STOCKHOLM CONVENTION
ON PERSISTENT ORGANIC POLLUTANTS
(POPs)

Effectiveness Evaluation
Provisional Ad Hoc Technical Working Group (TWG)
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Document UNEP/POPS/GMP/TWG-2/6

Compilation of existing national monitoring programmes, activities and datasets

(updated, January 2007)

Secretariat Note

The Conference of Parties, in its decision SC-2/13, requested the Secretariat to identify monitoring programmes that may update the information presented in document UNEP/POPS/COP.2/INF/10 on existing human health and environment monitoring programmes, including other programmes that can contribute to the Global Monitoring Plan.

With this request, the Secretariat has distributed questionnaires (Questionnaire I) to countries and international organizations for information collection to identify existing monitoring programmes, including other programmes that can contribute to a global monitoring plan on POPs for effectiveness evaluation of Stockholm Convention.

As of 29 January 2007, the Secretariat has received responses from one international organization -AMAP and 36 countries which are: Austria, Australia, Azerbaijan, Bulgaria, Cameroon, Canada, Chile, Congo (RDC), Cyprus, Czech Republic, Dominica, Ecuador, Ethiopia, France, Germany, Greece, Guatemala, Iran, Japan, Madagascar, Mali, Mexico, Moldova, Mongolia, Norway, Portugal, Romania, Singapore, Slovakia, Slovenia, South Africa, Sweden, Switzerland Tajikistan, Tanzania and UK. The information from these responses is presented in the annex to this note. It contains also complete information from the UNEP/POPS/COP.2/INF/10 document. To differentiate the information sources, new information based on the questionnaire survey is presented in regular font, and the information coming from other sources, as indicated in para 2 of the document UNEP/POPS/COP.2/INF/10, is presented in italic font.

Glossary of terms

Activity	Any programme or other activity or project that generates data or information on the levels of POPs in the environment or in humans that can contribute to the effectiveness evaluation under Article 16 of the Stockholm Convention
I L-1	Instrumentation level[1] capable to analyze PCDD/PCDF and dioxin-like PCB: must be a high-resolution mass spectrometer in combination with a capillary column
I L-2	Instrumentation level capable to analyze all POPs: (capillary column and a mass-selective detector)
I L-3	Instrumentation level capable to analyze all POPs without PCDD/PCDF and dioxin like PCB (capillary column and an electron capture detector)
I L-4	Instrumentation level not capable to do congener specific PCBs analysis (no capillary column, no electron capture detector)
Selected Matrices	B = Human blood; A = ambient air; BV = bivalves; BE = Birds eggs; P 0..= Fish; MM = Marine mammals; W = water, S = soil; SD = sediments; F = food; and V = vegetation
Core matrices	These are the matrices identified by the Conference of the Parties at its second meeting as core for the first evaluation: **A** = ambient air; **M** = (Human) mother's milk; **B** = Human blood
QA/QC	Quality assurance and quality control regimes
Intercalibration	Participation in national and international intercalibration activities
Phase I	Activities to support the Article 16 effectiveness evaluation that will be conducted by the Conference of the Parties at its fourth meeting, information collected between 2000 and 2007 (also termed as **first evaluation**)
Phase II	Activities to support the Article 16 effectiveness evaluation after 2009 (also termed as **subsequent evaluations**)

[1] In this document, the term **Instrumentation level** is replacing the term **Tiers,** used in UNEP/POPS/COP.2/INF/10 and GMP/TWG-1/3.

List of abbreviations

AMAP	Arctic Monitoring and Assessment Programme
CEP	Caspian Environment Programme
EMEP	
GAPS	Global Atmospheric Passive Sampling survey
IADN	Integrated Atmospheric Deposition Network
I L-	Instrumentation level
IP/RP	International/regional programmes
MONARPOP	Monitoring Network in the Alpine Region for Persistent Organic pollutants
PRTRs	pollutant release and transfer registers
SMOC	The Sound Management of Chemicals (SMOC) initiative under the North American Agreement on Environmental Cooperation (NAAEC)

Legend

Italic font	Information from other sources than the Questionnaires

Existing national monitoring programmes, activities and datasets (updated, January 2007)

I. AFRICAN STATES

A. NORTHERN AFRICA

Country	National monitoring activities/ Involvement in international activities	Laboratories and institutions involved	Data archives and accessibility for international reporting /assessment	Time Frame and purpose	Geographical coverage	Note
Algeria	**IP/RP**: *MEDPOL*					*Analysis of pesticides, PAHs, PCBs, dioxins and furans in water air, soil and coastal sediment samples have been implemented at research level. However, PTSs are not routinely monitored in the country.*
Egypt	*An environmental Information Monitoring Program is implemented by the Egyptian Environment Agency (EEAA) with support from the Danish international development assistance. Its aims are to establish programs to monitor ambient air and coastal waters but no data has been shown yet.*	• *Cairo Central Centre* *Egyptian Environmental Affairs Agency* ***Laboratory without POPs analysis*** • *Central Laboratory of Residue Analysis of Pesticides and Heavy Metals in Food* ***I L- 1*** ***QA/QC:*** *yes* ***Intercalibration:*** *yes*				
	IP/RP: *MEDPOL*					
Libyan Arab Jamahiriya	**IP/RP**: *MEDPOL*					
Morocco	**IP/RP**: *MEDPOL*	*Department Toxicology* *National Institute of Hygien INH* ***I L- 4***				

Country	National monitoring activities/ Involvement in international activities	Laboratories and institutions involved	Data archives and accessibility for international reporting /assessment	Time Frame and purpose	Geographical coverage	Note
Tunisia	**IP/RP**: *MEDPOL*	*Marine Environment Laboratory/Organic Unit Centre INSTM – Port de Pecche* ***I L- 4***				*The ministry of environment implemented a monitoring program in 1999 to survey the quality of the Medjerda Oued and the lagoon of Korba.* *The International Centre of Environmental Technologies of Tunis (CITET) under the ministry of the environment and the co-operation of the IAEA and the MEDPOL programme is monitoring the coastal marine environment.*

B. SUB-SAHARAN

Country	National monitoring activities/ Involvement in international activities	Laboratories and institutions involved	Data archives and accessibility for international reporting /assessment	Time frame and purpose	Geographical coverage	Note
Angola	*No data*					
Benin	*Inventaire des dioxins et furannes*					*Une insuffisance de personnel*

Country	National monitoring activities/ Involvement in international activities	Laboratories and institutions involved	Data archives and accessibility for international reporting /assessment	Time frame and purpose	Geographical coverage	Note
						qualifié, une absence de laboratoires spécialisés
Botswana	*No data*					
Burkina Faso	*No data*	*Waste Water Analysis Laboratory* ***Laboratory without POPs analysis***				
Burundi	*No data*					
Cameroon	POPs inventories	Ministry of Environment and Nature Protection AES SONEL (National electricity company) Ministries in charge of transport, agriculture, mine **POPs analyzed:** aldrin, chlordane, dieldrin, endrin, DDT, heptachlor, mirex, toxaphene, HCB **Matrix:** S, F, V **POPs analyzed:** PCB **Matrix:** S, V **POPs analyzed:** PCDD/PCDF **Matrix: A,** S, W, V **QA/QC:** **Intercalibration:** **Standards:** PCB sample collection as prescribed by BASEL Convention; PCDD/PCDF sampled according to EN 1949-1	Data archived based on UNEP's TOOLKIT for the identification and quantification of dioxin and furan; FAO inventory forms for obsolete pesticides, Laboratory Analysis of Presumed PCB Transformers and PCB Contaminated Soils Data received by Division of GEF Coordination, UNEP	• 2000-2007, yes • beyond 2008, yes • Inf. for evaluation by 2007, yes Hot spots, long term trends	South West and littoral provinces of Cameroon	
Central African Republic	*No data*					
Chad	*One-off project on pesticides management at Sahel (1998-2001)*					
Comoros	*No data*					
Congo	*No data*					

Country	National monitoring activities/ Involvement in international activities	Laboratories and institutions involved	Data archives and accessibility for international reporting /assessment	Time frame and purpose	Geographical coverage	Note
(Brazzaville)						
Cote d'Ivoire	*Limited data*	*No laboratory*				
Democratic Republic of Congo	Projet d'inventaire des PCB pour les pays de la SADC	• Ministère de l'Environnement, Conservation de la Nature, Eaux et Forêts • Société Nationale d'Electricité (SNEL)/ principal partenaire • Université de Kinshasa • Ministère de l'Agriculture • Fédération des Entreprises du Congo (FEC) **POPs monitored:** PCB **Matrix:** **QA/QC:** **Intercalibration:** **Standards:**	La collecte des données a été faite en utilisant le modèle de fiche préconisée par le PNUE Substances Chimiques (Genève) dans le cadre de l'inventaire des PCB. Les archives sont accessibles pour les évaluations internationales.	• 2004 • beyond 2008, no • Inf. for evaluation by 2007, yes - Identifier la localisation des équipements contenant et / ou contaminés par les PCB en vue de leur élimination écologique en RDC ; - Préparer par la suite un Plan National de gestion des PCB en RDC.	Il faut en outre trouver un financement pour poursuivre l'inventaire des PCB dans les autres villes du pays	Has the necessary scientists to carry out dioxins and furans
		Université de Kinshasa , les laboratoires de d'Eco-toxicologie, de chimie organique et de Pharmacie				
Djibouti	*No data*	*No laboratory*				
Equatorial Guinea	*No data*					
Eritrea	*No data*					
Ethiopia	*No data*	No government laboratory is accredited or certified to meet GLP. There are good working laboratory infrastructures and				

Country	National monitoring activities/ Involvement in international activities	Laboratories and institutions involved	Data archives and accessibility for international reporting /assessment	Time frame and purpose	Geographical coverage	Note
		facilities in different government institutions, but located mainly in Addis Ababa. At present, no laboratory is established for the purpose of chemicals management but most of them have the capacity to undertake chemicals and other residue analysis at one level or another.				
Gabon	*No data*					
Gambia	*One-off project: Case Study on Inventory of PCBs*					
Ghana	• *Monitoring of Pesticides (1998-2005)* • *Monitoring of pesticides in cocoa beans (1987-2001)* *Limited data*	• *Ghana Standards Board Chemical Science Lab* ***I L- 4*** • *Water Research Organic Laboratory* *CSIR-Water Research Institute* ***I L- 4*** • *Department of Chemistry National Nuclear Research Institute* ***I L- 4***				
Guinea-Bissau	*No data*					No information available
Guinea	*No data*	*Laboratoire d'analyse environmentales* ***Laboratory without POPs analysis***				
Kenya	*Limited data*	*Department of Chemistry* *University of Nairobi* ***I L- 4***				
Lesthoto	*No data*					
Liberia	*No data*	*No laboratory*				
Madagascar	*Limited data*					
Malawi	*Limited data*					
Mali	Programme Africain relative aux Stocks de Pesticides Obsolètes (PASP-Mali)	• Direction Nationale de l'Assainissement et du Contrôle des Pollutions et Nuisances (DNACPN) • Agence Nationale pour la Sécurité des Aliments (ANSA) • Le laboratoire National de la Santé (LNS) • Laboratoire d'analyse sol eau plante à Sotuba • Laboratoire central Vétérinaire – labo de toxicology **I L- 4** **POPs monitored:** dieldrin **Matrix: M, B, A,** S, SD, F **POPs monitored:** DDT	Site REIC-ESTIS Mali Rapport annuel	• 2006-2007 • beyond 2008, yes • Inf. for evaluation by 2007, yes Elimination des stocks de pesticides et	National	

Country	National monitoring activities/ Involvement in international activities	Laboratories and institutions involved	Data archives and accessibility for international reporting /assessment	Time frame and purpose	Geographical coverage	Note
		Matrix: M, B, S **QA/QC:** Accréditation 17025 of Laboratoire Central Vétérinaire (LCV); Laboratoire Sol Eau plante : non accrédité **Intercalibration:** **Standards:** EPA, Deutche Forschungsgemeinschaff DFC		déchets apparentés existants, prévention de l'accumulation de nouveaux stocks		
	Les ONGs	**POPs monitored:** dieldrin, DDT **Matrix:** **QA/QC:** **Intercalibration:** **Standards:**		Information, éducation, sensibilisation et communication		
	EDM-SA	**POPs monitored:** PCB **Matrix:** **QA/QC:** **Intercalibration:** **Standards:**		Sécurisé les stocks de transformateur hors service contenant du PCB		
Mauritania	*No data*					
Mauritius	*Limited data*	*National Environmental Laboratory* *National Laboratories Complex* ***Laboratory without POPs analysis***				
Mozambique	*No data*					
Namibia	*Limited data*	*Department of Chemistry* *University of Namibia* ***Laboratory without POPs analysis***				
Niger	*Coordination technique interministérielle chargée des polluants organiques persistants au Niger (5 ans)*	*Analytical Services Laboratory/* *Soil Chemistry Laboratory* ***Laboratory without POPs analysis***				
Nigeria	*Limited data*					*Has the necessary scientists to carry out dioxins and furans*
Rwanda	*No data*					

Country	National monitoring activities/ Involvement in international activities	Laboratories and institutions involved	Data archives and accessibility for international reporting /assessment	Time frame and purpose	Geographical coverage	Note
Sao Tome and Principe	*No data*					
Senegal	*No data*	*Environmental Chemistry Laboratory of CERES-LOCUSTOX* ***I L- 4***				
Seychelles	*Limited data*					
Sierra Leone	*No data*					
Somalia	*No data*					
South Africa	No existing national POPs information gathering activities that generate data or information on the levels of POPs in the environment or in humans, which would be put in place after completion of the development of the NIPs. However, there are various academic research studies assessing the levels of POPs in various media and published in local and international journals. The media include human mother's milk, human blood, bivalves, fish, water, soil, and sediments.	*Chromatography and Mass Spectrometry* *Department of Chemistry* *University of Pretoria* ***I L- 4*** • *Chromatographic Services* *Testing and Conformity Services (Pty) Ltd* ***I L- 2*** • *POPs Bioassay/analytical laboratory* ***I L- 2***				*Has the necessary scientists to carry out dioxins and furans*
Sudan	*Limited data*	*Laboratory of Metabolism and Toxicology* *The Agric. Research Corporation, Entomology Section* ***I L- 4***				*Has the necessary scientists to carry out dioxins and furans*
Swaziland	*No data*					
Tanzania (United Republic of)	Pesticide Use and Residue Analysis Studies	Chemistry Department, University of Dar es Salaam **POPs analyzed:** aldrin, chlordane, dieldrin, endrin, DDT, heptachlor, mirex, toxaphene, HCB **Matrix:** P, S, SD, W, V, F	The abstracts of all theses and dissertations at the university are electronically	• 2000-2007, yes • beyond 2008, yes	National	

Country	National monitoring activities/ Involvement in international activities	Laboratories and institutions involved	Data archives and accessibility for international reporting /assessment	Time frame and purpose	Geographical coverage	Note
		QA/QC: SOPs: use of reference standards (from Dr. Ehrenstorfer, Augsburg, Germany) **Intercalibration:** yes, with the Department of Environmental Assessment, Swedish University of Agricultural Sciences. The last exercise was in 2004. **Standards:** EU methodologies as adopted in SADC Guidelines.	archived in Database of African Thesis and Dissertations (DADAD)	• Inf. for evaluation by 2007, yes Food security; hot spots, background		
Togo	*No data*					*Importateurs, producteurs, utilisateurs, professionnels, ONGs ecologiques, societe civile : devant fournir les informations de terrain*
Uganda	*Limited data*	*Pesticide Residue Analytical Laboratory* *Chemistry Department* ***I L- 4***				
Zambia	*PCB Management Project* *Limited data*	*University of Zambia, Department of Chemistry* ***I L- 4***				
Zimbabwe	*Limited data*					

II. ASIAN AND PACIFIC STATES

A. PACIFIC ISLANDS

Country	National monitoring activities/ Involvement in international activities	Laboratories and institutions involved	Data archives and accessibility for international reporting /assessment	Time frame and purpose	Geographical coverage	Note
American Samoa	*Limited data*					*Has effective monitoring capacity as a result of requirements under local EPA as well as USEPA and other Federal Acts.*
Cook Islands	*No data*					
Fiji	*Several of heavy metals have detected hotspots of tin and lead. POPs studies are limited.*	*Institute of Applied Science* ***I L- 3***				*Some laboratories capable of testing for PTS.*
French Polynesia						
Guam	*Regular water monitoring is carried out.*					*Has effective monitoring capacity as a result of requirements under local EPA as well as USEPA and other Federal Acts.* *Has adequate funding and access to facilities to carry out*

Country	National monitoring activities/ Involvement in international activities	Laboratories and institutions involved	Data archives and accessibility for international reporting /assessment	Time frame and purpose	Geographical coverage	Note
						monitoring.
Kiribati	*No data reported except for one heavy metal study.*					
Micronesia (Fed. States of)	*No data*					
Marshall Islands	*No data reported. However, given the situation in other US territories, data from around military bases may exist but not be readily available.*					
Nauru	*No data*					
New Caledonia	*It is expected that there has been much research on heavy metal pollution but none was available.*					*Some laboratories capable of testing for PTS.*
Niue	*No data*					
N. Mariana Islands						
Palau (Republic of)	*No data*	*Palau Environmental Quality Protection Board Laboratory* ***I L- Laboratory without POPs analysis***				
Papua New Guinea						
Pitcairn Islands						
Samoa	*Limited data*					*Some laboratories capable of testing for PTS.*
Solomon Islands	*Limited data*					
Tokelau	*No data*					
Tonga	*Limited data*	*Department of Environment (I L- missing)*				*Some laboratory capacity to test for*

Country	National monitoring activities/ Involvement in international activities	Laboratories and institutions involved	Data archives and accessibility for international reporting /assessment	Time frame and purpose	Geographical coverage	Note
						some of the PTS
Tuvalu	*No data*					
Vanuatu	*Limited data*					
Wallis & Futuna						

