Allegato III (Articolo 3)

Formato per la trasmissione dei dati sul monitoraggio degli impatti dell'inquinamento atmosferico sugli ecosistemi

Modulo 1 - Contact

г		1
Country:		(as ISO-2 code)
DATE:		(as DD.MM.YYYY)
YEAR:		(as YYYY, year of emissions data)
Version:		(as v1.0 for the initial submission)
		_
National contact point respor	nsible for template	
Email		
Address		
Addiess		
Telephone		
Skype		
		-
only if person responsible for	r template doesn't have access to	
Reportnet		
National contact point with a	ccess to Reportnet	
F!1		
Email		
Address		
Telephone		
Skype		

Modulo 2 – Reporting on sites (Tutte le informazioni sono richieste per ciascun sito)

Reportin	ng on sites												
Site iden	tification				Site location	on	Site description	on (represe	ntativeness)			
Country Code	Site code national	Site name	European code	Monitoring Network Name	Longitude	Latitude	Ecosystem type (MAES classification)	Eunis class (optional)	Site Status (protected non- protected, unknown)	Biogeographic region	Pollution class Acidification (optional)	Pollution class Eutrophication (optional)	Pollution class Ozone (optional)
ISO-2 code	Numerical (national)	Text	Numerical (Reportnet)	Text	decimal	decimal	MAES code	EUNIS code	Text	Name	Critical level exceedance or number	Critical level exceedance or number	Critical level exceedance or number

Reporting on parameters
Reference protocols
Is monitoring done in accordance with existing monitoring manuals, and if so which protocol is used? Are additional parameters available, which are not mentioned in template (e.g. Satellite data)?
Text

<u>Modulo 3 – Vegetation and soils</u> (Tutte le informazioni sono richieste per ciascun sito)

Reporting on	sites				Reporting on	parameters for terr	estrial vegetatio	on and soil characteristics
Site identifica	tion	Site parameter	s		Vegetation (al	ll ecosystem types)		
Country code	Site code national	Elevation	Slope	Orientation/exposition	Plot/sample size	Date of sampling	Impact indicators for vegetation	Management (current and change since last report)
ISO-2 code	ISO-2 code numerical meter (NN) degree class or degr				m ²	DD.MM.YYYY	text	text

Reporting on parameters for	Reporting on parameters for terrestrial vegetation and soil characteristics												
Vegetation structure (forests and other woodland)													
Type of tree species mixture	Species number	Top height	Forest type	Age class	Number of tree layers	Coverage of tree layers	Canopy closure	Biomass increase					
code	code	meter	code	code	code	5% steps	5% steps	m ³ /yr					

Reporting on pa	rameter	s for terrest	trial veg	etation a	nd soil cha	racteristi	cs					
Soil profile desci	ription									Soil samp	ling	
Date of profile description	Soil type / soil group (WRB)	Soil qualifieres and specifiers (WRB)	Soil profile	Soil horizon depths	WRB reference	Parent material	Humus type / Peat type	Groundwater table	Effective soil depth	Number of sampling layers		Horizon characterisation deviations from reference table 4 https://www.icp- forests.org/pdf/manual/2016/Manual_2016_Part_X.pdf
DD.MM.YYYY	code	code	code	cm	code	code	code	code	cm from mineral soil surface	number	cm	text

<u>Modulo 4 – Terrestrial ecosystems solid</u> (Tutte le informazioni sono richieste per ciascun sito)

Reportin	g on sites	Reporting	on paramete	rs for acid	ification	and eut	trophic	cation - v	egetatio	n							
Site iden	tification	Vegetation	n biomass / ne	edles, leav	es all ve	getation	types					Forest and other woodlands only					
Country code	Site code national	Sampling date	dry mass/ 100 leaves/ 1000 needles	C_{tot}	N _{tot}	S	Р	Ca	Mg	K	Other elements	Tree ID	Tree species	Leaves_type: current (C), C+1, >C+1	Foliage age_classes	Litter fall	Deviation in chemical analysis of litterfall compared to needle/leaves
ISO-2 code	numerical	DD.MM. YYYY	g	g/100g	mg/g	mg/g	mg/g	mg/g	mg/g	mg/g		code	code	code	code	kg/m ²	text

Reporting on par	ameters for acid	dification and eut	rophic	cation - soil - solid	phase	;								
Pedological Char	Pedological Characterisation Soil acidity and eutrophication													
Horizont Number	Horizont name	Sampling Date	C _{tot}	C _{min} (carbonates)	C_{org}	N _{tot}	C/N	pH (H ₂ 0)	pH (CaCl ₂)	CEC	Base Saturation	Cations _{ex}		
		DD.MM.YYYY	g/kg	g/kg	g/kg	g/kg				cmol(+)/kg	%	%		

Reporting on p	oarameters i	for acidifica	ition and eu	ıtrophicatio	on - soil - so	lid phase									
Soil acidity and	Soil acidity and eutrophication														
Ca	Ca Mg K Na Mn P Acidity _{ex} Fe _{ox} Al _{ox} Deviations from reference manual table 4 https://www.icp-forests.org/pdf/manual/2016/Manual_2016_Part_X.pdf														
mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	cmol(+)/kg	mg/kg	mg/kg							

