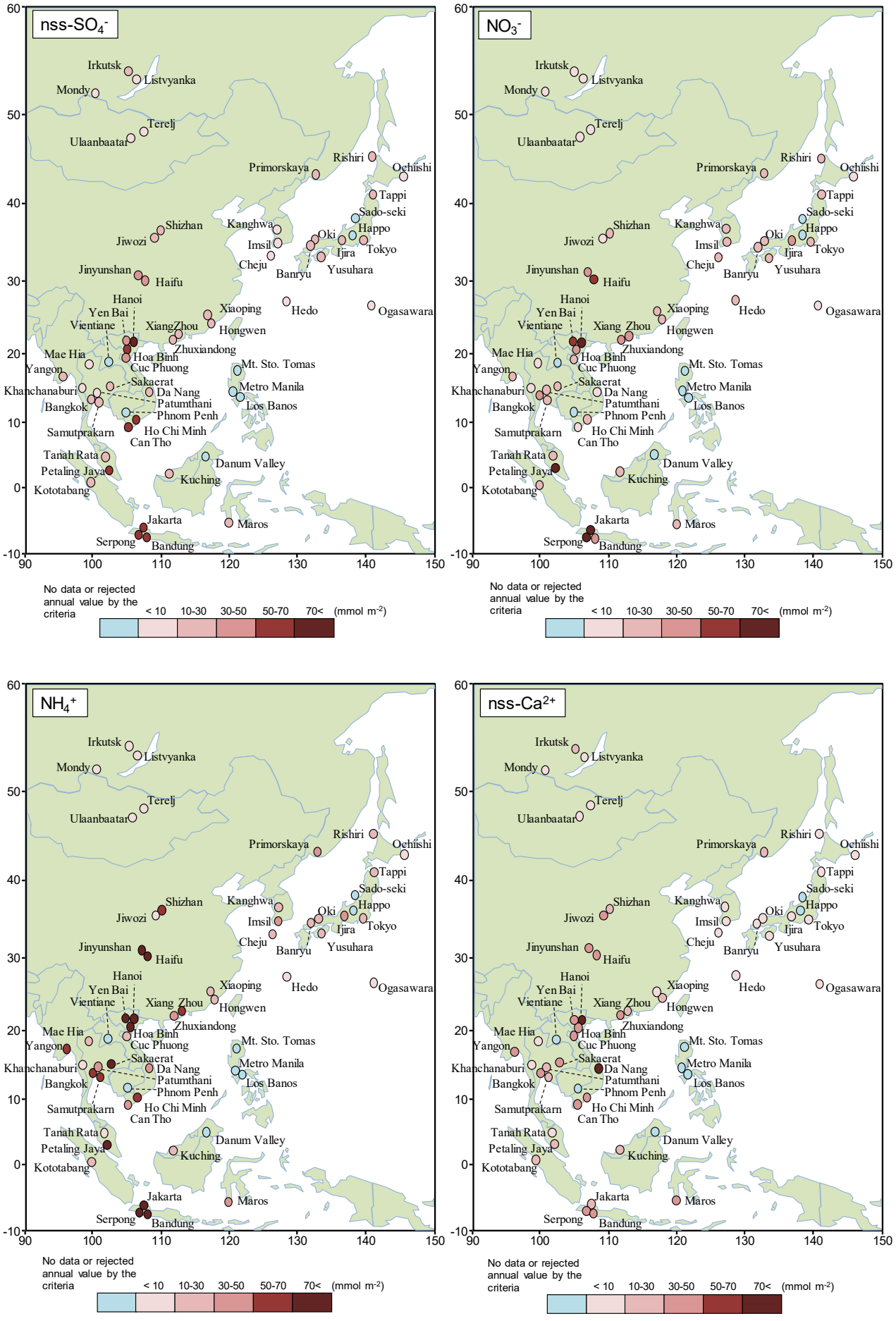
Note. Periodic chemical discharges were calculated based on the mean concentrations and the water discharge for the respective sampling intervals.

Table 7.9 Annual chemical discharges from the stream: Lake Ijira Catchment (Water year 2017-2018)

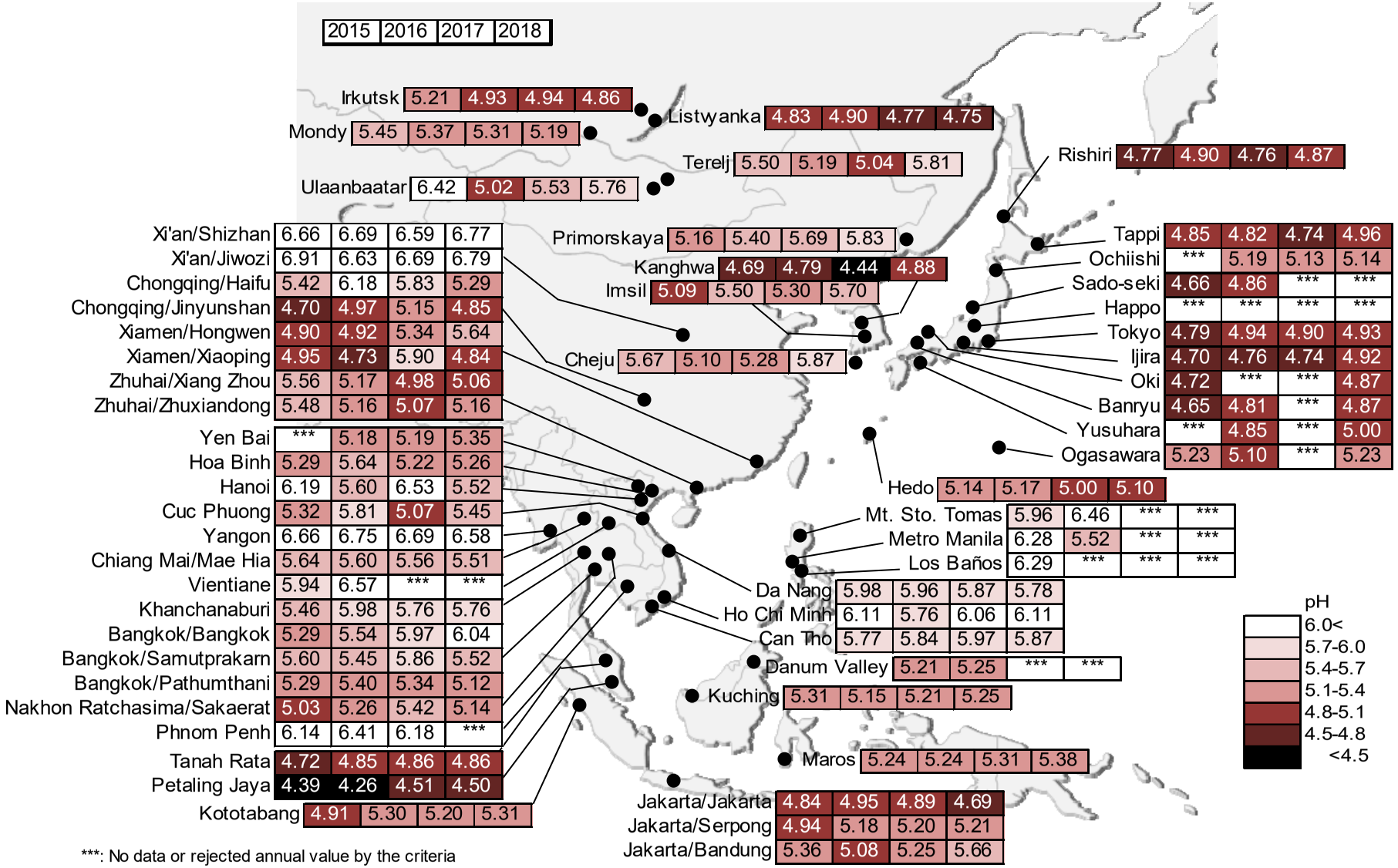
Water year	pH4.8	alkalinity Gran's ANC	SO_4^{2-}	NO_3^-	Cl^-	Na^+	Ca^{2+}	Mg^{2+}	K^+	NH_4^+	H^+	Al	TOC	SiO_2
						$kmol_c\ ha^{-1}$						$mg\ L^{-1}$	$kg\text{-}C\ ha^{-1}$	$kg\text{-}SiO_2\ ha^{-1}$
2017 - 2018	3.8	3.4	3.4	0.7	1.5	2.3	3.6	3.1	0.2	ND	0.000	ND	10.7	248

