

The First Session
of the Scientific Advisory Committee
on the Acid Deposition Monitoring Network
in East Asia
19-20 November 2001, Chiang Mai, Thailand

Overview of the national monitoring plans of the participating countries (The summary table)

The Network Center of EANET

Country/items	Monitoring sites	Classification	Monitoring interval	Measurement Parameters	Remarks (start time)	Site information	Available Data(2000)	
<China> Wet deposition	Chongqing -Guanyinqiao -[Nanshan] → Jinyunshan Xi'an	Urban Rural	[Event]→ daily [weekly]→ daily	All required items (pH,EC,SO ₄ ²⁻ ,NO ₃ ⁻ , Cl ⁻ ,NH ₄ ⁺ ,Na ⁺ ,K ⁺ , Ca ²⁺ , and Mg ²⁺ ,F ⁻)	April '99 April '99	△	○	
	-Jiancezhan -Weishuiyuan -[Dabagou] → Jiwozi	Urban Rural Remote	[event]→ daily [event]→ daily [event]→ daily	// // //	April '99 April '99 April '99			
	Xiamen -Hongwen -Xiaoping	Urban Remote	daily daily	// //	April '99 April '99			
	Zhuhai -Jiancezhan -Zhuxian Cavern	Urban Urban	daily daily	// //	May '99 December '99			
	Dry deposition	Chongqing -Guanyinqiao -[Nanshan]→[]	Urban Rural	AT -	SO ₂ , NO ₂ , O ₃ None			○
		Xi'an -[Jiancezhan] →[]	Urban Rural Remote	- - Bubbl. → daily	None None SO ₂ , NO ₂ None			
		-Weishuiyuan -Dabagou→[]	Urban Remote	AT(1hr) -	SO ₂ ,NO ₂ ,O ₃ ,NH ₃ , HCl None			
		Xiamen -Hongwen -Xiaoping→[]	Urban Remote	AT(1hr) -	SO ₂ ,NO ₂ None			
		Zhuhai -Jiancezhan -Zhuxian Cavern→[]	Urban Urban	AT(1hr) -	SO ₂ ,NO ₂ None			

Country/items	Monitoring sites	Classification	Monitoring interval	Measurement Parameters	Remarks (start time)	Site information	Available Data(2000)
<China> soil and vegetation inland aquatic environment	Chongqing -[Nanshan] Jiayunshan Xi'an	Rural	Once/yr. (soil;once/2years) Once/yr.	Decline, K etc. in leaves & ions soil			
	-[Dabagou] Jiwozi Xiamen	Remote	Once/yr.	Decline, K etc. in leaves & ions in soil			
	-Xiaoping Zhuhai	Remote	Once/yr.	Decline, K etc. in leaves & ions in soil			
	-Zhuxian Cavern Chongqing	Urban	Once/yr.	Decline, K etc. in leaves & ions in soil			
	-[Nanshan] Jiayunshan Xi'an	Rural	4times/yr.	Water quality of Jiayunshan			×
	-[Dabagou] Jiwozi	Remote	4times/yr.	Water quality of Jiwozi (Stream)			
	Xiamen	Remote	4times/yr.	Water quality of Xiaoping			
	-Xiaoping Zhuhai	Remote	4times/yr.	Water quality of Zhuxian Cavern			
	-Zhuxian Cavern Chongqing	Urban	4times/yr.	Water quality of Chongqing			
	<Indonesia> Wet deposition Dry deposition soil and vegetation Inland aquatic environment	Jakarta(BMG) Serpong(EMC) Kototabang(BMG) Bandung(LAPAN) Jakarta(BMG) → [] Serpong(EMC) Kototabang(BMG) → [] Bandung(LAPAN) Serpong(EMC) Bogor(Pusitanak) Lake Patenggang	Urban Rural Remote Urban Urban Rural Remote Urban Rural Rural Rural	weekly* event weekly* event* AT(1hr) → [] AT(1hr) AT(1hr) → [] AT(1hr) AT(1hr) Once/yr Once/yr 4times/yr.	All required items // // // O ₃ → [] SO ₂ , NO _x , O ₃ O ₃ → [] SO ₂ , NO _x , O ₃ Decline, K etc. in leaves & ions in soil Water quality of Patenggang	April '98 April '98 April '98 January '99	×