<u>Modulo 5 – Terrestrial ecosystems liquid</u> (Tutte le informazioni sono richieste per ciascun sito)

Reportin	ng on sites	Reporting or	n parameters fo	or acidif	fication and eu	ıtrophi	cation	- deposi	ition an	d soil liqu	uid phas	e						
Site iden	tification	Atmospheric	deposition															
Country	Site code national	precipitation	bulk precipitation (forests and other woodlands)	рН	conductivity	Ca	Mg	Na	K	NH ₄ -N	NO ₃ -N	SO ₄ -S	CL	Р	Alkalinity	N _{tot}	DOC	Deviations from ICP forest manual
ISO-2 code	numerical	mm	mm		μS/cm	mg/l	mg/l	mg/l	mg/l	mg N/l	mg N/l	mg S/l	mg/l	mg/l	μeq/l	mg/l	mg/l	text

Reporting on p	parameters for	acidif	ication and eu	troph	icatio	n - dep	ositio	n and s	oil liq	uid ph	ase								
Soil acidity and	l eutrophication	n																nitrate leaching	
Mesasurement type	DH conductivity Ca Mg Na K 37 37 CL Alkalinity Ntot DOC Al _{tot} Al _{lobile} Fe Mn P													P _{tot}	NO ₃ deepest soil layer	Deviations from ICP forest manual			
	$\mu S/cm \qquad mg/l mg/l mg/l mg/l mg mg mg mg mg/l mg/l $													mg/l	mg/l*yr	text			

Modulo 6 – Ozone air quality carbon flux (Tutte le informazioni sono richieste per ciascun sito)

Reporting or	sites	Reporting on parameters for ozone, atmospheric pollutants and carbon net flux											
Site identific	ation	Atmospheric con	centrations	Ozone foliar d	lamage forest a	nd other woodlan	ds						
Country code	Site code national	Atmospheric O ₃ concentration	POD	Trees & shrubs	Trees & shrubs	Date	Absent or present	% of leaves injured or % injury for a specific leaf					
ISO-2 code numerical		μg/m³	mmol/m²*a	Eunis class	species (Latin name)	DD.MM.YYYY		%					

Reporting on parameters for ozone, atmospheric pollutants and carbon net flux													
Ozone foliar dam	age non-woody sp	ecies			Exceedance flux-based critical level								
crops and other non-woody species crops and other non-woody species species		Date	Absent or present	% of leaves with ozone injury symptoms	Vegetation type	Species	Exceedance of flux- based critical level of ozone	Site-specific calculations or derived from modelled gridded data					
Eunis class	species (Latin name)	DD.MM.YYYY		%	Eunis class	species (Latin name)	mmol/m² projected leaf area						

Reporting on parameters for ozone, atmospheric pollutants and carbon net flux												
Atmospheric con	Atmospheric concentration of pollutants (eutrophication, acidification) Carbon flux											
Vegetation type	Sampling type	NH ₃ concentration	NO ₂ concentration	SO ₂ concentration	Comments	Vegetation type	Net carbon uptake	Additional data				
Eunis class	s class text μg/m³		$\mu g/m^3$	$\mu g/m^3$	text	Eunis class	g C/m²*yr	text				

Modulo 7 – Freshwater ecosystems (Tutte le informazioni sono richieste per ciascun sito)

Reporting on sites and site parameters											
Site identificati	on	Site paramet	Site parameters								
Country code Site code national		Area of water body	Water body type / Hydrological type	Elevation	Average depth	Catchment area upstream from site					
ISO-2 code	numerical	km ²	code	m (NN)	m	km ²					

Reporting on	Reporting on parameters for freshwater chemistry													
Physical parameters			Chemical paran	Chemical parameters										
Average temperature Average precipitation Average catchment runoff		Sampling date	Air temperature at sampling time	Water temperature at sampling time	Alkalinity	N _{tot} / P _{tot}	S (sulphates)	NO ₃ -N	Cl	DOC / TOC or PERM	рН			
°C	mm/yr	mm/yr	DD.MM.YYYY	°C	°C	μeq/l		mg SO4/l	μg N/l	mg/l	mg C/l or mg O/l			

Reporting on parameters for freshwater chemistry						Reporting on parameters for freshwater biodiversity										
Chemical parameters					Acidification	Acidification species and indicators										
Ca	Mg	Na	K	NH ₄ -	Al _{inorg} (labile)	Specfic conductivity (25°C)	P _{tot}	Deviation from ICP water or WFD		Eutrophication index	Species diversity	Species abundance	Acidification invertebrates	Acidificaction diatoms	Acidification fish	Deviations from WFD or ICP water manual
mg/l	mg/l	mg/l	mg/l	μg N/l	μg/l	mS/m	μg/l	text	text	text	text	text	text	text	text	text