Acid Deposition Monitoring Network in East Asia (EANET)

Data Report 2022

December 2023

Network Center for EANET

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CHAPTER 1

Introduction

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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 both air concentration and 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 air concentration and acid deposition monitoring started in January 2001 with 10 participating 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 the EANET activities.

Air concentration and acid deposition monitoring activities of EANET consist of five environmental items – wet deposition, dry deposition (air concentration), soil and vegetation, inland aquatic environment, and catchment-scale monitoring. Monitoring for wet and dry deposition is implemented to measure atmospheric concentrations and to evaluate fluxes of acidic substances to the land surface, while monitoring for soil and vegetation, inland aquatic environment and catchment-scale is carried out to assess adverse impacts on terrestrial and aquatic ecosystems. These monitoring data are used to evaluate the state of air concentration and acid deposition as well as impacts on ecosystems.

The participating countries are required to submit monitoring data and related information obtained from the monitoring activities to the Network Center for EANET (NC) by the end of June of each year based on the guidelines of EANET. The NC prepared a draft Data Report 2022 through the discussion with QA/QC managers from participating countries at the 24th Senior Technical Managers' Meeting (STM24). After verification by the experts of each monitoring field, the NC submitted the draft Data Report to the 23rd session of Scientific Advisory Committee (SAC23) held in October 2023, and the Data Report 2022 was adopted. Following the comments and guidance at the SAC23, the NC elaborated and finalized the report.

The Data Report 2022 contains the data obtained from monitoring activities carried out in 2022.

CHAPTER 2

Network Description

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2. Network Description

2.1 Classification of Monitoring Sites

EANET monitoring sites are classified into two basic categories, namely “air concentration/ acid deposition monitoring sites” and “ecological survey sites”. Air concentration/acid deposition monitoring sites are ones for the collection of fundamental data on the temporal and spatial distribution of acid deposition as well as air concentration, and they are further classified into 3 sub-categories: remote sites, rural sites, and urban sites for specific objectives of 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: basic survey sites and ecosystem analysis sites. The 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
Air concentration/ acid deposition monitoring site for wet deposition and dry deposition monitoring	Urban site	- Assessment of the state of air concentration and acid deposition in urban areas - Urbanized and industrial areas, and the areas immediately outside the urban area - Data can be used for evaluation of air concentration and acid deposition effect on buildings and historical monuments or human health
	Rural site	- Assessment of the state of air concentration and acid deposition in rural areas and/or hinterlands - Data can be used for the evaluation of air concentration and acid deposition on agricultural crops, forests etc. - More than 20 km apart from large pollution sources like cities, power plants and highways
	Remote site	- Assessment of the state of air concentration and acid deposition in background areas - Data can be used for evaluation of long-range transport and deposition models - More than 50 km apart from large pollution sources like cities, power plants and highways - More than 500 m apart from main roads (less than 500 vehicles per day)
Ecological survey site for soil and vegetation, Inland aquatic environment, and catchment-scale 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 air concentration and acid deposition monitoring site
	Ecosystem analysis site	- Assessment of air concentration and 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 2022

Thirteen EANET countries, namely, Cambodia, China, Indonesia, Japan, Lao PDR, Malaysia, Mongolia, Myanmar, Philippines, Republic of Korea, Russia, Thailand and Vietnam participated in air concentration and acid deposition monitoring in 2022. A total of 65 sites are nominated for the air concentration/acid deposition monitoring, including 26 urban, 18 rural, and 21 remote sites. The map showing the locations of these sites with the classification information is provided in Figure 2.1. The details on the locations of these sites are presented in Table 2.2.

Figure 2.1 Locations of air concentration/acid deposition monitoring sites in 2022

Table 2.2 Locations of air concentration/acid deposition monitoring sites

Country	Site		Code*1	Classification	Latitude*2	Longitude*2	Altitude /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	317
		- Jinyunshan	*CNA004*	Rural	29°49'42"N	106°22'43"E	871
	Xi'an	- Shizhan	*CNA005*	Urban	34°14'33"N	108°57'10"E	415
		- Jiwozi	*CNA007*	Remote	33°51'06"N	108°48'52"E	1,837
	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	29
		- Zhuxiandong	*CNA011*	Urban	22°12'24"N	113°31'00"E	18
		- Haibin-Park	*CNA012*	Urban	22°15'40"N	113°34'25"E	10
	Wuzhishan	- Wuzhishan	*CNA013*	Remote	18°50'11"N	109°29'26"E	958
	Lijiang	- Lijiang	*CNA014*	Remote	27°13'38"N	100°14'48"E	3410
Indonesia	Jakarta		*IDA001*	Urban	06°09'22"S	106°50'32"E	7
	Serpong		*IDA002*	Rural	06°21'02"S	106°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
	Jembrana		*IDA006*	Rural	08°20'27"S	114°37'02"E	24
	Lombok		*IDA007*	Rural	08°38'10"S	116°10'15"E	52
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
	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
	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
	Niigata-maki		*JPA013*	Rural	37°48'33"N	138°51'09"E	47
	Tsushima		*JPA014*	Remote	34°14'48"N	129°17'17"E	390
Lao PDR	Vientiane		*LAA001*	Urban	17°59'53"N	102°34'56"E	175
Malaysia	Petaling Jaya		*MYA001*	Urban	03°06'07"N	101°38'42"E	46
	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	426
	Kuching		*MYA004*	Urban	01°29'25"N	101°21'09"E	22
	Gunung Brinchang		*MYA005*	Remote	04°31'22"N	101°23'17"E	2,012
Mongolia	Ulaanbaatar		*MNA001*	Urban	47°53'39.54"N	106°52'57.19"E	1,275
	Terelj		*MNA002*	Remote	47°59'7.65"N	107°27'30.41"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°21'23" N	120°33'33" E	1,500

Table 2.2 Locations of air concentration/acid deposition monitoring sites (continued)

Country	Site	Code*1	Classification	Latitude*2	Longitude*2	Altitude /m
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
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 (Vajiralongkorn Dam)	*THA004*	Remote	14°47'05"N	98°36'05"E	130
	Chiang Mai					
	- 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					
	- 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 Each code of the air concentration/acid deposition monitoring sites is assigned in accordance with the following rules.

e.g.) *KH A 0 01*
(a) (b) (c) (d)

(a): country code (2 digits)
(b): item code ("*A*" : air concentration/acid deposition monitoring)
(c): sub-serial number for ecological monitoring
(d): serial number for each country (2 digits)

*2 Each latitude and longitude are shown according to the World Geodetic System.

The current status on basic survey sites for ecological monitoring and their nearest air concentration/acid deposition monitoring sites are shown in Table 2.3. Soil and vegetation monitoring and inland aquatic environment monitoring 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 air concentration/acid deposition monitoring sites. Moreover, both soil and vegetation monitoring and inland aquatic environment monitoring are conducted in the vicinity of 4 air concentration/acid deposition monitoring sites in China, 2 sites in Japan, 1 site in Mongolia, 2 sites in Philippines, 2 sites in Russia, 1 site in Thailand, and 1 site in Vietnam. It is expected that the air concentration and acid deposition monitoring data collected at their nearest monitoring sites will be used for interpretation of the data on ecological monitoring.

Table 2.3 Basic survey sites for ecological monitoring and their nearest air concentration/acid deposition monitoring sites

Country	Site for air concentration/ acid deposition monitoring	Plot for soil and vegetation monitoring	Code for soil and vegetation monitoring[*1]	Site for inland aquatic environment monitoring	Code for inland aquatic environment monitoring[*1]
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	Happo	Sekido-san	*JPS005*	Futago-ike Lake	*JPI005*
		Horyu-zan	*JPS105*		
	Ijira	Ijira	*JPS006*	Ijira Lake	*JPI006*
		Yamato	*JPS106*		
Lao PDR	Vientiane	-		Nam Houm Lake	*LAI001*
Malaysia	Petaling Jaya	Pasoh Reserve Forest 1	*MYS001*	-	-
		Pasoh Reserve Forest 2	*MYS101*	-	-
	Danum Valley	-	-	Baru River	*MYI103*
	-	UPMKB Rehabilitated Forest Planted in 1991	*MYS005*	-	-
		UPMKB Rehabilitated Forest Planted in 2008	*MYS105*	-	-
	-	-	-	Kuala Tahan	*MYI006*
Mongolia	Ulaanbaatar	Bogdkhan Mountain	*MNS001*	-	-
	Terelj	Terelj Mountain	*MNS002*	Terelj River	*MNI002*

Table 2.3 Basic survey sites for ecological monitoring and their nearest air concentration/acid deposition monitoring sites (continued)

Country	Site for air concentration/ acid deposition monitoring	Plot for soil and vegetation monitoring	Code for soil and vegetation monitoring*1	Site for inland aquatic environment monitoring	Code for inland aquatic environment monitoring*1
Philippines	Metro Manila	La Mesa Watershed	*PHS001*		
	Los Baños	Mt. Makiling	*PHS002*	Pandin Lake	*PHI102*
		UP Quezon, Land Grant	*PHS102*		
	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*
Thailand	Khanchanaburi (Vajiralongkorn Dam)	Vajiralongkorn Dam	*THS004*	Vajiralongkorn Dam	*THI004*
		Vajiralongkorn Puye	*THS104*		
Vietnam	Hoa Binh	Cave of Heaven	*VNS002*	Hoa Binh Reservoir	*VNI002*
		Thang Ranh	*VNS102*		

*1 Each code of ecological monitoring sites is assigned in accordance with the following rules.
e.g.) *CN* *S* *0* *04*
(a) (b) (c) (d)

(a): country code (2 digits) (b): item code ("*S*": soil and vegetation monitoring, "*I*": inland aquatic environment monitoring)
(c): sub-serial number when there are multiple ecological monitoring sites in the nearest air concentration/acid deposition monitoring site
(d): 2-digit serial number corresponding to its nearest air concentration/acid deposition monitoring site
(If there is no nearest air concentration/acid deposition monitoring site within 50 km, another new serial number is assigned after the existing air concentration/acid deposition monitoring site in its country.)

Table 2.4 shows the sites for catchment-scale monitoring.

Table 2.4 Site for catchment-scale monitoring

Country	Site for air concentration /acid deposition monitoring	Site for catchment-scale monitoring	Code for catchment-scale monitoring*1
Japan	Ijira	Lake Ijira catchment	*JPC006*
Philippines	Metro Manila	La Mesa Watershed	*PHC001*

*1 Each code of the catchment-scale monitoring sites is assigned in accordance with the following rules.

e.g.) *JP C 0 06*
(a) (b) (c) (d)

(a): country code (2 digits) (b): item code ("*C*": catchment-scale monitoring)

(c): Sub-serial number when there are multiple ecological monitoring sites in the nearest air concentration/acid deposition monitoring site

(d): 2-digit number corresponding to its nearest air concentration/acid deposition monitoring site

(If there is no nearest air concentration/acid deposition monitoring site within 50 km, another new serial number is assigned after the existing air concentration/acid deposition monitoring site in its country.)

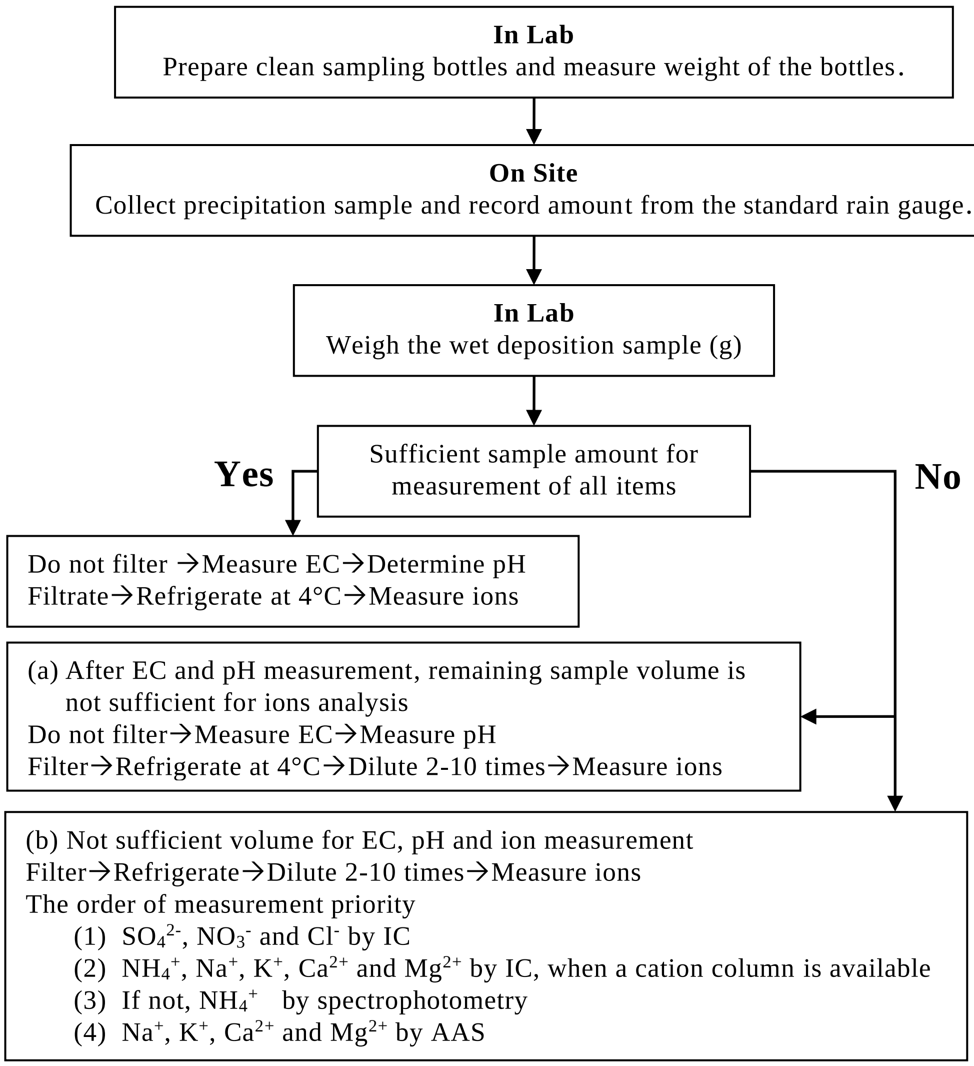
CHAPTER 3

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.

Precipitation chemistry samples are always at risk of degradation. Refrigeration is recommended to prevent the degradation. If refrigeration cannot be used, biocides such as thymol should be used to prevent microbial uptake and conversion of organic acids, especially in tropical region.

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 are 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

Analytical items	Method
Electric conductivity (EC)	Conductivity cell method*1
pH	Glass electrode*1
Cl^-, NO_3^-, SO_4^{2-}, NO_2^-, F^-, PO_4^{3-}	Ion chromatography, Spectrophotometry
NH_4^+	Ion chromatography, Spectrophotometry (Indophenol Blue)*2
Na^+, K^+, Ca^{2+}, Mg^{2+}	Ion chromatography Atomic absorption/emission spectrometry
HCO_3^-	Ion chromatography, Alkalinity method, HPLC
Organic acids	Ion chromatography

*1 Measuring at constant 25°C with a temperature-controlled bath is recommended.

*2 An alternative analysis method should be used if thymol is 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 rejected or 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 ([<0.2]: Ca^{2+}, [<0.3]: SO_4^{2-}, Na^+, K^+ and Mg^{2+}, [<0.5]: NO_3^- and Cl^-, [<0.8]: NH_4^+). 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 37 out of 60 sites, while weekly collection are performed at 23 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. Moreover, Table 3.7 shows also additional items which are analyzed in some sites. R_1 and R_2 were calculated for these sites including the additional items.

Table 3.6 Sampling frequencies for wet deposition monitoring in 2022

Country	Site		Classification	Sampling Interval	Starting Month
Cambodia	Phnom Penh*1		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
	Wuzhishan	- Wuzhishan	Remote	Daily	January 2019
	Lijiang	- Lijiang	Remote	Daily	January 2019
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
	Jembrana		Rural	Weekly	January 2019
	Lombok		Rural	Weekly	January 2019
Japan	Rishiri		Remote	Daily	April 1998
	Ochiishi		Remote	Daily	January 2003
	Sado-seki		Remote	Daily	April 1999
	Happo		Remote	Daily	April 1998
	Ijira		Rural	Weekly	June 1999
	Oki		Remote	Daily	April 1998
	Yusuhara		Remote	Daily	December 1999
	Hedo		Remote	Daily	December 1999
	Ogasawara		Remote	Daily	May 1999
	Tokyo		Urban	Daily	April 2007
	Niigata-maki		Rural	Daily	January 2019
	Tsushima		Remote	Daily	January 2019
Lao PDR	Vientiane*1		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
	Gunung Brinchang*1		Remote	Weekly	September 2020
Mongolia	Ulaanbaatar*2		Urban	Daily	August 1998
	Terelj*2		Remote	Daily	September 1998
Myanmar	Yangon		Urban	Weekly	January 2007

Table 3.6 Sampling frequencies for wet deposition monitoring in 2022 (continued)

Country	Site	Classification	Sampling Interval	Starting Month
Philippines	Metro Manila	Urban	Weekly	April 1999
	Los Baños	Rural	Weekly	April 1999
	Mt. Sto. Tomas	Remote	Weekly	October 2006
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*1	Remote	Daily	April 1999
Vietnam	Hanoi	Urban	Weekly	August 1999
	Hoa Binh	Rural	Weekly	August 1999
	Cuc Phuong	Remote	Weekly	January 2009
	Da Nang	Urban	Weekly	January 2009
	Can Tho	Rural	Weekly	January 2014
	Ho Chi Minh	Urban	Weekly	January 2014
	Yen Bai	Rural	Weekly	May 2015

*1 Wet deposition monitoring data of Phnom Penh, Vientiane, Gunung Brinchang and Khanchanaburi were not submitted.

*2 Wet deposition monitoring data (anions and cations) of Ulaanbaatar and Terelj were not submitted.

Table 3.7 Analytical methods and additional items in 2022

Country	Site		Analytical methods			Additional items (Analytical methods)
			Anions	NH_4^+	Other Cations	
China	Chongqing	- Haifu	IC, TI	IC	IC	HCO_3^- (TI), F^- (IC)
		- Jinyunshan	IC, TI	IC	IC	HCO_3^- (TI), F^- (IC)
	Xi'an	- Shizhan	IC, TI	IC	IC	HCO_3^- (TI)
		- Jiwozi	IC, TI	IC	IC	HCO_3^- (TI)
	Xiamen	- Hongwen	IC	IC	IC	F^- (IC)
		- Xiaoping	IC	IC	IC	F^- (IC)
	Zhuhai	- Xiang Zhou	IC	IC	IC	F^- (IC)
		- Zhuxiandong	IC	IC	IC	F^- (IC)
	Wuzhishan		IC	IC	IC	F^- (IC)
	Lijiang		IC	IC	IC	F^- (IC)
Indonesia	Jakarta		IC	IC	IC	
	Serpong		IC	IC	IC	
	Kototabang		IC	IC	IC	
	Bandung		IC	IC	IC	
	Maros		IC	IC	IC	
	Jembrana		IC	IC	IC	
	Lombok		IC	IC	IC	

Table 3.7 Analytical methods and additional items in 2022 (continued)

Country	Site	Analytical methods			Additional items (Analytical methods)
		Anions	NH_4^+	Other Cations	
Japan	Rishiri	IC	IC	IC	
	Ochiishi	IC	IC	IC	
	Sado-seki	IC, TI	IC	IC	HCO_3^- (TI) F^-, Br^-, NO_2^-, PO_4^{3-} (IC)
	Happo	IC	IC	IC	
	Ijira	IC	IC	IC	
	Oki	IC	IC	IC	
	Yusuhara	IC	IC	IC	F^-, NO_2^-, PO_4^{3-} (IC)
	Hedo	IC	IC	IC	
	Ogasawara	IC	IC	IC	NO_2^- (IC)
	Tokyo	IC	IC	IC	NO_2^- (IC)
	Niigata-maki	IC	IC	IC	HCO_3^- (IC)
	Tsushima	IC	IC	IC	
Malaysia	Petaling Jaya	IC	IC	IC	$HCOO^-$, CH_3COO^-, $(COO^-)_2$ (IC)
	Tanah Rata	IC	IC	IC	$HCOO^-$, CH_3COO^-, $(COO^-)_2$ (IC)
	Danum Valley	IC	IC	IC	$HCOO^-$, CH_3COO^-, $(COO^-)_2$ (IC)
	Kuching	IC	IC	IC	$HCOO^-$, CH_3COO^-, $(COO^-)_2$ (IC)
Mongolia	Ulaanbaatar	-	-	-	
	Terelj	-	-	-	
Myanmar	Yangon	IC	IC	IC	
Philippines	Metro Manila	IC, TI	IC	AAS, AES	HCO_3^- (TI) F^-, Br^-, NO_2^-, PO_4^{3-} (IC)
	Los Baños	IC, TI	IC	AAS, AES	HCO_3^- (TI) F^-, Br^-, NO_2^-, PO_4^{3-} (IC)
	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, TI	SP	AAS	HCO_3^- (TI), F^-, Br^- (IC), NO_2^- (SP), PO_4^{3-} (SP)
	Listvyanka	IC, SP, TI	SP	AAS	HCO_3^- (TI), F^-, Br^- (IC), NO_2^- (SP), PO_4^{3-} (SP)
	Irkutsk	IC, SP, TI	SP	AAS	HCO_3^- (TI), F^-, Br^- (IC), NO_2^- (SP), PO_4^{3-} (SP)
	Primorskaya	SP, TI	SP	AAS	HCO_3^- (TI)
Thailand	Bangkok	IC	IC	IC	PO_4^{3-}, $HCOO^-$, CH_3COO^- (IC)
	Samutprakarn	IC	IC	IC	PO_4^{3-}, $HCOO^-$, CH_3COO^- (IC)
	Pathumthani	IC	IC	IC	PO_4^{3-}, $HCOO^-$, CH_3COO^- (IC)

Table 3.7 Analytical methods and additional items in 2022 (continued)

Country	Site	Analytical methods			Additional items (Analytical methods)
		Anions	NH_4^+	Other Cations	
Vietnam	Hanoi	IC	IC	IC	F^- (IC)
	Hoa Binh	IC	IC	IC	F^- (IC)
	Cuc Phuong	IC, TI	IC	IC	HCO_3^- (TI), F^- (IC)
	Da Nang	IC, TI	IC	IC	HCO_3^- (TI), F^- (IC)
	Can Tho	SP, TI	SP	AES	F^- (SP)
	Ho Chi Minh	SP, TI	SP	AES	F^- (SP)
	Yen Bai	IC	IC	IC	F^- (IC)

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 2022 are shown in Table 3.8 through Table 3.67. The annual summaries of wet deposition monitoring in 2022 are shown in Table 3.68 through Table 3.70. 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 3.71. The summaries of annual data from 2008 to 2022 are shown in Table 3.72 through Table 3.96. Figure3.2 to Figure 3.61 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 3.97 through Table 3.104.
Note that the annual data before 2008 are disclosed in EANET homepage and the data in 2000 were obtained during the preparatory-phase activities of EANET.

EANET homepage URL https://monitoring.eanet.asia/document/public/index

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

Precipitation amount-weighted average concentration/ Precipitation amount

	SO_4^{2-}	nss-SO_4^{2-}	NO_3^-	Cl^-	NH_4^+	Na^+	K^+	Ca^{2+}	nss-Ca^{2+}	Mg^{2+}	H^+	pH	EC	Precip.
2022	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	***	***	***	***	***	***	***	***	***	***	***	***	***	***
Feb	***	***	***	***	***	***	***	***	***	***	***	***	***	***
Mar	***	***	***	***	***	***	***	***	***	***	***	***	***	***
Apr	***	***	***	***	***	***	***	***	***	***	***	***	***	***
May	***	***	***	***	***	***	***	***	***	***	***	***	***	***
June	***	***	***	***	***	***	***	***	***	***	***	***	***	***
July	***	***	***	***	***	***	***	***	***	***	***	***	***	***
Aug	***	***	***	***	***	***	***	***	***	***	***	***	***	***
Sept	***	***	***	***	***	***	***	***	***	***	***	***	***	***
Oct	***	***	***	***	***	***	***	***	***	***	***	***	***	***
Nov	***	***	***	***	***	***	***	***	***	***	***	***	***	***
Dec	***	***	***	***	***	***	***	***	***	***	***	***	***	***
Annual	***	***	***	***	***	***	***	***	***	***	***	***	***	***
Max.	***	***	***	***	***	***	***	***	***	***	***	***	***	
Min.	***	***	***	***	***	***	***	***	***	***	***	***	***	

Wet deposition amount

	SO_4^{2-}	nss-SO_4^{2-}	NO_3^-	Cl^-	NH_4^+	Na^+	K^+	Ca^{2+}	nss-Ca^{2+}	Mg^{2+}	H^+
2022	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}
Jan	***	***	***	***	***	***	***	***	***	***	***
Feb	***	***	***	***	***	***	***	***	***	***	***
Mar	***	***	***	***	***	***	***	***	***	***	***
Apr	***	***	***	***	***	***	***	***	***	***	***
May	***	***	***	***	***	***	***	***	***	***	***
June	***	***	***	***	***	***	***	***	***	***	***
July	***	***	***	***	***	***	***	***	***	***	***
Aug	***	***	***	***	***	***	***	***	***	***	***
Sept	***	***	***	***	***	***	***	***	***	***	***
Oct	***	***	***	***	***	***	***	***	***	***	***
Nov	***	***	***	***	***	***	***	***	***	***	***
Dec	***	***	***	***	***	***	***	***	***	***	***
Annual	***	***	***	***	***	***	***	***	***	***	***

Data completeness

	SO_4^{2-}	nss-SO_4^{2-}	NO_3^-	Cl^-	NH_4^+	Na^+	K^+	Ca^{2+}	nss-Ca^{2+}	Mg^{2+}	H^+	pH	EC	Precip.
2022	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%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

2022	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	41.5	41.3	64.7	8.4	110	3.3	3.4	25.3	25.3	2.8	9.7	5.0	3.0	17.1
Feb	53.5	53.0	75.7	21.5	123	8.4	20.0	55.6	55.5	6.4	1.7	5.8	3.8	22.8
Mar	41.2	40.7	67.9	7.8	129	7.4	4.1	34.4	34.2	3.8	1.2	5.9	2.9	62.5
Apr	31.5	31.3	39.6	5.1	78.4	3.5	3.2	23.9	23.8	2.9	1.3	5.9	1.9	124
May	14.8	14.6	27.4	4.9	48.6	3.1	2.8	10.2	10.1	2.0	2.4	5.6	1.1	232
June	10.7	10.6	19.3	3.0	39.0	1.9	1.4	16.0	16.0	2.6	0.7	6.2	1.0	274
July	16.0	15.9	32.0	4.8	46.7	3.1	1.9	18.1	18.1	1.7	3.5	5.5	1.5	68.0
Aug	15.4	15.2	58.3	5.4	112	4.2	2.8	29.4	29.3	3.2	0.4	6.4	2.3	27.0
Sept	22.9	22.7	62.4	6.4	127	3.3	2.4	29.1	29.1	2.8	0.5	6.3	2.4	126
Oct	30.5	30.4	44.1	5.0	127	1.6	1.6	20.2	20.1	2.0	0.4	6.4	2.3	49.1
Nov	76.0	75.7	106	10.5	246	4.7	6.2	46.3	46.2	5.8	0.8	6.1	4.8	15.0
Dec	60.6	60.2	109	11.2	222	6.7	6.4	41.4	41.3	4.7	6.8	5.2	4.8	38.3
Annual	22.9	22.7	40.9	5.5	80.6	3.3	3.0	21.4	21.3	2.7	1.7	5.8	1.8	1056
Max.	235	234	361	42.0	612	34.8	48.6	160	159	15.6	26.3	7.17	12.5	
Min.	4.27	4.19	7.42	1.97	18.3	0.870	0.512	6.74	6.70	1.23	0.0676	4.58	0.507	

Wet deposition amount

2022	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	0.709	0.706	1.11	0.144	1.89	0.0569	0.0584	0.433	0.432	0.0475	0.166
Feb	1.22	1.21	1.73	0.490	2.80	0.193	0.455	1.27	1.26	0.146	0.0389
Mar	2.57	2.55	4.24	0.486	8.06	0.461	0.259	2.15	2.14	0.240	0.0771
Apr	3.91	3.88	4.92	0.633	9.74	0.429	0.391	2.97	2.96	0.359	0.167
May	3.42	3.37	6.34	1.13	11.2	0.720	0.656	2.37	2.35	0.459	0.552
June	2.94	2.91	5.27	0.810	10.7	0.509	0.380	4.39	4.38	0.720	0.186
July	1.09	1.08	2.18	0.327	3.18	0.210	0.129	1.23	1.23	0.117	0.237
Aug	0.417	0.410	1.57	0.147	3.02	0.114	0.0753	0.794	0.791	0.0870	0.0104
Sept	2.89	2.87	7.89	0.814	16.1	0.412	0.301	3.68	3.67	0.359	0.0609
Oct	1.50	1.49	2.17	0.248	6.22	0.0771	0.0788	0.990	0.988	0.0995	0.0192
Nov	1.14	1.14	1.59	0.157	3.69	0.0700	0.0924	0.694	0.693	0.0868	0.0113
Dec	2.32	2.30	4.17	0.430	8.50	0.256	0.247	1.59	1.58	0.180	0.259
Annual	24.1	23.9	43.2	5.82	85.1	3.51	3.12	22.5	22.5	2.90	1.78

Data completeness

2022	SO_4^{2-}	nss-SO_4^{2-}	NO_3^-	Cl^-	NH_4^+	Na^+	K^+	Ca^{2+}	nss-Ca^{2+}	Mg^{2+}	H^+	pH	EC	Precip.
	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%PCL
Jan	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Feb	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Mar	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Apr	100	100	100	100	100	100	100	100	100	100	100	100	100	100
May	100	100	100	100	100	100	100	100	100	100	100	100	100	100
June	100	100	100	100	100	100	100	100	100	100	100	100	100	100
July	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Aug	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Sept	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Oct	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Nov	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Dec	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Annual	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Terms and abbreviations are given in Table 3.5.

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

Precipitation amount-weighted average concentration/ Precipitation amount

2022	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	80.4	80.2	122	12.2	161	3.4	5.6	39.1	39.0	7.9	51.4	4.3	6.1	22.4
Feb	51.3	50.8	80.4	17.0	117	6.9	14.3	31.0	30.9	5.1	20.7	4.7	3.8	37.2
Mar	29.1	28.9	36.9	4.3	59.3	3.2	2.8	16.9	16.9	4.0	11.0	5.0	2.0	115
Apr	32.4	32.3	35.9	5.2	67.6	2.8	3.4	23.5	23.4	3.6	4.5	5.3	1.9	95.1
May	10.1	10.1	16.0	2.1	20.2	0.5	0.8	5.1	5.1	1.4	7.7	5.1	0.9	238
June	12.9	12.8	19.4	2.3	41.9	0.9	1.0	8.9	8.9	1.6	2.0	5.7	1.0	159
July	23.5	23.5	34.2	3.5	66.3	1.1	1.2	14.2	14.2	1.7	1.2	5.9	1.7	41.5
Aug	15.6	15.5	29.1	5.4	63.1	1.2	1.7	18.6	18.6	3.0	1.8	5.7	1.4	28.9
Sept	20.1	19.9	33.8	4.3	63.4	2.3	1.4	14.2	14.2	2.8	5.5	5.3	1.5	124
Oct	44.1	44.0	62.8	6.1	114	1.6	2.4	26.7	26.7	3.2	3.5	5.5	2.5	47.7
Nov	58.3	58.1	76.4	7.8	195	3.6	5.2	46.9	46.8	5.7	0.7	6.1	3.9	25.8
Dec	59.5	59.1	119	10.7	186	5.7	5.8	39.8	39.7	5.3	14.1	4.9	4.8	32.3
Annual	24.9	24.7	36.8	4.6	63.7	2.0	2.4	16.0	16.0	2.8	7.4	5.1	1.8	967
Max.	726	725	1216	77.6	1615	35.2	59.6	422	421	40.7	120	6.67	36.6	
Min.	4.68	4.66	5.16	0.846	3.88	0.435	<0.3	1.50	1.49	0.822	0.214	3.92	0.323	

Wet deposition amount

2022	SO_4^{2-}	nss-SO_4^{2-}	NO_3^-	Cl^-	NH_4^+	Na^+	K^+	Ca^{2+}	nss-Ca^{2+}	Mg^{2+}	H^+
	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}
Jan	1.80	1.80	2.74	0.273	3.61	0.0765	0.125	0.875	0.873	0.176	1.15
Feb	1.91	1.89	2.99	0.631	4.36	0.255	0.532	1.15	1.15	0.188	0.768
Mar	3.36	3.34	4.25	0.500	6.84	0.371	0.322	1.95	1.95	0.464	1.27
Apr	3.08	3.07	3.41	0.493	6.43	0.263	0.321	2.23	2.23	0.341	0.428
May	2.40	2.39	3.81	0.505	4.81	0.120	0.193	1.22	1.22	0.329	1.82
June	2.05	2.04	3.10	0.368	6.68	0.144	0.154	1.42	1.42	0.247	0.314
July	0.976	0.973	1.42	0.145	2.75	0.0439	0.0480	0.590	0.589	0.0691	0.0482
Aug	0.450	0.448	0.841	0.157	1.82	0.0353	0.0488	0.537	0.536	0.0856	0.0516
Sept	2.49	2.47	4.19	0.530	7.86	0.281	0.169	1.76	1.76	0.348	0.679
Oct	2.10	2.10	3.00	0.289	5.42	0.0784	0.114	1.27	1.27	0.155	0.166
Nov	1.50	1.50	1.97	0.202	5.03	0.0941	0.134	1.21	1.21	0.147	0.0188
Dec	1.92	1.91	3.84	0.345	6.01	0.183	0.187	1.29	1.28	0.172	0.455
Annual	24.0	23.9	35.6	4.44	61.6	1.95	2.35	15.5	15.5	2.72	7.17

Data completeness

2022	SO_4^{2-}	nss-SO_4^{2-}	NO_3^-	Cl^-	NH_4^+	Na^+	K^+	Ca^{2+}	nss-Ca^{2+}	Mg^{2+}	H^+	pH	EC	Precip.
	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%PCL
Jan	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Feb	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Mar	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Apr	100	100	100	100	100	100	100	100	100	100	100	100	100	100
May	100	100	100	100	100	100	100	100	100	100	100	100	100	100
June	100	100	100	100	100	100	100	100	100	100	100	100	100	100
July	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Aug	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Sept	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Oct	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Nov	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Dec	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Annual	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Terms and abbreviations are given in Table 3.5.

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

Precipitation amount-weighted average concentration/ Precipitation amount

2022	SO_4^{2-} µmol L^{-1}	nss-SO_4^{2-} µmol L^{-1}	NO_3^- µmol L^{-1}	Cl^- µmol L^{-1}	NH_4^+ µmol L^{-1}	Na^+ µmol L^{-1}	K^+ µmol L^{-1}	Ca^{2+} µmol L^{-1}	nss-Ca^{2+} µmol L^{-1}	Mg^{2+} µmol L^{-1}	H^+ µmol L^{-1}	pH	EC mS m^{-1}	Precip. mm month^{-1} or mm year^{-1}
Jan	7.0	6.9	217	56.2	1.0	1.0	1.2	168	168	4.5	0.1	7.0	4.9	15.6
Feb	222	220	259	103	200	36.3	181	319	319	20.4	0.1	7.0	15.6	7.7
Mar	200	193	219	73.5	293	102	25.6	312	310	28.7	0.1	7.2	13.4	22.6
Apr	80.4	79.7	135	16.5	64.8	12.3	12.0	235	235	12.8	0.1	7.2	7.1	19.8
May	61.2	60.5	150	21.6	237	12.0	10.9	184	184	14.0	0.1	6.9	8.4	36.1
June	54.0	53.5	103	14.1	136	9.1	8.6	282	281	27.4	0.1	7.0	8.9	38.9
July	43.9	41.9	65.2	13.2	150	32.8	10.3	201	201	9.5	0.1	7.1	7.0	94.4
Aug	58.6	58.3	6.0	12.0	90.6	5.1	5.7	217	216	8.6	0.1	7.2	6.1	74.6
Sept	18.5	16.5	4.1	8.8	96.3	33.5	10.3	30.2	29.5	14.2	0.0	7.3	2.5	42.5
Oct	31.0	29.4	7.4	23.3	58.2	26.0	12.1	94.9	94.4	38.4	0.1	7.2	3.5	96.7
Nov	57.6	52.6	38.6	15.9	18.0	82.4	7.4	103	102	9.6	0.1	7.3	4.0	7.6
Dec	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Annual	54.7	53.2	66.2	21.6	118	25.6	13.2	177	176	18.9	0.1	7.1	6.3	456
Max.	433	421	661	187	403	201	314	717	716	69.7	0.149	7.60	27.9	
Min.	6.57	6.50	3.23	5.61	0.887	<0.3	0.742	25.1	24.8	<0.3	0.0251	6.83	2.23	

Wet deposition amount

2022	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	0.109	0.108	3.39	0.877	0.0163	0.0155	0.0187	2.62	2.62	0.0695	<0.01
Feb	1.71	1.69	2.00	0.794	1.54	0.279	1.39	2.46	2.45	0.157	<0.01
Mar	4.51	4.37	4.95	1.66	6.62	2.31	0.578	7.05	7.00	0.649	<0.01
Apr	1.59	1.58	2.66	0.326	1.28	0.244	0.237	4.66	4.66	0.253	<0.01
May	2.21	2.18	5.41	0.779	8.55	0.433	0.395	6.64	6.63	0.506	<0.01
June	2.10	2.08	4.01	0.549	5.29	0.356	0.336	11.0	11.0	1.07	<0.01
July	4.15	3.96	6.16	1.25	14.2	3.10	0.970	19.0	18.9	0.894	<0.01
Aug	4.37	4.35	0.446	0.893	6.76	0.384	0.422	16.2	16.1	0.640	<0.01
Sept	0.788	0.702	0.176	0.374	4.09	1.42	0.436	1.29	1.25	0.604	<0.01
Oct	2.99	2.84	0.717	2.25	5.63	2.52	1.17	9.18	9.13	3.72	<0.01
Nov	0.438	0.400	0.293	0.120	0.137	0.627	0.0566	0.786	0.773	0.0727	<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	25.0	24.3	30.2	9.87	54.1	11.7	6.01	80.8	80.5	8.63	0.0336

Data completeness

2022	SO_4^{2-} %TP	nss-SO_4^{2-} %TP	NO_3^- %TP	Cl^- %TP	NH_4^+ %TP	Na^+ %TP	K^+ %TP	Ca^{2+} %TP	nss-Ca^{2+} %TP	Mg^{2+} %TP	H^+ %TP	pH %TP	EC %TP	Precip. %PCL
Jan	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Feb	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Mar	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Apr	100	100	100	100	100	100	100	100	100	100	100	100	100	100
May	100	100	100	100	100	100	100	100	100	100	100	100	100	100
June	100	100	100	100	100	100	100	100	100	100	100	100	100	100
July	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Aug	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Sept	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Oct	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Nov	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Dec	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Annual	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Terms and abbreviations are given in Table 3.5.

Table 3.12 Monthly results Site: Jiwozi Country: China

Precipitation amount-weighted average concentration/ Precipitation amount

2022	SO_4^{2-} µmol L^{-1}	nss-SO_4^{2-} µmol L^{-1}	NO_3^- µmol L^{-1}	Cl^- µmol L^{-1}	NH_4^+ µmol L^{-1}	Na^+ µmol L^{-1}	K^+ µmol L^{-1}	Ca^{2+} µmol L^{-1}	nss-Ca^{2+} µmol L^{-1}	Mg^{2+} µmol L^{-1}	H^+ µmol L^{-1}	pH	EC mS m^{-1}	Precip. mm $month^{-1}$ or mm $year^{-1}$
Jan	20.9	16.4	10.6	86.3	20.9	75.9	21.3	40.5	38.8	16.2	0.6	6.3	2.9	22.8
Feb	42.7	42.6	1.6	42.3	26.7	0.9	12.3	53.0	53.0	4.3	0.5	6.3	2.2	5.0
Mar	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Apr	--	--	--	--	--	--	--	--	--	--	--	--	--	0
May	39.3	38.5	31.1	31.4	30.2	14.6	14.0	69.3	69.0	8.0	1.6	5.8	2.6	66.5
June	26.6	25.1	18.8	46.9	26.9	25.0	12.4	23.5	23.0	6.7	0.3	6.6	1.6	9.0
July	8.8	8.6	3.3	9.7	13.8	3.2	5.5	11.8	11.8	4.8	0.7	6.1	0.7	130
Aug	22.3	22.0	4.4	6.3	12.4	4.2	5.7	18.3	18.2	2.0	1.4	5.9	0.9	54.5
Sept	16.3	16.2	2.4	4.5	13.9	1.0	6.4	13.1	13.0	5.2	0.8	6.1	0.8	21.0
Oct	7.9	7.7	9.0	5.5	13.6	2.1	6.3	15.4	15.3	5.7	0.4	6.4	0.7	107
Nov	22.5	17.4	62.6	7.2	15.5	85.3	7.1	39.0	37.2	7.7	0.1	7.1	2.0	4.0
Dec	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Annual	17.1	16.5	10.5	16.7	17.0	9.9	8.2	25.3	25.1	5.9	0.8	6.1	1.2	419
Max.	55.8	54.0	62.6	97.4	54.2	117	30.9	144	143	25.7	3.31	7.37	4.56	
Min.	4.88	4.86	0.714	3.92	5.88	0.304	2.71	8.01	7.97	0.411	0.0427	5.48	0.494	

Wet deposition amount

2022	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	0.478	0.373	0.241	1.97	0.478	1.73	0.485	0.923	0.885	0.370	0.0128
Feb	0.213	0.213	<0.01	0.212	0.133	<0.01	0.0615	0.265	0.265	0.0216	<0.01
Mar	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Apr	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
May	2.62	2.56	2.07	2.09	2.01	0.973	0.928	4.61	4.59	0.532	0.105
June	0.239	0.226	0.169	0.422	0.242	0.225	0.112	0.212	0.207	0.0600	<0.01
July	1.14	1.11	0.429	1.25	1.79	0.415	0.717	1.53	1.52	0.625	0.0930
Aug	1.21	1.20	0.242	0.344	0.675	0.230	0.311	0.997	0.992	0.108	0.0755
Sept	0.341	0.340	0.0494	0.0950	0.292	0.0204	0.135	0.274	0.274	0.110	0.0158
Oct	0.839	0.825	0.962	0.582	1.45	0.221	0.668	1.64	1.63	0.605	0.0403
Nov	0.0900	0.0694	0.251	0.0289	0.0619	0.341	0.0285	0.156	0.149	0.0309	<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	7.17	6.91	4.42	6.99	7.13	4.16	3.45	10.6	10.5	2.46	0.348

Data completeness

2022	SO_4^{2-} %TP	nss-SO_4^{2-} %TP	NO_3^- %TP	Cl^- %TP	NH_4^+ %TP	Na^+ %TP	K^+ %TP	Ca^{2+} %TP	nss-Ca^{2+} %TP	Mg^{2+} %TP	H^+ %TP	pH %TP	EC %TP	Precip. %PCL
Jan	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Feb	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Mar	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Apr	--	--	--	--	--	--	--	--	--	--	--	--	--	100
May	100	100	100	100	100	100	100	100	100	100	100	100	100	100
June	100	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 3.13 Monthly results Site: Hongwen Country: China

Precipitation amount-weighted average concentration/ Precipitation amount

2022	SO_4^{2-} µmol L^{-1}	nss-SO_4^{2-} µmol L^{-1}	NO_3^- µmol L^{-1}	Cl^- µmol L^{-1}	NH_4^+ µmol L^{-1}	Na^+ µmol L^{-1}	K^+ µmol L^{-1}	Ca^{2+} µmol L^{-1}	nss-Ca^{2+} µmol L^{-1}	Mg^{2+} µmol L^{-1}	H^+ µmol L^{-1}	pH	EC mS m^{-1}	Precip. mm $month^{-1}$ or mm $year^{-1}$
Jan	24.3	21.8	36.8	28.0	63.4	41.9	9.4	48.1	47.2	7.9	1.7	5.8	2.7	53.1
Feb	5.4	4.6	13.0	15.8	29.7	13.5	2.6	9.2	8.9	2.8	2.3	5.6	0.9	145
Mar	15.1	14.0	24.5	22.4	44.5	18.8	4.1	17.2	16.8	4.5	7.4	5.1	1.6	74.5
Apr	11.1	10.3	38.3	14.7	22.1	13.8	8.2	15.2	14.9	4.9	17.6	4.8	1.8	20.1
May	5.1	4.6	14.0	11.0	16.1	8.8	1.9	5.1	4.9	2.3	1.8	5.7	0.7	178
June	4.9	4.4	14.0	10.4	11.2	8.6	2.0	7.5	7.3	3.0	4.3	5.4	0.8	185
July	5.8	4.1	24.3	35.8	8.6	28.3	3.3	8.2	7.6	4.6	20.8	4.7	1.6	103
Aug	8.2	6.7	18.9	23.1	10.6	24.8	2.6	11.0	10.5	3.5	1.1	5.9	1.1	25.1
Sept	13.3	11.5	31.6	38.9	<0.8	30.4	4.4	32.3	31.6	5.8	2.8	5.6	1.7	6.0
Oct	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Nov	7.5	6.1	13.5	21.2	10.4	23.2	3.2	32.8	32.3	4.0	2.3	5.6	1.3	47.0
Dec	12.0	10.8	27.2	33.6	39.0	18.9	13.1	41.8	41.4	4.9	1.4	5.8	2.0	19.4
Annual	7.8	6.8	18.5	18.4	21.9	16.6	3.4	13.3	13.0	3.6	5.6	5.3	1.2	857
Max.	38.0	33.8	72.6	131	117	90.0	33.1	89.8	88.2	14.6	33.1	6.15	4.79	
Min.	1.25	1.19	6.77	1.55	<0.8	1.04	0.897	2.03	1.98	1.63	0.708	4.48	0.330	

Wet deposition amount

2022	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	1.29	1.16	1.95	1.49	3.37	2.23	0.501	2.55	2.51	0.419	0.0894
Feb	0.788	0.670	1.88	2.30	4.31	1.96	0.374	1.34	1.29	0.406	0.331
Mar	1.13	1.04	1.83	1.67	3.31	1.40	0.304	1.28	1.25	0.338	0.548
Apr	0.224	0.207	0.768	0.295	0.444	0.277	0.166	0.306	0.300	0.0986	0.353
May	0.907	0.813	2.50	1.96	2.88	1.57	0.331	0.913	0.880	0.408	0.326
June	0.910	0.814	2.60	1.92	2.07	1.59	0.376	1.38	1.35	0.551	0.798
July	0.602	0.426	2.50	3.69	0.884	2.92	0.343	0.845	0.782	0.477	2.15
Aug	0.207	0.169	0.474	0.580	0.265	0.622	0.0644	0.276	0.263	0.0868	0.0288
Sept	0.0800	0.0690	0.190	0.233	<0.01	0.182	0.0262	0.194	0.190	0.0350	0.0169
Oct	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Nov	0.352	0.286	0.634	0.997	0.490	1.09	0.150	1.54	1.52	0.187	0.110
Dec	0.232	0.210	0.529	0.653	0.758	0.366	0.255	0.813	0.805	0.0960	0.0278
Annual	6.72	5.86	15.9	15.8	18.8	14.2	2.89	11.4	11.1	3.10	4.78

Data completeness

2022	SO_4^{2-} %TP	nss-SO_4^{2-} %TP	NO_3^- %TP	Cl^- %TP	NH_4^+ %TP	Na^+ %TP	K^+ %TP	Ca^{2+} %TP	nss-Ca^{2+} %TP	Mg^{2+} %TP	H^+ %TP	pH %TP	EC %TP	Precip. %PCL
Jan	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Feb	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Mar	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Apr	100	100	100	100	100	100	100	100	100	100	100	100	100	100
May	100	100	100	100	100	100	100	100	100	100	100	100	100	100
June	100	100	100	100	100	100	100	100	100	100	100	100	100	100
July	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Aug	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Sept	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Oct	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Nov	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Dec	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Annual	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Terms and abbreviations are given in Table 3.5.

Table 3.14 Monthly results Site: Xiaoping Country: China

Precipitation amount-weighted average concentration/ Precipitation amount

2022	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	2.7	2.3	6.2	6.3	1.9	7.9	1.8	1.1	1.0	1.6	10.2	5.0	0.6	27.9
Feb	2.4	2.2	8.4	1.8	0.9	2.3	1.4	2.3	2.3	1.7	11.8	4.9	0.6	114
Mar	11.0	10.6	19.3	11.4	10.7	5.5	2.0	5.3	5.2	3.1	26.5	4.6	1.3	79.9
Apr	17.5	17.2	38.6	10.4	27.4	4.9	2.6	8.1	8.0	3.3	36.9	4.4	2.2	20.4
May	6.9	6.8	27.4	3.3	20.0	1.8	0.9	3.2	3.1	1.8	20.1	4.7	1.2	188
June	4.1	3.8	17.3	4.6	12.2	5.2	1.7	4.5	4.4	2.6	9.5	5.0	0.8	329
July	4.6	3.5	14.9	16.7	4.6	18.0	2.0	3.8	3.4	2.8	9.1	5.0	0.8	120
Aug	9.4	8.9	38.4	8.1	36.5	8.1	1.0	7.0	6.9	1.5	11.3	4.9	1.4	75.1
Sept	14.9	13.7	43.4	28.5	10.6	20.4	1.0	5.0	4.6	3.6	23.4	4.6	2.3	12.4
Oct	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Nov	11.2	10.3	56.4	15.5	<0.8	14.7	4.8	12.0	11.7	3.7	34.8	4.5	2.5	12.2
Dec	7.2	6.5	20.6	29.5	11.6	11.6	30.5	7.0	6.7	2.1	2.9	5.5	1.2	65.5
Annual	6.0	5.6	20.6	8.3	13.0	6.7	3.4	4.4	4.3	2.3	13.7	4.9	1.0	1044
Max.	47.0	46.4	120	123	110	37.4	130	15.5	15.2	4.58	97.7	5.78	6.28	
Min.	0.521	0.377	4.35	<0.5	<0.8	0.435	0.385	0.375	0.366	0.417	1.66	4.01	0.270	

Wet deposition amount

2022	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	0.0767	0.0634	0.172	0.175	0.0526	0.221	0.0509	0.0318	0.0270	0.0460	0.285
Feb	0.271	0.255	0.949	0.203	0.0990	0.265	0.161	0.265	0.260	0.196	1.34
Mar	0.878	0.851	1.54	0.908	0.859	0.442	0.156	0.422	0.413	0.244	2.12
Apr	0.358	0.351	0.787	0.212	0.558	0.101	0.0527	0.166	0.164	0.0679	0.752
May	1.30	1.28	5.16	0.619	3.77	0.338	0.172	0.600	0.592	0.344	3.80
June	1.35	1.25	5.69	1.51	4.02	1.70	0.552	1.50	1.46	0.865	3.13
July	0.554	0.424	1.79	2.01	0.550	2.16	0.243	0.451	0.404	0.339	1.09
Aug	0.703	0.667	2.89	0.605	2.74	0.611	0.0718	0.529	0.516	0.115	0.851
Sept	0.185	0.169	0.538	0.353	0.131	0.253	0.0127	0.0620	0.0565	0.0450	0.291
Oct	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Nov	0.136	0.126	0.686	0.188	<0.01	0.179	0.0587	0.146	0.143	0.0447	0.424
Dec	0.469	0.424	1.35	1.93	0.762	0.760	2.00	0.458	0.441	0.137	0.189
Annual	6.28	5.86	21.5	8.71	13.6	7.03	3.53	4.63	4.47	2.44	14.3

Data completeness

2022	SO_4^{2-} %TP	nss-SO_4^{2-} %TP	NO_3^- %TP	Cl^- %TP	NH_4^+ %TP	Na^+ %TP	K^+ %TP	Ca^{2+} %TP	nss-Ca^{2+} %TP	Mg^{2+} %TP	H^+ %TP	pH %TP	EC %TP	Precip. %PCL
Jan	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Feb	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Mar	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Apr	100	100	100	100	100	100	100	100	100	100	100	100	100	100
May	100	100	100	100	100	100	100	100	100	100	100	100	100	100
June	100	100	100	100	100	100	100	100	100	100	100	100	100	100
July	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Aug	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Sept	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Oct	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Nov	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Dec	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Annual	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Terms and abbreviations are given in Table 3.5.

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

Precipitation amount-weighted average concentration/ Precipitation amount

	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.
2022	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	10.6	9.7	47.4	17.2	39.5	14.0	1.2	5.4	5.1	2.3	21.0	4.7	2.1	11.6
Feb	4.0	3.9	12.0	5.8	13.1	2.8	0.6	1.5	1.4	0.6	7.9	5.1	0.7	147
Mar	17.6	16.8	23.6	14.7	35.5	13.2	1.6	3.5	3.2	1.8	30.5	4.5	2.2	134
Apr	33.6	28.9	81.9	84.1	90.9	78.3	4.9	20.7	19.0	10.3	21.9	4.7	4.0	3.4
May	4.2	3.7	9.2	9.0	9.6	7.2	0.5	1.7	1.5	0.9	5.7	5.2	0.6	711
June	4.6	3.9	8.8	12.1	12.9	11.2	0.9	2.2	1.9	1.2	2.8	5.6	0.6	273
July	8.9	2.7	9.2	107	11.4	103	2.7	6.0	3.8	10.0	1.6	5.8	1.9	182
Aug	4.5	2.4	9.2	37.7	8.8	34.2	0.9	3.4	2.7	3.7	2.2	5.7	0.9	390
Sept	23.8	22.1	45.5	32.1	69.4	28.0	2.4	22.1	21.5	4.4	6.2	5.2	2.2	40.8
Oct	3.8	3.2	9.7	10.7	14.1	9.1	<0.3	3.6	3.4	1.1	3.1	5.5	0.5	80.2
Nov	12.8	10.8	43.7	37.7	43.7	34.0	1.3	11.1	10.3	4.3	7.7	5.1	1.9	118
Dec	8.0	7.8	19.0	6.9	31.6	3.0	0.6	11.4	11.3	0.7	1.4	5.9	0.8	33.3
Annual	6.5	5.1	13.4	25.5	15.7	23.0	1.0	3.7	3.2	2.5	6.1	5.2	1.0	2124
Max.	60.2	52.4	237	259	303	234	6.14	64.4	63.6	25.9	83.2	6.95	7.84	
Min.	2.19	1.25	3.39	3.67	1.11	0.435	<0.3	<0.2	<0.2	<0.3	0.112	4.08	0.246	

Wet deposition amount

	SO_4^{2-}	nss-SO_4^{2-}	NO_3^-	Cl^-	NH_4^+	Na^+	K^+	Ca^{2+}	nss-Ca^{2+}	Mg^{2+}	H^+
2022	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	0.123	0.113	0.550	0.199	0.458	0.162	0.0143	0.0621	0.0586	0.0267	0.244
Feb	0.593	0.568	1.76	0.855	1.93	0.415	0.0927	0.218	0.209	0.0836	1.17
Mar	2.36	2.25	3.17	1.97	4.76	1.77	0.209	0.472	0.434	0.235	4.09
Apr	0.114	0.0983	0.279	0.286	0.309	0.266	0.0165	0.0704	0.0647	0.0350	0.0744
May	2.97	2.66	6.56	6.38	6.81	5.09	0.385	1.20	1.09	0.609	4.07
June	1.25	1.07	2.40	3.30	3.52	3.06	0.256	0.591	0.528	0.317	0.759
July	1.61	0.483	1.67	19.5	2.07	18.7	0.483	1.09	0.684	1.82	0.284
Aug	1.75	0.942	3.60	14.7	3.42	13.3	0.369	1.34	1.05	1.43	0.852
Sept	0.972	0.903	1.86	1.31	2.83	1.14	0.0962	0.903	0.878	0.181	0.254
Oct	0.304	0.260	0.781	0.859	1.13	0.730	0.0108	0.289	0.273	0.0892	0.251
Nov	1.51	1.27	5.15	4.45	5.16	4.02	0.148	1.31	1.22	0.513	0.907
Dec	0.266	0.260	0.632	0.231	1.05	0.0985	0.0203	0.379	0.377	0.0217	0.0468
Annual	13.8	10.9	28.4	54.0	33.4	48.8	2.10	7.92	6.87	5.36	13.0

Data completeness

	SO_4^{2-}	nss-SO_4^{2-}	NO_3^-	Cl^-	NH_4^+	Na^+	K^+	Ca^{2+}	nss-Ca^{2+}	Mg^{2+}	H^+	pH	EC	Precip.
2022	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%PCL
Jan	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Feb	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Mar	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Apr	100	100	100	100	100	100	100	100	100	100	100	100	100	100
May	100	100	100	100	100	100	100	100	100	100	100	100	100	100
June	100	100	100	100	100	100	100	100	100	100	100	100	100	100
July	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Aug	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Sept	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Oct	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Nov	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Dec	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Annual	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Terms and abbreviations are given in Table 3.5.

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

Precipitation amount-weighted average concentration/ Precipitation amount

2022	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	34.5	32.1	91.6	48.2	128	39.6	5.1	64.9	64.0	11.1	0.2	6.6	4.1	2.5
Feb	5.6	5.1	14.7	11.2	17.4	8.3	0.9	3.8	3.6	1.4	7.7	5.1	0.8	162
Mar	25.0	23.9	28.1	22.4	38.9	18.8	2.0	14.2	13.8	3.9	16.3	4.8	2.0	88.9
Apr	41.4	36.4	99.4	88.3	121	82.1	5.5	47.8	46.0	13.5	1.3	5.9	4.4	16.0
May	5.4	4.8	14.4	11.3	10.6	9.8	0.9	4.4	4.1	1.6	6.2	5.2	0.7	601
June	4.3	3.6	8.3	14.3	6.3	13.0	0.9	2.7	2.4	1.6	4.0	5.4	0.6	371
July	8.2	1.7	4.8	122	3.6	108	2.5	4.5	2.2	11.7	2.0	5.7	1.9	202
Aug	5.0	2.6	8.0	43.2	7.6	40.1	1.9	5.7	4.8	5.5	2.0	5.7	0.9	348
Sept	11.2	10.1	26.7	21.9	24.4	19.1	0.7	29.1	28.8	3.2	7.7	5.1	1.6	114
Oct	8.2	7.5	22.9	13.2	23.6	10.5	0.9	11.7	11.5	2.3	7.9	5.1	1.1	50.8
Nov	16.9	14.2	53.3	48.8	39.5	45.3	1.8	15.4	14.4	6.2	25.0	4.6	2.7	115
Dec	7.9	7.4	20.4	10.2	24.5	7.1	0.5	11.1	11.0	1.9	1.7	5.8	0.9	33.9
Annual	7.6	5.9	15.8	31.5	14.2	28.1	1.3	7.3	6.7	3.7	6.3	5.2	1.1	2104
Max.	76.7	74.5	208	398	216	354	9.46	99.8	97.3	41.5	135	7.55	8.32	
Min.	2.19	0.963	2.58	3.67	1.66	0.870	<0.3	<0.2	<0.2	0.411	0.0282	3.87	0.277	

Wet deposition amount

2022	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	0.0861	0.0802	0.229	0.121	0.320	0.0990	0.0128	0.162	0.160	0.0278	<0.01
Feb	0.901	0.820	2.38	1.80	2.81	1.34	0.152	0.609	0.580	0.233	1.24
Mar	2.23	2.12	2.49	1.99	3.46	1.67	0.181	1.27	1.23	0.345	1.45
Apr	0.662	0.583	1.59	1.41	1.93	1.31	0.0886	0.765	0.737	0.215	0.0205
May	3.24	2.89	8.63	6.80	6.38	5.89	0.537	2.62	2.49	0.969	3.70
June	1.61	1.32	3.06	5.28	2.34	4.82	0.335	0.992	0.888	0.588	1.47
July	1.66	0.344	0.958	24.7	0.720	21.8	0.499	0.912	0.441	2.35	0.401
Aug	1.74	0.904	2.78	15.0	2.65	13.9	0.661	1.98	1.68	1.89	0.684
Sept	1.28	1.15	3.05	2.50	2.79	2.18	0.0809	3.32	3.29	0.363	0.877
Oct	0.415	0.383	1.16	0.669	1.20	0.533	0.0434	0.595	0.583	0.117	0.401
Nov	1.94	1.63	6.12	5.60	4.54	5.20	0.208	1.77	1.66	0.706	2.87
Dec	0.266	0.252	0.690	0.346	0.830	0.240	0.0153	0.378	0.372	0.0638	0.0588
Annual	16.0	12.5	33.1	66.2	30.0	59.0	2.81	15.4	14.1	7.88	13.2

Data completeness

2022	SO_4^{2-}	nss-SO_4^{2-}	NO_3^-	Cl^-	NH_4^+	Na^+	K^+	Ca^{2+}	nss-Ca^{2+}	Mg^{2+}	H^+	pH	EC	Precip.
	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%PCL
Jan	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Feb	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Mar	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Apr	100	100	100	100	100	100	100	100	100	100	100	100	100	100
May	100	100	100	100	100	100	100	100	100	100	100	100	100	100
June	100	100	100	100	100	100	100	100	100	100	100	100	100	100
July	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Aug	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Sept	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Oct	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Nov	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Dec	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Annual	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Terms and abbreviations are given in Table 3.5.

Table 3.17 Monthly results **Site: Wuzhishan** **Country: China**

Precipitation amount-weighted average concentration/ Precipitation amount

2022	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	15.0	14.1	24.3	16.7	39.7	15.6	3.3	8.2	7.9	2.7	2.4	5.6	1.3	50.6
Apr	5.8	5.1	8.0	14.7	18.7	12.3	5.1	5.4	5.2	2.1	0.4	6.4	0.7	61.6
May	2.6	2.4	6.3	3.8	12.3	3.3	1.5	3.4	3.3	0.3	0.5	6.3	0.5	182
June	2.6	2.4	10.1	4.8	20.2	3.9	1.5	3.3	3.2	0.3	0.7	6.2	0.7	84.6
July	2.9	2.0	6.3	16.3	11.2	16.0	1.6	4.8	4.4	2.6	0.7	6.2	0.5	250
Aug	2.0	1.8	4.9	3.4	8.8	3.1	1.3	1.7	1.6	<0.3	0.8	6.1	0.4	299
Sept	3.9	3.5	5.0	6.4	8.2	5.7	4.8	5.3	5.2	1.0	0.3	6.5	0.5	145
Oct	10.2	8.6	19.1	31.7	16.0	26.2	64.3	29.8	29.2	8.7	0.2	6.7	1.9	32.4
Nov	1.8	1.4	3.5	6.2	41.6	7.8	2.6	9.0	8.8	1.2	0.0	7.8	0.6	7.5
Dec	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Annual	3.6	3.1	7.3	8.9	13.1	8.2	4.0	4.6	4.5	1.3	0.7	6.2	0.6	1112
Max.	27.3	22.0	72.4	112	46.6	87.0	191	60.9	59.0	21.8	2.45	7.84	6.40	
Min.	0.874	0.684	1.92	0.762	2.77	0.870	<0.3	<0.2	<0.2	<0.3	0.0145	5.61	0.220	

Wet deposition amount

2022	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	0.761	0.714	1.23	0.843	2.01	0.788	0.168	0.417	0.400	0.135	0.123
Apr	0.359	0.314	0.493	0.903	1.15	0.760	0.316	0.334	0.317	0.131	0.0247
May	0.466	0.429	1.14	0.690	2.23	0.607	0.265	0.614	0.601	0.0584	0.0929
June	0.223	0.203	0.857	0.403	1.71	0.328	0.127	0.278	0.271	0.0267	0.0554
July	0.736	0.495	1.57	4.07	2.80	4.00	0.402	1.19	1.11	0.637	0.167
Aug	0.587	0.532	1.45	1.00	2.63	0.918	0.378	0.508	0.490	0.0330	0.254
Sept	0.560	0.510	0.723	0.931	1.19	0.830	0.693	0.771	0.754	0.140	0.0450
Oct	0.331	0.280	0.618	1.03	0.519	0.849	2.08	0.965	0.946	0.283	<0.01
Nov	0.0138	0.0103	0.0265	0.0465	0.312	0.0587	0.0192	0.0674	0.0661	<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	4.04	3.49	8.10	9.91	14.6	9.14	4.45	5.15	4.95	1.45	0.768

Data completeness

2022	SO_4^{2-} %TP	nss-SO_4^{2-} %TP	NO_3^- %TP	Cl^- %TP	NH_4^+ %TP	Na^+ %TP	K^+ %TP	Ca^{2+} %TP	nss-Ca^{2+} %TP	Mg^{2+} %TP	H^+ %TP	pH %TP	EC %TP	Precip. %PCL
Jan	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Feb	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Mar	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Apr	100	100	100	100	100	100	100	100	100	100	100	100	100	100
May	100	100	100	100	100	100	100	100	100	100	100	100	100	100
June	100	100	100	100	100	100	100	100	100	100	100	100	100	100
July	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Aug	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Sept	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Oct	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Nov	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Dec	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Annual	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Terms and abbreviations are given in Table 3.5.

Table 3.18 Monthly results Site: Lijiang Country: China

Precipitation amount-weighted average concentration/ Precipitation amount

2022	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	10.4	9.3	8.6	29.4	37.8	18.1	38.5	32.2	31.8	13.0	0.0	7.3	1.4	8.2
May	9.8	9.6	10.9	3.5	33.9	3.1	3.2	19.7	19.6	2.1	0.3	6.5	1.2	21.2
June	6.8	6.8	7.1	12.3	33.6	1.1	0.8	12.9	12.9	1.7	0.5	6.3	0.7	77.9
July	5.7	5.5	6.3	21.7	23.4	1.8	0.7	9.7	9.7	1.8	0.3	6.6	0.4	94.5
Aug	2.7	2.7	5.0	1.2	18.3	0.8	0.5	6.3	6.2	1.6	0.3	6.6	0.4	67.3
Sept	4.3	4.3	5.6	2.7	20.9	0.6	0.8	5.8	5.8	3.4	0.4	6.4	0.4	64.8
Oct	1.9	1.9	3.5	1.9	12.9	0.4	0.4	3.5	3.5	0.4	0.2	6.8	0.3	11.6
Nov	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Dec	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Annual	5.3	5.2	6.4	10.4	24.9	1.7	1.7	10.0	9.9	2.3	0.3	6.5	0.5	346
Max.	37.1	36.7	32.9	51.6	92.0	20.4	51.7	43.9	43.8	13.2	0.871	7.39	1.88	
Min.	<0.3	<0.3	<0.5	0.500	1.70	0.400	0.400	1.70	1.66	0.400	0.0407	6.06	0.180	

Wet deposition amount

2022	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	0.0855	0.0766	0.0702	0.241	0.310	0.148	0.316	0.264	0.260	0.107	<0.01
May	0.207	0.203	0.231	0.0745	0.718	0.0650	0.0675	0.418	0.416	0.0441	<0.01
June	0.533	0.528	0.556	0.959	2.62	0.0855	0.0634	1.01	1.00	0.135	0.0378
July	0.534	0.524	0.600	2.05	2.21	0.173	0.0681	0.920	0.916	0.168	0.0247
Aug	0.182	0.179	0.337	0.0831	1.23	0.0558	0.0325	0.421	0.419	0.110	0.0174
Sept	0.281	0.279	0.360	0.174	1.36	0.0393	0.0491	0.379	0.378	0.218	0.0278
Oct	0.0223	0.0221	0.0408	0.0224	0.150	<0.01	<0.01	0.0408	0.0407	<0.01	<0.01
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	1.85	1.81	2.19	3.60	8.59	0.571	0.601	3.45	3.43	0.786	0.117

Data completeness

2022	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
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 3.19 Monthly results **Site: Jakarta** **Country: Indonesia**

Precipitation amount-weighted average concentration/ Precipitation amount

2022	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	15.0	14.7	11.9	11.4	9.52	4.97	1.15	1.65	1.54	0.677	8.46	5.07	1.01	389
Feb	16.1	15.0	17.3	13.7	17.3	18.4	13.5	9.23	8.83	7.00	22.4	4.65	1.57	324
Mar	24.9	24.4	16.2	15.3	31.9	7.97	1.80	8.47	8.30	1.23	14.2	4.85	1.58	166
Apr	27.3	27.1	21.8	7.04	39.5	2.29	0.700	5.07	5.02	1.01	16.0	4.80	1.78	91.1
May	31.7	31.2	30.7	17.6	39.3	8.73	1.61	8.07	7.88	1.94	24.2	4.62	2.27	165
June	26.3	25.5	26.4	17.4	46.0	13.3	2.50	11.4	11.1	2.10	11.4	4.94	1.78	113
July	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Aug	39.9	38.9	45.7	22.6	65.3	16.5	3.89	11.9	11.5	3.48	15.0	4.82	2.61	31.0
Sept	21.4	21.0	26.1	9.14	33.5	6.30	1.50	8.38	8.25	1.94	13.0	4.88	1.48	120
Oct	41.5	41.2	38.9	10.7	39.4	5.05	2.91	11.6	11.5	2.21	31.5	4.50	3.20	109
Nov	24.1	23.7	25.1	9.67	35.6	5.61	2.64	12.2	12.1	1.53	14.2	4.85	1.86	127
Dec	34.1	33.0	33.3	25.1	35.5	18.0	1.70	20.8	20.4	3.49	14.4	4.84	2.26	85.6
Annual	23.4	22.8	21.9	13.5	27.8	9.55	3.97	8.18	7.98	2.59	16.4	4.79	1.71	1721
Max.	112	110	145	64.9	113	40.3	26.6	126	125	13.6	53.1	5.95	5.63	
Min.	4.95	4.45	5.15	2.40	<0.8	0.895	<0.3	1.03	0.927	<0.3	1.12	4.28	0.571	

Wet deposition amount

2022	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	5.84	5.72	4.62	4.45	3.70	1.93	0.448	0.642	0.600	0.264	3.29
Feb	5.23	4.87	5.59	4.43	5.59	5.96	4.37	2.99	2.86	2.27	7.25
Mar	4.14	4.06	2.70	2.55	5.30	1.33	0.299	1.41	1.38	0.204	2.37
Apr	2.48	2.47	1.99	0.641	3.60	0.209	0.0638	0.462	0.458	0.0923	1.46
May	5.24	5.15	5.07	2.90	6.49	1.44	0.265	1.33	1.30	0.319	4.00
June	2.97	2.88	2.97	1.96	5.18	1.50	0.282	1.28	1.25	0.237	1.29
July	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Aug	1.24	1.20	1.42	0.701	2.03	0.510	0.121	0.368	0.357	0.108	0.466
Sept	2.57	2.53	3.13	1.10	4.02	0.756	0.180	1.01	0.990	0.233	1.57
Oct	4.52	4.48	4.23	1.17	4.28	0.549	0.317	1.26	1.25	0.241	3.43
Nov	3.06	3.02	3.20	1.23	4.53	0.714	0.336	1.56	1.54	0.194	1.81
Dec	2.92	2.82	2.85	2.15	3.04	1.54	0.145	1.78	1.75	0.299	1.23
Annual	40.2	39.2	37.8	23.3	47.8	16.4	6.83	14.1	13.7	4.46	28.2

Data completeness

2022	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 3.20 Monthly results Site: Serpong Country: Indonesia

Precipitation amount-weighted average concentration/ Precipitation amount

2022	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	25.3	24.7	19.0	16.3	48.7	9.81	2.31	6.41	6.19	2.38	6.21	5.21	1.56	208
Feb	34.3	33.9	20.7	20.6	44.8	6.84	1.54	4.41	4.26	1.99	60.2	4.22	3.07	109
Mar	31.4	30.7	29.3	22.7	78.6	11.2	3.75	8.15	7.91	6.34	4.21	5.38	1.79	235
Apr	35.0	34.4	40.8	21.4	75.6	10.1	5.46	8.82	8.60	3.63	13.7	4.86	2.52	178
May	26.7	26.3	29.1	14.9	72.7	5.53	1.31	6.01	5.89	2.17	2.40	5.62	1.64	294
June	25.2	24.8	27.4	13.0	55.1	5.85	2.65	8.86	8.74	2.77	10.2	4.99	1.68	212
July	23.1	22.6	28.5	16.9	59.4	8.13	3.23	11.2	11.0	3.72	0.786	6.10	1.49	63.8
Aug	*	*	*	*	*	*	*	*	*	*	1.01	5.99	4.46	74.6
Sept	*	*	*	*	*	*	*	*	*	*	1.35	5.87	2.12	399
Oct	*	*	*	*	*	*	*	*	*	*	5.00	5.30	2.04	292
Nov	*	*	*	*	*	*	*	*	*	*	9.55	5.02	1.74	262
Dec	*	*	*	*	*	*	*	*	*	*	4.51	5.35	1.75	342
Annual	28.7	28.2	28.1	17.7	64.5	8.15	2.81	7.43	7.25	3.31	7.61	5.12	1.98	2668
Max.	74.5	74.1	89.8	41.3	147	30.7	9.30	24.1	23.6	12.3	110	7.10	6.88	
Min.	7.70	6.92	7.70	8.60	18.6	1.50	<0.3	2.53	2.49	<0.3	0.0794	3.96	0.670	

Wet deposition amount

2022	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	5.24	5.12	3.95	3.38	10.1	2.03	0.479	1.33	1.29	0.493	1.29
Feb	3.74	3.70	2.26	2.25	4.89	0.746	0.168	0.480	0.464	0.217	6.56
Mar	7.38	7.22	6.90	5.34	18.5	2.64	0.882	1.92	1.86	1.49	0.990
Apr	6.21	6.10	7.25	3.80	13.4	1.79	0.970	1.57	1.53	0.644	2.43
May	7.84	7.74	8.54	4.37	21.4	1.63	0.385	1.77	1.73	0.637	0.705
June	5.35	5.27	5.83	2.77	11.7	1.24	0.562	1.88	1.85	0.587	2.17
July	1.47	1.44	1.82	1.08	3.79	0.518	0.206	0.714	0.703	0.237	0.0502
Aug	*	*	*	*	*	*	*	*	*	*	0.0756
Sept	*	*	*	*	*	*	*	*	*	*	0.538
Oct	*	*	*	*	*	*	*	*	*	*	1.46
Nov	*	*	*	*	*	*	*	*	*	*	2.51
Dec	*	*	*	*	*	*	*	*	*	*	1.54
Annual	76.5	75.1	75.0	47.2	172	21.8	7.50	19.8	19.4	8.84	20.3

Data completeness

2022	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	0	0	0	0	0	0	0	0	0	0	100	100	100	100
Sept	0	0	0	0	0	0	0	0	0	0	100	100	100	100
Oct	0	0	0	0	0	0	0	0	0	0	100	100	100	100
Nov	0	0	0	0	0	0	0	0	0	0	100	100	100	100
Dec	0	0	0	0	0	0	0	0	0	0	100	100	100	100
Annual	**48.7**	**48.7**	**48.7**	**48.7**	**48.7**	**48.7**	**48.7**	**48.7**	**48.7**	**48.7**	**100**	**100**	**100**	**100**

Terms and abbreviations are given in Table 3.5.

Table 3.21 Monthly results Site: Kototabang Country: Indonesia

Precipitation amount-weighted average concentration/ Precipitation amount

2022	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	4.20	4.11	4.70	2.13	3.56	1.40	1.60	2.73	2.69	<0.3	3.60	5.44	0.322	198
Feb	19.8	19.6	17.9	13.4	8.27	3.38	5.74	3.03	2.96	0.505	2.74	5.56	0.489	119
Mar	3.14	3.08	4.24	2.35	7.05	0.859	<0.3	2.03	2.01	0.530	2.98	5.53	0.232	156
Apr	2.95	2.67	3.97	3.54	7.20	4.51	2.98	1.88	1.79	0.828	2.17	5.66	0.412	162
May	6.87	6.15	9.39	11.9	10.1	11.9	5.70	6.13	5.88	2.02	2.88	5.54	0.487	68.5
June	3.14	3.09	4.93	2.66	8.70	0.856	1.37	3.84	3.83	0.630	3.33	5.48	0.313	300
July	3.95	3.72	4.00	4.96	7.61	3.73	3.19	5.79	5.71	1.02	3.48	5.46	0.499	122
Aug	3.84	3.35	3.61	4.49	3.03	8.07	4.50	7.77	7.59	1.75	4.41	5.36	0.359	136
Sept	3.68	3.59	3.51	2.97	1.65	1.53	3.43	2.47	2.44	0.623	4.62	5.34	0.393	280
Oct	2.71	2.62	1.48	2.80	2.71	1.55	1.46	4.41	4.38	0.637	0.508	6.29	0.237	249
Nov	3.41	3.07	2.90	6.68	2.67	5.69	1.33	3.77	3.65	1.25	0.347	6.46	0.336	359
Dec	2.99	2.72	3.33	4.21	1.45	4.57	2.90	4.67	4.57	1.05	1.93	5.71	0.331	177
Annual	4.31	4.11	4.49	4.50	4.71	3.37	2.42	3.80	3.72	0.842	2.56	5.59	0.348	2325
Max.	34.3	34.0	25.9	41.7	41.5	31.6	15.4	23.8	23.1	6.30	18.4	6.82	1.73	
Min.	2.10	1.95	<0.5	1.20	<0.8	<0.3	<0.3	0.640	0.596	<0.3	0.151	4.74	0.184	

Wet deposition amount

2022	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	0.830	0.814	0.929	0.422	0.704	0.277	0.316	0.539	0.533	0.0242	0.712
Feb	2.36	2.33	2.12	1.60	0.984	0.402	0.683	0.361	0.352	0.0601	0.327
Mar	0.490	0.482	0.662	0.367	1.10	0.134	0.0230	0.318	0.315	0.0829	0.466
Apr	0.476	0.432	0.641	0.572	1.16	0.728	0.482	0.304	0.289	0.134	0.351
May	0.470	0.421	0.643	0.817	0.693	0.817	0.390	0.420	0.403	0.139	0.197
June	0.943	0.927	1.48	0.799	2.61	0.257	0.411	1.15	1.15	0.189	1.00
July	0.483	0.455	0.489	0.606	0.930	0.456	0.390	0.708	0.698	0.125	0.425
Aug	0.524	0.457	0.492	0.612	0.413	1.10	0.613	1.06	1.04	0.238	0.602
Sept	1.03	1.00	0.981	0.832	0.462	0.430	0.961	0.692	0.682	0.174	1.29
Oct	0.675	0.651	0.367	0.696	0.675	0.386	0.362	1.10	1.09	0.158	0.126
Nov	1.22	1.10	1.04	2.39	0.958	2.04	0.477	1.35	1.31	0.448	0.125
Dec	0.529	0.480	0.588	0.744	0.256	0.807	0.512	0.824	0.807	0.186	0.341
Annual	10.0	9.56	10.4	10.5	11.0	7.84	5.62	8.83	8.66	1.96	5.96

Data completeness

2022	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 3.22 Monthly results **Site: Bandung** **Country: Indonesia**

Precipitation amount-weighted average concentration/ Precipitation amount

2022	SO_4^{2-}	nss-SO_4^{2-}	NO_3^-	Cl^-	NH_4^+	Na^+	K^+	Ca^{2+}	nss-Ca^{2+}	Mg^{2+}	H^+	pH	EC	Precip.
	$\mu mol\ L^{-1}$	$\mu mol\ L^{-1}$	$\mu mol\ L^{-1}$	$\mu mol\ L^{-1}$	$\mu mol\ L^{-1}$	$\mu mol\ L^{-1}$	$\mu mol\ L^{-1}$	$\mu mol\ L^{-1}$	$\mu mol\ L^{-1}$	$\mu mol\ L^{-1}$	$\mu mol\ L^{-1}$		$mS\ m^{-1}$	$mm\ month^{-1}$ or $mm\ year^{-1}$
Jan	29.4	28.9	19.2	7.62	44.8	6.84	1.84	24.9	24.8	2.73	2.51	5.60	1.53	65.4
Feb	46.1	45.7	26.2	8.21	78.8	6.61	4.68	26.4	26.3	3.35	0.493	6.31	2.11	71.0
Mar	25.4	24.8	16.8	8.72	57.8	10.2	4.08	18.3	18.0	2.61	0.366	6.44	1.55	217
Apr	32.7	32.1	23.8	9.63	81.8	9.65	3.79	15.1	14.9	2.64	3.97	5.40	1.95	362
May	39.1	38.3	27.8	12.6	80.9	14.3	4.56	22.4	22.0	3.39	1.77	5.75	2.15	88.5
June	32.8	30.9	22.5	12.9	74.6	31.8	3.68	11.7	11.0	1.71	1.66	5.78	1.77	135
July	34.9	32.7	20.6	35.7	71.4	35.6	4.24	11.9	11.1	2.25	5.14	5.29	2.05	59.1
Aug	115	112	75.7	62.9	173	45.3	14.6	89.7	88.7	10.3	3.45	5.46	4.94	23.0
Sept	42.1	41.1	31.0	16.5	73.7	16.6	4.03	26.7	26.3	4.33	21.2	4.67	2.90	140
Oct	35.3	34.9	22.7	7.05	50.8	6.36	2.46	13.4	13.2	2.37	10.7	4.97	1.70	258
Nov	29.5	29.1	15.8	7.08	54.7	6.11	2.11	12.8	12.7	2.28	4.10	5.39	1.32	302
Dec	29.6	29.2	15.8	10.2	52.8	6.96	2.64	21.5	21.3	3.11	0.705	6.15	1.47	235
Annual	33.7	33.0	21.7	11.0	65.7	11.6	3.40	18.1	17.8	2.80	4.92	5.31	1.81	1954
Max.	201	199	157	208	261	88.9	17.5	149	148	19.7	129	7.62	7.85	
Min.	8.74	8.19	3.07	<0.5	24.9	1.97	0.686	1.94	1.17	0.720	0.0240	3.89	0.700	

Wet deposition amount

2022	SO_4^{2-}	nss-SO_4^{2-}	NO_3^-	Cl^-	NH_4^+	Na^+	K^+	Ca^{2+}	nss-Ca^{2+}	Mg^{2+}	H^+
	$mmol\ m^{-2}$	$mmol\ m^{-2}$	$mmol\ m^{-2}$	$mmol\ m^{-2}$	$mmol\ m^{-2}$	$mmol\ m^{-2}$	$mmol\ m^{-2}$	$mmol\ m^{-2}$	$mmol\ m^{-2}$	$mmol\ m^{-2}$	$mmol\ m^{-2}$
Jan	1.92	1.89	1.26	0.498	2.93	0.448	0.121	1.63	1.62	0.178	0.164
Feb	3.28	3.25	1.86	0.583	5.59	0.469	0.332	1.87	1.86	0.238	0.0350
Mar	5.50	5.37	3.65	1.89	12.5	2.22	0.885	3.96	3.91	0.565	0.0793
Apr	11.8	11.6	8.61	3.48	29.6	3.49	1.37	5.46	5.38	0.955	1.44
May	3.46	3.39	2.46	1.11	7.16	1.26	0.404	1.98	1.95	0.300	0.156
June	4.41	4.16	3.02	1.74	10.0	4.28	0.496	1.57	1.48	0.230	0.224
July	2.06	1.94	1.22	2.11	4.22	2.10	0.251	0.700	0.655	0.133	0.304
Aug	2.64	2.58	1.74	1.45	3.98	1.04	0.336	2.06	2.04	0.236	0.0793
Sept	5.90	5.75	4.34	2.30	10.3	2.33	0.565	3.74	3.69	0.607	2.97
Oct	9.08	8.99	5.84	1.82	13.1	1.64	0.635	3.44	3.41	0.611	2.76
Nov	8.89	8.78	4.77	2.14	16.5	1.84	0.636	3.87	3.83	0.688	1.24
Dec	6.97	6.87	3.71	2.39	12.4	1.63	0.620	5.04	5.01	0.731	0.166
Annual	65.9	64.6	42.5	21.5	128	22.7	6.65	35.3	34.8	5.47	9.61

Data completeness

2022	SO_4^{2-}	nss-SO_4^{2-}	NO_3^-	Cl^-	NH_4^+	Na^+	K^+	Ca^{2+}	nss-Ca^{2+}	Mg^{2+}	H^+	pH	EC	Precip.
	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%PCL
Jan	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Feb	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Mar	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Apr	100	100	100	100	100	100	100	100	100	100	100	100	100	100
May	100	100	100	100	100	100	100	100	100	100	100	100	100	100
June	100	100	100	100	100	100	100	100	100	100	100	100	100	100
July	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Aug	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Sept	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Oct	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Nov	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Dec	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Annual	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Terms and abbreviations are given in Table 3.5.

Table 3.23 Monthly results Site: Maros Country: Indonesia

Precipitation amount-weighted average concentration/ Precipitation amount

2022	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	4.16	3.56	5.81	13.6	7.74	10.0	0.340	6.07	5.85	1.45	2.46	5.61	0.410	752
Feb	5.58	4.97	4.48	12.7	<0.8	10.1	1.41	11.8	11.6	1.47	0.620	6.21	0.443	834
Mar	4.63	4.14	3.35	10.8	3.33	8.06	<0.3	37.6	37.5	1.71	0.396	6.40	0.936	324
Apr	5.40	5.20	8.52	4.81	17.7	3.18	0.831	17.9	17.8	1.21	0.458	6.34	0.630	101
May	6.21	5.45	8.47	14.5	16.3	12.6	2.19	15.0	14.7	2.18	0.427	6.37	0.673	341
June	6.40	5.92	9.06	10.4	26.4	7.90	2.81	30.4	30.3	2.15	0.665	6.18	0.879	225
July	4.67	4.30	4.59	8.92	8.31	6.12	1.85	25.8	25.6	1.93	0.946	6.02	0.575	14.4
Aug	7.10	6.57	7.55	10.9	10.4	8.83	3.53	25.6	25.4	2.04	2.02	5.70	0.709	37.6
Sept	6.30	5.92	6.20	10.4	17.4	6.43	4.55	32.4	32.3	1.84	0.210	6.68	0.588	157
Oct	6.12	5.17	7.86	7.63	13.9	15.9	3.88	23.1	22.8	1.48	0.164	6.78	0.547	353
Nov	4.09	3.56	4.82	9.89	4.45	8.77	0.666	10.6	10.4	1.77	1.18	5.93	0.456	520
Dec	5.32	4.23	5.88	20.3	3.58	18.1	1.01	8.04	7.65	2.61	1.18	5.93	0.579	663
Annual	5.21	4.53	5.90	12.9	7.73	11.2	1.44	15.2	15.0	1.80	1.02	5.99	0.559	4321
Max.	15.1	11.3	20.2	47.1	64.8	61.7	24.7	71.4	70.0	5.26	3.27	6.95	2.31	
Min.	2.45	2.30	<0.5	3.15	<0.8	2.14	<0.3	2.37	1.78	0.486	0.114	5.49	0.200	

Wet deposition amount

2022	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	3.13	2.67	4.37	10.3	5.82	7.52	0.255	4.56	4.40	1.09	1.85
Feb	4.65	4.15	3.73	10.6	0.382	8.44	1.18	9.83	9.65	1.23	0.517
Mar	1.50	1.34	1.09	3.49	1.08	2.61	0.0939	12.2	12.1	0.554	0.128
Apr	0.545	0.526	0.862	0.486	1.79	0.322	0.0841	1.81	1.80	0.122	0.0463
May	2.12	1.86	2.89	4.95	5.57	4.29	0.746	5.11	5.02	0.742	0.146
June	1.44	1.33	2.03	2.33	5.93	1.77	0.631	6.83	6.79	0.484	0.149
July	0.0673	0.0620	0.0660	0.128	0.120	0.0882	0.0266	0.371	0.369	0.0278	0.0136
Aug	0.267	0.247	0.284	0.411	0.390	0.332	0.133	0.963	0.956	0.0765	0.0759
Sept	0.987	0.926	0.970	1.63	2.72	1.01	0.712	5.08	5.06	0.288	0.0329
Oct	2.16	1.82	2.78	2.70	4.90	5.61	1.37	8.17	8.05	0.522	0.0579
Nov	2.12	1.85	2.50	5.14	2.31	4.56	0.346	5.50	5.41	0.918	0.611
Dec	3.53	2.80	3.90	13.5	2.37	12.0	0.668	5.33	5.07	1.73	0.784
Annual	22.5	19.6	25.5	55.6	33.4	48.5	6.24	65.8	64.7	7.78	4.41

Data completeness

2022	SO_4^{2-}	nss-SO_4^{2-}	NO_3^-	Cl^-	NH_4^+	Na^+	K^+	Ca^{2+}	nss-Ca^{2+}	Mg^{2+}	H^+	pH	EC	Precip.
	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%PCL
Jan	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Feb	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Mar	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Apr	100	100	100	100	100	100	100	100	100	100	100	100	100	100
May	100	100	100	100	100	100	100	100	100	100	100	100	100	100
June	100	100	100	100	100	100	100	100	100	100	100	100	100	100
July	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Aug	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Sept	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Oct	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Nov	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Dec	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Annual	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Terms and abbreviations are given in Table 3.5.

Table 3.24 Monthly results **Site: Jembrana** **Country: Indonesia**

Precipitation amount-weighted average concentration/ Precipitation amount

2022	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	11.0	10.2	12.8	25.8	6.62	14.7	7.07	3.22	2.90	1.65	15.4	4.81	1.47	250
Feb	10.7	9.88	13.0	25.1	<0.8	14.2	1.14	4.31	4.01	1.51	21.5	4.67	1.54	224
Mar	11.2	10.4	11.7	22.8	5.43	13.6	0.962	3.40	3.11	1.74	23.4	4.63	1.79	327
Apr	4.09	3.16	13.7	27.8	8.42	15.5	6.01	5.11	4.77	2.07	19.7	4.71	1.57	108
May	7.96	6.19	15.6	42.4	6.28	29.3	0.996	5.61	4.98	3.53	31.6	4.50	2.13	99.0
June	7.97	5.81	6.37	67.7	14.2	35.9	4.55	7.63	6.85	4.85	8.42	5.07	1.33	243
July	18.7	6.69	<0.5	306	<0.8	199	5.23	17.3	13.0	22.7	20.2	4.70	4.02	12.2
Aug	9.01	7.18	7.37	82.0	1.03	30.4	11.4	12.2	11.5	4.31	9.33	5.03	1.62	104
Sept	8.50	5.45	4.34	62.7	<0.8	50.6	2.10	4.06	2.97	4.09	5.36	5.27	1.29	282
Oct	5.53	4.27	1.81	20.3	2.09	21.0	3.35	5.49	5.03	3.89	4.36	5.36	0.672	582
Nov	13.0	12.3	10.5	18.1	<0.8	12.8	2.01	3.87	3.59	2.02	12.8	4.89	1.56	155
Dec	5.45	4.34	2.52	17.1	<0.8	18.3	2.07	3.62	3.22	2.39	3.12	5.51	0.851	320
Annual	8.32	6.89	7.38	34.5	3.72	23.9	3.31	4.96	4.44	3.06	11.8	4.93	1.29	2705
Max.	21.4	18.4	40.1	416	75.7	251	24.4	23.1	22.4	28.8	75.9	6.05	4.24	
Min.	2.74	1.09	<0.5	7.37	<0.8	5.86	<0.3	1.03	0.746	0.690	0.891	4.12	0.577	

Wet deposition amount

2022	SO_4^{2-}	nss-SO_4^{2-}	NO_3^-	Cl^-	NH_4^+	Na^+	K^+	Ca^{2+}	nss-Ca^{2+}	Mg^{2+}	H^+
	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}
Jan	2.75	2.53	3.18	6.44	1.65	3.67	1.76	0.803	0.723	0.412	3.85
Feb	2.40	2.21	2.91	5.60	0.0124	3.18	0.255	0.964	0.896	0.337	4.82
Mar	3.66	3.39	3.81	7.46	1.78	4.46	0.315	1.11	1.02	0.569	7.66
Apr	0.443	0.342	1.48	3.01	0.911	1.67	0.650	0.552	0.516	0.224	2.13
May	0.788	0.613	1.54	4.20	0.622	2.90	0.0986	0.555	0.493	0.349	3.12
June	1.94	1.41	1.55	16.5	3.45	8.73	1.11	1.85	1.67	1.18	2.05
July	0.228	0.0816	<0.01	3.73	<0.01	2.42	0.0638	0.211	0.158	0.277	0.246
Aug	0.939	0.748	0.768	8.54	0.107	3.17	1.18	1.27	1.20	0.449	0.972
Sept	2.39	1.53	1.22	17.6	0.0358	14.2	0.592	1.14	0.836	1.15	1.51
Oct	3.22	2.48	1.05	11.8	1.21	12.2	1.95	3.19	2.93	2.26	2.54
Nov	2.01	1.90	1.63	2.80	0.0934	1.97	0.311	0.598	0.555	0.312	1.97
Dec	1.75	1.39	0.807	5.49	0.175	5.87	0.665	1.16	1.03	0.765	1.00
Annual	22.5	18.6	20.0	93.2	10.1	64.5	8.95	13.4	12.0	8.29	31.9

Data completeness

2022	SO_4^{2-}	nss-SO_4^{2-}	NO_3^-	Cl^-	NH_4^+	Na^+	K^+	Ca^{2+}	nss-Ca^{2+}	Mg^{2+}	H^+	pH	EC	Precip.
	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%PCL
Jan	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Feb	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Mar	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Apr	100	100	100	100	100	100	100	100	100	100	100	100	100	100
May	100	100	100	100	100	100	100	100	100	100	100	100	100	100
June	100	100	100	100	100	100	100	100	100	100	100	100	100	100
July	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Aug	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Sept	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Oct	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Nov	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Dec	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Annual	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Terms and abbreviations are given in Table 3.5.

Table 3.25 Monthly results **Site: Lombok** **Country: Indonesia**

Precipitation amount-weighted average concentration/ Precipitation amount

2022	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	25.0	23.7	7.43	31.5	7.27	21.4	3.31	31.5	31.0	2.74	22.4	4.65	1.73	151
Feb	55.9	54.8	5.41	15.9	14.8	17.5	3.01	1.35	0.976	1.95	35.0	4.46	2.20	281
Mar	7.67	7.11	6.04	12.0	2.49	9.30	1.13	4.62	4.42	1.34	9.42	5.03	0.887	235
Apr	10.1	9.43	8.31	11.6	20.1	10.9	1.40	3.82	3.59	1.95	3.70	5.43	0.797	192
May	11.7	10.4	5.88	25.9	7.70	22.1	1.16	83.0	82.5	4.35	2.88	5.54	2.41	193
June	12.8	11.3	8.41	39.4	21.6	24.3	2.16	4.55	4.03	3.12	7.88	5.10	1.27	143
July	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Aug	14.5	13.6	11.7	25.2	15.8	14.1	5.73	22.1	21.8	3.65	1.47	5.83	1.34	128
Sept	14.1	11.4	3.51	55.9	69.6	45.5	8.90	12.0	11.1	12.1	0.527	6.28	2.32	113
Oct	54.0	50.1	4.29	41.5	471	64.4	142	28.3	26.9	36.5	0.328	6.48	17.2	340
Nov	9.00	8.52	6.82	10.3	39.8	7.91	7.82	5.16	4.98	9.18	27.1	4.57	2.03	430
Dec	12.6	11.2	5.32	24.9	19.8	22.3	1.70	4.38	3.90	3.68	8.52	5.07	1.22	288
Annual	20.3	18.9	6.42	24.5	83.5	23.6	22.6	17.2	16.7	9.06	12.9	4.89	3.77	2494
Max.	167	166	15.8	981	587	437	221	144	143	73.3	129	7.02	73.7	
Min.	5.72	1.66	<0.5	6.47	<0.8	3.41	0.322	0.693	0.487	0.635	0.0955	3.89	0.537	

Wet deposition amount

2022	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	3.77	3.58	1.12	4.76	1.10	3.23	0.501	4.76	4.69	0.414	3.38
Feb	15.7	15.4	1.52	4.46	4.15	4.91	0.845	0.380	0.274	0.547	9.83
Mar	1.80	1.67	1.42	2.83	0.585	2.18	0.265	1.09	1.04	0.315	2.21
Apr	1.94	1.81	1.60	2.23	3.87	2.09	0.269	0.734	0.689	0.375	0.711
May	2.27	2.01	1.14	5.01	1.49	4.26	0.224	16.0	15.9	0.840	0.556
June	1.82	1.61	1.20	5.62	3.07	3.46	0.308	0.649	0.574	0.445	1.12
July	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Aug	1.86	1.75	1.50	3.23	2.03	1.81	0.734	2.83	2.79	0.468	0.189
Sept	1.60	1.29	0.398	6.32	7.88	5.15	1.01	1.36	1.25	1.37	0.0596
Oct	18.3	17.0	1.46	14.1	160	21.9	48.1	9.62	9.14	12.4	0.112
Nov	3.87	3.67	2.94	4.45	17.1	3.40	3.36	2.22	2.14	3.95	11.7
Dec	3.63	3.24	1.53	7.19	5.72	6.44	0.491	1.26	1.12	1.06	2.46
Annual	50.7	47.1	16.0	61.1	208	58.8	56.3	43.0	41.7	22.6	32.3

Data completeness

2022	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	48.4	48.4	48.4	48.4	48.4	48.4	48.4	48.4	48.4	48.4	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	93.4	93.4	93.4	93.4	93.4	93.4	93.4	93.4	93.4	93.4	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	**93.3**	**93.3**	**93.3**	**93.3**	**93.3**	**93.3**	**93.3**	**93.3**	**93.3**	**93.3**	**100**	**100**	**100**	**100**

Terms and abbreviations are given in Table 3.5.

Table 3.26 Monthly results Site: Rishiri Country: Japan

Precipitation amount-weighted average concentration/ Precipitation amount

2022	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	27.9	10.3	10.2	330	9.8	292	7.2	8.1	1.8	35.9	14.6	4.8	5.5	107
Feb	29.2	8.3	7.4	380	10.6	346	7.9	9.6	2.1	38.1	9.4	5.0	6.0	36.6
Mar	48.9	29.0	60.1	371	54.7	329	9.3	42.4	35.3	44.1	4.4	5.4	6.9	37.5
Apr	28.6	20.0	38.2	166	59.9	144	5.7	20.4	17.3	17.5	2.0	5.7	3.8	61.2
May	15.6	13.3	18.7	43.0	24.4	36.7	1.9	4.3	3.5	4.7	12.5	4.9	1.8	101
June	10.9	9.6	13.9	26.5	21.9	22.8	1.2	1.6	1.1	2.7	7.8	5.1	1.2	71.5
July	19.6	19.1	30.3	14.6	15.4	8.3	1.1	13.6	13.4	3.7	15.1	4.8	1.7	28.5
Aug	10.3	5.4	9.4	94.5	11.8	81.6	2.1	2.6	0.9	9.3	6.9	5.2	1.9	103
Sept	8.0	4.8	9.1	61.1	6.9	54.4	2.1	2.6	1.5	6.3	10.8	5.0	1.5	126
Oct	15.7	7.3	13.5	158	21.8	141	4.6	5.8	2.8	15.2	8.2	5.1	3.0	128
Nov	19.6	7.0	15.2	241	15.7	210	5.1	7.5	3.0	23.7	8.5	5.1	4.1	139
Dec	29.1	6.2	9.9	410	6.8	379	7.2	11.8	3.6	41.9	10.4	5.0	6.5	108
Annual	19.2	9.2	15.3	187	18.5	167	4.4	7.9	4.3	19.3	9.3	5.0	3.5	1047
Max.	330	106	345	5442	323	5099	77.3	207	187	556	53.7	6.31	75.8	
Min.	2.75	0.395	0.576	2.22	<0.8	1.62	<0.3	0.675	<0.2	0.464	0.490	4.27	0.424	

Wet deposition amount

2022	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	2.99	1.10	1.09	35.4	1.05	31.3	0.768	0.868	0.195	3.85	1.57
Feb	1.07	0.304	0.269	13.9	0.389	12.7	0.289	0.350	0.0765	1.39	0.345
Mar	1.83	1.09	2.25	13.9	2.05	12.4	0.349	1.59	1.32	1.65	0.166
Apr	1.75	1.22	2.34	10.2	3.67	8.80	0.346	1.25	1.06	1.07	0.125
May	1.57	1.35	1.89	4.34	2.46	3.70	0.189	0.437	0.357	0.476	1.26
June	0.782	0.684	0.992	1.90	1.57	1.63	0.0886	0.115	0.0795	0.190	0.557
July	0.559	0.545	0.863	0.415	0.439	0.235	0.0325	0.388	0.383	0.107	0.432
Aug	1.07	0.560	0.967	9.74	1.22	8.41	0.217	0.270	0.0884	0.958	0.711
Sept	1.01	0.601	1.15	7.70	0.870	6.85	0.266	0.334	0.186	0.795	1.37
Oct	2.01	0.926	1.72	20.2	2.79	18.0	0.586	0.745	0.357	1.94	1.05
Nov	2.73	0.974	2.12	33.6	2.18	29.2	0.704	1.04	0.414	3.30	1.18
Dec	3.14	0.671	1.07	44.3	0.730	41.0	0.774	1.27	0.387	4.53	1.12
Annual	20.1	9.59	16.1	196	19.3	175	4.61	8.24	4.47	20.2	9.70

Data completeness

2022	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	84.1	84.1	84.1	84.1	84.1	84.1	84.1	84.1	84.1	84.1	84.1	84.1	84.1	100
Feb	92.8	92.8	92.8	92.8	92.8	92.8	92.8	92.8	92.8	92.8	92.8	92.8	92.8	100
Mar	77.4	77.4	77.4	77.4	77.4	77.4	77.4	77.4	77.4	77.4	77.4	77.4	77.4	100
Apr	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	100
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	95.1	95.1	95.1	95.1	95.1	95.1	95.1	95.1	95.1	95.1	95.1	95.1	95.1	100
July	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	100
Aug	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
Sept	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
Oct	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	100
Nov	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
Dec	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Annual	**94.0**	**94.0**	**94.0**	**94.0**	**94.0**	**94.0**	**94.0**	**94.0**	**94.0**	**94.0**	**94.0**	**94.0**	**94.0**	**100**

Terms and abbreviations are given in Table 3.5.

Table 3.27 Monthly results **Site: Ochiishi** **Country: Japan**

Precipitation amount-weighted average concentration/ Precipitation amount

2022	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	*	*	*	*	*	*	*	*	*	*	*	*	*	8.0
Feb	*	*	*	*	*	*	*	*	*	*	*	*	*	3.0
Mar	*	*	*	*	*	*	*	*	*	*	*	*	*	13.0
Apr	*	*	*	*	*	*	*	*	*	*	*	*	*	14.0
May	*	*	*	*	*	*	*	*	*	*	*	*	*	85.5
June	*	*	*	*	*	*	*	*	*	*	*	*	*	85.0
July	*	*	*	*	*	*	*	*	*	*	*	*	*	83.5
Aug	*	*	*	*	*	*	*	*	*	*	*	*	*	292
Sept	*	*	*	*	*	*	*	*	*	*	*	*	*	107
Oct	*	*	*	*	*	*	*	*	*	*	*	*	*	60.5
Nov	*	*	*	*	*	*	*	*	*	*	*	*	*	34.0
Dec	*	*	*	*	*	*	*	*	*	*	*	*	*	61.0
Annual	*	*	*	*	*	*	*	*	*	*	*	*	*	846
Max.	*	*	*	*	*	*	*	*	*	*	*	*	*	
Min.	*	*	*	*	*	*	*	*	*	*	*	*	*	

Wet deposition amount

2022	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

2022	SO_4^{2-} %TP	nss-SO_4^{2-} %TP	NO_3^- %TP	Cl^- %TP	NH_4^+ %TP	Na^+ %TP	K^+ %TP	Ca^{2+} %TP	nss-Ca^{2+} %TP	Mg^{2+} %TP	H^+ %TP	pH %TP	EC %TP	Precip. %PCL
Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	100
Feb	0	0	0	0	0	0	0	0	0	0	0	0	0	100
Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	100
Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	96.7
May	0	0	0	0	0	0	0	0	0	0	0	0	0	96.8
June	0	0	0	0	0	0	0	0	0	0	0	0	0	100
July	0	0	0	0	0	0	0	0	0	0	0	0	0	100
Aug	0	0	0	0	0	0	0	0	0	0	0	0	0	100
Sept	0	0	0	0	0	0	0	0	0	0	0	0	0	100
Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	100
Nov	0	0	0	0	0	0	0	0	0	0	0	0	0	100
Dec	0	0	0	0	0	0	0	0	0	0	0	0	0	100
Annual	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**99.5**

Terms and abbreviations are given in Table 3.5.

Table 3.28 Monthly results **Site: Sado-seki** **Country: Japan**

Precipitation amount-weighted average concentration/ Precipitation amount

2022	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	*	*	*	*	*	*	*	*	*	*	*	*	*	73.0
Feb	*	*	*	*	*	*	*	*	*	*	*	*	*	82.5
Mar	*	*	*	*	*	*	*	*	*	*	*	*	*	118
Apr	*	*	*	*	*	*	*	*	*	*	*	*	*	63.0
May	9.9	7.0	14.2	53.2	20.9	47.7	1.7	3.9	2.9	5.9	7.7	5.1	1.5	109
June	9.6	5.4	11.8	80.2	10.9	70.8	2.0	3.2	1.7	8.0	5.3	5.3	1.7	63.3
July	5.3	3.6	10.4	33.0	6.9	28.1	0.7	2.7	2.1	3.4	7.3	5.1	1.0	55.1
Aug	5.9	3.7	8.1	42.4	5.8	37.2	0.9	1.4	0.6	4.3	7.5	5.1	1.1	175
Sept	16.9	1.2	4.3	297	1.0	261	5.7	5.9	0.3	28.8	5.1	5.3	4.4	85.0
Oct	9.5	2.4	6.8	135	4.0	118	3.0	3.8	1.2	13.4	4.9	5.3	2.2	127
Nov	11.2	3.8	8.2	141	6.4	123	3.0	5.1	2.4	14.0	5.0	5.3	2.4	106
Dec	49.4	7.9	13.1	791	7.1	688	14.9	17.9	3.0	77.9	10.7	5.0	11.0	136
Annual	16.6	4.3	9.2	234	6.7	204	4.6	6.1	1.7	23.1	6.9	5.2	3.6	1193
Max.	522	40.3	113	9522	129	8283	179	201	26.6	960	37.2	6.32	59.7	
Min.	1.00	<0.3	1.00	6.60	<0.8	5.30	0.300	0.500	<0.2	1.00	0.479	4.43	0.310	

Wet deposition amount

2022	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	1.08	0.766	1.56	5.81	2.29	5.21	0.182	0.425	0.313	0.645	0.840
June	0.609	0.339	0.744	5.07	0.687	4.48	0.125	0.203	0.106	0.509	0.334
July	0.291	0.198	0.573	1.82	0.380	1.55	0.0399	0.146	0.113	0.188	0.400
Aug	1.04	0.645	1.42	7.44	1.02	6.52	0.162	0.246	0.105	0.762	1.31
Sept	1.44	0.102	0.369	25.3	0.0852	22.2	0.482	0.503	0.0252	2.45	0.430
Oct	1.20	0.305	0.861	17.1	0.508	14.9	0.375	0.477	0.155	1.69	0.616
Nov	1.19	0.400	0.864	14.9	0.679	13.0	0.317	0.538	0.256	1.49	0.528
Dec	6.72	1.08	1.79	108	0.970	93.6	2.03	2.44	0.415	10.6	1.45
Annual	19.8	5.18	11.0	279	8.02	243	5.52	7.23	1.98	27.5	8.24

Data completeness

2022	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	0
Feb	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	100
May	39.2	39.2	39.2	39.2	39.2	39.2	39.2	39.2	39.2	39.2	39.0	39.0	39.0	100
June	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.1	99.1	99.1	100
July	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	98.4	98.4	98.4	100
Aug	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	98.2	98.2	98.2	100
Sept	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.2	99.2	99.2	100
Oct	76.5	76.5	76.5	76.5	76.5	76.5	76.5	76.5	76.5	76.5	74.0	74.0	74.0	96.8
Nov	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	98.0	98.0	98.0	100
Dec	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	98.7	98.7	98.7	96.0
Annual	**63.5**	**63.5**	**63.5**	**63.5**	**63.5**	**63.5**	**63.5**	**63.5**	**63.5**	**63.5**	**62.7**	**62.7**	**62.7**	**76.4**

Terms and abbreviations are given in Table 3.5.

Table 3.29 Monthly results Site: Happo Country: Japan

Precipitation amount-weighted average concentration/ Precipitation amount

2022	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	7.3	6.1	9.2	23.4	8.6	20.0	1.0	1.4	1.0	2.1	10.4	5.0	1.0	124
Feb	7.6	6.9	8.1	14.2	11.1	11.8	0.6	1.5	1.2	1.5	7.7	5.1	0.8	130
Mar	8.5	7.7	8.7	14.3	13.6	13.1	0.9	6.3	6.0	2.3	3.3	5.5	0.7	124
Apr	2.9	2.9	5.8	1.2	7.5	1.1	0.4	1.3	1.3	0.6	3.2	5.5	0.4	195
May	5.9	5.8	11.0	2.5	16.8	1.8	0.6	2.7	2.7	0.7	3.1	5.5	0.5	134
June	4.5	4.5	8.0	1.9	9.8	1.3	<0.3	1.1	1.1	0.4	5.7	5.2	0.5	207
July	3.9	3.8	5.6	1.4	5.8	1.0	<0.3	1.0	1.0	0.4	7.9	5.1	0.5	295
Aug	2.9	2.8	4.4	1.5	4.8	1.0	<0.3	0.6	0.5	0.3	6.3	5.2	0.4	306
Sept	2.2	2.2	2.5	1.0	0.9	0.9	<0.3	0.4	0.4	<0.3	5.9	5.2	0.4	230
Oct	3.2	3.1	5.0	2.2	4.1	1.8	0.3	0.8	0.7	0.4	7.6	5.1	0.5	134
Nov	2.2	2.0	3.8	4.5	3.0	3.8	<0.3	1.0	0.9	0.6	4.9	5.3	0.4	150
Dec	7.7	6.3	9.6	27.0	9.0	23.1	0.8	1.6	1.1	2.5	13.9	4.9	1.2	195
Annual	4.2	4.0	6.0	5.3	6.8	4.4	0.4	1.3	1.2	0.8	6.3	5.2	0.5	2223
Max.	77.8	77.3	160	78.7	370	126	23.0	26.7	26.5	7.70	51.3	6.50	3.90	
Min.	<0.3	<0.3	<0.5	<0.5	<0.8	0.333	<0.3	0.273	<0.2	<0.3	0.316	4.29	0.133	

Wet deposition amount

2022	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	0.904	0.753	1.14	2.92	1.07	2.49	0.124	0.175	0.121	0.267	1.29
Feb	0.997	0.904	1.05	1.86	1.45	1.54	0.0798	0.189	0.156	0.191	1.01
Mar	1.05	0.953	1.09	1.77	1.69	1.63	0.118	0.779	0.744	0.291	0.412
Apr	0.574	0.561	1.12	0.234	1.47	0.219	0.0724	0.258	0.253	0.121	0.624
May	0.795	0.781	1.47	0.336	2.25	0.243	0.0760	0.362	0.356	0.0947	0.422
June	0.938	0.922	1.65	0.393	2.02	0.259	0.0576	0.236	0.230	0.0892	1.18
July	1.14	1.12	1.66	0.407	1.70	0.306	0.0700	0.304	0.297	0.120	2.32
Aug	0.885	0.866	1.36	0.445	1.48	0.302	0.0679	0.169	0.162	0.0975	1.92
Sept	0.513	0.501	0.580	0.219	0.210	0.208	0.0554	0.0926	0.0881	0.0663	1.35
Oct	0.431	0.417	0.674	0.292	0.542	0.235	0.0430	0.101	0.0961	0.0597	1.02
Nov	0.329	0.295	0.573	0.678	0.445	0.562	0.0404	0.142	0.130	0.0899	0.737
Dec	1.50	1.22	1.86	5.25	1.76	4.50	0.159	0.302	0.204	0.490	2.71
Annual	9.43	8.84	13.4	11.8	15.1	9.89	0.891	2.99	2.78	1.72	14.1

Data completeness

2022	SO_4^{2-}	nss-SO_4^{2-}	NO_3^-	Cl^-	NH_4^+	Na^+	K^+	Ca^{2+}	nss-Ca^{2+}	Mg^{2+}	H^+	pH	EC	Precip.
	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%PCL
Jan	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	98.5	98.5	98.5	100
Feb	100	100	100	100	100	100	100	100	100	100	98.7	98.7	98.7	100
Mar	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
Apr	100	100	100	100	100	100	100	100	100	100	99.6	99.6	99.6	100
May	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	66.7
June	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.0	99.0	99.0	87.1
July	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.0	99.0	99.0	100
Aug	100	100	100	100	100	100	100	100	100	100	98.2	98.2	98.2	100
Sept	98.3	98.3	98.3	98.3	98.3	98.3	98.3	98.3	98.3	98.3	97.2	97.2	97.2	100
Oct	100	100	100	100	100	100	100	100	100	100	98.1	98.1	98.1	100
Nov	100	100	100	100	100	100	100	100	100	100	99.7	99.7	99.7	100
Dec	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	100
Annual	**90.1**	**90.1**	**90.1**	**90.1**	**90.1**	**90.1**	**90.1**	**90.1**	**90.1**	**90.1**	**89.1**	**89.1**	**89.1**	**96.2**

Terms and abbreviations are given in Table 3.5.

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

Precipitation amount-weighted average concentration/ Precipitation amount

2022	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	10.7	6.8	16.7	78.2	13.6	64.2	1.7	2.7	1.3	7.5	15.6	4.8	2.0	111
Feb	9.9	7.1	15.5	57.2	15.6	46.8	1.2	3.1	2.1	5.7	14.1	4.8	1.6	129
Mar	9.5	8.3	11.6	21.1	14.5	18.5	0.7	4.3	3.9	2.8	6.3	5.2	1.0	270
Apr	8.6	7.6	14.4	19.2	14.4	16.0	0.6	2.5	2.1	2.1	10.9	5.0	1.1	302
May	7.7	7.6	13.3	3.1	19.5	2.2	0.3	1.9	1.8	0.6	6.9	5.2	0.7	214
June	10.9	10.6	21.8	6.8	25.1	5.3	0.4	2.2	2.1	0.9	14.2	4.8	1.2	250
July	7.0	6.7	14.2	6.1	14.2	5.1	<0.3	1.8	1.7	0.8	10.4	5.0	0.9	666
Aug	6.6	6.3	10.6	7.6	10.2	6.0	<0.3	1.0	0.8	0.8	11.5	4.9	0.9	731
Sept	6.7	4.8	7.2	36.4	8.4	30.4	0.7	1.4	0.7	3.7	8.6	5.1	1.0	657
Oct	6.9	6.2	14.7	13.5	8.3	12.0	0.5	1.5	1.2	1.6	14.1	4.9	1.1	169
Nov	3.3	3.0	6.3	5.8	4.6	4.6	<0.3	0.8	0.7	0.7	7.3	5.1	0.5	177
Dec	10.1	5.7	12.8	86.4	10.7	72.5	1.6	2.9	1.3	8.5	10.4	5.0	1.9	368
Annual	7.7	6.5	12.3	24.4	12.6	20.3	0.6	1.9	1.5	2.6	10.4	5.0	1.1	4042
Max.	33.9	28.2	78.2	201	98.6	168	4.40	14.8	12.5	19.9	57.0	5.59	6.20	
Min.	1.30	1.25	3.60	1.10	1.40	0.800	<0.3	0.300	0.283	<0.3	2.57	4.24	0.316	

Wet deposition amount

2022	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	1.18	0.754	1.86	8.68	1.51	7.14	0.184	0.296	0.141	0.831	1.73
Feb	1.28	0.918	2.01	7.38	2.02	6.03	0.150	0.406	0.276	0.740	1.82
Mar	2.55	2.25	3.13	5.69	3.91	4.99	0.193	1.15	1.04	0.762	1.69
Apr	2.58	2.29	4.34	5.80	4.35	4.82	0.177	0.741	0.637	0.641	3.29
May	1.65	1.62	2.84	0.658	4.18	0.477	0.0654	0.399	0.388	0.126	1.49
June	2.72	2.64	5.46	1.70	6.28	1.33	0.102	0.562	0.533	0.228	3.55
July	4.68	4.48	9.44	4.09	9.45	3.37	0.194	1.18	1.11	0.546	6.93
Aug	4.84	4.58	7.75	5.57	7.46	4.40	0.174	0.714	0.619	0.593	8.40
Sept	4.37	3.17	4.71	23.9	5.52	20.0	0.471	0.893	0.461	2.42	5.67
Oct	1.17	1.04	2.48	2.29	1.40	2.02	0.0811	0.251	0.207	0.270	2.38
Nov	0.575	0.526	1.11	1.03	0.814	0.821	0.0177	0.143	0.125	0.126	1.29
Dec	3.70	2.09	4.69	31.7	3.93	26.6	0.586	1.05	0.476	3.11	3.81
Annual	31.3	26.4	49.8	98.5	50.8	82.0	2.40	7.79	6.02	10.4	42.1

Data completeness

2022	SO_4^{2-} %TP	nss-SO_4^{2-} %TP	NO_3^- %TP	Cl^- %TP	NH_4^+ %TP	Na^+ %TP	K^+ %TP	Ca^{2+} %TP	nss-Ca^{2+} %TP	Mg^{2+} %TP	H^+ %TP	pH %TP	EC %TP	Precip. %PCL
Jan	99.9	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
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 3.31 Monthly results Site: Oki Country: Japan

Precipitation amount-weighted average concentration/ Precipitation amount

2022	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	*	*	*	*	*	*	*	*	*	*	*	*	*	129
Feb	*	*	*	*	*	*	*	*	*	*	*	*	*	95.0
Mar	*	*	*	*	*	*	*	*	*	*	*	*	*	84.5
Apr	*	*	*	*	*	*	*	*	*	*	*	*	*	174
May	*	*	*	*	*	*	*	*	*	*	*	*	*	39.5
June	*	*	*	*	*	*	*	*	*	*	*	*	*	61.0
July	*	*	*	*	*	*	*	*	*	*	*	*	*	185
Aug	*	*	*	*	*	*	*	*	*	*	*	*	*	111
Sept	*	*	*	*	*	*	*	*	*	*	*	*	*	123
Oct	*	*	*	*	*	*	*	*	*	*	*	*	*	113
Nov	*	*	*	*	*	*	*	*	*	*	*	*	*	96.5
Dec	*	*	*	*	*	*	*	*	*	*	*	*	*	102
Annual	*	*	*	*	*	*	*	*	*	*	*	*	*	1311
Max.	*	*	*	*	*	*	*	*	*	*	*	*	*	
Min.	*	*	*	*	*	*	*	*	*	*	*	*	*	

Wet deposition amount

2022	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

2022	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	0
Feb	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0
May	0	0	0	0	0	0	0	0	0	0	0	0	0	0
June	0	0	0	0	0	0	0	0	0	0	0	0	0	0
July	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aug	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sept	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nov	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Annual	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Terms and abbreviations are given in Table 3.5.

*Due to the lack of the original precipitation data, those of the nearest meteorological station are alternatively put for the reference.

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

Precipitation amount-weighted average concentration/ Precipitation amount

2022	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	14.2	12.3	27.2	39.3	26.1	32.4	1.4	3.0	2.3	4.4	22.7	4.6	2.1	66.5
Feb	27.3	18.7	42.4	169	37.6	143	4.7	11.2	8.1	17.2	21.9	4.7	4.2	35.0
Mar	7.4	6.9	6.9	10.1	7.8	8.7	1.0	3.5	3.3	1.9	8.2	5.1	0.8	159
Apr	4.6	4.5	4.1	2.9	3.1	2.4	0.8	1.2	1.1	1.2	8.4	5.1	0.5	166
May	3.2	3.1	4.6	2.4	4.8	2.5	0.8	1.5	1.4	1.4	5.8	5.2	0.4	157
June	2.6	2.5	5.2	1.7	4.6	1.6	0.7	1.2	1.1	1.2	5.1	5.3	0.4	196
July	2.8	2.5	2.7	6.4	4.4	5.6	1.0	1.2	1.1	1.6	5.9	5.2	0.4	606
Aug	10.3	9.9	9.2	7.1	10.7	6.0	1.0	1.7	1.6	1.8	20.5	4.7	1.2	71.5
Sept	12.7	7.7	4.1	96.3	4.6	83.0	2.3	2.4	0.6	8.8	12.9	4.9	2.0	766
Oct	18.5	17.7	14.5	24.2	10.0	14.0	3.5	2.0	1.7	2.7	44.7	4.3	2.3	35.3
Nov	5.8	5.0	9.8	14.7	5.5	13.2	2.2	1.8	1.5	2.4	12.4	4.9	0.9	88.0
Dec	14.4	9.2	20.3	105	11.7	86.8	3.0	5.9	4.0	10.2	17.9	4.7	2.5	74.2
Annual	8.1	5.9	6.3	42.2	6.3	36.1	1.6	2.2	1.4	4.5	10.8	5.0	1.2	2420
Max.	166	74.7	170	1757	258	1520	66.3	138	105	175	141	6.24	12.4	
Min.	0.400	<0.3	<0.5	<0.5	<0.8	0.900	0.600	0.700	0.275	1.00	0.575	3.85	0.170	

Wet deposition amount

2022	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	0.945	0.815	1.81	2.61	1.73	2.15	0.0964	0.198	0.151	0.295	1.51
Feb	0.955	0.654	1.48	5.91	1.32	5.00	0.163	0.392	0.284	0.600	0.767
Mar	1.18	1.10	1.09	1.60	1.24	1.38	0.154	0.550	0.520	0.306	1.30
Apr	0.769	0.746	0.687	0.488	0.514	0.395	0.136	0.199	0.190	0.194	1.39
May	0.505	0.482	0.716	0.371	0.752	0.384	0.128	0.231	0.223	0.217	0.913
June	0.506	0.487	1.01	0.324	0.893	0.309	0.141	0.230	0.223	0.230	1.01
July	1.72	1.52	1.64	3.89	2.65	3.37	0.578	0.726	0.654	0.997	3.58
Aug	0.735	0.709	0.656	0.509	0.765	0.429	0.0707	0.125	0.115	0.126	1.47
Sept	9.71	5.88	3.18	73.8	3.55	63.6	1.78	1.85	0.479	6.76	9.90
Oct	0.655	0.625	0.512	0.855	0.354	0.495	0.125	0.0701	0.0594	0.0945	1.58
Nov	0.512	0.442	0.860	1.29	0.484	1.16	0.193	0.155	0.130	0.213	1.09
Dec	1.07	0.682	1.51	7.80	0.872	6.45	0.220	0.435	0.296	0.759	1.33
Annual	19.7	14.4	15.3	102	15.3	87.4	3.83	5.24	3.35	11.0	26.1

Data completeness

2022	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	99.7	99.7	99.7	100
Apr	100	100	100	100	100	100	100	100	100	100	99.9	99.9	99.9	100
May	100	100	100	100	100	100	100	100	100	100	99.7	99.7	99.7	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	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	91.8	91.8	91.8	100
Aug	100	100	100	100	100	100	100	100	100	100	97.9	97.9	97.9	100
Sept	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	98.9	98.9	98.9	100
Oct	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	91.5	91.5	91.5	100
Nov	86.4	86.4	86.4	86.4	86.4	86.4	86.4	86.4	86.4	86.4	85.2	85.2	85.2	100
Dec	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	96.3	96.3	96.3	100
Annual	**96.0**	**96.0**	**96.0**	**96.0**	**96.0**	**96.0**	**96.0**	**96.0**	**96.0**	**96.0**	**95.6**	**95.6**	**95.6**	**100**

Terms and abbreviations are given in Table 3.5.

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

Precipitation amount-weighted average concentration/ Precipitation amount

2022	SO_4^{2-} µmol L^{-1}	nss-SO_4^{2-} µmol L^{-1}	NO_3^- µmol L^{-1}	Cl^- µmol L^{-1}	NH_4^+ µmol L^{-1}	Na^+ µmol L^{-1}	K^+ µmol L^{-1}	Ca^{2+} µmol L^{-1}	nss-Ca^{2+} µmol L^{-1}	Mg^{2+} µmol L^{-1}	H^+ µmol L^{-1}	pH	EC mS m^{-1}	Precip. mm $month^{-1}$ or mm $year^{-1}$
Jan	*	*	*	*	*	*	*	*	*	*	*	*	*	197
Feb	*	*	*	*	*	*	*	*	*	*	*	*	*	214
Mar	*	*	*	*	*	*	*	*	*	*	*	*	*	284
Apr	6.5	3.7	6.9	52.7	4.7	45.9	0.7	3.1	2.1	5.6	6.5	5.2	1.1	64.5
May	6.3	2.1	4.9	79.1	5.1	68.9	1.6	5.1	3.6	8.3	4.4	5.4	1.4	605
June	2.8	1.1	3.5	33.1	2.0	28.7	0.8	1.8	1.2	3.5	3.9	5.4	0.7	469
July	4.5	1.4	2.8	59.8	2.0	51.7	1.1	1.6	0.5	6.5	5.4	5.3	1.1	288
Aug	6.8	3.1	8.4	71.4	5.8	61.2	1.2	2.0	0.7	7.4	10.9	5.0	1.6	83.8
Sept	22.3	2.1	2.5	390	2.9	336	7.3	8.5	1.2	40.1	4.0	5.4	5.5	281
Oct	16.9	2.5	4.4	278	2.4	239	5.0	6.2	1.1	28.2	5.4	5.3	4.1	117
Nov	11.0	4.0	5.9	133	2.5	116	2.7	3.5	1.0	13.4	9.2	5.0	2.3	158
Dec	24.6	5.2	6.5	377	3.8	322	7.0	7.8	0.9	36.6	10.8	5.0	5.7	268
Annual	10.4	2.4	4.5	154	3.4	133	3.0	4.5	1.7	15.7	5.7	5.2	2.4	3029
Max.	638	44.4	96.8	11682	127	9977	218	225	51.5	1133	90.8	6.92	155	
Min.	1.11	<0.3	<0.5	6.23	<0.8	5.39	<0.3	<0.2	<0.2	0.864	0.120	4.04	0.255	

Wet deposition amount

2022	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	0.419	0.240	0.445	3.40	0.304	2.96	0.0430	0.202	0.138	0.361	0.417
May	3.80	1.29	2.99	47.8	3.08	41.6	0.978	3.10	2.20	5.01	2.64
June	1.33	0.524	1.65	15.5	0.936	13.4	0.388	0.831	0.549	1.66	1.84
July	1.31	0.408	0.813	17.2	0.586	14.9	0.319	0.470	0.155	1.86	1.55
Aug	0.570	0.260	0.701	5.98	0.490	5.13	0.0998	0.165	0.0545	0.619	0.910
Sept	6.28	0.582	0.713	110	0.812	94.5	2.06	2.38	0.339	11.3	1.12
Oct	1.99	0.297	0.515	32.6	0.287	28.1	0.590	0.733	0.127	3.32	0.630
Nov	1.74	0.639	0.936	21.1	0.394	18.3	0.425	0.551	0.155	2.12	1.46
Dec	6.58	1.39	1.75	101	1.03	86.1	1.88	2.09	0.228	9.81	2.88
Annual	31.5	7.26	13.5	466	10.2	402	8.94	13.7	5.09	47.4	17.3

Data completeness

2022	SO_4^{2-} %TP	nss-SO_4^{2-} %TP	NO_3^- %TP	Cl^- %TP	NH_4^+ %TP	Na^+ %TP	K^+ %TP	Ca^{2+} %TP	nss-Ca^{2+} %TP	Mg^{2+} %TP	H^+ %TP	pH %TP	EC %TP	Precip. %PCL
Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	100
Feb	0	0	0	0	0	0	0	0	0	0	0	0	0	100
Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	100
Apr	65.9	65.9	65.9	65.9	65.9	65.9	65.9	65.9	65.9	65.9	65.9	65.9	65.9	100
May	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	100
June	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1	100
July	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Aug	79.7	79.7	79.7	79.7	79.7	79.7	79.7	79.7	79.7	79.7	79.7	79.7	79.7	54.8
Sept	100	100	100	100	100	100	100	100	100	100	100	100	100	93.3
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	**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**	**95.6**

Terms and abbreviations are given in Table 3.5.

Table 3.34 Monthly results **Site: Ogasawara** **Country: Japan**

Precipitation amount-weighted average concentration/ Precipitation amount

2022	SO_4^{2-} µmol L^{-1}	nss-SO_4^{2-} µmol L^{-1}	NO_3^- µmol L^{-1}	Cl^- µmol L^{-1}	NH_4^+ µmol L^{-1}	Na^+ µmol L^{-1}	K^+ µmol L^{-1}	Ca^{2+} µmol L^{-1}	nss-Ca^{2+} µmol L^{-1}	Mg^{2+} µmol L^{-1}	H^+ µmol L^{-1}	pH	EC mS m^{-1}	Precip. mm $month^{-1}$ or mm $year^{-1}$
Jan	7.2	2.9	3.1	82.3	2.7	72.3	1.6	1.8	0.3	8.0	7.0	5.2	1.5	132
Feb	8.5	2.8	1.8	107	2.3	93.8	2.6	2.0	<0.2	9.3	6.6	5.2	1.8	146
Mar	13.1	5.4	5.4	150	6.1	128	3.0	3.5	0.8	14.0	8.7	5.1	2.6	111
Apr	13.4	4.3	3.3	179	1.3	152	4.0	4.5	1.2	15.8	7.0	5.2	2.9	196
May	3.0	1.1	2.0	35.4	1.0	30.5	0.8	1.0	0.3	3.3	5.0	5.3	0.8	227
June	2.7	1.5	1.9	24.3	1.6	21.0	0.6	0.9	0.4	2.3	5.2	5.3	0.6	136
July	4.7	2.7	3.1	37.7	2.7	32.9	0.8	1.8	1.1	3.9	6.7	5.2	0.9	175
Aug	31.5	1.8	1.8	569	1.5	492	12.1	11.9	1.3	55.6	4.7	5.3	8.2	88.8
Sept	39.8	0.7	0.8	749	1.1	650	14.5	15.7	1.7	72.9	3.7	5.4	10.8	135
Oct	9.9	4.4	1.7	107	1.1	91.1	2.0	2.6	0.6	10.3	12.0	4.9	2.1	205
Nov	10.5	3.5	3.9	132	1.8	116	2.4	3.0	0.5	13.2	8.9	5.1	2.3	155
Dec	10.1	1.2	2.3	170	1.0	148	3.0	3.5	0.3	16.3	5.0	5.3	2.6	245
Annual	11.5	2.5	2.5	172	1.9	149	3.4	3.8	0.6	16.5	6.8	5.2	2.8	1953
Max.	99.8	83.0	37.4	1922	32.9	1659	36.8	39.8	14.5	187	141	5.70	26.9	
Min.	0.600	<0.3	<0.5	6.30	<0.8	5.90	<0.3	0.300	<0.2	0.500	2.00	3.85	0.260	

Wet deposition amount

2022	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	0.958	0.382	0.410	10.9	0.351	9.56	0.214	0.235	0.0391	1.06	0.928
Feb	1.24	0.414	0.256	15.6	0.333	13.7	0.377	0.296	0.0225	1.36	0.956
Mar	1.45	0.594	0.600	16.6	0.677	14.2	0.337	0.385	0.0849	1.55	0.969
Apr	2.63	0.840	0.648	35.1	0.262	29.7	0.783	0.886	0.243	3.09	1.37
May	0.672	0.255	0.463	8.04	0.225	6.91	0.186	0.221	0.0723	0.744	1.13
June	0.372	0.200	0.260	3.30	0.213	2.85	0.0750	0.119	0.0573	0.306	0.700
July	0.824	0.476	0.544	6.60	0.479	5.77	0.146	0.316	0.191	0.690	1.18
Aug	2.80	0.163	0.160	50.5	0.129	43.7	1.08	1.06	0.115	4.94	0.419
Sept	5.38	0.0906	0.111	101	0.148	87.8	1.96	2.13	0.228	9.84	0.493
Oct	2.02	0.905	0.341	22.0	0.232	18.7	0.420	0.534	0.133	2.11	2.47
Nov	1.63	0.537	0.602	20.5	0.274	18.0	0.377	0.473	0.0827	2.04	1.38
Dec	2.49	0.293	0.554	41.7	0.256	36.4	0.741	0.848	0.0617	4.00	1.23
Annual	22.4	4.91	4.84	336	3.68	291	6.69	7.48	1.24	32.3	13.3

Data completeness

2022	SO_4^{2-} %TP	nss-SO_4^{2-} %TP	NO_3^- %TP	Cl^- %TP	NH_4^+ %TP	Na^+ %TP	K^+ %TP	Ca^{2+} %TP	nss-Ca^{2+} %TP	Mg^{2+} %TP	H^+ %TP	pH %TP	EC %TP	Precip. %PCL
Jan	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	98.3	98.3	98.3	100
Feb	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.4	98.4	98.4	100
Mar	100	100	100	100	100	100	100	100	100	100	99.5	99.5	99.5	100
Apr	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.2	20.2	20.2	91.8
May	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.1	99.1	99.1	100
June	77.6	77.6	77.6	77.6	77.6	77.6	77.6	77.6	77.6	77.6	77.2	77.2	77.2	100
July	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	97.8	97.8	97.8	100
Aug	100	100	100	100	100	100	100	100	100	100	97.4	97.4	97.4	100
Sept	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
Oct	100	100	100	100	100	100	100	100	100	100	99.7	99.7	99.7	100
Nov	100	100	100	100	100	100	100	100	100	100	99.0	99.0	99.0	100
Dec	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
Annual	**90.1**	**90.1**	**90.1**	**90.1**	**90.1**	**90.1**	**90.1**	**90.1**	**90.1**	**90.1**	**89.2**	**89.2**	**89.2**	**99.3**

Terms and abbreviations are given in Table 3.5.

Table 3.35 Monthly results Site: Tokyo Country: Japan

Precipitation amount-weighted average concentration/ Precipitation amount

2022	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	8.6	6.8	14.1	34.3	22.2	30.0	0.7	3.2	2.6	3.7	7.3	5.1	1.1	21.3
Feb	5.9	5.5	15.5	9.3	21.7	7.6	<0.3	1.7	1.6	0.7	7.1	5.1	0.8	64.5
Mar	11.3	10.1	20.3	23.7	26.2	20.5	0.7	6.8	6.3	2.8	6.5	5.2	1.2	116
Apr	7.0	5.9	12.6	20.5	17.6	17.5	0.5	2.8	2.4	2.3	6.1	5.2	0.9	181
May	15.5	14.2	25.7	26.2	40.4	21.9	0.8	6.2	5.7	2.7	7.9	5.1	1.5	179
June	11.0	9.9	23.0	22.1	33.7	18.1	0.5	5.4	5.0	2.3	5.3	5.3	1.2	55.5
July	6.4	6.1	9.8	6.5	16.6	5.2	<0.3	2.5	2.4	0.8	6.7	5.2	0.7	214
Aug	10.5	9.3	16.0	21.3	21.5	18.4	0.5	4.4	4.0	2.8	9.5	5.0	1.2	105
Sept	6.5	5.3	5.2	22.7	9.9	20.0	0.4	1.7	1.3	2.5	7.4	5.1	0.9	284
Oct	7.5	6.4	15.0	21.6	24.7	18.5	0.6	2.8	2.4	2.2	5.5	5.3	1.0	105
Nov	7.2	4.1	8.9	58.4	14.2	51.5	1.1	3.6	2.5	5.8	3.6	5.4	1.3	90.0
Dec	3.8	3.3	9.6	8.8	11.5	8.1	<0.3	2.7	2.5	1.1	5.2	5.3	0.6	49.1
Annual	8.5	7.4	13.6	21.6	20.6	18.6	0.5	3.5	3.1	2.4	6.7	5.2	1.0	1464
Max.	65.9	62.1	143	340	136	286	7.90	46.6	43.1	32.0	43.7	6.19	6.92	
Min.	1.30	1.04	1.20	1.50	4.20	0.700	<0.3	0.600	0.428	0.300	0.646	4.36	0.300	

Wet deposition amount

2022	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	0.184	0.145	0.301	0.731	0.474	0.640	0.0145	0.0687	0.0549	0.0786	0.156
Feb	0.383	0.354	1.00	0.599	1.40	0.491	0.0192	0.111	0.101	0.0483	0.457
Mar	1.31	1.17	2.35	2.74	3.03	2.37	0.0813	0.782	0.731	0.329	0.755
Apr	1.26	1.07	2.28	3.71	3.19	3.16	0.0983	0.499	0.431	0.419	1.10
May	2.78	2.55	4.60	4.70	7.25	3.93	0.142	1.12	1.03	0.482	1.42
June	0.612	0.552	1.28	1.23	1.87	1.01	0.0275	0.298	0.276	0.130	0.294
July	1.36	1.29	2.09	1.38	3.55	1.10	0.0451	0.530	0.506	0.162	1.43
Aug	1.10	0.984	1.68	2.25	2.26	1.94	0.0539	0.467	0.425	0.292	0.997
Sept	1.84	1.50	1.47	6.44	2.81	5.68	0.123	0.486	0.363	0.701	2.10
Oct	0.787	0.670	1.58	2.28	2.60	1.94	0.0588	0.290	0.248	0.235	0.574
Nov	0.651	0.372	0.801	5.26	1.28	4.64	0.0948	0.326	0.226	0.525	0.328
Dec	0.185	0.161	0.474	0.430	0.564	0.399	<0.01	0.131	0.122	0.0552	0.254
Annual	12.4	10.8	19.9	31.6	30.2	27.2	0.766	5.10	4.51	3.45	9.86

Data completeness

2022	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	69.5	69.5	69.5	69.5	69.5	69.5	69.5	69.5	69.5	69.5	68.0	68.0	68.0	100
Feb	100	100	100	100	100	100	100	100	100	100	100	100	100	96.4
Mar	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	98.9	98.9	98.9	100
Apr	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.3	99.3	99.3	100
May	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	98.4	98.4	98.4	100
June	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1	98.2	98.2	98.2	100
July	100	100	100	100	100	100	100	100	100	100	99.5	99.5	99.5	100
Aug	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	97.8	97.8	97.8	100
Sept	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.5	99.5	99.5	100
Oct	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	100
Nov	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	97.2	97.2	97.2	100
Dec	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	100
Annual	**99.2**	**99.2**	**99.2**	**99.2**	**99.2**	**99.2**	**99.2**	**99.2**	**99.2**	**99.2**	**98.5**	**98.5**	**98.5**	**99.7**

Terms and abbreviations are given in Table 3.5.

Table 3.36 Monthly results **Site: Niigata-maki** **Country: Japan**

Precipitation amount-weighted average concentration/ Precipitation amount

2022	SO_4^{2-} µmol L^{-1}	nss-SO_4^{2-} µmol L^{-1}	NO_3^- µmol L^{-1}	Cl^- µmol L^{-1}	NH_4^+ µmol L^{-1}	Na^+ µmol L^{-1}	K^+ µmol L^{-1}	Ca^{2+} µmol L^{-1}	nss-Ca^{2+} µmol L^{-1}	Mg^{2+} µmol L^{-1}	H^+ µmol L^{-1}	pH	EC mS m^{-1}	Precip. mm $month^{-1}$ or mm $year^{-1}$
Jan	34.3	11.4	24.2	441	22.6	380	8.6	9.9	1.7	43.0	22.4	4.6	7.5	69.0
Feb	42.9	15.7	23.2	527	30.0	451	11.1	13.1	3.4	51.8	16.8	4.8	8.4	94.0
Mar	18.0	12.4	23.1	109	26.1	92.7	2.9	9.8	7.8	11.7	8.8	5.1	2.5	76.0
Apr	8.3	5.5	11.7	56.4	11.3	45.5	1.4	4.2	3.2	5.6	6.1	5.2	1.3	122
May	7.6	6.9	15.7	15.1	18.5	11.8	0.8	2.9	2.6	2.1	7.5	5.1	0.9	80.5
June	6.9	5.6	12.8	25.7	14.9	21.4	0.7	2.0	1.5	2.6	8.6	5.1	1.0	123
July	4.1	3.4	7.7	13.6	8.4	12.1	0.5	2.3	2.1	1.6	5.6	5.3	0.6	159
Aug	7.6	5.9	12.4	34.3	13.5	29.7	0.9	1.7	1.1	3.4	12.8	4.9	1.3	212
Sept	10.0	2.7	5.5	126	2.8	122	4.4	3.5	0.9	13.9	7.0	5.2	2.4	83.1
Oct	16.8	8.6	20.6	157	16.8	136	3.6	6.1	3.1	15.7	14.7	4.8	3.1	111
Nov	10.0	4.5	10.8	105	7.6	92.1	2.0	4.9	2.9	9.7	7.4	5.1	2.0	166
Dec	55.3	6.7	10.1	972	7.6	806	18.2	21.2	3.8	93.5	7.3	5.1	13.2	366
Annual	19.5	6.9	13.6	248	13.5	210	5.1	7.2	2.7	24.2	10.0	5.0	4.0	1663
Max.	211	68.4	149	4029	203	3314	75.5	88.3	65.1	399	67.6	6.93	51.9	
Min.	0.900	0.364	<0.5	1.20	<0.8	0.800	<0.3	0.600	0.231	0.700	0.116	4.17	0.290	

Wet deposition amount

2022	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	2.37	0.787	1.67	30.4	1.56	26.3	0.591	0.683	0.115	2.96	1.55
Feb	4.03	1.47	2.18	49.6	2.82	42.4	1.05	1.23	0.317	4.87	1.58
Mar	1.36	0.940	1.76	8.29	1.99	7.04	0.224	0.743	0.591	0.889	0.671
Apr	1.01	0.672	1.43	6.88	1.38	5.55	0.177	0.507	0.387	0.684	0.748
May	0.616	0.558	1.27	1.22	1.49	0.953	0.0613	0.233	0.212	0.168	0.606
June	0.850	0.691	1.58	3.17	1.84	2.64	0.0873	0.245	0.188	0.323	1.06
July	0.654	0.538	1.22	2.17	1.34	1.93	0.0832	0.374	0.332	0.254	0.894
Aug	1.62	1.24	2.63	7.29	2.86	6.31	0.202	0.369	0.232	0.731	2.71
Sept	0.831	0.221	0.458	10.4	0.229	10.1	0.364	0.291	0.0725	1.15	0.585
Oct	1.87	0.958	2.29	17.4	1.87	15.2	0.397	0.677	0.349	1.75	1.63
Nov	1.66	0.743	1.79	17.5	1.26	15.3	0.330	0.810	0.480	1.61	1.22
Dec	20.2	2.46	3.70	356	2.79	295	6.64	7.76	1.38	34.2	2.67
Annual	32.4	11.4	22.7	413	22.4	349	8.46	12.0	4.46	40.3	16.5

Data completeness

2022	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	98.6	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
Feb	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.4	98.4	98.4	100
Mar	82.9	82.9	82.9	82.9	82.9	82.9	82.9	82.9	82.9	82.9	82.9	82.9	82.9	100
Apr	100	100	100	100	100	100	100	100	100	100	100	100	100	100
May	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	100
June	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.5	99.5	99.5	100
July	67.4	67.4	67.4	67.4	67.4	67.4	67.4	67.4	67.4	67.4	67.1	67.1	67.1	100
Aug	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Sept	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	100
Oct	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.3	97.3	97.3	100
Nov	100	100	100	100	100	100	100	100	100	100	99.9	99.9	99.9	100
Dec	57.9	57.9	57.9	57.9	57.9	57.9	57.9	57.9	57.9	57.9	57.4	57.4	57.4	100
Annual	**86.5**	**86.5**	**86.5**	**86.5**	**86.5**	**86.5**	**86.5**	**86.5**	**86.5**	**86.5**	**86.2**	**86.2**	**86.2**	**100**

Terms and abbreviations are given in Table 3.5.

Table 3.37 Monthly results Site: Tsushima Country: Japan

Precipitation amount-weighted average concentration/ Precipitation amount

2022	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	11.8	8.1	22.5	67.7	12.1	61.9	1.4	3.4	2.1	7.2	7.6	5.1	2.1	16.0
Feb	16.8	14.1	26.4	51.9	29.2	43.5	1.5	4.1	3.2	5.5	19.0	4.7	2.2	23.5
Mar	16.0	10.5	12.0	105	15.1	91.0	3.6	5.6	3.6	10.4	7.7	5.1	2.3	135
Apr	10.9	8.8	11.7	42.0	12.0	34.7	4.0	2.3	1.6	4.3	9.3	5.0	1.4	145
May	18.8	18.0	15.8	17.2	17.0	13.1	1.3	1.9	1.7	1.9	22.8	4.6	1.8	13.5
June	11.3	8.6	11.8	50.0	11.1	44.8	2.8	2.0	1.0	5.4	9.9	5.0	1.6	150
July	12.4	11.5	22.5	16.7	22.0	14.6	0.8	1.9	1.6	2.0	14.5	4.8	1.5	296
Aug	4.1	3.3	9.3	15.5	9.1	13.6	0.4	0.8	0.6	1.5	5.9	5.2	0.8	328
Sept	19.6	2.5	3.0	333	<0.8	283	7.9	7.0	0.9	31.0	3.4	5.5	4.8	321
Oct	17.4	12.4	14.7	102	12.6	83.8	2.3	3.6	1.8	10.1	26.1	4.6	2.5	19.5
Nov	6.2	3.7	10.4	47.1	5.3	41.3	1.0	2.2	1.3	4.7	4.8	5.3	1.2	48.5
Dec	13.9	10.8	25.7	60.3	15.3	50.6	1.2	5.2	4.1	6.2	17.3	4.8	2.0	15.5
Annual	12.3	6.2	10.2	118	9.3	101	3.4	3.5	1.4	11.3	7.6	5.1	2.3	1510
Max.	71.9	70.9	101	973	116	824	62.5	31.7	31.3	90.9	112	6.10	13.3	
Min.	0.500	0.476	0.600	1.10	<0.8	0.400	<0.3	0.300	<0.2	<0.3	0.800	3.95	0.290	

Wet deposition amount

2022	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	0.189	0.129	0.360	1.08	0.193	0.991	0.0227	0.0548	0.0334	0.115	0.121
Feb	0.394	0.332	0.620	1.22	0.685	1.02	0.0360	0.0961	0.0741	0.129	0.447
Mar	2.16	1.42	1.61	14.2	2.03	12.3	0.493	0.754	0.488	1.41	1.05
Apr	1.57	1.27	1.69	6.07	1.73	5.02	0.583	0.337	0.228	0.616	1.35
May	0.254	0.244	0.213	0.232	0.229	0.177	0.0170	0.0262	0.0223	0.0260	0.308
June	1.69	1.28	1.78	7.51	1.67	6.72	0.422	0.301	0.156	0.804	1.48
July	3.66	3.40	6.63	4.92	6.49	4.30	0.231	0.554	0.461	0.583	4.30
Aug	1.35	1.09	3.06	5.07	2.98	4.44	0.140	0.276	0.180	0.487	1.93
Sept	6.27	0.804	0.959	107	0.179	90.6	2.52	2.25	0.293	9.95	1.10
Oct	0.340	0.241	0.287	2.00	0.246	1.63	0.0458	0.0705	0.0352	0.196	0.508
Nov	0.302	0.181	0.504	2.28	0.257	2.00	0.0509	0.105	0.0613	0.228	0.234
Dec	0.215	0.168	0.398	0.935	0.237	0.784	0.0189	0.0801	0.0632	0.0968	0.269
Annual	18.5	9.36	15.4	178	14.1	152	5.20	5.35	2.06	17.1	11.4

Data completeness

2022	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	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
Mar	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	100
Apr	78.9	78.9	78.9	78.9	78.9	78.9	78.9	78.9	78.9	78.9	78.9	78.9	78.9	100
May	96.3	96.3	96.3	96.3	96.3	96.3	96.3	96.3	96.3	96.3	88.9	88.9	88.9	100
June	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	96.1	96.1	96.1	100
July	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.6	26.6	26.6	96.8
Aug	94.8	94.8	94.8	94.8	94.8	94.8	94.8	94.8	94.8	94.8	94.4	94.4	94.4	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	79.5	79.5	79.5	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	90.3	90.3	90.3	100
Annual	**82.3**	**82.3**	**82.3**	**82.3**	**82.3**	**82.3**	**82.3**	**82.3**	**82.3**	**82.3**	**81.5**	**81.5**	**81.5**	**99.7**

Terms and abbreviations are given in Table 3.5.

Table 3.38 Monthly results **Site: Vientiane** **Country: Lao PDR**

Precipitation amount-weighted average concentration/ Precipitation amount

2022	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

2022	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

2022	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 3.39 Monthly results Site: Petaling Jaya Country: Malaysia

Precipitation amount-weighted average concentration/ Precipitation amount

2022	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	17.7	17.3	38.9	9.68	26.8	5.63	1.15	3.78	3.66	0.667	32.2	4.49	2.23	431
Feb	10.3	10.1	38.7	8.37	21.9	4.17	1.18	4.59	4.50	0.586	22.7	4.64	1.69	321
Mar	8.18	7.95	30.1	8.25	11.7	3.79	1.02	3.77	3.68	0.489	23.6	4.63	1.63	505
Apr	21.5	21.2	70.3	10.6	23.7	4.43	1.76	6.44	6.34	0.891	67.6	4.17	3.80	324
May	18.2	18.0	56.1	8.22	16.9	4.17	2.85	4.78	4.69	1.39	48.1	4.32	2.99	120
June	6.59	6.47	25.4	4.32	4.79	2.05	0.738	2.35	2.31	<0.3	26.7	4.57	1.63	421
July	18.4	18.1	54.8	12.3	14.4	4.79	1.44	4.64	4.53	0.995	57.7	4.24	3.42	260
Aug	8.75	8.54	24.1	6.61	15.1	3.54	1.23	3.20	3.12	0.911	22.2	4.65	1.61	392
Sept	10.0	9.71	24.5	8.17	15.9	4.87	1.33	2.69	2.59	0.737	23.4	4.63	1.68	320
Oct	5.88	5.69	16.0	6.42	9.80	3.09	0.825	2.49	2.43	0.578	18.6	4.73	1.19	280
Nov	7.71	7.57	23.9	5.08	11.4	2.36	0.887	2.06	2.01	0.325	23.3	4.63	1.18	300
Dec	5.58	5.47	25.1	4.12	14.0	1.73	0.589	2.02	1.98	<0.3	20.1	4.70	1.27	507
Annual	10.7	10.5	33.3	7.41	15.3	3.61	1.12	3.40	3.32	0.604	29.7	4.53	1.90	4180
Max.	41.7	41.2	427	47.8	235	18.9	67.7	23.5	23.1	19.9	100	5.29	5.77	
Min.	2.48	2.37	6.66	2.66	<0.8	0.580	0.300	0.840	0.823	<0.3	5.13	4.00	0.280	

Wet deposition amount

2022	SO_4^{2-}	nss-SO_4^{2-}	NO_3^-	Cl^-	NH_4^+	Na^+	K^+	Ca^{2+}	nss-Ca^{2+}	Mg^{2+}	H^+
	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}
Jan	7.62	7.47	16.7	4.17	11.5	2.42	0.496	1.63	1.58	0.287	13.9
Feb	3.31	3.23	12.4	2.69	7.03	1.34	0.378	1.47	1.44	0.188	7.30
Mar	4.13	4.01	15.2	4.16	5.89	1.91	0.515	1.90	1.86	0.247	11.9
Apr	6.96	6.87	22.8	3.43	7.67	1.44	0.570	2.08	2.05	0.288	21.9
May	2.20	2.17	6.75	0.990	2.04	0.503	0.343	0.576	0.565	0.167	5.79
June	2.78	2.72	10.7	1.82	2.02	0.864	0.311	0.990	0.971	0.114	11.2
July	4.79	4.71	14.2	3.20	3.74	1.25	0.375	1.21	1.18	0.259	15.0
Aug	3.43	3.35	9.43	2.59	5.93	1.39	0.481	1.25	1.22	0.357	8.70
Sept	3.20	3.10	7.82	2.61	5.10	1.56	0.426	0.860	0.826	0.236	7.48
Oct	1.64	1.59	4.48	1.80	2.74	0.864	0.231	0.697	0.679	0.161	5.21
Nov	2.31	2.27	7.18	1.53	3.43	0.707	0.266	0.617	0.602	0.0976	6.99
Dec	2.83	2.78	12.7	2.09	7.12	0.876	0.299	1.02	1.00	0.134	10.2
Annual	44.8	43.9	139	31.0	64.0	15.1	4.67	14.2	13.9	2.53	124

Data completeness

2022	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	89.3	89.3	89.3	89.3	89.3	89.3	89.3	89.3	89.3	89.3	89.3	89.3	89.3	100
May	100	100	100	100	100	100	100	100	100	100	97.7	97.7	97.7	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	99.2	99.2	99.2	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	**99.2**	**99.2**	**99.2**	**99.2**	**99.2**	**99.2**	**99.2**	**99.2**	**99.2**	**99.2**	**99.0**	**99.0**	**99.0**	**100**

Terms and abbreviations are given in Table 3.5.

Table 3.40 Monthly results Site: Tanah Rata Country: Malaysia

Precipitation amount-weighted average concentration/ Precipitation amount

2022	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	2.65	2.38	4.15	3.92	7.09	4.59	1.47	1.42	1.33	<0.3	3.63	5.44	0.380	172
Feb	1.64	1.50	2.56	2.70	3.77	2.30	0.678	0.729	0.679	<0.3	5.11	5.29	0.336	174
Mar	4.60	4.39	8.34	6.51	7.43	3.40	1.30	2.04	1.96	<0.3	8.97	5.05	0.698	230
Apr	2.95	2.72	7.96	2.76	4.31	3.85	2.19	4.15	4.06	<0.3	10.6	4.98	0.622	642
May	2.34	2.08	2.05	4.60	16.0	4.27	4.62	3.02	2.92	<0.3	10.3	4.99	0.713	230
June	2.65	2.45	3.45	2.94	18.3	3.20	4.86	5.37	5.30	0.704	3.93	5.41	0.765	314
July	5.63	5.51	9.34	5.84	4.26	2.02	0.862	2.45	2.40	<0.3	14.6	4.84	0.884	179
Aug	2.02	1.93	5.28	1.92	5.28	1.58	1.29	1.41	1.37	<0.3	5.29	5.28	0.446	262
Sept	2.96	2.84	6.47	2.30	2.68	2.10	0.867	2.87	2.83	0.344	4.67	5.33	0.479	178
Oct	2.72	2.60	3.67	5.26	2.94	2.04	1.00	1.31	1.27	<0.3	8.25	5.08	0.520	247
Nov	2.16	1.99	7.02	2.98	3.63	2.89	1.11	2.09	2.03	<0.3	8.64	5.06	0.491	277
Dec	0.929	0.825	1.94	1.41	2.28	1.72	0.897	0.980	0.943	<0.3	7.42	5.13	0.349	288
Annual	2.72	2.54	5.44	3.43	6.52	2.96	1.93	2.64	2.58	<0.3	7.97	5.10	0.569	3194
Max.	13.2	13.0	20.0	31.4	96.7	27.5	12.7	18.1	17.9	2.62	25.1	7.18	1.64	
Min.	<0.3	<0.3	<0.5	<0.5	<0.8	<0.3	<0.3	<0.2	<0.2	<0.3	0.0661	4.60	0.180	

Wet deposition amount

2022	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	0.458	0.410	0.715	0.676	1.22	0.792	0.253	0.246	0.228	0.0461	0.625
Feb	0.285	0.261	0.445	0.469	0.656	0.399	0.118	0.127	0.118	<0.01	0.890
Mar	1.06	1.01	1.91	1.50	1.71	0.780	0.298	0.467	0.451	0.0460	2.06
Apr	1.89	1.74	5.11	1.77	2.77	2.47	1.41	2.66	2.61	0.0920	6.78
May	0.538	0.479	0.472	1.06	3.67	0.982	1.06	0.693	0.672	0.0518	2.36
June	0.831	0.771	1.08	0.922	5.75	1.01	1.53	1.69	1.66	0.221	1.24
July	1.01	0.986	1.67	1.05	0.763	0.361	0.154	0.438	0.430	0.0440	2.61
Aug	0.529	0.505	1.38	0.504	1.38	0.413	0.338	0.369	0.360	0.0533	1.39
Sept	0.529	0.506	1.15	0.411	0.478	0.375	0.155	0.513	0.505	0.0614	0.834
Oct	0.674	0.643	0.909	1.30	0.726	0.505	0.249	0.325	0.314	0.0112	2.04
Nov	0.598	0.550	1.94	0.825	1.00	0.800	0.308	0.579	0.562	0.0472	2.39
Dec	0.268	0.238	0.559	0.407	0.657	0.496	0.259	0.282	0.272	0.0224	2.14
Annual	8.69	8.12	17.4	10.9	20.8	9.44	6.15	8.43	8.23	0.703	25.4

Data completeness

2022	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	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	100
Aug	85.0	85.0	85.0	85.0	85.0	85.0	85.0	85.0	85.0	85.0	85.0	85.0	85.0	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	**98.7**	**98.7**	**98.7**	**98.7**	**98.7**	**98.7**	**98.7**	**98.7**	**98.7**	**98.7**	**98.7**	**98.7**	**98.7**	**100**

Terms and abbreviations are given in Table 3.5.