Appendix 1

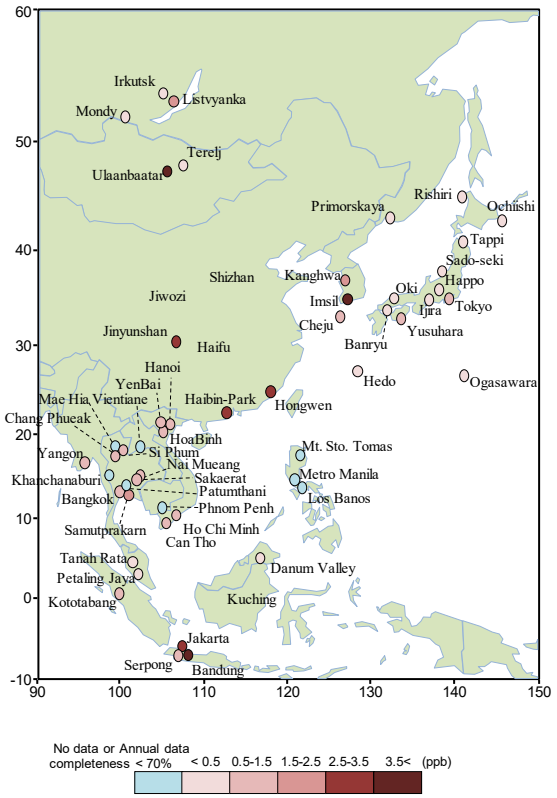
Overview of Data Report 2018



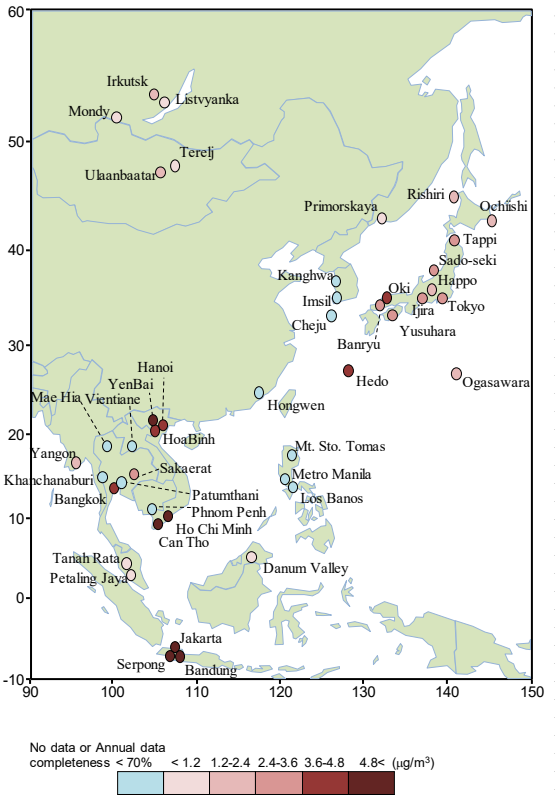
Appendix Fig. 1-1 Annual wet deposition levels of nss-SO_4^{2-}, NO_3^-, NH_4^+ and nss-Ca^{2+} in 2018



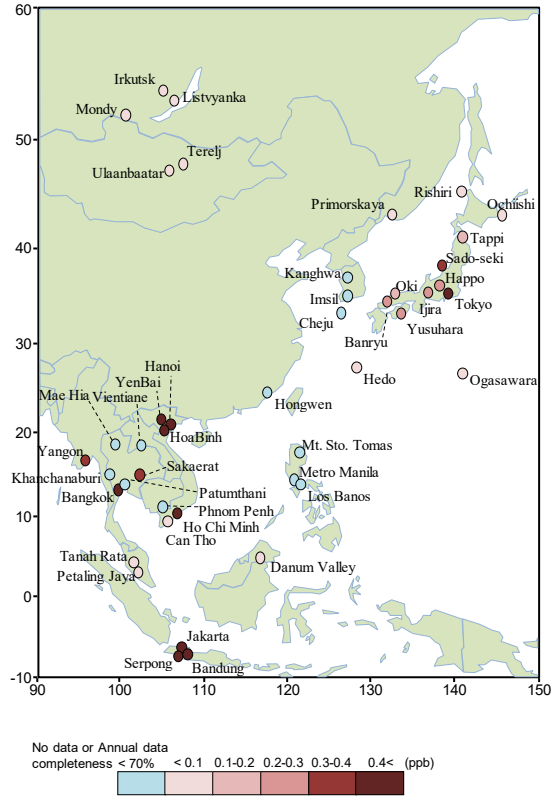
Appendix Fig. 1-2 Trends of pH in each EANET site from 2015 to 2018



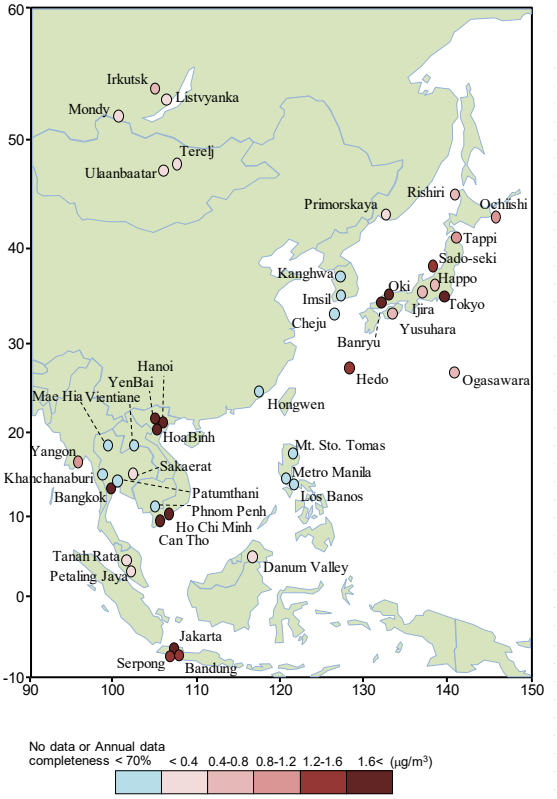
Appendix Fig. 1-3 Levels of annual SO_2 concentrations at EANET monitoring sites in 2018.



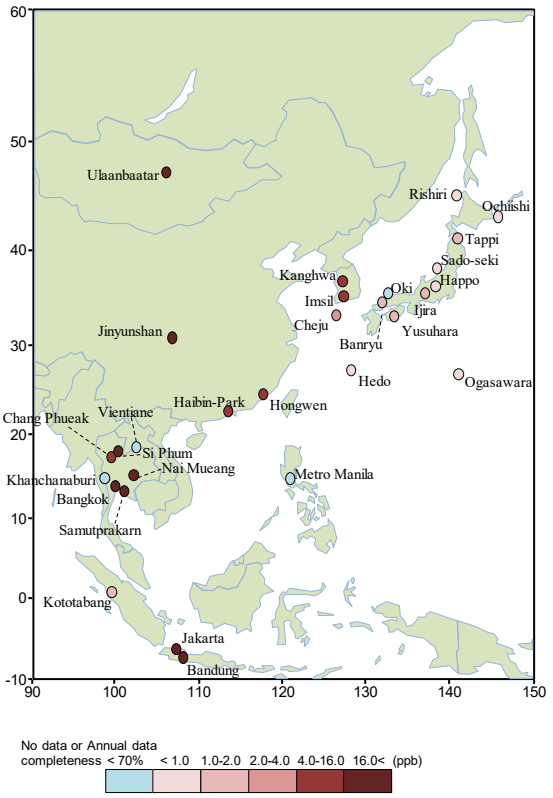
Appendix Fig. 1-4 Levels of annual particulate SO_4^{2-} concentrations at EANET monitoring sites in 2018.



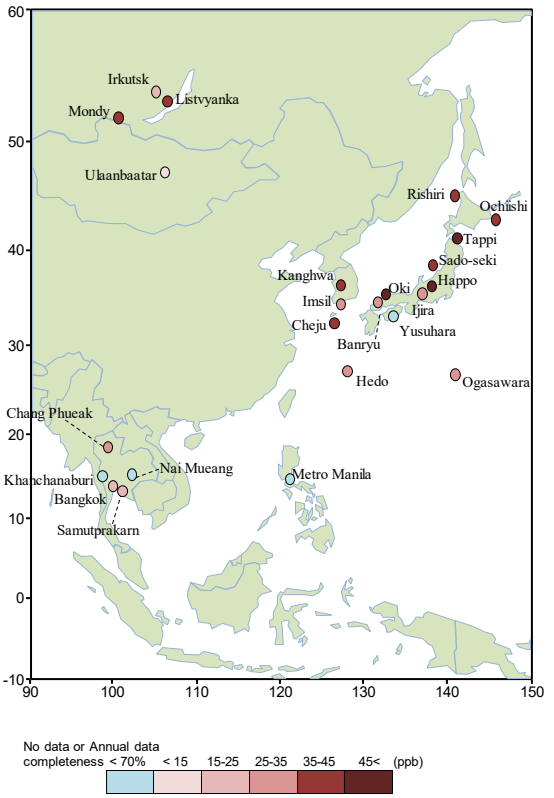
Appendix Fig. 1-5 Levels of annual HNO_3 concentrations at EANET monitoring sites in 2018.