Country/items	Monitoring sites	Classification	Monitoring interval	Measurement Parameters	Remarks (start time)	Site information	Available Data(2000)		
<Japan> Wet deposition	10 Sites Rishiri Tappi Ogasawara Sado/(Sado-seki) Happo Oki Ashizuri [Yusuhara] Kunigami [Hedo] (8 Remote sites) Ijira Banryu	Remote Remote Remote Remote Remote Remote Remote Remote Rural Urban	daily daily daily daily daily daily daily daily weekly daily and weekly composite sample	All required items (pH,EC,SO ₄ ²⁻ ,NO ₃ ⁻ , Cl ⁻ ,NH ₄ ⁺ ,Na ⁺ ,K ⁺ , Ca ²⁺ ,and Mg ²⁺)	Start from April '98 (Some sites started from(April' 99) (Revise until Mar.2002)	○	○		
	Dry deposition	Rishiri Tappi Ogasawara Sado/(Sado-seki) Happo Oki Ashizuri [Yusuhara] Kunigami [Hedo]	Remote Remote Remote Remote Remote Remote Remote Remote Rural Urban	AT(1hr) AT(1hr) AT(1hr) AT(1hr) AT(1hr) AT(1hr) AT(1hr) AT(1hr) AT(1hr) AT(1hr)	SO ₂ ,NO,NO _x ,O ₃ , PM			○	
		soil and vegetation	Lake Ijira Lake Banryu	Rural/Ecolog. Urban/Ecolog.	Once in 3-5 years Once in 3-5 years	All required items All required items			○
			inland aquatic environment	Lake Ijira Lake Banryu	Rural/Ecolog. Urban/Ecolog.	4times/yr. 4times/yr.	Water quality of Lake Ijira Water quality of Lake Banryu		○

Country/items	Monitoring sites	Classification	Monitoring interval	Measurement Parameters	Remarks (start time)	Site information	Available Data(2000)
<Malaysia> Wet deposition	Petaling Jaya Tanah Rata Lembah Danum	Urban Remote Remote	weekly* weekly* weekly*	All required items	April '98 January '99 From 2002	○	○
Dry deposition	Petaling Jaya	Urban	LV,(PS)(7day)	PM ₁₀ (SO ₂ ,NO ₂ ,HNO ₃) SO ₂ ,NO ₂ ,HNO ₃ O ₃ (PM ₁₀)	From 2002		○
soil and vegetation	Pasoh Forest Reserve	Remote	-	TSP,(SO ₂ ,NO ₂ ,HNO ₃ ,NH3)	From 2001		△
<Mongolia> Wet deposition	Ulaanbaatar Terej	Urban Remote	daily daily	All required items	August '98 September '98	×	○
Dry deposition	Ulaanbaatar Terej	Urban Remote	Weekly Weekly	SO ₂ ,HNO ₃ ,HCl, NH ₃ ,PM	From 2002		○
soil and vegetation	Bogd mountain khan (Ulaanbaatar)	Urban/ Ecolog.	Every 3-5 years	SO ₂ ,HNO ₃ ,HCl, NH ₃ ,PM PH(H ₂ O),pH(Kcl),Exchangeable acidity	From 2002		
inland aquatic environment	Terej river- Terej	Remote/ Ecolog.	4 times/yr.	Water quality of Terej river	From 2002		
<Philippines> Wet deposition	Metro Manila Los Banos	Urban Rural	weekly weekly	All required items	April '99 April '99	×	○
Dry deposition	Metro Manila Los Banos	Urban Rural	FP(weekly) FP(weekly)	SO ₂ ,HNO ₃ ,HCl, NH ₃ ,PM	From 2001		○
soil and vegetation	Makiling Forest Reserve University of PQL	Rural	Once in 3 years	SO ₂ ,HNO ₃ ,HCl, NH ₃ ,PM (Tree decline, description tree & ions in soil etc.)	From 2001		○
inland aquatic environment	Los Banos	Rural	Once in 3 years	Water quality of Los Banos	From 2002		○
		Rural	4 times a year				○