Table 3.41 Monthly results **Site: Danum Valley** **Country: Malaysia**

Precipitation amount-weighted average concentration/ Precipitation amount

2022	SO_4^{2-} µmol L^{-1}	nss-SO_4^{2-} µmol L^{-1}	NO_3^- µmol L^{-1}	Cl^- µmol L^{-1}	NH_4^+ µmol L^{-1}	Na^+ µmol L^{-1}	K^+ µmol L^{-1}	Ca^{2+} µmol L^{-1}	nss-Ca^{2+} µmol L^{-1}	Mg^{2+} µmol L^{-1}	H^+ µmol L^{-1}	pH	EC mS m^{-1}	Precip. mm month^{-1} or mm year^{-1}
Jan	4.47	3.60	1.48	11.9	<0.8	14.5	1.03	0.717	0.403	1.03	8.65	5.06	0.685	263
Feb	2.19	1.73	3.13	13.2	1.35	7.68	13.4	2.66	2.49	2.05	5.92	5.23	0.632	239
Mar	1.34	1.15	2.52	6.02	<0.8	3.16	1.19	1.27	1.20	0.689	5.74	5.24	0.347	386
Apr	3.23	3.08	5.32	4.53	<0.8	2.62	1.66	2.26	2.20	0.689	8.01	5.10	0.437	192
May	1.19	1.02	2.08	6.69	<0.8	2.72	3.27	2.75	2.70	1.17	3.88	5.41	0.380	158
June	3.26	2.95	4.51	7.85	<0.8	5.16	2.77	3.57	3.46	1.75	3.40	5.47	0.400	208
July	1.40	1.28	3.77	3.98	<0.8	1.89	1.22	1.47	1.43	0.629	5.73	5.24	0.397	217
Aug	2.10	1.87	2.74	6.02	<0.8	3.93	2.72	1.77	1.69	0.741	13.1	4.88	0.786	154
Sept	0.888	0.715	0.566	4.27	1.10	2.87	1.91	1.16	1.09	0.556	6.92	5.16	0.477	277
Oct	0.879	0.701	7.42	3.53	7.38	2.95	2.26	1.43	1.37	0.668	5.33	5.27	0.459	242
Nov	1.04	0.834	8.28	3.98	5.50	3.35	1.86	1.30	1.23	0.460	6.83	5.17	0.548	364
Dec	0.896	0.596	1.94	3.63	3.23	4.97	1.13	1.71	1.60	1.32	9.46	5.02	0.556	236
Annual	1.85	1.56	3.76	6.28	1.85	4.76	2.77	1.70	1.60	0.930	6.85	5.16	0.504	2936
Max.	10.9	10.5	27.3	28.8	10.2	18.4	65.5	9.59	9.39	5.25	24.5	6.09	1.32	
Min.	0.390	<0.3	<0.5	<0.5	<0.8	0.570	0.590	0.440	0.313	<0.3	0.813	4.61	0.270	

Wet deposition amount

2022	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	1.18	0.946	0.390	3.14	0.0142	3.82	0.270	0.189	0.106	0.271	2.28
Feb	0.522	0.412	0.746	3.14	0.323	1.83	3.19	0.635	0.595	0.490	1.41
Mar	0.516	0.442	0.974	2.33	0.0412	1.22	0.458	0.490	0.464	0.266	2.22
Apr	0.620	0.590	1.02	0.870	0.110	0.503	0.319	0.433	0.422	0.132	1.54
May	0.188	0.162	0.329	1.06	<0.01	0.430	0.517	0.436	0.427	0.185	0.614
June	0.678	0.614	0.937	1.63	0.0629	1.07	0.576	0.743	0.720	0.364	0.706
July	0.303	0.279	0.820	0.866	<0.01	0.411	0.265	0.319	0.310	0.137	1.25
Aug	0.325	0.288	0.423	0.929	<0.01	0.607	0.419	0.274	0.261	0.114	2.02
Sept	0.246	0.198	0.157	1.18	0.304	0.794	0.528	0.320	0.303	0.154	1.92
Oct	0.213	0.170	1.80	0.853	1.79	0.713	0.547	0.347	0.331	0.161	1.29
Nov	0.378	0.304	3.02	1.45	2.00	1.22	0.679	0.475	0.448	0.168	2.49
Dec	0.211	0.141	0.459	0.857	0.763	1.17	0.267	0.404	0.378	0.312	2.23
Annual	5.43	4.59	11.1	18.4	5.42	14.0	8.12	4.99	4.69	2.73	20.1

Data completeness

2022	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	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
June	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
July	90.2	90.2	90.2	90.2	90.2	90.2	90.2	90.2	90.2	90.2	90.2	90.2	90.2	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	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
Dec	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
Annual	**95.0**	**95.0**	**95.0**	**95.0**	**95.0**	**95.0**	**95.0**	**95.0**	**95.0**	**95.0**	**95.0**	**95.0**	**95.0**	**100**

Terms and abbreviations are given in Table 3.5.

Table 3.42 Monthly results **Site: Kuching** **Country: Malaysia**

Precipitation amount-weighted average concentration/ Precipitation amount

2022	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	4.06	3.52	4.49	6.76	2.88	8.98	9.40	6.53	6.33	1.12	2.36	5.63	0.601	815
Feb	1.50	1.16	<0.5	6.69	<0.8	5.66	0.434	2.27	2.15	0.437	2.59	5.59	0.292	296
Mar	1.32	1.06	<0.5	9.23	<0.8	4.21	0.731	3.19	3.10	0.382	3.25	5.49	0.325	250
Apr	4.25	3.83	1.09	12.8	<0.8	7.04	1.35	22.3	22.1	0.685	1.11	5.96	0.624	182
May	5.93	5.50	1.41	7.23	97.2	7.26	11.6	7.53	7.37	1.55	1.85	5.73	1.60	152
June	1.17	1.04	<0.5	5.17	<0.8	2.54	0.558	7.36	7.31	0.673	0.658	6.18	0.407	196
July	2.38	1.90	<0.5	11.3	1.15	7.99	2.74	7.75	7.57	0.522	2.87	5.54	0.468	347
Aug	*	*	*	*	*	*	*	*	*	*	*	*	*	163
Sept	6.38	5.14	5.71	16.3	38.1	20.6	7.04	4.88	4.43	0.640	0.295	6.53	1.09	381
Oct	2.69	2.43	3.84	4.01	13.9	4.32	1.78	5.26	5.17	0.806	1.29	5.89	0.474	181
Nov	1.57	1.37	2.42	3.77	1.19	3.34	0.613	2.60	2.53	0.512	3.59	5.45	0.311	370
Dec	1.32	0.830	2.63	8.42	2.06	8.19	1.84	2.46	2.28	0.808	3.62	5.44	0.368	648
Annual	2.38	1.99	1.96	7.73	7.40	6.60	2.95	5.59	5.45	0.726	2.62	5.58	0.487	3979
Max.	19.2	17.8	12.1	42.7	318	42.0	37.1	100	99.5	4.90	7.08	6.75	4.67	
Min.	<0.3	<0.3	<0.5	<0.5	<0.8	0.800	<0.3	0.810	0.759	<0.3	0.178	5.15	0.200	

Wet deposition amount

2022	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	3.31	2.87	3.65	5.50	2.35	7.31	7.65	5.32	5.16	0.912	1.92
Feb	0.445	0.344	0.0171	1.98	0.0311	1.67	0.128	0.673	0.637	0.129	0.768
Mar	0.329	0.266	0.0865	2.30	0.123	1.05	0.182	0.797	0.774	0.0952	0.810
Apr	0.773	0.696	0.198	2.34	0.136	1.28	0.246	4.05	4.03	0.125	0.201
May	0.904	0.838	0.215	1.10	14.8	1.11	1.77	1.15	1.12	0.237	0.282
June	0.231	0.205	0.0149	1.01	0.0828	0.499	0.110	1.44	1.43	0.132	0.129
July	0.825	0.658	0.172	3.93	0.400	2.77	0.950	2.69	2.63	0.181	0.995
Aug	*	*	*	*	*	*	*	*	*	*	*
Sept	2.43	1.95	2.17	6.20	14.5	7.85	2.68	1.86	1.69	0.244	0.112
Oct	0.487	0.440	0.695	0.727	2.51	0.781	0.323	0.952	0.936	0.146	0.233
Nov	0.582	0.508	0.894	1.39	0.440	1.23	0.227	0.961	0.934	0.189	1.33
Dec	0.857	0.538	1.70	5.46	1.34	5.30	1.19	1.59	1.48	0.523	2.34
Annual	9.49	7.91	7.81	30.8	29.4	26.3	11.7	22.3	21.7	2.89	10.4

Data completeness

2022	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	45.6	45.6	45.6	45.6	45.6	45.6	45.6	45.6	45.6	45.6	45.6	45.6	45.6	100
Feb	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Mar	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	100
Apr	100	100	100	100	100	100	100	100	100	100	100	100	100	100
May	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
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	98.3	98.3	98.3	100
Aug	0	0	0	0	0	0	0	0	0	0	0	0	0	100
Sept	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
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	**75.8**	**75.8**	**75.8**	**75.8**	**75.8**	**75.8**	**75.8**	**75.8**	**75.8**	**75.8**	**75.7**	**75.7**	**75.7**	**100**

Terms and abbreviations are given in Table 3.5.

Table 3.43 Monthly results **Site: Gunung Brinchang** **Country: Malaysia**

Precipitation amount-weighted average concentration/ Precipitation amount

2022	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

2022	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

2022	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: Ulaanbaatar** **Country: Mongolia**

Precipitation amount-weighted average concentration/ Precipitation amount

2022	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	*	*	*	*	*	*	*	*	*	*	1.36	5.87	5.48	10.9
June	*	*	*	*	*	*	*	*	*	*	2.11	5.68	1.88	31.0
July	*	*	*	*	*	*	*	*	*	*	8.96	5.05	7.38	35.7
Aug	*	*	*	*	*	*	*	*	*	*	6.63	5.18	2.71	31.6
Sept	*	*	*	*	*	*	*	*	*	*	27.3	4.56	3.77	8.0
Oct	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Nov	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Dec	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Annual	*	*	*	*	*	*	*	*	*	*	7.06	5.15	4.24	117
Max.	*	*	*	*	*	*	*	*	*	*	33.9	6.52	18.2	
Min.	*	*	*	*	*	*	*	*	*	*	0.302	4.47	0.488	

Wet deposition amount

2022	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	*	*	*	*	*	*	*	*	*	*	0.0148
June	*	*	*	*	*	*	*	*	*	*	0.0653
July	*	*	*	*	*	*	*	*	*	*	0.320
Aug	*	*	*	*	*	*	*	*	*	*	0.210
Sept	*	*	*	*	*	*	*	*	*	*	0.219
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	*	*	*	*	*	*	*	*	*	*	0.829

Data completeness

2022	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	0	0	0	0	0	0	0	0	0	0	100	100	100	100
July	0	0	0	0	0	0	0	0	0	0	100	100	100	100
Aug	0	0	0	0	0	0	0	0	0	0	100	100	100	100
Sept	0	0	0	0	0	0	0	0	0	0	100	100	100	100
Oct	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Nov	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Dec	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Annual	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**100**	**100**	**100**	**100**

Terms and abbreviations are given in Table 3.5.

Table 3.45 Monthly results Site: Terelj Country: Mongolia

Precipitation amount-weighted average concentration/ Precipitation amount

2022	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	*	*	*	*	*	*	*	*	*	*	2.40	5.62	4.59	10.4
June	*	*	*	*	*	*	*	*	*	*	10.1	4.99	4.51	27.0
July	*	*	*	*	*	*	*	*	*	*	8.95	5.05	3.76	45.1
Aug	*	*	*	*	*	*	*	*	*	*	3.05	5.52	7.23	38.7
Sept	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Oct	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Nov	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Dec	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Annual	*	*	*	*	*	*	*	*	*	*	6.77	5.17	5.11	121
Max.	*	*	*	*	*	*	*	*	*	*	67.6	6.15	12.3	
Min.	*	*	*	*	*	*	*	*	*	*	0.708	4.17	0.394	

Wet deposition amount

2022	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	*	*	*	*	*	*	*	*	*	*	0.0248
June	*	*	*	*	*	*	*	*	*	*	0.273
July	*	*	*	*	*	*	*	*	*	*	0.404
Aug	*	*	*	*	*	*	*	*	*	*	0.118
Sept	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Oct	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Nov	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	*	*	*	*	*	*	*	*	*	*	0.820

Data completeness

2022	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	0	0	0	0	0	0	0	0	0	0	100	100	100	100
July	0	0	0	0	0	0	0	0	0	0	100	100	100	100
Aug	0	0	0	0	0	0	0	0	0	0	100	100	100	100
Sept	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Oct	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Nov	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Dec	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Annual	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**100**	**100**	**100**	**100**

Terms and abbreviations are given in Table 3.5.

Table 3.46 Monthly results **Site: Yangon** **Country: Myanmar**

Precipitation amount-weighted average concentration/ Precipitation amount

2022	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	22.5	21.0	35.9	36.2	18.0	24.8	26.4	40.3	39.8	20.9	0.158	6.80	3.28	2.6
Feb	23.3	21.2	35.3	37.5	2.38	34.4	29.4	24.7	24.0	28.9	0.0562	7.25	3.34	6.9
Mar	18.3	17.1	32.3	57.9	46.3	18.7	19.0	38.3	37.9	13.3	0.0447	7.35	1.70	44.2
Apr	19.8	18.1	31.4	42.2	63.5	27.8	17.5	35.6	35.0	14.9	0.134	6.87	3.37	16.2
May	8.62	7.40	12.5	19.8	26.5	20.1	5.26	17.8	17.3	5.16	0.122	6.91	1.39	392
June	13.7	12.4	11.7	21.3	27.3	21.5	5.79	17.2	16.8	3.27	0.186	6.73	1.68	308
July	6.42	5.46	7.22	14.1	23.1	15.9	2.82	22.6	22.3	5.20	0.0916	7.04	1.64	566
Aug	4.49	3.75	4.25	10.0	11.6	12.3	2.50	14.2	14.0	3.67	0.0925	7.03	1.15	635
Sept	7.64	7.02	0.544	7.47	22.6	10.3	2.88	10.1	9.92	2.80	0.211	6.68	0.859	249
Oct	6.65	6.26	<0.5	5.30	26.5	6.42	2.70	11.0	10.9	2.93	0.161	6.79	1.15	209
Nov	21.6	20.0	4.45	23.5	56.2	26.9	16.9	42.1	41.5	12.3	0.103	6.99	1.67	27.6
Dec	23.3	21.8	19.7	40.5	58.2	24.9	18.1	57.5	56.9	22.3	0.105	6.98	1.64	5.4
Annual	7.90	6.97	7.32	14.6	22.5	15.3	4.17	17.4	17.1	4.53	0.126	6.90	1.38	2461
Max.	23.3	21.8	35.9	61.9	64.3	43.3	30.3	57.5	56.9	29.6	0.355	7.35	3.79	
Min.	1.95	1.40	<0.5	2.00	2.38	4.96	2.05	8.03	7.93	2.10	0.0447	6.45	0.400	

Wet deposition amount

2022	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	0.0590	0.0550	0.0943	0.0951	0.0473	0.0652	0.0694	0.106	0.104	0.0549	<0.01
Feb	0.160	0.146	0.243	0.258	0.0164	0.237	0.202	0.170	0.165	0.199	<0.01
Mar	0.807	0.757	1.42	2.56	2.04	0.824	0.838	1.69	1.67	0.587	<0.01
Apr	0.320	0.293	0.507	0.683	1.03	0.450	0.282	0.575	0.565	0.241	<0.01
May	3.38	2.90	4.91	7.75	10.4	7.89	2.06	6.96	6.79	2.02	0.0479
June	4.21	3.82	3.59	6.56	8.40	6.62	1.78	5.30	5.16	1.01	0.0572
July	3.63	3.09	4.09	7.95	13.0	9.01	1.60	12.8	12.6	2.94	0.0518
Aug	2.85	2.38	2.70	6.35	7.39	7.84	1.59	9.03	8.86	2.33	0.0588
Sept	1.90	1.75	0.135	1.86	5.61	2.55	0.716	2.52	2.47	0.695	0.0525
Oct	1.39	1.31	0.0953	1.11	5.55	1.35	0.566	2.30	2.27	0.614	0.0338
Nov	0.595	0.550	0.123	0.648	1.55	0.741	0.466	1.16	1.15	0.339	<0.01
Dec	0.124	0.116	0.106	0.217	0.312	0.133	0.0969	0.308	0.305	0.119	<0.01
Annual	19.4	17.2	18.0	36.0	55.4	37.7	10.3	42.9	42.1	11.1	0.310

Data completeness

2022	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: Metro Manila** **Country: Philippines**

Precipitation amount-weighted average concentration/ Precipitation amount

2022	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	17.5	16.9	24.3	13.3	41.6	10.6	2.21	29.7	29.4	4.47	0.305	6.52	1.41	29.8
Feb	4.80	3.92	6.84	14.0	13.7	14.6	4.28	15.5	15.2	12.0	0.380	6.42	0.655	7.2
Mar	50.5	48.9	52.6	17.6	30.0	26.9	5.06	60.0	59.5	13.5	22.2	4.65	2.86	47.9
Apr	3.76	3.61	7.96	5.88	10.7	2.50	0.722	3.54	3.49	3.76	1.14	5.94	0.364	140
May	21.4	20.6	28.8	14.1	34.5	14.1	2.79	12.6	12.3	6.68	8.45	5.07	1.45	298
June	19.6	19.0	25.6	11.1	34.9	10.2	3.34	17.7	17.5	9.45	9.28	5.03	1.58	167
July	9.32	4.47	18.3	6.50	3.68	80.4	1.12	11.1	9.41	51.3	17.6	4.75	2.02	518
Aug	19.1	18.0	10.0	19.9	18.4	18.0	2.62	11.2	10.8	3.23	18.7	4.73	1.35	386
Sept	21.4	20.8	14.2	13.2	16.9	9.65	1.30	9.36	9.15	2.45	16.1	4.79	0.792	590
Oct	12.2	11.7	18.2	11.1	28.9	8.79	0.701	7.66	7.47	5.98	3.00	5.52	0.849	535
Nov	8.97	8.51	11.5	7.74	32.4	7.62	1.57	4.07	3.90	3.52	1.51	5.82	0.647	90.7
Dec	12.5	11.2	14.7	19.3	54.1	21.9	3.74	76.1	75.6	6.62	0.221	6.66	3.01	22.8
Annual	16.1	14.6	17.6	12.1	20.7	24.1	1.69	11.6	11.1	13.4	11.6	4.93	1.25	2833
Max.	97.4	94.7	104	96.1	152	565	48.0	143	143	372	60.3	7.67	5.90	
Min.	0.666	0.666	0.689	1.37	<0.8	<0.3	<0.3	0.741	0.580	<0.3	0.0214	4.22	0.147	

Wet deposition amount

2022	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	0.522	0.503	0.724	0.397	1.24	0.316	0.0658	0.884	0.877	0.133	<0.01
Feb	0.0345	0.0282	0.0492	0.101	0.0988	0.105	0.0308	0.111	0.109	0.0867	<0.01
Mar	2.42	2.34	2.52	0.844	1.44	1.29	0.242	2.88	2.85	0.645	1.06
Apr	0.528	0.507	1.12	0.824	1.50	0.351	0.101	0.497	0.489	0.528	0.160
May	6.39	6.13	8.58	4.20	10.3	4.20	0.832	3.75	3.66	1.99	2.52
June	3.26	3.17	4.26	1.84	5.83	1.70	0.557	2.96	2.92	1.58	1.55
July	4.83	2.31	9.50	3.37	1.91	41.7	0.578	5.78	4.87	26.6	9.11
Aug	7.38	6.96	3.87	7.69	7.09	6.97	1.01	4.33	4.18	1.25	7.23
Sept	12.6	12.3	8.38	7.77	9.98	5.69	0.766	5.52	5.39	1.45	9.51
Oct	6.54	6.25	9.76	5.94	15.5	4.71	0.375	4.10	4.00	3.20	1.61
Nov	0.814	0.772	1.04	0.702	2.94	0.691	0.143	0.369	0.354	0.320	0.137
Dec	0.285	0.255	0.335	0.441	1.23	0.499	0.0852	1.74	1.72	0.151	<0.01
Annual	45.5	41.4	49.9	34.2	58.5	68.2	4.79	32.9	31.4	37.9	33.0

Data completeness

2022	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	79.1	79.1	79.1	79.1	79.1	100	100	100	100	100	96.3	96.3	96.3	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	95.5	95.5	100	100
Dec	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Annual	**98.8**	**98.8**	**98.8**	**98.8**	**98.8**	**100**	**100**	**100**	**100**	**100**	**99.6**	**99.6**	**99.8**	**100**

Terms and abbreviations are given in Table 3.5.

Table 3.48 Monthly results **Site: Los Baños** **Country: Philippines**

Precipitation amount-weighted average concentration/ Precipitation amount

2022	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	**	**	**	**	**	**	**	**	**	**	**	**	**	**
Feb	10.0	3.89	4.50	104	10.2	115	12.4	12.8	10.4	51.2	1.89	5.72	1.68	17.4
Mar	2.39	1.78	4.81	9.93	15.8	10.0	2.54	3.42	3.20	3.71	0.669	6.17	0.384	46.3
Apr	2.68	2.01	5.04	14.0	<0.8	11.1	0.755	16.5	16.2	0.511	1.57	5.80	0.618	176
May	16.4	15.6	12.4	12.3	15.1	12.7	1.68	44.5	44.3	5.74	12.1	4.92	1.03	111
June	18.1	17.6	7.33	11.4	10.4	8.67	2.23	98.6	98.5	1.83	30.1	4.52	2.17	171
July	10.3	9.74	1.93	11.2	<0.8	9.41	0.560	22.2	22.0	4.55	2.50	5.60	0.682	231
Aug	20.2	19.9	20.4	8.95	29.6	5.77	0.563	11.4	11.3	1.56	11.6	4.94	1.37	250
Sept	25.9	25.5	10.7	9.69	9.48	7.03	0.943	9.93	9.78	7.13	35.9	4.44	1.97	476
Oct	15.3	14.6	9.56	13.6	12.9	11.9	0.827	3.50	3.30	2.76	10.5	4.98	0.807	427
Nov	2.45	0.898	2.90	24.3	5.31	25.8	1.00	3.49	2.93	0.321	1.26	5.90	0.580	153
Dec	6.97	4.46	8.56	40.3	23.5	41.6	3.08	2.09	1.19	3.34	1.16	5.93	1.05	102
Annual	15.3	14.5	9.22	14.4	11.6	12.8	1.18	17.8	17.6	3.96	14.8	4.83	1.21	2160
Max.	118	113	38.7	104	57.0	359	107	302	301	405	61.7	8.82	3.05	
Min.	1.95	<0.3	0.865	5.28	<0.8	<0.3	<0.3	<0.2	<0.2	<0.3	0.0015	4.21	0.320	

Wet deposition amount

2022	SO_4^{2-}	nss-SO_4^{2-}	NO_3^-	Cl^-	NH_4^+	Na^+	K^+	Ca^{2+}	nss-Ca^{2+}	Mg^{2+}	H^+
	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}
Jan	**	**	**	**	**	**	**	**	**	**	**
Feb	0.174	0.0677	0.0784	1.81	0.178	2.00	0.216	0.223	0.180	0.891	0.0329
Mar	0.111	0.0826	0.223	0.460	0.732	0.465	0.118	0.158	0.148	0.172	0.0310
Apr	0.471	0.353	0.886	2.46	0.0163	1.95	0.133	2.90	2.85	0.0899	0.276
May	1.81	1.73	1.37	1.36	1.67	1.41	0.186	4.93	4.90	0.636	1.34
June	3.09	3.00	1.25	1.95	1.77	1.48	0.381	16.9	16.8	0.313	5.15
July	2.38	2.25	0.445	2.58	<0.01	2.17	0.129	5.11	5.06	1.05	0.576
Aug	5.06	4.98	5.11	2.24	7.42	1.44	0.141	2.85	2.82	0.389	2.90
Sept	12.3	12.1	5.11	4.61	4.51	3.34	0.449	4.73	4.65	3.39	17.1
Oct	6.52	6.22	4.08	5.79	5.51	5.06	0.353	1.49	1.41	1.18	4.49
Nov	0.376	0.137	0.443	3.71	0.813	3.95	0.153	0.534	0.449	0.0492	0.193
Dec	0.711	0.455	0.873	4.11	2.39	4.24	0.314	0.213	0.121	0.341	0.119
Annual	33.0	31.3	19.9	31.1	25.0	27.6	2.55	38.5	37.9	8.55	32.0

Data completeness

2022	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	**	**	**	**	**	**	**	**	**	**	**	**	**	**
Feb	100	100	100	100	100	100	100	100	100	100	90.8	90.8	90.8	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	87.4	87.4	87.4	87.4	87.4	87.4	87.4	87.4	87.4	87.4	87.4	87.4	87.4	100
July	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Aug	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Sept	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Oct	100	100	100	100	100	100	100	96.2	96.2	100	96.2	96.2	96.2	100
Nov	100	100	100	100	100	100	100	100	100	100	98.0	98.0	98.0	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	**98.9**	**98.9**	**98.9**	**98.9**	**98.9**	**98.9**	**98.9**	**98.2**	**98.2**	**98.9**	**97.9**	**97.9**	**97.9**	**100**

Terms and abbreviations are given in Table 3.5.

Table 3.49 Monthly results **Site: Mt. Sto. Tomas** **Country: Philippines**

Precipitation amount-weighted average concentration/ Precipitation amount

2022	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	2.40	2.27	1.92	<0.5	9.48	2.22	<0.3	7.38	7.33	0.373	0.794	6.10	0.680	19.4
Feb	<0.3	<0.3	<0.5	<0.5	8.98	<0.3	<0.3	5.05	5.05	<0.3	3.72	5.43	0.578	11.8
Mar	9.75	9.73	7.42	10.8	7.42	0.343	<0.3	8.00	8.00	0.311	0.520	6.28	0.609	26.5
Apr	3.54	3.54	6.88	10.8	3.89	<0.3	<0.3	8.07	8.07	0.384	0.854	6.07	0.683	21.9
May	4.84	4.80	6.79	8.75	4.57	0.898	<0.3	6.69	6.67	<0.3	3.91	5.41	0.684	54.5
June	4.78	4.70	5.04	7.35	3.41	1.38	<0.3	7.09	7.06	0.642	6.70	5.17	0.459	64.5
July	4.74	4.60	4.74	10.7	2.11	2.28	0.397	11.3	11.2	1.21	2.04	5.69	0.465	66.2
Aug	2.42	2.38	1.19	4.70	0.870	1.35	<0.3	6.80	6.77	0.326	1.56	5.81	0.392	184
Sept	4.37	4.27	4.96	11.6	5.06	1.66	0.763	5.56	5.52	0.537	1.72	5.76	0.509	91.6
Oct	3.16	2.80	2.94	10.2	1.62	6.02	1.14	7.32	7.19	0.835	0.971	6.01	0.737	71.3
Nov	1.51	1.50	1.23	<0.5	<0.8	<0.3	7.77	4.92	4.91	<0.3	0.661	6.18	0.328	6.4
Dec	*	*	*	*	*	*	*	*	*	*	*	*	*	1.5
Annual	3.82	3.71	3.71	7.89	3.04	1.93	0.426	7.26	7.21	0.542	2.25	5.65	0.520	620
Max.	14.8	14.5	15.5	17.2	16.1	12.5	7.77	14.3	14.3	2.12	11.7	6.58	1.09	
Min.	<0.3	<0.3	<0.5	<0.5	<0.8	<0.3	<0.3	3.13	3.13	<0.3	0.263	4.93	0.247	

Wet deposition amount

2022	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	0.0465	0.0439	0.0372	<0.01	0.184	0.0430	<0.01	0.143	0.142	<0.01	0.0154
Feb	<0.01	<0.01	<0.01	<0.01	0.106	<0.01	<0.01	0.0597	0.0597	<0.01	0.0439
Mar	0.258	0.258	0.196	0.285	0.196	<0.01	<0.01	0.212	0.212	<0.01	0.0138
Apr	0.0778	0.0776	0.151	0.238	0.0852	<0.01	<0.01	0.177	0.177	<0.01	0.0187
May	0.264	0.261	0.370	0.476	0.249	0.0489	<0.01	0.364	0.363	0.0162	0.213
June	0.308	0.303	0.325	0.474	0.220	0.0891	0.0119	0.457	0.455	0.0414	0.432
July	0.314	0.304	0.314	0.710	0.139	0.151	0.0263	0.746	0.743	0.0802	0.135
Aug	0.446	0.438	0.218	0.866	0.160	0.249	0.0167	1.25	1.25	0.0601	0.287
Sept	0.400	0.391	0.455	1.06	0.463	0.152	0.0699	0.509	0.506	0.0492	0.158
Oct	0.226	0.200	0.210	0.725	0.115	0.429	0.0813	0.522	0.513	0.0595	0.0693
Nov	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.0500	0.0316	0.0316	<0.01	<0.01
Dec	*	*	*	*	*	*	*	*	*	*	*
Annual	2.37	2.30	2.30	4.89	1.88	1.20	0.264	4.50	4.47	0.336	1.39

Data completeness

2022	SO_4^{2-} %TP	nss-SO_4^{2-} %TP	NO_3^- %TP	Cl^- %TP	NH_4^+ %TP	Na^+ %TP	K^+ %TP	Ca^{2+} %TP	nss-Ca^{2+} %TP	Mg^{2+} %TP	H^+ %TP	pH %TP	EC %TP	Precip. %PCL
Jan	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	100
Feb	55.1	55.1	55.1	55.1	55.1	55.1	55.1	55.1	55.1	55.1	55.1	55.1	55.1	100
Mar	91.6	91.6	91.6	91.6	91.6	91.6	91.6	91.6	91.6	91.6	91.6	91.6	91.6	100
Apr	91.0	91.0	91.0	91.0	91.0	91.0	91.0	91.0	91.0	91.0	91.0	91.0	91.0	100
May	100	100	100	100	100	100	100	100	100	100	100	100	100	100
June	100	100	100	100	100	100	100	100	100	100	100	100	100	100
July	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Aug	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Sept	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Oct	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Nov	84.4	84.4	84.4	84.4	84.4	84.4	84.4	84.4	84.4	84.4	84.4	84.4	84.4	100
Dec	0	0	0	0	0	0	0	0	0	0	0	0	0	100
Annual	**98.0**	**98.0**	**98.0**	**98.0**	**98.0**	**98.0**	**98.0**	**98.0**	**98.0**	**98.0**	**98.0**	**98.0**	**98.0**	**100**

Terms and abbreviations are given in Table 3.5.

Table 3.50 Monthly results Site: Kanghwa Country: R of Korea

Precipitation amount-weighted average concentration/ Precipitation amount

2022	SO_4^{2-}	nss-SO_4^{2-}	NO_3^-	Cl^-	NH_4^+	Na^+	K^+	Ca^{2+}	nss-Ca^{2+}	Mg^{2+}	H^+	pH	EC	Precip.
	$\mu mol\ L^{-1}$	$\mu mol\ L^{-1}$	$\mu mol\ L^{-1}$	$\mu mol\ L^{-1}$	$\mu mol\ L^{-1}$	$\mu mol\ L^{-1}$	$\mu mol\ L^{-1}$	$\mu mol\ L^{-1}$	$\mu mol\ L^{-1}$	$\mu mol\ L^{-1}$	$\mu mol\ L^{-1}$		$mS\ m^{-1}$	$mm\ month^{-1}$ or $mm\ year^{-1}$
Jan	95.3	79.1	387	283	352	269	15.3	78.4	72.6	44.3	22.8	4.64	12.0	2.3
Feb	33.3	28.7	74.2	89.5	102	75.8	5.09	17.9	16.3	12.6	2.34	5.63	3.51	4.2
Mar	22.4	21.0	40.0	39.5	46.0	22.4	2.90	17.7	17.2	6.18	5.07	5.30	1.91	61.5
Apr	39.1	37.1	102	41.7	121	33.0	5.47	43.0	42.3	9.94	0.386	6.41	3.68	10.5
May	36.4	33.3	79.2	59.5	49.5	50.6	7.07	42.0	40.9	13.6	1.78	5.75	2.96	3.9
June	8.01	6.84	17.6	20.3	22.0	19.5	1.59	4.42	4.00	3.06	2.17	5.66	0.904	107
July	11.3	10.1	21.1	22.8	36.8	20.1	2.60	3.26	2.83	2.82	1.90	5.72	1.07	154
Aug	7.17	6.17	17.7	19.2	24.9	16.6	2.30	2.70	2.34	2.21	4.36	5.36	0.852	244
Sept	5.72	4.91	5.28	15.8	8.18	13.4	1.30	2.79	2.50	2.44	4.62	5.34	0.580	83.8
Oct	13.5	11.6	15.5	40.6	27.4	32.0	5.68	2.84	2.15	4.60	7.86	5.10	1.32	103
Nov	32.2	28.6	26.9	78.5	72.7	58.8	34.3	5.29	4.02	6.76	0.139	6.86	2.71	23.7
Dec	26.0	22.9	55.4	56.1	78.8	51.1	7.81	10.9	9.77	6.79	0.245	6.61	2.31	50.0
Annual	12.5	11.0	23.5	29.1	33.9	24.1	3.95	5.65	5.13	3.74	3.75	5.43	1.23	848
Max.	117	110	523	368	523	357	42.1	94.7	92.1	47.4	53.7	7.37	13.3	
Min.	2.44	2.19	2.97	4.50	<0.8	<0.3	0.746	0.968	0.894	0.632	0.0427	4.27	0.300	

Wet deposition amount

2022	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	0.217	0.180	0.881	0.644	0.803	0.613	0.0350	0.179	0.165	0.101	0.0520
Feb	0.139	0.120	0.309	0.373	0.425	0.316	0.0212	0.0747	0.0679	0.0526	<0.01
Mar	1.37	1.29	2.46	2.43	2.83	1.38	0.178	1.09	1.06	0.380	0.312
Apr	0.410	0.390	1.07	0.439	1.27	0.347	0.0575	0.452	0.445	0.104	<0.01
May	0.143	0.131	0.311	0.234	0.194	0.199	0.0278	0.165	0.161	0.0535	<0.01
June	0.856	0.731	1.88	2.17	2.35	2.08	0.170	0.473	0.428	0.327	0.232
July	1.75	1.56	3.25	3.52	5.69	3.10	0.401	0.503	0.436	0.436	0.293
Aug	1.75	1.51	4.32	4.68	6.06	4.05	0.561	0.658	0.570	0.538	1.06
Sept	0.479	0.412	0.443	1.32	0.686	1.12	0.109	0.234	0.210	0.204	0.387
Oct	1.39	1.19	1.59	4.17	2.81	3.29	0.584	0.292	0.221	0.472	0.808
Nov	0.761	0.677	0.636	1.86	1.72	1.39	0.811	0.125	0.0951	0.160	<0.01
Dec	1.30	1.15	2.77	2.81	3.94	2.56	0.391	0.544	0.489	0.340	0.0123
Annual	10.6	9.33	19.9	24.6	28.8	20.4	3.35	4.79	4.35	3.17	3.18

Data completeness

2022	SO_4^{2-}	nss-SO_4^{2-}	NO_3^-	Cl^-	NH_4^+	Na^+	K^+	Ca^{2+}	nss-Ca^{2+}	Mg^{2+}	H^+	pH	EC	Precip.
	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%PCL
Jan	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Feb	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Mar	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Apr	100	100	100	100	100	100	100	100	100	100	100	100	100	100
May	100	100	100	100	100	100	100	100	100	100	100	100	100	100
June	100	100	100	100	100	100	100	100	100	100	100	100	100	100
July	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Aug	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Sept	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Oct	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Nov	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Dec	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Annual	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Terms and abbreviations are given in Table 3.5.

Table 3.51 Monthly results Site: **Cheju** Country: **R of Korea**

Precipitation amount-weighted average concentration/ Precipitation amount

2022	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	129	44.8	82.1	1450	7.85	1401	22.1	37.3	7.06	135	2.00	5.70	22.0	30.5
Feb	558	75.9	582	8910	127	8004	133	239	66.0	728	11.8	4.93	134	4.1
Mar	83.9	32.4	67.0	973	41.3	853	18.8	43.2	24.8	86.0	2.34	5.63	15.2	99.1
Apr	47.6	30.6	63.0	301	38.1	297	5.88	13.7	7.24	25.6	5.36	5.27	6.48	76.2
May	46.7	24.2	92.8	388	69.2	372	7.02	15.1	7.02	30.9	1.45	5.84	7.63	5.6
June	**	**	**	**	**	**	**	**	**	**	**	**	**	**
July	**	**	**	**	**	**	**	**	**	**	**	**	**	**
Aug	**	**	**	**	**	**	**	**	**	**	**	**	**	**
Sept	**	**	**	**	**	**	**	**	**	**	**	**	**	**
Oct	**	**	**	**	**	**	**	**	**	**	**	**	**	**
Nov	**	**	**	**	**	**	**	**	**	**	**	**	**	**
Dec	58.7	0.677	53.5	1017	16.7	1123	21.4	34.0	9.70	94.2	0.371	6.43	14.4	18.3
Annual	83.5	31.5	76.2	945	36.2	879	17.0	34.9	15.9	83.3	3.27	5.49	15.1	234
Max.	873	163	853	13436	314	11783	189	350	95.1	1118	17.8	7.36	190	
Min.	34.4	<0.3	29.9	147	6.21	177	2.80	6.44	2.29	10.3	0.0437	4.75	3.81	

Wet deposition amount

2022	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	3.94	1.37	2.50	44.2	0.239	42.7	0.673	1.14	0.215	4.12	0.0610
Feb	2.29	0.311	2.38	36.5	0.521	32.8	0.547	0.980	0.271	2.98	0.0483
Mar	8.31	3.21	6.64	96.4	4.10	84.6	1.86	4.28	2.45	8.52	0.232
Apr	3.63	2.33	4.80	22.9	2.90	22.7	0.448	1.04	0.552	1.95	0.408
May	0.261	0.136	0.519	2.18	0.388	2.09	0.0393	0.0844	0.0393	0.173	<0.01
June	**	**	**	**	**	**	**	**	**	**	**
July	**	**	**	**	**	**	**	**	**	**	**
Aug	**	**	**	**	**	**	**	**	**	**	**
Sept	**	**	**	**	**	**	**	**	**	**	**
Oct	**	**	**	**	**	**	**	**	**	**	**
Nov	**	**	**	**	**	**	**	**	**	**	**
Dec	1.07	0.0124	0.980	18.6	0.306	20.5	0.392	0.622	0.178	1.72	<0.01
Annual	19.5	7.37	17.8	221	8.45	205	3.96	8.15	3.71	19.5	0.765

Data completeness

2022	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	41.9
June	**	**	**	**	**	**	**	**	**	**	**	**	**	0
July	**	**	**	**	**	**	**	**	**	**	**	**	**	0
Aug	**	**	**	**	**	**	**	**	**	**	**	**	**	0
Sept	**	**	**	**	**	**	**	**	**	**	**	**	**	0
Oct	**	**	**	**	**	**	**	**	**	**	**	**	**	0
Nov	**	**	**	**	**	**	**	**	**	**	**	**	**	0
Dec	100	100	100	100	100	100	100	100	100	100	100	100	100	48.4
Annual	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**40.5**

Terms and abbreviations are given in Table 3.5.

Table 3.52 Monthly results **Site: Imsil** **Country: R of Korea**

Precipitation amount-weighted average concentration/ Precipitation amount

2022	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	70.3	61.3	143	70.6	133	148	6.06	38.7	35.5	13.2	0.197	6.70	5.56	43.0
Apr	19.5	17.2	39.2	13.4	41.2	39.0	1.56	6.03	5.19	1.71	0.315	6.50	1.44	56.5
May	--	--	--	--	--	--	--	--	--	--	--	--	--	0
June	10.4	7.89	36.5	17.4	31.2	41.7	3.46	2.14	1.50	0.708	0.182	6.74	1.07	204
July	17.1	14.6	51.7	12.0	54.4	42.1	0.558	2.41	1.50	1.33	0.135	6.87	1.34	140
Aug	12.1	9.28	44.9	12.7	35.4	46.5	<0.3	2.60	1.59	0.540	0.0857	7.07	1.32	112
Sept	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Oct	17.9	3.20	16.3	226	29.7	244	3.55	5.55	0.268	14.5	0.208	6.68	4.02	47.0
Nov	7.81	5.35	23.0	18.2	15.0	40.9	0.855	1.77	1.10	1.45	0.947	6.02	0.866	71.0
Dec	41.4	27.0	80.3	196	59.0	238	5.42	20.6	15.5	22.0	0.443	6.35	4.51	37.2
Annual	18.2	13.8	47.1	41.7	43.1	72.3	2.23	5.94	4.48	3.74	0.261	6.58	1.82	711
Max.	116	102	304	337	211	467	10.8	80.2	72.0	35.7	3.16	7.49	9.18	
Min.	2.12	0.924	3.76	1.98	4.02	4.54	<0.3	<0.2	<0.2	<0.3	0.0324	5.50	0.330	

Wet deposition amount

2022	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	3.02	2.64	6.15	3.03	5.73	6.37	0.260	1.66	1.53	0.565	<0.01
Apr	1.10	0.971	2.22	0.755	2.33	2.20	0.0883	0.341	0.293	0.0964	0.0178
May	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
June	2.12	1.61	7.45	3.55	6.37	8.51	0.706	0.437	0.305	0.144	0.0371
July	2.40	2.04	7.24	1.68	7.62	5.89	0.0781	0.337	0.209	0.186	0.0189
Aug	1.35	1.04	5.03	1.42	3.96	5.20	0.0226	0.291	0.178	0.0605	<0.01
Sept	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Oct	0.843	0.150	0.765	10.6	1.40	11.5	0.167	0.261	0.0126	0.684	<0.01
Nov	0.555	0.380	1.63	1.29	1.07	2.91	0.0607	0.126	0.0781	0.103	0.0672
Dec	1.54	1.01	2.99	7.27	2.19	8.85	0.202	0.768	0.577	0.818	0.0165
Annual	12.9	9.83	33.5	29.6	30.7	51.4	1.58	4.22	3.18	2.66	0.185

Data completeness

2022	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	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
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**	**83.8**

Terms and abbreviations are given in Table 3.5.

Table 3.53 Monthly results Site: Mondy Country: Russia

Precipitation amount-weighted average concentration/ Precipitation amount

2022	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	4.11	3.98	5.00	2.70	1.70	2.17	1.02	5.74	5.69	0.820	3.72	5.43	0.390	4.1
Feb	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Mar	6.97	6.66	1.80	3.40	3.30	5.22	2.05	16.7	16.6	2.46	1.29	5.89	0.628	1.0
Apr	--	--	--	--	--	--	--	--	--	--	--	--	--	0
May	--	--	--	--	--	--	--	--	--	--	--	--	--	0
June	9.47	9.29	13.0	1.70	31.1	3.04	1.50	13.0	12.9	2.46	1.45	5.84	0.902	8.6
July	4.40	4.33	2.92	<0.5	13.1	1.12	0.554	1.26	1.23	<0.3	3.30	5.48	0.329	22.4
Aug	1.46	1.40	3.90	0.700	1.10	0.870	<0.3	0.750	0.731	0.410	9.12	5.04	0.313	12.9
Sept	10.4	10.3	5.00	<0.5	23.9	2.17	2.80	3.20	3.15	0.800	1.48	5.83	0.477	3.7
Oct	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Nov	4.73	4.52	4.90	5.10	1.11	3.48	3.10	15.5	15.4	2.90	0.631	6.20	0.480	1.6
Dec	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Annual	4.95	4.85	5.09	0.866	12.4	1.66	0.863	4.17	4.14	0.832	4.18	5.38	0.441	54.3
Max.	10.4	10.3	13.0	5.10	31.1	5.22	3.10	16.7	16.6	2.90	9.12	6.20	0.902	
Min.	1.04	0.989	1.60	<0.5	<0.8	0.870	<0.3	0.250	0.231	<0.3	0.631	5.04	0.197	

Wet deposition amount

2022	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	0.0169	0.0163	0.0205	0.0111	<0.01	<0.01	<0.01	0.0235	0.0233	<0.01	0.0152
Feb	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mar	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.0167	0.0166	<0.01	<0.01
Apr	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
May	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
June	0.0815	0.0799	0.112	0.0146	0.267	0.0262	0.0129	0.112	0.111	0.0212	0.0124
July	0.0985	0.0970	0.0655	<0.01	0.293	0.0251	0.0124	0.0282	0.0276	<0.01	0.0739
Aug	0.0188	0.0181	0.0503	<0.01	0.0142	0.0112	<0.01	<0.01	<0.01	<0.01	0.118
Sept	0.0385	0.0380	0.0185	<0.01	0.0884	<0.01	0.0104	0.0118	0.0117	<0.01	<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	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.0248	0.0247	<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	0.269	0.263	0.276	0.0470	0.675	0.0902	0.0469	0.227	0.225	0.0452	0.227

Data completeness

2022	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
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
Nov	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Dec	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Annual	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Terms and abbreviations are given in Table 3.5.

Table 3.54 Monthly results Site: Listvyanka Country: Russia

Precipitation amount-weighted average concentration/ Precipitation amount

2022	SO_4^{2-}	nss-SO_4^{2-}	NO_3^-	Cl^-	NH_4^+	Na^+	K^+	Ca^{2+}	nss-Ca^{2+}	Mg^{2+}	H^+	pH	EC	Precip.
	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}		mS m^{-1}	mm $month^{-1}$ or mm $year^{-1}$
Jan	9.03	8.75	42.6	3.33	8.15	4.70	2.04	13.4	13.3	2.30	16.4	4.78	1.30	54.8
Feb	26.0	25.5	49.1	1.29	5.38	8.78	3.41	32.3	32.1	5.61	6.83	5.17	1.60	7.2
Mar	22.0	21.5	41.0	1.16	8.50	7.83	3.16	20.3	20.2	3.75	15.1	4.82	1.55	7.1
Apr	34.7	33.9	47.8	9.08	38.8	14.4	5.59	52.8	52.4	8.64	2.33	5.63	2.50	3.4
May	34.8	34.2	29.6	9.20	41.2	9.98	15.7	40.4	40.1	12.5	2.41	5.62	2.43	11.3
June	10.8	10.6	8.17	2.61	7.19	2.48	2.95	5.62	5.57	2.02	12.7	4.90	0.854	98.4
July	13.0	12.8	8.72	1.46	12.5	3.41	2.00	4.74	4.67	1.40	16.8	4.77	1.09	88.3
Aug	15.0	14.8	9.79	1.51	17.7	3.59	7.21	8.21	8.14	2.85	10.0	5.00	1.07	58.1
Sept	24.2	23.8	19.2	5.17	50.7	7.05	20.4	23.3	23.2	8.56	2.19	5.66	1.83	20.2
Oct	22.8	22.3	20.5	2.44	15.4	7.80	17.2	13.4	13.3	5.25	21.5	4.67	1.86	21.2
Nov	11.3	10.9	23.6	1.93	2.97	5.25	2.69	21.3	21.2	6.53	3.07	5.51	1.01	12.7
Dec	13.7	13.3	32.6	3.80	2.75	5.36	1.92	21.1	21.0	6.30	6.61	5.18	1.19	13.1
Annual	14.5	14.2	18.1	2.62	13.7	4.39	5.25	11.4	11.3	3.29	12.7	4.90	1.20	396
Max.	58.4	57.2	91.8	27.4	91.1	19.1	128	89.8	89.4	22.2	43.7	6.44	4.17	
Min.	6.90	6.80	<0.5	<0.5	<0.8	0.435	0.510	2.00	1.99	0.410	0.363	4.36	0.522	

Wet deposition amount

2022	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	0.495	0.480	2.33	0.183	0.447	0.258	0.112	0.735	0.730	0.126	0.901
Feb	0.188	0.184	0.354	<0.01	0.0387	0.0632	0.0246	0.233	0.231	0.0404	0.0492
Mar	0.156	0.153	0.291	<0.01	0.0603	0.0556	0.0224	0.144	0.143	0.0266	0.107
Apr	0.118	0.115	0.163	0.0309	0.132	0.0490	0.0190	0.179	0.178	0.0294	<0.01
May	0.393	0.386	0.335	0.104	0.466	0.113	0.177	0.456	0.454	0.142	0.0273
June	1.06	1.04	0.804	0.257	0.708	0.244	0.290	0.554	0.548	0.199	1.25
July	1.15	1.13	0.770	0.129	1.11	0.301	0.177	0.419	0.412	0.124	1.48
Aug	0.874	0.861	0.569	0.0876	1.03	0.209	0.419	0.477	0.473	0.166	0.582
Sept	0.489	0.481	0.388	0.104	1.02	0.142	0.413	0.471	0.468	0.173	0.0443
Oct	0.483	0.473	0.435	0.0517	0.327	0.165	0.364	0.285	0.281	0.111	0.456
Nov	0.143	0.139	0.299	0.0245	0.0377	0.0666	0.0341	0.270	0.269	0.0830	0.0390
Dec	0.179	0.175	0.427	0.0498	0.0360	0.0702	0.0251	0.277	0.275	0.0826	0.0866
Annual	5.73	5.63	7.17	1.04	5.41	1.74	2.08	4.50	4.46	1.30	5.03

Data completeness

2022	SO_4^{2-}	nss-SO_4^{2-}	NO_3^-	Cl^-	NH_4^+	Na^+	K^+	Ca^{2+}	nss-Ca^{2+}	Mg^{2+}	H^+	pH	EC	Precip.
	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%PCL
Jan	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Feb	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Mar	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Apr	100	100	100	100	100	100	100	100	100	100	100	100	100	100
May	100	100	100	100	100	100	100	100	100	100	100	100	100	100
June	100	100	100	100	100	100	100	100	100	100	100	100	100	100
July	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Aug	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Sept	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Oct	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Nov	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Dec	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Annual	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Terms and abbreviations are given in Table 3.5.

Table 3.55 Monthly results **Site: Irkutsk** **Country: Russia**

Precipitation amount-weighted average concentration/ Precipitation amount

2022	SO_4^{2-} µmol L^{-1}	nss-SO_4^{2-} µmol L^{-1}	NO_3^- µmol L^{-1}	Cl^- µmol L^{-1}	NH_4^+ µmol L^{-1}	Na^+ µmol L^{-1}	K^+ µmol L^{-1}	Ca^{2+} µmol L^{-1}	nss-Ca^{2+} µmol L^{-1}	Mg^{2+} µmol L^{-1}	H^+ µmol L^{-1}	pH	EC mS m^{-1}	Precip. mm month^{-1} or mm year^{-1}
Jan	32.0	31.2	28.2	7.99	25.4	12.4	3.39	33.6	33.4	6.69	2.76	5.56	1.75	17.7
Feb	118	114	65.4	65.3	69.1	68.5	5.83	129	128	21.3	1.56	5.81	5.43	6.7
Mar	24.2	23.1	27.5	17.2	22.9	18.5	3.13	41.4	41.0	8.93	1.14	5.94	1.88	2.6
Apr	68.4	64.8	31.5	43.0	53.1	59.8	8.99	96.6	95.3	19.2	0.384	6.42	4.49	8.3
May	118	116	30.5	20.9	121	29.1	17.9	87.8	87.2	24.6	1.78	5.75	5.01	1.0
June	30.2	29.9	15.6	3.55	28.3	4.63	2.97	16.3	16.2	5.49	13.2	4.88	1.61	79.8
July	10.8	10.7	8.17	1.19	19.0	2.34	0.875	5.44	5.39	1.70	8.54	5.07	0.830	119
Aug	25.8	25.6	12.2	3.53	29.3	3.86	6.11	16.8	16.7	4.71	7.97	5.10	1.39	40.4
Sept	32.6	32.2	10.6	7.49	44.0	5.67	26.3	35.4	35.2	14.9	2.33	5.63	2.32	30.0
Oct	31.3	30.6	15.6	6.30	25.5	11.8	16.2	30.8	30.5	9.28	2.14	5.67	1.83	21.1
Nov	34.9	33.5	13.1	28.9	19.1	23.9	10.4	81.6	81.0	17.8	0.434	6.36	2.84	16.0
Dec	28.7	27.5	21.7	22.9	15.8	20.2	4.96	83.4	83.0	12.7	0.616	6.21	2.78	22.9
Annual	26.5	26.0	14.7	7.97	26.7	9.07	6.02	27.4	27.2	6.89	7.10	5.15	1.68	365
Max.	552	547	336	197	298	165	212	749	745	140	77.6	8.20	23.7	
Min.	2.29	2.21	<0.5	<0.5	4.24	1.30	<0.3	0.499	0.471	0.411	0.0063	4.11	0.381	

Wet deposition amount

2022	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	0.566	0.553	0.500	0.141	0.449	0.220	0.0601	0.596	0.591	0.118	0.0489
Feb	0.789	0.761	0.438	0.437	0.463	0.459	0.0390	0.868	0.858	0.142	0.0105
Mar	0.0619	0.0590	0.0702	0.0440	0.0584	0.0473	<0.01	0.106	0.105	0.0228	<0.01
Apr	0.567	0.538	0.261	0.357	0.441	0.497	0.0746	0.802	0.791	0.159	<0.01
May	0.112	0.111	0.0292	0.0200	0.116	0.0279	0.0171	0.0839	0.0833	0.0235	<0.01
June	2.41	2.39	1.25	0.284	2.26	0.370	0.237	1.30	1.29	0.438	1.05
July	1.29	1.27	0.972	0.142	2.26	0.278	0.104	0.647	0.641	0.203	1.02
Aug	1.04	1.04	0.493	0.143	1.19	0.156	0.247	0.679	0.676	0.191	0.322
Sept	0.977	0.967	0.317	0.225	1.32	0.170	0.790	1.06	1.06	0.447	0.0699
Oct	0.661	0.646	0.328	0.133	0.537	0.248	0.342	0.650	0.644	0.196	0.0451
Nov	0.559	0.536	0.210	0.463	0.306	0.382	0.167	1.30	1.30	0.285	<0.01
Dec	0.656	0.628	0.496	0.523	0.361	0.461	0.113	1.91	1.90	0.290	0.0141
Annual	9.69	9.49	5.36	2.91	9.76	3.31	2.20	10.0	9.93	2.52	2.59

Data completeness

2022	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 3.56 Monthly results Site: Primorskaya Country: Russia

Precipitation amount-weighted average concentration/ Precipitation amount

2022	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	*	*	*	*	*	*	*	*	*	*	2.27	5.64	*	4.2
Feb	12.8	11.9	11.3	25.4	16.6	15.2	11.3	8.00	7.67	3.70	1.96	5.71	0.910	13.1
Mar	55.7	52.0	37.2	73.9	92.3	61.4	18.2	37.8	36.5	10.7	1.03	5.99	3.44	46.1
Apr	66.9	64.2	28.7	104	81.6	44.5	19.6	55.3	54.3	16.1	2.58	5.59	4.04	29.1
May	40.1	38.2	27.8	72.0	80.5	31.2	26.0	17.7	17.0	12.7	2.54	5.59	2.77	59.5
June	15.7	15.0	18.7	36.9	58.8	11.9	9.52	15.2	14.9	2.04	1.65	5.78	1.58	81.9
July	8.42	7.67	6.28	12.5	17.7	12.4	4.49	3.41	3.14	0.867	2.14	5.67	0.644	149
Aug	22.4	21.0	21.0	35.9	41.2	23.9	4.78	8.88	8.39	8.93	1.17	5.93	1.13	126
Sept	28.4	26.6	21.8	89.8	52.3	30.3	13.5	16.2	15.5	3.22	0.946	6.02	1.17	116
Oct	44.8	43.7	18.5	65.0	101	17.9	9.26	24.6	24.3	5.18	3.43	5.47	3.10	58.1
Nov	123	111	53.9	114	129	200	17.6	87.5	83.2	35.7	1.22	5.91	4.08	47.6
Dec	40.1	37.9	55.2	70.6	72.3	36.7	15.7	31.0	30.2	6.16	0.906	6.04	4.65	52.3
Annual	33.6	31.5	23.8	56.1	59.0	36.0	11.3	21.1	20.3	7.47	1.70	5.77	2.02	783
Max.	210	195	229	235	309	338	77.2	146	144	60.1	49.0	6.91	9.78	
Min.	3.90	2.96	1.60	4.50	4.40	2.60	1.30	0.399	<0.2	0.400	0.123	4.31	0.310	

Wet deposition amount

2022	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	*	*	*	*	*	*	*	*	*	*	<0.01
Feb	0.168	0.156	0.148	0.333	0.217	0.199	0.148	0.105	0.100	0.0485	0.0257
Mar	2.57	2.40	1.72	3.41	4.26	2.83	0.837	1.74	1.68	0.493	0.0476
Apr	1.95	1.87	0.835	3.03	2.37	1.29	0.571	1.61	1.58	0.470	0.0749
May	2.38	2.27	1.65	4.29	4.79	1.85	1.55	1.05	1.01	0.753	0.151
June	1.29	1.23	1.53	3.02	4.81	0.972	0.780	1.24	1.22	0.167	0.135
July	1.26	1.14	0.937	1.87	2.64	1.85	0.670	0.508	0.468	0.129	0.320
Aug	2.83	2.65	2.65	4.53	5.20	3.01	0.603	1.12	1.06	1.13	0.148
Sept	3.29	3.08	2.52	10.4	6.06	3.52	1.57	1.88	1.80	0.373	0.110
Oct	2.60	2.54	1.07	3.78	5.88	1.04	0.538	1.43	1.41	0.301	0.199
Nov	5.86	5.28	2.56	5.41	6.12	9.52	0.838	4.17	3.96	1.70	0.0583
Dec	2.10	1.98	2.89	3.69	3.78	1.92	0.823	1.62	1.58	0.322	0.0474
Annual	26.3	24.6	18.6	43.9	46.2	28.2	8.87	16.5	15.9	5.85	1.33

Data completeness

2022	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	100	100	0	100
Feb	70.2	70.2	70.2	70.2	70.2	70.2	70.2	70.2	70.2	70.2	100	100	70.2	100
Mar	90.2	90.2	90.2	90.2	90.2	90.2	90.2	90.2	90.2	90.2	100	100	90.2	100
Apr	89.0	89.0	89.0	89.0	89.0	89.0	89.0	89.0	89.0	89.0	100	100	89.0	100
May	87.2	87.2	87.2	87.2	87.2	87.2	87.2	87.2	87.2	87.2	100	100	87.2	100
June	92.7	92.7	92.7	92.7	92.7	92.7	92.7	92.7	92.7	92.7	100	100	92.7	100
July	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	100	100	98.7	100
Aug	93.2	93.2	93.2	93.2	93.2	93.2	93.2	93.2	93.2	93.2	99.6	99.6	93.2	100
Sept	97.9	97.9	97.9	97.9	97.9	97.9	97.9	97.9	97.9	97.9	100	100	97.9	100
Oct	96.4	96.4	96.4	96.4	96.4	96.4	96.4	96.4	96.4	96.4	100	100	98.6	100
Nov	96.4	96.4	96.4	96.4	96.4	96.4	96.4	96.4	96.4	96.4	96.4	96.4	96.4	100
Dec	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
Annual	**94.1**	**94.1**	**94.1**	**94.1**	**94.1**	**94.1**	**94.1**	**94.1**	**94.1**	**94.1**	**99.7**	**99.7**	**94.2**	**100**

Terms and abbreviations are given in Table 3.5.

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

Precipitation amount-weighted average concentration/ Precipitation amount

2022	SO_4^{2-}	nss-SO_4^{2-}	NO_3^-	Cl^-	NH_4^+	Na^+	K^+	Ca^{2+}	nss-Ca^{2+}	Mg^{2+}	H^+	pH	EC	Precip.
	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}	μmol L^{-1}		mS m^{-1}	mm $month^{-1}$ or mm $year^{-1}$
Jan	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Feb	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Mar	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Apr	--	--	--	--	--	--	--	--	--	--	--	--	--	0
May	7.50	6.98	20.9	10.1	36.9	8.65	3.03	23.0	22.8	3.26	0.0710	7.15	1.29	159
June	4.32	4.03	16.2	6.94	31.9	4.67	1.02	13.7	13.6	2.12	0.170	6.77	1.27	177
July	3.39	3.16	17.7	5.86	26.8	4.34	0.932	8.14	8.05	1.44	0.360	6.44	0.777	254
Aug	5.30	4.94	20.7	7.07	26.8	5.95	1.38	8.83	8.70	1.53	1.49	5.83	0.803	355
Sept	4.63	4.42	27.6	4.84	26.6	4.68	1.58	9.18	9.08	1.18	2.79	5.55	0.778	769
Oct	4.55	4.37	27.0	3.99	21.2	3.38	1.21	14.2	14.1	1.54	0.642	6.19	1.12	195
Nov	9.43	9.10	45.4	8.02	35.1	5.49	2.30	26.3	26.2	1.67	0.257	6.59	1.43	150
Dec	17.9	17.4	57.7	13.0	75.4	8.70	4.09	14.2	14.0	1.65	0.513	6.29	2.86	14.4
Annual	5.22	4.94	25.2	6.13	28.3	5.12	1.56	12.2	12.1	1.58	1.44	5.84	0.958	2073
Max.	27.3	25.4	120	31.3	99.2	30.9	12.3	74.9	74.7	11.5	7.94	7.37	7.55	
Min.	<0.3	<0.3	6.29	1.13	11.6	0.870	0.512	2.99	2.78	0.411	0.0427	5.10	0.270	

Wet deposition amount

2022	SO_4^{2-}	nss-SO_4^{2-}	NO_3^-	Cl^-	NH_4^+	Na^+	K^+	Ca^{2+}	nss-Ca^{2+}	Mg^{2+}	H^+
	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}
Jan	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Feb	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mar	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Apr	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
May	1.19	1.11	3.31	1.60	5.85	1.37	0.481	3.64	3.61	0.517	0.0113
June	0.763	0.713	2.87	1.23	5.64	0.825	0.180	2.43	2.41	0.375	0.0301
July	0.862	0.803	4.50	1.49	6.82	1.10	0.237	2.07	2.05	0.366	0.0917
Aug	1.88	1.75	7.35	2.51	9.51	2.11	0.489	3.14	3.09	0.542	0.531
Sept	3.56	3.40	21.2	3.72	20.4	3.60	1.22	7.06	6.98	0.910	2.14
Oct	0.887	0.852	5.27	0.778	4.12	0.660	0.236	2.76	2.75	0.301	0.125
Nov	1.42	1.37	6.82	1.20	5.27	0.825	0.345	3.95	3.93	0.251	0.0387
Dec	0.258	0.250	0.831	0.187	1.09	0.125	0.0589	0.205	0.202	0.0237	<0.01
Annual	10.8	10.2	52.2	12.7	58.7	10.6	3.24	25.3	25.0	3.29	2.98

Data completeness

2022	SO_4^{2-}	nss-SO_4^{2-}	NO_3^-	Cl^-	NH_4^+	Na^+	K^+	Ca^{2+}	nss-Ca^{2+}	Mg^{2+}	H^+	pH	EC	Precip.
	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%PCL
Jan	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Feb	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Mar	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Apr	--	--	--	--	--	--	--	--	--	--	--	--	--	100
May	100	100	100	100	100	100	100	100	100	100	100	100	100	100
June	100	100	100	100	100	100	100	100	100	100	100	100	100	100
July	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Aug	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Sept	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Oct	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Nov	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Dec	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Annual	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Terms and abbreviations are given in Table 3.5.

Table 3.58 Monthly results **Site: Samutprakarn** **Country: Thailand**

Precipitation amount-weighted average concentration/ Precipitation amount

2022	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	2.98	2.56	12.2	8.53	22.1	6.94	1.71	5.55	5.40	1.18	0.418	6.38	0.761	158
July	3.90	3.41	10.7	10.4	20.3	8.04	1.61	3.10	2.93	1.08	0.833	6.08	0.612	315
Aug	3.92	3.47	8.35	6.73	17.9	7.47	1.67	4.40	4.24	1.36	1.08	5.97	0.556	379
Sept	6.96	6.76	27.6	5.18	25.5	4.96	1.60	8.21	8.10	2.20	3.61	5.44	0.783	587
Oct	4.85	4.69	17.3	4.22	18.2	3.00	0.961	5.90	5.83	1.17	0.964	6.02	0.468	403
Nov	10.4	10.2	45.4	5.63	35.7	3.82	1.37	11.5	11.5	1.05	1.29	5.89	1.34	126
Dec	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Annual	5.35	5.05	19.0	6.42	22.1	5.62	1.48	6.18	6.06	1.49	1.73	5.76	0.681	1967
Max.	25.9	25.2	112	36.7	63.7	19.6	5.12	43.9	43.7	8.23	10.7	6.75	2.90	
Min.	<0.3	<0.3	3.23	1.13	2.77	1.30	<0.3	0.499	0.396	0.411	0.178	4.97	0.230	

Wet deposition amount

2022	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	0.471	0.405	1.92	1.35	3.49	1.10	0.270	0.876	0.852	0.187	0.0660
July	1.23	1.07	3.36	3.29	6.40	2.53	0.507	0.976	0.922	0.339	0.262
Aug	1.49	1.32	3.16	2.55	6.78	2.83	0.632	1.67	1.61	0.516	0.409
Sept	4.08	3.97	16.2	3.04	15.0	2.92	0.938	4.82	4.76	1.29	2.12
Oct	1.95	1.89	6.99	1.70	7.35	1.21	0.387	2.38	2.35	0.473	0.388
Nov	1.31	1.28	5.71	0.707	4.49	0.480	0.172	1.45	1.44	0.131	0.162
Dec	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	10.5	9.93	37.4	12.6	43.5	11.1	2.91	12.2	11.9	2.94	3.41

Data completeness

2022	SO_4^{2-} %TP	nss-SO_4^{2-} %TP	NO_3^- %TP	Cl^- %TP	NH_4^+ %TP	Na^+ %TP	K^+ %TP	Ca^{2+} %TP	nss-Ca^{2+} %TP	Mg^{2+} %TP	H^+ %TP	pH %TP	EC %TP	Precip. %PCL
Jan	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Feb	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Mar	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Apr	--	--	--	--	--	--	--	--	--	--	--	--	--	100
May	--	--	--	--	--	--	--	--	--	--	--	--	--	100
June	100	100	100	100	100	100	100	100	100	100	100	100	100	100
July	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Aug	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Sept	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Oct	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Nov	100	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 3.59 Monthly results **Site: Pathumthani** **Country: Thailand**

Precipitation amount-weighted average concentration/ Precipitation amount

2022	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	9.05	8.66	27.7	8.48	49.9	6.63	1.10	4.44	4.30	1.57	0.0013	8.88	1.02	60.5
Feb	14.8	14.5	50.9	11.7	41.1	3.79	0.631	7.08	6.99	1.57	2.33	5.63	1.90	24.8
Mar	13.8	13.6	38.8	9.01	42.6	4.82	2.01	11.5	11.4	1.76	9.17	5.04	2.02	142
Apr	12.5	12.3	20.6	5.88	30.8	2.59	1.56	5.40	5.34	1.44	4.08	5.39	1.20	107
May	10.5	10.2	23.2	8.72	36.1	4.87	1.14	10.4	10.3	2.49	2.19	5.66	1.30	130
June	8.76	8.52	30.4	6.61	51.0	3.97	1.11	8.11	8.03	1.92	1.30	5.89	1.15	191
July	5.36	5.25	15.6	8.26	21.2	1.87	0.568	3.81	3.77	1.34	0.0075	8.13	0.603	196
Aug	4.43	4.29	12.5	4.95	17.3	2.33	0.495	2.97	2.92	1.32	13.8	4.86	0.700	252
Sept	5.10	5.01	12.5	2.42	17.2	1.52	0.322	3.00	2.96	1.10	0.880	6.06	0.651	395
Oct	4.62	4.54	9.15	3.23	20.7	1.43	0.327	3.15	3.12	0.541	0.0928	7.03	0.518	93.1
Nov	5.29	5.15	19.2	6.21	25.0	2.30	0.899	7.33	7.28	0.830	0.124	6.91	0.795	65.6
Dec	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Annual	7.37	7.20	19.8	5.82	28.2	2.83	0.813	5.43	5.37	1.43	3.73	5.43	0.944	1657
Max.	30.7	30.7	113	72.2	292	30.5	40.7	42.8	42.6	5.55	155	8.88	4.05	
Min.	<0.3	<0.3	<0.5	0.981	<0.8	<0.3	<0.3	1.01	1.00	<0.3	0.0013	3.81	0.201	

Wet deposition amount

2022	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	0.548	0.524	1.67	0.513	3.02	0.401	0.0665	0.269	0.260	0.0951	<0.01
Feb	0.366	0.360	1.26	0.289	1.02	0.0939	0.0157	0.176	0.173	0.0390	0.0577
Mar	1.97	1.93	5.52	1.28	6.05	0.685	0.286	1.64	1.62	0.250	1.30
Apr	1.33	1.32	2.20	0.627	3.28	0.276	0.166	0.576	0.570	0.153	0.435
May	1.36	1.32	3.00	1.13	4.68	0.631	0.148	1.35	1.33	0.322	0.284
June	1.67	1.62	5.79	1.26	9.73	0.757	0.211	1.55	1.53	0.366	0.248
July	1.05	1.03	3.04	1.62	4.14	0.366	0.111	0.745	0.737	0.262	<0.01
Aug	1.12	1.08	3.16	1.25	4.38	0.588	0.125	0.750	0.738	0.334	3.49
Sept	2.02	1.98	4.96	0.958	6.81	0.600	0.127	1.19	1.17	0.435	0.348
Oct	0.431	0.423	0.852	0.301	1.93	0.133	0.0305	0.293	0.291	0.0504	<0.01
Nov	0.347	0.338	1.26	0.407	1.64	0.151	0.0590	0.481	0.477	0.0544	<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	12.2	11.9	32.7	9.63	46.7	4.68	1.35	9.00	8.90	2.36	6.18

Data completeness

2022	SO_4^{2-} %TP	nss-SO_4^{2-} %TP	NO_3^- %TP	Cl^- %TP	NH_4^+ %TP	Na^+ %TP	K^+ %TP	Ca^{2+} %TP	nss-Ca^{2+} %TP	Mg^{2+} %TP	H^+ %TP	pH %TP	EC %TP	Precip. %PCL
Jan	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Feb	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Mar	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Apr	100	100	100	100	100	100	100	100	100	100	100	100	100	100
May	100	100	100	100	100	100	100	100	100	100	100	100	100	100
June	100	100	100	100	100	100	100	100	100	100	100	100	100	100
July	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Aug	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Sept	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Oct	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Nov	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Dec	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Annual	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Terms and abbreviations are given in Table 3.5.

Table 3.60 Monthly results **Site: Khanchanaburi** **Country: Thailand**

Precipitation amount-weighted average concentration/ Precipitation amount

2022	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

2022	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

2022	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 3.61 Monthly results **Site: Hanoi** **Country: Vietnam**

Precipitation amount-weighted average concentration/ Precipitation amount

	SO_4^{2-}	nss-SO_4^{2-}	NO_3^-	Cl^-	NH_4^+	Na^+	K^+	Ca^{2+}	nss-Ca^{2+}	Mg^{2+}	H^+	pH	EC	Precip.
2022	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	151	150	146	46.1	261	28.4	14.7	130	129	17.7	2.50	5.60	7.93	42.1
Feb	138	135	178	59.3	181	39.8	27.2	147	146	25.9	0.147	6.83	8.19	81.2
Mar	34.7	33.9	35.1	12.3	51.1	13.2	4.15	41.6	41.3	5.12	0.263	6.58	2.03	107
Apr	57.1	55.5	105	21.7	64.1	26.4	10.2	76.0	75.4	9.01	2.36	5.63	3.89	46.9
May	34.5	34.1	45.8	17.4	59.9	7.26	5.32	34.8	34.7	2.58	0.750	6.13	2.01	353
June	42.6	42.2	45.2	28.5	62.8	7.63	7.84	43.6	43.4	4.39	3.45	5.46	2.45	309
July	124	121	128	82.7	95.2	56.9	18.9	155	154	9.13	0.612	6.21	6.89	453
Aug	47.6	46.8	55.2	20.7	28.6	14.7	8.90	52.8	52.4	14.3	1.69	5.77	2.57	776
Sept	103	101	100	27.0	55.0	32.5	15.4	112	111	10.7	13.1	4.88	5.33	235
Oct	86.6	83.9	106	48.9	52.1	44.1	8.27	95.8	94.9	7.00	27.0	4.57	5.06	50.9
Nov	135	134	193	64.7	93.0	24.0	17.2	175	174	18.5	21.3	4.67	8.35	7.9
Dec	37.5	36.6	37.7	8.41	20.4	15.6	2.38	42.3	42.0	5.14	0.968	6.01	1.75	15.0
Annual	69.8	68.4	77.2	35.2	63.3	24.0	11.2	79.0	78.5	9.88	3.16	5.50	3.87	2478
Max.	685	668	450	742	690	285	287	540	534	87.5	61.5	7.03	35.4	
Min.	13.2	12.8	13.5	5.67	2.94	1.09	1.69	15.3	15.2	0.329	0.0944	4.21	0.920	

Wet deposition amount

	SO_4^{2-}	nss-SO_4^{2-}	NO_3^-	Cl^-	NH_4^+	Na^+	K^+	Ca^{2+}	nss-Ca^{2+}	Mg^{2+}	H^+
2022	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	6.37	6.30	6.13	1.94	11.0	1.20	0.619	5.47	5.44	0.747	0.105
Feb	11.2	11.0	14.4	4.82	14.7	3.24	2.21	11.9	11.9	2.10	0.0119
Mar	3.72	3.63	3.75	1.32	5.47	1.41	0.444	4.45	4.42	0.548	0.0282
Apr	2.68	2.60	4.92	1.02	3.01	1.24	0.477	3.56	3.54	0.423	0.111
May	12.2	12.0	16.2	6.15	21.1	2.57	1.88	12.3	12.3	0.911	0.265
June	13.2	13.0	14.0	8.81	19.4	2.36	2.42	13.5	13.4	1.36	1.07
July	56.4	54.8	57.9	37.5	43.2	25.8	8.59	70.2	69.6	4.14	0.277
Aug	37.0	36.3	42.8	16.1	22.2	11.4	6.90	40.9	40.7	11.1	1.31
Sept	24.2	23.8	23.5	6.34	12.9	7.63	3.62	26.3	26.2	2.52	3.08
Oct	4.41	4.27	5.42	2.49	2.65	2.24	0.421	4.88	4.83	0.356	1.38
Nov	1.07	1.06	1.52	0.511	0.734	0.189	0.136	1.38	1.38	0.146	0.168
Dec	0.563	0.549	0.566	0.126	0.306	0.234	0.0357	0.635	0.629	0.0771	0.0145
Annual	173	169	191	87.2	157	59.6	27.8	196	194	24.5	7.82

Data completeness

	SO_4^{2-}	nss-SO_4^{2-}	NO_3^-	Cl^-	NH_4^+	Na^+	K^+	Ca^{2+}	nss-Ca^{2+}	Mg^{2+}	H^+	pH	EC	Precip.
2022	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%PCL
Jan	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
Feb	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Mar	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	100
Apr	100	100	100	100	100	100	100	100	100	100	100	100	100	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	100	100	100	100	100	100	100	100	100	100	100	100	100	100
July	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Aug	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Sept	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Oct	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	100
Nov	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	100
Dec	81.3	81.3	81.3	81.3	81.3	81.3	81.3	81.3	81.3	81.3	81.3	81.3	81.3	100
Annual	**99.8**	**99.8**	**99.8**	**99.8**	**99.8**	**99.8**	**99.8**	**99.8**	**99.8**	**99.8**	**99.8**	**99.8**	**99.8**	**100**

Terms and abbreviations are given in Table 3.5.

Table 3.62 Monthly results Site: Hoa Binh Country: Vietnam

Precipitation amount-weighted average concentration/ Precipitation amount

2022	SO_4^{2-} µmol L^{-1}	nss-SO_4^{2-} µmol L^{-1}	NO_3^- µmol L^{-1}	Cl^- µmol L^{-1}	NH_4^+ µmol L^{-1}	Na^+ µmol L^{-1}	K^+ µmol L^{-1}	Ca^{2+} µmol L^{-1}	nss-Ca^{2+} µmol L^{-1}	Mg^{2+} µmol L^{-1}	H^+ µmol L^{-1}	pH	EC mS m^{-1}	Precip. mm $month^{-1}$ or mm $year^{-1}$
Jan	22.6	22.2	30.4	14.1	18.8	6.79	3.81	28.0	27.8	3.58	7.00	5.16	1.52	43.6
Feb	17.1	16.7	23.4	14.5	22.8	5.31	2.07	21.2	21.1	4.06	1.93	5.71	1.11	109
Mar	18.3	18.0	41.3	5.44	20.9	4.75	0.549	34.8	34.7	4.00	0.455	6.34	1.35	112
Apr	38.0	37.8	42.7	14.3	66.6	2.63	5.68	22.4	22.3	2.04	15.0	4.82	2.30	34.3
May	25.0	24.9	25.9	15.6	44.5	1.64	5.03	19.3	19.3	2.88	2.30	5.64	1.40	212
June	22.7	22.5	17.0	11.1	28.9	3.54	2.75	16.5	16.4	3.40	2.87	5.54	1.15	260
July	15.9	15.6	20.9	5.92	10.9	4.14	9.01	17.3	17.2	1.15	4.13	5.38	0.996	197
Aug	25.2	25.0	16.4	15.5	31.3	3.10	7.55	16.3	16.2	1.77	7.24	5.14	1.41	365
Sept	18.9	18.6	8.89	5.99	18.6	4.74	1.54	13.1	13.0	2.11	2.52	5.60	0.853	625
Oct	19.2	18.6	41.6	7.47	14.7	10.6	1.61	28.5	28.3	4.08	3.15	5.50	1.29	69.9
Nov	70.9	68.3	136	15.9	62.8	43.9	8.60	65.3	64.4	10.3	22.4	4.65	4.89	3.5
Dec	21.9	19.9	50.7	10.0	18.1	33.6	2.94	20.8	20.0	3.74	4.58	5.34	1.62	23.9
Annual	21.3	21.0	19.5	10.2	25.2	4.56	3.96	17.9	17.8	2.53	3.77	5.42	1.17	2055
Max.	103	101	167	62.3	304	43.9	64.5	65.3	64.4	12.9	28.2	7.07	6.39	
Min.	7.90	7.53	5.50	2.14	0.887	0.391	0.358	5.60	5.56	<0.3	0.0845	4.55	0.460	

Wet deposition amount

2022	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	0.984	0.966	1.33	0.617	0.819	0.296	0.166	1.22	1.21	0.156	0.305
Feb	1.85	1.82	2.54	1.58	2.47	0.577	0.225	2.30	2.29	0.442	0.210
Mar	2.05	2.02	4.63	0.609	2.35	0.532	0.0615	3.90	3.88	0.448	0.0510
Apr	1.30	1.30	1.46	0.491	2.29	0.0903	0.195	0.767	0.766	0.0699	0.514
May	5.30	5.28	5.49	3.32	9.45	0.348	1.07	4.10	4.09	0.612	0.487
June	5.90	5.85	4.42	2.87	7.51	0.920	0.715	4.30	4.28	0.884	0.745
July	3.12	3.07	4.11	1.17	2.14	0.817	1.77	3.40	3.38	0.227	0.814
Aug	9.21	9.14	5.97	5.68	11.4	1.13	2.76	5.94	5.92	0.646	2.64
Sept	11.8	11.7	5.56	3.75	11.6	2.96	0.960	8.21	8.15	1.32	1.57
Oct	1.34	1.30	2.91	0.522	1.03	0.738	0.112	1.99	1.98	0.285	0.220
Nov	0.248	0.239	0.476	0.0558	0.220	0.154	0.0301	0.229	0.225	0.0361	0.0784
Dec	0.525	0.476	1.21	0.239	0.432	0.804	0.0703	0.496	0.479	0.0894	0.109
Annual	43.7	43.1	40.1	20.9	51.7	9.37	8.14	36.8	36.6	5.21	7.75

Data completeness

2022	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	97.2	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
Feb	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
Mar	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	100
Apr	100	100	100	100	100	100	100	100	100	100	100	100	100	100
May	100	100	100	100	100	100	100	100	100	100	100	100	100	100
June	100	100	100	100	100	100	100	100	100	100	100	100	100	100
July	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Aug	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Sept	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Oct	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Nov	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Dec	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Annual	**99.9**	**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 3.63 Monthly results **Site: Cuc Phuong** **Country: Vietnam**

Precipitation amount-weighted average concentration/ Precipitation amount

2022	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	35.9	34.4	69.4	46.8	74.9	24.3	4.28	59.6	59.0	15.4	0.447	6.35	3.23	83.1
Feb	26.9	26.5	70.7	26.2	62.2	7.42	8.17	53.1	53.0	11.1	2.20	5.66	2.55	89.5
Mar	44.9	42.3	275	45.1	109	42.7	15.0	116	115	28.5	6.53	5.19	5.74	68.5
Apr	32.6	30.5	56.2	40.1	30.9	34.7	8.93	62.1	61.4	15.3	1.71	5.77	2.89	107
May	12.8	12.0	42.7	18.0	16.4	13.3	3.13	34.8	34.5	7.00	2.97	5.53	1.57	471
June	7.62	6.80	21.0	13.6	18.1	13.6	6.47	15.6	15.3	5.53	2.30	5.64	1.02	280
July	10.8	9.71	16.3	18.8	51.7	18.7	5.20	22.8	22.4	8.84	2.62	5.58	1.60	470
Aug	10.1	8.76	28.3	29.9	59.0	22.1	8.95	42.2	41.7	10.5	1.76	5.75	2.20	267
Sept	10.1	8.88	15.3	15.8	92.0	20.7	3.90	29.0	28.5	7.64	1.64	5.79	2.12	766
Oct	18.0	16.4	31.1	22.9	79.0	26.1	6.43	52.2	51.6	10.3	1.14	5.94	2.63	80.8
Nov	38.0	35.7	75.8	52.1	58.5	37.9	9.57	84.6	83.8	15.6	1.03	5.99	3.91	61.1
Dec	98.0	92.1	105	89.2	114	96.6	19.1	155	153	40.5	0.999	6.00	7.18	24.3
Annual	15.1	13.8	35.9	22.4	57.2	20.4	5.68	36.9	36.5	9.48	2.18	5.66	2.10	2768
Max.	144	136	336	176	297	133	28.4	220	218	54.5	7.94	6.60	11.3	
Min.	2.40	1.32	9.06	4.74	1.39	1.09	0.563	10.8	10.5	2.47	0.251	5.10	0.600	

Wet deposition amount

2022	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	2.98	2.86	5.77	3.89	6.22	2.02	0.355	4.95	4.91	1.28	0.0371
Feb	2.41	2.37	6.33	2.34	5.57	0.664	0.731	4.75	4.74	0.993	0.197
Mar	3.08	2.90	18.9	3.09	7.48	2.93	1.03	7.97	7.91	1.95	0.447
Apr	3.48	3.26	6.00	4.28	3.30	3.71	0.954	6.64	6.56	1.64	0.183
May	6.04	5.67	20.1	8.46	7.74	6.26	1.47	16.4	16.3	3.30	1.40
June	2.13	1.90	5.86	3.81	5.07	3.79	1.81	4.36	4.28	1.54	0.643
July	5.10	4.57	7.69	8.84	24.3	8.81	2.45	10.7	10.5	4.16	1.23
Aug	2.69	2.33	7.53	7.96	15.7	5.90	2.39	11.2	11.1	2.81	0.469
Sept	7.75	6.80	11.7	12.1	70.4	15.8	2.99	22.2	21.9	5.85	1.26
Oct	1.45	1.33	2.51	1.85	6.38	2.11	0.519	4.22	4.17	0.831	0.0924
Nov	2.32	2.18	4.63	3.18	3.57	2.32	0.585	5.17	5.12	0.953	0.0629
Dec	2.38	2.24	2.54	2.17	2.78	2.35	0.464	3.76	3.71	0.985	0.0243
Annual	41.7	38.3	99.4	61.9	158	56.6	15.7	102	101	26.2	6.05

Data completeness

2022	SO_4^{2-} %TP	nss-SO_4^{2-} %TP	NO_3^- %TP	Cl^- %TP	NH_4^+ %TP	Na^+ %TP	K^+ %TP	Ca^{2+} %TP	nss-Ca^{2+} %TP	Mg^{2+} %TP	H^+ %TP	pH %TP	EC %TP	Precip. %PCL
Jan	99.8	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
Feb	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Mar	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	100
Apr	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
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	95.0	95.0	95.0	95.0	95.0	95.0	95.0	95.0	95.0	95.0	95.0	95.0	95.0	100
Nov	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
Dec	95.9	95.9	95.9	95.9	95.9	95.9	95.9	95.9	95.9	95.9	95.9	95.9	95.9	100
Annual	**99.8**	**99.8**	**99.8**	**99.8**	**99.8**	**99.8**	**99.8**	**99.8**	**99.8**	**99.8**	**99.8**	**99.8**	**99.8**	**100**

Terms and abbreviations are given in Table 3.5.

Table 3.64 Monthly results **Site: Da Nang** **Country: Vietnam**

Precipitation amount-weighted average concentration/ Precipitation amount

2022	SO_4^{2-} µmol L^{-1}	nss-SO_4^{2-} µmol L^{-1}	NO_3^- µmol L^{-1}	Cl^- µmol L^{-1}	NH_4^+ µmol L^{-1}	Na^+ µmol L^{-1}	K^+ µmol L^{-1}	Ca^{2+} µmol L^{-1}	nss-Ca^{2+} µmol L^{-1}	Mg^{2+} µmol L^{-1}	H^+ µmol L^{-1}	pH	EC mS m^{-1}	Precip. mm $month^{-1}$ or mm $year^{-1}$
Jan	24.2	16.9	11.0	194	41.0	120	11.4	31.0	28.4	31.4	1.72	5.76	4.09	75.5
Feb	*	*	*	*	*	*	*	*	*	*	*	*	*	5.0
Mar	15.3	12.4	1.56	183	10.8	49.5	109	41.0	40.0	20.0	0.933	6.03	3.88	411
Apr	4.66	4.11	1.81	19.5	17.9	9.20	5.60	15.4	15.2	9.20	1.17	5.93	0.950	100
May	16.6	15.4	5.49	87.7	49.2	20.4	48.8	23.0	22.5	16.1	1.54	5.81	2.81	61.0
June	97.1	94.6	7.90	97.3	337	41.4	68.2	130	129	55.7	0.316	6.50	10.4	14.2
July	22.2	20.5	4.55	415	114	27.7	392	58.4	57.8	19.5	0.538	6.27	9.71	43.7
Aug	6.72	6.22	6.37	297	6.89	8.41	281	24.3	24.1	16.4	1.97	5.70	5.16	187
Sept	17.7	8.07	6.17	463	15.3	159	213	24.1	20.7	45.9	1.90	5.72	7.04	470
Oct	6.91	4.89	2.39	167	7.32	33.6	112	14.3	13.6	13.8	2.06	5.69	2.88	1169
Nov	9.56	7.23	2.62	272	16.2	38.6	199	18.0	17.1	15.2	1.65	5.78	4.60	156
Dec	16.8	11.8	6.18	173	21.3	81.8	39.9	29.6	27.8	20.9	1.54	5.81	3.29	350
Annual	12.2	8.51	3.87	226	16.1	60.5	130	23.8	22.5	21.2	1.72	5.76	4.03	3042
Max.	103	101	20.1	1422	398	273	1167	137	136	69.2	2.24	6.54	22.2	
Min.	4.66	2.21	<0.5	19.5	3.88	6.61	3.73	13.1	9.42	9.20	0.288	5.65	0.950	

Wet deposition amount

2022	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	1.28	0.830	14.6	3.09	9.08	0.862	2.34	2.15	2.37	0.130
Feb	*	*	*	*	*	*	*	*	*	*	*
Mar	6.30	5.07	0.640	75.0	4.43	20.3	44.9	16.9	16.4	8.21	0.383
Apr	0.467	0.411	0.181	1.95	1.79	0.921	0.561	1.54	1.52	0.921	0.118
May	1.01	0.938	0.335	5.35	3.00	1.24	2.98	1.40	1.37	0.983	0.0941
June	1.38	1.34	0.112	1.38	4.79	0.588	0.968	1.85	1.84	0.791	<0.01
July	0.971	0.898	0.199	18.1	4.99	1.21	17.1	2.55	2.53	0.851	0.0235
Aug	1.26	1.16	1.19	55.5	1.29	1.57	52.6	4.54	4.51	3.06	0.369
Sept	8.30	3.79	2.90	218	7.20	74.8	100	11.3	9.71	21.6	0.893
Oct	8.08	5.72	2.79	195	8.55	39.3	131	16.8	15.9	16.1	2.41
Nov	1.49	1.13	0.409	42.5	2.53	6.02	31.0	2.80	2.67	2.37	0.258
Dec	5.86	4.13	2.16	60.5	7.45	28.6	14.0	10.3	9.72	7.31	0.537
Annual	37.0	25.9	11.8	689	49.0	184	396	72.3	68.4	64.6	5.23

Data completeness

2022	SO_4^{2-} %TP	nss-SO_4^{2-} %TP	NO_3^- %TP	Cl^- %TP	NH_4^+ %TP	Na^+ %TP	K^+ %TP	Ca^{2+} %TP	nss-Ca^{2+} %TP	Mg^{2+} %TP	H^+ %TP	pH %TP	EC %TP	Precip. %PCL
Jan	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Feb	0	0	0	0	0	0	0	0	0	0	0	0	0	100
Mar	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	100
Apr	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
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	94.3	94.3	94.3	94.3	94.3	94.3	94.3	94.3	94.3	94.3	94.3	94.3	94.3	100
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 3.65 Monthly results **Site: Can Tho** **Country: Vietnam**

Precipitation amount-weighted average concentration/ Precipitation amount

2022	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	25.2	24.1	3.55	28.2	21.2	17.7	7.37	14.9	14.6	8.09	1.24	5.91	1.24	232
Apr	24.9	24.0	3.88	31.6	19.1	15.8	11.0	16.3	15.9	9.85	1.05	5.98	1.32	213
May	25.1	24.2	3.31	29.0	19.6	13.9	10.4	17.4	17.1	8.81	0.963	6.02	1.25	214
June	27.0	26.0	3.34	30.4	22.7	16.7	10.5	14.8	14.4	8.71	1.00	6.00	1.31	510
July	26.0	25.2	3.16	27.0	25.2	13.3	12.2	14.1	13.8	6.85	1.28	5.89	1.31	129
Aug	24.2	23.2	3.55	28.9	20.4	15.8	10.2	12.7	12.3	7.77	1.32	5.88	1.27	239
Sept	24.0	23.2	4.43	30.0	20.6	14.4	8.43	14.9	14.6	9.52	1.13	5.95	1.25	487
Oct	21.8	21.0	3.31	29.5	23.6	13.7	7.86	15.2	14.9	7.71	0.897	6.05	1.29	91.0
Nov	25.1	24.8	4.05	28.3	25.1	4.79	28.3	1.00	0.896	10.7	1.56	5.81	1.34	196
Dec	--	--	--	--	--	--	--	--	--	--	--	--	--	0
Annual	25.1	24.2	3.71	29.5	21.6	14.6	11.2	13.8	13.5	8.86	1.15	5.94	1.28	2311
Max.	30.2	30.0	5.44	37.5	30.2	22.4	32.6	21.6	21.3	12.8	2.09	6.32	1.52	
Min.	19.3	19.0	2.62	21.8	15.7	3.32	5.51	1.00	0.793	6.18	0.479	5.68	1.15	

Wet deposition amount

2022	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	5.84	5.59	0.824	6.54	4.92	4.11	1.71	3.47	3.38	1.88	0.288
Apr	5.31	5.11	0.826	6.74	4.07	3.36	2.33	3.47	3.40	2.10	0.224
May	5.37	5.19	0.709	6.22	4.20	2.98	2.23	3.72	3.66	1.89	0.206
June	13.8	13.3	1.71	15.5	11.6	8.51	5.36	7.55	7.37	4.44	0.512
July	3.36	3.26	0.407	3.48	3.25	1.71	1.57	1.82	1.78	0.883	0.165
Aug	5.78	5.56	0.848	6.91	4.88	3.78	2.43	3.03	2.95	1.86	0.315
Sept	11.7	11.3	2.16	14.6	10.0	7.00	4.10	7.26	7.11	4.64	0.549
Oct	1.99	1.91	0.301	2.69	2.15	1.25	0.715	1.38	1.35	0.702	0.0817
Nov	4.92	4.87	0.793	5.55	4.92	0.939	5.55	0.196	0.176	2.09	0.306
Dec	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	58.1	56.0	8.57	68.2	50.0	33.6	26.0	31.9	31.2	20.5	2.65

Data completeness

2022	SO_4^{2-} %TP	nss-SO_4^{2-} %TP	NO_3^- %TP	Cl^- %TP	NH_4^+ %TP	Na^+ %TP	K^+ %TP	Ca^{2+} %TP	nss-Ca^{2+} %TP	Mg^{2+} %TP	H^+ %TP	pH %TP	EC %TP	Precip. %PCL
Jan	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Feb	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Mar	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Apr	100	100	100	100	100	100	100	100	100	100	100	100	100	100
May	100	100	100	100	100	100	100	100	100	100	100	100	100	100
June	100	100	100	100	100	100	100	100	100	100	100	100	100	100
July	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Aug	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Sept	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Oct	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Nov	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Dec	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Annual	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Terms and abbreviations are given in Table 3.5.

Table 3.66 Monthly results **Site: Ho Chi Minh** **Country: Vietnam**

Precipitation amount-weighted average concentration/ Precipitation amount

2022	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	23.2	22.3	21.0	50.1	29.0	14.2	8.81	20.3	20.0	9.87	2.09	5.68	1.91	19.0
Feb	22.4	21.3	14.8	43.1	25.6	17.5	10.6	17.5	17.1	10.5	1.20	5.92	1.45	20.0
Mar	29.3	28.2	11.1	41.4	28.3	17.3	10.3	17.6	17.2	9.96	1.33	5.88	1.54	113
Apr	27.8	26.7	12.1	49.4	31.1	18.4	9.11	19.2	18.8	11.2	0.566	6.25	1.71	122
May	25.1	24.0	14.3	49.8	34.1	19.7	9.84	16.4	16.0	10.6	0.883	6.05	1.80	383
June	25.5	24.4	16.2	45.6	29.8	18.8	10.8	18.4	18.0	9.78	0.882	6.05	1.64	412
July	27.2	26.0	14.6	42.7	28.9	19.8	10.2	16.3	15.9	10.0	0.967	6.01	1.60	210
Aug	25.3	24.2	12.6	43.1	26.9	18.7	9.94	19.7	19.3	10.3	0.441	6.36	1.68	306
Sept	25.6	24.6	14.1	39.6	30.7	17.2	10.6	17.7	17.3	9.38	0.600	6.22	1.59	305
Oct	25.9	24.7	14.6	47.4	29.8	19.0	11.2	18.5	18.1	10.0	0.645	6.19	1.62	199
Nov	27.3	25.9	17.2	41.9	28.0	21.7	10.2	15.8	15.3	9.76	0.757	6.12	1.52	190
Dec	29.4	28.1	12.6	45.1	30.2	21.5	10.6	20.3	19.9	9.73	1.66	5.78	1.67	27.0
Annual	26.1	24.9	14.5	44.7	30.0	18.9	10.3	17.8	17.4	10.1	0.790	6.10	1.65	2306
Max.	36.9	35.9	21.0	55.1	37.4	23.2	11.8	21.7	21.3	12.9	2.32	6.50	1.92	
Min.	22.0	20.8	9.32	35.3	23.6	14.2	8.69	13.8	13.4	8.56	0.316	5.64	1.45	

Wet deposition amount

2022	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	0.441	0.425	0.398	0.952	0.551	0.269	0.167	0.386	0.381	0.188	0.0397
Feb	0.447	0.426	0.297	0.862	0.512	0.351	0.213	0.350	0.342	0.211	0.0240
Mar	3.31	3.19	1.26	4.68	3.20	1.96	1.16	1.99	1.94	1.13	0.151
Apr	3.39	3.25	1.47	6.03	3.79	2.24	1.11	2.34	2.29	1.36	0.0690
May	9.63	9.17	5.48	19.1	13.1	7.54	3.77	6.28	6.12	4.07	0.338
June	10.5	10.0	6.67	18.8	12.3	7.75	4.45	7.60	7.43	4.03	0.363
July	5.72	5.47	3.06	8.98	6.08	4.16	2.14	3.42	3.33	2.10	0.203
Aug	7.75	7.40	3.87	13.2	8.24	5.72	3.04	6.04	5.92	3.15	0.135
Sept	7.81	7.50	4.30	12.1	9.38	5.24	3.22	5.40	5.29	2.86	0.183
Oct	5.15	4.92	2.91	9.43	5.92	3.77	2.22	3.68	3.60	1.99	0.128
Nov	5.18	4.93	3.27	7.95	5.32	4.11	1.93	3.00	2.91	1.85	0.144
Dec	0.793	0.758	0.341	1.22	0.814	0.579	0.285	0.549	0.537	0.263	0.0448
Annual	60.1	57.5	33.3	103	69.1	43.7	23.7	41.0	40.1	23.2	1.82

Data completeness

2022	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 3.67 Monthly results Site: Yen Bai Country: Vietnam

Precipitation amount-weighted average concentration/ Precipitation amount

2022	SO_4^{2-} µmol L^{-1}	nss-SO_4^{2-} µmol L^{-1}	NO_3^- µmol L^{-1}	Cl^- µmol L^{-1}	NH_4^+ µmol L^{-1}	Na^+ µmol L^{-1}	K^+ µmol L^{-1}	Ca^{2+} µmol L^{-1}	nss-Ca^{2+} µmol L^{-1}	Mg^{2+} µmol L^{-1}	H^+ µmol L^{-1}	pH	EC mS m^{-1}	Precip. mm $month^{-1}$ or mm $year^{-1}$
Jan	20.9	20.8	20.4	13.6	28.5	2.48	2.71	18.9	18.8	1.32	11.9	4.93	1.46	42.4
Feb	34.1	33.8	33.6	23.7	67.4	4.26	8.22	22.5	22.4	1.10	4.80	5.32	2.09	123
Mar	29.0	28.6	35.1	13.7	61.6	6.29	3.74	18.0	17.9	1.87	5.67	5.25	1.73	135
Apr	59.3	58.5	80.8	23.6	126	13.5	4.80	49.4	49.1	3.83	3.06	5.51	3.51	41.9
May	22.6	22.4	15.2	20.4	23.3	2.52	5.85	23.3	23.3	0.896	2.95	5.53	1.18	249
June	26.7	26.4	25.5	18.4	27.8	5.81	6.03	19.7	19.6	4.23	15.0	4.82	1.80	293
July	30.8	30.1	24.6	22.6	50.6	11.2	4.50	15.4	15.2	6.99	4.05	5.39	1.65	51.6
Aug	17.5	17.4	21.4	11.6	20.6	1.32	2.60	16.7	16.7	3.29	6.03	5.22	1.13	531
Sept	15.3	15.2	16.0	8.01	21.6	2.00	0.977	13.4	13.4	0.998	5.65	5.25	0.964	217
Oct	77.4	75.3	124	33.3	88.6	35.3	9.50	88.9	88.1	6.30	3.69	5.43	4.42	43.5
Nov	29.6	28.8	37.3	12.2	15.1	12.8	1.43	23.3	23.1	1.88	29.0	4.54	2.28	73.2
Dec	55.6	54.0	71.6	33.5	31.5	27.2	6.26	49.3	48.7	6.41	46.9	4.33	4.28	34.9
Annual	25.4	25.1	27.9	16.0	33.4	5.18	4.15	21.5	21.4	2.74	8.54	5.07	1.59	1834
Max.	160	155	195	104	262	96.2	18.5	172	170	19.4	69.3	6.33	8.92	
Min.	6.59	6.37	5.06	3.20	4.20	0.304	<0.3	4.12	4.04	<0.3	0.470	4.16	0.550	

Wet deposition amount

2022	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	0.886	0.880	0.864	0.577	1.21	0.105	0.115	0.801	0.799	0.0558	0.504
Feb	4.17	4.14	4.12	2.90	8.26	0.522	1.01	2.75	2.74	0.134	0.589
Mar	3.90	3.85	4.73	1.84	8.29	0.847	0.503	2.42	2.40	0.251	0.763
Apr	2.48	2.45	3.39	0.988	5.28	0.565	0.201	2.07	2.06	0.161	0.128
May	5.62	5.58	3.79	5.08	5.80	0.626	1.46	5.81	5.79	0.223	0.734
June	7.83	7.72	7.48	5.38	8.15	1.70	1.77	5.77	5.74	1.24	4.39
July	1.59	1.55	1.27	1.17	2.61	0.578	0.232	0.795	0.782	0.361	0.209
Aug	9.28	9.24	11.4	6.16	10.9	0.702	1.38	8.88	8.86	1.75	3.20
Sept	3.31	3.29	3.46	1.74	4.68	0.432	0.212	2.91	2.90	0.216	1.22
Oct	3.37	3.27	5.38	1.45	3.85	1.54	0.413	3.87	3.83	0.274	0.161
Nov	2.16	2.11	2.73	0.896	1.10	0.934	0.105	1.71	1.69	0.138	2.12
Dec	1.94	1.88	2.50	1.17	1.10	0.949	0.219	1.72	1.70	0.224	1.64
Annual	46.6	46.0	51.1	29.3	61.2	9.50	7.61	39.5	39.3	5.02	15.7

Data completeness

2022	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 3.68 Annual precipitation amount and precipitation amount-weighted average concentration in 2022

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	1056	22.9	22.7	40.9	5.51	80.6	3.32	2.96	21.4	21.3	2.75	1.69	5.77	1.83
	Jinyunshan	967	24.9	24.7	36.8	4.59	63.7	2.01	2.43	16.0	16.0	2.81	7.42	5.13	1.77
	Shizhan	456	54.7	53.2	66.2	21.6	118	25.6	13.2	177	176	18.9	0.0736	7.13	6.32
	Jiwozi	419	17.1	16.5	10.5	16.7	17.0	9.93	8.23	25.3	25.1	5.88	0.831	6.08	1.21
	Hongwen	857	7.84	6.84	18.5	18.4	21.9	16.6	3.37	13.3	13.0	3.62	5.57	5.25	1.15
	Xiaoping	1044	6.01	5.61	20.6	8.34	13.0	6.73	3.38	4.43	4.28	2.34	13.7	4.86	1.03
	Xiang Zhou	2124	6.51	5.12	13.4	25.5	15.7	23.0	0.989	3.73	3.23	2.53	6.12	5.21	0.968
	Zhuxiandong	2104	7.62	5.93	15.8	31.5	14.2	28.1	1.34	7.31	6.71	3.74	6.27	5.20	1.09
	Wuzhishan	1112	3.63	3.13	7.29	8.91	13.1	8.22	4.00	4.63	4.45	1.31	0.691	6.16	0.573
	Lijiang	346	5.34	5.24	6.35	10.4	24.9	1.65	1.74	9.98	9.94	2.28	0.339	6.47	0.536
Indonesia	Jakarta	1721	23.4	22.8	21.9	13.5	27.8	9.55	3.97	8.18	7.98	2.59	16.4	4.79	1.71
	Serpong	2668	28.7	28.2	28.1	17.7	64.5	8.15	2.81	7.43	7.25	3.31	7.61	5.12	1.98
	Kototabang	2325	4.31	4.11	4.49	4.50	4.71	3.37	2.42	3.80	3.72	0.842	2.56	5.59	0.348
	Bandung	1954	33.7	33.0	21.7	11.0	65.7	11.6	3.40	18.1	17.8	2.80	4.92	5.31	1.81
	Maros	4321	5.21	4.53	5.90	12.9	7.73	11.2	1.44	15.2	15.0	1.80	1.02	5.99	0.559
	Jembrana	2705	8.32	6.89	7.38	34.5	3.72	23.9	3.31	4.96	4.44	3.06	11.8	4.93	1.29
	Lombok	2494	20.3	18.9	6.42	24.5	83.5	23.6	22.6	17.2	16.7	9.06	12.9	4.89	3.77
Japan	Rishiri	1047	19.2	9.16	15.3	187	18.5	167	4.40	7.87	4.27	19.3	9.26	5.03	3.48
	Ochiishi	846	*	*	*	*	*	*	*	*	*	*	*	*	*
	Sado-seki	1193	16.6	4.34	9.24	234	6.72	204	4.63	6.06	1.66	23.1	6.91	5.16	3.64
	Happo	2223	4.24	3.98	6.03	5.29	6.81	4.45	0.401	1.35	1.25	0.775	6.34	5.20	0.530
	Ijira	4042	7.75	6.52	12.3	24.4	12.6	20.3	0.593	1.93	1.49	2.57	10.4	4.98	1.08
	Oki	1311	*	*	*	*	*	*	*	*	*	*	*	*	*
	Yusuhara	2420	8.12	5.95	6.33	42.2	6.31	36.1	1.58	2.16	1.38	4.55	10.8	4.97	1.21
	Hedo	3029	10.4	2.40	4.45	154	3.36	133	2.95	4.54	1.68	15.7	5.72	5.24	2.42
	Ogasawara	1953	11.5	2.51	2.48	172	1.88	149	3.43	3.83	0.637	16.5	6.79	5.17	2.76
	Tokyo	1464	8.50	7.38	13.6	21.6	20.6	18.6	0.523	3.48	3.08	2.35	6.74	5.17	1.02
	Niigata-maki	1663	19.5	6.86	13.6	248	13.5	210	5.09	7.21	2.68	24.2	9.95	5.00	4.03
	Tsushima	1510	12.3	6.20	10.2	118	9.34	101	3.44	3.54	1.36	11.3	7.57	5.12	2.29
Lao PDR	Vientiane	***	***	***	***	***	***	***	***	***	***	***	***	***	***
Malaysia	Petaling Jaya	4180	10.7	10.5	33.3	7.41	15.3	3.61	1.12	3.40	3.32	0.604	29.7	4.53	1.90
	Tanah Rata	3194	2.72	2.54	5.44	3.43	6.52	2.96	1.93	2.64	2.58	<0.3	7.97	5.10	0.569
	Danum Valley	2936	1.85	1.56	3.76	6.28	1.85	4.76	2.77	1.70	1.60	0.930	6.85	5.16	0.504
	Kuching	3979	2.38	1.99	1.96	7.73	7.40	6.60	2.95	5.59	5.45	0.726	2.62	5.58	0.487
	Gunung Brinchang	***	***	***	***	***	***	***	***	***	***	***	***	***	***
Mongolia	Ulaanbaatar	117	*	*	*	*	*	*	*	*	*	*	7.06	5.15	4.24
	Terelj	121	*	*	*	*	*	*	*	*	*	*	6.77	5.17	5.11
Myanmar	Yangon	2461	7.90	6.97	7.32	14.6	22.5	15.3	4.17	17.4	17.1	4.53	0.126	6.90	1.38
Philippines	Metro Manila	2833	16.1	14.6	17.6	12.1	20.7	24.1	1.69	11.6	11.1	13.4	11.6	4.93	1.25
	Los Baños	2160	15.3	14.5	9.22	14.4	11.6	12.8	1.18	17.8	17.6	3.96	14.8	4.83	1.21
	Mt. Sto. Tomas	620	3.82	3.71	3.71	7.89	3.04	1.93	0.426	7.26	7.21	0.542	2.25	5.65	0.520
R of Korea	Kanghwa	848	12.5	11.0	23.5	29.1	33.9	24.1	3.95	5.65	5.13	3.74	3.75	5.43	1.23
	Cheju	234	83.5	31.5	76.2	945	36.2	879	17.0	34.9	15.9	83.3	3.27	5.49	15.1
	Imsil	711	18.2	13.8	47.1	41.7	43.1	72.3	2.23	5.94	4.48	3.74	0.261	6.58	1.82
Russia	Mondy	54.3	4.95	4.85	5.09	0.866	12.4	1.66	0.863	4.17	4.14	0.832	4.18	5.38	0.441
	Listvyanka	396	14.5	14.2	18.1	2.62	13.7	4.39	5.25	11.4	11.3	3.29	12.7	4.90	1.20
	Irkutsk	365	26.5	26.0	14.7	7.97	26.7	9.07	6.02	27.4	27.2	6.89	7.10	5.15	1.68
	Primorskaya	783	33.6	31.5	23.8	56.1	59.0	36.0	11.3	21.1	20.3	7.47	1.70	5.77	2.02
Thailand	Bangkok	2073	5.22	4.94	25.2	6.13	28.3	5.12	1.56	12.2	12.1	1.58	1.44	5.84	0.958
	Samutprakarn	1967	5.35	5.05	19.0	6.42	22.1	5.62	1.48	6.18	6.06	1.49	1.73	5.76	0.681
	Pathumthani	1657	7.37	7.20	19.8	5.82	28.2	2.83	0.813	5.43	5.37	1.43	3.73	5.43	0.944
	Khanchanaburi	***	***	***	***	***	***	***	***	***	***	***	***	***	***
Vietnam	Hanoi	2478	69.8	68.4	77.2	35.2	63.3	24.0	11.2	79.0	78.5	9.88	3.16	5.50	3.87
	Hoa Binh	2055	21.3	21.0	19.5	10.2	25.2	4.56	3.96	17.9	17.8	2.53	3.77	5.42	1.17
	Cuc Phuong	2768	15.1	13.8	35.9	22.4	57.2	20.4	5.68	36.9	36.5	9.48	2.18	5.66	2.10
	Da Nang	3042	12.2	8.51	3.87	226	16.1	60.5	130	23.8	22.5	21.2	1.72	5.76	4.03
	Can Tho	2311	25.1	24.2	3.71	29.5	21.6	14.6	11.2	13.8	13.5	8.86	1.15	5.94	1.28
	Ho Chi Minh	2306	26.1	24.9	14.5	44.7	30.0	18.9	10.3	17.8	17.4	10.1	0.790	6.10	1.65
	Yen Bai	1834	25.4	25.1	27.9	16.0	33.4	5.18	4.15	21.5	21.4	2.74	8.54	5.07	1.59

Terms and abbreviations are given in Table 3.5.

Table 3.69 Annual wet depositions in 2022

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	24.1	23.9	43.2	5.82	85.1	3.51	3.12	22.5	22.5	2.90	1.78
	Jinyunshan	24.0	23.9	35.6	4.44	61.6	1.95	2.35	15.5	15.5	2.72	7.17
	Shizhan	25.0	24.3	30.2	9.87	54.1	11.7	6.01	80.8	80.5	8.63	0.0336
	Jiwozi	7.17	6.91	4.42	6.99	7.13	4.16	3.45	10.6	10.5	2.46	0.348
	Hongwen	6.72	5.86	15.9	15.8	18.8	14.2	2.89	11.4	11.1	3.10	4.78
	Xiaoping	6.28	5.86	21.5	8.71	13.6	7.03	3.53	4.63	4.47	2.44	14.3
	Xiang Zhou	13.8	10.9	28.4	54.0	33.4	48.8	2.10	7.92	6.87	5.36	13.0
	Zhuxiandong	16.0	12.5	33.1	66.2	30.0	59.0	2.81	15.4	14.1	7.88	13.2
	Wuzhishan	4.04	3.49	8.10	9.91	14.6	9.14	4.45	5.15	4.95	1.45	0.768
	Lijiang	1.85	1.81	2.19	3.60	8.59	0.571	0.601	3.45	3.43	0.786	0.117
Indonesia	Jakarta	40.2	39.2	37.8	23.3	47.8	16.4	6.83	14.1	13.7	4.46	28.2
	Serpong	76.5	75.1	75.0	47.2	172	21.8	7.50	19.8	19.4	8.84	20.3
	Kototabang	10.0	9.56	10.4	10.5	11.0	7.84	5.62	8.83	8.66	1.96	5.96
	Bandung	65.9	64.6	42.5	21.5	128	22.7	6.65	35.3	34.8	5.47	9.61
	Maros	22.5	19.6	25.5	55.6	33.4	48.5	6.24	65.8	64.7	7.78	4.41
	Jembrana	22.5	18.6	20.0	93.2	10.1	64.5	8.95	13.4	12.0	8.29	31.9
	Lombok	50.7	47.1	16.0	61.1	208	58.8	56.3	43.0	41.7	22.6	32.3
Japan	Rishiri	20.1	9.59	16.1	196	19.3	175	4.61	8.24	4.47	20.2	9.70
	Ochiishi	*	*	*	*	*	*	*	*	*	*	*
	Sado-seki	19.8	5.18	11.0	279	8.02	243	5.52	7.23	1.98	27.5	8.24
	Happo	9.43	8.84	13.4	11.8	15.1	9.89	0.891	2.99	2.78	1.72	14.1
	Ijira	31.3	26.4	49.8	98.5	50.8	82.0	2.40	7.79	6.02	10.4	42.1
	Oki	*	*	*	*	*	*	*	*	*	*	*
	Yusuhara	19.7	14.4	15.3	102	15.3	87.4	3.83	5.24	3.35	11.0	26.1
	Hedo	31.5	7.26	13.5	466	10.2	402	8.94	13.7	5.09	47.4	17.3
	Ogasawara	22.4	4.91	4.84	336	3.68	291	6.69	7.48	1.24	32.3	13.3
	Tokyo	12.4	10.8	19.9	31.6	30.2	27.2	0.766	5.10	4.51	3.45	9.86
	Niigata-maki	32.4	11.4	22.7	413	22.4	349	8.46	12.0	4.46	40.3	16.5
	Tsushima	18.5	9.36	15.4	178	14.1	152	5.20	5.35	2.06	17.1	11.4
Lao PDR	Vientiane	***	***	***	***	***	***	***	***	***	***	***
Malaysia	Petaling Jaya	44.8	43.9	139	31.0	64.0	15.1	4.67	14.2	13.9	2.53	124
	Tanah Rata	8.69	8.12	17.4	10.9	20.8	9.44	6.15	8.43	8.23	0.703	25.4
	Danum Valley	5.43	4.59	11.1	18.4	5.42	14.0	8.12	4.99	4.69	2.73	20.1
	Kuching	9.49	7.91	7.81	30.8	29.4	26.3	11.7	22.3	21.7	2.89	10.4
	Gunung Brinchang	***	***	***	***	***	***	***	***	***	***	***
Mongolia	Ulaanbaatar	*	*	*	*	*	*	*	*	*	*	0.829
	Terelj	*	*	*	*	*	*	*	*	*	*	0.820
Myanmar	Yangon	19.4	17.2	18.0	36.0	55.4	37.7	10.3	42.9	42.1	11.1	0.310
Philippines	Metro Manila	45.5	41.4	49.9	34.2	58.5	68.2	4.79	32.9	31.4	37.9	33.0
	Los Baños	33.0	31.3	19.9	31.1	25.0	27.6	2.55	38.5	37.9	8.55	32.0
	Mt. Sto. Tomas	2.37	2.30	2.30	4.89	1.88	1.20	0.264	4.50	4.47	0.336	1.39
R of Korea	Kanghwa	10.6	9.33	19.9	24.6	28.8	20.4	3.35	4.79	4.35	3.17	3.18
	Cheju	19.5	7.37	17.8	221	8.45	205	3.96	8.15	3.71	19.5	0.765
	Imsil	12.9	9.83	33.5	29.6	30.7	51.4	1.58	4.22	3.18	2.66	0.185
Russia	Mondy	0.269	0.263	0.276	0.0470	0.675	0.0902	0.0469	0.227	0.225	0.0452	0.227
	Listvyanka	5.73	5.63	7.17	1.04	5.41	1.74	2.08	4.50	4.46	1.30	5.03
	Irkutsk	9.69	9.49	5.36	2.91	9.76	3.31	2.20	10.0	9.93	2.52	2.59
	Primorskaya	26.3	24.6	18.6	43.9	46.2	28.2	8.87	16.5	15.9	5.85	1.33
Thailand	Bangkok	10.8	10.2	52.2	12.7	58.7	10.6	3.24	25.3	25.0	3.29	2.98
	Samutprakarn	10.5	9.93	37.4	12.6	43.5	11.1	2.91	12.2	11.9	2.94	3.41
	Pathumthani	12.2	11.9	32.7	9.63	46.7	4.68	1.35	9.00	8.90	2.36	6.18
	Khanchanaburi	***	***	***	***	***	***	***	***	***	***	***
Vietnam	Hanoi	173	169	191	87.2	157	59.6	27.8	196	194	24.5	7.82
	Hoa Binh	43.7	43.1	40.1	20.9	51.7	9.37	8.14	36.8	36.6	5.21	7.75
	Cuc Phuong	41.7	38.3	99.4	61.9	158	56.6	15.7	102	101	26.2	6.05
	Da Nang	37.0	25.9	11.8	689	49.0	184	396	72.3	68.4	64.6	5.23
	Can Tho	58.1	56.0	8.57	68.2	50.0	33.6	26.0	31.9	31.2	20.5	2.65
	Ho Chi Minh	60.1	57.5	33.3	103	69.1	43.7	23.7	41.0	40.1	23.2	1.82
	Yen Bai	46.6	46.0	51.1	29.3	61.2	9.50	7.61	39.5	39.3	5.02	15.7

Terms and abbreviations are given in Table 3.5.

Table 3.70 Data completeness for annual summaries in 2022 (%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	100	100	100	100	100	100	100	100	100	100	100	100	100
	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
	Wuzhishan	100	100	100	100	100	100	100	100	100	100	100	100	100	100
	Lijiang	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	48.7	48.7	48.7	48.7	48.7	48.7	48.7	48.7	48.7	48.7	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
	Jembrana	100	100	100	100	100	100	100	100	100	100	100	100	100	100
	Lombok	100	93.3	93.3	93.3	93.3	93.3	93.3	93.3	93.3	93.3	93.3	100	100	100
Japan	Rishiri	100	94.0	94.0	94.0	94.0	94.0	94.0	94.0	94.0	94.0	94.0	94.0	94.0	94.0
	Ochiishi	99.5	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
	Sado-seki	76.4	63.5	63.5	63.5	63.5	63.5	63.5	63.5	63.5	63.5	63.5	62.7	62.7	62.7
	Happo	96.2	90.1	90.1	90.1	90.1	90.1	90.1	90.1	90.1	90.1	90.1	89.1	89.1	89.1
	Ijira	100	100	100	100	100	100	100	100	100	100	100	100	100	100
	Oki	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	0.0
	Yusuhara	100	96.0	96.0	96.0	96.0	96.0	96.0	96.0	96.0	96.0	96.0	95.6	95.6	95.6
	Hedo	95.6	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
	Ogasawara	99.3	90.1	90.1	90.1	90.1	90.1	90.1	90.1	90.1	90.1	90.1	89.2	89.2	89.2
	Tokyo	99.7	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	98.5	98.5	98.5
	Niigata-maki	100	86.5	86.5	86.5	86.5	86.5	86.5	86.5	86.5	86.5	86.5	86.2	86.2	86.2
	Tsushima	99.7	82.3	82.3	82.3	82.3	82.3	82.3	82.3	82.3	82.3	82.3	81.5	81.5	81.5
Lao PDR	Vientiane	***	***	***	***	***	***	***	***	***	***	***	***	***	***
Malaysia	Petaling Jaya	100	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.0	99.0	99.0
	Tanah Rata	100	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7
	Danum Valley	100	95.0	95.0	95.0	95.0	95.0	95.0	95.0	95.0	95.0	95.0	95.0	95.0	95.0
	Kuching	100	75.8	75.8	75.8	75.8	75.8	75.8	75.8	75.8	75.8	75.8	75.7	75.7	75.7
	Gunung Brinchang	***	***	***	***	***	***	***	***	***	***	***	***	***	***
Mongolia	Ulaanbaatar	100	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100	100	100
	Terelj	100	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100	100	100
Myanmar	Yangon	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Philippines	Metro Manila	100	98.8	98.8	98.8	98.8	98.8	100	100	100	100	100	99.6	99.6	99.8
	Los Baños	100	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.2	98.2	98.9	97.9	97.9	97.9
	Mt. Sto. Tomas	100	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0
R of Korea	Kanghwa	100	100	100	100	100	100	100	100	100	100	100	100	100	100
	Cheju	40.5	100	100	100	100	100	100	100	100	100	100	100	100	100
	Imsil	83.8	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	100	100	100	100	100	100	100	100	100	100	100	100
	Irkutsk	100	100	100	100	100	100	100	100	100	100	100	100	100	100
	Primorskaya	100	94.1	94.1	94.1	94.1	94.1	94.1	94.1	94.1	94.1	94.1	99.7	99.7	94.2
Thailand	Bangkok	100	100	100	100	100	100	100	100	100	100	100	100	100	100
	Samutprakarn	100	100	100	100	100	100	100	100	100	100	100	100	100	100
	Pathumthani	100	100	100	100	100	100	100	100	100	100	100	100	100	100
	Khanchanaburi	***	***	***	***	***	***	***	***	***	***	***	***	***	***
Vietnam	Hanoi	100	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
	Hoa Binh	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
	Cuc Phuong	100	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
	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	100	100	100	100	100	100	100	100	100	100	100	100	100
	Ho Chi Minh	100	100	100	100	100	100	100	100	100	100	100	100	100	100
	Yen Bai	100	100	100	100	100	100	100	100	100	100	100	100	100	100

Terms and abbreviations are given in Table 3.5.

Table 3.71 Results of ion balance and conductivity agreement check in 2022

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*	90	90	88	97.8	90	90	100	90	88	97.8
	Jinyunshan*	113	113	102	90.3	113	112	99.1	113	102	90.3
	Shizhan*	42	43	39	90.7	43	41	95.3	43	38	88.4
	Jiwozi*	32	32	23	71.9	32	31	96.9	32	23	71.9
	Hongwen*	48	48	28	58.3	48	47	97.9	48	28	58.3
	Xiaoping*	81	81	74	91.4	81	79	97.5	81	72	88.9
	Xiang Zhou*	69	69	57	82.6	69	67	97.1	69	56	81.2
	Zhuxiandong*	91	91	70	76.9	91	88	96.7	91	69	75.8
	Wuzhishan*	60	60	29	48.3	60	33	55.0	60	15	25.0
	Lijiang*	60	60	12	20.0	60	36	60.0	60	5	8.3
Indonesia	Jakarta	35	35	18	51.4	35	32	91.4	35	17	48.6
	Serpong	77	41	39	95.1	41	41	100	41	39	95.1
	Kototabang	44	44	27	61.4	44	38	86.4	44	26	59.1
	Bandung	101	101	42	41.6	101	97	96.0	101	42	41.6
	Maros	46	46	8	17.4	46	38	82.6	46	6	13.0
	Jembrana	44	44	21	47.7	44	33	75.0	44	17	38.6
	Lombok	44	42	17	40.5	42	29	69.0	42	14	33.3
Japan	Rishiri	158	134	132	98.5	134	132	98.5	134	130	97.0
	Ochiishi	4	0	0	N/A	0	0	N/A	0	0	N/A
	Sado-seki*	138	83	82	98.8	83	83	100	83	82	98.8
	Happo	187	153	140	91.5	153	150	98.0	153	139	90.8
	Ijira	52	49	49	100	49	49	100	49	49	100
	Oki	0	0	0	N/A	0	0	N/A	0	0	N/A
	Yusuhara*	151	123	108	87.8	123	123	100	123	108	87.8
	Hedo	138	136	129	94.9	136	136	100	136	129	94.9
	Ogasawara*	204	151	149	98.7	151	151	100	151	149	98.7
	Tokyo*	140	105	102	97.1	105	105	100	105	102	97.1
	Niigata-maki*	173	159	158	99.4	159	159	100	159	158	99.4
	Tsushima	97	81	79	97.5	81	78	96.3	81	76	93.8
Lao PDR	Vientiane	***	***	***	***	***	***	***	***	***	***
Malaysia	Petaling Jaya*	51	49	47	95.9	49	48	98.0	49	46	93.9
	Tanah Rata*	50	50	32	64.0	50	46	92.0	50	31	62.0
	Danum Valley*	47	47	33	70.2	47	43	91.5	47	33	70.2
	Kuching*	40	39	16	41.0	39	33	84.6	39	15	38.5
	Gunung Brinchang	***	***	***	***	***	***	***	***	***	***
Mongolia	Ulaanbaatar	21	0	0	N/A	0	0	N/A	0	0	N/A
	Terelj	29	0	0	N/A	0	0	N/A	0	0	N/A
Myanmar	Yangon	37	37	1	2.7	37	8	21.6	37	0	0
Philippines	Metro Manila*	40	37	18	48.6	37	26	70.3	37	14	37.8
	Los Baños*	33	28	19	67.9	28	21	75.0	28	16	57.1
	Mt. Sto. Tomas	35	35	23	65.7	35	14	40.0	35	9	25.7
R of Korea	Kanghwa	73	73	69	94.5	73	72	98.6	73	68	93.2
	Cheju	28	28	25	89.3	28	28	100	28	25	89.3
	Imsil	52	52	46	88.5	52	52	100	52	46	88.5
Russia	Mondy*	8	8	8	100	8	8	100	8	8	100
	Listvyanka*	66	66	66	100	66	66	100	66	66	100
	Irkutsk*	87	87	86	98.9	87	86	98.9	87	86	98.9
	Primorskaya*	109	63	42	66.7	63	43	68.3	63	38	60.3
Thailand	Bangkok	53	53	14	26.4	53	33	62.3	53	11	20.8
	Samutprakarn	69	69	28	40.6	69	40	58.0	69	16	23.2
	Pathumthani*	92	92	45	48.9	92	41	44.6	92	23	25.0
	Khanchanaburi	***	***	***	***	***	***	***	***	***	***
Vietnam	Hanoi*	43	39	29	74.4	39	39	100	39	29	74.4
	Hoa Binh*	38	38	34	89.5	38	38	100	38	34	89.5
	Cuc Phuong*	48	41	41	100	41	41	100	41	41	100
	Da Nang*	38	32	32	100	32	32	100	32	32	100
	Can Tho*	32	32	28	87.5	32	32	100	32	28	87.5
	Ho Chi Minh*	36	36	35	97.2	36	36	100	36	35	97.2
	Yen Bai*	30	30	30	100	30	30	100	30	30	100

Sites marked with * : R_1 and R_2, calculated including concentrations of additional measured constituents

Terms and abbreviations are given in Table 3.5.

Table 3.72 Annual precipitation from 2008 to 2022

unit: mm y^{-1}

Country	Name of sites	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Cambodia	PhnomPenh	1834	1326	1851	1277	1617	1345	1561	1103	1277	1379	***	***	***	***	***
China	Haifu	1010	1066	977	810	1010	1026	1417	1220	1270	1217	1117	1224	1279	1318	1056
	Jinyunshan	1213	1098	979	848	1005	1127	1490	1288	1217	1268	935	1037	1231	1530	967
	Shizhan	385	592	459	659	393	441	623	594	415	577	471	465	438	827	456
	Jiwozi	438	628	1155	971	390	649	568	447	369	508	547	582	450	926	419
	Hongwen	945	737	1530	843	924	1403	1129	1015	1771	538	978	1027	318	443	857
	Xiaoping	2000	1134	1518	1531	1291	1979	1364	1557	1851	676	840	1013	795	739	1044
	Xiang Zhou	2815	2010	1857	1259	1518	2421	1673	1431	2344	1905	2067	1988	1783	2472	2124
	Zhuxiandong	2311	1580	1853	1146	***	***	***	1598	2356	1817	2109	2105	2115	2398	2104
	Wuzhishan												1495	833	1157	1112
	Lijiang												508	998	614	346
Indonesia	Jakarta	1717	1557	2120	990	2722	2331	3168	2807	1976	1307	1709	1500	2976	2115	1721
	Serpong	2370	1344	1426	830	894	2324	2882	1770	2929	3197	2117	2199	3132	2241	2668
	Kototabang	2481	2656	2370	2193	2639	2120	2496	2503	2163	2437	2905	2134	2808	2575	2325
	Bandung	2334	2683	2606	1530	2084	2346	2033	2012	2699	1921	1747	1689	1320	1775	1954
	Maros	3037	3237	2663	3632	2451	4033	2763	2479	1973	2301	3339	1663	1685	1604	4321
	Jembrana												1589	2234	2573	2705
	Lombok												1604	1635	2069	2494
Japan	Rishiri	828	1054	1072	1232	1172	1170	1033	1092	1299	938	1087	713	1248	1055	1047
	Ochiishi	730	1580	1085	818	871	1059	838	827	1138	836	1124	830	638	807	846
	Tappi	824	1337	1555	1144	1178	1070	1194	1114	1222	1129	1649				
	Sado-seki	1021	1037	1368	1387	1296	1576	1409	867	999	1262	1573	959	1346	1530	1193
	Happo	1645	2352	2621	3076	2002	2658	2453	2242	2446	3121	2758	2484	2608	2674	2223
	Ijira	2250	2876	3847	3068	2862	2724	3044	3135	3151	2919	3725	2777	3486	4209	4042
	Oki	1110	1123	1452	1534	1296	1395	1053	1061	1519	992	1308	1095	1503	1736	1311
	Banryu	1268	1735	1471	1432	1208	2024	1516	1458	1829	1471	1662				
	Yusuhara	2189	2068	2476	3401	3048	2485	3529	3046	2744	2594	4022	3102	2842	2811	2420
	Hedo	1961	1975	2643	1766	2837	1612	2442	1762	1822	1623	2632	2566	1943	2740	3029
	Ogasawara	1674	1675	1856	1297	1572	1265	1532	1586	1153	1654	960	1868	1662	1880	1953
	Tokyo	1860	1727	1656	1388	1635	1609	1807	1641	1609	1280	1296	1641	1401	1839	1464
	Niigata-maki												1522	2103	1777	1663
	Tsushima												2461	2399	2231	1510
Lao PDR	Vientiane	1668	181	***	***	1322	***	1273	921	713	1337	829	700	***	***	***
Malaysia	Petaling Jaya	3747	2968	3517	3607	3412	3570	3708	3751	3432	3125	3848	***	3722	3772	4180
	Tanah Rata	3925	3077	2451	3293	2846	2771	2895	2684	2366	3016	2607	***	2875	***	3194
	Danum Valley	2999	3391	2370	3787	2958	3202	2848	2025	2987	2964	2489	***	2290	3659	2936
	Kuching	4286	4671	4645	4632	3796	4110	3656	4428	5655	3828	3804	***	4095	4430	3979
	Gunung Brinchang														571	***
Mongolia	Ulaanbaatar	155	228	153	163	170	154	***	150	160	160	170	33.7	161	178	117
	Terelj	206	111	130	144	117	90.8	***	100	106	105	149	***	117	191	121
Myanmar	Yangon	6375	3010	2280	3151	2570	2692	2872	2432	2180	2813	2940	2962	2235	2075	2461
Philippines	Metro Manila	2381	3782	2676	3657	4461	3516	2628	2499	2519	***	***	2367	2519	2556	2833
	Los Baños	1894	2900	2068	2384	2102	2394	2073	1559	1756	***	***	***	***	***	2160
	Mt.Sto.Tomas	5078	4727	3610	4608	5730	4392	3641	6108	4426	***	***	***	***	***	620
Republic of Korea	Kanghwa	1546	1266	1570	1476	748	898	427	589	837	588	628	502	***	688	848
	Cheju	843	1039	1003	1076	1199	636	1195	1452	1121	714	1035	791	***	1185	234
	Imsil	854	1069	1642	1493	1400	1220	1101	719	838	761	1171	1096	***	522	711
Russia	Mondy	206	119	90.2	73.5	105	330	123	136	222	191	362	182	58.5	58.6	54.3
	Listvyanka	391	312	327	478	343	278	279	335	316	315	225	430	416	563	396
	Irkutsk	527	430	375	329	443	277	388	291	481	502	442	402	484	591	365
	Primorskaya	553	864	673	621	922	723	643	1157	925	635	1023	880	808	726	783
Thailand	Bangkok	1776	2072	2023	2171	1799	1330	1011	1593	1631	1592	1144	630	1427	***	2073
	Samutprakarn	1734	1989	1880	2103	953	1115	991	1442	1810	1815	1471	899	1086	***	1967
	Pathumthani	1670	1314	1763	1562	1563	1181	1059	1071	1069	1365	1322	804	1423	883	1657
	Khanchanaburi	1962	1998	1626	1941	2390	1501	979	1093	1059	1178	994	652	***	***	***
	Mae Hia	1286	1052	1167	1614	1111	1433	527	747	743	1234	818	754			
	Sakaerat	1722	1259	1627	1509	1126	1443	427	1385	1083	1692	1129	1141			
Vietnam	Hanoi	2267	1609	1236	1817	1798	1945	1661	1273	1661	2071	1900	1290	1577	1994	2478
	HoaBinh	1978	1357	1370	1760	1915	2008	1303	1616	1438	1895	2799	1529	2163	2189	2055
	Cuc Phuong		2266	1654	1853	2018	1898	1702	1461	1937	2236	2521	1571	1953	1915	2768
	Da Nang		2966	1690	3639	1682	2315	2219	1891	2723	2244	2597	2142	3065	2584	3042
	Can Tho							1840	2205	1670	1907	2608	2370	1654	2536	2311
	Ho Chi Minh							1916	1420	2553	3444	2480	2262	2529	2289	2306
	Yen Bai								1514	1815	2397	1866	1593	1691	1411	1834

Terms and abbreviations are given in Table 3.5.

Table 3.73 Precipitation amount-weighted annual average concentrations of SO_4^{2-} from 2008 to 2022

unit: μmol L^{-1}

Country	Name of sites	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Cambodia	PhnomPenh	11.6	11.6	7.37	9.04	10.5	7.99	6.27	7.04	5.37	11.3	***	***	***	***	***
China	Haifu	144	99.3	139	142	102	106	84.4	50.3	46.9	41.0	41.2	33.5	25.8	26.4	22.9
	Jinyunshan	120	114	151	141	124	81.4	60.4	43.9	40.0	36.5	36.3	35.3	30.9	24.4	24.9
	Shizhan	191	136	100.0	110	109	141	113	82.8	62.5	72.5	47.0	30.3	44.6	34.7	54.7
	Jiwozi	145	93.5	31.8	62.6	94.5	52.6	69.3	31.6	19.5	35.8	26.6	62.5	15.0	16.9	17.1
	Hongwen	31.7	26.1	26.7	31.3	32.2	21.9	27.0	18.5	22.8	31.7	17.7	45.2	30.6	22.0	7.84
	Xiaoping	29.2	28.2	27.3	24.9	23.4	22.7	29.6	17.3	13.7	14.6	13.1	12.7	11.7	12.6	6.01
	Xiang Zhou	16.5	18.2	19.8	15.5	14.9	19.1	14.3	11.6	16.0	14.1	12.1	10.2	8.70	5.83	6.51
	Zhuxiandong	21.5	21.0	17.1	20.4	***	***	***	23.3	18.1	14.1	15.7	11.8	10.6	7.98	7.62
	Wuzhishan												6.78	4.21	2.69	3.63
	Lijiang												0.460	37.0	2.18	5.34
Indonesia	Jakarta	22.7	19.4	21.9	28.7	20.6	21.9	22.2	17.1	31.1	17.3	34.8	25.4	15.4	27.2	23.4
	Serpong	27.8	23.1	24.4	33.6	29.0	26.5	23.2	31.5	25.9	25.5	33.6	33.8	26.3	30.6	28.7
	Kototabang	2.91	4.72	6.33	7.77	6.04	6.22	8.52	8.30	5.70	4.48	5.59	6.58	4.33	5.55	4.31
	Bandung	28.0	29.2	27.0	30.8	26.5	30.7	38.8	30.1	31.9	35.0	31.8	43.1	33.3	30.6	33.7
	Maros	5.38	6.96	10.8	8.26	8.77	6.44	7.56	6.19	10.4	6.34	5.83	6.99	4.90	5.33	5.21
	Jembrana												9.30	8.99	8.55	8.32
	Lombok												11.6	9.17	9.52	20.3
Japan	Rishiri	29.4	25.9	23.4	21.2	27.8	23.2	20.0	18.2	11.8	24.6	22.5	21.8	18.2	22.0	19.2
	Ochiishi	18.7	16.7	23.0	15.2	25.3	32.5	13.0	20.3	12.7	18.0	9.68	8.90	13.0	36.0	*
	Tappi	28.3	23.1	21.3	27.5	22.3	33.1	26.5	24.7	22.5	22.1	17.4				
	Sado-seki	31.0	33.0	32.3	24.5	29.8	33.5	32.0	34.7	21.4	19.6	15.6	23.1	18.8	117	16.6
	Happo	10.9	10.1	6.11	7.00	11.6	8.88	8.00	7.06	5.12	4.66	4.74	5.84	4.12	4.65	4.24
	Ijira	18.2	15.4	11.1	13.0	13.6	12.3	12.0	11.7	10.8	10.1	7.43	9.90	7.18	6.08	7.75
	Oki	35.6	37.8	40.8	45.6	37.9	47.0	47.8	36.4	31.7	40.7	35.1	21.0	23.7	29.4	*
	Banryu	25.8	20.9	21.0	21.1	25.9	17.3	21.6	18.3	16.9	16.2	11.6				
	Yusuhara	10.2	11.7	9.64	7.02	10.7	9.07	6.92	6.52	7.58	19.8	5.28	6.46	6.75	4.99	8.12
	Hedo	14.2	13.1	20.9	20.5	31.2	22.2	14.3	23.9	17.5	28.0	12.8	12.5	19.3	82.6	10.4
	Ogasawara	8.97	16.5	15.0	15.7	10.2	13.5	12.1	20.8	9.57	12.8	3.99	12.8	7.55	11.8	11.5
	Tokyo	19.6	16.0	10.9	15.9	15.6	12.2	13.9	11.7	9.36	11.3	10.6	11.0	8.34	6.96	8.50
	Niigata-maki												20.7	14.3	17.9	19.5
	Tsushima												10.5	10.5	10.3	12.3
Lao PDR	Vientiane	5.06	4.05	***	***	2.41	***	***	3.19	3.66	*	*	*	***	***	***
Malaysia	Petaling Jaya	17.5	13.2	17.1	22.5	17.0	17.8	21.4	21.4	20.2	13.5	15.5	***	11.0	9.56	10.7
	Tanah Rata	3.28	3.27	3.25	5.05	4.59	4.77	6.19	6.86	3.92	3.53	4.23	***	5.10	***	2.72
	Danum Valley	2.49	2.82	5.08	1.96	2.28	3.17	2.58	3.54	1.65	2.70	3.22	***	7.38	2.46	1.85
	Kuching	4.14	3.78	3.57	4.07	4.67	5.01	7.14	4.68	4.07	4.00	4.28	***	7.52	2.86	2.38
	Gunung Brinchang														2.13	***
Mongolia	Ulaanbaatar	27.9	19.9	22.2	28.1	***	56.6	***	122	129	34.6	32.1	346	38.8	98.4	*
	Terelj	16.5	16.5	30.5	23.6	***	48.5	***	104	142	13.5	26.7	***	47.9	279	*
Myanmar	Yangon	***	8.01	4.52	6.63	7.48	7.96	4.55	4.62	9.19	11.6	8.09	8.77	6.24	5.31	7.90
Philippines	Metro Manila	24.9	13.6	20.3	18.7	24.1	15.1	18.0	19.0	21.7	***	***	10.2	11.4	18.0	16.1
	Los Baños	18.0	8.82	7.39	8.57	12.6	6.60	9.13	13.4	15.4	***	***	***	***	***	15.3
	Mt.Sto.Tomas	3.47	5.04	4.94	4.69	7.26	7.71	4.62	4.02	5.52	***	***	***	***	***	3.82
Republic of Korea	Kanghwa	27.9	29.2	26.3	27.2	27.2	36.1	29.3	29.4	18.8	23.5	14.2	26.2	***	15.0	12.5
	Cheju	26.2	25.3	19.3	25.5	36.7	40.6	17.2	17.3	43.1	31.6	23.4	21.1	***	31.9	83.5
	Imsil	21.0	19.6	19.5	20.7	19.4	18.5	15.2	20.2	13.8	18.6	10.6	15.3	***	17.1	18.2
Russia	Mondy	7.13	7.82	6.80	4.53	7.16	3.58	5.47	6.45	3.13	6.43	4.37	4.68	3.62	6.11	4.95
	Listvyanka	21.3	19.3	20.7	22.1	21.4	18.1	17.4	21.0	15.0	22.5	21.2	19.4	14.2	16.2	14.5
	Irkutsk	38.5	31.2	33.5	34.4	37.9	36.6	23.2	42.2	23.6	25.7	31.1	28.2	22.6	26.0	26.5
	Primorskaya	40.6	22.6	31.9	14.0	20.8	29.2	32.1	21.4	24.0	34.2	29.9	18.7	26.3	21.8	33.6
Thailand	Bangkok	18.0	12.7	12.0	10.7	10.7	7.09	8.43	7.53	14.1	17.0	15.1	11.6	9.50	***	5.22
	Samutprakarn	15.7	15.1	15.6	7.67	10.2	7.67	9.61	7.24	11.8	8.90	10.3	10.6	7.43	***	5.35
	Pathumthani	10.6	8.89	8.01	9.45	7.93	9.41	8.23	11.6	10.2	8.91	7.17	10.7	5.61	8.95	7.37
	Khanchanaburi	3.78	3.60	1.79	5.11	3.72	1.23	3.59	2.34	9.80	3.33	2.66	2.94	***	***	***
	Mae Hia	4.96	4.30	3.32	3.24	4.76	4.13	8.39	4.12	5.45	6.21	4.17	7.08			
	Sakaerat	7.36	6.44	7.04	5.30	6.64	7.49	10.8	6.53	6.94	4.93	9.62	7.03			
Vietnam	Hanoi	20.2	27.4	35.4	30.7	28.8	25.9	39.3	39.5	35.8	34.6	44.5	67.8	86.0	39.9	69.8
	HoaBinh	13.6	16.1	26.3	18.0	17.1	19.7	25.2	20.0	26.3	18.9	21.9	15.0	39.8	32.4	21.3
	Cuc Phuong		18.5	20.3	37.6	24.3	26.9	18.5	18.8	16.7	16.2	13.5	22.6	19.5	16.3	15.1
	Da Nang		18.8	16.4	21.1	19.6	24.2	15.8	11.4	11.7	16.5	13.9	24.6	11.2	12.2	12.2
	Can Tho							8.73	30.7	15.9	16.2	22.7	25.7	24.0	20.3	25.1
	Ho Chi Minh							24.2	47.6	19.2	23.4	25.6	31.7	24.0	25.3	26.1
	Yen Bai								22.6	43.6	26.2	25.4	24.4	47.7	40.5	25.4

Terms and abbreviations are given in Table 3.5.

Table 3.74 Precipitation amount-weighted annual average concentrations of nss-SO_4^{2-} from 2008 to 2022

unit: μmol L^{-1}

Country	Name of sites	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Cambodia	PhnomPenh	8.67	11.2	7.18	8.83	10.3	7.80	5.81	6.66	5.11	11.0	***	***	***	***	***
China	Haifu	144	99.0	138	142	101	106	84.0	50.1	46.5	40.7	40.9	33.3	25.6	26.2	22.7
	Jinyunshan	120	113	151	140	124	81.2	60.1	43.8	39.8	36.4	36.2	35.1	30.8	24.3	24.7
	Shizhan	190	135	99.5	109	109	132	105	75.9	59.2	70.8	45.8	29.6	43.3	33.6	53.2
	Jiwozi	140	92.0	31.4	62.1	91.8	45.8	61.8	26.0	19.0	33.8	25.1	57.2	13.7	15.6	16.5
	Hongwen	30.3	24.6	25.5	30.2	31.2	21.0	25.8	17.4	21.3	29.5	16.3	44.9	27.7	19.3	6.84
	Xiaoping	27.8	27.3	26.2	24.2	22.9	22.0	29.0	16.7	13.3	14.2	12.7	12.6	11.0	12.2	5.61
	Xiang Zhou	14.4	15.8	18.6	13.5	12.1	15.9	12.5	8.60	14.7	11.0	8.04	8.94	7.28	4.73	5.12
	Zhuxiandong	19.0	18.3	15.9	17.7	***	***	***	19.3	16.2	12.6	10.3	10.3	8.35	6.52	5.93
	Wuzhishan												6.26	3.80	2.27	3.13
	Lijiang												0.407	36.9	2.13	5.24
Indonesia	Jakarta	22.1	18.8	21.4	28.0	19.8	20.9	20.9	16.3	29.8	16.7	33.8	24.8	14.5	26.2	22.8
	Serpong	27.2	22.5	23.9	33.0	28.4	25.6	22.1	30.7	25.1	24.8	32.5	32.8	25.5	29.3	28.2
	Kototabang	2.61	4.38	6.04	7.38	5.47	5.71	8.18	8.63	4.96	4.27	5.39	6.30	4.10	5.33	4.11
	Bandung	27.5	28.5	26.4	30.1	25.8	29.9	38.0	29.6	31.2	33.9	30.4	40.4	32.5	30.1	33.0
	Maros	4.43	6.18	10.0	7.36	7.65	5.28	6.24	5.99	5.58	3.71	5.01	5.86	3.97	4.57	4.53
	Jembrana												8.10	7.18	6.61	6.89
	Lombok												10.2	7.61	8.35	18.9
Japan	Rishiri	14.5	15.3	13.6	12.9	10.5	11.3	10.2	9.80	7.61	12.2	12.2	10.9	9.83	8.15	9.16
	Ochiishi	8.41	5.88	9.65	6.73	8.81	7.18	7.15	9.53	4.37	4.87	5.01	4.84	5.92	18.9	*
	Tappi	16.4	11.5	14.5	18.5	13.8	17.6	17.1	11.5	12.3	10.7	7.83				
	Sado-seki	18.3	13.7	13.4	15.3	15.3	13.9	15.0	15.1	10.9	10.6	7.60	9.88	8.30	33.6	4.34
	Happo	10.7	9.82	5.88	6.80	11.0	8.63	7.68	6.71	4.83	4.36	4.42	5.63	3.86	4.34	3.98
	Ijira	17.3	14.6	10.3	12.1	12.4	11.4	11.1	10.8	10.1	9.20	6.55	9.11	6.36	5.10	6.52
	Oki	16.4	15.2	16.2	16.7	16.4	16.5	15.0	11.5	11.7	11.5	10.8	11.2	9.94	6.54	*
	Banryu	21.4	15.0	15.3	14.6	20.3	13.1	16.4	12.8	11.9	10.9	8.21				
	Yusuhara	9.69	10.9	9.11	6.28	9.66	8.47	6.61	5.28	7.10	16.7	4.40	5.64	6.19	3.90	5.95
	Hedo	6.73	5.55	5.79	8.26	6.30	8.58	6.03	5.04	5.47	5.94	3.12	4.66	5.60	14.7	2.40
	Ogasawara	3.81	5.21	3.02	3.56	3.35	4.99	4.20	2.39	4.09	2.09	1.23	2.10	4.48	1.90	2.51
	Tokyo	18.4	14.5	9.86	13.6	13.8	10.8	12.8	10.6	8.49	8.89	8.51	7.50	7.41	5.79	7.38
	Niigata-maki												10.1	7.51	6.46	6.86
	Tsushima												8.69	8.59	8.16	6.20
Lao PDR	Vientiane	4.88	3.50	***	***	***	***	***	3.02	3.56	*	*	*	***	***	***
Malaysia	Petaling Jaya	17.2	12.9	16.8	22.2	16.8	17.5	21.1	21.0	19.9	13.2	15.2	***	10.6	9.27	10.5
	Tanah Rata	3.21	3.19	3.17	4.93	4.50	4.64	6.02	6.69	3.77	3.38	4.08	***	4.80	***	2.54
	Danum Valley	2.30	2.47	4.32	1.72	2.11	2.86	2.25	3.22	1.46	2.56	2.91	***	6.61	2.05	1.56
	Kuching	3.82	3.33	3.17	3.53	4.35	4.56	6.58	3.91	3.33	3.44	3.76	***	6.89	2.41	1.99
	Gunung Brinchang														1.89	***
Mongolia	Ulaanbaatar	27.3	19.6	22.0	27.7	***	52.0	***	***	119	33.3	29.6	339	35.0	97.3	*
	Terelj	15.8	16.0	29.8	23.2	***	47.7	***	***	127	12.7	23.9	***	44.3	272	*
Myanmar	Yangon	***	6.90	3.90	5.72	6.15	7.33	3.51	4.09	8.24	10.7	6.77	7.67	5.40	4.37	6.97
Philippines	Metro Manila	23.4	12.6	18.9	17.4	23.1	13.4	16.5	17.6	20.7	***	***	9.10	10.8	16.6	14.6
	Los Baños	16.9	7.77	6.02	7.40	11.3	5.22	8.20	12.4	14.0	***	***	***	***	***	14.5
	Mt.Sto.Tomas	3.17	4.54	4.56	4.43	6.64	7.31	4.24	3.49	4.62	***	***	***	***	***	3.71
Republic of Korea	Kanghwa	25.6	26.5	24.7	25.0	24.4	34.3	26.7	26.7	17.1	21.9	12.4	15.4	***	13.2	11.0
	Cheju	18.2	22.1	13.1	16.4	14.1	23.2	10.2	11.2	19.3	15.9	7.55	15.5	***	15.0	31.5
	Imsil	19.0	16.6	16.6	18.4	16.3	16.7	13.4	17.3	11.8	16.5	8.33	13.0	***	12.3	13.8
Russia	Mondy	7.02	7.69	6.63	4.30	6.90	3.49	5.34	6.35	3.05	6.27	4.24	4.56	3.32	5.94	4.85
	Listvyanka	21.2	19.1	20.5	21.8	21.1	17.7	17.1	20.9	14.7	22.3	20.8	19.1	14.0	15.9	14.2
	Irkutsk	37.9	30.1	32.4	33.4	37.3	35.8	22.7	41.4	23.2	25.2	30.6	27.7	22.0	25.6	26.0
	Primorskaya	39.3	21.8	30.4	13.2	19.4	27.6	31.1	19.9	22.5	32.6	28.6	17.4	24.2	19.8	31.5
Thailand	Bangkok	17.4	12.1	11.5	10.3	10.3	6.36	7.88	7.04	13.5	16.7	14.5	11.0	8.54	***	4.94
	Samutprakarn	14.8	14.5	14.5	7.33	9.74	6.22	8.85	6.68	11.2	8.47	9.69	10.0	6.69	***	5.05
	Pathumthani	10.3	8.56	7.67	9.10	7.10	9.04	7.91	11.2	9.77	8.61	6.87	10.3	5.40	8.75	7.20
	Khanchanaburi	3.22	3.03	1.60	4.66	3.14	<1.0	3.20	2.00	9.19	3.05	2.17	2.61	***	***	***
	Mae Hia	4.81	4.14	3.16	3.05	4.53	3.83	8.17	3.85	5.04	5.85	3.74	6.59			
	Sakaerat	7.11	6.27	6.85	5.05	6.42	7.31	10.3	6.25	6.70	4.80	8.95	6.45			
Vietnam	Hanoi	19.6	26.8	35.0	30.3	28.6	25.4	38.9	39.0	35.2	33.6	43.9	66.3	84.5	39.2	68.4
	HoaBinh	13.4	15.9	26.0	17.9	16.9	19.5	25.1	19.8	26.1	18.7	21.8	14.2	39.3	31.8	21.0
	Cuc Phuong		17.8	19.6	36.8	23.1	25.3	17.9	18.3	15.9	15.1	12.7	21.2	18.4	13.9	13.8
	Da Nang		13.1	13.9	16.8	16.1	15.6	10.8	6.65	7.75	11.6	9.85	18.1	7.76	8.04	8.51
	Can Tho							7.80	28.9	15.1	15.6	22.1	24.6	22.9	19.5	24.2
	Ho Chi Minh							22.7	45.5	18.4	22.3	24.8	30.5	22.9	24.2	24.9
	Yen Bai								22.2	43.0	26.0	25.1	23.7	46.7	39.8	25.1

Terms and abbreviations are given in Table 3.5.