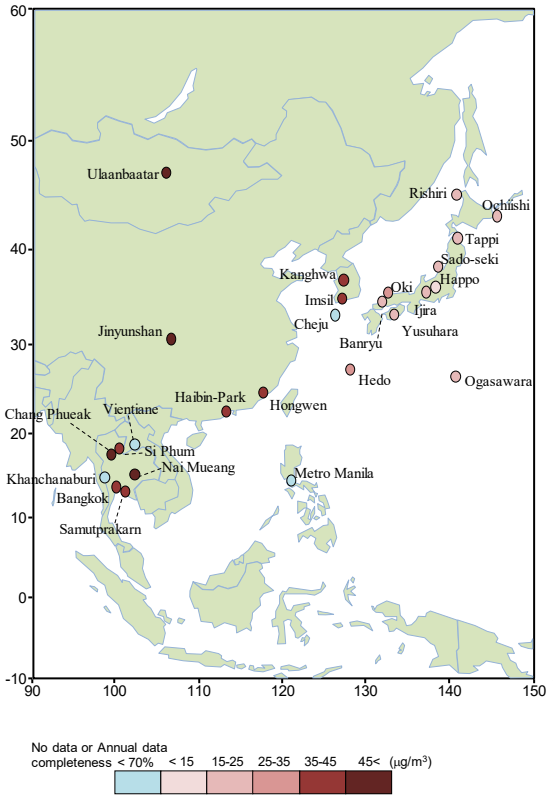
Appendix Fig. 1-6 Levels of annual particulate NO_3^- concentrations at EANET monitoring sites in 2018.



Appendix Fig. 1-7 Levels of annual NOx or NO_2 concentrations at EANET monitoring sites in 2018.

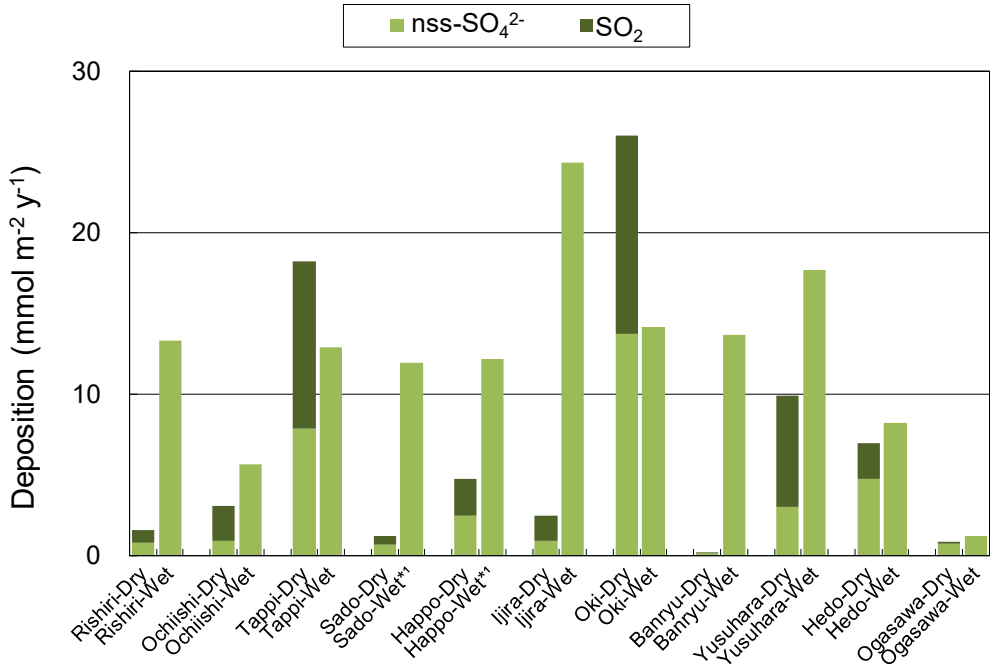


Appendix Fig. 1-8 Levels of annual O_3 concentrations at EANET monitoring sites in 2018.

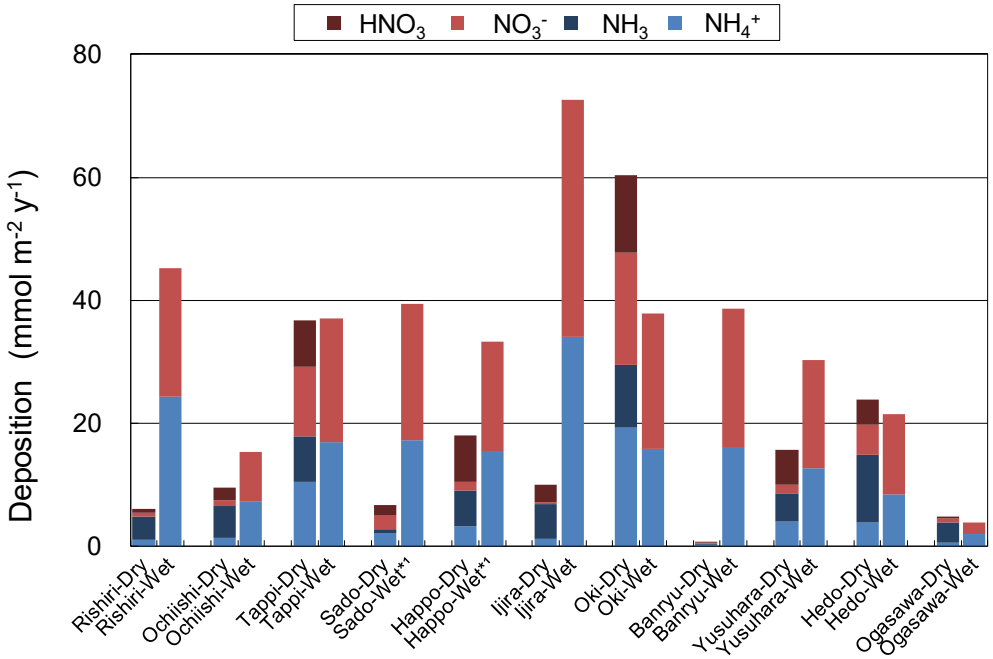


Appendix Fig. 1-9 Levels of annual PM_{10} concentrations at EANET monitoring sites in 2018.

Appendix Fig. 1-10 Levels of annual $PM_{2.5}$ concentrations at EANET monitoring sites in 2018.



Appendix Fig. 1-11 Annual dry and wet deposition amount of sulfur compounds at EANET sites in 2018.



Appendix Fig. 1-12 Annual dry and wet deposition amount of nitrogen compounds at EANET sites in 2018.

*1 The data completeness of wet deposition monitoring was less than 80% (EANET criteria).

Appendix 2

Meteorological Statistics at the Monitoring Sites

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

2018

Month / Items		1	2	3	4	5	6	7	8	9	10	11	12
Tempera-ture (ºC)	monthly mean	-0.9	4.5	13.2	17.8	21.8	26.6	28.4	29.1	20.7	15.3	7.9	1.7
	max.daily mean	9.9	22.6	30.4	35.0	35.3	38.2	40.1	37.9	34.1	25.5	23.6	14.5
	min.daily mean	-9.8	-7.3	0.8	2.8	11.5	14.3	20.1	19.2	11.9	4.3	-1.8	-7.4
Relative humidity (%)	monthly mean	65	46	57	56	58	54	70	62	68	54	70	45
	max.daily mean	--	--	--	--	--	--	--	--	--	--	--	--
	min.daily mean	22	13	14	7	11	8	27	32	20	9	18	17
Mean wind speed (m/s)		2.3	1.9	2.6	2.5	2.5	2.3	2.4	2.7	2.3	2.1	1.7	2.1
Most frequent wind direction (bearings)		NE	NNE	NE	NE	NE	NE	NE	NE	NE	NNE	NNE	NNE
Precipitation amount (mm/month)		22	4	21	36	26	51	114	72	74	2	29	3
Sunshine duration (hours/month)		92	186	197	197	186	203	185	284	148	202	118	90
Solar radiation (MJ/m^2/month)		--	--	--	--	--	--	--	--	--	--	--	--

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

2018

Month / Items		1	2	3	4	5	6	7	8	9	10	11	12
Tempera-ture (ºC)	monthly mean	15.5	15.3	20.2	22.7	27.9	28.3	28.7	28.3	27.9	24.9	22.3	17.8
	max.daily mean	18.3	18.4	23.3	26.1	31.0	31.1	31.4	31.2	30.8	27.5	24.7	20.4
	min.daily mean	13.4	13.2	18.0	20.7	25.7	26.2	26.6	26.5	25.6	22.8	20.5	15.9
Relative humidity (%)	monthly mean	76	69	80	82	80	82	83	85	78	68	78	76
	max.daily mean	--	--	--	--	--	--	--	--	--	--	--	--
	min.daily mean	20	28	34	32	50	44	54	44	43	23	27	29
Mean wind speed (m/s)		2.5	2.1	2.6	2.7	2.9	3.0	3.3	2.7	2.9	2.5	2.4	2.5
Most frequent wind direction (bearings)		ENE	NE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ENE	NNW
Precipitation amount (mm/month)		66	14	25	86	134	524	247	719	261	49	51	8
Sunshine duration (hours/month)		108	98	164	139	243	154	191	105	170	156	103	100
Solar radiation (MJ/m^2/month)		--	--	--	--	--	--	--	--	--	--	--	--