B. SOUTH AND EASTERN ASIA

Country	National monitoring activities/ Involvement in international activities	Laboratories and institutions involved	Data archives and accessibility for international reporting/ assessment	Time frame and purpose	Geographical coverage	Note
Afghanistan						
Bangladesh						
Bhutan						
Brunei Darussalam	*Project on inventory of sources of dioxins and furans emissions in selected Asian Countries*					
Cambodia	*National Focal Point for the Stockholm Convention* *Department of Pollution Control* *Ministry of Environment*	*no laboratories available*				
China	**IP/RP:** • *Endocrine Disruptive Compounds in East Asia* • *GAPS* • *UNU POPs Monitoring Database*	• *Croucher Institute for Environmental Sciences (CIES)* ***I L- 2*** • *Government Laboratory Hong Kong SAR* ***IL- 1*** ***QA/QC:*** *yes* ***Intercalibration:*** *yes* • *Dioxin Analysis Laboratory, College of Mechanical and Energy Engineering, Zhejiang University* ***IL-: 4***			East Asia	*In China there are standardized methods to monitor PTS in certain goods or products as is required by foreign trade, but not all such products are monitored.*

Country	National monitoring activities/ Involvement in international activities	Laboratories and institutions involved	Data archives and accessibility for international reporting/ assessment	Time frame and purpose	Geographical coverage	Note
India	• *Extensive nationwide monitoring of agricultural produce, vegetables, water and animal produce is carried out at 16 centres under an All India Coordinated Research Project (AICRP).* • *Extensive monitoring for DDT and HCH* • *Environmental monitoring of the combustion by-products PCDD/Fs has been initiated.*	*Regional Research Laboratory **IL-: 4***				
Indonesia	**IP/RP:** • *Endocrine Disruptive Compounds in East Asia* • *Trial Air POPs Monitoring project* • *UNU POPs Monitoring Database*					
Japan	POPs Monitoring in Japan	The National Institute of Environmental Studies (NIES) and some other laboratories **POPs analyzed:** aldrin, chlordane, dieldrin, endrin, DDT, heptachlor, mirex, toxaphene, HCB, PCB **Matrix:** **A**, BV, P, W, SD **QA/QC:** use of reference materials, quality charts and guidelines for sampling and analysis **Intercalibration:** existing satisfied standards **Standards:** revised guidance in 2006	http://www.env.go.jp/en/chemi/pops	Phase I Phase II Long term trends	National	*The Ministry of the Environment carries out national pops monitoring in Japan*

Country	National monitoring activities/ Involvement in international activities	Laboratories and institutions involved	Data archives and accessibility for international reporting/ assessment	Time frame and purpose	Geographical coverage	Note
	Environmental Survey and Monitoring of Chemicals	Analytical laboratories of local governments and private sector **POPs analyzed:** aldrin, chlordane, dieldrin, endrin, DDT, heptachlor, mirex, toxaphene, HCB, PCB **Matrix: M, B, A**, BV, BE, P, W, SD, F **QA/QC:** development of guidelines, organizing seminars, distribution of standard reference materials and requesting analytical laboratories to do regular reporting **Intercalibration:** for laboratories of local government, participation to Round Robin Test conducted by MOE; for laboratories of private sector, participation of existing international programs **Standards:** revised guidance in 2006	Annual report of "Chemicals in the Environment" http://www.env.go.jp/chemi/kurohon/en/http2005e/index.html	Phase I Phase II Geographic patterns; background; and long term trends	National	
	Environmental Survey of Dioxins	Prefectural Institute of Environment, etc. **POPs analyzed:** PCB, PCDD/PCDF **Matrix: A**, W, S, SD **QA/QC:** Guidelines on QA/QC for the Environmental Measurement of Dioxins **Intercalibration:** **Standards:**		Phase I Phase II Geographic patterns	National	
	Water Pollution Control Law (Results of the Water Quality Survey of Public Water Areas)	Differs in each government and local government ordinance that takes charge of the measurement. **POPs analyzed:** PCB **Matrix:** W **QA/QC:** **Intercalibration:** **Standards:**	http://www.env.go.jp/en/press	• 2000-2005 • beyond 2008, yes • Inf. for evaluation by 2007, yes Geographic patterns	National	

Country	National monitoring activities/ Involvement in international activities	Laboratories and institutions involved	Data archives and accessibility for international reporting/ assessment	Time frame and purpose	Geographical coverage	Note
	• *Pollutant Release and Transfer Register* • *Monitoring of hazardous water pollutants (PCBs, dioxins and furans are included) (1971-continuing)* • *Environment Survey and Wildlife Monitoring (1974-continuing)* • *Monitoring of hazardous air pollutant (dioxins, furans and co-planar PCBs included) (1986-continuing)* • *Preparation of an emission inventory for dioxins, furans and co-planar PCBs (1999-continuing)*					
	IP/RP: Environmental Monitoring of POPs in East Asian Countries	Analytical laboratories of private sector **POPs analyzed:** aldrin, chlordane, dieldrin, endrin, DDT, heptachlor, mirex, toxaphene, HCB, PCB **Matrix: A** **QA/QC:** requesting analytical laboratories to do regular reporting on QA/QC **Intercalibration:** participation to existing international programs **Standards:** revised guidance in 2006	Published as "Background Air Monitoring of POPs in East Asian Countries 2004-2006" http://www.env.go.jp/en/chemi/pops/eaws/background04-06.pdf	Phase I Phase II Geographic patterns and background	Indonesia, Philippine, Korea, Thailand, Vietnam	
	IP/RP: • *Endocrine Disruptive Compounds in East Asia* • *GAPS*					

Country	National monitoring activities/ Involvement in international activities	Laboratories and institutions involved	Data archives and accessibility for international reporting/ assessment	Time frame and purpose	Geographical coverage	Note
Kazakhstan	*Identification and Hygienic Assessment of Dioxins Distribution (two months)*	*Lab for Physical and Chemical Methods Analysis* ***I L- 4***				*Regular monitoring of the PAHs in air is conducted in all industrial cities.* *Regular monitoring of pesticides in foodstuffs, soils and fresh water.*
	IP/RP: • *CEP* • *EMEP*					
Korea (DPRK)						

Country	National monitoring activities/ Involvement in international activities	Laboratories and institutions involved	Data archives and accessibility for international reporting/ assessment	Time frame and purpose	Geographical coverage	Note
Korea (Republic of)	• *National Marine Environment Monitoring (1997-ongoing)* • *Preliminary Environmental survey on POPs (1998) monitoring of POPs in the coastal area of Korea (1999-2001)* • *National Research Project on Endocrine Disrupters including POPs (1999-2008)*	• *Chonbuk National University, Environmental Management Lab.* ***I L- 1*** ***QA/QC:*** *yes* ***Intercalibration:*** *yes* • *Marin Environmental Research Laboratory* ***I L- 2*** • *Analytical Research Centre of the Environmental Management Corporation* ***I L- 1*** ***QA/QC:*** *yes* ***Intercalibration:*** *yes* • *Environmental Analysis Team, Korea Testing Laboratory* ***I L- 1*** ***QA/QC:*** *yes* ***Intercalibration:*** *yes* • *Hazardous Substance Research Team, Korea Basic Science Institute* ***I L- 1*** ***QA/QC:*** *yes* ***Intercalibration:*** *yes* • *National Fisheries Research & Development Institute (NRFDI)* ***I L- 2*** • *The Center for instrumental analysis in Kyungnam University (CIAK)* ***I L- 2*** • *Scientific Environmental Analytical Laboratory (SEAL) School of Environ. Sci. & Eng. POSTECH* ***I L- 1*** ***QA/QC:*** *yes* ***Intercalibration:*** *yes* • *Labfron* ***I L- 2***				*The Ministry of Environment has been carrying out monitoring of EDCs including POPs since 1999.*
	IP/RP: • *Endocrine Disruptive Compounds in East Asia* • *GAPS* • *Trial Air POPs Monitoring* • *UNU POPs Monitoring Database*				East Asia	

Country	National monitoring activities/ Involvement in international activities	Laboratories and institutions involved	Data archives and accessibility for international reporting/ assessment	Time frame and purpose	Geographical coverage	Note
Kyrgyz Republic	*Environmental Pollution Assessment by the POPs reminders (since 1976)*					*Regular monitoring of pesticides in foodstuffs, soils and fresh water.*
	IP/RP: *EMEP*					
Lao People's Republic	*POPs chemical survey and data collection within Lao P.D.R. (2000)*					
Malaysia	*The Development of National Programme to Control POPs*	• *Doping Control Centre* ***I L- 1*** ***QA/QC:*** *yes* ***Intercalibration:*** *yes* • *Environment & Bioprocess Technology Centre (Build. 15) SIRIM Berhad* ***I L- 4*** • *Department of Chemistry* ***I L- 2***				*Developing capability to analyse for PCDD/PCDF*
	IP/RP: • *Endocrine Disruptive Compounds in East Asia* • *UNU POPs Monitoring Database*					
Maldives						

Country	National monitoring activities/ Involvement in international activities	Laboratories and institutions involved	Data archives and accessibility for international reporting/ assessment	Time frame and purpose	Geographical coverage	Note
Mongolia	POPs analyses during the preliminary inventory	• Dixoin/Furans – in the laboratory of Canada • POPs pesticides – in the laboratory of Korea • PCB in used oil and soil – Central Environmental Laboratory of Mogolia **POPs analyzed:** aldrin, chlordane, dieldrin, endrin, DDT, heptachlor, mirex, toxaphene, HCB **Matrix:** S **POPs analyzed:** PCB **Matrix:** S, used oil **POPs analyzed:** PCDD/PCDF **Matrix:** S, residue **QA/QC:** **Intercalibration:** **Standards:**	No database yet	• 2004-2005 • beyond 2008, yes • Inf. for evaluation by 2007, no Localized pollution resourses		*Regular monitoring of pesticides in foodstuffs, soils and fresh water.* The laboratories not involved in environmental monitoring but considered having the capacity to contribute to EE: • Central Environmental Laboratory • Institute of Chemistry and Chemical Technology of Mongolian Academy of Science
	Background air POPs monitoring	Laboratory of Japan **POPs analyzed:** aldrin, chlordane, dieldrin, endrin, DDT, heptachlor, mirex, toxaphene, HCB, PCB and PCDD/PCDF **Matrix: A** **QA/QC:** **Intercalibration:** **Standards:**	Environmental monitoring of POPs in East Asian countries	• 2006 • beyond 2008, yes • Inf. for evaluation by 2007, yes			
Myanmar	*Preliminary Evaluation Study of Inlay Lake Region for the concentration of POPs*	*National Health Laboratory* ***Laboratory without POPs analysis***				

Country	National monitoring activities/ Involvement in international activities	Laboratories and institutions involved	Data archives and accessibility for international reporting/ assessment	Time frame and purpose	Geographical coverage	Note
Nepal	*Case Study report about POPs in use in agriculture and industry in Nepal (6 months)*					*Extensive monitoring for DDT and HCH*
Pakistan		• *Chromatography Lab. NCD, PINSTECH* ***Laboratory without POPs analysis*** • *Chromatorgraphy Central Analytical Facility Division Pakistan Institute of Nuclear Science & Technology* ***Laboratory without POPs analysis*** • *PCSIR Laboratories Complex* ***IL- 3*** • *PCRWR Water Quality Laboratory* ***Laboratory without POPs analysis***				*Extensive monitoring for DDT and HCH*
Philippines	• *Pesticide Monitoring System Development Project (1997-2002)* • *Implementation of Toxic and Hazardous and Nuclear Waste Act*	*Research and Analytical Services Laboratory, Natural Sciences Research Institute* ***IL-2***				
	IP/RP: *UNU POPs Monitoring Database*					
Singapore	Monitoring of POPs in inland waters	• The National Environment Agency • A private laboratory **POPs analyzed:** aldrin, chlordane, dieldrin, endrin, DDT, heptachlor, toxaphene, HCB, PCB and PCDD/PCDF **Matrix:** W **QA/QC:** Singapore -Laboratory Accreditation Scheme **Intercalibration:** None **Standards:** USEPA methods	Not accessible	• 2000-2007, yes • beyond 2008, yes • Inf. for evaluation by 2007, yes	National	*The water department has monitored concentrations of several PTS in lake, river and processed water for drinking*

Country	National monitoring activities/ Involvement in international activities	Laboratories and institutions involved	Data archives and accessibility for international reporting/ assessment	Time frame and purpose	Geographical coverage	Note
	Monitoring of dioxins and furans in flue gas emissions from incinerators	• The National Environment Agency • A private laboratory **POPs analyzed:** PCDD/PCDF **Matrix:** Flue gas emissions **QA/QC:** Singapore -Laboratory Accreditation Scheme **Intercalibration:** None **Standards:** USEPA methods	Not accessible	• 2000-2007, yes • beyond 2008, yes • Inf. for evaluation by 2007, yes	National	*Developing capability to analyse for PCDD/PCDF*
	Monitoring of dioxins and furans in ambient air	• The National Environment Agency • A private laboratory **POPs analyzed:** PCDD/PCDF **Matrix: A** **QA/QC:** Singapore -Laboratory Accreditation Scheme **Intercalibration:** None **Standards:** USEPA methods	Not accessible	Phase I Phase II	National	
	• *Monitoring of POPs in Singapore (1999-ongoing)* • *Routine monitoring of pesticides listed in WHO Guidelines for drinking-water quality in raw and drinking water (1992-ongoing)* *Extensive data*	*Environmental Monitoring and Assessment Unit, Pollution Control Departament,* ***I L- 4***				
	IP/RP: • *Endocrine Disruptive Compounds in East Asia* • *GAPS* • *UNU POPs Monitoring Database*				East Asia	

Country	National monitoring activities/ Involvement in international activities	Laboratories and institutions involved	Data archives and accessibility for international reporting/ assessment	Time frame and purpose	Geographical coverage	Note
Sri Lanka	*Monitoring of Organochlorines and Pesticides in water bodies including PCBs (continuous)*	• *Central Environmental Authority* ***Laboratory without POPs analysis*** • *Laboratory Services Group, CETD Industrial Technology Institute* ***I L- 2***				*Extensive monitoring for DDT and HCH*
Tajikistan	Monitoring of water and soil quality	Laboratory of SCEP & FRT and Sanitary Epidemiological Service of Republic Tajikistan **POPs analyzed:** aldrin **Matrix:** W, S **QA/QC:** 8 regional laboratories and central laboratories **Intercalibration:** **Standards:** methodology and standards of Soviet Union	Archives are accessible	• 1985-2000, yes • beyond 2008, yes annually control of agricultural pests		The legislative base in Tajikistan is very poor in sphere of environmental monitoring in whole and POPs effects in particular.
		Service on Analytical Control of the State Committee on Nature Protection and Forestry of the Republic of Tajikistan ***I L- 4***				*Regular monitoring of pesticides in foodstuffs, soils and fresh water.*
Thailand	• *Monitoring Programme for organochlorine pesticides and polychlorinated biphenyls (PCBs) (routine activities)* • *National Inventory of Sources of Dioxins and Furans Emissions in Thailand (1998-2000)* *Some monitoring data on several PTS are available in the Agricultural Department of Thailand annual reports.*	*Environmental Quality and Laboratory* ***IL- 4***				*Developing capability to analyze for PCDD/PCDF*

Country	National monitoring activities/ Involvement in international activities	Laboratories and institutions involved	Data archives and accessibility for international reporting/ assessment	Time frame and purpose	Geographical coverage	Note
	IP/RP: • *Endocrine Disruptive Compounds in East Asia EDC* • *UNU POPs Monitoring Database*					
Turkmenistan	**IP/RP:** *CEP*					
Uzbekistan						*Regular monitoring of pesticides in foodstuffs, soils and fresh water.*
Vietnam	*POPs monitoring has not yet been put into the national environmental monitoring networks although a few small scale monitoring programs have been implemented in frame of international cooperative projects, which have produced some POPs data, e.g. DDTs residues at Balat estuary between 1990-2004.*	*Research Centre for Environmental Technology and Sustaniable Development (CETASD)* ***I L- 2***				*Capable of conducting trace analysis of OCPs and PCBs in water and sediments, but not air and biological samples.* *More than dozen laboratories have capability of analyzing POPs at various levels.*
	IP/RP: • *Endocrine Disruptive Compounds in East Asia EDC* • *Trial Air POPs Monitoring project* • *UNU POPs Monitoring Database*				East Asia	

C. WESTERN ASIA

Country	National monitoring activities/ Involvement in international activities	Laboratories and institutions involved	Data archives and accessibility for international reporting/ assessment	Time frame and purpose	Geographical coverage	Note
Bahrain		*Department of Chemistry* *College of Science, University of Bahrain* ***I L- 4***				*Environmental monitoring of the combustion by-products PCDD/Fs has been initiated.*
Cyprus	Air (PCDD/PCDF)	• Department of Labour Inspection (sampling air emissions from industrial sources) • Umweltbundesamt GmbH (sample analysis), Wien, Austria **POPs monitored:** PCDD/PCDF **Matrix:** air emission **QA/QC:** air sampling using EN 1948-1 **Intercalibration:** **Standards:** sampling using EN 1948-1	Data are published in TNO Report R2004/069 for European Commission, "Dioxin emissions in candidate countries"	• 2000-2007, yes • beyond 2008, yes • Inf. for evaluation by 2007, no		The levels of POPs in water, based on systematic monitoring since 1990, are very low (below acceptable limits). A continuous declining trend is observed. *Industrial installations that produce dioxin emissions are obliged to provide monitoring data for these compounds.*
	Food of animal origin (PCDD/PCDF)	• State General Laboratory, Ministry of Health **I L- 2** • Umweltbundesamt GmbH (sample analysis), Wien, Austria • WHO reference laboratory for dioxins in mothers milk **POPs monitored:** PCDD/PCDF **Matrix: M,** F **QA/QC:** EN ISO/IEC 17025 **Intercalibration:** not available **Standards:** sampling using EN 1948-1		• 2000-2007, yes • beyond 2008, yes • Inf. for evaluation by 2007, no		