Table 3.75 Precipitation amount-weighted annual average concentrations of NO_3^- from 2008 to 2022

unit: μmol L^{-1}

Country	Name of sites	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Cambodia	PhnomPenh	9.40	10.3	8.37	8.85	10.7	7.65	8.51	10.4	7.66	10.9	***	***	***	***	***
China	Haifu	65.0	53.2	77.6	83.1	73.9	73.9	64.1	47.4	52.3	51.8	56.8	50.2	42.9	41.0	40.9
	Jinyunshan	46.5	54.4	75.0	77.5	70.4	53.1	45.6	36.4	37.5	36.8	44.6	47.0	42.9	35.7	36.8
	Shizhan	40.2	57.7	41.0	17.5	49.4	35.6	98.0	71.9	62.8	25.2	38.5	24.7	24.8	12.9	66.2
	Jiwozi	103	27.4	12.2	8.24	47.4	8.77	13.8	28.6	5.56	2.55	15.1	37.8	4.81	4.41	10.5
	Hongwen	22.9	23.4	29.0	23.6	35.2	20.9	26.4	26.2	31.4	43.7	27.1	39.3	50.0	37.9	18.5
	Xiaoping	24.6	29.3	30.3	22.6	26.7	20.7	34.0	24.4	19.3	28.1	25.3	31.3	29.1	30.1	20.6
	Xiang Zhou	12.3	17.7	23.9	15.7	15.2	20.4	20.9	18.8	18.2	18.1	17.1	21.6	22.6	13.3	13.4
	Zhuxiandong	14.7	19.8	19.7	18.8	***	***	***	29.4	22.2	22.8	19.3	24.2	24.3	19.1	15.8
	Wuzhishan												9.44	9.77	6.20	7.29
	Lijiang												4.42	29.7	0.882	6.35
Indonesia	Jakarta	14.1	15.3	17.1	29.8	16.2	21.8	20.0	15.3	34.2	18.9	44.3	25.6	16.2	24.6	21.9
	Serpong	30.3	25.4	29.8	35.5	31.5	39.5	36.2	48.1	31.7	31.1	48.0	40.1	29.7	33.7	28.1
	Kototabang	2.79	<0.5	2.37	5.05	4.65	2.86	7.48	3.60	4.16	3.78	7.47	7.60	4.61	5.57	4.49
	Bandung	20.7	22.8	17.9	28.0	21.6	22.0	27.2	23.6	22.6	25.9	23.9	35.8	27.9	19.7	21.7
	Maros	3.51	5.36	6.35	7.51	9.05	3.65	6.10	6.29	8.79	3.48	7.51	3.16	3.08	5.11	5.90
	Jembrana												9.64	23.8	24.2	7.38
	Lombok												12.5	8.19	5.10	6.42
Japan	Rishiri	14.7	17.3	14.3	14.1	13.4	13.4	10.2	10.8	10.2	18.7	19.3	17.1	14.1	12.8	15.3
	Ochiishi	8.44	5.42	9.47	9.58	9.80	8.83	8.71	11.5	5.62	6.83	7.04	8.05	9.05	42.1	*
	Tappi	22.4	13.4	17.5	19.8	17.4	25.2	24.1	14.3	17.6	19.5	12.2				
	Sado-seki	23.9	16.6	18.1	19.7	20.0	19.4	19.3	20.8	18.7	18.6	14.1	18.1	13.2	18.9	9.24
	Happo	11.0	8.56	6.51	8.17	11.6	8.32	7.80	6.78	5.79	5.96	6.49	8.06	5.54	6.90	6.03
	Ijira	24.1	18.4	15.1	15.1	16.7	14.8	14.7	16.7	16.4	15.4	10.4	13.6	11.1	10.2	12.3
	Oki	19.3	20.2	24.2	21.2	21.6	24.2	20.3	15.1	16.4	21.0	16.9	19.1	13.2	12.5	*
	Banryu	24.6	20.0	22.6	19.5	27.8	16.2	21.7	18.0	17.9	22.2	13.6				
	Yusuhara	8.98	7.83	7.70	5.75	8.57	7.03	4.87	7.55	6.96	26.3	4.37	5.64	5.75	6.04	6.33
	Hedo	6.90	6.43	6.38	7.69	7.17	8.58	6.88	7.05	7.40	8.76	4.99	6.62	6.83	20.2	4.45
	Ogasawara	3.75	3.39	3.07	2.93	2.88	3.82	3.11	2.41	3.87	2.81	2.08	2.27	2.68	2.36	2.48
	Tokyo	24.4	18.1	15.3	21.7	18.8	16.1	16.8	16.3	11.8	14.0	15.4	12.7	13.9	11.7	13.6
	Niigata-maki												16.9	13.7	13.5	13.6
	Tsushima												6.76	11.4	11.3	10.2
Lao PDR	Vientiane	5.96	9.73	***	***	5.55	***	***	4.12	4.07	*	*	*	***	***	***
Malaysia	Petaling Jaya	36.1	46.4	49.5	52.8	43.8	33.5	35.8	43.6	44.1	28.8	36.4	***	25.8	27.8	33.3
	Tanah Rata	4.53	5.19	4.40	2.21	3.78	3.78	4.82	7.63	5.97	7.89	5.83	***	6.67	***	5.44
	Danum Valley	1.37	1.65	1.42	1.05	0.956	1.97	0.738	1.88	0.888	<0.5	0.945	***	<0.5	1.10	3.76
	Kuching	4.98	4.55	4.91	5.00	3.82	4.52	5.29	3.61	4.16	4.64	5.25	***	3.30	7.42	1.96
	Gunung Brinchang														4.36	***
Mongolia	Ulaanbaatar	20.1	19.1	21.4	16.8	***	30.9	***	34.6	36.7	30.4	24.4	56.8	43.5	42.0	*
	Terelj	18.3	21.0	27.6	18.0	***	31.8	***	24.0	48.9	43.5	25.5	***	40.0	51.8	*
Myanmar	Yangon	***	7.23	4.96	6.30	8.31	6.72	4.80	8.25	14.9	18.3	9.98	22.1	16.5	15.7	7.32
Philippines	Metro Manila	21.1	8.68	50.5	14.4	18.2	13.9	16.0	13.4	36.4	***	***	13.1	11.3	13.2	17.6
	Los Baños	7.97	8.01	31.4	8.35	11.9	7.80	8.22	8.81	38.5	***	***	***	***	***	9.22
	Mt.Sto.Tomas	3.92	3.94	4.29	2.56	6.10	8.47	5.07	3.49	5.76	***	***	***	***	***	3.71
Republic of Korea	Kanghwa	31.0	18.9	31.8	27.7	36.4	43.2	36.9	50.5	29.6	41.9	28.6	32.0	***	33.5	23.5
	Cheju	26.5	18.6	22.7	27.9	19.3	30.3	18.2	21.6	31.8	39.7	20.5	39.2	***	26.6	76.2
	Imsil	22.6	22.3	29.0	27.7	26.2	26.2	28.0	33.8	22.7	34.8	21.1	22.9	***	25.9	47.1
Russia	Mondy	7.48	7.90	8.11	4.30	7.99	5.03	4.65	5.29	5.75	9.75	5.30	7.69	3.45	3.31	5.09
	Listvyanka	15.4	16.4	20.2	30.6	19.3	15.7	13.2	15.5	15.0	19.3	17.8	16.0	11.4	9.44	18.1
	Irkutsk	17.1	16.8	22.3	20.7	18.3	16.3	12.3	20.7	13.4	14.4	13.2	16.2	11.2	9.95	14.7
	Primorskaya	33.1	18.6	21.9	37.8	23.4	18.5	7.66	25.4	22.3	35.0	26.4	21.2	18.4	22.2	23.8
Thailand	Bangkok	31.2	28.1	26.8	20.6	27.6	12.9	15.3	16.2	31.8	20.2	38.0	28.7	28.6	***	25.2
	Samutprakarn	17.4	20.0	15.4	9.81	12.5	5.07	13.0	9.97	18.3	15.7	18.7	19.9	13.9	***	19.0
	Pathumthani	21.5	16.6	20.4	19.2	18.8	18.6	14.8	29.1	26.3	28.4	18.3	28.1	17.8	25.1	19.8
	Khanchanaburi	5.02	4.55	3.76	7.27	6.86	1.93	4.68	4.28	4.93	4.95	4.03	3.20	***	***	***
	Mae Hia	9.11	8.44	7.30	7.26	7.91	9.89	11.7	8.36	12.9	10.1	8.86	14.8			
	Sakaerat	11.5	12.7	14.6	9.97	11.2	10.4	24.5	12.8	13.5	10.6	13.6	13.4			
Vietnam	Hanoi	9.76	16.6	20.8	21.7	25.2	26.3	30.6	35.1	28.5	34.8	46.3	77.6	76.4	40.5	77.2
	HoaBinh	10.2	12.9	15.5	14.4	15.4	18.8	25.2	22.3	24.8	22.2	16.4	24.4	42.4	40.3	19.5
	Cuc Phuong		10.9	23.2	27.8	20.1	16.7	10.2	13.4	11.4	14.0	9.19	21.3	18.6	26.4	35.9
	Da Nang		11.4	7.02	15.8	4.79	5.41	5.29	<0.5	2.78	5.39	<0.5	1.88	1.94	3.70	3.87
	Can Tho							8.38	11.7	3.31	3.83	3.07	16.7	3.88	3.95	3.71
	Ho Chi Minh							17.9	18.0	7.42	10.8	4.90	18.3	8.78	13.7	14.5
	Yen Bai								17.8	40.3	24.5	28.9	39.5	74.7	37.8	27.9

Terms and abbreviations are given in Table 3.5.

Table 3.76 Precipitation amount-weighted annual average concentrations of Cl^- from 2008 to 2022

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

Country	Name of sites	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Cambodia	PhnomPenh	8.68	10.3	4.93	5.89	6.67	7.53	9.08	9.01	6.45	6.09	***	***	***	***	***
China	Haifu	13.8	11.0	16.2	14.3	11.4	12.7	11.1	7.78	8.34	7.80	8.89	6.82	6.35	5.19	5.51
	Jinyunshan	15.4	16.1	16.1	11.9	11.6	7.21	5.70	5.09	4.75	5.34	4.47	4.92	4.69	4.28	4.59
	Shizhan	33.6	26.2	22.9	10.7	16.0	50.8	21.1	17.8	14.4	8.93	22.1	13.3	19.5	25.8	21.6
	Jiwozi	33.8	27.9	14.6	11.1	31.3	33.9	23.0	14.2	0.787	16.7	14.5	23.9	16.1	8.66	16.7
	Hongwen	31.2	32.3	15.0	25.4	23.9	19.3	28.6	25.7	31.2	71.7	62.7	72.3	49.1	33.2	18.4
	Xiaoping	18.6	20.1	13.9	17.1	14.5	13.0	13.8	18.5	10.6	21.5	22.5	10.0	14.3	12.1	8.34
	Xiang Zhou	34.8	44.9	22.4	29.8	43.4	46.1	23.8	60.2	23.6	61.1	73.3	24.4	28.1	20.8	25.5
	Zhuxiandong	45.6	51.4	21.7	18.8	***	***	***	72.4	33.5	29.3	102	28.8	44.6	27.7	31.5
	Wuzhishan												7.43	8.42	7.41	8.91
	Lijiang												3.38	20.7	2.07	10.4
Indonesia	Jakarta	11.4	12.0	15.4	19.4	13.0	19.3	28.8	17.1	31.2	12.4	21.1	14.9	18.1	20.2	13.5
	Serpong	17.0	17.6	22.4	15.1	24.1	22.7	25.5	22.3	16.0	16.4	23.7	29.9	34.9	25.6	17.7
	Kototabang	3.88	10.7	9.91	13.9	9.72	27.3	10.6	8.28	33.4	6.28	4.85	5.89	5.03	5.89	4.50
	Bandung	8.33	11.8	8.60	12.4	10.6	15.6	14.7	9.49	9.63	14.9	13.7	21.5	13.1	7.67	11.0
	Maros	20.1	15.3	21.1	16.1	20.0	36.3	36.2	6.90	154	114	15.5	21.3	28.1	14.3	12.9
	Jembrana												31.4	60.7	61.3	34.5
	Lombok												23.6	23.3	20.2	24.5
Japan	Rishiri	268	193	184	156	332	222	184	160	79.8	234	194	209	157	259	187
	Ochiishi	194	205	266	180	307	486	112	201	161	258	88.7	77.7	134	323	*
	Tappi	226	217	124	167	162	289	176	283	195	215	185				
	Sado-seki	236	364	351	182	293	355	317	367	199	170	151	250	196	1527	234
	Happo	5.60	6.64	4.99	4.43	11.6	4.89	6.21	7.00	6.42	6.18	6.57	4.42	5.00	6.37	5.29
	Ijira	18.9	16.5	16.2	17.2	24.5	19.5	19.7	19.9	15.2	17.7	18.0	15.7	15.8	19.1	24.4
	Oki	371	436	471	552	411	579	617	473	384	555	473	189	264	434	*
	Banryu	82.5	114	107	125	103	80.8	102	107	92.1	99.8	65.0				
	Yusuhara	10.0	13.9	11.0	14.7	21.8	13.4	6.95	27.4	9.97	60.4	16.6	16.7	11.2	21.2	42.2
	Hedo	138	141	284	232	496	263	157	368	236	429	186	153	271	1353	154
	Ogasawara	98.8	227	211	241	134	166	154	370	106	208	52.8	203	60.8	190	172
	Tokyo	23.7	27.8	19.4	45.9	35.8	27.7	23.1	22.2	17.2	47.5	39.7	65.8	18.4	22.8	21.6
	Niigata-maki												210	131	218	248
	Tsushima												34.7	35.9	40.6	118
Lao PDR	Vientiane	7.41	6.19	***	***	4.46	***	***	4.97	5.28	*	*	*	***	***	***
Malaysia	Petaling Jaya	7.50	7.89	9.26	8.36	7.98	7.66	8.89	10.3	10.3	10.0	9.75	***	9.04	8.76	7.41
	Tanah Rata	1.47	2.26	1.91	2.95	3.19	2.96	3.49	3.75	3.30	3.35	4.09	***	4.36	***	3.43
	Danum Valley	6.10	6.79	17.1	5.70	4.16	7.52	6.50	7.47	4.90	4.60	7.29	***	14.6	8.74	6.28
	Kuching	6.35	8.41	8.04	11.5	6.78	8.82	11.0	14.5	14.5	11.5	10.9	***	14.2	11.0	7.73
	Gunung Brinchang														7.04	***
Mongolia	Ulaanbaatar	10.1	9.63	8.49	7.46	***	4.08	***	5.15	4.63	3.56	4.41	13.4	4.60	6.71	*
	Terelj	9.22	9.95	10.6	9.81	***	6.94	***	7.91	9.71	8.67	5.77	***	5.60	11.5	*
Myanmar	Yangon	***	25.0	13.2	15.8	26.6	27.1	19.5	34.4	31.3	35.2	21.8	20.8	22.7	16.8	14.6
Philippines	Metro Manila	28.7	24.6	20.6	29.8	20.2	28.7	26.1	27.3	31.4	***	***	23.3	10.3	30.2	12.1
	Los Baños	18.8	25.0	25.3	26.2	21.6	25.8	18.3	92.0	25.2	***	***	***	***	***	14.4
	Mt.Sto.Tomas	5.24	8.31	5.07	4.41	6.50	7.11	4.21	7.79	5.46	***	***	***	***	***	7.89
Republic of Korea	Kanghwa	45.6	60.2	43.9	48.5	67.5	36.3	61.6	161	50.1	55.7	42.3	216	***	36.4	29.1
	Cheju	136	63.7	114	147	455	344	124	109	444	280	293	76.4	***	288	945
	Imsil	36.6	51.9	44.4	25.3	88.8	22.8	30.7	46.8	29.9	32.1	27.6	28.4	***	70.9	41.7
Russia	Mondy	4.22	3.29	3.39	5.28	5.95	3.69	3.57	3.68	1.66	5.29	2.39	1.95	2.20	2.45	0.866
	Listvyanka	5.13	3.02	3.43	6.63	3.28	5.85	3.65	5.45	3.09	4.12	2.93	4.19	3.61	2.27	2.62
	Irkutsk	15.9	24.9	23.8	22.0	15.1	19.2	9.86	23.9	9.90	10.2	10.0	10.6	9.05	6.92	7.97
	Primorskaya	25.6	14.7	29.4	67.4	29.9	42.7	25.0	25.4	33.4	37.1	21.5	34.6	31.5	59.3	56.1
Thailand	Bangkok	11.3	7.65	9.33	7.98	8.33	7.24	9.22	7.36	11.1	8.16	14.4	11.8	12.0	***	6.13
	Samutprakarn	12.8	8.45	16.2	7.61	9.92	9.16	11.3	9.66	9.41	8.30	10.9	11.4	13.5	***	6.42
	Pathumthani	6.61	6.23	5.77	6.82	15.9	6.85	7.88	9.96	8.65	7.48	6.98	9.62	6.09	8.72	5.82
	Khanchanaburi	10.3	8.84	3.30	8.86	11.6	2.89	6.90	5.69	9.04	5.92	7.60	6.88	***	***	***
	Mae Hia	4.59	4.91	3.58	2.88	4.14	5.94	5.39	3.87	7.39	5.73	7.19	7.55			
	Sakaerat	5.93	4.62	4.81	4.80	6.36	6.34	11.1	6.99	6.57	4.08	5.08	5.26			
Vietnam	Hanoi	8.74	9.65	10.9	8.56	6.58	9.93	10.4	14.8	11.4	14.6	23.0	25.2	48.3	14.1	35.2
	HoaBinh	4.22	5.38	6.35	4.30	4.65	6.18	4.24	5.25	7.94	14.6	9.84	9.31	21.4	15.1	10.2
	Cuc Phuong		44.2	24.3	15.5	20.3	25.2	11.7	21.3	17.1	35.6	30.2	38.8	39.3	37.4	22.4
	Da Nang		110	50.4	93.5	83.1	174	92.9	72.8	70.2	80.9	97.8	167	171	116	226
	Can Tho							27.4	41.2	36.1	29.2	30.4	23.9	28.9	29.8	29.5
	Ho Chi Minh							44.8	52.0	37.3	47.5	36.3	36.9	43.2	43.5	44.7
	Yen Bai								7.48	14.3	17.3	12.4	14.0	31.2	14.3	16.0

Terms and abbreviations are given in Table 3.5.

Table 3.77 Precipitation amount-weighted annual average concentrations of NH_4^+ from 2008 to 2022

unit: µmol L^{-1}

Country	Name of sites	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Cambodia	PhnomPenh	11.8	13.1	22.6	21.9	21.6	13.5	13.9	18.1	19.5	22.2	***	***	***	***	***
China	Haifu	148	105	141	145	116	142	116	95.2	98.7	96.3	103	91.5	74.5	73.5	80.6
	Jinyunshan	98.8	110	124	117	124	90.1	70.6	62.6	65.8	60.0	79.3	70.6	62.5	55.8	63.7
	Shizhan	164	169	187	60.8	109	238	170	194	118	147	127	136	160	69.5	118
	Jiwozi	31.6	52.0	17.3	23.1	26.6	55.5	32.8	65.7	2.87	1.07	15.5	34.2	37.9	31.9	17.0
	Hongwen	34.7	46.6	39.8	42.3	43.2	18.3	25.7	29.2	37.2	33.8	25.0	28.3	31.9	46.2	21.9
	Xiaoping	33.0	45.8	42.9	38.9	30.4	25.3	38.9	37.8	24.6	29.5	23.5	19.9	25.9	34.8	13.0
	Xiang Zhou	19.5	22.1	24.4	20.7	29.1	17.7	23.8	19.1	29.6	24.5	24.2	22.7	23.3	14.0	15.7
	Zhuxiandong	18.6	25.6	22.7	24.8	***	***	***	24.3	42.4	25.7	23.6	23.0	21.6	18.4	14.2
	Wuzhishan												14.7	20.0	13.2	13.1
	Lijiang												11.0	2.44	12.6	24.9
Indonesia	Jakarta	25.4	17.7	23.0	33.7	23.1	17.2	17.6	18.9	37.5	24.0	47.9	29.6	24.5	30.6	27.8
	Serpong	47.2	43.0	52.3	62.2	71.1	83.0	65.5	63.0	55.6	50.5	69.4	67.4	69.6	69.6	64.5
	Kototabang	7.55	2.69	2.83	10.0	8.47	6.93	12.1	1903	4.94	5.59	7.35	7.80	6.87	9.94	4.71
	Bandung	44.8	48.3	32.1	60.8	53.8	47.4	55.4	56.7	58.1	62.4	61.9	73.2	69.1	53.2	65.7
	Maros	8.85	12.7	10.1	9.30	14.1	6.75	7.19	20.7	53.7	5.22	10.9	2.61	1.61	3.52	7.73
	Jembrana												16.8	14.4	12.2	3.72
	Lombok												16.9	20.9	16.6	83.5
Japan	Rishiri	23.6	17.7	15.7	14.0	11.4	12.9	12.5	13.3	10.4	22.3	22.3	19.0	19.1	15.0	18.5
	Ochiishi	6.45	8.40	10.7	11.0	12.3	9.68	10.8	11.4	5.01	6.26	6.59	7.54	10.6	43.0	*
	Tappi	18.2	10.5	15.0	16.9	13.8	19.1	22.7	13.0	15.4	15.9	10.3				
	Sado-seki	21.7	12.5	11.9	14.6	15.5	18.1	18.2	19.3	16.0	20.0	10.9	16.2	11.3	14.3	6.72
	Happo	10.1	9.73	5.88	6.06	10.7	8.94	8.08	7.84	4.77	4.33	5.57	8.54	5.58	7.25	6.81
	Ijira	18.0	18.2	12.2	14.1	14.7	13.4	13.4	13.5	14.3	12.5	9.12	12.7	10.7	9.66	12.6
	Oki	15.7	17.0	17.8	18.6	17.0	17.5	14.0	9.63	14.4	17.7	12.1	15.5	10.0	9.83	*
	Banryu	19.2	16.3	21.6	15.7	21.5	13.8	17.3	14.9	15.0	16.3	9.62				
	Yusuhara	7.52	8.25	6.60	4.83	7.55	7.16	4.91	4.04	6.04	21.9	3.15	5.39	5.94	4.78	6.31
	Hedo	6.11	6.43	9.31	9.13	18.8	9.94	8.28	11.0	8.05	7.04	3.19	4.93	8.05	23.8	3.36
	Ogasawara	3.43	4.82	5.29	4.54	5.18	6.04	3.88	2.64	4.85	2.30	2.02	2.47	3.51	1.68	1.88
	Tokyo	29.9	26.2	19.2	25.4	24.3	22.9	23.1	20.1	17.2	18.2	21.7	17.6	21.8	17.6	20.6
	Niigata-maki												16.3	12.5	11.9	13.5
	Tsushima												8.61	12.8	9.17	9.34
Lao PDR	Vientiane	8.39	17.3	***	***	***	***	***	7.78	7.50	*	*	*	***	***	***
Malaysia	Petaling Jaya	20.8	7.57	4.60	4.86	1.29	16.2	27.4	25.5	13.0	17.0	19.8	***	20.2	18.9	15.3
	Tanah Rata	3.10	5.41	4.05	14.3	5.67	2.42	3.44	7.54	3.51	3.13	2.04	***	10.9	***	6.52
	Danum Valley	9.76	3.44	4.89	1.90	<0.8	<0.8	0.915	4.21	<0.8	<0.8	1.75	***	<0.8	<0.8	1.85
	Kuching	4.61	4.94	1.94	5.03	6.16	2.87	9.38	5.49	2.45	3.48	5.24	***	2.26	4.98	7.40
	Gunung Brinchang														2.93	***
Mongolia	Ulaanbaatar	53.3	46.7	54.7	45.9	***	62.2	***	***	40.7	48.9	57.4	75.1	49.6	62.5	*
	Terelj	51.1	41.0	35.0	39.4	***	5.37	***	***	60.2	41.9	31.0	***	22.5	55.6	*
Myanmar	Yangon	***	16.2	14.6	14.9	17.7	17.0	16.6	22.3	17.1	13.6	19.5	17.0	21.0	19.0	22.5
Philippines	Metro Manila	62.2	21.1	53.1	183	273	41.2	61.6	86.1	112	***	***	28.6	21.4	16.5	20.7
	Los Baños	19.6	11.7	38.2	29.4	67.8	22.3	55.9	54.9	84.8	***	***	***	***	***	11.6
	Mt.Sto.Tomas	10.5	14.1	4.65	0.822	3.42	4.71	13.5	9.57	7.79	***	***	***	***	***	3.04
Republic of Korea	Kanghwa	35.4	30.5	26.5	43.3	49.4	78.5	60.2	99.0	58.1	84.4	38.6	42.3	***	36.8	33.9
	Cheju	26.2	45.2	26.8	28.0	33.4	35.9	25.5	28.2	40.3	38.3	25.7	45.4	***	23.4	36.2
	Imsil	29.9	35.2	31.2	37.7	39.5	40.5	33.4	50.6	36.1	51.6	26.8	35.7	***	22.5	43.1
Russia	Mondy	9.86	20.2	17.5	9.14	19.0	2.71	3.60	13.5	4.97	10.4	8.38	9.51	5.19	33.1	12.4
	Listvyanka	18.9	13.4	18.3	17.2	26.7	9.85	13.7	36.8	14.4	20.6	13.8	18.8	11.8	14.7	13.7
	Irkutsk	34.4	36.4	34.5	32.7	34.1	29.5	23.9	73.0	22.2	20.4	21.0	29.8	23.7	25.0	26.7
	Primorskaya	50.6	28.8	42.7	54.1	27.0	39.6	42.3	25.7	22.7	46.8	33.0	23.9	22.8	51.4	59.0
Thailand	Bangkok	53.8	64.9	37.8	40.2	44.1	46.3	52.3	60.7	63.6	54.6	52.9	35.5	44.2	***	28.3
	Samutprakarn	56.4	41.0	28.1	27.8	34.1	37.7	48.6	46.0	43.3	48.5	40.1	31.6	30.6	***	22.1
	Pathumthani	29.7	33.0	28.0	38.1	37.9	44.9	35.3	45.3	53.1	41.3	35.6	49.4	31.3	32.6	28.2
	Khanchanaburi	10.1	26.1	8.90	13.0	8.95	6.80	14.0	10.7	16.2	14.1	6.33	4.51	***	***	***
	Mae Hia	19.9	20.2	19.3	13.5	19.6	19.3	26.8	17.6	29.3	26.2	15.1	33.2			
	Sakaerat	21.1	22.9	24.6	24.3	25.7	23.8	42.3	31.3	34.0	23.3	63.3	68.9			
Vietnam	Hanoi	30.6	50.6	52.4	52.8	60.2	53.4	68.0	64.9	61.4	52.6	56.9	29.9	98.6	66.0	63.3
	HoaBinh	17.1	31.4	28.3	27.8	30.0	25.3	45.6	38.3	56.9	20.0	29.0	12.0	41.2	54.1	25.2
	Cuc Phuong		6.30	9.90	19.2	23.9	25.5	20.5	30.0	20.1	8.72	5.39	19.7	16.4	49.1	57.2
	Da Nang		13.5	8.67	21.5	21.3	24.6	14.5	8.73	5.43	20.9	14.1	41.7	21.2	18.6	16.1
	Can Tho							18.3	21.3	22.7	21.5	12.3	17.6	16.1	19.2	21.6
	Ho Chi Minh							24.3	29.4	28.8	38.4	20.7	22.8	30.1	30.4	30.0
	Yen Bai								30.5	91.5	33.6	39.0	18.2	66.2	75.2	33.4

Terms and abbreviations are given in Table 3.5.

Table 3.78 Precipitation amount-weighted annual average concentrations of Na^+ from 2008 to 2022

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

Country	Name of sites	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Cambodia	PhnomPenh	10.3	6.95	3.10	3.55	3.65	3.10	7.60	6.28	4.23	4.45	***	***	***	***	***
China	Haifu	6.99	4.20	7.56	9.87	6.04	7.29	6.36	3.61	6.18	4.42	4.98	4.01	3.55	2.47	3.32
	Jinyunshan	10.3	7.70	8.17	6.12	6.28	3.92	4.50	2.23	2.55	2.95	1.81	2.00	2.02	1.51	2.01
	Shizhan	24.4	13.4	7.30	17.7	5.59	138	126	113	53.6	28.7	20.6	12.1	20.4	17.9	25.6
	Jiwozi	81.1	25.2	6.47	7.86	44.5	112	125	92.5	8.39	33.7	24.6	88.3	20.8	20.9	9.93
	Hongwen	22.9	24.5	19.4	18.1	16.3	14.3	19.8	18.6	27.2	35.7	24.0	4.99	48.1	45.3	16.6
	Xiaoping	22.5	16.4	18.8	10.9	8.45	12.1	8.77	11.0	6.54	6.87	6.55	1.44	10.5	7.52	6.73
	Xiang Zhou	34.6	40.2	19.8	32.3	45.9	54.2	30.7	52.9	22.5	52.2	67.2	20.3	23.5	18.3	23.0
	Zhuxiandong	40.7	45.3	19.9	45.0	***	***	***	66.9	34.1	26.2	89.3	24.0	38.1	24.2	28.1
	Wuzhishan												8.68	7.39	6.83	8.22
	Lijiang												8.65	0.580	1.15	1.65
Indonesia	Jakarta	9.95	9.31	7.92	11.7	12.7	16.2	21.4	2.01	21.0	9.76	16.7	9.40	15.5	15.9	9.55
	Serpong	10.5	10.2	8.32	10.1	10.9	14.0	18.8	14.6	14.4	12.1	17.7	17.0	13.1	22.4	8.15
	Kototabang	5.33	6.12	5.25	6.54	9.63	8.51	5.67	0.779	21.1	3.46	3.40	4.75	7.43	3.63	3.37
	Bandung	8.62	11.8	9.74	12.2	10.8	13.6	12.9	8.58	11.2	18.7	23.1	44.8	14.7	7.05	11.6
	Maros	15.7	13.3	13.2	14.9	19.9	19.3	29.1	3.67	118	104	13.5	18.7	15.4	12.6	11.2
	Jembrana												19.9	30.0	32.2	23.9
	Lombok												22.8	25.9	19.5	23.6
Japan	Rishiri	247	176	162	139	292	200	162	140	69.7	207	170	182	139	230	167
	Ochiishi	171	182	232	155	274	421	97.2	178	138	219	77.6	67.4	117	282	*
	Tappi	197	199	114	150	141	257	156	237	169	189	159				
	Sado-seki	215	321	320	153	246	328	282	327	175	150	134	220	175	1389	204
	Happo	4.12	5.14	3.76	3.34	9.57	4.07	5.31	5.84	4.83	4.96	5.41	3.54	4.21	5.25	4.45
	Ijira	15.4	13.5	13.0	13.8	19.3	15.1	15.6	15.8	12.4	14.6	14.6	13.1	13.7	16.2	20.3
	Oki	324	376	409	480	357	505	545	412	332	486	405	163	229	380	*
	Banryu	72.2	98.8	94.2	108	92.2	69.1	86.9	91.1	81.9	87.8	56.7				
	Yusuhara	8.61	12.0	8.82	12.3	18.1	9.90	5.19	22.9	7.97	48.7	14.5	13.8	9.34	17.9	36.1
	Hedo	124	127	254	204	418	227	137	313	201	368	160	130	228	1125	133
	Ogasawara	86.2	188	208	202	114	141	131	306	90.9	180	46.7	178	51.1	164	149
	Tokyo	19.5	23.5	17.3	37.7	29.5	22.8	18.9	18.0	14.4	40.3	34.5	57.7	15.3	19.4	18.6
	Niigata-maki												176	113	189	210
	Tsushima												30.0	31.2	35.0	101
Lao PDR	Vientiane	2.91	9.14	***	***	***	***	***	2.78	1.52	*	*	*	***	***	***
Malaysia	Petaling Jaya	4.22	4.59	4.99	4.56	3.85	4.29	5.04	6.20	6.14	6.04	5.33	***	5.51	4.88	3.61
	Tanah Rata	1.20	1.58	1.29	1.99	1.51	2.17	2.82	2.74	2.72	2.47	2.48	***	5.02	***	2.96
	Danum Valley	3.22	5.83	13.8	5.52	2.87	5.14	5.42	5.40	3.30	2.52	5.16	***	12.7	6.84	4.76
	Kuching	5.39	7.35	6.67	9.08	5.21	7.54	9.25	12.9	12.7	9.28	8.49	***	10.5	7.50	6.60
	Gunung Brinchang														4.66	***
Mongolia	Ulaanbaatar	3.59	4.88	3.50	5.65	***	78.8	***	***	172	21.9	41.5	110	77.7	17.4	*
	Terelj	5.47	7.60	11.1	6.07	***	17.0	***	***	206	13.5	49.5	***	60.8	111	*
Myanmar	Yangon	***	18.5	12.9	15.0	22.1	15.8	17.3	8.77	15.7	15.0	21.9	18.3	14.0	15.7	15.3
Philippines	Metro Manila	24.6	20.2	22.3	21.4	16.7	28.0	24.5	23.4	17.4	***	***	18.0	10.4	22.3	24.1
	Los Baños	19.1	17.4	22.7	19.4	22.2	22.8	15.4	17.6	22.4	***	***	***	***	***	12.8
	Mt.Sto.Tomas	5.11	8.26	6.30	4.31	10.3	6.70	6.30	8.71	14.8	***	***	***	***	***	1.93
Republic of Korea	Kanghwa	39.3	45.1	27.0	35.8	50.7	29.6	43.2	45.0	28.5	27.8	30.4	180	***	29.9	24.1
	Cheju	133	53.6	103	152	375	290	116	101	394	261	264	93.4	***	285	879
	Imsil	32.0	50.3	48.2	37.4	51.8	30.3	29.8	47.1	33.8	36.2	38.5	38.1	***	80.5	72.3
Russia	Mondy	1.84	2.28	2.81	3.86	4.32	1.36	2.25	1.61	1.38	2.58	2.11	1.92	5.00	2.82	1.66
	Listvyanka	2.49	3.82	3.60	5.42	4.20	6.68	4.80	2.96	2.80	3.26	3.01	3.06	4.45	4.78	4.39
	Irkutsk	10.0	18.7	18.4	16.8	9.96	12.8	8.62	12.7	7.42	7.99	8.80	6.70	9.98	7.00	9.07
	Primorskaya	22.9	12.8	23.9	13.7	23.1	25.5	15.8	24.8	25.2	26.0	21.9	20.0	33.8	34.3	36.0
Thailand	Bangkok	9.77	9.79	8.79	6.46	6.07	12.0	9.17	7.97	11.0	5.83	11.4	8.83	15.9	***	5.12
	Samutprakarn	15.4	10.0	18.6	5.70	7.89	25.3	12.6	9.33	8.87	7.10	9.95	9.65	12.3	***	5.62
	Pathumthani	5.96	5.58	7.46	5.87	14.1	5.96	5.31	6.92	6.41	4.83	5.10	6.57	3.64	3.64	2.83
	Khanchanaburi	9.23	9.49	3.11	7.45	9.71	5.46	6.41	5.91	10.4	4.70	8.17	5.45	***	***	***
	Mae Hia	2.61	2.69	2.72	3.21	3.80	5.63	3.65	4.48	7.01	6.14	7.89	8.18			
	Sakaerat	4.20	2.73	3.21	4.04	3.71	2.96	8.85	4.59	4.02	2.08	11.0	9.64			
Vietnam	Hanoi	9.59	9.17	7.28	6.17	4.19	7.69	7.24	9.00	11.4	16.4	11.2	26.4	23.9	11.6	24.0
	HoaBinh	3.07	3.39	4.86	2.46	3.03	4.13	3.16	3.80	4.40	3.99	2.79	12.2	8.27	9.65	4.56
	Cuc Phuong		11.2	12.0	13.6	20.0	26.7	10.7	8.76	12.7	17.6	13.4	23.4	17.5	38.1	20.4
	Da Nang		94.6	41.3	70.2	63.2	144	82.1	79.6	65.7	81.0	68.1	108	57.8	68.8	60.5
	Can Tho							15.4	29.4	12.6	9.61	9.73	18.1	17.9	14.0	14.6
	Ho Chi Minh							25.0	34.6	13.5	17.4	14.2	20.4	18.4	19.5	18.9
	Yen Bai								5.40	8.96	3.68	3.65	11.7	16.0	10.8	5.18

Terms and abbreviations are given in Table 3.5.

Table 3.79 Precipitation amount-weighted annual average concentrations of K^+ from 2008 to 2022

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

Country	Name of sites	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Cambodia	PhnomPenh	10.3	1.50	0.861	1.15	0.761	1.06	2.69	1.98	2.11	1.22	***	***	***	***	***
China	Haifu	11.5	7.72	10.0	9.38	6.57	12.8	9.28	5.99	4.66	4.80	6.21	3.45	2.71	2.38	2.96
	Jinyunshan	9.54	8.71	10.4	10.4	7.64	5.49	4.42	3.40	3.37	3.60	2.75	3.20	2.60	1.78	2.43
	Shizhan	13.3	10.2	32.4	13.4	5.69	28.1	251	5.32	3.76	4.60	10.9	7.50	7.55	3.52	13.2
	Jiwozi	29.0	13.7	4.89	7.28	9.74	10.2	16.4	6.63	4.58	13.0	19.3	64.1	13.4	5.05	8.23
	Hongwen	2.12	2.26	2.24	1.99	2.86	1.90	1.42	5.99	5.34	35.0	37.8	14.3	9.74	10.6	3.37
	Xiaoping	10.2	2.33	1.94	2.80	3.47	1.66	1.45	8.40	5.59	12.4	14.4	2.51	2.71	2.55	3.38
	Xiang Zhou	1.65	2.10	2.21	3.74	9.20	8.24	6.89	4.41	3.68	2.56	3.05	1.49	1.22	0.901	0.989
	Zhuxiandong	4.50	2.56	3.29	5.92	***	***	***	8.30	5.80	2.24	4.65	1.87	2.15	1.63	1.34
	Wuzhishan												2.87	2.68	3.40	4.00
	Lijiang												1.53	0.768	0.642	1.74
Indonesia	Jakarta	3.51	2.22	2.23	2.28	2.86	2.83	3.62	12.5	10.5	2.38	2.83	1.38	3.53	2.43	3.97
	Serpong	2.21	1.75	3.20	3.15	4.33	4.91	5.64	7.81	4.85	3.78	6.02	11.9	14.5	5.04	2.81
	Kototabang	3.40	9.35	4.43	3.96	5.52	19.3	10.4	4949	11.5	1.86	2.06	2.87	3.86	4.29	2.42
	Bandung	2.31	4.08	4.22	4.77	3.36	7.97	5.63	3.54	2.89	4.22	4.48	4.65	5.06	2.54	3.40
	Maros	5.76	3.89	2.52	1.86	3.50	1.84	19.1	1786	15.1	6.27	2.83	3.00	11.3	1.91	1.44
	Jembrana												3.81	19.7	20.9	3.31
	Lombok												3.28	6.77	6.93	22.6
Japan	Rishiri	6.58	4.31	4.28	3.44	6.41	4.61	4.10	3.62	2.07	6.01	4.83	5.24	4.30	6.17	4.40
	Ochiishi	3.81	4.09	6.16	3.70	6.76	9.35	2.55	4.84	3.43	5.36	1.86	1.68	3.05	24.7	*
	Tappi	5.36	4.95	3.50	4.34	3.96	6.21	3.97	5.56	4.47	4.72	3.87				
	Sado-seki	7.16	7.96	8.08	4.45	6.62	7.69	7.51	9.69	7.55	4.71	3.33	5.81	4.27	43.3	4.63
	Happo	0.585	0.670	0.356	0.447	0.865	0.581	0.746	0.681	0.457	0.376	0.423	0.558	0.509	0.426	0.401
	Ijira	0.630	0.678	0.426	0.535	0.609	0.589	0.611	0.699	0.498	0.576	0.462	0.523	0.490	0.588	0.593
	Oki	11.9	10.1	10.1	12.7	9.16	12.8	13.1	9.87	8.06	11.6	9.86	4.26	5.39	9.38	*
	Banryu	2.54	3.00	5.43	3.39	3.26	2.33	2.65	2.54	2.28	2.41	1.66				
	Yusuhara	0.424	0.768	0.613	0.465	1.07	0.387	0.701	0.758	0.508	1.83	0.664	0.793	0.719	1.09	1.58
	Hedo	3.18	3.29	6.19	4.94	10.6	5.48	3.31	7.24	4.51	8.02	3.52	3.03	5.15	24.4	2.95
	Ogasawara	2.61	4.55	5.02	4.95	2.71	3.64	3.12	8.10	2.22	4.14	1.10	4.41	1.43	2.99	3.43
	Tokyo	1.14	1.10	0.989	1.29	0.888	0.711	0.628	0.641	0.539	1.11	0.842	1.37	0.541	0.502	0.523
	Niigata-maki												4.80	2.70	4.55	5.09
	Tsushima												0.882	1.10	1.20	3.44
Lao PDR	Vientiane	1.69	0.930	***	***	***	***	***	1.74	0.958	*	*	*	***	***	***
Malaysia	Petaling Jaya	1.19	1.51	1.50	1.31	1.33	1.14	1.47	1.70	1.83	1.55	1.90	***	1.97	1.53	1.12
	Tanah Rata	0.433	0.991	1.06	2.03	1.68	1.75	1.62	2.37	1.22	1.93	1.36	***	4.70	***	1.93
	Danum Valley	2.53	1.59	3.24	1.73	1.21	1.01	2.16	2.39	1.01	1.29	2.64	***	2.95	2.43	2.77
	Kuching	0.647	0.695	0.650	0.854	0.924	0.695	3.26	1.44	1.13	1.43	1.54	***	1.92	1.96	2.95
	Gunung Brinchang														1.85	***
Mongolia	Ulaanbaatar	2.81	2.53	2.72	3.98	***	3.88	***	***	0.620	1.29	1.01	2.01	1.64	1.57	*
	Terelj	6.46	4.10	5.43	5.00	***	7.98	***	***	7.09	3.40	3.65	***	3.48	4.22	*
Myanmar	Yangon	***	6.46	2.07	1.66	6.78	2.66	4.69	13.3	3.35	10.4	4.38	7.01	4.64	7.66	4.17
Philippines	Metro Manila	15.6	3.99	17.0	23.5	26.3	6.45	9.79	13.1	14.2	***	***	4.13	1.47	1.77	1.69
	Los Baños	2.91	9.08	7.43	6.82	8.14	6.37	8.18	73.4	13.8	***	***	***	***	***	1.18
	Mt.Sto.Tomas	0.702	1.95	1.41	0.821	0.885	0.752	1.26	1.63	0.889	***	***	***	***	***	0.426
Republic of Korea	Kanghwa	5.40	8.97	7.78	3.62	6.39	3.27	13.4	106	13.3	16.5	5.01	7.91	***	2.41	3.95
	Cheju	10.4	9.75	7.96	6.54	15.7	12.0	11.3	13.8	15.2	7.43	6.53	2.87	***	11.3	17.0
	Imsil	5.61	10.9	10.3	3.89	47.5	6.33	9.82	9.19	3.39	8.80	2.18	1.33	***	6.64	2.23
Russia	Mondy	2.02	3.29	2.62	4.98	9.05	2.30	2.01	3.40	1.05	1.94	1.27	0.982	0.937	3.64	0.863
	Listvyanka	3.38	2.07	1.66	2.42	2.00	4.36	3.11	2.10	1.71	3.64	2.01	3.04	3.53	3.76	5.25
	Irkutsk	8.99	26.6	5.52	4.59	4.99	5.19	2.97	4.51	3.10	2.92	3.06	4.06	3.72	5.18	6.02
	Primorskaya	8.99	4.40	5.84	6.75	5.09	5.55	5.14	7.79	19.1	10.1	8.36	8.03	9.07	6.69	11.3
Thailand	Bangkok	2.03	1.98	2.58	1.82	1.52	1.91	1.38	1.75	1.70	1.24	2.26	3.89	3.88	***	1.56
	Samutprakarn	6.12	2.77	17.0	1.11	1.52	5.23	2.33	1.93	1.71	1.36	1.63	1.92	2.13	***	1.48
	Pathumthani	1.50	1.61	1.85	1.96	1.64	2.13	1.87	1.84	2.09	2.13	1.35	2.14	1.51	4.02	0.813
	Khanchanaburi	1.15	1.21	0.710	2.21	1.57	0.955	1.22	0.838	1.51	1.43	1.72	1.04	***	***	***
	Mae Hia	2.63	1.47	1.21	1.45	1.26	1.48	1.77	1.24	3.17	2.71	1.90	3.64			
	Sakaerat	1.24	1.31	0.940	1.20	1.26	0.813	2.63	1.52	1.59	0.512	6.95	6.12			
Vietnam	Hanoi	2.77	1.57	2.78	2.27	3.00	2.64	3.75	3.72	3.63	7.09	8.06	8.12	6.51	5.56	11.2
	HoaBinh	3.24	2.72	2.88	2.40	1.50	7.10	2.77	2.87	2.59	2.88	3.89	1.85	2.46	4.44	3.96
	Cuc Phuong		14.0	5.61	3.31	6.06	8.57	4.72	4.68	5.77	3.41	4.00	5.38	4.33	8.16	5.68
	Da Nang		6.27	3.41	14.0	11.5	17.9	13.8	11.9	3.39	9.85	15.6	18.1	89.7	19.2	130
	Can Tho							7.45	7.17	6.07	5.44	6.27	12.7	7.05	6.36	11.2
	Ho Chi Minh							10.6	12.0	6.62	10.4	8.29	11.0	9.79	10.8	10.3
	Yen Bai								4.03	4.98	6.20	3.27	2.59	4.59	4.85	4.15

Terms and abbreviations are given in Table 3.5.

Table 3.80 Precipitation amount-weighted annual average concentrations of Ca^{2+} from 2008 to 2022

unit: μmol L^{-1}

Country	Name of sites	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Cambodia	PhnomPenh	32.6	20.4	8.33	9.30	10.7	9.57	9.47	11.6	14.3	9.74	***	***	***	***	***
China	Haifu	65.3	43.2	69.2	68.5	57.9	69.5	54.6	43.0	67.3	53.5	43.0	25.7	22.0	21.6	21.4
	Jinyunshan	68.3	66.7	68.7	65.1	59.2	31.2	26.0	21.7	38.0	51.9	34.2	22.8	19.3	15.4	16.0
	Shizhan	150	138	105	91.2	128	325	92.7	89.7	35.0	68.3	61.9	50.9	46.1	95.0	177
	Jiwozi	266	93.7	40.7	91.6	203	133	149	57.7	36.8	95.1	56.3	161	63.8	34.9	25.3
	Hongwen	14.1	13.2	9.11	14.1	17.5	21.9	25.5	16.3	13.1	28.3	26.5	60.8	413	35.3	13.3
	Xiaoping	15.6	9.04	8.37	11.7	20.0	22.7	42.4	9.17	6.39	15.1	8.12	7.45	4.79	6.93	4.43
	Xiang Zhou	5.43	4.91	7.40	17.5	10.8	43.4	17.0	15.9	10.8	10.0	10.6	8.15	7.13	6.29	3.73
	Zhuxiandong	13.6	7.40	16.4	19.1	***	***	***	25.2	17.3	13.9	17.7	10.8	12.1	8.47	7.31
	Wuzhishan												10.3	3.75	3.37	4.63
	Lijiang												23.1	2.78	4.31	9.98
Indonesia	Jakarta	4.36	12.6	10.3	11.1	12.0	14.1	15.0	7.47	25.2	17.6	16.5	10.6	7.50	8.42	8.18
	Serpong	7.97	5.17	9.25	10.9	9.29	14.0	13.0	19.7	13.9	12.1	21.2	17.5	8.52	11.7	7.43
	Kototabang	4.86	5.47	4.77	5.90	7.85	9.55	3.93	1.99	3.83	11.6	8.57	30.9	5.25	9.73	3.80
	Bandung	11.3	15.3	13.5	20.9	13.3	19.6	22.8	17.6	15.2	14.4	18.2	19.6	24.5	17.1	18.1
	Maros	8.39	8.11	9.58	6.49	16.1	10.4	27.9	16.8	13.8	14.4	14.0	20.3	8.08	22.7	15.2
	Jembrana												7.88	20.3	5.43	4.96
	Lombok												15.7	7.98	6.65	17.2
Japan	Rishiri	8.72	10.1	6.89	5.63	8.44	7.33	5.78	5.27	3.60	8.15	8.45	7.35	6.66	9.79	7.87
	Ochiishi	5.29	5.20	8.25	5.42	7.35	11.5	4.06	6.72	4.27	6.18	3.18	2.87	4.37	15.1	*
	Tappi	10.3	6.41	8.54	8.01	8.02	14.1	7.45	7.99	7.45	6.78	6.07				
	Sado-seki	10.3	11.1	12.7	8.28	11.4	10.4	9.49	11.3	11.4	6.67	7.86	8.74	5.63	53.1	6.06
	Happo	2.70	4.66	2.40	2.57	4.14	2.77	2.31	1.70	0.750	1.77	2.12	2.24	1.92	2.45	1.35
	Ijira	2.20	2.74	2.48	1.97	2.50	2.74	1.65	2.00	1.88	2.20	1.86	2.36	1.61	2.03	1.93
	Oki	10.9	14.6	16.1	17.1	12.1	17.0	16.4	12.0	10.6	15.1	13.1	6.94	7.56	12.2	*
	Banryu	7.41	5.45	8.02	5.85	6.65	3.92	4.75	5.37	5.17	5.13	3.30				
	Yusuhara	1.69	1.97	1.79	2.27	2.39	2.16	1.60	1.02	1.14	5.19	0.848	1.32	1.10	1.96	2.16
	Hedo	4.18	4.47	7.98	6.04	11.5	6.89	4.25	8.24	5.37	9.70	5.31	3.79	6.38	28.5	4.54
	Ogasawara	2.55	5.20	5.82	5.56	3.46	4.60	3.98	8.13	2.60	4.54	1.28	4.63	1.59	3.97	3.83
	Tokyo	4.09	3.42	3.98	4.84	4.21	4.35	3.81	3.56	2.48	3.34	3.46	4.01	3.20	2.62	3.48
	Niigata-maki												7.18	5.36	6.81	7.21
	Tsushima												1.35	1.58	1.92	3.54
Lao PDR	Vientiane	5.77	5.50	***	***	***	***	***	4.00	2.21	*	*	*	***	***	***
Malaysia	Petaling Jaya	3.94	4.97	5.40	3.97	3.96	6.13	6.02	6.70	6.48	4.18	6.96	***	4.32	4.06	3.40
	Tanah Rata	0.772	1.03	1.22	2.08	2.37	2.91	2.68	2.00	2.18	2.25	2.76	***	5.94	***	2.64
	Danum Valley	0.353	1.01	3.82	0.887	0.800	1.44	1.41	2.28	0.987	1.48	2.52	***	7.13	1.89	1.70
	Kuching	1.91	1.79	2.60	3.15	3.42	4.20	6.12	4.35	3.35	3.86	4.28	***	18.5	2.46	5.59
	Gunung Brinchang														2.74	***
Mongolia	Ulaanbaatar	42.9	42.2	34.3	33.9	***	95.3	***	***	29.1	41.8	23.5	39.0	45.9	49.2	*
	Terelj	17.9	35.8	42.3	20.4	***	69.1	***	***	16.8	15.9	15.3	***	62.5	31.3	*
Myanmar	Yangon	***	9.66	6.37	6.89	7.79	1.07	14.1	88.7	5.55	10.5	16.6	14.2	9.86	2.60	17.4
Philippines	Metro Manila	13.7	6.41	12.8	12.9	13.9	11.5	14.5	17.4	20.5	***	***	14.7	16.3	9.22	11.6
	Los Baños	3.75	5.08	20.1	6.38	9.40	6.40	6.99	8.77	11.8	***	***	***	***	***	17.8
	Mt.Sto.Tomas	3.09	5.87	22.7	7.84	14.0	8.58	8.06	6.85	13.4	***	***	***	***	***	7.26
Republic of Korea	Kanghwa	10.8	5.19	7.02	4.39	8.64	8.72	8.94	9.52	3.85	6.73	3.20	7.07	***	10.6	5.65
	Cheju	10.5	4.08	6.72	6.60	11.2	13.6	4.12	4.64	16.2	12.8	6.64	4.56	***	9.76	34.9
	Imsil	6.92	3.88	5.74	6.81	4.31	2.95	3.50	5.16	2.70	3.71	1.64	2.66	***	8.88	5.94
Russia	Mondy	7.97	5.19	9.20	9.02	12.1	4.61	7.02	8.36	5.42	8.67	5.35	5.09	3.46	4.50	4.17
	Listvyanka	8.18	12.6	12.6	16.1	11.7	11.9	12.8	9.97	7.94	12.2	12.4	8.05	7.30	6.76	11.4
	Irkutsk	29.5	29.2	32.2	34.7	31.3	33.0	26.5	30.5	17.0	22.5	27.8	17.6	14.1	15.4	27.4
	Primorskaya	19.4	11.7	16.9	13.7	12.2	18.0	18.1	13.1	13.1	20.9	14.7	12.1	18.2	13.8	21.1
Thailand	Bangkok	16.1	10.0	11.2	10.5	13.5	25.2	14.5	16.9	15.9	11.3	27.1	29.2	18.0	***	12.2
	Samutprakarn	13.8	13.2	7.78	5.95	8.39	19.9	14.6	6.23	9.28	7.96	8.67	10.6	6.70	***	6.18
	Pathumthani	11.6	9.19	9.17	12.1	20.6	27.1	22.5	16.6	13.7	12.3	7.97	10.3	4.37	5.41	5.43
	Khanchanaburi	4.59	4.93	1.80	4.04	17.5	3.26	4.07	3.63	5.17	3.63	3.54	4.25	***	***	***
	Mae Hia	6.68	5.69	4.40	2.60	7.77	10.6	9.72	4.11	10.7	8.57	7.01	10.3			
	Sakaerat	3.35	2.53	2.21	1.88	3.74	1.96	8.73	6.83	8.24	4.60	35.1	55.9			
Vietnam	Hanoi	11.8	12.0	23.7	14.6	15.0	16.2	24.8	36.7	22.8	35.3	40.6	80.0	83.0	30.8	79.0
	HoaBinh	14.5	9.44	21.1	12.5	11.1	16.9	13.4	10.1	13.1	23.1	13.7	17.6	43.6	25.5	17.9
	Cuc Phuong		24.8	38.3	32.2	30.6	24.4	23.1	19.4	27.1	24.0	18.0	24.2	20.8	34.1	36.9
	Da Nang		6.35	8.87	10.0	16.9	21.5	27.3	34.4	38.5	33.9	36.5	92.2	93.3	32.2	23.8
	Can Tho							12.8	26.8	11.9	10.6	14.4	15.8	14.2	13.0	13.8
	Ho Chi Minh							26.0	44.3	12.1	14.8	18.2	26.5	15.7	18.6	17.8
	Yen Bai								15.9	20.3	23.1	20.8	27.4	52.9	22.5	21.5

Terms and abbreviations are given in Table 3.5.

Table 3.81 Precipitation amount-weighted annual average concentrations of nss-Ca^{2+} from 2008 to 2022

unit: μmol L^{-1}

Country	Name of sites	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Cambodia	PhnomPenh	32.5	20.3	8.26	9.23	10.7	9.50	9.31	11.5	14.2	9.64	***	***	***	***	***
China	Haifu	65.2	43.2	69.0	68.2	57.7	69.3	54.5	43.0	67.1	53.4	42.9	25.6	22.0	21.6	21.3
	Jinyunshan	68.1	66.5	68.6	64.9	59.0	31.1	25.9	21.7	38.0	51.9	34.2	22.7	19.2	15.4	16.0
	Shizhan	149	138	105	90.8	128	322	90.0	87.2	33.9	67.7	61.4	50.6	45.6	94.6	176
	Jiwozi	264	93.2	40.6	91.4	202	130	146	55.7	36.6	94.4	55.7	160	63.4	34.4	25.1
	Hongwen	13.6	12.7	8.70	13.7	17.1	21.6	25.1	15.9	12.6	27.5	26.0	60.7	412	34.4	13.0
	Xiaoping	15.1	8.69	7.96	11.5	19.9	22.4	42.2	8.94	6.24	14.9	7.98	7.41	4.56	6.77	4.28
	Xiang Zhou	4.68	4.04	6.97	16.8	9.76	42.2	16.4	14.7	10.4	8.88	9.14	7.71	6.62	5.89	3.23
	Zhuxiandong	12.7	6.44	15.9	18.1	***	***	***	23.7	16.6	13.3	15.8	10.3	11.3	7.95	6.71
	Wuzhishan												10.2	3.61	3.23	4.45
	Lijiang												22.9	2.77	4.29	9.94
Indonesia	Jakarta	4.14	12.4	10.2	10.8	11.7	13.8	14.5	7.43	24.7	17.3	16.1	10.4	7.16	8.08	7.98
	Serpong	7.75	5.03	9.07	10.7	9.05	13.7	12.6	19.4	13.6	11.8	20.8	17.1	8.26	11.3	7.25
	Kototabang	4.76	5.34	4.65	5.76	7.64	9.37	3.81	2.03	3.53	11.6	8.50	30.8	5.09	9.65	3.72
	Bandung	11.1	15.1	13.3	20.6	13.1	19.3	22.6	17.4	15.0	14.0	17.7	18.7	24.2	16.9	17.8
	Maros	8.05	7.83	9.30	6.17	15.7	9.98	27.2	16.7	11.5	12.2	13.7	19.9	7.75	22.4	15.0
	Jembrana												7.45	19.7	4.74	4.44
	Lombok												15.2	7.43	6.23	16.7
Japan	Rishiri	3.40	6.39	3.44	2.63	2.20	3.06	2.31	2.29	2.10	3.68	4.78	3.42	3.65	4.83	4.27
	Ochiishi	1.66	1.38	3.25	2.11	1.50	2.42	1.96	2.87	1.28	1.46	1.50	1.41	1.84	9.00	*
	Tappi	6.09	2.26	6.16	4.87	4.44	8.53	4.17	3.02	3.80	2.71	2.63				
	Sado-seki	5.67	4.20	5.94	4.99	6.19	3.83	3.47	4.33	7.67	3.43	4.96	3.98	1.87	23.1	1.66
	Happo	2.61	4.55	2.32	2.49	3.93	2.69	2.20	1.58	0.646	1.67	2.01	2.16	1.83	2.34	1.25
	Ijira	1.87	2.46	2.21	1.70	2.09	2.43	1.34	1.66	1.61	1.88	1.54	2.08	1.31	1.68	1.49
	Oki	3.94	6.44	7.24	6.73	4.40	6.12	4.63	3.15	3.55	4.72	4.35	3.43	2.61	3.99	*
	Banryu	5.85	3.32	5.99	3.52	4.66	2.42	2.87	3.49	3.45	3.23	2.08				
	Yusuhara	1.51	1.71	1.65	2.04	2.00	1.95	1.49	0.530	0.969	4.14	0.558	1.03	0.909	1.58	1.38
	Hedo	1.50	1.75	2.50	1.63	2.44	1.99	1.29	1.48	1.12	2.08	1.90	1.06	1.47	4.16	1.68
	Ogasawara	0.862	1.16	1.35	1.20	1.01	1.56	1.15	1.51	0.638	0.647	0.302	0.784	0.504	0.485	0.637
	Tokyo	3.67	2.91	3.60	4.03	3.57	3.86	3.40	3.17	2.17	2.47	2.72	2.76	2.87	2.20	3.08
	Niigata-maki												3.40	2.93	2.72	2.68
	Tsushima												0.717	0.912	1.16	1.36
Lao PDR	Vientiane	5.70	5.30	***	***	***	***	***	3.94	2.18	*	*	*	***	***	***
Malaysia	Petaling Jaya	3.85	4.87	5.29	3.87	3.88	6.04	5.91	6.56	6.34	4.05	6.84	***	4.20	3.95	3.32
	Tanah Rata	0.753	1.01	1.19	2.04	2.33	2.87	2.63	1.94	2.12	2.20	2.71	***	5.83	***	2.58
	Danum Valley	0.315	0.919	3.59	0.794	0.750	1.34	1.32	2.18	0.920	1.43	2.41	***	6.86	1.74	1.60
	Kuching	1.81	1.66	2.45	2.95	3.32	4.04	5.93	4.07	3.07	3.71	4.10	***	18.2	2.29	5.45
	Gunung Brinchang														2.64	***
Mongolia	Ulaanbaatar	42.9	42.1	34.2	33.8	***	93.6	***	***	25.4	41.3	22.6	36.6	44.4	48.8	*
	Terelj	17.7	35.6	42.1	20.2	***	68.8	***	***	13.7	15.6	14.4	***	61.3	29.1	*
Myanmar	Yangon	***	9.26	6.09	6.57	7.32	0.792	13.8	88.5	5.22	10.2	16.1	13.8	9.56	2.26	17.1
Philippines	Metro Manila	13.2	5.98	12.3	12.4	13.5	10.9	14.0	16.9	20.2	***	***	14.3	16.1	8.75	11.1
	Los Baños	3.34	4.71	19.7	5.96	8.92	5.94	6.67	8.42	11.3	***	***	***	***	***	17.6
	Mt.Sto.Tomas	2.98	5.69	22.5	7.75	13.8	8.43	7.92	6.66	13.1	***	***	***	***	***	7.21
Republic of Korea	Kanghwa	10.0	4.23	6.44	3.66	7.54	8.09	8.13	8.55	3.24	6.15	2.56	3.19	***	10.00	5.13
	Cheju	7.63	3.03	4.70	3.72	3.15	7.33	1.79	2.52	7.72	7.59	2.29	2.88	***	3.78	15.9
	Imsil	6.23	2.83	4.79	6.02	3.40	2.29	2.90	4.19	2.01	2.98	1.17	2.07	***	7.24	4.48
Russia	Mondy	7.93	5.14	9.14	8.94	12.1	4.58	6.97	8.32	5.39	8.61	5.30	5.05	3.35	4.44	4.14
	Listvyanka	8.12	12.5	12.5	16.0	11.7	11.7	12.7	9.91	7.88	12.1	12.4	7.98	7.20	6.66	11.3
	Irkutsk	29.2	28.8	31.8	34.4	31.1	32.7	26.3	30.2	16.8	22.4	27.6	17.5	13.9	15.3	27.2
	Primorskaya	18.9	11.4	16.3	13.4	11.7	17.4	17.7	12.6	12.6	20.4	14.2	11.6	17.5	13.1	20.3
Thailand	Bangkok	15.9	9.81	11.1	10.4	13.3	25.0	14.3	16.8	15.7	11.2	26.9	29.0	17.7	***	12.1
	Samutprakarn	13.5	13.0	7.38	5.83	8.22	19.3	14.3	6.02	9.09	7.81	8.46	10.4	6.44	***	6.06
	Pathumthani	11.5	9.07	9.03	12.0	20.3	27.0	22.4	16.5	13.6	12.2	7.86	10.2	4.30	5.33	5.37
	Khanchanaburi	4.39	4.72	1.73	3.88	17.3	3.14	3.93	3.50	4.95	3.53	3.36	4.13	***	***	***
	Mae Hia	6.63	5.63	4.36	2.54	7.69	10.4	9.64	4.01	10.6	8.43	6.84	10.1			
	Sakaerat	3.26	2.48	2.15	1.81	3.66	1.90	8.57	6.73	8.16	4.55	34.9	55.7			
Vietnam	Hanoi	11.6	11.8	23.5	14.5	15.0	16.1	24.6	36.5	22.5	35.0	40.3	79.4	82.5	30.5	78.5
	HoaBinh	14.4	9.37	21.0	12.5	11.0	16.9	13.3	10.0	13.0	23.1	13.7	17.3	43.4	25.3	17.8
	Cuc Phuong		24.6	38.0	32.0	30.2	23.8	22.8	19.2	26.8	23.7	17.7	23.7	20.5	33.3	36.5
	Da Nang		4.31	7.98	8.50	15.5	18.4	25.5	32.7	37.1	32.1	35.0	89.8	92.1	30.7	22.5
	Can Tho							12.4	26.2	11.6	10.3	14.2	15.4	13.8	12.7	13.5
	Ho Chi Minh							25.4	43.5	11.8	14.4	17.9	26.1	15.3	18.2	17.4
	Yen Bai								15.8	20.1	23.0	20.7	27.1	52.5	22.3	21.4

Terms and abbreviations are given in Table 3.5.

Table 3.82 Precipitation amount-weighted annual average concentrations of Mg^{2+} from 2008 to 2022

unit: μmol L^{-1}

Country	Name of sites	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Cambodia	PhnomPenh	3.45	2.00	0.717	1.22	1.22	1.12	1.63	2.56	1.44	1.41	***	***	***	***	***
China	Haifu	7.08	5.45	8.95	8.61	6.87	8.23	7.00	4.79	5.69	4.08	4.04	3.01	2.22	2.19	2.75
	Jinyunshan	4.64	5.56	5.76	6.13	5.82	4.42	4.37	3.24	3.89	4.74	3.34	3.01	2.55	2.12	2.81
	Shizhan	45.4	12.4	11.0	9.94	3.47	54.5	11.8	9.25	1.97	11.2	12.9	6.63	9.92	1.25	18.9
	Jiwozi	77.3	20.2	7.17	9.65	44.4	22.3	21.6	11.1	12.6	19.7	16.0	22.5	6.32	0.630	5.88
	Hongwen	4.92	4.08	2.00	4.22	4.69	3.36	4.27	4.20	4.89	7.19	4.77	4.18	14.5	6.44	3.62
	Xiaoping	3.39	3.24	1.89	2.21	3.45	4.03	3.65	2.27	2.14	2.78	2.12	2.04	2.85	2.19	2.34
	Xiang Zhou	3.97	4.52	2.57	4.39	6.90	14.0	7.21	7.19	4.02	5.64	6.39	3.56	3.82	2.38	2.53
	Zhuxiandong	5.70	6.15	2.86	6.75	***	***	***	8.78	5.17	3.21	10.2	4.12	5.87	3.49	3.74
	Wuzhishan												2.30	1.34	1.36	1.31
	Lijiang												4.59	2.62	1.24	2.28
Indonesia	Jakarta	1.67	1.97	2.23	3.45	2.96	2.62	3.64	1.81	4.50	2.95	3.37	1.88	2.52	3.06	2.59
	Serpong	4.12	1.36	3.09	3.12	2.01	3.86	3.23	3.86	3.06	2.51	4.42	4.43	1.95	3.54	3.31
	Kototabang	1.000	1.10	1.55	0.950	1.40	2.40	0.908	21.5	1.19	1.08	1.06	0.724	1.22	0.922	0.842
	Bandung	4.40	4.13	4.43	5.78	3.17	6.33	7.51	5.61	3.50	3.80	3.92	4.83	5.09	2.81	2.80
	Maros	2.56	1.86	2.17	2.50	7.03	2.81	13.6	30.0	2.92	2.24	2.51	2.59	2.10	1.65	1.80
	Jembrana												2.63	4.74	4.87	3.06
	Lombok												4.15	6.84	4.14	9.06
Japan	Rishiri	30.0	19.9	18.6	15.4	32.3	22.5	18.1	16.2	7.96	24.2	19.9	21.5	15.9	27.7	19.3
	Ochiishi	19.8	19.9	28.6	18.5	30.6	48.2	11.1	20.4	15.8	25.4	8.76	7.65	13.6	32.1	*
	Tappi	23.1	21.1	12.9	17.4	15.4	30.0	18.1	25.2	19.5	21.7	18.3				
	Sado-seki	23.5	36.2	37.7	19.0	29.4	36.9	32.5	37.3	20.8	17.1	15.4	25.3	19.7	188	23.1
	Happo	0.697	1.16	0.810	0.896	2.30	1.37	1.27	1.33	0.861	1.23	1.03	0.808	0.853	0.962	0.775
	Ijira	1.74	1.67	1.62	1.69	2.54	2.09	1.97	2.04	1.57	1.84	1.92	1.67	1.69	2.17	2.57
	Oki	36.7	43.1	48.1	55.5	41.2	56.1	60.6	47.9	38.5	55.2	46.1	18.8	25.9	41.7	*
	Banryu	8.91	11.8	12.1	12.8	11.2	8.50	10.8	10.8	9.45	9.94	6.66				
	Yusuhara	1.11	1.61	1.56	2.56	2.84	2.40	1.82	2.77	1.21	6.01	1.78	1.72	1.05	2.54	4.55
	Hedo	14.2	14.5	29.2	23.2	47.9	25.7	15.6	35.8	23.3	42.6	20.8	17.2	27.2	129	15.7
	Ogasawara	10.6	21.9	24.5	23.6	13.6	17.0	15.2	34.5	10.5	21.3	5.45	20.3	5.89	17.4	16.5
	Tokyo	2.78	2.97	2.40	4.79	3.78	3.04	2.54	2.45	1.85	4.92	4.15	6.71	2.18	2.26	2.35
	Niigata-maki												20.4	13.0	21.6	24.2
	Tsushima												3.27	3.50	4.11	11.3
Lao PDR	Vientiane	1.31	0.722	***	***	***	***	***	0.613	<0.3	*	*	*	***	***	***
Malaysia	Petaling Jaya	0.520	0.467	0.698	0.579	0.497	0.686	1.10	0.922	0.819	0.565	0.724	***	0.889	0.743	0.604
	Tanah Rata	<0.3	<0.3	<0.3	<0.3	<0.3	0.301	0.333	<0.3	<0.3	<0.3	<0.3	***	1.16	***	<0.3
	Danum Valley	0.528	0.549	1.48	0.541	<0.3	0.430	0.552	0.934	0.320	0.379	1.30	***	2.10	0.714	0.930
	Kuching	<0.3	0.395	0.457	0.745	<0.3	0.588	1.12	1.21	0.949	0.718	0.607	***	1.49	0.596	0.726
	Gunung Brinchang														0.332	***
Mongolia	Ulaanbaatar	3.67	5.32	2.98	9.23	***	3.74	***	***	6.06	3.06	2.50	3.71	3.25	3.33	*
	Terelj	3.00	5.45	5.54	7.35	***	4.97	***	***	2.19	1.32	1.46	***	9.00	3.14	*
Myanmar	Yangon	***	2.84	1.80	3.02	6.56	12.3	3.41	5.87	4.58	3.46	4.72	4.00	2.78	29.5	4.53
Philippines	Metro Manila	4.64	2.56	9.12	7.13	6.53	4.54	4.64	6.39	5.29	***	***	3.97	3.26	1.41	13.4
	Los Baños	4.65	3.73	8.20	4.76	4.26	3.25	3.32	4.40	4.14	***	***	***	***	***	3.96
	Mt.Sto.Tomas	0.346	1.53	3.34	1.61	2.90	1.69	1.35	3.44	2.78	***	***	***	***	***	0.542
Republic of Korea	Kanghwa	2.75	5.27	3.64	3.18	5.50	3.30	3.27	3.60	1.19	2.33	1.09	16.2	***	5.35	3.74
	Cheju	9.68	6.02	6.90	10.5	34.5	25.6	7.85	5.92	37.7	21.5	18.1	3.67	***	25.0	83.3
	Imsil	1.99	3.88	4.68	2.02	3.05	1.87	1.77	3.30	1.55	1.91	0.648	0.797	***	5.28	3.74
Russia	Mondy	1.98	1.17	1.81	2.60	4.06	0.877	1.18	2.15	0.864	1.75	1.07	0.948	0.549	1.24	0.832
	Listvyanka	1.76	2.84	2.97	3.12	2.53	2.92	2.37	2.06	1.91	3.15	2.95	2.27	2.38	2.29	3.29
	Irkutsk	6.44	7.55	6.75	7.29	6.49	6.38	3.68	5.51	3.97	4.70	5.32	4.20	3.85	4.63	6.89
	Primorskaya	6.26	3.11	4.27	4.29	4.43	4.89	6.21	5.62	5.51	11.9	9.23	8.90	8.73	5.56	7.47
Thailand	Bangkok	2.34	1.49	1.52	1.25	1.35	2.63	2.37	1.90	2.48	1.57	3.00	2.71	2.81	***	1.58
	Samutprakarn	3.99	2.80	2.20	1.20	1.53	4.46	3.12	1.57	1.79	1.56	2.14	1.91	2.28	***	1.49
	Pathumthani	1.70	1.24	1.38	1.57	3.14	2.59	1.91	1.88	2.10	1.41	1.14	1.98	1.02	1.18	1.43
	Khanchanaburi	1.61	1.44	0.575	1.27	2.76	1.03	1.32	1.06	1.74	1.15	1.44	0.993	***	***	***
	Mae Hia	1.78	2.73	0.451	<0.3	0.842	1.50	1.91	1.41	1.54	1.37	0.656	1.41			
	Sakaerat	1.22	1.27	0.703	<0.3	0.423	<0.3	1.31	2.17	4.25	1.76	8.17	9.26			
Vietnam	Hanoi	3.65	4.78	5.68	4.08	2.15	2.79	3.51	4.59	4.38	7.27	6.49	7.57	8.43	5.59	9.88
	HoaBinh	1.60	1.85	5.56	2.39	2.17	2.69	2.72	2.44	2.52	1.97	3.11	2.17	5.14	4.33	2.53
	Cuc Phuong		4.37	4.41	4.78	7.07	12.2	4.88	5.44	8.30	8.30	10.2	13.5	10.8	13.9	9.48
	Da Nang		10.2	8.52	9.42	9.19	18.8	10.8	8.77	9.03	11.3	10.6	28.6	16.7	17.4	21.2
	Can Tho							4.45	9.17	6.85	5.35	9.84	10.2	7.83	7.01	8.86
	Ho Chi Minh							8.73	17.9	6.90	9.01	10.2	13.2	9.34	11.1	10.1
	Yen Bai								2.68	3.24	1.66	3.39	2.33	9.32	3.48	2.74

Terms and abbreviations are given in Table 3.5.

Table 3.83 Precipitation amount-weighted annual average concentrations of H^+ from 2008 to 2022

unit: µmol L^{-1}

Country	Name of sites	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Cambodia	PhnomPenh	1.45	0.649	1.07	1.10	0.694	0.662	0.621	0.717	0.389	0.667	***	***	***	***	***
China	Haifu	63.5	60.3	71.0	65.9	57.5	30.1	12.1	3.81	0.655	1.47	5.10	3.73	3.41	2.94	1.69
	Jinyunshan	44.0	47.1	115	90.9	81.5	63.3	41.2	20.0	10.6	7.07	14.2	17.5	17.5	8.96	7.42
	Shizhan	0.402	0.297	0.211	0.535	0.552	0.117	0.247	0.220	0.206	0.256	0.171	0.150	0.120	0.0744	0.0736
	Jiwozi	0.114	0.794	2.91	1.13	0.076	0.635	0.104	0.124	0.237	0.203	0.164	0.175	0.268	0.580	0.831
	Hongwen	25.7	30.2	26.6	22.5	30.9	13.2	8.39	12.7	12.1	4.56	2.30	0.853	0.391	4.63	5.57
	Xiaoping	27.9	34.1	26.5	15.3	15.7	9.92	19.6	11.3	18.5	1.27	14.6	18.6	17.2	13.6	13.7
	Xiang Zhou	11.7	13.4	14.1	8.81	7.73	5.83	9.91	2.77	6.78	10.5	8.66	11.3	8.13	6.03	6.12
	Zhuxiandong	13.1	17.7	11.3	16.7	***	***	***	3.29	6.88	8.49	6.98	9.55	6.82	3.56	6.27
	Wuzhishan												1.14	1.29	0.623	0.691
	Lijiang												0.529	0.374	0.241	0.339
Indonesia	Jakarta	22.5	23.5	18.6	28.2	17.4	16.9	19.6	14.4	11.3	12.9	20.4	14.7	6.52	12.6	16.4
	Serpong	23.9	19.3	17.5	19.7	12.4	8.63	7.23	11.4	6.56	6.34	6.10	10.5	7.37	3.39	7.61
	Kototabang	6.00	22.6	16.0	9.22	9.75	10.6	15.2	12.4	5.04	6.29	4.88	4.21	4.75	2.55	2.56
	Bandung	6.81	4.99	7.99	4.00	3.48	4.01	6.14	4.41	8.29	5.63	2.17	0.953	1.06	3.22	4.92
	Maros	2.35	4.64	6.16	4.43	2.41	3.41	5.88	5.77	5.77	4.88	4.21	11.5	4.00	0.568	1.02
	Jembrana												4.32	6.91	12.2	11.8
	Lombok												2.56	4.04	5.15	12.9
Japan	Rishiri	12.3	18.3	18.7	20.1	20.2	21.2	18.6	16.8	12.6	17.3	13.6	15.3	10.2	8.77	9.26
	Ochiishi	13.5	9.64	14.8	13.1	15.2	9.38	7.82	9.96	6.39	7.42	7.28	7.64	7.77	12.7	*
	Tappi	26.0	18.2	20.4	24.6	20.5	16.0	21.9	14.1	15.2	18.0	11.0				
	Sado-seki	27.9	17.7	19.8	20.8	18.6	18.2	19.7	21.8	13.9	12.7	10.9	12.6	13.6	18.6	6.91
	Happo	14.7	10.7	8.00	9.15	13.3	10.0	9.77	8.14	8.18	7.96	6.31	7.26	5.50	5.53	6.34
	Ijira	35.7	23.0	17.3	18.0	20.5	17.9	19.3	20.0	17.5	18.3	12.1	16.4	11.4	8.72	10.4
	Oki	25.0	19.4	21.8	18.8	26.4	24.6	22.2	19.1	13.4	14.9	13.6	15.4	14.6	7.38	*
	Banryu	29.3	22.1	19.8	21.8	33.5	22.8	27.9	22.2	15.4	17.1	13.5				
	Yusuhara	21.6	17.2	16.2	11.7	16.8	16.7	13.2	13.5	14.2	31.1	10.0	10.8	11.4	7.15	10.8
	Hedo	10.0	7.81	6.34	12.5	7.49	10.9	9.55	7.17	6.72	9.90	7.96	10.5	8.57	20.8	5.72
	Ogasawara	10.0	6.79	5.68	4.98	4.63	5.65	8.38	5.89	7.98	6.09	5.96	5.87	10.6	5.17	6.79
	Tokyo	24.8	17.7	11.2	14.9	14.4	8.83	14.8	16.3	11.4	12.7	11.8	9.99	7.95	6.71	6.74
	Niigata-maki												13.7	11.3	10.1	9.95
	Tsushima												10.2	11.9	13.0	7.57
Lao PDR	Vientiane	0.987	3.31	***	***	0.351	***	0.288	1.15	0.171	*	*	*	***	***	***
Malaysia	Petaling Jaya	37.2	45.2	54.4	69.4	61.4	38.0	38.2	40.8	54.9	30.9	31.6	***	22.4	20.8	29.7
	Tanah Rata	8.01	8.31	8.64	9.76	10.9	11.2	13.9	19.1	14.1	13.9	13.7	***	12.7	***	7.97
	Danum Valley	6.02	6.00	5.99	6.20	6.58	5.33	4.87	6.15	5.56	6.08	4.97	***	6.04	5.78	6.85
	Kuching	5.55	5.47	5.25	3.73	4.84	5.17	4.60	4.88	7.14	6.10	5.62	***	2.51	4.52	2.62
	Gunung Brinchang														5.59	***
Mongolia	Ulaanbaatar	0.521	0.777	1.33	3.64	1.31	1.04	***	0.379	9.54	2.95	1.73	3.25	1.12	2.08	7.06
	Terelj	3.72	0.608	2.44	5.47	1.81	12.3	***	3.14	6.47	9.14	1.56	***	0.564	2.00	6.77
Myanmar	Yangon	0.392	0.346	0.384	0.347	0.323	0.352	0.199	0.216	0.178	0.204	0.264	0.294	0.550	0.182	0.126
Philippines	Metro Manila	2.84	5.87	2.25	2.27	6.03	2.85	0.736	0.528	3.05	***	***	3.94	2.50	10.0	11.6
	Los Baños	11.2	2.64	1.32	2.70	2.19	1.41	1.61	0.508	19.3	***	***	***	***	***	14.8
	Mt.Sto.Tomas	3.22	1.47	0.201	4.46	1.12	5.18	0.724	1.10	0.345	***	***	***	***	***	2.25
Republic of Korea	Kanghwa	28.4	25.9	39.0	23.0	24.4	26.3	13.4	20.2	16.4	36.4	13.2	20.9	***	5.59	3.75
	Cheju	21.5	7.79	9.19	6.80	4.95	4.18	1.61	2.15	7.94	5.27	1.36	2.53	***	2.04	3.27
	Imsil	13.1	8.06	13.5	5.42	7.82	6.01	5.17	8.04	3.15	5.04	2.00	4.60	***	0.655	0.261
Russia	Mondy	6.72	3.33	2.80	2.90	2.37	4.83	4.65	3.58	4.31	4.86	6.50	3.93	3.97	2.34	4.18
	Listvyanka	23.2	14.4	17.6	18.8	16.7	15.9	12.6	14.7	12.5	17.0	17.9	18.6	15.7	14.0	12.7
	Irkutsk	17.1	3.89	7.41	9.51	11.6	9.81	8.65	6.15	11.8	11.4	14.0	15.3	14.0	10.9	7.10
	Primorskaya	16.3	10.5	10.7	23.4	8.55	8.80	3.41	6.90	3.97	2.07	1.49	3.65	0.990	2.77	1.70
Thailand	Bangkok	5.29	8.07	8.48	8.97	2.08	2.52	0.0943	5.09	2.91	1.08	0.902	0.863	1.70	***	1.44
	Samutprakarn	5.08	7.40	4.82	1.27	0.679	1.06	0.310	2.53	3.57	1.37	3.01	1.76	0.880	***	1.73
	Pathumthani	9.24	7.05	5.82	9.99	3.60	3.90	3.09	5.12	4.01	4.55	7.57	3.47	1.89	3.26	3.73
	Khanchanaburi	2.19	2.18	2.03	3.21	0.964	4.72	1.61	3.44	1.04	1.72	1.73	0.835	***	***	***
	Mae Hia	1.04	1.20	0.676	5.14	0.789	0.909	0.527	2.28	2.49	2.77	3.07	7.04			
	Sakaerat	9.31	13.6	17.8	9.95	8.58	5.70	15.0	9.26	5.47	3.84	7.28	6.23			
Vietnam	Hanoi	1.43	2.15	1.16	5.03	2.39	2.21	1.83	0.649	2.52	0.292	3.04	11.2	0.650	2.28	3.16
	HoaBinh	3.25	5.13	4.26	3.65	2.35	0.911	3.60	5.07	2.31	6.02	5.51	4.94	1.87	3.49	3.77
	Cuc Phuong		10.3	5.88	9.09	3.68	3.77	3.00	4.78	1.57	8.43	3.57	3.51	5.64	0.744	2.18
	Da Nang		16.8	7.71	10.4	3.66	2.62	3.01	1.05	1.10	1.36	1.64	0.709	0.712	1.62	1.72
	Can Tho							0.550	1.68	1.43	1.08	1.34	1.18	1.41	1.09	1.15
	Ho Chi Minh							1.42	0.775	1.75	0.861	0.773	1.08	1.08	0.835	0.790
	Yen Bai								5.90	6.63	6.40	4.48	15.3	1.70	2.60	8.54

Terms and abbreviations are given in Table 3.5.

Table 3.84 Precipitation amount-weighted annual average pH from 2008 to 2022

Country	Name of sites	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Cambodia	PhnomPenh	5.84	6.19	5.97	5.96	6.16	6.18	6.21	6.14	6.41	6.18	***	***	***	***	***
China	Haifu	4.20	4.22	4.15	4.18	4.24	4.52	4.92	5.42	6.18	5.83	5.29	5.43	5.47	5.53	5.77
	Jinyunshan	4.36	4.33	3.94	4.04	4.09	4.20	4.39	4.70	4.97	5.15	4.85	4.76	4.76	5.05	5.13
	Shizhan	6.40	6.53	6.68	6.27	6.26	6.93	6.61	6.66	6.69	6.59	6.77	6.82	6.92	7.13	7.13
	Jiwozi	6.94	6.10	5.54	5.95	7.12	6.20	6.98	6.91	6.63	6.69	6.79	6.76	6.57	6.24	6.08
	Hongwen	4.59	4.52	4.57	4.65	4.51	4.88	5.08	4.90	4.92	5.34	5.64	6.07	6.41	5.33	5.25
	Xiaoping	4.55	4.47	4.58	4.82	4.80	5.00	4.71	4.95	4.73	5.90	4.84	4.73	4.76	4.87	4.86
	Xiang Zhou	4.93	4.87	4.85	5.05	5.11	5.23	5.00	5.56	5.17	4.98	5.06	4.95	5.09	5.22	5.21
	Zhuxiandong	4.88	4.75	4.95	4.78	***	***	***	5.48	5.16	5.07	5.16	5.02	5.17	5.45	5.20
	Wuzhishan												5.94	5.89	6.21	6.16
	Lijiang												6.28	6.43	6.62	6.47
Indonesia	Jakarta	4.65	4.63	4.73	4.55	4.76	4.77	4.71	4.84	4.95	4.89	4.69	4.83	5.19	4.90	4.79
	Serpong	4.62	4.71	4.76	4.70	4.91	5.06	5.14	4.94	5.18	5.20	5.21	4.98	5.13	5.47	5.12
	Kototabang	5.22	4.65	4.80	5.04	5.01	4.97	4.82	4.91	5.30	5.20	5.31	5.38	5.32	5.59	5.59
	Bandung	5.17	5.30	5.10	5.40	5.46	5.40	5.21	5.36	5.08	5.25	5.66	6.02	5.97	5.49	5.31
	Maros	5.63	5.33	5.21	5.35	5.62	5.47	5.23	5.24	5.24	5.31	5.38	4.94	5.40	6.25	5.99
	Jembrana												5.36	5.16	4.91	4.93
	Lombok												5.59	5.39	5.29	4.89
Japan	Rishiri	4.91	4.74	4.73	4.70	4.70	4.67	4.73	4.77	4.90	4.76	4.87	4.82	4.99	5.06	5.03
	Ochiishi	4.87	5.02	4.83	4.88	4.82	5.03	5.11	5.00	5.19	5.13	5.14	5.12	5.11	4.90	*
	Tappi	4.59	4.74	4.69	4.61	4.69	4.80	4.66	4.85	4.82	4.74	4.96				
	Sado-seki	4.55	4.75	4.70	4.68	4.73	4.74	4.70	4.66	4.86	4.90	4.96	4.90	4.87	4.73	5.16
	Happo	4.83	4.97	5.10	5.04	4.88	5.00	5.01	5.09	5.09	5.10	5.20	5.14	5.26	5.26	5.20
	Ijira	4.45	4.64	4.76	4.75	4.69	4.75	4.71	4.70	4.76	4.74	4.92	4.79	4.94	5.06	4.98
	Oki	4.60	4.71	4.66	4.73	4.58	4.61	4.65	4.72	4.87	4.83	4.87	4.81	4.84	5.13	*
	Banryu	4.53	4.66	4.70	4.66	4.48	4.64	4.55	4.65	4.81	4.77	4.87				
	Yusuhara	4.67	4.77	4.79	4.93	4.77	4.78	4.88	4.87	4.85	4.51	5.00	4.97	4.94	5.15	4.97
	Hedo	5.00	5.11	5.20	4.90	5.13	4.96	5.02	5.14	5.17	5.00	5.10	4.98	5.07	4.68	5.24
	Ogasawara	5.00	5.17	5.25	5.30	5.33	5.25	5.08	5.23	5.10	5.22	5.23	5.23	4.97	5.29	5.17
	Tokyo	4.60	4.75	4.95	4.83	4.84	5.05	4.83	4.79	4.94	4.90	4.93	5.00	5.10	5.17	5.17
	Niigata-maki												4.86	4.95	5.00	5.00
	Tsushima												4.99	4.92	4.89	5.12
Lao PDR	Vientiane	6.01	5.48	***	***	6.46	***	6.54	5.94	6.77	*	*	*	***	***	***
Malaysia	Petaling Jaya	4.43	4.35	4.26	4.16	4.21	4.42	4.42	4.39	4.26	4.51	4.50	***	4.65	4.68	4.53
	Tanah Rata	5.10	5.08	5.06	5.01	4.96	4.95	4.86	4.72	4.85	4.86	4.86	***	4.90	***	5.10
	Danum Valley	5.22	5.22	5.22	5.21	5.18	5.27	5.31	5.21	5.25	5.22	5.30	***	5.22	5.24	5.16
	Kuching	5.26	5.26	5.28	5.43	5.32	5.29	5.34	5.31	5.15	5.21	5.25	***	5.60	5.34	5.58
	Gunung Brinchang														5.25	***
Mongolia	Ulaanbaatar	6.28	6.11	5.88	5.44	5.88	5.98	***	6.42	5.02	5.53	5.76	5.49	5.95	5.68	5.15
	Terelj	5.43	6.22	5.61	5.26	5.74	4.91	***	5.50	5.19	5.04	5.81	***	6.25	5.70	5.17
Myanmar	Yangon	6.41	6.46	6.42	6.46	6.49	6.45	6.70	6.66	6.75	6.69	6.58	6.53	6.26	6.74	6.90
Philippines	Metro Manila	5.55	5.23	5.65	5.64	5.22	5.55	6.13	6.28	5.52	***	***	5.40	5.60	5.00	4.93
	Los Baños	4.95	5.58	5.88	5.57	5.66	5.85	5.79	6.29	4.71	***	***	***	***	***	4.83
	Mt.Sto.Tomas	5.49	5.83	6.70	5.35	5.95	5.29	6.14	5.96	6.46	***	***	***	***	***	5.65
Republic of Korea	Kanghwa	4.55	4.59	4.41	4.64	4.61	4.58	4.87	4.69	4.79	4.44	4.88	4.68	***	5.25	5.43
	Cheju	4.67	5.11	5.04	5.17	5.31	5.38	5.79	5.67	5.10	5.28	5.87	5.60	***	5.69	5.49
	Imsil	4.88	5.09	4.87	5.27	5.11	5.22	5.29	5.09	5.50	5.30	5.70	5.34	***	6.18	6.58
Russia	Mondy	5.17	5.48	5.55	5.54	5.62	5.32	5.33	5.45	5.37	5.31	5.19	5.41	5.40	5.63	5.38
	Listvyanka	4.63	4.84	4.76	4.73	4.78	4.80	4.90	4.83	4.90	4.77	4.75	4.73	4.80	4.85	4.90
	Irkutsk	4.77	5.41	5.13	5.02	4.93	5.01	5.06	5.21	4.93	4.94	4.86	4.82	4.85	4.96	5.15
	Primorskaya	4.79	4.98	4.97	4.63	5.07	5.06	5.47	5.16	5.40	5.69	5.83	5.44	6.00	5.56	5.77
Thailand	Bangkok	5.28	5.09	5.07	5.05	5.68	5.60	7.03	5.29	5.54	5.97	6.04	6.06	5.77	***	5.84
	Samutprakarn	5.29	5.13	5.32	5.90	6.17	5.98	6.51	5.60	5.45	5.86	5.52	5.75	6.06	***	5.76
	Pathumthani	5.03	5.15	5.24	5.00	5.44	5.41	5.51	5.29	5.40	5.34	5.12	5.46	5.72	5.49	5.43
	Khanchanaburi	5.66	5.66	5.69	5.49	6.02	5.33	5.79	5.46	5.98	5.76	5.76	6.08	***	***	***
	Mae Hia	5.98	5.92	6.17	5.29	6.10	6.04	6.28	5.64	5.60	5.56	5.51	5.15			
	Sakaerat	5.03	4.87	4.75	5.00	5.07	5.24	4.82	5.03	5.26	5.42	5.14	5.21			
Vietnam	Hanoi	5.84	5.67	5.93	5.30	5.62	5.66	5.74	6.19	5.60	6.53	5.52	4.95	6.19	5.64	5.50
	HoaBinh	5.49	5.29	5.37	5.44	5.63	6.04	5.44	5.29	5.64	5.22	5.26	5.31	5.73	5.46	5.42
	Cuc Phuong		4.99	5.23	5.04	5.43	5.42	5.52	5.32	5.81	5.07	5.45	5.45	5.25	6.13	5.66
	Da Nang		4.77	5.11	4.98	5.44	5.58	5.52	5.98	5.96	5.87	5.78	6.15	6.15	5.79	5.76
	Can Tho							6.26	5.77	5.84	5.97	5.87	5.93	5.85	5.96	5.94
	Ho Chi Minh							5.85	6.11	5.76	6.06	6.11	5.96	5.96	6.08	6.10
	Yen Bai								5.23	5.18	5.19	5.35	4.82	5.77	5.59	5.07

Terms and abbreviations are given in Table 3.5.

Table 3.85 Precipitation amount-weighted annual average EC from 2008 to 2022

unit: mS m^{-1}

Country	Name of sites	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Cambodia	PhnomPenh	1.53	0.880	0.747	0.820	0.704	0.665	0.676	0.691	0.705	0.747	***	***	***	***	***
China	Haifu	6.46	5.14	6.71	6.55	5.33	5.26	3.94	2.70	3.00	2.71	2.83	2.27	1.86	1.85	1.83
	Jinyunshan	5.13	5.27	8.07	7.09	6.56	4.81	3.65	2.50	2.44	2.38	2.65	2.43	2.20	1.71	1.77
	Shizhan	7.96	5.80	5.63	4.31	6.51	6.97	4.37	5.06	3.69	3.53	3.28	3.02	3.43	3.57	6.32
	Jiwozi	8.46	3.73	1.67	3.04	5.39	3.61	4.29	2.32	1.05	2.64	2.09	5.58	2.21	1.41	1.21
	Hongwen	2.15	2.25	2.05	2.18	2.67	1.63	1.89	1.59	2.33	2.21	2.07	3.18	7.26	2.42	1.15
	Xiaoping	2.09	2.26	2.06	1.82	1.67	1.46	2.15	1.43	1.28	0.996	1.29	1.56	1.41	1.35	1.03
	Xiang Zhou	1.84	1.99	1.74	1.84	1.76	1.15	1.94	1.65	1.50	1.85	2.09	1.46	1.24	0.905	0.968
	Zhuxiandong	1.94	2.15	1.37	1.99	***	***	***	2.29	2.01	1.45	2.38	1.53	1.49	1.02	1.09
	Wuzhishan												0.733	0.613	0.525	0.573
	Lijiang												1.50	0.418	0.366	0.536
Indonesia	Jakarta	1.78	1.66	1.90	2.17	1.39	1.59	1.67	1.26	2.03	1.27	2.52	1.82	1.27	1.81	1.71
	Serpong	2.10	1.66	1.95	2.31	2.05	2.16	1.89	2.26	1.85	1.82	2.30	2.46	2.03	2.00	1.98
	Kototabang	0.556	0.766	0.903	0.742	0.791	0.927	1.10	104	0.790	0.402	0.429	0.671	0.499	0.507	0.348
	Bandung	1.58	1.62	1.43	1.90	1.60	1.86	2.14	1.71	1.79	1.88	1.88	2.37	1.96	1.59	1.81
	Maros	0.623	1.06	0.718	0.576	0.885	0.970	1.00	2.10	3.03	1.65	0.664	1.04	0.692	0.659	0.559
	Jembrana												0.898	1.78	1.79	1.29
	Lombok												1.10	1.03	0.968	3.77
Japan	Rishiri	4.86	4.10	3.77	3.50	5.54	4.25	3.56	3.16	1.92	4.47	3.78	4.00	3.13	4.36	3.48
	Ochiishi	3.33	3.31	4.65	3.28	4.96	7.10	2.14	3.29	2.42	4.02	1.64	1.58	2.52	4.51	*
	Tappi	4.32	3.78	2.80	3.64	3.45	4.76	3.62	3.97	3.32	3.91	3.16				
	Sado-seki	4.28	5.65	5.08	3.57	4.88	5.98	5.58	6.15	3.47	3.11	2.86	4.15	3.17	27.9	3.64
	Happo	1.03	0.860	0.597	0.666	1.07	0.764	0.744	0.680	0.616	0.569	0.560	0.595	0.494	0.541	0.530
	Ijira	2.18	1.65	1.33	1.46	1.65	1.42	1.47	1.49	1.33	1.32	0.959	1.19	1.00	0.866	1.08
	Oki	6.60	7.16	7.56	8.76	6.72	9.41	9.58	7.57	6.08	7.96	6.96	3.51	4.37	5.93	*
	Banryu	3.10	3.02	2.88	3.13	3.44	2.48	3.11	2.82	2.39	2.46	1.85				
	Yusuhara	1.14	1.15	1.06	0.870	1.24	1.06	0.789	1.11	0.972	2.68	0.804	0.870	0.839	0.763	1.21
	Hedo	2.61	2.44	4.59	3.87	7.27	4.24	2.68	5.28	3.41	6.15	3.00	2.66	4.16	19.7	2.42
	Ogasawara	1.86	3.27	3.58	3.70	2.26	2.86	2.62	5.30	1.87	3.25	1.02	3.15	1.39	2.80	2.76
	Tokyo	1.96	1.66	1.18	1.88	1.75	1.33	1.46	1.40	1.04	1.60	1.43	1.66	0.997	0.941	1.02
	Niigata-maki												3.87	2.58	3.67	4.03
	Tsushima												1.23	1.40	1.46	2.29
Lao PDR	Vientiane	0.644	0.534	***	***	0.411	***	0.867	1.26	0.730	*	*	*	***	***	***
Malaysia	Petaling Jaya	1.98	2.46	2.90	3.43	3.10	2.43	2.50	2.61	2.95	1.92	2.17	***	1.58	1.50	1.90
	Tanah Rata	0.471	0.544	0.550	0.822	0.780	0.734	0.875	1.10	0.813	0.798	0.808	***	1.01	***	0.569
	Danum Valley	0.461	0.445	0.552	0.440	0.416	0.410	0.419	0.513	0.360	0.339	0.433	***	0.707	0.506	0.504
	Kuching	0.443	0.521	0.500	0.547	0.489	0.549	1.02	0.635	0.683	0.588	0.612	***	0.730	0.630	0.487
	Gunung Brinchang														0.481	***
Mongolia	Ulaanbaatar	1.92	1.76	1.53	1.74	1.71	2.54	***	2.86	3.52	1.26	1.40	7.89	2.09	2.10	4.24
	Terelj	1.34	2.06	1.88	1.54	1.33	1.94	***	2.80	3.27	1.38	1.19	***	2.37	4.04	5.11
Myanmar	Yangon	0.949	1.54	1.34	0.682	1.30	0.813	0.914	1.46	1.37	0.504	0.644	0.910	1.19	0.807	1.38
Philippines	Metro Manila	2.88	1.24	1.89	3.76	4.81	1.53	1.92	2.53	3.02	***	***	1.20	1.01	1.33	1.25
	Los Baños	1.76	0.802	1.22	1.18	1.74	1.02	1.45	3.34	2.25	***	***	***	***	***	1.21
	Mt.Sto.Tomas	0.347	0.495	0.533	0.355	0.500	0.558	0.460	0.464	0.527	***	***	***	***	***	0.520
Republic of Korea	Kanghwa	2.72	2.88	2.46	2.34	2.76	2.66	2.41	4.29	1.80	2.44	1.67	4.74	***	1.62	1.23
	Cheju	3.47	2.20	2.32	3.07	7.05	5.55	2.42	2.31	7.07	5.00	4.74	2.37	***	5.13	15.1
	Imsil	1.75	1.98	1.89	1.58	2.58	1.47	1.39	1.98	1.23	1.69	1.07	1.31	***	1.96	1.82
Russia	Mondy	0.727	0.621	0.653	0.566	0.864	0.420	0.480	0.588	0.409	0.659	0.576	0.469	0.330	0.802	0.441
	Listvyanka	1.58	1.31	1.41	1.63	1.51	1.25	1.20	1.50	1.11	1.54	1.43	1.32	1.14	1.14	1.20
	Irkutsk	2.48	2.18	2.05	2.16	2.16	2.08	1.59	2.55	1.47	1.62	1.90	1.65	1.54	1.51	1.68
	Primorskaya	2.58	1.48	1.96	2.64	1.56	1.89	1.63	1.75	1.58	2.06	1.53	1.36	1.56	1.85	2.02
Thailand	Bangkok	1.54	1.38	1.31	1.24	1.26	1.35	1.10	1.35	1.34	0.821	1.64	1.36	0.891	***	0.958
	Samutprakarn	1.66	1.48	1.13	0.667	0.902	1.20	1.00	0.921	0.880	0.799	1.05	1.01	0.845	***	0.681
	Pathumthani	1.19	1.07	0.975	1.27	1.17	1.08	0.998	1.34	1.38	1.19	1.24	1.24	0.798	1.03	0.944
	Khanchanaburi	0.496	0.511	0.249	0.585	0.817	0.326	0.506	0.438	0.379	0.421	0.382	0.421	***	***	***
	Mae Hia	0.622	0.608	0.519	0.442	0.512	0.682	0.803	0.561	0.825	0.736	0.526	0.939			
	Sakaerat	0.833	0.981	0.992	0.796	0.756	0.789	1.46	0.856	0.848	0.566	0.870	0.800			
Vietnam	Hanoi	1.11	1.41	1.72	1.60	1.56	1.52	1.99	2.21	1.93	2.08	2.47	3.68	4.28	2.21	3.87
	HoaBinh	0.918	1.10	1.39	1.02	0.940	1.10	1.35	1.22	1.45	1.27	1.22	1.06	2.11	1.90	1.17
	Cuc Phuong		1.74	1.71	1.98	1.73	1.80	1.28	1.42	1.37	1.52	1.10	1.69	1.51	2.22	2.10
	Da Nang		2.53	1.46	2.37	2.10	3.46	1.85	1.82	1.74	2.47	2.41	5.02	4.72	2.63	4.03
	Can Tho							1.10	1.92	1.20	1.06	1.27	1.35	1.34	1.21	1.28
	Ho Chi Minh							2.00	2.85	1.33	1.68	1.35	1.78	1.64	1.61	1.65
	Yen Bai								1.31	2.47	1.55	1.49	1.90	2.90	2.10	1.59

Terms and abbreviations are given in Table 3.5.

Table 3.86 Annual SO_4^{2-} deposition amount from 2008 to 2022

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

Country	Name of sites	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Cambodia	Phnom Penh	21.3	15.4	13.6	11.5	17.0	10.7	9.78	7.76	6.85	15.6	***	***	***	***	***
China	Haifu	145	106	136	115	103	109	120	61.3	59.5	49.8	46.1	41.0	33.0	34.7	24.1
	Jinyunshan	146	125	148	119	125	91.7	90.0	56.5	48.6	46.3	33.9	36.6	38.0	37.3	24.0
	Shizhan	73.6	80.5	45.8	72.5	42.9	62.0	70.1	49.1	25.9	41.8	22.1	14.1	19.5	28.7	25.0
	Jiwozi	63.6	58.7	36.8	60.7	36.9	34.1	39.4	14.1	7.18	18.2	14.5	36.4	6.75	15.6	7.17
	Hongwen	29.9	19.2	40.8	26.4	29.7	30.7	30.4	18.8	40.4	17.1	17.3	46.4	9.74	9.75	6.72
	Xiaoping	58.3	32.0	41.4	38.1	30.2	44.9	40.3	27.0	25.4	9.85	11.0	12.9	9.26	9.34	6.28
	Xiang Zhou	46.5	36.6	36.7	19.5	22.6	46.3	23.9	16.6	37.6	26.9	25.0	20.2	15.5	14.4	13.8
	Zhuxiandong	49.6	33.2	31.6	23.4	***	***	***	37.2	42.6	25.7	33.1	24.8	22.5	19.1	16.0
	Wuzhishan												10.1	3.50	3.11	4.04
	Lijiang												0.234	36.9	1.34	1.85
Indonesia	Jakarta	38.9	30.2	46.4	28.4	56.0	51.0	70.4	48.0	61.4	22.6	59.4	38.1	45.8	57.4	40.2
	Serpong	65.9	31.0	34.8	27.9	26.0	61.6	66.9	55.8	76.0	81.5	71.0	74.3	82.4	68.6	76.5
	Kototabang	7.21	12.5	15.0	17.1	16.0	13.2	21.3	20.8	12.3	10.9	16.2	14.0	12.2	14.3	10.0
	Bandung	65.4	78.3	70.3	47.1	55.2	72.1	78.8	60.6	86.1	67.3	55.6	72.8	44.0	54.3	65.9
	Maros	16.3	22.5	28.9	30.0	21.5	26.0	20.9	15.3	20.6	14.6	19.4	11.6	8.26	8.55	22.5
	Jembrana												14.8	20.1	22.0	22.5
	Lombok												18.6	15.0	19.7	50.7
Japan	Rishiri	24.3	27.4	25.1	26.1	32.6	27.1	20.7	19.9	15.3	23.1	24.4	15.6	22.7	23.2	20.1
	Ochiishi	13.7	26.3	24.9	12.4	22.0	34.4	10.9	16.8	14.5	15.1	10.9	7.39	8.29	29.0	*
	Tappi	23.3	30.9	33.1	31.5	26.2	35.4	31.7	27.5	27.5	24.9	28.8				
	Sado-seki	31.6	34.2	44.2	34.0	38.6	52.7	45.1	30.1	21.4	24.7	24.6	22.2	25.3	179	19.8
	Happo	18.0	23.8	16.0	21.5	23.2	23.6	19.6	15.8	12.5	14.5	13.1	14.5	10.7	12.4	9.43
	Ijira	41.0	44.2	42.6	39.8	38.9	33.6	36.6	36.8	34.1	29.4	27.7	27.5	25.0	25.6	31.3
	Oki	39.5	42.4	59.3	70.0	49.1	65.6	50.4	38.6	48.2	40.4	45.9	23.0	35.6	51.1	*
	Banryu	32.7	36.3	30.8	30.1	31.2	35.0	32.7	26.7	30.9	23.8	19.3				
	Yusuhara	22.4	24.1	23.9	23.9	32.8	22.5	24.4	19.9	20.8	51.3	21.2	20.1	19.2	14.0	19.7
	Hedo	27.8	25.9	55.3	36.3	88.5	35.8	34.9	42.1	31.9	45.5	33.6	32.0	37.5	226	31.5
	Ogasawara	15.0	27.7	27.9	20.4	16.0	17.1	18.5	32.9	11.0	21.1	3.83	23.9	12.6	22.1	22.4
	Tokyo	36.5	27.6	18.1	22.0	25.5	19.7	25.1	19.2	15.1	14.5	13.7	18.0	11.7	12.8	12.4
	Niigata-maki												31.6	30.1	31.7	32.4
	Tsushima												25.8	25.1	22.9	18.5
Lao PDR	Vientiane	8.43	0.733	***	***	3.19	***	***	2.94	2.61	*	*	*	***	***	***
Malaysia	Petaling Jaya	65.6	39.2	60.3	81.2	58.0	63.6	79.2	80.3	69.4	42.2	59.6	***	40.9	36.1	44.8
	Tanah Rata	12.9	10.0	7.96	16.6	13.1	13.2	17.9	18.4	9.28	10.7	11.0	***	14.7	***	8.69
	Danum Valley	7.46	9.56	12.0	7.42	6.75	10.1	7.35	7.17	4.92	7.99	8.01	***	16.9	9.00	5.43
	Kuching	17.8	17.6	16.6	18.9	17.7	20.6	26.1	20.7	23.0	15.3	16.3	***	30.8	12.7	9.49
	Gunung Brinchang														1.22	***
Mongolia	Ulaanbaatar	4.33	4.53	3.39	4.59	***	8.71	***	18.3	20.7	5.54	5.48	11.7	6.27	17.5	*
	Terelj	3.40	1.83	3.96	3.40	***	4.40	***	10.4	15.1	1.42	3.98	***	5.60	53.2	*
Myanmar	Yangon	***	24.1	10.3	20.9	19.2	21.4	13.1	11.2	20.0	32.6	23.8	26.0	14.0	11.0	19.4
Philippines	Metro Manila	59.2	51.3	54.2	68.3	108	52.9	47.3	47.4	54.7	***	***	24.1	28.8	45.9	45.5
	Los Baños	34.2	25.6	15.3	20.4	26.5	15.8	18.9	21.0	27.0	***	***	***	***	***	33.0
	Mt.Sto.Tomas	17.6	23.8	17.8	21.6	41.6	33.8	16.8	24.5	24.4	***	***	***	***	***	2.37
Republic of Korea	Kanghwa	43.2	37.0	41.3	40.1	20.3	32.4	12.5	17.3	15.8	13.8	8.93	13.2	***	10.3	10.6
	Cheju	22.1	26.3	19.4	27.4	43.9	25.9	20.5	25.1	48.3	22.6	24.3	16.7	***	37.8	19.5
	Imsil	17.9	21.0	32.0	30.9	27.2	22.6	16.7	14.5	11.6	14.2	12.4	16.8	***	8.94	12.9
Russia	Mondy	1.47	0.929	0.613	0.333	0.753	1.18	0.675	0.877	0.696	1.23	1.58	0.853	0.212	0.358	0.269
	Listvyanka	8.33	6.02	6.76	10.6	7.33	5.02	4.85	7.04	4.74	7.09	4.77	8.32	5.92	9.12	5.73
	Irkutsk	20.3	13.4	12.6	11.3	16.8	10.1	9.02	12.3	11.4	12.9	13.7	11.3	10.9	15.4	9.69
	Primorskaya	22.5	19.5	21.5	8.70	19.1	21.1	20.6	24.7	22.2	21.7	30.6	16.4	21.2	15.9	26.3
Thailand	Bangkok	32.0	26.3	24.3	23.2	19.3	9.42	8.52	12.0	23.1	27.1	17.3	7.29	13.5	***	10.8
	Samutprakarn	27.2	30.0	29.3	16.1	9.73	8.55	9.52	10.4	21.3	16.2	15.1	9.55	8.07	***	10.5
	Pathumthani	17.8	11.7	14.1	14.8	12.4	11.1	8.71	12.4	10.9	12.2	9.47	8.64	7.98	7.90	12.2
	Khanchanaburi	7.41	7.19	2.91	9.93	8.89	1.84	3.51	2.56	10.4	3.92	2.65	1.91	***	***	***
	Mae Hia	6.38	4.52	3.88	5.23	5.28	5.92	4.42	3.07	4.06	7.67	3.41	5.34			
	Sakaerat	12.7	8.11	11.5	7.99	7.48	10.8	4.61	9.04	7.51	8.34	10.9	8.02			
Vietnam	Hanoi	45.8	44.1	43.8	55.7	51.8	50.4	65.3	50.3	59.5	71.7	84.6	87.5	136	79.5	173
	Hoa Binh	26.9	21.8	36.1	31.7	32.7	39.6	32.9	32.3	37.9	35.9	61.4	22.9	86.1	70.8	43.7
	Cuc Phuong		41.9	33.7	69.7	49.0	51.1	31.5	27.5	32.3	36.1	34.0	35.5	38.0	31.1	41.7
	Da Nang		55.6	27.6	76.7	32.9	56.1	35.0	21.6	31.9	37.0	36.2	52.7	34.5	31.5	37.0
	Can Tho							16.1	67.7	26.5	30.9	59.1	61.0	39.7	51.6	58.1
	Ho Chi Minh							46.3	67.6	49.0	80.5	63.5	71.8	60.7	58.0	60.1
	Yen Bai								34.2	79.1	62.9	47.3	38.9	80.6	57.1	46.6

Terms and abbreviations are given in Table 3.5.

Table 3.87 Annual nss-SO_4^{2-} deposition amount from 2008 to 2022

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

Country	Name of sites	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Cambodia	Phnom Penh	15.9	14.9	13.3	11.3	16.6	10.5	9.07	7.35	6.53	15.2	***	***	***	***	***
China	Haifu	145	106	135	115	102	108	119	61.1	59.1	49.5	45.7	40.7	32.7	34.6	23.9
	Jinyunshan	145	124	148	119	125	91.5	89.6	56.4	48.5	46.1	33.8	36.5	37.9	37.2	23.9
	Shizhan	73.0	80.1	45.6	71.8	42.8	58.3	65.4	45.1	24.6	40.8	21.5	13.7	19.0	27.8	24.3
	Jiwozi	61.5	57.8	36.3	60.3	35.8	29.7	35.1	11.6	6.99	17.1	13.7	33.3	6.18	14.4	6.91
	Hongwen	28.6	18.1	39.0	25.5	28.8	29.5	29.1	17.7	37.7	15.9	15.9	46.1	8.82	8.54	5.86
	Xiaoping	55.6	30.9	39.7	37.1	29.5	43.5	39.6	25.9	24.7	9.57	10.7	12.8	8.76	9.01	5.86
	Xiang Zhou	40.6	31.7	34.5	17.0	18.4	38.4	20.9	12.3	34.4	20.9	16.6	17.8	13.0	11.7	10.9
	Zhuxiandong	44.0	28.9	29.4	20.3	***	***	***	30.8	38.3	22.8	21.8	21.7	17.7	15.6	12.5
	Wuzhishan												9.35	3.17	2.63	3.49
	Lijiang												0.207	36.9	1.31	1.81
Indonesia	Jakarta	37.9	29.3	45.4	27.7	53.9	48.8	66.3	45.7	58.9	21.8	57.7	37.2	43.0	55.4	39.2
	Serpong	64.5	30.2	34.1	27.4	25.4	59.6	63.7	54.3	73.5	79.2	68.8	72.1	80.0	65.6	75.1
	Kototabang	6.47	11.6	14.3	16.2	14.4	12.1	20.4	21.6	10.7	10.4	15.7	13.4	11.5	13.7	9.56
	Bandung	64.2	76.4	68.8	46.0	53.8	70.2	77.2	59.5	84.3	65.1	53.2	68.2	42.9	53.5	64.6
	Maros	13.5	20.0	26.7	26.7	18.7	21.3	17.2	14.9	11.0	8.53	16.7	9.75	6.69	7.33	19.6
	Jembrana												12.9	16.0	17.0	18.6
	Lombok												16.4	12.4	17.3	47.1
Japan	Rishiri	12.0	16.2	14.6	15.8	12.3	13.2	10.6	10.7	9.89	11.4	13.3	7.76	12.3	8.60	9.59
	Ochiishi	6.14	9.29	10.5	5.51	7.68	7.60	5.99	7.88	4.98	4.07	5.63	4.02	3.77	15.3	*
	Tappi	13.5	15.4	22.5	21.2	16.3	18.9	20.4	12.9	15.1	12.1	12.9				
	Sado-seki	18.7	14.2	18.3	21.2	19.9	22.0	21.2	13.1	10.9	13.3	12.0	9.48	11.2	51.4	5.18
	Happo	17.6	23.1	15.4	20.9	22.0	22.9	18.8	15.0	11.8	13.6	12.2	14.0	10.1	11.6	8.84
	Ijira	39.0	41.9	39.6	37.2	35.5	31.1	33.8	33.8	31.8	26.8	24.4	25.3	22.2	21.5	26.4
	Oki	18.2	17.0	23.6	25.6	21.2	23.1	15.8	12.3	17.8	11.4	14.1	12.2	14.9	11.3	*
	Banryu	27.2	25.9	22.5	20.8	24.5	26.5	24.8	18.6	21.8	16.0	13.7				
	Yusuhara	21.2	22.6	22.6	21.3	29.4	21.1	23.3	16.1	19.5	43.4	17.7	17.5	17.6	11.0	14.4
	Hedo	13.2	11.0	15.3	14.6	17.9	13.8	14.7	8.88	9.97	9.63	8.21	11.9	10.9	40.4	7.26
	Ogasawara	6.38	8.72	5.60	4.62	5.27	6.31	6.44	3.79	4.72	3.45	1.18	3.92	7.45	3.57	4.91
	Tokyo	34.3	25.1	16.3	18.9	22.6	17.4	23.1	17.4	13.7	11.4	11.0	12.3	10.4	10.6	10.8
	Niigata-maki												15.4	15.8	11.5	11.4
	Tsushima												21.4	20.6	18.2	9.36
Lao PDR	Vientiane	8.14	0.633	***	***	***	***	***	2.79	2.54	*	*	*	***	***	***
Malaysia	Petaling Jaya	64.6	38.4	59.3	80.2	57.3	62.6	78.1	78.9	68.1	41.1	58.4	***	39.6	35.0	43.9
	Tanah Rata	12.6	9.80	7.78	16.2	12.8	12.8	17.4	18.0	8.93	10.2	10.6	***	13.8	***	8.12
	Danum Valley	6.89	8.36	10.2	6.51	6.24	9.15	6.42	6.52	4.36	7.58	7.24	***	15.1	7.50	4.59
	Kuching	16.4	15.6	14.7	16.3	16.5	18.7	24.1	17.3	18.8	13.2	14.3	***	28.2	10.7	7.91
	Gunung Brinchang														1.08	***
Mongolia	Ulaanbaatar	4.22	4.47	3.36	4.53	***	8.00	***	***	19.0	5.32	5.05	11.4	5.65	17.3	*
	Terelj	3.26	1.78	3.86	3.34	***	4.33	***	***	13.5	1.34	3.56	***	5.17	51.9	*
Myanmar	Yangon	***	20.8	8.88	18.0	15.8	19.7	10.1	9.94	18.0	30.0	19.9	22.7	12.1	9.06	17.2
Philippines	Metro Manila	55.7	47.7	50.6	63.6	103	47.0	43.5	43.9	52.0	***	***	21.5	27.3	42.5	41.4
	Los Baños	32.0	22.5	12.5	17.6	23.7	12.5	17.0	19.3	24.7	***	***	***	***	***	31.3
	Mt.Sto.Tomas	16.1	21.5	16.5	20.4	38.1	32.1	15.4	21.3	20.5	***	***	***	***	***	2.30
Republic of Korea	Kanghwa	39.5	33.6	38.8	36.9	18.3	30.8	11.4	15.7	14.3	12.9	7.77	7.71	***	9.04	9.33
	Cheju	15.3	23.0	13.1	17.6	16.9	14.8	12.1	16.2	21.7	11.3	7.82	12.3	***	17.8	7.37
	Imsil	16.3	17.7	27.2	27.5	22.8	20.4	14.7	12.5	9.88	12.5	9.75	14.2	***	6.41	9.83
Russia	Mondy	1.45	0.912	0.598	0.316	0.726	1.15	0.658	0.863	0.678	1.20	1.54	0.832	0.194	0.348	0.263
	Listvyanka	8.27	5.94	6.69	10.4	7.25	4.91	4.77	6.98	4.63	7.03	4.68	8.22	5.81	8.96	5.63
	Irkutsk	20.0	12.9	12.2	11.0	16.5	9.90	8.82	12.1	11.1	12.7	13.5	11.1	10.7	15.1	9.49
	Primorskaya	21.7	18.8	20.5	8.19	17.9	20.0	20.0	23.0	20.8	20.7	29.3	15.4	19.6	14.4	24.6
Thailand	Bangkok	31.0	25.1	23.3	22.4	18.6	8.46	7.96	11.2	22.0	26.6	16.5	6.95	12.2	***	10.2
	Samutprakarn	25.6	28.8	27.2	15.4	9.28	6.94	8.77	9.63	20.3	15.4	14.3	9.03	7.27	***	9.93
	Pathumthani	17.2	11.2	13.5	14.2	11.1	10.7	8.37	12.0	10.4	11.8	9.09	8.32	7.68	7.72	11.9
	Khanchanaburi	6.33	6.05	2.61	9.06	7.49	1.40	3.13	2.19	9.73	3.59	2.16	1.70	***	***	***
	Mae Hia	6.18	4.36	3.69	4.93	5.04	5.49	4.31	2.87	3.74	7.23	3.06	4.97			
	Sakaerat	12.2	7.90	11.1	7.63	7.23	10.5	4.39	8.66	7.25	8.13	10.1	7.36			
Vietnam	Hanoi	44.5	43.2	43.3	55.0	51.4	49.5	64.6	49.6	58.4	69.6	83.3	85.5	133	78.1	169
	Hoa Binh	26.5	21.5	35.7	31.5	32.4	39.1	32.7	31.9	37.5	35.4	61.0	21.8	85.0	69.6	43.1
	Cuc Phuong		40.4	32.5	68.2	46.5	48.0	30.4	26.8	30.8	33.7	31.9	33.3	35.9	26.6	38.3
	Da Nang		38.7	23.4	61.3	27.1	36.0	24.0	12.6	21.1	26.1	25.6	38.8	23.8	20.8	25.9
	Can Tho							14.4	63.8	25.2	29.8	57.5	58.4	37.9	49.4	56.0
	Ho Chi Minh							43.5	64.6	46.9	76.9	61.4	69.0	57.9	55.3	57.5
	Yen Bai								33.7	78.1	62.4	46.9	37.7	79.0	56.2	46.0

Terms and abbreviations are given in Table 3.5.

Table 3.88 Annual NO_3^- deposition amount from 2008 to 2022

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

Country	Name of sites	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Cambodia	Phnom Penh	17.2	13.7	15.5	11.3	17.4	10.3	13.3	11.4	9.78	15.1	***	***	***	***	***
China	Haifu	65.6	56.7	75.9	67.4	74.6	75.8	90.8	57.8	66.4	63.1	63.5	61.4	54.9	54.1	43.2
	Jinyunshan	56.4	59.7	73.4	65.8	70.8	59.9	68.0	46.9	45.6	46.7	41.7	48.8	52.8	54.6	35.6
	Shizhan	15.5	34.1	18.8	11.5	19.4	15.7	61.0	42.7	26.1	14.6	18.1	11.5	10.8	10.7	30.2
	Jiwozi	44.9	17.2	14.1	8.01	18.5	5.69	7.84	12.8	2.05	1.30	8.25	22.0	2.16	4.08	4.42
	Hongwen	21.6	17.2	44.3	19.9	32.5	29.3	29.8	26.6	55.6	23.5	26.5	40.4	15.9	16.8	15.9
	Xiaoping	49.2	33.2	46.0	34.6	34.4	40.9	46.3	38.0	35.7	19.0	21.3	31.7	23.2	22.3	21.5
	Xiang Zhou	34.7	35.5	44.3	19.8	23.1	49.3	34.9	26.9	42.6	34.5	35.3	43.0	40.3	32.9	28.4
	Zhuxiandong	33.9	31.3	36.6	21.5	***	***	***	47.0	52.2	41.5	40.7	51.0	51.4	45.9	33.1
	Wuzhishan												14.1	8.14	7.17	8.10
	Lijiang												2.25	29.6	0.542	2.19
Indonesia	Jakarta	24.1	23.8	36.2	29.5	44.2	50.8	63.4	42.9	67.5	24.7	75.8	38.3	48.3	52.0	37.8
	Serpong	71.8	34.2	42.4	29.5	28.2	91.9	104	85.1	92.8	99.6	102	88.3	93.1	75.4	75.0
	Kototabang	6.93	0.679	5.61	11.1	12.3	6.06	18.7	9.00	8.99	9.21	21.7	16.2	12.9	14.3	10.4
	Bandung	48.4	61.3	46.8	42.8	45.0	51.7	55.3	47.5	61.0	49.7	41.8	60.4	36.9	34.9	42.5
	Maros	10.7	17.4	16.9	27.3	22.2	14.7	16.8	15.6	17.3	8.00	25.1	5.26	5.20	8.19	25.5
	Jembrana												15.3	53.1	62.2	20.0
	Lombok												20.0	13.4	10.6	16.0
Japan	Rishiri	12.1	18.3	15.4	17.4	15.7	15.7	10.6	11.8	13.3	17.5	20.9	12.2	17.6	13.5	16.1
	Ochiishi	6.16	8.57	10.3	7.83	8.54	9.36	7.29	9.54	6.40	5.71	7.92	6.68	5.77	34.0	*
	Tappi	18.5	18.0	27.2	22.7	20.4	27.0	28.8	15.9	21.5	22.0	20.1				
	Sado-seki	24.4	17.2	24.8	27.3	26.0	30.6	27.1	18.0	18.7	23.5	22.2	17.4	17.7	28.9	11.0
	Happo	18.2	20.1	17.1	25.1	23.3	22.1	19.1	15.2	14.2	18.6	17.9	20.0	14.4	18.5	13.4
	Ijira	54.3	52.9	57.9	46.4	47.7	40.2	44.7	52.5	51.6	44.9	38.6	37.9	38.8	42.9	49.8
	Oki	21.5	22.7	35.2	32.6	28.0	33.7	21.4	16.1	24.9	20.8	22.0	20.9	19.9	21.7	*
	Banryu	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	16.2	19.1	19.6	26.1	17.5	17.2	23.0	19.1	68.2	17.6	17.5	16.4	17.0	15.3
	Hedo	13.5	12.7	16.9	13.6	20.3	13.8	16.8	12.4	13.5	14.2	13.1	17.0	13.3	55.4	13.5
	Ogasawara	6.27	5.67	5.70	3.80	4.53	4.83	4.76	3.82	4.47	4.65	2.00	4.25	4.46	4.43	4.84
	Tokyo	45.5	31.3	25.4	30.1	30.7	25.9	30.4	26.7	19.0	17.9	20.0	20.9	19.4	21.5	19.9
	Niigata-maki												25.7	28.7	23.9	22.7
	Tsushima												16.6	27.3	25.1	15.4
Lao PDR	Vientiane	9.95	1.76	***	***	7.34	***	***	3.79	2.90	*	*	*	***	***	***
Malaysia	Petaling Jaya	135	138	174	190	150	119	133	164	151	90.1	140	***	96.1	105	139
	Tanah Rata	17.8	16.0	10.8	7.29	10.8	10.5	13.9	20.5	14.1	23.8	15.2	***	19.2	***	17.4
	Danum Valley	4.11	5.61	3.36	3.99	2.83	6.32	2.10	3.81	2.65	0.545	2.35	***	<0.01	4.01	11.1
	Kuching	21.3	21.2	22.8	23.1	14.5	18.6	19.4	16.0	23.5	17.8	20.0	***	13.5	32.8	7.81
	Gunung Brinchang														2.49	***
Mongolia	Ulaanbaatar	3.12	4.35	3.26	2.75	***	4.76	***	5.20	5.87	4.86	4.16	1.92	7.03	7.45	*
	Terelj	3.77	2.33	3.58	2.59	***	2.89	***	2.41	5.20	4.58	3.81	***	4.68	9.88	*
Myanmar	Yangon	***	21.8	11.3	19.8	21.4	18.1	13.8	20.1	32.5	51.4	29.3	65.5	36.8	32.6	18.0
Philippines	Metro Manila	50.2	32.8	135	52.7	81.4	49.0	42.0	33.5	91.8	***	***	31.0	28.5	33.9	49.9
	Los Baños	15.1	23.2	64.9	19.9	25.0	18.7	17.0	13.7	67.7	***	***	***	***	***	19.9
	Mt.Sto.Tomas	19.9	18.6	15.5	11.8	34.9	37.2	18.5	21.3	25.5	***	***	***	***	***	2.30
Republic of Korea	Kanghwa	48.0	23.9	49.8	40.9	27.2	38.8	15.7	29.7	24.7	24.6	17.9	16.0	***	23.0	19.9
	Cheju	22.3	19.3	22.7	30.0	23.1	19.3	21.8	31.4	35.6	28.4	21.2	31.0	***	31.6	17.8
	Imsil	19.3	23.9	47.6	41.3	36.7	32.0	30.8	24.3	19.0	26.5	24.6	25.1	***	13.5	33.5
Russia	Mondy	1.54	0.938	0.732	0.316	0.841	1.66	0.573	0.718	1.28	1.86	1.92	1.40	0.202	0.194	0.276
	Listvyanka	6.02	5.10	6.59	14.6	6.64	4.37	3.68	5.18	4.73	6.08	3.99	6.88	4.75	5.32	7.17
	Irkutsk	9.02	7.23	8.36	6.81	8.09	4.52	4.77	6.02	6.46	7.22	5.82	6.53	5.44	5.89	5.36
	Primorskaya	18.3	16.1	14.7	23.5	21.6	13.4	4.93	29.4	20.6	22.3	27.0	18.6	14.9	16.1	18.6
Thailand	Bangkok	55.4	58.2	54.1	44.7	49.7	17.2	15.5	25.7	51.8	32.2	43.4	18.0	40.8	***	52.2
	Samutprakarn	30.2	39.7	28.9	20.6	11.9	5.65	12.9	14.4	33.2	28.5	27.5	17.8	15.2	***	37.4
	Pathumthani	35.9	21.8	36.0	30.0	29.3	22.0	15.6	31.2	28.1	38.8	24.2	22.6	25.4	22.2	32.7
	Khanchanaburi	9.85	9.10	6.11	14.1	16.4	2.90	4.58	4.68	5.22	5.83	4.00	2.09	***	***	***
	Mae Hia	11.7	8.88	8.52	11.7	8.78	14.2	6.19	6.24	9.59	12.5	7.25	11.2			
	Sakaerat	19.8	16.0	23.7	15.0	12.6	15.0	10.5	17.8	14.6	17.9	15.4	15.2			
Vietnam	Hanoi	22.1	26.7	25.7	39.5	45.3	51.2	50.9	44.7	47.3	72.1	88.0	100	120	80.8	191
	Hoa Binh	20.2	17.5	21.3	25.4	29.5	37.7	32.8	36.0	35.7	42.1	45.9	37.3	91.8	88.2	40.1
	Cuc Phuong		24.6	38.4	51.5	40.5	31.6	17.4	19.6	22.1	31.4	23.2	33.4	36.3	50.5	99.4
	Da Nang		33.7	11.9	57.5	8.06	12.5	11.7	0.941	7.58	12.1	1.12	4.03	5.94	9.56	11.8
	Can Tho							15.4	25.8	5.52	7.30	8.01	39.7	6.42	10.0	8.57
	Ho Chi Minh							34.2	25.5	18.9	37.2	12.2	41.4	22.2	31.4	33.3
	Yen Bai								27.0	73.2	58.6	54.0	63.0	126	53.4	51.1

Terms and abbreviations are given in Table 3.5.

Table 3.89 Annual Cl⁻ deposition amount from 2008 to 2022

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

Country	Name of sites	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Cambodia	Phnom Penh	15.9	13.6	9.12	7.52	10.8	10.1	14.2	9.94	8.23	8.40	***	***	***	***	***
China	Haifu	13.9	11.7	15.8	11.6	11.5	13.1	15.7	9.48	10.6	9.49	9.93	8.35	8.12	6.84	5.82
	Jinyunshan	18.6	17.7	15.7	10.1	11.7	8.13	8.50	6.56	5.78	6.77	4.18	5.10	5.77	6.55	4.44
	Shizhan	12.9	15.5	10.5	7.07	6.28	22.4	13.1	10.6	5.96	5.15	10.4	6.20	8.54	21.3	9.87
	Jiwozi	14.8	17.5	16.9	10.8	12.2	22.0	13.1	6.35	0.290	8.49	7.94	13.9	7.25	8.02	6.99
	Hongwen	29.5	23.8	23.0	21.5	22.1	27.1	32.3	26.1	55.3	38.6	61.3	74.3	15.6	14.7	15.8
	Xiaoping	37.1	22.8	21.1	26.1	18.8	25.7	18.8	28.8	19.7	14.5	18.9	10.2	11.4	8.94	8.71
	Xiang Zhou	98.1	90.2	41.6	37.5	65.8	112	39.8	86.1	55.3	116	152	48.5	50.1	51.5	54.0
	Zhuxiandong	105	81.2	40.2	21.5	***	***	***	116	78.9	53.3	214	60.5	94.3	66.4	66.2
	Wuzhishan												11.1	7.02	8.57	9.91
	Lijiang												1.72	20.7	1.27	3.60
Indonesia	Jakarta	19.6	18.7	32.7	19.2	35.3	45.1	91.1	48.0	61.6	16.2	36.1	22.3	53.9	42.7	23.3
	Serpong	40.3	23.6	31.9	12.5	21.6	52.8	73.3	39.4	46.8	52.6	50.2	65.7	109	57.4	47.2
	Kototabang	9.62	28.4	23.5	30.5	25.7	57.8	26.4	20.7	72.3	15.3	14.1	12.6	14.1	15.2	10.5
	Bandung	19.4	31.6	22.4	18.9	22.1	36.5	29.8	19.1	26.0	28.7	24.0	36.3	17.3	13.6	21.5
	Maros	60.9	49.7	56.2	58.4	48.9	146	99.9	17.1	304	262	51.8	35.5	47.4	23.0	55.6
	Jembrana												49.8	136	158	93.2
	Lombok												37.9	38.2	41.7	61.1
Japan	Rishiri	222	203	197	192	389	260	190	175	104	219	211	149	196	273	196
	Ochiishi	142	323	288	147	267	514	93.8	166	184	216	99.6	64.6	85.6	260	*
	Tappi	186	290	192	191	191	309	210	315	238	242	305				
	Sado-seki	241	377	481	252	380	559	447	318	199	214	237	240	264	2335	279
	Happo	9.21	15.6	13.1	13.6	23.3	13.0	15.2	15.7	15.7	19.3	18.1	11.0	13.0	17.0	11.8
	Ijira	42.5	47.4	62.4	52.8	70.2	53.2	59.8	62.3	48.0	51.7	66.9	43.6	55.1	80.3	98.5
	Oki	412	489	684	847	532	807	649	502	583	551	619	207	397	754	*
	Banryu	105	197	157	179	125	164	155	157	168	147	108				
	Yusuhara	22.0	28.8	27.3	49.8	66.5	33.4	24.5	83.4	27.4	157	66.8	51.7	31.7	59.7	102
	Hedo	270	278	751	410	1407	424	383	648	429	696	490	391	527	3707	466
	Ogasawara	165	379	391	313	210	210	236	587	122	344	50.7	379	101	358	336
	Tokyo	44.0	48.0	32.1	63.8	58.5	44.5	41.8	36.4	27.6	60.8	51.5	108	25.8	41.9	31.6
	Niigata-maki												320	276	387	413
	Tsushima												85.5	86.1	90.5	178
Lao PDR	Vientiane	12.4	1.12	***	***	5.89	***	***	4.58	3.76	*	*	*	***	***	***
Malaysia	Petaling Jaya	28.1	23.4	32.6	30.2	27.2	27.3	33.0	38.7	35.3	31.3	37.5	***	33.6	33.0	31.0
	Tanah Rata	5.78	6.96	4.67	9.70	9.07	8.19	10.1	10.1	7.82	10.1	10.7	***	12.5	***	10.9
	Danum Valley	18.3	23.0	40.5	21.6	12.3	24.1	18.5	15.1	14.6	13.6	18.1	***	33.3	32.0	18.4
	Kuching	27.2	39.3	37.3	53.2	25.7	36.2	40.4	64.1	81.8	44.0	41.3	***	58.2	48.8	30.8
	Gunung Brinchang														4.02	***
Mongolia	Ulaanbaatar	1.56	2.20	1.30	1.22	***	0.628	***	0.774	0.740	0.569	0.752	0.452	0.743	1.19	*
	Terelj	1.90	1.10	1.37	1.41	***	0.630	***	0.793	1.03	0.913	0.860	***	0.655	2.19	*
Myanmar	Yangon	***	75.3	30.0	49.6	68.3	72.9	56.0	83.6	68.2	99.1	64.1	61.6	50.8	34.9	36.0
Philippines	Metro Manila	68.4	92.9	55.2	109	90.1	101	68.6	68.2	79.0	***	***	55.1	25.9	77.3	34.2
	Los Baños	35.5	72.6	52.3	62.5	45.4	61.7	38.0	143	44.3	***	***	***	***	***	31.1
	Mt.Sto.Tomas	26.6	39.3	18.3	20.3	37.2	31.2	15.3	47.6	24.1	***	***	***	***	***	4.89
Republic of Korea	Kanghwa	70.5	76.2	68.9	71.6	50.5	32.6	26.3	95.0	41.9	32.8	26.6	108	***	25.0	24.6
	Cheju	114	66.1	114	158	545	219	148	159	498	200	303	60.4	***	341	221
	Imsil	31.2	55.5	72.9	37.9	124	27.8	33.8	33.7	25.1	24.4	32.4	31.2	***	37.0	29.6
Russia	Mondy	0.869	0.391	0.306	0.388	0.626	1.22	0.440	0.501	0.369	1.01	0.864	0.355	0.128	0.143	0.0470
	Listvyanka	2.00	0.942	1.12	3.17	1.13	1.62	1.02	1.82	0.975	1.30	0.658	1.80	1.50	1.28	1.04
	Irkutsk	8.39	10.7	8.95	7.23	6.69	5.30	3.82	6.96	4.76	5.13	4.43	4.27	4.38	4.09	2.91
	Primorskaya	14.2	12.7	19.8	41.9	27.5	30.9	16.1	29.4	30.9	23.6	22.0	30.4	25.4	43.1	43.9
Thailand	Bangkok	20.1	15.9	18.9	17.3	15.0	9.63	9.32	11.7	18.1	13.0	16.5	7.46	17.1	***	12.7
	Samutprakarn	22.1	16.8	30.4	16.0	9.45	10.2	11.2	13.9	17.0	15.1	16.0	10.3	14.6	***	12.6
	Pathumthani	11.0	8.18	10.2	10.6	24.9	8.08	8.34	10.7	9.24	10.2	9.23	7.74	8.66	7.69	9.63
	Khanchanaburi	20.1	17.6	5.37	17.2	27.8	4.34	6.75	6.22	9.58	6.97	7.55	4.48	***	***	***
	Mae Hia	5.90	5.16	4.17	4.65	4.59	8.51	2.84	2.89	5.49	7.07	5.89	5.70			
	Sakaerat	10.2	5.81	7.82	7.24	7.17	9.14	4.76	9.68	7.12	6.90	5.74	6.00			
Vietnam	Hanoi	19.8	15.5	13.4	15.6	11.8	19.3	17.2	18.8	18.9	30.3	43.7	32.5	76.1	28.1	87.2
	Hoa Binh	8.35	7.30	8.70	7.58	8.91	12.4	5.53	8.49	11.4	27.6	27.5	14.2	46.3	33.0	20.9
	Cuc Phuong		100	40.2	28.7	41.0	47.9	19.8	31.1	33.1	79.6	76.1	60.9	76.7	71.6	61.9
	Da Nang		325	85.2	340	140	403	206	138	191	182	254	359	524	300	689
	Can Tho							50.4	90.8	60.3	55.6	79.4	56.6	47.8	75.5	68.2
	Ho Chi Minh							85.8	73.9	95.2	164	89.9	83.6	109	99.7	103
	Yen Bai								11.3	25.9	41.4	23.2	22.3	52.8	20.2	29.3

Terms and abbreviations are given in Table 3.5.

Table 3.90 Annual NH_4^+ deposition amount from 2008 to 2022

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

Country	Name of sites	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Cambodia	Phnom Penh	21.6	17.3	41.9	28.0	34.9	18.1	21.7	19.9	24.9	30.7	***	***	***	***	***
China	Haifu	149	112	137	117	118	145	164	116	125	117	115	112	95.3	96.8	85.1
	Jinyunshan	120	121	121	98.8	125	102	105	80.6	80.1	76.1	74.2	73.2	77.0	85.4	61.6
	Shizhan	63.3	99.7	85.6	40.0	42.7	105	106	115	49.0	85.0	59.8	63.3	70.1	57.5	54.1
	Jiwozi	13.8	32.7	20.0	22.5	10.4	36.0	18.6	29.4	1.06	0.544	8.50	19.9	17.1	29.5	7.13
	Hongwen	32.8	34.4	60.9	35.7	39.9	25.7	29.1	29.6	65.9	18.2	24.4	29.1	10.1	20.5	18.8
	Xiaoping	65.9	52.0	65.1	59.6	39.2	50.0	53.0	58.8	45.5	20.0	19.8	20.1	20.6	25.8	13.6
	Xiang Zhou	55.0	44.4	45.4	26.1	44.2	42.9	39.9	27.3	69.4	46.6	50.0	45.1	41.6	34.5	33.4
	Zhuxiandong	42.9	40.5	42.1	28.4	***	***	***	38.9	99.8	46.7	49.8	48.4	45.7	44.1	30.0
	Wuzhishan												22.0	16.6	15.2	14.6
	Lijiang												5.58	2.44	7.75	8.59
Indonesia	Jakarta	43.6	27.6	48.8	33.4	62.9	40.0	55.7	53.2	74.1	31.4	81.9	44.3	73.0	64.8	47.8
	Serpong	112	57.7	74.6	51.6	63.6	193	189	112	163	161	147	148	218	156	172
	Kototabang	18.7	7.15	6.72	21.9	22.4	14.7	30.2	4764	10.7	13.6	21.4	16.6	19.3	25.6	11.0
	Bandung	104	130	83.7	93.0	112	111	113	114	157	120	108	124	91.2	94.4	128
	Maros	26.9	41.2	27.0	33.8	34.5	27.2	19.9	51.4	106	12.0	36.5	4.33	2.71	5.64	33.4
	Jembrana												26.7	32.2	31.4	10.1
	Lombok												27.0	34.3	34.4	208
Japan	Rishiri	19.5	18.7	16.8	17.3	13.3	15.1	12.9	14.5	13.5	20.9	24.2	13.6	23.8	15.8	19.3
	Ochiishi	4.71	13.3	11.6	8.98	10.7	10.3	9.05	9.45	5.70	5.24	7.40	6.26	6.77	34.7	*
	Tappi	15.0	14.0	23.3	19.4	16.3	20.4	27.2	14.5	18.8	17.9	16.9				
	Sado-seki	22.2	12.9	16.2	20.2	20.1	28.6	25.6	16.7	16.0	25.2	17.2	15.5	15.2	21.8	8.02
	Happo	16.6	22.9	15.4	18.6	21.5	23.8	19.8	17.6	11.7	13.5	15.4	21.2	14.5	19.4	15.1
	Ijira	40.6	52.4	46.9	43.4	42.2	36.6	40.8	42.3	45.1	36.4	34.0	35.2	37.4	40.7	50.8
	Oki	17.4	19.1	25.8	28.6	22.0	24.4	14.7	10.2	21.9	17.6	15.8	16.9	15.0	17.1	*
	Banryu	24.3	28.3	31.8	22.5	25.9	27.9	26.2	21.8	27.4	24.0	16.0				
	Yusuhara	16.5	17.1	16.3	16.4	23.0	17.8	17.3	12.3	16.6	56.9	12.7	16.7	16.9	13.4	15.3
	Hedo	12.0	12.7	24.6	16.1	53.5	16.0	20.2	19.4	14.7	11.4	8.39	12.6	15.6	65.3	10.2
	Ogasawara	5.74	8.07	9.82	5.88	8.14	7.64	5.94	4.19	5.59	3.80	1.94	4.61	5.84	3.15	3.68
	Tokyo	55.6	45.3	31.8	35.3	39.8	36.9	41.8	33.0	27.7	23.3	28.1	28.8	30.6	32.4	30.2
	Niigata-maki												24.8	26.3	21.2	22.4
	Tsushima												21.2	30.8	20.4	14.1
Lao PDR	Vientiane	14.0	3.13	***	***	***	***	***	7.17	5.35	*	*	*	***	***	***
Malaysia	Petaling Jaya	77.9	22.5	16.2	17.5	4.40	57.8	102	95.5	44.6	53.3	76.0	***	75.3	71.4	64.0
	Tanah Rata	12.2	16.7	9.92	47.2	16.1	6.69	9.97	20.2	8.31	9.45	5.33	***	31.3	***	20.8
	Danum Valley	29.3	11.7	11.6	7.19	1.90	2.48	2.60	8.53	0.827	0.590	4.34	***	0.0532	1.61	5.42
	Kuching	19.7	23.1	9.03	23.3	23.4	11.8	34.3	24.3	13.9	13.3	19.9	***	9.25	22.0	29.4
	Gunung Brinchang														1.67	***
Mongolia	Ulaanbaatar	8.26	10.6	8.35	7.50	***	9.58	***	***	6.50	7.81	9.78	2.53	8.00	11.1	*
	Terelj	10.5	4.54	4.53	5.66	***	0.487	***	***	6.41	4.40	4.62	***	2.63	10.6	*
Myanmar	Yangon	***	48.9	33.3	46.9	45.6	45.8	47.6	54.3	37.4	38.2	57.4	50.3	47.0	39.3	55.4
Philippines	Metro Manila	148	79.7	142	667	1218	145	162	215	283	***	***	67.6	53.8	42.1	58.5
	Los Baños	37.1	33.9	79.1	70.1	142	53.3	116	85.6	149	***	***	***	***	***	25.0
	Mt.Sto.Tomas	53.3	66.7	16.8	3.79	19.6	20.7	49.0	58.4	34.5	***	***	***	***	***	1.88
Republic of Korea	Kanghwa	54.8	38.6	41.6	63.8	36.9	70.5	25.7	58.3	48.6	49.6	24.2	21.2	***	25.3	28.8
	Cheju	22.1	47.0	26.8	30.2	40.1	22.9	30.4	40.9	45.2	27.3	26.6	35.9	***	27.7	8.45
	Imsil	25.5	37.6	51.2	56.3	55.4	49.4	36.7	36.4	30.2	39.2	31.4	39.1	***	11.8	30.7
Russia	Mondy	2.03	2.40	1.58	0.672	2.00	0.894	0.444	1.84	1.10	1.99	3.03	1.73	0.304	1.94	0.675
	Listvyanka	7.40	4.18	5.99	8.22	9.17	2.74	3.83	12.3	4.56	6.50	3.11	8.06	4.91	8.28	5.41
	Irkutsk	18.1	15.7	12.9	10.8	15.1	8.15	9.28	21.3	10.7	10.3	9.29	12.0	11.5	14.8	9.76
	Primorskaya	28.0	24.9	28.8	33.6	24.9	28.6	27.2	29.8	21.0	29.7	33.8	21.0	18.5	37.3	46.2
Thailand	Bangkok	95.5	134	76.5	87.3	79.4	61.6	52.9	96.7	104	87.0	60.5	22.4	63.1	***	58.7
	Samutprakarn	97.8	81.5	52.9	58.5	32.5	42.1	48.2	66.3	78.4	88.1	58.9	28.4	33.3	***	43.5
	Pathumthani	49.6	43.3	49.4	59.5	59.2	53.1	37.4	48.6	56.7	56.3	47.0	39.7	44.5	28.7	46.7
	Khanchanaburi	19.8	52.1	14.5	25.2	21.4	10.2	13.7	11.7	17.2	16.6	6.29	2.94	***	***	***
	Mae Hia	25.6	21.2	22.5	21.9	21.8	27.7	14.1	13.1	21.8	32.3	12.3	25.0			
	Sakaerat	36.4	28.8	40.0	36.7	29.0	34.4	18.0	43.3	36.8	39.4	71.5	78.6			
Vietnam	Hanoi	69.4	81.4	64.8	95.9	108	104	113	82.6	102	109	108	38.6	155	132	157
	Hoa Binh	33.8	42.6	38.8	48.9	57.4	50.7	59.5	62.0	81.8	37.8	81.1	18.3	89.1	118	51.7
	Cuc Phuong		14.3	16.4	35.5	48.3	48.5	34.9	43.8	38.9	19.5	13.6	31.0	32.0	94.0	158
	Da Nang		40.0	14.6	78.3	35.8	57.0	32.2	16.5	14.8	46.8	36.6	89.4	65.0	48.1	49.0
	Can Tho							33.7	46.9	38.0	41.0	32.0	41.8	26.6	48.6	50.0
	Ho Chi Minh							46.6	41.8	73.6	132	51.3	51.5	76.2	69.5	69.1
	Yen Bai								46.1	166	80.5	72.8	29.0	112	106	61.2

Terms and abbreviations are given in Table 3.5.

Table 3.91 Annual Na^+ deposition amount from 2008 to 2022

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

Country	Name of sites	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Cambodia	Phnom Penh	18.8	9.22	5.74	4.54	5.90	4.16	11.9	6.92	5.40	6.14	***	***	***	***	***
China	Haifu	7.06	4.48	7.38	7.99	6.10	7.48	9.01	4.40	7.85	5.38	5.56	4.90	4.54	3.26	3.51
	Jinyunshan	12.5	8.45	8.00	5.19	6.32	4.41	6.70	2.87	3.10	3.74	1.69	2.08	2.49	2.31	1.95
	Shizhan	9.41	7.91	3.35	11.7	2.20	60.9	78.1	67.3	22.2	16.6	9.72	5.62	8.94	14.8	11.7
	Jiwozi	35.5	15.8	7.47	7.63	17.3	72.8	70.9	41.3	3.09	17.1	13.4	51.3	9.35	19.3	4.16
	Hongwen	21.7	18.1	29.6	15.2	15.0	20.1	22.3	18.8	48.2	19.2	23.4	5.12	15.3	20.1	14.2
	Xiaoping	44.9	18.5	28.6	16.6	10.9	23.9	12.0	17.0	12.1	4.64	5.50	1.46	8.37	5.56	7.03
	Xiang Zhou	97.5	80.7	36.8	40.7	69.7	131	51.4	75.7	52.8	99.5	139	40.4	41.9	45.3	48.8
	Zhuxiandong	94.1	71.5	37.0	51.5	***	***	***	107	80.4	47.7	188	50.5	80.5	58.0	59.0
	Wuzhishan												13.0	6.16	7.90	9.14
	Lijiang												4.40	0.579	0.705	0.571
Indonesia	Jakarta	17.1	14.5	16.8	11.6	34.5	37.7	67.8	5.65	41.5	12.8	28.5	14.1	46.2	33.5	16.4
	Serpong	24.8	13.7	11.9	8.36	9.71	32.5	54.1	25.9	42.1	38.7	37.4	37.5	40.9	50.2	21.8
	Kototabang	13.2	16.3	12.4	14.3	25.4	18.0	14.2	1.95	45.7	8.43	9.88	10.1	20.9	9.35	7.84
	Bandung	20.1	31.6	25.4	18.7	22.5	31.9	26.3	17.3	30.3	35.9	40.4	75.7	19.4	12.5	22.7
	Maros	47.5	43.0	35.3	54.1	48.8	77.7	80.5	9.10	233	240	45.2	31.1	26.0	20.3	48.5
	Jembrana												31.6	67.0	82.7	64.5
	Lombok												36.6	42.3	40.4	58.8
Japan	Rishiri	204	185	173	171	343	234	168	153	90.6	194	185	130	174	243	175
	Ochiishi	125	287	252	126	239	446	81.5	147	158	183	87.2	56.0	74.9	228	*
	Tappi	162	266	177	171	166	275	187	264	206	213	263				
	Sado-seki	219	333	437	213	319	517	397	283	175	189	211	211	235	2124	243
	Happo	6.77	12.1	9.86	10.3	19.2	10.8	13.0	13.1	11.8	15.5	14.9	8.80	11.0	14.1	9.89
	Ijira	34.5	39.0	50.0	42.3	55.2	41.3	47.5	49.6	39.1	42.7	54.4	36.3	47.8	68.1	82.0
	Oki	360	422	594	737	462	705	574	437	505	482	530	178	344	659	*
	Banryu	91.6	171	139	155	111	140	132	133	150	129	94.3				
	Yusuhara	18.8	24.9	21.8	41.8	55.1	24.6	18.3	69.8	21.9	126	58.3	42.7	26.5	50.2	87.4
	Hedo	243	250	670	360	1186	366	335	552	365	597	421	333	442	3083	402
	Ogasawara	144	315	386	262	179	178	201	486	105	298	44.8	333	85.0	308	291
	Tokyo	36.2	40.7	28.7	52.3	48.2	36.7	34.2	29.6	23.2	51.5	44.7	94.7	21.5	35.7	27.2
	Niigata-maki												269	237	336	349
	Tsushima												73.8	74.9	78.1	152
Lao PDR	Vientiane	4.86	1.66	***	***	***	***	***	2.56	1.08	*	*	*	***	***	***
Malaysia	Petaling Jaya	15.8	13.6	17.6	16.5	13.1	15.3	18.7	23.3	21.1	18.9	20.5	***	20.5	18.4	15.1
	Tanah Rata	4.73	4.87	3.15	6.56	4.29	6.02	8.17	7.36	6.44	7.45	6.46	***	14.4	***	9.44
	Danum Valley	9.65	19.8	32.7	20.9	8.49	16.5	15.4	10.9	9.87	7.47	12.8	***	29.1	25.0	14.0
	Kuching	23.1	34.3	31.0	42.1	19.8	31.0	33.8	56.9	71.7	35.5	32.3	***	43.1	33.2	26.3
	Gunung Brinchang														2.66	***
Mongolia	Ulaanbaatar	0.556	1.11	0.535	0.924	***	12.1	***	***	27.6	3.50	7.07	3.72	12.5	3.10	*
	Terelj	1.13	0.843	1.44	0.873	***	1.54	***	***	21.9	1.42	7.38	***	7.11	21.2	*
Myanmar	Yangon	***	55.7	29.3	47.2	56.7	42.6	49.6	21.3	34.3	42.2	64.3	54.2	31.2	32.5	37.7
Philippines	Metro Manila	58.7	76.5	59.7	78.2	74.6	98.3	64.4	58.5	43.7	***	***	42.7	26.3	57.0	68.2
	Los Baños	36.2	50.5	46.9	46.3	46.7	54.5	32.0	27.4	39.3	***	***	***	***	***	27.6
	Mt.Sto.Tomas	25.9	39.1	22.7	19.9	58.9	29.4	23.0	53.2	65.7	***	***	***	***	***	1.20
Republic of Korea	Kanghwa	60.8	57.1	42.4	52.8	37.9	26.6	18.4	26.5	23.8	16.3	19.1	90.3	***	20.6	20.4
	Cheju	112	55.7	103	163	449	184	139	147	442	187	273	73.8	***	338	205
	Imsil	27.3	53.7	79.2	55.9	72.6	36.9	32.8	33.9	28.4	27.5	45.1	41.8	***	42.0	51.4
Russia	Mondy	0.379	0.270	0.253	0.283	0.455	0.449	0.277	0.219	0.306	0.493	0.764	0.350	0.293	0.166	0.0902
	Listvyanka	0.972	1.19	1.18	2.59	1.44	1.86	1.34	0.989	0.883	1.03	0.677	1.32	1.85	2.70	1.74
	Irkutsk	5.29	8.06	6.91	5.52	4.41	3.55	3.35	3.71	3.57	4.01	3.89	2.69	4.83	4.14	3.31
	Primorskaya	12.7	11.0	16.1	8.48	21.3	18.4	10.1	28.7	23.3	16.5	22.4	17.6	27.3	24.9	28.2
Thailand	Bangkok	17.3	20.3	17.8	14.0	10.9	16.0	9.26	12.7	17.9	9.28	13.0	5.56	22.7	***	10.6
	Samutprakarn	26.8	19.9	35.0	12.0	7.51	28.2	12.5	13.5	16.1	12.9	14.6	8.68	13.4	***	11.1
	Pathumthani	9.95	7.34	13.1	9.16	22.0	7.04	5.62	7.42	6.85	6.60	6.74	5.28	5.17	3.21	4.68
	Khanchanaburi	18.1	19.0	5.05	14.5	23.2	8.19	6.28	6.46	11.0	5.54	8.12	3.55	***	***	***
	Mae Hia	3.35	2.83	3.17	5.17	4.22	8.07	1.93	3.34	5.21	7.58	6.45	6.17			
	Sakaerat	7.24	3.44	5.22	6.10	4.18	4.27	3.78	6.36	4.36	3.53	12.5	11.0			
Vietnam	Hanoi	21.7	14.8	9.00	11.2	7.54	15.0	12.0	11.5	18.9	33.9	21.2	34.1	37.7	23.1	59.6
	Hoa Binh	6.08	4.60	6.65	4.32	5.81	8.29	4.12	6.14	6.33	7.56	7.80	18.6	17.9	21.1	9.37
	Cuc Phuong		25.5	19.8	25.2	40.4	50.7	18.2	12.8	24.6	39.3	33.9	36.7	34.2	72.9	56.6
	Da Nang		281	69.9	255	106	333	182	151	179	182	177	231	177	178	184
	Can Tho							28.4	64.8	21.0	18.3	25.4	42.8	29.7	35.5	33.6
	Ho Chi Minh							47.9	49.1	34.4	59.8	35.1	46.1	46.5	44.7	43.7
	Yen Bai								8.18	16.3	8.81	6.81	18.7	27.1	15.2	9.50

Terms and abbreviations are given in Table 3.5.