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

2018

Month / Items		1	2	3	4	5	6	7	8	9	10	11	12
Tempera-ture (ºC)	monthly mean	27.7	27.3	28.0	28.8	29.6	29.1	28.6	28.6	29.0	29.5	28.9	28.7
	max.daily mean	33.8	32.4	34.2	34.4	34.6	35.0	34.2	34.2	35.4	35.4	36.6	35.4
	min.daily mean	23.0	23.4	23.8	24.0	25.0	24.0	24.0	23.0	24.2	24.0	24.4	24.4
Relative humidity (%)	monthly mean	77	82	79	78	73	74	70	70	68	71	76	75
	max.daily mean	98	97	97	98	95	100	89	100	97	98	95	100
	min.daily mean	49	55	50	50	51	45	39	45	33	37	42	45
Mean wind speed (m/s)		3.9	3.0	2.8	2.3	2.4	2.3	2.2	2.3	2.5	2.5	2.3	3.2
Most frequent wind direction (bearings)		W	WNW	WNW	WNW	E	E	NW	E	E	WNW	W	W
Precipitation amount (mm/month)		48	393	227	180	17	5	69	131	55	103	133	395
Sunshine duration (hours/month)		95	104	129	150	155	137	161	166	197	199	102	102
Solar radiation (MJ/m^2/month)		--	--	--	--	--	--	--	--	--	--	--	--

Appendix Table 2-4 Meteorological statistics at the monitoring site
Site : Serpong, Indonesia

2018

Month / Items		1	2	3	4	5	6	7	8	9	10	11	12
Tempera-ture (ºC)	monthly mean	27.4	26.1	27.1	26.6	27.3	26.5	27.1	28.1	27.7	28.7	27.1	27.1
	max.daily mean	34.4	35.0	35.6	36.0	35.9	35.7	34.7	35.2	36.7	37.7	37.6	37.6
	min.daily mean	23.2	20.7	22.9	23.4	22.7	21.8	19.6	22.4	21.6	22.3	22.8	22.8
Relative humidity (%)	monthly mean	83	88	86	86	83	85	76	75	75	74	85	85
	max.daily mean	98	99	99	98	97	98	96	96	97	95	97	97
	min.daily mean	56	47	47	40	46	49	35	45	27	29	42	42
Mean wind speed (m/s)		0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1
Most frequent wind direction (bearings)		WSW	WSW	W	W	W	W	WSW	W	ENE	E	WSW	WSW
Precipitation amount (mm/month)		--	--	--	--	--	--	--	--	--	--	--	--
Sunshine duration (hours/month)		--	--	--	--	--	--	--	--	--	--	--	--
Solar radiation (MJ/m^2/month)		--	--	--	--	--	--	--	--	--	--	--	--

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

2018

Month / Items		1	2	3	4	5	6	7	8	9	10	11	12
Tempera-ture (ºC)	monthly mean	21.5	21.8	22.2	22.5	22.7	22.1	21.4	21.5	21.6	22.0	22.1	22.3
	max.daily mean	27.0	27.2	27.5	27.4	27.8	27.4	26.9	26.9	26.7	26.8	26.3	27.0
	min.daily mean	18.1	18.9	19.2	19.6	19.6	18.9	18.0	17.3	18.1	18.8	19.0	18.7
Relative humidity (%)	monthly mean	76	78	80	85	80	84	86	83	86	87	87	84
	max.daily mean	98	98	98	98	98	97	98	98	98	98	97	97
	min.daily mean	43	31	44	49	53	46	47	51	52	54	53	40
Mean wind speed (m/s)		0.9	1.6	3.6	1.1	1.1	1.1	1.2	1.1	0.9	0.9	0.9	0.9
Most frequent wind direction (bearings)		N	SE	SE	N	SE	N	N	N	N	N	N	N
Precipitation amount (mm/month)		95	224	186	280	296	168	122	179	156	531	388	330
Sunshine duration (hours/month)		69	149	136	11	139	128	137	184	11	87	84	113
Solar radiation (MJ/m^2/month)		--	--	--	--	--	--	--	--	--	--	--	--

Appendix Table 2-4 Meteorological statistics at the monitoring site
Site : Bandung, Indonesia

2018

Month / Items		1	2	3	4	5	6	7	8	9	10	11	12
Tempera-ture (ºC)	monthly mean	23.3	23.6	23.8	23.8	24.2	24.1	23.4	23.5	24.1	24.2	23.5	23.5
	max.daily mean	30.1	30.1	32.8	31.7	32.5	31.9	32.7	31.6	31.7	32.1	32.9	30.2
	min.daily mean	19.7	19.3	19.3	18.3	17.9	17.9	16.4	16.4	17.1	18.8	18.7	19.5
Relative humidity (%)	monthly mean	82	84	85	85	80	80	72	72	69	77	86	86
	max.daily mean	97	97	98	99	97	98	94	95	97	99	100	100
	min.daily mean	50	55	37	39	35	39	16	32	28	25	44	54
Mean wind speed (m/s)		3.0	2.9	1.9	1.9	1.7	2.0	--	--	1.1	1.1	1.9	2.0
Most frequent wind direction (bearings)		W	W	E	N	N	E	--	--	N	N	N	N
Precipitation amount (mm/month)		104	7	85	257	86	41	1	30	36	95	308	318
Sunshine duration (hours/month)		75	136	141	138	187	192	258	223	--	182	114	117
Solar radiation (MJ/m^2/month)		291	377	329	300	286	278	322	354	383	355	313	320

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

2018

Month / Items		1	2	3	4	5	6	7	8	9	10	11	12
Tempera-ture (ºC)	monthly mean	-3.8	-5.4	0.0	4.8	9.4	13.1	17.6	18.7	16.8	12.2	4.3	-2.5
	max.daily mean	2.0	1.1	7.0	10.8	14.8	18.6	25.3	21.0	22.1	16.8	13.4	9.9
	min.daily mean	-10.2	-8.7	-6.2	1.1	4.8	7.3	11.7	14.4	11.8	7.4	-3.9	-9.2
Relative humidity (%)	monthly mean	69	65	68	72	79	83	87	84	76	70	67	67
	max.daily mean	83	80	90	91	95	96	97	96	89	90	83	92
	min.daily mean	58	53	49	36	39	67	67	60	58	52	48	47
Mean wind speed (m/s)		3.6	3.8	3.3	2.6	2.0	2.0	1.8	2.1	2.4	3.0	3.0	3.7
Most frequent wind direction (bearings)		NNW	NW	NW	WNW	E	E	WNW	E	E	W	NNW	NW
Precipitation amount (mm/month)		77	30	76	29	105	111	151	106	38	259	60	92
Sunshine duration (hours/month)		--	--	--	--	--	--	--	--	--	--	--	--
Solar radiation (MJ/m^2/month)		116	181	376	439	486	409	492	453	445	308	151	80

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

2018

Month / Items		1	2	3	4	5	6	7	8	9	10	11	12
Tempera-ture (ºC)	monthly mean	-3.7	-5.5	-1.3	1.6	5.3	6.0	9.7	10.8	11.8	10.2	4.6	-1.9
	max.daily mean	1.7	-1.3	3.5	5.7	8.1	10.2	13.3	13.8	13.2	12.8	9.7	6.7
	min.daily mean	-7.7	-9.1	-5.7	-1.3	0.8	1.7	5.8	7.5	9.6	6.9	-2.8	-6.7
Relative humidity (%)	monthly mean	69	69	80	86	91	94	97	92	86	76	69	63
	max.daily mean	95	98	100	100	100	100	100	100	100	96	100	94
	min.daily mean	45	42	54	66	66	77	85	73	69	62	49	44
Mean wind speed (m/s)		7.5	8.1	8.7	7.9	6.8	6.8	4.8	5.9	6.2	6.4	7.2	8.4
Most frequent wind direction (bearings)		NW	WNW	WSW	WSW	SW	WSW	SW	ENE	SW	W	NW	WNW
Precipitation amount (mm/month)		7	1	18	34	45	138	216	106	48	176	29	27
Sunshine duration (hours/month)		--	--	--	--	--	--	--	--	--	--	--	--
Solar radiation (MJ/m^2/month)		234	325	437	519	523	502	423	418	364	320	236	211

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

2018

Month / Items		1	2	3	4	5	6	7	8	9	10	11	12
Tempera-ture (ºC)	monthly mean	-0.7	-1.8	3.9	7.7	11.7	15.3	20.1	21.0	19.1	14.7	8.7	1.7
	max.daily mean	4.2	4.1	12.5	16.9	16.6	20.7	23.5	25.1	23.4	18.9	14.6	11.8
	min.daily mean	-7.3	-6.8	-3.2	1.6	7.2	11.4	13.3	17.4	15.9	8.3	0.8	-4.5
Relative humidity (%)	monthly mean	87	87	87	88	95	96	100	99	92	84	82	88
	max.daily mean	96	99	99	100	100	100	100	100	99	99	96	98
	min.daily mean	74	75	62	63	73	74	98	93	74	71	74	78
Mean wind speed (m/s)		10.2	9.0	8.0	6.9	5.9	5.6	4.6	5.4	4.9	6.2	7.1	10.1
Most frequent wind direction (bearings)		W	W	W	W	E	E	E	E	E	W	W	W
Precipitation amount (mm/month)		34	74	82	94	234	143	226	329	121	165	54	92
Sunshine duration (hours/month)		--	--	--	--	--	--	--	--	--	--	--	--
Solar radiation (MJ/m^2/month)		91	145	330	402	516	482	403	459	414	303	159	83