Country	National monitoring activities/ Involvement in international activities	Laboratories and institutions involved	Data archives and accessibility for international reporting/ assessment	Time frame and purpose	Geographical coverage	Note
	Food of animal origin (OCL pesticides)	State General Laboratory, Ministry of Health **I L- 2** Aegis lab in Wien, Austria **POPs monitored:** aldrin, dieldrin, endrin, DDT, heptachlor, HCB, PCB **Matrix: M,** F, W **QA/QC:** EN ISO/IEC 17025 **Intercalibration:** WHO intercalibration for POPs in milk 2005 **Standards:** respective EU Drectives	National report and reports of WHO and EU	• 2000-2007, yes • beyond 2008, yes • Inf. for evaluation by 2007, no		
	No comprehensive program for monitoring PTS in air. *One-off project: Monitoring of the Xenobiotics in the Food Chains (3 years)*					
	IP/RP: • *MEDPOL* • *EMEP*					
Iran (Islamic Republic of)	**IP/RP:** Caspian Sea Scientific Cruise	• Marine Environment Study Laboratory, Monaco, International Atomic Energy Agency (MESL/IAEA/MONACO) • AZECOLAB – Azerbaijan Republic • TYPHOON Laboratory (Russian Federation) and SOI, Roshydromet (Russian Hydrometeorological Organization) **POPs monitored:** aldrin, chlordane, dieldrin, endrin, DDT, heptachlor, HCB, PCB **Matrix:** SD **QA/QC:** MESL/IAEA/MONACO QA/QC procedure, EPA 8081A, 8082, 3540, 3620 **Intercalibration:** proficiency test distributed by MESL/IAEA/MONACO to participating laboratories **Standards:** methodologies of MESL/IAEA/MONACO	UNDP GEF Information is available at Caspian Environment Programme (CEP) website: www.caspianenvonment.org	• 2005 • beyond 2008, no • Inf. for evaluation by 2007, yes Contaminant assessment of PTS in Caspian Sea	Azerbaijan, Iran, Kazakhstan, Russia, Turkmenistan	*Extensive monitoring for DDT and HCH*

Country	National monitoring activities/ Involvement in international activities	Laboratories and institutions involved	Data archives and accessibility for international reporting/ assessment	Time frame and purpose	Geographical coverage	Note
	IP/RP: Volga Delta Investigation	TYPHOON Laboratory (Russian Federation) and SOI, Roshydromet (Russian Hydrometeorological Organization) **POPs monitored:** aldrin, chlordane, dieldrin, endrin, DDT, heptachlor, HCB, PCB **Matrix:** SD **QA/QC:** yes **Intercalibration:** **Standards:** sampling methodology was based on MESL/IAEA/MONACO	UNDP GEF Information is available at Caspian Environment Programme (CEP) website: www.caspianenvonment.org	• 2005 • beyond 2008, no • Inf. for evaluation by 2007, yes Assessment of pollution load from Volga Delta		
	IP/RP: Kura River (Azerbaijan Republic) Investigation	AZECOLAB – Azerbaijan Republic **POPs monitored:** aldrin, dieldrin, endrin, DDT, heptachlor, HCB, PCB **Matrix:** SD, suspended material in water column **QA/QC:** EPA 8081A, 8082, 3540, 3620 **Intercalibration:** **Standards:** only sampling methodology was based on MESL/IAEA/MONACO	UNDP GEF Information is available at Caspian Environment Programme (CEP) website: www.caspianenvonment.org	• 2005 • beyond 2008, no • Inf. for evaluation by 2007, yes Assessment of pollution load from Kura River		

Country	National monitoring activities/ Involvement in international activities	Laboratories and institutions involved	Data archives and accessibility for international reporting/ assessment	Time frame and purpose	Geographical coverage	Note
	IP/RP: Pilot Regional Pollution Monitoring Programme (has not been implemented yet by the countries)	• Caspian Complex Environmental Monitoring Administration (CCEMA) of MENR, Azerbajan • Department the Environment, Marine Environment Bureau, I.R. Iran • Kazhydromet, Kazakhstan • SOI, Roshydromet, Russia • Caspoecocontrol, Turkmenistan **POPs monitored:** DDT **Matrix:** SD **QA/QC:** **Intercalibration:** **Standards:** should be the common guideline provided by MESL/IAEA/MONACO		• 2000-2007, not yet • beyond 2008, no • Inf. for evaluation by 2007, no Development and implementation of Caspian Regional Pollution Monitoring Programme	Azerbaijan, Iran, Kazakhstan, Russia, Turkmenistan	
Iraq						
Jordan	*Side effects of pesticides on the environment in Jordan (2000-2004)*	*Chromatographic Lab* *Environmental Organics Analysis Lab* ***I L- 4***				*Organochlorine pesticides have been monitored in water for over 10 years.* *Pesticide residues on agricultural crops have been tested for since the early 80s.* *Dioxins PCBs and other toxic substances are not being monitored in any compartments known so far.*
Kuwait		*Industrial Environment Lab.* ***Laboratory without POPs***				*Environmental*

Country	National monitoring activities/ Involvement in international activities	Laboratories and institutions involved	Data archives and accessibility for international reporting/ assessment	Time frame and purpose	Geographical coverage	Note
		analysis				*monitoring of the combustion by-products PCDD/Fs has been initiated.*
Lebanon	*Assessment of Dioxins in soil matrices- case study (1998-2000)*	*Environment Core Laboratory (ECL)* ***I L- 4***				*No comprehensive monitoring program for PTS.*
	IP/RP: *MEDPOL*					
Oman						
Palestine						
Qatar						
Saudi Arabia	*Monitoring of obsolete and banned Agrochemicals in the Kingdom of Saudi Arabia Project*					
Syrian Arab Republic	**IP/RP:** *MEDPOL*					
United Arab Emirates						*Environmental monitoring of the combustion by-products PCDD/Fs has been initiated.*
Yemen						

III. CENTRAL AND EASTERN EUROPEAN STATES

Country	National monitoring activities/ Involvement in international activities	Laboratories and institutions involved	Data archives and accessibility for international reporting/ assessment	Time frame and purpose	Geographical coverage	Note
Albania	**IP/RP:** *MEDPOL*					
Armenia	*One-off case study on exposure and measurment of POPs sources*					
	IP/RP: *EMEP*					
Azerbaijan	Industry sector: oil, chemical, energy, sement	• AzEko laboratory in National Academy of Sciences **I L- 4** • Ministry of Agriculture, Republic Control Toxicological Laboratory • Environmental Pollution Laboratory in MENR **POPs monitored:** HCB, PCB, PCDD/PCDF **Matrix: A** **QA/QC:** AzEkolab, internal control, ICO **Intercalibration:** AzEkolab was recorde in the Global POPs Laboratory **Standards:** yes, but not completed	Data archives are available for international assessment	• 2000-2007, yes • beyond 2008, yes • Inf. for evaluation by 2007, yes	National	Laboratories not involved in monitoring at present but considered to have the capacity to contribute to EE: The laboratory of the Ministry of Health
	Heat sector	• AzEko laboratory in National Academy of Sciences **I L- 4** • Ministry of Agriculture, Republic Control Toxicological Laboratory • Environmental Pollution Laboratory in MENR **POPs monitored:** DDT **Matrix: M, B,** MM **POPs monitored:** HCB **Matrix: M, B** **POPs monitored:** PCB, PCDD/PCDF **Matrix: M, B,** W **QA/QC:** AzEkolab, internal control, ICO **Intercalibration:** AzEkolab was recorde in the Global POPs Laboratory	Data archives are available for international assessment	• 2000-2007, yes • beyond 2008, yes • Inf. for evaluation by 2007, yes	National	

Country	National monitoring activities/ Involvement in international activities	Laboratories and institutions involved	Data archives and accessibility for international reporting/ assessment	Time frame and purpose	Geographical coverage	Note
		Standards: yes, but not completed				
	Landfill burning	• AzEko laboratory in National Academy of Sciences **I L- 4** • Ministry of Agriculture, Republic Control Toxicological Laboratory • Environmental Pollution Laboratory in MENR **POPs monitored:** HCB, PCB, PCDD/PCDF **Matrix: A** **QA/QC:** AzEkolab, internal control, ICO **Intercalibration:** AzEkolab was recorde in the Global POPs Laboratory **Standards:** yes, but not completed	Data archives are available for international assessment	• 2000-2007, yes • beyond 2008, yes • Inf. for evaluation by 2007, yes	National	
	Agriculture sector	• AzEko laboratory in National Academy of Sciences **I L- 4** • Ministry of Agriculture, Republic Control Toxicological Laboratory • Environmental Pollution Laboratory in MENR **POPs monitored:** DDT **Matrix:** F, V **POPs monitored:** PCB, PCDD/PCDF **Matrix:** F, V, BE **QA/QC:** AzEkolab, internal control, ICO **Intercalibration:** AzEkolab was recorde in the Global POPs Laboratory **Standards:** yes, but not completed	Data archives are available for international assessment	• 2000-2007, yes • beyond 2008, yes • Inf. for evaluation by 2007, yes	National	
Belarus	**IP/RP:** *EMEP*	• *Central Laboratory of the Ministry of Natural Resources and Environmental Protection **I L- 4*** • *The department of organization of analytical control of the Ministry of natural resources and environmental protection **I L-2***				*No air monitoring and little information on other environmental compartments*
Bosnia-Herzegovina	**IP/RP:** • MEDPOL • *EMEP*					

Country	National monitoring activities/ Involvement in international activities	Laboratories and institutions involved	Data archives and accessibility for international reporting/ assessment	Time frame and purpose	Geographical coverage	Note
Bulgaria	National monitoring of surface waters	• Chromatography laboratory to Executive Environment Agency • Monitoring Department to the EEA • Monitoring Department to the Ministry of Environment and Waters **POPs monitored:** aldrin, chlordane, dieldrin, endrin, DDT, heptachlor, mirex, HCB **Matrix:** W **QA/QC:** internal quality control **Intercalibration:** international intercalibration study- Qualco Danube **Standards:** ISO	Europe Environmental Agency (EEA)	• 2000-2007, yes • beyond 2008, yes at yearly basis • Inf. for evaluation by 2007, yes Assessment of water bodies quality		
	National monitoring of underground waters	• Chromatography laboratory to Executive Environment Agency • Monitoring Department to the EEA • Monitoring Department to the Ministry of Environment and Waters **POPs monitored:** aldrin, chlordane, dieldrin, endrin, DDT, heptachlor, mirex, HCB **Matrix:** W **QA/QC:** internal quality control **Intercalibration:** international intercalibration study- Qualco Danube **Standards:** ISO	EEA EC	• 2000-2007, yes • beyond 2008, yes at yearly basis • Inf. for evaluation by 2007, yes Assessment of water bodies quality		

Country	National monitoring activities/ Involvement in international activities	Laboratories and institutions involved	Data archives and accessibility for international reporting/ assessment	Time frame and purpose	Geographical coverage	Note
	National monitoring of sediments	• Chromatography laboratory to Executive Environment Agency • Monitoring Department to the EEA • Monitoring Department to the Ministry of Environment and Waters **POPs monitored:** aldrin, chlordane, dieldrin, endrin, DDT, heptachlor, mirex, HCB, PCB **Matrix:** SD **QA/QC:** internal quality control, assessment of quality by using of CRMs **Intercalibration:** international intercalibration study- Qualco Danube **Standards:** ISO	Not yet- the program is in test phase	• 2000-2007, yes • beyond 2008, yes at yearly basis • Inf. for evaluation by 2007, yes Integral evaluation of water bodies quality		
	National monitoring of soils	• Chromatography laboratory to Executive Environment Agency • Monitoring Department to the EEA • Monitoring Department to the Ministry of Environment and Waters **POPs monitored:** aldrin, chlordane, dieldrin, endrin, DDT, heptachlor, mirex, HCB, PCB **Matrix:** S **QA/QC:** internal quality control, assessment of quality by using of CRMs **Intercalibration:** **Standards:** ISO	EEA EMEP	• 2000-2007, yes • beyond 2008, yes at yearly basis • Inf. for evaluation by 2007, yes Assessment of diffusive pollution and soil quality		

Country	National monitoring activities/ Involvement in international activities	Laboratories and institutions involved	Data archives and accessibility for international reporting/ assessment	Time frame and purpose	Geographical coverage	Note
	National monitoring of soils around store for obsolete pesticides	• Chromatography laboratory to Executive Environment Agency • Monitoring Department to the EEA • Monitoring Department to the Ministry of Environment and Waters **POPs monitored:** aldrin, chlordane, dieldrin, endrin, DDT, heptachlor, mirex, HCB **Matrix:** S **QA/QC:** internal quality control, assessment of quality by using of CRMs **Intercalibration:** **Standards:** ISO	EEA EMEP	• 2005-2006 • beyond 2008, ? • Inf. for evaluation by 2007, yes Monitoring of local pollution and assessment of flooding defeats		
	IP/RP: *EMEP*	• *Instrumental Method of Analysis, Analytical Directorate, Executive Environment Agency **I L- 4*** • *Central Lab for Control of Pesticides **I L- 4*** • *Executive Environment Agency, Regional Laboratory **I L- 4*** • *Food Chemistry **I L- 4***				
Croatia	**IP/RP:** • MEDPOL • *EMEP*	• *Institute of Public Health Department for protection and improvement of the environment **I L- 4*** • *Department for Food Examination; Laboratory for GC analyses **I L- 4*** • *Health Ecology Department **I L- 4*** • *Institute for Medical Research and Occupational Health **I L- 2*** • *Health Ecology Department – Public Health Institution of Osijek – Baranja County **I L- 4*** • *Sisak Institute of Public Health, Dept. of Ecology and Sanitary Chemistry **I L- 4*** • *Zagreb Public Health Institute, Analytical Chemistry Department **I L- 2***				*PTSs monitoring is not conducted at state level. Organochlorine pesticides and PCDD/Fs are determined in a limited number of samples for research purposes.*

Country	National monitoring activities/ Involvement in international activities	Laboratories and institutions involved	Data archives and accessibility for international reporting/ assessment	Time frame and purpose	Geographical coverage	Note
Czech Republic	RECETOX environmental monitoring and research programme, including passive sampling network	RECETOX, Masaryk University **POPs monitored:** aldrin, chlordane, dieldrin, endrin, DDT, heptachlor, toxaphene, HCB, PCB, PCDD/PCDF, PAHs, SCCPs **Matrix: A,** S, SD, W **QA/QC:** defined laboratory QA/QC system **Intercalibration:** will start shortly **Standards:**	Data are available at RECETOX archive	• Phase I • Phase II background monitoring passive sampling network	It can represent Central and Eastern European region	
	The specific pollutants in emissions and their impact on water ecosystems	Water Research Institute, Prague **POPs monitored:** aldrin, dieldrin, endrin, DDT, heptachlor, HCB, PCB **Matrix:** W, SD **QA/QC:** ČSN EN ISO/IEC 17025 **Intercalibration:** **Standards:**		• 2000-2007, no • beyond 2008, yes, Hot spots and long term trends,		
	National Soil Monitoring (basal monitoring and monitoring of contaminated sites)	Central Institute in Supervising and Testing in Agriculture (UKZUZ), National Reference Laboratory **POPs monitored:** DDT, HCB, PCB, PCDD/PCDF **Matrix:** S **QA/QC:** accredited according to ISO 17025 **Intercalibration:** International Soil Exchange (Wageningen, NL) **Standards**: ISO/CEN standards if available, otherwise national procedure	Data are property of the Ministry of Agriculture and accessible	• ongoing • beyond 2008, yes at yearly basis • Inf. for evaluation by 2007, yes National geographic pattern and background	The capacity is adequate.	

Country	National monitoring activities/ Involvement in international activities	Laboratories and institutions involved	Data archives and accessibility for international reporting/ assessment	Time frame and purpose	Geographical coverage	Note
	Feeding stuff Monitoring	NRL UKZUZ **POPs monitored:** DDT, HCB, PCB, PCDD/PCDF **Matrix:** V, feeding stuff **QA/QC:** accredited according toISO 17025 **Intercalibration:** OMMI (Hungary) **Standards**: international standardized methodologies	Data are property of the Ministry of Agriculture and reported to EU (DGSANCO)	• ongoing • beyond 2008, yes at yearly basis • Inf. for evaluation by 2007, yes Feeding stuff and food chain security monitoring	The capacity is going to improve adequate	
	INTERREG IIIa Risk Substancies in Soils Bavaria – Czech Rep.	NRL UKZUZ **POPs monitored:** DDT, HCB, PCB **Matrix:** S **QA/QC:** accredited according to ISO 17025 **Intercalibration:** International Soil Exchange (Wageningen, NL), MARSEP (Wageningen, NL) **Standards**: ISO/CEN standards if available, otherwise national or Bavarian procedure	INTERREG IIIa Data will be presented in the final report	• 2006-2008 • beyond 2008, no • Inf. for evaluation by 2007, no Geographic pattern and background around the Czech and Bavarian boundary	The capacity is adequate.	