Table 3.92 Annual K^+ deposition amount from 2008 to 2022

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

Country	Name of sites	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Cambodia	Phnom Penh	19.0	1.98	1.59	1.47	1.23	1.42	4.20	2.18	2.70	1.68	***	***	***	***	***
China	Haifu	11.6	8.23	9.78	7.60	6.64	13.1	13.2	7.30	5.91	5.84	6.94	4.22	3.46	3.14	3.12
	Jinyunshan	11.6	9.56	10.2	8.80	7.69	6.19	6.59	4.38	4.10	4.56	2.57	3.32	3.20	2.72	2.35
	Shizhan	5.11	6.03	14.9	8.83	2.23	12.4	156	3.16	1.56	2.65	5.13	3.49	3.31	2.91	6.01
	Jiwozi	12.7	8.58	5.64	7.07	3.80	6.64	9.33	2.96	1.69	6.59	10.6	37.3	6.02	4.67	3.45
	Hongwen	2.00	1.66	3.42	1.68	2.64	2.67	1.60	6.08	9.45	18.8	37.0	14.7	3.09	4.69	2.89
	Xiaoping	20.3	2.64	2.94	4.29	4.48	3.29	1.98	13.1	10.3	8.37	12.1	2.54	2.16	1.89	3.53
	Xiang Zhou	4.65	4.23	4.10	4.71	14.0	20.0	11.5	6.31	8.63	4.87	6.30	2.97	2.17	2.23	2.10
	Zhuxiandong	10.4	4.04	6.10	6.78	***	***	***	13.3	13.7	4.08	9.80	3.93	4.54	3.91	2.81
	Wuzhishan												4.29	2.23	3.93	4.45
	Lijiang												0.778	0.767	0.394	0.601
Indonesia	Jakarta	6.03	3.46	4.72	2.26	7.79	6.61	11.5	35.2	20.7	3.10	4.83	2.08	10.5	5.14	6.83
	Serpong	5.24	2.36	4.57	2.61	3.87	11.4	16.3	13.8	14.2	12.1	12.8	26.2	45.5	11.3	7.50
	Kototabang	8.42	24.8	10.5	8.69	14.6	40.9	25.8	12387	24.9	4.54	5.98	6.13	10.8	11.0	5.62
	Bandung	5.38	11.0	11.0	7.30	7.01	18.7	11.4	7.11	7.79	8.10	7.82	7.85	6.68	4.51	6.65
	Maros	17.5	12.6	6.71	6.74	8.57	7.41	52.7	4427	29.7	14.4	9.44	4.98	19.0	3.06	6.24
	Jembrana												6.05	43.9	53.8	8.95
	Lombok												5.26	11.1	14.3	56.3
Japan	Rishiri	5.44	4.54	4.59	4.24	7.51	5.40	4.23	3.95	2.69	5.63	5.25	3.74	5.37	6.52	4.61
	Ochiishi	2.78	6.47	6.68	3.02	5.89	9.91	2.14	4.00	3.91	4.48	2.09	1.40	1.94	20.0	*
	Tappi	4.42	6.62	5.45	4.96	4.66	6.65	4.74	6.20	5.46	5.33	6.38				
	Sado-seki	7.31	8.26	11.1	6.18	8.58	12.1	10.6	8.40	7.54	5.95	5.23	5.57	5.74	66.2	5.52
	Happo	0.962	1.58	0.934	1.38	1.73	1.54	1.83	1.53	1.12	1.17	1.17	1.39	1.33	1.14	0.891
	Ijira	1.43	1.95	1.64	1.64	1.74	1.60	1.86	2.19	1.57	1.68	1.72	1.45	1.71	2.47	2.40
	Oki	13.2	11.3	14.7	19.5	11.9	17.8	13.8	10.5	12.2	11.5	12.9	4.67	8.09	16.3	*
	Banryu	3.22	5.20	7.98	4.85	3.93	4.71	4.02	3.70	4.17	3.54	2.76				
	Yusuhara	0.928	1.59	1.52	1.58	3.25	0.962	2.47	2.31	1.39	4.74	2.67	2.46	2.04	3.06	3.83
	Hedo	6.23	6.49	16.4	8.73	30.2	8.82	8.08	12.8	8.22	13.0	9.26	7.78	10.0	66.9	8.94
	Ogasawara	4.36	7.61	9.32	6.42	4.26	4.60	4.79	12.8	2.56	6.84	1.06	8.23	2.37	5.62	6.69
	Tokyo	2.12	1.90	1.64	1.79	1.45	1.14	1.13	1.05	0.868	1.42	1.09	2.25	0.758	0.922	0.766
	Niigata-maki												7.31	5.67	8.08	8.46
	Tsushima												2.17	2.65	2.67	5.20
Lao PDR	Vientiane	2.82	0.168	***	***	***	***	***	1.61	0.683	*	*	*	***	***	***
Malaysia	Petaling Jaya	4.45	4.47	5.26	4.71	4.53	4.07	5.46	6.39	6.27	4.83	7.33	***	7.34	5.78	4.67
	Tanah Rata	1.70	3.05	2.60	6.70	4.78	4.85	4.69	6.35	2.88	5.82	3.54	***	13.5	***	6.15
	Danum Valley	7.58	5.39	7.67	6.56	3.59	3.22	6.15	4.83	3.02	3.83	6.58	***	6.77	8.88	8.12
	Kuching	2.77	3.24	3.02	3.95	3.51	2.85	11.9	6.37	6.40	5.48	5.84	***	7.88	8.66	11.7
	Gunung Brinchang														1.06	***
Mongolia	Ulaanbaatar	0.435	0.577	0.416	0.650	***	0.598	***	***	0.0990	0.207	0.172	0.0677	0.264	0.278	*
	Terelj	1.33	0.455	0.703	0.719	***	0.725	***	***	0.754	0.358	0.544	***	0.407	0.805	*
Myanmar	Yangon	***	19.4	4.71	5.21	17.4	7.17	13.5	32.2	7.30	29.4	12.9	20.8	10.4	15.9	10.3
Philippines	Metro Manila	37.1	15.1	45.6	85.9	117	22.7	25.7	32.7	35.8	***	***	9.78	3.69	4.54	4.79
	Los Baños	5.51	26.3	15.4	16.3	17.1	15.3	17.0	114	24.3	***	***	***	***	***	2.55
	Mt.Sto.Tomas	3.57	9.24	5.09	3.78	5.07	3.30	4.57	9.93	3.93	***	***	***	***	***	0.264
Republic of Korea	Kanghwa	8.35	11.3	12.2	5.34	4.78	2.94	5.73	62.7	11.2	9.72	3.14	3.97	***	1.66	3.35
	Cheju	8.78	10.1	7.98	7.04	18.8	7.65	13.5	20.1	17.0	5.31	6.76	2.27	***	13.4	3.96
	Imsil	4.79	11.7	16.8	5.81	66.5	7.72	10.8	6.61	2.84	6.70	2.55	1.46	***	3.47	1.58
Russia	Mondy	0.416	0.390	0.237	0.366	0.952	0.759	0.248	0.462	0.233	0.371	0.461	0.179	0.0548	0.213	0.0469
	Listvyanka	1.32	0.646	0.543	1.16	0.686	1.21	0.868	0.702	0.540	1.15	0.452	1.31	1.47	2.12	2.08
	Irkutsk	4.74	11.4	2.07	1.51	2.21	1.44	1.15	1.31	1.49	1.47	1.35	1.63	1.80	3.06	2.20
	Primorskaya	4.97	3.81	3.93	4.19	4.69	4.01	3.30	9.01	17.6	6.41	8.56	7.07	7.32	4.86	8.87
Thailand	Bangkok	3.61	4.10	5.22	3.95	2.74	2.54	1.40	2.78	2.77	1.97	2.58	2.45	5.53	***	3.24
	Samutprakarn	10.6	5.51	31.9	2.33	1.45	5.83	2.30	2.79	3.10	2.48	2.40	1.72	2.31	***	2.91
	Pathumthani	2.51	2.12	3.26	3.06	2.57	2.51	1.98	1.97	2.24	2.90	1.78	1.72	2.15	3.55	1.35
	Khanchanaburi	2.26	2.41	1.15	4.30	3.75	1.43	1.19	0.916	1.60	1.69	1.71	0.679	***	***	***
	Mae Hia	3.38	1.55	1.41	2.33	1.40	2.12	0.935	0.924	2.35	3.35	1.55	2.74			
	Sakaerat	2.13	1.65	1.53	1.81	1.42	1.17	1.12	2.10	1.73	0.866	7.85	6.99			
Vietnam	Hanoi	6.28	2.53	3.43	4.12	5.39	5.13	6.23	4.73	6.03	14.7	15.3	10.5	10.3	11.1	27.8
	Hoa Binh	6.40	3.69	3.94	4.23	2.88	14.3	3.61	4.63	3.73	5.46	10.9	2.83	5.31	9.72	8.14
	Cuc Phuong		31.7	9.28	6.14	12.2	16.3	8.04	6.83	11.2	7.63	10.1	8.45	8.46	15.6	15.7
	Da Nang		18.6	5.76	50.9	19.3	41.5	30.5	22.6	9.24	22.1	40.5	38.7	275	49.6	396
	Can Tho							13.7	15.8	10.1	10.4	16.4	30.0	11.7	16.1	26.0
	Ho Chi Minh							20.3	17.1	16.9	35.7	20.6	24.9	24.8	24.8	23.7
	Yen Bai								6.09	9.03	14.9	6.10	4.12	7.76	6.84	7.61

Terms and abbreviations are given in Table 3.5.

Table 3.93 Annual Ca^{2+} deposition amount from 2008 to 2022

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

Country	Name of sites	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Cambodia	Phnom Penh	59.9	27.1	15.4	11.9	17.4	12.9	14.8	12.8	18.2	13.4	***	***	***	***	***
China	Haifu	66.0	46.1	67.6	55.5	58.5	71.2	77.4	52.5	85.4	65.1	48.0	31.5	28.2	28.5	22.5
	Jinyunshan	82.9	73.2	67.3	55.2	59.5	35.1	38.8	28.0	46.3	65.8	32.0	23.6	23.7	23.6	15.5
	Shizhan	57.6	81.7	48.1	60.1	50.1	143	57.7	53.2	14.5	39.4	29.1	23.6	20.2	78.6	80.8
	Jiwozi	116	58.9	47.0	88.9	79.3	86.2	84.4	25.8	13.6	48.3	30.7	93.9	28.7	32.3	10.6
	Hongwen	13.3	9.71	13.9	11.9	16.1	30.8	28.8	16.6	23.3	15.2	26.0	62.4	131	15.7	11.4
	Xiaoping	31.2	10.2	12.7	17.9	25.9	44.9	57.8	14.3	11.8	10.2	6.83	7.54	3.81	5.13	4.63
	Xiang Zhou	15.3	9.87	13.7	22.1	16.3	105	28.5	22.7	25.4	19.1	21.9	16.2	12.7	15.5	7.92
	Zhuxiandong	31.4	11.7	30.3	21.8	***	***	***	40.2	40.9	25.2	37.4	22.7	25.6	20.3	15.4
	Wuzhishan												15.5	3.12	3.89	5.15
	Lijiang												11.8	2.78	2.65	3.45
Indonesia	Jakarta	7.48	19.6	21.9	11.0	32.6	33.0	47.4	21.0	49.8	22.9	28.2	15.8	22.3	17.8	14.1
	Serpong	18.9	6.95	13.2	9.08	8.31	32.5	37.4	34.9	40.7	38.6	44.9	38.5	26.7	26.3	19.8
	Kototabang	12.1	14.5	11.3	12.9	20.7	20.2	9.82	4.98	8.28	28.4	24.9	66.0	14.7	25.0	8.83
	Bandung	26.4	41.1	35.1	32.0	27.8	45.9	46.4	35.4	41.0	27.7	31.8	33.2	32.3	30.3	35.3
	Maros	25.5	26.3	25.5	23.6	39.4	41.9	77.0	41.5	27.2	33.0	46.8	33.8	13.6	36.4	65.8
	Jembrana												12.5	45.4	14.0	13.4
	Lombok												25.3	13.1	13.8	43.0
Japan	Rishiri	7.22	10.6	7.39	6.93	9.89	8.58	5.97	5.75	4.68	7.64	9.19	5.24	8.31	10.3	8.24
	Ochiishi	3.86	8.21	8.95	4.44	6.41	12.2	3.40	5.56	4.86	5.17	3.57	2.38	2.79	12.2	*
	Tappi	8.52	8.58	13.3	9.17	9.45	15.0	8.89	8.90	9.10	7.66	10.0				
	Sado-seki	10.5	11.5	17.4	11.5	14.8	16.4	13.4	9.83	11.4	8.41	12.4	8.39	7.58	81.2	7.23
	Happo	4.44	11.0	6.30	7.89	8.29	7.37	5.67	3.82	1.84	5.54	5.86	5.57	5.00	6.55	2.99
	Ijira	4.94	7.89	9.55	6.05	7.16	7.45	5.02	6.26	5.92	6.41	6.92	6.55	5.61	8.54	7.79
	Oki	12.1	16.3	23.3	26.2	15.7	23.8	17.3	12.8	16.2	15.0	17.1	7.60	11.4	21.2	*
	Banryu	9.40	9.46	11.8	8.38	8.03	7.92	7.20	7.83	9.45	7.55	5.49				
	Yusuhara	3.71	4.07	4.44	7.71	7.28	5.37	5.64	3.11	3.13	13.5	3.41	4.10	3.12	5.51	5.24
	Hedo	8.19	8.83	21.1	10.7	32.6	11.1	10.4	14.5	9.79	15.7	14.0	9.72	12.4	78.0	13.7
	Ogasawara	4.27	8.71	10.8	7.21	5.44	5.82	6.10	12.9	3.00	7.51	1.23	8.65	2.64	7.46	7.48
	Tokyo	7.61	5.91	6.59	6.72	6.88	7.00	6.88	5.84	3.99	4.27	4.49	6.58	4.48	4.82	5.10
	Niigata-maki												10.9	11.3	12.1	12.0
	Tsushima												3.31	3.79	4.27	5.35
Lao PDR	Vientiane	9.62	0.996	***	***	***	***	***	3.68	1.57	*	*	*	***	***	***
Malaysia	Petaling Jaya	14.7	14.8	19.0	14.3	13.5	21.9	22.3	25.1	22.2	13.1	26.8	***	16.1	15.3	14.2
	Tanah Rata	3.03	3.17	2.99	6.84	6.73	8.06	7.75	5.36	5.15	6.80	7.19	***	17.1	***	8.43
	Danum Valley	1.06	3.43	9.05	3.36	2.37	4.59	4.02	4.62	2.95	4.38	6.27	***	16.3	6.92	4.99
	Kuching	8.19	8.35	12.1	14.6	13.0	17.2	22.4	19.2	18.9	14.8	16.3	***	75.6	10.9	22.3
	Gunung Brinchang														1.56	***
Mongolia	Ulaanbaatar	6.66	9.63	5.23	5.54	***	14.7	***	***	4.65	6.68	4.00	1.31	7.40	8.73	*
	Terelj	3.68	3.97	5.48	2.93	***	6.28	***	***	1.78	1.67	2.29	***	7.31	5.98	*
Myanmar	Yangon	***	29.1	14.5	21.7	20.0	2.87	40.6	216	12.1	29.5	48.8	41.9	22.0	5.40	42.9
Philippines	Metro Manila	32.7	24.2	34.2	47.0	61.8	40.5	38.2	43.6	51.6	***	***	34.8	41.0	23.6	32.9
	Los Baños	7.10	14.7	41.6	15.2	19.8	15.3	14.5	13.7	20.7	***	***	***	***	***	38.5
	Mt.Sto.Tomas	15.7	27.8	81.8	36.1	80.4	37.7	29.3	41.8	59.5	***	***	***	***	***	4.50
Republic of Korea	Kanghwa	16.8	6.57	11.0	6.48	6.46	7.83	3.81	5.61	3.22	3.96	2.01	3.54	***	7.32	4.79
	Cheju	8.86	4.23	6.74	7.10	13.4	8.64	4.92	6.74	18.1	9.15	6.87	3.61	***	11.6	8.15
	Imsil	5.91	4.14	9.42	10.2	6.03	3.59	3.85	3.71	2.26	2.82	1.92	2.92	***	4.63	4.22
Russia	Mondy	1.64	0.616	0.830	0.663	1.28	1.52	0.866	1.14	1.20	1.66	1.94	0.928	0.202	0.264	0.227
	Listvyanka	3.19	3.92	4.12	7.72	4.03	3.30	3.56	3.34	2.51	3.86	2.80	3.46	3.04	3.81	4.50
	Irkutsk	15.5	12.6	12.1	11.4	13.9	9.12	10.3	8.88	8.18	11.3	12.3	7.09	6.82	9.12	10.0
	Primorskaya	10.7	10.1	11.3	8.52	11.2	13.0	11.6	15.2	12.1	13.3	15.0	10.6	14.7	10.0	16.5
Thailand	Bangkok	28.7	20.8	22.8	22.9	24.2	33.5	14.6	27.0	26.0	18.0	31.0	18.4	25.7	***	25.3
	Samutprakarn	24.0	26.2	14.6	12.5	7.99	22.2	14.5	8.98	16.8	14.4	12.8	9.57	7.28	***	12.2
	Pathumthani	19.4	12.1	16.2	18.9	32.2	32.0	23.8	17.8	14.7	16.8	10.5	8.30	6.22	4.77	9.00
	Khanchanaburi	9.00	9.85	2.93	7.84	41.7	4.90	3.98	3.97	5.48	4.28	3.52	2.77	***	***	***
	Mae Hia	8.60	5.98	5.14	4.20	8.64	15.1	5.13	3.07	7.99	10.6	5.74	7.75			
	Sakaerat	5.78	3.19	3.60	2.83	4.21	2.83	3.73	9.46	8.93	7.78	39.7	63.7			
Vietnam	Hanoi	26.7	19.3	29.2	26.6	27.0	31.6	41.2	46.8	37.8	73.2	77.1	103	131	61.4	196
	Hoa Binh	28.7	12.8	28.9	22.1	21.2	34.0	17.4	16.3	18.9	43.8	38.4	26.9	94.2	55.9	36.8
	Cuc Phuong		56.2	63.3	59.8	61.8	46.2	39.2	28.3	52.4	53.7	45.4	38.0	40.7	65.4	102
	Da Nang		18.8	15.0	36.4	28.4	49.7	60.6	65.0	105	76.0	94.8	197	286	83.2	72.3
	Can Tho							23.5	59.1	19.8	20.1	37.5	37.4	23.5	32.9	31.9
	Ho Chi Minh							49.7	62.8	30.8	51.0	45.1	60.0	39.8	42.6	41.0
	Yen Bai								24.1	36.9	55.4	38.8	43.6	89.4	31.8	39.5

Terms and abbreviations are given in Table 3.5.

Table 3.94 Annual nss-Ca^{2+} deposition amount from 2008 to 2022

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

Country	Name of sites	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Cambodia	Phnom Penh	59.5	26.9	15.3	11.8	17.3	12.8	14.5	12.6	18.1	13.3	***	***	***	***	***
China	Haifu	65.8	46.0	67.5	55.3	58.3	71.1	77.2	52.4	85.2	65.0	47.9	31.4	28.1	28.4	22.5
	Jinyunshan	82.6	73.0	67.1	55.1	59.4	35.0	38.6	27.9	46.2	65.7	32.0	23.6	23.7	23.6	15.5
	Shizhan	57.4	81.5	48.0	59.8	50.1	142	56.0	51.8	14.1	39.0	28.9	23.5	20.0	78.3	80.5
	Jiwozi	116	58.5	46.9	88.8	78.9	84.6	82.9	24.9	13.5	47.9	30.5	92.8	28.5	31.9	10.5
	Hongwen	12.8	9.32	13.3	11.5	15.8	30.3	28.4	16.2	22.2	14.8	25.4	62.3	131	15.2	11.1
	Xiaoping	30.2	9.85	12.1	17.6	25.6	44.4	57.6	13.9	11.6	10.1	6.71	7.51	3.63	5.01	4.47
	Xiang Zhou	13.2	8.13	13.0	21.2	14.8	102	27.4	21.1	24.4	16.9	18.9	15.3	11.8	14.6	6.87
	Zhuxiandong	29.3	10.2	29.5	20.7	***	***	***	37.9	39.1	24.2	33.3	21.6	23.8	19.1	14.1
	Wuzhishan												15.2	3.01	3.73	4.95
	Lijiang												11.7	2.77	2.63	3.43
Indonesia	Jakarta	7.11	19.2	21.6	10.7	31.9	32.2	46.0	20.8	48.9	22.7	27.6	15.5	21.3	17.1	13.7
	Serpong	18.4	6.76	12.9	8.91	8.10	31.8	36.2	34.3	39.8	37.8	44.1	37.7	25.9	25.2	19.4
	Kototabang	11.8	14.2	11.0	12.6	20.2	19.9	9.51	5.09	7.64	28.2	24.7	65.8	14.3	24.8	8.66
	Bandung	25.9	40.4	34.6	31.6	27.4	45.2	45.9	35.1	40.4	27.0	31.0	31.5	31.9	30.1	34.8
	Maros	24.4	25.3	24.8	22.4	38.4	40.3	75.2	41.4	22.8	28.1	45.8	33.1	13.1	35.9	64.7
	Jembrana												11.8	44.0	12.2	12.0
	Lombok												24.5	12.1	12.9	41.7
Japan	Rishiri	2.81	6.74	3.69	3.24	2.58	3.58	2.39	2.51	2.72	3.45	5.20	2.44	4.56	5.09	4.47
	Ochiishi	1.21	2.18	3.52	1.73	1.31	2.57	1.64	2.38	1.45	1.22	1.69	1.17	1.17	7.26	*
	Tappi	5.02	3.02	9.58	5.57	5.23	9.14	4.98	3.36	4.65	3.06	4.35				
	Sado-seki	5.79	4.36	8.12	6.92	8.03	6.04	4.88	3.76	7.66	4.33	7.80	3.82	2.52	35.3	1.98
	Happo	4.30	10.7	6.09	7.67	7.87	7.14	5.39	3.54	1.58	5.20	5.53	5.38	4.76	6.25	2.78
	Ijira	4.21	7.06	8.49	5.23	5.99	6.61	4.07	5.20	5.08	5.49	5.74	5.77	4.58	7.07	6.02
	Oki	4.37	7.23	10.5	10.3	5.71	8.53	4.88	3.34	5.39	4.68	5.69	3.75	3.92	6.92	*
	Banryu	7.42	5.76	8.80	5.04	5.62	4.90	4.35	5.09	6.31	4.75	3.46				
	Yusuhara	3.30	3.53	4.07	6.94	6.09	4.84	5.25	1.61	2.66	10.7	2.24	3.19	2.58	4.43	3.35
	Hedo	2.95	3.46	6.61	2.88	6.93	3.21	3.14	2.60	2.05	3.38	5.01	2.73	2.86	11.4	5.09
	Ogasawara	1.44	1.95	2.51	1.56	1.58	1.97	1.76	2.40	0.736	1.07	0.290	1.47	0.838	0.911	1.24
	Tokyo	6.83	5.03	5.97	5.59	5.84	6.21	6.14	5.20	3.49	3.16	3.52	4.53	4.02	4.04	4.51
	Niigata-maki												5.17	6.16	4.83	4.46
	Tsushima												1.76	2.19	2.58	2.06
Lao PDR	Vientiane	9.51	0.960	***	***	***	***	***	3.63	1.55	*	*	*	***	***	***
Malaysia	Petaling Jaya	14.4	14.5	18.6	14.0	13.2	21.6	21.9	24.6	21.8	12.7	26.3	***	15.6	14.9	13.9
	Tanah Rata	2.95	3.10	2.93	6.71	6.64	7.95	7.60	5.22	5.01	6.64	7.05	***	16.8	***	8.23
	Danum Valley	0.944	3.12	8.51	3.01	2.22	4.30	3.76	4.40	2.75	4.24	5.99	***	15.7	6.38	4.69
	Kuching	7.77	7.76	11.4	13.7	12.6	16.6	21.7	18.0	17.4	14.2	15.6	***	74.7	10.2	21.7
	Gunung Brinchang														1.51	***
Mongolia	Ulaanbaatar	6.64	9.60	5.22	5.53	***	14.4	***	***	4.05	6.60	3.85	1.23	7.17	8.66	*
	Terelj	3.66	3.95	5.45	2.91	***	6.25	***	***	1.46	1.64	2.14	***	7.16	5.55	*
Myanmar	Yangon	***	27.9	13.9	20.7	18.8	2.13	39.6	215	11.4	28.6	47.4	40.8	21.4	4.70	42.1
Philippines	Metro Manila	31.4	22.6	32.9	45.4	60.2	38.4	36.8	42.3	50.8	***	***	33.9	40.7	22.4	31.4
	Los Baños	6.32	13.7	40.7	14.2	18.7	14.2	13.8	13.1	19.9	***	***	***	***	***	37.9
	Mt.Sto.Tomas	15.1	26.9	81.4	35.7	79.1	37.0	28.8	40.7	58.0	***	***	***	***	***	4.47
Republic of Korea	Kanghwa	15.5	5.35	10.1	5.40	5.64	7.26	3.47	5.04	2.71	3.61	1.61	1.60	***	6.87	4.35
	Cheju	6.43	3.15	4.72	4.00	3.78	4.66	2.13	3.66	8.65	5.42	2.37	2.28	***	4.48	3.71
	Imsil	5.32	3.02	7.87	8.99	4.76	2.80	3.19	3.01	1.68	2.26	1.37	2.27	***	3.78	3.18
Russia	Mondy	1.63	0.610	0.824	0.657	1.27	1.51	0.860	1.13	1.20	1.65	1.92	0.921	0.196	0.260	0.225
	Listvyanka	3.17	3.89	4.09	7.67	4.00	3.26	3.53	3.31	2.49	3.83	2.78	3.43	3.00	3.75	4.46
	Irkutsk	15.4	12.4	11.9	11.3	13.8	9.04	10.2	8.80	8.10	11.2	12.2	7.03	6.72	9.03	9.93
	Primorskaya	10.4	9.86	11.0	8.34	10.8	12.6	11.4	14.5	11.6	12.9	14.5	10.2	14.1	9.49	15.9
Thailand	Bangkok	28.3	20.3	22.4	22.6	24.0	33.2	14.4	26.7	25.6	17.8	30.7	18.3	25.3	***	25.0
	Samutprakarn	23.4	25.8	13.9	12.3	7.83	21.6	14.2	8.69	16.5	14.2	12.4	9.38	6.99	***	11.9
	Pathumthani	19.2	11.9	15.9	18.7	31.8	31.9	23.7	17.7	14.5	16.6	10.4	8.19	6.11	4.70	8.90
	Khanchanaburi	8.61	9.44	2.82	7.53	41.2	4.72	3.85	3.83	5.24	4.16	3.34	2.69	***	***	***
	Mae Hia	8.52	5.92	5.09	4.10	8.54	15.0	5.09	3.00	7.87	10.4	5.60	7.62			
	Sakaerat	5.62	3.12	3.50	2.73	4.13	2.75	3.66	9.32	8.83	7.70	39.4	63.5			
Vietnam	Hanoi	26.2	19.0	29.0	26.3	26.9	31.2	40.9	46.5	37.4	72.5	76.6	102	130	60.9	194
	Hoa Binh	28.5	12.7	28.7	22.0	21.0	33.8	17.3	16.2	18.7	43.7	38.2	26.5	93.8	55.5	36.6
	Cuc Phuong		55.7	62.9	59.2	60.9	45.2	38.8	28.0	51.9	52.9	44.7	37.2	39.9	63.8	101
	Da Nang		12.8	13.5	30.9	26.1	42.5	56.7	61.8	101	72.1	91.0	192	282	79.4	68.4
	Can Tho							22.9	57.7	19.4	19.7	37.0	36.5	22.9	32.1	31.2
	Ho Chi Minh							48.7	61.8	30.1	49.7	44.3	59.0	38.8	41.6	40.1
	Yen Bai								23.9	36.5	55.2	38.6	43.2	88.8	31.4	39.3

Terms and abbreviations are given in Table 3.5.

Table 3.95 Annual Mg^{2+} deposition amount from 2008 to 2022

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

Country	Name of sites	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Cambodia	Phnom Penh	6.33	2.66	1.33	1.55	1.98	1.50	2.54	2.82	1.84	1.94	***	***	***	***	***
China	Haifu	7.15	5.81	8.75	6.98	6.94	8.44	9.92	5.85	7.22	4.96	4.52	3.68	2.84	2.89	2.90
	Jinyunshan	5.62	6.10	5.64	5.20	5.85	4.99	6.52	4.17	4.73	6.01	3.13	3.12	3.14	3.25	2.72
	Shizhan	17.5	7.34	5.04	6.55	1.36	24.0	7.34	5.49	0.819	6.45	6.06	3.08	4.35	1.03	8.63
	Jiwozi	33.8	12.7	8.28	9.37	17.3	14.5	12.3	4.97	4.66	10.0	8.74	13.1	2.84	0.583	2.46
	Hongwen	4.65	3.01	3.06	3.56	4.34	4.71	4.82	4.26	8.65	3.87	4.66	4.29	4.60	2.85	3.10
	Xiaoping	6.78	3.67	2.88	3.39	4.46	7.97	4.98	3.54	3.96	1.88	1.78	2.06	2.27	1.62	2.44
	Xiang Zhou	11.2	9.08	4.77	5.53	10.5	33.9	12.1	10.3	9.42	10.7	13.2	7.08	6.81	5.87	5.36
	Zhuxiandong	13.2	9.71	5.30	7.74	***	***	***	14.0	12.2	5.82	21.5	8.67	12.4	8.36	7.88
	Wuzhishan												3.44	1.12	1.57	1.45
	Lijiang												2.33	2.62	0.759	0.786
Indonesia	Jakarta	2.87	3.06	4.72	3.42	8.06	6.11	11.5	5.07	8.90	3.86	5.76	2.83	7.50	6.47	4.46
	Serpong	9.76	1.83	4.40	2.59	1.80	8.97	9.31	6.84	8.96	8.01	9.36	9.74	6.11	7.93	8.84
	Kototabang	2.48	2.92	3.67	2.08	3.69	5.09	2.27	53.7	2.57	2.63	3.08	1.55	3.44	2.37	1.96
	Bandung	10.3	11.1	11.6	8.85	6.61	14.8	15.3	11.3	9.45	7.30	6.86	8.16	6.71	4.99	5.47
	Maros	7.77	6.02	5.79	9.07	17.2	11.3	37.7	74.5	5.76	5.16	8.39	4.30	3.55	2.64	7.78
	Jembrana												4.19	10.6	12.5	8.29
	Lombok												6.65	11.2	8.56	22.6
Japan	Rishiri	24.8	21.0	20.0	18.9	37.8	26.3	18.7	17.7	10.3	22.7	21.7	15.3	19.9	29.2	20.2
	Ochiishi	14.5	31.4	31.0	15.1	26.6	51.0	9.28	16.9	18.0	21.3	9.84	6.35	8.65	25.9	*
	Tappi	19.1	28.2	20.1	19.9	18.2	32.1	21.6	28.0	23.8	24.5	30.2				
	Sado-seki	24.0	37.6	51.6	26.4	38.1	58.2	45.8	32.3	20.8	21.6	24.3	24.3	26.5	288	27.5
	Happo	1.15	2.73	2.12	2.76	4.60	3.63	3.11	2.98	2.11	3.83	2.84	2.01	2.22	2.57	1.72
	Ijira	3.92	4.80	6.22	5.19	7.27	5.70	6.00	6.40	4.94	5.38	7.17	4.64	5.89	9.11	10.4
	Oki	40.8	48.3	69.9	85.2	53.4	78.3	63.9	50.8	58.5	54.8	60.4	20.6	38.9	72.3	*
	Banryu	11.3	20.4	17.7	18.3	13.5	17.2	16.4	15.7	17.3	14.6	11.1				
	Yusuhara	2.42	3.33	3.86	8.71	8.65	5.98	6.43	8.45	3.33	15.6	7.18	5.35	2.98	7.14	11.0
	Hedo	27.9	28.6	77.2	40.9	136	41.5	38.2	63.0	42.5	69.2	54.7	44.2	52.9	354	47.4
	Ogasawara	17.7	36.6	45.4	30.5	21.3	21.5	23.2	54.8	12.1	35.2	5.23	38.0	9.80	32.7	32.3
	Tokyo	5.17	5.13	3.98	6.65	6.18	4.89	4.58	4.02	2.97	6.30	5.38	11.0	3.05	4.16	3.45
	Niigata-maki												31.0	27.4	38.4	40.3
	Tsushima												8.05	8.39	9.18	17.1
Lao PDR	Vientiane	2.18	0.131	***	***	***	***	***	0.564	0.198	*	*	*	***	***	***
Malaysia	Petaling Jaya	1.95	1.39	2.46	2.09	1.69	2.45	4.07	3.46	2.81	1.77	2.79	***	3.31	2.80	2.53
	Tanah Rata	0.192	0.0927	0.210	0.869	0.528	0.835	0.964	0.636	0.647	0.327	0.673	***	3.34	***	0.703
	Danum Valley	1.58	1.86	3.51	2.05	0.830	1.38	1.57	1.89	0.956	1.12	3.25	***	4.80	2.61	2.73
	Kuching	1.24	1.84	2.12	3.45	1.04	2.42	4.10	5.35	5.37	2.75	2.31	***	6.09	2.64	2.89
	Gunung Brinchang														0.189	***
Mongolia	Ulaanbaatar	0.568	1.21	0.455	1.51	***	0.576	***	***	0.968	0.489	0.426	0.125	0.524	0.591	*
	Terelj	0.619	0.604	0.718	1.06	***	0.451	***	***	0.233	0.139	0.218	***	1.05	0.600	*
Myanmar	Yangon	***	8.54	4.11	9.52	16.9	33.1	9.79	14.3	9.98	9.75	13.9	11.8	6.20	61.3	11.1
Philippines	Metro Manila	11.1	9.69	24.4	26.1	29.1	16.0	12.2	16.0	13.3	***	***	9.41	8.21	3.59	37.9
	Los Baños	8.80	10.8	17.0	11.3	8.96	7.77	6.88	6.86	7.28	***	***	***	***	***	8.55
	Mt.Sto.Tomas	1.76	7.23	12.1	7.41	16.6	7.41	4.92	21.0	12.3	***	***	***	***	***	0.336
Republic of Korea	Kanghwa	4.26	6.67	5.71	4.70	4.11	2.96	1.39	2.12	0.994	1.37	0.683	8.13	***	3.68	3.17
	Cheju	8.16	6.25	6.91	11.3	41.4	16.3	9.38	8.60	42.2	15.3	18.7	2.90	***	29.6	19.5
	Imsil	1.70	4.14	7.69	3.02	4.27	2.28	1.95	2.38	1.30	1.45	0.759	0.874	***	2.76	2.66
Russia	Mondy	0.408	0.138	0.163	0.191	0.427	0.290	0.146	0.292	0.192	0.334	0.386	0.173	0.0321	0.0725	0.0452
	Listvyanka	0.687	0.884	0.970	1.49	0.867	0.810	0.662	0.689	0.604	0.993	0.663	0.974	0.992	1.29	1.30
	Irkutsk	3.40	3.25	2.53	2.40	2.88	1.77	1.43	1.60	1.91	2.36	2.35	1.69	1.86	2.74	2.52
	Primorskaya	3.46	2.68	2.88	2.66	4.08	3.53	3.99	6.49	5.09	7.57	9.44	7.83	7.05	4.04	5.85
Thailand	Bangkok	4.15	3.09	3.07	2.72	2.43	3.50	2.40	3.02	4.04	2.50	3.43	1.70	4.01	***	3.29
	Samutprakarn	6.91	5.57	4.14	2.52	1.46	4.97	3.09	2.26	3.24	2.83	3.14	1.71	2.48	***	2.94
	Pathumthani	2.84	1.62	2.43	2.46	4.91	3.06	2.03	2.02	2.25	1.92	1.51	1.59	1.45	1.04	2.36
	Khanchanaburi	3.16	2.87	0.935	2.47	6.59	1.55	1.30	1.16	1.84	1.35	1.43	0.647	***	***	***
	Mae Hia	2.29	2.87	0.526	0.367	0.936	2.15	1.01	1.05	1.15	1.69	0.537	1.07			
	Sakaerat	2.11	1.60	1.14	0.410	0.477	0.289	0.557	3.01	4.60	2.97	9.23	10.6			
Vietnam	Hanoi	8.27	7.70	7.02	7.41	3.87	5.42	5.83	5.85	7.28	15.1	12.3	9.77	13.3	11.1	24.5
	Hoa Binh	3.17	2.51	7.61	4.21	4.15	5.40	3.54	3.95	3.63	3.73	8.70	3.32	11.1	9.47	5.21
	Cuc Phuong		9.89	7.30	8.86	14.3	23.1	8.30	7.94	16.1	18.6	25.6	21.2	21.1	26.6	26.2
	Da Nang		30.1	14.4	34.3	15.4	43.4	23.9	16.6	24.6	25.4	27.6	61.3	51.1	44.8	64.6
	Can Tho							8.19	20.2	11.4	10.2	25.7	24.1	13.0	17.8	20.5
	Ho Chi Minh							16.7	25.4	17.6	31.0	25.2	29.9	23.6	25.4	23.2
	Yen Bai								4.06	5.88	3.99	6.32	3.71	15.8	4.92	5.02

Terms and abbreviations are given in Table 3.5.

Table 3.96 Annual H^+ deposition amount from 2008 to 2022

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

Country	Name of sites	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Cambodia	Phnom Penh	2.65	0.861	1.98	1.41	1.12	0.890	0.969	0.791	0.496	0.920	***	***	***	***	***
China	Haifu	64.1	64.3	69.3	53.4	58.1	30.8	17.1	4.65	0.832	1.79	5.70	4.56	4.36	3.88	1.78
	Jinyunshan	53.3	51.7	112	77.1	82.0	71.4	61.3	25.7	12.9	8.96	13.2	18.2	21.5	13.7	7.17
	Shizhan	0.155	0.176	0.0965	0.352	0.217	0.0514	0.154	0.131	0.0852	0.148	0.0803	0.0697	0.0528	0.0616	0.0336
	Jiwozi	0.0498	0.498	3.36	1.10	0.0295	0.412	0.0591	0.0556	0.0875	0.103	0.0895	0.102	0.121	0.537	0.348
	Hongwen	24.3	22.2	40.7	19.0	28.6	18.5	9.48	12.9	21.5	2.46	2.25	0.877	0.124	2.05	4.78
	Xiaoping	55.8	38.7	40.2	23.4	20.3	19.6	26.7	17.6	34.2	0.856	12.2	18.9	13.7	10.1	14.3
	Xiang Zhou	33.0	26.9	26.2	11.1	11.7	14.1	16.6	3.96	15.9	20.0	17.9	22.4	14.5	14.9	13.0
	Zhuxiandong	30.2	28.0	21.0	19.1	***	***	***	5.25	16.2	15.4	14.7	20.1	14.4	8.55	13.2
	Wuzhishan												1.71	1.07	0.720	0.768
	Lijiang												0.269	0.374	0.148	0.117
Indonesia	Jakarta	38.6	36.6	39.5	27.9	47.4	39.3	62.2	40.5	22.3	16.8	34.8	22.1	19.4	26.7	28.2
	Serpong	56.7	25.9	25.0	16.4	11.1	20.1	20.8	20.1	19.2	20.3	12.9	23.1	23.1	7.59	20.3
	Kototabang	14.9	59.9	37.9	20.2	25.7	22.5	38.0	30.9	10.9	15.3	14.2	8.99	13.3	6.58	5.96
	Bandung	15.9	13.4	20.8	6.12	7.25	9.42	12.5	8.87	22.4	10.8	3.79	1.61	1.40	5.72	9.61
	Maros	7.15	15.0	16.4	16.1	5.90	13.7	16.2	14.3	11.4	11.2	14.1	19.1	6.75	0.910	4.41
	Jembrana												6.86	15.4	31.4	31.9
	Lombok												4.11	6.61	10.7	32.3
Japan	Rishiri	10.2	19.3	20.1	24.8	23.6	24.8	19.2	18.4	16.4	16.2	14.8	10.9	12.7	9.26	9.70
	Ochiishi	9.86	15.2	16.0	10.7	13.3	9.94	6.55	8.23	7.28	6.21	8.18	6.34	4.95	10.3	*
	Tappi	21.4	24.4	31.7	28.2	24.1	17.1	26.1	15.7	18.5	20.4	18.1				
	Sado-seki	28.5	18.4	27.0	28.8	24.1	28.7	27.8	18.9	13.9	16.0	17.1	12.1	18.3	28.4	8.24
	Happo	24.2	25.2	21.0	28.2	26.6	26.7	24.0	18.3	20.0	24.9	17.4	18.0	14.3	14.8	14.1
	Ijira	80.2	66.0	66.6	55.2	58.7	48.8	58.8	62.7	55.2	53.5	45.1	45.4	39.7	36.7	42.1
	Oki	27.7	21.8	31.7	28.8	34.2	34.3	23.4	20.3	20.3	14.8	17.8	16.8	21.9	12.8	*
	Banryu	37.2	38.3	29.2	31.3	40.5	46.2	42.3	32.4	28.2	25.2	22.5				
	Yusuhara	47.3	35.5	40.1	39.7	51.3	41.4	46.5	41.2	38.9	80.7	40.3	33.6	32.5	20.1	26.1
	Hedo	19.6	15.4	16.8	22.1	21.3	17.6	23.3	12.6	12.2	16.1	21.0	27.0	16.6	56.9	17.3
	Ogasawara	16.8	11.4	10.5	6.46	7.28	7.15	12.8	9.35	9.21	10.1	5.72	11.0	17.7	9.72	13.3
	Tokyo	46.2	30.6	18.6	20.7	23.5	14.2	26.7	26.8	18.4	16.3	15.3	16.4	11.1	12.3	9.86
	Niigata-maki												20.8	23.8	17.9	16.5
	Tsushima												25.1	28.6	28.9	11.4
Lao PDR	Vientiane	1.65	0.600	***	***	0.463	***	0.366	1.06	0.122	*	*	*	***	***	***
Malaysia	Petaling Jaya	140	134	191	250	210	136	142	153	189	96.6	122	***	83.4	78.3	124
	Tanah Rata	31.4	25.6	21.2	32.1	31.0	31.1	40.3	51.4	33.3	41.9	35.7	***	36.4	***	25.4
	Danum Valley	18.1	20.4	14.2	23.5	19.5	17.1	13.9	12.4	16.6	18.0	12.4	***	13.8	21.2	20.1
	Kuching	23.8	25.5	24.4	17.3	18.4	21.2	16.8	21.6	40.4	23.4	21.4	***	10.3	20.0	10.4
	Gunung Brinchang														3.20	***
Mongolia	Ulaanbaatar	0.0807	0.177	0.202	0.595	0.224	0.161	***	0.0569	1.52	0.471	0.295	0.110	0.182	0.369	0.829
	Terelj	0.768	0.0675	0.316	0.786	0.211	1.11	***	0.315	0.689	0.962	0.233	***	0.0659	0.381	0.820
Myanmar	Yangon	2.50	1.04	0.875	1.09	0.831	0.948	0.571	0.526	0.387	0.575	0.777	0.871	1.23	0.378	0.310
Philippines	Metro Manila	6.75	22.2	6.01	8.29	26.9	10.0	1.93	1.32	7.68	***	***	9.33	6.31	25.6	33.0
	Los Baños	21.2	7.64	2.73	6.43	4.61	3.37	3.34	0.791	33.9	***	***	***	***	***	32.0
	Mt.Sto.Tomas	16.3	6.96	0.726	20.6	6.41	22.7	2.64	6.72	1.52	***	***	***	***	***	1.39
Republic of Korea	Kanghwa	43.9	32.7	61.2	33.9	18.3	23.6	5.72	11.9	13.7	21.4	8.27	10.5	***	3.85	3.18
	Cheju	18.1	8.09	9.21	7.32	5.93	2.66	1.93	3.12	8.90	3.76	1.41	2.00	***	2.42	0.765
	Imsil	11.2	8.62	22.1	8.09	10.9	7.33	5.69	5.78	2.64	3.83	2.34	5.04	***	0.342	0.185
Russia	Mondy	1.38	0.395	0.253	0.213	0.250	1.60	0.573	0.487	0.957	0.928	2.35	0.717	0.232	0.137	0.227
	Listvyanka	9.06	4.49	5.74	9.00	5.73	4.41	3.53	4.91	3.94	5.38	4.03	8.00	6.52	7.88	5.03
	Irkutsk	9.01	1.67	2.78	3.13	5.15	2.71	3.35	1.79	5.68	5.73	6.17	6.14	6.77	6.44	2.59
	Primorskaya	9.02	9.11	7.23	14.6	7.88	6.36	2.19	7.98	3.68	1.31	1.53	3.21	0.800	2.01	1.33
Thailand	Bangkok	9.39	16.7	17.2	19.5	3.74	3.35	0.0953	8.10	4.75	1.72	1.03	0.543	2.43	***	2.98
	Samutprakarn	8.81	14.7	9.06	2.66	0.647	1.18	0.307	3.66	6.46	2.49	4.43	1.58	0.956	***	3.41
	Pathumthani	15.4	9.26	10.3	15.6	5.62	4.60	3.27	5.48	4.29	6.21	10.0	2.79	2.69	2.87	6.18
	Khanchanaburi	4.30	4.35	3.30	6.24	2.30	7.08	1.58	3.76	1.10	2.02	1.72	0.544	***	***	***
	Mae Hia	1.34	1.26	0.789	8.29	0.876	1.30	0.278	1.70	1.85	3.42	2.51	5.31			
	Sakaerat	16.0	17.1	29.0	15.0	9.66	8.23	6.42	12.8	5.92	6.50	8.21	7.11			
Vietnam	Hanoi	3.24	3.46	1.44	9.13	4.29	4.29	3.04	0.826	4.19	0.604	5.77	14.5	1.02	4.55	7.82
	Hoa Binh	6.42	6.96	5.84	6.42	4.50	1.83	4.69	8.20	3.32	11.4	15.4	7.55	4.04	7.65	7.75
	Cuc Phuong		23.4	9.73	16.8	7.42	7.16	5.10	6.99	3.03	18.8	8.99	5.52	11.0	1.42	6.05
	Da Nang		49.9	13.0	38.0	6.16	6.07	6.69	1.98	2.99	3.06	4.27	1.52	2.18	4.19	5.23
	Can Tho							1.01	3.71	2.39	2.05	3.50	2.79	2.34	2.77	2.65
	Ho Chi Minh							2.72	1.10	4.46	2.97	1.92	2.45	2.74	1.91	1.82
	Yen Bai								8.93	12.0	15.3	8.36	24.4	2.87	3.66	15.7

Terms and abbreviations are given in Table 3.5.

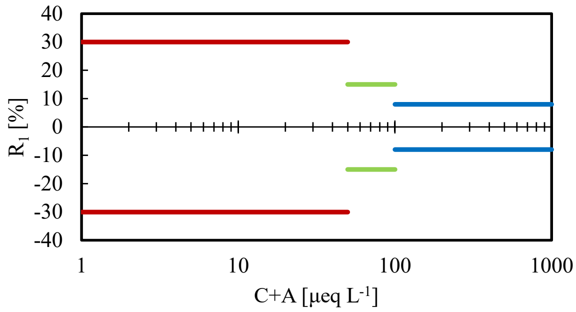


Fig. 3.2 a) Phnom Penh Ion Balance (R_1)

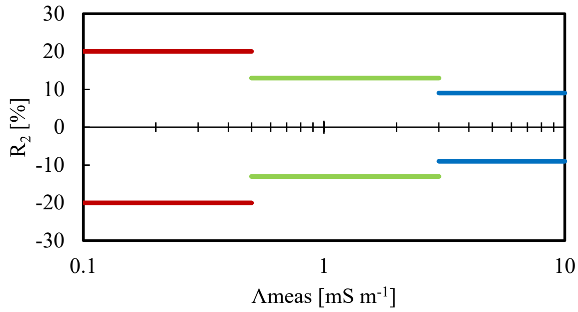


Fig. 3.2 b) Phnom Penh Conductivity Agreement (R_2)

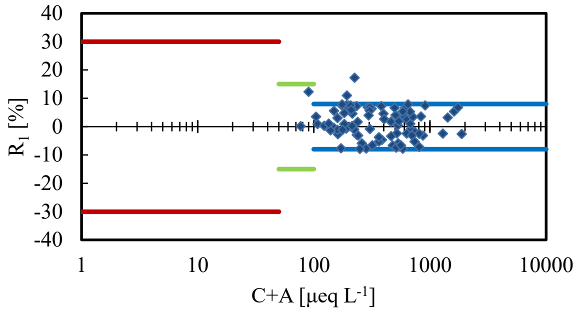


Fig. 3.3 a) Haifu Ion Balance (R_1)

All of R_1 plots were calculated including HCO_3^- and F^-

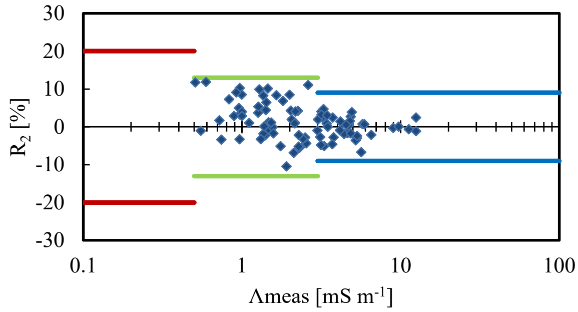


Fig. 3.3 b) Haifu Conductivity Agreement (R_2)

All of R_2 plots were calculated including HCO_3^- and F^-

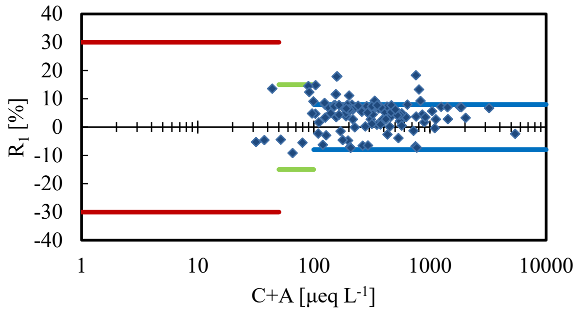


Fig. 3.4 a) Jinyunshan Ion Balance (R_1)

All of R_1 plots were calculated including HCO_3^- and F^-

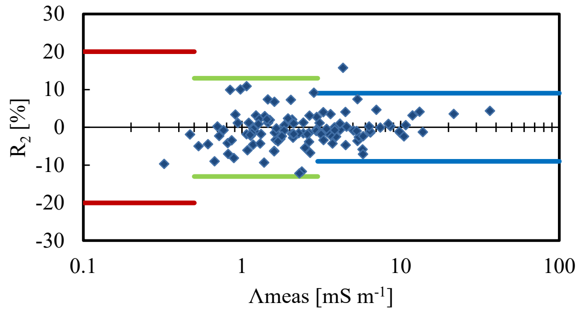


Fig. 3.4 b) Jinyunshan Conductivity Agreement (R_2)

All of R_2 plots were calculated including HCO_3^- and F^-

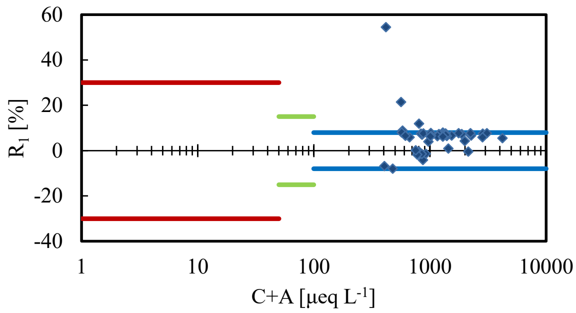


Fig. 3.5 a) Shizhan Ion Balance (R_1)

All of R_1 plots were calculated including HCO_3^-

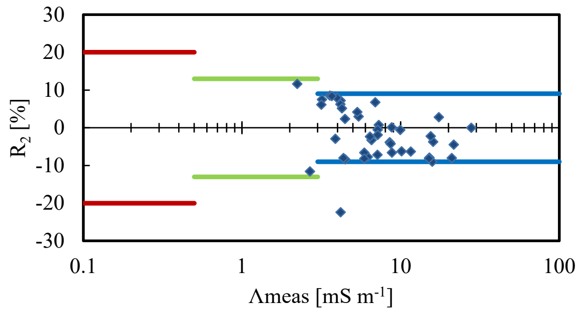


Fig. 3.5 b) Shizhan Conductivity Agreement (R_2)

All of R_2 plots were calculated including HCO_3^-

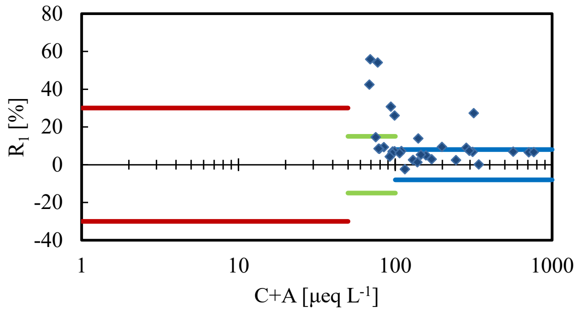


Fig. 3.6 a) Jiwozi Ion Balance (R_1)

All of R_1 plots were calculated including HCO_3^-

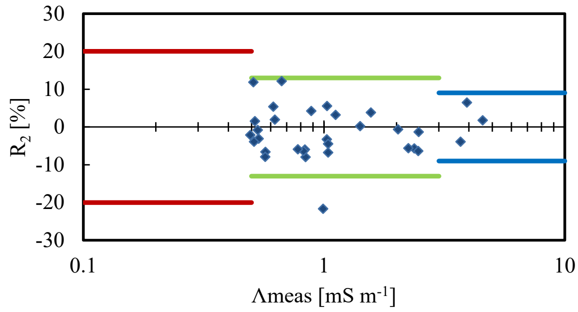


Fig. 3.6 b) Jiwozi Conductivity Agreement (R_2)

All of R_2 plots were calculated including HCO_3^-

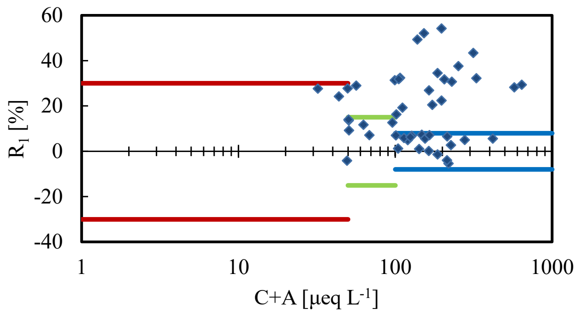


Fig. 3.7 a) Hongwen Ion Balance (R_1)

All of R_1 plots were calculated including F^-

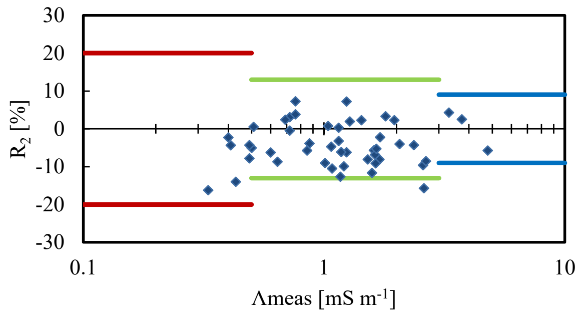


Fig. 3.7 b) Hongwen Conductivity Agreement (R_2)

All of R_2 plots were calculated including F^-

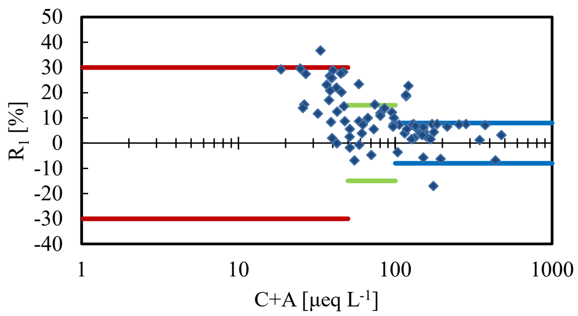


Fig. 3.8 a) Xiaoping Ion Balance (R_1)

All of R_1 plots were calculated including F^-

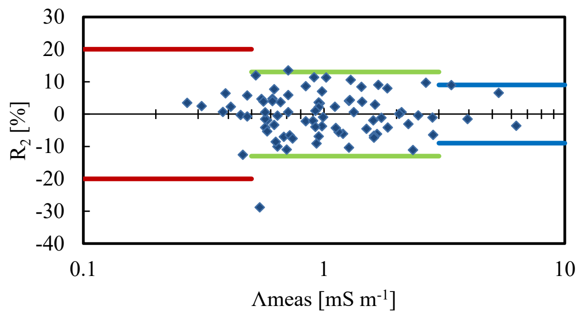


Fig. 3.8 b) Xiaoping Conductivity Agreement (R_2)

All of R_2 plots were calculated including F^-

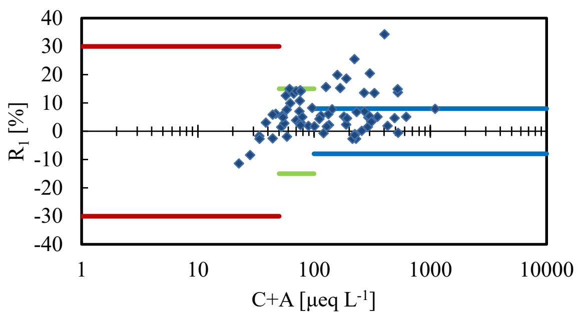


Fig. 3.9 a) Xiang Zhou Ion Balance (R_1)

All of R_1 plots were calculated including F^-

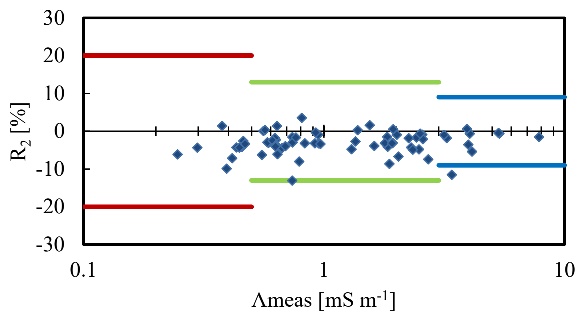


Fig. 3.9 b) Xiang Zhou Conductivity Agreement (R_2)

All of R_2 plots were calculated including F^-

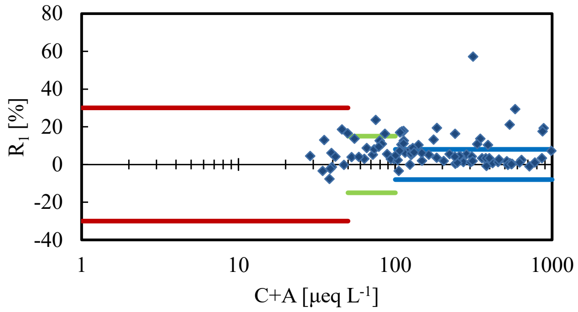


Fig. 3.10 a) Zhuxiandong Ion Balance (R_1)

All of R_1 plots were calculated including F^-

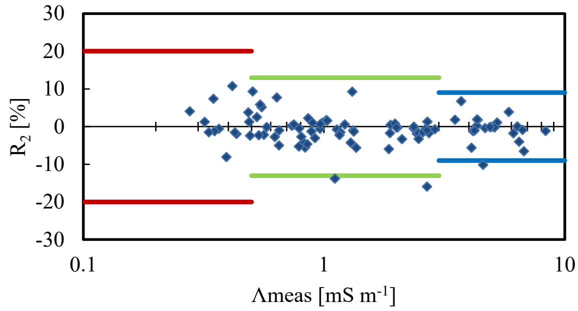


Fig. 3.10 b) Zhuxiandong Conductivity Agreement (R_2)

All of R_2 plots were calculated including F^-

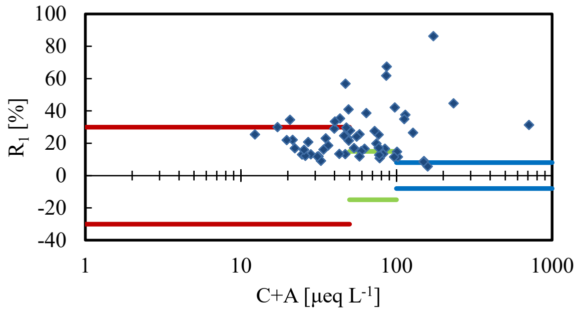


Fig. 3.11 a) Wuzhishan Ion Balance (R_1)

All of R_1 plots were calculated including F^-

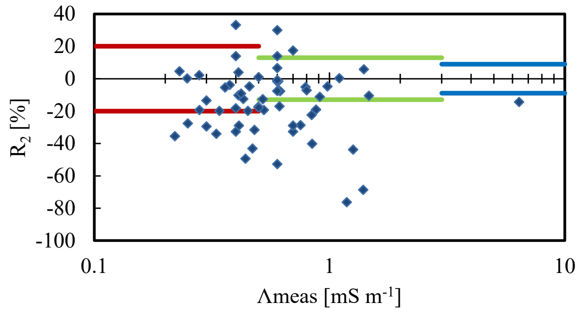


Fig. 3.11 b) Wuzhishan Conductivity Agreement (R_2)

All of R_2 plots were calculated including F^-

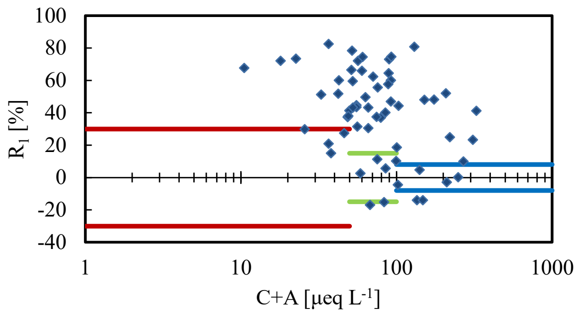


Fig. 3.12 a) Lijiang Ion Balance (R_1)

All of R_1 plots were calculated including F^-

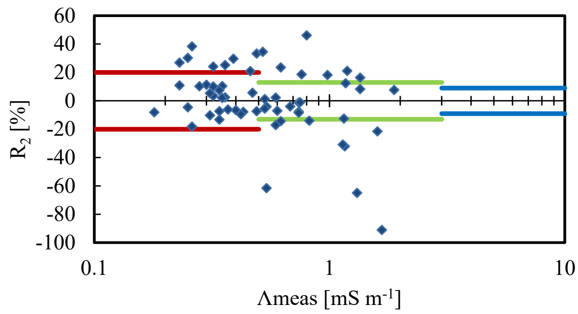


Fig. 3.12 b) Lijiang Conductivity Agreement (R_2)

All of R_2 plots were calculated including F^-

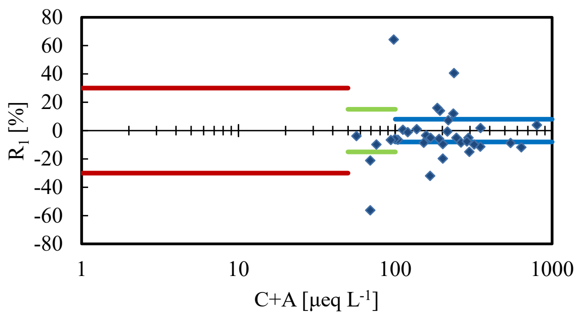


Fig. 3.13 a) Jakarta Ion Balance (R_1)

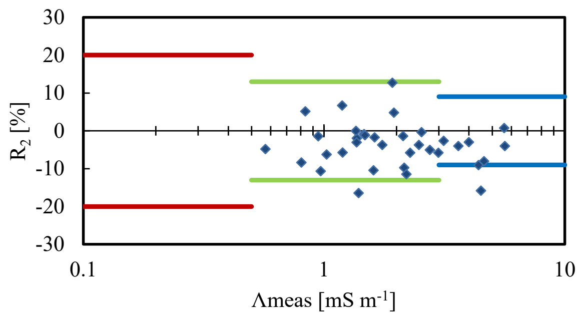


Fig. 3.13 b) Jakarta Conductivity Agreement (R_2)

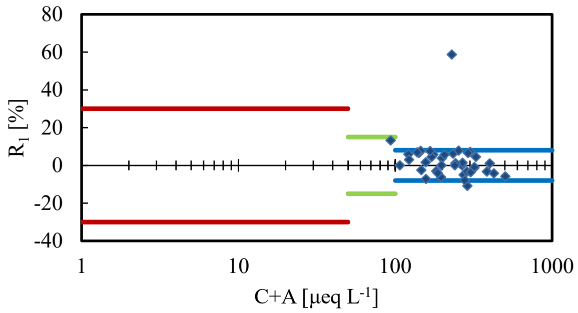


Fig. 3.14 a) Serpong Ion Balance (R_1)

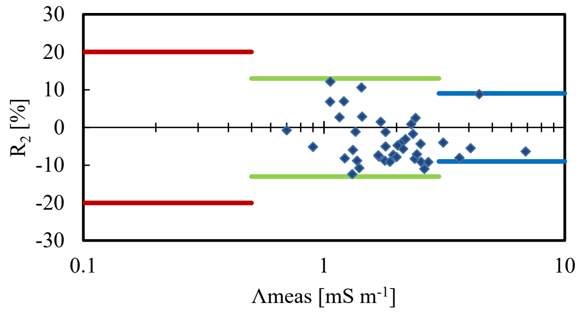


Fig. 3.14 b) Serpong Conductivity Agreement (R_2)

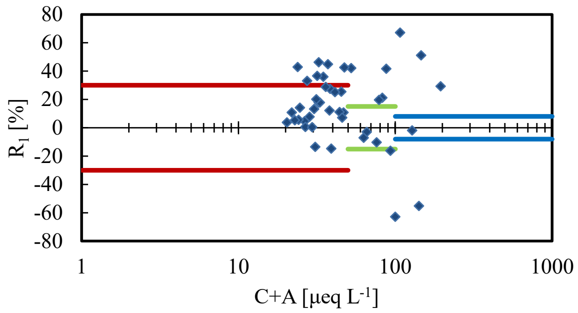


Fig. 3.15 a) Kototabang Ion Balance (R_1)

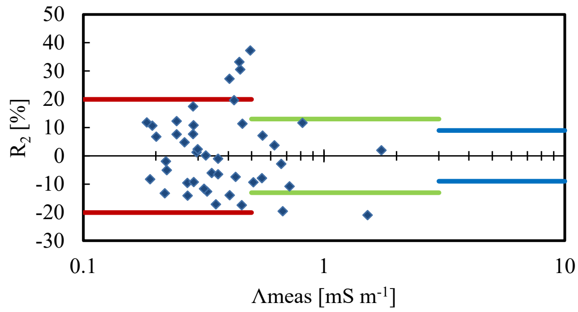


Fig. 3.15 b) Kototabang Conductivity Agreement (R_2)

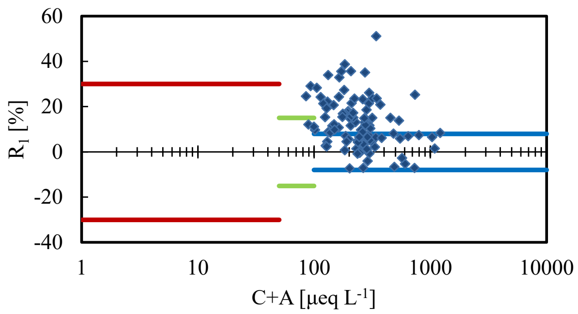


Fig. 3.16 a) Bandung Ion Balance (R_1)

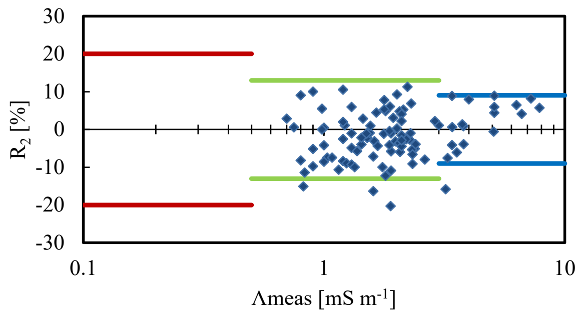


Fig. 3.16 b) Bandung Conductivity Agreement (R_2)

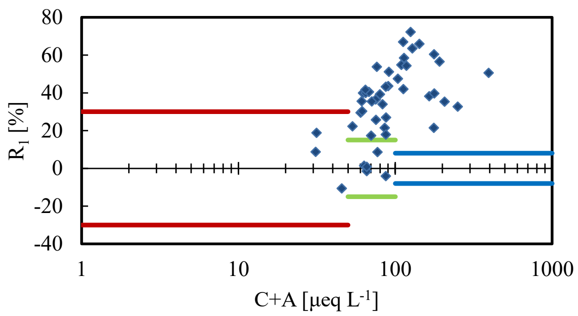


Fig. 3.17 a) Maros Ion Balance (R_1)

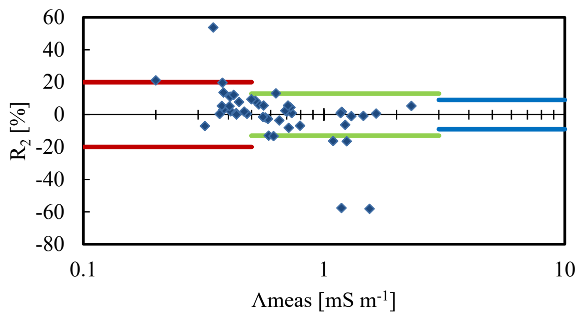


Fig. 3.17 b) Maros Conductivity Agreement (R_2)

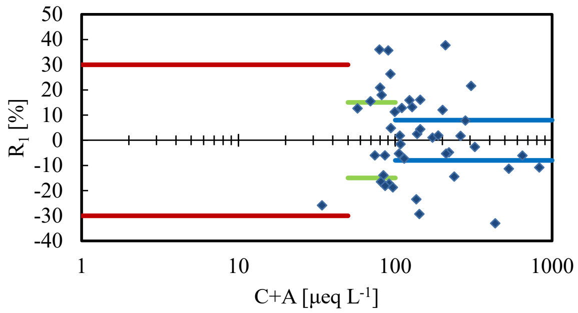


Fig. 3.18 a) Jembrana Ion Balance (R_1)

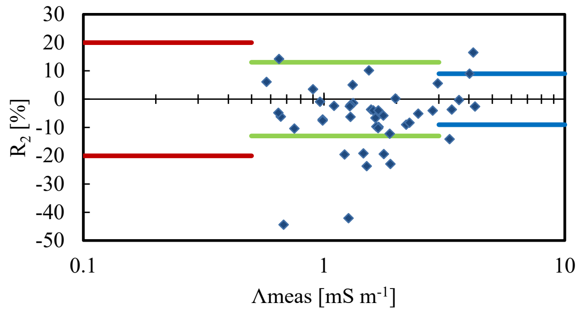


Fig. 3.18 b) Jembrana Conductivity Agreement (R_2)

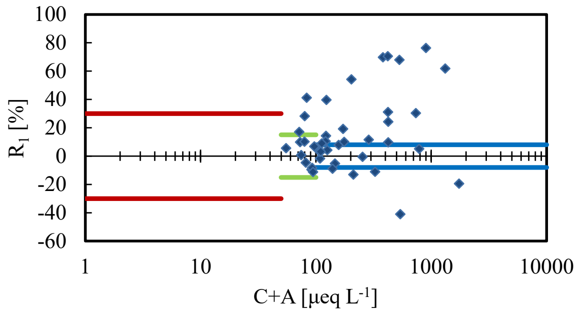


Fig. 3.19 a) Lombok Ion Balance (R_1)

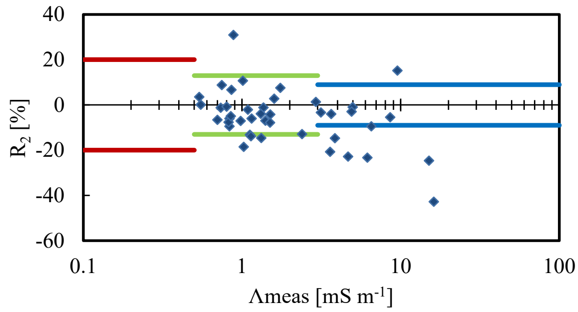


Fig. 3.19 b) Lombok Conductivity Agreement (R_2)

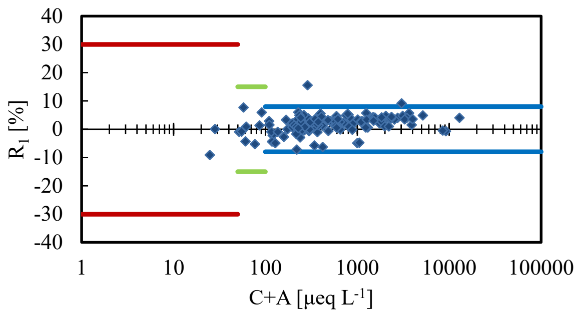


Fig. 3.20 a) Rishiri Ion Balance (R_1)

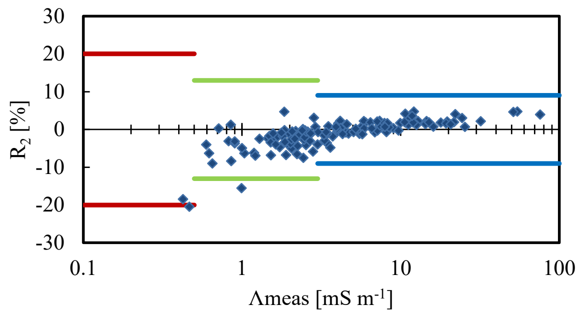


Fig. 3.20 b) Rishiri Conductivity Agreement (R_2)

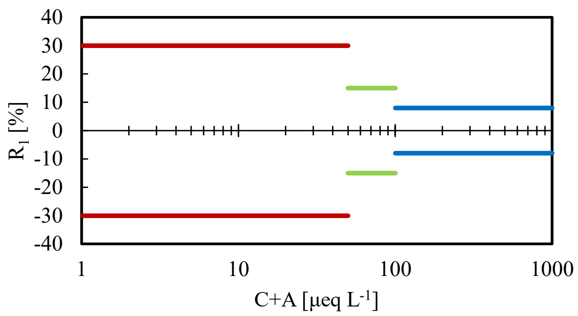


Fig. 3.21 a) Ochiishi Ion Balance (R_1)

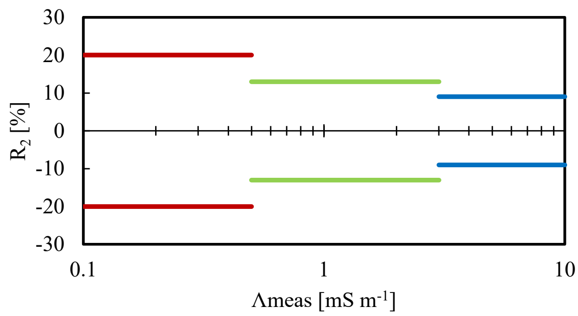


Fig. 3.21 b) Ochiishi Conductivity Agreement (R_2)

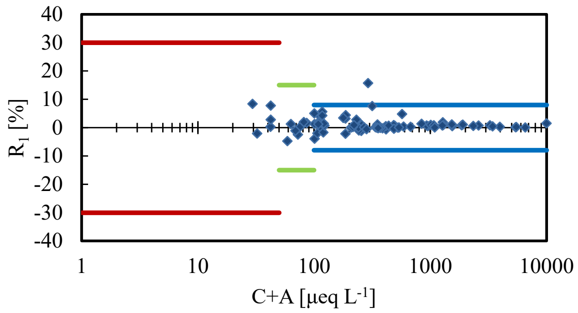


Fig. 3.22 a) Sado-seki Ion Balance (R_1)

All of R_1 plots were calculated including F^-, HCO_3^-, Br^-, NO_2^- and PO_4^{3-}

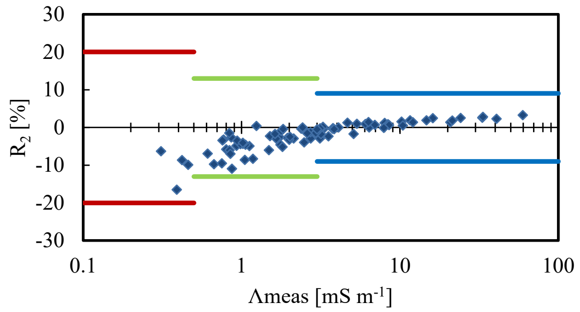


Fig. 3.22 b) Sado-seki Conductivity Agreement (R_2)

All of R_2 plots were calculated including F^-, HCO_3^-, Br^-, NO_2^- and PO_4^{3-}

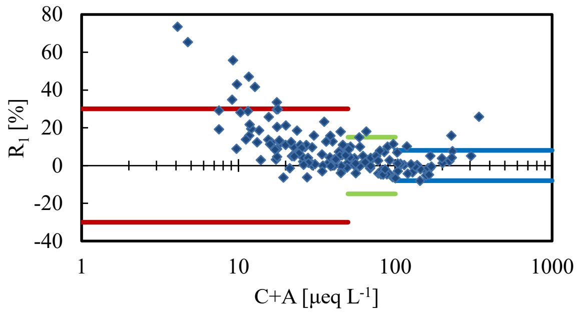


Fig. 3.23 a) Happo Ion Balance (R_1)

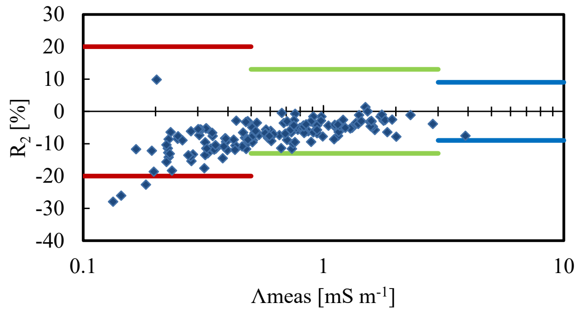


Fig. 3.23 b) Happo Conductivity Agreement (R_2)

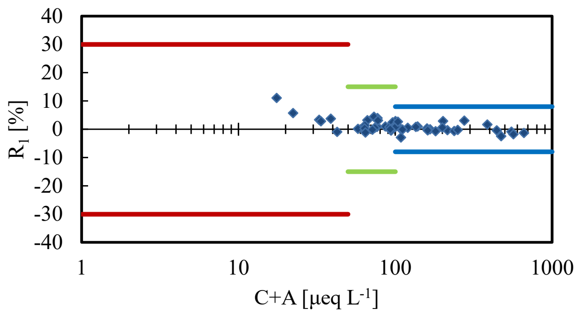


Fig. 3.24 a) Ijira Ion Balance (R_1)

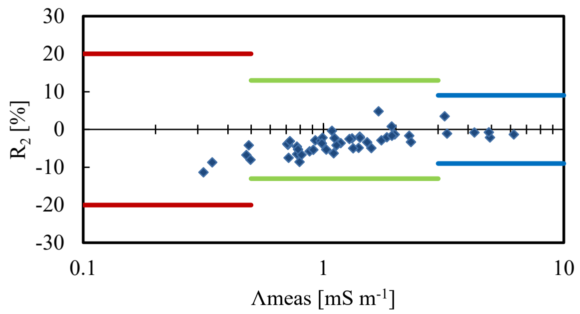


Fig. 3.24 b) Ijira Conductivity Agreement (R_2)

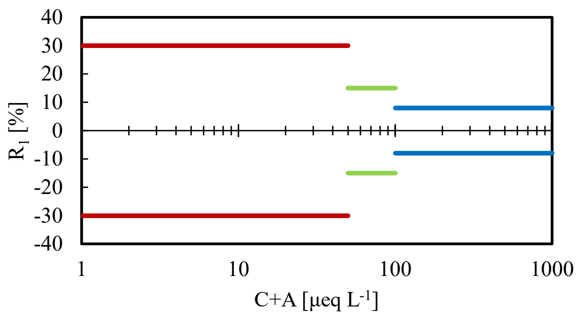


Fig. 3.25 a) Oki Ion Balance (R_1)

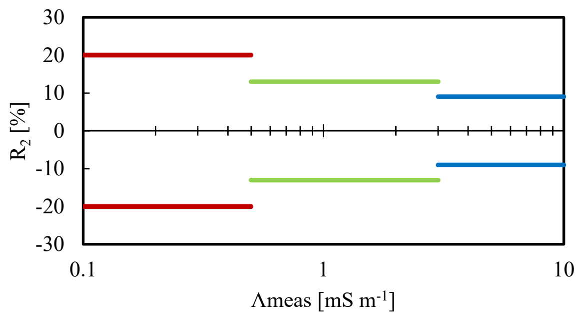


Fig. 3.25 b) Oki Conductivity Agreement (R_2)

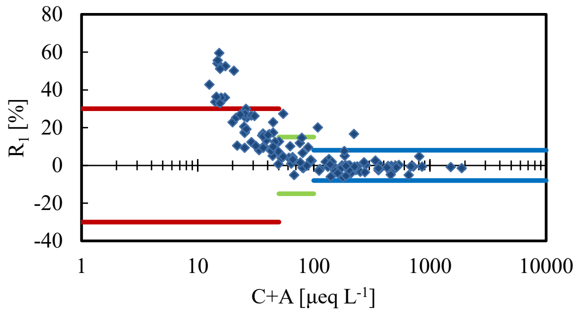


Fig. 3.26 a) Yusuhara Ion Balance (R_1)

All of R_1 plots were calculated including F^-, NO_2^- and PO_4^{3-}

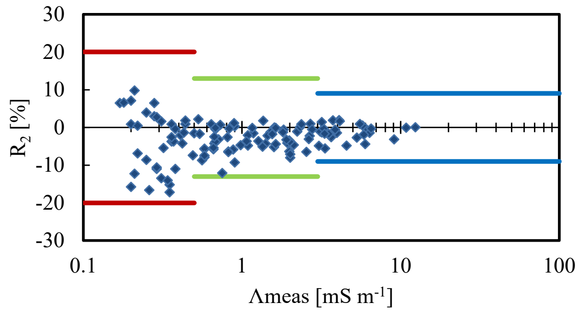


Fig. 3.26 b) Yusuhara Conductivity Agreement (R_2)

All of R_2 plots were calculated including F^-, NO_2^- and PO_4^{3-}

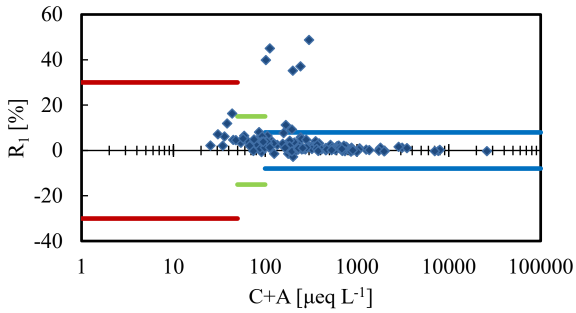


Fig. 3.27 a) Hedo Ion Balance (R_1)

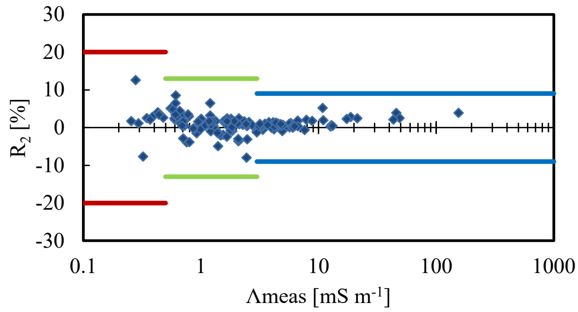


Fig. 3.27 b) Hedo Conductivity Agreement (R_2)

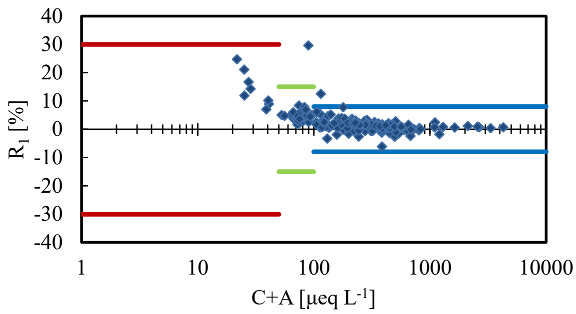


Fig. 3.28 a) Ogasawara Ion Balance (R_1)

All of R_1 plots were calculated including NO_2^-

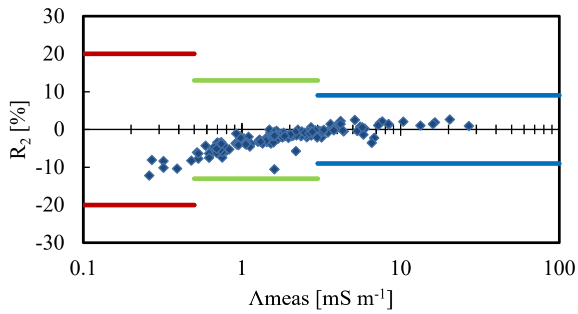


Fig. 3.28 b) Ogasawara Conductivity Agreement (R_2)

All of R_2 plots were calculated including NO_2^-

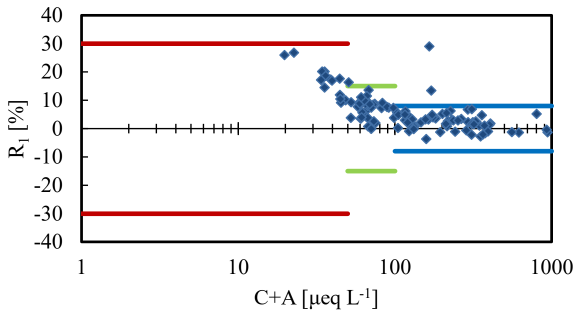


Fig. 3.29 a) Tokyo Ion Balance (R_1)

All of R_1 plots were calculated including NO_2^-

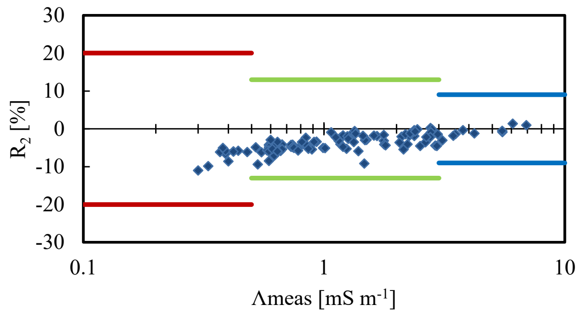


Fig. 3.29 b) Tokyo Conductivity Agreement (R_2)

All of R_2 plots were calculated including NO_2^-

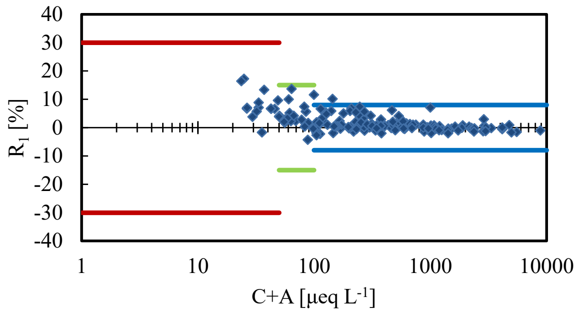


Fig. 3.30 a) Niigata-maki Ion Balance (R_1)

All of R_1 plots were calculated including HCO_3^-

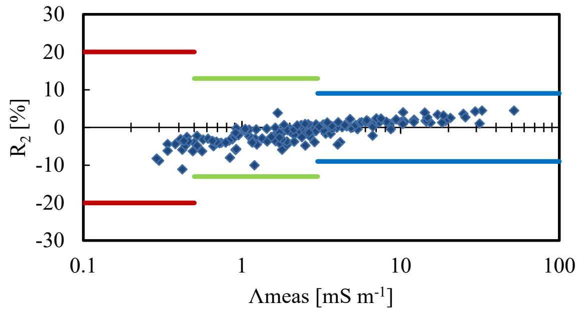


Fig. 3.30 b) Niigata-maki Conductivity Agreement (R_2)

All of R_2 plots were calculated including HCO_3^-

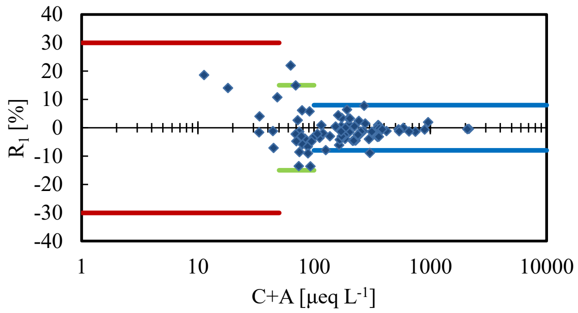


Fig. 3.31 a) Tsushima Ion Balance (R_1)

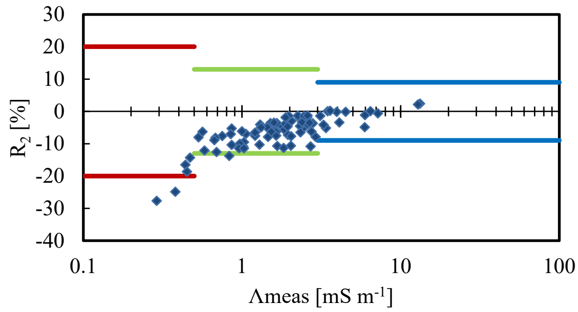


Fig. 3.31 b) Tsushima Conductivity Agreement (R_2)

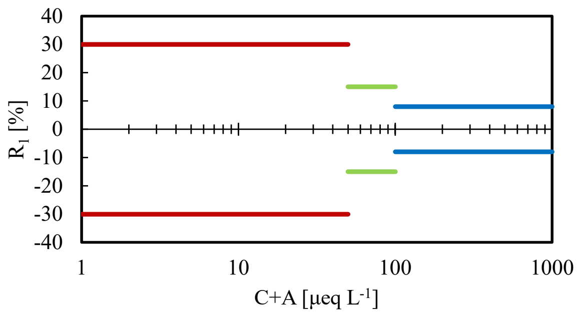


Fig. 3.32 a) Vientiane Ion Balance (R_1)

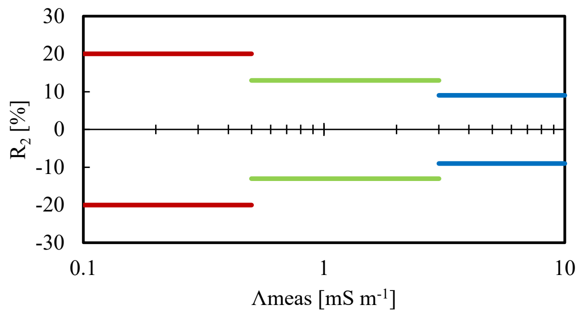


Fig. 3.32 b) Vientiane Conductivity Agreement (R_2)

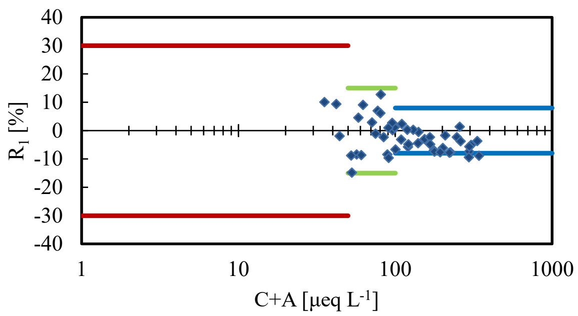


Fig. 3.33 a) Petaling Jaya Ion Balance (R_1)

All of R_1 plots were calculated including Formic, Acetic and Oxalic acid

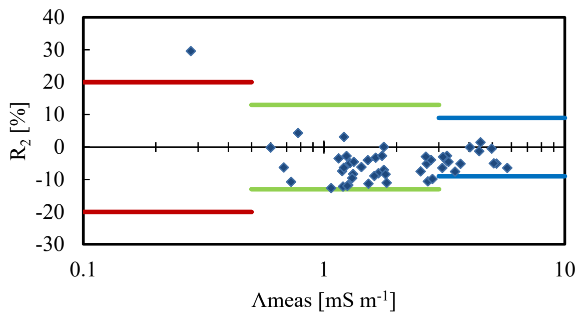


Fig. 3.33 b) Petaling Jaya Conductivity Agreement (R_2)

All of R_2 plots were calculated including Formic, Acetic and Oxalic acid

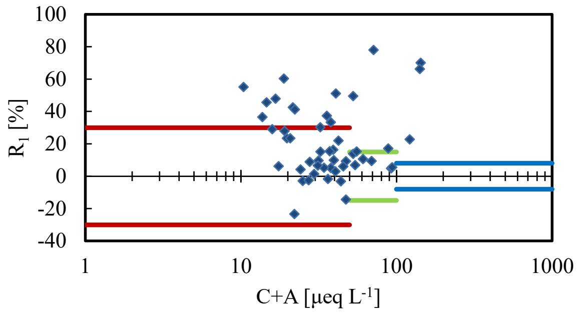


Fig. 3.34 a) Tanah Rata Ion Balance (R_1)

All of R_1 plots were calculated including Formic, Acetic and Oxalic acid

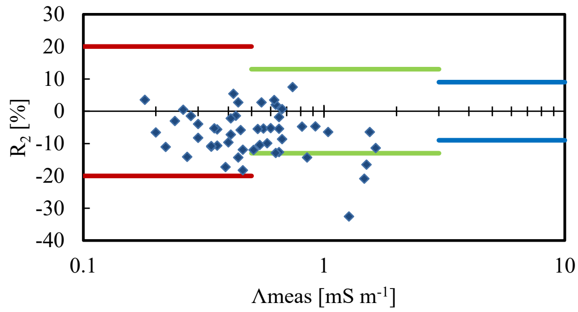


Fig. 3.34 b) Tanah Rata Conductivity Agreement (R_2)

Conductivity Agreement (R_2)

All of R_2 plots were calculated including Formic, Acetic and Oxalic acid

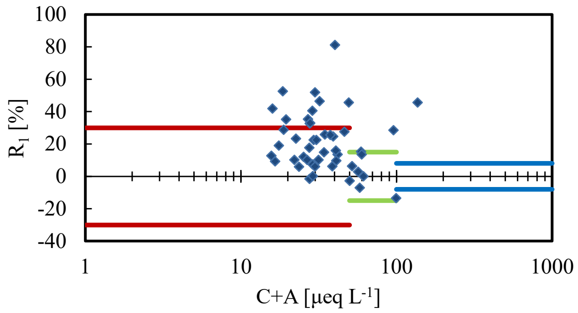


Fig. 3.35 a) Danum Valley Ion Balance (R_1)

All of R_1 plots were calculated including Formic, Acetic and Oxalic acid

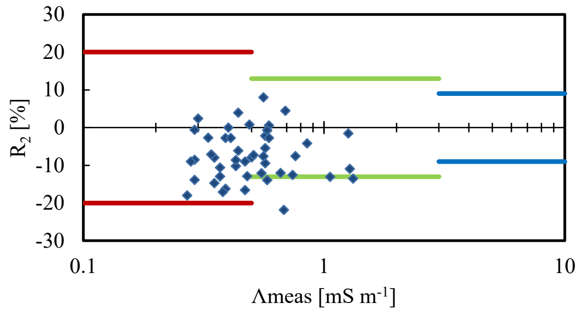


Fig. 3.35 b) Danum Valley

Conductivity Agreement (R_2)

All of R_2 plots were calculated including Formic, Acetic and Oxalic acid

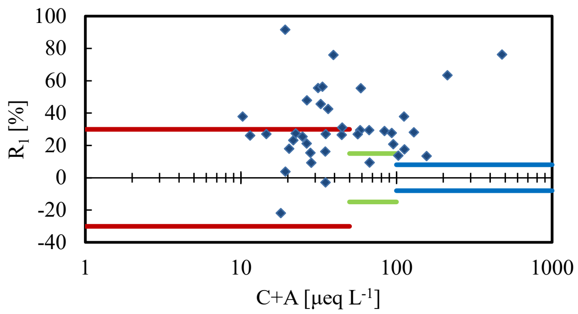


Fig. 3.36 a) Kuching Ion Balance (R_1)

All of R_1 plots were calculated including Formic, Acetic and Oxalic acid

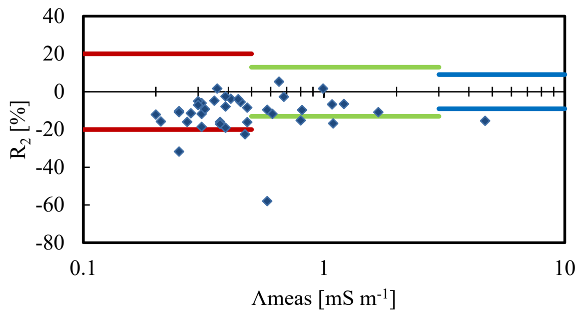


Fig. 3.36 b) Kuching Conductivity Agreement (R_2)

All of R_2 plots were calculated including Formic, Acetic and Oxalic acid

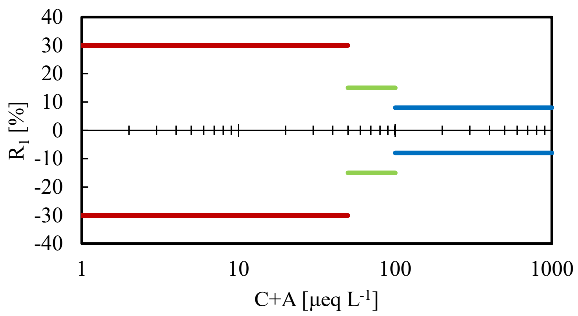


Fig. 3.37 a) Gunung Brinchang Ion Balance (R_1)

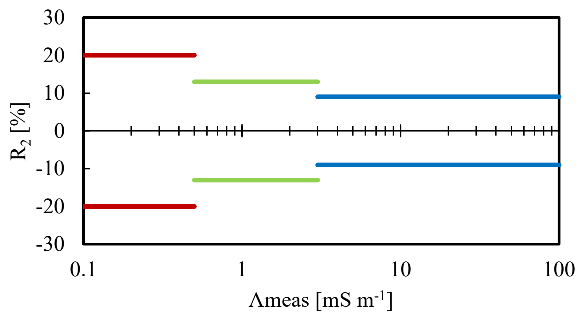


Fig. 3.37 b) Gunung Brinchang

Conductivity Agreement (R_2)

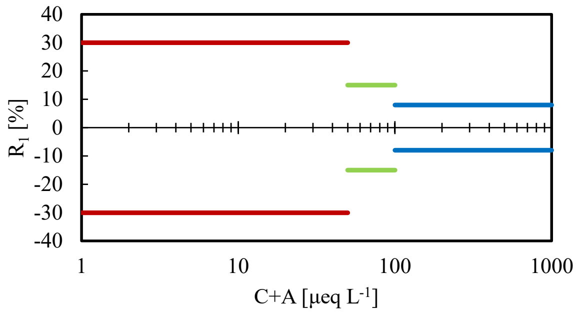


Fig. 3.38 a) Ulaanbaatar Ion Balance (R_1)

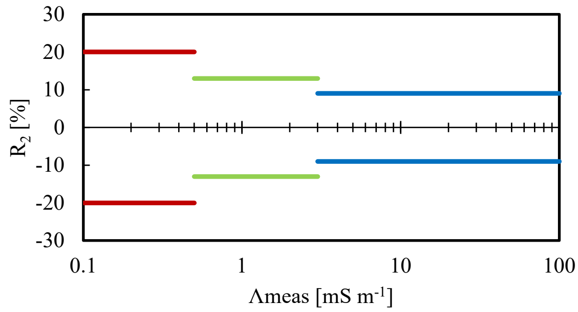


Fig. 3.38 b) Ulaanbaatar Conductivity Agreement (R_2)

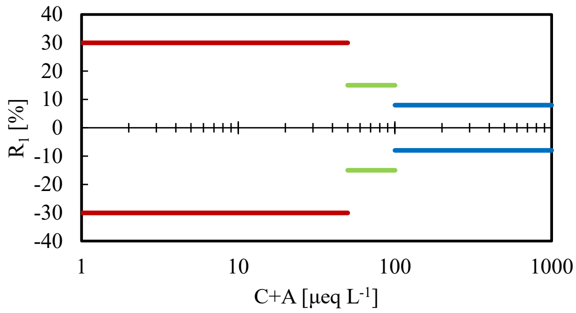


Fig. 3.39 a) Terelj Ion Balance (R_1)

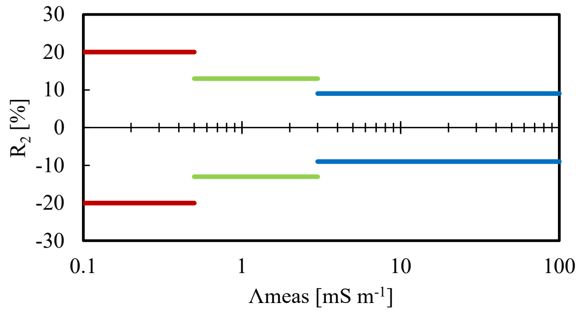


Fig. 3.39 b) Terelj Conductivity Agreement (R_2)

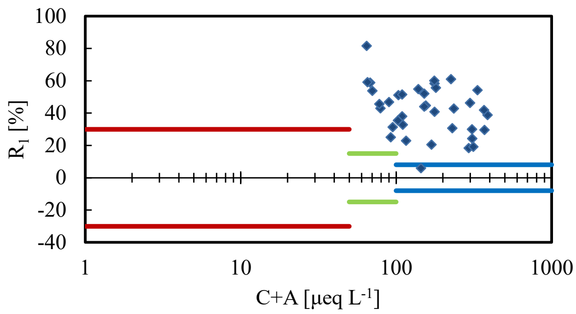


Fig. 3.40 a) Yangon Ion Balance (R_1)

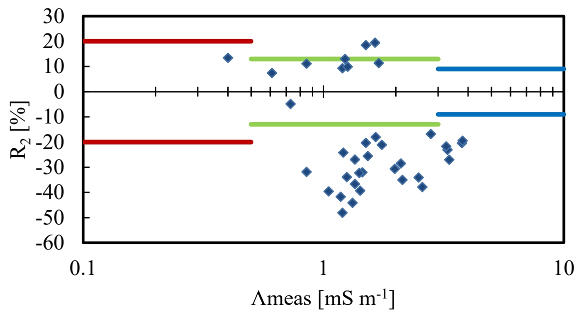


Fig. 3.40 b) Yangon Conductivity Agreement (R_2) Conductivity Agreement (R_2)

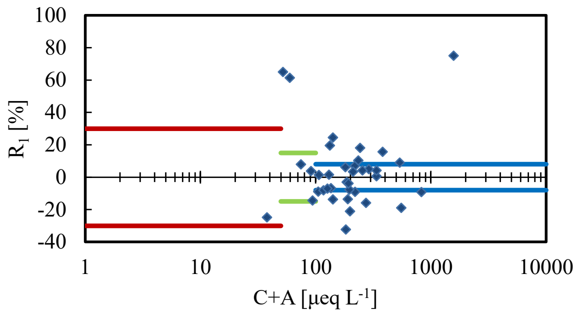


Fig. 3.41 a) Metro Manila Ion Balance (R_1)

All of R_1 plots were calculated including HCO_3^-, F^-, Br^-, NO_2^-, PO_4^{3-}

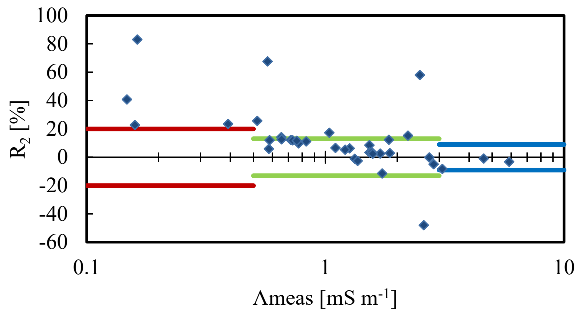


Fig. 3.41 b) Metro Manila Conductivity Agreement (R_2)

All of R_1 plots were calculated including HCO_3^-, F^-, Br^-, NO_2^-, PO_4^{3-}

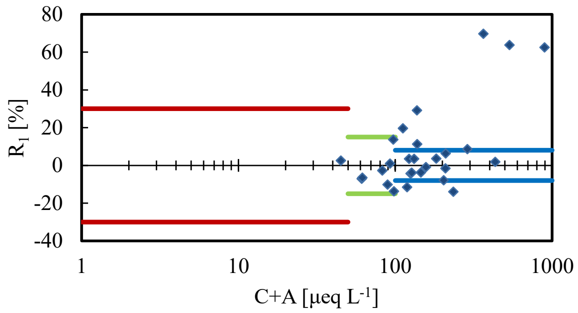


Fig. 3.42 a) Los Baños Ion Balance (R_1)

All of R_1 plots were calculated including HCO_3^-, F^-, Br^-, NO_2^-, PO_4^{3-}

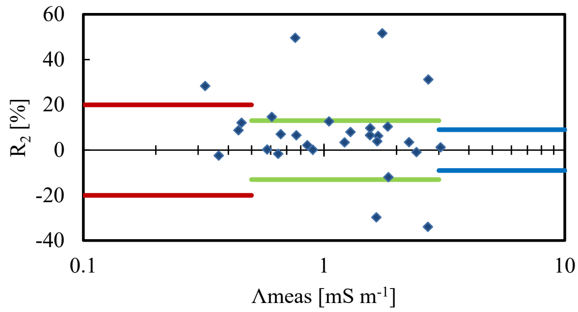


Fig. 3.42 b) Los Baños Conductivity Agreement (R_2)

All of R_1 plots were calculated including HCO_3^-, F^-, Br^-, NO_2^-, PO_4^{3-}

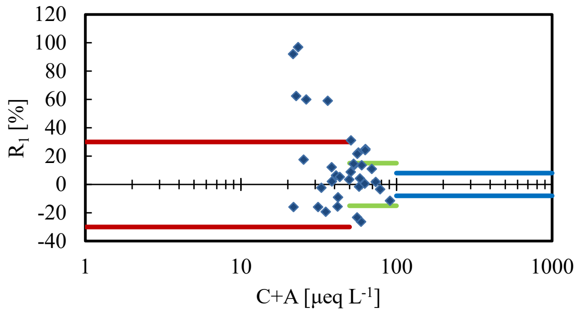


Fig. 3.43 a) Mt. Sto. Tomas Ion Balance (R_1)

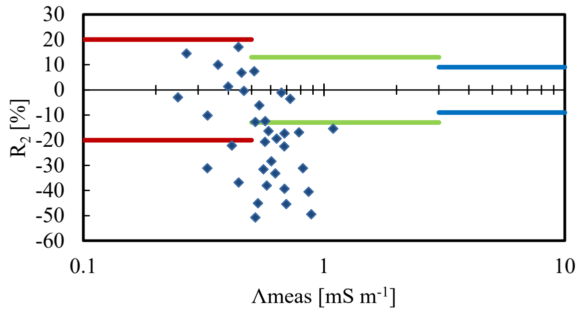


Fig. 3.43 b) Mt. Sto. Tomas Conductivity Agreement (R_2)

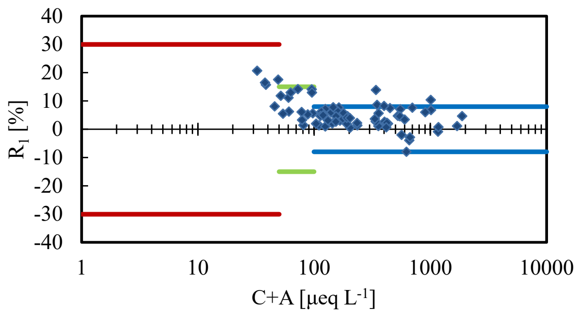


Fig. 3.44 a) Kanghwa Ion Balance (R_1)

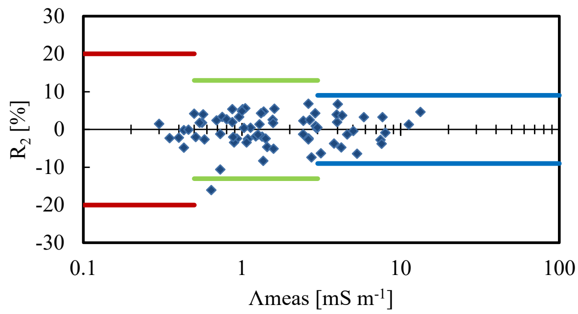


Fig. 3.44 b) Kanghwa Conductivity Agreement (R_2)

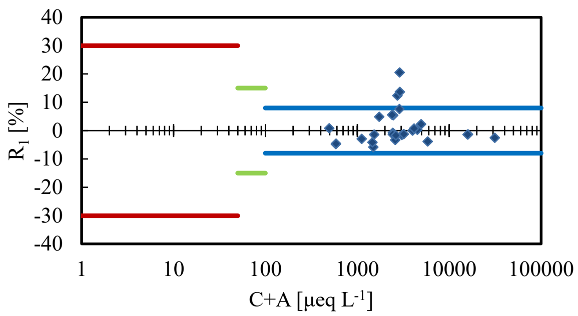


Fig. 3.45 a) Cheju Ion Balance (R_1)

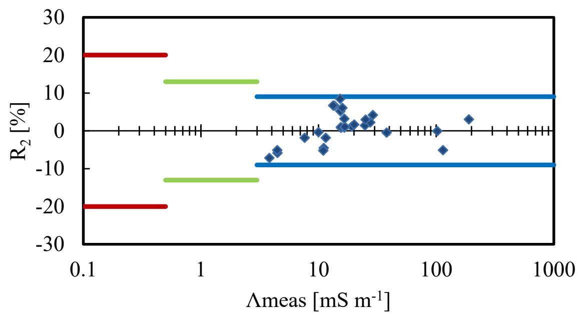


Fig. 3.45 b) Cheju Conductivity Agreement (R_2)

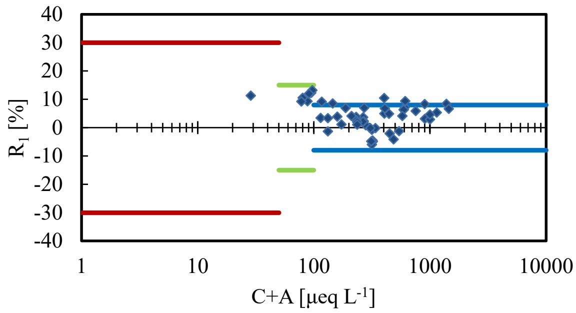


Fig. 3.46 a) Imsil Ion Balance (R_1)

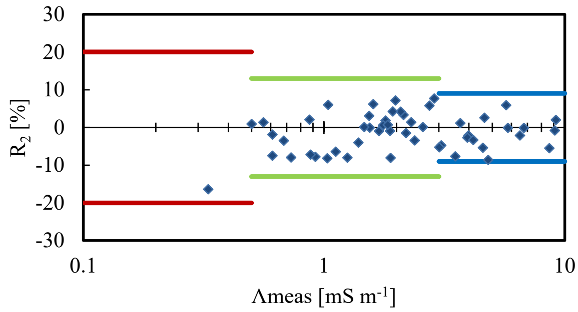


Fig. 3.46 b) Imsil Conductivity Agreement (R_2)

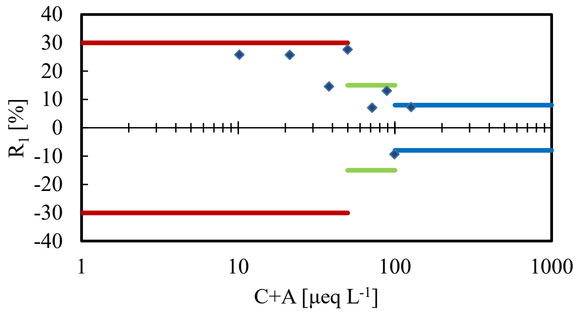


Fig. 3.47 a) Mondy Ion Balance (R_1)

All of R_1 plots were calculated including HCO_3^-, F^-, Br^-, NO_2^-, PO_4^{3-}

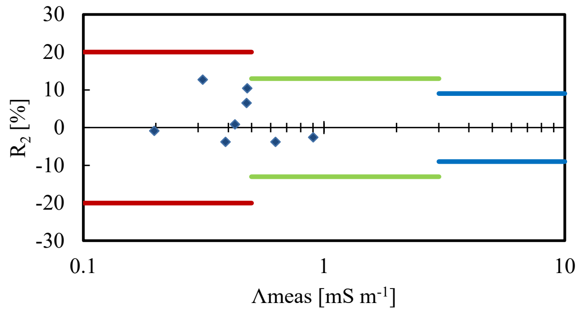


Fig. 3.47 b) Mondy Conductivity Agreement (R_2)
Conductivity Agreement (R_2)

All of R_2 plots were calculated including HCO_3^-, F^-, Br^-, NO_2^-, PO_4^{3-}

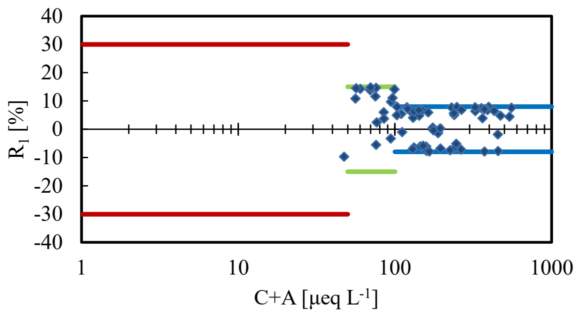


Fig. 3.48 a) Listvyanka Ion Balance (R_1)

All of R_1 plots were calculated including HCO_3^-, F^-, Br^-, NO_2^-, PO_4^{3-}

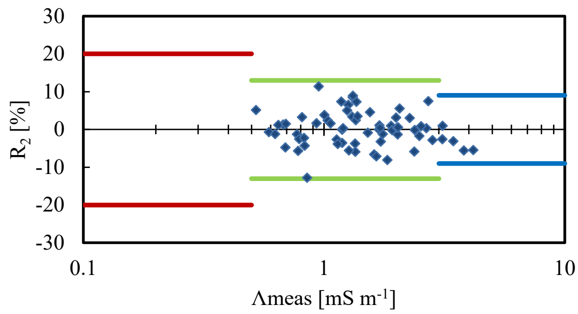


Fig. 3.48 b) Listvyanka Conductivity Agreement (R_2)

All of R_2 plots were calculated including HCO_3^-, F^-, Br^-, NO_2^-, PO_4^{3-}

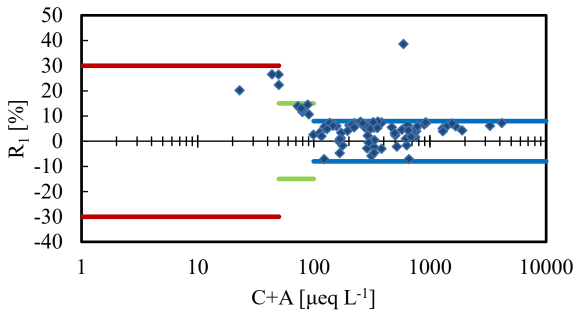


Fig. 3.49 a) Irkutsk Ion Balance (R_1)

All of R_1 plots were calculated including HCO_3^-, F^-, Br^-, NO_2^-, PO_4^{3-}

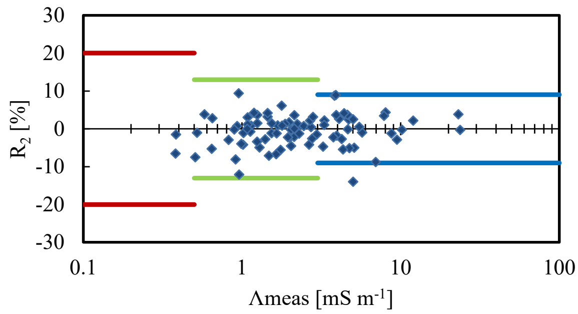


Fig. 3.49 b) Irkutsk Conductivity Agreement (R_2)
Conductivity Agreement (R_2)

All of R_2 plots were calculated including HCO_3^-, F^-, Br^-, NO_2^-, PO_4^{3-}

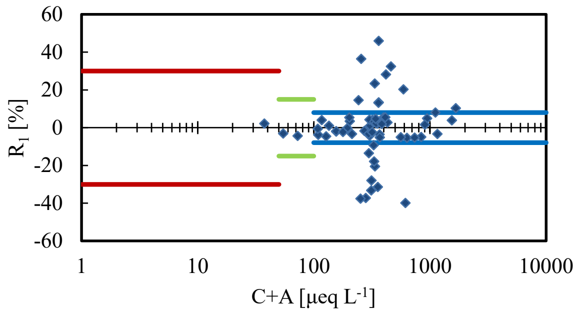


Fig. 3.50 a) Primorskaya Ion Balance (R_1)

All of R_1 plots were calculated including HCO_3^-

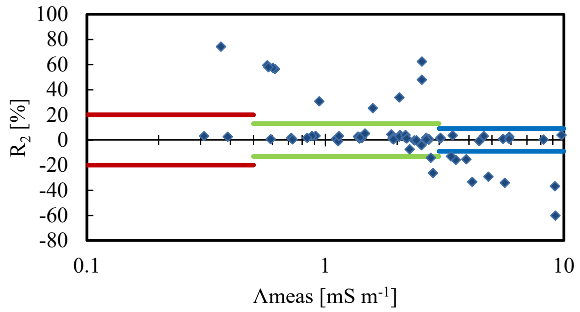


Fig. 3.50 b) Primorskaya
Conductivity Agreement (R_2)

All of R_2 plots were calculated including HCO_3^-

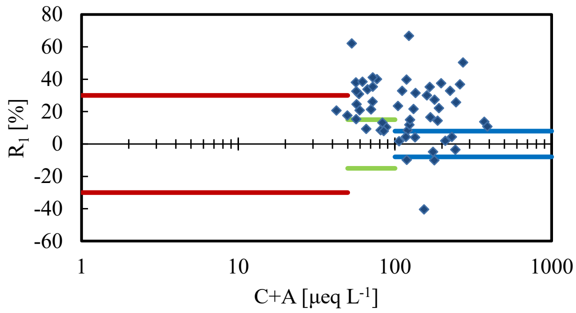


Fig. 3.51 a) Bangkok Ion Balance (R_1)

All of R_1 plots were calculated including PO_4^{3-}, Formic and Acetic acid

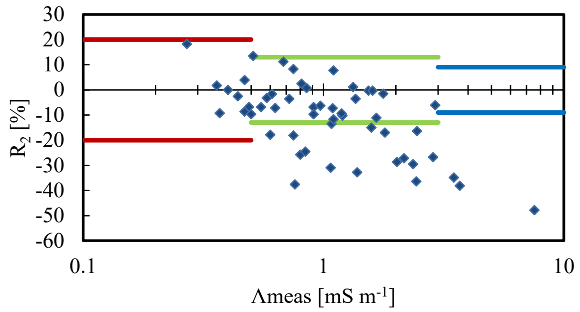


Fig. 3.51 b) Bangkok Conductivity Agreement (R_2)
Conductivity Agreement (R_2)

All of R_2 plots were calculated including PO_4^{3-}, Formic and Acetic acid

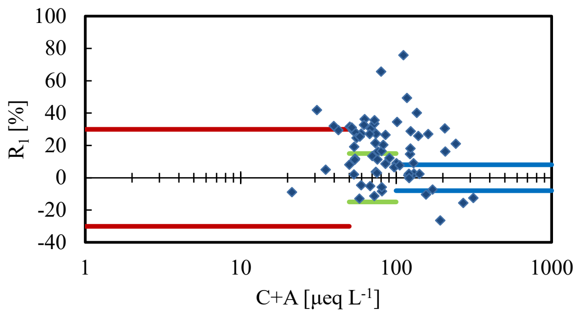


Fig. 3.52 a) Samutprakarn Ion Balance (R_1)

All of R_1 plots were calculated including PO_4^{3-}, Formic and Acetic acid

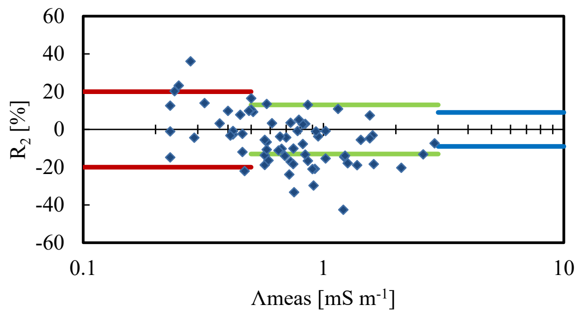


Fig. 3.52 b) Samutprakarn
Conductivity Agreement (R_2)

All of R_2 plots were calculated including PO_4^{3-}, Formic and Acetic acid

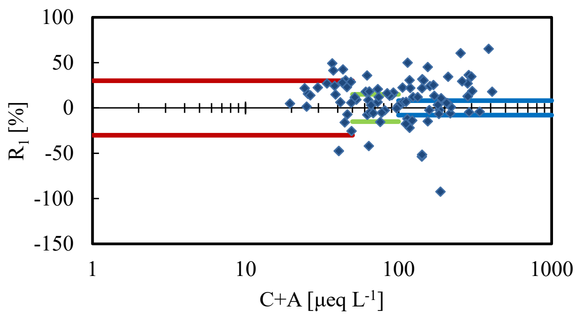


Fig. 3.53 a) Pathumthani Ion Balance (R_1)

All of R_1 plots were calculated including PO_4^{3-}, Formic and Acetic acid

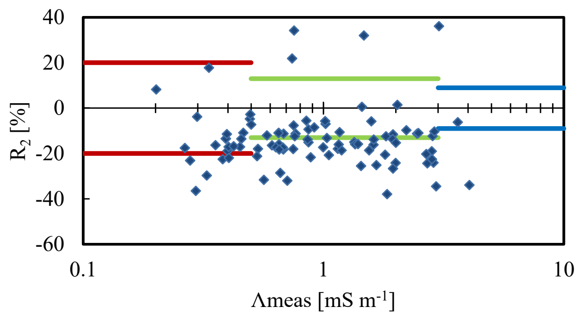


Fig. 3.53 b) Pathumthani
Conductivity Agreement (R_2)

All of R_2 plots were calculated including PO_4^{3-}, Formic and Acetic acid

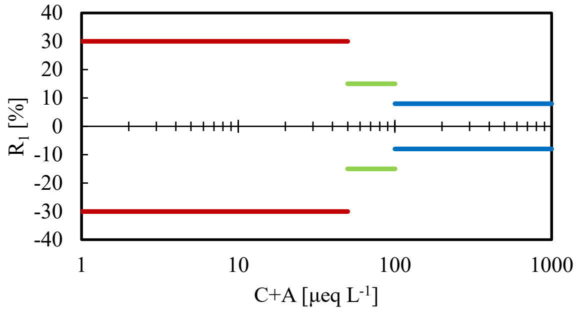


Fig. 3.54 a) Khanchanaburi Ion Balance (R_1)

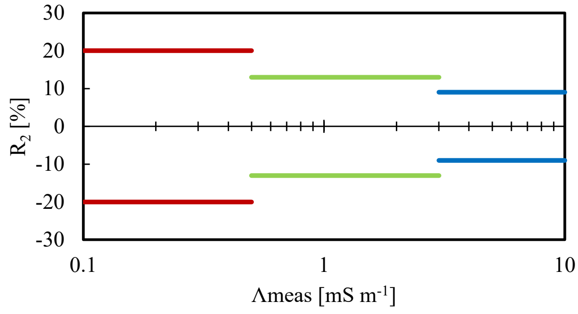


Fig. 3.54 b) Khanchanaburi Conductivity Agreement (R_2)

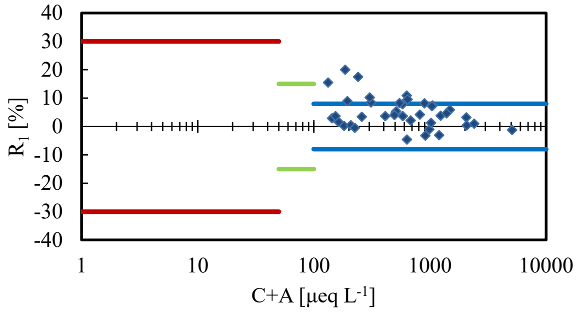


Fig. 3.55 a) Hanoi Ion Balance (R_1)

All of R_1 plots were calculated including F^-

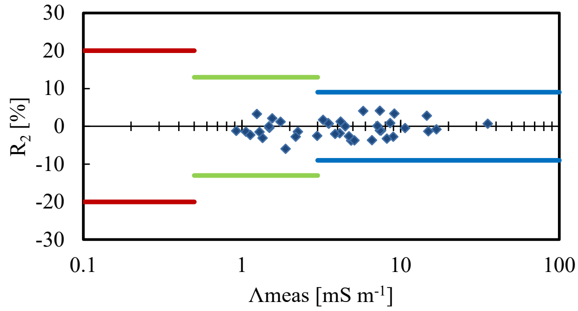


Fig. 3.55 b) Hanoi Conductivity Agreement (R_2)

All of R_2 plots were calculated including F^-

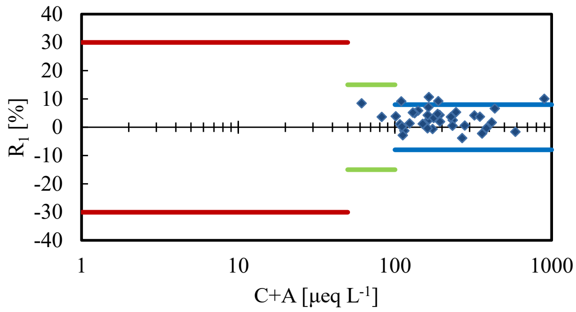


Fig. 3.56 a) Hoa Binh Ion Balance (R_1)

All of R_1 plots were calculated including F^-

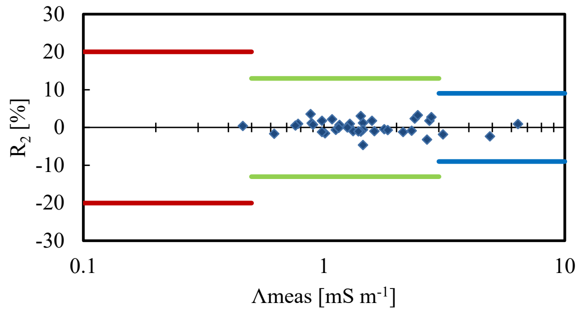


Fig. 3.56 b) Hoa Binh Conductivity Agreement (R_2)

All of R_2 plots were calculated including F^-

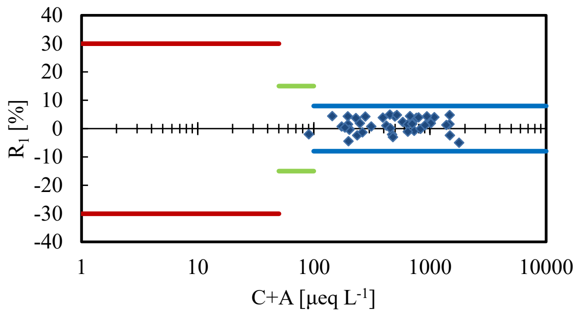


Fig. 3.57 a) Cuc Phuong Ion Balance (R_1)

All of R_1 plots were calculated including HCO_3^- and F^-

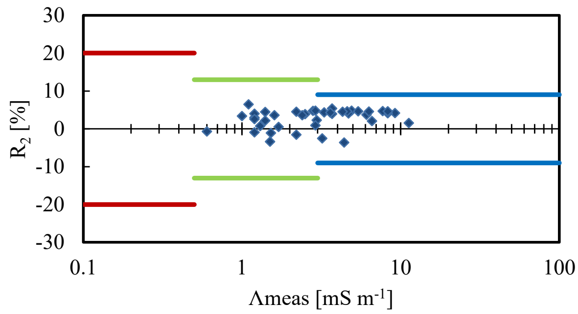


Fig. 3.57 b) Cuc Phuong Conductivity Agreement (R_2)

All of R_2 plots were calculated including HCO_3^- and F-

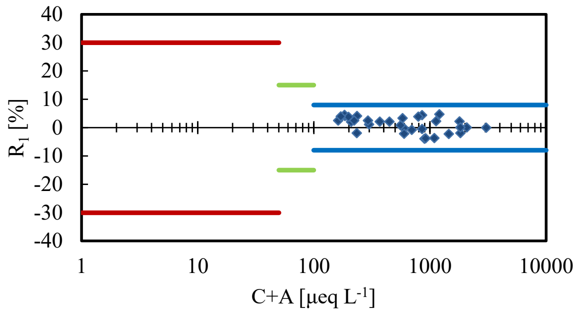


Fig. 3.58 a) Da Nang Ion Balance (R_1)

All of R_1 plots were calculated including HCO_3^- and F^-

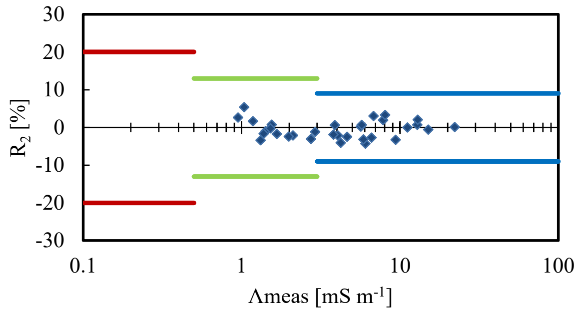


Fig. 3.58 b) Da Nang Conductivity Agreement (R_2)

All of R_2 plots were calculated including HCO_3^- and F-

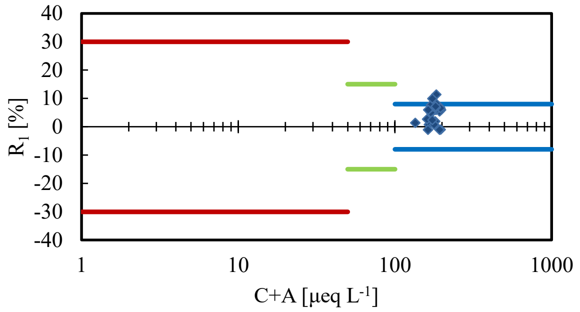


Fig. 3.59 a) Can Tho Ion Balance (R_1)

All of R_1 plots were calculated including F^-

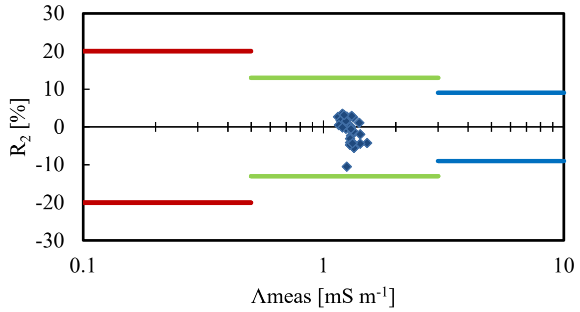


Fig. 3.59 b) Can Tho Conductivity Agreement (R_2)

All of R_2 plots were calculated including F^-

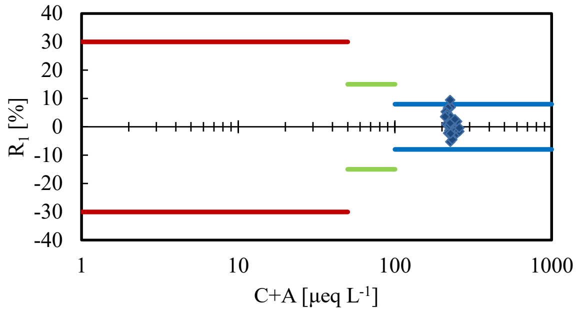


Fig. 3.60 a) Ho Chi Minh Ion Balance (R_1)

All of R_1 plots were calculated including F^-

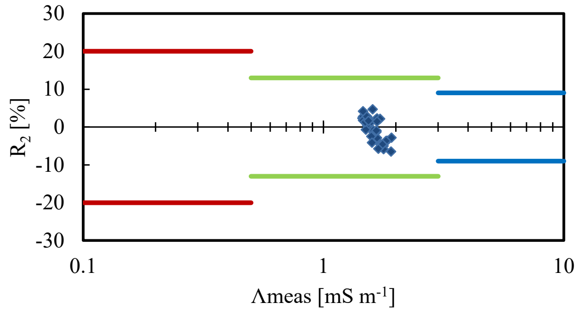


Fig. 3.60 b) Ho Chi Minh
Conductivity Agreement (R_2)

All of R_2 plots were calculated including F^-

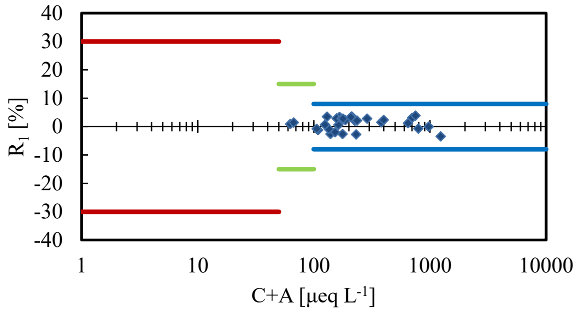


Fig. 3.61 a) Yen Bai Ion Balance (R_1)

All of R_1 plots were calculated including F^-

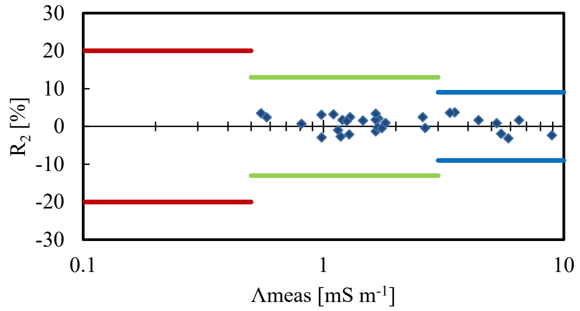


Fig. 3.61 b) Yen Bai Conductivity Agreement (R_2)
Conductivity Agreement (R_2)

All of R_2 plots were calculated including F^-

Table 3.97 Concentration, deposition and data completeness of HCO_3^-

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

Country	Name of sites	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
China	Haifu	105	168	68.4	32.0	22.2	37.4	26.9	98.4	89.8	74.2	69.4	132	54.5
	Jinyunshan	*	52.4	30.9	43.8	26.2	22.7	33.7	86.1	72.3	40.4	66.2	38.9	39.6
	Shizhan	*	146	267	196	327	462	373	379	209	226	*	--	312
	Jiwozi	105	*	--	--	138	*	17.8	*	*	47.7	*	--	48.3
Japan	Sado-seki	*	*	*	*	*	*	11.9	*	*	*	*	*	11.9
	Niigata-maki	*	*	*	*	11.9	13.1	*	11.3	*	*	*	*	11.5
Philippines	Metro Manila	16.0	21.0	77.0	22.4	9.11	12.1	4.48	10.1	4.35	17.6	22.4	216	13.2
	Los Baños	**	3.00	24.0	20.9	7.93	6.59	15.2	4.33	11.4	10.7	16.0	19.7	12.0
Russia	Mondy	<1	--	14.7	--	--	24.6	<1	<1	6.56	--	34.4	--	5.63
	Listvyanka	<1	<1	<1	8.62	19.3	<1	<1	5.79	46.2	13.9	10.5	<1	5.11
	Irkutsk	12.5	20.3	25.9	69.4	13.1	<1	<1	8.25	64.8	30.8	109	86.4	21.2
	Primorskaya	*	4.42	34.1	31.9	21.5	33.7	9.71	26.4	37.7	5.08	40.3	19.7	24.3
Vietnam	Cuc Phuong	58.5	41.7	29.2	60.0	30.5	25.5	67.8	101	122	135	98.3	243	77.0
	Da Nang	30.5	*	80.0	40.0	61.7	542	233	37.5	17.7	12.1	14.1	20.7	32.7

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

Country	Name of sites	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
China	Haifu	1.79	3.82	4.27	3.98	5.13	10.2	1.83	2.66	11.3	3.64	1.04	5.06	57.5
	Jinyunshan	*	1.95	3.56	4.17	6.23	3.61	1.40	2.49	8.96	1.93	1.71	1.26	38.3
	Shizhan	*	1.12	6.04	3.88	11.8	18.0	35.2	28.3	8.89	21.9	*	0.00	142
	Jiwozi	2.39	*	0.00	0.00	9.21	*	2.31	*	*	5.08	*	0.00	20.2
Japan	Sado-seki	*	*	*	*	*	*	0.655	*	*	*	*	*	14.2
	Niigata-maki	*	*	*	*	0.959	1.62	*	2.40	*	*	*	*	19.2
Philippines	Metro Manila	0.478	0.151	3.69	3.14	2.72	2.01	2.32	3.91	2.56	9.41	2.03	4.92	37.3
	Los Baños	**	0.0522	1.11	3.67	0.878	1.13	3.50	1.08	5.41	4.57	2.45	2.01	26.0
Russia	Mondy	<0.01	0.00	0.0147	0.00	0.00	0.212	<0.01	<0.01	0.0243	0.00	0.0551	0.00	0.306
	Listvyanka	<0.01	<0.01	<0.01	0.0293	0.218	0.0707	<0.01	0.336	0.933	0.296	0.133	<0.01	2.02
	Irkutsk	0.221	0.136	0.0662	0.576	0.0125	0.0509	0.0775	0.334	1.94	0.649	1.74	1.98	7.76
	Primorskaya	*	0.0580	1.57	0.929	1.28	2.76	1.45	3.32	4.37	0.295	1.92	1.03	19.0
Vietnam	Cuc Phuong	4.86	3.73	2.00	6.42	14.4	7.14	31.9	27.0	93.4	10.9	6.01	5.90	213
	Da Nang	2.31	*	32.9	4.00	3.76	7.69	10.2	7.01	8.34	14.2	2.21	7.23	99.4

Data completeness %TP

Country	Name of sites	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
China	Haifu	7.0	50.4	73.6	61.0	49.1	87.8	50.6	100	98.6	100	100	55.1	71.9
	Jinyunshan	0.0	23.9	13.8	16.4	0.6	74.7	79.0	59.2	17.6	25.4	100	24.1	28.8
	Shizhan	0.0	100	100	100	100	100	100	100	100	100	0.0	--	94.9
	Jiwozi	59.2	0.0	--	--	39.8	0.0	79.2	0.0	0.0	34.5	0.0	--	42.8
Japan	Sado-seki	0.0	0.0	0.0	0.0	0.0	0.0	6.3	0.0	0.0	0.0	0.0	0.0	0.3
	Niigata-maki	0.0	0.0	0.0	0.0	0.7	0.4	0.0	2.1	0.0	0.0	0.0	0.0	0.3
Philippines	Metro Manila	71.1	100	100	100	100	96.3	100	100	100	99.0	95.5	100	99.1
	Los Baños	**	90.8	100	100	100	87.4	100	100	100	94.9	98.0	98.3	97.7
Russia	Mondy	100	--	100	--	--	100	100	100	100	--	100	--	100
	Listvyanka	100	100	100	100	100	100	100	100	100	100	100	100	100
	Irkutsk	100	100	100	100	100	100	100	100	100	100	100	99.0	99.9
	Primorskaya	0.0	70.2	90.2	89.0	87.2	92.7	98.7	85.1	97.9	96.4	96.4	99.6	92.8
Vietnam	Cuc Phuong	99.8	100	99.6	99.7	100	99.9	100	100	100	95.0	98.9	95.9	99.8
	Da Nang	100	0.0	99.8	99.6	100	100	94.3	100	100	100	100	100	99.7

Terms and abbreviations are given in Table 3.5.

Table 3.98 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	2.29	3.07	2.29	2.09	1.67	1.16	1.21	1.80	2.42	3.09	5.77	5.65	2.00
	Jinyunshan	3.52	2.63	1.94	2.06	<1	1.12	1.60	1.64	1.81	3.14	4.64	5.31	1.79
	Hongwen	7.15	4.39	10.8	3.81	1.46	1.36	1.05	<1	3.00	--	2.17	4.73	3.21
	Xiaoping	1.34	2.01	2.46	2.63	2.58	1.38	1.37	<1	<1	--	3.38	1.81	1.78
	Xiang Zhou	1.05	<1	<1	1.58	<1	<1	<1	<1	1.73	<1	1.04	1.05	<1
	Zhuxiandong	2.63	<1	<1	3.10	<1	<1	<1	<1	<1	<1	1.14	1.05	<1
	Wuzhishan	--	--	<1	<1	<1	<1	<1	<1	<1	1.66	<1	--	<1
	Lijiang	--	--	--	14.2	<1	1.74	5.86	<1	1.84	2.45	--	--	2.91
Japan	Sado-seki	*	*	*	*	*	*	*	*	*	<1	<1	*	<1
	Yusuhara	<1	1.20	<1	<1	<1	<1	<1	<1	<1	1.52	<1	<1	<1
Philippines	Metro Manila	<1	<1	2.71	<1	1.36	<1	<1	<1	1.13	1.01	<1	<1	<1
	Los Baños	**	<1	<1	<1	1.62	<1	<1	<1	<1	1.04	1.04	<1	<1
Russia	Mondy	<1	--	3.16	--	--	<1	<1	<1	<1	--	<1	--	<1
	Listvyanka	4.85	13.4	7.34	27.2	30.7	2.48	2.33	2.04	4.27	4.04	4.79	8.07	4.46
	Irkutsk	11.1	24.7	5.91	48.5	48.4	3.22	2.50	1.03	5.08	3.42	10.2	16.8	6.05
Vietnam	Hanoi	29.2	25.7	10.1	13.1	3.24	4.13	8.50	4.85	7.44	10.1	20.2	4.05	7.07
	Hoa Binh	4.65	2.56	6.22	2.46	1.16	1.50	2.91	1.96	1.33	1.70	4.32	4.00	2.07
	Cuc Phuong	11.2	10.1	4.62	8.09	3.13	5.62	7.17	3.98	4.94	5.10	5.12	6.33	5.48
	Da Nang	9.22	*	10.6	8.37	9.60	11.5	11.7	9.08	8.91	8.03	9.81	8.83	8.90
	Can Tho	--	--	1.00	2.00	1.35	1.08	1.81	1.69	1.18	1.00	1.00	--	1.30
	Ho Chi Minh	1.00	2.00	1.21	1.56	1.00	1.12	1.33	1.25	1.00	1.32	1.00	1.00	1.16
	Yen Bai	4.53	3.92	6.26	12.1	1.66	2.82	1.58	1.94	2.17	7.84	2.90	4.61	3.03

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	0.0391	0.0700	0.143	0.259	0.388	0.317	0.0824	0.0486	0.305	0.152	0.0865	0.216	2.11
	Jinyunshan	0.0789	0.0980	0.224	0.196	0.175	0.178	0.0665	0.0473	0.224	0.150	0.120	0.171	1.73
	Hongwen	0.380	0.637	0.805	0.0765	0.260	0.251	0.108	0.0198	0.0180	0.00	0.102	0.0919	2.75
	Xiaoping	0.0374	0.228	0.196	0.0536	0.485	0.453	0.164	0.0739	<0.01	0.00	0.0411	0.118	1.86
	Xiang Zhou	0.0122	0.0209	0.0473	<0.01	<0.01	0.0197	0.0234	0.0297	0.0706	0.0148	0.122	0.0351	0.410
	Zhuxiandong	<0.01	0.0791	0.0417	0.0496	0.0514	0.0259	<0.01	0.0274	0.109	0.0251	0.131	0.0357	0.586
	Wuzhishan	0.00	0.00	0.0321	<0.01	0.0537	0.0117	0.0301	<0.01	<0.01	0.0539	<0.01	0.00	0.188
	Lijiang	0.00	0.00	0.00	0.116	0.0148	0.135	0.554	0.0362	0.119	0.0284	0.00	0.00	1.00
	Sado-seki	*	*	*	*	*	*	*	*	*	0.0507	0.0676	*	0.720
Japan	Yusuhara	0.0478	0.0419	0.0656	0.0520	0.0233	0.0423	0.101	0.0363	0.127	0.0539	0.0259	0.0447	0.668
Philippines	Metro Manila	0.0141	<0.01	0.130	0.0548	0.407	0.157	0.274	0.310	0.668	0.542	0.0579	0.0163	2.63
	Los Baños	**	0.0112	<0.01	<0.01	0.180	0.161	0.0468	0.204	0.357	0.442	0.160	0.0927	1.66
Russia	Mondy	<0.01	0.00	<0.01	0.00	0.00	<0.01	<0.01	<0.01	<0.01	0.00	<0.01	0.00	<0.01
	Listvyanka	0.266	0.0964	0.0521	0.0925	0.347	0.244	0.206	0.118	0.0862	0.0856	0.0608	0.106	1.76
	Irkutsk	0.196	0.166	0.0151	0.402	0.0463	0.257	0.297	0.0415	0.152	0.0721	0.162	0.385	2.21
Vietnam	Hanoi	1.23	2.09	1.08	0.612	1.14	1.28	3.85	3.76	1.75	0.513	0.159	0.0608	17.5
	Hoa Binh	0.203	0.278	0.698	0.0843	0.247	0.391	0.574	0.716	0.832	0.119	0.0151	0.0956	4.25
	Cuc Phuong	0.934	0.902	0.316	0.865	1.48	1.57	3.37	1.06	3.78	0.412	0.313	0.154	15.2
	Da Nang	0.696	*	4.34	0.838	0.586	0.163	0.509	1.70	4.19	9.39	1.53	3.09	27.1
	Can Tho	0.00	0.00	0.232	0.426	0.288	0.551	0.233	0.403	0.576	0.0910	0.196	0.00	3.00
	Ho Chi Minh	0.0190	0.0400	0.137	0.190	0.383	0.463	0.280	0.384	0.305	0.262	0.190	0.0270	2.68
	Yen Bai	0.192	0.480	0.843	0.509	0.414	0.825	0.0815	1.03	0.471	0.341	0.212	0.161	5.56

Data completeness									%TP					
Country	Name of sites	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	**Annual**
China	Haifu	100	100	100	100	100	100	100	100	100	100	100	100	100
	Jinyunshan	100	100	100	100	100	100	100	100	100	100	100	100	100
	Hongwen	100	100	100	100	100	100	100	100	100	--	100	100	100
	Xiaoping	100	100	100	100	100	100	100	100	100	--	100	100	100
	Xiang Zhou	100	100	100	100	100	100	100	100	100	100	100	100	100
	Zhuxiandong	100	100	100	100	100	100	100	100	100	100	100	100	100
	Wuzhishan	--	--	100	100	100	100	100	100	100	100	100	--	100
	Lijiang	--	--	--	100	100	100	100	100	100	100	--	--	100
	Sado-seki	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	1.9	0.0	0.2
Japan	Yusuhara	100	100	100	100	100	86.0	92.2	100	99.0	98.6	86.4	99.3	96.0
Philippines	Metro Manila	100	100	100	100	100	79.1	100	100	100	100	100	100	98.8
	Los Baños	**	100	100	100	100	87.4	100	100	100	100	100	98.3	98.9
Russia	Mondy	100	--	100	--	--	100	100	100	100	--	100	--	100
	Listvyanka	100	100	100	100	100	98.2	100	100	100	100	100	100	99.6
	Irkutsk	100	100	100	100	100	100	95.5	100	100	100	100	100	98.5
Vietnam	Hanoi	99.3	100	98.8	100	99.7	100	100	100	100	99.8	98.7	81.3	99.8
	Hoa Binh	97.2	99.9	99.6	100	100	100	100	100	100	100	100	100	99.9
	Cuc Phuong	99.8	100	99.6	99.7	100	99.9	100	100	100	95.0	98.9	95.9	99.8
	Da Nang	100	0.0	99.8	99.6	100	100	94.3	100	100	100	100	100	99.7
	Can Tho	--	--	100	100	100	100	100	100	100	100	100	--	100
	Ho Chi Minh	100	100	100	100	100	100	100	100	100	100	100	100	100
	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 3.99 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	Sado-seki	*	*	*	*	<1	*	*	*	<1	<1	<1	*	<1
Philippines	Metro Manila	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Los Baños	**	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<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	Sado-seki	*	*	*	*	0.022	*	*	*	0.043	0.044	0.057	*	0.567
Philippines	Metro Manila	<0.01	<0.01	0.020	0.017	0.040	<0.01	0.029	0.055	0.073	0.089	0.013	<0.01	0.356
	Los Baños	**	<0.01	0.020	<0.01	0.012	0.016	0.012	0.031	0.042	0.017	0.029	0.018	0.205
Russia	Mondy	<0.01	0.000	<0.01	0.000	0.000	<0.01	<0.01	<0.01	<0.01	0.000	<0.01	0.000	<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	0.013	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.021

Data completeness									%TP					
Country	Name of sites	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	**Annual**
Japan	Sado-seki	0.0	0.0	0.0	0.0	1.3	0.0	0.0	0.0	67.8	16.4	15.6	0.0	8.1
Philippines	Metro Manila	100	100	100	100	100	79.1	100	100	100	100	100	100	98.8
	Los Baños	**	100	100	100	100	87.4	100	100	100	100	100	98.3	98.9
Russia	Mondy	100	--	100	--	--	100	100	100	100	--	100	--	100
	Listvyanka	100	100	100	100	100	100	100	100	100	100	100	100	100
	Irkutsk	100	100	100	100	100	100	100	100	100	100	100	100	100

Terms and abbreviations are given in Table 3.5.

Table 3.100 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	Sado-seki	*	*	*	*	<1	*	<1	*	*	<1	<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	<1	<1
	Tokyo	1.8	2.3	1.3	<1	1.2	1.4	<1	<1	<1	1.3	1.1	1.6	<1
Philippines	Metro Manila	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	1.4	3.0	<1
	Los Baños	**	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	1.5	<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	1.8	<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	Sado-seki	*	*	*	*	0.0357	*	0.0165	*	*	0.0524	0.0464	*	0.469
	Yusuhara	0.0208	0.0126	0.0305	<0.01	<0.01	0.0118	0.0427	0.0168	<0.01	<0.01	0.0197	0.0216	0.205
	Ogasawara	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	Tokyo	0.0391	0.146	0.150	0.157	0.215	0.0781	0.157	0.0565	0.108	0.133	0.0996	0.0769	1.41
Philippines	Metro Manila	0.0125	<0.01	<0.01	0.0663	<0.01	0.0830	0.0660	0.132	<0.01	0.130	0.125	0.0684	0.678
	Los Baños	**	<0.01	<0.01	0.0132	<0.01	0.0225	<0.01	<0.01	0.0453	<0.01	<0.01	0.154	0.234
Russia	Mondy	<0.01	0.00	<0.01	0.00	0.00	<0.01	<0.01	<0.01	<0.01	0.00	<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	0.0352
	Irkutsk	<0.01	<0.01	<0.01	<0.01	<0.01	0.0115	0.0129	<0.01	0.0125	0.0102	<0.01	<0.01	0.0778

Data completeness %TP

Country	Name of sites	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	**Annual**
Japan	Sado-seki	0.0	0.0	0.0	0.0	9.5	0.0	6.3	0.0	0.0	10.0	15.6	0.0	3.6
	Yusuhara	100	100	100	100	100	86.0	92.2	100	99.0	98.6	86.4	99.3	96.0
	Ogasawara	99.8	98.9	100	20.4	99.5	77.6	99.5	100	99.6	100	100	99.4	90.1
	Tokyo	69.5	100	99.8	99.9	99.0	99.1	100	99.2	99.8	99.8	99.4	98.7	99.2
Philippines	Metro Manila	100	100	100	100	100	79.1	100	100	100	100	100	100	98.8
	Los Baños	**	100	100	100	100	87.4	100	100	100	100	100	98.3	98.9
Russia	Mondy	100	--	100	--	--	100	100	100	100	--	100	--	100
	Listvyanka	100	100	100	100	100	100	100	100	100	100	100	100	100
	Irkutsk	100	100	100	100	100	100	100	100	100	100	100	99.0	99.9

Terms and abbreviations are given in Table 3.5.

Table 3.101 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	Sado-seki	*	*	*	*	<1	*	*	*	*	<1	*	*	<1
	Yusuhara	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Philippines	Metro Manila	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Los Baños	**	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Russia	Mondy	<1	--	<1	--	--	<1	<1	<1	<1	--	<1	--	<1
	Listvyanka	<1	<1	<1	<1	<1	<1	<1	<1	1.47	<1	<1	<1	<1
	Irkutsk	<1	<1	<1	<1	4.80	<1	<1	2.07	3.71	1.63	<1	<1	<1
Thailand	Bangkok	--	--	--	--	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Samutprakarn	--	--	--	--	--	<1	<1	<1	<1	<1	<1	--	<1
	Pathumthani	<1	<1	<1	1.99	<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	Sado-seki	*	*	*	*	0.0546	*	*	*	*	0.0681	*	*	0.599
	Yusuhara	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.0271	<0.01	<0.01	<0.01	0.0162	<0.01	0.0731
Philippines	Metro Manila	<0.01	<0.01	<0.01	<0.01	<0.01	0.146	<0.01	0.0254	<0.01	0.0959	<0.01	<0.01	0.250
	Los Baños	**	<0.01	<0.01	<0.01	0.0172	0.0634	<0.01	0.137	<0.01	<0.01	<0.01	<0.01	0.213
Russia	Mondy	<0.01	0.00	<0.01	0.00	0.00	<0.01	<0.01	<0.01	<0.01	0.00	<0.01	0.00	<0.01
	Listvyanka	0.0102	<0.01	<0.01	<0.01	<0.01	0.0491	0.0202	0.0240	0.0298	0.0127	<0.01	<0.01	0.158
	Irkutsk	<0.01	<0.01	<0.01	<0.01	<0.01	0.0417	0.0168	0.0836	0.111	0.0344	<0.01	<0.01	0.304
Thailand	Bangkok	0.00	0.00	0.00	0.00	<0.01	<0.01	<0.01	0.0549	<0.01	0.0289	<0.01	<0.01	0.108
	Samutprakarn	0.00	0.00	0.00	0.00	0.00	<0.01	<0.01	<0.01	<0.01	0.0147	<0.01	0.00	0.0232
	Pathumthani	<0.01	<0.01	<0.01	0.212	<0.01	<0.01	0.0368	<0.01	0.136	<0.01	<0.01	0.00	0.408

Data completeness										**%TP**				
Country	Name of sites	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	**Annual**
Japan	Sado-seki	0.0	0.0	0.0	0.0	8.2	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.8
	Yusuhara	100	100	100	100	100	86.0	92.2	100	99.0	98.6	86.4	99.3	96.0
Philippines	Metro Manila	100	100	100	100	100	79.1	100	100	100	100	100	100	98.8
	Los Baños	**	100	100	100	100	87.4	100	100	100	100	100	98.3	98.9
Russia	Mondy	100	--	100	--	--	100	100	100	100	--	100	--	100
	Listvyanka	100	100	100	100	100	100	100	100	100	100	100	100	100
	Irkutsk	100	100	100	100	100	100	100	100	100	100	100	100	100
Thailand	Bangkok	--	--	--	--	100	100	100	100	100	100	100	100	100
	Samutprakarn	--	--	--	--	--	100	100	100	100	100	100	--	100
	Pathumthani	100	100	100	100	100	100	100	100	100	100	100	--	100

Terms and abbreviations are given in Table 3.5.

Table 3.102 Concentration, deposition and data completeness of Formic Acid

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

Country	Name of sites	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	**Annual**
Malaysia	Petaling Jaya	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Tanah Rata	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Danum Valley	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Kuching	<1	<1	<1	<1	<1	<1	<1	*	<1	<1	<1	<1	<1
Thailand	Bangkok	--	--	--	--	3.53	1.08	2.15	2.74	<1	<1	<1	<1	1.14
	Samutprakarn	--	--	--	--	--	<1	<1	<1	<1	<1	<1	--	<1
	Pathumthani	<1	<1	2.10	<1	<1	2.53	<1	<1	<1	<1	1.05	--	<1

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

Country	Name of sites	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	**Annual**
Malaysia	Petaling Jaya	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	Tanah Rata	<0.01	<0.01	<0.01	0.0599	<0.01	0.0447	0.0203	0.0802	0.0116	<0.01	<0.01	0.0460	0.260
	Danum Valley	<0.01	<0.01	<0.01	<0.01	0.0218	<0.01	0.0153	0.0266	0.0537	0.0306	0.0194	0.138	0.292
	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
Thailand	Bangkok	0.00	0.00	0.00	0.00	0.559	0.191	0.547	0.972	0.0845	<0.01	<0.01	<0.01	2.37
	Samutprakarn	0.00	0.00	0.00	0.00	0.00	<0.01	0.305	0.342	0.0238	0.0138	<0.01	0.00	0.697
	Pathumthani	0.0138	<0.01	0.299	0.0232	0.0177	0.482	0.0137	0.219	0.138	0.0110	0.0690	0.00	1.29

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	89.3	97.7	100	99.2	100	100	100	100	100	99.0
	Tanah Rata	100	100	100	100	100	100	98.8	85.0	100	100	100	100	98.7
	Danum Valley	100	100	100	100	75.2	87.5	90.2	100	100	100	92.6	86.0	95.0
	Kuching	45.6	100	92.2	100	97.1	100	98.3	0.0	12.5	100	100	100	75.7
Thailand	Bangkok	--	--	--	--	100	100	100	100	100	100	100	100	100
	Samutprakarn	--	--	--	--	--	100	100	100	100	100	100	--	100
	Pathumthani	100	100	100	100	100	100	100	100	100	100	100	--	100

Terms and abbreviations are given in Table 3.5.

Table 3.103 Concentration, deposition and data completeness of Acetic Acid

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

Country	Name of sites	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	**Annual**
Malaysia	Petaling Jaya	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Tanah Rata	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Danum Valley	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Kuching	<1	<1	<1	<1	<1	<1	<1	*	<1	<1	<1	<1	<1
Thailand	Bangkok	--	--	--	--	<1	5.22	<1	<1	<1	<1	<1	2.16	<1
	Samutprakarn	--	--	--	--	--	<1	<1	<1	<1	<1	<1	--	<1
	Pathumthani	<1	<1	2.32	<1	<1	4.83	<1	<1	1.30	<1	<1	--	1.32

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

Country	Name of sites	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	**Annual**
Malaysia	Petaling Jaya	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	Tanah Rata	0.0173	<0.01	<0.01	0.0360	<0.01	<0.01	<0.01	<0.01	<0.01	0.0398	<0.01	0.0468	0.155
	Danum Valley	0.0862	<0.01	<0.01	<0.01	0.0136	<0.01	0.0343	<0.01	0.136	<0.01	0.0226	0.0910	0.382
	Kuching	<0.01	<0.01	<0.01	0.0189	<0.01	<0.01	<0.01	*	<0.01	<0.01	<0.01	<0.01	0.0250
Thailand	Bangkok	0.00	0.00	0.00	0.00	0.0275	0.924	0.0569	0.0364	0.392	0.0114	0.0401	0.0311	1.52
	Samutprakarn	0.00	0.00	0.00	0.00	0.00	<0.01	<0.01	<0.01	0.0559	0.0121	<0.01	0.00	0.0680
	Pathumthani	0.0158	<0.01	0.330	0.0156	0.0737	0.920	<0.01	0.232	0.516	0.0160	0.0572	0.00	2.19

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	89.3	97.7	100	99.2	100	100	100	100	100	99.0
	Tanah Rata	100	100	100	100	100	100	98.8	85.0	100	100	100	100	98.7
	Danum Valley	100	100	100	100	75.2	87.5	90.2	100	100	100	92.6	86.0	95.0
	Kuching	45.6	100	92.2	100	97.1	100	98.3	0.0	12.5	100	100	100	75.7
Thailand	Bangkok	--	--	--	--	100	100	100	100	100	100	100	100	100
	Samutprakarn	--	--	--	--	--	100	100	100	100	100	100	--	100
	Pathumthani	100	100	100	100	100	100	100	100	100	100	100	--	100

Terms and abbreviations are given in Table 3.5.

Table 3.104 Concentration, deposition and data completeness of Oxalic Acid

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

Country	Name of sites	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	**Annual**
Malaysia	Petaling Jaya	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Tanah Rata	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Danum Valley	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Kuching	<1	<1	<1	<1	<1	<1	<1	*	<1	<1	<1	<1	<1

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

Country	Name of sites	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	**Annual**
Malaysia	Petaling Jaya	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.0195	0.0370
	Tanah Rata	<0.01	0.0136	<0.01	<0.01	0	<0.01	<0.01	<0.01	<0.01	0.0203	<0.01	0.0235	0.0881
	Danum Valley	0.0280	0.0251	<0.01	<0.01	<0.01	<0.01	0.0100	<0.01	<0.01	<0.01	<0.01	0.0237	0.101
	Kuching	0.0888	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	*	<0.01	<0.01	<0.01	0.0549	0.155

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	89.3	97.7	100	99.2	100	100	100	100	100	99.0
	Tanah Rata	100	100	100	100	100	100	98.8	85.0	100	100	100	100	98.7
	Danum Valley	100	100	100	100	75.2	87.5	90.2	100	100	100	92.6	86.0	95.0
	Kuching	45.6	100	92.2	100	97.1	100	98.3	0.0	12.5	100	100	100	75.7

Terms and abbreviations are given in Table 3.5.