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

2018

Month / Items		1	2	3	4	5	6	7	8	9	10	11	12
Tempera-ture (ºC)	monthly mean	1.6	1.4	7.3	--	--	--	--	--	--	--	--	--
	max.daily mean	7.0	7.1	15.2	--	--	--	--	--	--	--	--	--
	min.daily mean	-5.0	-2.8	1.2	--	--	--	--	--	--	--	--	--
Relative humidity (%)	monthly mean	73	70	61	--	--	--	--	--	--	--	--	--
	max.daily mean	93	95	90	--	--	--	--	--	--	--	--	--
	min.daily mean	53	51	35	--	--	--	--	--	--	--	--	--
Mean wind speed (m/s)		8.2	7.1	6.1	4.7	4.4	3.3	3.2	3.3	3.9	5.5	4.5	7.5
Most frequent wind direction (bearings)		W	W	WSW	WSW	WSW	WSW	WSW	WSW	ENE	W	WNW	W
Precipitation amount (mm/month)		79	46	80	131	102	93	116	261	284	150	73	66
Sunshine duration (hours/month)		--	--	--	--	--	--	--	--	--	--	--	--
Solar radiation (MJ/m^2/month)		95	188	356	432	524	539	662	521	352	307	193	93

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

2018

Month / Items		1	2	3	4	5	6	7	8	9	10	11	12
Tempera-ture (ºC)	monthly mean	-9.6	-9.8	-1.3	4.0	8.6	12.1	17.4	16.9	11.5	6.0	1.1	-5.0
	max.daily mean	-0.9	-3.1	5.3	14.1	15.8	16.2	20.6	20.6	14.5	14.3	7.0	4.8
	min.daily mean	-16.5	-14.6	-9.0	-8.2	-0.7	6.9	13.9	8.5	7.5	-2.0	-5.5	-13.7
Relative humidity (%)	monthly mean	85	77	64	67	68	84	90	90	94	89	82	80
	max.daily mean	97	94	97	98	98	99	99	99	99	96	96	94
	min.daily mean	52	46	26	18	31	51	65	69	75	59	34	34
Mean wind speed (m/s)		6.8	5.4	4.5	3.5	2.8	2.2	2.1	2.2	2.2	2.4	2.2	4.3
Most frequent wind direction (bearings)		NW	WNW	SSE	SSE	SSE	SSE	SE	SSE	SSE	SSE	SSE	NW
Precipitation amount (mm/month)		208	86	150	329	309	233	326	274	449	141	49	195
Sunshine duration (hours/month)		--	--	--	--	--	--	--	--	--	--	--	--
Solar radiation (MJ/m^2/month)		249	357	602	629	656	551	498	428	247	301	264	224

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

2018

Month / Items		1	2	3	4	5	6	7	8	9	10	11	12
Tempera-ture (ºC)	monthly mean	1.0	1.2	8.2	13.3	16.6	20.2	25.9	25.8	21.9	17.4	12.8	6.9
	max.daily mean	7.3	6.5	14.0	18.1	21.1	23.3	29.1	29.8	24.5	22.9	17.2	15.3
	min.daily mean	-3.9	-2.7	3.4	3.4	11.2	16.4	22.3	20.7	17.9	11.9	7.8	0.9
Relative humidity (%)	monthly mean	96	90	83	84	86	91	91	89	94	88	85	92
	max.daily mean	99	99	99	99	99	99	99	99	99	98	98	98
	min.daily mean	82	72	57	62	73	75	76	72	76	72	70	82
Mean wind speed (m/s)		0.3	0.5	0.6	0.6	0.5	0.5	0.5	0.6	0.4	0.5	0.5	0.4
Most frequent wind direction (bearings)		Calm	Calm	Calm	Calm	Calm	Calm	Calm	W	Calm	Calm	Calm	Calm
Precipitation amount (mm/month)		140	53	240	364	383	358	683	320	667	112	67	145
Sunshine duration (hours/month)		--	--	--	--	--	--	--	--	--	--	--	--
Solar radiation (MJ/m^2/month)		182	245	397	463	515	491	519	486	216	284	220	154

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

2018

Month / Items		1	2	3	4	5	6	7	8	9	10	11	12
Tempera-ture (ºC)	monthly mean	4.0	3.8	8.5	13.2	17.1	20.2	25.7	26.8	21.8	16.9	12.9	8.0
	max.daily mean	8.9	7.7	14.9	19.1	22.4	24.7	29.3	30.5	26.7	25.0	17.6	16.4
	min.daily mean	-2.8	-1.6	2.5	6.2	10.7	15.5	18.2	22.6	18.3	12.4	7.8	1.6
Relative humidity (%)	monthly mean	79	78	78	80	80	86	87	84	87	78	74	78
	max.daily mean	96	95	94	98	98	98	98	97	98	93	83	95
	min.daily mean	62	61	54	50	49	65	70	65	70	65	63	58
Mean wind speed (m/s)		6.6	5.9	7.2	5.9	6.0	4.6	4.2	5.2	5.3	5.5	5.1	6.2
Most frequent wind direction (bearings)		W	W	S	S	S	S	S	S	NNE	NNE	N	N
Precipitation amount (mm/month)		72	74	130	137	117	156	48	81	264	65	18	64
Sunshine duration (hours/month)		--	--	--	--	--	--	--	--	--	--	--	--
Solar radiation (MJ/m^2/month)		136	222	406	508	541	526	639	594	350	348	259	151

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

2018

Month / Items		1	2	3	4	5	6	7	8	9	10	11	12
Tempera-ture (ºC)	monthly mean	6.1	--	--	--	--	--	--	--	--	--	--	--
	max.daily mean	9.4	--	--	--	--	--	--	--	--	--	--	--
	min.daily mean	4.0	--	--	--	--	--	--	--	--	--	--	--
Relative humidity (%)	monthly mean	77	--	--	--	--	--	--	--	--	--	--	--
	max.daily mean	98	--	--	--	--	--	--	--	--	--	--	--
	min.daily mean	57	--	--	--	--	--	--	--	--	--	--	--
Mean wind speed (m/s)		3.0	2.8	3.2	2.6	2.4	2.1	2.0	2.1	2.0	2.3	2.3	2.6
Most frequent wind direction (bearings)		S	S	S	S	S	S	S	S	S	S	S	S
Precipitation amount (mm/month)		80	58	190	76	188	265	160	16	433	50	21	130
Sunshine duration (hours/month)		--	--	--	--	--	--	--	--	--	--	--	--
Solar radiation (MJ/m^2/month)		170	259	422	505	560	532	648	686	345	386	279	148

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

2018

Month / Items		1	2	3	4	5	6	7	8	9	10	11	12
Tempera-ture (ºC)	monthly mean	-0.4	0.0	8.0	12.5	15.5	18.4	22.7	22.9	19.3	13.5	9.2	4.6
	max.daily mean	8.2	6.5	13.6	17.6	20.5	22.7	26.2	25.8	21.7	19.9	13.8	15.4
	min.daily mean	-7.2	-7.3	1.4	1.6	9.1	15.5	19.9	19.7	15.3	7.9	2.8	-3.6
Relative humidity (%)	monthly mean	93	80	69	69	75	86	89	88	90	80	72	78
	max.daily mean	99	99	96	96	97	97	97	97	97	97	93	97
	min.daily mean	75	37	39	36	37	64	77	66	77	57	51	60
Mean wind speed (m/s)		2.3	2.2	1.7	1.6	1.3	1.1	1.2	1.1	1.3	1.7	1.7	2.1
Most frequent wind direction (bearings)		N	N	NNW	NNW	NNW	SSE	S	SSE	NNW	NNW	NNW	N
Precipitation amount (mm/month)		144	121	229	201	281	390	1096	432	798	174	54	95
Sunshine duration (hours/month)		--	--	--	--	--	--	--	--	--	--	--	--
Solar radiation (MJ/m^2/month)		260	312	481	584	563	469	471	538	355	399	335	210

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

2018

Month / Items		1	2	3	4	5	6	7	8	9	10	11	12
Tempera-ture (ºC)	monthly mean	16.1	15.9	18.9	20.5	24.3	26.2	27.5	27.6	27.1	23.1	21.8	19.1
	max.daily mean	19.8	20.3	22.3	24.2	26.6	28.1	28.3	29.1	28.0	25.0	22.8	23.6
	min.daily mean	11.1	11.2	14.7	14.4	19.7	22.6	25.5	25.7	25.5	20.3	19.3	14.3
Relative humidity (%)	monthly mean	71	70	73	77	84	90	92	97	97	85	83	85
	max.daily mean	92	88	93	96	96	98	97	99	99	99	99	99
	min.daily mean	53	53	54	56	55	75	86	91	93	63	64	55
Mean wind speed (m/s)		5.8	5.6	4.9	4.3	3.3	4.0	5.1	4.4	4.2	5.4	5.1	5.6
Most frequent wind direction (bearings)		NE	NNW	E	E	S	E	ENE	E	E	NNE	NE	N
Precipitation amount (mm/month)		0	--	7	1127	52	637	259	193	152	313	147	155
Sunshine duration (hours/month)		--	--	--	--	--	--	--	--	--	--	--	--
Solar radiation (MJ/m^2/month)		208	280	481	495	655	532	651	638	487	357	303	209