Country	National monitoring activities/ Involvement in international activities	Laboratories and institutions involved	Data archives and accessibility for international reporting/ assessment	Time frame and purpose	Geographical coverage	Note
	Monitoring of Sludge Application on Soil	NRL UKZUZ **POPs monitored:** DDT, HCB, PCB, PCDD/PCDF **Matrix:** S, SD, sludge **QA/QC:** accredited according to ISO 17025 **Intercalibration:** International Soil Exchange (Wageningen, NL), MARSEP (Wageningen, NL) **Standards**: ISO/CEN standards if available, otherwise national or Bavarian procedure	Data are property of the Ministry of Agriculture and accessible	• ongoing • beyond 2008, yes at yearly basis • Inf. for evaluation by 2007, yes Soil protection, hot spots and geographical pattern	The capacity is adequate.	
	Environmental Health Monitoring System in the Czech Republic	• NIPH Prague • IPH Ostrava **POPs monitored:** DDT, HCB **Matrix: M, B** **POPs monitored:** PCB **Matrix: M, B, A** **POPs monitored:** PCDD/PCDF **Matrix: A** **QA/QC:** National reference laboratory of IPH Ostrava is accredited according to EN ISO/IEC 17025 **Intercalibration:** National Institute of Public Health Norway, QUASIMEME, Institute of Environmental Chemistry Sweden, ICT Prague **Standards**: Validated methods based on European, USEPA or NIOHS methods		• Phase I • Phase II Background, reference values		

Country	National monitoring activities/ Involvement in international activities	Laboratories and institutions involved	Data archives and accessibility for international reporting/ assessment	Time frame and purpose	Geographical coverage	Note
	Research Project of the Ministry of Health of the Czech Republic	• NIPH Prague • IPH Ostrava **POPs monitored:** DDT, HCB, PCB **Matrix: B** **QA/QC:** National reference laboratory of IPH Ostrava is accredited according to EN ISO/IEC 17025 **Intercalibration:** National Institute of Public Health Norway, QUASIMEME, Institute of Environmental Chemistry Sweden, ICT Prague **Standards**: Validated methods based on European, USEPA or NIOHS methods		• Phase I • Phase II Retrospective long-term trends		
	Levels of PCDDs, PCDFs, and PCBs in the Blood of the Non-occupationally Exposed Residents Living in the Vicinity of a Chemical Plant, 2002/3	• NIPH Prague • IPH Ostrava **POPs monitored:** DDT, HCB, PCB, PCDD/PCDF **Matrix: B** **QA/QC:** National reference laboratory of IPH Ostrava is accredited according to EN ISO/IEC 17025 **Intercalibration:** National Institute of Public Health Norway, QUASIMEME, Institute of Environmental Chemistry Sweden, ICT Prague **Standards**: Validated methods based on European, USEPA or NIOHS methods		• Phase I • Phase II Hot spot		

Country	National monitoring activities/ Involvement in international activities	Laboratories and institutions involved	Data archives and accessibility for international reporting/ assessment	Time frame and purpose	Geographical coverage	Note
	Levels in Water and Biota (Ministry of Environment)	• IPH Ostrava • CHMI Prague **POPs monitored:** DDT, HCB, PCB, PCDD/PCDF **Matrix:** BV, P, W **QA/QC:** National reference laboratory of IPH Ostrava is accredited according to EN ISO/IEC 17025 **Intercalibration:** National Institute of Public Health Norway, QUASIMEME, Institute of Environmental Chemistry Sweden, ICT Prague **Standards**: Validated methods based on European, USEPA or NIOHS methods		• 2000-2007, yes • beyond 2008, yes at yearly basis • Inf. for evaluation by 2007, yes Monitoring, identification of sources, trends		
	Monitoring of Food, Feeding Stuff and Dietary Exposure	• IPH Ostrava • CIFTA • SVI CR • UKZUZ **POPs monitored:** PCB, PCDD/PCDF **Matrix:** F, Feeding Stuff **QA/QC:** National reference laboratory of IPH Ostrava is accredited according to EN ISO/IEC 17025 **Intercalibration:** National Institute of Public Health Norway, QUASIMEME, Institute of Environmental Chemistry Sweden, ICT Prague **Standards**: Validated methods based on European, USEPA or NIOHS methods		• 2000-2007, yes • beyond 2008, yes at yearly basis • Inf. for evaluation by 2007, yes Monitoring, food security, dietary exposure		

Country	National monitoring activities/ Involvement in international activities	Laboratories and institutions involved	Data archives and accessibility for international reporting/ assessment	Time frame and purpose	Geographical coverage	Note
	Emission Monitoring from Various Stationary and Mobile Sources	• IPH Ostrava • NIPH Prague • Sampling Groups **POPs monitored:** PCB, PCDD/PCDF **Matrix:** Air emission **QA/QC:** National reference laboratory of IPH Ostrava is accredited according to EN ISO/IEC 17025 **Intercalibration:** National Institute of Public Health Norway, QUASIMEME, Institute of Environmental Chemistry Sweden, ICT Prague **Standards**: Validated methods based on European, USEPA or NIOHS methods		• 2000-2007, yes • beyond 2008, yes at yearly basis • Inf. for evaluation by 2007, yes monitoring		
	National Surface Water Quality Monitoring	• Czech Hydrometeorological Institute • Waterboards • Water Research Institute • NRL for POPs – IPH Ostrava **POPs monitored:** aldrin, dieldrin, endrin **Matrix:** W, SD **POPs monitored:** DDT, HCB, PCB **Matrix:** W, SD, BV, P **POPs monitored:** heptachlor **Matrix:** W **QA/QC:** Accreditation EN ISO/IEC 17025, Proficiency Testing **Intercalibration:** Proficiency Testing **Standards**: EN ISO 757051-5667	Data are freely accessible from National water quality database at http://hydro.chmi.cz/ojv	• 2000-2007, yes • beyond 2008, yes at yearly basis • Inf. for evaluation by 2007, no Background	These two activities both could provide useful data.	

Country	National monitoring activities/ Involvement in international activities	Laboratories and institutions involved	Data archives and accessibility for international reporting/ assessment	Time frame and purpose	Geographical coverage	Note
	National Ground Water Quality Monitoring	• Czech Hydrometeorological Institute • Private subcontractors: Ecochem, Aneclab, UNS Hutna Hora **POPs monitored:** aldrin, dieldrin, endrin, DDT, heptachlor, HCB **Matrix:** W **QA/QC:** Accreditation, Proficiency Testing **Intercalibration:** Proficiency Testing **Standards**: EN ISO 757051-5667	Data are freely accessible from National water quality database at http://hydro.chmi.cz/ojv	• 2000-2007, yes • beyond 2008, yes at yearly basis • Inf. for evaluation by 2007, no Background		
	• *Monitoring of POPs Chemicals in Breast Milk (1999-2001)* • *Regional background monitoring of POPs* • *Monitoring of selected POPs in various types of soils (1994-ongoing)* • *Monitoring of selected POPs in feeding-stuffs and some raw materials used for preparation of mixed feeds (2000-ongoing)*	• *NRL for POPs* • *RECETOX **I L- 2*** • *Povodi Moravy, Water Lab Department and Water Inst. **I L- 4*** • *Zdravnotní ústav se sídlem v Ostrave **I L- 2*** • *Toxicants and Contaminants – Calibration laboratory **I L- 2*** • *Zoravotní ústav se sídlem v Hradci Králové **I L- 2*** • *Výzkumný ústav organických syntéz **I L- 4*** • *Bioanalytika CZ **I L- 4*** • *Analytical laboratories of Division EKOTECHNIKA I L- 4* • *State Veterinay Institute Olomouc **I L- 3***				
	IP/RP: *EMEP*					
Estonia	• *European Dioxin Project 1998* • *Assistance in Implementing of the Disposal of PCBs/PCTs Directive in Estonia 1999* • *Marine Monitoring. Hazardous substances in the Estonian coastal waters fish (1994 -ongoing)* •	• *Estonian Environmental Research Centre **I L- 3*** • *Health Protection Inspectorate **I L- 2***				

Country	National monitoring activities/ Involvement in international activities	Laboratories and institutions involved	Data archives and accessibility for international reporting/ assessment	Time frame and purpose	Geographical coverage	Note
	IP/RP: *EMEP*					
Georgia	**IP/RP:** *EMEP*	*Laboratory of Neurochemistry* ***I L- Laboratory without POPs analysis***				
Hungary	• *Environmental health risk assessement of chlorinated organic pollutants. Concentrations of PCBs, DDT and Metabolites and HCL isomers in the breast milk.* • *Annual monitoring programme of chlorinated hydrocarbons in import crops*	*National Centre for Public Health, National Institute of Food Hygiene and Nutrition, Chemical Toxicological Laboratory* ***I L-3***				
	IP/RP: *EMEP*					
Latvia	*Stable Organic Pollutants in Latvia (6 months)*	*Latvian Environment Agency Laboratory Department* ***I L- 4***				
	IP/RP: *EMEP*					
Lithuania	*State Programme for Environmental Monitoring (PCB monitoring included)*	*Chemical Analysis Division of Environmental Research Department of the Environmental Protection Agency* ***I L- 4***				
	IP/RP: *EMEP*					
Macedonia (the FYR of)	**IP/RP:** *EMEP*					*No monitoring programs.*
Moldova (Republic of)	State Hydrometeorological Service Activity Plan (2006 year)	• State Hydrometeorological Service, Monitoring Department on Environmental Quality • Center of Soil Quality Monitoring • Center of Surface Water Quality Monitoring • Center of Atmospheric Air Quality Monitoring **POPs monitored:** DDT, PCB **Matrix:** S, SD, W, P, **A** (precipitation)		• August 2007 • beyond 2008, yes in August 2009 • Inf. for evaluation by 2007, yes		

Country	National monitoring activities/ Involvement in international activities	Laboratories and institutions involved	Data archives and accessibility for international reporting/ assessment	Time frame and purpose	Geographical coverage	Note
		QA/QC: internal control **Intercalibration:** participation in inter-comparison study with satisfactory results at International Atomic Energy Agency, and Water Resources Research Centre **Standards:** Domestic Sampling Acts; former USSA methods, APE 8081 for OCPs, APE 8082 for PCBs		Hot spots; background; long term trends; food security		
	2006-2009 GEF project "POPs stockpiles management and distruction"	• State Hydrometeorological Service, Monitoring Department on Environmental Quality • Center of Soil Quality Monitoring • Center of Surface Water Quality Monitoring • Center of Atmospheric Air Quality Monitoring **POPs monitored:** PCB **Matrix:** S, W **QA/QC:** internal control **Intercalibration:** participation in inter-comparison study with satisfactory results at International Atomic Energy Agency, and Water Resources Research Centre **Standards:** Domestic Sampling Acts; former USSA methods, APE 8081 for OCPs, APE 8082 for PCBs		Hot spots		
	• *ENVREC9701 Prut River Water Management (certain POPs included) (1998-2000)* • *Monitoring of pollution of surface water in Danube River Basin, including certain POPs (1998-1999)* • *Monitoring of chemical contaminants in food products (2001 –2005)* • *Assessment of organochlorine pesticides' levels, in the soil of water catchment areas of the main towns in Moldavia region (2001-2005)*	• *Soil Monitoring and Gas Chromatography Laboratory **I L- 4*** • *Laboratory of Sanitary – Chemical Researches **I L- 4***				*No air monitoring and little information on other environmental compartments.*

Country	National monitoring activities/ Involvement in international activities	Laboratories and institutions involved	Data archives and accessibility for international reporting/ assessment	Time frame and purpose	Geographical coverage	Note
	•					
Poland	• *Elaboration of a system in Poland for preventing environmental contamination from PCB compound sources (1995-1997)* • *Emission analysis of POPs for the years 1988-1996* • *Organochlorine pesticide concentrations in the drinking water from a region of extensive agriculture in Poland (1994-2000)* • *Dioxins in municipal wastewater sludge as a criteria of non-industrial use (2001-2002)*	• *Laboratory for Trace Organic Analysis, Cracow Univ. of Technology* ***I L- 1*** ***QA/QC: yes*** ***Intercalibration: yes*** • *Environmental Protection Laboratory, Pulp and Paper Research Inst.* ***I L- 2*** • *Military Inst. Of Chemistry and Radiometry, Lab for Chemical Weapons Convention Verification* ***I L- 2*** • *Inst. Of Meteorology and Water Management, Maritime Branch* ***I L- 1*** ***QA/QC: yes*** ***Intercalibration: yes***				
	IP/RP: *EMEP*					

Country	National monitoring activities/ Involvement in international activities	Laboratories and institutions involved	Data archives and accessibility for international reporting/ assessment	Time frame and purpose	Geographical coverage	Note
Romania	Enabling Activities to Facilitate Early Action in the Implementation of Stockholm Convention on POPs in Romania	• National Research-Development Institute for Environmental Protection (ICIM Bucharest) • National Institute for Public Health • Laboratories belonging to the local environmental protection agencies (42) • National Centre for Environmental Consultancy **POPs monitored:** aldrin, chlordane, dieldrin, endrin, DDT, heptachlor, mirex, toxaphene, PCB, PCDD/PCDF **Matrix:** S, W, A **QA/QC:** assured within the institutes above **Intercalibration:** Reference Laboratory in ICIM Bucharest; Reference Laboratories belonging to the National Environmental Protection Agency **Standards:** Water- ISO methodologies in Water Framework Directive; Air- ISO and RECETOX methodology; Soil- Research Institute for Pedology and Agro-chemistry (ICPA)	Data are at the site of the Ministry of Environment and Waters Management (www.mmediu.ro); Reports on the State of Environment in Romania UNDP	• 1995-2004, yes • beyond 2008, yes annually • Inf. for evaluation by 2007, yes NIP	National	Laboratories not currently involved in monitoring but considered to have the capacity to contribute to EE: • Central Laboratory of Agriculture • C.D Nenitescu Organic Chemistry Centre of the Romanian Academy
	Study on the elaboration of national annual inventory of POPs emissions in accordance with the provisions of the Stockholm Convention	• National Research-Development Institute for Environmental Protection (ICIM Bucharest) • National Environmental Protection Agency • Laboratories belonging to the local environmental protection agencies (42) **POPs monitored:** aldrin, chlordane, dieldrin, endrin, DDT, heptachlor, mirex, toxaphene, HCB, PCB, PCDD/PCDF **Matrix:** air emissions, S, SD, W **QA/QC:** assured by Varduca Aurel, Zisu Daniela and Lesnic Mihai from ICIM Bucharest **Intercalibration:** Reference Laboratory in ICIM Bucharest; Reference Laboratories belonging to the National Environmental Protection Agency **Standards:** Water- ISO methodologies in Water Framework Directive; Air- ISO and RECETOX methodology; Soil- Research Institute for Pedology and Agro-chemistry (ICPA)	Data are at the site of the Ministry of Environment and Waters Management (www.mmediu.ro); Reports on the State of Environment POPs monitoring	• 1995-2004, yes • beyond 2008, yes annually • Inf. for evaluation by 2007, yes	National	

Country	National monitoring activities/ Involvement in international activities	Laboratories and institutions involved	Data archives and accessibility for international reporting/ assessment	Time frame and purpose	Geographical coverage	Note
	IP/RP: Study performed by RECETOX	**POPs monitored:** PCB **Matrix:** **QA/QC:** defined laboratory QA/QC system **Intercalibration:** will start shortly **Standards:**				
	• *Monitoring of chemical contaminants in food products (1980-2005)* • *Dioxins monitoring in the environment (2000-2001)* • *Assessment of body burden with organochlorine pesticides residues (2000-2004)* • *Researches concerning transboundary pollution with POPs produced by industrial activities from the West Area of Romania (1999-2001)* • *Elaboration of the emissions inventory for 1998, 1999 concerning the atmospheric pollutants (POPs included) (2000-2001)*					
	IP/RP: *EMEP*					
Russian Federation	**IP/RP:** • *EMEP* • *HELCOM* • *CEP* • *AMAP*	*Centre for Environmental Chemistry of SPA "Typhoon"* ***I L- 1*** ***QA/QC:*** *yes* ***Intercalibration:*** *yes*				*Regular monitoring of the PAHs in air is conducted in all industrial cities.* *Regular monitoring of pesticides in foodstuffs, soils and fresh water.*

Country	National monitoring activities/ Involvement in international activities	Laboratories and institutions involved	Data archives and accessibility for international reporting/ assessment	Time frame and purpose	Geographical coverage	Note
Serbia and Montenegro		*P.I. Centre for Ecotoxicological Research of Montenegro* ***I L- 2***				
Slovakia	National Surface Water Quality Monitoring	• National Reference Laboratory for Waters-Water Research Institution • Geological Survey of Slovak Republic, Geoanalytical Laboratories ***I L- 4*** **POPs monitored:** aldrin, dieldrin, endrin, DDT, heptachlor, HCB, PCB **Matrix:** W **QA/QC:** STN EN ISO/IEC 17025, ISO 9001 **Intercalibration:** Czech, Hungary, GB (yearly) **Standards**: ISO standards	ICPDR –TNMN database Accessible on request from national central database (SQL Server)	• 2003-2007 • beyond 2008, yes, WFO request (4/12 times per year) • Inf. for evaluation by 2007, yes TNMN yearbook – hot spots/data on national level and complementation with neighbouring countries-Hungary, Austria, Poland, Czech	These two activities cover relevant substances in SR and are aimed at hot spots and transboundary water pollution. They can provide valuable inf. on nat/intl level.	
	Transboundary Water Quality Monitoring Slovakia-Hungary	National Reference Laboratory for Waters-Water Research Institution **POPs monitored:** aldrin, dieldrin, endrin, DDT, heptachlor, HCB, PCB **Matrix:** W, SD **QA/QC:** STN EN ISO/IEC 17025, ISO 9001 **Intercalibration:** Czech, Hungary, GB (yearly) **Standards**: ISO standards	Commission on Transboundary Waters Accessible on request from national central database (SQL Server)	• 2003-2007 • beyond 2008, yes, WFO request (4/12 times per year) • Inf. for evaluation by 2007, yes Pollution control-long term trends, hot spots		

Country	National monitoring activities/ Involvement in international activities	Laboratories and institutions involved	Data archives and accessibility for international reporting/ assessment	Time frame and purpose	Geographical coverage	Note
	National Ground Water Quality Monitoring	• National Reference Laboratory for Waters-Water Research Institution • Geological Survey of Slovak Republic, Geoanalytical Laboratories ***I L- 4*** **POPs monitored:** DDT, heptachlor, HCB, PCB **Matrix:** W **QA/QC:** Control analysis, ISO9001 **Intercalibration:** **Standards**:	ICPDR	• 1982-2007 • beyond 2008, yes, WFO request (2/4 times per year) • Inf. for evaluation by 2007, yes Hot spots, long term trends		
	• *Evaluation of the exposure of the selected population sub-group to POPs (1997-2000)* • *The burden of the environment and human population in an area contaminated by polychlorinated biphenyls (1997-1999)*	• *Dept. of Toxic Organic Pollutants, Inst. Of Preventive and Clinical Medicine, Slovak Medical Univ.* ***I L- 1*** ***QA/QC:*** *yes* ***Intercalibration:*** *yes* • *Oddelenie vodohospodárskycch laboratórií Piest'any* ***I L- 4*** • *East Slovakia Water Works, Regional Laboratory* ***I L- 4*** • *BEL/NOVAMANN International, Ltd.* ***I L- 4*** • *Regional Office of Public Health* ***I L- 3*** • *EL spol. s r. o.* ***I L- 4*** • *EKOLAB s.r.o. Kosice* ***I L- 2*** • *INGEO-ENVILAB, s.r.o.****I L-4*** • *Division of the laboratory services (PHI)* ***I L- 3***				
	IP/RP: *EMEP*					
Slovenia	Impact of PCBs on the environment of Bela krajina region 2005	• National Institute of Public Health, Environment Protection Institute Maribor • Institute of Public Health Novo mesto **POPs monitored:** PCB **Matrix: A,** W, F **QA/QC:** SIST EN ISO/IEC 17025 **Intercalibration:** **Standards:**		• 2005 • beyond 2008, yes, 2015 • Inf. for evaluation by 2007, yes Hot spots, food security	SE part of Slovenia	