CHAPTER 4

Air Concentration and Dry Deposition Monitoring

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4. Air Concentration and Dry Deposition Monitoring

4.1 Method

Automatic monitoring and manual monitoring methods were used to implement air concentration and dry deposition monitoring in 2022. 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 (urban), 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, EANET, 2013).

4.1.2 Manual Monitoring Method

Filter pack and passive sampler are used for manual monitoring in EANET. The filter pack method is used to determine gaseous substances (SO_2, HNO_3, HCl, NH_3) and particulate matter components (PMCs; 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, NH_3, NO_2 and O_3. The recommended monitoring method by means of the four-stage filter pack is explained in the Technical Manual, EANET, 2013. The basic flow chart of the four-stage filter pack method is shown in Figure 4.1. The QA/QC for the manual monitoring methods is described in the Chapter 4 of the Technical Manual, EANET, 2013.

4.1.3 Monitoring Sites

The measurement methods, monitoring intervals (time intervals of submitted data), and parameters at each monitoring site for air concentration and dry deposition monitoring in 2022 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 methods of automatic monitors are shown in Table 4.1.2.

The filter pack method was used in Cambodia, 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 2022.

Preparation of filter pack

Stage	Specification of filter	Collected species
1^{st} (F0)	PTFE filter (pore size: 0.8 μm, diameter: 47 mm)	Aerosols
2^{nd} (F1)	Polyamide filter (pore size: 0.45 μm, diameter: 47 mm)	HNO_3, SO_2, HCl, NH_3
3^{rd} (F2)	Impregnated cellulose filter Solution: 6% K_2CO_3 + 2% glycerin	SO_2, HCl
4^{th} (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 air concentration and dry deposition monitoring in 2022

Country	Site	Method	Monitoring Interval*1	Parameter
Cambodia	Phnom Penh	AT	Hourly	O_3, $PM_{2.5}$
		FP*2	2 weeks	SO_2, HNO_3, HCl, NH_3, PMCs
China	Chongqing			
	- Jinyunshan	AT	Daily	SO_2, NO, NO_x*, $PM_{10/2.5}$*6
	Xiamen			
	- Hongwen	AT	Daily	SO_2, NO_2, $PM_{10/2.5}$*6
	Zhuhai			
	- Haibin-Park	AT	Daily	SO_2, NO_2, $PM_{10/2.5}$*6
	Wuzhishan	AT	Daily	SO_2, NO_2, PM_{10}
	Lijiang	AT	Daily	SO_2, NO_2, PM_{10}
Indonesia	Jakarta	AT*3	Hourly	$PM_{2.5}$
		FP	2 weeks	SO_2, HNO_3, HCl, NH_3, PMCs
		PS	Monthly	SO_2, NO_2
	Serpong	FP	2 weeks	SO_2, HNO_3, HCl, NH_3, PMCs
	Kototabang	PS	Monthly	SO_2, NO_2
	Bandung	FP	1 week	SO_2, HNO_3, HCl, NH_3, PMCs
		PS	1 week	SO_2, NO_2, NH_3, O_3
Japan	Rishiri	AT	Hourly	SO_2, NO, NO_x*, O_3, PM_{10}, $PM_{2.5}$
		FP	2 weeks	SO_2, HNO_3, HCl, NH_3, PMCs
	Ochiichi	AT	Hourly	SO_2, NO, NO_x*, O_3, PM_{10}, $PM_{2.5}$
		FP	2 weeks	SO_2, HNO_3, HCl, NH_3, PMCs
	Sado-seki	AT	Hourly	SO_2, NO, NO_x*, O_3, PM_{10}, $PM_{2.5}$
		FP	2 weeks	SO_2, HNO_3, HCl, NH_3, PMCs
	Happo	AT	Hourly	SO_2, NO, NO_x*, O_3, PM_{10}, $PM_{2.5}$
		FP	2 weeks	SO_2, HNO_3, HCl, NH_3, PMCs
	Ijira	AT	Hourly	SO_2, NO, NO_x*, O_3, PM_{10}, $PM_{2.5}$
		FP	2 weeks	SO_2, HNO_3, HCl, NH_3, PMCs
	Oki	AT	Hourly	SO_2, NO, NO_x*, O_3, PM_{10}, $PM_{2.5}$
		FP	2 weeks	SO_2, HNO_3, HCl, NH_3, PMCs
	Yusuhara	AT	Hourly	SO_2, NO, NO_x*, O_3, PM_{10}, $PM_{2.5}$
		FP	2 weeks	SO_2, HNO_3, HCl, NH_3, PMCs
	Hedo	AT	Hourly	SO_2, NO, NO_x*, O_3, PM_{10}, $PM_{2.5}$
		FP	2 weeks	SO_2, HNO_3, HCl, NH_3, PMCs
	Ogasawara	AT	Hourly	SO_2, NO, NO_x*, O_3, PM_{10}, $PM_{2.5}$
		FP	2 weeks	SO_2, HNO_3, HCl, NH_3, PMCs
	Tokyo	FP	2 weeks	SO_2, HNO_3, HCl, NH_3, PMCs
	Niigata-maki	AT	Hourly	SO_2, NO, NO_x*, O_3, PM_{10}, $PM_{2.5}$
		FP	2 weeks	SO_2, HNO_3, HCl, NH_3, PMCs
	Tsushima	AT	Hourly	O_3, PM_{10}, $PM_{2.5}$
		FP	2 weeks	SO_2, HNO_3, HCl, NH_3, PMCs
Lao PDR	Vientiane	AT*3	Hourly	NO, NO_2, NO_x, PM_{10}, $PM_{2.5}$
		FP*2	monthly	SO_2, HNO_3, HCl, NH_3, PMCs

Table 4.1.1 Sampling methods and parameters for air concentration and dry deposition monitoring in 2022 (continued)

Country	Site	Method	Monitoring Interval[*1]	Parameter
Malaysia	Petaling Jaya	FP	1week	SO_2, HNO_3, HCl, NH_3, PMCs
	Tanah Rata	FP	1week	SO_2, HNO_3, HCl, NH_3, PMCs
	Danum Valley	FP	2 weeks	SO_2, HNO_3, HCl, NH_3, PMCs
Mongolia	Ulaanbaatar	AT	Hourly	SO_2, NO, NO_2, NO_x, O_3, PM_{10}, $PM_{2.5}$
		FP[*2]	1 week	SO_2, HNO_3, HCl, NH_3, PMCs
	Terelj	FP[*2]	2 weeks	SO_2, HNO_3, HCl, NH_3, PMCs
Myanmar	Yangon	AT	Hourly	$PM_{2.5}$
		FP	2 weeks	SO_2, HNO_3, HCl, NH_3, PMCs
	Mandalay	AT[*3]	Hourly	$PM_{2.5}$
Philippines	Metro Manila	AT[*3]	Daily	NO, NO_2, NO_x, O_3, PM_{10}, $PM_{2.5}$
		FP	4-17 days[*4]	SO_2, HNO_3, HCl, NH_3, PMCs
	Los Baños	FP	5-28 days[*4]	SO_2, HNO_3, HCl, NH_3, PMCs
	Mt. Sto. Tomas	AT	Hourly	$PM_{2.5}$
		FP[*2]	1 week	SO_2, HNO_3, HCl, NH_3, PMCs
Republic of Korea	Kanghwa	AT	Hourly	SO_2, NO_2, O_3, PM_{10}, $PM_{2.5}$
		FP[*5]	*5	HNO_3, HCl, NH_3, PMCs in $PM_{2.5}$
	Cheju	AT	Hourly	SO_2, NO_2, O_3, PM_{10}, $PM_{2.5}$
	(Kosan)	FP[*5]	*5	HNO_3, HCl, NH_3, PMCs in $PM_{2.5}$
	Imsil	AT	Hourly	SO_2, NO_2, O_3, PM_{10}, $PM_{2.5}$
		FP[*5]	*5	HNO_3, HCl, NH_3, PMCs in $PM_{2.5}$
Russia	Mondy	FP	7-22 days[*4]	SO_2, HNO_3, HCl, NH_3, PMCs
		PS	7-31 days[*4]	O_3
	Listvyanka	FP	1 week	SO_2, HNO_3, HCl, NH_3, PMCs
		PS	7-31 days[*4]	O_3
	Irkutsk	FP	1 week	SO_2, HNO_3, HCl, NH_3, PMCs
		PS	13- 35 days[*4]	O_3
	Primorskaya	FP	15 days	SO_2, HNO_3, HCl, NH_3, PMCs
Thailand	Bangkok	AT	Hourly	O_3, PM_{10}, $PM_{2.5}$,
		FP	10 days	SO_2, HNO_3, HCl, NH_3, PMCs
	Samutprakarn	AT	Hourly	O_3, PM_{10}, $PM_{2.5}$
	Khanchanaburi	AT	Hourly	SO_2, NO, ~~NO_2~~, NO_x, O_3, PM_{10}, $PM_{2.5}$
	Chiang Mai			
	-Chang Phueak	AT	Hourly	SO_2, NO, NO_2, NO_x, O_3, PM_{10}, $PM_{2.5}$
	- Si Phum	AT	Hourly	SO_2, PM_{10}, $PM_{2.5}$
	Nakhon Ratchasima			
	- Nai Mueang	AT	Hourly	SO_2, NO, NO_2, NO_x, O_3, PM_{10}, $PM_{2.5}$
Vietnam	Hanoi	FP	1 week	SO2, HNO3, HCl, NH3, PMCs
	Hoa Binh	AT[*3]	Hourly	$PM_{2.5}$
		FP	1 week	SO2, HNO3, HCl, NH3, PMCs
	Can Tho	FP	1 week	SO2, HNO3, HCl, NH3, PMCs
	Ho Chi Minh	FP	1 week	SO2, HNO3, HCl, NH3, PMCs
	Yen Bai	FP	1 week	SO2, HNO3, HCl, NH3, PMCs

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

*1 "Monitoring interval" in this table provides time intervals of submitted data from the participating countries for each site and method. The submitted data are disclosed from EANET Web site: https://monitoring.eanet.asia/document/register/index. (The registration is necessary.)

*2 FP monitoring data at Phnom Penh, Vientiane, Ulaanbaatar, Terelj, and Mt. Sto. Tomas were not submitted.

*3 Auto monitoring data for NO, NO_2, NOx, PM_{10} at Vientiane, for NO, NO_2, NO_x, O_3, PM_{10}, $PM_{2.5}$ at Metro Manila, and for $PM_{2.5}$ at Jakarta, Mandalay and Hoa Binh were not submitted.

*4 Their sampling periods are basically 1 week, 2 weeks, 3 weeks or 1 month, however, sometimes change irregularly.

*5 Their FP sampling at the Kanghwa, Cheju, and Imsil sites in Republic of Korea is conducted for once (24 hours) every six days with $PM_{2.5}$ cyclone.

*6 $PM_{2.5}$ monitoring at Jinyunshan, Hongwen, and Haibin-Park sites started in November, 2022.

Table 4.1.2 Methods of automatic monitors in 2022

Country	Site	Parameter				
		SO_2	NO_x	O_3	PM_{10}	$PM_{2.5}$
Cambodia	Phnom Penh	--	--	UVP	--	β−ray
China	Jinyunshan	UVF	CLD	--	β−ray	β−ray
	Hongwen	DOAS	DOAS	--	TEOM	β−ray
	Haibin-Park	DOAS	DOAS	--	TEOM	β−ray
	Wuzhishan	UVF	CLD	--	β−ray	--
	Lijiang	UVF	CLD	--	β−ray	--
Indonesia	Jakarta	--	--	--	--	β−ray
Japan	Rishiri	UVF	CLD	UVP	β−ray	β−ray
	Ochiishi	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
	Yusuhara	UVF	CLD	UVP	β−ray	β−ray
	Hedo	UVF	CLD	UVP	β−ray	β−ray
	Ogasawara	UVF	CLD	UVP	β−ray	β−ray
	Niigata-maki	UVF	CLD	UVP	β−ray	β−ray
	Tsushima	--	--	UVP	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
	Mt. Sto. Tomas	--	--	--	--	β−ray

Table 4.1.2 Methods of automatic monitors in 2022 (continued)

Country	Site	Parameter				
		SO_2	NO_x	O_3	PM_{10}	$PM_{2.5}$
Republic of Korea	Kanghwa	UVF	CLD	UVP	β–ray	β–ray
	Cheju (Kosan)	UVF	CLD	UVP	β–ray	β–ray
	Imsil	UVF	CLD	UVP	β–ray	β–ray
Thailand	Bangkok	--	--	UVP	β–ray	β–ray
	Samutprakarn	--	--	UVP	β–ray	β–ray
	Khanchanaburi	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	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, "--": no monitoring by auto monitors.

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 2022 are presented in Table 4.3.1 through Table 4.20.2. Some sites have monitored SO_2, NH_3, and/or O_3 with 2 methods. On data report 2022, those values are all shown in each table. 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-15d	Maximum values of 15-day sampling data

Table 4.2 Terms and abbreviations (continued)

Term/Abbreviation	Definition
Min-15d	Minimum values of 15-day sampling data
Max-m	Maximum values of monthly data
Min-m	Minimum values of monthly data
Max-irreg	Maximum values of data during irregular sampling periods (See *4 of Table 4.1.1)
Min-irreg	Minimum values of data during irregular sampling periods (See *4 of Table 4.1.1)
%	Percentages of monthly or annual data completeness
[<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 2008 to 2022 are summarized in Table 4.21 through Table 4.38.

Monthly and annual dry deposition amounts of gaseous and particulate substances in 2022 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, Fdry = Vd × C, where Fdry, Vd, and C denote the dry deposition flux, the calculated deposition velocity, and the measured atmospheric concentrations, respectively for each species and type of surface. The Vd 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 Vd of gases and particulate matter is different in different types of land surfaces, the Vd at each site was first calculated for forest and grass surfaces, and the weighted-average of Vd 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 4.3.1 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 ºC, 1 atm, are provided in Table 4.50.

Reporting limits for individual species depend on specifications of instruments and/or procedures of sampling and analyzing. 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 μg/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 4.3.1 SO_2 - Measured by AT

Unit : ppb

Country	Site		2022												Annual
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
China	Jinyunshan	Mean	2.4	3.0	2.8	4.0	3.6	2.7	2.3	2.1	2.3	1.7	3.1	2.2	2.7
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-d	3.8	4.5	6.0	7.1	5.3	4.5	3.8	3.0	6.4	3.8	5.6	3.4	7.1
		Min-d	1.1	1.9	0.8	2.3	1.9	1.9	1.5	1.1	0.8	0.8	0.8	0.8	0.8
	Hongwen	Mean	1.3	1.0	1.7	1.8	1.6	1.4	1.6	1.4	1.3	0.9	1.0	1.0	1.3
		%	100	100	100	100	100	97	100	100	100	100	100	100	100
		Max-d	2.3	1.5	2.6	3.0	3.0	2.3	2.3	2.6	2.3	1.5	1.9	1.5	3.0
		Min-d	0.4	0.8	0.8	1.1	0.8	1.1	1.1	0.8	0.8	0.4	0.4	0.4	0.4
	Haibin-Park	Mean	2.7	2.8	3.3	3.6	2.4	2.9	2.6	2.5	2.1	2.2	2.2	3.0	2.7
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-d	3.4	3.8	3.8	4.1	3.0	3.4	3.4	3.4	2.6	3.0	2.6	4.1	4.1
		Min-d	2.3	2.3	3.0	2.3	2.3	2.6	2.3	1.5	1.5	1.9	1.9	2.3	1.5
	Wuzhishan	Mean	0.2	0.3	0.1	0.2	0.1	0.1	0.1	0.2	0.2	0.4	0.2	0.4	0.2
		%	100	100	97	93	97	100	100	100	100	100	97	100	99
		Max-d	0.3	0.4	0.3	0.9	0.3	0.2	0.2	0.2	0.7	1.5	0.8	1.1	1.5
		Min-d	0.2	0.2	＜0.1	＜0.1	＜0.1	＜0.1	＜0.1	0.1	0.1	0.2	0.2	0.2	＜0.1
	Lijiang	Mean	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.1	0.2	0.2	0.2	0.2
		%	100	100	74	100	100	93	100	100	100	100	100	100	97
		Max-d	0.2	0.2	0.4	0.4	0.3	0.2	0.2	0.4	0.2	0.3	0.4	0.5	0.5
		Min-d	＜0.1	＜0.1	＜0.1	＜0.1	＜0.1	0.1	＜0.1	＜0.1	＜0.1	0.1	0.1	＜0.1	＜0.1
Japan	Rishiri	Mean	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.1
		%	98	98	92	98	98	98	98	98	85	98	98	98	97
		Max-d	0.4	0.3	0.2	0.2	0.4	0.4	0.1	<0.1	<0.1	0.3	0.2	0.4	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
	Ochiishi	Mean	0.2	0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	0.1	0.2	0.3	0.1
		%	88	92	83	91	84	91	91	91	91	86	87	87	89
		Max-d	1.0	0.4	0.4	0.2	0.2	0.2	0.2	0.2	0.3	0.5	0.8	0.7	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	***	***	***	***	0.4	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
		%	***	***	***	***	36	98	98	88	98	98	98	96	59
		Max-d	***	***	***	***	1.7	0.5	0.2	0.4	1.1	0.3	0.3	0.2	1.7
		Min-d	***	***	***	***	<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	0.2	0.2	0.1	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	<0.1
		%	98	91	98	98	98	98	98	98	83	64	44	98	89
		Max-d	0.3	0.2	0.4	0.6	0.6	0.5	0.3	0.3	0.3	0.7	0.2	0.2	0.7
		Min-d	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Ijira	Mean	***	***	***	***	***	***	***	***	***	***	***	***	***
		%	***	***	***	***	***	***	***	***	***	***	***	***	***
		Max-d	***	***	***	***	***	***	***	***	***	***	***	***	***
		Min-d	***	***	***	***	***	***	***	***	***	***	***	***	***
	Oki	Mean	<0.1	0.1	0.2	0.2	0.4	0.2	<0.1	<0.1	<0.1	<0.1	0.2	0.1	0.1
		%	83	98	97	98	98	98	98	98	89	69	70	98	91
		Max-d	0.3	0.5	0.9	1.2	1.7	0.9	0.3	0.4	<0.1	0.5	1.0	0.4	1.7
		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	1.0	0.6	0.5	0.5	0.3	0.4	0.2	0.4	<0.1	0.2	0.5	0.4	0.4
		%	98	98	98	98	98	98	98	98	97	98	98	98	98
		Max-d	8.2	5.6	2.8	2.8	0.9	1.7	1.6	2.1	0.4	1.2	3.5	5.1	8.2
		Min-d	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Hedo	Mean	0.2	<0.1	0.1	<0.1	0.1	<0.1	<0.1	<0.1	0.1	0.2	0.2	0.1	0.1
		%	98	54	98	73	98	97	97	97	98	98	98	98	92
		Max-d	0.8	0.2	0.4	0.2	1.0	0.1	0.1	0.1	0.5	1.0	0.7	0.4	1.0
		Min-d	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Ogasawara	Mean	0.1	0.8	0.4	<0.1	<0.1	<0.1	0.1	1.2	<0.1	0.2	0.3	0.3	0.3
		%	98	92	97	93	99	99	97	98	98	99	98	99	97
		Max-d	1.5	8.8	6.3	0.5	0.3	<0.1	2.4	10.7	2.2	3.6	7.2	6.3	10.7
		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
	Niigata-maki	Mean	<0.1	0.1	0.1	0.2	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
		%	96	86	98	98	98	98	98	98	98	98	98	98	97
		Max-d	0.3	0.3	0.5	0.7	0.9	0.3	0.2	0.4	0.4	0.2	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	26.7	***	***	***	***	***	***	***	***	6.5	12.2	25.3	19.4
		%	38	***	***	***	***	***	***	***	***	14	100	99	21
		Max-d	35.1	***	***	***	***	***	***	***	***	11.2	24.9	43.6	43.6
		Min-d	18.2	***	***	***	***	***	***	***	***	1.9	3.9	4.8	1.9

Table 4.3.1 SO_2 - Measured by AT (continued)

Unit : ppb

Country	Site		2022 Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Republic of Korea	Kanghwa	Mean	1.9	1.4	1.7	1.5	1.4	1.2	1.4	1.1	1.2	1.4	1.7	1.9	1.5
		%	98	95	97	98	98	78	98	93	98	98	96	98	95
		Max-d	3.5	2.0	2.6	2.2	3.0	2.0	2.2	1.8	2.0	2.1	3.5	2.5	3.5
		Min-d	1.1	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	Cheju (Kosan)	Mean	0.5	0.6	0.6	0.5	0.8	0.1	0.5	0.3	0.3	0.5	0.5	0.4	0.5
		%	99	98	100	98	94	98	98	96	90	96	97	98	97
		Max-d	1.0	1.5	1.0	1.0	1.0	1.0	1.3	0.9	1.0	1.1	1.0	1.3	1.5
		Min-d	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Imsil	Mean	1.9	2.2	2.1	1.8	2.0	2.0	2.5	2.2	2.1	2.1	2.0	2.0	2.1
		%	99	98	98	98	96	96	97	82	94	94	97	97	95
		Max-d	2.8	2.9	2.4	2.1	3.5	2.2	3.9	3.0	2.9	3.0	2.4	2.6	3.9
		Min-d	1.4	2.0	1.7	1.3	1.6	1.9	2.0	2.0	1.9	2.0	1.9	1.6	1.3
Thailand	Samutprakarn	Mean	***	***	***	***	***	***	***	***	***	***	***	***	***
		%	***	***	***	***	***	***	***	***	***	***	***	***	***
		Max-d	***	***	***	***	***	***	***	***	***	***	***	***	***
		Min-d	***	***	***	***	***	***	***	***	***	***	***	***	***
	Khanchanaburi (Vajiralongkorn Dam)	Mean	0.3	0.4	1.2	<0.1	<0.1	<0.1	<0.1	***	***	***	***	***	0.2
		%	96	96	19	96	96	96	96	***	***	***	***	***	49
		Max-d	0.7	1.3	2.0	0.2	0.1	<0.1	<0.1	***	***	***	***	***	2.0
		Min-d	<0.1	<0.1	0.4	<0.1	<0.1	<0.1	<0.1	***	***	***	***	***	<0.1
	Chang Phueak	Mean	0.5	0.4	0.3	0.3	0.6	***	***	***	***	***	***	***	0.4
		%	96	95	96	96	95	***	***	***	***	***	***	***	39
		Max-d	0.8	0.7	0.8	1.0	1.2	***	***	***	***	***	***	***	1.2
		Min-d	0.3	<0.1	<0.1	<0.1	<0.1	***	***	***	***	***	***	***	<0.1
	Si Phum	Mean	1.1	1.1	1.1	1.1	1.0	1.0	1.0	1.1	1.0	1.0	1.1	1.4	1.1
		%	96	96	96	96	96	96	96	96	96	96	96	96	96
		Max-d	1.3	1.3	1.3	1.4	1.2	1.2	1.1	1.6	1.3	1.2	1.7	2.0	2.0
		Min-d	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	Nai Mueang	Mean	1.1	0.7	1.2	0.7	0.5	0.8	0.4	0.8	1.0	1.1	0.4	0.4	0.8
		%	95	95	95	95	95	94	95	96	96	96	96	96	95
		Max-d	2.5	1.6	2.0	2.0	0.8	2.0	0.7	1.3	1.3	1.6	0.9	1.0	2.5
		Min-d	<0.1	0.1	0.2	<0.1	0.1	0.1	0.2	0.2	0.9	0.6	0.1	0.1	<0.1

Table 4.3.2 SO_2 - Measured by FP

Unit : ppb

Country	Site		2022 Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Cambodia	Phnom Penh	Mean	***	***	***	***	***	***	***	***	***	***	***	***	***
		%	***	***	***	***	***	***	***	***	***	***	***	***	***
		Max-2w	***	***	***	***	***	***	***	***	***	***	***	***	***
		Min-2w	***	***	***	***	***	***	***	***	***	***	***	***	***
Indonesia	Jakarta	Mean	3.6	4.2	3.4	4.5	***	***	***	***	***	***	***	***	4.0
		%	50	100	100	100	***	***	***	***	***	***	***	***	31
		Max-2w	3.6	4.6	4.0	5.1	***	***	***	***	***	***	***	***	5.1
		Min-2w	3.6	3.7	2.9	4.0	***	***	***	***	***	***	***	***	2.9
	Serpong	Mean	1.2	0.2	0.2	<0.1	0.2	0.1	<0.1	***	***	***	***	***	0.2
		%	50	100	100	100	100	100	52	***	***	***	***	***	51
		Max-2w	1.2	0.3	0.5	0.1	0.3	0.2	<0.1	***	***	***	***	***	1.2
		Min-2w	1.2	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	***	***	***	***	***	<0.1
	Bandung	Mean	3.6	6.5	4.6	5.0	4.5	5.5	5.3	5.4	3.5	5.2	5.9	4.5	4.9
		%	100	100	100	100	100	88	58	100	100	100	100	100	95
		Max-w	6.0	9.4	6.1	5.7	6.4	6.9	6.7	7.3	4.4	6.1	6.3	5.6	9.4
		Min-w	0.9	3.9	2.8	4.5	1.5	3.4	3.4	4.4	1.2	3.2	5.4	1.3	0.9
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	0.2	0.1
		%	100	100	100	100	100	100	100	100	100	100	100	53	96
		Max-2w	<0.1	0.1	0.1	<0.1	0.1	0.1	0.2	<0.1	<0.1	<0.1	0.1	0.2	0.2
		Min-2w	<0.1	<0.1	0.1	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.2	<0.1
	Ochiishi	Mean	0.3	0.3	0.2	0.1	<0.1	<0.1	0.2	0.1	0.1	0.2	0.3	0.4	0.2
		%	100	100	48	100	64	100	100	100	100	100	100	50	88
		Max-2w	0.4	0.4	0.2	0.1	0.1	<0.1	0.2	0.2	0.2	0.3	0.3	0.4	0.4
		Min-2w	0.2	0.2	0.2	0.1	<0.1	<0.1	0.1	0.1	0.1	0.2	0.2	0.4	<0.1
	Sado-seki	Mean	***	***	***	***	0.3	0.3	0.1	0.5	0.2	0.1	0.1	0.2	0.2
		%	***	***	***	***	39	100	100	100	100	100	100	100	61
		Max-2w	***	***	***	***	0.3	0.4	0.2	0.7	0.2	0.2	0.1	0.2	0.7
		Min-2w	***	***	***	***	0.3	0.2	<0.1	0.4	<0.1	<0.1	0.1	<0.1	<0.1
	Happo	Mean	0.2	0.2	0.5	0.4	0.4	0.3	0.4	0.3	0.3	0.3	0.3	0.1	0.3
		%	100	100	100	100	100	47	100	100	100	100	100	100	96
		Max-2w	0.2	0.2	0.6	0.8	0.4	[illegible]	0.4	0.4	0.4	0.4	0.3	0.2	0.8
		Min-2w	0.1	0.2	0.5	0.2	0.4	0.3	0.3	0.3	0.2	0.3	0.3	0.1	0.1

Table 4.3.2 SO_2 - Measured by FP (continued)

Unit : ppb

Country	Site		2022												Annual
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Japan	Ijira	Mean	<0.1	<0.1	<0.1	0.3	0.2	0.2	0.1	0.1	0.2	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	0.3	0.4	0.2	0.2	0.1	0.2	0.2	<0.1	<0.1	0.4
		Min-2w	<0.1	<0.1	<0.1	0.2	0.1	0.2	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	<0.1
	Oki	Mean	0.2	0.2	0.2	0.2	0.3	0.2	0.1	0.1	<0.1	0.1	0.1	0.1	0.2
		%	78	100	100	100	100	100	100	100	100	100	100	100	98
		Max-2w	0.2	0.2	0.3	0.3	0.4	0.3	0.1	0.2	<0.1	0.2	0.2	0.1	0.4
		Min-2w	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	<0.1	<0.1	<0.1	0.1	<0.1
	Yusuhara	Mean	0.8	0.5	0.5	0.4	0.2	0.3	0.2	0.4	<0.1	0.2	0.4	0.3	0.3
		%	100	100	100	100	67	100	100	100	100	100	100	47	92
		Max-2w	0.9	0.7	0.6	0.5	0.3	0.3	0.2	0.5	<0.1	0.3	0.7	0.3	0.9
		Min-2w	0.6	0.3	0.3	0.3	0.2	0.2	0.2	0.4	<0.1	0.1	0.2	0.3	<0.1
	Hedo	Mean	0.3	0.2	0.4	0.4	0.2	<0.1	<0.1	<0.1	0.1	0.3	0.1	0.1	0.2
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.3	0.3	0.6	0.7	0.3	<0.1	<0.1	<0.1	0.2	0.3	0.2	0.1	0.7
		Min-2w	0.3	0.2	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	0.3	<0.1	<0.1	<0.1
	Ogasawara	Mean	0.1	0.7	0.5	<0.1	<0.1	<0.1	0.3	1.6	<0.1	0.5	0.1	0.4	0.4
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.2	0.7	0.9	<0.1	<0.1	<0.1	0.5	2.0	<0.1	0.9	0.1	0.7	2.0
		Min-2w	<0.1	0.7	0.1	<0.1	<0.1	<0.1	<0.1	1.1	<0.1	0.2	0.1	<0.1	<0.1
	Tokyo	Mean	0.5	0.5	0.8	0.9	0.8	1.1	1.0	1.1	0.5	0.5	0.6	0.5	0.7
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.5	0.6	0.9	1.0	0.9	1.4	1.4	1.3	0.6	0.6	0.7	0.5	1.4
		Min-2w	0.4	0.5	0.7	0.7	0.7	0.7	0.6	0.8	0.5	0.5	0.5	0.5	0.4
	Niigata-maki	Mean	0.1	0.2	1	0.5	0.3	0.2	0.2	0.1	0.2	0.1	0.1	<0.1	0.2
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.2	0.2	0.5	0.6	0.3	0.3	0.2	0.2	0.2	0.1	0.1	<0.1	0.6
		Min-2w	<0.1	0.1	0.5	0.4	0.2	0.2	0.2	<0.1	0.1	<0.1	<0.1	<0.1	<0.1
	Tsushima	Mean	0.6	0.5	0.5	0.4	0.4	0.2	0.2	0.2	0.2	0.5	0.6	0.6	0.4
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.6	0.6	0.5	0.4	0.5	0.3	0.2	0.3	0.2	0.6	0.7	0.6	0.7
		Min-2w	0.5	0.5	0.4	0.3	0.4	<0.1	0.2	0.1	0.1	0.4	0.5	0.5	<0.1
Lao PDR	Vientiane	Mean	***	***	***	***	***	***	***	***	***	***	***	***	***
		%	***	***	***	***	***	***	***	***	***	***	***	***	***
		Max-m	***	***	***	***	***	***	***	***	***	***	***	***	***
		Min-m	***	***	***	***	***	***	***	***	***	***	***	***	***
Malaysia	Petaling Jaya	Mean	0.5	0.3	0.3	0.5	0.6	0.4	0.7	0.7	0.3	0.5	0.5	0.2	0.4
		%	100	100	100	100	100	100	80	100	100	100	100	100	98
		Max-w	0.7	0.5	0.5	0.8	1.0	0.5	0.9	1.5	0.6	1.1	0.6	0.4	1.5
		Min-w	0.2	<0.1	<0.1	0.2	0.2	0.3	0.4	0.2	0.2	0.3	0.2	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	100	100	100	100	100	100	100	100	100	100
		Max-w	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.5	<0.1	<0.1	0.1	0.1	<0.1	0.5
		Min-w	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Danum Valley	Mean	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
		%	100	100	100	75	100	100	100	100	100	100	100	100	98
		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	***	***	***	***	***	***	***	***	***	***	***	***	***
		%	***	***	***	***	***	***	***	***	***	***	***	***	***
		Max-w	***	***	***	***	***	***	***	***	***	***	***	***	***
		Min-w	***	***	***	***	***	***	***	***	***	***	***	***	***
	Terelj	Mean	***	***	***	***	***	***	***	***	***	***	***	***	***
		%	***	***	***	***	***	***	***	***	***	***	***	***	***
		Max-2w	***	***	***	***	***	***	***	***	***	***	***	***	***
		Min-2w	***	***	***	***	***	***	***	***	***	***	***	***	***
Myanmar	Yangon	Mean	***	***	***	***	0.2	<0.1	***	***	***	***	0.8	0.2	0.2
		%	***	***	***	***	67	100	***	***	***	***	33	100	27
		Max-2w	***	***	***	***	0.3	0.1	***	***	***	***	0.8	0.2	0.8
		Min-2w	***	***	***	***	0.1	<0.1	***	***	***	***	0.8	0.2	<0.1
Philippines	Metro Manila	Mean	0.8	0.6	1.3	0.4	5.2	1.1	1.4	1.7	3.1	0.2	0.2	0.5	1.3
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-irreg	1.5	0.9	3.0	0.6	14.7	1.3	2.3	2.8	14.1	0.3	0.3	1.2	14.7
		Min-irreg	0.4	0.2	0.4	0.1	0.3	0.7	0.6	1.0	<0.1	<0.1	<0.1	<0.1	<0.1
	Los Baños	Mean	***	***	0.9	0.6	0.9	1.6	8.0	2.3	43.5	0.9	0.2	5.8	7.4
		%	***	***	75	100	74	100	100	100	100	100	100	28	75
		Max-irreg	***	***	2.3	0.7	3.2	3.9	9.7	6.1	82.7	1.7	0.2	5.8	82.7
		Min-irreg	***	***	0.2	0.4	<0.1	0.3	6.3	0.3	14.4	0.6	0.1	5.8	<0.1
	Mt. Sto. Tomas	Mean	***	***	***	***	***	***	***	***	***	***	***	***	***
		%	***	***	***	***	***	***	***	***	***	***	***	***	***
		Max-w	***	***	***	***	***	***	***	***	***	***	***	***	***
		Min-w	***	***	***	***	***	***	***	***	***	***	***	***	***

Table 4.3.2 SO_2 - Measured by FP (continued)

Unit : ppb

Country	Site		2022												Annual
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
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-irreg	<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-irreg	<0.1	<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	3.0	3.0	3.6	1.9	1.5	1.1	0.6	0.9	1.1	1.3	2.3	13.8	2.7
		%	81	100	100	100	100	100	100	100	100	100	100	100	98
		Max-w	4.9	3.9	5.9	3.1	3.9	1.3	1.3	1.5	1.9	2.1	3.6	18.6	18.6
		Min-w	0.4	2.0	1.5	1.3	0.4	0.9	0.2	0.5	0.8	1.0	0.8	9.3	0.2
	Irkutsk	Mean	2.2	2.3	4.3	1.6	0.7	0.9	0.5	1.4	1.8	3.3	5.6	15.6	3.1
		%	100	100	100	100	75	100	100	100	100	80	100	67	93
		Max-w	2.9	2.5	6.3	2.7	0.9	1.4	1.2	2.2	2.2	7.6	8.6	18.5	18.5
		Min-w	1.8	2.1	1.7	0.8	0.6	0.2	<0.1	0.1	1.2	1.3	3.2	12.0	<0.1
	Primorskaya	Mean	0.8	0.6	0.4	0.3	0.7	1.3	0.4	0.4	0.3	0.2	0.3	<0.1	0.5
		%	100	100	100	100	100	100	100	100	100	100	100	48	96
		Max-15d	0.9	0.6	0.4	0.4	1.0	2.1	0.6	0.4	0.5	0.3	0.4	<0.1	2.1
		Min-15d	0.6	0.6	0.3	0.2	0.4	0.4	0.2	0.3	0.2	0.2	0.2	<0.1	<0.1
Thailand	Bangkok	Mean	***	***	***	***	***	***	<0.1	<0.1	2.3	0.2	0.3	0.5	0.6
		%	***	***	***	***	***	***	100	100	100	35	100	100	45
		Max-10d	***	***	***	***	***	***	0.1	0.2	6.7	0.2	0.4	0.8	6.7
		Min-10d	***	***	***	***	***	***	<0.1	<0.1	<0.1	0.2	0.2	0.3	<0.1
Vietnam	Hanoi	Mean	0.8	0.9	0.9	0.8	0.8	1.0	0.9	0.8	0.9	0.9	1.0	0.8	0.9
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	1.0	1.7	1.3	1.0	1.0	1.7	1.2	1.0	1.1	1.3	1.5	1.2	1.7
		Min-w	0.5	0.6	0.6	0.7	0.4	0.6	0.6	0.7	0.7	0.7	0.6	0.4	0.4
	Hoa Binh	Mean	0.5	0.7	0.7	0.7	0.5	0.9	0.9	1.0	0.8	0.4	0.7	0.6	0.7
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.7	1.1	1.0	1.2	0.7	2.0	1.4	1.5	1.2	0.7	0.9	0.8	2.0
		Min-w	0.3	0.5	0.6	0.2	0.2	0.3	0.2	0.3	0.3	0.2	0.4	0.4	0.2
	Can Tho	Mean	0.5	0.6	0.6	0.5	0.6	0.6	0.6	0.5	0.5	0.5	0.6	0.6	0.5
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.6	0.7	0.8	0.6	0.6	0.7	0.6	0.6	0.6	0.5	0.7	0.7	0.8
		Min-w	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.4	0.5	0.4	0.6	0.4
	Ho Chi Minh	Mean	0.5	0.6	0.5	0.6	0.5	0.5	0.6	0.5	0.5	0.5	0.6	0.5	0.5
		%	100	100	100	100	100	100	100	100	100	100	100	80	98
		Max-w	0.6	0.7	0.6	0.7	0.6	0.6	0.7	0.6	0.6	0.6	0.6	0.6	0.7
		Min-w	0.4	0.4	0.4	0.5	0.5	0.4	0.6	0.4	0.5	0.5	0.5	0.5	0.4
	Yen Bai	Mean	0.5	0.8	0.6	0.5	0.5	0.6	0.7	0.8	0.5	0.7	0.6	0.7	0.6
		%	100	100	100	100	100	100	100	100	100	100	75	100	98
		Max-w	0.6	1.2	0.7	0.7	1.1	1.1	1.7	1.9	0.7	1.2	0.8	0.9	1.9
		Min-w	0.4	0.4	0.4	0.3	0.2	0.3	0.3	0.3	0.4	0.4	0.3	0.5	0.2

Table 4.3.3 SO_2 - Measured by PS

Unit : ppb

Country	Site		2022												Annual
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Indonesia	Jakarta	Mean	10.7	7.9	7.7	8.6	8.0	5.9	6.2	5.5	3.7	3.9	9.3	9.2	7.2
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-m	10.7	7.9	7.7	8.6	8.0	5.9	6.2	5.5	3.7	3.9	9.3	9.2	10.7
		Min-m	10.7	7.9	7.7	8.6	8.0	5.9	6.2	5.5	3.7	3.9	9.3	9.2	3.7
	Kototabang	Mean	3.8	1.5	<0.1	<0.1	1.5	0.7	1.1	1.4	1.6	0.6	0.6	0.3	1.1
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-m	3.8	1.5	<0.1	<0.1	1.5	0.7	1.1	1.4	1.6	0.6	0.6	0.3	3.8
		Min-m	3.8	1.5	<0.1	<0.1	1.5	0.7	1.1	1.4	1.6	0.6	0.6	0.3	0.3
	Bandung	Mean	4.0	5.7	3.7	3.8	3.1	4.0	4.3	4.6	3.3	2.9	3.4	3.3	3.8
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	5.8	8.4	4.6	4.6	4.6	5.6	5.6	5.9	5.1	3.5	4.4	5.1	8.4
		Min-w	1.4	2.6	2.9	3.3	1.3	2.1	3.3	3.6	2.5	2.5	2.8	1.3	1.3

Terms and abbreviations are given in Table 4.2.

Table 4.4.1 HNO_3 - Measured by FP

Unit : ppb

Country	Site		2022 Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Cambodia	Phnom Penh	Mean	***	***	***	***	***	***	***	***	***	***	***	***	***
		%	***	***	***	***	***	***	***	***	***	***	***	***	***
		Max-2w	***	***	***	***	***	***	***	***	***	***	***	***	***
		Min-2w	***	***	***	***	***	***	***	***	***	***	***	***	***
Indonesia	Jakarta	Mean	1.0	0.9	0.6	1.3	***	***	***	***	***	***	***	***	1.0
		%	50	100	100	100	***	***	***	***	***	***	***	***	31
		Max-2w	1.0	1.1	0.8	1.7	***	***	***	***	***	***	***	***	1.7
		Min-2w	1.0	0.7	0.4	1.1	***	***	***	***	***	***	***	***	0.4
	Serpong	Mean	<0.1	0.6	0.5	0.8	0.8	1.1	1.0	***	***	***	***	***	0.7
		%	50	100	100	100	100	100	52	***	***	***	***	***	51
		Max-2w	<0.1	0.8	0.7	1.0	1.3	1.2	1.0	***	***	***	***	***	1.3
		Min-2w	<0.1	0.5	0.1	0.6	0.2	0.9	1.0	***	***	***	***	***	<0.1
	Bandung	Mean	0.4	0.3	0.4	0.5	0.5	0.4	0.4	0.5	0.4	0.8	0.3	0.3	0.4
		%	100	100	100	100	100	88	58	100	100	100	100	100	95
		Max-w	0.7	0.5	0.8	0.6	0.6	0.7	0.6	1.1	0.4	1.3	0.4	0.6	1.3
		Min-w	0.2	0.2	0.2	0.4	0.4	0.2	0.3	0.3	0.2	0.2	0.2	<0.1	<0.1
Japan	Rishiri	Mean	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
		%	100	100	100	100	100	100	100	100	100	100	100	53	96
		Max-2w	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
		Min-2w	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Ochiishi	Mean	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
		%	100	100	48	100	64	100	100	100	100	100	100	50	88
		Max-2w	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	0.2
		Min-2w	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Sado-seki	Mean	***	***	***	***	0.3	0.2	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	0.1
		%	***	***	***	***	39	100	100	100	100	100	100	100	61
		Max-2w	***	***	***	***	0.3	0.3	0.2	0.1	<0.1	0.1	0.1	<0.1	0.3
		Min-2w	***	***	***	***	0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Happo	Mean	<0.1	<0.1	0.2	0.2	<0.1	0.4	0.3	0.2	0.1	0.1	0.2	<0.1	0.2
		%	100	100	100	100	100	47	100	100	100	100	100	100	96
		Max-2w	<0.1	<0.1	0.2	0.3	<0.1	0.4	0.3	0.2	0.1	0.2	0.2	<0.1	0.4
		Min-2w	<0.1	<0.1	<0.1	0.2	<0.1	0.4	0.2	0.2	<0.1	0.1	0.2	<0.1	<0.1
	Ijira	Mean	<0.1	<0.1	0.1	0.2	0.3	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-2w	<0.1	<0.1	0.2	0.3	0.3	0.3	0.1	0.2	0.1	0.2	0.1	<0.1	0.3
		Min-2w	<0.1	<0.1	<0.1	0.2	0.2	0.2	0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Oki	Mean	<0.1	<0.1	<0.1	0.1	0.2	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
		%	78	100	100	100	100	100	100	100	100	100	100	100	98
		Max-2w	<0.1	<0.1	0.1	0.1	0.2	<0.1	0.1	0.1	<0.1	<0.1	0.2	<0.1	0.2
		Min-2w	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Yusuhara	Mean	0.1	0.1	0.2	0.2	0.4	0.2	0.2	0.2	<0.1	0.1	0.2	<0.1	0.2
		%	100	100	100	100	67	100	100	100	100	100	100	47	92
		Max-2w	0.2	0.1	0.3	0.2	0.5	0.2	0.2	0.3	<0.1	0.2	0.3	<0.1	0.5
		Min-2w	0.1	0.1	0.2	0.2	0.3	0.1	0.2	0.2	<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
		%	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
	Ogasawara	Mean	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
		Min-2w	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Tokyo	Mean	0.2	0.3	0.4	0.5	0.5	0.9	0.5	0.7	0.2	0.4	0.3	0.3	0.4
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.2	0.3	0.5	0.6	0.7	1.3	0.7	0.8	0.3	0.5	0.4	0.3	1.3
		Min-2w	0.2	0.2	0.3	0.4	0.4	0.5	0.3	0.7	0.2	0.3	0.2	0.3	0.2
	Niigata-maki	Mean	<0.1	<0.1	0.1	0.1	0.2	0.3	0.2	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	0.3	0.5	0.2	0.2	0.1	0.2	0.1	<0.1	0.5
		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
	Tsushima	Mean	0.3	0.1	0.3	0.2	0.5	0.2	0.4	0.1	<0.1	0.2	0.4	0.2	0.2
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.3	0.2	0.3	0.2	0.8	0.2	0.5	0.2	<0.1	0.2	0.6	0.2	0.8
		Min-2w	0.2	<0.1	0.2	0.1	0.1	0.2	0.4	<0.1	<0.1	0.1	0.2	0.2	<0.1

Table 4.4.1 HNO_3 - Measured by FP (continued)

Unit : ppb

Country	Site		2022 Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Lao PDR	Vientiane	Mean	***	***	***	***	***	***	***	***	***	***	***	***	***
		%	***	***	***	***	***	***	***	***	***	***	***	***	***
		Max-m	***	***	***	***	***	***	***	***	***	***	***	***	***
		Min-m	***	***	***	***	***	***	***	***	***	***	***	***	***
Malaysia	Petaling Jaya	Mean	0.5	0.4	0.7	0.7	0.5	0.5	0.7	0.6	0.5	0.3	0.5	0.4	0.5
		%	100	100	100	100	100	100	80	100	100	100	100	100	98
		Max-w	1.0	0.5	1.0	0.9	0.8	0.6	0.8	0.9	0.8	0.6	0.5	0.9	1.0
		Min-w	<0.1	0.3	0.4	0.4	0.3	0.2	0.5	0.4	0.2	0.2	0.4	0.2	<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	100	100	100	100	100	100	100	100	100	100
		Max-w	0.1	<0.1	0.1	0.1	<0.1	<0.1	<0.1	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	75	100	100	100	100	100	100	100	100	98
		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	***	***	***	***	***	***	***	***	***	***	***	***	***
		%	***	***	***	***	***	***	***	***	***	***	***	***	***
		Max-w	***	***	***	***	***	***	***	***	***	***	***	***	***
		Min-w	***	***	***	***	***	***	***	***	***	***	***	***	***
	Terelj	Mean	***	***	***	***	***	***	***	***	***	***	***	***	***
		%	***	***	***	***	***	***	***	***	***	***	***	***	***
		Max-2w	***	***	***	***	***	***	***	***	***	***	***	***	***
		Min-2w	***	***	***	***	***	***	***	***	***	***	***	***	***
Myammar	Yangon	Mean	***	***	***	***	<0.1	0.1	***	***	***	***	<0.1	<0.1	<0.1
		%	***	***	***	***	67	100	***	***	***	***	33	100	27
		Max-2w	***	***	***	***	<0.1	0.2	***	***	***	***	<0.1	<0.1	0.2
		Min-2w	***	***	***	***	<0.1	<0.1	***	***	***	***	<0.1	<0.1	<0.1
Philippines	Metro Manila	Mean	0.1	<0.1	0.4	1.6	0.3	0.5	2.6	0.8	0.8	0.2	0.3	0.2	0.7
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-irreg	0.4	0.2	1.5	5.1	0.6	0.8	7.0	1.4	3.0	0.5	0.6	0.4	7.0
		Min-irreg	<0.1	<0.1	<0.1	0.2	<0.1	0.3	0.2	0.2	<0.1	<0.1	<0.1	<0.1	<0.1
	Los Baños	Mean	***	***	<0.1	0.7	0.9	1.6	1.3	0.2	0.8	0.1	0.2	<0.1	0.6
		%	***	***	75	100	74	100	100	100	100	100	100	28	75
		Max-irreg	***	***	<0.1	1.4	3.2	3.7	1.7	0.4	1.2	0.2	0.3	<0.1	3.7
		Min-irreg	***	***	<0.1	0.1	<0.1	0.3	1.0	<0.1	0.6	<0.1	<0.1	<0.1	<0.1
	Mt. Sto. Tomas	Mean	***	***	***	***	***	***	***	***	***	***	***	***	***
		%	***	***	***	***	***	***	***	***	***	***	***	***	***
		Max-w	***	***	***	***	***	***	***	***	***	***	***	***	***
		Min-w	***	***	***	***	***	***	***	***	***	***	***	***	***
Republic of Korea	Kanghwa	Mean	<0.1	0.1	0.3	0.5	0.6	0.4	0.6	0.5	0.2	0.7	0.4	<0.1	0.4
		%	16	14	16	17	13	13	13	16	17	19	17	16	15
		Max-d	<0.1	0.2	0.6	1.1	1.0	0.9	1.3	0.9	0.3	1.5	0.7	0.2	1.5
		Min-d	<0.1	<0.1	<0.1	0.2	0.2	<0.1	<0.1	0.2	<0.1	<0.1	<0.1	<0.1	<0.1
	Cheju (Kosan)	Mean	0.7	0.3	0.6	1.2	0.7	0.4	0.2	<0.1	0.1	<0.1	0.6	0.3	0.5
		%	16	14	13	10	13	17	13	16	10	19	17	16	14
		Max-d	1.4	0.6	1.2	2.4	1.3	0.7	0.5	0.1	0.2	0.1	1.2	0.6	2.4
		Min-d	<0.1	0.1	0.2	0.3	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Imsil	Mean	<0.1	<0.1	0.3	0.6	0.6	0.6	0.3	0.1	0.1	0.2	0.4	***	0.3
		%	16	18	16	17	16	17	16	10	13	13	10	***	16
		Max-d	0.1	<0.1	0.6	0.9	0.9	1.2	0.5	0.2	0.2	0.3	0.7	***	1.2
		Min-d	<0.1	<0.1	<0.1	0.3	0.3	0.3	0.1	<0.1	<0.1	0.1	0.3	***	<0.1
Russia	Mondy	Mean	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-irreg	<0.1	<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-irreg	<0.1	<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	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
		%	81	100	100	100	100	100	100	100	100	100	100	100	98
		Max-w	<0.1	<0.1	<0.1	<0.1	0.2	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.2
		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
	Irkutsk	Mean	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
		%	100	100	100	100	100	100	100	100	100	80	100	67	95
		Max-w	0.2	<0.1	0.1	<0.1	<0.1	0.2	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
	Primorskaya	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-15d	0.1	0.2	0.2	<0.1	<0.1	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.2
		Min-15d	<0.1	0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1

Table 4.4.1 HNO_3 - Measured by FP (continued)

Unit : ppb

Country	Site		2022												Annual
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Thailand	Bangkok	Mean	***	***	***	***	***	***	0.1	<0.1	0.5	0.3	0.2	0.7	0.3
		%	***	***	***	***	***	***	100	100	100	35	100	100	45
		Max-10d	***	***	***	***	***	***	0.2	<0.1	1.1	0.3	0.2	1.2	1.2
		Min-10d	***	***	***	***	***	***	<0.1	<0.1	0.2	0.3	0.2	0.4	<0.1
Vietnam	Hanoi	Mean	0.9	0.7	0.9	0.6	0.6	0.9	0.6	0.7	1.0	0.9	1.2	0.8	0.8
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	1.8	0.9	1.8	1.0	0.8	1.5	0.9	0.7	1.3	1.8	1.7	1.5	1.8
		Min-w	0.3	0.6	0.4	0.4	0.4	0.5	0.4	0.6	0.7	0.1	0.8	0.4	0.1
	Hoa Binh	Mean	0.5	0.7	0.7	0.5	0.5	0.7	0.6	0.6	0.5	0.4	0.6	0.5	0.6
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.5	0.8	0.8	0.8	0.8	1.0	1.0	1.2	0.9	0.5	1.1	0.6	1.2
		Min-w	0.3	0.5	0.5	0.2	0.4	0.2	0.3	0.2	0.3	0.3	0.3	0.4	0.2
	Can Tho	Mean	0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	0.1	<0.1	0.1	<0.1
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.2	<0.1	0.2	<0.1	0.1	0.1	0.1	0.1	0.1	0.2	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
	Ho Chi Minh	Mean	0.4	0.3	0.3	0.3	0.3	0.4	0.4	0.3	0.3	0.3	0.4	0.4	0.3
		%	100	100	100	100	100	100	100	100	100	100	100	80	98
		Max-w	0.5	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.4	0.5	0.4	0.5	0.5
		Min-w	0.2	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.3	0.3	0.2
	Yen Bai	Mean	0.4	0.6	0.5	0.4	0.5	0.7	0.6	1.0	0.8	0.8	0.6	0.9	0.6
		%	100	100	100	100	100	100	100	100	100	100	75	100	98
		Max-w	0.4	1.0	0.8	0.6	0.7	1.3	1.1	2.8	1.5	1.3	0.8	1.5	2.8
		Min-w	0.3	0.3	0.3	0.2	0.3	0.4	0.3	0.3	0.3	0.5	0.3	0.5	0.2

Terms and abbreviations are given in Table 4.2.

Table 4.5.1 HCl - Measured by FP

Unit : ppb

Country	Site		2022												Annual
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Cambodia	Phnom Penh	Mean	***	***	***	***	***	***	***	***	***	***	***	***	***
		%	***	***	***	***	***	***	***	***	***	***	***	***	***
		Max-2w	***	***	***	***	***	***	***	***	***	***	***	***	***
		Min-2w	***	***	***	***	***	***	***	***	***	***	***	***	***
Indonesia	Jakarta	Mean	2.2	1.7	1.5	2.0	***	***	***	***	***	***	***	***	1.8
		%	50	100	100	100	***	***	***	***	***	***	***	***	31
		Max-2w	2.2	1.9	1.6	2.3	***	***	***	***	***	***	***	***	2.3
		Min-2w	2.2	1.6	1.3	1.9	***	***	***	***	***	***	***	***	1.3
	Serpong	Mean	3.2	1.2	0.7	0.3	1.3	1.0	0.8	***	***	***	***	***	1.1
		%	50	100	100	100	100	100	52	***	***	***	***	***	51
		Max-2w	3.2	1.5	1.2	0.4	1.9	1.3	0.8	***	***	***	***	***	3.2
		Min-2w	3.2	0.9	0.5	0.2	0.7	0.7	0.8	***	***	***	***	***	0.2
	Bandung	Mean	0.6	0.5	0.8	1.2	1.2	1.3	1.2	1.3	1.2	1.2	1.4	1.3	1.1
		%	100	100	100	100	100	88	58	100	100	100	100	100	95
		Max-w	0.7	0.7	1.3	1.2	1.4	1.5	1.4	1.7	1.4	1.3	1.4	1.6	1.7
		Min-w	0.4	0.5	0.4	1.1	0.9	1.1	1.0	1.1	0.9	1.1	1.3	1.0	0.4
Japan	Rishiri	Mean	0.2	0.2	0.2	0.4	0.5	0.5	0.3	0.4	0.3	0.3	0.2	0.2	0.3
		%	100	100	100	100	100	100	100	100	100	100	100	53	96
		Max-2w	0.2	0.2	0.2	0.5	0.8	0.6	0.3	0.4	0.3	0.5	0.3	0.2	0.8
		Min-2w	0.1	0.2	0.2	0.4	0.3	0.5	0.2	0.3	0.3	0.2	0.2	0.2	0.1
	Ochiishi	Mean	0.4	0.1	0.2	0.3	0.2	0.6	0.6	0.5	0.3	0.3	<0.1	<0.1	0.3
		%	100	100	48	100	64	100	100	100	100	100	100	50	88
		Max-2w	0.7	0.1	0.2	0.4	0.3	0.7	0.6	0.6	0.4	0.5	<0.1	<0.1	0.7
		Min-2w	<0.1	<0.1	0.2	0.2	<0.1	0.5	0.6	0.5	0.2	0.2	<0.1	<0.1	<0.1
	Sado-seki	Mean	***	***	***	***	1.0	0.9	0.5	0.7	0.5	0.4	0.4	0.4	0.6
		%	***	***	***	***	39	100	100	100	100	100	100	100	61
		Max-2w	***	***	***	***	1.0	1.2	0.6	1.0	0.6	0.4	0.7	0.7	1.2
		Min-2w	***	***	***	***	1.0	0.6	0.5	0.4	0.4	0.3	0.2	0.2	0.2
	Happo	Mean	0.1	0.1	0.1	0.2	0.1	0.2	<0.1	0.1	<0.1	0.1	0.2	<0.1	0.1
		%	100	100	100	100	100	47	100	100	100	100	100	100	96
		Max-2w	0.2	0.1	0.2	0.3	0.1	0.2	<0.1	0.1	0.1	0.1	0.2	0.1	0.3
		Min-2w	<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
	Ijira	Mean	<0.1	<0.1	0.2	0.3	0.2	0.2	0.1	0.1	0.2	<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	0.4	0.2	0.2	0.2	0.2	0.3	0.1	<0.1	<0.1	0.4
		Min-2w	<0.1	<0.1	0.2	0.2	0.1	0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Oki	Mean	0.4	0.3	0.7	0.7	0.7	0.8	0.7	0.7	0.4	0.3	0.5	0.4	0.6
		%	78	100	100	100	100	100	100	100	100	100	100	100	98
		Max-2w	0.4	0.3	0.7	0.8	0.8	0.9	0.8	0.9	0.4	0.3	0.8	0.4	0.9
		Min-2w	0.4	0.3	0.6	0.7	0.5	0.7	0.6	0.5	0.4	0.3	0.2	0.4	0.2
	Yusuhara	Mean	0.2	0.3	0.4	0.3	0.1	0.4	0.2	0.4	0.3	0.3	0.2	0.3	0.3
		%	100	100	100	100	67	100	100	100	100	100	100	47	92
		Max-2w	0.3	0.4	0.6	0.5	0.2	0.5	0.2	0.4	0.3	0.4	0.2	0.3	0.6
		Min-2w	0.2	0.2	0.2	0.2	0.1	0.3	0.2	0.4	0.2	0.2	0.2	0.3	0.1
	Hedo	Mean	0.7	0.5	0.6	0.6	0.4	0.2	0.4	0.5	0.7	0.8	0.7	0.6	0.6
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.7	0.6	0.8	0.6	0.4	0.3	0.5	0.6	0.7	1.1	1.0	0.7	1.1
		Min-2w	0.7	0.3	0.4	0.6	0.3	0.2	0.3	0.4	0.7	0.6	0.4	0.5	0.2
	Ogasawara	Mean	0.4	0.5	0.6	0.2	0.3	0.2	0.2	0.4	0.2	0.3	0.3	0.3	0.3
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.4	0.6	0.8	0.2	0.3	0.3	0.2	0.5	0.2	0.5	0.4	0.4	0.8
		Min-2w	0.4	0.4	0.4	0.1	0.2	0.2	0.2	0.3	0.1	0.2	0.3	0.3	0.1
	Tokyo	Mean	0.3	0.3	0.7	1.1	0.9	1.1	0.8	1.0	0.8	0.6	0.5	0.3	0.7
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.3	0.4	0.7	1.1	1.0	1.2	1.1	1.0	0.8	0.7	0.5	0.3	1.2
		Min-2w	0.3	0.2	0.7	1.1	0.8	1.0	0.6	0.9	0.7	0.5	0.4	0.2	0.2
	Niigata-maki	Mean	0.3	0.4	0.3	0.4	0.7	0.8	0.5	0.6	0.5	0.4	0.4	0.2	0.5
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.4	0.4	0.4	0.4	0.8	1.0	0.6	0.7	0.6	0.5	0.5	0.2	1.0
		Min-2w	0.3	0.3	0.3	0.4	0.5	0.7	0.4	0.6	0.5	0.3	0.3	0.2	0.2
	Tsushima	Mean	0.5	0.3	0.4	0.6	0.5	0.6	0.7	0.7	0.4	0.6	0.5	0.4	0.5
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.5	0.4	0.5	0.6	0.6	0.7	0.8	0.7	0.5	0.7	0.7	0.4	0.8
		Min-2w	0.4	0.2	0.4	0.6	0.5	0.5	0.7	0.7	0.3	0.6	0.3	0.4	0.2

Table 4.5.1 HCl - Measured by FP (continued)

Unit : ppb

Country	Site		2022												Annual
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Lao PDR	Vientiane	Mean	***	***	***	***	***	***	***	***	***	***	***	***	***
		%	***	***	***	***	***	***	***	***	***	***	***	***	***
		Max-m	***	***	***	***	***	***	***	***	***	***	***	***	***
		Min-m	***	***	***	***	***	***	***	***	***	***	***	***	***
Malaysia	Petaling Jaya	Mean	1.0	1.2	0.9	0.9	1.0	0.9	0.9	0.8	1.2	1.1	0.9	0.7	1.0
		%	100	100	100	100	100	100	80	100	100	100	100	100	98
		Max-w	1.4	2.3	1.0	1.0	1.3	1.2	1.1	0.9	1.4	1.3	1.5	1.1	2.3
		Min-w	<0.1	0.5	0.6	0.7	0.7	0.8	0.8	0.4	1.0	1.0	0.5	0.4	<0.1
	Tanah Rata	Mean	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.1	0.2	0.2	0.1	<0.1	0.2
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.3	0.4	0.2	0.2	0.3	0.3	0.4	0.2	0.2	0.2	0.2	0.1	0.4
		Min-w	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	Mean	0.3	0.5	0.3	0.2	0.2	0.2	0.1	0.3	<0.1	0.1	0.2	0.1	0.2
		%	100	100	100	75	100	100	100	100	100	100	100	100	98
		Max-2w	0.4	0.8	0.3	0.3	0.2	0.2	0.1	0.7	0.1	0.2	0.2	0.2	0.8
		Min-2w	0.2	0.3	0.2	0.2	0.1	0.2	<0.1	0.1	<0.1	0.1	0.1	<0.1	<0.1
Mongolia	Ulaanbaatar	Mean	***	***	***	***	***	***	***	***	***	***	***	***	***
		%	***	***	***	***	***	***	***	***	***	***	***	***	***
		Max-w	***	***	***	***	***	***	***	***	***	***	***	***	***
		Min-w	***	***	***	***	***	***	***	***	***	***	***	***	***
	Terelj	Mean	***	***	***	***	***	***	***	***	***	***	***	***	***
		%	***	***	***	***	***	***	***	***	***	***	***	***	***
		Max-2w	***	***	***	***	***	***	***	***	***	***	***	***	***
		Min-2w	***	***	***	***	***	***	***	***	***	***	***	***	***
Myammar	Yangon	Mean	***	***	***	***	0.5	0.4	***	***	***	***	0.3	0.2	0.3
		%	***	***	***	***	67	100	***	***	***	***	33	100	27
		Max-2w	***	***	***	***	0.6	0.4	***	***	***	***	0.3	0.2	0.6
		Min-2w	***	***	***	***	0.4	0.4	***	***	***	***	0.3	0.1	0.1
Philippines	Metro Manila	Mean	2.0	1.6	2.1	0.5	2.0	0.6	1.9	1.9	0.7	0.3	0.3	0.3	1.2
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-irreg	2.3	2.8	3.3	0.9	5.3	0.7	3.6	4.2	2.4	0.5	0.5	0.7	5.3
		Min-irreg	1.9	<0.1	1.5	0.4	0.2	0.4	0.3	<0.1	0.1	0.1	0.3	0.1	<0.1
	Los Baños	Mean	***	***	0.4	2.3	0.4	4.7	4.8	0.3	2.2	1.1	0.2	2.1	1.8
		%	***	***	75	100	74	100	100	100	100	100	100	28	75
		Max-irreg	***	***	0.5	3.1	0.9	10.5	6.5	0.5	4.3	2.7	0.2	2.1	10.5
		Min-irreg	***	***	0.3	1.5	<0.1	0.2	3.1	<0.1	0.5	0.2	0.2	2.1	<0.1
	Mt. Sto. Tomas	Mean	***	***	***	***	***	***	***	***	***	***	***	***	***
		%	***	***	***	***	***	***	***	***	***	***	***	***	***
		Max-w	***	***	***	***	***	***	***	***	***	***	***	***	***
		Min-w	***	***	***	***	***	***	***	***	***	***	***	***	***
Republic of Korea	Kanghwa	Mean	0.1	0.1	0.2	0.2	0.2	0.1	<0.1	<0.1	0.2	<0.1	<0.1	0.1	0.1
		%	16	14	16	17	13	13	13	16	17	19	17	16	15
		Max-d	0.2	0.2	0.4	0.5	0.2	0.2	0.2	0.3	0.2	0.1	0.1	0.2	0.5
		Min-d	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	<0.1
	Cheju (Kosan)	Mean	0.1	0.3	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	0.2	0.2	<0.1
		%	16	14	13	10	13	17	13	16	10	19	17	16	14
		Max-d	0.2	0.4	0.3	0.1	<0.1	<0.1	0.1	0.1	0.2	0.2	0.3	0.2	0.4
		Min-d	<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
	Imsil	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
		%	16	18	16	17	16	17	16	10	13	13	10	***	16
		Max-d	0.1	0.3	0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	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
Russia	Mondy	Mean	<0.1	0.2	0.1	0.1	0.1	0.3	0.2	***	***	0.2	0.2	0.2	0.2
		%	100	100	100	100	100	100	100	***	***	48	100	100	77
		Max-irreg	<0.1	0.2	0.1	0.1	0.1	0.4	0.2	***	***	0.2	0.2	0.2	0.4
		Min-irreg	<0.1	0.1	0.1	0.1	0.1	0.3	0.2	***	***	0.2	0.2	0.1	<0.1
	Listvyanka	Mean	0.5	0.3	0.5	0.6	0.5	0.6	0.6	***	***	0.2	0.2	0.2	0.4
		%	81	100	100	100	100	100	63	***	***	80	100	100	77
		Max-w	0.8	0.3	0.6	0.6	0.6	0.6	0.8	***	***	0.3	0.2	0.3	0.8
		Min-w	0.3	0.3	0.3	0.5	0.4	0.5	0.4	***	***	0.2	0.1	0.2	0.1
	Irkutsk	Mean	0.1	0.1	0.4	0.2	0.3	0.2	0.4	***	***	0.4	0.2	0.3	0.3
		%	18	72	100	100	75	100	40	***	***	20	100	67	57
		Max-w	0.1	0.2	0.8	0.2	0.4	0.4	0.5	***	***	0.4	0.3	0.3	0.8
		Min-w	0.1	0.1	0.1	0.1	0.2	<0.1	0.2	***	***	0.4	0.2	0.2	<0.1
	Primorskaya	Mean	0.3	0.3	0.6	0.7	0.6	0.7	0.3	0.2	0.2	0.2	0.3	0.2	0.4
		%	100	100	100	100	100	100	100	100	100	100	100	48	96
		Max-15d	0.3	0.3	0.7	0.7	0.8	0.7	0.3	0.3	0.2	0.2	0.3	0.2	0.8
		Min-15d	0.3	0.3	0.4	0.6	0.4	0.6	0.3	0.2	0.2	0.2	0.3	0.2	0.2

Table 4.5.1 HCl - Measured by FP (continued)

Unit : ppb

Country	Site		2022												Annual
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Thailand	Bangkok	Mean	***	***	***	***	***	***	0.3	0.2	0.5	0.4	0.4	0.4	0.4
		%	***	***	***	***	***	***	100	100	100	35	100	100	45
		Max-10d	***	***	***	***	***	***	0.7	0.3	1.1	0.4	0.7	0.6	1.1
		Min-10d	***	***	***	***	***	***	<0.1	0.1	0.2	0.4	0.2	0.1	<0.1
Vietnam	Hanoi	Mean	2.0	2.3	1.9	1.8	1.7	2.7	2.1	2.5	2.6	2.0	3.1	1.9	2.2
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	2.9	3.1	3.4	2.4	1.9	4.1	3.2	3.2	3.9	3.1	3.9	2.2	4.1
		Min-w	1.6	1.4	1.1	1.2	1.5	1.4	1.7	2.1	1.8	1.2	2.4	1.7	1.1
	Hoa Binh	Mean	1.5	2.2	2.1	2.0	1.5	2.7	2.1	1.9	1.8	1.8	2.0	1.9	2.0
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	2.0	2.9	3.1	2.3	2.0	3.7	2.8	2.3	2.1	2.4	2.8	3.2	3.7
		Min-w	1.1	1.7	1.5	1.6	0.9	1.9	1.3	1.2	1.2	1.4	1.1	1.1	0.9
	Can Tho	Mean	1.6	1.7	1.8	1.4	1.9	1.8	1.6	1.9	1.5	1.6	1.9	1.8	1.7
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	1.8	1.9	2.2	1.7	2.2	2.1	2.3	2.3	1.7	2.0	2.2	2.1	2.3
		Min-w	1.5	1.4	1.7	1.0	1.7	1.5	1.1	1.7	1.4	1.1	1.7	1.6	1.0
	Ho Chi Minh	Mean	1.4	1.4	1.3	1.4	1.2	1.2	1.5	1.3	1.3	1.3	1.3	1.2	1.3
		%	100	100	100	100	100	100	100	100	100	100	100	80	98
		Max-w	1.6	1.6	1.6	1.6	1.4	1.6	1.7	1.4	1.6	1.4	1.5	1.3	1.7
		Min-w	1.3	1.1	1.0	1.1	1.0	1.0	1.3	1.2	1.1	1.1	1.1	1.0	1.0
	Yen Bai	Mean	1.5	1.8	1.9	1.5	2.4	2.0	2.1	2.2	2.3	1.7	2.2	2.1	2.0
		%	100	100	100	100	100	100	100	100	100	100	75	100	98
		Max-w	2.0	3.3	3.3	1.8	3.5	2.5	2.4	2.8	3.5	2.0	2.7	3.2	3.5
		Min-w	1.0	1.0	1.6	1.3	1.4	1.4	1.7	1.5	1.6	1.0	1.8	1.1	1.0

Terms and abbreviations are given in Table 4.2.

Table 4.6.1 NH_3 - Measured by FP

Unit : ppb

Country	Site		2022 Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Cambodia	Phnom Penh	Mean	***	***	***	***	***	***	***	***	***	***	***	***	***
		%	***	***	***	***	***	***	***	***	***	***	***	***	***
		Max-2w	***	***	***	***	***	***	***	***	***	***	***	***	***
		Min-2w	***	***	***	***	***	***	***	***	***	***	***	***	***
Indonesia	Jakarta	Mean	11.6	11.8	11.8	14.2	***	***	***	***	***	***	***	***	12.6
		%	50	100	100	100	***	***	***	***	***	***	***	***	31
		Max-2w	11.6	12.7	12.4	14.8	***	***	***	***	***	***	***	***	14.8
		Min-2w	11.6	10.9	11.1	13.7	***	***	***	***	***	***	***	***	10.9
	Serpong	Mean	6.1	7.7	5.9	5.0	10.3	12.7	9.6	***	***	***	***	***	8.1
		%	50	100	100	100	100	100	52	***	***	***	***	***	51
		Max-2w	6.1	7.8	6.6	5.5	14.7	17.2	9.6	***	***	***	***	***	17.2
		Min-2w	6.1	7.5	4.7	4.4	6.0	8.2	9.6	***	***	***	***	***	4.4
	Bandung	Mean	8.6	8.6	9.7	8.8	11.5	12.3	12.1	12.7	13.2	8.8	8.1	7.5	10.1
		%	100	100	100	100	100	88	58	100	100	100	100	100	95
		Max-w	11.5	9.2	10.8	10.4	11.9	13.6	12.8	14.5	14.2	9.7	8.8	9.4	14.5
		Min-w	6.6	7.8	8.5	7.1	10.8	11.4	11.2	10.1	11.0	8.1	7.4	4.5	4.5
Japan	Rishiri	Mean	<0.1	0.1	0.3	0.5	0.8	0.8	0.9	0.9	0.9	0.7	0.4	0.7	0.6
		%	100	100	100	100	100	100	100	100	100	100	100	53	96
		Max-2w	<0.1	0.1	0.3	0.7	1.1	0.8	1.1	1.1	1.0	1.3	0.6	0.7	1.3
		Min-2w	<0.1	<0.1	0.2	0.3	0.6	0.8	0.7	0.7	0.8	<0.1	0.1	0.7	<0.1
	Ochiishi	Mean	0.1	0.1	0.2	0.2	0.3	0.3	0.5	0.4	0.5	0.6	0.5	0.2	0.3
		%	100	100	48	100	64	100	100	100	100	100	100	50	88
		Max-2w	0.1	0.2	0.2	0.2	0.3	0.4	0.5	0.5	0.5	0.7	0.6	0.2	0.7
		Min-2w	0.1	0.1	0.2	0.2	0.3	0.2	0.4	0.3	0.4	0.5	0.4	0.2	0.1
	Sado-seki	Mean	***	***	***	***	2.1	1.6	2.0	1.1	1.3	0.8	0.9	0.5	1.2
		%	***	***	***	***	39	100	100	100	100	100	100	100	61
		Max-2w	***	***	***	***	2.1	2.1	2.5	1.4	1.3	0.8	0.9	0.6	2.5
		Min-2w	***	***	***	***	2.1	1.1	1.6	0.7	1.3	0.6	0.9	0.4	0.4
	Happo	Mean	0.2	0.2	1.4	1.0	1.1	1.0	0.4	0.4	0.3	0.2	0.2	<0.1	0.5
		%	100	100	100	100	100	47	100	100	100	100	100	100	96
		Max-2w	0.2	0.2	1.5	1.1	1.1	1.0	0.5	0.5	0.3	0.3	0.2	0.1	1.5
		Min-2w	0.1	0.2	1.3	1.0	1.1	1.0	0.3	0.3	0.3	0.2	0.2	<0.1	<0.1
	Ijira	Mean	0.3	0.3	1.1	1.0	1.2	1.3	1.4	1.1	1.1	0.4	0.5	0.3	0.8
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.3	0.3	1.1	1.3	1.3	1.5	1.6	1.2	1.1	0.8	0.6	0.3	1.6
		Min-2w	0.2	0.3	1.0	0.7	1.0	1.1	1.3	1.1	1.1	<0.1	0.4	0.2	<0.1
	Oki	Mean	0.3	0.4	1.2	1.0	1.4	0.8	1.1	1.1	0.7	0.6	0.7	0.4	0.8
		%	78	100	100	100	100	100	100	100	100	100	100	100	98
		Max-2w	0.4	0.5	1.4	1.0	1.7	0.9	1.2	1.1	0.8	0.7	1.0	0.5	1.7
		Min-2w	0.3	0.3	0.9	1.0	0.8	0.8	1.1	1.0	0.6	0.5	0.5	0.3	0.3
	Yusuhara	Mean	0.2	0.3	0.8	0.7	1.0	0.5	0.6	0.5	0.6	0.4	0.4	0.1	0.5
		%	100	100	100	100	67	100	100	100	100	100	100	47	92
		Max-2w	0.2	0.3	1.1	0.8	1.4	0.5	0.6	0.5	0.6	0.4	0.4	0.1	1.4
		Min-2w	0.2	0.2	0.5	0.6	0.6	0.4	0.6	0.5	0.6	0.3	0.3	0.1	0.1
	Hedo	Mean	0.6	0.7	1.4	0.9	0.9	1.0	1.1	1.1	1.0	0.7	0.8	0.8	0.9
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.8	0.7	1.8	1.1	1.2	1.0	1.1	1.1	1.0	0.8	0.9	0.8	1.8
		Min-2w	0.5	0.7	1.0	0.8	0.7	1.0	1.1	1.0	1.0	0.6	0.7	0.7	0.5
	Ogasawara	Mean	0.3	0.3	0.6	0.4	0.5	0.5	0.4	0.5	0.4	0.4	0.4	0.3	0.4
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.3	0.4	0.7	0.4	0.5	0.5	0.5	0.6	0.4	0.4	0.5	0.3	0.7
		Min-2w	0.2	0.3	0.5	0.3	0.5	0.5	0.4	0.5	0.4	0.4	0.3	0.3	0.2
	Tokyo	Mean	2.6	2.4	3.1	4.2	4.0	6.3	5.0	4.5	3.5	3.7	4.1	3.0	3.9
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	2.7	2.5	3.3	4.6	4.5	8.1	5.6	4.5	3.6	4.0	4.4	3.2	8.1
		Min-2w	2.5	2.4	2.9	3.8	3.4	4.4	4.4	4.5	3.4	3.2	3.8	2.9	2.4
	Niigata-maki	Mean	0.3	0.4	1.5	2.0	2.1	2.2	2.3	2.2	2.0	1.1	1.0	0.5	1.5
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.4	0.6	1.7	2.1	2.4	2.3	2.3	2.7	2.2	1.5	1.1	0.5	2.7
		Min-2w	0.3	0.3	1.3	1.9	1.8	2.2	2.2	1.8	1.9	0.8	1.0	0.5	0.3
	Tsushima	Mean	0.5	0.6	1.4	1.1	1.7	0.9	1.5	0.9	0.7	0.7	0.9	0.5	1.0
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.6	0.7	1.8	1.3	2.3	1.0	1.5	1.0	0.8	0.8	1.2	0.6	2.3
		Min-2w	0.5	0.6	0.9	0.9	1.0	0.8	1.5	0.8	0.6	0.6	0.6	0.4	0.4

Table 4.6.1 NH_3 - Measured by FP (continued)

Unit : ppb

Country	Site		2022												Annual
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Lao PDR	Vientiane	Mean	***	***	***	***	***	***	***	***	***	***	***	***	***
		%	***	***	***	***	***	***	***	***	***	***	***	***	***
		Max-m	***	***	***	***	***	***	***	***	***	***	***	***	***
		Min-m	***	***	***	***	***	***	***	***	***	***	***	***	***
Malaysia	Petaling Jaya	Mean	4.1	7.2	6.5	7.4	8.0	6.9	7.5	6.4	7.0	6.3	6.0	7.4	6.8
		%	100	100	100	100	100	100	80	100	100	100	100	100	98
		Max-w	4.8	7.9	7.4	8.7	10.1	8.0	8.4	8.1	8.2	7.8	6.8	8.3	10.1
		Min-w	3.4	6.3	4.7	5.9	5.9	6.4	6.5	5.3	6.2	5.2	5.2	6.2	3.4
	Tanah Rata	Mean	1.4	1.6	1.3	1.3	1.2	1.1	1.6	1.5	1.1	1.1	0.8	0.9	1.2
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	1.5	1.8	2.1	2.1	1.3	1.6	2.0	1.9	1.4	1.3	0.9	1.2	2.1
		Min-w	1.1	1.3	1.0	1.0	1.1	0.9	1.2	0.8	0.9	0.7	0.7	0.7	0.7
	Danum Valley	Mean	1.1	2.2	1.5	1.9	1.9	1.8	1.0	2.1	1.3	0.8	1.4	1.2	1.5
		%	100	100	100	75	100	100	100	100	100	100	100	100	98
		Max-2w	1.5	3.0	1.9	2.4	2.4	2.3	1.0	2.8	1.4	1.4	1.5	1.5	3.0
		Min-2w	0.7	1.4	1.3	1.3	1.3	1.3	1.0	1.6	1.2	0.2	1.2	0.8	0.2
Mongolia	Ulaanbaatar	Mean	***	***	***	***	***	***	***	***	***	***	***	***	***
		%	***	***	***	***	***	***	***	***	***	***	***	***	***
		Max-w	***	***	***	***	***	***	***	***	***	***	***	***	***
		Min-w	***	***	***	***	***	***	***	***	***	***	***	***	***
	Terelj	Mean	***	***	***	***	***	***	***	***	***	***	***	***	***
		%	***	***	***	***	***	***	***	***	***	***	***	***	***
		Max-2w	***	***	***	***	***	***	***	***	***	***	***	***	***
		Min-2w	***	***	***	***	***	***	***	***	***	***	***	***	***
Myammar	Yangon	Mean	***	***	***	***	7.8	2.5	***	***	***	***	6.8	0.8	4.1
		%	***	***	***	***	67	100	***	***	***	***	33	100	27
		Max-2w	***	***	***	***	10.2	3.1	***	***	***	***	6.8	1.6	10.2
		Min-2w	***	***	***	***	5.4	1.9	***	***	***	***	6.8	<0.1	<0.1
Philippines	Metro Manila	Mean	10.7	8.7	17.1	9.9	8.4	7.5	20.7	11.5	7.5	4.3	13.8	5.4	10.4
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-irreg	12.1	11.3	38.3	20.5	12.5	9.5	63.2	20.6	29.9	7.3	21.8	9.0	63.2
		Min-irreg	8.9	6.6	6.8	4.8	3.7	5.0	2.2	5.1	0.8	1.2	8.6	0.5	0.5
	Los Baños	Mean	***	***	16.5	25.8	5.5	8.0	7.6	5.1	7.6	6.5	2.3	1.9	8.5
		%	***	***	75	100	74	100	100	100	100	100	100	28	75
		Max-irreg	***	***	35.1	42.7	8.2	14.6	11.0	11.3	11.8	14.7	3.7	1.9	42.7
		Min-irreg	***	***	6.1	9.0	3.4	1.8	4.3	1.7	5.8	2.2	0.9	1.9	0.9
	Mt. Sto. Tomas	Mean	***	***	***	***	***	***	***	***	***	***	***	***	***
		%	***	***	***	***	***	***	***	***	***	***	***	***	***
		Max-w	***	***	***	***	***	***	***	***	***	***	***	***	***
		Min-w	***	***	***	***	***	***	***	***	***	***	***	***	***
Republic of Korea	Kanghwa	Mean	1.8	1.5	1.9	2.5	3.3	3.4	6.0	4.2	3.1	2.5	2.0	1.0	3.0
		%	16	14	16	17	13	13	13	16	17	19	17	16	15
		Max-d	2.0	2.7	2.8	3.2	5.3	4.7	10.8	6.0	3.7	4.4	5.0	1.8	10.8
		Min-d	1.4	1.0	0.7	1.5	2.1	2.0	3.8	3.3	1.7	1.2	<0.1	0.3	0.7
	Cheju (Kosan)	Mean	1.4	2.2	3.8	4.0	5.0	4.4	6.7	1.7	4.4	3.2	3.6	1.9	3.5
		%	16	14	13	10	13	17	13	16	10	19	17	16	14
		Max-d	1.9	3.0	6.1	5.9	7.5	7.0	10.1	2.5	5.9	5.0	6.7	2.8	10.1
		Min-d	0.6	1.7	2.4	2.8	2.8	2.0	4.1	0.8	2.3	1.7	1.7	0.9	0.6
	Imsil	Mean	6.4	5.2	10.1	8.3	9.5	8.8	7.5	4.8	6.8	4.5	4.3	***	7.6
		%	16	18	16	17	16	17	16	10	13	13	10	***	16
		Max-d	7.9	7.2	18.6	10.7	12.2	13.3	9.6	5.4	8.8	6.6	7.3	***	18.6
		Min-d	4.7	3.3	5.5	5.7	6.8	4.4	4.9	3.8	5.6	2.7	2.5	***	3.3
Russia	Mondy	Mean	0.3	2.3	2.0	1.4	1.3	3.2	2.2	0.3	0.2	0.6	1.3	0.5	1.3
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-irreg	0.3	3.9	2.0	1.8	1.3	4.6	2.6	0.3	0.5	0.8	1.8	0.5	4.6
		Min-irreg	0.2	0.6	2.0	1.0	1.3	2.0	1.9	0.2	<0.1	0.4	0.8	0.5	<0.1
	Listvyanka	Mean	2.6	3.3	3.0	4.7	5.0	5.9	4.6	2.0	1.4	2.7	0.8	1.1	3.1
		%	81	100	100	100	100	100	100	100	100	100	100	100	98
		Max-w	5.4	4.5	3.3	5.6	6.6	6.3	6.6	3.4	1.9	4.6	2.0	1.4	6.6
		Min-w	0.8	2.3	2.2	3.6	3.9	5.5	3.0	0.9	0.9	<0.1	<0.1	0.8	<0.1
	Irkutsk	Mean	0.4	1.5	4.9	2.7	3.0	3.1	2.9	3.5	2.1	1.6	2.1	1.6	2.5
		%	100	100	100	100	100	100	100	100	100	80	100	67	95
		Max-w	0.7	3.4	6.5	4.0	4.1	5.0	4.7	6.0	2.8	3.9	2.8	2.9	6.5
		Min-w	0.3	0.4	3.0	1.1	1.8	1.1	<0.1	1.6	1.2	0.6	1.1	0.9	<0.1
	Primorskaya	Mean	0.1	0.9	1.6	1.8	3.2	1.9	0.8	0.6	0.3	0.2	0.4	<0.1	1.0
		%	100	100	100	50	100	100	100	100	100	100	100	48	92
		Max-15d	0.1	1.5	1.8	1.8	3.9	2.9	0.8	0.6	0.3	0.2	0.6	<0.1	3.9
		Min-15d	0.1	0.2	1.3	1.8	2.5	0.9	0.7	0.5	0.2	0.2	0.2	<0.1	<0.1

Table 4.6.1 NH_3 - Measured by FP (continued)

Unit : ppb

Country	Site		2022												Annual
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Thailand	Bangkok	Mean	***	***	***	***	***	***	0.4	0.5	1.0	1.8	2.9	4.0	1.7
		%	***	***	***	***	***	***	100	100	100	35	100	100	45
		Max-10d	***	***	***	***	***	***	0.5	1.0	1.8	1.8	3.2	4.6	4.6
		Min-10d	***	***	***	***	***	***	0.2	0.1	0.4	1.8	2.5	3.5	0.1
Vietnam	Hanoi	Mean	3.7	3.7	4.7	4.4	4.1	4.4	4.1	4.0	4.0	4.4	5.1	4.0	4.2
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	4.4	4.2	5.6	4.9	4.2	5.4	4.7	4.9	4.8	4.7	6.3	4.5	6.3
		Min-w	3.3	3.5	4.1	4.0	3.9	3.8	3.8	3.1	3.6	4.2	4.6	3.7	3.1
	Hoa Binh	Mean	1.6	1.6	1.5	1.3	1.5	1.5	1.7	1.6	1.5	1.4	1.5	1.4	1.5
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	2.2	1.9	1.9	1.4	2.0	1.9	2.1	1.9	2.1	1.7	1.9	1.5	2.2
		Min-w	1.2	1.3	1.2	1.3	1.2	1.2	1.2	1.4	1.0	1.1	1.3	1.2	1.0
	Can Tho	Mean	5.3	5.5	4.7	5.7	4.7	5.1	4.5	5.1	4.9	5.0	4.9	4.8	5.0
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	5.8	6.0	6.5	7.0	5.0	5.7	5.8	6.2	6.3	5.8	5.4	5.4	7.0
		Min-w	4.7	4.6	3.3	4.5	4.4	4.8	3.5	4.5	3.8	3.9	4.2	4.1	3.3
	Ho Chi Minh	Mean	3.9	3.9	4.0	3.7	4.4	3.9	3.7	3.8	3.9	4.4	3.9	3.7	3.9
		%	100	100	100	100	100	100	100	100	100	100	100	80	98
		Max-w	4.5	4.4	4.7	4.3	5.2	4.3	4.3	4.4	4.4	4.7	4.5	4.1	5.2
		Min-w	3.4	3.6	3.0	3.4	3.6	3.7	3.1	2.9	3.5	4.0	3.4	3.2	2.9
	Yen Bai	Mean	4.3	4.3	4.0	3.6	3.7	3.7	3.3	3.2	3.1	3.3	3.2	3.6	3.6
		%	100	100	100	100	100	100	100	100	100	100	75	100	98
		Max-w	5.1	4.9	4.7	3.9	5.3	4.8	3.6	3.4	3.2	3.9	3.3	4.8	5.3
		Min-w	3.9	3.6	3.7	3.1	3.1	3.0	3.1	3.1	3.0	2.9	3.0	2.9	2.9

Table 4.6.2 NH_3 - Measured by PS

Unit : ppb

Country	Site		2022												Annual
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Indonesia	Bandung	Mean	15.8	14.8	12.5	13.5	13.5	14.6	21.4	17.3	16.8	15.5	16.7	14.9	15.6
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	20.5	15.8	13.9	14.5	15.9	15.4	22.9	18.4	18.1	19.2	18.7	18.1	22.9
		Min-w	13.1	14.2	11.3	12.3	11.2	13.2	19.8	15.7	15.3	12.8	14.2	11.3	11.2

Terms and abbreviations are given in Table 4.2.

Table 4.7 NO - Measured by AT

Unit : ppb

Country	Site		2022												Annual
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
China	Jinyunshan	Mean	3.4	2.7	2.6	2.4	2.5	2.5	2.4	2.0	2.3	2.3	2.3	3.5	2.6
		%	100	100	100	100	100	100	97	97	100	100	100	100	99
		Max-d	7.2	4.8	3.2	3.2	3.2	3.2	3.2	2.4	2.4	3.2	3.2	10.4	10.4
		Min-d	2.4	2.4	2.4	2.4	2.4	2.4	1.6	1.6	1.6	1.6	1.6	1.6	1.6
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	97	91	98	98	98	98	98	84	97	97	98	96
		Max-d	0.1	0.1	0.2	0.2	<0.1	0.4	0.3	0.1	0.2	0.1	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
	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
		%	95	95	95	93	84	91	91	91	91	86	86	87	91
		Max-d	<0.1	<0.1	0.1	0.2	0.4	0.2	0.8	0.2	0.2	0.1	0.1	<0.1	0.8
		Min-d	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Sado-seki	Mean	***	***	***	***	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
		%	***	***	***	***	36	97	97	86	95	97	95	93	58
		Max-d	***	***	***	***	0.1	0.1	0.2	0.1	0.1	0.2	0.2	<0.1	0.2
		Min-d	***	***	***	***	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Happo	Mean	***	***	***	***	***	***	***	***	***	***	***	***	***
		%	***	***	***	***	***	***	***	***	***	***	***	***	***
		Max-d	***	***	***	***	***	***	***	***	***	***	***	***	***
		Min-d	***	***	***	***	***	***	***	***	***	***	***	***	***
	Ijira	Mean	0.2	0.2	<0.1	<0.1	<0.1	0.5	0.5	0.2	0.2	<0.1	<0.1	0.1	0.1
		%	94	87	92	97	35	54	98	97	98	97	97	98	87
		Max-d	0.6	0.7	0.4	0.2	<0.1	1.4	1.2	1.0	1.3	0.1	0.4	0.4	1.4
		Min-d	<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
	Oki	Mean	<0.1	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	***	***	***	***	<0.1
		%	83	96	79	95	98	98	98	59	***	***	***	***	59
		Max-d	0.2	0.3	0.3	0.1	0.2	0.2	0.2	0.2	***	***	***	***	0.3
		Min-d	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	***	***	***	***	<0.1
	Yusuhara	Mean	***	***	***	***	***	***	***	***	***	***	***	***	***
		%	***	***	***	***	***	***	***	***	***	***	***	***	***
		Max-d	***	***	***	***	***	***	***	***	***	***	***	***	***
		Min-d	***	***	***	***	***	***	***	***	***	***	***	***	***
	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	69	98	98	97	93	97	97	97	97	97	98	95
		Max-d	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.1	0.1	0.1	0.1	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
	Ogasawara	Mean	<0.1	0.1	<0.1	<0.1	<0.1	0.1	0.1	0.2	<0.1	***	***	***	<0.1
		%	97	92	98	93	99	99	97	98	7	***	***	***	65
		Max-d	0.2	0.2	0.1	0.1	0.2	0.3	0.3	1.1	<0.1	***	***	***	1.1
		Min-d	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	***	***	***	<0.1
	Niigata-maki	Mean	<0.1	<0.1	0.1	0.2	0.1	0.1	0.2	0.1	<0.1	***	***	0.3	0.1
		%	94	84	96	96	96	97	96	96	14	***	***	57	69
		Max-d	0.4	0.3	0.4	0.3	0.3	0.3	0.4	0.4	0.2	***	***	0.7	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
Lao PDR	Vientiane	Mean	***	***	***	***	***	***	***	***	***	***	***	***	***
		%	***	***	***	***	***	***	***	***	***	***	***	***	***
		Max-d	***	***	***	***	***	***	***	***	***	***	***	***	***
		Min-d	***	***	***	***	***	***	***	***	***	***	***	***	***
Mongolia	Ulaanbaatar	Mean	34.3	20.6	17.0	10.2	4.8	3.9	1.8	8.8	15.5	27.8	26.6	28.8	17.1
		%	100	100	100	100	100	99	82	72	100	100	100	99	96
		Max-d	96.0	36.7	42.7	39.2	16.0	15.8	6.2	22.4	51.3	75.2	65.7	62.9	96.0
		Min-d	7.5	8.5	1.2	1.2	0.6	0.7	0.1	1.4	1.6	1.7	2.3	2.3	0.1
Philippines	Metro Manila	Mean	***	***	***	***	***	***	***	***	***	***	***	***	***
		%	***	***	***	***	***	***	***	***	***	***	***	***	***
		Max-d	***	***	***	***	***	***	***	***	***	***	***	***	***
		Min-d	***	***	***	***	***	***	***	***	***	***	***	***	***

Table 4.7 NO - Measured by AT (continued)

Unit : ppb

Country	Site		2022 Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Thailand	Bangkok	Mean	***	***	***	***	***	***	***	***	***	***	***	***	***
		%	***	***	***	***	***	***	***	***	***	***	***	***	***
		Max-d	***	***	***	***	***	***	***	***	***	***	***	***	***
		Min-d	***	***	***	***	***	***	***	***	***	***	***	***	***
	Samutprakarn	Mean	***	***	***	***	***	***	***	***	***	***	***	***	***
		%	***	***	***	***	***	***	***	***	***	***	***	***	***
		Max-d	***	***	***	***	***	***	***	***	***	***	***	***	***
		Min-d	***	***	***	***	***	***	***	***	***	***	***	***	***
	Khanchanaburi (Vajiralongkorn Dam)	Mean	0.9	22.1	22.0	***	***	***	***	***	***	***	***	***	11.9
		%	95	91	19	***	***	***	***	***	***	***	***	***	17
		Max-d	2.0	32.5	28.6	***	***	***	***	***	***	***	***	***	32.5
		Min-d	<0.1	15.5	14.7	***	***	***	***	***	***	***	***	***	<0.1
	Chang Phueak	Mean	0.4	0.3	1.5	3.1	***	***	***	***	***	***	***	***	1.1
		%	96	95	96	53	***	***	***	***	***	***	***	***	28
		Max-d	1.3	1.6	3.2	3.5	***	***	***	***	***	***	***	***	3.5
		Min-d	<0.1	<0.1	<0.1	3.0	***	***	***	***	***	***	***	***	<0.1
	Si Phum	Mean	***	***	***	***	***	***	***	***	***	***	***	***	***
		%	***	***	***	***	***	***	***	***	***	***	***	***	***
		Max-d	***	***	***	***	***	***	***	***	***	***	***	***	***
		Min-d	***	***	***	***	***	***	***	***	***	***	***	***	***
	Nai Mueang	Mean	11.3	6.9	5.7	4.0	5.3	7.5	8.1	9.0	10.2	6.8	9.9	5.9	7.6
		%	95	95	95	95	95	94	95	96	96	96	95	94	95
		Max-d	35.4	22.4	11.2	6.9	11.0	12.6	17.8	18.3	16.5	21.2	18.8	19.5	35.4
		Min-d	2.2	3.3	2.0	1.0	1.7	3.1	4.8	4.0	3.8	1.0	3.9	1.6	1.0

Terms and abbreviations are given in Table 4.2.

Table 4.8.1 NO_2 - Measured by AT

Unit : ppb

Country	Site		2022												Annual
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
China	Hongwen	Mean	11.0	6.5	13.6	11.5	13.3	8.1	7.0	6.2	6.4	7.8	11.1	12.6	9.6
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-d	19.3	15.2	22.0	19.9	18.8	15.7	15.2	14.1	12.0	13.1	21.4	22.0	22.0
		Min-d	1.6	1.6	7.3	4.7	8.4	1.6	1.6	1.6	3.7	4.2	5.8	7.8	1.6
	Haibin-Park	Mean	18.8	13.6	11.1	8.4	7.1	3.2	2.8	4.5	8.6	8.2	11.1	14.8	9.3
		%	100	100	100	100	100	100	100	100	100	100	97	100	100
		Max-d	27.7	24.6	23.0	16.7	16.2	11.5	9.4	12.6	14.6	15.2	17.3	22.0	27.7
		Min-d	4.2	6.3	3.7	2.6	2.1	1.6	0.5	1.0	3.1	4.2	3.7	7.3	0.5
	Wuzhishan	Mean	1.0	0.6	0.7	0.8	0.5	＜0.1	***	***	0.6	1.3	0.7	2.3	0.9
		%	100	100	100	100	90	20	***	***	70	100	90	100	72
		Max-d	2.6	1.8	1.8	2.3	1.3	0.1	***	***	1.2	2.8	1.8	4.0	4.0
		Min-d	0.4	0.2	0.3	0.2	＜0.1	＜0.1	***	***	＜0.1	0.3	0.3	1.0	＜0.1
	Lijiang	Mean	1.3	0.5	1.0	1.0	1.5	1.6	1.8	1.5	1.6	1.7	1.5	1.3	1.4
		%	94	100	74	100	100	93	100	100	100	100	100	100	97
		Max-d	3.6	1.5	2.0	3.0	2.5	2.5	2.9	2.2	2.5	2.2	2.2	2.2	3.6
		Min-d	0.1	＜0.1	0.4	0.3	0.3	0.9	1.0	0.9	1.2	1.2	0.9	0.4	＜0.1
Lao PDR	Vientiane	Mean	***	***	***	***	***	***	***	***	***	***	***	***	***
		%	***	***	***	***	***	***	***	***	***	***	***	***	***
		Max-d	***	***	***	***	***	***	***	***	***	***	***	***	***
		Min-d	***	***	***	***	***	***	***	***	***	***	***	***	***
Mongolia	Ulaanbaatar	Mean	33.2	31.6	27.6	25.0	21.9	18.2	15.2	17.6	21.8	25.0	28.9	33.0	25.2
		%	100	100	100	100	100	99	82	72	100	100	100	99	96
		Max-d	51.9	39.1	37.9	34.2	32.2	28.3	26.4	22.0	33.9	37.4	39.4	44.6	51.9
		Min-d	21.5	23.3	13.2	13.7	13.5	10.4	8.2	13.4	9.9	10.0	11.8	14.9	8.2
Philippines	Metro Manila	Mean	***	***	***	***	***	***	***	***	***	***	***	***	***
		%	***	***	***	***	***	***	***	***	***	***	***	***	***
		Max-d	***	***	***	***	***	***	***	***	***	***	***	***	***
		Min-d	***	***	***	***	***	***	***	***	***	***	***	***	***
Republic of Korea	Kanghwa	Mean	8.1	6.3	7.9	6.2	5.3	4.1	3.6	3.3	3.5	5.0	7.6	5.9	5.6
		%	98	95	97	98	98	75	98	93	98	98	96	98	95
		Max-d	29.3	17.0	18.9	10.7	9.1	7.1	6.8	9.7	8.2	11.8	17.2	17.8	29.3
		Min-d	3.7	3.1	3.6	1.3	3.5	2.1	2.0	2.0	2.0	2.2	2.7	2.3	1.3
	Cheju (Kosan)	Mean	3.2	3.4	4.2	3.7	3.6	2.6	2.3	1.7	3.5	3.2	3.8	2.9	3.2
		%	99	98	100	99	95	98	98	98	91	96	98	98	97
		Max-d	5.9	7.3	9.0	6.3	8.3	4.3	4.2	3.5	6.4	6.0	7.5	7.5	9.0
		Min-d	1.2	1.1	1.2	2.2	2.5	1.4	1.0	1.0	1.0	1.2	1.0	1.0	1.0
	Imsil	Mean	8.4	6.8	7.9	6.6	5.1	4.0	3.1	2.1	2.5	3.2	5.8	6.6	5.2
		%	99	98	98	98	96	91	98	86	94	94	97	97	95
		Max-d	19.6	10.0	12.0	9.3	6.1	5.2	5.1	3.5	4.5	5.5	11.3	10.5	19.6
		Min-d	5.4	4.1	5.3	5.0	4.4	2.0	2.4	1.3	1.5	0.9	3.9	4.2	0.9
Thailand	Bangkok	Mean	***	***	***	***	***	***	***	***	***	***	***	***	***
		%	***	***	***	***	***	***	***	***	***	***	***	***	***
		Max-d	***	***	***	***	***	***	***	***	***	***	***	***	***
		Min-d	***	***	***	***	***	***	***	***	***	***	***	***	***
	Samutprakarn	Mean	***	***	***	***	***	***	***	***	***	***	***	***	***
		%	***	***	***	***	***	***	***	***	***	***	***	***	***
		Max-d	***	***	***	***	***	***	***	***	***	***	***	***	***
		Min-d	***	***	***	***	***	***	***	***	***	***	***	***	***
	Chang Phueak	Mean	5.4	4.0	3.1	5.0	***	***	***	***	***	***	***	***	4.3
		%	96	95	96	53	***	***	***	***	***	***	***	***	28
		Max-d	7.9	8.4	7.7	9.7	***	***	***	***	***	***	***	***	9.7
		Min-d	1.2	0.1	1.2	0.8	***	***	***	***	***	***	***	***	0.1
	Si Phum	Mean	***	***	***	***	***	***	***	***	***	***	***	***	***
		%	***	***	***	***	***	***	***	***	***	***	***	***	***
		Max-d	***	***	***	***	***	***	***	***	***	***	***	***	***
		Min-d	***	***	***	***	***	***	***	***	***	***	***	***	***
	Nai Mueang	Mean	22.5	16.6	17.0	15.7	12.4	11.1	13.1	12.1	14.4	11.8	16.6	17.5	15.0
		%	95	95	95	95	95	94	95	96	96	96	95	94	95
		Max-d	37.4	34.0	34.1	26.8	18.7	16.6	17.0	17.3	17.7	19.7	24.3	29.1	37.4
		Min-d	8.5	3.8	5.4	8.6	7.1	4.1	8.1	7.0	3.9	5.7	10.2	9.7	3.8

Table 4.8.2 NO_2 - Measured by PS

Country	Site		2022												Annual
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Indonesia	Jakarta	Mean	16.4	15.1	13.4	19.9	18.3	26.0	21.6	22.3	21.6	17.1	17.0	18.2	18.9
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-m	16.4	15.1	13.4	19.9	18.3	26.0	21.6	22.3	21.6	17.1	17.0	18.2	26.0
		Min-m	16.4	15.1	13.4	19.9	18.3	26.0	21.6	22.3	21.6	17.1	17.0	18.2	13.4
	Kototabang	Mean	1.0	0.9	0.6	0.8	0.4	0.6	0.7	0.5	0.6	0.2	0.4	0.5	0.6
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-m	1.0	0.9	0.6	0.8	0.4	0.6	0.7	0.5	0.6	0.2	0.4	0.5	1.0
		Min-m	1.0	0.9	0.6	0.8	0.4	0.6	0.7	0.5	0.6	0.2	0.4	0.5	0.2
	Bandung	Mean	17.1	20.3	14.7	51.6	26.6	33.1	15.5	15.5	16.7	18.8	17.3	15.7	21.2
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	20.0	25.6	16.7	97.2	29.4	34.8	17.6	16.0	17.5	26.1	18.8	19.8	97.2
		Min-w	11.6	13.8	10.6	26.9	21.5	29.0	14.0	14.4	15.9	11.1	15.3	10.3	10.3

Terms and abbreviations are given in Table 4.2.

Table 4.9 NOx - Measured by AT

Unit : ppb

Country	Site		2022												Annual
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
China	Jinyunshan	Mean	17.8	11.5	12.3	9.9	9.9	9.6	9.4	10.0	11.7	11.1	9.5	15.7	11.5
	(NOx*)	%	100	100	100	100	100	100	97	97	100	100	100	100	99
	NO+NO2	Max-d	28.1	20.5	17.3	14.4	15.0	15.8	11.8	11.8	20.2	17.8	14.7	27.2	28.1
		Min-d	8.7	7.1	7.6	7.1	7.1	6.6	6.6	7.9	6.8	6.3	5.0	5.5	5.0
Japan	Rishiri	Mean	0.4	0.5	0.7	0.8	0.6	0.5	0.5	0.3	0.4	0.5	0.7	0.5	0.5
	(NOx*)	%	98	97	91	98	98	98	98	98	84	97	97	98	96
		Max-d	1.0	1.5	1.9	1.6	1.2	1.1	1.3	0.6	0.6	1.3	1.1	0.9	1.9
		Min-d	0.2	0.2	0.3	0.3	0.2	0.2	0.1	0.2	0.2	0.2	0.4	<0.1	<0.1
	Ochiishi	Mean	0.6	0.7	1.0	1.2	1.1	0.7	1.0	0.8	0.8	0.7	0.8	0.6	0.8
	(NOx*)	%	95	95	95	96	84	91	91	91	91	86	86	87	91
		Max-d	1.1	1.9	2.0	2.4	2.4	1.5	4.4	1.3	1.8	1.7	1.4	0.8	4.4
		Min-d	0.4	0.4	0.4	0.5	0.2	0.1	0.3	0.4	0.3	0.3	0.3	0.2	0.1
	Sado-seki	Mean	***	***	***	***	0.8	0.5	0.5	0.4	0.4	0.6	0.7	0.5	0.5
	(NOx*)	%	***	***	***	***	36	97	97	86	95	96	96	93	58
		Max-d	***	***	***	***	1.5	1.3	1.0	0.6	1.0	1.2	1.2	1.1	1.5
		Min-d	***	***	***	***	0.2	0.2	0.1	<0.1	0.2	0.4	0.2	0.2	<0.1
	Happo	Mean	***	***	***	***	***	***	***	***	***	***	***	***	***
	(NOx*)	%	***	***	***	***	***	***	***	***	***	***	***	***	***
		Max-d	***	***	***	***	***	***	***	***	***	***	***	***	***
		Min-d	***	***	***	***	***	***	***	***	***	***	***	***	***
	Ijira	Mean	0.9	1.1	1.4	1.6	1.6	1.9	1.7	1.4	1.7	1.1	1.1	0.7	1.3
	(NOx*)	%	97	89	94	98	36	54	98	98	98	98	98	98	88
		Max-d	2.2	2.3	4.8	3.4	3.7	4.0	3.7	2.7	4.4	3.2	3.3	1.4	4.8
		Min-d	0.2	0.2	<0.1	<0.1	0.4	1.1	0.2	0.4	0.2	0.4	0.2	0.3	<0.1
	Oki	Mean	0.9	0.7	1.1	0.8	0.7	<0.1	0.3	0.1	***	***	***	***	0.6
	(NOx*)	%	83	96	79	95	98	98	98	59	***	***	***	***	59
		Max-d	2.0	3.0	2.6	2.2	1.8	0.7	1.6	1.1	***	***	***	***	3.0
		Min-d	<0.1	<0.1	0.3	<0.1	<0.1	<0.1	<0.1	<0.1	***	***	***	***	<0.1
	Yusuhara	Mean	***	***	***	***	***	***	***	***	***	***	***	***	***
	(NOx*)	%	***	***	***	***	***	***	***	***	***	***	***	***	***
		Max-d	***	***	***	***	***	***	***	***	***	***	***	***	***
		Min-d	***	***	***	***	***	***	***	***	***	***	***	***	***
	Hedo	Mean	0.9	0.8	0.6	0.4	0.4	0.4	0.4	0.4	0.3	0.5	0.6	0.9	0.5
	(NOx*)	%	97	69	98	98	97	93	97	97	97	97	97	98	95
		Max-d	1.4	1.2	1.5	0.9	0.8	0.7	1.2	0.7	0.7	1.0	1.2	2.4	2.4
		Min-d	0.5	0.5	0.1	0.1	<0.1	0.1	<0.1	0.2	<0.1	<0.1	<0.1	0.3	<0.1
	Ogasawara	Mean	0.6	0.8	0.4	0.1	0.1	0.2	<0.1	0.3	<0.1	***	***	***	0.3
	(NOx*)	%	97	92	98	93	99	99	97	98	7	***	***	***	65
		Max-d	1.8	2.4	2.2	0.8	0.7	2.3	0.5	2.7	<0.1	***	***	***	2.7
		Min-d	<0.1	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	***	***	***	<0.1
	Niigata-maki	Mean	1.7	1.6	2.3	2.1	1.8	1.3	1.6	1.4	1.4	***	***	1.7	1.7
	(NOx*)	%	94	84	96	96	96	97	96	96	14	***	***	57	69
		Max-d	3.9	6.9	4.2	4.1	2.9	2.3	2.8	2.8	2.3	***	***	4.8	6.9
		Min-d	0.5	0.6	0.6	0.8	0.7	0.6	0.6	0.7	0.6	***	***	0.2	0.2
Lao PDR	Vientiane	Mean	***	***	***	***	***	***	***	***	***	***	***	***	***
		%	***	***	***	***	***	***	***	***	***	***	***	***	***
		Max-d	***	***	***	***	***	***	***	***	***	***	***	***	***
		Min-d	***	***	***	***	***	***	***	***	***	***	***	***	***
Mongolia	Ulaanbaatar	Mean	67.5	52.2	44.6	35.2	26.7	22.1	17.0	26.4	37.3	52.8	55.5	61.8	42.3
		%	100	100	100	100	100	99	82	72	100	100	100	99	96
		Max-d	147.9	75.8	79.8	73.5	48.2	44.2	30.4	41.6	84.3	112.7	105.1	107.1	147.9
		Min-d	29.0	32.9	14.4	14.9	14.3	11.3	8.4	15.2	11.4	11.7	14.1	17.3	8.4
Philippines	Metro Manila	Mean	***	***	***	***	***	***	***	***	***	***	***	***	***
		%	***	***	***	***	***	***	***	***	***	***	***	***	***
		Max-d	***	***	***	***	***	***	***	***	***	***	***	***	***
		Min-d	***	***	***	***	***	***	***	***	***	***	***	***	***

Table 4.9 NOx - Measured by AT (continued)

Unit : ppb

Country	Site		2022 Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Thailand	Bangkok	Mean	***	***	***	***	***	***	***	***	***	***	***	***	***
		%	***	***	***	***	***	***	***	***	***	***	***	***	***
		Max-d	***	***	***	***	***	***	***	***	***	***	***	***	***
		Min-d	***	***	***	***	***	***	***	***	***	***	***	***	***
	Samutprakarn	Mean	***	***	***	***	***	***	***	***	***	***	***	***	***
		%	***	***	***	***	***	***	***	***	***	***	***	***	***
		Max-d	***	***	***	***	***	***	***	***	***	***	***	***	***
		Min-d	***	***	***	***	***	***	***	***	***	***	***	***	***
	Khanchanaburi(NOx*) (Vajiralongkorn Dam)	Mean	2.5	27.9	29.6	***	***	***	***	***	***	***	***	***	15.8
		%	95	91	19	***	***	***	***	***	***	***	***	***	17
		Max-d	7.0	38.4	34.0	***	***	***	***	***	***	***	***	***	38.4
		Min-d	<0.1	16.1	20.0	***	***	***	***	***	***	***	***	***	<0.1
	Chang Phueak	Mean	5.4	4.1	4.6	8.1	***	***	***	***	***	***	***	***	5.2
		%	96	95	96	53	***	***	***	***	***	***	***	***	28
		Max-d	7.9	9.3	7.9	12.8	***	***	***	***	***	***	***	***	12.8
		Min-d	1.2	0.2	1.7	4.0	***	***	***	***	***	***	***	***	0.2
	Si Phum	Mean	***	***	***	***	***	***	***	***	***	***	***	***	***
		%	***	***	***	***	***	***	***	***	***	***	***	***	***
		Max-d	***	***	***	***	***	***	***	***	***	***	***	***	***
		Min-d	***	***	***	***	***	***	***	***	***	***	***	***	***
	Nai Mueang	Mean	33.7	23.4	22.0	19.5	17.6	18.4	21.2	21.0	24.5	18.5	26.4	23.3	22.5
		%	95	95	95	95	95	94	95	96	96	96	95	94	95
		Max-d	63.4	56.3	45.5	30.6	26.3	27.0	33.7	32.5	32.6	33.8	42.3	48.2	63.4
		Min-d	10.5	8.3	5.7	11.3	9.3	4.9	12.9	10.8	7.5	10.8	14.2	11.7	4.9

NOx* : NOx measured by CLD in remote or rural sites
Terms and abbreviations are given in Table 4.2.

Table 4.10.1 O_3 - Measured by AT

Unit : ppb

Country	Site		2022												Annual
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Cambodia	Phnom Penh	Mean	28	23	21	24	14	13	10	9	7	17	15	21	17
		%	100	100	100	100	97	99	91	94	98	99	100	100	98
		Max-d	46	31	34	38	28	21	26	17	14	39	31	31	46
		Min-d	20	13	8	13	9	7	5	4	4	4	7	13	4
Japan	Rishiri	Mean	38	43	45	46	47	30	18	25	27	33	32	36	35
		%	99	99	92	99	99	99	99	99	86	99	99	99	98
		Max-d	41	56	54	68	67	52	26	35	42	46	39	41	68
		Min-d	33	38	37	34	30	16	12	16	19	24	26	31	12
	Ochiishi	Mean	35	39	41	41	40	30	22	29	30	32	31	32	33
		%	100	100	100	100	96	100	100	100	100	94	95	96	98
		Max-d	37	54	50	48	51	50	29	43	40	40	39	35	54
		Min-d	31	33	37	36	28	20	16	21	22	24	25	29	16
	Sado-seki	Mean	***	***	***	***	61	40	32	36	36	38	40	37	38
		%	***	***	***	***	37	99	99	90	99	99	99	97	60
		Max-d	***	***	***	***	74	66	46	44	47	47	50	41	74
		Min-d	***	***	***	***	52	23	23	17	25	31	32	31	17
	Happo	Mean	44	48	54	58	61	48	39	35	33	41	43	42	45
		%	99	92	96	99	99	99	99	99	95	98	99	99	98
		Max-d	52	53	63	70	87	72	58	49	52	53	55	49	87
		Min-d	36	42	45	41	36	26	22	18	21	31	29	36	18
	Ijira	Mean	28	33	32	21	26	16	15	13	15	22	21	21	22
		%	99	92	99	96	96	99	99	99	99	99	99	99	98
		Max-d	34	44	49	42	56	23	27	30	31	36	30	29	56
		Min-d	19	22	17	1	3	4	4	6	5	10	10	13	1
	Oki	Mean	41	46	51	54	59	39	33	36	37	41	43	40	43
		%	85	97	93	100	64	92	99	99	91	70	71	82	87
		Max-d	45	65	71	77	73	63	55	60	48	55	59	50	77
		Min-d	36	41	41	34	46	19	15	20	22	29	31	36	15
	Yusuhara	Mean	40	44	48	46	51	33	25	24	25	36	39	38	37
		%	99	99	99	99	99	99	99	99	98	99	99	99	99
		Max-d	46	54	64	70	77	59	51	51	39	48	49	44	77
		Min-d	32	36	38	19	23	10	7	7	8	25	27	31	7
	Hedo	Mean	34	41	39	30	33	14	10	10	20	31	32	36	27
		%	99	71	99	99	99	98	99	99	99	99	99	99	97
		Max-d	41	50	56	56	53	31	19	24	41	48	42	42	56
		Min-d	29	34	23	7	10	5	5	5	9	15	22	27	5
	Ogasawara	Mean	43	44	40	27	25	14	12	9	18	25	39	39	28
		%	99	96	99	93	99	99	98	99	98	99	99	99	98
		Max-d	47	49	54	49	57	41	21	18	30	44	48	46	57
		Min-d	36	37	16	13	9	6	4	4	7	9	24	24	4
	Niigata-maki	Mean	37	40	42	43	50	37	28	27	29	28	30	32	35
		%	97	87	99	99	99	99	99	99	99	99	99	99	98
		Max-d	43	48	56	55	70	55	44	39	44	37	38	38	70
		Min-d	32	29	34	32	36	22	17	20	15	18	23	26	15
	Tsushima	Mean	42	49	54	52	59	38	35	33	41	44	47	37	44
		%	99	99	96	99	99	99	97	99	98	99	99	99	99
		Max-d	53	69	73	79	87	79	56	67	62	67	65	44	87
		Min-d	34	38	37	25	29	11	14	13	14	33	34	31	11
Mongolia	Ulaanbaatar	Mean	4	8	13	17	20	17	15	11	10	5	5	5	11
		%	100	100	100	100	100	99	100	100	100	100	100	99	100
		Max-d	15	13	26	27	27	26	33	19	18	12	12	14	33
		Min-d	<1	3	5	7	13	9	4	5	4	<1	<1	<1	<1
Philippines	Metro Manila	Mean	***	***	***	***	***	***	***	***	***	***	***	***	***
		%	***	***	***	***	***	***	***	***	***	***	***	***	***
		Max-d	***	***	***	***	***	***	***	***	***	***	***	***	***
		Min-d	***	***	***	***	***	***	***	***	***	***	***	***	***

Table 4.10.1 O_3 - Measued by AT (continued)

Unit : ppb

Country	Site		2022												Annual
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Republic of Korea	Kanghwa	Mean	35	44	48	56	59	42	45	39	45	40	38	33	44
		%	98	95	97	98	98	78	98	93	98	98	96	98	95
		Max-d	44	59	63	76	96	69	92	70	73	69	67	40	96
		Min-d	15	34	38	31	45	15	17	25	26	26	28	23	15
	Cheju (Kosan)	Mean	43	50	53	54	57	42	39	33	43	44	45	39	45
		%	99	100	100	99	95	95	98	99	85	98	100	99	97
		Max-d	53	67	68	74	83	82	61	57	66	59	59	46	83
		Min-d	37	43	43	24	36	16	15	19	25	31	32	32	15
	Imsil	Mean	28	38	41	45	45	33	26	18	23	27	28	26	31
		%	99	72	94	98	96	96	98	86	94	94	97	97	93
		Max-d	40	44	53	59	67	55	38	27	37	45	36	32	67
		Min-d	16	28	31	26	25	10	11	7	6	8	10	19	6
Thailand	Bangkok	Mean	32	33	32	44	26	20	16	14	15	31	27	34	27
		%	89	96	96	95	96	95	96	96	96	96	96	95	95
		Max-d	41	59	59	82	48	34	26	30	37	61	47	50	82
		Min-d	4	14	11	19	13	8	6	5	3	5	10	19	3
	Samutprakarn	Mean	34	24	22	36	24	18	***	***	***	***	***	***	27
		%	96	96	96	96	96	23	***	***	***	***	***	***	41
		Max-d	49	51	46	71	47	27	***	***	***	***	***	***	71
		Min-d	17	12	10	15	15	5	***	***	***	***	***	***	5
	Khanchanaburi (Vajiralongkorn Dam)	Mean	38	33	42	***	***	***	***	***	***	***	***	***	36
		%	96	96	23	***	***	***	***	***	***	***	***	***	18
		Max-d	52	52	61	***	***	***	***	***	***	***	***	***	61
		Min-d	19	14	33	***	***	***	***	***	***	***	***	***	14
	Chang Phueak	Mean	32	26	22	47	35	***	***	***	***	***	***	***	32
		%	96	95	80	94	46	***	***	***	***	***	***	***	34
		Max-d	48	49	50	64	57	***	***	***	***	***	***	***	64
		Min-d	22	<1	7	24	18	***	***	***	***	***	***	***	<1
	Nai Mueang	Mean	27	30	32	39	24	22	18	16	16	28	20	29	25
		%	96	96	95	96	95	95	95	96	96	96	96	96	96
		Max-d	38	41	47	59	44	32	26	27	32	62	33	48	62
		Min-d	18	19	15	22	10	13	10	7	9	8	12	11	7

Table 4.10.2 O_3 - Measured by PS

Unit : ppb

Country	Site		2022												Annual
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Indonesia	Bandung	Mean	5	8	12	14	4	12	11	14	9	8	8	7	9
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	5	12	18	16	14	16	16	16	14	9	10	11	18
		Min-w	4	5	7	12	1	6	8	11	7	7	6	5	1
Russia	Mondy	Mean	***	***	***	35	36	28	18	24	21	27	43	24	27
		%	***	***	***	59	100	100	100	100	100	48	100	100	67
		Max-irreg	***	***	***	35	36	32	20	27	22	27	62	24	62
		Min-irreg	***	***	***	35	36	24	17	21	20	27	24	23	17
	Listvyanka	Mean	***	***	***	47	42	27	26	21	25	25	41	31	31
		%	***	***	***	52	100	100	100	48	100	100	54	100	64
		Max-irreg	***	***	***	47	46	32	32	21	50	38	46	38	50
		Min-irreg	***	***	***	47	38	22	20	21	1	12	37	25	1
	Irkutsk	Mean	***	***	***	26	32	19	19	21	19	15	8	12	18
		%	***	***	***	85	100	100	100	100	100	100	100	100	74
		Max-irreg	***	***	***	26	36	22	21	21	19	20	12	16	36
		Min-irreg	***	***	***	26	27	17	17	21	19	10	4	8	4

Terms and abbreviations are given in Table 4.2.

Table 4.11 PM_{10} - Measured by AT

Unit : $\mu g/m^3$

Country	Site		2022												Annual
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
China	Jinyunshan	Mean	54	37	35	25	19	26	19	13	31	35	43	57	33
		%	100	100	100	97	100	100	100	97	100	100	100	100	99
		Max-d	93	61	63	61	37	44	36	29	77	76	70	122	122
		Min-d	14	19	6	6	5	6	9	7	5	4	12	7	4
	Hongwen	Mean	35	21	47	42	29	18	27	24	42	36	32	34	32
		%	100	100	97	97	84	97	100	100	100	97	100	100	98
		Max-d	77	52	82	72	51	33	55	58	66	59	62	67	82
		Min-d	6	3	16	18	6	11	10	8	21	24	13	9	3
	Haibin-Park	Mean	42	26	30	30	19	13	17	15	44	40	23	44	29
		%	100	100	100	100	100	97	100	97	100	100	100	97	99
		Max-d	81	58	60	55	38	24	43	34	71	66	45	82	82
		Min-d	12	4	6	10	5	6	5	7	12	15	11	16	4
	Wuzhishan	Mean	9	6	12	16	8	10	7	6	19	16	8	17	11
		%	100	100	100	97	97	97	100	100	100	100	100	100	99
		Max-d	13	14	23	39	19	17	14	11	38	40	33	41	41
		Min-d	4	2	1	2	<1	2	1	2	2	1	1	2	<1
	Lijiang	Mean	8	11	19	23	8	5	5	5	5	5	6	7	9
		%	100	100	71	100	100	93	84	100	100	100	100	100	96
		Max-d	24	19	42	46	21	13	10	18	10	12	13	18	46
		Min-d	2	1	10	9	1	<1	2	<1	2	<1	2	1	<1
Japan	Rishiri	Mean	10	13	22	34	27	15	12	19	25	20	20	18	20
		%	100	100	100	100	99	98	98	98	95	100	100	59	95
		Max-d	25	68	80	78	83	68	30	49	69	73	62	61	83
		Min-d	4	4	1	4	6	5	3	5	7	5	3	6	1
	Ochiishi	Mean	11	12	17	21	15	12	10	15	21	18	20	12	15
		%	97	100	99	98	96	100	98	99	100	99	98	100	99
		Max-d	38	33	36	34	36	39	17	32	40	57	41	39	57
		Min-d	5	6	5	5	4	3	5	4	11	5	8	4	3
	Sado-seki	Mean	***	***	***	***	***	***	***	***	***	***	***	***	***
		%	***	***	***	***	***	***	***	***	***	***	***	***	***
		Max-d	***	***	***	***	***	***	***	***	***	***	***	***	***
		Min-d	***	***	***	***	***	***	***	***	***	***	***	***	***
	Happo	Mean	2	***	16	14	12	9	8	6	5	4	4	2	9
		%	1	***	91	98	68	35	90	94	100	100	87	3	64
		Max-d	2	***	100	29	26	20	16	13	15	16	11	4	100
		Min-d	2	***	3	2	3	4	2	2	<1	<1	<1	<1	<1
	Ijira	Mean	6	7	14	14	15	17	15	21	16	9	9	6	12
		%	100	100	100	100	100	100	100	96	100	100	100	100	99
		Max-d	11	16	28	26	24	34	24	56	43	20	18	10	56
		Min-d	2	2	1	4	6	5	8	7	5	4	3	2	1
	Oki	Mean	***	***	***	***	***	***	***	***	***	***	***	***	***
		%	***	***	***	***	***	***	***	***	***	***	***	***	***
		Max-d	***	***	***	***	***	***	***	***	***	***	***	***	***
		Min-d	***	***	***	***	***	***	***	***	***	***	***	***	***
	Yusuhara	Mean	10	12	17	14	15	12	10	12	8	10	12	11	12
		%	100	100	100	100	100	100	100	100	96	98	100	100	99
		Max-d	22	32	39	30	34	25	23	23	19	18	23	26	39
		Min-d	4	3	5	2	<1	<1	<1	<1	<1	4	2	4	<1
	Hedo	Mean	19	22	28	24	21	21	26	20	39	34	26	27	26
		%	100	98	100	100	91	99	99	100	100	96	100	100	98
		Max-d	35	38	62	42	35	40	44	46	92	66	45	61	92
		Min-d	10	11	14	14	9	8	9	8	19	15	12	12	8
	Ogasawara	Mean	12	14	18	12	11	13	19	12	20	23	21	17	16
		%	99	100	99	94	100	100	100	82	93	100	100	100	97
		Max-d	18	23	45	37	24	36	32	38	38	56	32	29	56
		Min-d	6	8	5	3	6	3	6	5	8	12	11	10	3
	Niigata-maki	Mean	23	26	31	26	23	22	15	19	20	18	19	16	22
		%	100	100	100	100	100	100	62	100	100	100	92	99	96
		Max-d	34	43	72	42	36	40	26	37	41	37	32	30	72
		Min-d	10	10	14	6	13	4	7	9	9	7	6	4	4
	Tsushima	Mean	18	18	25	18	19	12	15	14	12	14	18	16	17
		%	100	100	96	100	100	79	95	100	99	100	100	100	97
		Max-d	53	52	69	45	38	28	22	24	21	26	27	81	81
		Min-d	4	8	<1	<1	1	1	9	4	2	7	8	5	<1
Lao PDR	Vientiane	Mean	***	***	***	***	***	***	***	***	***	***	***	***	***
		%	***	***	***	***	***	***	***	***	***	***	***	***	***
		Max-d	***	***	***	***	***	***	***	***	***	***	***	***	***
		Min-d	***	***	***	***	***	***	***	***	***	***	***	***	***

Table 4.11 PM_{10} - Measured by AT (continued)

Unit : µg/m^3

Country	Site		2022												Annual
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Mongolia	Ulaanbaatar	Mean	131	126	101	92	69	68	36	48	75	99	89	110	87
		%	100	100	100	100	100	99	100	100	100	100	100	99	100
		Max-d	311	188	186	314	138	267	69	74	153	209	206	201	314
		Min-d	43	73	34	30	30	13	13	19	20	33	28	21	13
Philippines	Metro Manila	Mean	***	***	***	***	***	***	***	***	***	***	***	***	***
		%	***	***	***	***	***	***	***	***	***	***	***	***	***
		Max-d	***	***	***	***	***	***	***	***	***	***	***	***	***
		Min-d	***	***	***	***	***	***	***	***	***	***	***	***	***
Republic of Korea	Kanghwa	Mean	36	33	34	35	28	16	19	14	22	28	38	38	29
		%	98	95	97	88	97	74	98	92	97	97	98	98	94
		Max-d	90	79	92	140	58	38	42	28	47	58	66	207	207
		Min-d	18	19	6	8	11	2	6	5	3	9	22	20	2
	Cheju (Kosan)	Mean	22	26	34	29	***	***	***	***	31	33	38	27	30
		%	97	92	84	77	***	***	***	***	72	90	97	88	58
		Max-d	57	53	83	66	***	***	***	***	60	69	72	106	106
		Min-d	8	12	9	3	***	***	***	***	17	21	24	8	3
	Imsil	Mean	43	44	45	42	34	26	18	13	18	23	35	33	31
		%	99	98	98	98	95	97	96	82	91	97	79	95	94
		Max-d	82	93	112	112	53	42	30	28	29	44	62	156	156
		Min-d	25	25	11	22	21	14	7	4	9	11	12	14	4
Thailand	Bangkok	Mean	37	40	32	40	26	23	23	20	22	32	36	41	31
		%	100	100	100	99	100	100	97	96	100	100	100	99	99
		Max-d	54	67	60	100	45	38	37	26	33	54	51	63	100
		Min-d	19	18	20	18	17	16	17	16	16	15	22	20	15
	Samutprakarn	Mean	47	46	33	45	30	25	24	26	29	42	42	40	35
		%	99	100	100	99	100	100	100	100	93	88	100	43	93
		Max-d	72	83	83	97	47	36	32	34	40	74	66	66	97
		Min-d	24	20	20	18	17	17	17	19	21	22	25	24	17
	Khanchanaburi (Vajiralongkorn Dam)	Mean	77	59	43	37	24	23	27	19	***	***	***	***	41
		%	100	100	97	100	93	51	100	60	***	***	***	***	58
		Max-d	109	105	102	85	53	35	38	23	***	***	***	***	109
		Min-d	37	21	16	13	13	17	19	14	***	***	***	***	13
	Chang Phueak	Mean	41	47	64	62	36	27	24	24	24	29	34	37	37
		%	100	100	100	96	100	100	98	99	99	100	100	53	95
		Max-d	57	78	88	97	56	45	34	32	39	46	44	58	97
		Min-d	30	32	26	22	18	19	17	18	15	15	24	25	15
	Si Phum	Mean	34	40	57	58	31	22	20	20	20	26	29	40	33
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-d	49	71	85	94	53	38	36	28	32	42	44	57	94
		Min-d	21	23	19	15	14	16	14	14	12	13	18	21	12
	Nai Mueang	Mean	56	51	61	53	34	30	28	25	27	39	42	44	41
		%	100	100	100	100	100	100	99	99	100	100	100	100	100
		Max-d	85	88	109	109	55	46	35	37	36	77	60	74	109
		Min-d	28	26	25	13	19	22	18	19	19	15	22	24	13

Terms and abbreviations are given in Table 4.2.

Table 4.12 $PM_{2.5}$ - Measured by AT

Unit : $\mu g/m^3$

Country	Site		2022												Annual
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Cambodia	Phnom Penh	Mean	28	22	27	22	13	13	12	13	12	16	16	16	17
		%	100	100	99	100	100	100	98	99	99	100	92	100	99
		Max-d	47	36	47	48	19	20	18	17	18	36	31	27	48
		Min-d	16	16	12	4	5	8	6	8	6	7	8	9	4
China	Jinyunshan	Mean	***	***	***	***	***	***	***	***	***	***	24	35	29
		%	***	***	***	***	***	***	***	***	***	***	100	100	17
		Max-d	***	***	***	***	***	***	***	***	***	***	44	81	81
		Min-d	***	***	***	***	***	***	***	***	***	***	7	6	6
	Hongwen	Mean	***	***	***	***	***	***	***	***	***	***	15	18	16
		%	***	***	***	***	***	***	***	***	***	***	100	97	16
		Max-d	***	***	***	***	***	***	***	***	***	***	39	31	39
		Min-d	***	***	***	***	***	***	***	***	***	***	2	5	2
	Haibin-Park	Mean	***	***	***	***	***	***	***	***	***	***	14	23	19
		%	***	***	***	***	***	***	***	***	***	***	90	100	16
		Max-d	***	***	***	***	***	***	***	***	***	***	40	53	53
		Min-d	***	***	***	***	***	***	***	***	***	***	4	2	2
Indonesia	Jakarta	Mean	***	***	***	***	***	***	***	***	***	***	***	***	***
		%	***	***	***	***	***	***	***	***	***	***	***	***	***
		Max-d	***	***	***	***	***	***	***	***	***	***	***	***	***
		Min-d	***	***	***	***	***	***	***	***	***	***	***	***	***
Japan	Rishiri	Mean	3	5	7	11	9	5	5	5	6	5	7	6	6
		%	100	100	100	100	98	98	98	97	95	100	100	60	95
		Max-d	10	24	20	23	21	18	10	8	16	16	15	21	24
		Min-d	<1	2	<1	2	2	1	1	2	2	2	<1	3	<1
	Ochiishi	Mean	4	5	7	9	6	5	5	5	6	5	7	5	6
		%	98	100	99	99	96	100	98	99	100	99	98	100	99
		Max-d	11	20	13	17	15	16	9	9	11	16	15	15	20
		Min-d	2	2	3	3	2	<1	1	1	3	2	2	<1	<1
	Sado-seki	Mean	***	***	***	***	***	***	***	***	***	***	***	***	***
		%	***	***	***	***	***	***	***	***	***	***	***	***	***
		Max-d	***	***	***	***	***	***	***	***	***	***	***	***	***
		Min-d	***	***	***	***	***	***	***	***	***	***	***	***	***
	Happo	Mean	<1	***	6	8	7	6	5	3	3	3	3	2	5
		%	1	***	91	98	68	35	90	94	100	100	87	3	64
		Max-d	<1	***	24	15	15	13	11	9	11	11	8	3	24
		Min-d	<1	***	<1	<1	1	2	<1	<1	<1	<1	<1	<1	<1
	Ijira	Mean	4	5	8	9	9	7	5	6	5	5	5	3	6
		%	100	100	100	100	100	100	100	96	100	100	100	100	99
		Max-d	9	11	19	16	17	15	11	15	11	12	13	6	19
		Min-d	1	1	<1	2	2	2	1	1	<1	1	1	<1	<1
	Oki	Mean	***	***	***	***	***	***	***	***	***	***	***	***	***
		%	***	***	***	***	***	***	***	***	***	***	***	***	***
		Max-d	***	***	***	***	***	***	***	***	***	***	***	***	***
		Min-d	***	***	***	***	***	***	***	***	***	***	***	***	***
	Yusuhara	Mean	9	10	11	10	11	8	6	8	5	7	8	7	8
		%	100	100	100	100	100	100	100	100	96	98	100	100	99
		Max-d	19	28	24	20	24	18	16	15	13	12	17	12	28
		Min-d	3	3	4	2	<1	<1	<1	<1	<1	3	1	3	<1
	Hedo	Mean	8	10	12	10	7	4	6	5	11	9	8	10	8
		%	100	98	100	100	91	99	99	100	100	96	100	100	98
		Max-d	14	20	28	20	15	9	20	17	22	16	19	24	28
		Min-d	4	5	5	4	3	2	3	2	4	4	4	5	2
	Ogasawara	Mean	5	6	7	4	3	3	4	4	4	7	6	6	5
		%	99	100	100	94	100	100	100	82	93	100	100	100	97
		Max-d	10	12	16	17	7	10	6	24	10	26	10	10	26
		Min-d	1	3	2	1	2	<1	2	1	2	3	4	3	<1
	Niigata-maki	Mean	7	8	9	9	9	7	5	6	5	5	6	3	7
		%	100	100	100	100	100	100	62	100	100	100	92	99	96
		Max-d	15	14	23	17	16	16	10	13	10	11	10	6	23
		Min-d	4	4	2	1	4	1	2	3	2	2	2	<1	<1
	Tsushima	Mean	12	12	13	9	11	6	9	7	5	7	9	8	9
		%	100	100	96	100	100	79	95	100	99	100	100	100	97
		Max-d	41	36	44	16	24	18	13	15	8	18	15	28	44
		Min-d	2	4	<1	<1	<1	<1	3	2	<1	3	4	2	<1
Lao PDR	Vientiane	Mean	***	***	***	***	***	***	***	***	***	***	***	***	***
		%	***	***	***	***	***	***	***	***	***	***	***	***	***
		Max-d	***	***	***	***	***	***	***	***	***	***	***	***	***
		Min-d	***	***	***	***	***	***	***	***	***	***	***	***	***

Table 4.12 $PM_{2.5}$ - Measured by AT(continued)

Unit : $\mu g/m^3$

Country	Site		2022 Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Mongolia	Ulaanbaatar	Mean	55	41	21	15	12	15	15	10	15	25	29	48	26
		%	100	100	100	100	94	99	81	72	100	100	100	98	95
		Max-d	121	73	36	29	23	39	46	14	36	48	62	81	121
		Min-d	14	20	10	9	5	6	6	5	6	8	10	10	5
Myanmar	Yangon	Mean	49	54	45	29	18	12	5	8	8	16	30	32	26
		%	100	99	49	99	97	99	6	99	99	92	99	99	86
		Max-d	74	78	65	53	36	18	5	12	12	44	42	44	78
		Min-d	31	16	28	17	8	7	5	4	5	7	19	22	4
	Mandalay	Mean	***	***	***	***	***	***	***	***	***	***	***	***	***
		%	***	***	***	***	***	***	***	***	***	***	***	***	***
		Max-d	***	***	***	***	***	***	***	***	***	***	***	***	***
		Min-d	***	***	***	***	***	***	***	***	***	***	***	***	***
Philippines	Metro Manila	Mean	***	***	***	***	***	***	***	***	***	***	***	***	***
		%	***	***	***	***	***	***	***	***	***	***	***	***	***
		Max-d	***	***	***	***	***	***	***	***	***	***	***	***	***
		Min-d	***	***	***	***	***	***	***	***	***	***	***	***	***
	Mt. Sto. Tomas	Mean	4	3	5	3	4	3	2	2	3	<1	***	***	3
		%	97	93	99	50	97	88	96	89	88	7	***	***	67
		Max-d	9	5	11	7	9	9	5	4	12	3	***	***	12
		Min-d	1	<1	1	<1	<1	<1	<1	<1	<1	<1	***	***	<1
Republic of Korea	Kanghwa	Mean	25	22	20	21	14	10	15	9	11	16	24	22	18
		%	97	94	93	84	97	66	84	69	88	94	97	97	88
		Max-d	71	62	50	33	31	26	40	15	34	38	51	47	71
		Min-d	11	9	4	4	6	2	3	3	3	3	10	9	2
	Cheju (Kosan)	Mean	11	15	15	12	13	10	11	8	15	15	20	15	13
		%	95	96	91	85	85	96	95	81	72	95	96	93	90
		Max-d	37	35	45	35	24	24	21	15	34	29	43	47	47
		Min-d	1	4	2	2	5	4	2	2	11	10	13	5	1
	Imsil	Mean	20	19	14	10	10	20	***	***	***	17	26	24	18
		%	99	98	88	80	67	26	***	***	***	89	96	98	62
		Max-d	45	48	30	17	16	39	***	***	***	35	41	46	48
		Min-d	9	8	<1	1	4	1	***	***	***	9	10	11	<1
Thailand	Bangkok	Mean	23	25	18	25	12	10	10	8	10	18	18	21	16
		%	100	100	100	99	100	100	97	100	100	100	100	99	99
		Max-d	36	50	43	75	24	21	20	16	19	33	29	34	75
		Min-d	9	7	8	7	4	6	6	5	6	5	10	8	4
	Samutprakarn	Mean	31	31	23	32	19	14	14	15	17	26	26	31	23
		%	100	100	98	99	99	100	100	100	100	100	100	100	100
		Max-d	49	58	60	69	30	23	19	21	26	44	41	46	69
		Min-d	16	12	13	11	11	9	9	10	12	11	15	15	9
	Khanchanaburi (Vajiralongkorn Dam)	Mean	35	29	23	22	10	7	9	7	6	11	12	16	15
		%	100	100	97	100	100	100	100	99	100	100	99	100	100
		Max-d	48	53	53	62	23	14	15	15	11	21	18	23	62
		Min-d	18	11	8	6	5	4	6	5	4	6	6	7	4
	Chang Phueak	Mean	24	30	43	41	19	14	12	12	14	19	22	30	23
		%	100	100	100	96	100	100	100	99	99	97	98	45	94
		Max-d	35	54	63	72	34	24	20	17	25	32	29	38	72
		Min-d	17	17	14	12	9	9	7	8	9	9	14	15	7
	Si Phum	Mean	19	23	36	39	16	10	8	9	9	16	19	27	19
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-d	30	48	56	72	29	19	16	13	19	34	32	43	72
		Min-d	10	12	9	7	5	5	6	5	5	6	9	10	5
	Nai Mueang	Mean	34	34	35	32	18	17	17	14	16	24	23	28	24
		%	100	100	100	100	100	100	99	97	100	100	100	100	100
		Max-d	54	61	60	73	28	26	21	21	22	48	37	51	73
		Min-d	16	15	13	7	9	12	9	10	11	9	12	13	7
Vietnam	Hoa Binh	Mean	***	***	***	***	***	***	***	***	***	***	***	***	***
		%	***	***	***	***	***	***	***	***	***	***	***	***	***
		Max-d	***	***	***	***	***	***	***	***	***	***	***	***	***
		Min-d	***	***	***	***	***	***	***	***	***	***	***	***	***

Terms and abbreviations are given in Table 4.2.

Table 4.13.1 Particulate matter component: SO_4^{2-} - Measured by FP

Unit : $\mu g/m^3$

Country	Site		2022 Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Cambodia	Phnom Penh	Mean	***	***	***	***	***	***	***	***	***	***	***	***	***
		%	***	***	***	***	***	***	***	***	***	***	***	***	***
		Max-2w	***	***	***	***	***	***	***	***	***	***	***	***	***
		Min-2w	***	***	***	***	***	***	***	***	***	***	***	***	***
Indonesia	Jakarta	Mean	4.70	4.24	3.79	7.68	***	***	***	***	***	***	***	***	5.47
		%	50	100	100	100	***	***	***	***	***	***	***	***	31
		Max-2w	4.70	4.94	5.72	10.82	***	***	***	***	***	***	***	***	10.82
		Min-2w	4.70	3.54	1.86	5.46	***	***	***	***	***	***	***	***	1.86
	Serpong	Mean	3.97	4.95	1.90	1.14	5.98	5.81	3.74	***	***	***	***	***	3.78
		%	50	100	100	100	100	100	52	***	***	***	***	***	51
		Max-2w	3.97	5.01	3.11	2.25	8.47	8.95	3.74	***	***	***	***	***	8.95
		Min-2w	3.97	4.89	0.72	0.03	3.49	2.67	3.74	***	***	***	***	***	0.03
	Bandung	Mean	7.87	6.28	6.58	7.93	7.26	9.09	10.43	10.00	10.59	6.76	6.62	8.05	8.12
		%	100	100	100	100	100	88	58	100	100	75	100	100	93
		Max-w	9.57	7.67	8.91	10.21	10.25	11.43	14.08	12.41	11.50	9.08	8.22	11.02	14.08
		Min-w	6.64	4.32	4.07	6.28	5.20	7.99	8.15	8.05	8.71	5.50	4.65	5.65	4.07
Japan	Rishiri	Mean	0.77	1.39	2.20	2.87	2.88	2.38	1.55	1.52	1.85	1.71	1.80	1.36	1.92
		%	100	100	100	100	100	100	100	100	100	100	100	53	96
		Max-2w	0.93	1.76	2.22	3.03	4.34	2.58	1.94	1.65	1.99	2.27	1.90	1.36	4.34
		Min-2w	0.60	1.03	2.18	2.71	1.74	2.18	1.16	1.38	1.72	1.16	1.71	1.36	0.60
	Ochiishi	Mean	4.39	1.40	2.27	2.61	1.42	1.90	0.73	1.93	1.79	2.43	2.61	0.94	2.09
		%	100	100	48	100	64	100	100	100	100	100	100	50	88
		Max-2w	7.72	1.65	2.27	2.64	2.37	2.66	1.32	1.94	1.86	3.18	3.10	0.94	7.72
		Min-2w	1.06	1.16	2.27	2.57	0.46	1.13	0.13	1.91	1.72	1.80	2.13	0.94	0.13
	Sado-seki	Mean	***	***	***	***	3.15	3.03	2.33	2.22	1.47	1.53	2.03	1.16	2.01
		%	***	***	***	***	39	100	100	100	100	100	100	100	61
		Max-2w	***	***	***	***	3.15	3.53	2.69	2.63	1.53	2.06	2.36	1.82	3.53
		Min-2w	***	***	***	***	3.15	2.52	1.96	1.81	1.42	1.06	1.69	0.51	0.51
	Happo	Mean	0.62	0.95	0.64	1.73	0.09	1.59	1.60	1.58	0.74	0.86	0.95	0.34	1.02
		%	100	100	100	100	100	47	100	100	100	100	100	100	96
		Max-2w	0.72	0.98	1.02	2.61	0.09	1.59	1.70	1.83	0.77	1.07	0.95	0.38	2.61
		Min-2w	0.52	0.91	0.26	0.76	0.09	1.59	1.50	1.33	0.72	0.65	0.95	0.29	0.09
	Ijira	Mean	1.17	1.36	2.12	2.71	2.38	2.33	1.70	2.50	1.48	1.28	1.41	0.91	1.78
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	1.24	1.46	2.66	2.92	2.70	2.60	1.75	2.66	1.86	1.79	1.92	0.96	2.92
		Min-2w	1.10	1.27	1.57	2.51	1.97	2.07	1.64	2.35	1.09	0.94	0.91	0.87	0.87
	Oki	Mean	3.21	3.62	3.73	3.21	3.23	2.99	2.84	2.63	3.85	1.88	2.39	4.14	3.12
		%	78	100	100	100	100	100	100	100	100	100	100	100	98
		Max-2w	3.50	3.88	4.35	3.31	3.68	3.06	2.90	3.11	5.76	1.90	3.33	4.45	5.76
		Min-2w	2.92	3.36	3.12	3.10	2.61	2.92	2.79	2.15	1.94	1.86	1.64	3.82	1.64
	Yusuhara	Mean	2.00	2.05	2.66	2.69	2.96	2.89	2.44	3.65	1.26	1.80	2.21	1.92	2.37
		%	100	100	100	100	67	100	100	100	100	100	100	47	92
		Max-2w	2.28	2.13	3.80	3.07	3.79	3.67	2.44	3.95	1.40	2.14	2.98	1.92	3.95
		Min-2w	1.71	1.98	1.53	2.32	2.13	2.10	2.44	3.35	1.11	1.37	1.44	1.92	1.11
	Hedo	Mean	3.45	2.98	3.48	3.17	1.66	1.12	2.32	1.67	3.66	4.33	2.83	3.81	2.88
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	3.69	3.27	4.05	3.93	2.55	1.25	3.26	1.72	3.83	4.47	3.44	4.19	4.47
		Min-2w	3.20	2.69	2.91	2.40	0.49	1.00	1.39	1.61	3.49	4.08	2.22	3.43	0.49
	Ogasawara	Mean	2.20	2.59	2.84	0.93	1.04	0.81	0.97	1.68	1.05	2.09	2.02	1.89	1.67
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	2.53	2.73	3.46	1.09	1.35	0.97	1.04	2.05	1.22	3.36	2.25	2.03	3.46
		Min-2w	1.87	2.46	2.22	0.77	0.62	0.65	0.91	1.31	0.87	1.43	1.80	1.75	0.62
	Tokyo	Mean	1.37	1.61	2.64	3.16	2.53	3.51	2.32	3.75	2.15	1.72	1.65	0.82	2.26
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	1.43	1.64	3.17	3.23	2.77	4.23	2.63	4.02	2.21	2.28	2.10	1.01	4.23
		Min-2w	1.31	1.59	2.11	3.08	2.35	2.79	2.01	3.48	2.09	1.24	1.20	0.63	0.63
	Niigata-maki	Mean	2.2	1.3	0.4	1.23	2.63	2.61	2.02	2.08	1.56	1.33	1.55	1.13	1.69
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	2.5	2.3	0.5	2.21	3.10	3.16	2.48	2.71	1.72	1.53	1.82	1.22	3.16
		Min-2w	1.9	0.4	0.2	0.25	1.99	2.06	1.56	1.45	1.39	1.04	1.29	1.03	0.21
	Tsushima	Mean	2.9	3.3	3.1	2.87	3.18	2.27	2.96	2.01	1.49	2.07	2.67	2.15	2.58
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	2.9	3.4	3.4	3.09	3.76	2.31	2.97	2.10	1.50	2.31	3.52	2.17	3.76
		Min-2w	2.8	3.2	2.9	2.65	2.33	2.23	2.94	1.91	1.48	1.68	1.83	2.13	1.48

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

Unit : $\mu g/m^3$

Country	Site		2022												Annual
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Lao PDR	Vientiane	Mean	***	***	***	***	***	***	***	***	***	***	***	***	***
		%	***	***	***	***	***	***	***	***	***	***	***	***	***
		Max-m	***	***	***	***	***	***	***	***	***	***	***	***	***
		Min-m	***	***	***	***	***	***	***	***	***	***	***	***	***
Malaysia	Petaling Jaya	Mean	3.95	2.69	3.76	3.59	3.03	1.81	3.73	1.42	2.17	2.09	1.73	1.51	2.61
		%	100	100	100	100	100	100	80	100	100	100	100	100	98
		Max-w	6.31	3.29	6.20	4.54	4.54	2.17	4.64	1.87	3.21	3.23	3.77	2.76	6.31
		Min-w	2.22	1.48	1.53	2.78	1.78	1.00	2.75	1.15	1.32	0.94	0.69	0.29	0.29
	Tanah Rata	Mean	1.80	1.05	1.79	1.58	1.27	0.52	2.12	0.84	1.20	0.49	0.42	0.29	1.13
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	2.73	2.08	3.41	2.26	1.84	1.02	2.68	2.10	1.47	0.71	1.27	0.78	3.41
		Min-w	0.85	0.23	0.52	0.74	0.55	0.14	1.43	0.09	0.89	0.13	0.02	0.04	0.02
	Danum Valley	Mean	1.20	1.24	1.07	1.67	0.52	0.74	0.43	0.22	0.30	0.61	0.42	0.49	0.73
		%	100	100	100	75	100	100	100	100	100	100	100	100	98
		Max-2w	1.71	1.56	1.89	2.29	0.69	1.39	0.43	0.36	0.30	0.72	0.56	0.60	2.29
		Min-2w	0.68	0.92	0.54	1.05	0.35	0.10	0.42	0.01	0.29	0.50	0.29	0.37	0.01
Mongolia	Ulaanbaatar	Mean	***	***	***	***	***	***	***	***	***	***	***	***	***
		%	***	***	***	***	***	***	***	***	***	***	***	***	***
		Max-w	***	***	***	***	***	***	***	***	***	***	***	***	***
		Min-w	***	***	***	***	***	***	***	***	***	***	***	***	***
	Terelj	Mean	***	***	***	***	***	***	***	***	***	***	***	***	***
		%	***	***	***	***	***	***	***	***	***	***	***	***	***
		Max-2w	***	***	***	***	***	***	***	***	***	***	***	***	***
		Min-2w	***	***	***	***	***	***	***	***	***	***	***	***	***
Myammar	Yangon	Mean	***	***	***	***	0.63	0.47	***	***	***	***	0.05	0.03	0.33
		%	***	***	***	***	67	100	***	***	***	***	33	100	27
		Max-2w	***	***	***	***	1.20	0.51	***	***	***	***	0.05	0.05	1.20
		Min-2w	***	***	***	***	0.06	0.44	***	***	***	***	0.05	<0.01	<0.01
Philippines	Metro Manila	Mean	1.56	1.13	3.78	0.80	1.24	3.00	8.63	8.97	4.27	0.98	1.06	1.13	3.12
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-irreg	2.38	1.65	11.85	0.94	1.68	5.21	23.21	20.70	17.87	1.85	1.92	2.53	23.21
		Min-irreg	0.75	0.79	0.86	0.66	0.54	1.33	2.64	1.48	0.28	0.15	0.49	0.54	0.15
	Los Baños	Mean	***	***	1.20	4.91	1.67	5.65	12.74	1.01	7.70	2.28	0.30	<0.01	3.80
		%	***	***	75	100	74	100	100	100	100	100	100	28	75
		Max-irreg	***	***	1.29	6.70	2.57	11.37	24.29	1.77	13.23	4.37	0.46	<0.01	24.29
		Min-irreg	***	***	1.14	3.12	0.66	2.44	1.19	0.41	4.93	0.18	0.13	<0.01	<0.01
	Mt. Sto. Tomas	Mean	***	***	***	***	***	***	***	***	***	***	***	***	***
		%	***	***	***	***	***	***	***	***	***	***	***	***	***
		Max-w	***	***	***	***	***	***	***	***	***	***	***	***	***
		Min-w	***	***	***	***	***	***	***	***	***	***	***	***	***
Russia	Mondy	Mean	0.05	0.08	0.03	0.04	0.06	0.04	0.02	0.03	0.06	0.04	0.03	0.04	0.04
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-irreg	0.07	0.12	0.03	0.05	0.06	0.07	0.02	0.03	0.13	0.05	0.04	0.04	0.13
		Min-irreg	0.03	0.04	0.03	0.03	0.06	0.02	0.02	0.02	0.02	0.03	0.01	0.03	0.01
	Listvyanka	Mean	0.11	0.50	0.37	0.43	0.36	0.74	0.21	0.96	0.61	0.41	0.16	0.52	0.44
		%	81	100	100	100	100	100	100	100	100	100	100	100	98
		Max-w	0.28	0.78	0.43	0.65	1.36	1.50	0.31	1.18	1.09	0.60	0.43	1.25	1.50
		Min-w	0.06	0.15	0.22	0.25	0.03	0.14	0.05	0.53	0.11	0.13	0.04	0.03	0.03
	Irkutsk	Mean	2.40	2.01	1.09	0.72	0.67	0.89	0.62	0.99	1.04	1.61	1.94	5.06	1.50
		%	100	100	100	100	100	100	100	100	100	80	100	67	95
		Max-w	3.94	3.61	2.52	1.17	0.90	1.11	0.84	1.83	1.71	4.12	2.82	8.74	8.74
		Min-w	1.43	1.02	0.03	0.09	0.40	0.54	0.45	0.47	0.57	0.29	0.76	3.12	0.03
	Primorskaya	Mean	0.96	0.40	0.30	0.44	0.45	0.86	0.64	0.51	0.14	0.53	0.19	0.22	0.47
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-15d	1.58	0.45	0.31	0.49	0.58	0.91	1.08	0.81	0.17	0.77	0.26	0.26	1.58
		Min-15d	0.35	0.35	0.29	0.40	0.33	0.80	0.20	0.20	0.11	0.29	0.12	0.19	0.11

Table 4.13.1 Particulate matter component: SO_4^{2-} - Measured by FP (continued)

Unit : µg/m³

Country	Site		2022 Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Thailand	Bangkok	Mean	***	***	***	***	***	***	<0.01	0.02	0.48	0.96	0.55	2.18	0.67
		%	***	***	***	***	***	***	100	100	100	35	100	100	45
		Max-10d	***	***	***	***	***	***	<0.01	0.03	1.44	0.96	0.84	2.51	2.51
		Min-10d	***	***	***	***	***	***	<0.01	0.02	<0.01	0.96	0.38	1.87	<0.01
Vietnam	Hanoi	Mean	11.15	7.51	8.55	9.37	10.40	9.46	13.43	12.37	10.61	8.38	10.05	11.72	10.24
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	12.54	10.69	10.31	12.77	15.63	13.70	29.22	17.70	18.07	11.43	15.41	16.04	29.22
		Min-w	8.30	1.92	6.25	5.60	4.45	6.15	6.76	8.63	5.76	6.33	4.44	7.74	1.92
	Hoa Binh	Mean	3.11	2.99	4.92	3.76	2.90	3.31	3.63	3.71	3.79	2.64	3.37	4.77	3.62
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	4.24	4.64	8.15	4.16	4.88	4.69	4.51	4.54	8.28	3.91	5.29	6.56	8.28
		Min-w	2.30	1.99	2.44	3.23	1.37	1.81	1.89	2.01	1.84	1.29	1.86	3.15	1.29
	Can Tho	Mean	6.28	6.10	5.73	5.47	5.94	6.11	5.75	6.03	5.76	5.53	5.58	5.85	5.85
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	6.75	6.75	6.58	6.54	6.23	6.29	6.29	6.73	6.13	5.87	5.97	6.43	6.75
		Min-w	5.52	5.67	5.13	4.69	5.79	5.71	5.46	5.46	5.40	5.26	5.26	5.46	4.69
	Ho Chi Minh	Mean	5.96	5.76	5.74	6.00	6.02	5.99	6.01	5.76	6.11	6.15	6.03	6.09	5.97
		%	100	100	100	100	100	100	100	100	100	100	100	80	98
		Max-w	6.53	6.15	6.01	6.47	6.19	6.53	6.41	6.53	6.79	6.81	6.17	6.55	6.81
		Min-w	5.48	5.38	5.42	5.36	5.63	5.58	5.71	5.20	5.65	5.81	5.79	5.63	5.20
	Yen Bai	Mean	5.64	6.35	5.50	4.99	5.26	4.79	6.70	6.55	6.94	6.40	7.12	8.00	6.18
		%	100	100	100	100	100	100	100	100	100	100	75	100	98
		Max-w	7.00	8.61	7.16	9.15	7.04	6.89	9.70	9.84	9.87	9.27	10.99	9.18	10.99
		Min-w	4.31	3.92	4.51	2.25	4.18	2.62	4.31	3.58	2.72	3.50	3.72	6.31	2.25

Table 4.13.2 Particulate matter component: SO_4^{2-} - Measured by FP with $PM_{2.5}$ cyclone

Unit : µg/m³

Country	Site		2022 Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Republic of Korea	Kanghwa	Mean	3.34	4.31	3.26	3.81	2.88	2.68	4.86	3.64	2.26	2.94	1.32	1.85	3.46
		%	16	14	16	17	13	13	13	16	17	19	13	16	15
		Max-d	7.97	7.29	5.11	5.12	5.41	3.94	7.41	6.52	2.94	7.57	1.54	3.10	7.97
		Min-d	1.63	2.51	1.63	1.23	1.51	0.95	2.53	2.31	1.27	0.88	1.21	1.07	0.88
	Cheju (Kosan)	Mean	2.81	2.52	2.41	3.03	2.98	2.47	2.14	1.81	1.66	0.82	2.62	1.69	2.34
		%	16	14	13	10	13	17	13	16	10	19	17	16	14
		Max-d	4.02	2.85	4.69	3.68	4.01	5.18	2.96	2.94	2.47	1.17	4.21	3.19	5.18
		Min-d	1.03	1.79	<0.01	1.90	2.29	0.62	1.21	0.55	0.79	0.53	1.58	0.92	<0.01
	Imsil	Mean	3.78	3.45	3.85	2.89	2.73	3.31	3.67	1.80	1.70	1.51	3.16	***	3.06
		%	16	18	16	17	16	17	16	10	13	13	10	***	16
		Max-d	8.28	5.91	4.86	4.26	5.12	4.15	5.50	2.60	2.45	2.17	5.90	***	8.28
		Min-d	1.66	1.83	2.86	1.32	1.66	1.48	1.91	1.16	1.08	0.91	0.88	***	1.08

Terms and abbreviations are given in Table 4.2.