Country/items	Monitoring sites	Classification	Monitoring interval	Measurement Parameters	Remarks (start time)	Site information	Available Data(2000)	
<Republic of Korea> Wet deposition Dry deposition soil and vegetation	Kanghwa Cheju(Kosan) Imsil	Rural Remote Rural	weekly→daily weekly→daily weekly	All required items	March '99 April '99 From 2001	○	○	
	Kanghwa	Rural	Twice a week	PM _{2.5} ions in PM _{2.5}	From 2001			
	Cheju(Kosan)	Remote	Twice a week	PM _{2.5} ions in PM _{2.5}	From 2001			
	Imsil	Rural	Twice a week	HNO ₃ ,NH ₃ ,HCL, PM _{2.5} ions in PM _{2.5}	From 2001			
	Mt.Naejang	Rural	Every 3 years	(Tree decline, description tree & ions in soil)	From 2001			
	<Russia> Wet deposition Dry deposition soil and vegetation inland aquatic environment	<Russia> Mondy Listvyanka Irkutsk	Remote Rural Urban	daily daily event	All required items	May '99 From 2001 From 2002	○	○
		Mondy Listvyanka Primorskaya	Remote Rural Rural	FP(weekly) FP(weekly) FP(daily)	SO ₂ ,HNO ₃ ,HCl,N H ₃ ,PM	From 2001 From 2001 From 2002		○
Mondy Bolshiekti Irkutsk		Remote Rural Urban	Once/3-5 years Once/3-5 years Once/3-5 years	Tree decline, description tree & ions in soil	From 2001 From 2001 From 2002		○	
[Lake Ilchir] Stream Krestovka		Remote Rural	12times/yr. 4times/yr	Water quality of Krestovka	From 2001 (Sites will increase 2 to 4 in 2002)		○	

Country/items	Monitoring sites	Classification	Monitoring interval	Measurement Parameters	Remarks (start time)	Site information	Available Data(2000)	
<Thailand> Wet deposition	Bangkok(OEPP)	Urban	daily	All required items	April '99	○	○	
	Samutprakarn(TMD)	Urban	daily		April '99			
	Patumthani(ERTC)	Rural	daily		March '99			
	Khao Laem	Remote	daily		April '99			
	Chiang Mai University	Rural	daily		From 2001			
	Bangkok(OEPP)	Urban	AT(1hr)	SO ₂ ,NO _x , TSP, PM ₁₀			○	
	Samutprakarn(TMD)	Urban	HV(daily)	SO ₂ ,NO _x , TSP, PM ₁₀				
	Khao Laem Dam	Remote	AT(1hr)	SO ₂ ,NO _x , O ₃ , PM ₁₀				
	Chiang Mai University	Remote	HV(daily)	SO ₄ ²⁻ ,NO ₃ ⁻ ,Cl ⁻ ,NH ₄ ⁺ ,Na ⁺ ,K ⁺ ,Ca ²⁺ , and Mg ²⁺				
	Khao Laem Dam	Rural	AT(1hr;two week/3times/year)	Tree Decline, ions in soil				
soil and vegetation		Remote	2 times/year	Water quality of Khao Laem Dam			○	
		Remote	4 times/year					
<Viet nam> Wet deposition	Hanoi Hoa Binh	urban rural	daily** daily**	All required items	August '99 August '99	×	○	
	Hanoi	urban	FP(Every week)	Gas;SO ₂ ,HNO ₃ ,HCl,NH ₃ ,PM (+Aerosol)			○	
	Hoa Binh	rural	FP(Every week)	SO ₂ ,HNO ₃ ,HCl,NH ₃ ,PM(+Aerosol)				
	Hoa Binh	rural	Once a year	Decline, & ions in soil			×	
	Hoa Binh	rural	Four times per year	Water quality of Hoa Bin Reservoir			○	
	soil and vegetation		rural					
			rural					
	Inland Aquatic environment							

Note)*: Biocides are added to precipitation samples, **Chemical analysis is carried out for weekly composite samples.