Country	National monitoring activities/ Involvement in international activities	Laboratories and institutions involved	Data archives and accessibility for international reporting/ assessment	Time frame and purpose	Geographical coverage	Note
	Monitoring of chemicals in organisms 2005	National Institute of Public Health, Environment Protection Institute Maribor **POPs monitored:** aldrin, chlordane, dieldrin, endrin, DDT, heptachlor, HCB, PCB, PCDD/PCDF **Matrix: M, B** **QA/QC:** SIST EN ISO/IEC 17025 **Intercalibration:** **Standards:**	levels of PCBs, PCDDs and PCDFs in human milk, second round of WHO-coordinated exposure study, Environmental Health in Europe, No.3, EUR/ICP EHPM02 03 05 (1996)	• 2005 • beyond 2008, yes, 2008-2010 • Inf. for evaluation by 2007, no Geographic patterns, long term trends	East of Solvenia	
	Monitoring residues of harmful substances in foodstuff of animal origin 2003-2004	National Institute of Public Health, Environment Protection Institute Maribor **POPs monitored:** aldrin, chlordane, dieldrin, endrin, DDT, heptachlor, HCB, PCB, PCDD/PCDF **Matrix: A,** W, F **QA/QC:** SIST EN ISO/IEC 17025 **Intercalibration:** **Standards:**		• 2000-2007, yes • beyond 2008, yes • Inf. for evaluation by 2007, yes Food security		
	PHARE programme 1999 (monitoring of certain POPs pesticides in food included)	*Group for Environmental Analytical Chemistry* *Laboratory for Organic Analytical Chemistry* ***I L- 2***				*Some of POPs chemicals are included in different national monitoring, e.g. monitoring of water and air.* *UNEP/GEF pilot country for NIPs (2002-2004)*
	IP/RP: • *EMEP* • *MEDPOL*					

Country	National monitoring activities/ Involvement in international activities	Laboratories and institutions involved	Data archives and accessibility for international reporting/ assessment	Time frame and purpose	Geographical coverage	Note
Ukraine	*The Elaborating of National Strategy and Action Plan on POPs management and of Program of Atmospheric Emissions Reduce (2000-2001)*	• *Research Dept. Metrological Assurance Measurements* ***I L- 4*** • *Dept. of Analytical Control, Ukranian Sci. Centre Ecology of the Sea* ***I L- 2*** • *Kharkiv branch of the Dept. of Deense National Enterprise* ***I L- 4***				*No air monitoring and little information on other environmental compartments*
	IP/RP: *EMEP*					
Yugoslavia						*Organized active monitoring networks of PTSs do not exist. However, in some regions there are ongoing monitoring activities in certain compartments.*

IV. LATIN AMERICAN AND CARIBBEAN STATES

A. SOUTH AMERICA

Country	National monitoring activities/ Involvement in international activities	Laboratories and institutions involved	Data archives and accessibility for international reporting /assessment	Time frame and purpose	Geographical coverage	Note
Argentina	*Some one-off projects including:* • *Organochlorine and Organophosphorous pescides in the Paraná river (1995-*	• *Cátedra de Toxicología y Química Legal, Facultad de Farmacia y Bioquímica – UBA* ***I L- 3*** • *INTI – Organics Contaminants* ***I L- 4*** • *INA-CTUA-LETS Laboratorio Experimental de Tecnhologías Sustentables* ***I L- 4***				*Several National services related to food and agriculture have relatively complete*

Country	National monitoring activities/ Involvement in international activities	Laboratories and institutions involved	Data archives and accessibility for international reporting /assessment	Time frame and purpose	Geographical coverage	Note
	1996) • *Chlorinated hydrocarbons in the seawater and surface sediments of Blanca Bay (1980-1981)*	• *Laboratorio de Química Ambiental y Biogeoquímica (LAQAB)* ***I L- 2*** • *Centro de Investigaciónes Toxicologicas* ***I L- 3*** • *Water Research Transdiciplinary Centre* ***I L- 4*** • *INA-CTUA-LECA* ***I L- 4***				*laboratories and a long pesticide monitoring tradition in foodstuffs, but unfortunately often with severe limitations for public access to the data.*
Bolivia	*Data on PTS is scarce.*	• *Spectrolab* ***I L- 4*** • *Centro de Aguas y Saneamiento Ambiental V.M.S.S. Facultad de Ciencias y Technología* ***I L- 4*** • *Centro de Analisis Investigación y Desarollo (CEANID) Facultad de Ciencias y Technología* ***I L-*** ***Laboratory without POPs analysis*** • *Higiene Industrial y Toxicología Instituto Nacional de Salud Ocupacional* ***I L-*** ***Laboratory without POPs analysis*** • *Fundación Instituto de Tecnología de Alimentos* ***I L- 4***				*Very limited capacity for PTS monitoring*
Brazil	• *Levels of PCDDs, PCDFs and PCBs in Human Milk-Third Round of WHOcoordinated Exposure Study (2000-ongoing)* • *Monitoring dioxins in pasteurized milk in the State of Rio de Janeiro, Brazil (1999-2000)* • *Occurrence and distribution of organochlorine compounds in sediment and organisms from estuaries along the Brazilian coast (2002-2005)*	• *LAQUAM, Universidade Federal da Bahia* ***I L- 4*** • *Cia de Technologia de Saneamiento Ambiental (CETESB), Divisão de Análises Físico-Químicas* ***I L- 4*** • *Analytical Solutions* ***I L- 1*** ***QA/QC:*** *yes* ***Intercalibration:*** *yes* • *Physical Chemistry Division* ***I L- 4*** • *Laboratório de Microcontaminantes Orgánicos e de Ecotoxicologia Aquática (FURG)* ***I L- 2*** • *Bioagri Ambiental Ltda* ***I L- 4***				*Environmental monitoring is carried out by State Agencies but data generation and capacity varies enormously across the country. Recently, there has been an increase in the participation of public and private universities in environmental monitoring.*

Country	National monitoring activities/ Involvement in international activities	Laboratories and institutions involved	Data archives and accessibility for international reporting /assessment	Time frame and purpose	Geographical coverage	Note
	• *A contamination survey of the estuarine system of Santos and Sao Vicente (1998-2003)* • *Specimen Bank and monitoring of organohalogenated contaminants (1999-ongoing)*					
Chile	POPs along Environmental Transects in Costa Rica, Chile, Nepal, and Botswana (Proyecto UoT/UNEP)	• University of Toronto at Scarborough, Dept. of Physical and Environmental Science • Canada National Water Research Institute • University Crescent Winnipeg, Dept. of Fisheries and Oceans, Canada **POPs monitored:** aldrin, dieldrin, endrin, DDT, HCB, PCB **Matrix:** **A**, S **QA/QC:** yes **Intercalibration:** laboratorio de Ensayos EULA-UFZ Alemania **Standards**:	• Data are reported to UNEP Chemicals • Publicaciones de interés cientifico	• 2006-2007 • beyond 2008, no • Info.for evaluation by 2007, no Areas de Fondo		*Scientific activity is concentrated in the most important urban centers. This has resulted in an uneven distribution of scientific technical capacities that are particularly deficient in the northern region and the extreme south.* *There are public and private laboratories that have the necessary analytical techniques and trained personnel for PTS analysis.*
	FONDECY T1050647	• Centro de Ciencias Ambientales EULA-Chile, Universidad de Concepción • Centro de Investigaciones Químicas y Ambientales Jordi Pascual Villa, CSIS, España **POPs monitored:** BPC **Matrix:** SD, S **QA/QC:** Uso de material de referencia certificado; **Intercalibration:** con el Laboratorio del Dr. Joan Grimalt **Standards**:	Data: Publicaciones Científicas	• 2000-2007, yes • beyond 2008, no • Info.for evaluation by 2007, no Areas de Fondo		

Country	National monitoring activities/ Involvement in international activities	Laboratories and institutions involved	Data archives and accessibility for international reporting /assessment	Time frame and purpose	Geographical coverage	Note
	CONPACSE 2000	Laboratorio Oceanografic del SHOA, designado por CONPACSE **POPs monitored:** aldrin, dieldrin, endrin, DDT, heptachlor, mirex, toxaphene, HCB **Matrix:** SD,BV **QA/QC:** Estándares surrogados, estándar interno y material referenciado **Intercalibration:** IAEA-MEL, CONPACSE 2000 **Standards**: El muestreo y la metodologia es del GERG y el IAEA-MEL	Plan de Acción para la Protección del Medio Marino y las Zonas Costeras del Pacífico Sudeste de la CPPS	• 2005-2006 • beyond 2008, no • Info.for evaluation by 2007, yes Areas de fondo	Permitiria aportar con infomación ambiental sobre la presencia de COPs en el medio ambient acuático	*No programs looking at biota levels or effects exist.*
	Organic Aerosols Monitoring Campaign "Proyecto FONDEF D02-I1128"	• Laboratorio de Química Ambiental, Universidad Técnica Federico Santa María • FONDEF (Scientific and Technological Development Foment Found) – CONICYT (National Commission of Science and Technology, Government of Chile) • CONAMA (Environmental Nacional Commission, Chilean Government) • Thermo Rupprecht & Patashnick, USA **POPs monitored:** PCB **Matrix: A** **QA/QC:** analysis of certified reference material, high purity standard solution, chromatographic confirmation of solvent quality **Intercalibration:** NIST CENAM SIM 820 P, about PAHs conc. **Standards**: EPA Standard Method 8100 for PAHs analysis, modified for low vol sampling, GC-FID detection; EPA Compendium Method TO-4A, modified for low vol sampling, GC-FID detection.	Data are available in CONAMA and FONDEFS offices	• 2002-2004 • beyond 2008, yes at yearly basis • Info.for evaluation by 2007, yes Hot spots	The level of capacity to perform monitoring of POPs and to give trustable data to contribute to GMP is recognized, the quality of work is guaranteed. Capacity enhancement is necessary to determine other POPs like PCDD and PCDF.	

Country	National monitoring activities/ Involvement in international activities	Laboratories and institutions involved	Data archives and accessibility for international reporting /assessment	Time frame and purpose	Geographical coverage	Note
	Organic Aerosols Monitoring Campaign CONAMA 2002, 2003, 2004	• Laboratorio de Química Ambiental, Universidad Técnica Federico Santa María • CONAMA (Environmental Nacional Commission, Chilean Government) **POPs monitored:** PCB **Matrix: A** **QA/QC:** analysis of certified reference material, high purity standard solution, chromatographic confirmation of solvent quality **Intercalibration:** NIST CENAM SIM 820 P, about PAHs conc. **Standards**: EPA Standard Method 8100 for PAHs analysis, modified for low vol sampling, GC-FID detection; EPA Compendium Method TO-4A, modified for low vol sampling, GC-FID detection.	Data are available in CONAMA and FONDEFS offices	• 2002-2004 • beyond 2008, yes at yearly basis • Info.for evaluation by 2007, yes Hot spots		
	• *Characterization of Polychlorinated Byphenyls (PCBs) in urban atmosphere, within the Santiago Metropolitan Region, Chile (2001)* • *Diagnóstico Nacional de Contaminantes Orgánicos Persistentes (2000-2001)*	*Laboratorio de Química del Centro EULA – Chile* ***I L- 4***				
Ecuador	*No information on POPs monitoring programmes and datasets*	• *Pesticides Laboratories of the Ecuadorian Service for Agriculture and Cattle Protection (SESA)* ***I L- 4*** • *Ecotoxicology Laboratory* ***I L- 4*** • *Laboratoria de Chromatografía* *Instituto de Ciencias (ICQ)* *Escuela Superior Politécnica del Litoral (ESPOL)* ***I L- 4***				*Very limited capacity for PTS monitoring*
Paraguay	*No ongoing monitoring*					*Monitoring*

Country	National monitoring activities/ Involvement in international activities	Laboratories and institutions involved	Data archives and accessibility for international reporting /assessment	Time frame and purpose	Geographical coverage	Note
	programs.					*capacities are very limited, with the exception of a state owned laboratory with limited facilities.*
Peru	• *Determinacion de efectos en suelos agricolas par el uso intensivo de plaguidas COPs. El proyecto se encuentra en fase de elaboracion y formara parte del 'Plan National de Implementation del Convenio de Estocolmo en Peru'* • *Polychlorobiphenysl Source Inventory* • *Obsolete pesticides Inventory*					*Monitoring capacity is very limited and performed by a few local universities. The exception is the CEPIS-OPS laboratory which is equipped for chemical analysis but limited for economic reasons.*
Uruguay	*Bifenilos policlorados en Uruguay*					*Several organizations have facilities for performing PTS analysis. However, there are no regular monitoring programs for PTS.*

B. CENTRAL AMERICA AND THE CARIBBEAN

Country	**National monitoring activities/ Involvement in international activities**	**Laboratories and institutions involved**	**Data archives and accessibility for international reporting/ assessment**	**Time frame and purpose**	**Geographical coverage**	**Note**
Antigua and Barbuda		*Government Chemist Laboratory* ***Laboratory without POPs analysis***				Limited capacity to carry out monitoring
Bahamas		*Public Analyst Laboratory* ***Laboratory without POPs analysis***				Has laboratory capacity to conduct monitoring of selected PTS
Barbados		*Government Analytical Services (GAS)* ***Laboratory without POPs analysis***				*Has laboratory capacity to conduct monitoring of selected PTS* *The Barbados Government Analytical Facilities (BGAF) possesses some equipment need for testing. It also has well trained personnel*
Belize	*There is data from an ambient air sampling campaign*					
Bermuda						
Colombia	• *Monitoring programme for the upper basin of the Bogota River: Organochlorinated pesticides; PCBs; HAPs and Phenols* • *Some data on levels of DDT and PCBs in coastal waters*	*Laboratorio de Calidad Ambiental del IDEAM* ***I L- 4***				*Monitoring and control of food and drugs is the responsibility of the Ministry of Health through the National Institute of Vigilance of Medicines and*

Country	National monitoring activities/ Involvement in international activities	Laboratories and institutions involved	Data archives and accessibility for international reporting/ assessment	Time frame and purpose	Geographical coverage	Note
						Foods
Costa Rica	*Desarollo e Implementación de un sistema de Vigilancia de las Intoxicaciones con Plaguicidas. Experiencia en Costa Rica*	*Laboratory for Pesticide Residue Analysis (LAREP), Central American Institute for Studies on Toxic Substances (IRET)* ***I L-4***				
Cuba	*One-off projects :* • *Estudio sobre la contaminacion por plaguicidas y medidas para su control en la Ciénaga de Zapata y su zona costera* • *Distribucion, destino y efectos de plaguicidas en el biota ambiente Tropical-marino*	• *Residue and Pesticide Environmental Contamination Lab.* ***I L- 4*** • *Environmental Chemistry Laboratory* *Petroleum Research Centre* ***Laboratory without POPs analysis***				*The Laboratory infrastructure for the testing of PTSs is located within three Ministries: Agriculture Health and Transport.*
Dominica						*Very limited capacity to carry out monitoring*
Dominican Republic						*No information*
El Salvador						
Grenada						*Very limited capacity to carry out monitoring*
Guatemala	Preparacíon del Inventario Nacional y Plan Nacional para el Manejo Ambientalmente Racional de Bifenilos Policlorados y los Equipos que los Contengan	• Ministerio de Ambiente y Recursos Naturales • Comité de Coordinacíon Nacional • Ministerio de Salud Pública y Asistencia Social • Ministerio de Energía y Minas • Sector privado **POPs monitored:** PCB **Matrix:** **QA/QC:**	Base de datos proporcionados por la Secretaria del Convenio de Basilea	• 2000-2007, yes • beyond 2008, yes • Inf. for evaluation by 2007, yes Ddeterminar	National	

Country	National monitoring activities/ Involvement in international activities	Laboratories and institutions involved	Data archives and accessibility for international reporting/ assessment	Time frame and purpose	Geographical coverage	Note
		Intercalibration: **Standards**: uso de Kits de CLOR-B-OIL 50; Analizador LX 2,000		cuantitativament e la existencia de PCB's en Guatemala que permita realizar un planteamiento de un plan de accion y una estrategia nacional para su manejo recional y eliminacíon en el marco de los Convenios de Estocolmo, Basilea y Rótterdam ; realizar el inventario nacional y plan nacional		
	IP/RP : Programa regional de accíon y demostracíon de alternativas sostenibles para el control de vectores de malaria sin uso de DDT en México y América Crntral « Estudio de Riesgo en Salud »	• Ministerio de Ambiente y Recursos Naturales • Laboratorio Nacional de Salud • Ministerio de Salud Pública y Asistencia Social • Organizacíon Panamericana de la Salud (OPS) (ASESOR) **POPs monitored:** DDT **Matrix: B,** P, SD, S **QA/QC:** **Intercalibration:** el equipo que será utilizado en el 2007 para la determinacíon de DDT para este proyecto será adquirido con los fondos del Proyector DDT/GEF **Standards**: Muestreo metodología de la OPS; Análisis de laboratorio methdología de la Universidad de San Luis Potosi, México ; determinacíon del riesgo en salud, Metodología de	De acuerdo al sistema propuesto por OPS y la Universidad de San Luis Potosi, México	• 2000-2007, yes • beyond 2008, no • Inf. for evaluation by 2007, yes Determunar el riesgo en salud por exposicíon al DDT, en 24 comunidades de la región (puntos	México, Belice, Guatemala, Honduras, El Salvador, Nicaragua, Costa Rica, Panamá	