Table 4.14.1 Particulate matter component: NO_3^- - Measured by FP

Unit : $\mu g/m^3$

Country	Site		2022 Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Cambodia	Phnom Penh	Mean	***	***	***	***	***	***	***	***	***	***	***	***	***
		%	***	***	***	***	***	***	***	***	***	***	***	***	***
		Max-2w	***	***	***	***	***	***	***	***	***	***	***	***	***
		Min-2w	***	***	***	***	***	***	***	***	***	***	***	***	***
Indonesia	Jakarta	Mean	1.39	2.09	1.39	1.37	***	***	***	***	***	***	***	***	1.56
		%	50	100	100	100	***	***	***	***	***	***	***	***	31
		Max-2w	1.39	2.46	1.67	2.16	***	***	***	***	***	***	***	***	2.46
		Min-2w	1.39	1.72	1.11	0.97	***	***	***	***	***	***	***	***	0.97
	Serpong	Mean	0.33	0.57	0.20	0.19	0.60	1.56	1.64	***	***	***	***	***	0.65
		%	50	100	100	100	100	100	52	***	***	***	***	***	51
		Max-2w	0.33	0.71	0.33	0.32	0.86	2.92	1.64	***	***	***	***	***	2.92
		Min-2w	0.33	0.42	0.11	0.05	0.33	0.21	1.64	***	***	***	***	***	0.05
	Bandung	Mean	2.52	2.84	1.92	1.82	1.71	2.40	2.73	2.28	2.24	0.99	1.65	1.53	2.05
		%	100	100	100	100	100	88	58	100	100	75	100	100	93
		Max-w	2.66	3.60	3.35	2.00	2.43	3.49	3.44	2.54	3.50	1.21	2.02	2.83	3.60
		Min-w	2.40	2.38	1.04	1.69	0.82	1.28	1.77	1.82	1.15	0.77	0.93	0.65	0.65
Japan	Rishiri	Mean	0.11	0.52	0.90	1.00	1.30	0.62	0.19	0.53	0.60	0.76	0.68	0.51	0.68
		%	100	100	100	100	100	100	100	100	100	100	100	53	96
		Max-2w	0.13	0.84	1.05	1.57	2.36	0.77	0.23	0.59	0.61	0.84	0.72	0.51	2.36
		Min-2w	0.09	0.21	0.75	0.42	0.41	0.47	0.15	0.48	0.59	0.68	0.63	0.51	0.09
	Ochiishi	Mean	0.18	0.58	1.40	1.35	0.89	0.75	0.28	0.77	0.92	0.90	0.78	0.17	0.75
		%	100	100	48	100	64	100	100	100	100	100	100	50	88
		Max-2w	0.31	0.84	1.40	1.35	1.67	0.98	0.55	0.89	1.21	1.29	0.97	0.17	1.67
		Min-2w	0.05	0.32	1.40	1.35	0.12	0.52	<0.01	0.64	0.63	0.45	0.59	0.17	<0.01
	Sado-seki	Mean	***	***	***	***	1.72	1.63	0.88	1.08	0.69	0.89	0.99	0.15	0.95
		%	***	***	***	***	39	100	100	100	100	100	100	100	61
		Max-2w	***	***	***	***	1.72	1.99	1.05	1.14	0.75	1.38	1.45	0.23	1.99
		Min-2w	***	***	***	***	1.72	1.28	0.71	1.01	0.64	0.42	0.54	0.07	0.07
	Happo	Mean	0.08	0.21	0.57	1.05	0.07	0.15	0.05	0.05	0.05	0.16	0.35	0.10	0.29
		%	100	100	100	100	100	47	100	100	100	100	100	100	96
		Max-2w	0.10	0.29	0.96	1.26	0.07	0.15	0.07	0.05	0.06	0.21	0.35	0.14	1.26
		Min-2w	0.06	0.13	0.18	0.73	0.07	0.15	0.04	0.05	0.04	0.11	0.35	0.05	0.04
	Ijira	Mean	0.33	0.38	1.10	0.88	0.48	0.20	0.19	0.12	0.42	0.30	0.34	0.25	0.41
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.34	0.61	1.47	1.17	0.59	0.22	0.24	0.13	0.54	0.39	0.38	0.32	1.47
		Min-2w	0.33	0.15	0.73	0.59	0.30	0.18	0.15	0.11	0.29	0.19	0.30	0.18	0.11
	Oki	Mean	1.78	2.52	3.77	2.00	1.71	1.31	1.15	1.67	0.98	1.00	1.69	2.16	1.80
		%	78	100	100	100	100	100	100	100	100	100	100	100	98
		Max-2w	2.20	3.51	4.90	2.00	1.91	1.49	1.20	1.82	1.07	1.33	2.39	2.23	4.90
		Min-2w	1.35	1.53	2.63	2.00	1.40	1.12	1.11	1.52	0.89	0.68	1.31	2.09	0.68
	Yusuhara	Mean	1.32	1.49	1.94	0.57	0.38	0.07	<0.01	0.10	0.29	0.47	0.69	1.70	0.73
		%	100	100	100	100	67	100	100	100	100	100	100	47	92
		Max-2w	1.36	1.86	3.27	0.82	0.40	0.10	<0.01	0.14	0.42	0.80	0.70	1.70	3.27
		Min-2w	1.27	1.12	0.62	0.32	0.36	0.03	<0.01	0.06	0.17	0.18	0.67	1.70	<0.01
	Hedo	Mean	1.49	1.20	2.17	1.51	0.67	0.45	0.98	0.71	1.15	1.46	1.17	1.91	1.23
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	1.55	1.30	2.69	1.79	1.11	0.54	1.02	1.05	1.18	1.66	1.42	2.14	2.69
		Min-2w	1.43	1.10	1.66	1.23	0.16	0.36	0.94	0.38	1.11	1.25	0.91	1.68	0.16
	Ogasawara	Mean	0.84	0.68	0.96	0.26	0.29	0.18	0.15	0.09	0.15	0.19	0.80	0.74	0.43
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.87	0.71	1.15	0.29	0.41	0.19	0.18	0.11	0.15	0.25	1.03	0.76	1.15
		Min-2w	0.81	0.66	0.78	0.23	0.24	0.17	0.12	0.06	0.14	0.12	0.58	0.71	0.06
	Tokyo	Mean	2.41	2.45	3.92	3.99	2.79	3.44	2.21	2.41	1.93	2.46	2.47	1.80	2.69
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	2.50	2.49	4.53	4.16	3.26	3.52	2.91	2.69	1.95	2.79	2.80	2.27	4.53
		Min-2w	2.33	2.42	3.31	3.82	2.52	3.35	1.52	2.13	1.91	2.24	2.15	1.33	1.33
	Niigata-maki	Mean	1.0	0.7	0.3	0.64	1.37	1.00	0.78	0.82	0.86	0.77	0.99	0.37	0.82
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	1.0	1.2	0.5	1.08	1.63	1.42	1.07	0.85	0.94	1.03	1.18	0.40	1.63
		Min-2w	1.0	0.2	0.2	0.21	0.93	0.59	0.48	0.78	0.78	0.62	0.79	0.35	0.19
	Tsushima	Mean	4.7	3.9	4.8	1.81	1.34	0.80	0.49	1.09	0.84	1.67	2.42	3.57	2.23
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	5.4	4.3	5.9	2.27	1.91	0.97	0.67	1.15	0.99	2.20	3.04	3.59	5.91
		Min-2w	3.9	3.5	3.7	1.35	0.74	0.63	0.31	1.04	0.69	0.80	1.80	3.55	0.31

Table 4.14.1 Particulate matter component: NO_3^- - Measured by FP (continued)

Unit : μg/m^3

Country	Site		2022 Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Lao PDR	Vientiane	Mean	***	***	***	***	***	***	***	***	***	***	***	***	***
		%	***	***	***	***	***	***	***	***	***	***	***	***	***
		Max-m	***	***	***	***	***	***	***	***	***	***	***	***	***
		Min-m	***	***	***	***	***	***	***	***	***	***	***	***	***
Malaysia	Petaling Jaya	Mean	3.01	1.35	1.20	1.14	1.37	0.99	1.71	0.52	1.30	1.09	0.95	1.06	1.30
		%	100	100	100	100	100	100	80	100	100	100	100	100	98
		Max-w	6.04	1.58	1.33	1.22	2.01	1.80	2.21	0.83	1.85	1.32	1.85	1.93	6.04
		Min-w	1.65	1.17	0.90	1.05	0.63	0.59	1.00	0.34	0.96	0.84	0.45	0.35	0.34
	Tanah Rata	Mean	0.40	0.16	0.07	0.08	0.35	0.03	0.34	<0.01	0.18	0.05	0.02	0.06	0.15
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.71	0.26	0.15	0.15	0.67	0.06	0.79	0.02	0.30	0.12	0.03	0.21	0.79
		Min-w	0.19	0.07	0.03	0.02	0.04	<0.01	0.07	<0.01	0.10	<0.01	0.01	0.01	<0.01
	Danum Valley	Mean	0.15	0.24	0.12	0.04	0.06	<0.01	0.02	<0.01	0.02	0.02	0.03	0.16	0.07
		%	100	100	100	75	100	100	100	100	100	100	100	100	98
		Max-2w	0.22	0.30	0.21	0.06	0.08	<0.01	0.03	<0.01	0.02	0.04	0.04	0.18	0.30
		Min-2w	0.09	0.19	0.02	0.03	0.04	<0.01	<0.01	<0.01	0.01	<0.01	0.03	0.14	<0.01
Mongolia	Ulaanbaatar	Mean	***	***	***	***	***	***	***	***	***	***	***	***	***
		%	***	***	***	***	***	***	***	***	***	***	***	***	***
		Max-w	***	***	***	***	***	***	***	***	***	***	***	***	***
		Min-w	***	***	***	***	***	***	***	***	***	***	***	***	***
	Terelj	Mean	***	***	***	***	***	***	***	***	***	***	***	***	***
		%	***	***	***	***	***	***	***	***	***	***	***	***	***
		Max-2w	***	***	***	***	***	***	***	***	***	***	***	***	***
		Min-2w	***	***	***	***	***	***	***	***	***	***	***	***	***
Myammar	Yangon	Mean	***	***	***	***	0.32	0.38	***	***	***	***	<0.01	<0.01	0.20
		%	***	***	***	***	67	100	***	***	***	***	33	100	27
		Max-2w	***	***	***	***	0.57	0.53	***	***	***	***	<0.01	<0.01	0.57
		Min-2w	***	***	***	***	0.07	0.24	***	***	***	***	<0.01	<0.01	<0.01
Philippines	Metro Manila	Mean	2.17	1.01	2.96	2.14	1.93	1.58	2.50	1.41	1.04	0.69	1.13	1.40	1.67
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-irreg	4.29	1.25	4.97	3.76	3.09	2.15	3.75	1.92	2.73	1.22	1.77	3.18	4.97
		Min-irreg	0.59	0.63	0.78	1.46	0.54	1.21	0.99	0.40	0.29	0.28	0.61	0.72	0.28
	Los Baños	Mean	***	***	1.12	3.19	0.93	1.76	1.21	0.44	0.89	0.96	0.62	0.03	1.13
		%	***	***	75	100	74	100	100	100	100	100	100	28	75
		Max-irreg	***	***	1.23	4.61	1.96	4.00	1.29	0.91	1.13	1.52	0.82	0.03	4.61
		Min-irreg	***	***	0.90	1.76	0.17	0.20	1.13	0.19	0.65	0.27	0.43	0.03	0.03
	Mt. Sto. Tomas	Mean	***	***	***	***	***	***	***	***	***	***	***	***	***
		%	***	***	***	***	***	***	***	***	***	***	***	***	***
		Max-w	***	***	***	***	***	***	***	***	***	***	***	***	***
		Min-w	***	***	***	***	***	***	***	***	***	***	***	***	***
Russia	Mondy	Mean	<0.01	0.02	0.02	0.02	<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-irreg	0.01	0.03	0.02	0.03	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.03
		Min-irreg	<0.01	<0.01	0.02	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	Listvyanka	Mean	0.02	0.52	0.83	0.45	0.07	0.07	0.03	0.03	0.01	0.04	0.03	0.16	0.18
		%	81	100	100	100	100	100	100	100	100	100	100	100	98
		Max-w	0.03	0.90	1.14	0.67	0.20	0.12	0.05	0.06	0.03	0.12	0.04	0.29	1.14
		Min-w	<0.01	0.04	0.56	0.07	0.01	0.03	<0.01	0.01	<0.01	<0.01	0.01	0.02	<0.01
	Irkutsk	Mean	1.17	0.92	0.65	0.24	0.23	0.20	0.10	0.22	0.25	0.88	0.76	2.74	0.64
		%	100	100	100	100	100	100	100	100	100	80	100	67	95
		Max-w	2.04	2.24	1.20	0.47	0.32	0.23	0.14	0.34	0.39	2.81	1.05	4.40	4.40
		Min-w	0.78	0.38	0.25	0.01	0.16	0.13	0.08	0.07	0.13	0.04	0.38	1.80	0.01
	Primorskaya	Mean	1.64	1.87	1.78	1.52	1.07	1.06	0.58	0.47	0.28	0.80	0.42	0.55	1.00
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-15d	2.20	2.68	1.98	1.56	1.10	1.13	0.79	0.61	0.29	1.18	0.49	0.57	2.68
		Min-15d	1.09	1.05	1.58	1.47	1.04	1.00	0.36	0.33	0.27	0.41	0.35	0.53	0.27

Table 4.14.1 Particulate matter component: NO_3^- - Measured by FP (continued)

Unit : μg/m^3

Country	Site		2022												Annual
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Thailand	Bangkok	Mean	***	***	***	***	***	***	0.35	0.17	1.77	0.61	0.61	3.65	1.26
		%	***	***	***	***	***	***	100	100	100	35	100	100	45
		Max-10d	***	***	***	***	***	***	0.45	0.41	4.33	0.61	1.04	4.51	4.51
		Min-10d	***	***	***	***	***	***	0.21	<0.01	0.34	0.61	0.26	2.66	<0.01
Vietnam	Hanoi	Mean	9.45	5.65	7.25	7.24	9.08	6.39	12.53	9.77	10.01	6.17	8.14	12.00	8.66
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	12.58	9.36	8.93	9.73	17.03	10.63	31.10	15.96	14.91	9.50	15.86	17.42	31.10
		Min-w	7.57	2.35	4.93	3.99	3.21	3.53	4.59	3.71	4.97	3.02	3.92	6.45	2.35
	Hoa Binh	Mean	2.56	2.53	3.64	2.79	3.06	2.51	2.87	2.80	2.76	2.74	2.89	3.31	2.89
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	3.91	3.39	6.23	3.03	4.36	3.87	3.86	3.40	4.70	3.18	4.58	4.17	6.23
		Min-w	1.76	1.51	1.93	2.39	1.83	0.49	1.17	2.37	2.08	2.15	1.37	2.38	0.49
	Can Tho	Mean	1.99	2.02	2.30	2.26	2.36	1.97	2.30	2.26	2.38	2.03	1.91	2.14	2.16
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	2.29	2.46	2.83	2.46	2.63	2.23	2.48	2.38	2.61	2.42	2.22	2.42	2.83
		Min-w	1.44	1.73	1.73	2.08	2.15	1.75	2.21	1.94	2.19	1.41	1.61	1.73	1.41
	Ho Chi Minh	Mean	5.07	4.94	5.28	5.15	5.53	5.22	5.68	4.82	4.87	5.08	4.95	4.87	5.12
		%	100	100	100	100	100	100	100	100	100	100	100	80	98
		Max-w	5.89	5.38	6.17	6.23	6.17	5.54	6.23	5.34	5.58	5.63	5.22	6.73	6.73
		Min-w	4.74	4.62	4.48	4.19	5.06	4.76	5.34	4.19	4.40	3.91	4.40	3.02	3.02
	Yen Bai	Mean	4.72	4.27	4.33	3.71	3.82	3.70	4.19	5.55	6.43	6.09	6.13	7.22	5.02
		%	100	100	100	100	100	100	100	100	100	100	75	100	98
		Max-w	6.00	6.89	5.39	6.61	4.37	6.18	8.44	9.41	8.95	8.16	8.66	10.01	10.01
		Min-w	3.96	2.33	3.07	1.97	3.44	1.77	2.17	2.82	5.15	3.46	3.49	6.00	1.77

Table 4.14.2 Particulate matter component: NO_3^- - Measured by FP with $PM_{2.5}$ cyclone

Unit : μg/m^3

Country	Site		2022												Annual
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Republic of Korea	Kanghwa	Mean	7.16	3.10	1.66	3.85	0.43	0.22	0.42	0.11	0.08	1.43	1.02	3.77	1.99
		%	16	14	16	17	13	13	13	16	17	19	13	16	15
		Max-d	17.20	4.46	4.55	12.84	0.95	0.70	1.04	0.16	0.16	4.41	1.56	6.18	17.20
		Min-d	2.91	2.08	0.37	0.20	0.12	0.01	0.07	0.02	0.02	0.08	0.59	1.26	0.01
	Cheju (Kosan)	Mean	1.49	0.67	0.46	0.21	0.29	0.19	0.39	0.33	0.28	0.31	0.66	1.87	0.49
		%	16	14	13	10	13	17	13	16	10	19	17	16	14
		Max-d	3.81	0.80	1.25	0.27	0.78	0.52	0.88	0.46	0.67	0.44	1.73	6.59	3.81
		Min-d	0.30	0.50	<0.01	0.13	0.08	0.06	0.03	0.05	0.08	0.12	0.17	0.21	<0.01
	Imsil	Mean	10.58	4.28	9.38	2.93	0.34	0.48	0.05	0.08	0.04	0.20	2.15	***	3.20
		%	16	18	16	17	16	17	16	10	13	13	10	***	16
		Max-d	25.24	9.53	15.99	10.18	0.49	0.94	0.08	0.16	0.08	0.50	4.35	***	25.24
		Min-d	5.70	2.19	3.76	0.28	0.09	0.12	0.03	0.04	0.01	0.07	0.56	***	0.01

Terms and abbreviations are given in Table 4.2.

Table 4.15.1 Particulate matter component: Cl^- - Measured by FP

Unit : $\mu g/m^3$

Country	Site		2022												Annual
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Cambodia	Phnom Penh	Mean	***	***	***	***	***	***	***	***	***	***	***	***	***
		%	***	***	***	***	***	***	***	***	***	***	***	***	***
		Max-2w	***	***	***	***	***	***	***	***	***	***	***	***	***
		Min-2w	***	***	***	***	***	***	***	***	***	***	***	***	***
Indonesia	Jakarta	Mean	0.43	0.31	0.63	0.48	***	***	***	***	***	***	***	***	0.47
		%	50	100	100	100	***	***	***	***	***	***	***	***	31
		Max-2w	0.43	0.41	1.04	0.64	***	***	***	***	***	***	***	***	1.04
		Min-2w	0.43	0.20	0.23	0.39	***	***	***	***	***	***	***	***	0.20
	Serpong	Mean	0.34	0.12	0.15	0.02	0.21	0.17	0.17	***	***	***	***	***	0.16
		%	50	100	100	100	100	100	52	***	***	***	***	***	51
		Max-2w	0.34	0.15	0.29	0.04	0.28	0.32	0.17	***	***	***	***	***	0.34
		Min-2w	0.34	0.09	0.02	0.01	0.14	0.03	0.17	***	***	***	***	***	0.01
	Bandung	Mean	0.47	0.36	0.30	0.28	0.25	0.37	0.55	0.41	0.42	0.41	0.43	0.37	0.38
		%	100	100	100	100	100	88	58	100	100	75	100	100	93
		Max-w	0.67	0.56	0.60	0.44	0.37	0.53	0.77	0.59	0.68	0.45	0.55	0.43	0.77
		Min-w	0.24	0.28	0.12	0.19	0.11	0.11	0.42	0.26	0.22	0.38	0.35	0.28	0.11
Japan	Rishiri	Mean	0.81	2.18	3.53	7.00	3.30	0.67	0.45	3.87	5.90	4.07	4.22	2.21	3.27
		%	100	100	100	100	100	100	100	100	100	100	100	53	96
		Max-2w	0.90	3.65	3.88	8.46	4.98	0.80	0.75	5.51	6.47	4.90	4.71	2.21	8.46
		Min-2w	0.72	0.71	3.18	5.55	0.36	0.55	0.15	2.23	5.34	3.24	3.31	2.21	0.15
	Ochiishi	Mean	28.04	3.15	5.82	7.49	3.60	5.18	0.43	4.56	6.60	10.39	12.26	3.64	7.97
		%	100	100	48	100	64	100	100	100	100	100	100	50	88
		Max-2w	54.01	4.64	5.82	8.85	5.64	9.13	0.81	5.91	8.01	17.93	16.50	3.64	54.01
		Min-2w	2.07	1.66	5.82	6.12	1.56	1.24	0.06	3.21	5.19	5.91	8.02	3.64	0.06
	Sado-seki	Mean	***	***	***	***	1.97	1.97	0.48	2.73	2.92	3.89	5.10	6.47	3.31
		%	***	***	***	***	39	100	100	100	100	100	100	100	61
		Max-2w	***	***	***	***	1.97	2.96	0.64	3.67	3.50	5.29	6.22	10.97	10.97
		Min-2w	***	***	***	***	1.97	0.98	0.32	1.78	2.34	3.06	3.99	1.98	0.32
	Happo	Mean	0.02	0.02	0.06	0.04	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	0.02	0.01	0.02
		%	100	100	100	100	100	47	100	100	100	100	100	100	96
		Max-2w	0.04	0.04	0.09	0.07	<0.01	<0.01	<0.01	<0.01	0.01	0.03	0.02	0.01	0.09
		Min-2w	<0.01	<0.01	0.03	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	0.02	0.01	<0.01
	Ijira	Mean	0.12	0.08	0.07	0.03	0.03	<0.01	0.03	0.02	0.13	0.05	0.17	0.10	0.07
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.14	0.14	0.09	0.05	0.06	<0.01	0.04	0.02	0.22	0.06	0.33	0.13	0.33
		Min-2w	0.10	0.03	0.05	0.02	<0.01	<0.01	0.01	0.02	0.04	0.04	0.01	0.07	<0.01
	Oki	Mean	9.10	7.63	4.30	1.89	1.75	2.70	1.47	2.57	18.31	3.90	4.71	19.54	6.24
		%	78	100	100	100	100	100	100	100	100	100	100	100	98
		Max-2w	11.18	9.09	5.49	2.27	2.94	4.19	1.52	3.22	32.49	5.02	8.04	22.55	32.49
		Min-2w	7.03	6.18	3.11	1.50	0.30	1.21	1.42	1.91	4.13	2.79	2.28	16.52	0.30
	Yusuhara	Mean	0.15	0.19	0.16	0.03	0.02	0.01	<0.01	0.01	0.08	0.10	0.09	0.27	0.09
		%	100	100	100	100	67	100	100	100	100	100	100	47	92
		Max-2w	0.20	0.24	0.28	0.07	0.04	0.02	<0.01	0.02	0.10	0.12	0.16	0.27	0.28
		Min-2w	0.09	0.14	0.03	<0.01	<0.01	<0.01	<0.01	<0.01	0.06	0.06	0.03	0.27	<0.01
	Hedo	Mean	8.22	6.74	5.90	4.69	3.76	3.75	3.20	2.40	12.36	13.27	7.27	13.49	7.20
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	8.49	6.81	7.37	4.81	5.30	4.02	3.30	3.80	14.20	17.94	8.72	14.59	17.94
		Min-2w	7.95	6.66	4.44	4.57	0.95	3.48	3.10	1.00	10.53	5.80	5.81	12.38	0.95
	Ogasawara	Mean	4.68	4.50	4.17	2.63	1.77	2.15	3.33	1.12	4.93	4.96	6.42	4.38	3.72
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	5.16	4.86	4.81	3.06	2.91	2.18	3.74	1.37	5.62	6.61	7.74	4.39	7.74
		Min-2w	4.19	4.14	3.53	2.19	1.09	2.12	2.92	0.88	4.25	3.52	5.10	4.37	0.88
	Tokyo	Mean	0.48	0.42	0.65	0.35	0.43	0.14	0.37	0.55	1.16	0.40	0.66	0.23	0.48
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.53	0.49	0.77	0.54	0.77	0.16	0.58	0.88	1.83	0.47	0.87	0.31	1.83
		Min-2w	0.43	0.36	0.53	0.15	0.11	0.12	0.17	0.21	0.49	0.36	0.45	0.15	0.11
	Niigata-maki	Mean	4.9	1.5	0.3	0.21	0.84	0.39	0.24	0.69	1.44	1.40	1.87	3.85	1.44
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	7.1	2.2	0.4	0.35	1.18	0.71	0.37	1.01	1.85	1.87	2.46	4.33	7.14
		Min-2w	2.7	0.8	0.2	0.06	0.23	0.06	0.11	0.36	1.02	1.03	1.27	3.37	0.06
	Tsushima	Mean	0.7	0.6	0.7	0.28	0.36	0.30	0.14	0.51	1.78	0.86	0.52	0.72	0.62
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.8	0.6	0.7	0.49	0.78	0.45	0.18	0.69	1.80	0.97	0.59	0.87	1.80
		Min-2w	0.7	0.6	0.7	0.08	0.10	0.14	0.10	0.34	1.75	0.70	0.45	0.56	0.08

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

Unit : μg/m^3

Country	Site		2022												Annual
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Lao PDR	Vientiane	Mean	***	***	***	***	***	***	***	***	***	***	***	***	***
		%	***	***	***	***	***	***	***	***	***	***	***	***	***
		Max-m	***	***	***	***	***	***	***	***	***	***	***	***	***
		Min-m	***	***	***	***	***	***	***	***	***	***	***	***	***
Malaysia	Petaling Jaya	Mean	0.46	0.18	0.07	0.10	0.20	0.14	0.09	0.02	0.16	0.31	0.13	0.10	0.16
		%	100	100	100	100	100	100	80	100	100	100	100	100	98
		Max-w	1.51	0.30	0.10	0.13	0.43	0.36	0.17	0.06	0.20	0.50	0.29	0.22	1.51
		Min-w	0.05	0.07	0.03	0.07	0.09	0.04	0.04	<0.01	0.10	0.07	0.05	0.02	<0.01
	Tanah Rata	Mean	0.09	0.09	0.01	<0.01	0.10	<0.01	0.03	<0.01	0.04	0.01	<0.01	0.02	0.03
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.25	0.21	0.04	0.01	0.22	<0.01	0.07	<0.01	0.11	0.02	<0.01	0.06	0.25
		Min-w	0.02	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	0.13	0.24	0.11	0.01	0.06	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.12	0.06
		%	100	100	100	75	100	100	100	100	100	100	100	100	98
		Max-2w	0.20	0.29	0.31	0.01	0.09	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.17	0.31
		Min-2w	0.06	0.19	<0.01	0.01	0.03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.07	<0.01
Mongolia	Ulaanbaatar	Mean	***	***	***	***	***	***	***	***	***	***	***	***	***
		%	***	***	***	***	***	***	***	***	***	***	***	***	***
		Max-w	***	***	***	***	***	***	***	***	***	***	***	***	***
		Min-w	***	***	***	***	***	***	***	***	***	***	***	***	***
	Terelj	Mean	***	***	***	***	***	***	***	***	***	***	***	***	***
		%	***	***	***	***	***	***	***	***	***	***	***	***	***
		Max-2w	***	***	***	***	***	***	***	***	***	***	***	***	***
		Min-2w	***	***	***	***	***	***	***	***	***	***	***	***	***
Myammar	Yangon	Mean	***	***	***	***	0.23	0.29	***	***	***	***	<0.01	0.02	0.15
		%	***	***	***	***	67	100	***	***	***	***	33	100	27
		Max-2w	***	***	***	***	0.37	0.51	***	***	***	***	<0.01	0.04	0.51
		Min-2w	***	***	***	***	0.08	0.07	***	***	***	***	<0.01	<0.01	<0.01
Philippines	Metro Manila	Mean	1.49	1.27	5.48	0.48	0.22	0.08	0.53	0.23	0.30	0.35	0.46	0.63	0.98
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-irreg	3.07	3.18	20.68	0.96	0.26	0.11	1.29	0.42	0.70	1.11	0.55	0.96	20.68
		Min-irreg	0.03	0.36	0.10	0.22	0.20	0.03	0.05	0.03	0.01	<0.01	0.28	0.44	<0.01
	Los Baños	Mean	***	***	2.10	8.82	0.82	0.66	0.15	0.06	0.10	0.41	0.45	<0.01	1.12
		%	***	***	75	100	74	100	100	100	100	100	100	28	75
		Max-irreg	***	***	2.93	13.51	2.03	1.99	0.17	0.09	0.16	0.82	0.90	<0.01	13.51
		Min-irreg	***	***	0.66	4.13	0.03	0.02	0.13	0.02	0.07	<0.01	<0.01	<0.01	<0.01
	Mt. Sto. Tomas	Mean	***	***	***	***	***	***	***	***	***	***	***	***	***
		%	***	***	***	***	***	***	***	***	***	***	***	***	***
		Max-w	***	***	***	***	***	***	***	***	***	***	***	***	***
		Min-w	***	***	***	***	***	***	***	***	***	***	***	***	***
Russia	Mondy	Mean	0.04	0.05	<0.01	0.04	<0.01	0.03	0.02	<0.01	0.04	0.03	0.01	0.01	0.03
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-irreg	0.07	0.08	<0.01	0.08	<0.01	0.05	0.02	<0.01	0.12	0.04	0.01	0.01	0.12
		Min-irreg	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	0.02	<0.01	<0.01	0.02	0.01	<0.01	<0.01
	Listvyanka	Mean	0.02	0.15	0.30	0.22	0.03	0.07	0.07	0.06	0.06	0.03	0.01	0.03	0.09
		%	81	100	100	100	100	100	100	100	100	100	100	100	98
		Max-w	0.03	0.32	0.37	0.30	0.07	0.12	0.17	0.09	0.15	0.04	0.02	0.03	0.37
		Min-w	<0.01	0.01	0.24	0.02	0.01	0.03	0.03	0.03	0.03	0.01	<0.01	0.01	<0.01
	Irkutsk	Mean	0.19	0.14	0.25	0.05	0.03	0.05	0.06	0.04	0.09	0.55	0.42	0.78	0.21
		%	100	100	100	100	100	100	100	100	100	80	100	67	95
		Max-w	0.42	0.40	0.37	0.10	0.07	0.10	0.16	0.05	0.22	1.19	0.87	1.14	1.19
		Min-w	0.06	0.04	0.08	<0.01	0.02	0.03	0.01	0.02	0.02	0.13	0.08	0.47	<0.01
	Primorskaya	Mean	0.43	0.38	0.49	0.76	0.57	0.67	0.26	0.23	0.17	0.30	0.26	0.22	0.40
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-15d	0.53	0.45	0.54	0.84	0.61	0.70	0.33	0.27	0.18	0.36	0.28	0.23	0.84
		Min-15d	0.34	0.32	0.44	0.68	0.53	0.63	0.18	0.20	0.16	0.24	0.24	0.21	0.16

Table 4.15.1 Particulate matter component: Cl^- - Measured by FP (continued)

Unit : μg/m^3

Country	Site		2022												Annual
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Thailand	Bangkok	Mean	***	***	***	***	***	***	0.11	0.09	1.31	0.05	0.12	0.10	0.33
		%	***	***	***	***	***	***	100	100	100	35	100	100	45
		Max-10d	***	***	***	***	***	***	0.20	0.15	3.85	0.05	0.27	0.16	3.85
		Min-10d	***	***	***	***	***	***	0.04	0.04	0.03	0.05	0.02	0.02	0.02
Vietnam	Hanoi	Mean	4.67	3.49	4.18	3.04	3.56	5.22	4.12	3.94	4.42	2.83	3.30	6.98	4.23
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	7.95	5.55	6.37	5.39	3.87	6.23	7.22	6.84	7.90	3.39	4.39	11.30	11.30
		Min-w	1.23	2.53	1.80	1.93	2.76	3.30	1.75	2.09	2.63	2.27	1.89	3.47	1.23
	Hoa Binh	Mean	3.32	3.66	2.34	2.79	2.90	3.17	2.92	2.95	2.35	2.68	2.40	3.60	2.92
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	4.84	4.15	2.67	4.06	4.08	4.17	3.78	4.47	3.79	3.08	3.93	6.50	6.50
		Min-w	1.88	2.60	2.12	2.12	1.41	1.77	1.99	1.94	1.64	1.87	0.88	1.63	0.88
	Can Tho	Mean	2.31	2.54	2.32	1.93	1.96	1.98	2.17	1.88	2.43	2.51	2.51	2.14	2.22
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	2.92	2.96	3.08	2.18	2.32	2.46	2.78	2.52	2.88	2.84	2.56	2.48	3.08
		Min-w	1.90	1.90	1.83	1.67	1.43	1.67	1.59	1.43	1.71	2.08	2.50	1.83	1.43
	Ho Chi Minh	Mean	3.35	3.73	3.68	3.57	3.18	3.97	3.70	3.99	3.96	3.82	3.66	3.84	3.71
		%	100	100	100	100	100	100	100	100	100	100	100	80	98
		Max-w	3.83	4.15	4.48	4.44	3.99	4.38	4.09	4.38	4.37	4.07	3.93	4.31	4.48
		Min-w	2.56	3.08	3.17	3.02	2.56	3.73	3.08	3.65	3.67	3.59	3.25	3.31	2.56
	Yen Bai	Mean	2.88	3.19	3.11	3.74	2.95	2.81	3.86	5.27	3.06	2.78	4.31	4.33	3.49
		%	100	100	100	100	100	100	100	100	100	100	75	100	98
		Max-w	3.05	5.09	3.78	4.59	3.34	3.65	7.29	7.05	5.88	5.04	6.91	5.65	7.29
		Min-w	2.65	1.90	2.15	2.28	2.52	1.28	1.80	4.44	0.91	0.83	2.69	3.20	0.83

Table 4.15.2 Particulate matter component: Cl^- - Measured by FP with $PM_{2.5}$ cyclone

Unit : μg/m^3

Country	Site		2022												Annual
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Republic of Korea	Kanghwa	Mean	0.24	0.10	0.06	0.09	0.02	0.09	0.02	0.03	0.01	0.07	0.05	0.21	0.08
		%	16	14	16	17	13	13	13	16	17	19	13	16	15
		Max-d	0.39	0.17	0.18	0.37	0.05	0.28	0.02	0.07	0.02	0.12	0.06	0.43	0.39
		Min-d	0.10	0.07	<0.01	<0.01	<0.01	0.01	0.01	0.02	0.01	0.03	0.02	0.04	<0.01
	Cheju (Kosan)	Mean	0.11	0.14	0.05	<0.01	0.01	0.19	0.11	0.12	0.39	0.05	0.18	0.36	0.12
		%	16	14	13	10	13	17	13	16	10	19	17	16	14
		Max-d	0.27	0.28	0.18	<0.01	0.03	0.95	0.24	0.34	1.09	0.09	0.65	1.16	1.09
		Min-d	0.01	0.04	<0.01	<0.01	<0.01	<0.01	0.01	0.01	0.04	0.02	0.01	0.01	<0.01
	Imsil	Mean	0.78	0.48	0.47	0.05	0.01	0.04	0.01	0.03	0.04	0.04	0.06	***	0.22
		%	16	18	16	17	16	17	16	10	13	13	10	***	16
		Max-d	1.69	0.83	1.20	0.17	0.02	0.06	0.02	0.03	0.04	0.05	0.11	***	1.69
		Min-d	0.40	0.30	0.17	0.01	0.01	0.02	0.01	0.03	0.04	0.04	0.03	***	0.01

Terms and abbreviations are given in Table 4.2.

Table 4.16.1 Particulate matter component: NH_4^+ - Measured by FP

Unit : μg/m^3

Country	Site		2022 Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Cambodia	Phnom Penh	Mean	***	***	***	***	***	***	***	***	***	***	***	***	***
		%	***	***	***	***	***	***	***	***	***	***	***	***	***
		Max-2w	***	***	***	***	***	***	***	***	***	***	***	***	***
		Min-2w	***	***	***	***	***	***	***	***	***	***	***	***	***
Indonesia	Jakarta	Mean	0.98	0.93	0.92	1.88	***	***	***	***	***	***	***	***	1.29
		%	50	100	100	100	***	***	***	***	***	***	***	***	31
		Max-2w	0.98	1.09	1.42	2.98	***	***	***	***	***	***	***	***	2.98
		Min-2w	0.98	0.77	0.43	1.30	***	***	***	***	***	***	***	***	0.43
	Serpong	Mean	0.82	0.73	0.16	0.65	1.62	1.31	0.77	***	***	***	***	***	0.82
		%	50	100	100	100	100	100	52	***	***	***	***	***	51
		Max-2w	0.82	0.76	0.31	0.98	2.10	2.51	0.77	***	***	***	***	***	2.51
		Min-2w	0.82	0.69	0.09	0.32	1.14	0.12	0.77	***	***	***	***	***	0.09
	Bandung	Mean	2.03	2.08	2.01	2.84	2.37	2.77	2.42	2.71	2.40	1.74	1.15	1.24	2.11
		%	100	100	100	100	100	88	58	100	100	100	100	100	95
		Max-w	2.36	3.39	3.14	4.14	3.23	3.80	3.35	3.05	3.62	2.61	1.26	1.62	4.14
		Min-w	1.66	0.92	0.38	2.15	1.45	1.89	1.82	2.40	1.73	0.35	1.04	0.53	0.35
Japan	Rishiri	Mean	0.12	0.33	0.59	0.47	0.49	0.40	0.34	0.14	0.19	0.20	0.33	0.25	0.33
		%	100	100	100	100	100	100	100	100	100	100	100	53	96
		Max-2w	0.12	0.48	0.62	0.58	0.79	0.49	0.46	0.18	0.22	0.20	0.35	0.25	0.79
		Min-2w	0.12	0.18	0.55	0.36	0.26	0.30	0.22	0.10	0.15	0.19	0.30	0.25	0.10
	Ochiishi	Mean	0.13	0.38	0.63	0.43	0.28	0.20	0.11	0.14	0.15	0.25	0.33	0.12	0.25
		%	100	100	48	100	64	100	100	100	100	100	100	50	88
		Max-2w	0.25	0.45	0.63	0.45	0.48	0.22	0.19	0.18	0.17	0.27	0.37	0.12	0.63
		Min-2w	<0.01	0.31	0.63	0.42	0.07	0.19	0.03	0.11	0.14	0.20	0.28	0.12	<0.01
	Sado-seki	Mean	***	***	***	***	0.35	0.48	0.49	0.24	0.16	0.22	0.24	0.05	0.27
		%	***	***	***	***	39	100	100	100	100	100	100	100	61
		Max-2w	***	***	***	***	0.35	0.64	0.53	0.25	0.22	0.33	0.34	0.05	0.64
		Min-2w	***	***	***	***	0.35	0.32	0.45	0.23	0.10	0.08	0.14	0.05	0.05
	Happo	Mean	0.16	0.29	0.16	0.45	0.02	0.44	0.48	0.46	0.20	0.21	0.26	0.05	0.28
		%	100	100	100	100	100	47	100	100	100	100	100	100	96
		Max-2w	0.19	0.31	0.24	0.72	0.02	0.44	0.49	0.52	0.21	0.25	0.26	0.06	0.72
		Min-2w	0.12	0.28	0.09	0.10	0.02	0.44	0.48	0.39	0.19	0.16	0.26	0.04	0.02
	Ijira	Mean	0.39	0.47	0.64	0.77	0.63	0.56	0.36	0.59	0.23	0.32	0.36	0.28	0.47
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.39	0.53	0.83	0.79	0.70	0.59	0.41	0.60	0.25	0.44	0.52	0.30	0.83
		Min-2w	0.39	0.41	0.46	0.74	0.50	0.53	0.32	0.58	0.21	0.23	0.20	0.27	0.20
	Oki	Mean	0.62	0.99	1.04	0.66	0.62	0.44	0.47	0.35	0.25	0.27	0.43	0.42	0.54
		%	78	100	100	100	100	100	100	100	100	100	100	100	98
		Max-2w	0.67	1.20	1.28	0.74	0.77	0.56	0.47	0.41	0.27	0.36	0.68	0.45	1.28
		Min-2w	0.58	0.77	0.80	0.58	0.53	0.32	0.46	0.29	0.22	0.19	0.23	0.38	0.19
	Yusuhara	Mean	0.81	0.88	0.79	0.63	0.83	0.65	0.56	0.81	0.18	0.41	0.58	0.76	0.65
		%	100	100	100	100	67	100	100	100	100	100	100	47	92
		Max-2w	0.89	0.99	1.23	0.68	0.98	0.88	0.56	0.89	0.18	0.51	0.86	0.76	1.23
		Min-2w	0.72	0.77	0.36	0.59	0.69	0.43	0.56	0.72	0.17	0.29	0.30	0.76	0.17
	Hedo	Mean	0.42	0.37	0.38	0.47	0.18	0.06	0.26	0.25	0.20	0.37	0.19	0.33	0.29
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.54	0.38	0.52	0.74	0.28	0.07	0.39	0.31	0.23	0.57	0.27	0.40	0.74
		Min-2w	0.29	0.36	0.23	0.21	0.05	0.05	0.14	0.18	0.18	0.26	0.12	0.26	0.05
	Ogasawara	Mean	0.23	0.26	0.17	0.04	0.04	0.07	0.07	0.14	0.06	0.08	0.16	0.19	0.12
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.27	0.29	0.22	0.06	0.04	0.07	0.08	0.16	0.07	0.13	0.24	0.23	0.29
		Min-2w	0.18	0.22	0.11	0.02	0.04	0.06	0.07	0.12	0.04	0.04	0.08	0.16	0.02
	Tokyo	Mean	0.84	0.96	1.00	0.89	0.67	0.88	0.51	0.77	0.38	0.53	0.65	0.55	0.71
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.87	1.04	1.24	0.91	0.74	0.95	0.53	0.88	0.48	0.57	0.79	0.67	1.24
		Min-2w	0.82	0.88	0.76	0.86	0.57	0.82	0.49	0.66	0.29	0.45	0.52	0.43	0.29
	Niigata-maki	Mean	0.5	0.4	0.10	0.31	0.56	0.38	0.40	0.32	0.21	0.22	0.29	0.17	0.33
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.5	0.7	0.15	0.56	0.81	0.45	0.49	0.49	0.25	0.29	0.40	0.17	0.81
		Min-2w	0.5	0.1	0.05	0.07	0.42	0.31	0.31	0.15	0.16	0.17	0.19	0.16	0.05
	Tsushima	Mean	1.8	1.7	1.79	0.67	0.79	0.38	0.59	0.30	0.19	0.49	0.85	1.09	0.87
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	2.1	1.7	1.92	0.81	1.00	0.40	0.66	0.33	0.23	0.67	1.28	1.28	2.07
		Min-2w	1.6	1.6	1.66	0.53	0.54	0.37	0.52	0.27	0.15	0.25	0.43	0.90	0.15

Table 4.16.1 Particulate matter component: NH_4^+ - Measured by FP (continued)

Unit : $\mu g/m^3$

Country	Site		2022												Annual
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Lao PDR	Vientiane	Mean	***	***	***	***	***	***	***	***	***	***	***	***	***
		%	***	***	***	***	***	***	***	***	***	***	***	***	***
		Max-m	***	***	***	***	***	***	***	***	***	***	***	***	***
		Min-m	***	***	***	***	***	***	***	***	***	***	***	***	***
Malaysia	Petaling Jaya	Mean	1.14	0.53	0.98	0.98	0.85	0.61	1.04	0.73	0.64	0.43	0.61	0.55	0.76
		%	100	100	100	100	100	100	80	100	100	100	100	100	98
		Max-w	2.15	0.74	1.69	1.33	1.33	0.70	1.37	1.08	0.85	0.59	0.99	0.93	2.15
		Min-w	0.64	0.36	0.32	0.60	0.40	0.47	0.76	0.45	0.35	0.31	0.29	0.20	0.20
	Tanah Rata	Mean	0.44	0.20	0.46	0.37	0.22	0.38	0.42	0.50	0.32	0.19	0.15	0.11	0.31
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.74	0.34	0.90	0.56	0.28	0.56	0.45	1.14	0.47	0.26	0.35	0.24	1.14
		Min-w	0.20	0.04	0.11	0.18	0.11	0.27	0.37	0.05	0.22	0.08	0.02	0.03	0.02
	Danum Valley	Mean	0.09	0.06	0.11	0.19	0.13	0.17	0.07	0.10	0.13	0.13	0.07	0.08	0.11
		%	100	100	100	75	100	100	100	100	100	100	100	100	98
		Max-2w	0.11	0.08	0.25	0.27	0.17	0.31	0.09	0.16	0.17	0.15	0.08	0.09	0.31
		Min-2w	0.06	0.03	0.04	0.12	0.10	0.03	0.06	<0.01	0.09	0.11	0.06	0.06	<0.01
Mongolia	Ulaanbaatar	Mean	***	***	***	***	***	***	***	***	***	***	***	***	***
		%	***	***	***	***	***	***	***	***	***	***	***	***	***
		Max-w	***	***	***	***	***	***	***	***	***	***	***	***	***
		Min-w	***	***	***	***	***	***	***	***	***	***	***	***	***
	Terelj	Mean	***	***	***	***	***	***	***	***	***	***	***	***	***
		%	***	***	***	***	***	***	***	***	***	***	***	***	***
		Max-2w	***	***	***	***	***	***	***	***	***	***	***	***	***
		Min-2w	***	***	***	***	***	***	***	***	***	***	***	***	***
Myammar	Yangon	Mean	***	***	***	***	0.16	0.18	***	***	***	***	0.04	0.26	0.18
		%	***	***	***	***	67	100	***	***	***	***	33	100	27
		Max-2w	***	***	***	***	0.29	0.25	***	***	***	***	0.04	0.51	0.51
		Min-2w	***	***	***	***	0.04	0.11	***	***	***	***	0.04	0.02	0.02
Philippines	Metro Manila	Mean	0.46	0.29	1.17	0.37	0.39	0.73	0.89	1.75	0.20	0.03	<0.01	0.06	0.53
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-irreg	1.10	0.78	2.46	0.77	0.74	1.70	1.49	5.55	0.55	0.08	<0.01	0.25	5.55
		Min-irreg	0.15	0.06	0.09	0.11	0.06	0.09	0.31	0.17	<0.01	<0.01	<0.01	<0.01	<0.01
	Los Baños	Mean	***	***	0.34	0.19	0.27	0.85	1.80	0.28	1.49	0.40	0.04	<0.01	0.61
		%	***	***	75	100	74	100	100	100	100	100	100	28	75
		Max-irreg	***	***	0.46	0.35	0.77	0.93	3.55	0.40	2.22	0.77	0.07	<0.01	3.55
		Min-irreg	***	***	0.18	0.03	<0.01	0.71	0.05	0.04	0.91	0.03	<0.01	<0.01	<0.01
	Mt. Sto. Tomas	Mean	***	***	***	***	***	***	***	***	***	***	***	***	***
		%	***	***	***	***	***	***	***	***	***	***	***	***	***
		Max-w	***	***	***	***	***	***	***	***	***	***	***	***	***
		Min-w	***	***	***	***	***	***	***	***	***	***	***	***	***
Russia	Mondy	Mean	0.02	<0.01	<0.01	<0.01	<0.01	0.01	<0.01	<0.01	0.03	<0.01	<0.01	<0.01	<0.01
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-irreg	0.03	<0.01	<0.01	<0.01	<0.01	0.02	0.01	0.02	0.08	<0.01	<0.01	<0.01	0.08
		Min-irreg	<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	0.07	0.17	0.12	0.09	0.09	0.24	0.01	0.05	0.03	0.04	<0.01	0.07	0.08
		%	81	100	100	100	100	100	100	100	100	100	100	100	98
		Max-w	0.25	0.48	0.29	0.18	0.43	0.62	0.03	0.11	0.12	0.12	0.02	0.16	0.62
		Min-w	0.01	<0.01	0.01	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	Irkutsk	Mean	0.32	0.59	0.30	0.07	0.12	0.23	0.13	0.27	0.20	0.48	0.66	1.67	0.39
		%	100	100	100	100	100	100	100	100	100	80	100	67	95
		Max-w	0.55	0.68	0.42	0.15	0.24	0.41	0.27	0.55	0.32	1.07	0.99	2.76	2.76
		Min-w	0.19	0.38	0.06	<0.01	<0.01	<0.01	<0.01	0.11	0.12	0.21	0.32	0.95	<0.01
	Primorskaya	Mean	0.53	0.53	0.68	0.73	0.55	0.58	0.26	0.21	0.11	0.24	0.16	0.16	0.40
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-15d	0.79	0.76	0.73	0.73	0.69	0.76	0.38	0.27	0.12	0.30	0.19	0.18	0.79
		Min-15d	0.28	0.30	0.63	0.73	0.41	0.41	0.14	0.14	0.10	0.18	0.13	0.15	0.10

Table 4.16.1 Particulate matter component: NH_4^+ - Measured by FP (continued)

Unit : $\mu g/m^3$

Country	Site		2022												Annual
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Thailand	Bangkok	Mean	***	***	***	***	***	***	0.07	0.03	0.13	0.34	0.16	0.61	0.21
		%	***	***	***	***	***	***	100	100	100	35	100	100	45
		Max-10d	***	***	***	***	***	***	0.09	0.04	0.24	0.34	0.23	0.76	0.76
		Min-10d	***	***	***	***	***	***	0.06	0.01	0.03	0.34	0.11	0.43	0.01
Vietnam	Hanoi	Mean	2.19	1.59	1.22	1.42	1.34	1.28	3.55	2.47	2.10	0.96	1.89	3.36	1.95
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	5.29	2.63	1.94	2.43	2.13	2.72	8.96	4.01	3.45	1.52	3.12	6.81	8.96
		Min-w	0.35	0.16	0.62	0.56	0.66	0.61	1.12	1.77	0.32	0.07	1.17	1.91	0.07
	Hoa Binh	Mean	0.86	0.95	1.23	0.81	0.92	0.93	0.98	1.09	1.05	0.81	0.61	1.30	0.97
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	1.21	1.27	2.77	0.98	1.24	1.25	1.38	1.35	2.00	1.05	1.18	2.09	2.77
		Min-w	0.56	0.69	0.46	0.72	0.32	0.59	0.49	0.82	0.46	0.65	0.08	0.51	0.08
	Can Tho	Mean	1.19	1.03	0.82	0.82	0.88	0.60	1.19	1.25	1.14	1.26	1.25	0.72	1.00
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	1.37	1.39	1.07	0.93	1.19	0.65	1.43	1.77	1.27	1.41	1.65	1.47	1.77
		Min-w	1.07	0.69	0.58	0.77	0.71	0.46	0.99	0.91	0.91	1.13	0.77	0.38	0.38
	Ho Chi Minh	Mean	0.95	0.87	1.05	0.95	1.03	0.88	1.14	1.06	1.10	1.19	1.02	0.84	1.01
		%	100	100	100	100	100	100	100	100	100	100	100	80	98
		Max-w	1.13	1.07	1.41	1.21	1.35	1.05	1.25	1.43	1.37	1.37	1.29	1.11	1.43
		Min-w	0.85	0.67	0.67	0.85	0.85	0.67	1.01	0.73	0.87	0.97	0.75	0.46	0.46
	Yen Bai	Mean	1.30	1.53	1.33	1.52	1.06	1.09	1.31	1.90	1.62	1.49	1.56	2.50	1.53
		%	100	100	100	100	100	100	100	100	100	100	75	100	98
		Max-w	2.38	1.74	2.24	2.42	1.57	1.80	2.06	3.12	3.10	2.60	2.91	3.64	3.64
		Min-w	0.74	1.14	0.71	0.74	0.80	0.20	0.47	1.07	0.18	0.35	0.15	1.48	0.15

Table 4.16.2 Particulate matter component: NH_4^+ - Measured by FP with $PM_{2.5}$ cyclone

Unit : $\mu g/m^3$

Country	Site		2022												Annual
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Republic of Korea	Kanghwa	Mean	3.72	2.63	1.75	2.56	1.04	0.91	1.84	1.23	0.66	1.47	0.62	1.79	1.86
		%	16	14	16	17	13	13	13	16	17	19	13	16	15
		Max-d	9.12	3.73	3.48	5.84	1.96	1.55	2.87	2.45	0.87	4.33	0.72	3.05	9.12
		Min-d	1.57	1.57	0.63	0.33	0.55	0.10	0.82	0.58	0.41	0.31	0.46	0.64	0.10
	Cheju (Kosan)	Mean	1.37	0.85	0.76	1.12	1.00	0.89	0.65	0.46	0.38	0.30	0.91	1.25	0.81
		%	16	14	13	10	13	17	13	16	10	19	17	16	14
		Max-d	2.39	1.02	1.55	1.36	1.29	1.79	1.08	0.96	0.50	0.39	1.53	3.57	2.39
		Min-d	0.37	0.46	<0.01	0.69	0.59	0.15	0.29	0.12	0.26	0.22	0.52	0.31	<0.01
	Imsil	Mean	5.36	2.75	4.05	1.94	1.10	1.40	1.52	0.62	0.67	0.72	2.00	***	2.20
		%	16	18	16	17	16	17	16	10	13	13	10	***	16
		Max-d	13.83	3.81	6.26	4.07	2.12	1.82	2.40	0.92	1.00	1.01	2.61	***	13.83
		Min-d	2.54	1.74	2.15	0.49	0.65	0.51	0.76	0.37	0.41	0.51	0.91	***	0.37

Terms and abbreviations are given in Table 4.2.

Table 4.17.1 Particulate matter component: Na^{+} - Measured by FP

Unit : μg/m^3

Country	Site		2022 Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Cambodia	Phnom Penh	Mean	***	***	***	***	***	***	***	***	***	***	***	***	***
		%	***	***	***	***	***	***	***	***	***	***	***	***	***
		Max-2w	***	***	***	***	***	***	***	***	***	***	***	***	***
		Min-2w	***	***	***	***	***	***	***	***	***	***	***	***	***
Indonesia	Jakarta	Mean	1.11	0.81	0.98	1.00	***	***	***	***	***	***	***	***	0.96
		%	50	100	100	100	***	***	***	***	***	***	***	***	31
		Max-2w	1.11	0.94	1.55	1.21	***	***	***	***	***	***	***	***	1.55
		Min-2w	1.11	0.69	0.41	0.80	***	***	***	***	***	***	***	***	0.41
	Serpong	Mean	0.29	0.42	0.26	0.16	0.26	0.48	0.35	***	***	***	***	***	0.31
		%	50	100	100	100	100	100	52	***	***	***	***	***	51
		Max-2w	0.29	0.50	0.38	0.18	0.41	0.57	0.35	***	***	***	***	***	0.57
		Min-2w	0.29	0.35	0.02	0.14	0.11	0.39	0.35	***	***	***	***	***	0.02
	Bandung	Mean	0.39	0.31	0.27	0.21	0.25	0.29	0.54	0.79	0.57	0.28	0.20	0.24	0.36
		%	100	100	100	100	100	88	58	100	100	100	100	100	95
		Max-w	0.58	0.56	0.37	0.29	0.37	0.52	0.88	1.39	0.79	0.33	0.26	0.33	1.39
		Min-w	0.31	0.16	0.15	0.17	0.19	0.11	0.31	0.31	0.25	0.19	0.14	0.19	0.11
Japan	Rishiri	Mean	0.56	1.41	2.20	4.42	2.16	0.91	0.46	2.67	3.68	2.47	2.46	1.25	2.11
		%	100	100	100	100	100	100	100	100	100	100	100	53	96
		Max-2w	0.59	2.31	2.41	5.20	3.09	1.04	0.61	3.44	4.21	3.14	2.72	1.25	5.20
		Min-2w	0.54	0.52	1.99	3.64	0.48	0.79	0.31	1.90	3.15	1.80	2.08	1.25	0.31
	Ochiishi	Mean	15.79	1.84	3.51	4.66	2.31	3.47	0.47	3.10	4.15	6.17	7.13	2.14	4.78
		%	100	100	48	100	64	100	100	100	100	100	100	50	88
		Max-2w	30.27	2.67	3.51	5.33	3.71	5.92	0.88	3.85	4.82	10.31	9.43	2.14	30.27
		Min-2w	1.30	1.02	3.51	3.98	0.91	1.01	0.05	2.36	3.48	3.92	4.82	2.14	0.05
	Sado-seki	Mean	***	***	***	***	2.15	2.02	0.81	2.25	2.08	2.58	3.29	3.63	2.38
		%	***	***	***	***	39	100	100	100	100	100	100	100	61
		Max-2w	***	***	***	***	2.15	2.76	1.01	2.59	2.42	3.54	3.69	6.14	6.14
		Min-2w	***	***	***	***	2.15	1.28	0.61	1.90	1.74	1.94	2.90	1.13	0.61
	Happo	Mean	0.07	0.07	0.09	0.14	<0.01	0.09	0.05	0.05	0.04	0.08	0.12	0.05	0.07
		%	100	100	100	100	100	47	100	100	100	100	100	100	96
		Max-2w	0.07	0.11	0.16	0.20	<0.01	0.09	0.06	0.05	0.05	0.12	0.12	0.06	0.20
		Min-2w	0.06	0.04	0.01	0.06	<0.01	0.09	0.03	0.05	0.03	0.05	0.12	0.04	<0.01
	Ijira	Mean	0.19	0.16	0.31	0.32	0.25	0.17	0.17	0.19	0.38	0.19	0.27	0.15	0.23
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.19	0.22	0.39	0.41	0.35	0.20	0.24	0.22	0.59	0.21	0.35	0.17	0.59
		Min-2w	0.18	0.09	0.23	0.24	0.14	0.15	0.10	0.15	0.17	0.19	0.19	0.14	0.09
	Oki	Mean	5.56	4.72	3.30	1.83	1.83	2.36	1.59	2.42	10.67	2.65	3.21	11.68	4.18
		%	78	100	100	100	100	100	100	100	100	100	100	100	98
		Max-2w	6.75	5.55	4.02	2.00	2.27	3.21	1.65	3.10	18.53	3.20	4.85	13.56	18.53
		Min-2w	4.38	3.89	2.58	1.66	1.03	1.51	1.54	1.75	2.80	2.11	1.73	9.79	1.03
	Yusuhara	Mean	0.32	0.34	0.42	0.30	0.18	0.26	0.18	0.35	0.39	0.39	0.34	0.39	0.33
		%	100	100	100	100	67	100	100	100	100	100	100	47	92
		Max-2w	0.33	0.41	0.62	0.43	0.25	0.33	0.18	0.45	0.49	0.49	0.37	0.39	0.62
		Min-2w	0.31	0.28	0.23	0.16	0.11	0.19	0.18	0.26	0.29	0.31	0.31	0.39	0.11
	Hedo	Mean	5.35	4.40	4.09	3.35	2.47	2.39	2.49	1.75	7.54	8.20	4.78	8.19	4.64
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	5.49	4.46	4.74	3.35	3.43	2.49	2.64	2.68	8.49	10.62	5.29	8.89	10.62
		Min-2w	5.20	4.35	3.43	3.34	0.63	2.30	2.34	0.81	6.59	4.37	4.27	7.50	0.63
	Ogasawara	Mean	3.12	3.09	2.97	1.62	1.28	1.39	2.04	1.08	2.89	3.14	4.05	2.87	2.44
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	3.30	3.19	3.14	1.88	1.97	1.39	2.25	1.37	3.29	3.86	4.63	2.90	4.63
		Min-2w	2.94	2.99	2.81	1.37	0.89	1.39	1.84	0.79	2.49	2.63	3.46	2.84	0.79
	Tokyo	Mean	0.36	0.35	0.86	1.14	0.96	1.06	0.95	1.26	1.40	0.79	0.67	0.21	0.84
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.39	0.42	0.95	1.30	1.18	1.18	1.32	1.38	1.83	0.92	0.73	0.27	1.83
		Min-2w	0.33	0.29	0.77	0.98	0.62	0.94	0.59	1.14	0.96	0.67	0.61	0.14	0.14
	Niigata-maki	Mean	3.0	1.0	0.2	0.35	1.08	0.99	0.63	0.98	1.32	1.18	1.42	2.28	1.20
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	4.3	1.5	0.3	0.58	1.48	1.02	0.85	1.11	1.67	1.52	1.66	2.59	4.32
		Min-2w	1.8	0.5	0.2	0.11	0.68	0.96	0.41	0.85	0.97	0.85	1.19	1.97	0.11
	Tsushima	Mean	0.8	0.8	0.8	0.80	0.73	0.76	0.63	0.98	1.44	1.12	0.83	0.76	0.87
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.8	0.8	0.8	1.00	0.95	0.81	0.67	1.05	1.58	1.21	0.93	0.91	1.58
		Min-2w	0.7	0.7	0.8	0.59	0.56	0.72	0.59	0.91	1.30	1.03	0.74	0.61	0.56

Table 4.17.1 Particulate matter component: Na^+ (continued)

Unit : μg/m^3

Country	Site		2022												Annual
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Lao PDR	Vientiane	Mean	***	***	***	***	***	***	***	***	***	***	***	***	***
		%	***	***	***	***	***	***	***	***	***	***	***	***	***
		Max-m	***	***	***	***	***	***	***	***	***	***	***	***	***
		Min-m	***	***	***	***	***	***	***	***	***	***	***	***	***
Malaysia	Petaling Jaya	Mean	0.50	0.27	0.28	0.19	0.36	0.67	0.33	0.30	0.32	0.26	0.29	0.29	0.33
		%	100	100	100	100	100	100	80	100	100	100	100	100	98
		Max-irreg	0.69	0.52	0.49	0.23	0.50	1.48	0.40	0.52	0.38	0.42	0.60	0.58	1.48
		Min-irreg	0.31	0.12	0.13	0.14	0.20	0.21	0.26	0.15	0.25	0.12	0.12	0.08	0.08
	Tanah Rata	Mean	0.31	0.14	0.11	0.05	0.20	0.06	0.15	0.10	0.16	0.05	0.05	0.05	0.12
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-irreg	0.57	0.33	0.15	0.09	0.39	0.15	0.31	0.13	0.23	0.10	0.13	0.19	0.57
		Min-irreg	0.15	0.03	0.07	0.02	0.02	0.01	0.05	0.05	0.08	0.02	<0.01	<0.01	<0.01
	Danum Valley	Mean	0.43	0.27	0.13	0.11	0.11	0.06	0.04	0.07	0.05	0.06	0.08	0.25	0.14
		%	100	100	100	75	100	100	100	100	100	100	100	100	98
		Max-2w	0.53	0.32	0.24	0.15	0.15	0.12	0.04	0.11	0.06	0.07	0.11	0.32	0.53
		Min-2w	0.34	0.23	0.07	0.07	0.07	<0.01	0.04	<0.01	0.05	0.05	0.05	0.17	<0.01
Mongolia	Ulaanbaatar	Mean	***	***	***	***	***	***	***	***	***	***	***	***	***
		%	***	***	***	***	***	***	***	***	***	***	***	***	***
		Max-w	***	***	***	***	***	***	***	***	***	***	***	***	***
		Min-w	***	***	***	***	***	***	***	***	***	***	***	***	***
	Terelj	Mean	***	***	***	***	***	***	***	***	***	***	***	***	***
		%	***	***	***	***	***	***	***	***	***	***	***	***	***
		Max-2w	***	***	***	***	***	***	***	***	***	***	***	***	***
		Min-2w	***	***	***	***	***	***	***	***	***	***	***	***	***
Myammar	Yangon	Mean	***	***	***	***	0.32	0.15	***	***	***	***	<0.01	0.09	0.16
		%	***	***	***	***	67	100	***	***	***	***	33	100	27
		Max-2w	***	***	***	***	0.57	0.19	***	***	***	***	<0.01	0.12	0.57
		Min-2w	***	***	***	***	0.06	0.11	***	***	***	***	<0.01	0.06	<0.01
Philippines	Metro Manila	Mean	1.05	0.47	0.98	0.30	0.19	<0.01	0.04	0.59	0.48	0.32	0.33	0.51	0.46
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	2.01	0.66	2.71	0.58	0.43	<0.01	0.13	1.03	1.67	1.10	0.47	0.68	2.71
		Min-w	<0.01	0.25	<0.01	0.09	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.24	0.38	<0.01
	Los Baños	Mean	***	***	1.41	7.26	0.57	0.94	1.11	0.05	0.70	0.50	0.32	<0.01	1.10
		%	***	***	75	100	74	100	100	100	100	100	100	28	75
		Max-w	***	***	2.05	9.46	1.61	2.01	2.05	0.11	1.40	0.97	0.64	<0.01	9.46
		Min-w	***	***	0.52	5.06	<0.01	0.09	0.17	<0.01	0.24	<0.01	<0.01	<0.01	<0.01
	Mt. Sto. Tomas	Mean	***	***	***	***	***	***	***	***	***	***	***	***	***
		%	***	***	***	***	***	***	***	***	***	***	***	***	***
		Max-w	***	***	***	***	***	***	***	***	***	***	***	***	***
		Min-w	***	***	***	***	***	***	***	***	***	***	***	***	***
Russia	Mondy	Mean	0.03	0.27	0.06	0.04	<0.01	0.62	0.54	0.01	0.17	0.41	<0.01	0.09	0.22
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-irreg	0.04	0.37	0.06	0.04	<0.01	1.17	0.77	0.02	0.49	0.70	0.01	0.12	1.17
		Min-irreg	0.01	0.17	0.06	0.04	<0.01	0.16	0.31	<0.01	<0.01	0.13	<0.01	0.05	<0.01
	Listvyanka	Mean	0.06	0.08	0.07	0.05	0.05	0.07	0.04	0.05	0.03	0.03	0.04	0.09	0.05
		%	81	100	100	100	100	100	100	100	100	100	100	100	98
		Max-w	0.11	0.10	0.08	0.08	0.11	0.09	0.06	0.10	0.04	0.05	0.12	0.19	0.19
		Min-w	0.02	0.07	0.06	0.01	<0.01	0.06	0.03	0.04	0.03	0.01	<0.01	0.01	<0.01
	Irkutsk	Mean	0.14	0.13	0.31	0.08	0.08	0.10	0.15	0.11	0.22	0.38	0.27	0.20	0.18
		%	100	100	100	100	100	100	100	100	100	80	100	67	95
		Max-w	0.24	0.22	0.47	0.16	0.18	0.15	0.36	0.17	0.47	0.80	0.47	0.34	0.80
		Min-w	0.08	0.09	0.11	<0.01	0.03	0.06	0.04	0.06	0.06	0.06	0.16	0.09	<0.01
	Primorskaya	Mean	0.05	0.13	0.11	0.20	0.11	0.13	0.06	0.05	0.02	0.07	0.05	0.03	0.08
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-15d	0.07	0.22	0.11	0.26	0.12	0.17	0.09	0.06	0.02	0.11	0.06	0.04	0.26
		Min-15d	0.04	0.04	0.11	0.15	0.09	0.09	0.02	0.04	0.02	0.04	0.04	0.02	0.02

Table 4.17.1 Particulate matter component: Na^+ - Measured by FP (continued)

Unit : $\mu g/m^3$

Country	Site		2022												Annual
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Thailand	Bangkok	Mean	***	***	***	***	***	***	0.17	0.05	0.10	0.12	0.20	0.18	0.14
		%	***	***	***	***	***	***	100	100	100	35	100	100	45
		Max-10d	***	***	***	***	***	***	0.22	0.07	0.12	0.12	0.38	0.26	0.38
		Min-10d	***	***	***	***	***	***	0.07	0.03	0.09	0.12	0.04	0.09	0.03
Vietnam	Hanoi	Mean	1.18	0.76	1.01	0.84	1.02	1.11	1.13	1.35	1.18	0.51	1.35	1.74	1.11
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	1.97	0.90	1.12	1.30	1.61	1.91	1.28	2.10	2.17	0.84	2.26	2.55	2.55
		Min-w	0.74	0.54	0.88	0.45	0.31	0.58	0.93	0.80	0.44	0.27	0.81	0.95	0.27
	Hoa Binh	Mean	0.75	0.87	0.91	0.89	0.73	0.87	0.80	0.57	0.74	0.66	0.67	1.43	0.84
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	1.14	0.99	1.57	1.88	1.20	1.08	1.14	1.16	1.59	0.88	0.97	2.69	2.69
		Min-w	0.31	0.61	0.42	0.51	0.36	0.62	0.40	0.28	0.36	0.38	0.55	0.30	0.28
	Can Tho	Mean	0.16	0.22	0.24	0.08	0.16	0.29	0.18	0.06	0.17	0.08	0.28	0.21	0.18
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.20	0.32	0.36	0.18	0.24	0.40	0.20	0.24	0.24	0.20	0.40	0.34	0.40
		Min-w	0.14	0.18	0.14	<0.01	0.06	0.16	0.14	<0.01	<0.01	<0.01	0.16	0.14	<0.01
	Ho Chi Minh	Mean	0.96	0.95	0.88	0.80	1.09	0.94	0.85	0.77	0.91	0.66	0.84	0.93	0.88
		%	100	100	100	100	100	100	100	100	100	100	100	80	98
		Max-w	1.09	1.13	1.13	1.11	1.31	1.27	1.01	1.05	1.07	0.81	1.11	0.95	1.31
		Min-w	0.81	0.87	0.60	0.52	0.89	0.71	0.69	0.50	0.67	0.52	0.60	0.89	0.50
	Yen Bai	Mean	0.92	0.84	1.16	1.38	0.65	1.14	1.33	1.58	0.75	0.65	0.76	1.08	1.03
		%	100	100	100	100	100	100	100	100	100	100	75	100	98
		Max-w	1.60	1.58	2.33	1.83	0.78	1.70	2.15	2.03	1.36	1.06	1.23	1.77	2.33
		Min-w	0.58	0.52	0.53	0.72	0.48	0.69	0.43	0.87	0.16	0.36	0.42	0.51	0.16

Table 4.17.2 Particulate matter component: Na^+ - Measured by FP with $PM_{2.5}$ cyclone

Unit : $\mu g/m^3$

Country	Site		2022												Annual
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Republic of Korea	Kanghwa	Mean	0.11	0.11	0.11	0.24	0.22	0.22	0.08	0.19	0.08	0.04	0.08	0.10	0.14
		%	16	14	16	17	13	13	13	16	17	19	13	16	15
		Max-d	0.20	0.20	0.21	0.79	0.29	0.44	0.13	0.42	0.15	0.07	0.09	0.14	0.79
		Min-d	0.06	0.04	0.02	0.07	0.06	0.05	0.04	0.07	0.03	<0.01	0.05	0.09	<0.01
	Cheju (Kosan)	Mean	0.22	0.36	0.25	0.08	0.21	0.28	0.40	0.35	0.60	0.20	0.25	0.43	0.30
		%	16	14	13	10	13	17	13	16	10	19	17	16	14
		Max-d	0.40	0.49	0.56	0.09	0.56	0.82	0.72	0.55	1.51	0.31	0.57	0.99	1.51
		Min-d	0.13	0.23	<0.01	0.07	0.05	0.09	0.12	0.09	0.10	0.08	0.07	0.15	<0.01
	Imsil	Mean	0.09	0.13	0.15	0.07	0.04	0.07	0.03	0.08	0.04	0.02	0.04	***	0.08
		%	16	18	16	17	16	17	16	10	13	13	10	***	16
		Max-d	0.18	0.21	0.36	0.10	0.05	0.16	0.07	0.14	0.08	0.03	0.06	***	0.36
		Min-d	0.04	0.04	0.06	0.04	0.02	0.04	0.02	0.04	0.02	0.01	0.02	***	0.01

Terms and abbreviations are given in Table 4.2.

Table 4.18.1 Particulate matter component: K^+ - Measured by FP

Unit : μg/m^3

Country	Site		2022												Annual
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Cambodia	Phnom Penh	Mean	***	***	***	***	***	***	***	***	***	***	***	***	***
		%	***	***	***	***	***	***	***	***	***	***	***	***	***
		Max-2w	***	***	***	***	***	***	***	***	***	***	***	***	***
		Min-2w	***	***	***	***	***	***	***	***	***	***	***	***	***
Indonesia	Jakarta	Mean	0.46	0.57	0.46	0.78	***	***	***	***	***	***	***	***	0.61
		%	50	100	100	100	***	***	***	***	***	***	***	***	31
		Max-2w	0.46	0.58	0.63	0.91	***	***	***	***	***	***	***	***	0.91
		Min-2w	0.46	0.56	0.28	0.59	***	***	***	***	***	***	***	***	0.28
	Serpong	Mean	0.40	0.57	0.21	0.33	0.38	0.59	0.40	***	***	***	***	***	0.40
		%	50	100	100	100	100	100	52	***	***	***	***	***	51
		Max-2w	0.40	0.63	0.37	0.51	0.69	1.06	0.40	***	***	***	***	***	1.06
		Min-2w	0.40	0.52	0.02	0.14	0.08	0.12	0.40	***	***	***	***	***	0.02
	Bandung	Mean	0.32	0.34	0.40	0.46	0.46	0.43	0.44	0.53	0.61	0.54	0.45	0.53	0.46
		%	100	100	100	100	100	88	58	100	100	100	100	100	95
		Max-w	0.35	0.40	0.51	0.59	0.55	0.58	0.51	0.67	1.10	0.75	0.50	0.74	1.10
		Min-w	0.30	0.24	0.26	0.24	0.35	0.22	0.40	0.39	0.46	0.33	0.35	0.33	0.22
Japan	Rishiri	Mean	0.03	0.09	0.14	0.26	0.13	0.08	0.06	0.13	0.16	0.15	0.16	0.12	0.13
		%	100	100	100	100	100	100	100	100	100	100	100	53	96
		Max-2w	0.03	0.12	0.14	0.28	0.17	0.09	0.06	0.14	0.17	0.16	0.19	0.12	0.28
		Min-2w	0.03	0.05	0.14	0.24	0.06	0.07	0.06	0.11	0.15	0.13	0.13	0.12	0.03
	Ochiishi	Mean	0.57	0.08	0.14	0.19	0.09	0.09	0.03	0.12	0.22	0.24	0.28	0.08	0.19
		%	100	100	48	100	64	100	100	100	100	100	100	50	88
		Max-2w	1.08	0.11	0.14	0.20	0.15	0.15	0.05	0.15	0.30	0.39	0.35	0.08	1.08
		Min-2w	0.05	0.05	0.14	0.18	0.03	0.03	<0.01	0.09	0.14	0.17	0.20	0.08	<0.01
	Sado-seki	Mean	***	***	***	***	0.13	0.11	0.06	0.11	0.10	0.13	0.15	0.13	0.11
		%	***	***	***	***	39	100	100	100	100	100	100	100	61
		Max-2w	***	***	***	***	0.13	0.15	0.07	0.12	0.10	0.18	0.15	0.22	0.22
		Min-2w	***	***	***	***	0.13	0.08	0.05	0.09	0.09	0.09	0.15	0.04	0.04
	Happo	Mean	<0.01	0.02	0.01	0.05	<0.01	0.02	0.02	0.02	0.01	0.02	0.03	<0.01	0.02
		%	100	100	100	100	100	47	100	100	100	100	100	100	96
		Max-2w	<0.01	0.02	0.02	0.06	<0.01	0.02	0.02	0.02	0.01	0.02	0.03	<0.01	0.06
		Min-2w	<0.01	0.0	<0.01	0.0	<0.01	0.0	0.0	0.0	0.0	0.0	0.0	<0.01	<0.01
	Ijira	Mean	0.04	0.04	0.07	0.09	0.10	0.12	0.10	0.12	0.09	0.06	0.06	0.03	0.08
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.04	0.04	0.10	0.10	0.11	0.13	0.11	0.12	0.10	0.07	0.08	0.03	0.13
		Min-2w	0.04	0.04	0.05	0.09	0.09	0.11	0.09	0.11	0.09	0.04	0.05	0.03	0.03
	Oki	Mean	0.24	0.23	0.18	0.14	0.12	0.11	0.09	0.10	0.45	0.13	0.16	0.43	0.19
		%	78	100	100	100	100	100	100	100	100	100	100	100	98
		Max-2w	0.29	0.26	0.23	0.14	0.14	0.13	0.10	0.11	0.78	0.14	0.20	0.49	0.78
		Min-2w	0.20	0.20	0.13	0.13	0.10	0.09	0.08	0.09	0.12	0.12	0.11	0.38	0.08
	Yusuhara	Mean	0.05	0.06	0.07	0.07	0.08	0.03	0.04	0.06	0.05	0.05	0.05	0.05	0.06
		%	100	100	100	100	67	100	100	100	100	100	100	47	92
		Max-2w	0.06	0.06	0.10	0.08	0.09	0.04	0.04	0.07	0.05	0.05	0.07	0.05	0.10
		Min-2w	0.05	0.06	0.03	0.06	0.07	0.03	0.04	0.04	0.05	0.04	0.04	0.05	0.03
	Hedo	Mean	0.22	0.20	0.21	0.17	0.15	0.15	0.14	0.10	0.32	0.33	0.23	0.35	0.22
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.23	0.21	0.21	0.18	0.21	0.18	0.16	0.13	0.36	0.42	0.24	0.39	0.42
		Min-2w	0.22	0.18	0.20	0.16	0.05	0.12	0.13	0.07	0.27	0.20	0.21	0.31	0.05
	Ogasawara	Mean	0.13	0.13	0.14	0.07	0.08	0.07	0.10	0.05	0.12	0.13	0.15	0.11	0.11
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.14	0.13	0.14	0.09	0.10	0.07	0.10	0.07	0.14	0.14	0.17	0.11	0.17
		Min-2w	0.12	0.12	0.14	0.06	0.06	0.06	0.10	0.04	0.10	0.12	0.14	0.11	0.04
	Tokyo	Mean	0.08	0.08	0.11	0.14	0.13	0.15	0.10	0.14	0.12	0.13	0.11	0.07	0.11
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.09	0.08	0.12	0.14	0.15	0.17	0.13	0.15	0.15	0.14	0.13	0.08	0.17
		Min-2w	0.08	0.08	0.09	0.14	0.12	0.13	0.08	0.14	0.10	0.12	0.10	0.05	0.05
	Niigata-maki	Mean	0.2	0.1	0.0	0.04	0.10	0.07	0.06	0.09	0.11	0.10	0.09	0.09	0.08
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.2	0.1	0.0	0.08	0.11	0.08	0.07	0.10	0.12	0.12	0.10	0.11	0.20
		Min-2w	0.1	0.0	<0.01	0.01	0.09	0.07	0.05	0.08	0.09	0.08	0.08	0.08	<0.01
	Tsushima	Mean	0.1	0.1	0.1	0.08	0.09	0.05	0.07	0.07	0.10	0.08	0.10	0.09	0.09
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.1	0.1	0.1	0.09	0.10	0.05	0.07	0.08	0.11	0.10	0.12	0.10	0.13
		Min-2w	0.1	0.1	0.1	0.07	0.07	0.05	0.06	0.07	0.09	0.06	0.07	0.09	0.05

Table 4.18.1 Particulate matter component: K^+ - Measured by FP (continued)

Unit : μg/m^3

Country	Site		2022												Annual
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Lao PDR	Vientiane	Mean	***	***	***	***	***	***	***	***	***	***	***	***	***
		%	***	***	***	***	***	***	***	***	***	***	***	***	***
		Max-m	***	***	***	***	***	***	***	***	***	***	***	***	***
		Min-m	***	***	***	***	***	***	***	***	***	***	***	***	***
Malaysia	Petaling Jaya	Mean	0.38	0.38	0.25	0.42	0.35	0.31	0.39	0.23	0.30	0.45	0.24	0.27	0.33
		%	100	100	100	100	100	100	80	100	100	100	100	100	98
		Max-w	0.82	0.60	0.38	0.84	0.42	0.42	0.45	0.34	0.41	0.92	0.31	0.66	0.92
		Min-w	0.15	0.18	0.09	0.25	0.31	0.25	0.31	0.11	0.19	0.19	0.16	0.07	0.07
	Tanah Rata	Mean	0.15	0.06	0.12	0.12	0.10	0.14	0.17	0.15	0.11	0.06	0.04	0.04	0.10
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.25	0.10	0.18	0.24	0.17	0.19	0.19	0.29	0.13	0.08	0.09	0.09	0.29
		Min-w	0.06	0.01	0.05	0.06	0.04	0.07	0.13	0.05	0.07	0.04	<0.01	<0.01	<0.01
	Danum Valley	Mean	0.17	0.08	0.07	0.14	0.07	0.09	0.09	0.11	0.11	0.15	0.11	0.14	0.11
		%	100	100	100	75	100	100	100	100	100	100	100	100	98
		Max-2w	0.19	0.08	0.09	0.18	0.15	0.17	0.10	0.22	0.12	0.17	0.14	0.16	0.22
		Min-2w	0.16	0.08	0.06	0.10	<0.01	<0.01	0.09	<0.01	0.11	0.13	0.09	0.12	<0.01
Mongolia	Ulaanbaatar	Mean	***	***	***	***	***	***	***	***	***	***	***	***	***
		%	***	***	***	***	***	***	***	***	***	***	***	***	***
		Max-w	***	***	***	***	***	***	***	***	***	***	***	***	***
		Min-w	***	***	***	***	***	***	***	***	***	***	***	***	***
	Terelj	Mean	***	***	***	***	***	***	***	***	***	***	***	***	***
		%	***	***	***	***	***	***	***	***	***	***	***	***	***
		Max-2w	***	***	***	***	***	***	***	***	***	***	***	***	***
		Min-2w	***	***	***	***	***	***	***	***	***	***	***	***	***
Myammar	Yangon	Mean	***	***	***	***	0.22	0.88	***	***	***	***	<0.01	0.10	0.34
		%	***	***	***	***	67	100	***	***	***	***	33	100	27
		Max-2w	***	***	***	***	0.32	1.74	***	***	***	***	<0.01	0.18	1.74
		Min-2w	***	***	***	***	0.12	0.02	***	***	***	***	<0.01	0.03	<0.01
Philippines	Metro Manila	Mean	0.39	0.11	5.63	0.10	0.15	0.09	1.01	0.40	0.21	0.11	0.21	0.19	0.72
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-irreg	1.44	0.13	20.29	0.16	0.30	0.10	3.20	0.72	0.83	0.21	0.27	0.30	20.29
		Min-irreg	0.01	0.08	0.06	0.06	0.04	0.08	0.10	0.06	0.03	<0.01	0.17	0.15	<0.01
	Los Baños	Mean	***	***	0.21	1.11	0.14	0.95	1.09	0.04	0.43	0.17	0.06	<0.01	0.41
		%	***	***	75	100	74	100	100	100	100	100	100	28	75
		Max-irreg	***	***	0.21	1.76	0.30	1.90	2.07	0.08	0.72	0.25	0.10	<0.01	2.07
		Min-irreg	***	***	0.21	0.45	0.03	0.08	0.12	0.01	0.25	<0.01	0.01	<0.01	<0.01
	Mt. Sto. Tomas	Mean	***	***	***	***	***	***	***	***	***	***	***	***	***
		%	***	***	***	***	***	***	***	***	***	***	***	***	***
		Max-w	***	***	***	***	***	***	***	***	***	***	***	***	***
		Min-w	***	***	***	***	***	***	***	***	***	***	***	***	***
Russia	Mondy	Mean	<0.01	0.02	<0.01	0.06	<0.01	0.02	0.01	<0.01	0.12	0.01	<0.01	0.07	0.03
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-irreg	<0.01	0.04	<0.01	0.12	<0.01	0.03	0.01	0.01	0.31	0.02	<0.01	0.11	0.31
		Min-irreg	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	0.03	<0.01
	Listvyanka	Mean	0.02	0.26	0.10	0.07	0.02	0.03	0.04	0.08	0.04	0.03	0.03	0.07	0.06
		%	81	100	100	100	100	100	100	100	100	100	100	100	98
		Max-w	0.06	0.50	0.21	0.12	0.07	0.04	0.06	0.09	0.08	0.08	0.08	0.12	0.50
		Min-w	<0.01	0.05	0.04	<0.01	<0.01	0.03	<0.01	0.07	<0.01	<0.01	<0.01	<0.01	<0.01
	Irkutsk	Mean	0.53	0.28	0.09	0.03	0.05	0.16	0.83	0.14	0.05	0.21	0.13	0.30	0.23
		%	100	100	100	100	100	100	100	100	100	80	100	67	95
		Max-w	0.77	0.46	0.12	0.05	0.09	0.47	3.27	0.30	0.11	0.40	0.15	0.39	3.27
		Min-w	0.36	0.09	0.05	<0.01	<0.01	0.04	0.01	0.05	0.02	0.06	0.09	0.18	<0.01
	Primorskaya	Mean	0.10	0.40	0.04	0.10	0.14	0.07	0.02	0.06	0.02	0.07	0.05	0.04	0.09
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-15d	0.20	0.62	0.05	0.15	0.16	0.10	0.03	0.08	0.02	0.11	0.06	0.05	0.62
		Min-15d	<0.01	0.19	0.03	0.04	0.13	0.05	0.01	0.04	0.02	0.03	0.04	0.04	<0.01

Table 4.18.1 Particulate matter component: K^+ - Measured by FP (continued)

Unit : µg/m³

Country	Site		2022 Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Thailand	Bangkok	Mean	***	***	***	***	***	***	1.26	0.04	0.44	0.10	0.17	0.34	0.43
		%	***	***	***	***	***	***	100	100	100	35	100	100	45
		Max-10d	***	***	***	***	***	***	3.59	0.04	1.18	0.10	0.32	0.39	3.59
		Min-10d	***	***	***	***	***	***	0.10	0.03	0.02	0.10	0.06	0.31	0.02
Vietnam	Hanoi	Mean	0.45	0.34	0.98	0.60	0.46	0.44	0.57	0.43	0.48	0.32	0.39	0.72	0.53
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.67	0.55	1.62	0.93	0.64	0.73	1.32	0.83	0.84	0.67	1.05	1.04	1.62
		Min-w	0.07	0.16	0.33	0.22	0.12	0.16	0.12	0.10	0.17	0.09	0.07	0.49	0.07
	Hoa Binh	Mean	0.25	0.20	0.18	0.21	0.11	0.13	0.18	0.18	0.15	0.14	0.12	0.17	0.17
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.37	0.40	0.31	0.35	0.18	0.21	0.24	0.28	0.27	0.26	0.20	0.31	0.40
		Min-w	0.13	0.07	0.11	0.04	0.05	0.05	0.06	0.08	0.08	0.06	0.08	0.11	0.04
	Can Tho	Mean	0.24	0.30	0.24	0.19	0.28	0.24	0.25	0.34	0.32	0.24	0.21	0.35	0.27
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.32	0.38	0.34	0.22	0.36	0.40	0.40	0.46	0.48	0.34	0.22	0.44	0.48
		Min-w	0.18	0.24	0.18	0.18	0.16	0.20	0.18	0.22	0.22	0.18	0.20	0.26	0.16
	Ho Chi Minh	Mean	0.82	0.98	0.78	0.77	0.87	0.84	0.86	1.06	0.81	0.76	0.91	0.77	0.85
		%	100	100	100	100	100	100	100	100	100	100	100	80	98
		Max-w	1.13	1.09	0.93	0.89	1.03	1.03	0.91	1.33	0.97	0.85	1.09	0.95	1.33
		Min-w	0.65	0.87	0.62	0.63	0.75	0.63	0.77	0.81	0.65	0.67	0.79	0.65	0.62
	Yen Bai	Mean	0.25	0.50	0.28	0.19	0.18	0.24	0.22	0.40	0.37	0.23	0.39	0.50	0.31
		%	100	100	100	100	100	100	100	100	100	100	75	100	98
		Max-w	0.36	0.95	0.71	0.28	0.30	0.35	0.36	0.73	0.63	0.47	0.62	0.74	0.95
		Min-w	0.16	0.16	0.12	0.08	0.12	0.16	0.14	0.23	0.11	0.09	0.20	0.16	0.08

Table 4.18.2 Particulate matter component: K^+ - Measured by FP with $PM_{2.5}$ cyclone

Unit : µg/m³

Country	Site		2022 Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Republic of Korea	Kanghwa	Mean	0.35	0.30	0.15	0.11	<0.01	0.02	0.05	0.09	0.08	0.12	0.13	0.18	0.13
		%	16	14	16	17	13	13	13	16	17	19	13	16	15
		Max-d	0.53	0.32	0.26	0.18	0.01	0.02	0.06	0.14	0.14	0.17	0.19	0.31	0.53
		Min-d	0.24	0.28	0.07	0.07	<0.01	0.02	0.04	0.05	0.05	0.08	0.10	0.10	<0.01
	Cheju (Kosan)	Mean	0.08	0.05	0.04	0.03	0.02	<0.01	<0.01	0.02	0.05	<0.01	0.02	0.02	0.03
		%	16	14	13	10	13	17	13	16	10	19	17	16	14
		Max-d	0.13	0.07	0.07	0.06	0.03	0.01	0.01	0.03	0.09	0.01	0.04	0.04	0.13
		Min-d	0.01	0.02	<0.01	0.01	0.02	<0.01	<0.01	0.01	0.01	<0.01	0.01	0.01	<0.01
	Imsil	Mean	0.20	0.11	0.12	0.10	0.06	0.01	0.03	0.01	0.03	0.05	0.16	***	0.08
		%	16	18	16	17	16	17	16	10	13	13	10	***	16
		Max-d	0.52	0.13	0.24	0.28	0.10	0.02	0.03	0.02	0.06	0.11	0.31	***	0.52
		Min-d	0.10	0.08	0.06	0.04	0.01	<0.01	0.03	0.01	<0.01	0.02	0.02	***	<0.01

Terms and abbreviations are given in Table 4.2.

Table 4.19.1 Particulate matter component: Mg^{2+} - Measured by FP

Unit : $\mu g/m^3$

Country	Site		2022												Annual
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Cambodia	Phnom Penh	Mean	***	***	***	***	***	***	***	***	***	***	***	***	***
		%	***	***	***	***	***	***	***	***	***	***	***	***	***
		Max-2w	***	***	***	***	***	***	***	***	***	***	***	***	***
		Min-2w	***	***	***	***	***	***	***	***	***	***	***	***	***
Indonesia	Jakarta	Mean	0.17	0.16	0.13	0.17	***	***	***	***	***	***	***	***	0.16
		%	50	100	100	100	***	***	***	***	***	***	***	***	31
		Max-2w	0.17	0.16	0.18	0.19	***	***	***	***	***	***	***	***	0.19
		Min-2w	0.17	0.16	0.07	0.14	***	***	***	***	***	***	***	***	0.07
	Serpong	Mean	0.07	0.21	0.05	0.04	0.03	0.06	0.05	***	***	***	***	***	0.07
		%	50	100	100	100	100	100	52	***	***	***	***	***	51
		Max-2w	0.07	0.34	0.06	0.05	0.04	0.09	0.05	***	***	***	***	***	0.34
		Min-2w	0.07	0.08	0.03	0.03	<0.01	0.02	0.05	***	***	***	***	***	<0.01
	Bandung	Mean	0.11	0.10	0.09	0.07	0.10	0.11	0.15	0.16	0.18	0.09	0.08	0.10	0.11
		%	100	100	100	100	100	88	58	100	100	100	100	100	95
		Max-w	0.13	0.12	0.12	0.09	0.12	0.13	0.21	0.21	0.22	0.11	0.08	0.12	0.22
		Min-w	0.09	0.08	0.07	0.06	0.07	0.07	0.11	0.09	0.14	0.07	0.07	0.08	0.06
Japan	Rishiri	Mean	0.06	0.17	0.30	0.53	0.26	0.11	0.06	0.32	0.44	0.30	0.29	0.16	0.26
		%	100	100	100	100	100	100	100	100	100	100	100	53	96
		Max-2w	0.07	0.27	0.33	0.62	0.37	0.13	0.07	0.41	0.50	0.38	0.33	0.16	0.62
		Min-2w	0.06	0.06	0.28	0.43	0.06	0.10	0.04	0.23	0.38	0.21	0.25	0.16	0.04
	Ochiishi	Mean	1.86	0.21	0.40	0.54	0.27	0.30	0.05	0.36	0.50	0.73	0.81	0.24	0.55
		%	100	100	48	100	64	100	100	100	100	100	100	50	88
		Max-2w	3.56	0.31	0.40	0.62	0.43	0.49	0.10	0.44	0.60	1.23	1.11	0.24	3.56
		Min-2w	0.15	0.12	0.40	0.47	0.10	0.11	<0.01	0.27	0.41	0.47	0.51	0.24	<0.01
	Sado-seki	Mean	***	***	***	***	0.27	0.25	0.10	0.28	0.26	0.32	0.39	0.40	0.29
		%	***	***	***	***	39	100	100	100	100	100	100	100	61
		Max-2w	***	***	***	***	0.27	0.33	0.13	0.32	0.29	0.43	0.44	0.67	0.67
		Min-2w	***	***	***	***	0.27	0.16	0.08	0.24	0.22	0.26	0.35	0.13	0.08
	Happo	Mean	<0.01	0.01	0.03	0.04	<0.01	0.02	<0.01	0.01	<0.01	0.01	0.02	<0.01	0.02
		%	100	100	100	100	100	47	100	100	100	100	100	100	96
		Max-2w	<0.01	0.02	0.04	0.05	<0.01	0.02	0.01	0.01	<0.01	0.02	0.02	0.01	0.05
		Min-2w	<0.01	<0.01	<0.01	0.03	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	0.02	<0.01	<0.01
	Ijira	Mean	0.01	0.02	0.06	0.06	0.04	0.03	0.02	0.03	0.05	0.02	0.03	0.01	0.03
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.01	0.03	0.08	0.06	0.05	0.03	0.03	0.03	0.07	0.03	0.04	0.01	0.08
		Min-2w	0.01	0.01	0.04	0.05	0.03	0.02	0.01	0.03	0.02	0.02	0.02	<0.01	<0.01
	Oki	Mean	0.65	0.56	0.41	0.23	0.22	0.27	0.19	0.30	1.32	0.31	0.38	1.31	0.50
		%	78	100	100	100	100	100	100	100	100	100	100	100	98
		Max-2w	0.79	0.66	0.52	0.25	0.27	0.37	0.20	0.37	2.29	0.39	0.57	1.48	2.29
		Min-2w	0.52	0.46	0.31	0.21	0.13	0.17	0.18	0.22	0.35	0.24	0.20	1.14	0.13
	Yusuhara	Mean	0.04	0.05	0.09	0.06	0.04	0.03	0.03	0.05	0.04	0.04	0.05	0.04	0.05
		%	100	100	100	100	67	100	100	100	100	100	100	47	92
		Max-2w	0.04	0.05	0.13	0.08	0.05	0.04	0.03	0.06	0.06	0.05	0.06	0.04	0.13
		Min-2w	0.04	0.04	0.04	0.04	0.03	0.02	0.03	0.03	0.03	0.04	0.05	0.04	0.02
	Hedo	Mean	0.68	0.54	0.53	0.42	0.30	0.30	0.31	0.21	0.93	1.01	0.58	0.99	0.57
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.69	0.54	0.59	0.42	0.42	0.30	0.32	0.33	1.04	1.31	0.64	1.08	1.31
		Min-2w	0.66	0.53	0.47	0.42	0.08	0.29	0.29	0.10	0.81	0.54	0.52	0.91	0.08
	Ogasawara	Mean	0.35	0.43	0.34	0.18	0.14	0.16	0.24	0.13	0.35	0.39	0.47	0.34	0.29
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.37	0.45	0.35	0.21	0.22	0.16	0.27	0.16	0.40	0.47	0.54	0.35	0.54
		Min-2w	0.33	0.42	0.33	0.15	0.10	0.16	0.22	0.09	0.29	0.34	0.39	0.34	0.09
	Tokyo	Mean	0.05	0.06	0.12	0.15	0.14	0.16	0.14	0.18	0.18	0.12	0.11	0.04	0.12
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.05	0.06	0.13	0.16	0.16	0.18	0.19	0.19	0.23	0.13	0.11	0.05	0.23
		Min-2w	0.05	0.05	0.12	0.14	0.10	0.13	0.09	0.17	0.13	0.10	0.10	0.02	0.02
	Niigata-maki	Mean	0.3	0.1	0.0	0.05	0.14	0.12	0.08	0.12	0.17	0.15	0.17	0.27	0.15
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.5	0.2	0.0	0.08	0.18	0.12	0.10	0.14	0.21	0.19	0.20	0.31	0.47
		Min-2w	0.2	0.1	0.0	<0.01	0.11	0.11	0.05	0.11	0.12	0.11	0.14	0.24	<0.01
	Tsushima	Mean	0.1	0.1	0.1	0.12	0.10	0.09	0.08	0.11	0.17	0.14	0.12	0.11	0.11
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.1	0.1	0.2	0.14	0.12	0.09	0.08	0.12	0.18	0.15	0.13	0.13	0.18
		Min-2w	0.1	0.1	0.1	0.09	0.09	0.08	0.08	0.11	0.15	0.13	0.10	0.08	0.08

Table 4.19.1 Particulate matter component: Mg^{2+} - Measured by FP(continued)

Unit : μg/m^3

Country	Site		2022												Annual
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Lao PDR	Vientiane	Mean	***	***	***	***	***	***	***	***	***	***	***	***	***
		%	***	***	***	***	***	***	***	***	***	***	***	***	***
		Max-m	***	***	***	***	***	***	***	***	***	***	***	***	***
		Min-m	***	***	***	***	***	***	***	***	***	***	***	***	***
Malaysia	Petaling Jaya	Mean	0.06	0.05	0.03	0.05	0.05	0.05	0.05	0.03	0.04	0.05	0.03	0.04	0.04
		%	100	100	100	100	100	100	80	100	100	100	100	100	98
		Max-w	0.09	0.09	0.05	0.10	0.06	0.08	0.08	0.07	0.07	0.11	0.06	0.10	0.11
		Min-w	0.04	0.02	0.01	0.02	0.03	0.03	0.03	0.01	0.03	0.02	0.02	0.01	0.01
	Tanah Rata	Mean	0.04	0.01	0.01	<0.01	0.03	0.01	0.04	0.01	0.01	<0.01	<0.01	<0.01	0.02
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.06	0.03	0.01	0.02	0.04	0.03	0.06	0.03	0.02	0.01	0.01	0.01	0.06
		Min-w	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
	Danum Valley	Mean	0.05	0.03	0.01	0.04	0.06	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	0.02
		%	100	100	100	75	100	100	100	100	100	100	100	100	98
		Max-2w	0.06	0.03	0.02	0.05	0.11	0.02	<0.01	0.02	<0.01	<0.01	0.01	0.03	0.11
		Min-2w	0.04	0.02	<0.01	0.02	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	<0.01
Mongolia	Ulaanbaatar	Mean	***	***	***	***	***	***	***	***	***	***	***	***	***
		%	***	***	***	***	***	***	***	***	***	***	***	***	***
		Max-w	***	***	***	***	***	***	***	***	***	***	***	***	***
		Min-w	***	***	***	***	***	***	***	***	***	***	***	***	***
	Terelj	Mean	***	***	***	***	***	***	***	***	***	***	***	***	***
		%	***	***	***	***	***	***	***	***	***	***	***	***	***
		Max-2w	***	***	***	***	***	***	***	***	***	***	***	***	***
		Min-2w	***	***	***	***	***	***	***	***	***	***	***	***	***
Myammar	Yangon	Mean	***	***	***	***	0.09	0.02	***	***	***	***	<0.01	0.02	0.04
		%	***	***	***	***	67	100	***	***	***	***	33	100	27
		Max-2w	***	***	***	***	0.12	0.03	***	***	***	***	<0.01	0.03	0.12
		Min-2w	***	***	***	***	0.06	<0.01	***	***	***	***	<0.01	0.02	<0.01
Philippines	Metro Manila	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-irreg	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.05	0.02	0.02	0.05
		Min-irreg	<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
	Los Baños	Mean	***	***	0.09	0.55	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.05
		%	***	***	75	100	74	100	100	100	100	100	100	28	75
		Max-irreg	***	***	0.25	0.70	0.10	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.70
		Min-irreg	***	***	<0.01	0.40	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	Mt. Sto. Tomas	Mean	***	***	***	***	***	***	***	***	***	***	***	***	***
		%	***	***	***	***	***	***	***	***	***	***	***	***	***
		Max-w	***	***	***	***	***	***	***	***	***	***	***	***	***
		Min-w	***	***	***	***	***	***	***	***	***	***	***	***	***
Russia	Mondy	Mean	<0.01	0.01	<0.01	<0.01	<0.01	0.17	0.16	<0.01	0.01	0.01	<0.01	<0.01	0.04
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-irreg	<0.01	0.01	<0.01	<0.01	<0.01	0.33	0.22	<0.01	0.04	0.02	<0.01	<0.01	0.33
		Min-irreg	<0.01	<0.01	<0.01	<0.01	<0.01	0.05	0.10	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	Listvyanka	Mean	<0.01	<0.01	0.01	<0.01	<0.01	0.01	0.02	0.03	0.01	0.02	<0.01	<0.01	0.01
		%	81	100	100	100	100	100	100	100	100	100	100	100	98
		Max-w	<0.01	0.01	0.02	0.01	0.03	0.02	0.05	0.03	0.03	0.03	<0.01	<0.01	0.05
		Min-w	<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
	Irkutsk	Mean	0.01	0.02	0.05	0.04	0.04	0.03	0.02	0.04	0.07	0.09	0.07	0.07	0.05
		%	100	100	100	100	100	100	100	100	100	80	100	67	95
		Max-w	0.02	0.03	0.11	0.06	0.06	0.04	0.02	0.07	0.10	0.22	0.10	0.10	0.22
		Min-w	<0.01	0.01	0.02	<0.01	0.02	0.03	0.02	<0.01	0.05	0.03	0.03	0.04	<0.01
	Primorskaya	Mean	0.01	0.02	0.02	0.01	<0.01	0.01	0.01	0.01	<0.01	0.02	<0.01	0.01	0.01
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-15d	0.01	0.04	0.03	0.02	<0.01	0.02	0.02	0.02	<0.01	0.03	0.01	0.01	0.04
		Min-15d	<0.01	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	0.01	<0.01

Table 4.19.1 Particulate matter component: Mg^{2+} - Measured by FP (continued)

Unit : $\mu g/m^3$

Country	Site		2022 Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Thailand	Bangkok	Mean	***	***	***	***	***	***	0.02	0.02	0.05	<0.01	0.02	0.03	0.03
		%	***	***	***	***	***	***	100	100	100	35	100	100	45
		Max-10d	***	***	***	***	***	***	0.03	0.03	0.12	<0.01	0.04	0.06	0.12
		Min-10d	***	***	***	***	***	***	<0.01	<0.01	<0.01	<0.01	0.01	0.02	<0.01
Vietnam	Hanoi	Mean	0.42	0.32	0.30	0.26	0.35	0.31	0.29	0.45	0.49	0.31	0.24	0.47	0.36
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.53	0.50	0.54	0.32	0.55	0.54	0.68	0.70	0.83	0.49	0.43	0.88	0.88
		Min-w	0.37	0.16	0.13	0.17	0.16	0.11	0.13	0.10	0.21	0.19	0.07	0.12	0.07
	Hoa Binh	Mean	0.10	0.07	0.07	0.08	0.09	0.06	0.10	0.09	0.10	0.07	0.06	0.10	0.08
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.13	0.12	0.09	0.09	0.10	0.10	0.11	0.11	0.17	0.11	0.10	0.17	0.17
		Min-w	0.05	0.03	0.04	0.07	0.08	0.04	0.09	0.05	0.05	0.04	0.02	0.05	0.02
	Can Tho	Mean	0.43	0.38	0.37	0.33	0.38	0.34	0.39	0.35	0.38	0.33	0.37	0.31	0.36
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.56	0.50	0.58	0.38	0.54	0.44	0.44	0.48	0.50	0.40	0.46	0.40	0.58
		Min-w	0.34	0.20	0.22	0.28	0.28	0.24	0.34	0.20	0.28	0.26	0.30	0.28	0.20
	Ho Chi Minh	Mean	0.70	0.70	0.66	0.58	0.70	0.69	0.69	0.80	0.67	0.72	0.72	0.69	0.69
		%	100	100	100	100	100	100	100	100	100	100	100	80	98
		Max-w	0.79	0.73	0.73	0.67	0.77	0.81	0.75	0.97	0.81	0.85	0.73	0.71	0.97
		Min-w	0.65	0.63	0.58	0.52	0.56	0.54	0.65	0.56	0.52	0.62	0.71	0.65	0.52
	Yen Bai	Mean	0.14	0.15	0.23	0.14	0.12	0.14	0.24	0.12	0.30	0.22	0.30	0.15	0.19
		%	100	100	100	100	100	100	100	100	100	100	75	100	98
		Max-w	0.18	0.28	0.74	0.23	0.17	0.29	0.57	0.15	0.58	0.32	0.42	0.22	0.74
		Min-w	0.04	0.09	0.05	0.08	0.07	0.05	0.11	0.07	0.14	0.09	0.20	0.11	0.04

Table 4.19.2 Particulate matter component: Mg^{2+} - Measured by FP with $PM_{2.5}$ cyclone

Unit : $\mu g/m^3$

Country	Site		2022 Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Republic of Korea	Kanghwa	Mean	0.02	0.02	0.02	0.03	0.02	0.02	0.01	0.02	0.02	<0.01	0.01	0.02	0.02
		%	16	14	16	17	13	13	13	16	17	19	13	16	15
		Max-d	0.04	0.03	0.04	0.09	0.02	0.04	0.02	0.04	0.02	0.01	0.01	0.03	0.09
		Min-d	0.01	0.02	<0.01	0.01	<0.01	<0.01	<0.01	0.01	0.01	<0.01	0.01	0.01	<0.01
	Cheju (Kosan)	Mean	0.02	0.03	0.03	0.01	0.02	0.03	0.03	0.03	0.05	0.02	0.02	0.04	0.03
		%	16	14	13	10	13	17	13	16	10	19	17	16	14
		Max-d	0.03	0.05	0.06	0.01	0.04	0.07	0.05	0.04	0.15	0.02	0.05	0.09	0.15
		Min-d	0.01	0.02	<0.01	0.01	<0.01	0.01	0.01	0.01	<0.01	<0.01	<0.01	0.02	<0.01
	Imsil	Mean	0.05	0.01	0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	***	0.01
		%	16	18	16	17	16	17	16	10	13	13	10	***	16
		Max-d	0.23	0.02	0.04	0.02	<0.01	0.01	0.01	0.01	0.01	<0.01	0.01	***	0.23
		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

Terms and abbreviations are given in Table 4.2.

Table 4.20.1 Particulate matter component: Ca^{2+} - Measured by FP

Unit : $\mu g/m^3$

Country	Site		2022												Annual
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Cambodia	Phnom Penh	Mean	***	***	***	***	***	***	***	***	***	***	***	***	***
		%	***	***	***	***	***	***	***	***	***	***	***	***	***
		Max-2w	***	***	***	***	***	***	***	***	***	***	***	***	***
		Min-2w	***	***	***	***	***	***	***	***	***	***	***	***	***
Indonesia	Jakarta	Mean	0.63	0.78	0.51	0.68	***	***	***	***	***	***	***	***	0.66
		%	50	100	100	100	***	***	***	***	***	***	***	***	31
		Max-2w	0.63	0.90	0.68	0.84	***	***	***	***	***	***	***	***	0.90
		Min-2w	0.63	0.65	0.34	0.49	***	***	***	***	***	***	***	***	0.34
	Serpong	Mean	0.38	0.55	0.32	0.27	0.48	0.40	0.37	***	***	***	***	***	0.39
		%	50	100	100	100	100	100	52	***	***	***	***	***	51
		Max-2w	0.38	0.57	0.61	0.39	0.77	0.69	0.37	***	***	***	***	***	0.77
		Min-2w	0.38	0.53	<0.01	0.16	0.19	0.12	0.37	***	***	***	***	***	<0.01
	Bandung	Mean	1.79	1.19	1.62	1.16	1.28	1.41	2.14	1.71	2.11	1.63	1.98	2.39	1.72
		%	100	100	100	100	100	88	58	100	100	100	100	100	95
		Max-w	2.03	1.47	1.98	1.34	1.56	1.86	2.72	2.54	2.81	1.82	2.27	3.35	3.35
		Min-w	1.57	0.96	1.15	0.90	0.74	0.99	1.74	1.14	1.54	1.23	1.69	1.77	0.74
Japan	Rishiri	Mean	0.03	0.09	0.20	0.25	0.16	0.06	0.04	0.14	0.19	0.17	0.16	0.10	0.14
		%	100	100	100	100	100	100	100	100	100	100	100	53	96
		Max-2w	0.03	0.15	0.21	0.28	0.21	0.07	0.05	0.15	0.22	0.21	0.19	0.10	0.28
		Min-2w	0.02	0.04	0.19	0.22	0.05	0.06	0.04	0.12	0.17	0.14	0.12	0.10	0.02
	Ochiishi	Mean	0.63	0.08	0.17	0.22	0.11	0.16	0.02	0.12	0.19	0.23	0.27	0.11	0.20
		%	100	100	48	100	64	100	100	100	100	100	100	50	88
		Max-2w	1.21	0.12	0.17	0.25	0.17	0.28	0.04	0.15	0.24	0.33	0.33	0.11	1.21
		Min-2w	0.06	0.05	0.17	0.20	0.04	0.04	<0.01	0.09	0.15	0.17	0.20	0.11	<0.01
	Sado-seki	Mean	***	***	***	***	0.24	0.14	0.06	0.13	0.13	0.18	0.23	0.19	0.16
		%	***	***	***	***	39	100	100	100	100	100	100	100	61
		Max-2w	***	***	***	***	0.24	0.17	0.07	0.14	0.14	0.24	0.26	0.32	0.32
		Min-2w	***	***	***	***	0.24	0.12	0.05	0.12	0.13	0.14	0.20	0.06	0.05
	Happo	Mean	0.01	0.04	0.18	0.37	0.02	0.05	0.03	0.03	0.01	0.04	0.04	0.04	0.09
		%	100	100	100	100	100	47	100	100	100	100	100	100	96
		Max-2w	0.01	0.05	0.29	0.42	0.02	0.05	0.03	0.03	0.01	0.04	0.04	0.07	0.42
		Min-2w	<0.01	0.03	0.07	0.35	0.02	0.05	0.03	0.02	0.01	0.04	0.04	0.01	<0.01
	Ijira	Mean	0.04	0.05	0.20	0.22	0.13	0.08	0.05	0.06	0.07	0.06	0.09	0.05	0.09
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.05	0.05	0.27	0.23	0.13	0.08	0.05	0.06	0.08	0.07	0.09	0.08	0.27
		Min-2w	0.04	0.05	0.14	0.21	0.12	0.07	0.05	0.05	0.05	0.04	0.09	0.02	0.02
	Oki	Mean	0.27	0.33	0.54	0.29	0.22	0.12	0.09	0.12	0.51	0.16	0.25	0.60	0.29
		%	78	100	100	100	100	100	100	100	100	100	100	100	98
		Max-2w	0.32	0.42	0.79	0.29	0.25	0.14	0.09	0.14	0.86	0.18	0.38	0.68	0.86
		Min-2w	0.22	0.24	0.28	0.29	0.20	0.09	0.08	0.11	0.15	0.14	0.13	0.52	0.08
	Yusuhara	Mean	0.06	0.09	0.39	0.24	0.19	0.04	0.05	0.06	0.03	0.06	0.14	0.06	0.12
		%	100	100	100	100	67	100	100	100	100	100	100	47	92
		Max-2w	0.07	0.11	0.60	0.28	0.25	0.06	0.05	0.08	0.04	0.07	0.14	0.06	0.60
		Min-2w	0.06	0.07	0.18	0.19	0.13	0.03	0.05	0.04	0.02	0.05	0.14	0.06	0.02
	Hedo	Mean	0.31	0.31	0.64	0.32	0.18	0.12	0.15	0.09	0.35	0.41	0.26	0.53	0.30
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.35	0.32	0.73	0.36	0.26	0.13	0.15	0.14	0.40	0.51	0.27	0.56	0.73
		Min-2w	0.28	0.30	0.55	0.27	0.04	0.12	0.15	0.05	0.31	0.25	0.25	0.50	0.04
	Ogasawara	Mean	0.15	0.24	0.32	0.11	0.08	0.06	0.09	0.05	0.14	0.16	0.21	0.18	0.15
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.17	0.24	0.39	0.11	0.14	0.07	0.10	0.06	0.16	0.18	0.22	0.19	0.39
		Min-2w	0.14	0.24	0.26	0.11	0.05	0.05	0.08	0.05	0.13	0.15	0.19	0.16	0.05
	Tokyo	Mean	0.29	0.39	0.53	0.48	0.40	0.52	0.37	0.39	0.29	0.34	0.38	0.26	0.38
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.33	0.42	0.67	0.50	0.47	0.67	0.46	0.41	0.31	0.36	0.42	0.31	0.67
		Min-2w	0.25	0.36	0.40	0.46	0.33	0.36	0.28	0.37	0.27	0.32	0.33	0.20	0.20
	Niigata-maki	Mean	0.2	0.1	0.0	0.11	0.22	0.11	0.08	0.09	0.13	0.11	0.15	0.12	0.12
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.2	0.1	0.0	0.21	0.29	0.11	0.10	0.10	0.15	0.14	0.17	0.12	0.29
		Min-2w	0.1	0.0	0.0	0.02	0.19	0.11	0.06	0.08	0.11	0.08	0.12	0.11	0.01
	Tsushima	Mean	0.2	0.2	0.5	0.28	0.25	0.07	0.07	0.06	0.12	0.15	0.27	0.39	0.21
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.2	0.3	0.7	0.29	0.29	0.08	0.07	0.07	0.13	0.19	0.30	0.57	0.70
		Min-2w	0.2	0.2	0.2	0.28	0.19	0.06	0.06	0.05	0.12	0.08	0.24	0.20	0.05

Table 4.20.1 Particulate matter component: Ca^{2+} - Measured by FP (continued)

Unit : $\mu g/m^3$

Country	Site		2022												Annual
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Lao PDR	Vientiane	Mean	***	***	***	***	***	***	***	***	***	***	***	***	***
		%	***	***	***	***	***	***	***	***	***	***	***	***	***
		Max-m	***	***	***	***	***	***	***	***	***	***	***	***	***
		Min-m	***	***	***	***	***	***	***	***	***	***	***	***	***
Malaysia	Petaling Jaya	Mean	0.35	0.21	0.24	0.25	0.37	0.29	0.43	0.17	0.20	0.22	0.27	0.20	0.26
		%	100	100	100	100	100	100	80	100	100	100	100	100	98
		Max-w	0.52	0.25	0.41	0.32	0.69	0.43	0.72	0.26	0.27	0.27	0.37	0.41	0.72
		Min-w	0.19	0.18	0.11	0.17	0.14	0.19	0.27	0.06	0.12	0.14	0.14	0.07	0.06
	Tanah Rata	Mean	0.09	0.02	0.05	0.05	0.24	0.08	0.28	0.09	0.07	0.02	0.02	0.01	0.08
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.12	0.05	0.08	0.12	0.48	0.17	0.61	0.14	0.15	0.04	0.03	0.02	0.61
		Min-w	0.03	<0.01	0.01	0.02	0.02	<0.01	0.09	0.04	0.02	<0.01	<0.01	<0.01	<0.01
	Danum Valley	Mean	0.03	<0.01	<0.01	0.02	0.01	0.01	0.02	0.01	<0.01	<0.01	<0.01	0.02	0.01
		%	100	100	100	75	100	100	100	100	100	100	100	100	98
		Max-2w	0.03	<0.01	<0.01	0.03	0.02	0.02	0.03	0.03	<0.01	<0.01	0.01	0.02	0.03
		Min-2w	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	<0.01
Mongolia	Ulaanbaatar	Mean	***	***	***	***	***	***	***	***	***	***	***	***	***
		%	***	***	***	***	***	***	***	***	***	***	***	***	***
		Max-w	***	***	***	***	***	***	***	***	***	***	***	***	***
		Min-w	***	***	***	***	***	***	***	***	***	***	***	***	***
	Terelj	Mean	***	***	***	***	***	***	***	***	***	***	***	***	***
		%	***	***	***	***	***	***	***	***	***	***	***	***	***
		Max-2w	***	***	***	***	***	***	***	***	***	***	***	***	***
		Min-2w	***	***	***	***	***	***	***	***	***	***	***	***	***
Myammar	Yangon	Mean	***	***	***	***	0.42	0.11	***	***	***	***	<0.01	0.83	0.39
		%	***	***	***	***	67	100	***	***	***	***	33	100	27
		Max-2w	***	***	***	***	0.74	0.17	***	***	***	***	<0.01	1.17	1.17
		Min-2w	***	***	***	***	0.11	0.05	***	***	***	***	<0.01	0.49	<0.01
Philippines	Metro Manila	Mean	1.07	0.82	0.57	0.16	<0.01	<0.01	<0.01	0.63	0.52	0.39	1.16	0.83	0.52
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-irreg	1.66	1.53	1.19	0.44	<0.01	<0.01	<0.01	1.41	2.06	0.88	1.27	1.25	2.06
		Min-irreg	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	1.03	0.03	<0.01
	Los Baños	Mean	***	***	0.17	1.00	0.04	0.12	0.32	0.05	<0.01	<0.01	0.21	<0.01	0.14
		%	***	***	75	100	74	100	100	100	100	100	100	28	75
		Max-irreg	***	***	0.44	1.34	0.17	0.35	0.64	0.14	<0.01	<0.01	0.41	<0.01	1.34
		Min-irreg	***	***	<0.01	0.66	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	Mt. Sto. Tomas	Mean	***	***	***	***	***	***	***	***	***	***	***	***	***
		%	***	***	***	***	***	***	***	***	***	***	***	***	***
		Max-w	***	***	***	***	***	***	***	***	***	***	***	***	***
		Min-w	***	***	***	***	***	***	***	***	***	***	***	***	***
Russia	Mondy	Mean	<0.01	0.01	<0.01	<0.01	<0.01	0.85	0.75	0.08	0.08	0.07	0.01	<0.01	0.20
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-irreg	<0.01	0.01	<0.01	<0.01	<0.01	1.60	1.00	0.13	0.15	0.12	0.02	<0.01	1.60
		Min-irreg	<0.01	<0.01	<0.01	<0.01	<0.01	0.23	0.49	0.03	0.05	0.02	0.01	<0.01	<0.01
	Listvyanka	Mean	0.01	0.02	0.04	0.02	0.06	0.12	0.16	0.21	0.10	0.07	0.03	0.04	0.08
		%	81	100	100	100	100	100	100	100	100	100	100	100	98
		Max-w	0.02	0.04	0.06	0.04	0.23	0.17	0.37	0.24	0.29	0.10	0.06	0.07	0.37
		Min-w	0.01	0.01	0.02	0.01	0.01	0.07	0.04	0.19	0.02	0.03	<0.01	0.02	<0.01
	Irkutsk	Mean	0.19	0.16	0.22	0.19	0.24	0.26	0.15	0.29	0.63	0.70	0.39	0.67	0.33
		%	100	100	100	100	100	100	100	100	100	80	100	67	95
		Max-w	0.31	0.40	0.43	0.33	0.40	0.29	0.18	0.44	0.81	1.28	0.53	1.01	1.28
		Min-w	0.14	0.07	0.07	0.02	0.12	0.23	0.11	0.11	0.36	0.41	0.17	0.44	0.02
	Primorskaya	Mean	0.15	0.19	0.23	0.15	0.07	0.13	0.09	0.08	0.04	0.11	0.05	0.06	0.11
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-15d	0.21	0.30	0.26	0.25	0.08	0.16	0.13	0.11	0.04	0.17	0.07	0.07	0.30
		Min-15d	0.09	0.08	0.19	0.05	0.07	0.10	0.05	0.05	0.04	0.06	0.04	0.05	0.04

Table 4.20.1 Particulate matter component: Ca^{2+} - Measured by FP (continued)

Unit : µg/m³

Country	Site		2022 Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Thailand	Bangkok	Mean	***	***	***	***	***	***	0.17	0.04	0.15	0.03	0.22	0.88	0.27
		%	***	***	***	***	***	***	100	100	100	35	100	100	45
		Max-10d	***	***	***	***	***	***	0.35	0.04	0.36	0.03	0.38	0.99	0.99
		Min-10d	***	***	***	***	***	***	0.04	0.03	0.03	0.03	0.13	0.67	0.03
Vietnam	Hanoi	Mean	6.42	4.01	5.16	5.00	5.98	5.81	6.10	6.11	6.35	4.71	4.69	6.15	5.57
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	8.45	6.06	8.37	6.77	9.59	7.82	12.05	8.26	10.12	6.47	7.76	7.81	12.05
		Min-w	4.55	1.77	3.35	2.82	2.23	3.83	3.21	2.34	4.02	3.48	2.14	3.60	1.77
	Hoa Binh	Mean	1.99	2.07	2.15	2.10	1.88	2.04	1.94	2.06	1.84	1.83	2.23	2.18	2.03
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	2.49	2.79	2.96	2.23	2.85	3.21	2.49	2.31	3.14	2.64	3.42	2.80	3.42
		Min-w	1.29	1.64	1.45	1.79	1.42	1.49	0.78	1.75	1.21	1.33	0.85	1.41	0.78
	Can Tho	Mean	1.81	1.74	1.83	1.77	1.86	1.77	1.51	1.90	1.96	1.79	1.93	1.99	1.83
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	2.10	2.02	2.32	2.10	2.48	2.18	1.67	2.10	2.58	1.96	2.32	2.36	2.58
		Min-w	1.51	1.59	1.35	1.23	1.63	1.25	1.39	1.67	1.35	1.39	1.39	1.83	1.23
	Ho Chi Minh	Mean	2.39	2.25	2.15	2.36	2.27	2.70	2.83	2.23	2.22	2.46	2.50	2.59	2.41
		%	100	100	100	100	100	100	100	100	100	100	100	80	98
		Max-w	3.00	2.74	2.80	2.90	2.42	3.00	3.02	2.90	2.90	2.80	2.88	2.90	3.02
		Min-w	1.88	1.67	1.51	1.67	1.94	1.67	2.40	1.83	1.43	2.12	2.12	2.30	1.43
	Yen Bai	Mean	2.84	3.04	2.45	2.19	3.01	2.31	3.18	3.59	3.58	3.45	4.34	3.64	3.10
		%	100	100	100	100	100	100	100	100	100	100	75	100	98
		Max-w	3.50	4.53	3.43	3.68	4.39	3.33	4.48	4.63	5.57	4.54	6.04	4.43	6.04
		Min-w	1.73	1.49	1.34	1.03	2.38	1.24	2.08	2.78	1.55	2.68	3.12	1.92	1.03

Table 4.20.2 Particulate matter component: Ca^{2+} - Measured by FP with $PM_{2.5}$ cyclone

Unit : µg/m³

Country	Site		2022 Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Republic of Korea	Kanghwa	Mean	0.03	0.02	0.06	0.06	0.02	<0.01	0.01	0.01	0.05	0.02	0.02	0.03	0.03
		%	16	14	16	17	13	13	13	16	17	19	13	16	15
		Max-d	0.05	0.05	0.19	0.11	0.03	0.02	0.02	0.02	0.13	0.03	0.02	0.09	0.19
		Min-d	0.01	0.01	0.01	0.01	0.01	<0.01	<0.01	0.01	0.02	0.01	0.01	0.02	<0.01
	Cheju (Kosan)	Mean	0.02	0.03	0.06	0.03	0.01	0.02	0.02	0.01	0.03	0.01	0.06	0.04	0.02
		%	16	14	13	10	13	17	13	16	10	19	17	16	14
		Max-d	0.02	0.04	0.12	0.04	0.02	0.04	0.03	0.02	0.06	0.02	0.09	0.05	0.12
		Min-d	0.01	0.02	<0.01	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.03	<0.01
	Imsil	Mean	0.06	<0.01	0.05	0.07	0.01	0.01	<0.01	<0.01	0.01	<0.01	0.04	***	0.03
		%	16	11	16	17	16	17	16	10	13	13	10	***	15
		Max-d	0.27	0.01	0.11	0.19	0.02	0.02	0.01	0.01	0.02	0.01	0.05	***	0.27
		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

Terms and abbreviations are given in Table 4.2.

Table 4.21 Annual SO_2 concentration from 2008 to 2022

unit: ppb

Country	Site	Method	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Cambodia	Phnom Penh	FP			1.8	1.5	1.3	1.1	0.8	0.5	0.6	1.3	***	***	***	***	***
China	Jinyunshan	AT	13.3	12.5	12.9	9.3	9.8	8.6	7.5	5.3	3.3	3.6	2.6	2.9	2.8	2.7	2.7
	Hongwen	AT	9.1	5.2	4.9	5.8	7.2	5.6	6.3	2.4	3.3	3.6	3.3	2.0	1.8	1.5	1.3
		FP	7.3	7.9	8.4	6.7	***	***	***	***	2.9	2.9					
	Xiang Zhou	AT	6.6	5.9	5.9	5.6											
	Haibin-Park	AT					3.2	3.9	3.9	3.1	3.8	2.9	2.6	1.6	1.4	2.2	2.7
	Wuzhishan	AT												0.2	0.3	0.3	0.2
	Lijiang	AT												0.1	0.1	0.2	0.2
Indonesia	Jakarta	FP							6.0	5.4	2.5	1.7	2.7	1.8	3.2	4.2	4.0
		PS[*1]	7.4	8.3	6.3	5.0	6	5.3	4.5	5.2	5.6	4.4	6.2	6.5	5.4	7	7.2
	Serpong	FP	1.6	1.1	0.8	1.4	0.9	0.8	0.7	1.5	0.7	0.8	1.0	0.4	0.9	0.8	0.2
	Kototabang	PS[*1]	6.3	7.9	11.7	2.2	***	1.8	3.5	6.7	2.0	1.3	1.3	1.1	1.5	2	1.1
	Bandung	FP							4.1	1.3	1.9	1.7	4.3	4.2	2.7	4.5	4.9
		PS	2.7	4.7	4.2	4.0	4.0	4.0	4.3	3.2	4.8	4.1	3.0	2.8	2.1	2.9	3.8
Japan	Rishiri	AT	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.1	0.2	<0.1	0.1	<0.1	0.1	0.1	<0.1
		FP	0.2	0.2	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.1	0.1
	Ochiishi	AT	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.1	0.1	0.1	0.2	0.1
		FP	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2
	Tappi	AT	0.6	***	***	0.4	0.4	0.5	0.5	0.3	0.3	0.3	0.3				
		FP	0.5	0.4	0.5	0.4	0.5	0.4	0.5	0.3	0.3	0.3	0.3				
	Sado-seki	AT	0.4	0.4	0.3	0.4	0.3	0.4	0.4	0.3	0.2	0.2	0.2	0.2	0.1	<0.1	<0.1
		FP	0.5	0.4	0.4	0.5	0.3	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	***	0.2
	Happo	AT	0.6	0.4	0.8	0.4	0.4	0.4	0.4	0.3	0.2	0.2	0.2	0.1	0.1	0.1	<0.1
		FP	0.6	0.2	0.2	0.3	0.5	0.5	0.6	0.6	0.4	0.4	0.4	0.4	0.4	0.4	0.3
	Ijira	AT	0.6	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.1	<0.1	0.2	0.1	0.2	0.1	***
		FP	0.3	0.3	0.4	0.3	0.5	0.8	0.6	0.4	0.2	0.2	0.2	0.2	0.1	0.1	0.1
	Oki	AT	0.8	0.6	0.6	0.6	0.5	0.6	0.5	0.4	0.3	0.4	0.4	0.3	0.2	0.1	0.1
		FP	0.7	0.6	0.5	0.6	0.7	0.6	0.5	0.4	0.5	0.7	0.4	0.4	0.2	0.2	0.2
	Banryu	AT	1.0	0.6	0.6	0.5	0.6	0.5	0.4	0.3	0.3	0.3	0.2				
		FP	0.9	0.7	0.8	0.8	0.8	0.7	0.7	0.5	0.7	0.6	0.7				
	Yusuhara	AT	1.0	0.9	1.6	0.9	0.9	0.9	1.0	0.6	0.6	0.6	0.6	0.9	0.6	0.3	0.4
		FP	0.6	0.6	0.7	0.7	0.7	0.8	0.9	0.5	0.5	0.5	0.4	0.6	0.4	0.3	0.3
	Hedo	AT	0.3	0.2	0.3	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.1	0.1
		FP	0.4	0.3	0.2	0.2	0.3	0.4	0.3	0.4	0.2	0.2	0.3	0.4	0.4	0.3	0.2
	Ogasawara	AT	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.3
		FP	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	0.1	0.1	<0.1	<0.1	<0.1	<0.1	0.3	<0.1	0.4
	Tokyo	FP	2.2	2.0	1.8	1.6	1.4	1.6	1.5	1.3	1.3	1.4	1.3	1.2	0.7	0.7	0.7
	Niigata-maki	AT												0.2	0.1	<0.1	<0.1
		FP													0.3	0.3	0.2
	Tsushima	FP													0.5	0.4	0.4
Lao PDR	Vientiane	FP								0.4	0.4	***	***	***	***	***	***
Malaysia	Petaling Jaya	FP	1.9	1.8	1.4	2.0	1.8	1.3	1.6	1.2	1.2	1.1	1.3	***	0.6	0.4	0.4
	Tanah Rata	FP	<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
	Danum Valley	FP	<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
Mongolia	Ulaanbaatar	AT							8.9	9.8	10.0	11.5	7.3	6.9	12.2	15.3	19.4
		FP	1.8	4.3	9.1	6.1	***	***	***	***	7.5	4.8	3.4	5.0	5.0	5.4	***
	Terelj	FP	0.5	0.7	0.6	0.7	***	***	***	***	0.6	0.2	0.1	0.3	0.2	0.4	***
Myanmar	Yangon	FP				1.6	2.9	1.3	1.2	0.5	0.4	0.5	0.7	0.8	0.8	0.7	0.2
Philippines	Metro Manila	FP	1.2	***	2.2	***	***	***	***	***	***	***	***	0.4	2.4	2.0	1.3
	Los Banos	FP	0.3	***	***	***	***	***	***	***	***	***	***	***	***	***	7.4
	Mt. Sto. Tomas	FP	0.4	<0.1	1.1	***	0.2	0.1	0.1	0.1	0.2	***	***	***	***	***	***
Republic of Korea	Kanghwa	AT[*1]	2.9	3.2	2.9	4.1	4.4	3.4	2.8	2.2	2.8	1.9	2.3	2.1	1.4	1.4	1.5
	Cheju	AT	2.2	2.7	2.5	2.5	0.9	0.6	0.5	0.5	0.5	0.5	0.8	1.0	0.7	0.7	0.5
	Imsil	AT[*1]	2.3	1.4	2.7	4.8	1.3	1.8	2.3	1.7	1.7	2.3	5.0	1.5	1.7	1.5	2.1
Russia	Mondy	FP	0.3	0.1	0.6	0.1	0.6	0.1	0.1	0.1	<0.1	0.2	0.2	0.3	<0.1	<0.1	<0.1
	Listvyanka	FP	1.2	4.0	4.5	2.8	5.2	2.6	1.1	2.8	4.1	2.9	2.2	2.2	1.9	4.4	2.7
	Irkutsk	FP	2.2	4.6	7.3	5.6	7.2	4.2	1.6	3.5	5.5	4.6	4.3	2.1	2.3	2.4	3.1
	Primorskaya	FP	0.9	1.0	1.7	1.2	1.2	0.7	0.4	0.7	0.8	0.4	0.1	0.2	0.3	0.2	0.5
Thailand	Bangkok	AT	2.1	1.9	1.6	1.6	1.5	1.9	1.4								
		FP	1.2	1.2	1.2	1.2	0.9	0.8	1.6	0.6	0.8	0.8	0.9	0.8	0.7	***	0.6
	Samutprakarn	AT	4.8	4.9	4.6	2.6	2.5	3.0	3.7	3.0	2.0	1.5	2.0	1.0	1.5	***	***
	Pathumthani	FP	0.5	1.1	1.2	0.6	***	***	***	***	***	***	***	***	***	***	***
	Khanchanaburi	AT	1.6	1.2	1.6	1.3	0.6	1.0	1.8	1.2	1.7	1.4	1.4	0.7	***	***	0.2
		FP	0.6	0.2	0.2	<0.1	0.2	<0.1	0.1	<0.1	0.4	0.1	0.3	0.2	***	***	***
	Mae Hia	FP	0.3	0.3	0.3	0.3	0.2	0.2	<0.1	<0.1	0.2	0.2	<0.1	0.1			
	Chang Phueak	AT	0.8	0.6	0.8	0.6	0.9	1.3	0.9	1.3	0.8	0.8	0.9	0.6	0.4	1.2	0.4
	Si Phum	AT						1.4	1.7	1.4	1.1	1.1	1.2	1.2	1.2	1.1	1.1
	Sakaerat	FP	0.2	0.2	0.2	0.2	0.3	0.2	0.4	0.4	0.4	0.2	0.7	0.6			
	Nai Mueang	AT	2.7	***	1.3	1.4	1.1	1.2	1.0	2.9	3.2	0.7	0.7	0.9	0.6	0.6	0.8
Vietnam	Hanoi	FP	1.3	1.3	1.4	1.9	2.2	2.1	3.2	4.5	1.8	1.0	0.5	0.4	0.7	0.9	0.9
	Hoa Binh	FP	1.0	0.9	0.7	1.2	1.2	1.1	2.8	3.6	1.3	0.6	0.5	0.3	0.8	1.0	0.7
	Can Tho	FP							1.2	1.0	0.3	0.2	0.6	0.5	0.6	0.5	0.5
	Ho Chi Minh	FP							1.6	1.5	0.5	0.4	0.6	0.6	0.6	0.6	0.5
	Yen Bai	FP								4.2	1.5	0.8	0.8	0.5	0.4	0.8	0.6

*1: Some annual averages are integers only, depending on their submitted unit and significant digits.

Terms and abbreviations are given in Table 4.2.

Table 4.22 Annual HNO_3 concentration from 2008 to 2022

unit: ppb

Country	Site	Method	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Cambodia	Phnom Penh	FP			0.3	0.3	0.3	0.5	0.4	0.5	0.4	0.5	***	***	***	***	***
China	Hongwen	FP	1.7	1.1	1.0	2.1	***	***	***	***	1.2	1.1					
Indonesia	Jakarta	FP							3.1	1.4	1.0	1.0	1.4	0.9	1.1	1.3	1.0
	Serpong	FP	0.2	0.3	0.3	0.8	0.9	0.6	0.9	1.1	0.8	0.8	1.5	1.1	0.9	0.8	0.7
	Bandung	FP							0.7	0.5	0.5	0.4	0.8	0.9	0.4	0.5	0.4
Japan	Rishiri	FP	<0.1	<0.1	<0.1	<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	FP	<0.1	<0.1	<0.1	<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	FP	0.2	<0.1	0.2	0.2	0.2	0.1	0.2	<0.1	<0.1	0.1	0.1				
	Sado-seki	FP	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.2	0.2	0.3	0.1	<0.1	***	0.1
	Happo	FP	0.4	<0.1	<0.1	<0.1	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	Ijira	FP	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1
	Oki	FP	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	<0.1	<0.1	<0.1
	Banryu	FP	0.3	0.3	0.2	0.2	0.3	0.3	0.3	0.3	0.2	0.1	0.2				
	Yusuhara	FP	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	Hedo	FP	0.1	<0.1	<0.1	<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	FP	<0.1	<0.1	<0.1	<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	FP	1.0	0.8	0.8	0.6	0.6	0.8	0.8	0.7	0.6	0.7	0.6	0.5	0.5	0.4	0.4
	Niigata-maki	FP													0.1	0.1	0.1
	Tsushima	FP													0.4	0.3	0.2
Lao PDR	Vientiane	FP								0.3	0.2	***	***	***	***	***	***
Malaysia	Petaling Jaya	FP	0.8	1.0	0.7	0.7	0.5	0.7	0.8	0.7	0.4	0.5	0.9	***	0.4	0.5	0.5
	Tanah Rata	FP	0.1	0.1	<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	FP	<0.1	0.2	<0.1	<0.1	<0.1	0.3	<0.1	<0.1	<0.1	<0.1	<0.1	***	<0.1	<0.1	<0.1
Mongolia	Ulaanbaatar	FP	0.2	0.2	0.3	0.2	***	***	***	***	0.1	<0.1	<0.1	0.1	<0.1	<0.1	***
	Terelj	FP	0.1	<0.1	<0.1	0.1	***	***	***	***	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	***
Myanmar	Yangon	FP				0.4	0.4	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.5	0.6	<0.1
Philippines	Metro Manila	FP	0.4	***	0.2	***	***	***	***	***	***	***	***	0.1	0.3	0.4	0.7
	Los Banos	FP	<0.1	***	***	***	***	***	***	***	***	***	***	***	***	***	0.6
	Mt. Sto. Tomas	FP	0.3	<0.1	0.4	***	0.2	<0.1	0.1	<0.1	<0.1	***	***	***	***	***	***
Republic of Korea	Kanghwa	FP	0.5	0.5	0.4	***	***	0.4	0.5	0.3	0.4	0.1	0.1	<0.1	0.3	0.4	0.4
	Cheju	FP	0.7	0.6	0.5	***	***	0.4	0.8	0.5	0.6	0.3	0.4	<0.1	0.4	0.4	0.5
	Imsil	FP	0.4	0.5	0.3	***	***	0.6	0.6	0.4	0.7	0.6	0.4	<0.1	0.2	0.3	0.3
Russia	Mondy	FP	<0.1	<0.1	2.9	<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	FP	<0.1	<0.1	0.4	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	FP	0.2	0.2	1.9	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.2	<0.1	<0.1	<0.1
	Primorskaya	FP	0.1	0.1	0.7	<0.1	0.1	0.3	0.2	0.2	0.3	0.2	<0.1	<0.1	<0.1	<0.1	<0.1
Thailand	Bangkok	FP	0.5	0.5	0.6	0.5	0.6	0.4	0.9	0.7	0.4	0.3	0.8	0.5	0.5	***	0.3
	Pathumthani	FP	0.3	0.7	0.9	0.3	***	***	***	***	***	***	***	***	***	***	***
	Khanchanaburi	FP	0.2	0.5	<0.1	<0.1	0.3	0.1	0.2	0.3	1.7	0.2	0.4	0.5	***	***	***
	Mae Hia	FP	0.4	0.7	1.9	0.1	0.2	0.2	<0.1	<0.1	0.2	0.2	0.1	0.2			
	Sakaerat	FP	0.2	0.2	0.2	<0.1	0.2	<0.1	0.3	0.3	0.4	0.2	0.3	0.3			
Vietnam	Hanoi	FP	0.5	0.9	0.8	0.9	1.0	0.7	0.5	0.7	0.9	1.6	0.4	0.4	0.6	0.8	0.8
	Hoa Binh	FP	0.4	0.3	0.3	0.3	0.4	0.3	0.4	0.5	0.7	0.9	0.4	0.3	0.6	0.5	0.6
	Can Tho	FP							0.5	0.4	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Ho Chi Minh	FP							0.6	0.6	0.2	0.4	0.4	0.3	0.4	0.4	0.3
	Yen Bai	FP								0.7	0.6	1.3	0.5	0.4	0.6	1.1	0.6

Terms and abbreviations are given in Table 4.2.

Table 4.23 Annual HCl concentration from 2008 to 2022

unit: ppb

Country	Site	Method	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Cambodia	Phnom Penh	FP			0.5	0.4	0.7	1.3	1.1	1.3	1.2	1.6	***	***	***	***	***
China	Hongwen	FP	1.2	1.5	14.5	13.3	***	***	***	***	1.8	1.5					
Indonesia	Jakarta	FP							3.2	1.9	0.9	1.1	1.5	0.8	0.9	1.5	1.8
	Serpong	FP	0.5	0.4	0.8	0.7	0.8	0.7	0.8	1.0	0.7	0.9	1.3	1.3	1.0	1.1	1.1
	Bandung	FP							0.8	0.5	1.1	0.9	0.9	0.9	0.7	0.8	1.1
Japan	Rishiri	FP	0.5	0.5	0.5	0.5	0.4	0.5	0.4	0.4	0.4	0.4	0.4	0.8	0.4	0.3	0.3
	Ochiishi	FP	0.4	0.4	0.4	0.6	0.6	0.5	0.4	0.8	0.4	0.4	0.3	0.3	0.3	0.3	0.3
	Tappi	FP	0.6	0.5	1.5	0.7	0.6	0.6	0.7	0.5	0.5	0.5	0.4				
	Sado-seki	FP	0.8	0.9	0.7	0.8	0.9	0.8	0.9	1.2	0.7	0.8	1.0	0.5	0.5	***	0.6
	Happo	FP	0.2	<0.1	<0.1	<0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1
	Ijira	FP	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.1
	Oki	FP	0.9	0.8	0.8	1.0	0.9	1.0	0.9	0.9	0.8	0.8	0.7	0.7	0.6	0.4	0.6
	Banryu	FP	0.7	0.8	0.7	0.8	0.7	0.8	0.7	0.7	0.6	0.7	0.6				
	Yusuhara	FP	0.3	0.3	0.3	0.4	0.3	0.4	0.3	0.3	0.3	0.2	0.3	0.2	0.3	0.2	0.3
	Hedo	FP	0.9	0.9	0.5	0.4	0.6	1.0	1.1	1.1	1.0	0.9	0.9	0.9	0.8	0.5	0.6
	Ogasawara	FP	0.6	0.5	0.4	0.4	0.4	0.6	0.6	0.5	0.4	0.4	0.3	0.4	0.7	0.3	0.3
	Tokyo	FP	0.8	0.8	0.7	0.8	0.7	0.8	0.7	0.8	0.7	0.7	0.8	0.8	0.7	0.7	0.7
	Niigata-maki	FP													0.5	0.4	0.5
	Tsushima	FP													0.6	0.5	0.5
Lao PDR	Vientiane	FP								0.3	0.2	***	***	***	***	***	***
Malaysia	Petaling Jaya	FP	1.1	0.7	0.5	0.8	1.2	1.3	1.1	0.7	2.8	0.3	1.5	***	1.2	1.2	1.0
	Tanah Rata	FP	0.4	0.1	<0.1	0.2	0.4	0.3	0.3	0.4	0.7	0.2	<0.1	***	0.3	0.3	0.2
	Danum Valley	FP	0.3	0.5	0.3	0.2	0.5	1.0	0.4	0.3	0.3	0.1	0.2	***	0.2	0.6	0.2
Mongolia	Ulaanbaatar	FP	0.7	0.7	1.7	1.1	***	***	***	***	11.3	1.7	0.8	0.4	0.7	0.6	***
	Terelj	FP	0.4	0.3	0.5	0.5	***	***	***	***	4.3	0.5	0.3	0.1	0.4	0.3	***
Myanmar	Yangon	FP				1.5	1.5	0.6	0.7	0.7	0.2	0.4	0.5	0.6	0.8	0.7	0.3
Philippines	Metro Manila	FP	0.7	***	0.8	***	***	***	***	***	***	***	***	0.6	0.4	1.0	1.2
	Los Banos	FP	0.4	***	***	***	***	***	***	***	***	***	***	***	***	***	1.8
	Mt. Sto. Tomas	FP	0.6	0.2	1.2	***	0.2	0.2	0.2	0.7	<0.1	***	***	***	***	***	***
Republic of Korea	Kanghwa	FP	<0.1	0.1	0.2	***	***	0.3	0.2	0.1	<0.1	<0.1	<0.1	0.7	0.1	0.1	0.1
	Cheju	FP	0.2	0.2	0.2	***	***	0.2	0.2	0.2	0.2	0.2	0.2	1.1	0.1	0.2	<0.1
	Imsil	FP	0.1	0.2	0.1	***	***	0.2	0.2	0.2	0.2	0.2	0.2	1.2	<0.1	<0.1	<0.1
Russia	Mondy	FP	<0.1	<0.1	0.5	0.4	0.7	0.7	0.8	1.9	1.6	2.7	2.6	1.0	0.2	0.1	0.2
	Listvyanka	FP	0.1	0.2	0.6	1.8	9.8	2.1	2.6	7.4	9.0	6.0	5.3	7.0	1.0	0.6	0.4
	Irkutsk	FP	0.2	0.2	0.5	1.4	2.6	1.7	1.4	7.0	3.2	4.7	5.3	1.8	0.3	0.4	0.3
	Primorskaya	FP	0.2	0.2	0.7	1.1	1.0	0.5	0.4	0.4	0.8	0.6	0.2	0.1	0.6	0.2	0.4
Thailand	Bangkok	FP	0.8	0.9	0.7	0.7	0.7	0.6	1.2	0.7	1.5	0.7	1.0	0.9	1.2	***	0.4
	Pathumthani	FP	0.4	0.9	0.7	0.5	***	***	***	***	***	***	***	***	***	***	***
	Khanchanaburi	FP	0.3	0.2	<0.1	0.2	0.2	0.2	0.3	0.2	1.4	0.3	0.3	0.5	***	***	***
	Mae Hia	FP	0.2	0.3	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.4	0.4			
	Sakaerat	FP	0.2	0.2	0.2	0.2	0.2	0.2	0.4	0.5	0.4	0.2	0.2	0.3			
Vietnam	Hanoi	FP	1.8	1.5	2.0	2.0	2.1	1.6	3.0	2.0	3.3	2.0	1.1	1.1	1.4	3.2	2.2
	Hoa Binh	FP	1.8	1.2	1.5	1.6	1.7	1.6	3.2	1.8	2.4	1.6	1.2	1.3	2.3	2.1	2.0
	Can Tho	FP							1.7	1.4	1.2	0.9	1.8	1.7	1.8	1.6	1.7
	Ho Chi Minh	FP							1.6	1.1	1.5	1.3	1.6	3.3	1.5	1.4	1.3
	Yen Bai	FP								2.4	2.4	2.3	1.8	1.4	1.9	2.3	2.0

Terms and abbreviations are given in Table 4.2.

Table 4.24 Annual NH_3 concentration from 2008 to 2022

unit: ppb

Country	Site	Method	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Cambodia	Phnom Penh	FP			14.3	11.5	9.9	9.4	6.9	7.3	6.8	7.5	***	***	***	***	***
China	Hongwen	FP	8.1	11.2	12.2	9.5	***	***	***	***	10.7	9.3					
Indonesia	Jakarta	FP							38.3	13.7	10.5	4.1	15.2	2.4	9.2	10.8	12.6
	Serpong	FP	6.3	5.9	5.4	11.0	16.1	11.7	11.8	18.3	11.1	5.8	8.3	5.2	9.8	6.1	8.1
	Bandung	FP							8.4	9.4	6.6	8.6	8.7	10.5	10.1	10.3	10.1
		PS											9.8	11.9	20.7	15.5	15.6
Japan	Rishiri	FP	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.5	0.5	1.1	0.5	0.5	0.6
	Ochiishi	FP	0.6	1.0	0.4	0.4	0.4	0.3	0.4	0.3	0.3	0.3	0.3	0.4	0.4	0.3	0.3
	Tappi	FP	0.5	0.5	0.5	0.4	0.4	0.4	0.5	0.5	0.4	0.4	0.4				
	Sado-seki	FP	0.7	0.6	0.6	0.6	0.6	0.6	0.7	0.8	0.6	0.7	1.0	0.7	0.6	***	1.2
	Happo	FP	0.4	0.2	0.3	0.2	0.4	0.4	0.4	0.4	0.5	0.5	0.6	0.5	0.5	0.6	0.5
	Ijira	FP	1.1	1.0	1.1	1.0	1.0	1.3	0.9	1.0	0.8	0.9	1.1	1.0	0.8	0.9	0.8
	Oki	FP	1.0	1.0	0.8	0.7	0.5	0.6	0.6	0.7	0.9	0.6	0.9	0.9	0.8	0.9	0.8
	Banryu	FP	1.0	1.0	1.0	0.9	0.8	0.7	0.7	0.7	1.0	0.7	1.2				
	Yusuhara	FP	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.5	0.6	0.6	0.5	0.5	0.5	0.6	0.5
	Hedo	FP	1.2	1.2	1.2	0.9	1.3	1.1	1.1	1.3	1.2	1.3	1.1	1.4	1.2	1.1	0.9
	Ogasawara	FP	0.5	0.5	0.5	0.7	0.5	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.7	0.6	0.4
	Tokyo	FP	5.2	5.0	4.9	4.4	3.9	4.6	4.6	4.2	4.2	4.2	3.8	3.8	3.7	3.6	3.9
	Niigata-maki	FP													1.1	1.4	1.5
	Tsushima	FP													0.9	1.0	1.0
Lao PDR	Vientiane	FP								2.6	2.7	***	***	***	***	***	<0.1
Malaysia	Petaling Jaya	FP	6.1	7.3	6.7	6.7	6.5	8.6	10.0	9.2	11.2	7.6	10.4	***	7.4	6.2	6.8
	Tanah Rata	FP	1.0	0.8	0.9	1.2	0.9	1.2	2.2	3.0	2.3	1.8	<0.1	***	1.7	1.4	1.2
	Danum Valley	FP	0.9	1.9	1.5	0.9	0.7	3.8	1.2	1.4	1.4	1.1	1.0	***	1.7	2.4	1.5
Mongolia	Ulaanbaatar	FP	10.7	7.4	14.8	8.7	***	***	***	***	***	9.7	7.3	7.0	5.8	6.3	***
	Terelj	FP	1.2	1.9	1.4	1.5	***	***	***	***	***	1.7	2.1	1.3	1.2	1.5	***
Myanmar	Yangon	FP				15.5	10.2	6.2	8.9	7.6	7.1	5.8	2.0	2.1	1.0	2.7	4.1
Philippines	Metro Manila	FP	9.2	***	7.5	***	***	***	***	***	***	***	***	13.1	9.6	7.8	10.4
	Los Banos	FP	3.1	***	***	***	***	***	***	***	***	***	***	***	***	***	8.5
	Mt. Sto. Tomas	FP	6.4	0.4	2.5	***	1.0	1.1	2.2	1.9	1.9	***	***	***	***	***	***
Republic of Korea	Kanghwa	FP	3.4	3.2	4.6	***	***	7.4	3.7	4.3	0.8	0.4	0.5	3.8	3.6	3.8	3.0
	Cheju	FP	3.7	4.9	7.0	***	***	3.2	6.9	7.5	4.0	7.0	7.1	7.2	3.1	3.3	3.5
	Imsil	FP	5.0	6.0	6.5	***	***	3.0	6.3	5.6	4.3	8.4	9.4	10.8	3.4	4.0	7.6
Russia	Mondy	FP	0.7	0.4	0.4	0.4	0.7	0.6	0.4	0.8	1.5	1.0	1.2	1.4	1.1	0.7	1.3
	Listvyanka	FP	2.7	2.4	2.8	0.8	0.6	1.3	2.4	2.8	3.9	2.9	1.7	2.9	3.3	4.3	3.1
	Irkutsk	FP	3.3	2.9	2.2	1.7	1.4	1.5	4.8	2.8	3.0	2.3	3.1	2.8	3.2	2.0	2.5
	Primorskaya	FP	2.9	1.8	2.2	4.2	1.3	1.1	1.3	1.4	2.5	0.8	1.4	6.4	1.4	1.1	1.0
Thailand	Bangkok	FP	8.2	8.7	7.9	8.8	8.3	8.7	14.6	9.2	9.7	6.4	12.2	6.8	7.5	***	1.7
	Pathumthani	FP	3.1	8.1	7.8	5.2	***	***	***	***	***	***	***	***	***	***	***
	Khanchanaburi	FP	2.3	2.6	1.6	1.5	2.4	3.4	4.8	3.0	7.9	4.2	3.8	3.1	***	***	***
	Mae Hia	FP	3.8	5.8	9.0	5.3	4.4	3.5	1.5	0.9	5.0	4.6	4.6	4.8			
	Sakaerat	FP	2.6	2.3	2.0	1.8	3.3	2.9	3.5	3.9	4.6	3.5	4.6	5.8			
Vietnam	Hanoi	FP	5.0	4.8	5.7	6.4	4.8	1.4	1.6	2.6	4.3	3.9	2.4	2.1	2.8	3.8	4.2
	Hoa Binh	FP	4.0	3.9	2.1	2.4	2.6	1.7	1.4	1.2	1.3	1.8	1.4	1.4	1.3	1.2	1.5
	Can Tho	FP							2.6	2.5	3.3	3.4	4.9	5.4	4.9	4.3	5.0
	Ho Chi Minh	FP							3.0	2.8	4.3	5.6	4.6	4.1	4.6	4.1	3.9
	Yen Bai	FP								2.9	2.8	3.5	3.2	3.4	2.5	3.1	3.6

Terms and abbreviations are given in Table 4.2.

Table 4.25 Annual NO concentration from 2008 to 2022

unit: ppb

Country	Site	Method	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
China	Jinyunshan	AT(DOAS)	6.7	3.3	2.0	1.6	2.1	1.6	1.7	1.5	3.3	8.7	7.6	6.0	8.1	2.8	2.6
Japan	Rishiri	AT(CLD)	<0.1	0.1	<0.1	<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	AT(CLD)	<0.1	<0.1	<0.1	<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	AT(CLD)	<0.1	***	***	0.2	0.1	0.1	<0.1	<0.1	0.2	0.1	<0.1				
	Sado-seki	AT(CLD)	<0.1	<0.1	<0.1	<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	AT(CLD)	<0.1	<0.1	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	AT(CLD)	0.2	0.2	0.3	0.2	0.1	0.2	0.2	0.5	0.3	0.1	0.3	0.5	0.3	0.4	0.1
	Oki	AT(CLD)	<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
	Banryu	AT(CLD)	0.2	0.2	0.2	<0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.1				
	Yusuhara	AT(CLD)	0.1	<0.1	<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	AT(CLD)	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
	Ogasawara	AT(CLD)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Niigata-maki	AT(CLD)												0.1	0.1	0.2	0.1
Lao PDR	Vientiane	AT(CLD)							8.4	10.9	***	***	***	***	***	***	***
Mongolia	Ulaanbaatar	AT(CLD)							21.8	27.8	22.7	19.4	12.7	15.2	15.4	18.3	17.1
Philippines	Metro Manila	AT(CLD)								17.6	13.9	***	***	***	***	***	***
Thailand	Bangkok	AT(CLD)	13.6	11.6	8.8	10.3	9.5	8.5	6.5	6.2	5.0	6.6	6.0	4.4	3.4	2.9	***
	Samutprakarn	AT(CLD)	15.3	15.2	13.3	15.1	17.1	12.6	11.6	9.5	8.5	7.3	7.1	7.0	2.7	***	***
	Khanchanaburi	AT(CLD)	0.7	0.2	0.3	1.1	0.5	3.3	7.0	1.0	0.1	0.5	2.9	1.0	0.3	***	11.9
	ChangPhueak	AT(CLD)	2.0	2.1	3.0	2.0	4.3	1.9	2.3	3.5	2.8	2.4	2.0	1.6	1.4	1.2	1.1
	Si Phum	AT(CLD)						6.9	7.0	11.8	13.5	9.1	7.7	7.9	10.8	***	***
	Nai Mueang	AT(CLD)	5.9	***	15.3	16.5	15.6	15.4	11.7	11.3	13.6	13.0	10.3	11.4	8.4	6.3	7.6

Terms and abbreviations are given in Table 4.2.

