

The Second Senior Technical Manager's Meeting
of the Acid Deposition Monitoring Network
In East Asia
19-21 September 2001, Niigata, Japan

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

- OVERVIEW -
EANET/STM 2/5

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 Zhuhai	Urban Remote	daily daily	// //	April '99 April '99			
	-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	-	None			
		-Weishuiyuan -Dabagou→[]	Rural Remote	Bubbl. [daily]	SO ₂ , NO ₂ None			
		Xiamen -Hongwen -Xiaoping→[]	Urban Remote	AT(1hr)	SO ₂ ,NO ₂ ,O ₃ ,NH ₃ , HCl 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	Chongqing -[Nanshan] Jinyunshau Xi'an	Rural	Once/yr.	Decline, K etc. in leaves & ions soil			×
	↑ -[Dabagou] Jiwozi Xiamen -Xiaoping Zhuhai -Zhuxian Cavern Chongqing -[Nanshan] Jinyunsh Xi'an	Remote Remote Urban	Once/yr. Once/yr. Once/yr. Once/yr.	Decline, K etc. in leaves & ions in soil Decline, K etc. in leaves & ions in soil Decline, K etc. in leaves & ions in soil Decline, K etc. in leaves & ions in soil			
inland aquatic environment	↑ Chongqing -[Nanshan] Jinyunsh Xi'an	Rural	4times/yr.	Water quality of Jinyunsh			×
	↑ -[Dabagou] Jiwozi Xiamen -Xiaoping Zhuhai -Zhuxian Cavern Chongqing	Remote Remote Urban	4times/yr. 4times/yr. 4times/yr. 4times/yr.	Water quality of Jiwozi (Stream) Water quality of Xiaoping Water quality of Zhuxian Cavern Chongqing			
	Jakarta(BMG) Serpong(EMC) Kototabang(BMG) Bandung(LAPAN)	Urban Rural Remote Urban	weekly* event weekly* event*	All required items // // //	April '98 April '98 April '98 January '99	×	○
		Jakarta(BMG) Serpong(EMC) Kototabang(BMG) Bandung(LAPAN) Serpong(EMC) Puslitanak	Urban Rural Remote Urban Rural Rural	AT(1hr) AT(1hr) AT(1hr) AT(1hr) Once Once	O ₃ SO ₂ ,NO _x ,O ₃ O ₃ SO ₂ ,NO _x ,O ₃ Decline, K etc. in leaves & ions in soil		
<Indonesia> Wet deposition	Lake Patenggang	Rural	4times/yr.	Water quality of Patenggang			○

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 [Usubara] Kunigami [Hedo] (8 Remote sites) Ijira Banryu	Remote Remote Remote Remote Remote Remote Remote Remote Remote Rural Urban	daily daily daily daily daily daily daily daily daily weekly daily and weekly composite sample Every one hour	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 Dec.2001)	○	○		
	Dry deposition	Rishiri Tappi Ogasawara Sado/(Sado-seki) Happo Oki Ashizuri [Usubara] Kunigami [Hedo] Ijira Banryu	Remote Remote Remote Remote Remote Remote Remote Remote Remote Rural Urban	AT AT AT AT AT AT AT AT AT AT AT AT	SO ₂ , NO, NO _x , O ₃ , PM			○	
		soil and vegetation	Lake Ijira Lake Banryu	Rural/Ecolog. Urban/Ecolog.	(Once) Once	All required items All required items			○
			inland aquatic environment	Lake Ijira Lake Banryu	Rural/Ecolog. Urban/Ecolog.	4times/yr. 4times/yr.	Water quality of Ijira Water quality of 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	Urban	weekly*	All items	April '98	○	○
	Lembah Danum	Remote	weekly*		January '99		
	Petaling Jaya	Urban	weekly*		From 2002		
Dry deposition	Petaling Jaya	Urban	LV ₁ (PS)(7day)	PM ₁₀ (SO ₂ ,NO ₂ ,HNO ₃)			○
	Tanah Rata	Remote	FP(PS)(7day) AT,(LV)(1hr/7day)	SO ₂ ,NO ₂ ,HNO ₃ O ₃ (PM ₁₀)			
	Lembah Danum	Remote	LV ₁ (PS)	SO ₂ ,NO ₂ ,HNO ₃ , NH ₃)	From 2002		
soil and vegetation	Pasoh Forest Reserve	Remote	-	-	From 2001		△
<Mongolia> Wet deposition	Ulaanbaatar Tereij	Urban	daily		August '98		○
	Ulaanbaatar Tereij	Remote	daily		September '98		○
Dry deposition		Urban	FP(7day)	SO ₂ ,HNO ₃ ,HCl, NH ₃ ,PM			
		Urban	FP(14day)	SO ₂ ,HNO ₃ ,HCl, NH ₃ ,PM			
		Remote					
<Philippines> Wet deposition	Metro Manila Los Banos	Urban	weekly	All items	April '99	X	○
	Metro Manila Los Banos	Rural	weekly	SO ₂ ,HNO ₃ ,HCl, NH ₃ ,PM	April '99		○
	Metro Manila Los Banos	Urban	FP(weekly) FP(weekly)	SO ₂ ,HNO ₃ ,HCl, NH ₃ ,PM			○
soil and vegetation	Makiling Reserve	Rural	Once in 3 years	(Tree decline, description tree & ions in soil etc.)	From 2001		○
	Forest Reserve University of PQL	Rural	Once in 3 years				
	Los Banos	Rural	4 times a year	Water quality	From 2002		○