Appendix Table 2-15 Meteorological statistics at the monitoring site
Site : Ogasawara, Japan

2018

Month / Items		1	2	3	4	5	6	7	8	9	10	11	12
Tempera-ture (ºC)	monthly mean	16.1	15.7	17.9	20.2	22.7	25.4	25.5	26.2	25.9	25.1	21.5	19.4
	max.daily mean	20.6	18.7	21.6	24.3	25.2	26.4	26.2	27.3	27.1	27.0	23.2	23.0
	min.daily mean	12.5	11.7	15.3	17.1	19.5	23.5	24.5	25.4	24.0	21.4	18.6	15.1
Relative humidity (%)	monthly mean	83	85	86	83	92	92	92	91	89	89	85	79
	max.daily mean	96	96	97	97	97	97	98	96	92	95	95	94
	min.daily mean	68	74	67	66	79	87	85	86	80	79	70	64
Mean wind speed (m/s)		1.4	1.5	1.7	1.9	1.4	1.8	1.5	2.0	1.3	1.3	1.3	1.3
Most frequent wind direction (bearings)		WSW	SW	NE	NE	SSW	SSW	NE	NE	NE	SSW	SW	SW
Precipitation amount (mm/month)		62	46	139	40	111	138	178	27	57	96	64	9
Sunshine duration (hours/month)		--	--	--	--	--	--	--	--	--	--	--	--
Solar radiation (MJ/m^2/month)		271	300	417	581	535	553	590	557	582	499	373	335

Appendix Table 2-16 Meteorological statistics at the monitoring site
Site : Ulaanbaatar, Mongolia

2018

Month / Items		1	2	3	4	5	6	7	8	9	10	11	12
Tempera-ture (ºC)	monthly mean	-21.4	-16.9	-1.5	4.6	13.9	18.1	18.1	17.9	8.6	3.2	-8.7	-19.7
	max.daily mean	-15.1	-9.8	9.9	15.9	25.6	24.1	24.5	21.9	15.5	9.2	6.2	-7.0
	min.daily mean	-29.4	-22.8	-15.4	-7.0	1.8	8.3	12.1	13.6	0.5	-4.7	-17.5	-27.0
Relative humidity (%)	monthly mean	64	60	48	41	30	43	61	62	59	51	50	59
	max.daily mean	70	66	71	64	57	70	79	83	78	64	62	66
	min.daily mean	58	55	32	24	11	16	38	50	35	38	31	52
Mean wind speed (m/s)		1.6	1.9	2.0	2.5	2.1	2.0	1.9	2.0	2.3	2.1	1.8	1.7
Most frequent wind direction (bearings)		WSW	ESE	NE	NE	NE, ENE	NNE	NE	ENE	ENE	NNE	NE	E
Precipitation amount (mm/month)		0	0	0	7	1	54	239	92	89	1	0	0
Sunshine duration (hours/month)		--	--	--	--	--	--	--	--	--	--	--	--
Solar radiation (MJ/m^2/month)		--	--	--	--	--	--	--	--	--	--	--	--

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

2018

Month / Items		1	2	3	4	5	6	7	8	9	10	11	12
Temperature (ºC)	monthly mean	-20.7	-15.3	-6.1	1.6	7.5	14.2	14.2	14.1	6.4	1.0	-12.3	-19.8
	max.daily mean	-13.0	-7.1	4.2	9.7	16.4	22.9	21.4	21.7	14.6	9.8	-3.8	-11.6
	min.daily mean	-26.6	-22.3	-15.3	-6.4	-0.9	5.7	7.8	8.1	-0.6	-5.6	-19.0	-25.6
Relative humidity (%)	monthly mean	57	53	53	57	61	70	78	82	66	67	66	59
	max.daily mean	66	66	74	81	89	96	97	97	95	91	83	72
	min.daily mean	46	34	30	33	34	43	54	58	33	37	42	39
Mean wind speed (m/s)		2.3	2.8	2.4	2.8	3.3	2.1	2.1	1.8	2.1	2.2	2.2	2.0
Most frequent wind direction (bearings)		W	W	W	W	E	E	W	E	E, W	W	W	W
Precipitation amount (mm/month)		1	1	3	21	30	89	106	179	33	11	7	1
Sunshine duration (hours/month)		150	181	256	274	285	285	222	232	245	202	150	140
Solar radiation (MJ/m^2/month)		119	202	386	539	578	538	539	482	394	255	141	93

Appendix Table 2-18 Meteorological statistics at the monitoring site
Site : Listvyanka, Russia

2018

Month / Items		1	2	3	4	5	6	7	8	9	10	11	12
Temperature (ºC)	monthly mean	-18.1	-14.9	-7.2	1.0	5.9	12.4	13.3	15.4	8.7	4.3	-6.2	-15.6
	max.daily mean	-13.9	-10.5	-1.8	6.3	11.7	19.8	18.4	19.7	13.3	8.9	-0.8	-11.3
	min.daily mean	-21.3	-19.0	-11.6	-2.6	2.1	7.2	9.4	12.0	5.1	0.8	-10.2	-18.8
Relative humidity (%)	monthly mean	79	79	75	69	69	76	83	82	80	78	74	79
	max.daily mean	--	--	--	--	--	--	--	--	--	--	--	--
	min.daily mean	73	68	59	51	49	54	68	67	63	61	55	72
Mean wind speed (m/s)		4.6	3.3	3.4	3.2	3.2	2.3	2.2	2.5	3.8	3.7	4.3	5.4
Most frequent wind direction (bearings)		N	N	N	N	N, S	N	N	N	N	N	N	N
Precipitation amount (mm/month)		11	15	7	17	19	16	58	41	43	20	5	9
Sunshine duration (hours/month)		--	--	--	--	--	--	--	--	--	--	--	--
Solar radiation (MJ/m^2/month)		--	--	--	--	--	--	--	--	--	--	--	--

Appendix Table 2-19 Meteorological statistics at the monitoring site
Site : Irkutsk, Russia

2018

Month / Items		1	2	3	4	5	6	7	8	9	10	11	12
Tempera-ture (ºC)	monthly mean	-20.5	-15.4	-5.4	4.6	10.3	18.6	18.0	18.0	9.5	4.6	-8.4	-18.9
	max.daily mean	-16.1	-9.9	1.5	11.8	18.1	26.1	24.7	25.0	15.6	10.6	-3.2	-14.6
	min.daily mean	-24.1	-20	-10.8	-1.1	4.1	11.8	12.6	12.7	4.8	0.1	-12.6	-22.6
Relative humidity (%)	monthly mean	77	75	59	53	55	61	71	73	75	71	71	73
	max.daily mean	--	--	--	--	--	--	--	--	--	--	--	--
	min.daily mean	69	60	40	32	32	38	49	50	53	50	57	66
Mean wind speed (m/s)		1.5	1.5	2.3	2.3	2.4	1.7	1.9	1.7	1.9	2.0	1.7	1.5
Most frequent wind direction (bearings)		NW	NW	SE	SE	SE	WNW	WNW	SE	WNW	SE, WNW	NE, ENE	WNW NE
Precipitation amount (mm/month)		19	20	17	25	23	36	75	128	61	37	15	15
Sunshine duration (hours/month)		98	151	233	275	287	301	246	253	178	179	98	89
Solar radiation (MJ/m^2/month)		122	206	393	500	625	624	560	524	334	250	127	94

Appendix Table 2-20 Meteorological statistics at the monitoring site
Site : Primorskaya, Russia

2018

Month / Items		1	2	3	4	5	6	7	8	9	10	11	12
Tempera-ture (ºC)	monthly mean	-16.3	-13.7	-3.0	6.6	12.1	16.3	21.9	20.0	14.2	7.3	-2.0	-10.8
	max.daily mean	-9.1	-5.7	5.1	14.1	19.6	22.6	28.3	24.6	21.9	14.9	4.4	-4.5
	min.daily mean	-22.2	-21.2	-10.4	0.1	5.9	11.8	17.5	16.9	9.0	1.9	-6.8	-16.0
Relative humidity (%)	monthly mean	60	53	56	56	69	72	79	83	78	70	68	59
	max.daily mean	78	63	81	83	86	87	92	93	91	91	93	82
	min.daily mean	37	39	36	17	50	57	72	71	65	54	40	40
Mean wind speed (m/s)		1.3	1.4	1.4	1.3	1.0	0.8	0.7	0.5	0,9	1.0	1.0	1.2
Most frequent wind direction (bearings)		Calm, E	E	Calm, E	Calm	Calm, E	Calm	Calm	Calm	Calm, E	Calm, E	Calm, E	Calm, E
Precipitation amount (mm/month)		9	4	25	31	137	58	114	314	119	112	43	15
Sunshine duration (hours/month)		--	--	--	--	--	--	--	--	--	--	--	--
Solar radiation (MJ/m^2/month)		--	--	--	--	--	--	--	--	--	--	--	--