Table 4.26 Annual NO_2 concentration from 2008 to 2022

unit: ppb

Country	Site	Method	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
China	Hongwen	AT(DOAS)	19.9	18.8	21.1	20.2	20.0	19.5	18.6	14.8	16.1	14.7	13.5	11.2	8.7	10.0	9.6
	Xiang Zhou	AT(DOAS)	21.1	15.4	17.0	18.6											
	Haibin-Park	AT(DOAS)					13.8	17.6	18.7	15.6	16.9	15.9	15.5	13.3	11.2	12.1	9.3
	Wuzhishan	AT(CLD)												0.9	0.9	1.1	1.0
	Lijiang	AT(CLD)												0.6	1.2	1.4	1.4
Indonesia	Jakarta	PS[*1]	32.8	48.5	31.2	***	16	26.5	25.9	25.7	26.5	28.4	22.8	21.4	16.0	17	18.9
	Kototabang	PS[*1]	1.9	3.5	0.5	***	***	2.5	0.7	1.2	1.0	1.2	1.0	0.9	0.9	1	0.6
	Bandung	PS	11.3	13.3	31.5	39.0	42.8	41.0	40.6	54.4	74.6	36.0	30.3	35.9	31.2	17.3	21.2
Japan	Banryu	AT(CLD)	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	AT(CLD)							10.0	11.4	***	***	***	***	***	***	***
Mongolia	Ulaanbaatar	AT(CLD)							26.9	30.3	35.9	42.9	34.3	33.5	21.9	23.4	25.2
Philippines	Metro Manila	AT(CLD)								15.5	12.9	***	***	***	***	***	***
Republic of Korea	Kanghwa	AT(CLD)	6.9	7.1	6.4	5.4	5.0	5.7	5.9	7.4	6.8	5.7	4.9	5.4	4.6	6.0	5.6
	Cheju	AT(CLD)	2.9	3.1	4.1	4.4	3.0	3.4	3.3	3.7	3.1	2.7	3.6	4.6	4.3	3.7	3.2
	Imsil	AT(CLD)	4.1	4.5	5.1	5.0	4.6	5.1	4.0	4.4	4.6	4.0	4.1	4.2	4.0	5.2	5.2
Thailand	Bangkok	AT(CLD)	20.5	23.6	21.2	24.5	24.7	25.3	20.3	14.4	16.1	17.6	19.1	17.5	15.1	14.0	***
	Samutprakarn	AT(CLD)	16.4	19.0	15.5	21.5	17.1	15.1	12.4	10.5	13.4	15.6	17.4	17.7	15.4	***	***
	ChangPhueak	AT(CLD)	8.5	8.8	9.5	9.6	11.2	12.3	11.2	10.2	9.3	8.4	5.8	9.1	8.3	11.9	4.3
	Si Phum	AT(CLD)						16.1	14.9	18.1	18.9	14.5	19.0	15.3	24.4	***	***
	Nai Mueang	AT(CLD)	11.0	***	17.9	17.6	18.7	19.4	15.6	15.0	17.7	22.7	19.0	16.2	16.8	14.4	15.0

*1: Some annual averages are integers only, depending on their submitted unit and significant digits.

Terms and abbreviations are given in Table 4.2.

Table 4.27 Annual NO_x concentration from 2008 to 2022

unit: ppb

Country	Site	Method	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
China	Jinyunshan (NOx*)	AT(CLD)	11.8	8.2	11.4	10.0	8.4	9.1	8.9	9.6	13.5	18.5	17.9	14.1	16.0	12.9	11.5
Japan	Rishiri (NOx*)	AT(CLD)	1.0	0.9	0.8	0.6	0.7	0.6	0.7	0.5	0.6	0.6	0.6	0.5	0.5	0.6	0.5
	Ochiishi (NOx*)	AT(CLD)	1.0	1.1	1.0	1.1	1.0	0.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9	1.0	0.8
	Tappi (NOx*)	AT(CLD)	1.6	***	***	1.1	1.2	1.4	1.5	1.4	1.4	1.3	1.2				
	Sado-seki (NOx*)	AT(CLD)	1.1	0.9	0.8	0.7	0.7	0.8	0.7	0.7	0.7	0.7	0.7	0.8	0.7	0.4	0.5
	Happo (NOx*)	AT(CLD)	2.1	1.3	1.2	1.1	1.1	0.9	1.1	0.9	0.7	0.7	0.8	0.6	0.6	0.6	***
	Ijira (NOx*)	AT(CLD)	2.2	2.5	2.3	2.0	2.2	1.7	1.7	2.4	1.6	1.4	1.9	1.8	1.0	1.5	1.3
	Oki (NOx*)	AT(CLD)	1.5	1.3	1.3	1.3	1.0	1.1	1.3	1.1	1.0	1.0	1.1	1.0	0.7	0.5	0.6
	Banryu	AT(CLD)	3.6	3.0	2.8	2.5	2.0	1.9	2.0	1.8	1.9	2.1	1.8				
	Yusuhara (NOx*)	AT(CLD)	1.3	1.1	1.8	1.3	1.4	1.4	1.2	1.3	1.3	1.5	1.2	1.4	1.0	1.0	***
	Hedo (NOx*)	AT(CLD)	0.7	0.7	0.7	0.7	0.5	0.9	0.7	0.7	0.6	0.7	0.7	0.6	0.5	0.5	0.5
	Ogasawara (NOx*)	AT(CLD)	0.5	0.5	0.5	0.4	0.5	0.4	0.3	0.4	0.3	0.4	0.3	0.4	0.7	0.2	0.3
	Niigata-miki (NOx*)	AT(CLD)												2.1	1.8	2.0	1.7
Lao PDR	Vientiane	AT(CLD)							18.4	22.4	***	***	***	***	***	***	***
Mongolia	Ulaanbaatar	AT(CLD)							48.7	58.2	58.6	62.3	47.0	48.7	37.3	41.8	42.3
Philippines	Metro Manila	AT(CLD)								33.2	26.9	***	***	***	***	***	***
Thailand	Bangkok	AT(CLD)	34.4	35.2	30.2	35.0	34.5	34.0	27.0	20.6	21.2	24.2	25.1	22.0	18.5	16.9	***
	Samutprakarn	AT(CLD)	31.5	34.1	28.7	36.7	34.1	27.7	24.0	20.0	21.8	22.8	24.5	24.6	18.1	***	***
	Khanchanaburi (NOx*)	AT(CLD)	1.2	1.4	3.1	4.1	2.0	4.7	11.6	3.0	2.7	1.4	6.1	3.0	3.0	***	15.8
	Chang Phueak	AT(CLD)	10.4	10.8	12.5	11.6	15.5	14.2	13.5	13.7	12.1	10.7	7.9	10.7	9.5	13.0	5.2
	Si Phum	AT(CLD)						23.0	21.9	29.8	32.3	23.5	26.6	23.1	35.2	***	***
	Nai Mueang	AT(CLD)	16.9	***	33.2	34.0	34.2	34.6	27.3	26.2	31.3	35.7	29.3	27.5	25.0	20.6	22.5

Terms and abbreviations are given in Table 4.2.

Table 4.28 Annual O_3 concentration from 2008 to 2022

unit: ppb

Country	Site	Method	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Cambodia	Phnom Penh	AT(UVP)												18	19	24	17
Indonesia	Bandung	AT(UVP)								26	10	11	15	8	***	***	***
		PS											10	11	9	7	9
Japan	Rishiri	AT(UVP)	42	42	40	37	34	37	39	40	39	37	36	32	34	35	35
	Ochiishi	AT(UVP)	38	37	38	35	39	39	42	40	38	42	40	33	35	34	33
	Tappi	AT(UVP)	60	***	***	38	41	40	39	38	41	45	45				
	Sado-seki	AT(UVP)	47	49	53	49	46	46	47	45	45	45	44	44	40	36	38
	Happo	AT(UVP)	50	52	48	53	49	49	48	48	47	47	50	51	45	47	45
	Ijira	AT(UVP)	20	21	19	20	24	26	28	26	25	28	28	24	17	25	22
	Oki	AT(UVP)	45	46	45	46	46	48	47	47	46	47	46	45	43	43	43
	Banryu	AT(UVP)	35	36	35	33	33	33	33	33	33	35	32				
	Yusuhara	AT(UVP)	40	41	36	33	34	39	40	40	37	41	39	39	39	38	37
	Hedo	AT(UVP)	39	39	38	33	35	38	40	39	36	36	29	37	30	29	27
	Ogasawara	AT(UVP)	28	30	38	29	32	37	33	35	29	36	30	45	41	29	28
	Niigata-maki	AT(UVP)												38	35	36	35
	Tsushima	AT(UVP)												47	43	45	44
Mongolia	Ulaanbaatar	AT(UVP)							12	13	12	9	11	12	12	11	11
Philippines	Metro Manila	AT(UVP)								7	10	***	***	***	***	***	***
Republic of Korea	Kanghwa	AT(UVP)	41	43	43	39	44	46	50	47	45	43	41	46	42	43	44
	Cheju	AT(UVP)	42	44	42	35	39	41	45	46	39	47	42	46	42	45	45
	Imsil	AT(UVP)	20	33	30	30	33	31	31	36	36	29	28	36	29	31	31
Russia	Mondy	AT(UVP)	35	45	44	40	38	38	35	40	43	27	***	***	***	***	***
		PS											42	50	***	***	27
	Listvyanka	PS							39	39	35	25	36	45	***	***	31
	Irktusk	PS									30	14	22	24	20	***	18
Thailand	Bangkok	AT(UVP)	10	17	17	19	17	21	19	43	21	22	22	26	29	29	27
	Samutprakarn	AT(UVP)	18	18	15	17	19	20	22	23	16	17	20	21	29	26	27
	Khanchanaburi	AT(UVP)	16	14	23	12	16	13	22	20	19	18	25	26	23	***	36
	ChangPhueak	AT(UVP)	22	26	24	25	21	21	20	22	25	22	29	31	26	31	32
	Si Phum	AT(UVP)						22	19	***	***	***	***	***	***	***	***
	Nai Mueang	AT(UVP)	22	***	17	***	19	22	22	21	22	26	22	25	26	26	25

Terms and abbreviations are given in Table 4.2.

Table 4.29 Annual PM_{10} concentration from 2008 to 2022

unit: $\mu g/m^3$

Country	Site	Method	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
China	Jinyunshan	AT(β-ray)	50	40	51	45	43	64	57	48	56	50	48	39	35	38	33
	Hongwen	AT(TEOM)	59	60	63	61	59	58	54	43	42	43	41	37	33	35	32
	Xiang Zhou	AT(TEOM)	51	48	48	49											
	Haibin-Park	AT(TEOM)					44	54	46	50	41	42	40	37	31	34	29
	Wuzhishan	AT(Hybrid)												14	11	12	11
	Lijiang	AT(Hybrid)												8	7	9	9
Japan	Rishiri	TEOM/AT(β-ray)	16	16	18	15	13	12	26	19	16	17	17	22	18	19	20
	Ochiishi	AT(β-ray)	30	24	22	23	20	16	26	22	18	16	15	15	13	16	15
	Tappi	AT(β-ray)	22	16	28	18	17	18	20	20	18	16	16				
	Sado-seki	TEOM/AT(β-ray)	23	22	21	21	19	20	23	24	20	21	22	24	20	21	***
	Happo	AT(β-ray)	14	12	12	12	11	11	12	10	10	7	9	6	7	9	9
	Ijira	AT(β-ray)	20	18	18	19	16	18	17	17	16	18	17	15	13	13	12
	Oki	AT(β-ray)	26	26	29	25	23	27	31	32	29	28	29	30	29	36	***
	Banryu	AT(β-ray)	27	26	28	24	22	25	25	24	22	24	22				
	Yusuhara	AT(β-ray)	18	18	18	16	15	17	15	16	14	14	15	13	13	14	12
	Hedo	AT(β-ray)	27	28	31	28	27	26	27	31	28	29	31	29	29	29	26
	Ogasawara	AT(β-ray)	10	12	12	10	11	12	11	18	19	19	20	20	19	16	16
	Niigata-maki	AT(β-ray)													21	23	22
	Tsushima	AT(β-ray)												23	19	22	17
Lao PDR	Vientiane	AT(β-ray)							72	72	***	***	***	***	***	***	***
Mongolia	Ulaanbaatar	AT(β-ray)							211	106	97	102	121	126	92	84	87
Philippines	Metro Manila	AT(β-ray)								33	29	***	***	***	***	***	***
Republic of Korea	Kanghwa	AT(β-ray)	48	51	51	44	45	48	49	52	51	49	42	43	36	32	29
	Cheju	AT(β-ray)	50	43	47	42	37	45	47	45	42	37	39	39	30	30	30
	Imsil	AT(β-ray)	59	34	40	38	36	39	44	43	42	39	37	49	34	38	31
Thailand	Bangkok	AT(β-ray)	43	39	38	38	37	41	37	32	35	36	36	34	32	32	31
	Samutprakarn	AT(β-ray)	45	43	38	54	39	44	41	35	38	38	42	40	34	35	35
	Khanchanaburi	AT(β-ray)	37	28	46	23	10	28	90	23	34	17	35	33	121	***	41
	ChangPhueak	AT(β-ray)	38	42	45	33	42	41	45	43	48	43	50	56	52	46	37
	Si Phum	AT(β-ray)						47	47	49	52	45	41	50	46	38	33
	Nai Mueang	AT(β-ray)	47	***	44	***	54	59	51	45	55	54	53	49	50	44	41

Terms and abbreviations are given in Table 4.2.

Table 4.30 Annual $PM_{2.5}$ concentration from 2008 to 2022

unit: $\mu g/m^3$

Country	Site	Method	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Cambodia	Phnom Penh	AT(β-ray)										13	19	28	20	18	17
China	Jinyunshan	AT(β-ray)															29
	Hongwen	AT(β-ray)															16
	Haibin-Park	AT(β-ray)															19
Indonesia	Jakarta	AT(β-ray)									***	39	46	38	34	***	***
Japan	Rishiri	AT(β-ray)	9	8	9	8	8	7	8	8	7	8	7	8	7	6	6
	Ochiishi	AT(β-ray)	16	12	12	10	9	7	7	9	8	7	6	7	5	6	6
	Tappi	AT(β-ray)								10	9	8	9				
	Sadoseki	AT(β-ray)							11	10	10	10	9	9	7	4	***
	Happo	AT(β-ray)								7	6	6	6	5	5	5	5
	Ijira	AT(β-ray)								11	9	11	8	8	6	6	6
	Oki	AT(β-ray)	14	12	12	14	13	15	13	13	12	11	12	10	9	11	***
	Banryu	AT(β-ray)								13	12	13	11				
	Yusuhara	AT(β-ray)								11	10	10	10	10	9	9	8
	Hedo	AT(β-ray)								10	10	11	11	10	10	9	8
	Ogasawara	AT(β-ray)								7	6	6	6	6	6	6	5
	Niigata-maki	AT(β-ray)													7	6	7
	Tsushima	AT(β-ray)												12	10	10	9
Lao PDR	Vientiane	AT(β-ray)											31	32	31	***	***
Mongoloa	Ulaanbaatar	AT(β-ray)							50	50	53	48	43	39	***	49	26
Myanmar	Yangon	AT(β-ray)											24	24	22	28	26
	Mandalay	AT(β-ray)								47	33	37	16	41	77	***	***
Philippines	Metro Manila	AT(β-ray)								22	20	18	17	16	12	13	***
	Mt. Sto. Tomas	AT(β-ray)														3	3
Republic of Korea	Kanghwa	AT(β-ray)									28	25	22	23	19	19	18
	Cheju	AT(β-ray)									21	16	16	20	15	12	13
	Imsil	AT(β-ray)												19	16	18	18
Thailand	Bangkok	AT(β-ray)								18	23	25	21	21	19	18	16
	Samutprakarn	AT(β-ray)									28	24	23	22	19	20	23
	Khanchanaburi	AT(β-ray)								24	***	7	27	7	104	***	15
	ChangPhueak	AT(β-ray)									24	30	29	36	33	29	23
	Si Phum	AT(β-ray)						35	33	33	32	23	30	31	28	24	19
	Nai Mueang	AT(β-ray)												24	27	25	24
Vietnam	Hoa Binh	AT(β-ray)								40	49	37	37	34	30	24	***

Terms and abbreviations are given in Table 4.2.

Table 4.31 Annual SO_4^{2-} in PM concentration from 2008 to 2022

unit: µg/m^3

Country	Site	Method	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Cambodia	Phnom Penh	FP			2.85	2.95	2.63	2.91	2.11	2.20	1.54	2.11	***	***	***	***	***
China	Hongwen	FP	13.38	12.72	14.10	17.60	***	***	***	***	10.92	9.08					
Indonesia	Jakarta	FP							11.44	6.76	3.53	4.23	6.68	5.52	4.07	6.42	5.47
	Serpong	FP	0.71	0.79	0.50	0.65	4.03	3.54	3.69	5.16	3.41	4.43	6.42	6.05	4.99	5.49	3.78
	Bandung	FP							6.93	2.69	2.73	2.28	7.52	8.08	5.03	7.14	8.12
Japan	Rishiri	FP	2.94	2.50	2.74	2.71	2.32	2.72	2.21	2.52	2.05	2.13	2.05	3.82	2.13	1.81	1.92
	Ochiishi	FP	2.73	2.61	2.31	2.13	1.95	2.19	2.52	2.05	1.98	2.38	2.03	2.05	1.67	2.14	2.09
	Tappi	FP	4.67	4.29	4.12	3.99	3.76	3.83	5.38	4.30	3.08	3.02	2.56				
	Sado-seki	FP	4.17	3.58	3.20	3.50	3.53	3.71	3.54	4.03	2.88	2.82	3.73	2.50	2.08	***	2.01
	Happo	FP	2.52	0.59	0.86	1.02	2.36	2.50	2.49	2.16	1.80	1.57	1.56	1.24	1.54	1.06	1.02
	Ijira	FP	4.78	3.88	3.25	3.55	2.52	2.88	3.84	2.84	2.91	2.50	2.45	2.51	1.64	1.60	1.78
	Oki	FP	4.54	4.29	4.43	4.76	4.90	5.56	5.25	4.69	4.84	4.31	4.12	3.68	3.47	2.79	3.12
	Banryu	FP	5.11	5.44	4.37	4.55	5.05	5.56	4.99	4.60	4.24	3.52	3.59				
	Yusuhara	FP	4.54	5.16	4.46	4.03	4.44	5.28	4.72	3.75	3.29	3.16	2.94	2.88	2.53	2.15	2.37
	Hedo	FP	5.69	5.62	3.53	2.48	4.28	5.43	5.39	5.12	4.57	4.37	4.37	3.84	3.79	2.86	2.88
	Ogasawara	FP	2.72	2.64	2.17	2.46	2.41	3.10	2.58	2.69	1.93	1.94	1.67	1.86	3.01	2.00	1.67
	Tokyo	FP	5.15	4.62	4.28	4.06	3.14	4.38	4.11	3.79	3.16	3.08	3.28	3.11	2.53	2.18	2.26
	Niigata-maki	FP													1.93	1.62	1.69
	Tsushima	FP													3.19	2.78	2.58
Lao PDR	Vientiane	FP								4.75	3.77	***	***	***	***	***	***
Malaysia	Petaling Jaya	FP	3.32	3.01	2.94	4.22	3.24	3.17	4.81	4.19	2.96	2.77	4.72	***	2.65	2.40	2.61
	Tanah Rata	FP	1.59	1.39	0.95	1.18	1.52	1.48	2.59	3.29	2.01	1.28	0.15	***	1.42	1.09	1.13
	Danum Valley	FP	1.12	3.64	1.73	0.86	0.38	0.78	1.11	1.80	1.10	0.75	1.05	***	0.77	0.72	0.73
Mongolia	Ulaanbaatar	FP	1.33	2.24	4.70	4.11	***	***	***	***	2.10	2.23	1.25	1.15	0.95	1.27	***
	Terelj	FP	1.42	1.07	0.61	1.06	***	***	***	***	1.70	0.11	0.07	0.15	0.11	0.27	***
Myanmar	Yangon	FP				3.77	3.59	1.40	1.56	0.90	0.54	1.70	1.52	1.51	2.40	0.88	0.33
Philippines	Metro Manila	FP	2.37	***	1.43	***	***	***	***	***	***	***	***	2.33	3.18	3.88	3.12
	Los Banos	FP	1.86	***	***	***	***	***	***	***	***	***	***	***	***	***	3.80
	Mt. Sto. Tomas	FP	0.91	0.16	1.40	***	0.15	0.17	0.38	0.27	0.30	***	***	***	***	***	***
Republic of Korea	Kanghwa	FP with $PM_{2.5}$ cyclone	3.11	6.04	6.19	***	***	7.43	7.17	6.12	6.11	4.20	3.37	3.37	4.23	3.58	3.46
	Cheju	FP with $PM_{2.5}$ cyclone	5.51	4.68	3.82	***	***	4.37	7.81	5.62	4.75	2.01	3.45	4.35	3.41	2.31	2.34
	Imsil	FP with $PM_{2.5}$ cyclone	4.18	4.66	5.03	***	***	5.61	5.86	4.66	5.07	3.55	3.30	3.77	2.65	2.13	3.06
Russia	Mondy	FP	0.38	0.39	0.14	0.19	0.22	0.22	0.05	0.29	0.45	0.58	0.35	0.21	0.09	0.06	0.04
	Listvyanka	FP	1.02	1.58	0.89	1.00	1.09	0.67	1.00	0.86	0.88	0.85	0.78	0.53	0.31	0.38	0.44
	Irkutsk	FP	2.55	2.36	2.29	2.28	3.07	1.71	2.14	2.18	2.03	1.85	2.28	1.15	1.00	1.01	1.50
	Primorskaya	FP	3.59	3.71	4.04	3.60	3.27	3.66	3.62	3.24	2.23	1.08	0.52	0.38	0.59	0.66	0.47
Thailand	Bangkok	FP	2.65	2.71	3.63	3.31	2.26	2.80	4.38	2.64	4.10	1.47	3.77	3.10	2.12	***	0.67
	Pathumthani	FP	1.41	3.12	3.78	1.64	***	***	***	***	***	***	***	***	***	***	***
	Khanchanaburi	FP	2.54	1.32	0.29	2.08	2.34	1.40	3.19	1.97	15.58	1.82	3.27	3.71	***	***	***
	Mae Hia	FP	1.75	1.97	1.29	1.34	1.12	0.39	0.10	0.08	0.86	0.87	0.83	1.17			
	Sakaerat	FP	3.78	3.44	2.12	2.74	2.44	2.89	3.31	2.70	2.79	2.35	3.26	2.17			
Vietnam	Hanoi	FP	9.53	8.77	15.63	14.40	7.82	11.54	8.47	10.83	8.84	7.96	4.50	5.19	6.95	8.30	10.24
	Hoa Binh	FP	4.51	2.49	2.26	3.81	1.59	2.58	4.95	6.38	5.78	3.24	4.43	2.90	3.26	3.49	3.62
	Can Tho	FP							1.40	1.22	1.42	5.58	5.40	5.83	5.46	5.26	5.85
	Ho Chi Minh	FP							2.08	2.42	2.15	7.68	6.75	7.11	7.24	5.82	5.97
	Yen Bai	FP								8.68	6.49	6.61	7.14	5.30	5.67	7.73	6.18

Terms and abbreviations are given in Table 4.2.

Table 4.32 Annual NO_3^- in PM concentration from 2008 to 2022

unit: µg/m^3

Country	Site	Method	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Cambodia	Phnom Penh	FP			1.32	1.27	1.20	1.18	1.22	2.03	1.37	1.58	***	***	***	***	***
China	Hongwen	FP	8.10	7.98	11.66	11.66	***	***	***	***	7.62	8.26					
Indonesia	Jakarta	FP							4.67	2.37	1.34	1.36	2.78	2.47	1.39	1.51	1.56
	Serpong	FP	0.18	0.13	0.21	0.57	1.09	0.53	0.86	1.12	0.82	1.05	1.54	1.22	0.83	0.75	0.65
	Bandung	FP							1.92	1.19	1.00	0.73	1.57	1.92	1.66	2.16	2.05
Japan	Rishiri	FP	0.76	0.64	0.77	0.66	0.63	0.60	0.51	0.75	0.63	0.70	0.74	1.49	0.74	0.66	0.68
	Ochiishi	FP	0.71	0.67	0.55	0.67	0.43	0.42	0.71	0.57	0.67	0.82	0.82	0.75	0.60	0.78	0.75
	Tappi	FP	1.23	1.29	1.24	1.27	0.98	1.04	1.45	1.29	1.23	1.27	1.18				
	Sado-seki	FP	1.07	1.05	0.82	1.13	0.90	0.92	1.06	1.23	1.02	1.10	1.42	0.91	0.92	***	0.95
	Happo	FP	0.22	0.10	0.11	0.14	0.31	0.36	0.58	0.34	0.39	0.36	0.42	0.20	0.27	0.34	0.29
	Ijira	FP	0.39	0.40	0.40	0.47	0.25	0.30	0.42	0.39	0.46	0.41	0.47	0.49	0.32	0.54	0.41
	Oki	FP	1.22	1.31	1.50	1.85	1.51	1.82	1.79	1.66	2.10	2.70	1.98	1.87	1.58	1.76	1.80
	Banryu	FP	1.35	1.43	1.53	1.68	1.51	1.65	1.45	1.47	1.67	2.13	1.72				
	Yusuhara	FP	0.29	0.52	0.66	0.61	0.41	0.66	0.55	0.50	0.54	0.56	0.57	0.56	0.56	0.89	0.73
	Hedo	FP	1.52	1.63	1.09	0.80	1.27	1.62	1.72	1.87	1.59	1.75	1.58	1.60	1.39	1.41	1.23
	Ogasawara	FP	0.57	0.60	0.53	0.53	0.53	0.60	0.48	0.71	0.52	0.55	0.48	0.56	0.53	0.65	0.43
	Tokyo	FP	4.03	3.85	3.80	3.76	2.73	3.13	3.13	3.55	3.19	2.99	3.34	3.10	2.65	2.86	2.69
	Niigata-maki	FP													0.78	0.95	0.82
	Tsushima	FP													1.57	2.39	2.23
Lao PDR	Vientiane	FP								0.47	0.40	***	***	***	***	***	***
Malaysia	Petaling Jaya	FP	1.17	1.22	1.25	1.14	1.23	1.65	1.53	1.70	1.46	1.29	1.77	***	1.37	1.21	1.30
	Tanah Rata	FP	0.16	0.15	0.12	0.13	0.18	0.34	0.40	0.54	0.26	0.13	0.01	***	0.16	0.18	0.15
	Danum Valley	FP	0.06	0.21	0.36	0.04	0.08	0.09	0.11	0.11	0.10	0.08	0.06	***	0.08	0.11	0.07
Mongolia	Ulaanbaatar	FP	0.90	0.93	1.25	1.81	***	***	***	***	0.10	0.18	0.18	0.16	0.14	0.37	***
	Terelj	FP	0.65	0.24	0.11	0.29	***	***	***	***	<0.01	0.01	0.01	0.01	0.02	0.04	***
Myanmar	Yangon	FP				0.31	0.92	0.54	0.33	0.44	0.48	1.65	0.82	0.60	0.91	0.58	0.20
Philippines	Metro Manila	FP	0.99	***	0.85	***	***	***	***	***	***	***	***	1.35	1.66	1.64	1.67
	Los Banos	FP	0.27	***	***	***	***	***	***	***	***	***	***	***	***	***	1.13
	Mt. Sto. Tomas	FP	1.15	0.12	0.78	***	0.19	0.14	0.26	0.27	0.14	***	***	***	***	***	***
Republic of Korea	Kanghwa	FP with $PM_{2.5}$ cyclone	1.92	2.38	3.50	***	***	3.51	2.54	3.40	3.25	2.82	2.74	3.10	2.75	4.15	1.99
	Cheju	FP with $PM_{2.5}$ cyclone	0.34	0.49	0.67	***	***	0.74	1.10	0.79	0.75	1.92	1.41	1.15	0.61	0.49	0.49
	Imsil	FP with $PM_{2.5}$ cyclone	2.86	2.67	3.82	***	***	2.95	2.82	1.93	1.17	2.72	3.17	2.56	2.67	1.65	3.20
Russia	Mondy	FP	0.13	0.02	0.19	0.02	0.03	0.02	<0.01	0.03	0.01	0.04	0.03	0.03	0.01	<0.01	<0.01
	Listvyanka	FP	0.20	0.25	0.17	0.25	0.12	0.09	0.18	0.27	0.20	0.07	0.10	0.05	0.01	0.06	0.18
	Irkutsk	FP	0.89	0.83	0.91	0.88	0.92	0.49	0.80	0.66	0.67	0.63	0.75	0.25	0.25	0.25	0.64
	Primorskaya	FP	1.03	1.10	0.79	0.27	0.68	1.17	1.37	1.15	0.77	0.53	0.19	0.39	1.08	0.27	1.00
Thailand	Bangkok	FP	1.44	1.62	1.86	2.00	1.91	1.41	2.77	2.20	1.98	1.28	2.68	2.29	2.26	***	1.26
	Pathumthani	FP	0.77	1.73	1.93	0.92	***	***	***	***	***	***	***	***	***	***	***
	Khanchanaburi	FP	0.15	3.55	0.06	0.04	0.10	0.11	0.17	0.20	0.83	0.24	0.20	0.19	***	***	***
	Mae Hia	FP	0.36	0.66	10.25	0.24	0.31	0.30	0.11	0.13	0.18	0.18	0.20	0.35			
	Sakaerat	FP	0.41	0.34	0.18	0.31	0.28	0.41	0.58	0.32	0.30	0.27	0.38	0.50			
Vietnam	Hanoi	FP	2.89	3.52	7.81	6.82	5.57	6.73	5.86	7.26	6.58	11.14	4.19	4.50	5.91	6.52	8.66
	Hoa Binh	FP	1.24	0.49	0.61	1.14	0.92	1.11	1.88	2.95	3.21	3.28	2.95	2.22	2.85	2.61	2.89
	Can Tho	FP							0.67	0.55	0.66	2.19	2.16	2.15	2.15	1.97	2.16
	Ho Chi Minh	FP							1.09	1.07	2.06	5.67	5.80	5.84	5.75	5.03	5.12
	Yen Bai	FP								3.19	4.36	8.00	5.89	3.91	4.70	5.71	5.02

Terms and abbreviations are given in Table 4.2.

Table 4.33 Annual Cl^- in PM concentration from 2008 to 2022

unit: $\mu g/m^3$

Country	Site	Method	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Cambodia	Phnom Penh	FP			0.20	0.24	0.24	0.40	0.26	0.54	0.56	0.32	***	***	***	***	***
China	Hongwen	FP	1.85	1.73	2.28	1.51	***	***	***	***	0.99	0.95					
Indonesia	Jakarta	FP							1.35	0.51	0.41	0.54	0.84	1.25	0.52	0.39	0.47
	Serpong	FP	0.10	0.09	0.25	0.10	0.16	0.20	0.18	0.28	0.29	0.23	0.25	0.23	0.28	0.34	0.16
	Bandung	FP							0.31	0.27	0.20	0.57	0.17	0.21	0.36	0.35	0.38
Japan	Rishiri	FP	2.20	2.42	2.79	2.31	1.94	2.00	2.95	3.57	2.21	2.66	2.93	4.54	2.66	2.67	3.27
	Ochiishi	FP	4.44	6.88	4.34	3.28	3.06	4.58	4.12	4.46	3.89	3.81	3.97	3.89	3.14	6.72	7.97
	Tappi	FP	8.26	8.97	6.01	5.93	8.15	5.91	15.78	12.97	5.79	5.70	5.54				
	Sado-seki	FP	4.61	3.38	3.78	3.06	3.02	3.43	3.00	4.39	3.77	3.52	5.80	4.30	3.74	***	3.31
	Happo	FP	0.01	0.02	0.03	0.02	0.02	0.02	0.03	0.02	0.02	0.03	0.03	0.01	0.03	0.03	0.02
	Ijira	FP	0.04	0.06	0.05	0.04	0.02	0.03	0.06	0.05	0.06	0.06	0.10	0.08	0.07	0.08	0.07
	Oki	FP	2.71	3.69	4.54	4.29	4.20	4.98	4.96	4.58	5.25	10.45	5.07	4.09	5.26	5.68	6.24
	Banryu	FP	1.13	1.59	1.38	1.53	0.99	1.52	1.60	1.40	0.78	2.79	1.45				
	Yusuhara	FP	0.03	0.21	0.10	0.08	0.17	0.06	0.06	0.07	0.07	0.06	0.06	0.08	0.08	0.15	0.09
	Hedo	FP	4.40	6.02	4.62	3.09	6.02	7.27	7.61	5.86	7.53	7.16	7.69	6.57	7.17	7.36	7.20
	Ogasawara	FP	3.04	3.93	3.44	3.79	3.55	3.51	3.50	4.32	3.83	3.71	3.59	4.09	3.75	5.46	3.72
	Tokyo	FP	0.63	0.68	0.66	0.70	0.49	0.59	0.53	0.53	0.57	0.43	0.66	0.62	0.52	0.72	0.48
	Niigata-maki	FP													1.12	1.82	1.44
	Tsushima	FP													0.82	0.74	0.62
Lao PDR	Vientiane	FP								0.06	0.06	***	***	***	***	***	***
Malaysia	Petaling Jaya	FP	0.09	0.11	0.19	0.11	0.13	0.16	0.23	0.15	0.21	0.13	0.13	***	0.17	0.11	0.16
	Tanah Rata	FP	0.02	0.03	0.05	0.03	0.03	0.07	0.10	0.11	0.09	0.04	<0.01	***	0.06	0.04	0.03
	Danum Valley	FP	0.04	0.15	0.33	0.04	0.02	0.11	0.13	0.11	0.07	0.08	0.02	***	0.13	0.12	0.06
Mongolia	Ulaanbaatar	FP	0.47	1.84	1.06	1.18	***	***	***	***	0.08	0.20	0.14	0.20	0.12	0.18	***
	Terelj	FP	0.24	0.22	0.18	0.23	***	***	***	***	0.02	0.03	0.02	0.02	<0.01	0.02	***
Myanmar	Yangon	FP				0.59	0.56	0.21	0.27	0.63	0.57	0.13	0.52	0.23	0.48	0.27	0.15
Philippines	Metro Manila	FP	0.59	***	0.66	***	***	***	***	***	***	***	***	0.69	1.05	1.00	0.98
	Los Banos	FP	0.82	***	***	***	***	***	***	***	***	***	***	***	***	***	1.12
	Mt. Sto. Tomas	FP	0.35	0.05	0.32	***	0.05	0.04	0.10	0.08	0.04	***	***	***	***	***	***
Republic of Korea	Kanghwa	FP with $PM_{2.5}$ cyclone	0.19	0.64	0.44	***	***	0.47	0.13	0.13	0.10	0.28	0.11	0.09	0.08	0.15	0.08
	Cheju (Kosan)	FP with $PM_{2.5}$ cyclone	0.32	0.29	0.46	***	***	1.12	0.72	0.37	0.60	0.54	0.62	0.23	0.19	0.08	0.12
	Imsil	FP with $PM_{2.5}$ cyclone	0.50	0.45	0.61	***	***	0.48	0.25	0.38	0.31	0.39	0.41	0.20	0.14	0.08	0.22
Russia	Mondy	FP	<0.01	<0.01	0.33	0.04	0.24	0.14	0.04	0.05	0.01	0.03	0.02	0.07	0.02	<0.01	0.03
	Listvyanka	FP	0.11	0.11	0.11	0.04	0.26	0.06	0.09	0.12	0.06	0.05	0.04	0.03	0.03	0.06	0.09
	Irkutsk	FP	0.32	0.40	0.31	0.43	0.46	0.24	0.26	0.17	0.23	0.19	0.15	0.11	0.13	0.10	0.21
	Primorskaya	FP	0.17	0.14	0.20	0.09	0.29	0.28	0.14	0.15	0.10	0.12	0.03	0.09	0.49	0.41	0.40
Thailand	Bangkok	FP	0.18	0.26	0.28	0.32	0.26	0.16	0.31	0.19	0.34	0.09	0.27	0.28	0.22	***	0.3
	Pathumthani	FP	0.07	0.20	0.14	0.15	***	***	***	***	***	***	***	***	***	***	***
	Khanchanaburi	FP	0.06	0.04	0.10	0.05	<0.01	0.05	0.04	0.08	0.26	0.22	0.03	0.10	***	***	***
	Mae Hia	FP	0.05	0.09	0.16	0.12	0.13	0.12	0.08	0.06	0.21	0.15	0.13	0.22			
	Sakaerat	FP	0.06	0.07	0.02	0.06	0.10	0.12	0.16	0.08	0.21	0.04	0.08	0.09			
Vietnam	Hanoi	FP	0.79	0.58	1.66	1.33	1.11	1.75	1.34	1.94	2.32	4.04	2.33	1.72	3.92	5.27	4.23
	Hoa Binh	FP	0.64	0.11	0.35	0.27	0.43	0.59	1.18	0.79	1.18	1.04	1.88	2.79	2.61	1.97	2.92
	Can Tho	FP							0.56	0.46	1.78	1.08	2.14	2.23	2.36	2.01	2.22
	Ho Chi Minh	FP							0.74	0.59	1.29	1.40	4.03	4.42	4.45	3.70	3.71
	Yen Bai	FP								1.01	1.25	3.58	3.52	2.78	2.92	3.20	3.49

Terms and abbreviations are given in Table 4.2.

Table 4.34 Annual NH_4^+ in PM concentration from 2008 to 2022

unit: µg/m^3

Country	Site	Method	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Cambodia	Phnom Penh	FP			0.61	0.50	0.34	0.57	0.52	0.54	0.54	0.38	***	***	***	***	***
China	Hongwen	FP	5.55	5.48	6.72	5.85	***	***	***	***	3.68	2.83					
Indonesia	Jakarta	FP							0.57	0.71	0.40	0.32	1.11	1.03	0.69	1.26	1.29
	Serpong	FP	0.08	0.11	0.14	0.32	0.78	0.38	0.47	0.67	0.55	0.50	1.07	0.88	1.01	0.87	0.82
	Bandung	FP							1.20	1.17	1.42	1.13	1.60	1.38	1.29	1.93	2.11
Japan	Rishiri	FP	0.53	0.45	0.47	0.47	0.41	0.45	0.35	0.46	0.40	0.42	0.43	0.73	0.42	0.33	0.33
	Ochiishi	FP	0.40	0.40	0.29	0.37	0.32	0.28	0.38	0.24	0.32	0.38	0.35	0.35	0.25	0.28	0.25
	Tappi	FP	0.77	0.66	0.68	0.64	0.53	0.58	0.69	0.46	0.48	0.49	0.42				
	Sado-seki	FP	0.68	0.53	0.50	0.56	0.54	0.62	0.61	0.69	0.48	0.44	0.56	0.39	0.27	***	0.27
	Happo	FP	0.66	0.15	0.22	0.26	0.64	0.63	0.80	0.59	0.53	0.47	0.43	0.33	0.36	0.28	0.28
	Ijira	FP	1.36	1.06	0.87	0.95	0.69	0.81	1.11	0.76	0.82	0.68	0.64	0.65	0.44	0.40	0.47
	Oki	FP	0.97	0.86	0.92	0.93	0.94	1.10	1.05	0.90	1.13	0.77	0.83	0.74	0.54	0.49	0.54
	Banryu	FP	1.32	1.30	1.02	1.06	1.24	1.40	1.22	1.11	1.17	0.93	0.90				
	Yusuhara	FP	1.12	1.25	1.00	0.96	1.06	1.25	1.10	0.91	0.86	0.89	0.72	0.74	0.60	0.52	0.65
	Hedo	FP	0.98	0.86	0.42	0.43	0.71	0.69	0.61	0.66	0.51	0.53	0.46	0.41	0.34	0.25	0.29
	Ogasawara	FP	0.24	0.21	0.17	0.22	0.22	0.31	0.23	0.25	0.19	0.22	0.16	0.17	0.25	0.16	0.12
	Tokyo	FP	1.96	1.83	1.71	1.57	1.10	1.44	1.42	1.40	1.18	1.16	1.11	1.02	0.85	0.72	0.71
	Niigata-maki	FP													0.34	0.31	0.33
	Tsushima	FP													0.75	0.80	0.87
Lao PDR	Vientiane	FP								1.22	1.12	***	***	***	***	***	***
Malaysia	Petaling Jaya	FP	0.82	0.73	0.80	1.12	0.75	0.94	1.37	1.18	0.92	0.74	1.28	***	0.80	0.70	0.76
	Tanah Rata	FP	0.35	0.29	0.25	0.49	0.46	0.39	0.63	1.11	0.46	0.32	<0.01	***	0.39	0.28	0.31
	Danum Valley	FP	0.12	0.39	0.12	0.13	0.08	0.13	0.12	0.25	0.10	0.09	0.14	***	0.13	0.10	0.11
Mongolia	Ulaanbaatar	FP	0.23	0.95	1.69	1.80	***	***	***	***	0.67	0.58	0.34	0.32	0.12	0.61	***
	Terelj	FP	0.37	0.28	0.12	0.43	***	***	***	***	0.06	0.04	<0.01	0.05	0.01	0.14	***
Myanmar	Yangon	FP				0.34	0.38	0.30	0.50	0.45	0.37	0.80	0.33	0.40	0.59	1.05	0.18
Philippines	Metro Manila	FP	0.42	***	0.14	***	***	***	***	***	***	***	***	0.59	0.09	0.51	0.53
	Los Banos	FP	0.34	***	***	***	***	***	***	***	***	***	***	***	***	***	0.61
	Mt. Sto. Tomas	FP	0.33	0.03	0.10	***	<0.01	0.01	0.10	0.05	<0.01	***	***	***	***	***	***
Republic of Korea	Kanghwa	FP with $PM_{2.5}$ cyclone	1.34	2.51	2.93	***	***	3.54	3.58	3.48	3.20	2.50	2.13	1.99	2.06	2.38	1.86
	Cheju	FP with $PM_{2.5}$ cyclone	1.61	1.54	1.32	***	***	1.80	2.83	2.30	1.86	1.19	1.38	1.59	1.16	0.76	0.81
	Imsil	FP with $PM_{2.5}$ cyclone	1.82	2.34	2.54	***	***	2.82	2.87	2.36	2.02	1.96	1.92	1.86	1.56	1.21	2.20
Russia	Mondy	FP	0.09	0.07	0.01	0.02	0.04	<0.01	0.02	0.03	0.09	0.12	0.05	0.03	0.01	<0.01	<0.01
	Listvyanka	FP	0.21	0.24	0.15	0.22	0.22	0.10	0.35	0.20	0.21	0.32	0.10	0.13	0.04	0.06	0.08
	Irkutsk	FP	0.80	0.66	0.49	0.62	0.80	0.40	0.55	0.70	0.93	0.57	0.73	0.35	0.28	0.24	0.39
	Primorskaya	FP	0.94	0.99	0.75	0.77	0.70	1.06	0.88	1.04	0.80	0.45	0.13	0.27	0.45	0.32	0.40
Thailand	Bangkok	FP	1.15	0.70	0.69	0.60	0.53	0.79	1.27	0.65	0.75	1.02	0.77	0.63	0.56	***	0.2
	Pathumthani	FP	0.71	1.50	0.84	0.26	***	***	***	***	***	***	***	***	***	***	***
	Khanchanaburi	FP	1.10	0.83	0.18	0.46	0.07	0.30	0.67	0.60	2.73	0.58	0.57	0.50	***	***	***
	Mae Hia	FP	0.49	0.58	3.70	0.31	0.23	0.09	0.09	0.11	0.38	0.25	0.18	0.24			
	Sakaerat	FP	1.13	0.87	0.73	0.96	0.84	0.90	1.01	0.88	0.80	0.77	1.62	1.36			
Vietnam	Hanoi	FP	2.20	1.68	3.28	4.50	2.83	3.32	2.46	2.06	2.32	3.41	1.37	0.71	1.19	2.66	1.95
	Hoa Binh	FP	0.84	0.90	0.64	1.55	0.66	0.90	1.76	1.99	1.90	1.03	1.42	0.96	0.73	0.85	0.97
	Can Tho	FP							0.63	1.08	0.77	1.39	1.21	1.12	1.09	0.98	1.00
	Ho Chi Minh	FP							1.00	1.35	1.44	1.23	1.37	1.33	1.33	0.95	1.01
	Yen Bai	FP								2.00	2.62	3.17	2.58	1.35	1.15	1.96	1.53

Terms and abbreviations are given in Table 4.2.

Table 4.35 Annual Na^+ in PM concentration from 2008 to 2022

unit: μg/m^3

Country	Site	Method	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Cambodia	Phnom Penh	FP			0.53	0.63	0.57	0.67	0.59	0.81	0.64	0.63	***	***	***	***	***
China	Hongwen	FP	1.40	1.55	1.76	1.62	***	***	***	***	1.61	1.58					
Indonesia	Jakarta	FP							1.84	0.97	0.56	0.49	1.10	0.97	0.82	0.78	0.96
	Serpong	FP	0.06	0.10	0.09	0.16	0.45	0.37	0.40	0.69	0.36	0.32	0.70	0.54	0.52	0.61	0.31
	Bandung	FP							0.57	0.64	0.41	0.49	0.67	0.49	0.48	0.47	0.36
Japan	Rishiri	FP	1.82	1.91	2.14	1.84	1.58	1.64	2.13	2.44	1.65	1.88	2.08	3.43	1.90	1.87	2.11
	Ochiishi	FP	3.09	4.37	2.87	2.45	2.15	3.00	2.72	2.86	2.56	2.64	2.64	2.60	2.11	4.15	4.78
	Tappi	FP	5.31	6.01	4.24	3.97	5.12	4.05	9.88	7.92	3.81	3.77	3.58				
	Sado-seki	FP	3.32	2.56	2.67	2.43	2.38	2.56	2.34	3.17	2.68	2.57	3.91	2.81	2.57	***	2.38
	Happo	FP	0.10	0.03	0.03	0.05	0.09	0.09	0.09	0.09	0.09	0.08	0.10	0.06	0.09	0.11	0.07
	Ijira	FP	0.25	0.25	0.22	0.25	0.16	0.16	0.21	0.23	0.24	0.25	0.28	0.30	0.23	0.26	0.23
	Oki	FP	2.26	2.75	3.35	3.28	3.25	3.80	3.74	3.40	3.89	6.68	3.66	3.09	3.67	3.77	4.18
	Banryu	FP	1.32	1.64	1.41	1.59	1.29	1.62	1.60	1.46	1.07	2.23	1.46				
	Yusuhara	FP	0.26	0.54	0.41	0.42	0.39	0.45	0.34	0.30	0.30	0.28	0.32	0.30	0.32	0.38	0.33
	Hedo	FP	3.77	4.63	3.38	2.28	4.34	5.27	4.79	4.43	5.21	5.03	5.29	4.58	4.84	4.73	4.64
	Ogasawara	FP	2.38	2.80	2.38	2.61	2.45	2.65	2.54	3.06	2.54	2.50	2.40	2.74	2.75	3.45	2.44
	Tokyo	FP	0.80	0.94	0.91	0.89	0.71	0.87	0.77	0.87	0.86	0.76	0.98	0.94	0.76	0.93	0.84
	Niigata-maki	FP													1.07	1.37	1.20
	Tsushima	FP													1.02	1.00	0.87
Lao PDR	Vientiane	FP								0.28	0.25	***	***	***	***	***	***
Malaysia	Petaling Jaya	FP	0.34	0.24	0.26	0.32	0.27	0.42	0.47	0.53	0.36	0.30	0.44	***	0.47	0.32	0.33
	Tanah Rata	FP	0.13	0.10	0.10	0.12	0.12	0.16	0.21	0.24	0.20	0.08	<0.01	***	0.19	0.14	0.12
	Danum Valley	FP	0.16	0.59	0.72	0.17	0.05	0.16	0.32	0.35	0.25	0.18	0.19	***	0.32	0.17	0.14
Mongolia	Ulaanbaatar	FP	0.09	0.08	0.21	0.20	***	***	***	***	0.20	0.31	0.18	0.22	0.17	0.12	***
	Terelj	FP	0.08	0.11	0.02	0.09	***	***	***	***	0.03	0.03	0.02	0.03	0.01	0.03	***
Myanmar	Yangon	FP				0.59	0.74	0.21	0.34	0.12	0.31	0.19	0.58	0.27	1.88	0.42	0.16
Philippines	Metro Manila	FP	0.97	***	0.54	***	***	***	***	***	***	***	***	0.66	0.77	0.99	0.46
	Los Banos	FP	0.67	***	***	***	***	***	***	***	***	***	***	***	***	***	1.10
	Mt. Sto. Tomas	FP	0.38	0.16	0.52	***	0.07	0.10	0.31	0.58	0.24	***	***	***	***	***	***
Republic of Korea	Kanghwa	FP with $PM_{2.5}$ cyclone	0.34	0.52	0.40	***	***	0.51	0.30	0.26	0.25	0.23	0.20	0.26	0.24	0.14	0.14
	Cheju	FP with $PM_{2.5}$ cyclone	0.41	0.51	0.45	***	***	0.64	0.57	0.28	0.39	0.38	0.39	0.30	0.31	0.25	0.30
	Imsil	FP with $PM_{2.5}$ cyclone	0.46	0.54	0.40	***	***	0.24	0.20	0.21	0.24	0.26	0.26	0.21	0.15	0.07	0.08
Russia	Mondy	FP	0.02	0.03	0.36	<0.01	0.08	0.06	0.01	0.06	0.02	0.16	0.03	0.02	0.03	0.01	0.22
	Listvyanka	FP	0.12	0.16	0.08	0.04	0.24	0.05	0.06	0.06	0.13	0.24	0.05	0.02	0.06	0.05	0.05
	Irkutsk	FP	0.23	0.50	0.26	0.28	0.28	0.14	0.16	0.13	0.14	0.45	0.16	0.11	0.15	0.14	0.18
	Primorskaya	FP	0.26	0.25	0.26	0.11	0.22	0.27	0.79	0.18	0.14	0.10	0.05	0.03	0.12	0.04	0.08
Thailand	Bangkok	FP	0.33	0.57	0.54	0.54	0.43	0.47	1.03	0.53	0.71	0.15	0.49	0.51	0.54	***	0.14
	Pathumthani	FP	0.27	0.38	0.30	0.22	***	***	***	***	***	***	***	***	***	***	***
	Khanchanaburi	FP	0.17	0.09	0.06	0.09	0.07	0.13	0.25	0.19	1.49	0.20	0.09	0.16	***	***	***
	Mae Hia	FP	0.15	0.48	0.17	0.10	0.16	0.11	0.07	0.08	0.29	0.25	0.21	0.33			
	Sakaerat	FP	0.24	0.21	0.16	0.17	0.18	0.13	0.27	0.43	0.33	0.18	0.37	0.52			
Vietnam	Hanoi	FP	0.56	0.58	1.03	0.67	0.70	0.75	0.58	1.23	1.58	1.44	0.66	0.48	0.80	1.78	1.11
	Hoa Binh	FP	0.24	0.13	0.28	0.23	0.31	0.44	0.26	0.78	1.21	0.54	0.49	0.84	0.65	0.47	0.84
	Can Tho	FP							0.24	0.31	0.24	0.48	0.24	0.13	0.22	0.19	0.18
	Ho Chi Minh	FP							0.26	0.37	0.38	1.08	1.05	1.36	1.18	0.84	0.88
	Yen Bai	FP								0.83	1.18	0.88	0.78	0.90	0.78	1.14	1.03

Terms and abbreviations are given in Table 4.2.

Table 4.36 Annual K^+ in PM concentration from 2008 to 2022

unit: $\mu g/m^3$

Country	Site	Method	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Cambodia	Phnom Penh	FP			0.63	0.59	0.46	0.73	0.67	0.75	0.50	0.56	***	***	***	***	***
China	Hongwen	FP	0.62	0.68	3.46	0.72	***	***	***	***	0.55	0.51					
Indonesia	Jakarta	FP							0.96	0.48	0.32	0.22	0.71	0.71	0.34	0.38	0.61
	Serpong	FP	0.07	0.08	0.14	0.37	0.45	0.37	0.40	0.45	0.39	0.28	0.71	0.61	0.48	0.55	0.40
	Bandung	FP							0.55	0.74	0.48	0.47	0.64	0.73	0.39	0.44	0.46
Japan	Rishiri	FP	0.16	0.14	0.15	0.14	0.10	0.10	0.15	0.16	0.12	0.13	0.15	0.31	0.15	0.12	0.13
	Ochiishi	FP	0.16	0.18	0.13	0.12	0.10	0.12	0.13	0.15	0.14	0.11	0.12	0.12	0.08	0.17	0.19
	Tappi	FP	0.26	0.31	0.28	0.23	0.24	0.19	0.38	0.31	0.19	0.19	0.18				
	Sado-seki	FP	0.19	0.18	0.17	0.17	0.14	0.15	0.16	0.18	0.14	0.14	0.19	0.13	0.12	***	0.11
	Happo	FP	0.05	0.02	0.01	0.02	0.04	0.04	0.05	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02
	Ijira	FP	0.14	0.13	0.09	0.11	0.06	0.07	0.11	0.09	0.09	0.10	0.11	0.09	0.06	0.08	0.08
	Oki	FP	0.18	0.20	0.22	0.24	0.22	0.24	0.24	0.20	0.54	0.29	0.20	0.19	0.18	0.19	0.19
	Banryu	FP	0.19	0.21	0.16	0.19	0.16	0.18	0.17	0.15	0.27	0.17	0.12				
	Yusuhara	FP	0.11	0.16	0.12	0.15	0.09	0.12	0.13	0.09	0.08	0.07	0.06	0.08	0.05	0.06	0.06
	Hedo	FP	0.27	0.29	0.21	0.12	0.25	0.26	0.28	0.24	0.26	0.25	0.25	0.24	0.24	0.23	0.22
	Ogasawara	FP	0.16	0.16	0.13	0.13	0.12	0.13	0.12	0.18	0.11	0.12	0.10	0.12	0.13	0.15	0.11
	Tokyo	FP	0.19	0.21	0.18	0.17	0.12	0.16	0.16	0.16	0.13	0.13	0.14	0.14	0.12	0.12	0.11
	Niigata-maki	FP													0.08	0.09	0.08
	Tsushima	FP													0.10	0.11	0.09
Lao PDR	Vientiane	FP								0.36	0.36	***	***	***	***	***	***
Malaysia	Petaling Jaya	FP	0.23	0.23	0.27	0.34	0.27	0.37	0.45	0.41	0.24	0.28	0.42	***	0.35	0.33	0.33
	Tanah Rata	FP	0.09	0.08	0.08	0.12	0.11	0.13	0.18	0.22	0.12	0.08	<0.01	***	0.13	0.10	0.10
	Danum Valley	FP	0.12	0.43	0.29	0.16	0.06	0.14	0.20	0.21	0.17	0.15	0.16	***	0.14	0.12	0.11
Mongolia	Ulaanbaatar	FP	0.12	0.16	0.22	0.29	***	***	***	***	0.08	0.15	0.06	0.05	0.06	0.04	***
	Terelj	FP	0.09	0.16	0.04	0.08	***	***	***	***	0.03	0.03	0.02	0.01	0.01	0.01	***
Myanmar	Yangon	FP				1.24	0.76	0.24	0.55	0.94	0.40	0.47	0.40	1.40	0.67	1.05	0.34
Philippines	Metro Manila	FP	0.43	***	0.22	***	***	***	***	***	***	***	***	0.63	1.25	0.22	0.72
	Los Banos	FP	0.17	***	***	***	***	***	***	***	***	***	***	***	***	***	0.41
	Mt. Sto. Tomas	FP	0.39	0.14	0.15	***	0.01	0.01	0.07	0.06	0.10	***	***	***	***	***	***
Republic of Korea	Kanghwa	FP with $PM_{2.5}$ cyclone	0.25	0.49	0.20	***	***	0.29	0.29	0.21	0.20	0.17	0.09	0.17	0.14	0.17	0.13
	Cheju	FP with $PM_{2.5}$ cyclone	0.33	0.21	0.12	***	***	0.15	0.25	0.11	0.15	0.10	0.07	0.09	0.06	0.03	0.03
	Imsil	FP with $PM_{2.5}$ cyclone	0.37	0.35	0.25	***	***	0.16	0.16	0.13	0.15	0.15	0.13	0.14	0.08	0.04	0.08
Russia	Mondy	FP	0.02	0.02	0.04	0.02	0.08	0.08	0.01	0.03	0.03	0.08	0.04	0.05	0.04	0.04	0.03
	Listvyanka	FP	0.09	0.11	0.07	0.06	0.28	0.06	0.05	0.05	0.07	0.28	0.05	0.04	0.06	0.02	0.06
	Irkutsk	FP	0.21	0.16	0.13	0.25	0.32	0.15	0.16	0.09	0.15	0.53	0.16	0.11	0.28	0.14	0.23
	Primorskaya	FP	0.37	0.37	0.44	0.27	0.30	0.40	0.20	0.23	0.19	0.14	0.06	0.05	0.09	0.05	0.09
Thailand	Bangkok	FP	0.36	0.43	0.39	0.41	0.37	0.47	0.85	0.49	0.87	0.21	0.47	0.41	0.43	***	0.43
	Pathumthani	FP	0.26	0.54	0.47	0.24	***	***	***	***	***	***	***	***	***	***	***
	Khanchanaburi	FP	0.19	0.27	0.06	0.13	0.06	0.19	0.43	0.27	1.78	6.90	0.35	0.44	***	***	***
	Mae Hia	FP	0.37	0.47	0.42	0.27	0.21	0.17	0.05	0.07	0.26	0.19	0.23	0.21			
	Sakaerat	FP	0.34	0.31	0.18	0.64	0.51	0.16	0.33	0.30	0.25	0.22	0.64	0.54			
Vietnam	Hanoi	FP	1.00	0.79	1.15	0.85	1.36	2.34	0.64	0.98	1.09	0.96	0.55	0.40	0.43	0.21	0.53
	Hoa Binh	FP	0.94	0.70	0.65	0.32	0.56	1.30	0.83	0.70	0.90	0.31	0.35	0.14	0.15	0.16	0.17
	Can Tho	FP							0.89	0.19	0.30	0.29	0.24	0.23	0.23	0.22	0.27
	Ho Chi Minh	FP							0.53	0.34	0.58	0.66	0.97	1.04	1.10	0.81	0.85
	Yen Bai	FP								1.11	0.94	0.91	0.85	0.27	0.31	0.44	0.31

Terms and abbreviations are given in Table 4.2.

Table 4.37 Annual Mg^{2+} in PM concentration from 2008 to 2022

unit: μg/m^3

Country	Site	Method	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Cambodia	Phnom Penh	FP			0.12	0.14	0.11	0.14	0.13	0.17	0.12	0.16	***	***	***	***	***
China	Hongwen	FP	0.31	0.33	0.48	0.31	***	***	***	***	0.25	0.30					
Indonesia	Jakarta	FP							0.34	0.16	0.09	0.07	0.18	0.20	0.12	0.20	0.16
	Serpong	FP	0.03	0.02	0.02	0.05	0.09	0.08	0.09	0.07	0.06	0.05	0.11	0.15	0.09	0.14	0.07
	Bandung	FP							0.14	0.21	0.17	0.15	0.17	0.19	0.12	0.13	0.11
Japan	Rishiri	FP	0.24	0.24	0.26	0.22	0.19	0.19	0.25	0.29	0.19	0.23	0.26	0.43	0.23	0.24	0.26
	Ochiishi	FP	0.44	0.56	0.34	0.30	0.25	0.35	0.33	0.34	0.28	0.30	0.31	0.30	0.24	0.49	0.55
	Tappi	FP	0.56	0.68	0.48	0.46	0.60	0.49	1.11	0.90	0.43	0.44	0.42				
	Sado-seki	FP	0.39	0.31	0.32	0.30	0.29	0.31	0.29	0.38	0.32	0.32	0.48	0.33	0.30	***	0.29
	Happo	FP	0.03	<0.01	<0.01	0.01	0.02	0.03	0.03	0.02	0.02	0.01	0.02	0.01	0.02	0.02	0.02
	Ijira	FP	0.04	0.04	0.04	0.04	0.02	0.02	0.04	0.03	0.03	0.03	0.04	0.04	0.03	0.04	0.03
	Oki	FP	0.28	0.34	0.44	0.36	0.39	0.46	0.44	0.40	0.47	0.79	0.44	0.38	0.44	0.45	0.50
	Banryu	FP	0.17	0.20	0.20	0.21	0.17	0.22	0.22	0.20	0.14	0.28	0.19				
	Yusuhara	FP	0.05	0.08	0.08	0.07	0.06	0.08	0.06	0.05	0.05	0.04	0.05	0.05	0.05	0.06	0.05
	Hedo	FP	0.47	0.58	0.44	0.29	0.53	0.63	0.67	0.55	0.65	0.65	0.69	0.63	0.63	0.60	0.57
	Ogasawara	FP	0.33	0.36	0.30	0.32	0.31	0.33	0.31	0.36	0.31	0.31	0.29	0.33	0.34	0.40	0.29
	Tokyo	FP	0.12	0.13	0.12	0.13	0.11	0.14	0.13	0.13	0.12	0.12	0.13	0.14	0.11	0.12	0.12
	Niigata-maki	FP													0.13	0.16	0.15
	Tsushima	FP													0.13	0.14	0.11
Lao PDR	Vientiane	FP								0.05	0.05	***	***	***	***	***	***
Malaysia	Petaling Jaya	FP	0.05	0.03	0.05	0.04	0.03	0.07	0.08	0.08	0.04	0.04	0.06	***	0.06	0.03	0.04
	Tanah Rata	FP	0.02	0.01	0.02	0.02	0.02	0.03	0.04	0.04	0.02	<0.01	<0.01	***	0.02	0.02	0.02
	Danum Valley	FP	0.05	0.07	0.10	0.02	<0.01	0.01	0.04	0.05	0.03	0.02	0.03	***	0.03	0.02	0.02
Mongolia	Ulaanbaatar	FP	0.11	0.04	0.18	0.38	***	***	***	***	0.04	0.05	0.04	0.02	<0.01	0.02	***
	Terelj	FP	0.02	0.04	0.04	0.05	***	***	***	***	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	***
Myanmar	Yangon	FP				0.18	0.13	0.04	0.09	0.15	0.20	0.04	0.06	0.05	1.12	0.08	0.04
Philippines	Metro Manila	FP	0.17	***	0.10	***	***	***	***	***	***	***	***	0.10	0.13	0.19	<0.01
	Los Banos	FP	0.11	***	***	***	***	***	***	***	***	***	***	***	***	***	0.05
	Mt. Sto. Tomas	FP	0.07	<0.01	0.06	***	0.03	0.04	0.03	0.04	0.04	***	***	***	***	***	***
Republic of Korea	Kanghwa	FP with $PM_{2.5}$ cyclone	0.01	0.03	0.04	***	***	0.08	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.03	0.02
	Cheju	FP with $PM_{2.5}$ cyclone	0.02	<0.01	0.04	***	***	0.04	0.04	0.03	0.07	0.03	0.03	<0.01	0.01	0.02	0.03
	Imsil	FP with $PM_{2.5}$ cyclone	0.01	0.02	0.05	***	***	0.03	0.03	0.03	0.08	0.03	0.02	<0.01	<0.01	<0.01	0.01
Russia	Mondy	FP	<0.01	<0.01	<0.01	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	0.04
	Listvyanka	FP	0.02	0.03	0.02	0.02	0.01	<0.01	<0.01	<0.01	0.04	0.02	0.01	<0.01	<0.01	<0.01	0.01
	Irkutsk	FP	0.13	0.08	0.08	0.09	0.06	0.04	0.05	0.04	0.06	0.04	0.26	0.02	0.02	0.02	0.05
	Primorskaya	FP	0.08	0.07	0.08	0.07	0.06	0.08	0.20	0.05	0.07	0.01	<0.01	<0.01	0.02	<0.01	0.01
Thailand	Bangkok	FP	0.08	0.09	0.14	0.09	0.07	0.11	0.20	0.13	0.12	0.07	0.13	0.10	0.07	***	0.03
	Pathumthani	FP	0.06	0.07	0.05	0.04	***	***	***	***	***	***	***	***	***	***	***
	Khanchanaburi	FP	0.10	0.03	<0.01	0.03	0.03	0.03	0.06	0.05	0.41	0.03	0.05	0.12	***	***	***
	Mae Hia	FP	0.04	0.04	0.04	0.02	0.03	0.03	0.01	0.02	0.04	0.04	0.08	0.05			
	Sakaerat	FP	0.05	0.04	0.02	0.01	0.01	<0.01	0.02	0.03	0.22	0.05	0.29	0.36			
Vietnam	Hanoi	FP	0.18	0.32	0.48	0.35	0.41	0.46	0.41	0.57	0.50	0.38	0.26	0.17	0.24	0.16	0.36
	Hoa Binh	FP	0.09	0.11	0.11	0.08	0.14	0.28	0.19	0.21	0.25	0.14	0.22	0.07	0.08	0.09	0.08
	Can Tho	FP							0.15	0.20	0.22	0.40	0.37	0.42	0.42	0.37	0.36
	Ho Chi Minh	FP							0.23	0.46	0.72	0.44	0.68	0.58	0.68	0.88	0.69
	Yen Bai	FP								0.19	2.26	0.13	0.22	0.18	0.18	0.20	0.19

Terms and abbreviations are given in Table 4.2.

Table 4.38 Annual Ca^{2+} in PM concentration from 2008 to 2022

unit: $\mu g/m^3$

Country	Site	Method	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Cambodia	Phnom Penh	FP			0.87	0.82	0.76	0.87	0.71	1.32	1.07	1.17	***	***	***	***	***
China	Hongwen	FP	2.79	2.73	9.44	1.59	***	***	***	***	1.56	1.80					
Indonesia	Jakarta	FP							3.18	1.14	0.83	0.59	1.13	1.12	0.61	0.66	0.66
	Serpong	FP	0.13	0.07	0.09	0.18	0.59	0.51	0.54	0.68	0.43	0.41	0.94	0.86	0.44	0.52	0.39
	Bandung	FP							1.32	1.61	1.28	1.09	1.51	1.53	0.89	1.38	1.72
Japan	Rishiri	FP	0.17	0.16	0.18	0.13	0.13	0.14	0.13	0.18	0.12	0.15	0.16	0.27	0.13	0.15	0.14
	Ochiishi	FP	0.15	0.24	0.14	0.14	0.10	0.17	0.24	0.14	0.12	0.15	0.15	0.13	0.10	0.19	0.20
	Tappi	FP	0.30	0.39	0.36	0.29	0.27	0.26	0.45	0.41	0.24	0.24	0.21				
	Sado-seki	FP	0.29	0.25	0.24	0.25	0.19	0.25	0.25	0.31	0.23	0.22	0.30	0.21	0.19	***	0.16
	Happo	FP	0.12	0.07	0.05	0.04	0.11	0.19	0.18	0.13	0.10	0.07	0.12	0.05	0.10	0.08	0.09
	Ijira	FP	0.13	0.14	0.15	0.17	0.08	0.09	0.13	0.11	0.12	0.11	0.13	0.12	0.07	0.12	0.09
	Oki	FP	0.22	0.30	0.47	0.38	0.25	0.30	0.30	0.28	0.35	0.45	0.32	0.27	0.27	0.32	0.29
	Banryu	FP	0.22	0.29	0.44	0.26	0.20	0.25	0.21	0.21	0.23	0.26	0.23				
	Yusuhara	FP	0.14	0.36	0.33	0.21	0.15	0.26	0.19	0.12	0.12	0.12	0.16	0.11	0.12	0.19	0.12
	Hedo	FP	0.34	0.43	0.48	0.18	0.32	0.42	0.41	0.40	0.38	0.38	0.43	0.38	0.38	0.35	0.30
	Ogasawara	FP	0.16	0.20	0.23	0.17	0.15	0.16	0.14	0.29	0.14	0.15	0.14	0.16	0.18	0.21	0.15
	Tokyo	FP	0.52	0.51	0.59	0.49	0.36	0.52	0.49	0.45	0.40	0.43	0.46	0.46	0.39	0.41	0.38
	Niigata-maki	FP													0.12	0.18	0.12
	Tsushima	FP													0.19	0.32	0.21
Lao PDR	Vientiane	FP								0.22	0.22	***	***	***	***	***	***
Malaysia	Petaling Jaya	FP	0.47	0.34	0.46	0.37	0.38	0.47	0.81	0.81	0.44	0.35	0.55	***	0.36	0.20	0.26
	Tanah Rata	FP	0.08	0.07	0.07	0.07	0.09	0.28	0.42	0.18	0.12	0.05	<0.01	***	0.06	0.09	0.08
	Danum Valley	FP	0.02	0.04	0.07	0.02	0.02	0.04	0.07	0.04	0.03	0.02	0.04	***	0.02	0.01	0.01
Mongolia	Ulaanbaatar	FP	3.38	1.43	1.45	3.35	***	***	***	***	0.55	0.74	0.83	0.54	0.50	0.79	***
	Terelj	FP	0.42	0.32	0.16	0.32	***	***	***	***	0.40	0.06	0.08	0.06	0.05	0.11	***
Myanmar	Yangon	FP				1.82	1.03	0.29	0.51	3.11	1.69	0.40	0.24	0.27	0.54	0.34	0.39
Philippines	Metro Manila	FP	0.87	***	0.66	***	***	***	***	***	***	***	***	0.71	1.08	1.39	0.52
	Los Banos	FP	0.27	***	***	***	***	***	***	***	***	***	***	***	***	***	0.14
	Mt. Sto. Tomas	FP	0.77	0.22	0.50	***	0.35	0.29	0.39	0.48	0.18	***	***	***	***	***	***
Republic of Korea	Kanghwa	FP with $PM_{2.5}$ cyclone	0.07	0.17	0.07	***	***	0.14	0.11	0.02	0.03	0.05	0.03	0.02	0.04	0.06	0.03
	Cheju	FP with $PM_{2.5}$ cyclone	0.11	0.08	0.07	***	***	0.09	0.10	0.08	0.12	0.05	0.08	0.07	0.03	0.04	0.02
	Imsil	FP with $PM_{2.5}$ cyclone	0.11	0.08	0.09	***	***	0.08	0.07	0.09	0.14	0.08	0.08	0.06	0.02	0.02	0.03
Russia	Mondy	FP	0.05	0.05	0.04	0.04	0.05	<0.01	<0.01	0.03	0.08	0.06	0.05	0.01	0.01	<0.01	0.20
	Listvyanka	FP	0.15	0.19	0.12	0.10	0.14	0.06	0.08	0.15	0.21	0.07	0.10	0.05	0.04	0.03	0.08
	Irkutsk	FP	0.82	0.49	0.59	0.35	0.49	0.36	0.42	0.44	0.38	0.23	0.27	0.17	0.13	0.16	0.33
	Primorskaya	FP	0.45	0.37	0.41	0.28	0.41	0.35	0.35	0.44	0.34	0.09	0.05	0.06	0.17	0.05	0.11
Thailand	Bangkok	FP	0.80	0.88	0.94	1.03	0.74	1.29	2.09	0.97	1.01	0.49	1.29	1.09	0.73	***	0.27
	Pathumthani	FP	0.36	0.90	0.98	0.50	***	***	***	***	***	***	***	***	***	***	***
	Khanchanaburi	FP	0.22	0.12	0.04	0.12	0.28	0.12	0.23	0.14	1.65	0.07	0.16	0.39	***	***	***
	Mae Hia	FP	0.44	0.72	0.53	0.22	0.47	0.46	0.12	0.15	0.42	0.27	0.18	0.30			
	Sakaerat	FP	0.28	0.22	0.09	0.16	0.14	0.11	0.16	0.22	0.31	0.22	1.36	0.93			
Vietnam	Hanoi	FP	2.83	2.87	7.75	8.67	4.07	6.23	4.11	5.99	4.76	3.01	1.92	2.99	4.38	3.68	5.57
	Hoa Binh	FP	1.27	1.27	1.24	1.62	1.50	3.12	1.62	1.84	2.04	0.94	1.36	1.50	2.15	1.84	2.03
	Can Tho	FP							1.52	1.53	1.74	1.36	1.41	2.00	1.70	1.39	1.83
	Ho Chi Minh	FP							1.18	1.05	1.78	2.88	2.63	2.71	2.85	2.28	2.41
	Yen Bai	FP								4.08	0.17	2.42	2.63	2.26	3.12	3.02	3.10

Terms and abbreviations are given in Table 4.2.

Table 4.39 Monthly and annual dry deposition amounts of gaseous and particulate substances[*2]

Site: Rishiri Country: Japan

2022	Gases				Particulate matter components							
	SO_2	HNO_3	NH_3	NO_2 [*1]	nss-SO_4^{2-}	NO_3^-	Cl^-	NH_4^+	Na^+	K^+	Mg^{2+}	Ca^{2+}
	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}
Jan	0.05	0.03	0.04	0.00	0.06	0.02	0.96	0.06	1.10	0.06	0.12	0.05
Feb	0.06	0.04	0.05	0.01	0.06	0.06	1.85	0.11	1.83	0.06	0.20	0.07
Mar	0.02	0.05	0.14	0.07	0.11	0.10	2.73	0.20	2.62	0.10	0.34	0.13
Apr	0.03	0.04	0.20	0.11	0.10	0.04	4.65	0.12	4.40	0.14	0.50	0.14
May	0.04	0.04	0.23	0.10	0.09	0.04	5.05	0.11	4.79	0.15	0.54	0.15
June	0.05	0.03	0.23	0.10	0.08	0.03	4.17	0.09	3.95	0.12	0.45	0.12
July	0.03	0.03	0.21	0.12	0.08	0.03	2.84	0.09	2.69	0.08	0.30	0.08
Aug	0.01	0.03	0.23	0.08	0.10	0.04	4.55	0.12	4.31	0.14	0.49	0.14
Sept	0.01	0.04	0.21	0.05	0.10	0.04	4.63	0.12	4.39	0.14	0.49	0.14
Oct	0.03	0.04	0.16	0.03	0.10	0.04	5.85	0.11	5.54	0.17	0.62	0.17
Nov	0.05	0.05	0.17	0.04	0.09	0.04	7.36	0.10	6.98	0.22	0.79	0.22
Dec	0.08	0.06	0.17	0.03	0.10	0.05	9.61	0.11	9.11	0.29	1.03	0.29
Annual	0.45	0.47	2.03	0.72	1.07	0.55	54.25	1.33	51.70	1.67	5.87	1.69

Table 4.40 Monthly and annual dry deposition amounts of gaseous and particulate substances[*2]

Site: Ochiishi Country: Japan

2022	Gases				Particulate matter components							
	SO_2	HNO_3	NH_3	NO_2 [*1]	nss-SO_4^{2-}	NO_3^-	Cl^-	NH_4^+	Na^+	K^+	Mg^{2+}	Ca^{2+}
	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}
Jan	0.19	0.07	0.06	0.01	0.02	0.02	18.06	0.04	15.64	0.33	1.74	0.36
Feb	0.10	0.07	0.06	0.01	0.05	0.06	1.31	0.12	1.18	0.03	0.13	0.03
Mar	0.10	0.05	0.07	0.08	0.05	0.09	1.41	0.12	1.31	0.03	0.14	0.04
Apr	0.11	0.09	0.31	0.16	0.09	0.15	2.61	0.16	2.52	0.06	0.28	0.07
May	0.12	0.07	0.43	0.14	0.05	0.10	1.17	0.10	1.17	0.03	0.13	0.03
June	0.10	0.09	0.44	0.14	0.05	0.06	1.56	0.05	1.61	0.02	0.13	0.04
July	0.11	0.29	0.67	0.18	0.03	0.02	0.17	0.03	0.25	0.01	0.03	0.01
Aug	0.09	0.09	0.63	0.14	0.06	0.07	1.88	0.04	1.95	0.04	0.21	0.04
Sept	0.16	0.08	0.49	0.15	0.04	0.09	2.01	0.05	1.94	0.06	0.22	0.05
Oct	0.11	0.08	0.30	0.04	0.04	0.09	4.69	0.08	4.26	0.10	0.48	0.09
Nov	0.09	0.08	0.24	0.04	0.04	0.07	5.19	0.09	4.65	0.11	0.50	0.10
Dec	0.21	0.06	0.08	0.03	0.02	0.02	1.65	0.03	1.47	0.03	0.16	0.04
Annual	1.49	1.15	3.77	1.12	0.54	0.83	41.72	0.90	37.94	0.85	4.15	0.90

Table 4.41 Monthly and annual dry deposition amounts of gaseous and particulate substances[*2]

Site: Sado-seki[*3] Country: Japan

2022	Gases				Particulate matter components							
	SO_2	HNO_3	NH_3	NO_2 [*1]	nss-SO_4^{2-}	NO_3^-	Cl^-	NH_4^+	Na^+	K^+	Mg^{2+}	Ca^{2+}
	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}
Jan	***	***	***	***	***	***	***	***	***	***	***	***
Feb	***	***	***	***	***	***	***	***	***	***	***	***
Mar	***	***	***	***	***	***	***	***	***	***	***	***
Apr	***	***	***	***	***	***	***	***	***	***	***	***
May	0.09	0.39	0.33	0.04	0.10	0.13	1.37	0.07	2.31	0.08	0.27	0.15
June	0.19	0.82	1.13	0.12	0.36	0.50	5.31	0.39	8.97	0.31	1.04	0.42
July	0.05	0.64	1.42	0.10	0.31	0.25	1.95	0.36	4.43	0.17	0.52	0.18
Aug	0.06	0.37	0.71	0.07	0.25	0.32	10.13	0.20	12.60	0.36	1.47	0.42
Sept	0.07	0.32	0.62	0.07	0.11	0.15	7.34	0.09	7.90	0.21	0.92	0.28
Oct	0.05	0.37	0.24	0.04	0.16	0.30	16.25	0.19	16.39	0.47	1.98	0.64
Nov	0.10	0.39	0.25	0.03	0.24	0.38	23.24	0.26	23.39	0.64	2.67	0.93
Dec	0.23	0.24	0.49	0.03	0.15	0.19	112.14	0.15	97.62	2.05	10.27	3.06
Annual	0.83	3.54	5.20	0.50	1.67	2.23	177.72	1.72	173.61	4.30	19.13	6.09

Table 4.42 Monthly and annual dry deposition amounts of gaseous and particulate substances[*2]

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+}
2022	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	0.03	0.51	0.05	***	0.19	0.05	0.23	0.23	0.93	0.06	0.08	0.08
Feb	0.03	0.25	0.03	***	0.21	0.10	0.14	0.32	0.79	0.09	0.12	0.22
Mar	0.08	0.88	1.02	***	0.19	0.30	0.33	0.25	0.78	0.04	0.21	0.91
Apr	0.16	0.84	0.88	***	0.25	0.26	0.10	0.35	0.57	0.12	0.16	0.90
May	0.15	0.16	0.74	***	0.01	0.02	0.02	0.01	0.03	0.01	0.01	0.06
June	0.14	0.38	0.43	***	0.07	0.01	0.01	0.10	0.12	0.02	0.02	0.04
July	0.14	0.61	0.64	***	0.16	0.01	0.02	0.25	0.16	0.04	0.03	0.06
Aug	0.16	0.46	0.50	***	0.16	0.01	0.02	0.24	0.17	0.03	0.03	0.05
Sept	0.16	0.31	0.35	***	0.08	0.01	0.02	0.11	0.14	0.03	0.02	0.03
Oct	0.19	0.35	0.32	***	0.08	0.03	0.04	0.11	0.25	0.03	0.04	0.07
Nov	0.07	0.30	0.25	***	0.08	0.06	0.04	0.10	0.37	0.04	0.05	0.13
Dec	0.02	0.23	0.03	***	0.10	0.05	0.13	0.07	0.64	0.05	0.10	0.27
Annual	1.34	5.28	5.26	***	1.58	0.92	1.11	2.14	4.97	0.57	0.88	2.84

Table 4.43 Monthly and annual dry deposition amounts of gaseous and particulate substances[*2]

Site: Ijira[*3] **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+}
2022	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	***	0.03	0.04	0.02	0.02	0.01	0.04	0.04	0.10	0.01	0.01	0.01
Feb	***	0.05	0.05	0.02	0.03	0.02	0.04	0.05	0.11	0.02	0.01	0.02
Mar	***	0.19	0.23	0.17	0.07	0.07	0.04	0.11	0.31	0.04	0.05	0.11
Apr	***	0.32	0.22	0.17	0.09	0.06	0.02	0.14	0.33	0.06	0.05	0.12
May	***	0.31	0.27	0.08	0.06	0.03	0.02	0.10	0.22	0.05	0.03	0.06
June	***	0.22	0.42	0.12	0.05	0.01	0.01	0.07	0.14	0.04	0.02	0.03
July	***	0.11	0.44	0.15	0.03	0.01	0.01	0.04	0.11	0.04	0.01	0.02
Aug	***	0.09	0.31	0.17	0.04	0.00	0.01	0.05	0.10	0.04	0.01	0.02
Sept	***	0.10	0.26	0.22	0.03	0.02	0.07	0.03	0.32	0.04	0.04	0.03
Oct	***	0.08	0.06	0.08	0.02	0.01	0.02	0.04	0.13	0.02	0.01	0.02
Nov	***	0.05	0.07	0.05	0.02	0.01	0.04	0.03	0.13	0.02	0.01	0.02
Dec	***	0.02	0.04	0.03	0.01	0.01	0.04	0.02	0.09	0.01	0.01	0.02
Annual	***	1.56	2.41	1.27	0.48	0.26	0.37	0.71	2.08	0.39	0.28	0.50

Table 4.44 Monthly and annual dry deposition amounts of gaseous and particulate substances[*2]

Site: Oki[*3] **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+}
2022	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	0.17	0.15	0.33	0.02	0.27	0.54	39.14	0.47	36.72	0.94	4.07	1.01
Feb	0.16	0.20	0.33	0.01	0.49	0.94	40.39	0.96	38.52	1.11	4.30	1.53
Mar	0.24	0.39	1.00	0.13	0.56	1.32	17.71	1.00	21.06	0.67	2.47	1.79
Apr	0.22	0.50	0.85	0.11	0.50	0.67	7.74	0.60	11.29	0.49	1.33	1.00
May	0.28	0.72	0.93	0.11	0.43	0.49	4.25	0.51	6.98	0.27	0.80	0.49
June	0.20	0.62	0.98	0.03	0.70	0.71	13.85	0.62	19.81	0.59	2.18	0.68
July	0.11	0.41	1.08	0.05	0.39	0.35	5.81	0.37	9.10	0.29	1.02	0.27
Aug	0.07	0.59	0.83	0.04	0.49	0.71	11.42	0.39	16.75	0.39	1.91	0.47
Sept	0.01	0.14	0.59	***	0.23	0.37	103.85	0.25	92.70	2.30	10.83	2.52
Oct	0.05	0.19	0.38	***	0.20	0.32	13.21	0.24	13.83	0.39	1.55	0.49
Nov	0.14	0.36	0.61	***	0.25	0.46	12.19	0.33	13.46	0.43	1.51	0.62
Dec	0.22	0.27	0.26	***	0.26	0.89	96.65	0.44	88.95	1.97	9.55	2.91
Annual	1.86	4.55	8.16	0.50	4.78	7.78	366.20	6.17	369.18	9.83	41.53	13.79

Table 4.45 Monthly and annual dry deposition amounts of gaseous and particulate substances*2

Site: Yusuhara Country: Japan

2022	Gases				Particulate matter components							
	SO_2	HNO_3	NH_3	NO_2 *1	nss-SO_4^{2-}	NO_3^-	Cl^-	NH_4^+	Na^+	K^+	Mg^{2+}	Ca^{2+}
	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}
Jan	0.77	0.43	0.14	***	0.20	0.30	0.37	0.48	1.11	0.10	0.14	0.13
Feb	0.31	0.38	0.15	***	0.19	0.29	0.39	0.47	1.10	0.11	0.14	0.17
Mar	0.43	0.56	0.64	***	0.21	0.31	0.23	0.36	1.05	0.10	0.20	0.54
Apr	0.28	0.37	0.37	***	0.14	0.06	0.02	0.19	0.41	0.06	0.08	0.20
May	0.17	0.60	0.50	***	0.14	0.04	-0.02	0.23	0.27	0.07	0.06	0.16
June	0.40	0.39	0.58	***	0.15	0.01	0.02	0.22	0.41	0.05	0.05	0.09
July	0.22	0.38	0.59	***	0.12	0.00	0.01	0.18	0.36	0.05	0.05	0.05
Aug	0.59	0.44	0.52	***	0.18	0.01	0.01	0.28	0.55	0.05	0.07	0.05
Sept	0.11	0.13	0.66	***	0.10	0.05	0.20	0.09	1.43	0.10	0.16	0.07
Oct	0.27	0.32	0.34	***	0.11	0.07	0.13	0.17	0.76	0.05	0.08	0.07
Nov	0.45	0.39	0.34	***	0.13	0.09	0.11	0.22	0.66	0.06	0.09	0.14
Dec	0.39	0.15	0.09	***	0.10	0.18	0.33	0.22	0.79	0.06	0.09	0.09
Annual	4.39	4.53	4.93	***	1.78	1.43	1.80	3.11	8.89	0.86	1.21	1.77

Table 4.46 Monthly and annual dry deposition amounts of gaseous and particulate substances*2

Site: Hedo*3 Country: Japan

2022	Gases				Particulate matter components							
	SO_2	HNO_3	NH_3	NO_2 *1	nss-SO_4^{2-}	NO_3^-	Cl^-	NH_4^+	Na^+	K^+	Mg^{2+}	Ca^{2+}
	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}
Jan	0.24	0.12	0.40	0.02	0.21	0.30	19.52	0.21	19.53	0.48	2.34	0.69
Feb	0.06	0.10	0.46	0.01	0.24	0.31	23.25	0.25	23.27	0.60	2.68	0.96
Mar	0.16	0.23	0.90	0.09	0.32	0.51	17.86	0.28	18.76	0.55	2.26	1.46
Apr	0.11	0.12	0.67	0.06	0.22	0.29	8.98	0.24	9.72	0.30	1.15	0.52
May	0.23	0.09	1.09	0.05	0.19	0.21	18.99	0.16	19.28	0.69	2.25	0.78
June	0.06	0.07	1.15	0.07	0.07	0.12	10.43	0.05	10.47	0.45	1.24	0.31
July	0.04	0.10	1.06	0.10	0.20	0.25	10.36	0.17	11.57	0.37	1.34	0.38
Aug	0.07	0.10	0.69	0.08	0.12	0.15	5.16	0.13	5.51	0.16	0.64	0.16
Sept	0.21	0.12	0.71	0.06	0.31	0.38	47.53	0.21	45.10	1.11	5.25	1.22
Oct	0.21	0.15	0.32	0.04	0.30	0.40	45.83	0.27	42.50	1.00	4.97	1.19
Nov	0.22	0.12	0.52	0.04	0.21	0.31	25.14	0.14	24.72	0.65	2.87	0.74
Dec	0.14	0.13	0.46	0.05	0.25	0.54	52.19	0.24	48.86	1.22	5.59	1.77
Annual	1.74	1.46	8.41	0.66	2.65	3.77	285.23	2.36	279.28	7.57	32.58	10.18

Table 4.47 Monthly and annual dry deposition amounts of gaseous and particulate substances*2

Site: Ogasawara Country: Japan

2022	Gases				Particulate matter components							
	SO_2	HNO_3	NH_3	NO_2 *1	nss-SO_4^{2-}	NO_3^-	Cl^-	NH_4^+	Na^+	K^+	Mg^{2+}	Ca^{2+}
	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}	mmol m^{-2}
Jan	0.27	0.03	0.29	0.01	0.12	0.14	8.18	0.11	8.36	0.20	0.90	0.26
Feb	1.30	0.04	0.31	0.02	0.16	0.11	6.44	0.12	6.89	0.17	0.91	0.32
Mar	1.33	0.07	0.60	0.06	0.18	0.16	5.64	0.08	6.35	0.18	0.69	0.42
Apr	0.21	0.02	0.41	0.01	0.06	0.06	6.11	0.03	5.94	0.17	0.62	0.23
May	0.13	0.01	0.37	0.02	0.05	0.04	1.90	0.02	2.11	0.08	0.22	0.07
June	0.05	0.01	0.52	0.02	0.06	0.04	4.72	0.04	4.85	0.14	0.52	0.12
July	0.40	0.00	0.44	0.01	0.04	0.02	5.28	0.03	4.97	0.13	0.56	0.13
Aug	2.45	0.01	0.44	0.02	0.10	0.01	2.20	0.05	2.95	0.08	0.33	0.09
Sept	0.07	0.00	0.31	***	0.04	0.02	7.69	0.02	7.06	0.17	0.81	0.20
Oct	0.22	0.00	0.16	***	0.06	0.02	5.02	0.02	4.78	0.11	0.56	0.14
Nov	0.37	0.01	0.25	***	0.07	0.10	7.18	0.06	7.00	0.16	0.77	0.21
Dec	0.76	0.02	0.21	***	0.09	0.11	5.74	0.08	5.70	0.13	0.64	0.20
Annual	7.54	0.24	4.30	0.17	1.03	0.83	66.11	0.64	66.95	1.72	7.52	2.38

Table 4.48 Monthly and annual dry deposition amounts of gaseous and particulate substances*2

Site: Niigata-maki 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+}
2022	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	0.13	0.12	0.25	0.02	0.05	0.06	0.51	0.10	0.49	0.01	0.05	0.01
Feb	0.13	0.09	0.37	0.01	0.03	0.03	0.12	0.06	0.13	0.01	0.01	0.00
Mar	0.11	0.27	0.91	0.26	0.01	0.02	0.03	0.02	0.04	0.00	0.00	0.00
Apr	0.10	0.26	0.99	0.28	0.06	0.05	0.05	0.09	0.10	0.01	0.01	0.02
May	0.10	0.49	0.88	0.29	0.14	0.12	0.12	0.18	0.24	0.01	0.03	0.03
June	0.10	0.61	1.29	0.29	0.12	0.09	0.07	0.11	0.23	0.01	0.03	0.02
July	0.05	0.36	1.23	0.33	0.11	0.06	0.03	0.12	0.15	0.01	0.02	0.01
Aug	0.05	0.25	1.14	0.25	0.09	0.06	0.09	0.09	0.20	0.01	0.02	0.01
Sept	0.04	0.20	0.91	0.03	0.05	0.06	0.17	0.05	0.24	0.01	0.03	0.01
Oct	0.07	0.19	0.48	***	0.04	0.05	0.16	0.05	0.21	0.01	0.03	0.01
Nov	0.07	0.15	0.45	***	0.04	0.06	0.16	0.06	0.20	0.01	0.02	0.01
Dec	0.17	0.11	0.56	0.05	0.02	0.02	0.36	0.03	0.33	0.01	0.04	0.01
Annual	1.12	3.10	9.47	1.81	0.77	0.69	1.89	0.95	2.55	0.11	0.29	0.15

Table 4.49 Monthly and annual dry deposition amounts of gaseous and particulate substances*2

Site: Tsushima*3 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+}
2022	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	***	0.46	0.16	***	0.11	0.30	0.08	0.39	0.13	0.01	0.02	0.02
Feb	***	0.24	0.15	***	0.13	0.25	0.07	0.36	0.13	0.01	0.02	0.02
Mar	***	0.38	0.58	***	0.13	0.31	0.08	0.39	0.14	0.01	0.02	0.05
Apr	***	0.24	0.45	***	0.12	0.13	0.05	0.16	0.16	0.01	0.02	0.03
May	***	0.77	0.59	***	0.16	0.11	0.05	0.23	0.16	0.01	0.02	0.03
June	***	0.45	0.66	***	0.11	0.06	0.03	0.12	0.14	0.01	0.02	0.01
July	***	0.55	0.70	***	0.12	0.04	0.02	0.14	0.12	0.01	0.01	0.01
Aug	***	0.22	0.46	***	0.09	0.08	0.09	0.08	0.22	0.01	0.02	0.01
Sept	***	0.13	0.33	***	0.05	0.06	0.19	0.04	0.26	0.01	0.03	0.01
Oct	***	0.22	0.13	***	0.09	0.13	0.11	0.13	0.22	0.01	0.03	0.02
Nov	***	0.41	0.22	***	0.09	0.14	0.06	0.17	0.14	0.01	0.02	0.02
Dec	***	0.38	0.10	***	0.07	0.18	0.06	0.19	0.11	0.01	0.01	0.03
Annual	***	4.45	4.52	***	1.26	1.78	0.90	2.39	1.94	0.11	0.24	0.26

1 NO_2 = NOx- NO

*2 The cloud cover needed to calculate their deposition velocity for dry deposition was obtained from "Grid Point Value (GPV) data of numerical weather prediction (Meso-Scale Model (MSM))", Japan Meteorological Agency, which were collected and distributed by Research Institute for Sustainable Humanosphere, Kyoto University. (http://database.rish.kyoto-u.ac.jp/index-e.html)

*3 Since some necessary meteorological data for dry deposition calculation were not available at Sado-seki, Ijira, Oki, Hedo, and Tsushima sites, corresponding data were obtained from neighbouring monitoring sites of Japan Meteorological Agency. Their Names and locations of the sites are as follows:

Sado-seki:	Aikawa- latitude:38º01'42"N, Longitude: 138.14'24"E, Alltitude: 5.5 m (for temperature, relative humidity, wind speed and precipitation.)
	Niigata- latitude:37º53'36"N, Longitude: 139.01'06"E, Alltitude: 4.1 m (for solar radiation.)
Ijira:	Gifu- latitude:35º24'30"N, Longitude: 136.45'42"E, Alltitude: 12.7 m (for relative humidity.)
Oki:	Sigo- latitude:36º12'12"N, Longitude: 133.20'00"E, Alltitude: 26.5 m (for temperature, relative humidity, wind speed and precipitation.)
	Matsue- latitude:35º27'24"N, Longitude: 133.03'54"E, Alltitude: 16.9 m (for solar radiation.)
Hedo:	Oku- latitude:26º50'06"N, Longitude: 128.16'18"E, Alltitude: 232 m (for temperature, wind speed and precipitation.)
	Nago- latitude:26º35'36"N, Longitude: 127.57'54"E, Alltitude: 6.2 m (for relative humidity.)
	Naha- latitude:26º12'24"N, Longitude: 127.41'12"E, Alltitude: 28.1 m (for solar radiation.)
Tsushima:	Izuhara- latitude:34º11'48"N, Longitude: 129.17'30"E, Alltitude: 4.6 m (for temperature and relative humidity.)
	Fuluoka- latitude:33º34'54"N, Longitude: 130.22'30"E, Alltitude: 2.5 m (for solar radiation.)

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

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

Table 4.51 Reporting limits for summarizing air concentration data

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

CHAPTER 5

Soil and Vegetation Monitoring

5. Soil and Vegetation Monitoring

5.1 Method

The basic survey was principally carried out for the initial objectives (namely, establishment of baseline data and early detection of possible impact) in the participating countries in accordance with the *Technical Documents for Soil and Vegetation Monitoring in East Asia (2000)*. 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^{2+}, and Mg^{2+}), 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.

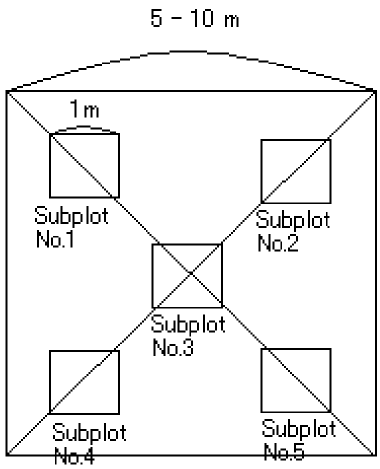


Figure 5.1 Plot for soil sampling

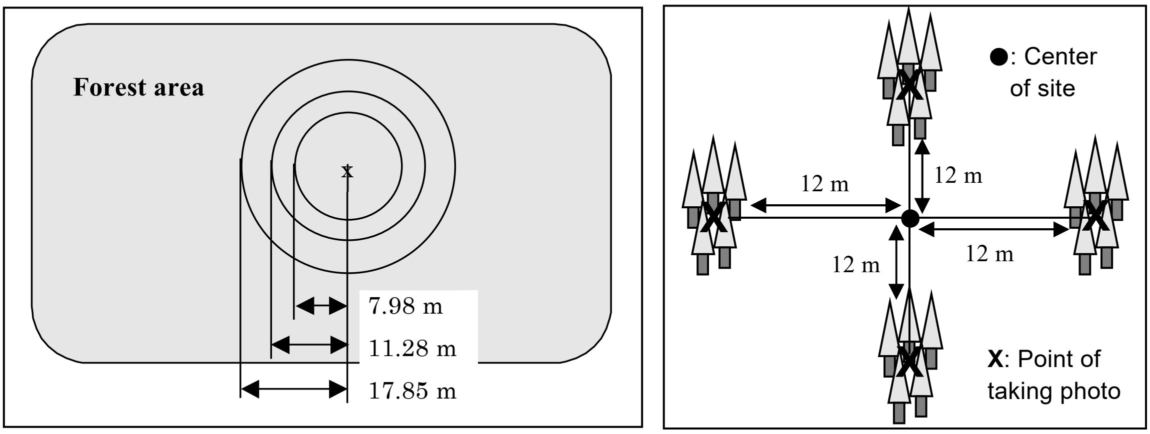


Figure 5.2 Plots for description of trees (Left) and selection of observation trees (Right)

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^{2+}, Mg^{2+}, K^+ and Na^+)	AAS or ICP-AES (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 or ICP-AES
Physical Properties of Soil	
a) Fine Earth Bulk Density	Metal sampling cylinder, Drying oven, Balance
b) Penetration Resistance (in the fieldwork)	Pocket penetrometer

5.1.3 Monitoring Sites

Soil and vegetation monitoring data were submitted from 6 areas in 2 countries this year. The list of monitoring sites and reported items in 2022 is shown in Table 5.4.1. Observation of the tree decline was conducted at 8 sites. Soil monitoring and description of trees and understory survey were not carried out. The number of soil and vegetation plots in each monitoring site is shown in Table 5.4.2 with the number of surveys until 2022.

Table 5.4.1 Outline of the Monitoring Sites in 2022

Country	Nearest air concentration / acid deposition monitoring site	Site name EANET site code	Soil type	Items*1
China	**Jinyunshan (Chongqing)**	**Jinyunshan CNS004**	**Acidic-Udic Argosol**	**F_1**
	Jiwozi (Xi'an)	**Dabagou CNS007**	**Brown soil**	**F_1**
	Xiaoping (Xiamen)	**Xiaoping CNS009**	**Red soil**	**F_1**
	Zhuxiandong (Zhuhai)	**Zhuxiandong CNS011**	**Red soil**	**F_1**
Japan	**Happo**	**Sekido-san JPS005**	**Cambisols**	**F_1**
		Horyu-zan JPS105	**Alisols**	**F_1**
	Ijira	**Ijira JPS006**	**Cambisols**	**F_1**
		Yamato JPS106	**Andosols**	**F_1**

*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 locations and number of plots and surveys conducted until 2022

Country	Area (Nearest air concentration / acid deposition monitoring site)	Soil and vegetation monitoring site	EANET site code	Number of plots		Start year	Latest survey	Number of surveys until 2022			
				Forest plot	Soil plot			Tree decline	Forest survey	Understory survey	Soil survey
China	Jinyunshan (Chongqing)	Jinyunshan	CNS004	2	2	2000	**2022**	**17**	6	6	7
	Jiwozi (Xi'an)	Dabagou	CNS007	1	2	2001	**2022**	**17**	6	6	7
	Xiaoping (Xiamen)	Xiaoping	CNS009	1	1	2000	**2022**	**16**	5	4	5
	Zhuxiandong (Zhuhai)	Zhuxiandong	CNS011	3	3	2001	**2022**	**9**	8	8	7
Indonesia	Serpong	Bogor Research Forest (Dramaga Experimental Forest)	IDS002	1	1	2001	2019	7	1	1	5
Japan	Happo*	Sekido-san	JPS005	1	2	2001	**2022**	**20**	5	5	5
		Horyu-zan	JPS105	1	2	2001	**2022**	**20**	5	5	5
	Ijira	Ijira	JPS006	1	2	2000	**2022**	**20**	5	5	5
		Yamato	JPS106	1	2	2003	**2022**	**20**	4	4	4
	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	Vajiralongkorn Dam (old name: Kao Lam Dam)	Vajiralongkorn Dam	THS004	1	2	2000	2012	2	4	3	6
		Vajiralongkorn 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 that soil and/or vegetation monitoring was conducted in 2022.
Banryu was closed in 2018, and Happo was added alternatively (Japan).
Gray cells indicate sites with soil monitoring only.

5.2 Results of Monitoring

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

- **Table 5.6: Observation of tree decline**

  Table 5.6.1 Jinyunshan-1 (Area: Jinyunshan, China) CNS004

  Table 5.6.2 Jinyunshan-2 (Area: Jinyunshan, China) CNS004

  Table 5.6.3 Dabagou (Area: Jiwozi, China) CNS007

  Table 5.6.4 Xiaoping (Area: Xiaoping, China) CNS009

  Table 5.6.5 Zhuxiandong-1 (Area: Zhuxiandong, China) CNS011

  Table 5.6.6 Zhuxiandong-2 (Area: Zhuxiandong, China) CNS011

  Table 5.6.7 Zhuxiandong-3 (Area: Zhuxiandong, China) CNS011

  Table 5.6.8 Sekido-san (Area: Happo, Japan) JPS005

  Table 5.6.9 Horyu-zan (Area: Happo, Japan) JPS105

  Table 5.6.10 Ijira (Area: Ijira, Japan) JPS006

  Table 5.6.11 Yamato (Area: Ijira, Japan) JPS106

Table 5.6.1 Observation of tree decline: Jinyunshan-1 (Area: Jinyunshan, China) CNS004
Plot name: Junyunshan-1
Date: 30 June 2022
Surveyor: Huanghanwen

Individual No.	1 (3)	2 (2)	3 (58)	4 (101)	5 (105)	6 (70)	8 (72)	9 (103)	10 (104)	7 (102)
Direction (E, W, S, or N)	E	E	E	S	S	W	W	N	N	S
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)	20.5	12.0	9.0	15.7	15.1	10.5	12.4	14.5	14.3	
DBH (cm)	19.5	16.6	13.7	15.6	15.7	10.9	13.0	14.7	11.0	
Vitality of tree										Dead in 2016
Form of tree	1									
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: Insect pest (termite)

Blank cells indicate "0" (no damage).
*1, The damage class is determined by a combination of defoliation and discoloration classes

Table 5.6.2 Observation of tree decline: Jinyunshan-2 (Area: Jinyunshan, China) CNS004 Plot name: Jinyunshan-2
Date: 30 June 2022
Surveyor: Huanghanwen

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 japonicus*	*Machilus pingii*
Relative height								Null
Tree height (m)	13.0	12.0	18.0	19.0	22.0	16.6	20.0	
DBH (cm)	14.4	18.2	20.8	26.6	21.9	17.9	40.9	
Vitality of tree								Dead in 2016
Form of tree				1				
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: Not specified.

Blank cells indicate "0" (no damage).
*1, The damage class is determined by a combination of defoliation and discoloration classes.

Table 5.6.3 Observation of tree decline: Dabagou (Area: Jiwozi, China) CNS007

Plot name: Dabagou
Date: 17 November 2022
Surveyor: Yang Nai Wang

Individual No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Direction (E, W, S, or N)	E	E	E	E	E	S	S	S	S	S	W	W	W	W	W	N	N	N	N	N
Plant Name	*Pinus armandii*	*Pinus armandii*	*Pinus armandii*	*Pinus armandii*	*Pinus armandii*	*Pinus armandii*	*Pinus armandii*	*Pinus armandii*	*Pinus armandii*	*Pinus armandii*	*Pinus armandii*	*Pinus armandii*	*Pinus armandii*	*Pinus armandii*	*Pinus armandii*	*Pinus armandii*	*Pinus armandii*	*Pinus armandii*	*Pinus armandii*	*Pinus armandii*
Relative height																				
Tree height (m)	17.2	14.5	12.2	14.9	12.0	12.0	9.9	9.1	10.9	14.9	14.6	12.6	10.9	15.6	11.4	13.4	11.9	13.8	11.5	8.8
DBH (cm)	25.9	26.0	17.0	21.7	24.8	17.9	12.8	19.2	15.9	19.3	28.7	24.2	15.1	24.5	16.7	24.7	16.4	24.4	16.2	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: Overcrowding of trees.

Blank cells indicate "0" (no damage).
*1, The damage class is determined by a combination of defoliation and discoloration classes

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

Plot name: XPZ-01
Date: 16 October 2022
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*	*Michelia macclurei*	*Michelia macclurei*	*Michelia macclurei*	*Michelia macclurei*	*Michelia macclurei*	*Michelia macclurei*	*Michelia macclurei*	*Michelia macclurei*	*Michelia macclurei*	*Michelia macclurei*	*Michelia macclurei*	*Michelia macclurei*	*Michelia macclurei*	*Michelia macclurei*	*Michelia macclurei*	*Michelia macclurei*	*Michelia macclurei*
Relative height																		
Tree height (m)	16.9	17.6	18.7	17.7	16.7	17.7	18.6	18.1	17.9	18.7	18.1	17.8	18.8	17.5	17.4	17.5	17.4	19.6
DBH (cm)	17.5	21.0	19.9	20.3	21.7	24.9	21.6	20.5	18.5	22.8	20.7	20.5	18.9	21.8	20.7	20.5	21.7	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:

Blank cells indicate "0" (no damage).
*1, The damage class is determined by a combination of defoliation and discoloration classes

Table 5.6.5 Observation of tree decline: Zhuxiandong-1 (Area: Zhuxiandong, China) CNS011

Plot name: Zhuxiandong-1
Date: 4 Febuary 2023
Surveyor: Zheng Mingxuan

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 elliottii*	*Pinus elliottii*	*Aporosa dioica*	*Acacia confusa*	*Schefflera heptaphylla*	*Pinus elliottii*	*Pinus elliottii*	*Acacia confusa*	*Schefflera heptaphylla*	*Cratoxylum cochinchinense*	*Pinus elliottii*	*Pinus elliottii*	*Mallotus paniculatus*	*Rhaphiolepis indica*	*Toxicodendron succedaneum*	*Cratoxylum cochinchinense*	*Pinus elliottii*	*Triadica cochinchinensis*	*Mallotus paniculatus*	*Litsea rotundifolia* var. *oblongifolia*
Relative height																				
Tree height (m)	12.5	11.8	3.3	7.6	4.3	12.0	12.5	8.4	5.0	4.3	12.8	10.5	5.0	2.4	3.2	4.2	11.5	5.6	3.8	1.8
DBH (cm)	28.6	33.5	2.4	24.3	13.8·	31.7	32.3	25.3	15.4	16.8	28.7	23.4	8.9	2.3	5.7	13.6	34.2	17.4	6.8	2
Vitality of tree					1				1	1										
Form of tree																				
Branch growth																				
Dieback of stem																				
Defoliation of crown																				
Deformation of leaves																				
Size of leaves																				
Discoloration of leaves																				
Injury of leaves					1					1			1			1			1	
Damage class*1					1				1	1			1			1			1	

Estimated cause of decline: Not specified.

Blank cells indicate "0" (no damage).
The observation trees are not being tracked.
*1, The damage class is determined by a combination of defoliation and discoloration classes

Table 5.6.6 Observation of tree decline: Zhuxiandong-2 (Area: Zhuxiandong, China) CNS011

Plot name: Zhuxiandong-2
Date: 4 February 2023
Surveyor: Zheng Mingxuan

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	*Acacia confusa*	*Acacia confusa*	*Acacia confusa*	*Syzygium levinei*	*Mallotus paniculatus*	*Litsea rotundifolia* var. *oblongifolia*	*Ilex asprella*	*Ilex asprella*	*Acacia confusa*	*Schefflera heptaphylla*	*Acacia confusa*	*Acacia confusa*	*Acacia confusa*	*Microcos paniculata*	*Acacia confusa*	*Acacia confusa*	*Mallotus paniculatus*	*Schefflera heptaphylla*	*Ilex asprella*	*Acacia confusa*
Relative height																				
Tree height (m)	7.6	8.0	8.5	6.5	5.4	2.4	1.9	2.2	7.8	5.8	6.8	7.2	6.5	4.3	7.3	6.5	4.6	5.5	2.3	5.8
DBH (cm)	27.8	28.3	26.4	15.2	6.8	2.5	2.0	2.6	25.4	12.8	22.5	19.8	25.3	9.6	23.2	22.7	7.5	14.8	2.1	24.8
Vitality of tree										1							1			
Form of tree																			1	
Branch growth																				
Dieback of stem																				
Defoliation of crown																				
Deformation of leaves																				
Size of leaves																				
Discoloration of leaves																				
Injury of leaves					1												1			
Damage class*1					1					1							1		1	

Estimated cause of decline: Not specified.

Blank cells indicate "0" (no damage).
The observation trees are not being tracked.
*1, The damage class is determined by a combination of defoliation and discoloration classes.

Table 5.6.7 Observation of tree decline: Zhuxiandong-3 (Area: Zhuxiandong, China) CNS011

Plot name: Zhuxiandong-3
Date: 4 February 2023
Surveyor: Zheng Mingxuan

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)	W	W	W	W	W	S	S	S	S	S	E	E	E	E	E	N	N	N	N	N
Plant Name	*Eurya nitida*	*Eurya nitida*	*Machilus velutina*	*Machilus velutina*	*Litsea rotundifolia var. oblongifolia*	*Eurya nitida*	*Litsea glutinosa*	*Litsea rotundifolia var. oblongifolia*	*Eurya nitida*	*Machilus velutina*	*Acacia confusa*	*Eurya nitida*	*Machilus velutina*	*Litsea rotundifolia var. oblongifolia*	*Litsea rotundifolia var. oblongifolia*	*Triadica cochinchinensis*	*Triadica cochinchinensis*	*Zanthoxylum avicennae*	*Eurya nitida*	*Machilus velutina*
Relative height																				
Tree height (m)	2.4	2.5	4.6	5.0	2.1	2.7	4.5	2.4	1.9	3.3	5.6	3.3	4.2	3.2	3.3	5.7	5.2	4.5	2.2	3.5
DBH (cm)	2.2	2.4	9.7	11.4	1.8	2.1	7.6	2.3	1.9	7.3	18.7	2.5	6.4	2.4	2.5	17.6	15.2	5.2	2.1	6.5
Vitality of tree	1	1																	1	
Form of tree																				
Branch growth																				
Dieback of stem																				
Defoliation of crown																				
Deformation of leaves																				
Size of leaves																				
Discoloration of leaves																				
Injury of leaves	1	1					1												1	
Damage class*1	1	1					1												1	

Estimated cause of decline: Not specified.

Blank cells indicate "0" (no damage).
The observation trees are not being tracked.
*1, The damage class is determined by a combination of defoliation and discoloration classes

Table 5.6.8 Observation of tree decline: Sekido-san (Area: Happo, Japan) JPS005

Plot name: Sekido-san
Date: 6 September 2022
Surveyor: Akira Ogura

Individual No.	1	2	3	4	5	6	7	8-2	9	10	11	58	13	14	15	16	17	18	19	20
Direction (E, W, S, or N)	N	N	N	N	N	W	W	W	W	W	S	S	S	S	S	E	E	E	E	E
Plant Name	*Fagus crenata*	*Betula grossa*	*Acer pictum*	*Fagus crenata*	*Fagus crenata*	*Fagus crenata*	*Carpinus tschonoskii*	*Fagus crenata*	*Betula grossa*	*Acer pictum*	*Fagus crenata*	*Acer pictum*	*Fagus crenata*	*Fagus crenata*	*Fagus crenata*	*Quercus crispula* var. *crispula*	*Cerasus jamasakura*	*Fagus crenata*	*Fagus crenata*	*Fagus crenata*
Relative height	+	+	−	+				−		−		−								
Tree height (m)	30.3	35.0	22.4	31.6	25.0	24.8	25.4	18.3	21.6	20.4	26.0	15.4	27.2	24.0	26.5	26.1	21.2	20.6	26.8	22.8
DBH (cm)	42.6	57.4	42.2	66.5	53.1	55.7	55.7	30.4	40.9	33.5	60.0	23.7	67.8	37.6	48.0	50.3	68.4	36.4	60.6	43.5
Vitality of tree																				
Form of tree								1		1		1				1	1			
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: 16, Form of tree is declined due to suppression by surrounding trees. 17, Form of tree is declined due to broken lower branch.
Trees locating on the eastern direction are shielded by lower trees.

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

Blank cells indicate "0" (no damage).

*1, The damage class is determined by a combination of defoliation and discoloration classes

Table 5.6.9 Observation of tree decline: Horyu-zan (Area: Happo, Japan) JPS105

Plot name: Horyu-zan
Date: 8 September 2022
Surveyor: Akira Ogura

Individual No.	1	2	3	4	5	6	7	8	9	10	95	12	13	14	15	16	17	18	19	20
Direction (E, W, S, or N)	N	N	N	N	N	W	W	W	W	S	S	S	S	S	S	E	E	E	E	E
Plant Name	*Fagus crenata*	*Fagus crenata*	*Fagus crenata*	*Fagus crenata*	*Fagus crenata*	*Pinus densiflora*	*Fagus crenata*	*Fagus crenata*	*Fagus crenata*	*Fagus crenata*	*Fagus crenata*	*Fagus crenata*	*Fagus crenata*	*Fagus crenata*	*Fagus crenata*	*Fagus crenata*	*Fagus crenata*	*Carpinus laxiflora*	*Fagus crenata*	*Fagus crenata*
Relative height			+	−		+	−							−		−		−		+
Tree height (m)	19.1	18.1	22.2	15.3	18.4	19.7	12.7	16.5	17.4	18.3	17.1	16.8	18.6	15.3	15.6	11.2	17.3	13.6	18.0	20.3
DBH (cm)	24.8	22.9	42.4	19.3	25.1	41.3	14.7	20.2	22.6	25.4	25.8	19.0	25.7	15.3	22.2	12.7	19.9	16.5	24.6	32.2
Vitality of tree																		1		
Form of tree																				
Branch growth							1							1		1		1		
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: 7, 16, 18, Tree height is lowered by suppression of surrounding trees.

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

Blank cells indicate "0" (no damage).

*1, The damage class is determined by a combination of defoliation and discoloration classes.

Table 5.6.10 Observation of tree decline: Ijira (Area: Ijira, Japan) JPS006
Plot name: Ijira-lake
Date: 24 October 2022
Surveyor: Yoshizumi Hisada

Individual No.	1	2	3-2	4	5-2	6	7	8	9	10	11	12	13	14	15	16	17	18-2	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)	16.2	15.1	17.7	12.9	16.9	19.6	20.3	18.0	17.3	16.2	18.2	16.3	16.2	18.6	17.9	13.9	15.6	18.4	13.8	13.8
DBH (cm)	23.9	16.8	18.5	15.7	19.4	26.3	28.6	23.6	18.5	19.6	16.7	16.3	17.0	22.8	21.2	22.4	17.5	25.6	12.4	18.4
Vitality of tree																			1	1
Form of tree	1	1		1	1		1	1		1	1	1	1	1	1	1	1		1	1
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: No. 1, 2, 4, 5-2, 8, 11, 12, 14, 15 and 17, bent stem; No. 7, dichotomy; No. 10, bent stem and tip; No. 13, bent stem and dichotomy; No. 16, The presence of tip breakage; No. 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 lower than other trees.
Blank cells indicate "0" (no damage).
*1, The damage class is determined by a combination of defoliation and discoloration classes.

Table 5.6.11 Observation of tree decline: Yamato (Area: Ijira, Japan) JPS106
Plot name: Yamato
Date: 19 October 2022
Surveyor: Yoshizumi Hisada

Individual No.	1	2	3	4	5-2	6-2	7-2	8	9-2	10-2	11-2	12-3	13-2	14-2	15	16-2	17	18-2	19-2	20
Direction	N	N	N	N	N	E	E	E	E	E	S	S	S	S	S	W	W	W	W	W
Plant Name	*Chamaecyparis obtusa*	*Chamaecyparis obtusa*	*Chamaecyparis obtusa*	*Chamaecyparis obtusa*	*Chamaecyparis obtusa*	*Chamaecyparis obtusa*	*Chamaecyparis obtusa*	*Chamaecyparis obtusa*	*Chamaecyparis obtusa*	*Chamaecyparis obtusa*	*Chamaecyparis obtusa*	*Chamaecyparis obtusa*	*Chamaecyparis obtusa*	*Chamaecyparis obtusa*	*Chamaecyparis obtusa*	*Chamaecyparis obtusa*	*Chamaecyparis obtusa*	*Chamaecyparis obtusa*	*Chamaecyparis obtusa*	*Chamaecyparis obtusa*
Relative height	+				−	+		+				−								−
Tree height (m)	33.5	29.9	32.0	30.3	28.3	32.4	30.7	33.0	31.6	28.9	29.6	26.6	32.3	29.0	30.0	29.5	29.0	32.0	32.2	27.3
DBH (cm)	41.1	40.5	45.6	45.3	31.6	46.9	42.8	38.8	42.4	44.6	35.1	33.7	50.5	36.9	45.1	36.5	35.6	48.7	48.3	35.3
Vitality of tree																				
Form of tree					1			1	1		1	1	1				1			1
Branch growth		1																		
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: No. 20, one side branch and leaning; bent stem; No. 8, 12-3 and 17, bent stem and tip; No. 11-2, dichotomy and leaning; No. 18-2, insect damage on stem; No. 13-2, bent tip; No. 5-2 and 9-2, one side branch.
+ :Significantly taller taller than other trees. - : Significantly lower than other trees.
Blank cells indicate "0" (no damage).
*1, The damage class is determined by a combination of defoliation and discoloration classes.

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 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^-, and 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.

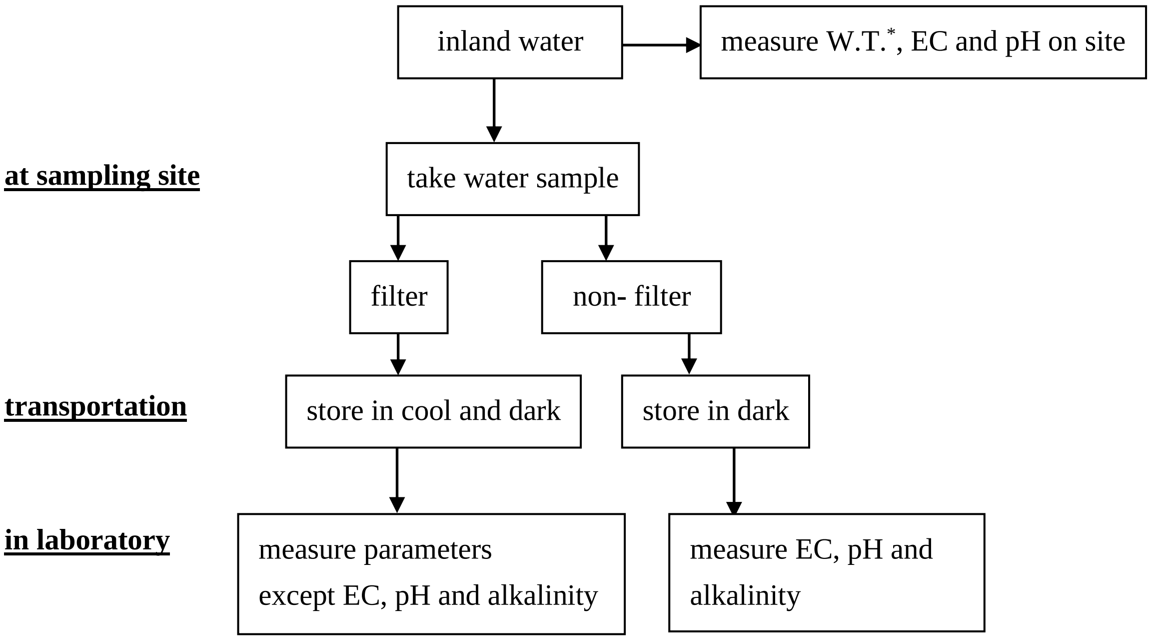
6.1.1 Selection of Sampling Sites

According to the technical manual (2010), 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. If appropriate lakes are not available, rivers (streams) that are potentially susceptible to acidification and have little artificial influence should be selected.

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.

Electric conductivity are measured at 25℃ using a water bath. If it is measured at any other water temperature, its value is corrected to 25℃.

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, the monitoring sites were established in 13 lakes/reservoirs and 6 rivers/streams. For 2022, 8 countries (China, Japan, Malaysia, Mongolia, Philippines, Russia, Thailand and Vietnam) carried out the monitoring. The data from the rest of countries 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.

6.2 Results of Monitoring

The results of monitoring of each parameter are shown in Table 6.4.1 to Table 6.4.9. 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 6.4.10.

There were 3 sites (Baru River in Malaysia, Pandin Lake in Philippines, Komarovka River in Russia) 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 2001 to 2022 are shown in Table 6.5.1 to Table 6.5.20.

Table 6.2 Outline of Inland Aquatic Environment Monitoring of 2022

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	-
	Gunung Lake (Sukabumi)	-	-	2008	-
Japan	Ijira Lake (Gifu Pref.)	1.1 km	Rural/Ecolog. (Ijira)	2001	4 times/yr.
	Futago-ike Lake (Nagano Pref.)	82 km	Remote (Happo)	2019	3 times/yr.
Lao PDR	Nam Houm Lake (Vientiane province)	-	Vientiane	2009	-
Malaysia	Baru River	-	Remote (Danum Valley)	2022	6 times/yr.
	Kuala Tahan	-	-	-	-
Mongolia	Terelj River	-	Remote (Terelj)	2002	6 times/yr.
Philippines	Pandin Lake	30 km	Rural (Mt. Makiling)	2004	4 times/yr.
	Ambulalakaw Lake	-	Remote (Mt. Sto. Tomas)	2005	4 times/yr.
Russia	Pereemnaya River (Listvyanka)	48 km	Rural (Listvyanka)	2004	4 times/yr.
	Komarovka River (Primorskaya)	0.5 km	Rural (Primorskaya)	2005	5 times/yr.
Thailand	Vajiralongkorn Dam (Kanchanaburi Province)	-	Remote	2002	4 times/yr.
Vietnam	Hoa Binh Reservoir	-	Rural	2001	4 times/yr.

Table 6.3.1 Properties of lakes or streams

Lake Name: 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	-
River (inflow)	-
Amount of inlet water	-
Amount of outlet water	-
Nearest meteorological station	-

Watershed area	-
Surface geology	-
Vegetation (dominant plants)	-
Land use	-

- : No information.

Table 6.3.2 Properties of lakes or streams

Lake Name: Jinyunshan Lake

Country	China
Location	Chongqing Prefecture
Latitude and longitude	-
Altitude	-
Origin	Artificial lake
Area and shape	9,990 m^2
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
River (inflow)	-
Amount of inlet water	-
Amount of outlet water	-
Nearest meteorological station	-

Watershed area	-
Surface geology	-
Vegetation (dominant plants)	-
Land use	-

- : No information.

Table 6.3.3 Properties of lakes or streams

Lake Name: Xiaoping Dam

Country	China
Location	Xiaoping, Xiamen
Latitude and longitude	-
Altitude	595 m
Origin	Artificial lake
Area and shape	264,000 m^2
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
River (inflow)	Dingxi lake
Amount of inlet water	-
Amount of outlet water	-
Nearest meteorological station	-

Watershed area	18.1 km^2
Surface geology	-
Vegetation (dominant plants)	-
Land use	-

- : No information.

*1 Xiamen, 2014.

Table 6.3.4 Properties of lakes or streams

Stream Name: Jiwozi River

Country	China
Location	Xi'an
Latitude and longitude	-
Altitude	-
Origin	Natural stream
Water depth	-
Water discharge	-
River length	-
Drainage area	-
The mean height of the river basin	-
Annual air temperature	15.4 °C (mean) *1
Precipitation	593.0 mm/year *1
Sunshine duration	146.0 hrs/month (mean) *1
Solar radiation	-
Wind speed	Mean 2.2 m/s *1
Wind direction	NE (dominant) *1
Lake (flows into)	-
River (meet in 10m from sampling point)	-

Watershed area	-
Surface geology	-
Soil type Mountain	-
Vegetation (dominant plants)	-
Population	-

- : No information.

*1 Xi'an, 2019.

Table 6.3.5 Properties of lakes or streams

Stream Name: Zhuxiandong Stream

Country	China
Location	Zhuhai
Latitude and longitude	-
Altitude	-
Origin	Natural stream
Water depth	-
Water discharge	-
River length	-
Drainage area	-
The mean height of the river basin	-
Annual air temperature	24.1 °C (mean) *1
Precipitation	1984.4 mm *1
Sunshine duration	143.6 hrs/month (mean) *1
Solar radiation	-
Wind speed	Mean 2.6 m/s *1
Wind direction	ESE (dominant) *1
Lake (flows into)	-
River (meet in 10m from sampling point)	-

Watershed area	-
Surface geology	-
Soil type Mountain	-
Vegetation (dominant plants)	-
Population	-

- : No information.

*1 Zhuhai, 2019.

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
Latitude and longitude	-
Altitude	1600-1700 m
Origin	Natural lake
Area and shape	4.5 km^2
Shore line length	-
Lake hydrologic type	-
Lake trophic type	Oligotophic
Water depth	8 m (max)
Water volume	4.98 x 10^6 m^3
Annual water level fluctuation	1.42 m-4.20 m
Annual air temperature	24.0 °C (mean) *1
Precipitation	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	Tourism
River (inflow)	1
Amount of inlet water	-
Amount of outlet water	-
Nearest meteorological station	LAPAN Bandung

Watershed area	650 km^2
Surface geology	-
Vegetation (dominant plants)	Strawberry, tea
Land use	-

- : No information.

*1 Bandung, 2017.

Table 6.3.7 Properties of lakes or streams

Lake Name: Gunung Lake

Country	Indonesia
Location	Sukabumi, West Java
Latitude and longitude	-
Altitude	950-1036 m
Origin	Natural lake
Area and shape	95,000 m^2
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	-
Annual air temperature	-
Precipitation	-
Sunshine duration	-
Solar radiation	-
Wind speed	-
Wind direction	-
Residence time of water	-
Lake utilization	Irrigation
River (inflow)	1
Amount of inlet water	-
Amount of outlet water	-
Nearest meteorological station	Serpong

Watershed area	1.2 km^2
Surface geology	-
Vegetation (dominant plants)	Pine Tree, *Agathis Damara*
Land use	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
Latitude and longitude	35° 33’ 51” N, 136° 42’ 12” E
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	16.7 °C (mean) *1
Precipitation	1978.5 mm/year *1
Sunshine duration	181.7 hrs/month (mean) *1
Solar radiation	-
Wind speed	Mean 2.5 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
Amount of inlet water	-
Amount of outlet water	-
Nearest meteorological station	Gifu Local Meteorological Observatory

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

- : No information.

*1 Gifu Local Meteorological Observatory, 2022.

Table 6.3.9 Properties of lakes or streams

Lake Name: Futago-ike Lake (Oike and Meike)

Site	Oike	Meike
Country	Japan	
Location	Nagano prefecture	
Latitude and longitude	36° 05’ 42” N, 138° 20’ 05” E	36° 05’ 52” N, 138° 19’ 57” E
Altitude	2050 m	2050 m
Origin	Dammed lake	Dammed lake
Area and shape	0.019 km^2	0.017 km^2
Shore line length	0.64 km	0.55 km
Lake hydrologic type	Dammed lake	Dammed lake
Lake trophic type	Extreme oligotrophic	Oligotrophic
Water depth	Ave. 3.82 m	Ave. 2.65 m
Water volume	73369 m^3	45002 m^3
Annual water level fluctuation	0-4 m	0-1 m
Annual air temperature	10.0 °C (mean) *1	
Precipitation	1249.0 mm/year *1	
Sunshine duration	182.3 hrs/month (mean) *1	
Solar radiation	-	
Wind speed	Mean 2.0 m/s *1	
Wind direction	SSE (dominant) *1	
Residence time of water	-	
Lake utilization	Sightseeing	
River (inflow)	None	None
Amount of inlet water	-	-
Amount of outlet water	-	-
Nearest meteorological station	Haramura AMeDAS of Japan Meteorological Agency	
Watershed area	0.488 km^2	0.338 km^2
Surface geology	Lava bed	
Vegetation (dominant plants)	*Abies veitchii, Larix kaempferi*	
Land use	-	

- : No information.

*1 Haramura AMeDAS of Japan Meteorological Agency, 2022.

Table 6.3.10 Properties of lakes or streams

Lake Name: Nam Houm Lake

Country	Lao PDR
Location	-
Latitude and longitude	-
Altitude	-
Origin	-
Area and shape	-
Shore line length	-
Lake hydrologic type	-
Lake trophic type	-
Water depth	Mean: 5 m, Maximum: 10 m
Water volume	-
Annual water level fluctuation	-
Annual air temperature	-
Precipitation	-
Sunshine duration	-
Solar radiation	-
Wind speed	-
Wind direction	-
Residence time of water	-
Lake utilization	Irrigation
River (inflow)	-
Amount of inlet water	-
Amount of outlet water	-
Nearest meteorological station	-

Watershed area	-
Surface geology	-
Vegetation (dominant plants)	-
Land use	-

- : No information.

Table 6.3.11 Properties of lakes or streams

Lake Name: Baru River

Country	Malaysia
Location	Danum Valley, Sabah
Latitude and longitude	-
Altitude	-
Origin	-
Area and shape	-
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	-
River (inflow)	-
Amount of inlet water	-
Amount of outlet water	-
Nearest meteorological station	-

Watershed area	-
Surface geology	-
Vegetation (dominant plants)	-
Land use	-

- : No information.

Table 6.3.12 Properties of lakes or streams

Stream Name: Kuala Tahan

Country	Malaysia
Location	-
Latitude and longitude	-
Altitude	-
Origin	-
Water depth	-
Water discharge	-
River length	-
Drainage area	-
The mean height of the river basin	-
Annual air temperature	-
Precipitation	-
Sunshine duration	-
Solar radiation	-
Wind speed	-
Wind direction	-
Lake (flows into)	-
River (meet in 10m from sampling point)	-

Watershed area	-
Surface geology	-
Soil type Mountain	-
Vegetation (dominant plants)	-
Population	-

- : No information.

Table 6.3.13 Properties of lakes or streams

Stream Name: Terelj River

Country	Mongolia
Location	Terelj
Latitude and longitude	48° 00’ 06.12” N, 107° 27’17.06 ” E
Altitude	-
Origin	Natural stream
Water depth	-
Water discharge	Mean: 7.96 m^3 sec^{-1}
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)	-
River (meet in 10m from sampling point)	-

Watershed area	-
Surface geology	Main type of bed rocks is granite and drainage area is forest steppe
Soil type Mountain	Brown, marshy
Vegetation (dominant plants)	Grazing crop, Plantain
Population	3400

- : No information.

Table 6.3.14 Properties of lakes or streams

Lake Name: Pandin Lake

Country	Philippines
Location	San Pablo City
Latitude and longitude	-
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	-
Annual air temperature	27.8 ℃ (mean) *1
Precipitation	2034.9 mm *1
Sunshine duration	-
Solar radiation	-
Wind speed	2.0 m/s (mean) *1
Wind direction	ENE (dominat) *1
Residence time of water	-
Lake utilization	domestic, electric power and tourism
River (inflow)	-
Amount of inlet water	-
Amount of outlet water	-
Nearest meteorological station	-

Watershed area	-
Surface geology	-
Vegetation (dominant plants)	-
Land use	-

- : No information.

*1 UP Agrometeorological Station Los Baños College, 2022.

Table 6.3.15 Properties of lakes or streams

Lake Name: Ambulalakao Lake

Country	Philippines
Location	Kabayan, Benguet
Latitude and longitude	-
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
River (inflow)	-
Amount of inlet water	-
Amount of outlet water	-
Nearest meteorological station	-

Watershed area	-
Surface geology	-
Vegetation (dominant plants)	-
Land use	-

- : No information.

Table 6.3.16 Properties of lakes or streams

Stream Name: Pereemnaya River

Country	Russia
Location	Southern Baikal
Latitude and longitude	51°56’N, 105°17’E
Altitude	460 m-1500 m
Origin	Natural stream
Water depth	0.9 m (mean), 2 m (max)
Water discharge	-
River length	42 km
Drainage area	About 360 km^2
The mean height of the river basin	1,260 m
Annual air temperature	0.35 ℃ *1
Precipitation	32 mm/year *1
Sunshine duration	-
Solar radiation	-
Wind speed	Mean: 3.2 m/sec
Wind direction	N
Lake (flows into)	Lake Baikal
River (meet in 10m from sampling point)	-

Watershed area	About 360 km^2
Surface geology	Archaean rocks, presented mainly by gneisses, crystal schists, andpegmatites
Soil type Mountain	-
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
Population	-

- : No information.

*1 Listvyanka Meteorological station, 2022.

#Construction of a new bridge has started in 2021 at the water sampling site on the Pereemnaya River. Water samples were taken upstream from the construction place, but in winter there was a flooding of a large area around. Deviations from natural values may be observed in 2021-2022, especially in winter.

Table 6.3.17 Properties of lakes or streams

Stream Name: Komarovka River

Country	Russia
Location	Primorskli Kray, Ussuriyskii district, near Kamenushka settlement
Latitude and longitude	43°42' N, 132°07'E
Altitude	386 m
Origin	Natural stream
Water depth	Mean 0.8 m Maximum 2 m
Water discharge	Mean:1.55 m^3/sec, Min:0.66, Max:3.79
River length	67 km
Drainage area	-
The mean height of the river basin	-
Annual air temperature	3.4℃ (2005)
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
River (meet in 10m from sampling point)	-

Watershed area	About 1490 km^2
Surface geology	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 6.3.18 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	137.0-152.0 m (mean: 143.8 m) (2021)
Water volume	3.5134-7.7479 km^3 (mean: 5.2607 km^3) (2021)
Annual water level fluctuation	Depth: 4.2 m (2010)
Annual air temperature	27.0 ℃ (mean)*1
Precipitation	1690.1 mm*1
Sunshine duration	-
Solar radiation	-
Wind speed	0.17 m/s (mean) *1
Wind direction	-
Residence time of water	165 days
Lake utilization	Irrigation, Electric power generation, Fishery, Flooding protection and Sight seeing
River (inflow)	-
Amount of inlet water	Annual : 6140.5×10^6 m^3 /year, daily : 16.8×10^6 m^3 /day
Amount of outlet water	Annual : 2990.3×10^6 m^3 /year, daily : 8.2×10^6 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.

*1 Thongpaphum Meteorological station, 2022.

Table 6.3.19 Properties of lakes or streams

Lake Name: Hoa Binh Reservoir

Country	Vietnam
Location	Hoa Binh Province
Latitude and longitude	-
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 °C (mean) *2
Precipitation	2477.8 mm *2
Sunshine duration	123.5 hrs/month (mean) *2
Solar radiation	-
Wind speed	Mean 1.1 m/s *2
Wind direction	NE, SE (dominant) *2
Residence time of water	365 days
Lake utilization	Electric power and flood control
River (inflow)	Da River
Amount of inlet water	-
Amount of outlet water	-
Nearest meteorological station	-

Watershed area	51,700 km^2-13,700 km^2 *1
Surface geology	-
Vegetation (dominant plants)	-
Land use	-

- : No information.

*1 Second value is in affected area of reservoir.

*2 Hoa Binh, 2022.

Table 6.4.1 Result of Inland Aquatic Environment Monitoring

Duration: 2022.1-2022.11

Country: China

Lake/Stream: (See below)

		Mandatory Parameters : 4 times/year												
Site	Sampling Date	Temp. (^{o}C)	pH	EC (mS/m)	Alkalinity (meq/L)	SO_4^{2-} (mg/L)	NO_3^- (mg/L)	Cl^- (mg/L)	NH_4^+ (mg/L)	Na^+ (mg/L)	K^+ (mg/L)	Ca^{2+} (mg/L)	Mg^{2+} (mg/L)
Chongqing -Jinyunshan Lake	12-Mar-22	18.0	6.85	9.80	0.210	23.13	4.32	1.56	0.01	2.40	1.65	9.17	3.18
	29-Jun-22	28.0	6.40	8.32	0.104	21.79	8.35	1.20	0.10	1.64	1.61	8.08	2.86
	26-Sep-22	28.0	6.80	9.70	0.243	22.39	5.37	1.79	0.17	2.25	2.28	9.73	3.35
	*3	-	-	-	-	-	-	-	-	-	-	-	-
	mean*2	24.7	6.63	9.27	0.186	22.44	6.01	1.52	0.09	2.10	1.85	8.99	3.13
Xiamen -Xiaoping Dam	18-Jan-22	14.8	7.11	6.67	0.229	1.85	3.14	3.18	0.09	6.05	3.30	3.57	0.61
	19-May-22	20.9	7.72	6.60	0.189	2.84	2.85	2.51	0.02	3.89	2.11	5.19	0.89
	14-Jul-22	25.8	7.66	5.18	0.242	1.84	1.75	1.69	0.02	3.66	2.57	3.46	0.59
	14-Oct-22	22.8	7.21	7.08	0.281	1.47	2.51	2.55	0.03	5.01	3.40	5.29	0.73
	mean*2	21.1	7.35	6.38	0.235	2.00	2.56	2.48	0.04	4.65	2.85	4.38	0.71
Xi'an -Jiwozi River	30-Mar-22	5.0	7.49	5.77	0.330	5.06	3.43	0.66	0.00	1.80	1.09	7.59	0.98
	10-May-22	11.0	7.35	5.54	0.390	5.04	1.23	0.77	0.00	1.83	1.10	8.07	1.00
	07-Aug-22	15.0	7.25	5.65	0.280	4.14	2.35	0.46	0.00	0.06	0.17	8.81	0.15
	17-Nov-22	7.0	7.80	5.53	0.290	5.03	1.98	1.18	0.00	1.96	1.01	6.07	1.23
	mean*2	9.5	7.43	5.62	0.323	4.82	2.25	0.77	0.00	1.41	0.84	7.64	0.84
Zhuhai -Zhuxiandong Stream	05-Jan-22	18.0	7.17	7.67	0.448	2.19	2.55	6.38	0.01	8.56	1.25	3.96	1.74
	06-Apr-22	22.0	6.90	7.44	0.440	1.99	1.97	5.32	0.00	8.47	1.27	3.74	1.32
	05-Sep-22	28.0	7.19	5.31	0.263	1.54	2.73	4.43	0.01	7.62	1.84	1.20	0.46
	09-Oct-22	29.0	7.27	5.01	0.210	1.97	4.08	4.22	0.00	7.00	2.02	1.24	0.44
	mean*2	24.3	7.11	6.36	0.340	1.92	2.83	5.09	0.01	7.91	1.60	2.54	0.99

		Mandatory Parameters : Once /year				
Site	Sampling Date	Transparency (m)	Water Color	PO_4^{3-} (mg/l)	NO_2^- (mg/l)	COD (mg/l)
Chongqing -Jinyunshan Lake	12-Mar-22	0.7	-	-	-	-
	29-Jun-22	1.2	-	-	-	-
	26-Sep-22	1.2	-	<0.05*1	0.000	4.5
	*3	-	-	-	-	-
	mean	1.0	-	<0.05*1	0.000	4.5
Xiamen -Xiaoping Dam	18-Jan-22	0.8	-	-	0.044	6.0
	19-May-22	1.5	-	-	0.056	13.0
	14-Jul-22	1.0	-	-	0.021	11.0
	14-Oct-22	1.5	-	0.015	0.074	10.0
	mean	1.2	-	0.015	0.049	10.0
Xi'an -Jiwozi River	30-Mar-22	-	-	-	-	-
	10-May-22	-	-	-	-	-
	07-Aug-22	-	-	-	-	-
	17-Nov-22	-	-	<0.05*1	<0.02*1	<4*1
	mean	-	-	<0.05*1	<0.02*1	<4*1
Zhuhai -Zhuxiandong Stream	05-Jan-22	-	-	-	-	-
	06-Apr-22	0.3	-	0.01	0.00	6.0
	05-Sep-22	-	-	-	-	-
	09-Oct-22	-	-	-	-	-
	mean	0.3	-	0.01	0.00	6.0

note

- : No analysis or measurement.

*1: Less than determination limit.

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

*3: No sample due to lake drought.

When the value is under detection limit, it is considered as "0". Then the average and R1R2 were calculated by using it.

		Anion	Cation	R1	Judge	Λcalc	R2	Judge
Chongqing -Jinyunshan Lake	12-Mar-22	805	866	3.7	O	10.6	3.9	O
	29-Jun-22	726	757	2.1	O	9.7	7.6	O
	26-Sep-22	846	927	4.5	O	11.2	7.1	O
	*3	-	-	-	-	-	-	-
Xiamen -Xiaoping	18-Jan-22	409	581	17.4	O	5.7	-7.9	O
	19-May-22	366	557	20.7	O	5.4	-10.1	O
	14-Jul-22	357	447	11.2	O	4.5	-6.7	O
	14-Oct-22	426	630	19.3	O	6.0	-8.3	O
Xi'an -Jiwozi	30-Mar-22	509	565	5.2	O	6.1	3.1	O
	10-May-22	536	593	5.0	O	6.3	6.7	O
	7-Aug-22	417	459	4.8	O	5.0	-5.6	O
	17-Nov-22	460	515	5.6	O	5.6	0.4	O
Zhuhai -Zhuxiandong Stream	5-Jan-22	715	746	2.1	O	8.1	2.6	O
	6-Apr-22	664	696	2.4	O	7.4	0.0	O
	5-Sep-22	464	477	1.4	O	5.3	-0.4	O
	9-Oct-22	436	454	2.1	O	5.1	1.0	O

Table 6.4.2 Result of Inland Aquatic Environment Monitoring

Duration: 2022.4-2023.1
Country: Japan
Lake/Stream: Ijira Lake

		Mandatory Parameters : 4times/year												
	Sampling Date	Temp. (℃)	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 (Surface)	13-Apr-22	19.2	7.26	3.52	0.149	0.137	4.78	0.68	1.83	<0.01*1	1.82	0.23	2.52	1.13
	13-Jul-22	25.8	6.93	3.61	0.168	0.158	4.37	0.94	1.57	<0.01*1	1.88	0.26	2.52	1.22
	12-Oct-22	18.7	6.89	3.50	0.168	0.155	3.83	0.87	1.67	0.03	1.80	0.27	2.55	1.16
	11-Jan-23	7.3	7.03	3.83	0.169	0.162	4.73	0.75	1.89	<0.01*1	1.89	0.23	2.98	1.18
	mean*2	17.8	7.01	3.61	0.163	0.153	4.43	0.81	1.74	<0.01*1	1.85	0.25	2.64	1.17
Center (near bottom)	13-Apr-22	12.4	7.32	3.61	0.149	0.138	4.90	0.72	1.88	0.02	1.87	0.28	2.52	1.14
	13-Jul-22	20.8	6.87	3.75	0.169	0.161	4.56	1.15	1.60	0.02	1.85	0.27	2.67	1.26
	12-Oct-22	18.0	6.89	3.59	0.172	0.162	3.90	0.95	1.66	0.06	1.80	0.27	2.58	1.18
	11-Jan-23	6.8	7.06	3.85	0.170	0.163	4.74	0.75	1.89	<0.01	1.89	0.23	2.99	1.17
	mean*2	14.5	7.00	3.70	0.165	0.156	4.52	0.89	1.76	0.02	1.85	0.26	2.69	1.19
Kamagatani River (Input)	13-Apr-22	15.0	7.37	3.93	0.148	0.139	6.29	0.74	1.80	<0.01	2.04	0.25	2.61	1.33
	13-Jul-22	18.8	7.00	3.49	0.138	0.128	4.68	1.51	1.59	<0.01	1.75	0.26	2.30	1.21
	12-Oct-22	16.3	7.17	3.71	0.150	0.137	4.93	1.37	1.67	<0.01	1.88	0.25	2.51	1.29
	11-Jan-23	7.1	7.20	3.91	0.132	0.119	6.40	0.93	1.81	<0.01	1.95	0.20	2.61	1.34
	mean*2	14.3	7.16	3.76	0.142	0.130	5.57	1.14	1.71	<0.01	1.90	0.24	2.50	1.29
Kobora River (Input)	13-Apr-22	14.5	7.15	3.57	0.144	0.135	5.17	0.50	1.90	<0.01	2.35	0.24	1.81	1.28
	13-Jul-22	19.6	7.00	2.97	0.121	0.111	3.71	0.92	1.61	<0.01	1.92	0.24	1.48	1.05
	12-Oct-22	16.5	7.05	3.13	0.127	0.114	3.84	0.92	1.71	<0.01	2.05	0.23	1.63	1.13
	*3	-	-	-	-	-	-	-	-	-	-	-	-	-
	mean*2	16.9	7.06	3.22	0.131	0.120	4.24	0.78	1.74	<0.01	2.11	0.24	1.64	1.15

		Mandatory Parameters : Once/year						Optional Parameters
Site	Sampling Date	Transparency (m)	Water Color (Forel-Ule Scale)	Water Color (sample)	PO_4^{3-} (mg/L)	NO_2^- (mg/L)	DOC (mg/L)	Chl-a (μg/L)
Center (Surface)	13-Apr-22	2.4	16	clear, colorless	<0.02*1	<0.01*1	0.6	1.0
	13-Jul-22	2.0	18	clear, colorless	-	<0.01*1	-	4.6
	12-Oct-22	1.8	19	clear, colorless	-	<0.01*1	-	4.4
	11-Jan-23	2.9	15	clear, colorless	-	<0.01*1	-	5.4
	mean	2.3	-	-	<0.02*1	<0.01*1	0.6	3.8
Center (near bottom)	13-Apr-22	-	-	clear, colorless	<0.02*1	<0.01*1	0.6	9.1
	13-Jul-22	-	-	clear, colorless	-	<0.01*1	-	3.1
	12-Oct-22	-	-	clear, colorless	-	<0.01*1	-	2.8
	11-Jan-23	-	-	clear, colorless	-	<0.01*1	-	6.4
	mean	-	-	-	<0.02*1	<0.01*1	0.6	5.4
Kamagatani River (Input)	13-Apr-22	-	-	clear, colorless	0.02	<0.01*1	0.4	-
	13-Jul-22	-	-	clear, colorless	-	<0.01*1	-	-
	12-Oct-22	-	-	clear, colorless	-	<0.01*1	-	-
	11-Jan-23	-	-	clear, colorless	-	<0.01*1	-	-
	mean	-	-	-	0.02	<0.01*1	0.4	-
Kobora River (Input)	13-Apr-22	-	-	clear, colorless	<0.02*1	<0.01*1	0.5	-
	13-Jul-22	-	-	clear, colorless	-	<0.01*1	-	-
	12-Oct-22	-	-	clear, colorless	-	<0.01*1	-	-
	*3	-	-	-	-	-		-
	mean	-	-	-	<0.02*1	<0.01*1	0.5	-

note
- : No analysis or measurement.
*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 is considered as "0". Then the average and R1R2 were calculated by using it.
Annual precipitation is 1978.5 mm/year in 2022 (Gifu pref. Meteorological observatory).

		Anion	Cation	R1	Judge		Acalc	R2	Judge
Center (Surface)	13-Apr-22	311	303	-1.2	O		3.6	1.3	O
	13-Jul-22	318	314	-0.6	O		3.7	0.9	O
	12-Oct-22	308	309	0.1	O		3.6	0.9	O
	11-Jan-23	332	333	0.1	O		3.9	0.8	O
Center (near bottom)	13-Apr-22	315	309	-1.0	O		3.7	1.0	O
	13-Jul-22	328	325	-0.3	O		3.8	0.7	O
	12-Oct-22	315	314	0.0	O		3.6	0.7	O
	11-Jan-23	333	333	0.0	O		3.9	0.7	O
Kamagatani River (Input)	13-Apr-22	342	334	-1.1	O		4.0	1.3	O
	13-Jul-22	305	297	-1.3	O		3.6	1.0	O
	12-Oct-22	321	319	-0.3	O		3.8	0.9	O
	11-Jan-23	331	330	-0.1	O		4.0	0.9	O
Kobora River (Input)	13-Apr-22	313	304	-1.6	O		3.6	0.8	O
	13-Jul-22	258	250	-1.7	O		3.0	0.2	O
	12-Oct-22	270	269	-0.1	O		3.1	0.4	O
	*3	-	-	-	-		-	-	-

Table 6.4.3 Result of Inland Aquatic Environment Monitoring

Duration: 2022.6-2022.9
Country: Japan
Lake/Stream: Futago-ike Lake (Oike and Meike)

		Mandatory Parameters : 3 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)
Oike (center) surface	17-Jun-22	11.5	7.09	1.79	0.132	0.115	1.01	0.77	0.31	<0.02*1	1.06	0.27	2.04	0.19
	26-Aug-22	17.7	7.16	1.82	0.135	0.123	1.02	0.76	0.35	<0.02*1	1.15	0.28	2.11	0.19
	30-Sep-22	13.7	7.08	1.88	0.138	0.126	0.90	0.78	0.33	<0.02*1	1.15	0.27	2.16	0.19
	mean*2	14.3	7.11	1.83	0.135	0.121	0.98	0.77	0.33	<0.02*1	1.12	0.27	2.10	0.19
Oike (center) near bottom	17-Jun-22	8.4	6.99	2.02	0.149	0.137	1.08	0.92	0.34	<0.02*1	1.21	0.30	2.33	0.22
	26-Aug-22	6.6	7.03	2.16	0.154	0.144	1.10	1.09	0.37	<0.02*1	1.33	0.31	2.48	0.23
	30-Sep-22	6.6	6.83	2.17	0.154	0.141	1.01	1.07	0.36	<0.02*1	1.33	0.30	2.46	0.22
	mean*2	7.2	6.94	2.12	0.152	0.141	1.06	1.03	0.36	<0.02*1	1.29	0.30	2.42	0.22
Meike (center) surface	17-Jun-22	14.1	6.02	0.53	0.029	0.014	0.69	0.18	0.29	0.03	0.26	0.16	0.35	0.07
	26-Aug-22	19.7	5.93	0.51	0.027	0.013	0.75	0.00	0.30	<0.02*1	0.30	0.17	0.30	0.06
	30-Sep-22	16.9	5.69	0.51	0.027	0.013	0.64	0.00	0.28	<0.02*1	0.28	0.17	0.27	0.06
	mean*2	16.9	5.86	0.52	0.027	0.013	0.69	0.06	0.29	<0.02*1	0.28	0.17	0.31	0.06
Meike (center) near bottom	17-Jun-22	13.9	6.02	0.54	0.029	0.015	0.69	0.18	0.28	0.03	0.26	0.16	0.36	0.07
	26-Aug-22	18.0	5.97	0.52	0.027	0.014	0.75	0.00	0.30	<0.02*1	0.29	0.18	0.30	0.06
	30-Sep-22	16.6	5.96	0.48	0.027	0.013	0.66	0.00	0.28	<0.02*1	0.29	0.16	0.27	0.06
	mean*2	16.2	5.99	0.51	0.028	0.014	0.70	0.06	0.28	<0.02*1	0.28	0.17	0.31	0.06

		Mandatory Parameters : Once/year					Optional Parameters			
Site	Sampling Date	Transparency (m)	Water Color (Lake)	Water Color (Sample)	PO_4^{3-} (mg/L)	NO_2^- (mg/L)	DOC (mg/L)	COD (mg/L)	D-Al (mg/L)	Chl-a (μg/L)
Oike (center) surface	17-Jun-22	8.4	bluish green	clear, colorless	<0.01*1	<0.01*1	1.0	1.3	0.012	0.3
	26-Aug-22	8.8	green	clear, colorless	<0.01*1	<0.01*1	1.0	1.6	0.020	0.5
	30-Sep-22	8.6	bluish green	clear, colorless	<0.01*1	<0.01*1	0.9	1.5	0.019	0.6
	mean	8.6	-	-	<0.01*1	<0.01*1	0.9	1.5	0.017	0.5
Oike (center) near bottom	17-Jun-22	-	-	clear, colorless	<0.01*1	<0.01*1	1.0	1.5	0.015	0.4
	26-Aug-22	-	-	clear, colorless	<0.01*1	<0.01*1	1.0	1.7	0.018	0.8
	30-Sep-22	-	-	clear, colorless	<0.01*1	<0.01*1	1.1	1.8	0.020	1.4
	mean	-	-	-	<0.01*1	<0.01*1	1.0	1.6	0.018	0.8
Meike (center) surface	17-Jun-22	4.6	bluish green	clear, colorless	<0.01*1	<0.01*1	1.1	1.9	0.030	0.6
	26-Aug-22	4.0	green	clear, colorless	<0.01*1	<0.01*1	1.0	1.8	0.019	1.4
	30-Sep-22	4.3	bluish green	clear, colorless	<0.01*1	<0.01*1	1.2	1.6	0.011	1.2
	mean	4.3	-	-	<0.01*1	<0.01*1	1.1	1.8	0.020	1.0
Meike (center) near bottom	17-Jun-22	-	-	clear, colorless	<0.01*1	<0.01*1	1.2	1.9	0.032	0.6
	26-Aug-22	-	-	clear, colorless	<0.01*1	<0.01*1	1.2	1.8	0.020	1.3
	30-Sep-22	-	-	clear, colorless	<0.01*1	<0.01*1	0.9	1.8	0.012	1.6
	mean	-	-	-	<0.01*1	<0.01*1	1.1	1.8	0.021	1.1

- : No analysis or measurement.
*1: Less than determination limit.
*2: Mean of pH takes an average of hydrogen ion.
When the value is under detection limit, it is considered as "0". Then the average and R1R2 were calculated by using it.
Annual precipitation is 1249.0 mm/year in 2022 (Hara village Meteorological observatory).

		Anion	Cation	R1	Judge
Oike (center) surface	17-Jun-22	174	171	-0.9	O
	26-Aug-22	178	178	0.0	O
	30-Sep-22	179	180	0.5	O
Oike (center) near bottom	17-Jun-22	196	194	-0.4	O
	26-Aug-22	204	208	0.9	O
	30-Sep-22	202	206	1.0	O
Meike (center) surface	17-Jun-22	54	41	-13.8	O
	26-Aug-22	51	38	-14.2	O
	30-Sep-22	48	37	-12.9	O
Meike (center) near bottom	17-Jun-22	54	41	-13.2	O
	26-Aug-22	51	38	-14.5	O
	30-Sep-22	48	36	-14.4	O

Acalc	R2	Judge
1.9	2.8	O
1.9	3.3	O
2.0	2.1	O
2.1	2.7	O
2.3	2.4	O
2.2	1.4	O
0.6	5.3	O
0.6	4.9	O
0.6	4.7	O
0.6	5.2	O
0.6	4.0	O
0.5	4.6	O

Table 6.4.4 Result of Inland Aquatic Environment Monitoring

Duration: 2022.2.-2022.12.
Country: Malaysia
Lake/Stream: (See below)

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)
		Mandatory Parameters: 6 times/year											
Baru River	1-Feb-22	24.6	7.92	13.8	1.312	4.82	0.54	1.31	<0.003*1	8.82	1.00	21.5	3.47
	5-Apr-22	26.0	7.89	8.8	0.888	1.61	0.87	2.07	<0.003*1	5.55	0.97	9.0	3.27
	21-Jun-22	25.4	7.86	5.7	0.532	2.09	0.07	1.37	<0.003*1	3.76	0.59	5.6	2.03
	2-Aug-22	25.8	7.62	7.1	0.624	2.38	0.26	1.54	<0.003*1	4.82	0.58	6.7	2.57
	4-Oct-22	24.0	7.37	7.1	0.626	2.43	0.41	1.73	<0.003*1	4.33	0.69	6.4	2.36
	6-Dec-22	25.9	7.42	5.7	0.500	2.17	0.36	1.44	<0.003*1	4.33	0.45	5.2	2.08
	mean*2	25.3	7.62	8.0	0.747	2.58	0.42	1.58	<0.003*1	5.27	0.71	9.1	2.63

Site	Sampling Date	PO_4^{3-} (mg/L)	TOC (mg/L)	T-P (mg/L)	COD (mg/L)
		Mandatory Parameters: 6times/year			
Baru River	1-Feb-22	<0.10*1	2.3	1.3	5.5
	5-Apr-22	<0.10*1	2.3	3.9	5.1
	21-Jun-22	0.16	2.0	4.3	4.5
	2-Aug-22	<0.10*1	1.3	<0.2	4.0
	4-Oct-22	<0.10*1	3.2	<0.2	7.7
	6-Dec-22	<0.10*1	1.4	<0.2	4.6
	mean	<0.10*1	2.1	1.6	5.2

- : No analysis or measurement.
*1: Less than determination limit.
*2: Mean of pH takes an average of hydrogen ion.
When the value is under detection limit, it is considered as "0". Then the average and R1R2 were calculated by using it.