Country/items	Monitoring sites	Classification	Monitoring interval	Measurement Parameters	Remarks (start time)	Site information	Available Data(2000)
<Republic of Korea> Wet deposition	Kanghwa Cheju(Kosan) Imsil	Rural Remote Rural	weekly→daily weekly→daily weekly	All required items	March '99 April '99 From 2001	○	○
	Kanghwa Cheju(Kosan) Imsil	Rural Remote Rural	Twice a week Twice a week Twice a week	SO ₂ ,NO _x ,O ₃ ,(HN O ₃ ,NH ₃ ,HCL,PM 2.5) (Tree decline, description tree & ions in soil)	From 2001 From 2001 From 2001		×
	Mt.Naejang	Rural	Every 3 years		From 2001		×
<Russia> Wet deposition	<Russia> Mondy	Remote		All required items	May '99		○
	Mondy	Remote	FP(14 days)	SO ₂ ,HNO ₃ ,HCl,N H ₃ ,PM			○
	Mondy	Remote	Once	Decline, & ions in soil			○
	Lake Ilchir	Remote	12times/yr.	Water quality of Ilchir			○
<Thailand> Wet deposition	Bangkok(OEPP) Samutprakarn(TMD)	Urban	daily	All required items	April '99	×	○
	Patumthani(ERTC)	Urban	daily		April '99		
	Khao Laem Chiang University	Rural Remote Rural	daily daily daily		March '99 April '99		
	Bangkok(OEPP) Samutprakarn(TMD)	Urban Urban Rural	AT(1hr) AT(1hr) FP	SO ₂ ,NO _x , SO ₂ ,NO _x , SO ₄ ,NO ₃ ,Cl ₂ ,N H ⁴⁺ ,Na ⁺ ,K ⁺ ,Ca ²⁺ , and Mg ²⁺			○
	Chiang University	Remote	AT(1hr)	SO ₂ ,NO _x , O ₃			
	Khao Laem	Remote	2 times/year	Decline, K etc. in leaves & ions in soil			×
	Khao Laem	Remote	[4 times/year]→ 2 times/year	Water quality of Khao Laem Dam			○
Dry deposition	Bangkok(OEPP) Samutprakarn(TMD)	Urban Urban Rural	AT(1hr) AT(1hr) FP				
	Chiang University	Remote	AT(1hr)				
soil and vegetation	Khao Laem	Remote	2 times/year				
	Khao Laem	Remote	[4 times/year]→ 2 times/year				
Inland Aquatic environment	Khao Laem Dam	Remote					
	Khao Laem Dam	Remote					

Country/items	Monitoring sites	Classification	Monitoring interval	Measurement Parameters	Remarks (start time)	Site information	Available Data(2000)
<Viet nam> Wet deposition	Hanoi Hoa Binh	urban rural	daily** daily**	All required items	August '99 August '99	X	○
Dry deposition	Hanoi	urban	FP(Every week)	Gas;SO ₂ ,HNO ₃ ,H Cl,NH ₃ ,PM (+Aerosol)			○
soil and vegetation	Hoa Binh	rural	FP(Every week)	SO ₂ ,HNO ₃ ,HCl,N H ₃ ,PM			X
Inland Aquatic environment	Hoa Binh	rural	Once a year	Decline, & ions in soil			○
	Hoa Binh	rural	Four times per year	Water quality of Hoa Binh Reservoir			○

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