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

2018

Month / Items		1	2	3	4	5	6	7	8	9	10	11	12
Temperature (ºC)	monthly mean	27.0	27.2	29.1	28.9	28.8	29.2	28.4	28.0	28.0	28.1	28.5	28.2
	max.daily mean	29.0	29.1	30.6	31.8	31.2	30.5	29.8	29.6	29.8	29.6	30.0	30.6
	min.daily mean	22.2	24.2	25.1	24.0	26.6	26.6	26.1	25.3	26.1	26.1	26.0	25.4
Relative humidity (%)	monthly mean	67	67	70	73	79	73	76	79	84	81	67	64
	max.daily mean	91	82	81	98	90	93	94	95	97	96	85	90
	min.daily mean	51	49	57	53	68	62	65	61	73	45	46	53
Mean wind speed (m/s)		0.6	0.6	0.7	0.6	0.5	0.8	0.8	0.9	0.6	0.5	0.5	0.5
Most frequent wind direction (bearings)		NE	W	WSW	WSW	W	WNW	WNW	WNW	WNW	NE	NE	NE
Precipitation amount (mm/month)		70	27	64	311	224	177	153	242	402	213	20	82
Sunshine duration (hours/month)		--	--	--	--	--	--	--	--	--	--	--	--
Solar radiation (MJ/m^2/month)		--	--	--	--	--	--	--	--	--	--	--	--

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

2018

Month / Items		1	2	3	4	5	6	7	8	9	10	11	12
Temperature (ºC)	monthly mean	27.0	26.8	28.9	28.7	29.2	29.4	28.8	28.2	28.3	28.3	28.6	28.4
	max.daily mean	29.1	28.5	29.9	31.1	31.1	30.5	30.2	29.4	30.3	29.9	30.1	30.6
	min.daily mean	22.6	23.7	25.0	24.3	26.9	26.5	27.1	26.1	26.3	26.1	26.3	26.1
Relative humidity (%)	monthly mean	68	71	73	74	76	71	77	79	82	80	68	65
	max.daily mean	87	82	81	95	87	96	91	93	97	96	86	89
	min.daily mean	55	54	59	57	67	62	69	64	72	46	46	52
Mean wind speed (m/s)		1.3	1.4	1.9	1.7	1.3	1.7	1.5	1.7	1.2	1.1	1.1	1.2
Most frequent wind direction (bearings)		S	S	S	S	S	SSW	SSW	SSW	WNW	ENE	ENE	ENE
Precipitation amount (mm/month)		237	85	80	240	87	113	142	167	273	239	33	68
Sunshine duration (hours/month)		--	--	--	--	--	--	--	--	--	--	--	--
Solar radiation (MJ/m^2/month)		--	--	--	--	--	--	--	--	--	--	--	--

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

2018

Month / Items		1	2	3	4	5	6	7	8	9	10	11	12
Tempera-ture (ºC)	monthly mean	--	--	27.4	--	--	--	26.2	26.0	--	--	27.0	--
	max.daily mean	--	--	29.0	--	--	--	27.2	26.7	--	--	28.4	--
	min.daily mean	--	--	26.1	--	--	--	25.1	25.4	--	--	25.5	--
Relative humidity (%)	monthly mean	--	--	62	--	--	--	95	95	--	--	91	--
	max.daily mean	--	--	74	--	--	--	99	98	--	--	97	--
	min.daily mean	--	--	56	--	--	--	88	89	--	--	85	--
Mean wind speed (m/s)		--	--	0.8	--	--	--	0.6	0.4	--	--	0.3	--
Most frequent wind direction (bearings)		--	--	N	--	--	--	NW	NW	--	--	SSW	--
Precipitation amount (mm/month)		--	--	0	--	--	--	344	103	--	--	28	--
Sunshine duration (hours/month)		--	--	--	--	--	--	--	--	--	--	--	--
Solar radiation (MJ/m^2/month)		--	--	--	--	--	--	--	--	--	--	--	--

Appendix Table 2-23 Meteorological statistics at the monitoring site
Site : Chang Phueak, Thailand

2018

Month / Items		1	2	3	4	5	6	7	8	9	10	11	12
Tempera-ture (ºC)	monthly mean	22.2	24.1	26.9	27.8	27.3	26.9	26.3	26.2	26.8	26.2	24.5	23.3
	max.daily mean	25.9	27.5	29.3	31.1	30.0	29.4	28.6	27.7	29.2	27.8	26.4	25.6
	min.daily mean	16.8	20.6	25.2	24.3	23.2	24.6	24.2	24.6	24.7	23.7	21.9	20.4
Relative humidity (%)	monthly mean	70	56	50	60	74	79	83	82	78	77	73	75
	max.daily mean	86	66	60	79	93	92	95	94	93	93	87	93
	min.daily mean	52	44	44	46	62	66	68	73	67	71	62	65
Mean wind speed (m/s)		0.6	0.8	0.6	0.6	0.6	0.6	0.4	0.5	0.5	0.6	0.5	0.5
Most frequent wind direction (bearings)		N	N	N	N	NNW	S	S	S	NNW	N	N	N
Precipitation amount (mm/month)		1	1	1	60	204	116	135	116	52	145	16	27
Sunshine duration (hours/month)		--	--	--	--	--	--	--	--	--	--	--	--
Solar radiation (MJ/m^2/month)		--	--	--	--	--	--	--	--	--	--	--	--

Appendix Table 2-24 Meteorological statistics at the monitoring site
Site : Si Phum, Thailand

2018

Month / Items		1	2	3	4	5	6	7	8	9	10	11	12
Tempera-ture (ºC)	monthly mean	24.7	27.5	30.4	30.9	30.5	29.7	29.1	29.1	29.8	29.2	27.8	26.4
	max.daily mean	28.0	30.5	32.5	34.5	33.8	32.7	31.7	30.9	32.0	31.1	30.0	28.9
	min.daily mean	17.9	24.3	28.4	27.3	25.7	26.6	26.5	26.9	27.3	26.2	25.1	24.0
Relative humidity (%)	monthly mean	69	53	47	57	72	80	83	84	80	78	72	76
	max.daily mean	88	64	66	75	94	96	98	96	97	97	89	98
	min.daily mean	44	39	39	42	57	63	65	70	69	70	58	64
Mean wind speed (m/s)		0.4	0.4	0.4	0.5	0.5	0.3	0.3	0.3	0.4	0.4	0.3	0.3
Most frequent wind direction (bearings)		NNE	NNE	SE	NNE	NNE	SE	SE	SE	NNE	NNE	NE	NNE
Precipitation amount (mm/month)		--	--	--	--	--	--	--	--	--	--	--	--
Sunshine duration (hours/month)		--	--	--	--	--	--	--	--	--	--	--	--
Solar radiation (MJ/m^2/month)		--	--	--	--	--	--	--	--	--	--	--	--

Appendix Table 2-25 Meteorological statistics at the monitoring site
Site : Nai Mueang, Thailand

2018

Month / Items		1	2	3	4	5	6	7	8	9	10	11	12
Tempera-ture (ºC)	monthly mean	31.8	32.4	36.9	30.8	28.6	29.3	29.0	28.5	27.6	28.0	27.2	26.6
	max.daily mean	38.1	39.7	41.0	41.3	31.0	31.0	30.6	30.0	30.5	30.1	30.4	30.1
	min.daily mean	23.1	22.6	29.0	23.7	27.0	26.4	24.7	26.4	19.7	25.4	22.3	22.5
Relative humidity (%)	monthly mean	59	57	57	63	75	69	68	69	72	71	65	61
	max.daily mean	69	69	72	94	84	85	91	81	88	89	84	81
	min.daily mean	52	46	47	45	64	56	61	59	35	59	50	51
Mean wind speed (m/s)		0.9	1.0	1.1	1.0	0.8	1.4	1.9	1.7	1.1	1.1	0.9	0.9
Most frequent wind direction (bearings)		E	E	SSW	SSW	SSW	SSW	SW	SW	SW	E	E	ENE
Precipitation amount (mm/month)		0	76	30	139	119	89	41	79	92	142	5	3
Sunshine duration (hours/month)		--	--	--	--	--	--	--	--	--	--	--	--
Solar radiation (MJ/m^2/month)		--	--	--	--	--	--	--	--	--	--	--	--