		Anion	Cation	R1	Judge
Baru River	1-Feb-22	1458	1768	9.6	×
	5-Apr-22	994	982	-0.6	O
	21-Jun-22	620	624	0.3	O
	2-Aug-22	721	772	3.4	O
	4-Oct-22	732	717	-1.0	O
	6-Dec-22	591	633	3.4	O

Λcalc	R2	Judge
17.0	10.5	×
10.3	7.9	O
6.5	6.7	O
7.8	5.0	O
7.6	3.5	O
6.4	6.2	O

Table 6.4.5 Result of Inland Aquatic Environment Monitoring

Duration: 2022.5-2022.10
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*2	18-May-22	-	6.20	4.11	0.355	-	-	-	-	-	-	-	-
	8-Jun-22	-	6.55	4.77	0.366	-	-	-	-	-	-	-	-
	20-Jul-22	-	6.52	4.56	0.376	-	-	-	-	-	-	-	-
	3-Aug-22	-	6.57	4.51	0.376	-	-	-	-	-	-	-	-
	7-Sep-22	-	6.56	4.90	0.396	-	-	-	-	-	-	-	-
	5-Oct-22	-	6.67	4.68	0.406	-	-	-	-	-	-	-	-
	mean*1	-	6.48	4.59	0.379	-	-	-	-	-	-	-	-

		Mandatory Parameters : Once/year	
Site	Sampling Date	PO_4^{3-} (mg/L)	NO_2^- (mg/L)
Terelj River	18-May-22	-	-
	8-Jun-22	-	-
	20-Jul-22	-	-
	3-Aug-22	-	-
	7-Sep-22	-	-
	5-Oct-22	-	-
	mean	-	-

note
- : No analysis or measurement.
*1: Mean of pH takes an average of hydrogen ion.
*2: No data for anions and cations due to IC measuring instrument failure.

		Anion	Cation	R1	Judge		Λcalc	R2	Judge
Terelj River*2	18-May-22	-	-	-	-		-	-	-
	8-Jun-22	-	-	-	-		-	-	-
	20-Jul-22	-	-	-	-		-	-	-
	3-Aug-22	-	-	-	-		-	-	-
	7-Sep-22	-	-	-	-		-	-	-
	5-Oct-22	-	-	-	-		-	-	-

Table 6.4.6 Result of Inland Aquatic Environment Monitoring

Duration: 2022.2-2022.12
Country: Philippines
Lake/Stream: (See below)

		Mandatory Parameters: 4 times/year												
Site	Sampling Date	Temp. (^oC)	pH	EC (mS/m)	Alkalinity (meq/L)	SO_4^{2-} (mg/L)	NO_3^- (mg/L)	Cl^- (mg/L)	NH_4^+ (mg/L)	Na^+ (mg/L)	K^+ (mg/L)	Ca^{2+} (mg/L)	Mg^{2+} (mg/L)
Pandin Lake	23-Feb-22	26.1	9.04	18.29	1.790	1.14	0.03	3.50	0.01	8.30	4.05	18.00	9.57
	12-May-22	30.8	8.81	18.35	1.850	1.29	0.085	3.71	*1	8.48	4.29	13.70	10.76
	26-Aug-22	-	8.10	18.16	1.740	1.29	0.008	3.37	*1	8.04	4.07	13.80	9.06
	15-Dec-22	27.4	8.06	17.39	1.025	2.30	0.018	4.73	0.038	10.82	5.60	11.80	5.20
	mean*2	28.1	8.32	18.05	1.601	1.51	0.04	3.83	0.067	8.91	4.50	14.33	8.65
Ambulalakaw Lake	-	-	-	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-	-	-
	mean	-	-	-	-	-	-	-	-	-	-	-	-

		Mandatory Parameters: Once/year			Optional Parameters		
Site	Sampling Date	Transparency (m)	PO_4^{3-} (mg/L)	NO_2^- (mg/L)	DO (mg/L)	Chl-a (μg/L)	COD (mg/L)
Pandin Lake	23-Feb-22	-	*1	*1	-	6.87	7.48
	12-May-22	-	*1	*1		-	-
	26-Aug-22	-	*1	*1	-	2.40	0.72
	15-Dec-22	-	*1	*1		-	-
	mean	-	-	-	-	4.64	4.10
Ambulalakaw Lake	-	-	-	-	-	-	-
	-	-	-	-	-	-	-
	-	-	-	-	-	-	-
	-	-	-	-	-	-	-
	mean	-	-	-	-	-	-

note
 - : No analysis or measurement.
*1: Less than determination limit.
*2: Mean of pH takes an average of hydrogen ion.
When the value is under detection limit, it is considered as "0". Then the average and R1R2 were calculated by using it.

		Anion	Cation	R1	Judge		Λcalc	R2	Judge
Pandin Lake	23-Feb-22	1913	2151	5.9	O		21.1	7.0	O
	12-May-22	1983	2047	1.6	O		20.7	6.1	O
	26-Aug-22	1862	1888	0.7	O		19.3	3.0	O
	15-Dec-22	1207	1633	15.0	×		15.2	-6.7	O
Ambulalakaw Lake	-	-	-	-	-		-	-	-
	-	-	-	-	-		-	-	-
	-	-	-	-	-		-	-	-
	-	-	-	-	-		-	-	-

Table 6.4.7 Result of Inland Aquatic Environment Monitoring

Duration: 2022.2-2022.11
Country: Russia
Lake/Stream: (See below)

						Mandatory Parameters: 4 times/year							
Site	Sampling Date	Temp. (^oC)	pH	EC (mS/m)	Alkalinity (meq/L)	SO_4^{2-} (mg/L)	NO_3^- (mg/L)	Cl^- (mg/L)	NH_4^+ (mg/L)	Na^+ (mg/L)	K^+ (mg/L)	Ca^{2+} (mg/L)	Mg^{2+} (mg/L)
Pereemnaya River	20-Feb-22	0.4	6.53	5.63	0.152	13.89	1.01	0.21	0.01	1.50	0.73	5.63	1.05
	10-May-22	6.8	6.95	3.77	0.132	7.95	1.53	0.10	0.01	0.83	0.58	4.04	0.71
	21-Jul-22	13.3	7.12	5.10	0.110	13.48	0.57	0.15	0.01	0.98	0.62	5.07	1.13
	18-Sep-22	8.9	7.07	6.11	0.149	15.39	0.61	0.21	0.00	1.34	0.97	5.66	1.20
	mean*1	7.4	6.85	5.15	0.136	12.68	0.93	0.17	0.01	1.16	0.72	5.10	1.02
Komarovka River	14-Feb-22	0.1	7.75	8.54	0.412	11.42	1.18	4.50	0.04	4.82	1.42	11.08	0.80
	12-Apr-22	7.0	7.32	7.37	0.568	7.42	0.04	2.37	0.08	5.33	1.13	8.13	1.77
	14-Jun-22	14.0	7.37	8.57	0.655	7.32	0.06	2.52	0.12	4.95	2.20	9.67	1.80
	12-Sep-22	15.8	6.88	8.83	0.757	8.07	0.82	4.12	0.05	7.27	2.82	9.27	2.75
	14-Nov-22	0.4	7.60	11.07	0.662	7.62	0.11	4.17	0.10	9.25	2.25	9.35	2.73
	mean*1	7.5	7.27	8.88	0.611	8.37	0.44	3.53	0.08	6.32	1.96	9.50	1.97

			Mandatory Parameters: Once/year					Optional Parameters		
Site	Sampling Date	Transparency (m)	Water color	COD (mg/L)	NO_2^- (mg/L)	PO_4^{3-} (mg/L)	Si (mg/L)	O_2 (mg/L)	TP (mg/L)	Fe (mg/L)
Pereemnaya River	20-Feb-22	-	colorless	0.3	0.003	0.007	1.92	13.02	0.003	-
	10-May-22	-	colorless	1.2	0.002	0.005	2.58	12.72	0.004	-
	21-Jul-22	-	colorless	1.3	0.002	0.007	3.08	11.04	0.005	-
	18-Sep-22	-	colorless	1.2	0.001	0.004	3.49	10.83	0.002	-
	mean	-	-	1.0	0.002	0.006	2.77	11.90	0.003	-
Komarovka River	14-Feb-22	-	colorless	2.7	0.003	0.009	5.40	12.41	-	0.03
	12-Apr-22	-	colorless	4.7	0.040	0.008	4.94	14.41	-	0.52
	14-Jun-22	-	colorless	3.2	0.013	0.009	6.26	10.61	-	0.10
	12-Sep-22	-	colorless	5.6	0.030	0.009	6.03	9.32	-	0.42
	14-Nov-22	-	colorless	5.1	0.044	0.029	4.52	7.09	-	0.78
	mean	-	-	4.2	0.026	0.013	5.43	10.77	-	0.37

note
- : No analysis or measurement.
*1: Mean of pH takes an average of hydrogen ion.
#Construction of a new bridge has started in 2021 at the water sampling site on the Pereemnaya River.
Water samples were taken upstream from the construction place, but in winter there was a flooding of a large area around.
Deviations from natural values may be observed in 2021-2022, especially in winter.

		Anion	Cation	R1	Judge		Λcalc	R2	Judge
Pereemnaya River	20-Feb-22	464	452	-1.3	O		5.77	1.2	O
	10-May-22	325	311	-2.2	O		3.92	2.0	O
	21-Jul-22	404	405	0.1	O		5.18	0.8	O
	18-Sep-22	485	464	-2.3	O		6.03	-0.6	O
Komarovka River	14-Feb-22	796	867	4.3	O		9.8	7.0	O
	12-Apr-22	790	817	1.6	O		8.9	9.4	×
	14-Jun-22	880	909	1.6	O		9.9	7.2	O
	12-Sep-22	1055	1080	1.2	O		11.8	14.4	×
	14-Nov-22	941	1157	10.3	×		11.6	2.4	O

Table 6.4.8 Result of Inland Aquatic Environment Monitoring

Duration: 2022.2-2022.11
Country: Thailand
Lake/Stream: Vajiralongkorn Dam&Resovior

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)
		Mandatory Parameters : 4 times/year											
Station1 (Ban Pong Chang)	10-Feb-22	28.7	7.70	12.98	1.150	2.57	0.10	1.41	0.02	1.67	1.11	18.05	3.35
	9-Jun-22	29.6	7.80	13.14	1.180	1.93	0.10	1.07	0.01	1.16	1.10	18.00	3.09
	21-Jul-22	30.3	7.80	12.96	1.165	2.13	0.10	1.20	0.02	1.19	1.05	17.15	3.18
	24-Nov-22	29.6	8.00	12.33	1.175	1.16	0.10	1.04	0.01	1.22	0.97	17.45	3.55
	mean*1	29.6	7.27	12.85	1.168	1.95	0.10	1.18	0.01	1.31	1.06	17.66	3.29
Station2 (Ban Pang Pueng)	10-Feb-22	27.8	7.30	12.54	1.135	1.89	0.10	1.32	0.01	1.52	1.16	18.85	3.02
	9-Jun-22	29.3	8.30	12.89	1.170	2.62	0.10	1.04	0.01	1.14	1.08	18.10	2.97
	21-Jul-22	29.8	8.10	12.70	1.170	1.73	0.25	1.22	0.04	1.19	1.05	17.45	2.89
	24-Nov-22	29.4	8.50	12.06	1.160	1.39	0.10	0.94	0.01	1.19	0.97	17.65	3.05
	mean*1	29.1	7.19	12.55	1.159	1.91	0.14	1.13	0.02	1.26	1.06	18.01	2.98

Site	Sampling Date	Transparency (m)	Water color	PO_4^{3-} (mg/L)	NO_2^- (mg/L)	COD (mg/L)
		Mandatory Parameters : Once/year				
Station1 (Ban Pong Chang)	10-Feb-22	3.5	light green	0.01	-	-
	9-Jun-22	3.0	light green	0.01	-	-
	21-Jul-22	3.0	light green	0.01	-	-
	24-Nov-22	5.0	light green	-	-	-
	mean	3.6	-	0.01	-	-
Station2 (Ban Pang Pueng)	10-Feb-22	3.5	light green	0.01	-	-
	9-Jun-22	3.5	light green	0.01	-	-
	21-Jul-22	3.5	light green	0.01	-	-
	24-Nov-22	4.0	light green	-	-	-
	mean	3.6	-	0.01	-	-

note
- : No analysis or measurement.
*1: Mean of pH takes an average of hydrogen ion.

	Date	Anion	Cation	R1	Judge	Λcalc	R2	Judge
Station1 (Ban Pong Chang)	10-Feb-22	1245	1277	1.3	O	13.3	1.2	O
	9-Jun-22	1252	1231	-0.9	O	13.0	-0.5	O
	21-Jul-22	1245	1196	-2.0	O	12.8	-0.7	O
	24-Nov-22	1230	1241	0.4	O	12.9	2.1	O
Station2 (Ban Pang Pueng)	10-Feb-22	1213	1285	2.9	O	13.2	2.4	O
	9-Jun-22	1256	1225	-1.3	O	13.0	0.6	O
	21-Jul-22	1245	1189	-2.3	O	12.7	0.1	O
	24-Nov-22	1217	1209	-0.3	O	12.7	2.4	O

Table 6.4.9 Result of Inland Aquatic Environment Monitoring

Duration: 2022.3-2022.12
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-22	23.1	7.47	16.80	1.370	4.22	2.51	1.23	0.11	3.02	1.61	22.86	2.15
	15-Jun-22	31.7	7.55	16.20	1.413	3.65	2.41	1.11	0.10	2.88	1.52	22.45	2.54
	15-Sep-22	27.7	7.69	17.10	1.453	4.59	2.13	0.88	0.10	3.64	1.98	23.12	2.83
	15-Dec-22	22.5	7.87	19.87	1.788	4.87	3.29	1.17	0.10	4.99	1.99	25.78	3.97
	mean*1	26.3	7.62	17.49	1.506	4.33	2.59	1.10	0.10	3.63	1.78	23.55	2.87

		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-22	1.2	-	0.087	-	0.089	5.0
	15-Jun-22	1.2	-	0.172	-	0.005	4.9
	15-Sep-22	1.2	-	0.151	-	0.059	5.4
	15-Dec-22	1.2	14	0.124	0.064	0.049	4.2
	mean	1.2	-	0.134	0.064	0.051	4.9

note
- : No analysis or measurement.
*1 : Mean of pH takes an average of hydrogen ion.

		Anion	Cation	R1	Judge		Λcalc	R2	Judge
Hoa Binh Reservoir	15-Mar-22	1535	1496	-1.3	O		16.1	-2.0	O
	15-Jun-22	1559	1499	-2.0	O		16.2	-0.1	O
	15-Sep-22	1609	1601	-0.3	O		17.0	-0.2	O
	15-Dec-22	1979	1886	-2.4	O		20.4	1.2	O

Table 6.4.10 Summary of Inland Aquatic Environment Monitoring

Country	Location	Site	Mandatory Parameters : 4 times/year 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	-	-	-	-	-	-	-	-	-	-	-	-
China	Chongqing	Jinyunshan Lake*3	6.63	9.27	0.186	-	22.44	6.01	1.52	0.09	2.10	1.85	8.99	3.13
	Xiamen	Xiaoping Dam	7.35	6.38	0.235	-	2.00	2.56	2.48	0.04	4.65	2.85	4.38	0.71
	Xi'an	Jiwozi River	7.43	5.62	0.323	-	4.82	2.25	0.77	0.00	1.41	0.84	7.64	0.84
	Zhuhai	Zhuxiandong Stream	7.11	6.36	0.340	-	1.92	2.83	5.09	0.01	7.91	1.60	2.54	0.99
Indonesia	Bandung	Patengang Lake	-	-	-	-	-	-	-	-	-	-	-	-
	Sukabumi, West Java	Gunung Lake	-	-	-	-	-	-	-	-	-	-	-	-
Japan	Gifu pref.	Ijira Lake (Center, surface)	7.01	3.61	0.163	0.153	4.43	0.81	1.74	<0.01*1	1.85	0.25	2.64	1.17
	Nagano pref.	Futago-ike Lake(Oike)*3 (Center, surface)	7.11	1.83	0.135	0.121	0.98	0.77	0.33	<0.02*1	1.12	0.27	2.10	0.19
		Futago-ike Lake(Meike)*3 (Center, surface)	5.86	0.52	0.027	0.013	0.69	0.06	0.29	<0.02*1	0.28	0.17	0.31	0.06
Lao PDR	Vientiane province	Nam Houm Lake	-	-	-	-	-	-	-	-	-	-	-	-
Malaysia	-	Baru River*6	7.62	8.02	0.747	-	2.58	0.42	1.58	<0.003*1	5.27	0.71	9.07	2.63
	-	Kuala Tahan	-	-	-	-	-	-	-	-	-	-	-	-
Mongolia	Terelj	Terelj River*6	6.48	4.59	0.379	-	-	-	-	-	-	-	-	-
Philippines	San Pablo City	Pandin Lake	8.32	18.05	1.601	-	1.51	0.04	3.83	0.07	8.91	4.50	14.33	8.65
	Benguet	Ambulalakaw Lake	-	-	-	-	-	-	-	-	-	-	-	-
Russia	Southern Baikal	Pereemnaya River	6.85	5.15	0.136	-	12.68	0.93	0.17	0.01	1.16	0.72	5.10	1.02
	Primorskaya	Komarovka River*5	7.27	8.88	0.611	-	8.37	0.44	3.53	0.08	6.32	1.96	9.50	1.97
Thailand	Kanchanaburi Province	Vajiralongkorn Dam (Ban Pong Chang)	7.27	12.85	1.168	-	1.95	0.10	1.18	0.01	1.31	1.06	17.66	3.29
		Vajiralongkorn Dam (Ban Pang Pueng)	7.19	12.55	1.159	-	1.91	0.14	1.13	0.02	1.26	1.06	18.01	2.98
Vietnam	Hoa Binh Province	Hoa Binh Reservoir	7.62	17.49	1.506	-	4.33	2.59	1.10	0.10	3.63	1.78	23.55	2.87

Country	Location	Site	Mandatory Parameters : Once/year Transparency (m)	PO_4^{3-} (mg/L)	NO_2^- (mg/L)	DOC (mg/L)	COD (mg/L)
Cambodia	Kampong Speu province	Sras Srang Lake	-	-	-	-	-
China	Chongqing	Jinyunshan Lake*3	1.0	<0.05*1	*1	-	4.5
	Xiamen	Xiaoping Dam*7	1.2	0.015	0.049	-	10.0
	Xi'an	Jiwozi River	-	<0.05*1	<0.02*1	-	<4*1
	Zhuhai	Zhuxiandong Stream	0.3	0.010	*1	-	6.0
Indonesia	Bandung	Patengang Lake	-	-	-	-	-
	Sukabumi, West Java	Gunung Lake	-	-	-	-	-
Japan	Gifu pref.	Ijira Lake*7 (Center, surface)	2.3*4	<0.02*1	<0.01*1	0.6	-
	Nagano pref.	Futago Lake(Oike)*3 (Center, surface)	8.6	<0.01*1	<0.01*1	0.9	1.5
		Futago Lake(Meike)*3 (Center, surface)	4.3	<0.01*1	<0.01*1	1.1	1.8
Lao PDR	Vientiane province	Nam Houm Lake	-	-	-	-	-
Malaysia	-	Baru River*6	-	<0.10*1	-	-	5.2
	-	Kuala Tahan	-	-	-	-	-
Mongolia	Terelj	Terelj River	-	-	-	-	-
Philippines	San Pablo City	Pandin Lake*5	-	*1	*1	-	4.1
	Benguet	Ambulalakaw Lake	-	-	-	-	-
Russia	Southern Baikal	Pereemnaya River*4	-	0.006	0.002	-	1.0
	Primorskaya	Komarovka River*5	-	0.013	0.026	-	4.2
Thailand	Kanchanaburi Province	Vajiralongkorn Dam*2 (Ban Pong Chang)	3.6	0.010	-	-	-
		Vajiralongkorn Dam*2 (Ban Pang Pueng)	3.6	0.010	-	-	-
Vietnam	Hoa Binh Province	Hoa Binh Reservoir*4	1.2	0.064	0.051	-	4.9

note
- : No analysis or measurement.
*1: Less than determination/detection limit.
*2: Surveyed twice a year.
*3: Surveyed 3 times a year.
*4: Surveyed 4 times a year.
*5: Surveyed 5 times a year.
*6: Surveyed 6 times a year.
*7: NO_2^- was surveyed 4 times a year.

Table 6.5.1 Annual mean values of each parameters from 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	0.037	-	0.08	0.06	1.65	0.04	0.94	0.13	0.27	0.16	0.7	-	-	-	-
2013	5.74	0.93	0.034	-	0.05	0.28	1.39	0.02	0.94	0.12	0.29	0.13	0.7	-	-	-	-
2014	5.84	0.96	0.035	-	0.06	0.60	1.38	0.12	1.03	0.31	0.26	0.12	0.7	-	-	-	-
2015	5.81	0.98	0.040	-	0.09	0.22	1.17	0.07	0.80	0.19	0.37	0.22	0.8	-	-	-	-
2016	5.95	0.92	0.028	-	0.10	0.30	1.10	0.09	0.91	0.14	0.27	0.13	0.7	-	-	-	-
2017	6.04	0.97	0.034	-	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 2022 at Jinyunshan 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	-	-	26.05	7.68	2.58	0.65	1.78	1.58	6.63	2.63	-	-	-	-	-
2002	6.12	9.52	-	-	26.36	7.99	2.53	0.09	2.50	1.79	9.08	3.28	-	-	-	-	-
2003	6.55	9.79	0.210	-	23.21	5.16	2.68	0.21	2.60	1.72	9.03	3.30	0.9	-	-	-	-
2004	6.34	9.61	0.075	-	25.72	7.94	1.74	0.30	1.98	1.65	9.66	2.71	2.6	-	-	-	7.6
2005	6.04	10.21	0.073	-	28.12	8.16	2.63	0.04	2.70	1.82	9.36	3.22	3.7	*1	*1	-	2.9
2006	6.36	11.92	0.113	-	32.65	9.53	3.05	0.11	2.96	2.27	11.05	3.82	5.0	*1	*1	-	3.2
2007	6.24	12.35	0.086	-	37.19	10.21	3.12	0.12	2.81	2.18	11.24	3.81	3.0	*1	*1	-	4.4
2008	5.42	12.20	0.066	-	33.26	12.78	2.77	0.16	2.65	1.98	11.34	3.77	3.7	*1	*1	-	2.9
2009	5.84	11.18	0.048	-	29.27	8.29	2.95	0.23	2.59	1.96	10.15	3.63	2.3	*1	*1	-	<10*1
2010	5.76	12.79	0.157	-	34.55	10.62	3.00	0.14	2.90	2.07	11.72	3.98	3.4	*1	*1	-	<10*1
2011	5.25	14.17	0.064	-	39.63	15.15	3.76	0.12	2.71	2.27	12.77	3.90	4.5	*1	*1	-	<10*1
2012	5.47	13.54	0.052	-	40.79	9.88	3.71	0.14	3.08	2.38	12.79	3.98	3.1	*1	*1	-	<10*1
2013	6.03	7.12	0.082	-	20.74	3.93	0.68	0.12	0.75	0.77	8.75	0.98	3.5	*1	*1	-	<10*1
2014	5.41	12.39	0.040	-	34.94	14.30	2.65	0.09	2.54	2.14	11.84	3.77	6.3	*1	*1	-	-
2015	6.48	11.35	0.145	-	29.41	10.09	2.24	0.25	2.25	2.01	11.62	3.46	0.9	*1	*1	-	<10*1
2016	6.49	12.17	0.266	-	28.60	11.72	2.97	*1	2.91	2.30	12.66	3.59	2.5	*1	*1	-	<10*1
2017	6.48	11.16	0.122	-	27.27	11.84	2.70	0.02	2.63	1.98	11.32	3.24	2.0	*1	*1	-	<10*1
2018	6.74	10.99	0.223	-	26.04	7.25	2.28	0.62	2.48	1.81	9.96	3.00	2.2	*1	*1	-	<10*1
2019	6.44	10.63	0.147	-	26.54	10.76	2.10	0.03	2.48	1.84	9.96	3.41	2.3	*1	*1	-	<10*1
2020	6.61	9.98	0.147	-	24.03	10.00	1.75	0.01	2.12	2.01	9.30	3.26	2.4	*1	*1	-	4.0
2021	6.27	9.52	0.129	-	23.36	8.47	1.58	0.06	1.96	1.61	8.49	2.70	1.9	<0.05*1	*1	-	4.0
2022	6.63	9.27	0.186	-	22.44	6.01	1.52	0.09	2.10	1.85	8.99	3.13	1.0	<0.05*1	*1	-	4.5

Table 6.5.3 Annual mean values of each parameters from 2001 to 2022 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	0.193	-	2.68	5.02	5.91	0.17	6.53	2.06	2.35	0.86	-	-	-	-	1.8
2004	7.34	5.57	0.242	-	2.68	7.83	4.35	0.18	6.70	2.18	2.92	0.64	-	0.020	0.008	-	2.1
2005	6.73	4.62	0.232	-	2.07	2.83	3.94	0.05	4.77	2.37	2.95	0.61	0.9	0.020	0.008	-	1.3
2006	6.81	5.27	0.190	-	2.46	2.52	5.13	0.19	6.02	2.33	3.19	0.66	0.9	0.020	0.008	-	0.7
2007	7.07	7.32	0.110	-	2.67	2.67	5.13	0.15	3.64	1.63	2.82	0.54	-	-	0.006	-	1.8
2008	6.73	5.66	0.124	-	4.49	2.67	12.95	0.14	4.97	2.46	3.90	0.56	-	0.010	0.007	-	1.9
2009	6.72	7.53	0.193	-	3.14	2.67	7.44	0.10	6.91	3.52	2.43	0.82	-	0.010	0.008	-	3.5
2010	6.63	6.19	0.190	-	2.70	3.70	5.54	0.11	5.80	2.53	2.51	0.69	1.1	0.020	0.015	-	1.9
2011	6.78	4.85	0.168	-	2.60	2.89	3.14	0.09	3.50	2.10	2.57	0.52	0.7	0.050	0.022	-	1.8
2012	6.94	5.08	0.155	-	2.92	3.46	3.10	0.06	3.78	2.50	2.51	0.68	1.2	0.030	0.031	-	2.5
2013	6.80	5.52	0.220	-	2.71	3.42	2.77	0.05	3.80	2.83	3.20	0.76	0.9	0.024	0.029	-	1.7
2014	7.18	5.79	0.219	-	3.71	3.53	2.64	0.05	3.09	2.61	3.70	0.84	0.9	0.041	0.020	-	1.5
2015	7.01	6.01	0.179	-	3.99	3.17	3.43	0.05	3.65	2.64	3.61	0.66	0.7	0.045	0.014	-	1.2
2016	6.65	5.98	0.280	-	2.39	2.61	2.87	0.11	4.43	2.36	3.52	0.66	1.2	0.042	0.017	-	0.9
2017	7.08	5.76	0.259	-	3.17	3.33	2.85	0.08	4.56	2.47	3.96	0.62	1.5	0.032	0.025	-	1.1
2018	7.31	5.68	0.287	-	2.17	2.53	2.32	0.29	3.99	2.19	3.54	0.57	0.8	0.032	0.049	-	1.9
2019	7.23	5.61	0.269	-	2.42	2.56	2.76	0.07	3.40	2.41	3.96	0.64	0.9	0.032	0.156	-	2.0
2020	7.36	5.91	0.282	-	2.21	2.46	2.48	0.03	4.22	2.66	3.62	0.66	1.1	0.021	0.052	-	2.0
2021	7.43	5.81	0.294	-	2.08	2.43	2.47	0.08	4.22	2.71	3.79	0.65	0.9	0.018	0.026	-	1.7
2022	7.35	6.38	0.235	-	2.00	2.56	2.48	0.04	4.65	2.85	4.38	0.71	1.2	0.015	0.049	-	10.0

Table 6.5.4 Annual mean values of each parameters from 2001 to 2022 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	0.225	-	10.03	1.47	1.06	0.04	1.90	0.70	8.83	1.38	-	-	-	-	-
2002	7.60	8.47	0.110	-	12.16	1.70	1.80	*1	2.80	1.20	12.73	1.72	-	-	-	-	-
2003	7.54	7.83	0.140	-	11.44	2.01	1.63	*1	2.08	0.95	12.03	1.59	-	-	-	-	-
2004	7.20	6.63	0.243	-	11.68	2.30	1.06	*1	1.79	0.68	9.04	1.35	-	*1	*1	-	3.2
2005	6.99	7.99	0.208	-	15.31	0.81	1.74	0.06	1.77	0.72	7.44	1.35	-	*1	0.090	-	1.6
2006	6.80	7.59	0.238	-	11.80	1.87	1.21	0.07	1.93	0.65	7.64	1.11	-	0.030	0.003	-	2.8
2007	7.32	8.86	0.250	-	16.68	3.46	1.31	0.13	2.09	0.96	11.00	0.96	-	*1	*1	-	2.2
2008	7.05	8.42	0.248	-	13.92	1.89	1.51	0.30	1.43	1.05	9.38	1.20	-	<0.01*1	<0.003*1	-	2.5
2009	6.98	8.28	0.278	-	15.51	2.07	1.34	0.14	1.88	1.04	9.85	1.38	-	<0.01*1	<0.003*1	-	2.5
2010	7.33	8.11	0.280	-	13.92	2.83	1.27	*1	1.22	0.81	10.49	1.35	-	<0.01*1	<0.003*1	-	3.0
2011	6.85	6.83	0.275	-	12.89	0.87	0.51	*1	0.74	0.84	8.09	2.01	-	<0.01*1	<0.003*1	-	3.0
2012	6.83	6.95	0.275	-	12.97	0.96	0.57	*1	0.70	0.83	7.80	2.01	-	<0.01*1	<0.003*1	-	4.0
2013	6.86	8.92	0.333	-	15.01	2.39	3.16	*1	3.50	1.37	11.07	1.69	-	<0.01*1	<0.003*1	-	5.0
2014	7.05	8.24	0.273	-	15.85	1.28	1.32	0.27	1.93	1.06	9.15	1.61	-	<0.01*1	<0.003*1	-	4.0
2015	7.09	7.27	0.263	-	11.32	6.45	1.55	*1	4.12	0.95	9.19	1.28	-	<0.01*1	<0.003*1	-	3.0
2016	7.10	7.60	0.295	-	11.70	2.86	0.82	*1	2.29	0.65	10.07	1.11	-	<0.01*1	<0.003*1		*1
2017	6.99	6.87	0.335	-	9.02	2.09	1.02	0.03	2.02	0.82	8.60	1.41	-	<0.01*1	<0.003*1	-	*1
2018	6.95	6.33	0.330	-	8.59	0.77	1.20	0.02	1.81	0.85	7.62	1.48	-	<0.01*1	<0.003*1	-	*1
2019	7.65	6.22	0.295	-	6.80	5.10	1.22	0.28	1.89	0.99	7.48	1.06	-	<0.01*1	<0.003*1	-	<0.5*1
2020	7.13	5.40	0.353	-	5.52	0.75	0.74	0.00	1.69	0.73	7.47	1.13	-	<0.01*1	<0.003*1	-	<5*1
2021	6.74	5.50	0.295	-	5.86	3.71	0.70	0.10	1.41	0.65	7.93	0.76	-	<0.051*1	<0.016*1	-	<5*1
2022	7.43	5.62	0.323	-	4.82	2.25	0.77	0.00	1.41	0.84	7.64	0.84	-	<0.05*1	<0.02*1	-	<4*1

- : No analysis or measurement.

*1: Less than determination/detection limit.

Table 6.5.5 Annual mean values of each parameters from 2004 to 2022 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	-	-	-	17.70	0.63	43.13	0.20	-	-	-	-	-	-	-	-	-
2002	7.93	6.70	0.963	-	19.89	0.83	23.80	0.23	7.27	1.57	17.00	2.50	-	-	-	-	-
2003	7.82	7.54	1.603	-	17.50	0.29	19.59	0.17	7.34	1.96	16.80	2.36	-	-	0.029	-	1.7
2004	7.12	8.49	0.645	-	5.47	1.90	6.03	*1	8.95	1.88	5.41	2.84	-		*1	-	1.1
2005	6.97	9.53	0.133	-	5.83	1.70	6.73	*1	8.90	1.60	4.63	2.65	1.3	*1	*1	-	0.9
2006	7.18	7.35	0.225	-	2.60	1.15	4.50	1.10	5.40	1.13	4.38	1.58	1.3	*1	*1		1.0
2007	7.28	7.80	0.240	-	3.61	1.77	5.09	0.10	6.01	1.22	3.65	1.38	1.3	*1	*1	-	1.1
2008	7.18	7.58	0.165	-	2.95	2.36	4.90	0.05	6.83	1.31	4.40	1.76	1.3	*1	*1	-	1.1
2009	7.16	7.74	0.367	-	2.97	4.20	6.30	0.06	7.86	1.57	2.77	1.96	1.1	*1	*1	-	1.3
2010	7.22	6.86	0.393	-	2.49	2.50	5.15	0.08	6.98	1.23	4.30	1.72	1.1	*1	*1	-	1.4
2011	7.16	7.42	0.467	-	1.95	1.00	4.33	0.09	7.70	1.15	4.68	1.69	1.1	*1	*1	-	1.3
2012	7.26	7.62	0.499	-	2.98	2.00	5.38	0.09	7.50	1.69	4.81	1.88	1.1	*1	*1	-	1.2
2013	7.20	7.87	0.500	-	3.81	4.11	4.66	0.07	6.95	1.77	4.91	1.91	1.2	*1	*1	-	1.1
2014	7.19	8.27	0.502	-	4.64	4.80	3.75	0.02	6.42	1.69	5.22	2.53	-	-	-	-	-
2015	6.38	6.73	0.496	-	2.47	1.31	2.50	0.44	7.48	1.84	2.84	1.14	-	-	-	-	-
2016	6.99	7.45	0.496	-	1.85	2.01	3.69	0.03	6.70	1.53	4.35	1.64	-	-	-	-	-
2017	7.29	15.17	0.492	-	8.15	3.33	14.38	0.15	11.32	1.76	14.03	2.87	-	-	-	-	-
2018	7.19	8.63	0.630	-	2.11	2.11	5.80	0.03	7.58	1.38	6.05	2.25	-	*1	-	-	8.5
2019	7.11	8.05	0.524	-	2.40	2.62	5.63	0.00	7.32	1.36	5.11	1.99	-	0.020	0.003	-	2.1
2020	7.23	7.34	0.448	-	1.85	1.83	5.39	0.00	7.79	1.26	4.47	1.65	-	0.020	0.004	-	1.7
2021	6.97	7.25	0.400	-	2.39	3.45	5.86	0.01	7.91	1.42	3.75	1.47	1.0	0.020	0.004	-	1.7
2022	7.11	6.36	0.340	-	1.92	2.83	5.09	0.01	7.91	1.60	2.54	0.99	0.3	0.010	*1	-	6.0

Table 6.5.6 Annual mean values of each parameters from 2001 to 2019 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	0.488	-	4.33	0.07	8.19	0.13	4.90	0.54	6.32	2.18	-	-	-	-	-
2002	8.46	5.83	0.255	-	7.33	0.06	6.30	0.17	4.60	0.71	4.03	1.93	-	-	-	-	-
2003	7.34	6.58	0.460	-	7.76	0.19	7.50	0.53	4.30	0.49	5.17	2.53	0.6	0.207	*1	12.4	-
2004	7.29	5.89	0.340	-	2.65	0.03	3.85	0.02	2.10	0.85	5.75	2.20	0.6	0.014	*1	7.3	-
2005	7.19	6.71	0.459	-	8.83	0.23	2.30	0.43	4.04	1.87	5.70	2.70	0.1	0.010	*1	10.9	-
2006	7.49	5.74	0.414	-	3.80	0.47	2.58	0.39	2.87	1.70	5.70	1.43	0.1	0.085	0.016	8.1	-
2007	7.17	6.75	0.420	-	7.45	0.32	2.59	0.41	3.40	1.53	5.75	1.47	0.1	0.038	0.012	3.8	-
2008	6.76	6.43	0.448	-	7.89	0.07	2.18	0.05	2.84	1.29	6.18	2.39	0.9	0.202	0.019	10.2	-
2009	6.99	6.96	0.490	-	5.16	0.58	2.24	0.19	3.68	2.33	6.66	1.09	1.1	0.011	0.007	8.6	-
2010	6.66	6.75	0.512	-	4.93	0.01	2.33	0.17	3.43	1.52	6.87	2.12	1.1	0.031	0.006	7.5	-
2011	7.84	7.40	0.522	-	8.08	0.02	2.48	0.34	3.18	1.38	6.46	2.61	0.7	0.292	0.006	6.9	-
2012	7.72	6.09	0.403	-	7.40	*1	1.80	0.43	3.50	1.47	5.26	2.06	0.8	0.133	*1	7.6	-
2013	7.41	6.64	0.442	-	8.23	0.06	1.50	0.09	4.83	2.03	4.60	1.97	0.9	*1	0.009	12.1	-
2014	7.48	6.19	0.357	-	7.15	0.12	2.44	0.47	3.00	1.15	4.90	2.06	1.6	0.010	0.007	6.8	-
2015	7.75	7.03	0.375	-	9.96	0.12	2.06	0.06	3.12	1.50	5.74	2.22	-	-	-	-	-
2016	8.09	9.51	0.426	-	6.40	0.82	3.62	0.09	4.68	1.14	5.32	1.84	-	-	-	-	-
2017	7.88	6.56	0.493	-	6.65	0.48	2.24	0.07	3.07	1.53	6.58	1.80	1.4	-	-	-	-
2018	7.81	6.39	0.459	-	6.11	0.79	2.22	0.02	3.57	1.32	6.57	1.82	-	-	-	-	-
2019	7.94	6.07	0.432	-	6.05	0.97	1.51	0.93	3.93	1.44	5.83	1.82	-	-	-	-	-

Table 6.5.7 Annual mean values of each parameters from 2008 to 2019 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	0.438	-	5.59	0.03	2.01	0.57	2.24	0.71	5.09	1.87	1.1	0.040	0.007	6.7	-
2009	6.69	5.54	0.460	-	3.48	0.06	1.30	0.16	3.14	1.02	4.62	2.20	1.0	0.014	0.005	10.8	-
2010	6.24	5.14	0.442	-	1.70	0.00	1.15	0.11	2.01	0.87	5.35	1.66	1.1	0.125	0.002	5.0	-
2011	7.38	5.15	0.414	-	4.04	0.07	1.00	0.12	2.36	0.84	5.04	2.02	0.7	0.037	0.004	10.2	-
2012	6.56	5.86	0.450	-	4.04	*1	1.10	*1	1.74	0.88	5.30	2.54	0.5	0.710	*1	9.5	-
2013	7.38	4.15	0.321	-	3.05	0.04	0.75	0.08	2.75	0.76	2.92	1.18	1.0	*1	0.002	5.3	-
2014	6.97	3.96	0.248	-	4.05	0.04	1.68	0.13	2.74	0.87	2.65	0.92	1.0	0.020	0.004	8.8	4.8
2015	7.33	4.91	0.274	-	6.74	0.05	1.96	0.03	1.74	0.49	4.46	2.00	-	-	-	-	-
2016	7.41	3.92	0.412	-	1.27	0.15	0.81	0.09	4.10	0.51	5.53	1.36	-	-	-	-	-
2017	7.88	4.47	0.318	-	1.59	0.13	0.82	0.09	1.87	0.92	5.07	1.17	0.8	-	-	-	-
2018	6.99	4.87	0.487	-	0.84	0.15	1.12	0.03	2.35	0.65	6.31	1.61	-	-	-	-	-
2019	7.76	5.58	0.436	-	2.50	0.14	1.09	0.56	1.68	0.98	6.39	1.64	-	-	-	-	-

Table 6.5.8 Annual mean values of each parameters from 2001 to 2022 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	0.138	-	4.66	2.31	2.19	0.07	2.37	0.40	3.51	1.61	-	<0.01*1	-	-	-
2002	6.72	4.52	0.173	-	5.63	2.01	2.27	0.09	2.23	0.38	3.39	1.37	2.2	<0.066*1	<0.01*1	3.2	-
2003	6.75	4.10	0.146	-	5.14	2.07	2.40	0.08	1.86	0.30	2.94	1.36	3.0	<0.01*1	<0.03*1	1.4	-
2004	7.17	4.05	0.145	-	4.79	1.88	2.34	0.12	2.15	0.23	2.71	1.23	2.8	<0.03*1	<0.02*1	1.1	-
2005	6.94	4.47	0.153	-	5.73	2.37	2.32	0.08	2.29	0.39	3.27	1.42	3.0	<0.03*1	0.068	0.7	-
2006	6.81	3.94	0.164	-	4.53	2.11	2.09	0.03	2.00	0.33	2.80	1.23	2.4	<0.1*1	<0.02*1	0.6	-
2007	7.09	4.58	0.206	-	5.77	1.22	2.27	0.03	2.24	0.30	3.57	1.46	2.7	<0.1*1	<0.02*1	1.0	-
2008	7.19	4.36	0.183	-	5.37	1.78	2.16	0.04	2.10	0.28	3.24	1.45	2.7	<0.1*1	<0.01*1	0.8	-
2009	7.04	4.26	0.176	-	5.18	1.47	2.13	0.01	2.08	0.26	3.03	1.35	2.7	<0.1*1	<0.01*1	0.7	-
2010	7.01	3.74	0.158	-	4.58	1.10	1.96	<0.01*1	1.88	0.25	2.61	1.18	2.3	<0.1*1	<0.01*1	0.5	-
2011	7.11	3.85	0.159	-	4.77	1.34	1.86	<0.01*1	1.89	0.23	3.05	1.22	1.8	<0.1*1	<0.01*1	0.8	-
2012	7.11	3.76	0.154	-	4.66	1.31	1.89	<0.01*1	1.85	0.23	2.78	1.23	2.3	<0.1*1	<0.01*1	0.5	-
2013	7.17	3.94	0.165	-	5.02	1.06	1.97	<0.01*1	1.97	0.24	2.73	1.25	2.4	<0.1*1	<0.01*1	0.5	-
2014	7.06	3.73	0.140	-	4.67	1.21	1.86	<0.01*1	1.82	0.27	2.34	1.12	1.9	<0.1*1	<0.01*1	0.5	-
2015	7.16	3.57	0.149	-	4.38	1.06	1.87	<0.01*1	1.79	0.27	2.12	1.05	2.2	<0.1*1	<0.01*1	0.6	-
2016	7.11	3.73	0.141	-	5.37	1.39	1.78	<0.01*1	1.89	0.27	2.39	1.20	4.8	<0.1*1	<0.01*1	0.6	-
2017	7.02	3.89	0.165	-	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	0.6	-
2018	6.95	3.59	0.162	0.143	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	2.4	-
2019	7.16	3.84	0.176	0.160	4.81	0.74	1.88	<0.01*1	1.95	0.24	3.08	1.20	3.3	<0.02*1	<0.01*1	3.0	-
2020	6.99	3.64	0.163	0.151	4.56	0.85	1.73	<0.01*1	1.90	0.24	2.72	1.13	2.2	0.030	<0.01*1	0.9	-
2021	7.18	3.51	0.160	0.149	4.32	0.60	1.70	<0.01	1.83	0.24	2.52	1.12	2.4	<0.02*1	<0.01*1	0.5	-
2022	7.01	3.61	0.163	0.153	4.43	0.81	1.74	<0.01*1	1.85	0.25	2.64	1.17	2.3	<0.02*1	<0.01*1	0.6	-

- : No analysis or measurement.
*1: Less than determination/detection limit.

Table 6.5.9 Annual mean values of each parameters from 2019 to 2022 at Futago-ike Lake (Oike) (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
2019	7.01	1.86	0.129	0.112	1.19	0.80	0.33	<0.02*1	1.13	0.25	2.10	0.19	8.2	<0.01*1	<0.01*1	0.9	1.5
2020	6.98	1.77	0.121	0.106	1.09	0.74	0.32	<0.02*1	1.07	0.27	1.93	0.19	9.0	<0.01*1	<0.01*1	1.0	1.5
2021	6.94	1.72	0.122	0.107	1.00	0.80	0.33	<0.02*1	1.02	0.27	1.88	0.18	9.1	<0.01*1	<0.01*1	1.2	2.0
2022	7.11	1.83	0.135	0.121	0.98	0.77	0.33	<0.02*1	1.12	0.27	2.10	0.19	8.6	<0.01*1	<0.01*1	0.9	1.5

Table 6.5.10 Annual mean values of each parameters from 2019 to 2022 at Futago-ike Lake (Meike) (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
2019	6.93	2.04	0.141	0.125	1.27	0.96	0.36	<0.02*1	1.25	0.27	2.34	0.21	4.8	<0.01*1	<0.01*1	1.1	1.5
2020	6.11	0.62	0.033	0.017	0.82	0.08	0.31	<0.02*1	0.40	0.23	0.43	0.09	3.6	<0.01*1	<0.01*1	1.6	2.7
2021	5.94	0.59	0.030	0.015	0.76	0.10	0.28	<0.02*1	0.33	0.19	0.37	0.08	4.2	<0.01*1	<0.01*1	1.8	3.1
2022	5.86	0.52	0.027	0.013	0.69	0.06	0.29	<0.02*1	0.28	0.17	0.31	0.06	4.3	<0.01*1	<0.01*1	1.1	1.8

Table 6.5.11 Annual mean values of each parameters from 2009 to 2019 at Nam Houm 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	0.411	-	1.83	0.65	1.45	0.15	0.94	1.75	4.43	0.86	-	0.001	-	-	10.2
2014	7.18	4.12	0.438	-	-	-	-	-	-	-	-	-	0.8	0.013	-	-	23.1
2016	7.20	2.34	0.340	-	2.61	0.02	1.83	0.01	1.07	0.40	1.14	1.72	0.6	0.010	-	-	11.2
2017	7.54	3.39	0.303	-	3.76	0.01	0.48	-	-	-	-	-	0.6	0.010	-	-	3.7
2018	7.43	4.11	0.390	-	2.26	0.41	0.40	-	-	-	-	-	0.6	0.010	-	-	7.5
2019	8.05	3.37	0.338	-	3.65	0.01	0.40	-	-	-	-	-	0.6	0.010	-	-	19.4

Table 6.5.12 Annual mean values of each parameters in 2022 at Baru 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
2022	7.62	8.02	0.747	-	2.58	0.42	1.58	<0.003*1	5.27	0.71	9.07	2.63	-	<0.10*1	-	-	5.2

Table 6.5.13 Annual mean values of each parameters from 2002 to 2022 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	0.098	-	3.47	1.11	0.43	0.04	1.87	0.52	7.17	0.87	-	-	-	-	-
2003	6.75	4.60	0.266	-	3.16	0.74	0.36	0.04	1.65	0.48	5.88	0.83	-	-	-	-	-
2004	6.80	4.44	0.296	-	2.76	0.70	0.54	0.06	1.60	0.72	5.93	0.89	-	-	-	-	-
2005	6.90	4.84	0.367	-	3.18	0.82	0.56	0.05	1.95	0.68	8.90	1.04	-	-	0.003	-	-
2006	6.99	5.07	0.327	-	3.60	0.79	0.46	0.11	2.07	0.62	9.04	1.07	-	-	0.003	-	-
2007	6.89	5.06	0.339	-	3.18	0.79	0.57	0.07	2.22	0.55	8.63	1.03	-	<0.005*1	0.003	-	-
2008	6.36	6.59	0.282	-	3.82	1.33	0.73	<0.01*1	1.93	0.60	13.70	1.00	-	0.007	<0.005*1	-	-
2009	7.13	4.70	0.331	-	3.47	0.49	0.41	<0.01*1	1.66	0.58	5.41	0.76	-	-	<0.005*1	-	-
2010	6.67	5.57	0.380	-	4.47	0.86	0.78	0.13	2.17	1.19	7.52	1.15	-	0.011	<0.005*1	-	-
2011	6.28	5.33	0.327	-	3.73	0.76	0.79	0.06	1.57	0.68	5.80	0.87	-	0.008	0.002	-	-
2012	7.24	4.55	0.318	-	-	-	-	-	-	-	-	-	-	0.008	0.006	-	-
2013	6.84	4.32	0.294	-	2.81	0.46	0.37	*1	1.46	1.01	6.13	0.83	-	-	-	-	-
2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2015	7.23	5.37	0.350	-	4.43	0.82	0.38	-	-	-	-	-	-	-	-	-	-
2016	6.59	4.39	0.277	-	3.42	0.34	0.35	*1	1.45	0.57	6.55	0.82	-	-	-	-	-
2017	6.73	5.09	0.346	-	4.72	0.85	0.48	0.01	1.89	0.52	6.90	0.88	-	-	-	-	-
2018	6.79	4.38	0.279	-	3.52	0.83	0.30	0.00	1.90	0.43	5.72	0.70	-	-	-	-	-
2019	6.48	4.77	0.316	-	4.36	0.36	0.34	0.00	1.78	0.52	6.40	0.82	-	-	-	-	-
2020	6.27	5.02	0.335	-	4.21	0.66	0.33	0.00	2.18	0.49	7.29	0.82	-	-	-	-	-
2021	6.37	4.12	0.320	-	1.24	0.29	1.90	0.02	1.53	0.51	6.23	0.76	-	-	-	-	-
2022	6.48	4.59	0.379	-	-	-	-	-	-	-	-	-	-	-	-	-	-

- : No analysis or measurement.

*1: Less than determination/detection limit.

Table 6.5.14 Annual mean values of each parameters from 2004 to 2022 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	18.23	1.808	-	0.33	0.08	3.16	0.02	8.91	5.81	12.05	6.91	-	0.014	0.072	-	-
2005	7.96	18.14	1.723	-	1.11	0.58	3.76	0.69	8.18	4.89	14.33	7.84	-	0.005	0.295	-	-
2006	7.72	17.34	1.758	-	0.43	0.19	2.40	0.22	8.08	5.08	15.13	7.30	2.2	0.004	0.012	-	-
2007	7.76	17.57	1.708	-	0.52	0.10	3.37	0.26	7.28	6.29	12.10	9.03	-	0.002	0.013	-	-
2008	7.48	17.95	1.627	-	0.76	5.23	3.70	0.02	7.33	4.92	12.65	7.97	-	0.013	-	-	-
2009	7.68	18.70	1.813	-	0.66	5.72	3.78	1.02	8.61	4.35	14.10	7.32	1.8	0.087	-	-	-
2010	8.25	18.35	1.837	-	0.34	3.36	3.28	*1	8.79	5.59	13.07	8.49	-	0.060	-	-	-
2011	7.67	20.46	1.738	-	0.49	2.08	3.29	0.17	7.99	4.14	14.90	7.58	-	0.086	-	-	-
2012	7.95	17.56	1.683	-	1.53	0.48	3.45	0.06	8.19	4.43	14.15	7.59	-	*1	-	-	-
2013	7.29	17.71	1.725	-	0.56	0.16	3.19	0.10	8.17	4.24	15.55	7.89	-	0.004	*1	-	-
2014	7.64	20.51	2.145	-	0.22	0.14	2.54	0.04	7.00	3.70	19.13	9.09	-	-	*1	-	-
2015	7.65	19.48	2.104	-	0.85	0.67	3.26	0.12	10.77	8.46	21.04	3.91	-	0.470	*1	-	-
2016	7.18	18.74	1.744	-	0.84	0.32	3.48	0.32	8.58	4.41	15.77	8.29	-	0.110	*1	-	-
2017	8.02	17.38	1.729	-	0.86	0.15	3.44	0.41	8.68	4.07	16.36	7.91	-	0.274	0.000	-	-
2018	8.20	18.18	1.740	-	0.54	0.20	3.52	0.02	8.41	3.81	15.54	7.09	-	0.000	0.000	-	-
2019	8.65	18.03	1.700	-	0.85	0.03	3.92	0.00	8.05	4.02	16.98	6.96	-	0.244	0.000	-	-
2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2021	7.97	17.39	1.821	-	1.07	0.20	2.84	0.07	5.25	4.10	15.73	8.02	-	0.049	0.047	-	5.1
2022	8.32	18.05	1.601	-	1.51	0.04	3.83	0.07	8.91	4.50	14.33	8.65	-	*1	*1	-	4.1

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	0.020	-	0.15	0.11	0.06	-	0.22	0.15	0.15	0.04	-	-	0.100	-	-
2007	5.49	0.53	0.031	-	0.46	0.12	0.25	0.02	0.37	0.13	0.40	0.10	-	*1	*1	-	-
2008	5.74	0.38	0.081	-	0.27	0.12	0.17	0.10	0.19	0.07	0.26	0.15	-	0.001	-	-	-
2009*	5.42	0.17	0.290	-	0.21	0.08	0.13	0.17	0.27	0.06	0.17	0.07	-	-	-	-	-
2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2013	5.75	0.52	0.060	-	*1	*1	0.39	*1	0.56	0.13	0.49	0.11	-	-	-	-	-
2014	5.69	0.52	0.023	-	0.11	*1	0.20	0.21	0.46	0.35	0.59	0.12	-	-	-	-	-
2015	5.86	0.50	0.031	-	0.21	0.36	0.22	0.05	0.48	0.14	0.37	0.31	-	-	-	-	-
2016	5.81	0.51	0.026	-	0.11	0.02	0.18	0.00	0.46	0.12	0.26	0.10	-	-	-	-	-

* Data for Dec. 2009 were excluded from the aggregation due to the high probability of contamination from agricultural activities.

Table 6.5.16 Annual mean values of each parameters from 2004 to 2022 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	0.135	-	7.18	0.76	0.23	0.03	1.10	0.77	3.23	0.94	2.0	0.008	0.002	-	-
2005	6.80	4.03	0.135	-	7.84	0.66	0.20	0.03	0.96	0.71	3.29	1.04	-	0.002	0.005	-	0.8
2006	6.74	3.95	0.140	-	7.49	0.81	0.20	0.04	1.07	0.75	3.36	1.02	-	0.004	0.002	1.5	1.1
2007	6.59	4.21	0.135	-	8.98	0.91	0.18	0.11	1.06	0.76	3.92	0.85	-	0.004	0.003	1.6	1.0
2008	6.68	4.87	0.155	-	9.77	1.03	0.13	0.03	0.93	0.60	4.78	1.05	-	0.007	0.002	1.0	0.8
2009	6.66	4.87	0.128	-	11.69	0.85	0.14	0.02	1.00	0.60	4.94	0.97	-	0.005	0.002	-	0.6
2010	6.88	5.14	0.127	-	12.87	0.79	0.20	0.03	0.99	0.66	5.18	1.05	-	0.007	0.002	-	1.1
2011	6.85	4.79	0.138	-	11.39	0.67	0.16	0.02	1.02	0.68	4.97	0.83	-	0.004	0.003	-	0.9
2012	6.61	4.21	0.139	-	9.49	0.38	0.17	0.09	0.95	0.63	4.42	0.67	-	0.005	0.002	-	1.2
2013	6.76	4.61	0.134	-	11.14	0.57	0.13	0.02	1.00	0.65	4.92	0.82	1.9	0.008	0.002	-	1.0
2014	6.69	4.66	0.142	-	11.19	0.58	0.19	0.01	1.30	0.78	4.87	0.78	1.9	0.009	0.002	-	1.2
2015	6.63	4.29	0.124	-	10.47	0.48	0.20	0.01	1.01	0.66	4.57	0.76	1.9	0.006	0.003	-	0.8
2016	6.78	4.53	0.142	-	11.14	0.70	0.14	0.01	1.06	0.66	4.90	0.85	1.9	0.004	0.002	-	0.9
2017	6.76	4.64	0.128	-	11.87	0.87	0.09	0.01	1.03	0.66	4.89	0.97	-	0.003	0.003	-	0.8
2018	6.68	4.30	0.109	-	11.20	0.74	0.25	0.01	1.06	0.59	4.43	0.80	-	0.007	0.004	-	1.1
2019	6.71	4.72	0.124	-	11.75	0.68	0.17	0.01	1.07	0.70	4.85	0.94	-	0.003	0.004	-	0.9
2020	6.80	4.83	0.118	-	12.00	0.57	0.13	0.00	1.01	0.70	4.70	0.94	-	0.005	0.002	-	1.0
2021	6.79	4.46	0.124	-	10.83	0.67	0.16	0.01	1.00	0.66	4.84	0.84	-	0.002	0.002	-	1.4
2022	6.85	5.15	0.136	-	12.68	0.93	0.17	0.01	1.16	0.72	5.10	1.02	-	0.006	0.002	-	1.0

Table 6.5.17 Annual mean values of each parameters from 2005 to 2022 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	0.495	-	11.18	0.33	3.09	0.15	3.34	0.60	9.07	2.25	-	*1	*1	-	-
2006	7.08	8.37	0.428	-	9.02	0.26	3.12	0.08	3.10	0.57	8.51	2.27	-	0.014	0.003	-	-
2007	7.15	8.68	0.395	-	10.51	0.26	4.03	0.09	3.39	0.65	8.04	2.34	-	0.010	0.025	-	4.3
2008	7.22	8.68	0.391	-	12.08	0.52	3.06	0.09	3.80	0.62	8.14	2.08	-	0.030	0.053	-	3.6
2009	7.02	8.64	0.351	-	12.59	1.11	3.69	0.22	3.57	0.60	8.21	2.07	-	0.041	0.067	-	4.4
2010	6.99	8.32	0.445	-	8.62	0.99	3.33	0.19	3.21	0.46	8.29	2.12	-	0.013	0.036	-	4.0
2011	7.09	8.86	0.405	-	12.67	1.63	3.11	0.27	3.88	0.74	8.58	2.22	-	0.010	0.018	-	4.4
2012	6.99	8.54	0.384	-	9.61	1.33	3.88	0.45	3.53	0.79	7.88	2.37	-	0.015	0.038	-	5.1
2013	6.84	8.45	0.372	-	11.87	1.27	3.61	0.16	3.44	0.64	7.71	2.66	-	0.006	0.027	-	4.1
2014	6.91	8.45	0.368	-	11.76	2.81	3.16	0.14	3.52	0.72	8.29	2.27	-	0.005	0.033	-	4.6
2015	6.98	8.75	0.404	-	13.46	1.27	3.06	0.12	3.45	0.58	8.73	2.20	-	0.005	0.026	-	4.4
2016	6.71	9.09	0.375	-	14.25	3.68	3.57	0.24	3.82	0.75	8.85	2.02	-	0.005	0.017	-	5.6
2017	6.93	8.93	0.425	-	11.48	3.97	4.36	0.19	4.39	0.87	10.00	1.91	-	0.005	0.016	-	3.3
2018	6.98	8.50	0.383	-	12.78	3.72	2.25	0.08	4.06	1.02	9.20	2.54	-	0.003	0.011	-	4.6
2019	6.64	8.09	0.303	-	12.97	2.45	3.20	0.11	3.95	1.07	8.42	1.42	-	0.007	0.011	-	3.7
2020	6.77	8.59	0.426	-	11.03	2.02	2.87	0.24	4.37	1.52	9.62	2.25	-	0.006	0.027	-	4.2
2021	7.91	11.31	0.554	-	15.12	1.05	6.24	0.11	6.14	1.49	12.82	3.33	-	0.037	0.006	-	3.8
2022	7.27	8.88	0.611	-	8.37	0.44	3.53	0.08	6.32	1.96	9.50	1.97	-	0.013	0.026	-	4.2

- : No analysis or measurement.

*1: Less than determination/detection limit.

Table 6.5.18 Annual mean values of each parameters from 2002 to 2022 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	12.13	0.625	-	1.15	0.04	0.89	*1	1.14	1.01	13.27	2.98	5.3	0.024	*1	-	4.0
2003	7.45	10.75	0.625	-	1.29	0.01	0.84	*1	1.14	0.97	16.24	3.52	5.0	*1	*1	-	5.8
2004	7.77	11.53	1.050	-	1.27	0.20	0.98	0.05	1.18	0.97	15.68	3.26	5.6	0.023	0.010	-	7.5
2005	7.33	11.18	1.276	-	1.47	0.11	1.05	0.01	1.26	1.02	15.83	3.12	3.6	0.010	0.010	-	<4.0*1
2006	7.21	10.41	1.125	-	1.31	0.20	0.85	0.06	1.14	1.03	16.24	3.17	4.6	<0.01*1	<0.01*1		10.0
2007	7.80	10.41	1.090	-	1.17	0.20	0.75	0.01	1.21	0.96	16.50	3.26	5.1	0.010	0.010	-	5.2
2008	7.71	10.55	1.178	-	1.11	0.05	0.75	<0.01*1	1.16	0.97	16.25	3.23	4.4	<0.01*1	0.010	-	6.8
2009	7.79	10.83	1.111	-	1.33	0.06	0.74	-	1.16	0.95	16.09	3.39	4.4	0.010	<0.01*1	-	-
2010	7.70	11.80	1.176	-	1.55	0.06	0.83	0.01	1.24	1.01	16.59	3.62	3.6	0.010	0.010	-	4.7
2011	7.38	12.76	1.178	-	1.43	0.07	0.82	0.01	1.22	1.04	17.93	3.70	3.0	0.012	<0.01*1	-	5.7
2012	7.32	11.81	1.150	-	1.22	0.19	0.94	0.03	1.21	1.12	16.79	3.53	3.2	0.010	-	-	8.5
2013	7.67	13.53	1.186	-	1.10	0.10	0.87	0.01	1.21	1.02	16.99	3.81	2.8	0.010	-	-	-
2014	7.55	5.62	1.138	-	1.64	0.09	0.88	0.04	1.20	0.95	16.69	3.29	3.8	0.010	-	-	-
2015	7.50	5.33	1.066	-	1.44	0.11	0.93	0.04	1.18	0.86	15.78	3.10	3.0	0.010	-	-	-
2016	7.06	12.16	1.121	-	1.28	0.10	1.06	0.01	1.47	0.96	17.18	3.61	2.7	0.020	-	-	40.0
2017	7.07	11.94	1.193	-	1.57	0.09	1.15	0.01	1.44	1.06	17.91	3.45	2.9	0.018	-	-	-
2018	7.88	12.35	1.130	-	1.11	0.10	0.95	0.01	1.23	1.04	17.21	3.16	3.0	0.010	-	-	-
2019	8.35	12.42	1.072	-	1.53	0.10	1.16	0.02	1.32	1.07	15.10	3.44	3.8	0.010	-	-	-
2020	8.42	12.04	1.070	-	1.24	0.10	1.13	0.01	1.25	0.99	16.38	3.30	4.0	0.010	-	-	-
2021	7.89	10.53	1.168	-	1.39	0.10	1.28	0.01	1.31	1.11	18.73	3.72	3.4	0.010	-	-	-
2022	7.27	12.85	1.168	-	1.95	0.10	1.18	0.01	1.31	1.06	17.66	3.29	3.6	0.010	-	-	-

Table 6.5.19 Annual mean values of each parameters from 2002 to 2022 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	11.98	0.633	-	1.24	0.06	0.90	*1	1.19	0.99	13.28	2.90	5.5	0.034	*1	-	3.0
2003	7.87	10.50	0.590	-	1.41	0.01	0.84	*1	1.17	0.98	16.24	2.94	5.8	*1	*1	-	7.3
2004	7.24	11.12	1.005	-	1.54	0.20	0.95	0.05	1.21	1.03	16.01	2.83	8.1	0.020	0.010	-	5.0
2005	6.98	11.20	1.015	-	1.29	0.11	1.15	0.03	1.52	1.02	16.16	2.98	4.4	0.135	0.010	-	*1
2006	7.12	10.03	1.046	-	1.44	0.20	0.83	0.03	1.14	1.04	16.19	2.64	5.0	<0.01*1	<0.01*1		11.0
2007	7.84	10.21	1.050	-	1.25	0.20	0.70	0.01	1.13	0.98	16.75	2.98	5.3	0.010	0.010	-	4.0
2008	7.78	9.88	1.104	-	1.49	<0.06*1	0.75	<0.01*1	1.17	1.00	15.65	2.49	4.4	<0.01*1	0.010	-	4.7
2009	7.93	10.30	1.065	-	1.42	0.06	0.73	-	1.14	2.04	15.88	2.79	4.6	0.010	<0.01*1	-	-
2010	7.79	11.16	1.113	-	1.61	0.06	0.76	0.01	1.16	0.99	16.38	2.86	4.1	0.010	0.010	-	7.1
2011	7.41	11.79	1.098	-	1.51	0.07	0.79	0.02	1.18	0.98	16.93	2.92	3.5	0.010	<0.01*1	-	8.4
2012	7.30	9.41	1.048	-	1.85	0.08	0.86	0.03	1.17	1.08	16.25	2.80	3.8	0.010	-	-	6.9
2013	7.90	11.10	1.093	-	1.26	0.10	0.83	0.01	1.14	1.01	16.84	2.88	4.0	0.010	-	-	-
2014	7.75	5.46	1.091	-	1.46	0.07	0.89	0.03	1.22	0.96	16.49	2.70	4.0	0.011	-	-	-
2015	7.87	6.86	1.076	-	1.41	0.10	1.01	0.01	1.40	0.87	16.31	2.72	3.4	0.010	-	-	-
2016	7.28	11.83	1.119	-	1.55	0.11	1.09	0.01	1.51	0.92	17.78	3.15	2.9	0.020	-	-	40.0
2017	7.17	11.85	1.195	-	1.61	0.10	0.98	0.02	1.37	1.04	18.70	2.98	3.6	0.018	-	-	-
2018	7.99	11.42	1.109	-	1.29	0.10	0.89	0.01	1.21	1.03	16.94	2.69	3.8	0.010	-	-	-
2019	8.53	11.85	1.038	-	1.83	0.10	1.22	0.02	1.37	1.11	15.83	3.02	5.0	0.010	-	-	-
2020	8.69	11.86	1.045	-	1.25	0.10	0.97	0.01	1.20	0.99	16.85	2.86	4.3	0.010	-	-	-
2021	8.11	12.52	1.118	-	1.96	0.10	2.02	0.01	1.49	1.11	18.68	3.20	3.3	0.010	-	-	-
2022	7.19	12.55	1.159	-	1.91	0.14	1.13	0.02	1.26	1.06	18.01	2.98	3.6	0.010	-	-	-

Table 6.5.20 Annual mean values of each parameters from 2001 to 2022 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	17.40	1.575	-	5.44	0.59	1.16	0.15	1.97	1.22	21.85	6.12	-	-	-	-	-
2002	7.88	17.14	1.613	-	3.90	0.46	1.35	0.21	1.70	1.16	22.53	5.49	-	-	-	-	-
2003	7.29	18.41	1.595	-	6.13	0.63	1.33	0.08	2.14	1.36	24.50	4.78	-	-	-	-	-
2004	6.55	19.27	1.675	-	4.51	1.16	1.38	0.17	2.45	1.11	27.22	4.11	-	-	-	-	-
2005	7.58	19.01	1.605	-	5.62	1.04	1.62	0.16	4.40	1.31	23.12	4.77	-	-	-	-	-
2006	7.22	19.08	1.605	-	7.71	0.87	1.41	0.12	3.62	1.46	25.22	4.87	0.7	0.005	0.006	-	2.2
2007	7.62	19.09	1.613	-	8.14	1.44	1.54	0.11	3.53	1.48	24.90	4.64	0.9	0.015	0.016	-	1.9
2008	7.73	18.26	1.533	-	7.36	1.04	1.65	0.04	2.33	0.91	22.90	5.01	1.5	0.021	0.025	-	2.2
2009	7.98	16.65	1.390	-	6.55	0.67	2.05	0.02	3.10	0.84	20.82	4.49	1.1	0.019	0.010	-	1.4
2010	7.80	17.66	1.420	-	7.26	1.66	2.07	0.11	4.20	1.56	23.30	2.94	1.0	0.013	0.014	-	0.9
2011	7.43	18.46	1.540	-	7.36	1.59	2.26	0.07	3.51	1.26	23.17	4.55	1.1	0.010	0.012	-	3.4
2012	7.10	17.71	1.518	-	4.67	1.52	2.13	0.12	3.59	1.39	23.08	4.25	1.0	0.010	0.016	-	4.3
2013	7.54	17.19	1.435	-	6.92	1.04	2.41	0.14	4.96	1.58	20.02	5.31	1.1	0.008	0.006	-	3.7
2014	7.65	17.22	1.500	-	5.13	0.80	1.64	0.02	3.05	1.31	22.29	4.50	1.1	0.019	0.012	-	3.5
2015	7.60	17.94	1.430	-	7.01	1.47	0.95	0.02	2.93	1.06	24.42	3.65	1.2	0.045	0.009	-	3.5
2016	7.39	18.75	1.545	-	6.70	1.61	1.24	0.00	3.01	1.24	21.84	6.28	1.2	0.038	0.056	-	4.0
2017	7.29	15.85	1.330	-	5.09	1.43	1.04	0.01	2.15	1.09	20.47	4.21	1.0	0.043	0.007	-	4.2
2018	7.81	16.25	1.320	-	4.54	2.13	4.15	0.16	5.82	1.60	18.26	4.56	1.0	0.082	0.006	-	3.9
2019	7.67	18.63	1.505	-	5.42	1.33	4.42	0.08	3.75	1.98	24.28	4.38	1.1	0.108	0.019	-	4.1
2020	7.71	16.70	1.355	-	4.65	1.52	3.00	0.04	3.21	1.84	22.99	2.71	1.2	0.090	0.018	-	4.2
2021	7.69	17.35	1.405	-	4.19	1.35	2.75	0.28	3.28	1.82	23.41	2.66	1.2	0.076	0.022	-	4.4
2022	7.62	17.49	1.506	-	4.33	2.59	1.10	0.10	3.63	1.78	23.55	2.87	1.2	0.064	0.051	-	4.9

- : No analysis or measurement.

*1: Less than determination/detection limit.

CHAPTER 7

Catchment-scale Monitoring

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7. Catchment-scale Monitoring

7.1 Method

The Guideline for Catchment-scale Monitoring in East Asia (2010) recommends measuring 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 EANET data on wet and dry deposition collected at the nearest 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^{2+}, Mg^{2+}, 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. 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 Lake Ijira Catchment, which was started in 2007. Moreover, the Philippines has just started the regular monitoring in 2019. Site characteristics and the survey outline are shown in Table 7.3 and 7.4, respectively. The maps of the Lake Ijira catchment site and the La Mesa Watershed site are shown in Figure 7.1 and 7.2, respectively.

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 (%)	Start year
Japan	Lake Ijira Catchment (IJR) , (Kamagatani River)	2.98 at Kamagatani River	Chert, Cambisols (brown forest soils)	99.6%,	November 2007 (the water year here: from November to the next October)
Philippines	La Mesa Watershed (LMW), (Stream at Tower 1 Station)	0.186 at Tower 1 (La Mesa Watershed (LMW) total area: 26.59)	Clastic and volcanic rocks, Loamy-sand soil at Tower 1	For the whole LMW, 81.5%;	January 2019

Site	Major tree species
IJR	Japanese cedar (*Cryptomeria japonica),* Japanese cypress (*Chamaecyparis obtusa),* and Japanese red pine (*Pinus densiflora)*
LMW	Yemane (*Gmelina arborea* Roxb.), Auriculiformis (*Acacia auriculiformis* A. Cunn. Ex Berth.) , Mangium (*A. mangium* Willd.), Narra (*Pterpcarpus indicus* Willd. forma *indicus*), Mahogany (*Swietenia macrophylla* King), Teak (*Tectona grandis* L.*f.)*, Ipil-ipil (*Leucaena leucocephala* De Wit), Kaatoan bangkal (*Anthocephalus chinensis* (Lam.) A. Rich. Ex Walp. And Alibangbang (*Bauhinia malabarica* Roxb.)

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 different slope positions) 2. Wet deposition: Ijira*1 3. Dry deposition (Air concentration measurement for Inferential method): Ijira*1 4. Total deposition (calculated as wet+dry)
	Output (chemical discharge)	1. Water discharge (by H-Q curve method) 2. Stream water chemistry: biweekly 3. Chemical discharge
	Soil*2	Soil chemical properties: Lake Ijira
	Vegetation*2	1. Plant growth: Lake Ijira 2. Species composition: Lake Ijira
La Mesa Watershed	Input (total deposition)	1. Precipitation amount (PAGASA-Science Garden Station) 2. Wet deposition: Metro Manila *(MM) site located at the top of Ionosphere Office, MO, AdMU**1 3. Dry deposition (Air concentration measurement for Inferential method): Metro Manila *(MM) site (same location**1 4. Total deposition (calculated as wet+dry)
	Output (chemical discharge)	1. Water discharge: (using the Float Method) 2. Stream water chemistry: monthly 3. Chemical discharge: not determined yet
	Soil*2	Soil chemical properties: La Mesa Watershed
	Vegetation*2	3. Plant growth: La Mesa Watershed 4. Species composition: La Mesa Watershed

Note. *1, The data from the EANET deposition monitoring site will be used; *2, The data from the EANET soil and vegetation monitoring plots will be referred.

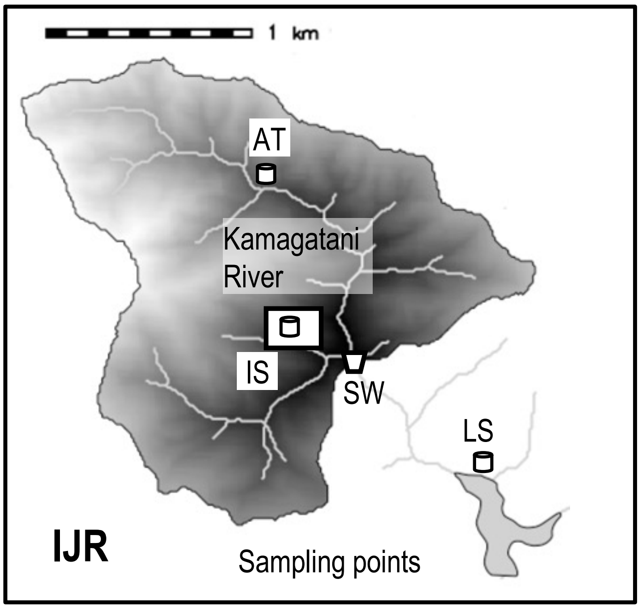

Figure 7.1 Catchment area and sampling design at the Lake Ijira catchment site

Precipitation amount is monitored at three points, namely, Akatani (AT), the Ijira site for wet/dry deposition monitoring (IS), and Lakeside (LS). SW indicates the point for stream water sampling and discharge. Darker colors indicate lower altitudes.

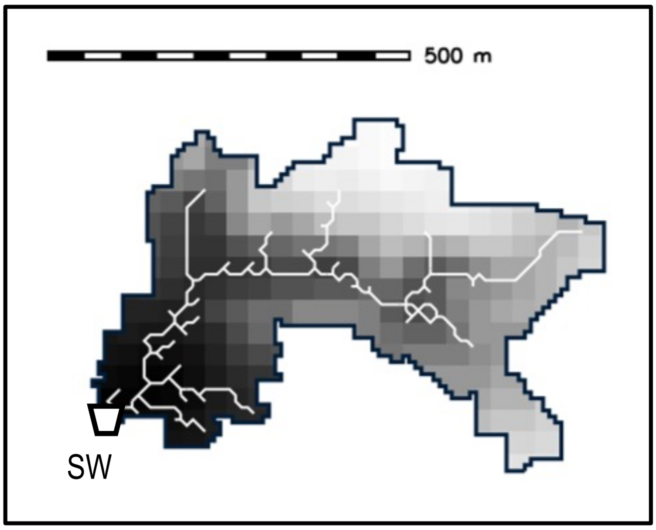

Figure 7.2 Catchment area and sampling design at the La Mesa Watershed site (Stream at Tower 1 Station)

SW indicates the stream water sampling point. Precipitation amount and wet/dry deposition are monitored at the PAGASA- Science Garden Station and the Metro Manila EANET site. Darker colors indicate lower altitudes.

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 2022

Site	Items	Detailed items	Water year
Lake Ijira Catchment	Input *1	1. Precipitation amount (at 3 different slope positions)	2021-2022*2
	Output	1. Water discharge 2. Stream water chemistry: biweekly 3. Chemical discharge	2021-2022*2
La Mesa Watershed	Input *1	1. Precipitation amount (observed at PAGASA-Science Garden Station)	2022
	Output	1. Stream water chemistry: monthly	2022

Note. *1, The data of wet deposition and dry deposition (air concentration) in the EANET deposition monitoring site for the same period can be found in Data Reports 2021 and/or 2022; *2, The water year was defined as the period from November to October in the following year at Lake Ijira Catchment. Soil chemical properties, plant growth and understory-species composition were surveyed as a part of soil and vegetation monitoring in 2016 and 2010 at Lake Ijira Catchment and La Mesa Watershed, respectively.

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 7.6a Water balance in the catchment: Lake Ijira Catchment

Fluxes[*1]	Points	Water year[*2]
		2021-2022
Input by precipitation, mm y^{-1}	Akatani (260 m)	3371
	Ijira monitoring site (140 m)	3868
	Lakeside (110 m)	3099
	Mean	3446
Output by the stream, mm y^{-1}	Outlet of Kamagatani River	1847
Runoff rate, %		54

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 7.6b Water balance in the catchment: La Mesa Watershed

Fluxes[*1]	Points	Year
		2022
Input by precipitation, mm y^{-1}	Science Garden	2584
Output by the stream, mm y^{-1}	Outlet of Tower 1 Stream	
Runoff rate, %		

Note. [*1], Fluxes were calculated based on the catchment area, at the outlet of Tower 1 Stream. [*2], Average of flow measured during the monitoring activities in April and in December 2019 in the dry season: 0.0231 $m^3 s^{-}$

Table 7.7a Stream water chemistry: Lake Ijira Catchment (Water year 2021-2022)

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
		$mS\ m^{-1}$					$\mu mol_c\ L^{-1}$							$mg\ L^{-1}$	$mg\text{-}C\ L^{-1}$	$mg\text{-}SiO_2\ L^{-1}$	
2021/11/15	6.68	4.14	150	152	159	21.7	55.5	98	195	92	6.5	< 3.0	0.21	<0.02	0.3	8.5	0.27
2021/11/30	6.88	4.28	150	148	165	24.0	58.6	96	170	96	5.4	< 3.0	0.13	<0.02	0.3	8.2	0.27
2021/12/13	6.77	4.19	148	142	157	23.0	55.3	96	165	99	6.8	< 3.0	0.17	<0.02	0.3	8.2	0.27
2021/12/23	7.00	4.22	142	125	161	22.7	56.0	92	185	95	5.4	< 3.0	0.10	<0.02	0.2	7.9	0.27
2022/1/14	6.99	3.88	128	123	139	23.7	55.6	86	177	95	5.9	< 3.0	0.10	<0.02	0.6	7.4	0.31
2022/1/31	6.91	3.99	140	139	149	18.9	53.6	90	189	98	5.3	< 3.0	0.12	<0.02	0.5	7.7	0.30
2022/2/15	7.03	4.03	144	159	154	15.8	54.5	91	154	108	5.3	< 3.0	0.09	<0.02	0.3	7.6	0.30
2022/2/28	6.76	4.00	144	143	153	16.7	54.6	91	156	107	4.9	< 3.0	0.17	<0.02	0.3	7.7	0.30
2022/3/15	7.03	3.98	140	142	145	21.2	56.2	90	198	108	5.3	< 3.0	0.09	<0.02	0.5	7.2	0.31
2022/3/29	7.06	3.50	126	120	115	21.1	52.5	82	166	93	4.6	< 3.0	0.09	<0.02	0.4	8.0	0.37
2022/4/15	6.99	4.04	156	147	139	22.3	54.1	91	107	102	6.9	< 3.0	0.10	<0.02	0.8	8.1	0.32
2022/4/26	6.91	4.33	174	160	154	16.9	53.5	99	127	118	7.2	< 3.0	0.12	<0.02	0.6	8.5	0.28
2022/5/13	7.22	3.96	164	154	134	17.7	52.4	92	127	113	6.5	< 3.0	0.06	<0.02	0.4	8.6	0.30
2022/5/31	6.95	3.89	158	145	132	17.4	51.0	90	128	110	6.6	< 3.0	0.11	<0.02	0.6	8.7	0.31
2022/6/15	7.03	4.24	168	159	138	22.3	49.5	92	136	115	6.9	< 3.0	0.09	<0.02	0.7	8.7	0.32
2022/6/30	6.60	4.31	180	172	147	13.7	51.2	97	144	118	7.4	< 3.0	0.25	<0.02	1.0	9.2	0.29
2022/7/14	6.96	3.48	142	127	106	19.0	49.7	80	119	102	6.6	< 3.0	0.11	<0.02	0.9	8.5	0.39
2022/7/29	7.09	3.45	144	133	106	16.7	49.0	81	117	101	6.5	< 3.0	0.08	<0.02	2.3	8.7	0.37
2022/8/16	7.05	3.49	148	137	105	16.4	50.2	84	119	103	6.1	< 3.0	0.09	<0.02	1.9	9.0	0.37
2022/8/31	6.84	3.31	134	123	97	28.1	45.9	78	92	85	6.6	< 3.0	0.15	0.03	1.2	8.3	0.37
2022/9/15	7.01	3.54	152	149	106	16.9	52.0	87	100	92	6.0	< 3.0	0.10	<0.02	1.0	9.3	0.30
2022/9/30	7.05	3.47	148	132	102	17.3	52.8	85	98	89	6.2	< 3.0	0.09	<0.02	1.0	9.0	0.33
2022/10/14	6.89	3.66	148	138	117	21.8	51.4	87	108	96	6.0	< 3.0	0.13	<0.02	0.8	8.9	0.32
2022/10/31	6.99	3.98	148	142	136	17.4	53.4	93	113	101	5.1	< 3.0	0.10	<0.02	0.4	8.8	0.29

Note. The water year was difined as the period from November to October in the following year. *1, The data were processed according to the determination limit decided by the data quality objectives (DQO) of EANET.

Table 7.7b Stream water chemistry: La Mesa Watershed (Year 2022)

Collection date	pH	EC	alkalinity pH4.8	PO_4^{3-}	SO_4^{2-}	NO_3^-	Cl^-	Na^+	Ca^{2+}	Mg^{2+}	K^+	NH_4^+	H^+
		$mS\ m^{-1}$						$\mu mol_c\ L^{-1}$					
2022/1/25	7.85	28.4	3290	1.8	43.1	13.3	62.2	761	644	1052	42.7	0.0	0.01
2022/2/16	7.80	28.8	3090	2.6	37.9	9.9	55.0	776	694	1053	44.0	0.7	0.02
2022/3/16	7.80	27.8	2960	10.3	53.1	11.7	64.7	814	229	1027	48.3	7.8	0.02
2022/4/19	7.56	30.7	3110	16.2	46.2	2.8	59.8	810	1203	1023	24.7	0.0	0.03
2022/5/18	7.75	22.6	2240	3.1	90.6	10.5	69.8	634	375	823	70.0	0.0	0.02
2022/6/21	8.20	30.2	2770	12.0	57.0	3.1	61.7	624	958	767	50.2	0.0	0.01
2022/7/22	7.94	22.3	2240	9.6	51.4	1.2	38.3	479	998	618	20.0	0.8	0.01
2022/8/31	8.03	23.1	2360	5.2	40.7	1.4	50.0	613	1118	832	40.8	0.0	0.01
2022/9/15	8.14	23.3	2284	4.6	46.7	11.8	55.5	520	1013	702	38.6	0.0	0.01
2022/10/20	7.89	20.0	2045	4.3	52.9	30.8	45.1	483	883	596	42.8	0.0	0.01
2022/11/29	8.06	25.3	2509	3.9	36.3	8.6	50.6	662	993	882	37.3	2.0	0.01
2022/12/22	8.07	26.6	2683	4.6	36.1	8.3	54.0	674	529	877	36.5	0.2	0.01

Table 7.8 Periodic chemical discharges from the stream: Lake Ijira Catchment (Water year 2021-2022)

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-C ha^{-1}	kg-SiO_2 ha^{-1}	mm
2021/10/29	2021/11/15	0.08	0.07	0.08	0.01	0.03	0.05	0.09	0.05	0.003	ND	8.93E-05	ND	0.19	4.4	51
2021/11/15	2021/11/30	0.07	0.07	0.07	0.01	0.03	0.04	0.08	0.04	0.003	ND	7.57E-05	ND	0.12	3.7	45
2021/11/30	2021/12/13	0.07	0.06	0.07	0.01	0.03	0.04	0.07	0.04	0.003	ND	6.70E-05	ND	0.11	3.7	45
2021/12/13	2021/12/23	0.04	0.04	0.05	0.01	0.02	0.03	0.05	0.03	0.002	ND	3.91E-05	ND	0.07	2.3	29
2021/12/23	2022/1/14	0.07	0.06	0.08	0.01	0.03	0.05	0.09	0.05	0.003	ND	5.21E-05	ND	0.22	4.0	52
2022/1/14	2022/1/31	0.09	0.09	0.10	0.01	0.04	0.06	0.12	0.07	0.004	ND	7.45E-05	ND	0.37	5.1	68
2022/1/31	2022/2/15	0.08	0.09	0.09	0.01	0.03	0.05	0.10	0.06	0.003	ND	6.04E-05	ND	0.21	4.4	58
2022/2/15	2022/2/28	0.08	0.08	0.08	0.01	0.03	0.05	0.08	0.06	0.003	ND	7.08E-05	ND	0.15	4.2	54
2022/2/28	2022/3/15	0.09	0.09	0.09	0.01	0.03	0.06	0.11	0.07	0.003	ND	7.98E-05	ND	0.25	4.6	61
2022/3/15	2022/3/29	0.11	0.11	0.10	0.02	0.04	0.07	0.15	0.08	0.004	ND	7.28E-05	ND	0.40	6.1	81
2022/3/29	2022/4/15	0.10	0.10	0.09	0.02	0.04	0.06	0.10	0.07	0.004	ND	6.96E-05	ND	0.45	5.9	73
2022/4/15	2022/4/26	0.06	0.06	0.05	0.01	0.02	0.04	0.04	0.04	0.003	ND	4.09E-05	ND	0.25	3.1	37
2022/4/26	2022/5/13	0.17	0.16	0.14	0.02	0.05	0.10	0.13	0.12	0.007	ND	9.02E-05	ND	0.49	8.6	100
2022/5/13	2022/5/31	0.14	0.13	0.11	0.01	0.04	0.08	0.11	0.09	0.006	ND	7.23E-05	ND	0.41	7.3	85
2022/5/31	2022/6/15	0.10	0.09	0.08	0.01	0.03	0.05	0.08	0.07	0.004	ND	6.03E-05	ND	0.38	5.2	60
2022/6/15	2022/6/30	0.10	0.09	0.08	0.01	0.03	0.05	0.08	0.07	0.004	ND	9.69E-05	ND	0.47	5.1	57
2022/6/30	2022/7/14	0.16	0.15	0.13	0.02	0.05	0.09	0.13	0.11	0.007	ND	1.82E-04	ND	0.96	9.0	101
2022/7/14	2022/7/29	0.22	0.20	0.17	0.03	0.08	0.13	0.19	0.16	0.010	ND	1.49E-04	ND	2.55	13.5	157
2022/7/29	2022/8/16	0.19	0.18	0.14	0.02	0.06	0.11	0.15	0.13	0.008	ND	1.11E-04	ND	2.77	11.6	131
2022/8/16	2022/8/31	0.21	0.20	0.15	0.03	0.07	0.12	0.16	0.14	0.010	ND	1.82E-04	ND	2.38	13.2	152
2022/8/31	2022/9/15	0.14	0.13	0.10	0.02	0.05	0.08	0.10	0.09	0.006	ND	1.24E-04	ND	1.10	8.7	99
2022/9/15	2022/9/30	0.17	0.16	0.12	0.02	0.06	0.10	0.11	0.10	0.007	ND	1.06E-04	ND	1.10	10.2	111
2022/9/30	2022/10/14	0.10	0.09	0.08	0.01	0.04	0.06	0.07	0.06	0.004	ND	7.56E-05	ND	0.59	6.1	69
2022/10/14	2022/10/31	0.10	0.10	0.09	0.01	0.04	0.06	0.08	0.07	0.004	ND	8.03E-05	ND	0.42	6.2	70

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 2021-2022)

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-C ha^{-1}	kg-SiO_2 ha^{-1}
2021 - 2022	2.7	2.6	2.3	0.4	1.0	1.6	2.5	1.9	0.1	ND	0.0	ND	16.4	156

Appendix 1

Overview of Data Report 2022

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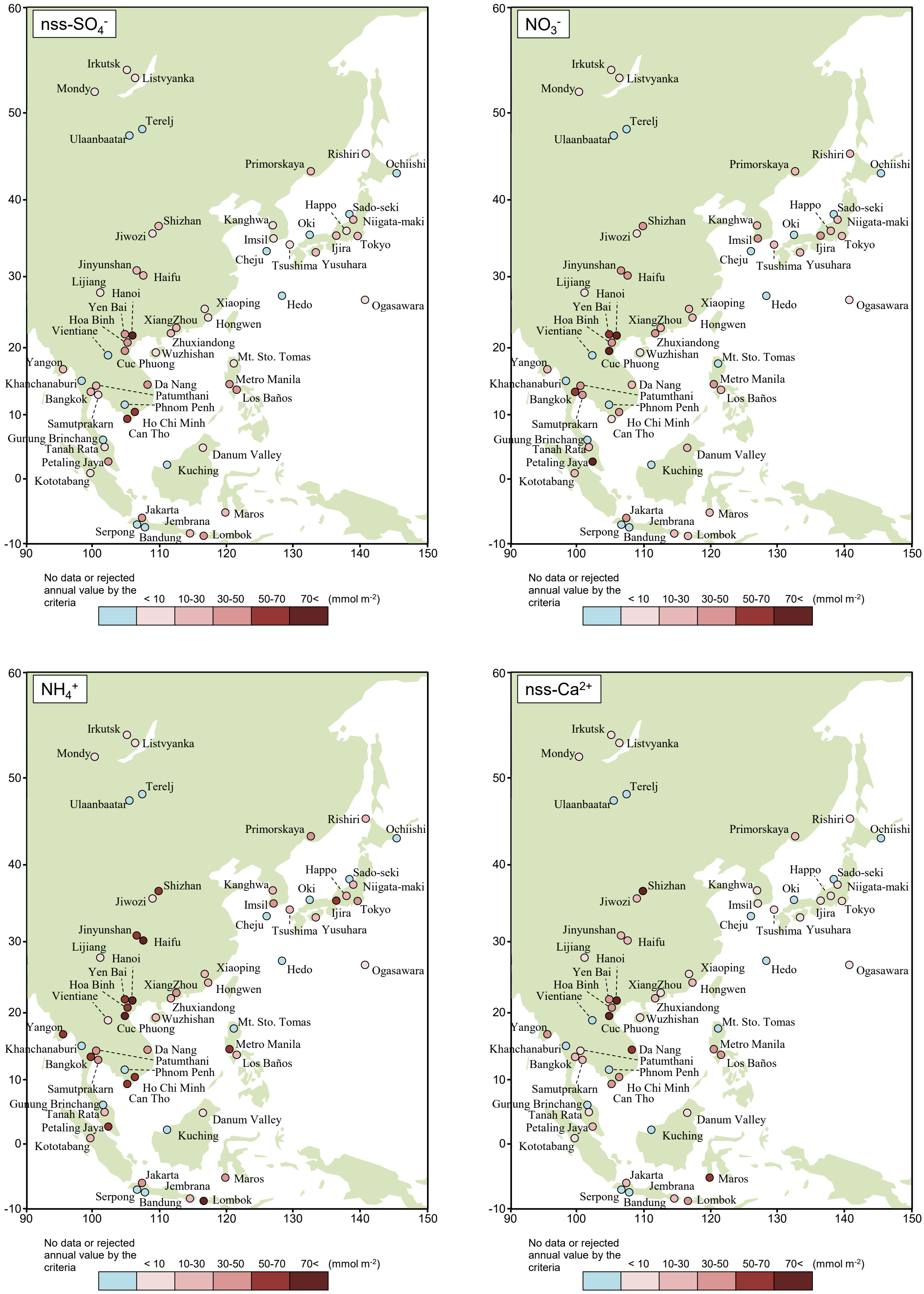
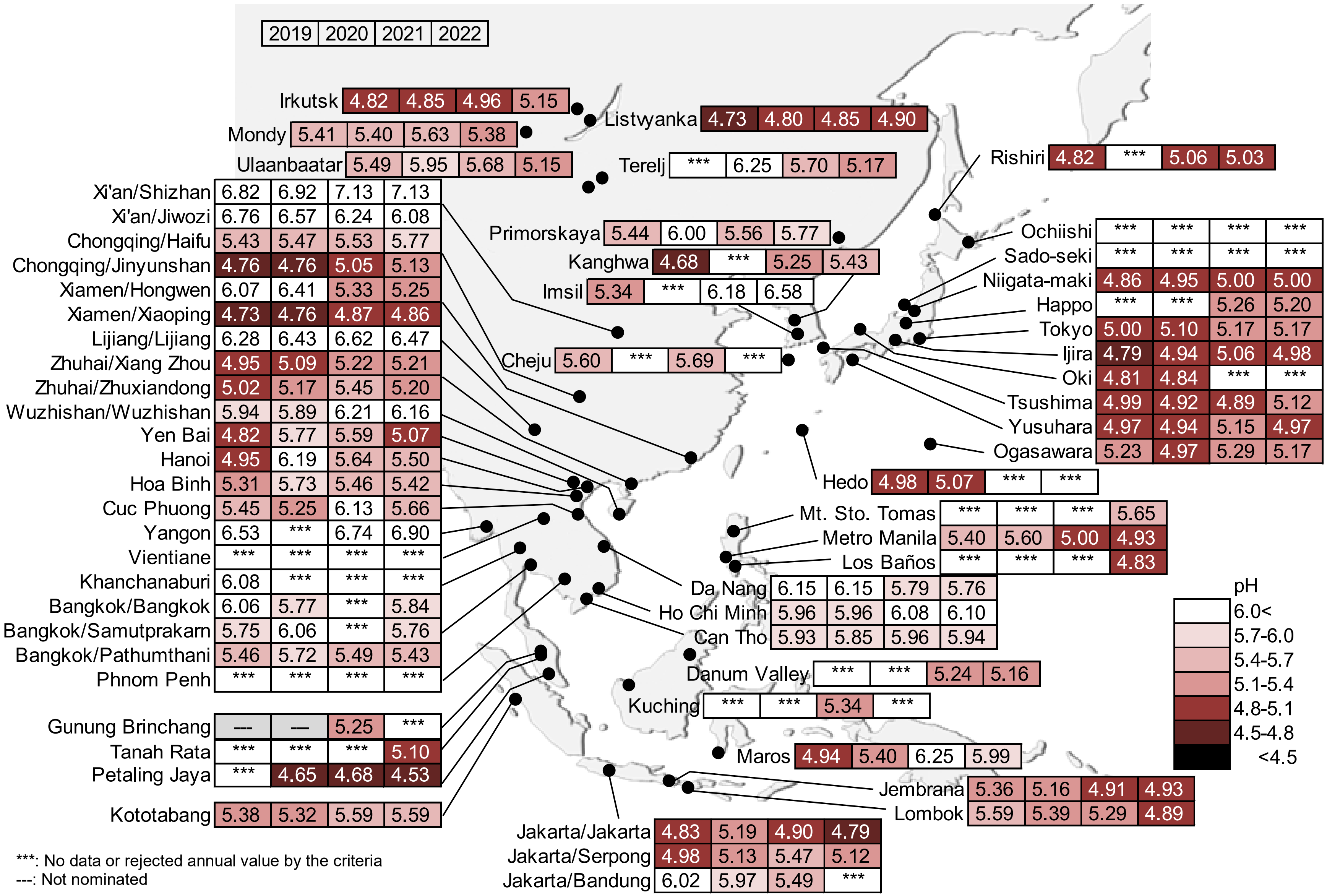
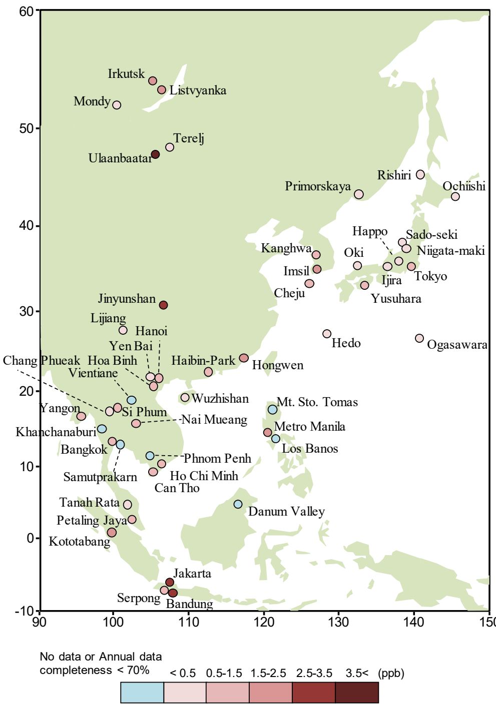


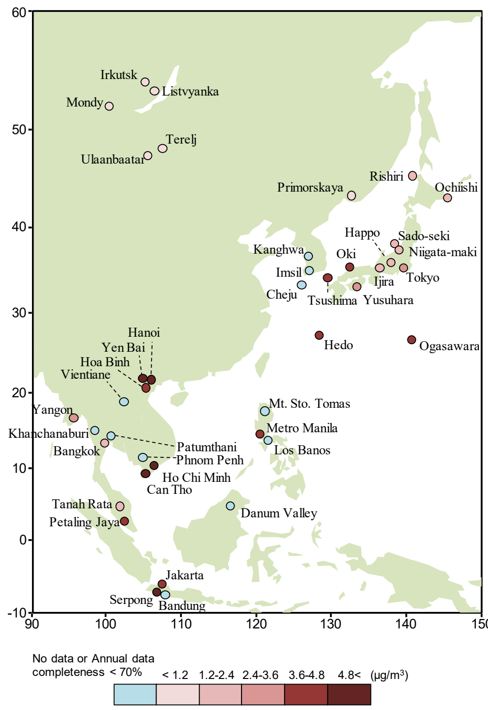
Appendix Fig. 1-1 Annual wet deposition levels of nss-SO_4^{2-}, NO_3^-, NH_4^+ and nss-Ca^{2+} in 2022



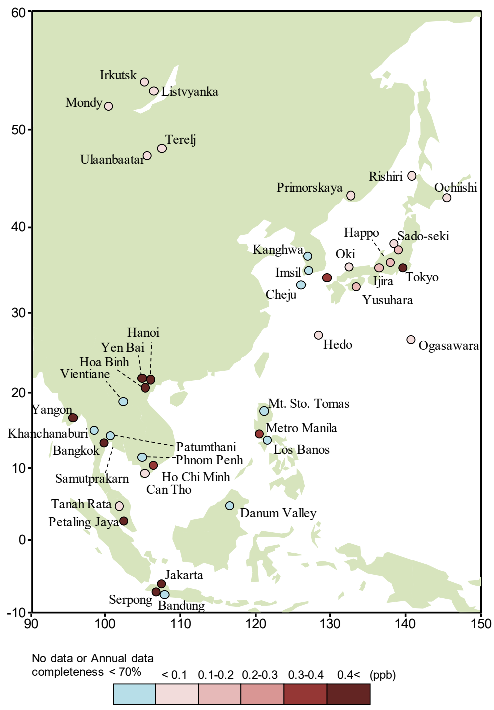
Appendix Fig. 1-2 Trends of pH in each EANET site from 2019 to 2022



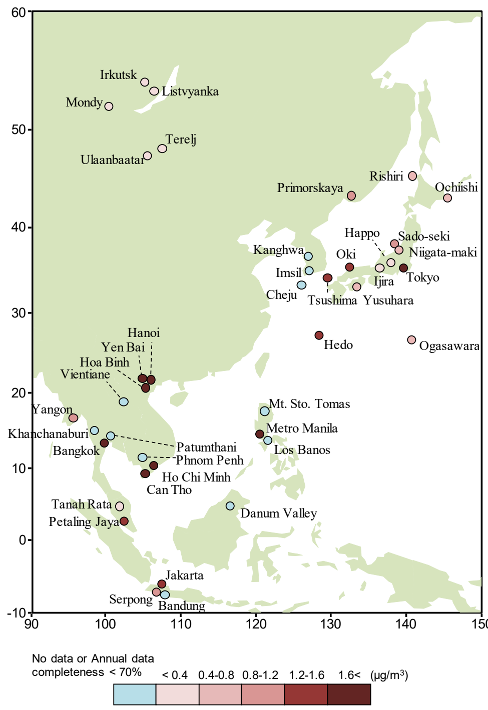
Appendix Fig. 1-3 Levels of annual SO_2 concentrations at EANET monitoring sites in 2022.



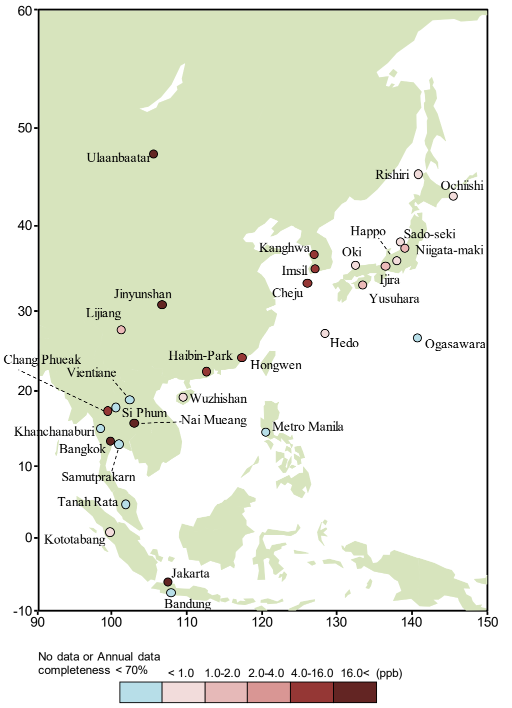
Appendix Fig. 1-4 Levels of annual particulate SO_4^{2-} concentrations at EANET monitoring sites in 2022.



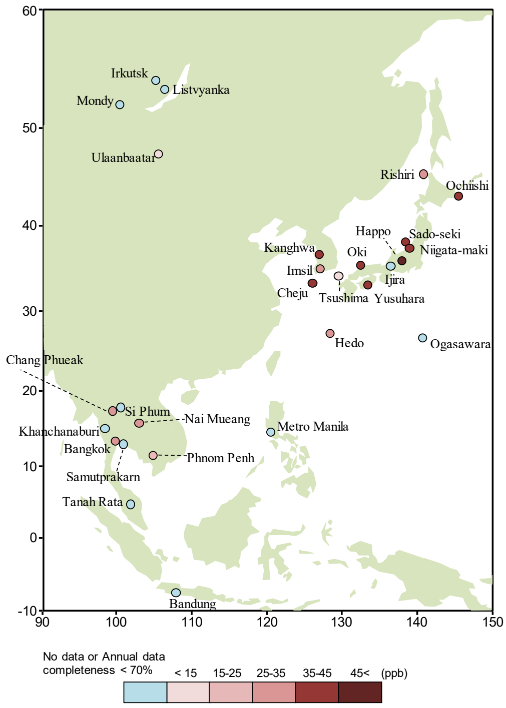
Appendix Fig. 1-5 Levels of annual HNO_3 concentrations at EANET monitoring sites in 2022.



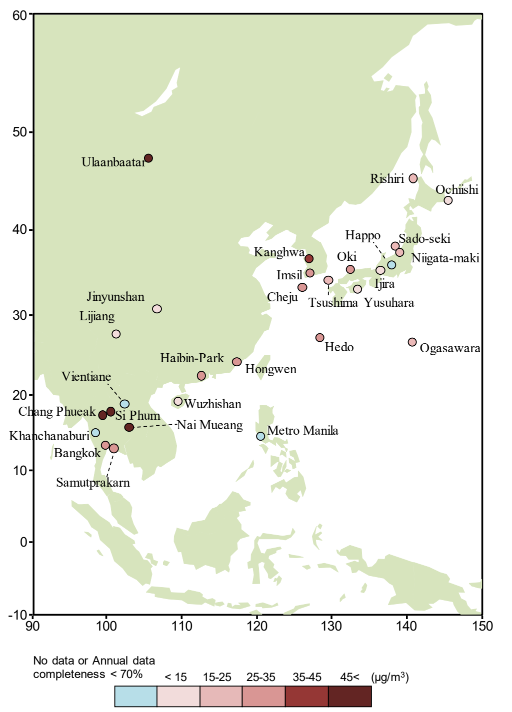
Appendix Fig. 1-6 Levels of annual particulate NO_3^- concentrations at EANET monitoring sites in 2022.



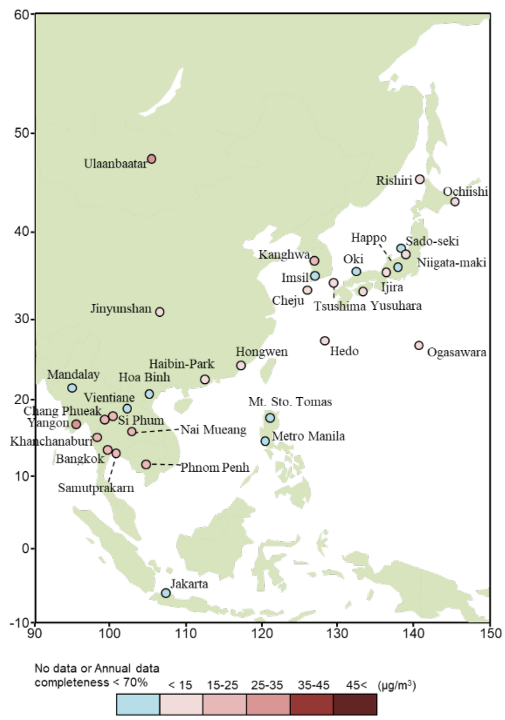
Appendix Fig. 1-7 Levels of annual NOx or NO_2 concentrations at EANET monitoring sites in 2022.



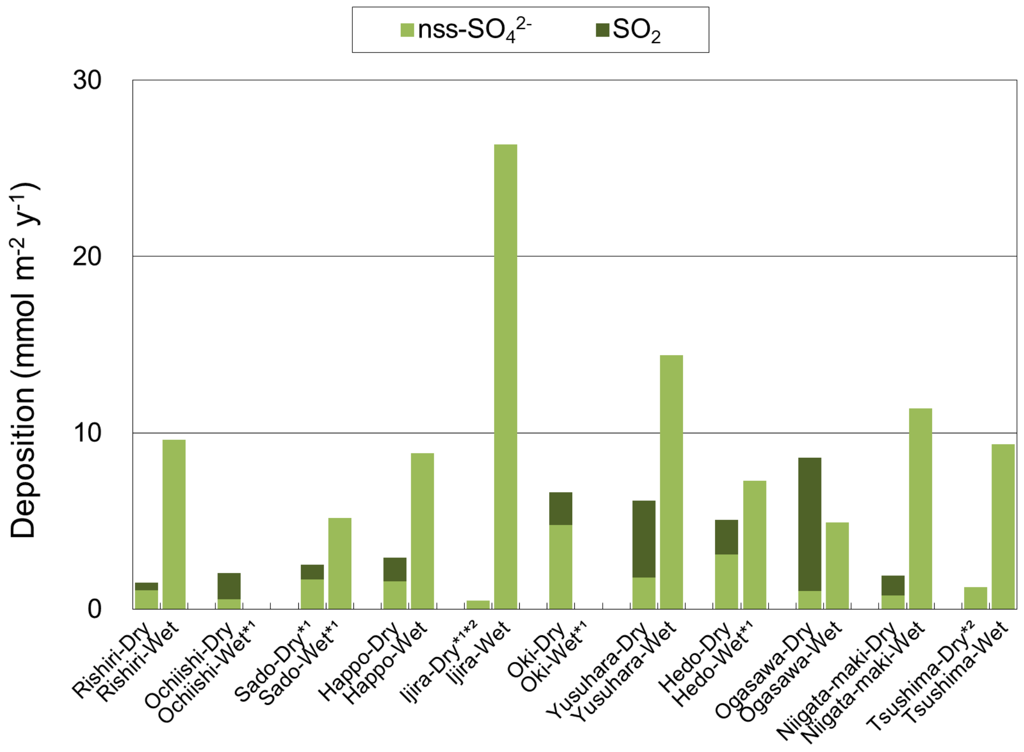
Appendix Fig. 1-8 Levels of annual O_3 concentrations at EANET monitoring sites in 2022.



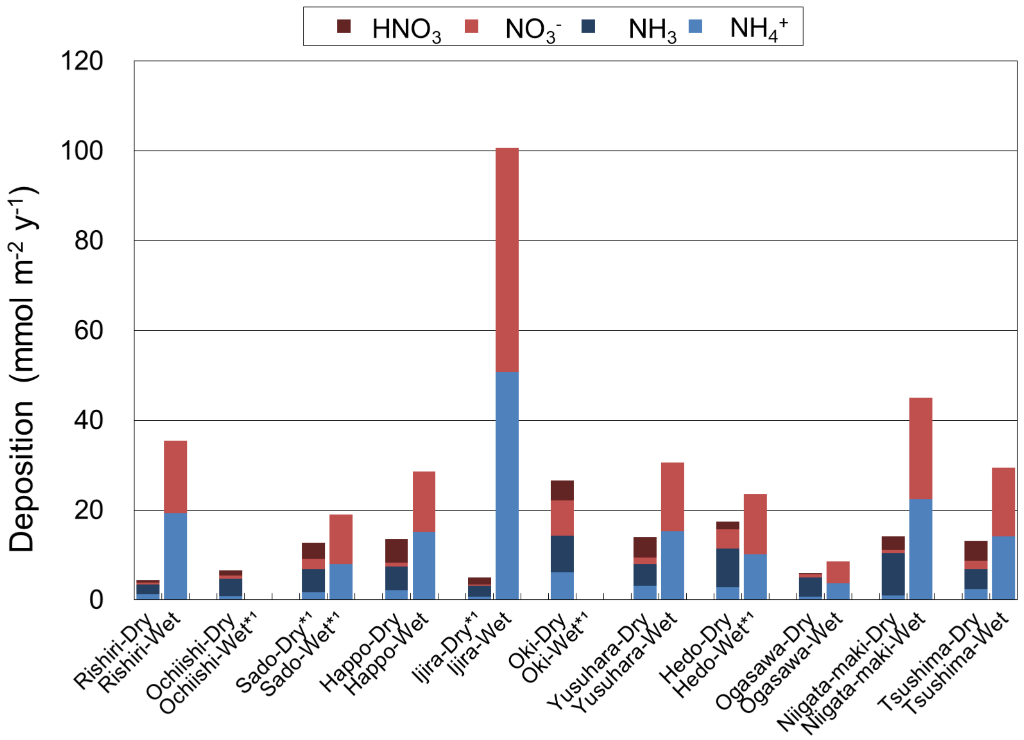
Appendix Fig. 1-9 Levels of annual PM_{10} concentrations at EANET monitoring sites in 2022.



Appendix Fig. 1-10 Levels of annual $PM_{2.5}$ concentrations at EANET monitoring sites in 2022.



Appendix Fig. 1-11 Annual dry and wet deposition amount of sulfur compounds at EANET sites in 2022.



Appendix Fig. 1-12 Annual dry and wet deposition amount of nitrogen compounds at EANET sites in 2022.

*1 The data did not meet the EANET criteria for completeness of wet/dry deposition monitoring.
*2 SO_2 deposition amounts were excluded since SO_2 monitoring by AT was not carried out.

Appendix 2

Meteorological Statistics at the Monitoring Sites

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Appendix Table 2-1 Meteorological statistics at the monitoring site
Site : Rishiri, Japan

2022

Items	Month	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec
Tempera-ture (ºC)	monthly mean	-5.2	-4.4	0.8	5.1	10.5	13.4	19.8	20.5	17.4	10.7	4.6	-3.3
	max.daily mean	-0.7	2.9	4.7	10.9	16.3	18.0	23.8	22.0	23.7	18.5	11.6	2.9
	min.daily mean	-9.8	-7.8	-2.3	-0.3	4.8	8.6	16.2	18.2	12.0	4.2	-4.1	-9.2
Relative humidity (%)	monthly mean	75	70	73	77	83	86	89	88	83	75	72	71
	max.daily mean	89	84	90	97	97	98	98	98	98	94	92	90
	min.daily mean	62	46	49	54	51	49	73	71	52	51	49	54
Mean wind speed (m/s)		3.3	3.3	3.0	2.3	2.0	1.8	1.6	1.9	2.3	2.6	3.1	3.8
Most frequent wind direction (bearings)		NNW	NNW	W	WNW	E	E	E	SW	NE,W	E	NW	NW
Precipitation amount (mm/month)		108	36	36	62	94	79	29	101	129	124	142	107
Sunshine duration (hours/month)		--	--	--	--	--	--	--	--	--	--	--	--
Solar radiation (MJ/m^2/month)		135	240	383	487	492	448	526	460	401	257	133	77

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

2022

Items	Month	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec
Tempera-ture (ºC)	monthly mean	-4.8	-5.2	-1.6	2.0	5.6	8.1	13.7	-11.7	15.7	10.8	6.2	-1.4
	max.daily mean	-0.6	-1.6	1.8	6.4	8.7	12.9	18.1	17.2	18.0	16.4	11.2	4.0
	min.daily mean	-10.0	-7.2	-3.8	-3.0	2.6	2.0	9.3	10.7	12.5	6.2	2.1	-6.9
Relative humidity (%)	monthly mean	68	71	83	81	90	92	94	93	84	73	67	62
	max.daily mean	97	96	100	100	100	100	100	100	98	92	90	93
	min.daily mean	52	57	68	49	69	76	78	78	65	54	48	37
Mean wind speed (m/s)		8.7	7.3	7.8	7.9	7.2	5.6	4.3	5.6	5.6	6.8	8.0	8.9
Most frequent wind direction (bearings)		NNW	NW	WSW	WSW	WSW	NE	E	SW	SE	WSW	WSW	WNW
Precipitation amount (mm/month)		29	6	25	11	66	119	92	223	101	61	33	74
Sunshine duration (hours/month)		--	--	--	--	--	--	--	--	--	--	--	--
Solar radiation (MJ/m^2/month)		236	296	435	570	530	486	491	397	399	305	217	198

Appendix Table 2-3 Meteorological statistics at the monitoring site
Site : Sadoseki, Japan

2022

Items	Month	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec
Temperature (ºC)	monthly mean	--	--	--	--	--	--	--	--	--	15.0	12.7	4.6
	max.daily mean	--	--	--	--	--	--	--	--	--	18.5	18.0	9.1
	min.daily mean	--	--	--	--	--	--	--	--	--	11.5	7.6	-0.2
Relative humidity (%)	monthly mean	--	--	--	--	--	--	--	--	--	78	72	82
	max.daily mean	--	--	--	--	--	--	--	--	--	97	92	96
	min.daily mean	--	--	--	--	--	--	--	--	--	62	52	64
Mean wind speed (m/s)		--	--	--	--	--	--	--	--	--	--	--	--
Most frequent wind direction (bearings)		--	--	--	--	--	--	--	--	--	--	--	--
Precipitation amount (mm/month)		--	--	--	--	--	--	--	--	--	122	101	143
Sunshine duration (hours/month)		--	--	--	--	--	--	--	--	--	--	--	--
Solar radiation (MJ/m^2/month)		--	--	--	--	--	--	--	--	--	--	--	--

* The thermometer and hygrometer have been restored since October 2022.
(The meteorological mast was fallen down due to strong wind in Janurary 2021.)

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

2022

Items	Month	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec
Temperature (ºC)	monthly mean	-9.1	-9.4	-1.7	5.5	6.8	13.0	16.8	17.0	14.5	6.2	2.6	-6.3
	max.daily mean	-3.3	-4.9	7.0	12.5	11.2	20.2	20.0	20.5	17.8	13.6	7.2	-0.2
	min.daily mean	-14.1	-13.6	-11.3	-7.8	-0.7	6.3	14.4	11.9	6.9	-0.6	-1.8	-13.1
Relative humidity (%)	monthly mean	92	90	76	74	78	93	96	95	95	89	87	93
	max.daily mean	97	96	96	97	97	97	97	97	97	97	97	97
	min.daily mean	62	55	37	42	51	79	92	87	80	33	36	56
Mean wind speed (m/s)		6.4	4.8	5.1	2.8	2.2	2.3	1.8	2.1	2.2	2.1	2.5	4.8
Most frequent wind direction (bearings)		NW	NW	NW	S	S	SSE	SSE	SSE	SSE	SSE	SSE	SSE
Precipitation amount (mm/month)		128	115	123	195	89	207	295	304	231	134	150	193
Sunshine duration (hours/month)		--	--	--	--	--	--	--	--	--	--	--	--
Solar radiation (MJ/m^2/month)		273	268	519	657	434	419	366	315	349	319	274	228

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

2022

Items	Month	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec
Tempera-ture (ºC)	monthly mean	0.9	1.1	7.8	14.0	16.0	20.7	23.9	24.4	22.5	15.0	11.2	3.3
	max.daily mean	4.2	5.0	13.3	19.9	20.2	27.1	27.5	27.8	25.5	20.6	16.0	7.7
	min.daily mean	-1.6	-1.7	1.2	7.4	10.0	15.7	21.8	22.2	18.4	9.5	8.1	-1.4
Relative humidity (%)	monthly mean	89	90	76	73	78	84	93	--	--	--	--	--
	max.daily mean	98	98	94	97	97	98	99	--	--	--	--	--
	min.daily mean	69	77	58	17	54	63	69	--	--	--	--	--
Mean wind speed (m/s)		0.4	0.4	0.6	0.6	0.5	0.4	0.3	0.3	0.4	0.4	0.4	0.3
Most frequent wind direction (bearings)		Calm	Calm	Calm	Calm	Calm	Calm	Calm	Calm	Calm	Calm	Calm	Calm
Precipitation amount (mm/month)		117	129	265	272	260	190	716	808	580	169	356	173
Sunshine duration (hours/month)		--	--	--	--	--	--	--	--	--	--	--	--
Solar radiation (MJ/m^2/month)		205	268	432	591	677	619	588	485	406	369	252	182

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

2022

Items	Month	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec
Tempera-ture (ºC)	monthly mean	1.1	0.2	7.7	12.4	14.8	18.9	22.1	23.4	20.4	14.1	11.2	1.9
	max.daily mean	5.4	6.0	14.4	18.0	19.4	23.7	24.4	25.1	22.5	20.2	14.9	8.8
	min.daily mean	-3.0	-5.4	1.2	3.9	10.6	14.5	20.3	21.4	15.3	8.5	7.4	-5.3
Relative humidity (%)	monthly mean	73	72	74	75	79	91	96	94	97	88	88	85
	max.daily mean	99	99	99	99	99	99	99	99	99	99	99	99
	min.daily mean	50	37	41	37	47	59	80	81	89	68	73	72
Mean wind speed (m/s)		2.3	2.1	1.6	1.4	1.3	1.0	1.0	1.0	1.2	1.5	1.5	2.3
Most frequent wind direction (bearings)		NNW	NNW	NNW	NNW	NNW	SSE	NNW	NNW	SSE	NNW	NNW	N
Precipitation amount (mm/month)		67	35	158	166	157	196	581	64	778	34	88	74
Sunshine duration (hours/month)		--	--	--	--	--	--	--	--	--	--	--	--
Solar radiation (MJ/m^2/month)		321	361	461	525	554	496	436	558	372	449	321	272

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

2022

Items \ Month		Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec
Tempera-ture (ºC)	monthly mean	16.9	16.1	19.0	21.4	22.0	24.3	--	--	--	--	--	--
	max.daily mean	19.7	19.4	21.9	26.0	26.5	28.2	--	--	--	--	--	--
	min.daily mean	14.4	12.9	14.7	16.2	17.7	22.1	--	--	--	--	--	--
Relative humidity (%)	monthly mean	--	--	--	--	--	--	--	--	--	--	--	--
	max.daily mean	--	--	--	--	--	--	--	--	--	--	--	--
	min.daily mean	--	--	--	--	--	--	--	--	--	--	--	--
Mean wind speed (m/s)		4.7	5.8	4.6	4.0	4.8	3.9	--	--	--	--	--	--
Most frequent wind direction (bearings)		NNE	N	E,ESE	ENE	E	SSW	--	--	--	--	--	--
Precipitation amount (mm/month)		197	214	284	65	605	297	--	--	--	--	--	--
Sunshine duration (hours/month)		--	--	--	--	--	--	--	--	--	--	--	--
Solar radiation (MJ/m^2/month)		243	244	430	520	350	165	--	--	--	--	--	--

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

2022

Items \ Month		Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec
Tempera-ture (ºC)	monthly mean	20.6	22.9	25.0	26.4	26.5	26.2	24.5	21.6	18.5	15.9	16.2	18.3
	max.daily mean	23.6	25.8	27.2	27.3	27.6	27.5	26.0	22.9	22.9	20.5	19.8	22.2
	min.daily mean	16.2	18.4	21.4	24.2	23.9	23.9	21.0	20.0	14.2	11.8	13.2	15.2
Relative humidity (%)	monthly mean	95	95	94	95	93	94	94	90	88	80	84	86
	max.daily mean	98	98	98	98	98	97	98	98	98	97	98	98
	min.daily mean	83	90	89	92	89	89	81	72	68	60	69	66
Mean wind speed (m/s)		1.6	1.7	1.6	1.8	1.3	1.9	1.5	1.7	1.7	1.3	1.7	1.6
Most frequent wind direction (bearings)		NE	SSW	SSW	SSW	SSW	NE	NE	NE	WSW	WSW	SSW	SSW
Precipitation amount (mm/month)		122	217	138	179	65	141	201	161	245	23	101	42
Sunshine duration (hours/month)		--	--	--	--	--	--	--	--	--	--	--	--
Solar radiation (MJ/m^2/month)		417	422	608	550	674	537	416	306	231	365	349	453

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

2022

Items	Month	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec
Tempera-ture (ºC)	monthly mean	2.1	1.9	6.9	12.3	17.2	21.6	26.6	26.5	23.3	15.4	11.8	4.4
	max.daily mean	5.4	7.1	12.4	19.2	22.8	28.7	30.1	30.4	29.5	22.7	15.8	8.2
	min.daily mean	-0.3	-0.5	3.0	6.1	9.2	15.3	23.0	21.4	17.4	10.6	8.9	-0.2
Relative humidity (%)	monthly mean	73	75	70	67	65	73	76	76	74	74	74	82
	max.daily mean	85	90	88	93	88	89	88	87	91	90	86	94
	min.daily mean	61	59	53	46	44	59	64	64	60	57	58	61
Mean wind speed (m/s)		6.4	5.8	4.4	3.6	3.2	3.7	2.7	3.2	3.2	3.5	3.7	6.4
Most frequent wind direction (bearings)		WNW	WNW	W	SE	SE	WSW	SE	WSW	SE	SE	SE	WNW
Precipitation amount (mm/month)		70	94	76	117	85	121	159	207	87	111	156	367
Sunshine duration (hours/month)		--	--	--	--	--	--	--	--	--	--	--	--
Solar radiation (MJ/m²/month)		177	208	375	526	673	602	644	469	418	316	223	116

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

2022

Items	Month	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec
Tempera-ture (ºC)	monthly mean	--	--	--	--	--	--	--	--	--	--	--	--
	max.daily mean	--	--	--	--	--	--	--	--	--	--	--	--
	min.daily mean	--	--	--	--	--	--	--	--	--	--	--	--
Relative humidity (%)	monthly mean	--	--	--	--	--	--	--	--	--	--	--	--
	max.daily mean	--	--	--	--	--	--	--	--	--	--	--	--
	min.daily mean	--	--	--	--	--	--	--	--	--	--	--	--
Mean wind speed (m/s)		3.0	3.5	2.9	2.7	2.5	2.8	2.2	2.8	2.4	2.5	2.4	3.6
Most frequent wind direction (bearings)		NNW	WNW	WSW	WSW	WSW	SSW	WSW	SW	ENE	ENE	ENE	WNW
Precipitation amount (mm/month)		16	9	150	145	14	150	143	325	323	20	49	16
Sunshine duration (hours/month)		--	--	--	--	--	--	--	--	--	--	--	--
Solar radiation (MJ/m²/month)		--	--	--	--	--	--	--	--	--	--	--	--

Appendix Table 2-11 Meteorological statistics at the monitoring site
Site : Metro Manila*, Philippines

2022

Items \ Month		Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec
Tempera-ture (ºC)	monthly mean	26.5	27.4	29.1	28.5	29.4	29.2	28.7	28.1	28.2	28.4	28.0	27.3
	max.daily mean	29.2	28.9	31.0	30.2	30.9	30.5	30.5	29.9	30.0	30.2	29.7	29.5
	min.daily mean	24.0	26.0	26.9	24.8	27.2	27.4	26.6	25.2	26.0	25.4	26.5	24.1
Relative humidity (%)	monthly mean	72	69	67	71	71	76	80	82	83	80	79	76
	max.daily mean	83	88	81	95	90	92	95	94	94	96	91	87
	min.daily mean	63	61	53	59	58	66	67	71	75	66	70	60
Mean wind speed (m/s)		1	1	1	1	1	1	1	1	1	1	1	1
Most frequent wind direction (bearings)		NNE	NNE	ESE	E	SE	SE	N,S	N	S,W	N	N	NE
Precipitation amount (mm/month)		27	8	36	150	280	165	451	485	487	423	103	28
Sunshine duration (hours/month)		--	--	--	--	--	--	--	--	--	--	--	--
Solar radiation (MJ/m^2/month)		--	--	--	--	--	--	--	--	--	--	--	--

* location of the meteorological monitoring : the PAGASA Science Garden Station

(Latitude: 14°38'41"N Longitude: 121°02'40"E Altitude: 43 m)

Data Source: Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA), Department of Science and Technology (DOST)

Appendix Table 2-12 Meteorological statistics at the monitoring site
Site : Los Baños*, Philippines

2022

Items \ Month		Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec
Tempera-ture (ºC)	monthly mean	25.9	26.5	28.1	27.8	31.2	28.6	28.4	27.9	27.8	27.9	27.6	26.4
	max.daily mean	29.4	28.0	29.5	29.6	33.0	29.9	29.6	29.6	29.8	29.5	29.0	28.5
	min.daily mean	23.5	25.6	26.4	25.6	29.0	26.4	26.8	26.0	25.8	25.3	25.8	23.8
Relative humidity (%)	monthly mean	85	85	80	81	79	81	84	87	86	87	87	87
	max.daily mean	95	97	88	97	91	93	98	97	97	97	97	98
	min.daily mean	77	75	74	68	68	74	75	72	76	76	78	76
Mean wind speed (m/s)		2	2	2	2	2	2	2	2	2	3	2	2
Most frequent wind direction (bearings)		E,ESE	E	NE,E	NE,E	ENE	NE	N	NE,E	E	NE	N	NE
Precipitation amount (mm/month)		24	54	55	172	82	188	217	219	418	362	147	131
Sunshine duration (hours/month)		--	--	--	--	--	--	--	--	--	--	--	--
Solar radiation (MJ/m^2/month)		--	--	--	--	--	--	--	--	--	--	--	--

* location of the meteorological monitoring : the PAGASA Agromet Station in UP Los Baños College

(Latitude: 14°10'20"N Longitude: 121°14'29"E Altitude: 21.7 m)

Data Source: Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA)-Department of Science and Technology (DOST)

Appendix Table 2-13 Meteorological statistics at the monitoring site
Site : Mt. Sto. Tomas, Philippines

2022

Items	Month	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec
Tempera-ture (ºC)	monthly mean	18.0	19.1	20.4	20.2	20.5	20.3	20.2	19.6	19.5	19.9	20.8	19.1
	max.daily mean	20.5	20.3	21.7	21.9	22.1	21.2	22.3	21.4	21.5	21.8	22.1	21.0
	min.daily mean	16.0	17.4	18.8	18.5	18.5	18.0	17.7	16.8	17.3	17.0	18.6	15.3
Relative humidity (%)	monthly mean	81	84	82	86	88	88	90	91	89	89	77	79
	max.daily mean	95	95	90	94	96	95	95	97	98	98	90	92
	min.daily mean	67	63	67	78	78	79	81	84	81	76	61	63
Mean wind speed (m/s)		1.4	1.4	1.3	1.0	1.3	1.4	1.3	1.6	1.3	1.6	1.5	1.4
Most frequent wind direction (bearings)		ESE	ESE	ESE	SSE	SSE	SSE	ESE	SSE	SE	SSE	ESE	ESE,S
Precipitation amount (mm/month)		85	39	70	166	291	220	252	571	483	751	23	0
Sunshine duration (hours/month)		--	--	--	--	--	--	--	--	--	--	--	--
Solar radiation (MJ/m^2/month)		--	--	--	--	--	--	--	--	--	--	--	--

Appendix Table 2-14 Meteorological statistics at the monitoring site
Site : Mondy, Russia

2022

Items	Month	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec
Tempera-ture (ºC)	monthly mean	-18.2	-17.4	-9.8	0.5	8.7	13.5	13.2	11.6	7.8	-3.5	-13.6	-17.7
	max.daily mean	-7.8	-7.8	-1.3	7.8	18.3	21.9	20.6	19.2	16.6	5.7	-4.4	-10.4
	min.daily mean	-24.9	-25.3	-18.1	-7.3	-2.1	5.4	6.9	5.1	0.0	-11.0	-20.5	-24.1
Relative humidity (%)	monthly mean	69	59	52	51	47	69	81	76	69	70	71	61
	max.daily mean	82	74	73	77	80	96	99	98	96	93	86	74
	min.daily mean	47	39	28	26	21	39	55	44	35	37	47	45
Mean wind speed (m/s)		1.2	1.9	2.6	2.9	2.2	2.2	1.7	1.8	2.4	1.7	1.7	2.5
Most frequent wind direction (bearings)		W	W	W	W	W	W	E	E	E	W	W	W
Precipitation amount (mm/month)		6	1	4	9	8	87	128	55	14	13	9	4
Sunshine duration (hours/month)		155	199	258	238	318	262	208	241	182	220	144	140
Solar radiation (MJ/m^2/month)		--	--	--	--	--	--	--	--	--	--	--	--

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

2022

Items	Month	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec
Tempera-ture (ºC)	monthly mean	-12.2	-15.0	-7.5	1.5	8.4	11.1	13.9	12.4	8.1	2.2	-5.8	-12.9
	max.daily mean	-8.5	-10.0	-2.7	7.5	16.3	17.2	19.5	17.5	13.6	6.4	-0.9	-9.1
	min.daily mean	-15.2	-19.2	-12.0	-2.6	2.9	6.6	9.3	8.2	4.0	-1.4	-9.6	-16.1
Relative humidity (%)	monthly mean	78	74	66	61	56	82	83	82	74	71	77	81
	max.daily mean	--	--	--	--	--	--	--	--	--	--	--	--
	min.daily mean	70	63	48	37	35	63	64	62	52	51	62	71
Mean wind speed (m/s)		3.2	3.0	3.2	3.3	3.2	2.2	2.4	2.6	3.1	3.2	4.1	4.8
Most frequent wind direction (bearings)		N	N	N	N	N	N	N	N	N	N	N	N
Precipitation amount (mm/month)		10	8	7	17	11	89	97	43	28	34	19	23
Sunshine duration (hours/month)		--	--	--	--	--	--	--	--	--	--	--	--
Solar radiation (MJ/m^2/month)		--	--	--	--	--	--	--	--	--	--	--	--

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

2022

Items	Month	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec
Tempera-ture (ºC)	monthly mean	-14.3	-14.6	-5.6	4.5	13.3	17.4	17.7	15.3	10.0	2.1	-7.7	-15.4
	max.daily mean	-9.8	-8.4	0.2	11.6	21.5	24.2	24.2	21.7	16.8	7.3	-2.6	-11.4
	min.daily mean	-17.8	-19.5	-11.0	-1.6	5.6	11.2	12.5	10.0	4.7	-2.2	-11.4	-19.0
Relative humidity (%)	monthly mean	79	70	55	51	45	68	75	74	69	71	74	72
	max.daily mean	--	--	--	--	--	--	--	--	--	--	--	--
	min.daily mean	70	54	37	30	25	46	54	49	46	51	61	62
Mean wind speed (m/s)		1.3	1.4	1.8	1.8	1.9	1.4	1.4	1.3	1.7	1.8	1.5	1.3
Most frequent wind direction (bearings)		SE	SE	SE	NW	NW	SE	WNW	WNW	SE	SE	ENE	NW
Precipitation amount (mm/month)		16	11	7	12	8	79	109	36	25	25	23	26
Sunshine duration (hours/month)		258	277	368	418	487	501	503	454	380	330	264	241
Solar radiation (MJ/m^2/month)		--	--	--	--	--	--	--	--	--	--	--	--

Appendix Table 2-17 Meteorological statistics at the monitoring site
Site : Bangkok, Thailand

2022

Items	Month	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec
Tempera-ture (ºC)	monthly mean	27.8	27.7	29.5	29.9	28.7	29.3	28.5	27.7	27.0	27.3	27.7	26.3
	max.daily mean	29.5	29.2	31.5	32.4	31.3	30.9	30.4	30.7	29.2	29.5	29.9	28.7
	min.daily mean	26.2	25.6	25.5	22.5	24.9	27.5	25.1	25.7	24.4	23.1	25.8	22.8
Relative humidity (%)	monthly mean	62	72	77	67	76	76	81	86	89	77	73	61
	max.daily mean	91	93	96	88	95	90	98	99	99	99	99	83
	min.daily mean	49	44	62	42	63	64	70	72	73	51	41	45
Mean wind speed (m/s)		0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.4
Most frequent wind direction (bearings)		NE	NE	WSW	WSW	WNW	WNW	WNW	WNW	WNW	NNE	NE	NE
Precipitation amount (mm/month)		31	83	78	81	186	192	297	357	720	177	153	14
Sunshine duration (hours/month)		--	--	--	--	--	--	--	--	--	--	--	--
Solar radiation (MJ/m^2/month)		--	--	--	--	--	--	--	--	--	--	--	--

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

2022

Items	Month	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec
Tempera-ture (ºC)	monthly mean	27.6	27.8	29.4	29.8	29.0	29.7	28.9	28.2	28.0	--	28.3	26.4
	max.daily mean	29.8	29.4	31.0	32.4	30.9	31.4	30.3	30.8	30.2	--	28.4	28.9
	min.daily mean	26.2	25.9	26.8	22.4	25.0	28.0	25.9	25.8	25.5	--	28.4	22.8
Relative humidity (%)	monthly mean	69	76	84	72	82	80	84	87	89	--	90	63
	max.daily mean	91	98	95	92	97	95	99	99	98	--	88	84
	min.daily mean	54	43	71	43	69	66	72	76	80	--	88	48
Mean wind speed (m/s)		1.2	1.4	1.7	1.7	1.5	1.4	1.5	1.3	1.1	1.2	1.0	1.2
Most frequent wind direction (bearings)		S	S	S	S	S	S	SSW	SSW	WNW	E	E	E
Precipitation amount (mm/month)		38	65	57	26	190	137	188	184	--	--	--	--
Sunshine duration (hours/month)		--	--	--	--	--	--	--	--	--	--	--	--
Solar radiation (MJ/m^2/month)		--	--	--	--	--	--	--	--	--	--	--	--

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

2022

Items \ Month		Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec
Tempera-ture (ºC)	monthly mean	27.9	27.9	30.0	30.2	29.5	30.1	29.4	28.8	28.4	28.1	28.5	26.5
	max.daily mean	30.7	29.4	31.9	33.0	32.0	31.6	31.2	31.5	30.3	29.7	30.5	29.1
	min.daily mean	26.4	26.3	27.0	22.6	25.0	28.1	26.6	25.9	25.8	23.7	27.1	22.9
Relative humidity (%)	monthly mean	70	74	78	72	76	79	83	82	82	76	75	68
	max.daily mean	82	90	93	86	89	93	93	95	94	88	89	81
	min.daily mean	61	56	71	58	65	66	73	70	70	65	65	51
Mean wind speed (m/s)		0.8	1.1	1.3	1.4	1.6	1.4	1.3	1.4	1.1	1.0	1.0	1.1
Most frequent wind direction (bearings)		--	--	--	--	--	--	--	--	--	--	--	--
Precipitation amount (mm/month)		2	72	144	33	173	203	162	366	319	132	47	3
Sunshine duration (hours/month)		--	--	--	--	--	--	--	--	--	--	--	--
Solar radiation (MJ/m^2/month)		--	--	--	--	--	--	--	--	--	--	--	--

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

2022

Items \ Month		Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec
Tempera-ture (ºC)	monthly mean	26.8	27.2	29.4	29.9	28.0	29.3	29.0	27.7	27.5	26.5	27.2	25.1
	max.daily mean	29.5	30.0	31.0	32.7	30.8	31.0	31.1	29.5	29.5	28.6	29.0	28.1
	min.daily mean	25.1	25.0	27.1	21.2	24.9	26.6	26.2	25.7	25.2	22.1	25.2	21.9
Relative humidity (%)	monthly mean	58	67	68	58	74	67	69	76	80	83	77	68
	max.daily mean	69	90	82	74	93	85	86	92	97	96	96	83
	min.daily mean	45	51	58	48	60	54	57	67	68	66	65	46
Mean wind speed (m/s)		0.8	0.7	1.0	1.1	1.0	1.2	1.2	1.1	0.9	0.6	0.7	0.7
Most frequent wind direction (bearings)		WSW	N	WSW	WSW	SW	WSW	SW	SW	W	WSW	W	N
Precipitation amount (mm/month)		2	127	71	17	148	127	82	72	0	0	0	0
Sunshine duration (hours/month)		--	--	--	--	--	--	--	--	--	--	--	--
Solar radiation (MJ/m^2/month)		--	--	--	--	--	--	--	--	--	--	--	--

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

2022

Items	Month	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec
Tempera-ture (ºC)	monthly mean	22.0	23.6	28.4	27.8	27.1	27.6	27.1	26.6	26.2	25.8	25.1	22.9
	max.daily mean	23.9	26.3	30.4	31.3	28.6	28.8	30.1	28.6	28.9	27.0	26.7	25.1
	min.daily mean	19.7	19.9	25.9	21.4	23.8	25.9	25.1	24.1	23.5	23.4	23.1	20.0
Relative humidity (%)	monthly mean	66	58	56	63	75	71	80	81	82	75	71	72
	max.daily mean	79	92	73	88	98	90	91	94	97	94	82	85
	min.daily mean	53	44	46	50	58	62	64	68	65	57	63	58
Mean wind speed (m/s)		0.5	0.7	0.5	0.5	0.5	0.5	0.4	0.5	0.5	0.4	0.4	0.5
Most frequent wind direction (bearings)		NNW	S	S	NNW	NW	S	NW	S	NNW	NNW	NNW	NNW
Precipitation amount (mm/month)		21	21	28	211	313	46	258	176	334	109	15	17
Sunshine duration (hours/month)		--	--	--	--	--	--	--	--	--	--	--	--
Solar radiation (MJ/m²/month)		--	--	--	--	--	--	--	--	--	--	--	--

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

2022

Items	Month	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec
Tempera-ture (ºC)	monthly mean	25.6	27.1	31.8	31.3	30.3	31.0	30.2	29.6	29.1	28.9	28.4	26.5
	max.daily mean	27.1	29.6	33.8	34.9	32.9	32.3	33.8	31.9	32.1	30.5	30.2	28.9
	min.daily mean	24.0	24.4	28.9	24.4	26.0	28.7	27.7	26.4	26.0	26.6	27.2	23.5
Relative humidity (%)	monthly mean	--	--	--	--	--	--	--	--	--	--	--	--
	max.daily mean	--	--	--	--	--	--	--	--	--	--	--	--
	min.daily mean	--	--	--	--	--	--	--	--	--	--	--	--
Mean wind speed (m/s)		0.4	0.4	0.5	0.5	0.4	0.4	0.3	0.3	0.4	0.4	0.3	0.3
Most frequent wind direction (bearings)		NE	NNE	SSE	NNE	SE	SE	SE	SE	NNE	NNE	NNE	NE
Precipitation amount (mm/month)		--	--	--	--	--	--	--	--	--	--	--	--
Sunshine duration (hours/month)		--	--	--	--	--	--	--	--	--	--	--	--
Solar radiation (MJ/m²/month)		--	--	--	--	--	--	--	--	--	--	--	--

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

2022

Items \ Month		Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec
Tempera-ture (ºC)	monthly mean	25.1	25.1	28.7	27.6	26.9	28.8	27.9	27.2	26.3	25.1	26.0	22.6
	max.daily mean	28.7	28.6	31.5	31.7	30.0	30.5	30.2	29.5	28.6	26.9	28.1	26.1
	min.daily mean	22.5	18.2	25.1	18.1	19.4	26.7	24.9	25.1	22.8	20.1	24.0	18.3
Relative humidity (%)	monthly mean	58	63	62	62	74	66	72	74	82	75	70	64
	max.daily mean	74	78	81	87	90	78	89	87	98	96	90	81
	min.daily mean	45	50	50	48	59	54	57	63	68	62	54	54
Mean wind speed (m/s)		0.9	1.2	0.9	1.1	1.2	1.3	1.3	1.3	1.0	1.3	1.0	1.5
Most frequent wind direction (bearings)		E	ENE	E	E	SW	W	W	W	W	E	E	ENE
Precipitation amount (mm/month)		4	14	142	160	332	179	306	201	303	147	86	9
Sunshine duration (hours/month)		--	--	--	--	--	--	--	--	--	--	--	--
Solar radiation (MJ/m^2/month)		--	--	--	--	--	--	--	--	--	--	--	--

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

2022

Items \ Month		Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec
Tempera-ture (ºC)	monthly mean	18.2	15.0	23.0	24.5	26.6	31.0	30.5	29.8	28.9	25.7	25.3	16.9
	max.daily mean	23.1	21.8	27.6	29.0	30.0	34.4	33.8	32.2	31.6	28.5	28.4	19.2
	min.daily mean	12.4	9.0	18.9	18.3	24.0	27.7	28.1	25.7	26.3	17.7	22.5	13.5
Relative humidity (%)	monthly mean	85	84	86	80	82	78	82	83	83	78	82	74
	max.daily mean	96	96	94	92	97	91	90	96	96	96	100	97
	min.daily mean	75	61	73	61	32	64	73	73	70	55	34	40
Mean wind speed (m/s)		1.0	1.0	1.0	1.0	1.0	1.4	1.1	1.3	0.9	1.0	1.0	1.0
Most frequent wind direction (bearings)		NE	NE	NE,	NE,	SE	SE,	NE,	NE,	NE	NE,	NE,	NE,
Precipitation amount (mm/month)		42	81	49	89	442	233	456	776	233	53	8	15
Sunshine duration (hours/month)		52	32	37	136	104	190	205	163	146	174	143	101
Solar radiation (MJ/m^2/month)		--	--	--	--	--	--	--	--	--	--	--	--

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

2022

Items \ Month		Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec
Tempera-ture (ºC)	monthly mean	18.8	15.3	23.0	24.7	26.3	29.9	29.4	28.8	27.6	24.3	24.6	16.8
	max.daily mean	22.4	18.4	26.8	29.7	31.0	35.1	34.3	34.1	32.2	29.8	30.0	21.1
	min.daily mean	16.7	13.4	20.5	31.5	23.4	26.7	26.2	25.8	24.9	21.3	21.4	14.2
Relative humidity (%)	monthly mean	83	83	84	78	80	76	82	84	85	83	84	77
	max.daily mean	93	92	91	90	90	85	91	92	94	91	92	90
	min.daily mean	69	69	70	60	64	59	67	65	68	59	61	59
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	0.0
Most frequent wind direction (bearings)		NE	N	NE	N	SE	ESE	SW	SE	NE	N	NE	-
Precipitation amount (mm/month)		43	109	92	50	225	230	219	365	494	201	4	24
Sunshine duration (hours/month)		75	19	60	150	130	115	192	182	154	184	178	96
Solar radiation (MJ/m^2/month)		--	--	--	--	--	--	--	--	--	--	--	--

* Location of the meteorological monitoring: (Latitude: 20°49'34"N Longitude: 105°20'19"E Altitude: 22 m)

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

2022

Items \ Month		Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec
Tempera-ture (ºC)	monthly mean	17.3	14.3	21.6	22.6	24.9	28.8	28.0	27.3	26.1	23.1	23.2	15.5
	max.daily mean	27.0	24.9	34.7	34.5	34.0	37.0	37.0	35.2	34.7	32.9	31.9	24.4
	min.daily mean	10.6	6.8	13.9	13.0	16.2	23.6	23.8	23.4	22.0	15.5	13.9	6.3
Relative humidity (%)	monthly mean	89	86	88	85	87	82	89	88	88	80	87	79
	max.daily mean	100	100	100	99	100	99	100	100	100	100	100	100
	min.daily mean	54	39	54	41	40	54	61	60	50	37	39	34
Mean wind speed (m/s)		0.7	1.0	0.5	0.9	0.7	0.8	0.6	0.7	0.7	0.9	0.6	1.1
Most frequent wind direction (bearings)		NE	NE	S	SE	NE	SW	SW	SW	NE	E	NW	NE
Precipitation amount (mm/month)		83	90	44	106	541	216	489	267	689	158	61	24
Sunshine duration (hours/month)		38	24	51	121	93	185	191	159	143	157	117	97
Solar radiation (MJ/m^2/month)		--	--	--	--	--	--	--	--	--	--	--	--

* Location of the meteorological monitoring: Tan Son Hoa
(Latitude: 10°47'47"N Longitude: 106°40'00"E Altitude: 2 m)

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

2022

Items	Month	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec
Tempera-ture (ºC)	monthly mean	23.2	22.5	25.6	25.7	27.9	30.2	29.6	28.8	28.2	26.3	26.3	22.1
	max.daily mean	24.6	26.0	28.6	28.5	30.2	32.6	32.3	30.3	30.2	28.0	27.8	27.7
	min.daily mean	19.9	19.3	23.0	20.6	23.6	28.6	26.6	25.8	25.8	23.2	23.4	20.0
Relative humidity (%)	monthly mean	85	80	82	82	79	72	76	79	82	81	82	84
	max.daily mean	94	89	91	96	92	82	90	94	92	94	90	95
	min.daily mean	79	68	71	75	72	63	61	67	73	62	63	71
Mean wind speed (m/s)		1.0	1.0	2.0	2.0	1.0	1.0	1.0	1.0	1.0	2.0	2.0	1.0
Most frequent wind direction (bearings)		ENE	NW	E	E	ESE	E	E	E	E	NNE	NNW	NW
Precipitation amount (mm/month)		60	5	411	100	61	14	44	187	470	1169	156	350
Sunshine duration (hours/month)		131	70	173	184	163	291	266	223	182	127	166	55
Solar radiation (MJ/m^2/month)		--	--	--	--	--	--	--	--	--	--	--	--

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

2022

Items	Month	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec
Tempera-ture (ºC)	monthly mean	26.2	27.1	27.7	28.0	27.8	28.2	27.2	27.1	27.2	27.1	27.3	27.8
	max.daily mean	32.1	32.5	35.0	34.7	34.7	35.2	34.3	33.7	34.0	33.2	33.8	33.2
	min.daily mean	21.5	23.0	22.2	22.8	22.3	24.0	22.5	22.2	23.6	22.8	23.8	23.2
Relative humidity (%)	monthly mean	76	75	78	81	84	82	88	86	87	85	84	81
	max.daily mean	82	83	84	82	81	82	82	86	83	89	84	83
	min.daily mean	52	50	49	50	57	47	54	57	54	53	55	51
Mean wind speed (m/s)		1.3	14.0	1.3	1.5	1.6	1.2	1.2	1.4	1.6	1.2	1.3	1.4
Most frequent wind direction (bearings)		NE	SE	SE	SE	SW	SW	SW	SW	SW	SE	SE	SE
Precipitation amount (mm/month)		--	--	158	287	214	427	212	239	487	91	196	-
Sunshine duration (hours/month)		183	226	223	218	163	231	158	169	152	126	149	143
Solar radiation (MJ/m^2/month)		--	--	--	--	--	--	--	--	--	--	--	--

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

2022

Items	Month	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec
Tempera-ture (ºC)	monthly mean	27.7	27.9	29.2	29.4	29.0	29.3	28.5	28.5	28.1	27.9	27.9	27.5
	max.daily mean	32.6	34.1	34.4	34.2	33.9	34.6	33.2	33.5	33.1	32.4	32.2	32.3
	min.daily mean	24.8	25.5	26.4	26.0	26.4	26.2	26.0	25.8	25.6	25.0	25.2	24.0
Relative humidity (%)	monthly mean	74	69	71	92	77	75	79	78	80	78	10	72
	max.daily mean	86	85	84	87	88	84	86	86	86	84	84	83
	min.daily mean	45	45	45	46	50	47	50	53	55	47	23	47
Mean wind speed (m/s)		1.4	1.4	1.3	1.3	1.5	1.3	1.3	1.5	1.2	1.3	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)		19	20	80	155	383	367	215	346	249	255	190	27
Sunshine duration (hours/month)		198	199	200	186	161	199	158	177	156	136	138	173
Solar radiation (MJ/m^2/month)		--	--	--	--	--	--	--	--	--	--	--	--

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

2022

Items	Month	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec
Tempera-ture (ºC)	monthly mean	17.7	15.0	21.6	23.7	25.5	29.3	29.7	28.8	27.5	24.7	24.3	16.1
	max.daily mean	20.2	17.4	24.4	27.9	29.1	34.0	34.2	33.4	32.5	30.0	29.1	19.9
	min.daily mean	16.0	13.3	19.7	20.9	22.3	26.0	27.4	25.8	24.5	21.6	21.5	13.8
Relative humidity (%)	monthly mean	91	87	91	87	87	84	83	86	86	83	86	85
	max.daily mean	97	94	97	95	95	93	91	96	95	89	92	94
	min.daily mean	80	76	79	69	73	69	68	71	69	61	66	66
Mean wind speed (m/s)		1.2	1.3	0.9	1.2	1.0	1.1	1.2	1.2	1.0	1.3	1.1	1.2
Most frequent wind direction (bearings)		NW	SE	SSE	SE	NNW	WNW	E	NE	W	NW	SE	NW
Precipitation amount (mm/month)		42	123	127	49	272	222	100	531	161	99	73	35
Sunshine duration (hours/month)		32	10	23	92	89	150	200	176	144	163	140	83
Solar radiation (MJ/m^2/month)		--	--	--	--	--	--	--	--	--	--	--	--

Appendix 3

Corrigenda of Data Report in 2021

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Appendix 3 Corrigenda of Data Report 2021

Anion analysis results with FP in 2021 at Ulaanbaatar and Terelj were provided after publication of Data Report 2021.
The pages and table numbers shown below correspond to those of Data Report 2021.
These updated results are disclosed on the EANET website.

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Table 4.3.2 SO_2 - Measured by FP (continued)

Unit : ppb

Country	Site		2021												Annual
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Mongolia	Ulaanbaatar	Mean	15.3	9.5	4.1	3.8	3.6	2.1	2.1	1.3	2.6	3.2	6.6	11.4	5.4
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	17.4	14.7	7.5	5.0	6.0	2.6	2.7	2.2	3.6	4.8	8.7	18.2	18.2
		Min-w	13.7	4.9	1.6	2.4	1.7	1.3	1.6	0.8	1.7	2.1	4.0	1.0	0.8
	Terelj	Mean	0.9	0.6	0.3	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	0.2	0.5	1.7	0.4
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-	1.2	0.6	0.3	0.2	0.1	<0.1	<0.1	0.1	<0.1	0.2	0.9	1.9	1.9
		Min-	0.5	0.5	0.2	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	0.3	1.4	<0.1

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Table 4.4.1 HNO_3 - Measured by FP (continued)

Unit : ppb

Country	Site		2021												Annual
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Mongolia	Ulaanbaatar	Mean	0.1	<0.1	<0.1	0.1	<0.1	<0.1	0.2	<0.1	<0.1	0.1	0.2	<0.1	<0.1
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.4	0.2	<0.1	0.3	0.1	0.1	0.4	0.2	<0.1	0.3	0.6	0.1	0.6
		Min-w	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Terelj	Mean	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.2
		Min-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1

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Table 4.5.1 HCl - Measured by FP (continued)

Unit : ppb

Country	Site		2021												Annual
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Mongolia	Ulaanbaatar	Mean	0.5	0.5	0.3	0.4	0.4	0.7	0.8	0.7	0.7	0.7	0.7	0.8	0.6
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.5	0.6	0.5	0.5	0.6	0.8	1.1	0.8	0.8	0.8	0.9	0.9	1.1
		Min-w	0.4	0.4	0.2	0.3	0.3	0.6	0.3	0.7	0.6	0.6	0.6	0.7	0.2
	Terelj	Mean	0.1	0.1	0.2	0.2	0.2	0.4	0.4	0.4	0.4	0.3	0.3	0.4	0.3
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-	0.2	0.2	0.2	0.2	0.2	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.4
		Min-	0.1	0.1	0.2	0.2	0.2	0.3	0.4	0.3	0.4	0.3	0.3	0.3	0.1

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

Unit : $\mu g/m^3$

Country	Site		2021												Annual
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Mongolia	Ulaanbaatar	Mean	2.91	1.99	0.55	0.66	0.42	0.37	0.88	0.17	0.56	0.77	2.64	3.30	1.27
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	6.13	3.32	1.03	1.57	0.74	0.89	1.58	0.36	1.93	1.83	5.15	8.50	8.50
		Min-w	0.79	0.09	0.04	0.18	0.14	0.14	0.31	0.08	0.04	0.15	0.30	0.25	0.04
	Terelj	Mean	0.49	0.71	0.40	0.15	0.17	0.08	0.25	0.15	0.17	0.13	0.29	0.23	0.27
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-	0.90	0.75	0.46	0.23	0.30	0.14	0.32	0.19	0.20	0.19	0.49	0.37	0.90
		Min-	0.07	0.67	0.34	0.08	0.09	0.02	0.19	0.11	0.13	0.08	0.12	0.10	0.02

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Table 4.14.1 Particulate matter component: NO_3^- - Measured by FP (continued)

Unit : $\mu g/m^3$

Country	Site		2021												Annual
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Mongolia	Ulaanbaatar	Mean	0.32	0.25	0.24	0.22	0.20	0.05	0.25	0.15	0.22	0.43	1.31	0.80	0.37
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.51	0.59	0.72	0.64	0.63	0.09	0.69	0.26	0.91	0.95	3.38	2.15	3.38
		Min-w	0.04	<0.01	0.03	<0.01	<0.01	<0.01	<0.01	0.05	<0.01	<0.01	0.04	<0.01	<0.01
	Terelj	Mean	<0.01	<0.01	0.02	<0.01	<0.01	0.02	<0.01	<0.01	<0.01	0.02	0.04	0.32	0.04
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-	<0.01	<0.01	0.05	<0.01	<0.01	0.04	<0.01	0.01	<0.01	0.05	0.06	0.35	0.35
		Min-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	0.29	<0.01

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

Unit : $\mu g/m^3$

Country	Site		2021												Annual
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Mongolia	Ulaanbaatar	Mean	0.06	0.39	0.13	0.13	0.06	0.04	0.08	0.04	0.09	0.11	0.27	0.69	0.18
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.11	0.72	0.24	0.40	0.10	0.08	0.15	0.08	0.25	0.23	0.55	1.70	1.70
		Min-w	0.02	0.04	<0.01	0.02	<0.01	0.02	0.02	<0.01	0.02	0.02	0.04	0.11	<0.01
	Terelj	Mean	<0.01	0.02	<0.01	<0.01	0.01	0.03	0.01	0.01	0.01	0.02	0.05	0.01	0.02
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-	<0.01	0.03	0.01	0.01	0.02	0.04	0.01	0.01	0.01	0.04	0.09	0.02	0.09
		Min-	<0.01	0.01	<0.01	<0.01	0.01	0.02	0.01	0.01	0.01	<0.01	0.02	0.01	<0.01