Country	National monitoring activities/ Involvement in international activities	Laboratories and institutions involved	Data archives and accessibility for international reporting/ assessment	Time frame and purpose	Geographical coverage	Note
		Montecarlo		galientes o sitios peligrosos) en mesoamericana. Identificar los sitios peligrosos o contaminados por la presencia de DDT		
		Programa de Química Analítica Ambiental (PQAA), Instituto de Investigaciones *Universidad del Valle de Guatemala* ***I L- 4***				
Guyana						*Has laboratory capacity to conduct monitoring of selected PTS*
Haiti						*No information*
Honduras	*Residuos de plaguicidas organoclorados en tres matrices ambientales de la zona sur del pais (2001 – 2002)*	*Centro de Estudios y Control de Contaminantes CESCCO* ***I L- 4***				
Jamaica	*No programmes to routinely monitor the levels of POPs Chemicals in the environment.* *Established an Inventory of Obsolete Pesticides in Jamaica.* *There are some previous studies on the levels of POPs pesticides in the environment.*	*Pesticide Research Laboratory* *University of West Indies, Chemistry Department* ***I L- 4***				*Has laboratory capacity to conduct monitoring of selected PTS* *The university of the West Indies possesses the analytical equipment but conducts a limited number of studies.*
Mexico	Proyectos desarrollados por el	• Instituto Mexicano de Tecnología del Agua	CCAAN	• 2000-2007,	Nivel Nacional	

Country	National monitoring activities/ Involvement in international activities	Laboratories and institutions involved	Data archives and accessibility for international reporting/ assessment	Time frame and purpose	Geographical coverage	Note
	IMTA/ Laboratorio de Hidrogeoquímica del IMTA: • Migración de contaminantes provenientes de fuentes puntuales y dispersas, que alteran la calidad del agua y de su entorno • Elaborción de inventarios de descargas de contaminantes • Formulación de medidas preventivas, correctivas y de conservación del ambiente • Saneamiento de áreas contaminadas • Biodegradación de herbicidas en suelos y migración hacia el agua subterránea Estimaciónde riesgos de contaminar el agua	• Gobiernos estatales • Conagua • CCAAN • Conacyt **POPs monitored:** aldrin, chlordane, dieldrin, endrin, DDT, heptachlor, mirex, toxaphene, HCB, PCB and PCDD/PCDF **Matrix: A**,S,SD, W **QA/QC:** blancos, duplicados, curves de calibración, control de recuperación, ejercicios de intercalibración **Intercalibration:** **Standards:**EPA 8082B- 1998, EPA 8081A- 1996, EPA 8310- 1986		yes • beyond 2008, yes • Inf. for evaluation by 2007, yes Generar información sobre COP's en aire, agua, sedimentos y suelos		
	Proyectos desarrollados por el IMTA/ Proyectos de Calidad del Agua : • Estimación de la calidad del agua en cuerpos de agua superficial y subterránea • Análisis de COPs en agua, sedimento y suelo • Determinación de las rutas de dispersión de contaminantes en cuerpos de agua • Generación de metolodologías alternativas	• Instituto Mexicano de Tecnología del Agua • Consejo Naciónal de Ciencia y Tecnología • Universidad de Las Américas-Puebla • Environment Canada **POPs monitored:** aldrin, chlordane, dieldrin, endrin, DDT, heptachlor, mirex, toxaphene, HCB, PCB and PCDD/PCDF **Matrix: A**,S,SD, W **QA/QC:** control de calidad en campo ; análisis de muestras por duplicado ; análisis de muestras sintéticas para determinación de porcentaje de recobro ; análisis de sustitutos, blanco de método, blanco de material de vidrio ; gráficos de control de recobros de muestras sintéticas y sustitutos. **Intercalibration:** Inter-laboratory study IADN common		• 2000-2007, yes • beyond 2008, yes • Inf. for evaluation by 2007, yes Generar información sobre COP's en aire, agua, sedimentos y suelos		

Country	National monitoring activities/ Involvement in international activities	Laboratories and institutions involved	Data archives and accessibility for international reporting/ assessment	Time frame and purpose	Geographical coverage	Note
	de tratamiento de COPs en agua contaminada	reference standard and air sample extract from Mexico (organizada por Environment Canada) **Standards:**EPA 8082B- 1998, EPA 8081A- 1996, EPA 8310- 1986 por mencionar algunos				
	Apyo a Estudios Especiales de Calidad del Agua y Emergencias hidroecológicas	Laboratorio national de referencia de la gerencia de saneamiento y calidad del agua de la comision_nacional del agua **POPs monitored:** aldrin, dieldrin, endrin, DDT, heptachlor **Matrix:** W **QA/QC:** Muestras_control, duplicadas, fortificadas **Intercalibration:** participacion en pruebas de aptitude relizadas por; commission nacional del agua **Standards:**EPA 608		• 2000-2007, yes • beyond 2008, yes • Inf. for evaluation by 2007, ? Areas de tensión	National	
	Muestreo de agroquimicos	Centro Nacional de Investigación y Capacitación Ambiental y Dirección General de Economía y Política Ambiental del Instituto Nacional de Ecología **POPs monitored:** aldrin, chlordane, dieldrin, endrin, DDT, heptachlor, toxaphene, HCB **Matrix:** S, SD **QA/QC:** ISO 17025 and EPA 8270 **Intercalibration:** under auspicious Commission of Environmental Cooperation, and the Integrated Atmospheric Deposition Network (IADN) **Standards:** EPA 8270	No	• 2000-2007, yes • beyond 2008, no • Inf. for evaluation by 2007, yes Geographic patterns	Todo el territorio nacional	
	Determinación de peligrosidad en bloques de residuos	Centro Nacional de Investigación y Capacitación Ambiental **POPs monitored:** aldrin, chlordane, dieldrin, endrin, heptachlor, toxaphene, HCB **Matrix:** waste **QA/QC:** ISO 17025 and EPA 8270 **Intercalibration:** under auspicious Commission of Environmental Cooperation, and the Integrated Atmospheric Deposition Network (IADN) **Standards:** EPA 8270	No	• 2000-2007, yes • beyond 2008, no • Inf. for evaluation by 2007, yes Geographic patterns, hot	En el estado de Yucatán México	

Country	National monitoring activities/ Involvement in international activities	Laboratories and institutions involved	Data archives and accessibility for international reporting/ assessment	Time frame and purpose	Geographical coverage	Note
				spots		
	Caracterización de Lixiviados en sitios de disposición de residuos sólidos urbanos en la zona centro del país	Centro Nacional de Investigación y Capacitación Ambiental **POPs monitored:** aldrin, chlordane, dieldrin, endrin, heptachlor, toxaphene, HCB **Matrix:** waste **QA/QC:** ISO 17025 and EPA 8270 **Intercalibration:** under auspicious Commission of Environmental Cooperation, and the Integrated Atmospheric Deposition Network (IADN) **Standards:** EPA 8270	No	• 2000-2007, yes • beyond 2008, no • Inf. for evaluation by 2007, yes Geographic patterns, hot spots	Tlaxcala, Edo. De Mexico, Puebla, Veracruz y Queretaro	
	Muestreo de la DGCENICA en áreas colindantes a la reserva de la biosfera Montes Azules, Chiapas	Centro Nacional de Investigación y Capacitación Ambiental **POPs monitored:** aldrin, chlordane, dieldrin, endrin, DDT, heptachlor, toxaphene **Matrix:** S **QA/QC:** ISO 17025 and EPA 8270 **Intercalibration:** under auspicious Commission of Environmental Cooperation, and the Integrated Atmospheric Deposition Network (IADN) **Standards:** EPA 8270	No	• 2000-2007, yes • beyond 2008, no • Inf. for evaluation by 2007, yes Hot spots, background	Reserva de la Biosfera Montes Azules, Chiapas	
	Evaluación de riesgos a la salud por exposición a hidrocarburos en la zona petrolera del sur de Veracruz	Centro Nacional de Investigación y Capacitación Ambiental e Instituto Nacionalde Salud Publica **POPs monitored:** aldrin, chlordane, dieldrin, endrin, DDT, heptachlor, toxaphene, HCB **Matrix:** S, SD, W **QA/QC:** ISO 17025 and EPA 8270 **Intercalibration:** under auspicious Commission of Environmental Cooperation, and the Integrated Atmospheric Deposition Network (IADN) **Standards:** EPA 8270	No	• 2000-2007, yes • beyond 2008, no • Inf. for evaluation by 2007, yes Geographic patterns	Coatzacoalcos, Minatitlan y Nanchital en el Estado de Veracruz	

Country	National monitoring activities/ Involvement in international activities	Laboratories and institutions involved	Data archives and accessibility for international reporting/ assessment	Time frame and purpose	Geographical coverage	Note
	• *Status Report of the dioxins and furans in Mexico (2001)* • *Status report on PCBs in Mexico (2001-2002)* • *Plan Nacional de Monitoreo de Compuestos Orgánicos (2003- not fixed)*	• *Mexicans Customs Laboratory* ***Laboratory without POPs analysis*** • *International Centre for Environmental Research and Training* ***I L- 4*** • *Centro Nacional de Metrologia* ***I L- 4***				*A modification to Mexico's environmental protection law as approved in 2001, in which industries will be required to report data on a wide variety of pollutants.*
	IP/RP: *SMOC*					
Nicaragua	*Estudios de contaminación (Mrex) Cuencas Hídricas por plaguicidas y estudio sobre la contamincaión*					
Panama	• *Determinación de la actividad eritocitica y macrofágica ocasionada por DDT.* • *Control de Calidad de Alimentos presumiblemente contaminados por COPs.* • *Evaluación de riesgo de exposición a COPs en áreas especificas.*	*Instituto de Investigación Agropecuaria de Panamá Laboratorio de Análisis de Residous de Plaguicidas* ***I L- 4***				*There are a number of laboratories with well trained staff in Panama capable of conducting testing for PTS.*
Saint Kitts and Nevis						*Very limited capacity to carry out monitoring*
Saint Lucia		*Caribbean Environmental Health Institute (CEHI)* ***I L- 4***				*Has laboratory capacity to conduct monitoring of selected PTS.* *The Caribbean*

Country	National monitoring activities/ Involvement in international activities	Laboratories and institutions involved	Data archives and accessibility for international reporting/ assessment	Time frame and purpose	Geographical coverage	Note
						Environmental Health Institute (CEHI) laboratory is well equipped and has well trained staff.
Saint Vincent and the Grenadines						*Very limited capacity to carry out monitoring*
Suriname						
Trinidad and Tobago						*Has laboratory capacity to conduct monitoring of selected PTS* *A number of governmental and private laboratories carry out environmental sampling and analysis. (only three are accredited to perform certain tests)*
Venezuela						

V. WESTERN EUROPEAN AND OTHER STATES

Country	National monitoring activities/ Involvement in international activities	Laboratories and institutions involved	Data archives and accessibility for international reporting /assessment	Time frame and purpose	Geographic coverage	Note
Andorra						
Australia	National Dioxins Programme: • in air • in soils • in sediments and bivalves • in fish • terrestrial fauna and marine mammals • human blood • (human) mother's milk • meat and dairy agricultural commodities • foods	• Australian Government Analytical Laboratories **I L- 1** • The National Research Centre for Environmental Toxicology (ENTOX) • Commonwealth Scientific Industrial Research Organisation (CSIRO) • AgriQuality New Zealand • ERGO- Forschungsgesellschaft mbH, Hamburg • Food Standards Australia New Zealand **POPs monitored:** dioxin-like PCBs and PCDD/PCDF **Matrix: A, M, B,** S, SD, BV, F, P, MM, terrestrial fauna **QA/QC:** details of QA/QC for each activity are provided in Attachments A1-7 of the dioxin reports **Intercalibration:** participated in various international intercalibration studies and interlaboratory comparision **Standards:** US EPA 1613B and 1668A	Reports of the National Dioxins Programmes are available at http://deh.gov.au/settlements/chemicals/dioxins/reports.html	• 2001-2004 • beyond 2008, no • Inf. for evaluation by 2007, no To determine concentrations of the 29 WHO congeners of PCDD, PCDF and co-planar PCBs in air, soils, sediments and bivalves, fish, terrestrial fauna and marine mammals, meat and dairy commodities across Australia, and in blood, milk, foods to assess the risk to humans in the Australian population.	National	*Has capability to analyse for PCDD/PCDF*
	Organochlorine Pesticides (OCPs) and Polybrominated Diphenyl Ethers (PBDEs) in	• Australian Government Analytical Laboratories **I L- 1** • The National Research Centre for Environmental	Report is available at http://www.ephc.g	• 2001-2004 • beyond	National	

Country	National monitoring activities/ Involvement in international activities	Laboratories and institutions involved	Data archives and accessibility for international reporting /assessment	Time frame and purpose	Geographic coverage	Note
	the Australian population: Levels in Human Milk	Toxicology (ENTOX) **POPs monitored:** aldrin, chlordane, dieldrin, DDT, heptachlor, mirex, HCB **Matrix: M** **QA/QC: :** details of QA/QC for the activity are provided in the report of OCP and PBDEs in breast milk **Intercalibration:** participated in various international intercalibration studies and interlaboratory comparision **Standards:** US EPA1613B and 1668A	ov.au/ephc/ocp_pbde_human_milk.html	2008, no • Inf. for evaluation by 2007, no To determine concentrations of OCPs and PBDEs in human milk in the Australian population		
Austria	**IP/RP:** MONARPOP (Monitoring Network in the Alpine Region for Persistent and other Organic Pollutants)	Laboratories: • Umweltbundesamt GmbH/Austria (analysis of PCDD/F, PCB), project management • GSF Research Centre for Environment and Health/ Germany (analysis of chloropesticides) • Federal Environmental Agency/ Germany (analysis of PBDE) • EMPA/ Switzerland (analysis of toxaphen, SCCP) • INCA/ Italy (analysis of PAH) Other institutions: • Austrian Federal Ministry for Agriculture, Forestry, Environment and Water Resources; lead partner • Agenzia Regionale per la Protezione dell'Ambiente della Lombardia, Italy • Agenzia Regionale per la Protezione Ambientale del Veneto, Italy • Bavarian State Ministry for Environment, Health and Consumer Protection, Germany • Swiss Agency for the Environment • Slovenian Forestry Institute • Swiss Federal Institute for Forest, Snow and Landscape Research	http://www.monarpop.at/index.php	• 2000-2007, yes, since 2005 • beyond 2008, yes • Inf. for evaluation by 2007, yes in autumn Monitoring of the POPs load in the Alps.	Remote sites in the Alps of Austria, Germany, Italy, Slovenia and Switzerland	

Country	National monitoring activities/ Involvement in international activities	Laboratories and institutions involved	Data archives and accessibility for international reporting /assessment	Time frame and purpose	Geographic coverage	Note
		POPs monitored: aldrin, chlordane, dieldrin, endrin, DDT, heptachlor, mirex, toxaphene, HCB, PCB and PCDD/PCDF **Matrix: A**,S,V **QA/QC:** Umweltbundesamt GmbH/Austria: EN ISO/IEC 17025 ; GSF Research Centre for Environment and Health/ Germany: GSF QAQC 090107 **Intercalibration:** participated in various international intercalibrations **Standards:** air sampling: VDI 3498; analysis: EPA 1613				
	Various monitoring projects to do periodic checking of water, soil for pesticides and PCB.	*Umweltbundesamt Ltd. Dept. Environmental Analysis/POPs* ***I L- 1*** ***QA/QC:*** *yes* ***Intercalibration:*** *yes*				
	IP/RP: *EMEP*					
Belgium	*Inventory of PCBs at the federal level*	• *Center for analysis of Residues in Traces (CART)* ***I L- 1*** ***QA/QC:*** *yes* ***Intercalibration:*** *yes* • *Institute for Applied Chromatography (IAC)* ***I L- 1*** ***QA/QC:*** *yes* ***Intercalibration:*** *yes*				
	IP/RP: • *EMEP*					

Country	National monitoring activities/ Involvement in international activities	Laboratories and institutions involved	Data archives and accessibility for international reporting /assessment	Time frame and purpose	Geographic coverage	Note
Canada	**NCP** (Northern Contaminants Program) – Northern Contaminants Air Monitoring: Organic Pollutant Measurements	• National Laboratory for Environmental Testing (NLET), National Water Research Institute, Canada • Freshwater Institute (FWI), Dept. of Fisheries and Oceans • Environment Canada, Burlington • Univ. of Toronto **POPs monitored:** aldrin, chlordane, dieldrin, endrin, DDT, heptachlor, mirex, toxaphene, HCB, PCB and PCDD/PCDF **Matrix: A** **QA/QC:** NLET- fully accredited to ISO/IEC 17025, FWI **Intercalibration:** participated Northern Contaminants Interlaboratory QA Program **Standards:** Samples are collected and stored according to accepted methodologies for air sample collection for POPs	AMAP Data are available at AMAP database and also accessible on line at National Atmospheric Chemistry Database (NAtChem)	• Phase I • Phase II Background and long-term trends		Comprehensive monitoring capacity and capability
	Canadian Health Measures Survey (CHMS)	Toxicology Laboratory, Institute National de Sante Publique du Quebec Statistics Canada, Health Canada **POPs monitored:** aldrin, chlordane, DDT, mirex, HCB, PCB **Matrix: B** **QA/QC:** Accredited under ISO-170025; participates in several QC programs including: Centers for Disease Control and Prevention **Intercalibration:** **Standards:** Ethics review, standardized collection, pre-survey and ongoing field collection	Data will be stored by Statistics Canada. Public use data for the CHMS will be created and available from Statistics Canada.	• 2007-2009 • no inf. for evaluation by 2007 Long term trends	National	

Country	National monitoring activities/ Involvement in international activities	Laboratories and institutions involved	Data archives and accessibility for international reporting /assessment	Time frame and purpose	Geographic coverage	Note
	Commission for Environmental Cooperation (CEC) Maternal_Blood Study	Toxicology Laboratory, Institute National de Sante Publique du Quebec **POPs monitored:** aldrin, chlordane, dieldrin, DDT, heptachlor, HCB, PCB and PCDD/PCDF **Matrix: B** **QA/QC:** Accredited under ISO-170025; participates in several QC programs including: Centers for Disease Control and Prevention; leads AMAP QA/QC round robins **Intercalibration:** **Standards:** A standard protocol developed based on previous studies conducted under the Canada Northern Contaminants Program and AMAP	Data will likely be supplied to UNEP POPs Data should be accessible at Health Canada subject to its data security requirements.	• 2005-2006 • beyond 2008, no • Inf. for evaluation by 2007, yes Long term trends in Canada/US and capacity building in Mexico		
	Northern Ecosystem Initiative (NEI)	**POPs monitored:** aldrin, chlordane, dieldrin, endrin, DDT, heptachlor, mirex, toxaphene, HCB, PCB and PCDD/PCDF **Matrix:** BE **POPs monitored:** aldrin, chlordane, dieldrin, endrin, DDT, heptachlor, mirex, toxaphene, HCB, PCB **Matrix:** MM **QA/QC:** **Intercalibration:** **Standards:**	AMAP	Better understanding on the adverse biological effect on the ecosystems in the Canadian North: geographic patterns; long term trends		