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

2018

Month / Items		1	2	3	4	5	6	7	8	9	10	11	12
Temperature (ºC)	monthly mean	17.9	17.4	22.6	24.2	29.2	30.4	29.6	28.9	28.8	25.9	24.0	19.8
	max.daily mean	20.8	20.2	26.6	28.0	34.1	34.5	33.6	32.8	32.2	29.5	28.0	23.0
	min.daily mean	16.0	15.2	19.8	21.5	25.5	26.6	26.7	26.0	25.6	22.8	20.8	17.0
Relative humidity (%)	monthly mean	84	78	83	86	86	83	86	90	85	82	78	83
	max.daily mean	91	85	92	94	95	94	93	96	95	94	91	92
	min.daily mean	74	70	70	77	71	73	79	83	74	69	65	74
Mean wind speed (m/s)		1.1	1.1	1.1	1.7	1.1	1.7	1.1	1.1	1.7	1.1	1.7	1.1
Most frequent wind direction (bearings)		SE, NE	SE, NE	SE	SE	SE	SE, SW	SE	NW	NW, SE	NE, SE	N, SE	NE, SE
Precipitation amount (mm/month)		13	7	29	137	124	182	497	358	334	134	13	73
Sunshine duration (hours/month)		43	54	97	81	243	202	175	141	146	159	141	112
Solar radiation (MJ/m^2/month)		--	--	--	--	--	--	--	--	--	--	--	--

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

2018

Month / Items		1	2	3	4	5	6	7	8	9	10	11	12
Temperature (ºC)	monthly mean	18.4	17.4	22.9	24.4	28.6	29.7	29.1	28.4	28.2	25.3	23.0	19.3
	max.daily mean	22.1	21.3	27.9	29.4	34.7	34.9	33.1	32.6	32.9	30.2	28.4	23.9
	min.daily mean	15.9	15.0	19.7	21.4	24.7	26.4	26.5	25.8	25.4	22.4	19.9	16.5
Relative humidity (%)	monthly mean	82	77	79	79	78	80	82	85	82	81	82	84
	max.daily mean	92	88	92	92	96	91	89	93	92	92	93	93
	min.daily mean	69	64	60	64	59	62	70	71	64	61	60	68
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	NW	NNE	SE	SW	SE	NE	N	NW	NE	NE
Precipitation amount (mm/month)		9	0	23	97	369	213	1141	546	95	193	37	76
Sunshine duration (hours/month)		60	43	135	100	246	181	157	152	189	178	149	117
Solar radiation (MJ/m^2/month)		--	--	--	--	--	--	--	--	--	--	--	--

Appendix Table 2-28 Meteorological statistics at the monitoring site
Site : Cuc Phuong, Vietnam

2018

Month / Items		1	2	3	4	5	6	7	8	9	10	11	12
Tempera-ture (ºC)	monthly mean	16.8	15.9	21.0	22.6	27.2	28.4	27.6	26.8	26.5	23.9	21.9	18.3
	max.daily mean	27.0	24.4	33.7	31.5	36.0	36.7	38.9	35.7	34.5	32.7	30.8	29.5
	min.daily mean	7.6	7.7	11.0	14.1	22.0	23.1	23.4	23.5	21.0	18.6	14.3	8.1
Relative humidity (%)	monthly mean	87	81	86	87	84	82	86	91	87	86	86	88
	max.daily mean	100	100	99	100	99	98	98	99	100	100	100	100
	min.daily mean	40	32	39	40	50	49	47	64	56	37	34	51
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	NNE	SE	SSE	SW	SW	SW	NW	NW	N	N	NE
Precipitation amount (mm/month)		35	12	89	115	240	142	783	528	182	175	138	82
Sunshine duration (hours/month)		25	51	92	67	221	163	124	116	177	147	136	98
Solar radiation (MJ/m^2/month)		--	--	--	--	--	--	--	--	--	--	--	--

Appendix Table 2-29 Meteorological statistics at the monitoring site
Site : DaNang, Vietnam

2018

Month / Items		1	2	3	4	5	6	7	8	9	10	11	12
Tempera-ture (ºC)	monthly mean	22.3	21.5	24.4	25.9	28.9	29.8	29.6	30.1	28.9	27.0	25.8	24.1
	max.daily mean	26.1	24.9	27.7	28.6	30.6	31.9	32.6	32.0	31.1	28.2	28.0	27.4
	min.daily mean	17.4	16.5	19.8	20.5	27.4	26.4	27.5	27.9	27.3	24.5	21.7	19.4
Relative humidity (%)	monthly mean	86	81	82	82	79	74	75	72	77	79	82	87
	max.daily mean	95	90	89	96	86	88	89	84	83	91	94	95
	min.daily mean	71	67	67	75	71	61	58	59	70	64	64	76
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)		NNW	ESE	ESE	E	E	E	SSW	SW	NNE	ESE	ESE	ENE
Precipitation amount (mm/month)		17	15	30	146	5	150	184	54	141	316	289	1250
Sunshine duration (hours/month)		56	138	163	219	282	179	169	172	246	200	144	79
Solar radiation (MJ/m^2/month)		--	--	--	--	--	--	--	--	--	--	--	--

Appendix Table 2-30 Meteorological statistics at the monitoring site
Site : Can Tho, Vietnam

2018

Month / Items		1	2	3	4	5	6	7	8	9	10	11	12
Tempera-ture (ºC)	monthly mean	25.7	25.5	27.3	28.2	27.8	27.3	27.0	26.8	29.3	27.6	27.2	26.9
	max.daily mean	29.9	30.6	32.9	33.1	33.7	31.9	30.9	31.0	44.6	32.2	31.4	31.4
	min.daily mean	23.3	22.2	24.0	25.1	25.1	24.7	24.8	24.5	21.8	25.0	24.6	24.3
Relative humidity (%)	monthly mean	86	81	80	80	88	88	89	90	89	85	84	84
	max.daily mean	86	95	95	94	97	97	97	97	97	95	94	94
	min.daily mean	72	61	58	62	69	71	77	77	74	68	67	66
Mean wind speed (m/s)		0.7	1.2	1.3	1.1	0.5	1.1	1.7	1.3	1.0	1.3	1.6	1.5
Most frequent wind direction (bearings)		NE	SE	SE	SE	SW	SW	SW	SW	SW	E	SE	SE
Precipitation amount (mm/month)		267	90	70	159	250	285	362	261	355	340	49	120
Sunshine duration (hours/month)		146	212	211	205	184	132	104	108	144	187	160	174
Solar radiation (MJ/m^2/month)		--	--	--	--	--	--	--	--	--	--	--	--

Appendix Table 2-31 Meteorological statistics at the monitoring site
Site : Ho Chi Minh, Vietnam

2018

Month / Items		1	2	3	4	5	6	7	8	9	10	11	12
Tempera-ture (ºC)	monthly mean	27.5	27.4	29.1	30.0	29.6	29.6	28.6	28.4	28.1	28,6	28.6	28.7
	max.daily mean	32.0	33.0	34.6	35.1	35.2	33.9	33.1	33.2	33.1	33.7	33.1	33.2
	min.daily mean	24.5	23.6	25.7	26.9	26.3	25.9	26.0	25.4	25.3	25.5	24.1	25.7
Relative humidity (%)	monthly mean	74	68	66	68	75	77	76	78	77	75	72	71
	max.daily mean	88	79	77	76	87	85	84	88	87	86	84	83
	min.daily mean	44	33	37	35	45	47	50	47	48	39	28	42
Mean wind speed (m/s)		1.1	1.1	1.0	1.1	1.0	1.2	1.3	1.3	1.3	1.0	1.2	1.2
Most frequent wind direction (bearings)		SE	SE	SE	SE	W	W	W	W	W	W	SE	SE
Precipitation amount (mm/month)		0	0	76	97	298	320	348	247	367	202	34	491
Sunshine duration (hours/month)		130	200	238	218	180	169	185	177	177	177	158	148
Solar radiation (MJ/m^2/month)		--	--	--	--	--	--	--	--	--	--	--	--

Appendix Table 2-32 Meteorological statistics at the monitoring site
Site : Yen Bai, Vietnam

2018

Month / Items		1	2	3	4	5	6	7	8	9	10	11	12
Tempera-ture (ºC)	monthly mean	17.4	16.4	21.7	23.6	27.7	28.6	28.6	28.1	27.6	24.2	22.4	17.6
	max.daily mean	26.8	26.8	30.3	31.6	35.3	36.8	38.5	36.2	36.9	32.1	30.0	27.4
	min.daily mean	8.6	8.5	13.0	12.4	21.7	23.2	23.9	23.5	23,0	19.7	14.4	11.5
Relative humidity (%)	monthly mean	87	83	85	86	84	84	85	87	85	86	84	87
	max.daily mean	93	92	95	94	97	93	98	94	96	93	91	93
	min.daily mean	49	39	37	40	61	50	72	61	50	48	40	78
Mean wind speed (m/s)		1.0	1.0	1.0	1.0	1.0	1.0	1.1	1.0	1.0	1.0	1.0	1.0
Most frequent wind direction (bearings)		ESE	ESE	ESE	SE	NW	E	NW	SE	ESE	NW	NW	NW
Precipitation amount (mm/month)		60	20	35	153	238	57	538	404	159	161	7	36
Sunshine duration (hours/month)		29	34	66	51	160	138	157	140	166	111	121	14
Solar radiation (MJ/m^2/month)		--	--	--	--	--	--	--	--	--	--	--	--