Country	National monitoring activities/ Involvement in international activities	Laboratories and institutions involved	Data archives and accessibility for international reporting /assessment	Time frame and purpose	Geographic coverage	Note
	Northern Contaminants Program	• National Laboratory for Environmental Testing, Environment Canada • Freshwater Institute, Dept. of Fisheries and Oceans Canada • Toxicology Laboratory, L'Institut national de santé publique du Québec (INSPQ) **POPs monitored:** aldrin, chlordane, dieldrin, endrin, DDT, heptachlor, mirex, toxaphene, HCB, PCB **Matrix: A, B,** BE, P, MM **POPs monitored:** PCDD/PCDF **Matrix:** BE **QA/QC:** complies with national/international accreditation standards **Intercalibration:** Quasimeme; INSPQ was the coordinating laboratory for the AMAP ring test **Standards:** Internationally standardized methodologies- Canada contributed significantly to UNEP Chemicals Guidance doc. for EE. Most NCP results and methodologies are published in international peer reviewed journals.	AMAP Data can be made available for international assessments as is currently done for AMAP	• Phase I • Phase II Food security, long term trends		
	GAPS- Global Atmospheric Passive Sampling Study	• Hazardous Air Pollutants Laboratory (Environment Canada, Toronto) • Lancaster Univ. • University of Toronto • Environment Canada, Burlington **POPs monitored:** aldrin, chlordane, dieldrin, endrin, DDT, heptachlor, mirex, toxaphene, HCB, PCB and PCDD/PCDF **Matrix: A** **QA/QC:** PCN and NIST SRM **Intercalibration:** international PCN intercalibration **Standards:** Accepted methodologies for air sample collection for POPs	GAPS data are published periodically	• Phase I • Phase II, not decided yet Geographic patterns		

Country	National monitoring activities/ Involvement in international activities	Laboratories and institutions involved	Data archives and accessibility for international reporting /assessment	Time frame and purpose	Geographic coverage	Note
	CAC Emissions Inventory – UN ECE Reporting	**POPs monitored:** HCB **Matrix:** air emission **POPs monitored:** PCDD/PCDF **Matrix:** air emission (some W &S) **QA/QC:** **Intercalibration:** **Standards:**	UN ECE POPs protocol, US EPA under NAFTA programs, GLBTS Data access: NPRI, yes; CAC internal database, not available for assessment	• 2000-2007 • beyond 2008, yes • Info. for evaluation by 2007, yes Compliance & modeling		
	IADN, Integrated Atmospheric Deposition Network (Atmospheric POPs network in the Great Lakes basin)	• Organic Analysis Laboratory (OAL), Air Quality Research Division, Science and Technology Branch, Toronto • National Laboratory for Environmental Testing (NLET) **I L-3** • Indiana University **POPs monitored:** aldrin, chlordane, dieldrin, endrin, DDT, heptachlor, mirex, toxaphene, HCB, PCB **Matrix: A** (and precipitations) **QA/QC:** ISO/IEC 17025 and other interlaboratory comparision **Intercalibration:** IADN's interlaboratory QA program **Standards:** Accepted methodologies for air sample collection for POPs	The Great Lakes Water Quality Agreement QA/QC of the data is performed and is available on line.	• Phase I • Phase II Background and long-term trends		
	Great Lakes Fish Contaminants Program	Environment Canada **POPs monitored:** aldrin, chlordane, dieldrin, endrin, DDT, heptachlor, mirex, toxaphene, HCB, PCB **Matrix:** P **QA/QC:** Standard Operating Procedures; interlaboratory studies **Intercalibration:** **Standards:** not known	Data archives are accessible	• 2000-2007 • beyond 2008, yes • Info. for evaluation by 2007, ? Long term trends	Laurentian Great Lakes	

Country	National monitoring activities/ Involvement in international activities	Laboratories and institutions involved	Data archives and accessibility for international reporting /assessment	Time frame and purpose	Geographic coverage	Note
	Air and precipitation monitoring for POPs and CUPs in the northern Lake Victoria region (Uganda)	• Environment Canada • Kawanda Agricultural Research Institute, Kampala, Uganda • Makerere Univ., Kampala, Uganda **POPs monitored:** aldrin, chlordane, dieldrin, endrin, DDT, heptachlor, mirex, HCB, PCB **Matrix: A**, precipitation **QA/QC:** protocols used by IADN **Intercalibration:** QUASIMEME - 2005 **Standards:** IADN protocols	Lake Victoria Environmental Management Program	• Phase I • beyond 2008, no Time trends of legacy OC pesticides		
	ArcticNET – Networks Centre of Excellence					
	National Air Pollution Surveillance (NAPS) Network					
	Canadian Wildlife Service Contaminant Monitoring Programs					

Country	National monitoring activities/ Involvement in international activities	Laboratories and institutions involved	Data archives and accessibility for international reporting /assessment	Time frame and purpose	Geographic coverage	Note
	• *National Pollutant Release Inventory (NPRI)* • *Assessment of Priority Substances under the Canadian Environmental Protection Act 1999 (CEPA)* • *The categorization and screening of the domestic substances list under the Canadian Environmental Protection Act 1999 (CEPA)* • *Ecological Monitoring and Assessment Network (EMAN)* *Domestic Substances*	• *Centre d'expertise en analyse environmentale de Quebec* ***I L- 1*** ***QA/QC:*** *yes* ***Intercalibration:*** *yes* • *National Laboratory for Environmental Testing* ***Iier 3*** • *Toxicology Laboratory Institute National de Sante Publique du Quebec* ***I L- 2*** • *Laboratory Services Pest Management Registration Agency* ***I L- 4*** • *Analysis and Air Quality Division Environmental Technology Centre* ***I L- 1*** ***QA/QC:*** *yes* ***Intercalibration:*** *yes* • *ALS Environmental* • *Enviro-Test Laboratories* • *Health Canada, Systemic toxicity and pharmaco-kinetics* • *INSPQ, Toxicology Laboratory* • *Maxxam Analytics Inc.* • *Ontario Ministry of the Environment, Laboratory Services Branch* • *National Wildlife Research Centre, Canadian Wildlife Service* • *SRC Analytical Laboratories* • *Wellington Laboratories Inc.* • *Centre d'Expertise en Analyse Environmentale du Québec* • *First Nations and Inuit Health Branch, Health Canada* • *Institute of Ocean Sciences, Department of Fisheries and Oceans* • *Pacific Rim Laboratories Inc.* • *AXYS Analytical Services*				

Country	National monitoring activities/ Involvement in international activities	Laboratories and institutions involved	Data archives and accessibility for international reporting /assessment	Time frame and purpose	Geographic coverage	Note
	IP/RP: • *North America's PRTRs* • *Monitoring under IADN* • *The ECE NARAP on Environmental Monitoring and Assessment* • *The CEC Maternal Blood Study* • *AMAP* • *The Great Lakes Binational Toxics Strategy* • *GAPS*					
Denmark	*Monitoring and Assessment of POPs in Greenland and the Faroe Islands*	*National Environmental Research Institute* ***I L- 2***	• EMEP • AMAP (Thermatic Data Centres)			
	IP/RP: • *EMEP* • *AMAP*					

Country	National monitoring activities/ Involvement in international activities	Laboratories and institutions involved	Data archives and accessibility for international reporting /assessment	Time frame and purpose	Geographic coverage	Note
Finland	• *Monitoring of PCBs; OCs; chlorophenols; anisoles and veratroles; PCDD/Fs in fish and other aquatic organisms in lakes and coastal areas.(1970-ongoing)* • *Mussel Watch (1988-ongoing)* • *Monitoring of bioaccumulating compounds in the aquatic environment (1978-ongoing)* • *Determination of organohalogen compounds from the foodstuffs of animal (ongoing)* • *origin (meat, milk, egg, fish)* *Monitoring of harmful substances in terrestrial environment (1998-ongoing)* • *Survey of dioxins in fish for human consumption (2001-2006)* • *Monitoring of deposition quality in Finland(1990's – ongoing)*	• *National Public Health Institute Laboratory of Chemistry* ***I L- 1*** ***QA/QC:*** *yes* ***Intercalibration:*** *yes* • *VTT Process* ***I L- 1*** ***QA/QC:*** *yes* ***Intercalibration:*** *yes*				*Many ongoing monitoring programs of POPs in different environmental matrices*
	IP/RP: • *EMEP* • *AMAP*					

Country	National monitoring activities/ Involvement in international activities	Laboratories and institutions involved	Data archives and accessibility for international reporting /assessment	Time frame and purpose	Geographic coverage	Note
France	Réseau National d'Observation de la qualité du milieu marin (RNO)	• Institut Français de Recherche pour l'Exploitation de la MER (IFREMER) • Laboratoire municipal et régional de Rouen **POPs monitored:** DDT, PCB **Matrix:** BV, SD **QA/QC:** CRM dans les séries analytiques ; démarches d'accréditation en cours **Intercalibration:** QUASIMEME 2006 **Standards:** Guidelines de la Convention OSPAR	Base quadrige, disponible sur demande, certaines données sont sur le web Données communiquées tous les ans au CIEM, OSPAR et AEE	• 2000-2007, yes • beyond 2008, yes • Info. for evaluation by 2007, yes Niveaux de base ambiants ; tendances à long terme	Littoral de la France métropolitaine et DOM	
	• *Résau National de Bassin (RNB)* *Réseaux des eaux souterraines, Réseaux des agences de l'eau (ongoing)* • *Dioxines : données de contamination et d'exposition de la population française (1996 –2000)*	• *Micropollutants Technologie **I L- 1*** ***QA/QC:** yes* ***Intercalibration:** yes* • *Centre de Géochimie de la Surface, Laboratoire de Phisico-Chemie de L'atmosphère (LCPA), Université Louis Pasteur **I L- 4*** • *Laboratoire de Rouen-ETSA **I L- 1*** ***QA/QC:** yes* ***Intercalibration:** yes*				Air monitoring performed at 39 locations. Monitoring of biological effects is limited to research studies at the moment.
	IP/RP: • *EMEP* • *MEDPOL*					
Germany	German Dioxin Database	No specific laboratories are involved, but all available data from measurements, a Federal Reference program for Dioxin monitoring is inserted. **POPs monitored:** **Matrix:** **QA/QC:** quality control is ensured. **Intercalibration:** **Standards:**	www.POP-DioxinDB	Compilation, documentation and evaluation		Comprehensive monitoring data

Country	National monitoring activities/ Involvement in international activities	Laboratories and institutions involved	Data archives and accessibility for international reporting /assessment	Time frame and purpose	Geographic coverage	Note
	Environmental Specimen Bank	**POPs monitored:** aldrin, chlordane, dieldrin, endrin, DDT, heptachlor, mirex, toxaphene, HCB, PCB and PCDD/PCDF **Matrix:** **QA/QC:** **Intercalibration:** **Standards:**	http://anubis.uba.de/www.upb/servlet/upb?action=change_lang&language=0	monitoring, assessment, trends, effectiveness, reference		
	• *Ambient Air: ''Exposure/Emission Monitoring'': wet deposition measurements in the framework of the network of the Environmental Agency (yearly)* • *Monitoring on Permanent Soil Monitoring Sites (1985 – ongoing)* • *CAMP-Comprehensive Atmospheric Monitoring Programme* • *Monitoring Programmes of the Federal States of Germany* • *Analysis of POP substances in sewage sludge (ongoing)* • *German Environmental Specimen Bank (1985 – ongoing)* • *Dioxin reference measuring program of the Goverment and Federal States (1994 –ongoing)*	• *ERGO Forschungsgesellschaft GmbH **I L- 1*** ***QA/QC:** yes* ***Intercalibration:** yes* • *Eurofins-Oekometric GmbH **I L- 1*** ***QA/QC:** yes* ***Intercalibration:** yes* • *GSF-National Research Centre for Environment and Health, Institute of Ecological Chemistry, Dioxin Laboratory, **I L- 1*** ***QA/QC:** yes* ***Intercalibration:** yes* • *Federal Institute of Hydrology **I L- 4*** • *Central Laboratory of the Bavarian EPA I L- 1* *QA/QC: yes* *Intercalibration: yes* • *State Inst. For Chemical and Veterinary Analysis of Food, Dioxin laboratory and pesticide Lab. **I L- 1*** ***QA/QC:** yes* ***Intercalibration:** yes*				
	IP/RP: *EMEP*					

Country	National monitoring activities/ Involvement in international activities	Laboratories and institutions involved	Data archives and accessibility for international reporting /assessment	Time frame and purpose	Geographic coverage	Note
Greece	National Monitoring Network	**POPs monitored:** aldrin, dieldrin, endrin, DDT, heptachlor, PCB **Matrix:** W **QA/QC:** **Intercalibration:** **Standards:**	European Comission Directive 91/692/EEC	1997-2004		
	Monitoring Directive 76/464/EEC		European Comission Directive 91/692/EEC			
	Greece-MED POL Monitoring Programme, Greek Seas Monitoring Laboratory Network	• Hellenic Centre for Marine Research • National Centre for Physical Sciences "Democritos" • Univ. of Athens, Laboratory of Environmental Chemistry • Univ. of Athens, Laboratory of Meteorology • Univ. of Patras, Laboratory of Applied Geochemistry • Univ. of Patras, Laboratory of Biological Chemistry • Univ. of Thessaloniki, Division of Hydralics and Hydraulic Works • Univ. of Thessaloniki, Laboratory of Analytical Chemistry • Univ. of Thessaloniki, Laboratory of Ecology and Environmental Protection • Univ. of Thessaloniki, Laboratory of Hygiene • Univ. of Thessaloniki, Section of Genetic Development and Molecular Biology • Univ. of the Aegean, Dept. fo Environmental Studies • Univ. of the Aegean, Dept. of Marine Sciences • Univ. of Thessaly, Dept. of Agriculture • Municipal Water and Waster Water Service of Volos **POPs monitored:** aldrin, dieldrin, HCB **Matrix:** BV, P, W, SD **QA/QC:** certified reference materials **Intercalibration:** **Standards:**	UNEP/MAP Data: EEA (submission) excel form; MAP-UNEP excel form; Ministry of Environment database	2004-2005 Hot spots, trends		

Country	National monitoring activities/ Involvement in international activities	Laboratories and institutions involved	Data archives and accessibility for international reporting /assessment	Time frame and purpose	Geographic coverage	Note
	IP/RP: EMEP	*Mass spectrometry and dioxin analysis lab **I L- 1*** ***QA/QC:** yes* ***Intercalibration:** yes*				
Greenland	*Monitoring and Assessment of POPs in Greenland and the Faroe Islands*					
Iceland	• *National Assessment and Monitoring Programme (about POPs in marine biota)* • *Persistent organochlorines in air and precipitation (1995 – ongoing)*					
	IP/RP: • *EMEP* • *AMAP*					
Ireland	**IP/RP:** *EMEP*	*Environmental Protection Agency **I L- 4***				
Israel	**IP/RP:** *MEDPOL*					
Italy	• *Monitoring of the PCB and Dioxin levels in Food Stuffs (permanent)* • *Evaluation of the PCB and Dioxin levels in the Venice Lagoon (1999 - 2002)* • *Characterisation of sediments and mussels quality in the Venice Lagoon (2002 – 2003)*	*Eco-Research **I L- 1*** ***QA/QC:** yes* ***Intercalibration:** yes*				*Comprehensive monitoring systems are in place.*
	IP/RP: • *EMEP* • *MEDPOL*					
Liechtenstein	**IP/RP:**					

Country	National monitoring activities/ Involvement in international activities	Laboratories and institutions involved	Data archives and accessibility for international reporting /assessment	Time frame and purpose	Geographic coverage	Note
	EMEP					
Luxembourg	**IP/RP:** *EMEP*	*Luxcontrol SA **I L- 4***				
Malta	**IP/RP:** • *EMEP* • *MEDPOL*					*Monitoring is carried out by a number of entities*
Monaco	*Continuous monitoring of the marine environment in Monaco (2001-ongoing)*	*International Atomic Energy Agency, Marine Environment Lab **I L- 2***				
	IP/RP: • *EMEP* • *MEDPOL*					
Netherlands	**IP/RP:** • *EMEP* • *The UK-Netherlands Collaborative Monitoring*	• *Laboratory for Analytical Chemistry RIVM **I L- 1*** ***QA/QC:** yes* ***Intercalibration:** yes* • *Netherlands Institute for Fisheries Research, Dept. of Environment and Food Safety **I L- 1*** ***QA/QC:** yes* ***Intercalibration:** yes*				
New Zealand	*NZ Organochlorines Programme (1999-)* ***Available Datasets**:* • *Concentrations of PCDDs, PCDFs and PCBs in retail foods and an assessment of dietary intake for New Zealanders, November 1998* • *Ambient concentrations of selected organochlorines in soil, December 1998* • *Organochlorines Programme Environmental*	*AgriQuality Limited **I L- 1*** ***QA/QC:** yes* ***Intercalibration:** yes*				*Comprehensive monitoring programmes.* *Has capability to analyse for PCDD/PCDF*

Country	National monitoring activities/ Involvement in international activities	Laboratories and institutions involved	Data archives and accessibility for international reporting /assessment	Time frame and purpose	Geographic coverage	Note
	Survey Database and Users Manual, March 1999 • *Ambient concentrations of selected organochlorines in estuaries, June 1999* • *Ambient concentrations of selected organochlorines in rivers, December 1998* • *Ambient concentrations of selected organochlorines in air, December 1999* • *Concentrations of selected organochlorines in serum from the non-occupationally exposed New Zealand population, May 2001* • *Investigation of Organochlorine Contaminants in the Milk of New Zealand Women 2001*					
Norway	Monitoring of trace elements and POPs at Svalbard Norway	Norwegian Institute for Air Research (NILU) **POPs monitored:** chlordane, DDT, HCB, PCB **I L- 2** **Matrix: A** **QA/QC:** Accredited on the standard NS-EN ISO/IEC 17025 **Intercalibration:** EMEP **Standards:** OSPAR, EMEP procedures	• EMEP • AMAP Data are available at NILU	Phase I Phase II Trends/ selected POPs in air in the Arctic on annual basis for LRTAP		

Country	National monitoring activities/ Involvement in international activities	Laboratories and institutions involved	Data archives and accessibility for international reporting /assessment	Time frame and purpose	Geographic coverage	Note
	Monitoring of trace elements and POPs at Birkenes Norway	NILU **POPs monitored:** HCB, PCB **I L- 2** **Matrix: A** **QA/QC:** Accredited on the standard NS-EN ISO/IEC 17025 **Intercalibration:** EMEP **Standards:** OSPAR, EMEP procedures	• OSPAR-JAMP • EMEP Data are available at NILU	Phase I Phase II Trends/ selected POPs on annual basis for atmospheric transport and deposition to NE Atlantic Ocean		
	Joint Assessment and Monitoring Programme (JAMP) in Norway	The Norwegian Institute for Water Research (NIVA) **POPs monitored:** DDT, HCB, PCB **Matrix:** BV, P, SD **POPs monitored:** Toxaphene **Matrix:** BV **QA/QC:** Accredited on the standard NS-EN ISO/IEC 17025 **Intercalibration:** OSPAR **Standards:** OSPAR, ICES procedures	OSPAR-JAMP Data are available at NIVA and OSPAR	• 2000-2007, yes • beyond 2008, yes • Inf. for evaluation by 2007, yes Trends/ selected POPs along the Norwegian coast on annual basis		

Country	National monitoring activities/ Involvement in international activities	Laboratories and institutions involved	Data archives and accessibility for international reporting /assessment	Time frame and purpose	Geographic coverage	Note
	National lake surveys in Norway	NIVA **POPs monitored:** endrin, toxaphene, HCB, PCB and PCDD/PCDF **Matrix:** P, SD **QA/QC:** Accredited on the standard NS-EN ISO/IEC 17025 **Intercalibration:** OSPAR **Standards:** OSPAR, ICES procedures	AMAP Data are available at NIVA	• 1992-1995 • 2004-2006 • beyond 2008, no • Inf. for evaluation by 2007, yes Geographic pattern/selected POPs at irregular intervals for LRTAP and deposition		
	Assessment of "new" contaminants in human blood samples from Taimyr, Russia and Bodo, Norway- a pilot study	• NILU, Tromso Branch • The ISM, University of Tromso **POPs monitored:** chlordane, DDT, heptachlor, mirex, HCB, PCB **Matrix: B** **QA/QC:** **Intercalibration:** **Standards:** Follow standard international procedure, but analytical methods are still being developed for some part of the study	AMAP (HHAG) Data may be available at request	Phase I Geographic pattern/ selected contaminants in human blood in the Arctic		

Country	National monitoring activities/ Involvement in international activities	Laboratories and institutions involved	Data archives and accessibility for international reporting /assessment	Time frame and purpose	Geographic coverage	Note
	New and established organohalogen contaminants and their metabolites in plasma and eggs of Glaucous Gulls from Bear Island	The Norwegian Polar Institute **POPs monitored:** chlordane, dieldrin, DDT, mirex, toxaphene, HCB, PCB **Matrix:** BE **QA/QC:** Accredited on the standard NS-EN ISO/IEC 17025 **Intercalibration:** **Standards:** standardized methods	Data are stored at The Norwegian Polar Inst. And may be available on request	• 2002 and 2004 • beyond 2008, no • Inf. for evaluation by 2007, yes Geographic pattern		
	• *Atmospheric inputs of pollutants to marine waters (1992-ongoing)* • *AMAP Norwegian Implementation Plan (status report on POPs in 2002 and 2006)* • *Monitoring of hazardous substances in fish and shellfish in the Grenland fjords (1980-ongoing)*	*Laboratory of Environmental Toxicology Norwegian School of Veterinary Science **I L- 2***				
Portugal	Aquatic Environment Monitoring	• Laboratório de Referência do Ambiente – LRA **I L- 1** **QA/QC: yes** **Intercalibration: yes,** • Instituto Nacional de Investigação Agrária e das Pescas - INIAP **POPs monitored:** **Matrix:** BV, P, W, SD **QA/QC:** Accredited ISO/IEC 17025 **Intercalibration:** **Standards:** Sample collection : ISO 5667; Analysis : APHA-AWWA-WPCF	http://snirh.inag.pt	• 1999-2004 • beyond 2008, no • no inf. for evaluation by 2007 Long term trends		Systematic monitoring has been carried out since 1999. Analyses of water, sediment and biota (fish and mussels) are carried out.

Country	National monitoring activities/ Involvement in international activities	Laboratories and institutions involved	Data archives and accessibility for international reporting /assessment	Time frame and purpose	Geographic coverage	Note
	Point Sources Emissions	• LRA • Instotuto do Ambiente e Desenvolvimento – IDAD **POPs monitored:** **Matrix:** Air emissions **QA/QC:** **Intercalibration:** **Standards:** Dioxins/ furans(air): EN1948		• 2005-2006 • beyond 2008, no • Inf. for evaluation by 2007, yes Hot spots		
	• *External Monitoring Programme of LIPOR II (1998-2002)* • *Measurement of Atmospheric Emissions of Dioxins and Furans in Selected Sources in Portugal (1999-2000)*	*IST – Laboratório de Análises*				
	IP/RP: *EMEP*					
San Marino	**IP/RP:** *EMEP*					
Spain	*The Spanish Network of Atmospheric Pollution monitoring was set up to comply with the requirements of programs EMEP and CAMP.* *The integrated network for quality of waters (Red ICA) includes all the existing networks related with the quality of waters in Spain.*	*POPs Analysis Laboratory of CIEMAT* ***I L- 1*** ***QA/QC:*** *yes* ***Intercalibration:*** *yes*				

Country	National monitoring activities/ Involvement in international activities	Laboratories and institutions involved	Data archives and accessibility for international reporting /assessment	Time frame and purpose	Geographic coverage	Note
	IP/RP: • *EMEP* • *MEDPOL*					
Sweden	Pesticide Monitoring programme	Swedish Agricultural Univ., Soil Sciences **POPs monitored:** aldrin, chlordane, DDT, heptachlor, HCB **Matrix:** **QA/QC:** Accreditation by SWEDAC **Intercalibration:** Nordic intercalibration **Standards:** Sampling: Swedish Handbook for monitoring	EU Accessible freely			Extensive POPs monitoring.
	Screening programme	Swedish Environmental Research Institute **POPs monitored:** mirex **Matrix:** **QA/QC:** **Intercalibration:** **Standards:** Sampling: Swedish Handbook for monitoring	Data are accessible freely	• 2005 • no info for evaluation by 2007		
	Monitoring in fish and other biota from marine and fresh water areas	University of Stockholm, Department of Environmental Assessment **POPs monitored:** DDT, HCB, PCB and PCDD/PCDF **I L- 2** **Matrix:** **QA/QC:** Accreditation by SWEDAC **Intercalibration:** **Standards:** Sampling: Swedish Handbook for monitoring	• HELCOM • OSPAR Data are accessible freely	• 2000-2007, yes • beyond 2008, yes • info for evaluation by 2007, yes		

Country	National monitoring activities/ Involvement in international activities	Laboratories and institutions involved	Data archives and accessibility for international reporting /assessment	Time frame and purpose	Geographic coverage	Note
	Monitoring in air and deposition	Swedish Agricultural Univ., Soil Sciences **POPs monitored:** aldrin, chlordane, DDT, heptachlor, HCB, PCB and PCDD/PCDF **Matrix:** **QA/QC:** Accreditation by SWEDAC **Intercalibration:** Nordic intercalibration **Standards:** Sampling: Swedish Handbook for monitoring	• EU • EMEP			
		• *Laboratory for Analytical Environmental Chemistry* ***I L- 2*** • *AnalyCen AB* ***I L- 1*** ***QA/QC:*** *yes* ***Intercalibration:*** *yes* • *Dept of Chemistry, Umea Univ.* ***I L- 1*** ***QA/QC:*** *yes* ***Intercalibration:*** *yes* • *National Food Administration*				
Switzerland	NAQUA spez.	Federal Office for the Environment FOEN, Switzerland **POPs monitored:** aldrin, dieldrin, endrin, DDT, heptachlor, HCB **Matrix:** W **QA/QC:** meet stringent requirements **Intercalibration:** **Standards:**	Data are available at GIS-supported database (http://www.umwelt-schweiz.ch)	2002/2003 Background, local sources, long-term trends	National	Switzerland is currently engaged in projecting future monitoring needs to meet its obligations under the SC. Until today, most of the

Country	National monitoring activities/ Involvement in international activities	Laboratories and institutions involved	Data archives and accessibility for international reporting /assessment	Time frame and purpose	Geographic coverage	Note
	NABO_Swiss Soil Monitoring Network	• Agroscope Reckenholz Tänikon (ART), Switzerland • FOEN • Federal Office for Agriculture FOAG, Switzerland **POPs monitored:** PCB and PCDD/PCDF **Matrix:** S **QA/QC:** Annual Proficiency Testing Programme, 90% of the soil pollutant data can be compared **Intercalibration:** International Soil-analytical Exchange (ISE) scheme, -International Sediment Exchange for Tests on Organic Contaminants (SETOC) **Standards:** NABO sampling method	www.nabo.admin.ch The set-up of a national soil pollution database (NABODAT) and further monitoring activities are planned. These can be reported to SC once available.	Background, local sources, long-term trends	National	activities were centered on specific short term and short duration projects, which are not running on a regular or sustained basis. Once we have further details, we'll inform the SC Secretariat.

Country	National monitoring activities/ Involvement in international activities	Laboratories and institutions involved	Data archives and accessibility for international reporting /assessment	Time frame and purpose	Geographic coverage	Note
	IP/RP: MONARPOP	• Austrian Ministry for Agriculture, Forestry, Environment and Water Resources • Austrian Federal Environment Agency • Regional Agency for Environmental Protection of Lombardia, Italy • Regional Agency for Environmental Prevention and Protection of Veneto, Italy • Bavarian State Ministry for Environment, Health and Consumer Protection, Germany • Swiss Agency for the Environment • National Research Center for Environment and Health, Germany • German Federal Environmental Agency • Slovenian Forestry Institute • Swiss Federal Institute for Forest, Snow and Landscape Research • Organical Analytical Chemistry, Basel University, Switzerland **POPs monitored:** aldrin, chlordane, dieldrin, endrin, DDT, heptachlor, mirex, toxaphene, HCB, PCB and PCDD/PCDF **Matrix: A**,S,V **QA/QC:** see the submission by Austria **Intercalibration:** see the submission by Austria **Standards:** see the submission by Austria		• 2000-2007, yes • Inf. for evaluation by 2007, see the submission by Austria Geographic patterns, background, long-range transport	Austria, Italy, Germany, Swiss, Slovenia	

Country	National monitoring activities/ Involvement in international activities	Laboratories and institutions involved	Data archives and accessibility for international reporting /assessment	Time frame and purpose	Geographic coverage	Note
	• *POPs in Switzerland: Bio-monitoring with lichens (1996-2000)* • *Monitoring of PCDD/F in cow's milk from Switzerland (1990-2001)* • *Elimination of PCB-containing material used in the past in window packing (Fugenkitt) (2001-2004)* • *Risk analysis regarding agricultural use of fertilizers from waste materials (2000-ongoing)*	• *Swiss Federal Lab for Materials Testing and Research (EMPA)* ***I L- 1*** ***QA/QC:*** *yes* ***Intercalibration:*** *yes* • *SECOE/STIPI* ***I L- 4*** • *Univ. of Basel, Dept. of Chemistry* ***I L- 4***			National	
	IP/RP: *EMEP*					
Turkey	• *Monitoring of organochlorine pesticides and PCBs in biological and environmental material (1998-2001)* • *Monitoring of organochlorinated pesticides and PCBs in maternal placenta (2002-2006)*					
	IP/RP: • *EMEP* • *MEDPOL*					

Country	National monitoring activities/ Involvement in international activities	Laboratories and institutions involved	Data archives and accessibility for international reporting /assessment	Time frame and purpose	Geographic coverage	Note
United Kingdom of Great Britain and Northern Ireland	UK pesticide monitoring programme	• LGC Limited, Teddington, UK • AFBI, Belfast, Northern Ireland **POPs analyzed:** aldrin, chlordane, dieldrin, endrin, DDT, heptachlor, HCB, PCB **Matrix:** P, F **QA/QC:** UKAS; GLP; SANCO/EU quality guidelines, etc **Intercalibration:** proficiency tests organized by FAPAS **Standards:** Directive 2002/63/EC	FAO/WHO	• 2000-2007, yes • beyond 2008, yes • info for evaluation by 2007, ? UK government surveillance – food security	Cover both domestic and imported produce	
	PCB in food and PCDD/PCDF in food	• The Central Science Lab. **I L- 1** • Food Standards Agency **POPs monitored:** PCB, PCDD/PCDF **Matrix:** F **QA/QC:** ISO 9001, ISO 17025 (UKAS), Joint Code of Practice for Research, ISO 14001 **Intercalibration:** participated in various inter-comparison or inter-laboratory exercises (dioxins) in recent years **Standards:** EU Directive 2002/69/EC as amended by commission Directive 2004/44/EC	Data published on FSA website: www.food.gov.uk	• 2000-2007, yes • beyond 2008, yes • info for evaluation by 2007, yes provision of background/ monitoring information for regulatory authorities and comparable trends data across EU		

Country	National monitoring activities/ Involvement in international activities	Laboratories and institutions involved	Data archives and accessibility for international reporting /assessment	Time frame and purpose	Geographic coverage	Note
	• *The UK National Marine Monitoring Programme* • *UK soil and herbage pollutant survey (27 months)* • *Environment Agency Pesticide Monitoring Programme* • *The UK Atmospheric POPs Monitoring Programme (1997-ongoing)* • *Various surveys for dioxins and PCBs in foods and dietary exposure of UK consumers to these chemicals as part of programme of food chemical surveillance (1988-ongoing)*	• *Lancaster Univ. Environmental Organic Chemistry Group* ***I L- 1*** ***QA/QC:*** *yes* ***Intercalibration:*** *yes* • *CEFAS Burnham Laboratory* ***I L- 2***				Comprehensive monitoring Programmes
	IP/RP: • *EMEP* • *The UK-Netherlands Collaborative Monitor*					
United States of America	• *Toxic Release Inventory (TRI)* • *National Dioxin Air Monitoring Network (NDAMN)* • *Environmental Monitoring and Assessment Program (EMAP)* • *Monitoring Pesticides Residues in Food* • *Mussel Watch* *Extensive data*	• *Pace Specialty Analytical Services* ***I L- 1*** ***QA/QC:*** *yes* ***Intercalibration:*** *yes* • *USEPA/OPPTS/OPP/BEAD* ***I L- 1*** ***QA/QC:*** *yes* ***Intercalibration:*** *yes* • *Alta Analytical Laboratory* ***I L- 2*** • *Alta Analytical Perspectives, LLC,* ***I L- 1*** ***QA/QC:*** *yes* ***Intercalibration:*** *yes* • *Environmental Chemistry Lab. School of Public and Environmental Affairs* ***I L- 2*** • *Organic Analytical Toxicology POPs* ***I L- 1*** ***QA/QC:*** *yes*				Comprehensive monitoring.

Country	National monitoring activities/ Involvement in international activities	Laboratories and institutions involved	Data archives and accessibility for international reporting /assessment	Time frame and purpose	Geographic coverage	Note
		Intercalibration: *yes*				
	IP/RP: • *The Great Lakes Binational Toxics Strategy* • *North America's PRTRs* • *EMEP* • *AMAP* • *IADN* • *SMOC*					

INTERNATIONAL ORGANIZATIONS

Name of organizations	National monitoring activities/ Involvement in international activities	Laboratories and institutions involved	Data archives and accessibility for international reporting /assessment	Time Frame and purpose	Geographical coverage	Note
AMAP	International / regional monitoring and assessment programme based largely on ongoing national monitoring activities.	Many national institutes and laboratories in the Arctic countries (Canada, Denmark/ Greenland/ Faroe Islands, Finland, Iceland, Norway, Russia, Sweden, United States-Alaska) **POPs monitored:** aldrin, chlordane, dieldrin, endrin, DDT, heptachlor, mirex, toxaphene, HCB, PCB and PCDD/PCDF **Matrix:** all relevant media (abotic, biotic, including human tissues and foodstuffs) **QA/QC:** major international and national QA/QC programmes (QUASIMEME, NIST, WHO, IAEA, NCP, AMAP, etc.); laboratories also operate their internal QA/QC regiomes; AMAP assessment QA/QC evaluations; QA/QCguidelines as specified by AMAP **Intercalibration:** QUASIMEME, NIST, WHO, IAEA, NCP, AMAP, etc.; AMAP organized intercomparison ring-tests on analyses of contaminants in human blood; other special project based QA/QC activities. **Standards:** many- recommended methodologies are listed in AMAP "trends and Effects Monitoring Programme" documentation which is periodically updated.	Compilation of data in AMAP thematic data centres, several of which are also used by other international programmes. Archives are to some extent accessible for international reporting and assessment, however there would be costs associated with such data handling activities, and some data reported to AMAP are subject to data restriction agreements with data owners. Compilation of data by AMAP assessment groups –data and information compiled partly by AMAP Secretariat; publication of aggregated data in AMAP assessment reports, etc.	Phase I Phase II Assessment of the pollution status of the Arctic, including the occurrence and impacts of long-range transported contaminants – covering all purposes including food security, geographic patterns, hot spots, background, long term trends.	Arctic – circumpolar (Arctic Ocean, Arctic marginal seas, Arctic territories of the eight Arctic countries) (essentially the area ca. north of 60 degrees N but also including relevant marine areas south of this latitude, such as Hudson Bay, etc.)	